MEETING OF THE
ROTTERDAM TOWN BOARD

August 9th, 2023
7:00 PM
Agenda Review 6:30 PM

CALL TO ORDER
ROLL CALL
PLEDGE OF ALLEGIANCE
SUPERVISOR'S REMARKS: Supervisor Mollie A. Collins
EXECUTIVE SESSION
PROCLAMATIONS/PRESENTATIONS

PUBLIC HEARING

- To establish a six (6) month moratorium prohibiting Battery Energy Storage system installations within the Town of Rotterdam.
- To establish a six (6) month moratorium prohibiting Wind Generation system installations within the Town of Rotterdam.
- To recognize the introduction of Introductory Local Law ___ of 2023; a Change of Zone request on ±10,645 square feet of ±14,575 square foot parcel (Lot 2) from Single Family Residential (R-1) to Retail Business (B-1), 2917 Hamburg Street and is a portion of Tax Map No. 59.19-1-4.1.
- To recognize the introduction of Introductory Local Law ___ of 2023; to amend Chapter 150, Hawking, Peddling, and Soliciting, of the Town Code of the Town of Rotterdam.

PUBLIC COMMENT – PRIVILEGE OF THE FLOOR:
Those members of the public wishing to address the Town Board will be asked to sign in before the meeting is called to order on the sign-in sheets being provided. Speakers will be called to the podium in the order of their signing in. Persons recognized by the Chair to speak during privilege of the floor shall direct his/her comments to the Town Supervisor as Chair of the meeting. Persons granted the privilege of the floor shall first clearly state his/her name and address for the record. Persons so addressing the Chair through the use of a prepared written statement shall submit a copy of the same to the Town Clerk for the purpose of maintaining clear and accurate official minutes of the Town Board meeting.

GENERAL RULES OF PROCEDURE FOR PUBLIC HEARINGS & PRIVILEGE OF THE FLOOR:
Any person recognized by the Town Supervisor to speak during privilege of the floor shall direct his/her comments to the Town Supervisor as chair of the meeting. Any person granted the privilege of the floor shall first clearly state his/her name and address for the record. The purpose of privilege of the floor shall be for speakers to express their views, thoughts and speak freely. Each speaker, who wishes to address the town board, shall have an equal and reasonable opportunity to be heard by the town board. Each speaker shall be afforded a maximum of four (4) minutes to address the town board.

INTRODUCTION OF MOTIONS, ORDERS AND RESOLUTIONS
RESOLUTIONS

242.23 A resolution urging the passage of New York State Senate bill S.7615, the Migrant Home Rule Transfer Transparency Act.

243.23 To enact Introductory Local Law No. 7 of 2023; To amend chapter 150, hawking, peddling, and soliciting.

244.23 To accept Town Board meeting minutes of July 5, 2023.

245.23 To accept Town Board special meeting minutes of July 24, 2023.

246.23 To appoint Alan Aldi to the position of Wastewater Treatment Plant Mechanic.

247.23 To accept revenue for Town Clerk's office for June and July 2023.

248.23 To approve budget transfers of gas and diesel to the 2023 budget.

249.23 To approve budget transfers to the 2023 budget.

250.23 To declare computer equipment obsolete.

251.23 To declare four police vehicles obsolete.

252.23 Adoption of the 2023 adjusted base proportions.

253.23 To negotiate and execute an agreement with Cummins Sales and Service.

254.23 To authorize payment for a permanent and temporary easement to John P. Santosusso.

255.23 To accept and award bid for Rotterdam Junction WD 3&4 Leak Detection Survey.

256.23 To recognize the introduction of Introductory Local Law No.__ of 2023; To amend §266-50, schedule X: Exclusion of certain vehicles and scheduling a public hearing thereon.

257.23 To negotiate and execute a shared services agreement with the Town of Niskayuna relating to I.T. services to the Town.

258.23 To approve Layne Christensen Company as the sole contractor to perform public water supply well work at the Town's wellfield sites.

259.23 To recognize the introduction of Introductory Local Law ___ of 2023; To amend chapter 270, Zoning, of the Town Code, relating to a change of zone from General Business (B-2) to Multiple Family (R-3) and refer to the Planning Commission for report and recommendation.

260.23 Requesting bids for Rotterdam Town Hall Building Renovations.

261.23 To amend Resolution 296.21 relating to the use of ARPA funds.

LIAISON REPORTS
MISCELLANEOUS
EXECUTIVE SESSION
ADJOURNMENT

Mollie A. Collins, Supervisor

PUBLIC HEARING #1

TO ESTABLISH A SIX (6) MONTH MORATORIUM PROHIBITING BATTERY ENERGY STORAGE SYSTEM INSTALLATIONS WITHIN THE TOWN OF ROTTERDAM

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, June 14, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 208.23

TO RECOGNIZE THE INTRODUCTION OF INTRODUCTORY LOCAL LAW NO. __ OF 2023; ESTABLISH A SIX (6) MONTH MORATORIUM PROHIBITING BATTERY ENERGY STORAGE SYSTEM INSTALLATIONS WITHIN THE TOWN OF ROTTERDAM, AND SCHEDULING A PUBLIC HEARING THEREON

WHEREAS, the Town of Rotterdam desires to review the Town's Zoning Code and land use regulations and to recommend modifications to the local law regarding the installation of Battery Energy Storage Systems within the Town of Rotterdam; and

WHEREAS, changes to said law would permit an enhanced and easily understood code, to achieve the objectives of the Comprehensive Plan and encourage consistent and fair application of laws pertaining to such operations; and

WHEREAS, the Town of Rotterdam wishes to enact a temporary moratorium prohibiting Battery Energy Storage System installations within the Town of Rotterdam, a copy of the proposed local law is attached;

NOW THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **MASTROIANNI,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board recognizes the introduction of Introductory Local Law No. __ of 2023 to establish a six (6) month moratorium prohibiting battery energy storage system installations within the Town of Rotterdam.

SECTION 2. The Town Board of the Town of Rotterdam hereby authorizes the Town Clerk to publish in the official newspaper of the Town of Rotterdam not less than ten (10) days prior to the date designated for the public hearing provided for hereby the following notice:

TOWN OF ROTTERDAM
NOTICE OF HEARING

PLEASE TAKE NOTICE: That the Town Board of the Town of Rotterdam will hold a public hearing at the John F. Kirvin Government Center, Town Hall, 1100 Sunrise Boulevard, Rotterdam, New York 12306, at 7:00 p.m. on the 5th day of July, 2023 for the following purpose:

To establish a six (6) month moratorium prohibiting battery energy storage system installations within the Town of Rotterdam.

BY ORDER OF THE ROTTERDAM TOWN BOARD
DIANE M. MARCO, TOWN CLERK

DATED: July 14, 2023
Daily Gazette: Please publish once on July 18, 2023
Town Clerk
Post

SECTION 3. This resolution shall become effective July 14, 2023.

DATED: July 14, 2023

NAME	AYES	NOES	ABSTAIN
Christou **(Absent)**			
Miller-Herrera	X		
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on June 14, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this June 19, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Schenectady, County, N.Y.

TOWN OF ROTTERDAM

John F. Kirvin Government Center ' 1100 Sunrise Boulevard ' Rotterdam, NY 12306
Telephone: 518-355-7575 ' Fax: 518-355-7976 ' Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE:	June 9, 2023
TO:	Town Board
FROM:	Courtney E. Heinel, Esq., Town Attorney
TITLE OF REQUEST:	Six (6) month moratorium on wind generation systems and battery energy storage system installations within the Town of Rotterdam.
TOWN BOARD MEETING:	June 14, 2023
Background Information:	The Town of Rotterdam is interested in enacting a temporary moratorium on wind generation system and battery energy storage system installations within the Town of Rotterdam in order to revise and update the Town Local Laws related to the same.
Evaluation/Analysis:	The Town of Rotterdam does not have adequate Local Laws to address the specialized concerns relating to wind generation system and battery energy storage system installations within the Town of Rotterdam.
Recommendation(s):	With the anticipated rise in applications relating to wind generation system and battery energy storage system installations within the Town of Rotterdam that Town should institute a temporary six (6) month moratorium on such systems to adequately update the Towns Local Laws related to the same.
Attachment/Document(s):	Proposed six (6) month temporary moratoria prohibiting wind generation system and battery energy storage system installations within the Town of Rotterdam
Compliance with Purchasing Policy:	
Effect(s) on Existing Law(s):	Suspends local laws and state laws requiring action on applications for such projects.
LEGISLATION WILL BE PREPARED BY:	Town Attorney

LOCAL LAW ESTABLISHING A TEMPORARY LAND USE MORATORIUM PROHIBITING BATTERY ENERGY STORAGE SYSTEM INSTALLATIONS WITHIN THE TOWN OF ROTTERDAM.

Be it enacted by the Town Board of the Town of Rotterdam as follows:

SECTION 1. TITLE

This Local Law shall be known as the "Moratorium and Prohibition of Battery Energy Storage System Installations within the Town of Rotterdam."

SECTION 2. STATUTORY AUTHORITY PURPOSE AND INTENT.

This Local Law is intended to be consistent with and is adopted pursuant to the authority granted to the Town Board of the Town of Rotterdam under the New York State Constitution, and the Laws of the State of New York including but not limited to the following authorities: New York State Constitution Article IX, Section 2 (c) (ii)(6)m (10)l Municipal Home Rule Law § 10(2); Municipal Home Rule Law §10(3); Municipal Home Rule Law §10(4)(a), and (b) and (15); Town Law §135; Town Law Article 16 (Zoning & Planning) inclusive; Environmental Conservation Law §3-0301 (1)(b), 3-0301(2)(m) and 8-0113 and 6 NYCRR Part 61, also known as the State Environmental Quality Review Act as it pertains to applications that are neither excluded nor exempt from this local law.

This Local Law is land use regulation. This Local Law is intended and is hereby declared to address matters of local concern, and it is declared that it is not the intention of the Town to address matters of statewide concern. This Local Law is intended to act as and is hereby declared to exercise the permissive "incidental control" of a zoning law and land use law that is concerned with the broad area of land use planning and the physical use of land and property within the Town, including the physical externalities associated with certain land uses, such as potential negative impacts of such uses on a community.

This Local Law shall supersede and suspend those provisions of the Code of the Town of Rotterdam and New York state law which require the Planning Board and/or the Town Code Enforcement officer to accept, process, and approve land use applications within certain statutory time periods.

This Local Law is intended to temporarily prohibit the creation or siting of battery energy storage system installations (as herein later defined) within the Town of Rotterdam for a period of up to six (6) months, pending the development and adoption of local laws and/or ordinances designed to regulate and govern such installations.

The Town Board recognizes and acknowledges that the Town needs to study and analyze many considerations that affect the preparation of local legislation to regulate the future creation and siting of battery energy storage system installations. The Town Board has formally requested the Building and Zoning Department and the Planning Board and the Energy Committee of the Town of Rotterdam to identify and review local laws from other jurisdictions, and related information and source materials, in order to assist in developing the parameters of a local law to regulate battery energy storage system installations. The Town Board has directed the Town Attorney to assist in this endeavor.

The Town Board also recognized the need to review and examine its existing ordinance, local laws and Zoning Code provisions insofar as they may be affected by adoption of such local law(s) regulating the creation and/or siting of battery energy storage system installations. It is deemed necessary to enact this moratorium in order to permit the Town adequate time in which to draft suitable legislation for this

purpose. During the term of the moratorium the Town of Rotterdam shall work to prepare and eventually adopt new land use regulations to incorporate into the Town's existing Zoning Code.

Currently, there is one pending applications for the location, development or site plan approval of battery energy storage system installation. The BlueWave Battery Site application has made significant progress through the planning process for the proposed Battery Storage Facility located at 635 Mariaville Road in the Town of Rotterdam. That application shall be exempt from this Moratorium.

During the pendency of the moratorium, the Town Board will consider how best to permit such installations so as to harmoniously integrate such installations with the existing agricultural community and landscape and to mitigate potential undesirable environmental impacts that may be associated with such use. At present, the Zoning Code of the Town of Rotterdam may not adequately regulate such land use. If the community allows such development during that time the goals of the Town could be undermined or damaged. Moratoria are useful in controlling or temporarily inhibiting development until satisfactory final regulations are adopted.

For these reasons, the Town Board finds that temporary moratorium legislation is both advisable and necessary for a reasonable and defined period of time in order to develop and adopt necessary zoning and land use changes to the Zoning Code of the Town of Rotterdam, thus protecting and furthering the public interest, health and safety.

SECTION 3. DEFINITIONS.

For purposes of this Local Law, the following terms shall have the meanings respectively set forth below:

Battery Energy Storage System Installation(s) – Any installation of a rechargeable energy storage system, consisting of electrochemical storage batteries or similar technology, battery charges, controls, power condition systems, inverters, transformers, switchgears and associated electrical equipment designed to store electoral power received from a generating or transmission source and periodically discharging power from the battery energy storage system into the power grid. Systems typically used to provide standby or emergency power and/or an uninterruptable power supply, load shedding, load sharing, or similar capabilities relating to the energy consumed by a residence, farm operation or business on site shall not be considered a "Battery Energy Storage System Installation" for purposes of the Moratorium.

SECTION 4. TEMPORARY MORATORIUM and PROHIBITION.

A. Unless permitted pursuant to Section 5 hereafter, from and after the date of this Local Law, no application for a permit, zoning permit, special permit, zoning variance, building permit, operating permit, site plan approval, subdivision approval, certificate of occupancy, certificate of compliance, temporary certificate, or other Town-level approval of any nature shall be accepted, processed, entertained, approved, approved conditionally, or issued by any board, employee, official or agent of the Town of Rotterdam, for the construction establishment or use or operation of any land, body of water, building, or other structure located within the Town of Rotterdam, for any Battery Energy Storage System Installation, as defined above, except for the projects specifically exempted by this moratorium.

B. Unless permitted pursuant to Section 5 hereafter, from the after the date of this Local Law, no person, entity or business shall use, cause, or permit to be used, any land, body of water, building, or other

structure located within the Town of Rotterdam for any Battery Energy Storage System Installation, as defined above.

C. The prohibitions set forth above in Clauses A. and B. of this Section 4. Are not intended, and shall not be construed, to prevent or prohibit the use and development of battery energy storage systems that are typically used to provide standby or emergency power and/or an uninterruptable power supply, load shedding, load sharing, or similar capabilities and that are for personal or individual use on or about any residence or place of business, or any farm operation.

D. This moratorium and prohibition shall be in effect beginning on the effective date of this Local Law and shall expire on the earlier of (i) that date which is six (6) months after said effective date; or (ii) the effective date of a Town Board resolution affirmatively stating the Town Board has determined that the need for this moratorium and prohibition no longer exists.

E. This moratorium and prohibition shall apply to all real property within the Town of Rotterdam, and all land use applications for the siting or creation of Battery Energy Storage System Installation within the Town of Rotterdam.

F. Under no circumstances shall the failure of the Town Board of the Town of Rotterdam, the Zoning Board of Appeals of the Town of Rotterdam, the Planning Board of the Town of Rotterdam, or the Code Enforcement Officer for the Town of Rotterdam to take any action upon any application for a permit, zoning permit, special permit, zoning variance, building permit, operating permit, site plan approval, subdivision approval, certificate of occupancy, certificate of compliance, temporary certificate, or any other Town level approval related to Battery Energy Storage System Installation constitute an approval by default or an approval by virtue of expiration of time to respond to such application.

SECTION 5. HARDSHIP VARIANCE RELIEF FROM APPLICABILITY OF MORATORIUM.

Applications for land use otherwise subject to this moratorium may be exempted from the provisions of this Local Law following a noticed public hearing before the Town Board. It is specifically intended that this moratorium shall supersede New York State law which would otherwise confer exclusive variance authority to the Zoning Board of Appeals. Following a written request for hardship variance relief, within sixty (60) days of receipt of such request, a noticed public hearing shall be held, at which hearing the Town Board may, but is not limited to consider:

A. The proximity of applicant's premises or the subject of applicant's request for relief to natural resources, including but not limited to prime agricultural soils, wetland areas, conservation districts and other areas of environmental concern.

B. The impact of the proposed application on the applicant's premises and upon the surrounding area.

C. Compatibility of the proposed application with the existing land use and character of the area in general proximity to the subject of the application, and its effect upon aesthetic resources of the community.

D. Compatibility of the proposed application with the recommendations of any administrative body charged with such review by the Town of Rotterdam.

E. The written opinion of the Town of Rotterdam Planning Board and the Town of Rotterdam Code Enforcement Officer that such application may be jeopardized or made impractical by waiting until the moratorium is expired.

F. Evidence specifying in detail the nature and level of any alleged hardship imposed on the property owner(s) as result of this moratorium.

G. Such other considerations and issues as may be raised by the Town Board.

In making a determination concerning a proposed exemption or grant of relief from application of the moratorium, the Town Board may obtain and consider reports and information from any source it deems to be helpful with review of said application. A grant of relief from application of the moratorium shall include a determination of unreasonable hardship upon the property owner (or if there are multiple property owners, a determination that each such owner shall suffer an unreasonable hardship) which is unique to the property owner(s), a finding that there are sufficient existing regulations to adequately govern the application for which a hardship waiver is being requested, and a finding that the grant or an exemption will be in harmony with, and will be consistent with an existing Town of Rotterdam Zoning Ordinance and the recommendation of the Comprehensive Plan as such may exist.

An application for relief from the prohibitions of the moratorium shall be accompanied by fee a $500, together with the applicant's written undertaking in a form to be approved by the Attorney for the Town, to pay all of the expenses of the Town Board and any agent or consultant retained by the Town Board to evaluate and consider the merits of such application, including but not limited to any fees incurred by the Town of services provided by the Attorney of the Town.

SECTION 6. PENALTIES.

A. Failure to comply with any of the provisions of this Local Law shall be an unclassified misdemeanor as contemplated by Article 10 and Section 80.05 of the New York State Penal Law, and, upon conviction thereof, shall be punishable by a fine of not more than One Thousand Five Hundred Dollars ($1,500) or imprisonment for not more than 10 days, or both for the first offense. Any subsequent offense within a three-month period shall be punishable by a fine of not more than Two Thousand Five Hundred Dollars ($2,500) or imprisonment for a period of not more than 30 days, or both. For purposes of this Clause:

A. each day that a violation of this Local Law exists shall constitute a separate and distinct offense.

B. Compliance with this Local Law may also be compelled and violations restrained by order or by injection of a court of competent jurisdiction, in an action brought on behalf of the Town by the Town Board.

C. In the event the Town is required to take legal action to enforce this Local Law, the violator will be responsible for any and all costs incurred by the Town relative thereto, including attorney's fees, and such amount shall be determined and assessed by the court. If such expense is not paid in full within 30 days from the date it is determined and assessed by the Court, such expense shall be charged to the propert(ies) within the Town on which the violation occurred, by including such expense in the next

annual Town tax levy against such property, and such expense shall be lien upon such property until paid.

SECTION 7. CONFLICTS.

For and during the stated term of this legislation, unless the stated term thereof shall be modified or abridged by the Town Board, this moratorium shall take precedence over and shall control over any contradictory local law, ordinance, regulation for Zoning Ordinance provision.

SECTION 8. SEVERABILITY.

If any word, phrase, sentence, part, section, subsection, or other portion of this Local Law, or the application thereof to any person or to any circumstance, is adjudged or declared invalid or unenforceable by a court or other tribunal of competent jurisdiction, then, and in such event, such judgement or declaration shall be continued in its interpretation and operation only to the provision of this Local Law that is directly involved in the controversy in which such judgment or declaration is rendered, and such judgement or declaration of invalidity or unenforceability shall not affect or impair the validity or enforceability of the remainder of this Local Law or the application hereof to any other persons or circumstances. If necessary, as to such person or circumstances such invalid or unenforceable provision shall be and be deemed severed here from, and the Town Board of the Town hereby declares that it would have enacted this Local Law, or the remainder thereof, even if, as to provisions and persons or circumstances, a portion hereof is severed or declared invalid or unenforceable.

SECTION 9. EFFECTIVE DATE.

The effective date of this Local Law shall be immediately upon its filing with the Secretary of State.

PUBLIC HEARING #2

TO ESTABLISH A SIX (6) MONTH MORATORIUM PROHIBITING WIND GENERATION SYSTEM INSTALLATIONS WITHIN THE TOWN OF ROTTERDAM

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, June 14, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 209.23

TO RECOGNIZE THE INTRODUCTION OF INTRODUCTORY LOCAL LAW NO. __ OF 2023; ESTABLISH A SIX (6) MONTH MORATORIUM PROHIBITING WIND GENERATION SYSTEM INSTALLATIONS WITHIN THE TOWN OF ROTTERDAM, AND SCHEDULING A PUBLIC HEARING THEREON

WHEREAS, the Town of Rotterdam desires to review the Town's Zoning Code and land use regulations and to recommend modifications to the local law regarding the installation of Wind Generation Systems within the Town of Rotterdam; and

WHEREAS, changes to said law would permit an enhanced and easily understood code, to achieve the objectives of the Comprehensive Plan and encourage consistent and fair application of laws pertaining to such operations; and

WHEREAS, the Town of Rotterdam wishes to enact a temporary moratorium prohibiting Wind Generation System installations within the Town of Rotterdam, a copy of the proposed local law is attached;

NOW THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **MASTROIANNI,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board recognizes the introduction of Introductory Local Law No. __ of 2023 to establish a six (6) month moratorium prohibiting Wind Generation system installations within the Town of Rotterdam.

SECTION 2. The Town Board of the Town of Rotterdam hereby authorizes the Town Clerk to publish in the official newspaper of the Town of Rotterdam not less than ten (10) days prior to the date designated for the public hearing provided for hereby the following notice:

TOWN OF ROTTERDAM
NOTICE OF HEARING

PLEASE TAKE NOTICE: That the Town Board of the Town of Rotterdam will hold a public hearing at the John F. Kirvin Government Center, Town Hall, 1100 Sunrise Boulevard, Rotterdam, New York 12306, at 7:00 p.m. on the 5th day of July, 2023 for the following purpose:

To establish a six (6) month moratorium prohibiting Wind Generation system installations within the Town of Rotterdam.

BY ORDER OF THE ROTTERDAM TOWN BOARD
DIANE M. MARCO, TOWN CLERK

DATED: July 14, 2023
Daily Gazette: Please publish once on July 18, 2023
Town Clerk
Post

SECTION 3. This resolution shall become effective July 14, 2023.

DATED: July 14, 2023

NAME	AYES	NOES	ABSTAIN
Christou **(Absent)**			
Miller-Herrera	X		
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on June 14, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this June 19, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of the Town Clerk
Schenectady County, NY

TOWN OF ROTTERDAM

John F. Kirvin Government Center ' 1100 Sunrise Boulevard ' Rotterdam, NY 12306
Telephone: 518-355-7575 ' Fax: 518-355-7976 ' Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE:	June 9, 2023
TO:	Town Board
FROM:	Courtney E. Heinel, Esq., Town Attorney
TITLE OF REQUEST:	Six (6) month moratorium on wind generation systems and battery energy storage system installations within the Town of Rotterdam.
TOWN BOARD MEETING:	June 14, 2023
Background Information:	The Town of Rotterdam is interested in enacting a temporary moratorium on wind generation system and battery energy storage system installations within the Town of Rotterdam in order to revise and update the Town Local Laws related to the same.
Evaluation/Analysis:	The Town of Rotterdam does not have adequate Local Laws to address the specialized concerns relating to wind generation system and battery energy storage system installations within the Town of Rotterdam.
Recommendation(s):	With the anticipated rise in applications relating to wind generation system and battery energy storage system installations within the Town of Rotterdam that Town should institute a temporary six (6) month moratorium on such systems to adequately update the Towns Local Laws related to the same.
Attachment/Document(s):	Proposed six (6) month temporary moratoria prohibiting wind generation system and battery energy storage system installations within the Town of Rotterdam
Compliance with Purchasing Policy:	
Effect(s) on Existing Law(s):	Suspends local laws and state laws requiring action on applications for such projects.
LEGISLATION WILL BE PREPARED BY:	Town Attorney

LOCAL LAW ESTABLISHING A TEMPORARY LAND USE MORATORIUM PROHIBITING WIND GENERATION SYSTEM INSTALLATIONS WITHIN THE TOWN OF ROTTERDAM.

Be it enacted by the Town Board of the Town of Rotterdam as follows:

SECTION 1. TITLE

This Local Law shall be known as the "Moratorium and Prohibition of Wind Generation System Installations within the Town of Rotterdam."

SECTION 2. STATUTORY AUTHORITY PURPOSE AND INTENT.

This Local Law is intended to be consistent with and is adopted pursuant to the authority granted to the Town Board of the Town of Rotterdam under the New York State Constitution, and the Laws of the State of New York including but not limited to the following authorities: New York State Constitution Article IX, Section 2 (c) (ii)(6)m (10)l Municipal Home Rule Law § 10(2); Municipal Home Rule Law §10(3); Municipal Home Rule Law §10(4)(a), and (b) and (15); Town Law §135; Town Law Article 16 (Zoning & Planning) inclusive; Environmental Conservation Law §3-0301 (1)(b), 3-0301(2)(m) and 8-0113 and 6 NYCRR Part 61, also known as the State Environmental Quality Review Act as it pertains to applications that are neither excluded nor exempt from this local law.

This Local Law is land use regulation. This Local Law is intended and is hereby declared to address matters of local concern, and it is declared that it is not the intention of the Town to address matters of statewide concern. This Local Law is intended to act as and is hereby declared to exercise the permissive "incidental control" of a zoning law and land use law that is concerned with the broad area of land use planning and the physical use of land and property within the Town, including the physical externalities associated with certain land uses, such as potential negative impacts of such uses on a community.

This Local Law shall supersede and suspend those provisions of the Code of the Town of Rotterdam and New York state law which require the Planning Board and/or the Town Code Enforcement officer to accept, process, and approve land use applications within certain statutory time periods.

This Local Law is intended to temporarily prohibit the creation or siting of wind generation system installations (as herein later defined) within the Town of Rotterdam for a period of up to six (6) months, pending the development and adoption of local laws and/or ordinances designed to regulate and govern such installations.

The Town Board recognizes and acknowledges that the Town needs to study and analyze many considerations that affect the preparation of local legislation to regulate the future creation and siting of wind generation system installations. The Town Board has formally requested the Building and Zoning Department and the Planning Board and the Energy Committee of the Town of Rotterdam to identify and review local laws from other jurisdictions, and related information and source materials, in order to assist in developing the parameters of a local law to regulate wind generation system installations. The Town Board has directed the Town Attorney to assist in this endeavor.

The Town Board also recognized the need to review and examine its existing ordinance, local laws and Zoning Code provisions insofar as they may be affected by adoption of such local law(s) regulating the creation and/or siting of wind generation system installations. It is deemed necessary to enact this moratorium in order to permit the Town adequate time in which to draft suitable legislation for this

purpose. During the term of the moratorium the Town of Rotterdam shall work to prepare and eventually adopt new land use regulations to incorporate into the Town's existing Zoning Code.

Currently, there are no pending applications for the location, development or site plan approval of a wind generation system.

During the pendency of the moratorium, the Town Board will consider how best to permit such installations so as to harmoniously integrate such installations with the existing agricultural community and landscape and to mitigate potential undesirable environmental impacts that may be associated with such use. At present, the Zoning Code of the Town of Rotterdam may not adequately regulate such land use. If the community allows such development during that time the goals of the Town could be undermined or damaged. Moratoria are useful in controlling or temporarily inhibiting development until satisfactory final regulations are adopted.

For these reasons, the Town Board finds that temporary moratorium legislation is both advisable and necessary for a reasonable and defined period of time in order to develop and adopt necessary zoning and land use changes to the Zoning Code of the Town of Rotterdam, thus protecting and furthering the public interest, health and safety.

SECTION 3. DEFINITIONS.

For purposes of this Local Law, the following terms shall have the meanings respectively set forth below:

Wind Generation System Installation- Any installation that converts the kinetic energy available in the wind to mechanical energy that can be used to operate an electrical generator. wind generation systems specifically do not include any system utilized for the on-site consumption of a business or residence that does not generate more than 5 kWh of electrical power in total.

SECTION 4. TEMPORARY MORATORIUM and PROHIBITION.

A. Unless permitted pursuant to Section 5 hereafter, from and after the date of this Local Law, no application for a permit, zoning permit, special permit, zoning variance, building permit, operating permit, site plan approval, subdivision approval, certificate of occupancy, certificate of compliance, temporary certificate, or other Town-level approval of any nature shall be accepted, processed, entertained, approved, approved conditionally, or issued by any board, employee, official or agent of the Town of Rotterdam, for the construction establishment or use or operation of any land, body of water, building, or other structure located within the Town of Rotterdam, for any wind generation system Installation, as defined above, except for the projects specifically exempted by this moratorium.

B. Unless permitted pursuant to Section 5 hereafter, from the after the date of this Local Law, no person, entity or business shall use, cause, or permit to be used, any land, body of water, building, or other structure located within the Town of Rotterdam for any wind generation system installation, as defined above.

C. The prohibitions set forth above in Clauses A. and B. of this Section 4. Are not intended, and shall not be construed, to prevent or prohibit the use and development of wind generation systems that are typically used to provide standby or emergency power and/or an uninterruptable power supply, load shedding, load sharing, or similar capabilities and that are for personal or individual use on or about any residence or place of business, or any farm operation.

D. This moratorium and prohibition shall be in effect beginning on the effective date of this Local Law and shall expire on the earlier of (i) that date which is six (6) months after said effective date; or (ii) the effective date of a Town Board resolution affirmatively stating the Town Board has determined that the need for this moratorium and prohibition no longer exists.

E. This moratorium and prohibition shall apply to all real property within the Town of Rotterdam, and all land use applications for the siting or creation of wind generation system installation within the Town of Rotterdam.

F. Under no circumstances shall the failure of the Town Board of the Town of Rotterdam, the Zoning Board of Appeals of the Town of Rotterdam, the Planning Board of the Town of Rotterdam, or the Code Enforcement Officer for the Town of Rotterdam to take any action upon any application for a permit, zoning permit, special permit, zoning variance, building permit, operating permit, site plan approval, subdivision approval, certificate of occupancy, certificate of compliance, temporary certificate, or any other Town level approval related to wind generation system installation constitute an approval by default or an approval by virtue of expiration of time to respond to such application.

SECTION 5. HARDSHIP VARIANCE RELIEF FROM APPLICABILITY OF MORATORIUM.

Applications for land use otherwise subject to this moratorium may be exempted from the provisions of this Local Law following a noticed public hearing before the Town Board. It is specifically intended that this moratorium shall supersede New York State law which would otherwise confer exclusive variance authority to the Zoning Board of Appeals. Following a written request for hardship variance relief, within sixty (60) days of receipt of such request, a noticed public hearing shall be held, at which hearing the Town Board may, but is not limited to consider:

A. The proximity of applicant's premises or the subject of applicant's request for relief to natural resources, including but not limited to prime agricultural soils, wetland areas, conservation districts and other areas of environmental concern.

B. The impact of the proposed application on the applicant's premises and upon the surrounding area.

C. Compatibility of the proposed application with the existing land use and character of the area in general proximity to the subject of the application, and its effect upon aesthetic resources of the community.

D. Compatibility of the proposed application with the recommendations of any administrative body charged with such review by the Town of Rotterdam.

E. The written opinion of the Town of Rotterdam Planning Board and the Town of Rotterdam Code Enforcement Officer that such application may be jeopardized or made impractical by waiting until the moratorium is expired.

F. Evidence specifying in detail the nature and level of any alleged hardship imposed on the property owner(s) as result of this moratorium.

G. Such other considerations and issues as may be raised by the Town Board.

In making a determination concerning a proposed exemption or grant of relief from application of the moratorium, the Town Board may obtain and consider reports and information from any source it deems to be helpful with review of said application. A grant of relief from application of the moratorium shall include a determination of unreasonable hardship upon the property owner (or if there are multiple property owners, a determination that each such owner shall suffer an unreasonable hardship) which is unique to the property owner(s), a finding that there are sufficient existing regulations to adequately govern the application for which a hardship waiver is being requested, and a finding that the grant or an exemption will be in harmony with, and will be consistent with an existing Town of Rotterdam Zoning Ordinance and the recommendation of the Comprehensive Plan as such may exist.

An application for relief from the prohibitions of the moratorium shall be accompanied by fee a $500, together with the applicant's written undertaking in a form to be approved by the Attorney for the Town, to pay all of the expenses of the Town Board and any agent or consultant retained by the Town Board to evaluate and consider the merits of such application, including but not limited to any fees incurred by the Town of services provided by the Attorney of the Town.

SECTION 6. PENALTIES.

A. Failure to comply with any of the provisions of this Local Law shall be an unclassified misdemeanor as contemplated by Article 10 and Section 80.05 of the New York State Penal Law, and, upon conviction thereof, shall be punishable by a fine of not more than One Thousand Five Hundred Dollars ($1,500) or imprisonment for not more than 10 days, or both for the first offense. Any subsequent offense within a three-month period shall be punishable by a fine of not more than Two Thousand Five Hundred Dollars ($2,500) or imprisonment for a period of not more than 30 days, or both. For purposes of this Clause:

A. each day that a violation of this Local Law exists shall constitute a separate and distinct offense.

B. Compliance with this Local Law may also be compelled and violations restrained by order or by injection of a court of competent jurisdiction, in an action brought on behalf of the Town by the Town Board.

C. In the event the Town is required to take legal action to enforce this Local Law, the violator will be responsible for any and all costs incurred by the Town relative thereto, including attorney's fees, and such amount shall be determined and assessed by the court. If such expense is not paid in full within 30 days from the date it is determined and assessed by the Court, such expense shall be charged to the propert(ies) within the Town on which the violation occurred, by including such expense in the next annual Town tax levy against such property, and such expense shall be lien upon such property until paid.

SECTION 7. CONFLICTS.

For and during the stated term of this legislation, unless the stated term thereof shall be modified or abridged by the Town Board, this moratorium shall take precedence over and shall control over any contradictory local law, ordinance, regulation for Zoning Ordinance provision.

SECTION 8. SEVERABILITY.

If any word, phrase, sentence, part, section, subsection, or other portion of this Local Law, or the application thereof to any person or to any circumstance, is adjudged or declared invalid or unenforceable by a court or other tribunal of competent jurisdiction, then, and in such event, such judgement or declaration shall be continued in its interpretation and operation only to the provision of this Local Law that is directly involved in the controversy in which such judgment or declaration is rendered, and such judgement or declaration of invalidity or unenforceability shall not affect or impair the validity or enforceability of the remainder of this Local Law or the application hereof to any other persons or circumstances. If necessary, as to such person or circumstances such invalid or unenforceable provision shall be and be deemed severed here from, and the Town Board of the Town hereby declares that it would have enacted this Local Law, or the remainder thereof, even if, as to provisions and persons or circumstances, a portion hereof is severed or declared invalid or unenforceable.

SECTION 9. EFFECTIVE DATE.

The effective date of this Local Law shall be immediately upon its filing with the Secretary of State.

PUBLIC HEARING #3

TO RECOGNIZE THE INTRODUCTION OF INTRODUCTORY LOCAL LAW ___ OF 2023; A CHANGE OF ZONE REQUEST ON ±10,645 SQUARE FEET OF ±14,575 SQUARE FOOT PARCEL (LOT 2) FROM SINGLE FAMILY RESIDENTIAL (R-1) TO RETAIL BUSINESS (B-1), 2917 HAMBURG STREET AND IS A PORTION OF TAX MAP NO. 59.19-1-4.1.

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 233.23

TO RECOGNIZE THE INTRODUCTION OF LOCAL LAW NO.___ OF 2023; CHANGE OF ZONE FROM SINGLE FAMILY RESIDENTIAL (R-1) TO RETAIL BUSINESS (B-1); ON A PORTION OF TAX PARCEL #59.19-1-4.1 KNOWN AS 2917 HAMBURG STREET AND SCHEDULING A PUBLIC HEARING THEREON

THEREFORE, UPON MOTION OF Councilmember **MASTROIANNI**, seconded by Councilmember **CHISTOU,**
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board hereby recognizes the introduction of Introductory Local Law No. ____ of 2023; a Change of Zone request from Single Family Residential (R-1) to Retail Business (B-1).

SECTION 2. The Town Clerk of the Town of Rotterdam is hereby directed to publish in the official newspaper of the Town of Rotterdam not less than ten (10) days prior to the date designated for the public hearing provided for by the following public notice:

TOWN OF ROTTERDAM
NOTICE OF HEARING

PLEASE TAKE NOTICE: That the Town Board of the Town of Rotterdam will hold a public hearing at the John F. Kirvin Government Center, Town Hall, 1100 Sunrise Boulevard, Rotterdam, New York 12306, at 7:00 p.m. on the 9th day of August, 2023 for the following purpose:

> To recognize the introduction of Introductory Local Law ___ of 2023; a Change of Zone request on ±10,645 square feet of ±14,575 square foot parcel (Lot 2) from Single Family Residential (R-1) to Retail Business (B-1), by Michael and Catherine McGuire. Applicants would like to potentially construct a two-family residence. Property is known as 2917 Hamburg Street and is a portion of Tax Map No. 59.19-1-4.1.

BY ORDER OF THE ROTTERDAM TOWN BOARD
DIANE M. MARCO, TOWN CLERK

DATED: July 5, 2023
Daily Gazette: Please publish once on July 9, 2023
Town Clerk
Post

SECTION 3. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera (**Absent**)			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

TOWN OF ROTTERDAM
Schenectady County, NY

Diane M. Marco

Diane M. Marco, Town Clerk

Type text here

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE:	June 28, 2023
TO:	Mollie Collins, Town Supervisor
FROM:	Joanne Schillaci, Zoning Officer
TITLE OF REQUEST:	Call for a Public Hearing on Change of Zone from Single Family Residential (R-1) to Retail Business (B-1)
TOWN BOARD MEETING:	July 5, 2023
Background Information:	Michael & Catherine McGuire 1222 Angelo Drive Schenectady, NY 12303 Change of Zone request on ±10,645 square feet of ±14,575 square foot parcel (Lot 2) from Single Family Residential (R-1) to Retail Business (B-1) to facilitate the construction of a two-family residence. Currently, the parcel is known as 2917 Hamburg Street, Tax Map No. 59.19-1-4.1. On May 2, 2023, the Rotterdam Planning Commission approved a two-lot subdivision for this parcel.
Evaluation/Analysis:	Planning Commission issued a positive recommendation on June 20, 2023 on the Change of Zone request.
Recommendation(s):	Town Board should call for a Public Hearing to be held August 9, 2023.
Attachment/Document(s):	Application Materials Planning Commission Report and Recommendation
Compliance with Purchasing Policy:	N/A
Effect(s) on Existing Law(s):	NYS Town Law Article 16 Proposed Local Law of the Year 2023
LEGISLATION WILL BE PREPARED BY:	Supervisors Office

RECEIVED
MAY 09 2023
TOWN OF ROTTERDAM
PUBLIC WORKS

****

TOWN OF ROTTERDAM CHANGE OF ZONE APPLICATION

Application Fee **$1,000**

Existing Zone Classification: R1 and B1 - same lot

Proposed Zone Classification: B1 the whole lot

PART II
GENERAL INFORMATION

Legal Owner's Name: Michael & Catherine McGuire.
Mailing Address: 1222 Angelo Dr.
City: Schenectady State: NY Zip: 12303
Daytime Phone: [redacted] E-mail: [redacted]

If applicant is not the owner, include written owner authorization for the below-designated contact to serve as representative.

Owner's Designated Contact: _____

Mailing Address: _____
City: _____ State: _____ Zip: _____
Daytime Phone: _____ E-mail: _____
Project/Proposal Site Area: (Acres or sq. ft.) 14575 sq. ft
Assessor Tax Parcel No.(s) of Site: 59-19-1-4.1
Adjacent Parcels Owned or Controlled and Tax Map Parcel No: (Acres or sq. ft.) _____

_____

Street Address of Proposed Site (if any): _____
_____

Describe Existing Use(s) on Proposed Site: (commercial vacant, residential, buildings, well, sewer drainfield, etc.)

Currently there is a residential bldg on lot that needs either tear down or refurbish.

School District: Hohonasen Fire District: Fire district #3

Water Supply: public

LEGAL INFORMATION

Location of Proposal Site: (General description by which direction and how far from roads and intersections and other community features)

2917 Hamburg St., Accross from St. Adalbert Cemeteries, Next to St. Peters Rehab

Name of Public Road(s) Providing Access: Rt. 146, Hamburg St.

Width of Property Fronting on the Existing Public Road in Linear Feet: 20 ft.

Does the Proposal Have Access to an Arterial or Planned Arterial? ( ) Yes (X) No

Name(s) of Arterial Road(s): _____

A legal description of the proposed site must be attached: (X) Yes ( ) No

A copy of the assessor's map of the proposed site must be attached: (X) Yes ( ) No

A copy of the most current deed(s) of the proposed site must be attached: (X) Yes ( ) No

(All applications must contain a legal description that describes the exterior boundaries of the entire area to be rezoned. Please include the legal description for the entire area to be rezoned and also a copy of the assessor's map. A simple copy of the deed is not sufficient to process the change of zone request).

If you do not hold title to property, what is your interest in it? _____

What factors support this rezone? (This may be provided on a separate sheet of paper if necessary)

lot is currently zoned 6022 sq. feet B1 and 8479 sq. ft. R1 - zoning line goes right thru current residence - would like to streamline into B1 zoning for possible duplex.

Does any City officer, employee or family member thereof have a financial interest (as defined by General Municipal Law Section 809) in this application? YES _____ NO X. If yes, a statement disclosing the name, residence, nature and extent of this interest must be filed with this application.

UTILITIES

Proposed Source of Water:
( ) Individual Wells (X) Public System ( ) Private Community System
( ) Other, please describe _____

Proposed Means of Sewage Disposal:
(X) Public Sewer ( ) Dry Sewer ( ) Community System ( ) Septic Tank & Leachfield ( ) Other, please describe _____

PART III

****
SURVEYOR/ARCHITECT/ENGINEER VERIFICATION
****

I, the undersigned, a licensed land surveyor, architect, and/or engineer, have completed the information requested. The legal description has been prepared by me or under my supervision in accordance with the requirements of the Town of Rotterdam regulations and the laws of the State of New York.

Signed: _____ Date: 5/9/2023
Address: 133 MOHAWK AVE Phone: 518-393-0989
SCOTIA, NY Zip: 12302

PLEASE AFFIX SURVEYOR/ARCHITECT/ENGINEER SEAL HERE

****

LEGAL OWNER SIGNATURE

****

(Signature of legal owner or representative as authorized by legal owner)

I, the undersigned, swear or affirm under penalty of perjury that the above responses are made truthfully and to the best of my knowledge.

I further swear or affirm that I am the owner of record of the area proposed for the previously identified land use action, or, if not the owner, attached herewith is written permission from the owner authorizing my actions on his/her behalf.

Name: Michael McGuire
Address: 1222 Angelo Dr.
Schenectady, NY

Date: _____
Phone: [redacted]
Zip: 12303

Michael McGuire
Signature of applicant or representative

5/9/23
Date

NOTARY

STATE OF NEW YORK) ss: NY
COUNTY OF Albany)

SUBSCRIBED AND SWORN to before me this 9th day of May, 2023

NOTARY SEAL

Notary Signature

AALIYABANU M. VOHRA
Notary Public, State of New York
No. 01VO6433412
Qualified in Schenectady County
Commission Expires May 16, 2026

Notary Public in and for the State of New York
Residing at: Albany NY
My appointment expires: May 16th 2026

PLEASE AFFIX NOTARY SEAL HERE

****

LEGAL OWNER SIGNATURE

****

(Signature of legal owner or representative as authorized by legal owner)

I, the undersigned, swear or affirm under penalty of perjury that the above responses are made truthfully and to the best of my knowledge.

I further swear or affirm that I am the owner of record of the area proposed for the previously identified land use action, or, if not the owner, attached herewith is written permission from the owner authorizing my actions on his/her behalf.

Name: Catherine McGuire
Address: 1222 Angelo Dr.
Schenectady, NY

Catherine McGuire
Signature of applicant or representative

Date: _____
Phone: [redacted]
Zip: 12303

5/9/23
Date

NOTARY

STATE OF NEW YORK) ss:
COUNTY OF Albany)

SUBSCRIBED AND SWORN to before me this 9th day of May, 2023

NOTARY SEAL

Notary Signature

AALIYABANU M. VOHRA
Notary Public, State of New York
No. 01VO6433412
Qualified in Schenectady County
Commission Expires May 16, 20 24

Notary Public in and for the State of New York
Residing at: Albany NY
My appointment expires: May 16th 2024

PLEASE AFFIX NOTARY SEAL HERE

Name and Address of All Adjacent Landowners:

NAME: Battaglino Group
ADD: 2921 W. Old State Road
Schenectady, NY 12303
Property at 2925 Hamburg Street Tax ID # 59.19-1-5.1

NAME: R.A. O'Connor & L. Cook
ADD: 252 Stoodley Place
Rotterdam, NY 12303
Tax ID 59.15-8-7.1

NAME: D.A. Kerzick
ADD: 2909 Hamburg Street
Rotterdam, NY 12303
Tax ID 59.19-1-3.1

NAME: M. Goff
ADD: 256 Stoodley Place
Rotterdam, NY 12303
Tax ID 59.15-8-8

NAME: E.M. Brennan & J. Bissonett
ADD: 250 Stoodley Place
Rotterdam, NY 12303
Tax ID 59.15-8-7.2

NAME:
ADD:

NAME:
ADD:

NAME:
ADD:

TRUSTEE'S DEED

THIS INDENTURE, made the 15 day of December, Two Thousand Eleven,

Between **RUDOLPH J. QUIRINI, as Trustee of The Helen Quirini Revocable Trust dated the 11th day of September 2007**, currently residing at 790 Westmoreland Drive, Niskayuna, New York 12309,

party of the first part, and

MIKE McGUIRE and CATHERINE McGUIRE, husband and wife, currently residing at 1222 Angelo Drive, Schenectady, New York 12303

parties of the second part,

Witnesseth that the party of the first part, by virtue of the power and authority given to him by The Helen Quirini Revocable Trust dated the 11th day of September 2007, and in consideration of FORTY-SEVEN THOUSAND FIVE HUNDRED and 00/100-------- Dollar ($47,500.00) lawful money of the United States, and other good and valuable consideration paid by the parties of the second part, does hereby grant and release unto the parties of the second part, their heirs and assigns forever,

R.P.T.S.A. SEC. 59. TAX MAP IDENT. 19 BLK 1 LOT 4

ALL THAT TRACT OR PARCEL OF LAND TOGETHER WITH THE BUILDINGS THEREON situate, lying and being on the easterly side of the Schenectady-Guilderland Highway in the Town of Rotterdam, County of Schenectady and State of New York, bounded and described as follows: Beginning at a stake in the easterly line of the Schenectady-Guilderland Highway, said stake being 219.33 distant northerly measured along the easterly line of the Schenectady-Guilderland Highway, from the southerly line of the lands as heretofore conveyed by Andrew Rudesheim and Lena, his Wife, to Rudolf Tomaschek and Anna Goepfert by deed dated May 5, 1924 and recorded in the Schenectady County Clerk's Office in Book 317 of Deeds at page 44; Thence from said point of beginning easterly and at right angles to the said easterly line of the Schenectady-Guilderland Highway for a distance of 312.3 feet to a stake in the dividing line between the lands herewith described and the lands now or formerly belonging to Carl Sirker; Thence Northwesterly along the lands of said Carl Sirker, which is also the easterly line of the land heretofore conveyed to Anna Goepfert, a distance of 61.25 feet to a stake; Thence Westerly in a straight line which is at right angles to the said highway for a distance of 282.2 feet to a stake in the easterly line of said highway; Thence Southerly 53.33 feet along the easterly line of said Schenectady-Guilderland Highway to the point and place of beginning.

AND ALSO all that other Tract or Parcel of Land situate in the Town of Rotterdam, County of Schenectady, New York, briefly described as follows: Beginning at a point in the easterly side of the Schenectady-Guilderland Road, which point is distant 106.4 feet from a stake driven in the ground on the northwesterly corner of lands of one Russell; and running thence Easterly along the south side of the lands of Russell, a distance of 252.0 feet to a stake; Thence in a somewhat southeasterly direction and along the lands formerly belonging to Carl Sirker, a distance of 61.25 feet to a point; Thence at an angle to the last mentioned course and in a Westerly direction and in a line parallel to the southerly side of the lands of said Russell, a distance of 282.2 feet to a point in the easterly side of the Schenectady-Guilderland Road; Thence at an angle to the last mentioned course and in a Northerly direction and along the easterly side of the Schenectady-Guilderland Road, a distance of 53.33 feet to the point or place of beginning, be all the aforesaid dimensions more or less.

SUBJECT to all existing and enforceable covenants, conditions, restrictions and easements of record, if any, affecting said premises.

Being the same premises conveyed to Helen Quirini, Trustee of The Helen Quirini Revocable Trust dated the 11th day of September 2007, by deed made by Helen Quirini, dated November 1, 2007 and recorded at the Schenectady County Clerk's Office on November 8, 2007 in Book 1778 of Deeds at Page 940.
1779

Also being the same premises conveyed by Frank X. Reisinger and Harriet A. Reisinger, his wife, to Helen Quirini, by deed dated September 21, 1948 and recorded in the Schenectady County Clerk's Office on October 26, 1948 in Liber 590 of Deeds at Page 17.

TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

TO HAVE AND TO HOLD the premises herein granted unto the parties of the second part, the heirs or successors and assigns of the parties of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

In Witness Whereof, the party of the first part has hereunto set his hand and seal the day and year first above written.

IN PRESENCE OF

Rudolph J. Quirini Trustee

RUDOLPH J. QUIRINI, as Trustee of The Helen Quirini Revocable Trust dated the 11th day of September 2007

STATE OF NEW YORK)
COUNTY OF SCHENECTADY) ss:

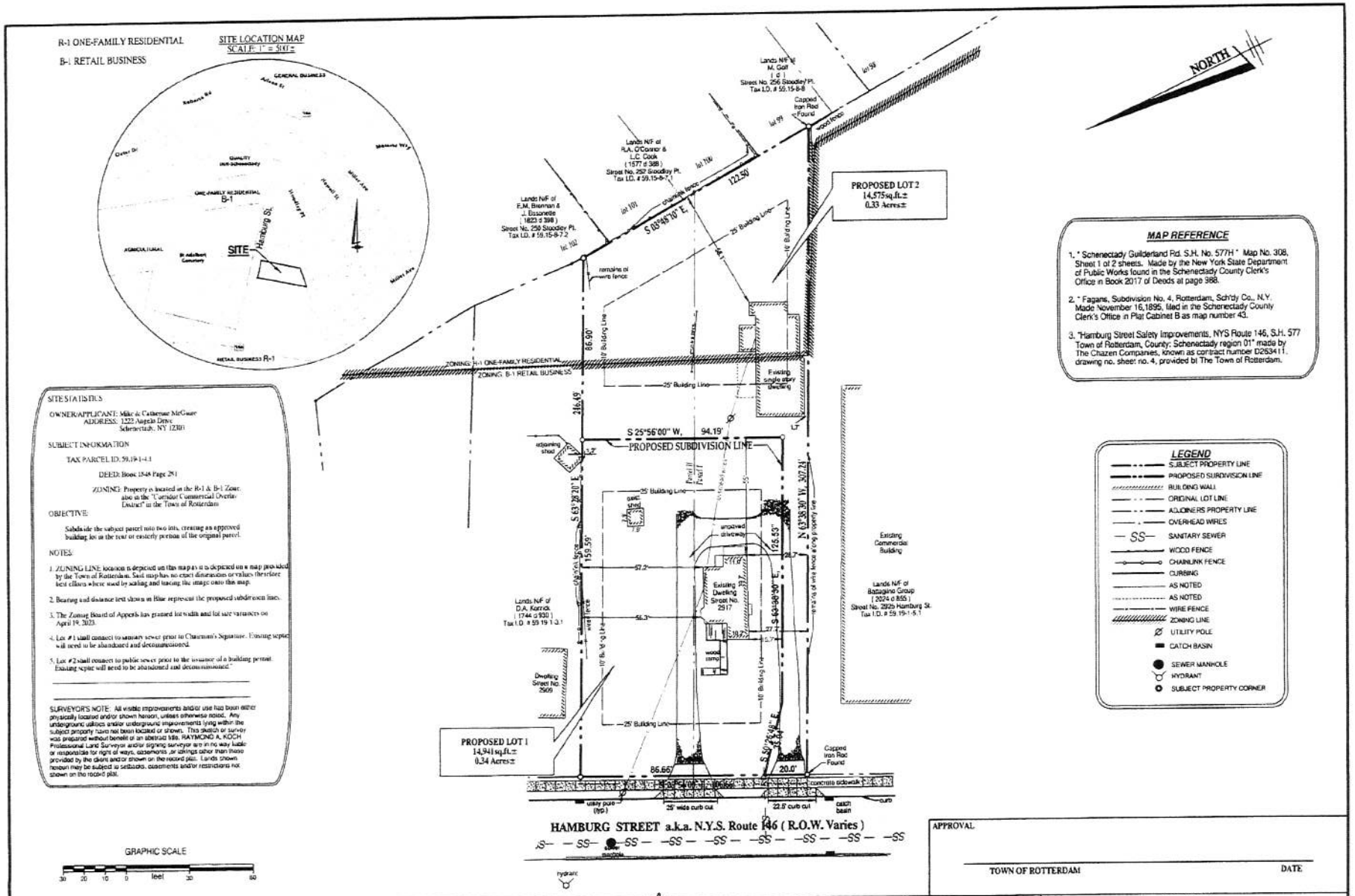
On the 12th day of December in the year 2011, before me, the undersigned, a Notary Public in and for said State, personally appeared **RUDOLPH J. QUIRINI**, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

ANN M. SHARPE
Notary Public, State of New York
No. 02SH5042097
Qualified in Saratoga County
Commission Expires April 19, 2015

Notary Public

Record and Return to:
Mallard Cathy McCabe
1222 Angle Drive
Schenectady, NY 12309

DEED Book 1848 Page 283
Doc No 2011-3779



MAP REFERENCE

1. " Schenectady Guilderland Rd. S.H. No. 577H " Map No. 308, Sheet 1 of 2 sheets. Made by the New York State Department of Public Works found in the Schenectady County Clerk's Office in Book 2017 of Deeds at page 988.
2. " Fagans, Subdivision No. 4, Rotterdam, Sch'dy Co., N.Y. Made November 16,1895, filed in the Schenectady County Clerk's Office in Plat Cabinet B as map number 43.
3. "Hamburg Street Safety Improvements, NYS Route 146, S.H. 577 Town of Rotterdam, County: Schenectady region 01" made by The Chazen Companies, known as contract number D263411, drawing no. sheet no. 4, provided bi The Town of Rotterdam.

LEGEND

- SUBJECT PROPERTY LINE
- PROPOSED SUBDIVISION LINE
- BUILDING WALL
- ORIGINAL LOT LINE
- ADJOINERS PROPERTY LINE
- OVERHEAD WIRES
- SS SANITARY SEWER
- WOOD FENCE
- CHAINLINK FENCE
- CURBING
- AS NOTED
- AS NOTED
- WIRE FENCE
- ZONING LINE
- UTILITY POLE
- CATCH BASIN
- SEWER MANHOLE
- HYDRANT
- SUBJECT PROPERTY CORNER

SITE STATISTICS

OWNER/APPLICANT: Mike & Catherine McGoare
ADDRESS: 1222 Angela Drive
Schenectady, NY 12303

SUBJECT INFORMATION

TAX PARCEL ID: 59.19-1-4.1

DEED: Book 1348 Page 291

ZONING: Property is located in the R-1 & B-1 Zone, also in the "Corridor Commercial Overlay District" in the Town of Rotterdam

OBJECTIVE:

Subdivide the subject parcel into two lots, creating an approved building lot in the rear or easterly portion of the original parcel.

NOTES:

1. ZONING LINE location is depicted on this map as it is depicted on a map provided by the Town of Rotterdam. Said map has no exact dimensions or values therefore best efforts where used by scaling and tracing the image onto this map.
2. Bearing and distance text shown in Blue represent the proposed subdivision lines.
3. The Zoning Board of Appeals has granted lot width and lot size variances on April 19, 2023.
4. Lot # 1 shall connect to sanitary sewer prior to Chairman's Signature. Existing septic will need to be abandoned and decommissioned.
5. Lot # 2 shall connect to public sewer prior to the issuance of a building permit. Existing septic will need to be abandoned and decommissioned."

SURVEYOR'S NOTE: All visible improvements and/or use has been either physically located and/or shown hereon, unless otherwise noted. Any underground utilities and/or underground improvements lying within the subject property have not been located or shown. This sketch or survey was prepared without benefit of an abstract title. RAYMOND A. KOCH Professional Land Surveyor and/or signing surveyor are in no way liable or responsible for right of ways, easements, or delings other than those provided by the client and/or shown on the record plat. Lands shown hereon may be subject to setbacks, easements and/or restrictions not shown on the record plat.

APPROVAL

TOWN OF ROTTERDAM DATE

ORIGINAL FIELD SURVEY DATE: JANUARY 5, 2023
UPDATED: MAY 18, 2023
SCALE: 1" = 30'

"Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of Section 7209, subdivision 2, of the New York State Education Law"

DRAWING NO. 1 of 1

TITLE:

PROPOSED SUBDIVISION AND ZONING CHANGE OF PREMISES KNOWN AS

STREET No. 2917

HAMBURG STREET

TOWN OR CITY ROTTERDAM VILLAGE OF COUNTY OF SCHENECTADY STATE OF NEW YORK

Only copies from the original of this survey marked with an original of the land surveyor's embossed seal shall be considered to be valid true copies.

PLS # 47416

© Copyright 2023

RAYMOND A. Koch P.L.S.
133 MOHAWK AVENUE
SCOTIA, NEW YORK 12302
LAND SURVEYORS
phone:(518) 393-0989 email: kochsurveyor@gmail.com

Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors said certifications shall run only to the person for whom the survey is originally prepared, and on their behalf to the title company, governmental agency and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to additional institutions or subsequent owners.

REVISIONS

NO.	DESCRIPTION	BY	DATE
1	Change in property line and lot areas	RB	4/3/23
2	DPW Comments: March 7, 2023: # 3, 4 and 5 added to Notes	RK	5/16/2023

Short Environmental Assessment Form
Part 1 - Project Information

RECEIVED
MAY 26 2023
TOWN OF ROTTERDAM
PUBLIC WORKS

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Michael & Catherine McGuire

Name of Action or Project:
2917 Hamburg St. Rotterdam, NY 12303 lot #2

Project Location (describe, and attach a location map):
2917 Hamburg St. Rotterdam, NY lot #2

Brief Description of Proposed Action:
lot is 14575 sq. feet of which 6022 sq. ft. are B1 and 8479 sq. fet are R1 - We would like to streamline into B1 zoning the whole lot.

Name of Applicant or Sponsor:	Telephone: [redacted]
Michael & Catherine McGuire	E-Mail: [redacted]

Address:
1222 Angelo Dr.

City/PO:	State:	Zip Code:
Schenectady, NY		12303

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☐	☒
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☒	☐

3. a. Total acreage of the site of the proposed action? 14575 ~~acres~~ sq. feet
   b. Total acreage to be physically disturbed? 14575 ~~acres~~
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 14941 ~~acres~~ sq. feet Adjacent Lot

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☑	☐

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☑	☐
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe: _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment: _____		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe: _____		
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe: _____		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: michael McGuire Catherine McGuire Date: 5/26/23

Signature: _____ Title: owners

"A Nice Place to Live"

"A Nice Place to Do Business"

Town of Rotterdam
Office of the Planning Commission

Thomas P. Yuille, Chairman
Peter J. Comenzo, Senior Planner

Telephone (518) 355-7575
Facsimile (518) 355-2725

Resolution Number PC 19-2023
Moved by Mr. Signore seconded by Mr. Miglucci
Applicant: Michael and Catherine McGuire

Resolution Adopting a Report and Positive Recommendation on the Change of Zone Request by the Michael and Catherine McGuire

WHEREAS, the Town Board of the Town of Rotterdam ("Town Board") has received an application from Michael and Catherine McGuire ("Applicant") for Change of Zone request on ±10,645 square feet of ±14,575 square foot parcel (Lot 2) from Single Family Residential (R-1) to Retail Business (B-1) to facilitate the construction of a two-family residence. Currently, the parcel is known as 2917 Hamburg Street, Tax Map No. 59.19-1-4.1; and

WHEREAS, the Town Board referred the Change of Zone application to the Planning Commission on June 14, 2023 for a report and recommendation thereon; and

WHEREAS, the Change of Zone application was presented to the Planning Commission at its regularly scheduled meeting held on June 20, 2023; and

WHEREAS, the Planning Commission reviewed the proposed Change of Zone at its regularly scheduled meeting held on June 20, 2023; and

WHEREAS, the Planning Commission has deliberated on the proposed Change of Zone;

NOW, THEREFORE, upon motion of Member Signore, seconded by Member Miglucci,

BE IT RESOLVED, by the Planning Commission of the Town of Rotterdam as follows:

1. The Planning Commission hereby adopts the following as its report on the proposed Change of Zone:

   The Change of Zone request concerns ±10,645 square feet of ±14,575 square foot parcel (Lot 2) from Single Family Residential (R-1) to Retail Business (B-1) to facilitate the construction of a two-family residence. Currently, the parcel is known as 2917 Hamburg Street, Tax Map No. 59.19-1-4.1. on Cimino Lane. The rear portion of the parcel to be rezoned is currently zoned R-1. The property is surrounded by a mixed use of commercial and residential development. Hamburg Street was recently reconstructed and the property will be connected to the existing municipal water and sanitary sewer.

   If rezoned to B-1, the following uses would be permissible:

Permitted uses.

- All uses permitted as of right in the R-1 and R-2 Districts, subject to the regulations specified in such residential districts.
- Personal service shops, including but not limited to barbershops, shoeshine shops, beauty parlors, dry-cleaning and laundry-pickup and -delivery shops and card shops.
- Banks, offices, restaurants, cafes, tearooms, grocery and meat stores, flower shops and similar retail establishments, except businesses primarily engaged in the sale of used goods, merchandise or machinery.
- Banking, confectionary, dressmaking, laundromats, printing, tailoring and upholstering, subject to the following provisions:
    - All such processing or manufacturing shall be done on the premises. Not more than five persons shall be employed at any one time.
- Indoor theaters, assembly halls, game rooms, billiard and pool parlors and bowling alleys.
- Funeral homes.
- Operations involving the repair, reconstruction, analysis or inspection of computers, electronic and communication equipment and similar components, provided that no manufacturing is performed and all operations are conducted within a completely enclosed building.
- Automobile parking lots with at least 10 parking spaces for private vehicles and a driveway for entrance and exit from such spaces. Such vehicles must be in running condition, able to be driven at any time under their own power. Lots for the sale or lease of motor vehicles are specifically prohibited.
- Antique sales and secondhand stores, provided that such establishments shall conduct all activities and storage entirely within an enclosed building.

Special uses.

- Drive-in establishment accessory to a permitted use.
- Public utility or communications installations.
- Convenience store.
- Car wash.
- Fence companies, retail and wholesale.
- Disturbance on a wetland or watercourse area of any class or in a wetland or watercourse buffer area as defined in this chapter.
- Hotels and Motels.
- Hospitals.
- Care homes.

The primary effect of a change of zone would be to make the zoning consistent for the entire lot. Although it may be possible to develop this property for commercial use, the applicants have indicated that they would like to develop it residentially. It would also be difficult to develop this property for retail business purposes as it is a keyhole lot and does not have a

great deal of frontage on Hamburg Street. The applicants are considering the demolition of the existing single-family residence that is in poor shape and the construction of a new two-family residence on this newly created lot.

2. Subject to the considerations set forth in Paragraph 3, below, the Planning Commission hereby adopts a **positive recommendation** on the McGuire Change of Zone request for the following reasons:

A. The property is in an area surrounded by similar uses, including residential single family, two family, and retail business.

B. The lot is currently split zoned and the Change of Zone would make the entire lot Retail Business which is consistent with the Comprehensive Plan.

B. The applicant is proposing a potential new two single-family residence to be constructed on the newly created Lot #2 which is split zoned B-1 and R-1.

3. Neither a positive recommendation by the Planning Commission, nor any rezoning action taken by the Town Board, should be construed as an approval or other favorable position concerning any proposed conceptual development plan. Any proposed development shall remain subject to full review by the Planning Commission and, as necessary, by the Zoning Board of Appeals.

Member	Aye	Nay
Thomas Yuille	X	
Mark D'Alessandro (Absent)		
Wayne Calder	X	
Clark Collins)	X	
Joseph Signore	X	
Lynn Flansburg	X	
Joseph Miglucci	X	

Peter J. Comenzo
Senior Planner

Thomas Yuille
Planning Commission Chairman

PUBLIC HEARING #4

To recognize the introduction of Introductory Local Law ___ of 2023; to amend Chapter 150, Hawking, Peddling, and Soliciting, of the Town Code of the Town of Rotterdam.

At the Special public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 24, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 241.23

TO RECOGNIZE THE INTRODUCTION OF LOCAL LAW NO.___ OF 2023; TO AMEND CHAPTER 150, HAWKING, PEDDLING AND SOLICITING AND SCHEDULING A PUBLIC HEARING THEREON

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Supervisor **COLLINS**,
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board hereby recognizes the introduction of Introductory Local Law No. ____ of 2023; to amend Chapter 150, Hawking, Peddling, and Soliciting, of the Town Code of the Town of Rotterdam.

SECTION 2. The Town Clerk of the Town of Rotterdam is hereby directed to publish in the official newspaper of the Town of Rotterdam not less than ten (10) days prior to the date designated for the public hearing provided for by the following public notice:

TOWN OF ROTTERDAM
NOTICE OF HEARING

PLEASE TAKE NOTICE: That the Town Board of the Town of Rotterdam will hold a public hearing at the John F. Kirvin Government Center, Town Hall, 1100 Sunrise Boulevard, Rotterdam, New York 12306, at 7:00 p.m. on the 9th day of August, 2023 for the following purpose:

To recognize the introduction of Introductory Local Law ___ of 2023; to amend Chapter 150, Hawking, Peddling, and Soliciting, of the Town Code of the Town of Rotterdam.

BY ORDER OF THE ROTTERDAM TOWN BOARD
DIANE M. MARCO, TOWN CLERK

DATED: July 24, 2023
Daily Gazette: Please publish once on July 28, 2023
Town Clerk
Post

SECTION 3. This resolution shall become effective July 24, 2023.

DATED: July 24, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera	X		
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam Special Meeting on July 24, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board received the Special meeting notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 27, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of the Town Clerk
Schenectady, County, NY

§ 150-1 **Definitions.**

As used in this chapter, the following terms shall have the meanings indicated:

AUTOMATED TELLER MACHINE (ATM): A device linked to a financial institution's account records which is able to carry out transactions, including, but not limited to, account transfers, deposits, cash withdrawals, balance inquiries, and mortgage and loan payments.

HAWKER AND PEDDLER Includes, except as hereinafter expressly provided, any person, either principal or agent, who, in any public street or public place or by going from house to house or place of business to place of business, on foot or on or from any animal or vehicle standing in a street, sells or barters, offers for sale or barter or carries or exposes for sale or barter any goods, wares or merchandise, except as hereinafter exempted.

OBSTRUCTING: To walk, stand, sit, or lie, or place an object in such a manner as to block passage by another person or a vehicle, or to require another person or driver of a vehicle to take evasive action to avoid physical contact.

PANHANDLER: Any person engaged in the act of panhandling.

PANHANDLING: Is any solicitation made in person, requesting an immediate donation of money or other thing of value. Purchase of an item for an amount far exceeding its value, under circumstances where a reasonable person would understand that the purchase is, in substance, a donation for the purpose of this chapter. Offers to work for food or other compensation under circumstances where a reasonable person would understand that the compensation given is, in substance, a donation, is also a donation for the purpose of this chapter.

PERSON Includes one or more persons of either sex, natural persons, corporations, partnerships, associations, joint-stock companies, societies and all other entities of any kind.

PLACE OF BUSINESS A building, store, shopping center or mall in which persons transact business or deal in goods, wares, merchandise and services.

PUBLIC STREETS, SIDEWALKS, AND PARKING LOTS: Any street, sidewalk and parking lot on which people may freely assemble, interact, and move about.

PUBLIC TRANSPORTATION VEHICLE: Any vehicle used as a mode of mass transit.

SOLICITOR Includes, except as hereinafter expressly provided, any person who goes from place to place or house to house or who stands in any street or public place taking or offering to take orders for goods, wares, merchandise, publications or services, except as hereinafter exempted, or for services to be performed in the future or for making, manufacturing or repairing any article or thing whatsoever for future delivery or for work to be done at the premises of the offeree.

SOLICITOR OF FUNDS Includes, except as hereinafter provided, any person who goes from place to place or house to house or who stands in any street or public place asking, collecting or accepting pledges for money, funds, contributions or merchandise in lieu of money, funds or pledges for any purpose whatever.

§ 150-2 Exemptions from requirements.

The persons described in this section shall be exempted from the requirements of obtaining a license as required by this chapter. However, every such person shall comply with all other provisions of this chapter, excluding the obtaining of a photo-identification card. The following shall be exempt:

A. Persons conducting sales pursuant to statute or by order of the court.

B. Any person selling personal property at wholesale to dealers in such articles.

C. Any honorably discharged member of the Armed Forces of the United States who has procured a license as provided in the General Business Law of the State of New York.

D. Persons soliciting, hawking, peddling or collecting anything for a not-for-profit organization or group located within the Town of Rotterdam organized for and devoted to the promotion and sponsorship of activities and events for charitable purposes or for the benefit of youth within the Town or for veterans of the Armed Forces of the United States or for the benefit of volunteer firemen. Also exempted are persons soliciting, hawking, peddling or collecting in connection with an activity sponsored by a school situate within the Town.

E. Vendors of first class newspapers.

[Added 6-13-1990 by L.L. No. 12-1990]

§ 150-3 Application for exemption certificate.

All persons who are entitled to any exemption, or conducting activities which are exempt under § **150-2D**, shall make application for an exemption certificate prior to engaging in any hawking, peddling or soliciting, except that persons conducting school-sponsored activities other than for the solicitation of money alone shall not be required to procure an exemption certificate.

§ 150-4 Information on application.

The application for an exemption certificate shall be made to the Town Clerk on a form prescribed by the Town Clerk and shall contain the following information:

A. The name of the organization.

B. The reason for claiming and documentary proof substantiating entitlement thereto.

C. The names and addresses of each individual to be engaged in soliciting, hawking or peddling.

D. The area of the Town in which the soliciting, hawking or peddling will be carried on.

E. The dates on which such activities will be carried on.

F. Any further information required by the Town Clerk as proof of the applicant's entitlement to an exemption.

§ 150-5 Issuance of certificate.

If the Town Clerk determines that the applicant is entitled to an exemption, the Town Clerk shall issue an exemption certificate on a form prescribed by the Town Clerk, which certificate shall expire on the date specified therein.

§ 150-6 Out-of-town organizations. [1]

A person representing an out-of-town organization of the type enumerated in § **150-2D** and intending to peddle, hawk or solicit within the Town shall be entitled to an exemption certificate upon submission of an application containing the information prescribed by § **150-4**, except that such applicant must obtain a photo-identification card prescribed in §§ **150-8** and **150-9** and pay a fee therefor.[2]

[1] *Editor's Note: Amended at time of adoption of Code (see Ch. 1, General Provisions, Art. I).*

[2] *Editor's Note: See Ch. 126, Fees.*

§ 150-7 License required.

It shall be unlawful for any person within the territorial limits of the Town of Rotterdam to act as a hawker, peddler or solicitor or to solicit funds, as herein defined, without first having obtained and paid for and having in force and effect a license therefor or an exemption certificate issued by the Rotterdam Town Clerk.

§ 150-8 Application for license.

Every applicant for a license is required to submit to the Town Clerk a written application supplying under oath the following information:

A. Whether he has ever been convicted of a crime and, if so, the offense and date of conviction.

B. The particular business, trade, occupation or purpose for which the license is required or requested, stating such in detail.

C. The manner or means of conveyance, if any, in which said business or trade, solicitation or collection shall be conducted.

D. The manner of engaging in the hawking, peddling or soliciting (door-to-door, street corner, vehicle, etc.).

E. The name, date of birth and residence of the applicant; if he has a driver's license, the state of issuance; and if a corporation is the applicant, the principal place of business and the name and address of the officer of the corporation upon whom process or other legal notice may be served. The applicant must produce whatever proof of identification as may be reasonably required by the Town Clerk.

F. Such other information as may be required by the Town Clerk.

§ 150-9 License for individuals; photo-identification card.

Each person to be employed as a solicitor, hawker or peddler or solicitor of funds shall apply individually for a separate license, except persons who are exempt as provided by §§ **150-2** through **150-6**. Further, in order for Rotterdam citizens to be able to readily identify all licensed hawkers, peddlers or solicitors, each individual applicant must procure and receive a photo-identification card from the Rotterdam ~~Town Clerk~~Police Department, and said photo-identification card must be conspicuously displayed on the person of the hawker, peddler or solicitor's outer clothing. Upon request of any person or police officer, each hawker, peddler or solicitor shall produce and make available his photo-identification card for closer inspection.

§ 150-10 Issuance of photo-identification card.

The application for a license obtained from the Town Clerk shall be completed by the applicant and submitted to the Town Clerk. If the application is complete and if the applicant is not disqualified by reason of the information contained therein, the ~~Town Clerk~~Rotterdam Police Department shall make up a photo-identification card. The license and the photo-identification card shall be issued

to the applicant upon payment of the license fees prescribed by §§ **150-15** and **150-16**.

§ 150-11 Reasons for denial.

The Town Clerk shall not issue a license if the applicant has been convicted of a felony within the past three years or a misdemeanor within the past year or if any information provided in the application is false. No person shall knowingly provide false information in an application for a license or exemption certificate.

§ 150-12 Filing.

The application and a copy of the license shall be filed in the Town Clerk's office. A copy of the application and a copy of the license shall be transmitted to the Rotterdam Police Department for filing.

§ 150-13 License nonassignable.

A license shall not be assignable. Any unauthorized use of a license by any person and the defacing or altering of a photo-identification card is prohibited.

§ 150-14 Investigation of facts.

The Town Clerk may hold any application for license or exemption pending investigation of facts presented. Such pending applications must be approved or rejected within five working days following the date of filing with the Town Clerk. The Town Clerk may demand of any applicant for license or exemption any reasonable verification or proof of facts to substantiate application. Failure of applicant to provide such required proofs shall be grounds to deny license or exemption.

§ 150-15 Expiration of license; fees.

[Amended 1-25-1989 by L.L. No. 1-1989; 5-12-1993 by L.L. No. 7-1993]

A. Parade license. A parade license shall only be used for one day for use during the day that the parade is officially scheduled and only on the parade route and shall further expire at 12:00 midnight on the date the said parade is officially scheduled. The fee for the issuance of the original parade license and photo-identification card shall be as set forth in Chapter **126**, Fees.

B. All other licenses. All other licenses shall expire 30 days after the date of issuance. The fee for the issuance of the original license and photo-identification card shall be as set forth in Chapter **126**, Fees.

§ 150-16 Renewals of license; fees.

[Amended 1-25-1989 by L.L. No. 1-1989]

The license may be renewed for thirty-day periods for 12 months from the date of the original license upon payment for each renewal application of a fee as set forth in Ch. **126**, Fees. The renewal application shall be on a form prescribed by the Town Clerk.

§ 150-17 Revocation of license.

The Town Board of the Town of Rotterdam, upon complaint of violation of this chapter or other ordinance or any law, after investigation of the complaint by the Rotterdam Police Department, if appropriate, and a hearing upon five days' prior notice to the licensee or exempt person, may revoke any license or exemption certificate.

§ 150-18 Procedure upon revocation.

Upon the refusal of the Town Clerk to issue a license or exemption certificate to the applicant or upon the determination of the Town Board that a license or exemption certificate should be revoked, the procedure prescribed in § 137 of the Town Law of the State of New York shall be complied with.

§ 150-19 Place(s) prohibited, Panhandling.

A. It shall be unlawful for any person to panhandle when solicited in the following places within the Town limits of Rotterdam, New York:

(1) At any bus stop; or

(2) In any public transportation vehicle or facility; or

(3) In any vehicle on a street or a driveway providing ingress to a street where such driveway is open to the general public; or

(4) Within 50 feet of any automated teller machine (ATM); or

(5) On private property, unless the panhandler is in physical possession of written permission from the owner or lawful occupant thereof.

(6) On public streets, walkways, and parking lots, unless the panhandler is in physical possession of a panhandler's permit, obtained at the Town of Rotterdam Clerk's Office.

§150-20 **Manners Prohibited, Panhandling.**

It shall be unlawful for any person to panhandle in any of the following manners:

A. By intentionally coming within three feet of the person solicited, unless that person has indicated that he or she does wish to make a donation; or

B. By intentionally approaching a private residence, in such a way as to place the residents thereof in imminent fear for their safety; or

C. By intentionally obstructing the path of the person or vehicle of the person solicited; or

D. By intentionally obstructing the path of the passage through the entrance or exit of any building; or

E. By soliciting anyone under the age of 16; or

F. By following a person who walks away from the panhandler, if the panhandler's conduct is intended to or is reasonably likely to intimidate the person being solicited into responding affirmatively to the solicitation; or

G. By using profane or abusive language, either during the solicitation or following a refusal.

§150-21 **Permits, Panhandling.**

A. Panhandling is permitted in any place and manner not otherwise restricted by this Chapter.

B. Panhandling is permitted with a panhandler's permit, which can be obtained through the Town of Rotterdam's Clerk's Office, with the place, manner and purpose of panhandling.

§ 150-2219Rules and regulations.

A hawker, peddler or solicitor or solicitor of funds shall:

A. Not falsely or fraudulently misrepresent the quality or quantity of any article or articles offered for sale nor offer for sale unwholesome, tainted or diseased provisions or merchandise.

B. Keep the vehicle or receptacles used by him in a clean and sanitary condition and the foodstuffs and edibles offered for sale well-covered and protected from dirt, dust and insects.

C. Not stand or permit the vehicle used by him to stand in one place for more than 10 minutes nor in front of any premises or business establishment if the owner, occupant or lessee objects.

D. Not blow a horn, ring a bell or use any other noise or device to attract public attention to his wares nor shout or cry out his wares.

E. Not permit any vehicle used by him to stop for any length of time so as to block or endanger vehicular or pedestrian traffic or to block a crosswalk.

F. Not create or maintain a booth nor stand or place barrels, boxes or other obstructions upon any street or public place for the purpose of selling or exposing for sale any goods, wares or merchandise.

G. Not hawk, peddle or solicit prior to 8:00 a.m. nor subsequent to 8:00 p.m. Monday through Friday nor prior to 9:00 a.m. nor subsequent to 5:00 p.m. on Saturday and Sunday. Home solicitations shall be only by appointment, with consent of an adult occupant to do so.

H. Not enter any dwelling or residence without first obtaining the consent of an adult occupant to do so.

I. Not stand, hawk, peddle or solicit or solicit funds on or near the premises of any business establishment, shopping center or mall without the written consent of the owner or individual, agency or organization responsible for the management and/or operation of the same.

J. Not sell, offer for sale or dispense any food, confectionary or ice cream directly from a vehicle while said vehicle is on a public street.

K. Not hawk, peddle, solicit, distribute samples, pamphlets, newspapers or any other materials while standing in or on any public roadway or right-of-way or in such proximity to such roadway or right-of-way as to hamper, distract or delay traffic or create a traffic hazard.

§ 150-230 Orders taken by solicitors.

All orders taken by licensed solicitors who demand, accept or receive payment or deposit of money in advance of final delivery shall be in writing, in duplicate, stating the terms thereof and the amount paid in advance of final delivery. One copy of the order so written shall be given to the purchaser at the time the deposit of money is paid to the solicitor.

§ 150-241 Warranty.

For all sales, whether partial or final, for wares, etc., immediately delivered or promised for future delivery and containing a warranty or guaranty, such warranty and/or guaranty should be in writing and expressly spelled out.

§ 150-252 Keeping of records.

It shall be the duty of the Town Clerk to keep a record of all applications and of each license, permit or exemption certificate granted under the provisions of this chapter, giving the number and date of each license or exemption certificate, the name and residence of the person licensed, permitted or exempted, the amount of the license fee paid and also the date or expiration or revocation of each license or exemption certificate. Copies of all records shall be supplied to the Rotterdam Police Department for its files and for whatever action is deemed necessary to protect the public.

§ 150-263 Penalties for offenses.

Any person who shall act as a hawker, panhandler, peddler or solicitor or solicitor of funds, as defined herein, without a license, permit or exemption certificate or who shall violate any provisions of this chapter or who, upon having had his license or exemption certificate revoked, shall continue to act as a hawker, panhandler, peddler or solicitor or solicitor of funds shall, upon conviction, be punished by a fine of not less than $25 nor more than $250, and each day on which such violation continues shall constitute a separate offense.

RESOLUTION NO. 242.23

A RESOLUTION URGING THE PASSAGE OF NEW YORK STATE SENATE BILL S.7615, THE MIGRANT HOME RULE TRANSFER TRANSPARENCY ACT

WHEREAS, Schenectady County is one of several counties in New York State that have declared a state of emergency related to the migrant housing crisis exacerbated by New York City Mayor Eric Adams' decision to send 238 migrants to a Super 8 Motel in the Town of Rotterdam on July 18, 2023; and

WHEREAS, attendant to such concern, the Schenectady County and Town Officials were left blindsided, and Schenectady County occupants residing at Super 8 in need of temporary housing were required to leave with no advanced notification; and

WHEREAS, this legislative body finds it unconscionable to displace one group of vulnerable citizens that needs housing and services with any other absent a proper plan in place and with no communication to those affected locally; and

WHEREAS, the measure authored at the state level by Senator James Tedisco, Senate Bill S.7615 will prohibit the relocation of migrants from one municipality to another municipality unless and until a resolution authorizing the relocation has been adopted by the governing bodies of both the receiving county and the receiving municipality of such migrants; and

WHEREAS, this initiative also requires the relocating municipality to provide at least thirty days written notice to the receiving municipality of the impending relocation of such individuals; and

WHEREAS, as a deterrent for those municipalities that relocate migrants absent adopted resolutions at both the county and municipal level, a penalty of $1000 per migrant, per day payable to the New York State Comptroller will fall onto the relocating municipality; NOW

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam does hereby call upon the New York State Legislature and Governor Kathy Hochul to pass Senate Bill S.7615, enacting the Migrant Home Rule Transfer Transparency Act.

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

STATE OF NEW YORK

7615

2023-2024 Regular Sessions

IN SENATE

July 28, 2023

Introduced by Sen. TEDISCO -- read twice and ordered printed, and when printed to be committed to the Committee on Rules

AN ACT in relation to prohibiting the relocation of migrants from one municipality to another municipality unless and until a resolution authorizing the relocation has been adopted by the governing bodies of both the receiving municipality where the migrants are to be relocated and the county in which the receiving municipality is located

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Short title. This act shall be known and referred to as the "migrant home rule transfer and transparency act".

§ 2. Notwithstanding any provisions of law, rule or regulation to the contrary, no municipality shall relocate migrants from such municipality for the purpose of permanent or temporary housing to another municipality in New York unless and until a resolution authorizing the relocation has been adopted by the governing bodies of both the receiving municipality and the county in which the receiving municipality is located. Prior to the actual physical relocation of the migrants, the relocating municipality shall provide at least thirty days written notice to the receiving municipality of the impending relocation of such individuals.

§ 3. As used in this act:

(i) "municipality" means a city, town, village or hamlet in New York state;

(ii) "receiving municipality" means the municipality to which the migrants are to be transported; and

(iii) "relocating municipality" means the municipality in which the migrants are currently housed and from which the migrants are to be relocated.

EXPLANATION--Matter in *italics* (underscored) is new; matter in brackets [-] is old law to be omitted.

LBD11960-02-3

§ 4. A violation of the provisions of this act shall be punishable by a fine in the amount of $1,000 per migrant, per day, payable to the comptroller of the state of New York.

§ 5. This act shall take effect immediately.

RESOLUTION NO. 243.23

TO ENACT INTRODUCTORY LOCAL LAW NO. 7 OF 2023; TO AMEND CHAPTER 150, HAWKING, PEDDLING, AND SOLICITING

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board hereby enacts Introductory Local Law No. 7 of 2023.

SECTION 2. The Town Clerk is directed, following consultation with the Attorney to the Town, to file said Local Law in final form with the New York State Department of State.

SECTION 3. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

§ 150-1 Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

AUTOMATED TELLER MACHINE (ATM): A device linked to a financial institution's account records which is able to carry out transactions, including, but not limited to, account transfers, deposits, cash withdrawals, balance inquiries, and mortgage and loan payments.

HAWKER AND PEDDLER Includes, except as hereinafter expressly provided, any person, either principal or agent, who, in any public street or public place or by going from house to house or place of business to place of business, on foot or on or from any animal or vehicle standing in a street, sells or barters, offers for sale or barter or carries or exposes for sale or barter any goods, wares or merchandise, except as hereinafter exempted.

OBSTRUCTING: To walk, stand, sit, or lie, or place an object in such a manner as to block passage by another person or a vehicle, or to require another person or driver of a vehicle to take evasive action to avoid physical contact.

PANHANDLER: Any person engaged in the act of panhandling.

PANHANDLING: Is any solicitation made in person, requesting an immediate donation of money or other thing of value. Purchase of an item for an amount far exceeding its value, under circumstances where a reasonable person would understand that the purchase is, in substance, a donation for the purpose of this chapter. Offers to work for food or other compensation under circumstances where a reasonable person would understand that the compensation given is, in substance, a donation, is also a donation for the purpose of this chapter.

PERSON Includes one or more persons of either sex, natural persons, corporations, partnerships, associations, joint-stock companies, societies and all other entities of any kind.

PLACE OF BUSINESS A building, store, shopping center or mall in which persons transact business or deal in goods, wares, merchandise and services.

New York State Department of State
Division of Corporations, State Records and Uniform Commercial Code
One Commerce Plaza, 99 Washington Avenue
Albany, NY 12231-0001
www.dos.ny.gov

Local Law Filing

(Use this form to file a local law with the Secretary of State.)

Text of law should be given as amended. Do not include matter being eliminated and do not use italics or underlining to indicate new matter.

☐ **County** ☐ **City** ☒ **Town** ☐ **Village**
(Select one:)

of Rotterdam

Local Law No. 7 **of the year 20**23

A local law A Local Law to Amend Chapter 150, Hawking, Peddling and Soliciting of the Town Code of
(Insert Title)
the Town of Rotterdam

Be it enacted by the Town Board **of the**
(Name of Legislative Body)

☐ **County** ☐ **City** ☒ **Town** ☐ **Village**
(Select one:)

of Rotterdam **as follows:**

See Attached

(If additional space is needed, attach pages the same size as this sheet, and number each.)

(Complete the certification in the paragraph that applies to the filing of this local law and strike out that which is not applicable.)

1. (Final adoption by local legislative body only.)

I hereby certify that the local law annexed hereto, designated as local law No. 7 of 2023 of the (~~County~~)(~~City~~)(Town)(~~Village~~) of Rotterdam was duly passed by the Town Board on August 9 2023, in accordance with the applicable provisions of law.

(Name of Legislative Body)

2. (Passage by local legislative body with approval, no disapproval or repassage after disapproval by the Elective Chief Executive Officer*.)

I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the (County)(City)(Town)(Village) of _____ was duly passed by the _____ on _____ 20____, and was (approved)(not approved)

(Name of Legislative Body)

(repassed after disapproval) by the _____ and was deemed duly adopted

(Elective Chief Executive Officer)*

on _____ 20☐☐, in accordance w ith the applicable provisions of law.

3. (Final adoption by referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the (County)(City)(Town)(Village) of _____ was duly passed by the _____ on _____ 20____, and was (approved)(not approved)

(Name of Legislative Body)

(repassed after disapproval) by the _____ on _____ 20____.

(Elective Chief Executive Officer)*

Such local law was submitted to the people by reason of a (mandatory)(permissive) referendum, and received the affirmative vote of a majority of the qualified electors voting thereon at the (general)(special)(annual) election held on _____ 20____, in accordance with the applicable provisions of law.

4. (Subject to permissive referendum and final adoption because no valid petition was filed requesting referendum.)

I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the (County)(City)(Town)(Village) of _____ was duly passed by the _____ on _____ 20____, and was (approved)(not approved)

(Name of Legislative Body)

(repassed after disapproval) by the _____ on _____ 20____. Such local law was subject to permissive referendum and no valid petition requesting such referendum was filed as of _____ 20____, in accordance with the applicable provisions of law.

---

* Elective Chief Executive Officer means or includes the chief executive officer of a county elected on a county-wide basis or, if there be none, the chairperson of the county legislative body, the mayor of a city or village, or the supervisor of a town where such officer is vested with the power to approve or veto local laws or ordinances.

5. (City local law concerning Charter revision proposed by petition.)
I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the City of _____ having been submitted to referendum pursuant to the provisions of section (36)(37) of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of such city voting thereon at the (special)(general) election held on _____ 20____, became operative.

6. (County local law concerning adoption of Charter.)
I hereby certify that the local law annexed hereto, designated as local law No. _____ of 20____ of the County of _____State of New York, having been submitted to the electors at the General Election of November _____ 20____, pursuant to subdivisions 5 and 7 of section 33 of the Municipal Home Rule Law, and having received the affirmative vote of a majority of the qualified electors of the cities of said county as a unit and a majority of the qualified electors of the towns of said county considered as a unit voting at said general election, became operative.

(If any other authorized form of final adoption has been followed, please provide an appropriate certification.)
I further certify that I have compared the preceding local law with the original on file in this office and that the same is a correct transcript therefrom and of the whole of such original local law, and was finally adopted in the manner indicated in paragraph _____ above.

_____
Clerk of the county legislative body, City, Town or Village Clerk or officer designated by local legislative body

(Seal)

Date: _____

PUBLIC STREETS, SIDEWALKS, AND PARKING LOTS: Any street, sidewalk and parking lot on which people may freely assemble, interact, and move about.

PUBLIC TRANSPORTATION VEHICLE: Any vehicle used as a mode of mass transit.

SOLICITOR Includes, except as hereinafter expressly provided, any person who goes from place to place or house to house or who stands in any street or public place taking or offering to take orders for goods, wares, merchandise, publications or services, except as hereinafter exempted, or for services to be performed in the future or for making, manufacturing or repairing any article or thing whatsoever for future delivery or for work to be done at the premises of the offeree.

SOLICITOR OF FUNDS Includes, except as hereinafter provided, any person who goes from place to place or house to house or who stands in any street or public place asking, collecting or accepting pledges for money, funds, contributions or merchandise in lieu of money, funds or pledges for any purpose whatever.

§ 150-2 Exemptions from requirements.

The persons described in this section shall be exempted from the requirements of obtaining a license as required by this chapter. However, every such person shall comply with all other provisions of this chapter, excluding the obtaining of a photo-identification card. The following shall be exempt:

A. Persons conducting sales pursuant to statute or by order of the court.

B. Any person selling personal property at wholesale to dealers in such articles.

C. Any honorably discharged member of the Armed Forces of the United States who has procured a license as provided in the General Business Law of the State of New York.

D. Persons soliciting, hawking, peddling or collecting anything for a not-for-profit organization or group located within the Town of Rotterdam organized

for and devoted to the promotion and sponsorship of activities and events for charitable purposes or for the benefit of youth within the Town or for veterans of the Armed Forces of the United States or for the benefit of volunteer firemen. Also exempted are persons soliciting, hawking, peddling or collecting in connection with an activity sponsored by a school situate within the Town.

E. Vendors of first class newspapers.

[Added 6-13-1990 by L.L. No. 12-1990]

§ 150-3 Application for exemption certificate.

All persons who are entitled to any exemption, or conducting activities which are exempt under § **150-2D**, shall make application for an exemption certificate prior to engaging in any hawking, peddling or soliciting, except that persons conducting school-sponsored activities other than for the solicitation of money alone shall not be required to procure an exemption certificate.

§ 150-4 Information on application.

The application for an exemption certificate shall be made to the Town Clerk on a form prescribed by the Town Clerk and shall contain the following information:

A. The name of the organization.

B. The reason for claiming and documentary proof substantiating entitlement thereto.

C. The names and addresses of each individual to be engaged in soliciting, hawking or peddling.

D. The area of the Town in which the soliciting, hawking or peddling will be carried on.

E. The dates on which such activities will be carried on.

F. Any further information required by the Town Clerk as proof of the applicant's entitlement to an exemption.

§ 150-5 Issuance of certificate.

If the Town Clerk determines that the applicant is entitled to an exemption, the Town Clerk shall issue an exemption certificate on a form prescribed by the Town Clerk, which certificate shall expire on the date specified therein.

§ 150-6 Out-of-town organizations. [1]

A person representing an out-of-town organization of the type enumerated in § **150-2D** and intending to peddle, hawk or solicit within the Town shall be entitled to an exemption certificate upon submission of an application containing the information prescribed by § **150-4**, except that such applicant must obtain a photo-identification card prescribed in §§ **150-8** and **150-9** and pay a fee therefor.[2]

[1]*Editor's Note: Amended at time of adoption of Code (see Ch. **1**, General Provisions, Art. **I**).*

[2]*Editor's Note: See Ch. **126**, Fees.*

§ 150-7 License required.

It shall be unlawful for any person within the territorial limits of the Town of Rotterdam to act as a hawker, peddler or solicitor or to solicit funds, as herein defined, without first having obtained and paid for and having in force and effect a license therefor or an exemption certificate issued by the Rotterdam Town Clerk.

§ 150-8 Application for license.

Every applicant for a license is required to submit to the Town Clerk a written application supplying under oath the following information:

A. Whether he has ever been convicted of a crime and, if so, the offense and date of conviction.

B. The particular business, trade, occupation or purpose for which the license is required or requested, stating such in detail.

C. The manner or means of conveyance, if any, in which said business or trade, solicitation or collection shall be conducted.

D. The manner of engaging in the hawking, peddling or soliciting (door-to-door, street corner, vehicle, etc.).

E. The name, date of birth and residence of the applicant; if he has a driver's license, the state of issuance; and if a corporation is the applicant, the principal place of business and the name and address of the officer of the corporation upon whom process or other legal notice may be served. The applicant must produce whatever proof of identification as may be reasonably required by the Town Clerk.

F. Such other information as may be required by the Town Clerk.

§ 150-9 License for individuals; photo-identification card.

Each person to be employed as a solicitor, hawker or peddler or solicitor of funds shall apply individually for a separate license, except persons who are exempt as provided by §§ **150-2** through **150-6**. Further, in order for Rotterdam citizens to be able to readily identify all licensed hawkers, peddlers or solicitors, each individual applicant must procure and receive a photo-identification card from the Rotterdam Police Department, and said photo-identification card must be conspicuously displayed on the person of the hawker, peddler or solicitor's outer clothing. Upon request of any person or police officer, each hawker, peddler or solicitor shall produce and make available his photo-identification card for closer inspection.

§ 150-10 Issuance of photo-identification card.

The application for a license obtained from the Town Clerk shall be completed by the applicant and submitted to the Town Clerk. If the application is complete and if the applicant is not disqualified by reason of the information contained therein, the Rotterdam Police Department shall make up a photo-identification card. The license and the photo-identification card shall be issued to the applicant upon payment of the license fees prescribed by §§ **150-15** and **150-16**.

§ 150-11 Reasons for denial.

The Town Clerk shall not issue a license if the applicant has been convicted of a felony within the past three years or a misdemeanor within the past year or if any information provided in the application is false. No person shall knowingly provide false information in an application for a license or exemption certificate.

§ 150-12 Filing.

The application and a copy of the license shall be filed in the Town Clerk's office. A copy of the application and a copy of the license shall be transmitted to the Rotterdam Police Department for filing.

§ 150-13 License nonassignable.

A license shall not be assignable. Any unauthorized use of a license by any person and the defacing or altering of a photo-identification card is prohibited.

§ 150-14 Investigation of facts.

The Town Clerk may hold any application for license or exemption pending investigation of facts presented. Such pending applications must be approved or rejected within five working days following the date of filing with the Town Clerk. The Town Clerk may demand of any applicant for license or exemption any reasonable verification or proof of facts to substantiate application. Failure of applicant to provide such required proofs shall be grounds to deny license or exemption.

§ 150-15 Expiration of license; fees.

[Amended 1-25-1989 by L.L. No. 1-1989; 5-12-1993 by L.L. No. 7-1993]

A. Parade license. A parade license shall only be used for one day for use during the day that the parade is officially scheduled and only on the parade route and shall further expire at 12:00 midnight on the date the said parade is officially scheduled. The fee for the issuance of the original parade license and photo-identification card shall be as set forth in Chapter **126**, Fees.

B. All other licenses. All other licenses shall expire 30 days after the date of issuance. The fee for the issuance of the original license and photo-identification card shall be as set forth in Chapter **126**, Fees.

§ 150-16 Renewals of license; fees.

[Amended 1-25-1989 by L.L. No. 1-1989]

The license may be renewed for thirty-day periods for 12 months from the date of the original license upon payment for each renewal application of a fee as set forth in Ch. **126**, Fees. The renewal application shall be on a form prescribed by the Town Clerk.

§ 150-17 Revocation of license.

The Town Board of the Town of Rotterdam, upon complaint of violation of this chapter or other ordinance or any law, after investigation of the complaint by the Rotterdam Police Department, if appropriate, and a hearing upon five days' prior notice to the licensee or exempt person, may revoke any license or exemption certificate.

§ 150-18 Procedure upon revocation.

Upon the refusal of the Town Clerk to issue a license or exemption certificate to the applicant or upon the determination of the Town Board that a license or exemption certificate should be revoked, the procedure prescribed in § 137 of the Town Law of the State of New York shall be complied with.

§ 150-19 Place(s) prohibited, Panhandling.

A. It shall be unlawful for any person to panhandle when solicited in the following places within the Town limits of Rotterdam, New York:

(1) At any bus stop; or

(2) In any public transportation vehicle or facility; or

(3) In any vehicle on a street or a driveway providing ingress to a street where such driveway is open to the general public; or

(4) Within 50 feet of any automated teller machine (ATM); or

(5) On private property, unless the panhandler is in physical possession of written permission from the owner or lawful occupant thereof.

(6) On public streets, walkways, and parking lots, unless the panhandler is in physical possession of a panhandler's permit, obtained at the Town of Rotterdam Clerk's Office.

§150-20 **Manners Prohibited, Panhandling.**

It shall be unlawful for any person to panhandle in any of the following manners:

A. By intentionally coming within three feet of the person solicited, unless that person has indicated that he or she does wish to make a donation; or

B. By intentionally approaching a private residence, in such a way as to place the residents thereof in imminent fear for their safety; or

C. By intentionally obstructing the path of the person or vehicle of the person solicited; or

D. By intentionally obstructing the path of the passage through the entrance or exit of any building; or

E. By soliciting anyone under the age of 16; or

F. By following a person who walks away from the panhandler, if the panhandler's conduct is intended to or is reasonably likely to intimidate the person being solicited into responding affirmatively to the solicitation; or

G. By using profane or abusive language, either during the solicitation or following a refusal.

§150-21 **Permits, Panhandling.**

A. Panhandling is permitted in any place and manner not otherwise restricted by this Chapter.

B. Panhandling is permitted with a panhandler's permit, which can be obtained through the Town of Rotterdam's Clerk's Office, with the place, manner and purpose of panhandling.

§ 150-22 **Rules and regulations.**

A hawker, peddler or solicitor or solicitor of funds shall:

A. Not falsely or fraudulently misrepresent the quality or quantity of any article or articles offered for sale nor offer for sale unwholesome, tainted or diseased provisions or merchandise.

B. Keep the vehicle or receptacles used by him in a clean and sanitary condition and the foodstuffs and edibles offered for sale well-covered and protected from dirt, dust and insects.

C. Not stand or permit the vehicle used by him to stand in one place for more than 10 minutes nor in front of any premises or business establishment if the owner, occupant or lessee objects.

D. Not blow a horn, ring a bell or use any other noise or device to attract public attention to his wares nor shout or cry out his wares.

E. Not permit any vehicle used by him to stop for any length of time so as to block or endanger vehicular or pedestrian traffic or to block a crosswalk.

F. Not create or maintain a booth nor stand or place barrels, boxes or other obstructions upon any street or public place for the purpose of selling or exposing for sale any goods, wares or merchandise.

G. Not hawk, peddle or solicit prior to 8:00 a.m. nor subsequent to 8:00 p.m. Monday through Friday nor prior to 9:00 a.m. nor subsequent to 5:00 p.m. on Saturday and Sunday. Home solicitations shall be only by appointment, with consent of an adult occupant to do so.

H. Not enter any dwelling or residence without first obtaining the consent of an adult occupant to do so.

I. Not stand, hawk, peddle or solicit or solicit funds on or near the premises of any business establishment, shopping center or mall without the written consent of the owner or individual, agency or organization responsible for the management and/or operation of the same.

J. Not sell, offer for sale or dispense any food, confectionary or ice cream directly from a vehicle while said vehicle is on a public street.

K. Not hawk, peddle, solicit, distribute samples, pamphlets, newspapers or any other materials while standing in or on any public roadway or right-of-way or in such proximity to such roadway or right-of-way as to hamper, distract or delay traffic or create a traffic hazard.

§ 150-23 Orders taken by solicitors.

All orders taken by licensed solicitors who demand, accept or receive payment or deposit of money in advance of final delivery shall be in writing, in duplicate, stating the terms thereof and the amount paid in advance of final delivery. One copy of the order so written shall be given to the purchaser at the time the deposit of money is paid to the solicitor.

§ 150-24 Warranty.

For all sales, whether partial or final, for wares, etc., immediately delivered or promised for future delivery and containing a warranty or guaranty, such warranty and/or guaranty should be in writing and expressly spelled out.

§ 150-25 Keeping of records.

It shall be the duty of the Town Clerk to keep a record of all applications and of each license, permit or exemption certificate granted under the provisions of this chapter, giving the number and date of each license or exemption certificate, the name and residence of the person licensed, permitted or exempted, the amount of the license fee paid and also the date or expiration or revocation of each license or exemption certificate. Copies of all records shall be supplied to the Rotterdam Police Department for its files and for whatever action is deemed necessary to protect the public.

§ 150-26 Penalties for offenses.

Any person who shall act as a hawker, panhandler, peddler or solicitor or solicitor of funds, as defined herein, without a license, permit or exemption certificate or who shall violate any provisions of this chapter or who, upon

having had his license or exemption certificate revoked, shall continue to act as a hawker, panhandler, peddler or solicitor or solicitor of funds shall, upon conviction, be punished by a fine of not less than $25 nor more than $250, and each day on which such violation continues shall constitute a separate offense.

RESOLUTION NO. 244.23

TO ACCEPT TOWN BOARD MEETING MINUTES OF JULY 5, 2023

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby adopts the minutes of the July 5, 2023 town board meeting as attached.

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE: **August 2, 2023**
TO: Mollie A. Collins, Supervisor

FROM: Diane M. Marco, Town Clerk

TITLE OF LEGISLATIVE REQUEST: To adopt meeting minutes from the **July 5, 2023 Town Board Meeting.**

TO BE PLACED ON TOWN BOARD AGENDA OF: **August 9, 2023.**

TO BE PLACED ON TOWN BOARD MEETING OF: **August 9, 2023.**

Background Information: Attached. To adopt the meeting minutes from the **August 9, 2023 Town Board Meeting.**

Evaluation/Analysis: N/A

Recommendation(s): To place on Town Board agenda and Town Board meeting of **August 9, 2023.**

Attachment/Document(s): Attached

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): N/A

LEGISLATION WAS PREPARED BY: Town Clerk Diane M. Marco

TOWN OF ROTTERDAM

DIANE M. MARCO
Town Clerk

John F. Kirvin Government Center * 1100 Sunrise Boulevard * Rotterdam, NY 12306
Telephone: (518) 355-7575 Ext: 352 * Fax: (518)355-7837* Website: www.rotterdamny.org
Email * dmarco@rotterdamny.org

July 7, 2023

Certified Resolutions: #211A.23-237.23 for the year 2023 was duly adopted at the Town Board Meeting held at the J.F. Kirvin Government Center, 1100 Sunrise Boulevard, Rotterdam, NY 12306 on Wednesday, July 5, 2023 at 7:00 p.m. The Town Board Agenda review meeting began approximately 6:30 p.m. Agenda review was adjourned at approximately 6:47 p.m. All agreed to adjourn agenda review. Motion#19 was made by Councilmember Dodson and seconded by Councilmember Christou. Motion #20 was made by Councilmember Dodson and seconded by Councilmember Mastroianni. The Town Board Meeting started at approximately 7:00 p.m. and Motion #21 was made by Councilmember Dodson and seconded by Councilmember Christou to go into executive session. The Town Board Meeting continued at approximately 7: 17p.m.and the Town Board Meeting was adjourned at approximately 7:54 p.m. by Councilmember Dodson and seconded by Christou. All agreed to adjourn the Town Board Meeting.

Councilmember Miller-Herrera was absent

Diane M. Marco

Diane M. Marco, Town Clerk

The Town of Rotterdam Town Board Meeting will be held in person; however, the public may access the meeting electronically via Zoom conference call. Members of the public may listen to the board meeting by dialing ***1 (929) 205-6099****(followed by the pound symbol) or by logging into Zoom.com, then enter the conference* ***ID NO. 867 0373 0307****. Video of the town board meeting will be posted on the Town of Rotterdam website (www.rotterdamny.org) the following Friday after the meeting.*

MEETING OF THE ROTTERDAM TOWN BOARD

July 5, 2023
7:00 PM
Agenda Review 6:30 PM

CALL TO ORDER
ROLL CALL
PLEDGE OF ALLEGIANCE
SUPERVISOR'S REMARKS: Supervisor Mollie A. Collins
EXECUTIVE SESSION

- Discussion regarding the Rotterdam Patrolmen's Benevolent Association Inc.

PROCLAMATIONS/PRESENTATIONS
PUBLIC HEARING

- To establish a six (6) month moratorium prohibiting Battery Energy Storage system installations within the Town of Rotterdam. **PUBLIC HEARING KEPT OPEN**
- To establish a six (6) month moratorium prohibiting Wind Generation system installations within the Town of Rotterdam. **PUBLIC HEARING KEPT OPEN**

PUBLIC COMMENT – PRIVILEGE OF THE FLOOR:
Those members of the public wishing to address the Town Board will be asked to sign in before the meeting is called to order on the sign-in sheets being provided. Speakers will be called to the podium in the order of their signing in. Persons recognized by the Chair to speak during privilege of the floor shall direct his/her comments to the Town Supervisor as Chair of the meeting. Persons granted the privilege of the floor shall first clearly state his/her name and address for the record. Persons so addressing the Chair through the use of a prepared written statement shall submit a copy of the same to the Town Clerk for the purpose of maintaining clear and accurate official minutes of the Town Board meeting.

GENERAL RULES OF PROCEDURE FOR PUBLIC HEARINGS & PRIVILEGE OF THE FLOOR:
Any person recognized by the Town Supervisor to speak during privilege of the floor shall direct his/her comments to the Town Supervisor as chair of the meeting. Any person granted the privilege of the floor shall first clearly state his/her name and address for the record. The purpose of privilege of the floor shall be for speakers to express their views, thoughts and speak freely. Each speaker, who wishes to address the town board, shall have an equal and reasonable opportunity to be heard by the town board. Each speaker shall be afforded a maximum of four (4) minutes to address the town board.

INTRODUCTION OF MOTIONS, ORDERS AND RESOLUTIONS
RESOLUTIONS

MOTIONS:

19.23 Motion to table Resolution 232.23.

20.23 Motion to change date on Resolution 233.23 to August 9, 2023.

21.23 Motion to go into executive session.

RESOLUTIONS

211A.23 To accept Town Board meeting minutes of June 14, 2023.

212.23 To appoint a Police Officer.

213.23 To appoint Noah Messick to the position of Cleaner.

214.23 To appoint Rookmin Abzal to the position of Payroll Audit Clerk.

215.22 To appoint Noah Baker to the position of Park Attendant.

216.23 To temporarily appoint Joseph Mastroianni as Deputy Supervisor.

217.23 To enter into an agreement with Niagara Mohawk for the authorization of the Hometown Hero Banners program to be installed on utility poles in the Town of Rotterdam.

218.23 To authorize the Town Supervisor to execute the memorandum of agreement between the Town of Rotterdam and the Civil Service Employees' Association recognizing the new job title of GIS/Maps/Location worker.

219.23 To authorize the Town Supervisor to execute the memorandum of agreement between the Town of Rotterdam and the Civil Service Employees' Association recognizing the new job title of Wastewater Treatment Plant Mechanic.

220.23 To approve budget transfers to the 2023 budget.

221.23 To accept certain real estate parcels from Schenectady County.

222.23 To authorize Change Order No. 1 with AMZ Construction Services Inc. for the Salt Storage Project.

223.23 To authorize Change Order No. 2 on the E Contract with B&D Industries for the Sewer District No. 7 Extension No. 2 Project.

224.23 To authorize the purchase of an audio video sound system for the Rotterdam Senior Center.

225.23 To accept and award bid for Rotterdam Senior Center Roof Replacement Project.

226.23 To authorize submission of a New York State Water Infrastructure Improvement Act

(WIIA) grant application for the Town of Rotterdam Wastewater Treatment Plant Improvements.

227.23 To authorize submission of a New York State Water Infrastructure Improvement Act (WIIA) Grant Application for the Town of Rotterdam Water System Improvements Project.

228.23 To negotiate and execute an agreement with Barton & Logudice for additional engineering services related to the Rotterdam Senior Center Roof Replacement Project.

229.23 To negotiate and execute an agreement with Barton & Logudice for the pumping station roof asbestos investigation and sampling services.

230.23 To negotiate and execute an agreement with Barton & Logudice for mold assessment services.

231.23 To negotiate and execute an agreement with Barton & Logudice for professional engineering services for the Kiwanis International Park Waterfront Access Improvements project.

232.23 To declare lead agency for SEQR review for the change of zone from single family residential (R-1) to retail business (B-1) on a portion of tax parcel #59.19-1-4.1 known as 2917 Hamburg Street. **TABLED**

233.23 To recognize the introduction of Local Law No.___ of 2023; Change of zone from single family residential (R-1) to retail business (B-1); on a portion of tax parcel #59.19-1-4.1 known as 2917 Hamburg Street and scheduling a public hearing thereon.

234.23 To negotiate and execute an agreement with Webinstinct to upgrade and host website services to the Town.

235.23 To negotiate and execute an agreement with Barton & Logudice for a trunk sewer access improvements project.

236.23 To authorize the Supervisor to execute and sign a Memorandum of Agreement with the Rotterdam Patrolmen's Benevolent Association Inc.

237.23 To call for an audit of the New York State 2022 General Election.

LIAISON REPORTS
MISCELLANEOUS
EXECUTIVE SESSION
ADJOURNMENT
Mollie A. Collins, Supervisor

MOTION 19.23

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the J.F. Kirvin Government Center, 1100 Sunrise Boulevard, Rotterdam, NY 12306 on Wednesday, July 5, 2023, at 7:00 p.m., the following motion passed:

THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **CHRISTOU,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. I make a motion to table Resolution 232.23.

SECTION 2. This motion shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera (Absent)			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, DO HEREBY CERTIFY that the foregoing motion passed by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing motion is a true and correct transcript of the original motion and of the whole thereof and that said motion is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of the Town Clerk
Schenectady, County, NY

MOTION 20.23

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the J.F. Kirvin Government Center, 1100 Sunrise Boulevard, Rotterdam, NY 12306 on Wednesday, July 5, 2023, at 7:00 p.m., the following motion passed:

THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **MASTROIANNI,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. I make a motion to correct date from July 5 to August 9, 2023 in Resolution 233.23.

SECTION 2. This motion shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera (Absent)			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, DO HEREBY CERTIFY that the foregoing motion passed by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing motion is a true and correct transcript of the original motion and of the whole thereof and that said motion is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY Schenectady, County

MOTION 21.23

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the J.F. Kirvin Government Center, 1100 Sunrise Boulevard, Rotterdam, NY 12306 on Wednesday, July 5, 2023, at 7:00 p.m., the following motion passed:

THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **CHRISTOU,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. I make a motion to go into executive session.

SECTION 2. This motion shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera (Absent)			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, DO HEREBY CERTIFY that the foregoing motion passed by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing motion is a true and correct transcript of the original motion and of the whole thereof and that said motion is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY Schenectady, County

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 211A.23

TO ACCEPT TOWN BOARD MEETING MINUTES OF JUNE 14, 2023

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **CHRISTOU**,
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby adopts the minutes of the June 14, 2023 town board meeting as attached.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	**X**		
Miller-Herrera **(Absent)**			
Dodson	**X**		
Mastroianni	**X**		
Collins	**X**		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM Office of the Town Clerk Schenectady, County NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 212.23

TO APPOINT A POLICE OFFICER

THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **MASTROIANNI,**
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Christopher W. Yankowski is hereby appointed to the position of Patrolman 5th, full time, probationary, with full time employee benefits, and subject to pre-employment background checks, at an annual salary of sixty-two thousand nine hundred eighty-seven and 69/100 ($62,987.69) dollars, commencing July 6, 2023.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY
Office of the Town Clerk
Schenectady, County

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 213.23

TO APPOINT NOAH MESSICK TO THE POSITION OF CLEANER

THEREFORE, UPON MOTION OF Councilmember **DODSON**,seconded by Councilmember **MASTROIANNI**,
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Noah Messick, of Schenectady, New York 12306, is hereby appointed to the position of Cleaner, full time, probationary, with full employee benefits, and subject to pre-employment background checks, at an annual salary of thirty-eight thousand nine hundred ninety-one and 01/100 ($38,991.01) dollars, commencing July 10, 2023.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 214.23

TO APPOINT ROOKMIN ABZAL TO THE POSITION OF PAYROLL AUDIT CLERK

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Supervisor **COLLINS**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Rookmin Abzal, of Schenectady, New York 12306, is hereby appointed to the position of Payroll Audit Clerk, full time, provisionally, with full employee benefits, and subject to pre-employment background checks, at an annual salary of forty-eight thousand, thirty and 52/100 ($48,030.52) dollars, commencing July 10, 2023.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY
Office of the Town Clerk
Schenectady County

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 215.23

TO APPOINT NOAH BAKER TO THE POSITION OF PARK ATTENDANT

THEREFORE, UPON MOTION OF Councilmember **MASTROIANNI**, seconded by Councilmember **DODSON**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Noah Baker, of Schenectady, New York 12304, is hereby appointed to the position of Park Attendant, full time, with full employee benefits, and subject to pre-employment background checks, at an annual salary of forty-four thousand nine hundred thirty-nine and 14/100 ($44,939.14) dollars, commencing July 10, 2023.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY
Office Of The Town Clerk
Schenectady, County

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 216.23

TO TEMPORARILY APPOINT JOSEPH MASTROIANNI AS DEPUTY SUPERVISOR

THEREFORE, UPON MOTION OF Councilmember **CHRISTOU**, seconded by Supervisor **COLLINS**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes Councilmember Joseph Mastroianni to be temporarily appointed to Deputy Supervisor from July 7, 2023 through July 16, 2023.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni			X
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM Office of the Town Clerk Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 217.23

TO ENTER INTO AN AGREEMENT WITH NIAGARA MOHAWK FOR THE AUTHORIZATION OF THE HOMETOWN HERO BANNERS PROGRAM TO BE INSTALLED ON UTILITY POLES IN THE TOWN OF ROTTERDAM

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **CHRISTOU**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute an agreement with Niagara Mohawk Power Corporation for the purpose of installing and hanging Hometown Hero Banners on utility poles along Curry Road within the Town of Rotterdam.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of the Town Clerk
Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 218.23

TO AUTHORIZE THE TOWN SUPERVISOR TO EXECUTE THE MEMORANDUM OF AGREEMENT BETWEEN THE TOWN OF ROTTERDAM AND THE CIVIL SERVICE EMPLOYEES' ASSOCIATION RECOGNIZING THE NEW JOB TITLE OF GIS/MAPS/LOCATION WORKER

WHEREAS, on June 22, 2023, the Schenectady County Civil Service Commission voted to establish the title of GIS/MAPS/LOCATION WORKER in the Town of Rotterdam in the competitive class of the civil service;

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes The Supervisor to execute the memorandum of agreement between the Town of Rotterdam and the Civil Service Employees' Association recognizing the position of GIS/MAPS/LOCATION WORKER, a position in the competitive class of the civil service, as a CSEA bargaining unit position covered under the Collective Bargaining Agreement between the Town of Rotterdam and the CSEA Town of Rotterdam Unit #8504.

SECTION 2. This resolution shall become effective July 5, 2023

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 219.23

TO AUTHORIZE THE TOWN SUPERVISOR TO EXECUTE THE MEMORANDUM OF AGREEMENT BETWEEN THE TOWN OF ROTTERDAM AND THE CIVIL SERVICE EMPLOYEES' ASSOCIATION RECOGNIZING THE NEW JOB TITLE OF WASTEWATER TREATMENT PLANT MECHANIC

WHEREAS, on June 22, 2023, the Schenectady County Civil Service Commission voted to establish the title of Wastewater Treatment Plant Mechanic in the Town of Rotterdam in the competitive class of the civil service;

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes The Supervisor to execute the memorandum of agreement between the Town of Rotterdam and the Civil Service Employees' Association recognizing the position of Wastewater Treatment Plant Mechanic, a position in the competitive class of the civil service, as a CSEA bargaining unit position covered under the Collective Bargaining Agreement between the Town of Rotterdam and the CSEA Town of Rotterdam Unit #8504.

SECTION 2. This resolution shall become effective July 5, 2023

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of The Town Clerk
Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 220.23

TO APPROVE BUDGET TRANSFERS TO THE 2023 BUDGET

THEREFORE, UPON MOTION OF Councilmember **MASTROIANNI**, seconded by Supervisor **COLLINS**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Pursuant to Section 36 of the General Municipal Law of the State of New York and Sections 102, 112 and 113 of Town Law of the State of New York, regarding the Uniform System of Accounts, the following transfers to the various accounts for 2023 are hereby audited and approved:

Fund	***Account No.***		***Title***	***Amount***
HWY	DA5130 4145	FROM:	Hwy Machinery Repair	-2,000.00
HWY	DA5130 4709	INTO:	Hwy Machinery Misc. Exp.	+2,000.00

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM (Office of the Town Clerk) Schenectady, County NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 221.23

TO ACCEPT CERTAIN REAL ESTATE PARCELS FROM SCHENECTADY COUNTY

WHEREAS, on June 13, 2023 the Schenectady County Legislature voted and passed resolution 110-23, regarding the conveyance of certain property to the Town of Rotterdam for community purposes; and

WHEREAS, the County Manager is authorized to form and execute a contract and all other necessary documents for the purchase and sale of the following real estate to be transferred at no cost to the Town of Rotterdam:
S/B/L - 28.-3-10 - River Road,
S/B/L - 38.-2-3 - W. Campbell Road,
S/B/L- 58.20-2-1 -Guilderland Avenue,
S/B/L-59.11-10-19-Circle Drive,
S/B/L - 59.14-9-39.11 -Rensselaer Avenue; **NOW**

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS

SECTION 1. The Town Board of the Town of Rotterdam hereby excepts real estate parcels S/B/L - 28.-3-10 - River Road, S/B/L - 38.-2-3 - W. Campbell Road, S/B/L- 58.20-2-1 -Guilderland Avenue, S/B/L-59.11-10-19-Circle Drive, and S/B/L - 59.14-9-39.11 -Rensselaer Avenue, from the Schenectady County Legislature for a purchase and sale of no cost to the Town of Rotterdam.

SECTION 2. This resolution shall become effective July 5, 2023

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 222.23

TO AUTHORIZE CHANGE ORDER NO. 1 WITH AMZ CONSTRUCTION SERVICES INC. FOR THE SALT STORAGE PROJECT

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute Change Order No. 1 with AMZ Construction Services Inc., located at 1234 Main Street, PO Box 232, Rotterdam Junction, NY 12150, for the Salt Storage Project, for supply labor and material, for a cost increase of forty-four thousand eight hundred twenty eight and 93/100 ($44,828.93) dollars, and a new contract sum totaling one million, six hundred fifteen thousand, one hundred twenty eight and 93/100 ($1,615,128.93) dollars.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	**X**		
Miller-Herrera **(Absent)**			
Dodson	**X**		
Mastroianni	**X**		
Collins	**X**		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM Office of the Town Clerk Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 223.23

TO AUTHORIZE CHANGE ORDER NO. 2 ON THE E CONTRACT WITH B & D INDUSTRIES FOR THE SEWER DISTRICT NO. 7 EXTENSION NO. 2 PROJECT

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute Change Order No. 2 with B&D Industries, located at 65 Washington St, Rensselaer, NY 12144, for a no cost time extension due to supply chain issues, for the Sewer District No. 7, Extension No. 2 Carman Road project, with a new projected completion date of August 25, 2023.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM Office of The Town Clerk Schenectady, County, NY

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At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 224.23

TO AUTHORIZE THE PURCHASE OF AN AUDIO VIDEO SOUND SYSTEM FOR THE ROTTERDAM SENIOR CENTER

THEREFORE, UPON MOTION OF Supervisor **COLLINS, seconded** by Councilmember **CHRISTOU,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the purchase and installation of an audio/video sound system for the Rotterdam Senior Center, from Audio Video Corporation, located at 213 Broadway, Albany, New York 12204, with compliance under the NYS contract, in an amount not to exceed thirteen thousand one hundred sixty-nine and 31/100 ($13,169.31) dollars.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM Office of the Town Clerk Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 225.23

TO ACCEPT AND AWARD BID FOR ROTTERDAM SENIOR CENTER ROOF REPLACEMENT PROJECT

WHEREAS, Pursuant to notice duly published according to Section One Hundred Three of the General Municipal Law of the State of New York, the Town of Rotterdam on Tuesday, June 20, 2023, posted an official report of all bid submissions received to the Empire State Purchasing Group on BidNet (https://bidnetdirect.com/townofrotterdam). Additionally, the official bid report and all bids were made available in the Office of the Town Clerk for public inspection upon request for the purchase by the Town of Rotterdam of the following:

ROTTERDAM SENIOR CENTER ROOF REPLACEMENT PROJECT

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam does hereby accept and award the bid for Rotterdam Senior Center Roof Replacement Project, Contract 1, for the Town of Rotterdam to VAD Contractors Inc., located at 1885 Hyland Blvd #1059, Staten Island, NY 10305 at the mutual consent of both the Town and VAD Contractors Inc.

SECTION 2. The Supervisor of the Town of Rotterdam is hereby authorized to execute a contract with said bidder in accordance with the terms of the bid proposal as submitted. Summary of bid prices are on file in the Town Clerk's office.

SECTION 3. This resolution shall become effective July 5, 2023.

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY
Schenectady, County

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 226.23

TO AUTHORIZE SUBMISSION OF A NEW YORK STATE WATER INFRASTRUCTURE IMPROVEMENT ACT (WIIA) GRANT APPLICATION FOR THE TOWN OF ROTTERDAM WASTEWATER TREATMENT PLANT IMPROVEMENTS

WHEREAS, the Town Board of the Town of Rotterdam duly caused to be prepared a Preliminary Engineering Report (PER) recommending improvements to the Town wastewater treatment plant; and

WHEREAS, the proposed improvements to such wastewater treatment plant includes a sequencing batch reactor (SBR) biological treatment system, improvements to the primary clarification process and belt filter press, and rehabilitation of aged sewer mains, manholes, and appurtenances; and

WHEREAS, the PER shows the estimated costs of these improvements to be $20,000,000; and

WHEREAS, the Town Board now desires to pursue grant funding for the project under the New York State Water Infrastructure Improvement Act (WIIA) program; NOW

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam, Schenectady County, New York, hereby authorizes the submission of a New York State Water Infrastructure Improvement Act (WIIA) grant application.

SECTION 2. The Town Supervisor is hereby authorized to submit an application on behalf of the Town for grant funding under the New York State Water Infrastructure Improvement Act (WIIA) Program, and to execute any agreements, instruments or other documents in connection with the Town's acceptance of any such grants and/or the funding thereof.

SECTION 3. The Town Supervisor may authorize any required local match required with respect to financing or grants awarded to the Town for the project through the use of cash and/or in-kind services.

SECTION 4. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 227.23

TO AUTHORIZE SUBMISSION OF A NEW YORK STATE WATER INFRASTRUCTURE IMPROVEMENT ACT (WIIA) GRANT APPLICATION FOR THE TOWN OF ROTTERDAM WATER SYSTEM IMPROVEMENTS PROJECT

WHEREAS, the Town Board of the Town of Rotterdam (hereinafter the "Town") duly caused to be prepared a Preliminary Engineering Report (PER) recommending proposed improvements to the Town water system to include the addition of Well 6 with well house, the replacement of various critical and undersized pipelines with new 12-inch diameter to 30-inch diameter water main, the replacement of failing valves in the distribution system, and other water system upgrades necessary to meet the capacity demand of the Town; and

WHEREAS, the PER shows the estimated costs of these improvements to be $33,900,000; and

WHEREAS, the Town of Rotterdam Board now desires to pursue grant funding for the project under the New York State Water Infrastructure Improvement Act (WIIA) program; NOW

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam, Schenectady County, New York, authorizes the submission of a New York State Water Infrastructure Improvement Act (WIIA) grant application.

SECTION 2. The Town Supervisor is hereby authorized to submit an application on behalf of the Town for grant funding under the New York State Water Infrastructure Improvement Act (WIIA) Program, and to execute any agreements, instruments, or other documents in connection with the Town's acceptance of any such grants and/or the funding thereof.

SECTION 3. The Town Supervisor may authorize any required local match required with respect to financing or grants awarded to the Town for the project through the use of cash and/or in-kind services.

SECTION 4. This resolution shall become effective July 5, 2023

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office Of The Town Clerk
Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 228.23

TO NEGOTIATE AND EXECUTE AN AGREEMENT WITH BARTON & LOGUDICE FOR ADDITIONAL ENGINEERING SERVICES RELATED TO THE ROTTERDAM SENIOR CENTER ROOF REPLACEMENT

THEREFORE, UPON MOTION of Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI,**
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute supplement #1 to the engineering agreement with Barton and Logudice, located at 10 Airline Drive, Suite 200, Albany, New York 12205, for additional engineering services for the Rotterdam Senior Center Roof Replacement Project, for a lump sum not to exceed fourteen thousand and 00/100 ($14,000.00) dollars.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM OFFICE OF THE TOWN CLERK Schenectady, County, NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 229.23

TO NEGOTIATE AND EXECUTE AN AGREEMENT WITH BARTON & LOGUDICE FOR THE PUMPING STATION ROOF ASBESTOS INVESTIGATION AND SAMPLING SERVICES

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Supervisor **COLLINS**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute an agreement with Barton & Loguidice, located at 10 Airline Drive, Suite 200, Albany, New York 12205, for professional engineering services to provide asbestos investigation and sampling analysis, for the Pump Stations Roofs, in an amount not to exceed two thousand eight hundred and 00/100 ($2,800.00) dollars, and Technical Specifications, only if asbestos is found, in an amount not to exceed one thousand eight hundred and 00/100 ($1,800.00) dollars, and Sample Analysis in an amount not to exceed seven hundred eighty and 00/100 ($780.00) dollars for a total lump sum fee not to exceed five thousand three hundred eighty and 00/100 ($5,380.00) dollars.

SECTION 2. This resolution shall become effective on July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

TOWN OF ROTTERDAM Office of the Town Clerk Schenectady, County, NY

Diane M. Marco

Diane M. Marco, Town Clerk

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 230.23

TO NEGOTIATE AND EXECUTE AN AGREEMENT WITH BARTON & LOGUDICE FOR MOLD ASSESSMENT SERVICES

THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **MASTROIANNI,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute an agreement with Barton & Loguidice, located at 10 Airline Drive, Suite 200, Albany, New York 12205, for professional engineering services to provide mold assessment services at the 1015 Princetown Road structure, in an amount not to exceed one thousand four hundred fifty and 00/100 ($1,450.00) dollars.

SECTION 2. This resolution shall become effective on July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of the Town Clerk
Schenectady, County NY

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 231.23

TO NEGOTIATE AND EXECUTE AN AGREEMENT WITH BARTON & LOGUDICE FOR PROFESSIONAL ENGINEERING SERVICES FOR THE KIWANIS INTERNATIONAL PARK WATERFRONT ACCESS IMPROVEMENTS PROJECT

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute an agreement with Barton & Loguidice, located at 10 Airline Drive, Suite 200, Albany, New York 12205, for professional engineering services relating to the Kiwanis International Park Waterfront Access Improvements Project, in an amount not to exceed forty thousand and 00/100 ($40,000.00) dollars.

SECTION 2. This resolution shall become effective on July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY
Schenectady, County

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was **TABLED**:

RESOLUTION NO. 232.23 TABLED
TO DECLARE LEAD AGENCY FOR SEQR REVIEW FOR THE CHANGE OF ZONE FROM SINGLE FAMILY RESIDENTIAL (R-1) TO RETAIL BUSINESS (B-1) ON A PORTION OF TAX PARCEL #59.19-1-4.1 KNOWN AS 2917 HAMBURG STREET

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **CHRISTOU**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby declares the Town Board as Lead Agency under 6NYCRR Part 617 SEQR (State Environmental Quality Review) in connection to the proposed change of zone from Single Family Residential (R-1) to Retail Business (B-1) request by Michael and Catherine McGuire, on ±10,645 square feet of ±14,575 square foot parcel (Lot 2). Property is known as 2917 Hamburg Street and is a portion of Tax Map No. 59.19-1-4.1.

SECTION 2. The Town Board of the Town of Rotterdam hereby authorizes the Town Planner to prepare, file, publish, and distribute all documents as necessary to comply with 6NYCRR Part 617 SEQR.

SECTION 3. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023 **TABLED**

NAME	AYES	NOES	ABSTAIN
Christou	**X**		
Miller-Herrera **(Absent)**			
Dodson	**X**		
Mastroianni	**X**		
Collins	**X**		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was **TABLED** by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

TOWN OF ROTTERDAM Office of the Town Clerk Schenectady County, NY

Diane M. Marco

Diane M. Marco, Town Clerk

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 233.23

TO RECOGNIZE THE INTRODUCTION OF LOCAL LAW NO.___ OF 2023; CHANGE OF ZONE FROM SINGLE FAMILY RESIDENTIAL (R-1) TO RETAIL BUSINESS (B-1); ON A PORTION OF TAX PARCEL #59.19-1-4.1 KNOWN AS 2917 HAMBURG STREET AND SCHEDULING A PUBLIC HEARING THEREON

THEREFORE, UPON MOTION OF Councilmember **MASTROIANNI**, seconded by Councilmember **CHISTOU,**
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board hereby recognizes the introduction of Introductory Local Law No. ____ of 2023; a Change of Zone request from Single Family Residential (R-1) to Retail Business (B-1).

SECTION 2. The Town Clerk of the Town of Rotterdam is hereby directed to publish in the official newspaper of the Town of Rotterdam not less than ten (10) days prior to the date designated for the public hearing provided for by the following public notice:

TOWN OF ROTTERDAM
NOTICE OF HEARING

PLEASE TAKE NOTICE: That the Town Board of the Town of Rotterdam will hold a public hearing at the John F. Kirvin Government Center, Town Hall, 1100 Sunrise Boulevard, Rotterdam, New York 12306, at 7:00 p.m. on the 9th day of August, 2023 for the following purpose:

> To recognize the introduction of Introductory Local Law ___ of 2023; a Change of Zone request on ±10,645 square feet of ±14,575 square foot parcel (Lot 2) from Single Family Residential (R-1) to Retail Business (B-1), by Michael and Catherine McGuire. Applicants would like to potentially construct a two-family residence. Property is known as 2917 Hamburg Street and is a portion of Tax Map No. 59.19-1-4.1.

BY ORDER OF THE ROTTERDAM TOWN BOARD
DIANE M. MARCO, TOWN CLERK

DATED: July 5, 2023
Daily Gazette: Please publish once on July 9, 2023
Town Clerk
Post

SECTION 3. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

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At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 234.23

TO NEGOTIATE AND EXECUTE AN AGREEMENT WITH WEBINSTINCT TO UPGRADE AND HOST WEBSITE SERVICES TO THE TOWN

THEREFORE, UPON MOTION OF Councilmember **CHRISTOU**, seconded by Supervisor **COLLINS**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Town Supervisor to negotiate and execute an agreement with Webinstinct, located at P.O. Box 357, Saratoga Springs, NY 12866, for website building and hosting services for a one-time setup fee not to exceed twenty-two thousand eight hundred and 00/100 ($22,800.00) dollars, and an annual maintenance fee not to exceed six hundred and 00/100 ($600.00) dollars.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

TOWN OF ROTTERDAM
Office of the Town Clerk
Schenectady County, NY

Diane M. Marco

Diane M. Marco, Town Clerk

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 235.23

TO NEGOTIATE AND EXECUTE AN AGREEMENT WITH BARTON & LOGUDICE FOR A TRUNK SEWER ACCESS IMPROVEMENTS PROJECT

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute an agreement with Barton & Loguidice, located at 10 Airline Drive, Suite 200, Albany, New York 12205, for professional engineering services for a trunk sewer access improvement project from above Summer Street to Myrtle Avenue along the southwest side of the Davidge Gatt on the Town of Rotterdam/City of Schenectady boundary, in an amount not to exceed eighty seven thousand, five hundred and 00/100 ($87,500.00) dollars.

SECTION 2. This resolution shall become effective on July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

TOWN OF ROTTERDAM Schenectady, County NY

Diane M. Marco

Diane M. Marco, Town Clerk

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 236.23

TO AUTHORIZE THE SUPERVISOR TO EXECUTE AND SIGN A MEMORANDUM OF AGREEMENT WITH THE ROTTERDAM PATROLMEN'S BENEVOLENT ASSOCIATION INC.

THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **MASTROIANNI,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to execute and sign a memorandum of agreement between the Town of Rotterdam and the Rotterdam Patrolmen's Benevolent Association Inc.

SECTION 2. This resolution shall become effective July 5, 2023

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

TOWN OF ROTTERDAM
Schenectady, County NY

Diane M. Marco

Diane M. Marco, Town Clerk

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 5, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 237.23

RESOLUTION FOR AN AUDIT OF THE NEW YORK STATE 2022 GENERAL ELECTION

WHEREAS, It is a recognized civil right in the United State for every citizen to have free and fair elections. "And the right of suffrage can be denied by a debasement or dilution of the weight of a citizen's vote just as effectively as by wholly prohibiting the free exercise of the franchise." (Reynolds v. Sims, 377 U.S. 533 (19964))

WHEREAS, It is the affirmative duty of our election officials to comply with all Federal and State laws governing administration and procedure of our elections, thereby guaranteeing our elections are accurate and free of distortion or manipulation.

WHEREAS, Our constitutional system of representative government only works when the worth of honest ballots is not diluted by invalid ballots procured by corruption, and assuring accuracy can only be achieved through the operational integrity of our elections, as defined by those laws governing the following five processes:

1. Rigorous Verification of Voter Identity.
2. Proven Ballot Security and Intact Chain of Custody.
3. Voting Systems Certified to be Secure from Operational, Physical and Cyber Threats.
4. Meets All FISMA and State Operational and Risk Assessment Requirements.
5. Meets Auditability and Traceability Requirements and Operational Policy.

WHEREAS, An open-source audit of the New York State 2020 General Election conducted by New York Citizens Audit has uncovered evidence of massive inaccuracies that violate both Federal and State laws, including

- **2,427,827** NYSVoter ID numbers attached to **1,170,790** registrants.
- **740,396** ineligible votes cast Statewide.
- **338,356** more votes cast than voters who voted.
- **987,490** voters who registered on January 1st from 1900 to 2021.
- **1.9M** registrations in the state voter rolls missing from the county rolls.
- **625,359** more registrations than voting-age citizens in six counties alone.
- **195,271** votes cast in New York City that went missing in the NYSVoter database.
- **1,000,000+** felony violations of New York State Election Law.

- **95** State and Federal legislative races impacted by **740,396** ineligible votes.
- Abandoned ballots and ballot payment schemes.
- Certification as defined by law was provably fraudulent and illegal.

WHEREAS, These findings trample accuracy requirements of voting systems for a Federal Election, wherein the system shall achieve a target error rate of no more than one in 10,000,000 ballot positions. For a voting system, accuracy is defined as the ability of the system to capture, record, store, consolidate and report the specific selections and absence of selections, made by the voter for each ballot position without error.

WHEREAS, It must be known factually, and provably, that the intent of the voters is accurately represented by election results before certification can be lawfully conducted. Certification of an election that varies from the law is an abridgement of the civil rights of the citizens, a Fraud ab Initio (United States v. Throckmorton, 98 U.S. 61 (1878)).

WHEREAS, State and Federal Officials have met the efforts of New York Citizens Audit to seek redress for these egregious violations with indifference and inaction, including the Attorney General, Secretary of State, State Board of Elections, Inspector General, Federal Bureau of Investigations, State Leadership of Democrat and Republican parties, County Election Officials, Sheriffs, District Attorneys, and others.

WHEREAS, None of these violations were addressed prior to the administration and certification of the 2022 General Election, and there prevails a spirit of extreme contention and zero trust between people of differing political ideologies across New York, which is destructive to our families, our way of life, and the fabric of these United States.

WHEREAS, We call upon our Representatives including Town Board Members, County Legislators, State Legislators, Federal Legislators, Law Enforcement, Federal and State Prosecutors, and Judges to provide relief to the people, and the assurance of domestic tranquility, through the fulfilment of each of the following firm requests:

1. A complete end-to-end audit of the New York State 2022 General Election, for both paper and electronic records, including ballots, by a mutually agreed upon external, third-party bonded auditing firm, possessed of adequate insurance and indemnification for the handling and protection of the personal identifying information of million of New York citizens, in order to determine the true error rate. This audit will provide a comprehensive report and analysis of all lapses and errors with explanation of cause where it can be determined.
2. The enactment of legislation defining a mutually agreed upon process by which an end-to-end audit would be triggered in any future elections.
3. The enactment of legislation defining a mutually agreed upon accuracy rate for the NYSVoter and County voter roll databases.

4. The enactment of legislation allowing for anonymous vote verification and tracking by the voter (open-source, royalty-free patent pending), including automatic mechanisms to report and remedy errors during the canvass period following an election, regardless of ballot entry source.
5. Criminalize election misconduct explicitly with regard to State Election Law, and increase penalties to reflect the societal and generational harms inflicted by these crimes.

THEREFORE, UPON MOTION OF Councilmember **MASTROIANNI**, seconded by Councilmember **DODSON**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. That the Town Board of Rotterdam, NY stands in support with the concerns and remedies presented here. We implore the Schenectady County Legislature, NYS Legislature, Federal Legislators, Law Enforcement, Federal and State Prosecutors, Judges, and both State and County Boards of Elections to cooperate and fulfill these firms requests of the people.

SECTION 2. This resolution shall become effective July 5, 2023.

DATED: July 5, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera **(Absent)**			
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on July 5, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 7, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

RESOLUTION NO. 245.23

TO ACCEPT TOWN BOARD SPECIAL MEETING MINUTES OF JULY 24, 2023

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby adopts the minutes of the July 24, 2023 Town Board special meeting as attached.

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE: **August 2, 2023**
TO**:** Mollie A. Collins, Supervisor

FROM: Diane M. Marco, Town Clerk

TITLE OF LEGISLATIVE REQUEST: To adopt meeting minutes from the **July 24, 2023 Town Board Special Meeting.**

TO BE PLACED ON TOWN BOARD AGENDA OF: **August 9, 2023.**

TO BE PLACED ON TOWN BOARD MEETING OF: **August 9, 2023.**

Background Information: Attached. To adopt the meeting minutes from the **August 9, 2023 Town Board Meeting.**

Evaluation/Analysis: N/A

Recommendation(s): To place on Town Board agenda and Town Board meeting of **August 9, 2023.**

Attachment/Document(s): Attached

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): N/A

LEGISLATION WAS PREPARED BY: Town Clerk Diane M. Marco

TOWN OF ROTTERDAM

DIANE M. MARCO
Town Clerk

John F. Kirvin Government Center * 1100 Sunrise Boulevard * Rotterdam, NY 12306
Telephone: (518) 355-7575 Ext: 352 * Fax: (518)355-7837* Website: www.rotterdamny.org
Email * dmarco@rotterdamny.org

July 27, 2023

Certified Resolutions: #238.23-#241.23 for the year 2023 was duly adopted at the Town Board Special Meeting held at the J.F. Kirvin Government Center, 1100 Sunrise Boulevard, Rotterdam, NY 12306 on Wednesday, July 24, 2023 at 7:00 p.m. Motion #22 was made by Councilmember Mastroianni there was no second for the motion the motion failed. Motion #23 was made by Councilmember Dodson and seconded by Councilmember Mastroianni motion passed. The Town Board Meeting was adjourned at approximately 9:22 p.m. by Councilmember Christou and seconded by Councilmember Mastroianni. All agreed to adjourn the Town Board Meeting.

All Councilmembers were present

Diane M. Marco

Diane M. Marco, Town Clerk

Town of Rotterdam

1100 Sunrise Boulevard

Special Meeting Monday, July 24, 2023 7:00pm

Purpose: Discussions of the Super 8 Hotel Asylum Seekers, and for any other purpose as may come before the Town Board.

BY ORDER OF THE
ROTTERDAM TOWN BOARD

Diane M. Marco, Town Clerk

The Town of Rotterdam Town Board Meeting will be held in person; however, the public may access the meeting electronically via Zoom conference call. Members of the public may listen to the board meeting by dialing ***1 (929) 205-6099****(followed by the pound symbol) or by logging into Zoom.com, then enter the conference* ***ID NO. 867 0373 0307****. Video of the town board meeting will be posted on the Town of Rotterdam website (www.rotterdamny.org) the following Friday after the meeting.*

MEETING OF THE ROTTERDAM TOWN BOARD

July 24, 2023
7:00 PM

CALL TO ORDER
ROLL CALL
PLEDGE OF ALLEGIANCE
SUPERVISOR'S REMARKS: Supervisor Mollie A. Collins

- Discussion regarding the Asylum Seekers residing at the Super 8 Hotel

EXECUTIVE SESSION
PROCLAMATIONS/PRESENTATIONS
PUBLIC HEARING PUBLIC COMMENT – PRIVILEGE OF THE FLOOR:

Those members of the public wishing to address the Town Board will be asked to sign in before the meeting is called to order on the sign-in sheets being provided. Speakers will be called to the podium in the order of their signing in. Persons recognized by the Chair to speak during privilege of the floor shall direct his/her comments to the Town Supervisor as Chair of the meeting. Persons granted the privilege of the floor shall first clearly state his/her name and address for the record. Persons so addressing the Chair through the use of a prepared written statement shall submit a copy of the same to the Town Clerk for the purpose of maintaining clear and accurate official minutes of the Town Board meeting.

GENERAL RULES OF PROCEDURE FOR PUBLIC HEARINGS & PRIVILEGE OF THE FLOOR:

Any person recognized by the Town Supervisor to speak during privilege of the floor shall direct his/her comments to the Town Supervisor as chair of the meeting. Any person granted the privilege of the floor shall first clearly state his/her name and address for the record. The purpose of privilege of the floor shall be for speakers to express their views, thoughts and speak freely. Each speaker, who wishes to address the town board, shall have an equal and reasonable opportunity to be heard by the town board. Each speaker shall be afforded a maximum of four (4) minutes to address the town board.

INTRODUCTION OF MOTIONS, ORDERS AND RESOLUTIONS
RESOLUTIONS

MOTIONS:

22.23 To vote on resolution 238.23 out of order.

23.23 To add resolution 241.23 to agenda.

RESOLUTIONS:

238.23 Calling on Schenectady County to pause any further migration into the county by declaring a state of emergency.

239.23 To declare lead agency for SEQR review for the change of zone from single family residential (R-1) to retail business (B-1) on a portion of tax parcel #59.19-1-4.1 known as 2917 Hamburg Street.

240.23 To authorize an emergency purchase and installation of a Hydra-Stop Insta Valve to the Curry Road water main.

241.23 To recognize the introduction of local law no.___ of 2023; to amend Chapter 150, hawking, peddling and soliciting and scheduling a public hearing thereon

LIAISON REPORTS
MISCELLANEOUS
EXECUTIVE SESSION
ADJOURNMENT

Mollie A. Collins, Supervisor

MOTION 22.23

At the Special public meeting of the Town Board of the Town of Rotterdam, held at the J.F. Kirvin Government Center, 1100 Sunrise Boulevard, Rotterdam, NY 12306 on Wednesday, July 24, 2023, at 7:00 p.m., the following motion **FAILED**:

THEREFORE, UPON MOTION OF Councilmember **MASTROIANNI,** there was no second,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Madam Supervisor point of order can I request that we vote on the resolution 238.23 out of order.

SECTION 2. This motion shall become effective July 24, 2023.

DATED: July 24, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

MOTION FAILED

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, DO HEREBY CERTIFY that the foregoing motion **FAILED** by the Town Board of the Town of Rotterdam on July 24, 2023, and that the foregoing motion is a true and correct transcript of the original motion and of the whole thereof and that said motion is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 27, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of the Town Clerk
Schenectady, County NY

MOTION 23.23

At the Special meeting of the Town Board of the Town of Rotterdam, held at the J.F. Kirvin Government Center, 1100 Sunrise Boulevard, Rotterdam, NY 12306 on Wednesday, July 24, 2023, at 7:00 p.m., the following motion passed:

THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **MASTROIANNI,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. I make a motion to add resolution 241.23 to the agenda.

SECTION 2. This motion shall become effective July 24, 2023.

DATED: July 24, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera	X		
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, DO HEREBY CERTIFY that the foregoing motion passed by the Town Board of the Town of Rotterdam on July 24, 2023, and that the foregoing motion is a true and correct transcript of the original motion and of the whole thereof and that said motion is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 27, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of the Town Clerk
Schenectady, County, NY

At the Special public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 24, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 238.23

CALLING ON SCHENECTADY COUNTY TO PAUSE ANY FURTHER MIGRATION INTO THE COUNTY BY DECLARING A STATE OF EMERGENCY

WHEREAS, the Rotterdam Town Board supports legal and safe immigration into the United States and rightfully encourages people from all over the world to seek legal United States citizenship; and

WHEREAS, the Rotterdam Town Board acknowledges and applauds this country's long history of legal immigration and celebrates the contributions that millions of legal immigrants have made to help build this nation; and

WHEREAS, the failed leadership of the Biden administration regarding US border security has created a human rights crisis at the border; and

WHEREAS, this self-created federal crisis has left the nation as a whole, and the states, counties, cities, and all local governments, unprepared and unable to handle the overwhelming volume of migrants into our communities; and

WHEREAS, the federal, state, and county governments have failed to provide a policy or any plan or strategy to deal with this crisis, and have failed to communicate with local governments; and

WHEREAS, the City of New York and State of New York continue to shift the burden to local governments in communities across upstate New York; and

WHEREAS, the local governments across the county do not have the capacity or resources to receive and sustain the influx of migrants under these circumstances; NOW

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam does hereby call upon the County of Schenectady to pause any further migration into the county by declaring a state of emergency that would prohibit the mass relocation of migrants, as described above, to any community within the county.

SECTION 2. Furthermore, forbid any municipality, persons, businesses, or entities within the county to partake in the transportation and/or housing of any migrants without a license issued by the county and the local government in which the migrant is seeking housing.

SECTION 3. Furthermore, immediately constitute a task force to develop strategies to properly plan for such influx, with such task force made up of the county manager, the county sheriff, the director of the county health department, the chief elected official from each municipality within the county, and the police chief from each municipality within the county.

SECTION 4. Furthermore, the task force is to meet monthly for the purpose of developing strategies, attracting resources and facilitating communications between all levels of government and to prepare and publish a plan to deal with the migrant crisis.

SECTION 5. This resolution shall become effective July 24, 2023.

DATED: July 24, 2023

NAME	AYES	NOES	ABSTAIN
Christou	**X**		
Miller-Herrera	X		
Dodson	**X**		
Mastroianni	**X**		
Collins	**X**		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam Special Meeting on July 24, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board received the Special meeting notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 27, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY
Office of the Town Clerk
Schenectady, County

At the Special public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 24, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 239.23

TO DECLARE LEAD AGENCY FOR SEQR REVIEW FOR THE CHANGE OF ZONE FROM SINGLE FAMILY RESIDENTIAL (R-1) TO RETAIL BUSINESS (B-1) ON A PORTION OF TAX PARCEL #59.19-1-4.1 KNOWN AS 2917 HAMBURG STREET

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **CHRISTOU**,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby declares the Town Board as Lead Agency under 6NYCRR Part 617 SEQR (State Environmental Quality Review) in connection to the proposed change of zone from Single Family Residential (R-1) to Retail Business (B-1) request by Michael and Catherine McGuire, on ±10,645 square feet of ±14,575 square foot parcel (Lot 2). Property is known as 2917 Hamburg Street and is a portion of Tax Map No. 59.19-1-4.1.

SECTION 2. The Town Board of the Town of Rotterdam hereby authorizes the Town Planner to prepare, file, publish, and distribute all documents as necessary to comply with 6NYCRR Part 617 SEQR.

SECTION 3. This resolution shall become effective July 24, 2023.

DATED: July 24, 2023

NAME	AYES	NOES	ABSTAIN
Christou	**X**		
Miller-Herrera	X		
Dodson	**X**		
Mastroianni	**X**		
Collins	**X**		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam Special Meeting on July 24, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board received the Special meeting notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 27, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

At the Special public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 24, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 240.23

TO AUTHORIZE AN EMERGENCY PURCHASE AND INSTALLATION OF A HYDRA-STOP INSTA VALVE TO THE CURRY ROAD WATER MAIN

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **CHRISTOU,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute an agreement with Rangeline Group located at 7256 Westport Place Suite A, West Palm Beach, Florida 33413, for the purchase & installation of Hydra-Stop Insta Valve to the Curry Road water main, in an amount not to exceed fifty-nine thousand nine hundred sixty and 00/100 ($59,960.00) dollars.

SECTION 2. This resolution shall become effective July 24, 2023.

DATED: July 24, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera	X		
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam Special Meeting on July 24, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board received the Special meeting notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 27, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM NY Office of the Town Clerk Schenectady County

At the Special public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, July 24, 2023, at 7:00 p.m., the following resolution was duly adopted:

RESOLUTION NO. 241.23

TO RECOGNIZE THE INTRODUCTION OF LOCAL LAW NO.___ OF 2023; TO AMEND CHAPTER 150, HAWKING, PEDDLING AND SOLICITING AND SCHEDULING A PUBLIC HEARING THEREON

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Supervisor **COLLINS**,
BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board hereby recognizes the introduction of Introductory Local Law No. ____ of 2023; to amend Chapter 150, Hawking, Peddling, and Soliciting, of the Town Code of the Town of Rotterdam.

SECTION 2. The Town Clerk of the Town of Rotterdam is hereby directed to publish in the official newspaper of the Town of Rotterdam not less than ten (10) days prior to the date designated for the public hearing provided for by the following public notice:

TOWN OF ROTTERDAM
NOTICE OF HEARING

PLEASE TAKE NOTICE: That the Town Board of the Town of Rotterdam will hold a public hearing at the John F. Kirvin Government Center, Town Hall, 1100 Sunrise Boulevard, Rotterdam, New York 12306, at 7:00 p.m. on the 9th day of August, 2023 for the following purpose:

To recognize the introduction of Introductory Local Law ___ of 2023; to amend Chapter 150, Hawking, Peddling, and Soliciting, of the Town Code of the Town of Rotterdam.

BY ORDER OF THE ROTTERDAM TOWN BOARD
DIANE M. MARCO, TOWN CLERK

DATED: July 24, 2023
Daily Gazette: Please publish once on July 28, 2023
Town Clerk
Post

SECTION 3. This resolution shall become effective July 24, 2023.

DATED: July 24, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera	X		
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam Special Meeting on July 24, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board received the Special meeting notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this July 27, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM
Office of The Town Clerk
Schenectady, County NY

RESOLUTION NO. 246.23

TO APPOINT ALAN ALDI TO THE POSITION OF WASTEWATER TREATMENT PLANT MECHANIC

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Alan Aldi, of Schenectady, New York 12306, is hereby appointed to the position of Wastewater Treatment Plant Mechanic, full time, provisionally, with full employee benefits, and subject to pre-employment background checks, at an annual salary of fifty-five thousand four hundred ninety-one and 83/100 ($55,491.83) dollars, commencing August 14, 2023.

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE: August 4, 2023

TO: Mollie A. Collins, Town Supervisor

FROM: J. Keith, Sr. Building Inspector

TITLE OF REQUEST: Appoint Alan Aldi to Wastewater Treatment Plant Mechanic

TOWN BOARD MEETING: August 9, 2023

Background Information: Mr. Aldi has worked for the Town of Rotterdam for over 20 years.

Evaluation/Analysis: Mr. Aldi has worked as a Wastewater Treatment Plant Operator since 2004 and has extensive knowledge and experience running the Wastewater Treatment Plant. Mr. Aldi has a strong mechanical background and the ability to handle mechanical issues when they arise.

Recommendation(s): Recommend to appoint Alan Aldi to the position of Wastewater Treatment Plant Mechanic effective Monday, August 14, 2023.

Attachment/Document(s): See attached documents concerning experience and scope of duties.

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): N/A

LEGISLATION WILL BE PREPARED BY: Supervisors Office

Schenectady County is an Equal Opportunity Employer. Schenectady County does not unlawfully discriminate in employment because of age, race, creed, color, national origin, sex, sexual orientation, disability, marital status, arrest and/or criminal conviction record unless based on a bona fide occupational qualification or other exception, genetic predisposition, or domestic violence victim status.

Schenectady County

Human Resources & Civil Service
620 State Street
Schenectady, NY 12305-2114

APPLICATION FOR EXAMINATION OR EMPLOYMENT

FOR COUNTY OFFICES, TOWNS, VILLAGES, SCHOOL DISTRICTS LIBRARIES AND SPECIAL DISTRICTS

1. Waste Water Treatment Plant Mechanic
POSITION TITLE _____ EXAM NUMBER

Date Received _____ Approved _____

Conditional _____ Disapproved _____

RECEIVED
JUL 21 2023
Town of Rotterdam
SUPERVISORS OFFICE

CIVIL SERVICE DEPT. USE ONLY

This application is part of your examination. Answer all questions fully. A resume, if submitted, cannot substitute for the application. You are encouraged to read the General Conditions and Instructions for more information.

2. Name and Legal Residence

Aldi — Alan — C
Last Name — First Name — Middle Initial

[redacted]
Street Address or Road — R.D. # or P.O. Box #

Schenectady — Rotterdam — N.Y. — 12306
County — City, Town, Village — State — Zip

Home Phone Number — Cell Phone [redacted]

Email Address: [redacted]

If mailing address is different:

Street Address or Road — R.D. # or P.O. Box #

County — City, Town, Village — State — Zip

Social Security Number [redacted]

3. Police Officer & Firefighter Candidates Only:

Date of Birth (MM/DD/YYYY) [redacted]

4. Residency Requirements: Candidates must meet the Residency Requirements as stated on the examination announcement. You must complete the following to determine if you meet these residency requirements. Indicate how long this has been your legal residence, up to the date of this application, showing that you meet the residency requirements as announced.

	Name
State of:	New York
County of:	Schenectady
Village of:	
Town of:	Rotterdam
City of:	Schenectady
School District	Schalmont

[redacted]

5. Citizenship

A. Are you currently a U.S. Citizen? YES ☑ NO ☐

B. If not, do you have the legal right to accept Employment in the United States? YES ☐ NO ☐
Please give alien registration number: _____

C. Are you a retiree from New York State or any civil division thereof? YES ☐ NO ☑

6. Special Testing Arrangements (Refer to General Conditions and Instructions). If you need Special Accommodations to take the examination, contact the Civil Service Office at (518) 388-4233.

Religious ☐ **Military** ☐ **Disability** ☐

7. Crossfiler - If you have filed or are filing SEPARATE applications for Civil Service Examinations being held on the same date, attach the CROSSFILER APPLICATION. Call to make arrangements no later than two weeks before the test date.

8. Driver's License: Complete the following if a license to operate a motor vehicle is required for the position that you are applying.

License #:	[redacted]
Restrictions:	None
Expiration Date:	7/30/2026
Endorsements:	
Class of License:	D
Is this License Currently Valid	YES ☑ NO ☐

9. Veterans Credits: If you wish to apply for Veterans Credits, complete the following questions and complete the Application for Veterans Credits (Refer to General Conditions and Instructions).

	YES	NO
Have you ever served in the Armed Forces of the United States? *(The Armed Forces means the Army, Navy, Marine Corps, Air Force, and Coast Guard, including all components thereof and the National Guard when in the service of the US pursuant to call as provided by Law on a full-time active duty basis other than active duty for training purposes).*		✓
Have you ever used additional credits as a disabled or non-disabled veteran for appointment to any position in the public employment of New York State or any of its civil divisions?		✓
Do you have a service connected disability rated at 10% or more by the U.S. Department of Veterans Affairs? This disability must have been incurred during a Time of War period listed above.		✓
After you were permanently appointed using non-disabled veteran credits, were you subsequently certified as having a service connected disability rated at 10% or more by the U.S. Department of Veterans Affairs?		✓
Are you currently a resident of New York State?	✓	

10. Additional Questions: Check the appropriate box to the right of each question.

	YES	NO
Were you dismissed or discharged from any employment for reasons other than lack of work or funds?		✓
Did you ever resign from any employment rather than face dismissal?		✓
Did you ever receive a discharge from the Armed Forces of the United States which was other than "Honorable" or which was issued under the other than honorable circumstances?		✓
Have you ever been convicted of any crime (felony or misdemeanor)?		✓
Are you now under charges for any crime?		✓
Have you ever forfeited bail bond posted to guarantee your appearance in court to answer any criminal charge?		✓

If you answered yes to any of the above questions, you may give specifics below. If you elect not to provide specifics, or if such explanation is insufficient, you may be required to submit further information. None of the above circumstances represents an automatic bar to employment. Each case is considered and evaluated on individual merits in relation to the position (s) for which you are applying.

REMARKS:_____

11. Licenses: If a license, certificate or other authorization to practice a trade or profession is listed as a requirement on the announcement of the examination (s) for which you are applying.

Name of Trade or Profession:			Specialty:		
License Number:					
Granted by (Licensing Agency):			City/State		
Date License First Issued:		Registered From:		Registered To:	

12. Education: If credit is claimed for a partially completed college curriculum or correspondence course, attach a list of courses and credit or semester hours completed. Indicate how many credit hours or courses are required for graduation. If required to indicate specific course work, do so on an attached sheet.

High School	
Have you ever graduated from High School or do you have possession of a High School Equivalency Diploma?	YES ☑ NO ☐
If Yes, Name and Location of High School or Issuing Government Authority:	Schalmont High school, Rotterdam N.Y.
Equivalency Diploma Number:	

College, University, Professional or Technical School

Name of School	Number of College Credits	Degree Earned	Major Subject/ Courses	Did You Graduate? Yes	Did You Graduate? No	Date Degree Expected or Received
cobleskill college	26				✓	
Schdy county community college	28				✓	

13. Experience: All sections must be filled out completely even if you attach a resume. Begin with the most recent employment. List all employment or military service that shows that you meet the minimum qualifications for the examination. Omissions or vagueness will not be interpreted in your favor. Under *Description of Duties*, clearly describe the nature of work which you personally performed. Part-time experience will be prorated unless otherwise stated on the examination announcement. Verified and documented volunteer experience will only be credited when specifically stated on the examination announcement. *If you move to a different position within the same organization, indicate so in a separate employment box.* You may attach additional sheets if you need more space.

Length of Employment
From: [redacted]
To:

Employment Details
Your Exact Title: Waste Water treatment operator
Name of Your Supervisor: Jim Keith
Supervisor's Title: Head of Public Works
Hours worked / wk. (exclusive of overtime): 40/wk.
Reason for Leaving:

Firm Name: Town of Rotterdam
Firm Address: 1100 Sunrise Blvd. Rotterdam N.Y

Description of Duties:
my duties are to maintain and Keep Waste Water treatment Plant running. I inspect, maintain + repair all Pumps, gear drives, blowers, and mechanical equipment at Plant, + pump stations. I also service all trucks and equipment in the department. I also work water and sewer department on repairs and maintenance of water and sewer infastructure

Length of Employment
From: [redacted]
To:

Employment Details
Your Exact Title: Heavy Equipment Operato
Name of Your Supervisor: Josh Pive
Supervisor's Title: owner
Hours worked / wk. (exclusive of overtime): 40/wk.
Reason for Leaving: Town of Rotterdam Hired me

Firm Name: JRP Enterprises
Firm Address: 2 Huck court Guilderland N.Y.

Description of Duties:
my duties were run excavators, bull dozers, loaders, backhoes, skid steers, rollers on Job sites. I would also install water pipes, sewer pipes, storm sewer pipes. and any infastructure that needed to be dug + buried,

ALL STATEMENTS ARE SUBJECT TO VERIFICATION

Length of Employment	Firm Name:	Towne Construction and Paving
From: [redacted]	Firm Address:	Burdeck st Rotterdam N.Y
To: Month/Year (mm/yyyy)	Description of Duties:	my Duties were to grade and Pave Roads + parking lots
Employment Details		
Your Exact Title: Heavy Equipment operator - Fireman		
Name of Your Supervisor: Burt Andrioli		
Supervisor's Title: Burt Andrioli (owner)		
Hours worked / wk. (exclusive of overtime): 40		
Reason for Leaving		

Length of Employment	Firm Name:	
From:	Firm Address:	
To: Month/Year (mm/yyyy)	Description of Duties:	
Month/Year (mm/yyyy)		
Employment Details		
Your Exact Title		
Name of Your Supervisor		
Supervisor's Title		
Hours worked / wk. (exclusive of overtime)		
Reason for Leaving		

THIS AFFIRMATION MUST BE COMPLETED

I affirm, subject to the penalties of perjury, that the statements made in this application, including statements made in any accompanying papers, are true. I understand that all statements made by me in connection with this application are subject to investigation and verification and that a material misstatement or fraud may disqualify me from appointment and/or lead to revocation of my appointment. I give the employer the right to investigate all references and to secure additional job related information about me. I hereby release from liability the employer and its representatives for seeking such information and all other persons, corporations or organizations for furnishing such information. If the position I am applying for is covered by the employer's drug testing policy, I understand that as a condition of appointment to this position, I will be required to take and successfully pass a pre-employment drug test.

Alan Aldi — Signature of Applicant

Alan Aldi — Print Name

7-21-23 — Date

(State below any other name by which you have been known)

NOTICE
(As of July 10, 2023)

POSITION OPENING

In accordance with the Agreement between the Town of Rotterdam and the Town of Rotterdam Unit of the Schenectady County Chapter of the CSEA, Inc., the following position is open:

Wastewater Treatment Plant Mechanic

Compensation

Title		Salary Range
Wastewater Treatment Plant Mechanic	(2021)	$52,657.75 - $58,084.91

The above title is classified as a competitive position and does require a competitive examination under Civil Service Law.

Location:
Town of Rotterdam Department of Public Works

Qualifications:
See attached Civil Service Job Description.

Permanent appointment to positions in Schenectady County is contingent upon the successful completion of a criminal background check. All interested parties should complete and submit a standard Civil Service application form available on the Town's website at https://rotterdamny.org/blob/form-files.ashx?ID=2072. Application forms must be filed with the Town Supervisor's Office no later than close of business on **Monday, July 24, 2023**. Applications can be sent via USPS to Town of Rotterdam, Supervisor's Office, 1100 Sunrise Boulevard, Schenectady, New York 12306 or by email to Supervisor@rotterdamny.org.

The Town of Rotterdam is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin or any other protected class or category.

cc: **Town Supervisor**
Town Board
Town Clerk
Comptroller
CSEA President
All Departments

Post this notice in all Town Buildings and Departments

WASTEWATER TREATMENT PLANT MECHANIC (TOWN)

DISTINGUISHING FEATURES OF THE CLASS: This position exists in the Department of Public Works and involves the responsibility for inspecting, maintaining, repairing and installing mechanical, electromechanical, pneumatic and/or hydraulic equipment at the plant and/or sewage pump stations in a safe manner. The work is performed under the direct supervision of the Department Head for Public Works with leeway given for carrying out the details of the work. Does related work as required.

TYPICAL WORK ACTIVITIES:

- Inspects and performs mechanical, electrical, hydraulic or pneumatic troubleshooting to determine repairs needed regardless of complexity;
- Estimates time and material costs for assigned projects;
- Dismantles equipment to gain access to and repairs defective parts using hand tools, power tools and precision measuring and testing devices;
- May fabricate devices and assemblies from steel;
- May weld, thread pipe and solder using gas and electric equipment;
- Re-assembles and tests equipment ensuring safe and efficient operation condition is restored;
- Practices good housekeeping in assigned area and properly disposes of waste according to safety and environmental policies;
- Inspects flow meters, gauges, flow ratios, remote terminal units, telemetry systems, SCADA, pressures and related controls on instrument panels, computer terminals and programmable logic control units and diagnoses basis operational problems;
- Takes corrective action per procedure in assigned area;
- Verifies and reports suspected malfunctions and variances to supervisor;
- Performs facility maintenance and repair and may replace or install damaged glass, windows, doors, partitions, ceiling or floor tile, door locks, carpet and/or paint;
- Performs preventative maintenance, lubrication and minor adjustments on machines and related equipment which may include pumps, engines, centrifuges, generators, valves, gates, mixers, conveyors, blowers, dryers, chemical feed and odor control, vacuum filters and belt presses and related equipment at wastewater treatment plant and sewage pump stations.
- Promptly reports any operational problems with machines or equipment needing warranty or outside work to supervisor;
- Performs manual labor including cleaning equipment, facilities and grounds as required at treatment plant and sewage pump stations and properly disposes of waste according to safety and environmental policies;
- Operates vehicles for plant and sewage pump stations operational purposes;
- May assist with maintaining parts, spares and maintenance inventory;
- May assist in other areas of the plant and sewage pump stations as directed;
- May assist with orienting or training new or less experienced maintenance personnel;
- Performs call outs (24/7) for sewage pump station alarms, troubleshoots issues and implements corrective actions to place stations back in service.
- Solicits quotes from vendors to order new/replacement equipment pursuant to procurement policy.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES, AND PERSONAL CHARACTERISTICS: Mechanical aptitude with the ability to read, interpret, and record data from meters, gauges, panels, computer consoles and other equipment; ability to efficiently maintain, install and repair a variety of equipment which may include pumps, engines, generators, valves, gates, mixers, conveyors, blowers, chemical feed and odor control, disinfection equipment, vacuum filters and belt presses and related wastewater treatment pump station equipment; ability to use precision measuring devices, testing equipment and shop tools such as drill press, band saw, bench grinder and torque wrench; ability to inspect and diagnose process problems in multiple unit processes, troubleshoot mechanical, electro-mechanical, hydraulic or pneumatic equipment and take corrective action within policy and procedure limitations; ability to accurately estimate time and material costs for assigned projects; ability to read, write and comprehend English; proficiency in the care and use of all site specific, facility required PPE, including respirators, gas detectors, confined space equipment, etc.; ability to perform tasks in an accurate and timely manner; ability to operate computer software system; ability to work in a team environment.

MINIMUM QUALIFICATIONS:

Graduation from high school or possession of a high school equivalency diploma and two (2) years of experience as a mechanic or mechanical experience in a wastewater treatment/sewage pumping facility.

SPECIAL REQUIREMENTS: (AT THE TIME OF APPOINTMENT)

Possession of a valid New York State Driver's License and must maintain such license throughout duration of appointment.

Adopted
CSC 06/22/23

JC: COMPETITIVE

RESOLUTION NO. 247.23

TO ACCEPT REVENUE FOR TOWN CLERK'S OFFICE FOR JUNE AND JULY 2023

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Clerk's reports for the month of June 2023, and July 2023 have been placed on file and the town clerk's checks in the amount of eight thousand seven hundred fifteen 67/100 ($8,715.67) for June and for six thousand two hundred twenty six and 91/100 (6,226.91) for July have been placed on file submitted to the supervisor for deposit.

SECTION 2. This resolution shall become effective August 9, 2023

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE: **August 2, 2023**

TO: Mollie A. Collins, Supervisor

FROM: Diane M. Marco, Town Clerk

TITLE OF LEGISLATIVE REQUEST: Revenue received for **June $8,715.67 and July 2023 $6,226.91**in the Town Clerks office.

TO BE PLACED ON TOWN BOARD AGENDA OF: **August 9, 2023**

TO BE PLACED ON TOWN BOARD MEETING OF: **August 9, 2023**

Background Information: Attached

Evaluation/Analysis: Increase revenue for the Town.

Recommendation(s): To place on the Town Board Agenda and Town Board meeting of **August 9, 2023**

Attachment/Documents(s): Attached

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): N/A

LEGISLATION WAS PREPARED BY: Diane M. Marco, Town Clerk

Town Clerk Monthly Report
June 01, 2023 - June 30, 2023

Account Description	Fee Description	Account#	Qty	Local Share
Conservation	Conservation	A1255	18	45.29
			Sub-Total:	**$45.29**
Dog Licensing	Exempt Dog	A2544	3	0.00
Dog Licensing	Female, Spayed	A2544	135	1,890.00
Dog Licensing	Female, Unspayed	A2544	15	255.00
Dog Licensing	Male, Neutered	A2544	157	2,198.00
Dog Licensing	Male, Unneutered	A2544	23	391.00
Dog Licensing	Replacement Tags	A2544	2	6.00
			Sub-Total:	**$4,740.00**
Ez pass	Ez Pass	A1255	5	125.00
			Sub-Total:	**$125.00**
GENERAL LIC.	Junkyard Permit	A2545	5	2,500.00
			Sub-Total:	**$2,500.00**
Late Fees	Late Fee -Dog Renewal	A1550	31	310.00
			Sub-Total:	**$310.00**
Marriage Lic.	MARRIAGE LICENSE FEE	A1255	19	332.50
			Sub-Total:	**$332.50**
Misc	Impoundment Fees - Dogs	A1550	4	20.00
			Sub-Total:	**$20.00**
MISC. FEES	Boarding - Dog		2	20.00
MISC. FEES	Certified Copies	A1255	67	670.00
MISC. FEES	Insufficient Funds	A1255	1	20.00
	Redemption - Dog		1	250.88
			Sub-Total:	**$960.88**
PERMIT FEES	Garage Sale	A2590	76	380.00
			Sub-Total:	**$380.00**
Senior Discount	Senior Discount	A2544	89	-883.00
			Sub-Total:	**-$883.00**
Taxicab License	Taxi	A2545	3	175.00
			Sub-Total:	**$175.00**
Town Portion	Games Chance Permits	A2530	1	10.00
			Sub-Total:	**$10.00**

Town Clerk Monthly Report
June 01, 2023 - June 30, 2023

Account Description	Fee Description	Account#	Qty	Local Share
		Total Local Shares Remitted:		**$8,715.67**
Amount paid to:	NYS Ag. & Markets for spay/neuter program			406.00
Amount paid to:	NYS Environmental Conservation			734.71
Amount paid to:	State Comptroller for Games of Chance			15.00
Amount paid to:	State Health Dept. For Marriage Licenses			427.50
Total State, County & Local Revenues:	**$10,298.88**	**Total Non-Local Revenues:**		**$1,583.21**

To the Supervisor:
Pursuant to Section 27, Sub 1, of the Town Law, I hereby certify that the foregoing is a full and true statement of all fees and monies received by me, Diane M. Marco, Town Clerk, Town of Rotterdam during the period stated above, in connection with my office, excepting only such fees and monies, the application of which are otherwise provided for by law.

Mollie A. Collins — Supervisor — 7/3/2023 — Date

Diane M. Marco — Town Clerk — 7/3/2023 — Date

Monthly Worksheet of Daily Work
June 2023

DATE	AMOUNT DEPOSITED	DEC LICENSE SALES	DEC PORTION	TOWN PORTION	DOG AMOUNT PAID	STATE AG MKTS PORTION	TOWN PORTION	MARRIAGE FEE PAID	STATE DOH PORTION	TOWN PORTION	Total Rec Games of Chance	BINGO GAMES CHANCE	TOWN PORTION	EZ PASS
6/1/2023	$1,255.00	$25.00	$23.62	$1.38	$205.00	$22.00	$183.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6/2/2023	$2,096.00	$180.00	$169.33	$10.67	$361.00	$33.00	$328.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
6/5/2023	$695.00	$80.00	$75.58	$4.42	$395.00	$36.00	$359.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$50.00
6/6/2023	$305.00	$80.00	$75.58	$4.42	$125.00	$11.00	$114.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
6/7/2023	$271.00	$25.00	$23.62	$1.38	$201.00	$23.00	$178.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6/8/2023	$495.00	$0.00	$0.00	$0.00	$175.00	$16.00	$159.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
6/9/2023	$185.00	$5.00	$4.72	$0.28	$160.00	$16.00	$144.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6/12/2023	$600.88	$0.00	$0.00	$0.00	$195.00	$20.00	$175.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
6/13/2023	$235.00	$75.00	$70.12	$4.88	$35.00	$3.00	$32.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
6/14/2023	$445.00	$55.00	$51.24	$3.76	$155.00	$15.00	$140.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
6/15/2023	$303.00	$0.00	$0.00	$0.00	$163.00	$20.00	$143.00	$80.00	$45.00	$35.00	$0.00	$0.00	$0.00	$50.00
6/16/2023	$312.00	$30.00	$28.34	$1.66	$157.00	$17.00	$140.00	$80.00	$45.00	$35.00	$0.00	$0.00	$0.00	$0.00
6/20/2023	$295.00	$25.00	$23.62	$1.38	$185.00	$17.00	$168.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$25.00
6/21/2023	$200.00	$5.00	$4.72	$0.28	$165.00	$15.00	$150.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6/22/2023	$275.00	$35.00	$33.06	$1.94	$150.00	$12.00	$138.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
6/23/2023	$416.00	$75.00	$70.86	$4.14	$216.00	$18.00	$198.00	$120.00	$67.50	$52.50	$0.00	$0.00	$0.00	$0.00
6/26/2023	$426.00	$10.00	$9.44	$0.56	$236.00	$24.00	$212.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6/27/2023	$325.00	$25.00	$23.62	$1.38	$190.00	$14.00	$176.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
6/28/2023	$405.00	$0.00	$0.00	$0.00	$225.00	$22.00	$203.00	$80.00	$45.00	$35.00	$25.00	$15.00	$10.00	$0.00
6/29/2023	$141.00	$0.00	$23.62	$1.38	$106.00	$11.00	$95.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6/30/2023	$618.00	$25.00	$23.62	$1.38	$463.00	$41.00	$422.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
Audited by dmm 6/30/2023	**$10,298.88**	$755.00	**$734.71**	**$45.29**	$4,263.00	**$406.00**	**$3,857.00**	$760.00	**$427.50**	**$332.50**	$25.00	**$15.00**	**$10.00**	**$125.00**

THE RED THERMO SECURED "SP" LOGO IN THE LOWER CORNER OF THIS CHECK MUST FADE TEMPORARILY WHEN WARMED BY TOUCH OR FRICTION. SEE BACK FOR ADDITIONAL FEATURI

TOWN OF ROTTERDAM
TOWN CLERK ACCOUNT
1100 SUNRISE BLVD
ROTTERDAM, NY 12306

DATE July 3, 2023 2911
29-7/213

PAY TO THE ORDER OF Mollie Collins Supervisor $ 8,715.67

Eight Thousand seven Hundred fifteen and 67/100 DOLLARS

KeyBank
KeyBank National Association

MEMO Revenue for June

David M. Miller
Town Clerk

Mobile Deposit Site

JB-3920167

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148

August 9, 2023

Town Clerk Monthly Report
July 01, 2023 - July 31, 2023

Account Description	Fee Description	Account#	Qty	Local Share
Conservation	Conservation	A1255	13	17.72
			Sub-Total:	**$17.72**
Dog Licensing	Exempt Dog	A2544	3	0.00
Dog Licensing	Female, Spayed	A2544	123	1,722.00
Dog Licensing	Female, Unspayed	A2544	11	187.00
Dog Licensing	Male, Neutered	A2544	133	1,862.00
Dog Licensing	Male, Unneutered	A2544	17	289.00
			Sub-Total:	**$4,060.00**
Fireworks	Fire Works	A2545	1	100.00
			Sub-Total:	**$100.00**
Late Fees	Late Fee -Dog Renewal	A1550	57	570.00
			Sub-Total:	**$570.00**
Marriage Lic.	MARRIAGE LICENSE FEE	A1255	14	245.00
			Sub-Total:	**$245.00**
Misc	Impoundment Fees - Dogs	A1550	1	10.00
	Misc		5	180.24
			Sub-Total:	**$190.24**
MISC. FEES	Adoption - Dog		1	0.00
MISC. FEES	Certified Copies	A1255	77	770.00
	Redemption - Dog		2	128.95
			Sub-Total:	**$898.95**
PERMIT FEES	Garage Sale	A2590	60	300.00
			Sub-Total:	**$300.00**
Senior Discount	Senior Discount	A2544	61	-605.00
			Sub-Total:	**-$605.00**
Soliciting	Soliciting Hawking Peddler		7	450.00
			Sub-Total:	**$450.00**
			Total Local Shares Remitted:	**$6,226.91**

Amount paid to:	NYS Ag. & Markets for spay/neuter program	340.00
Amount paid to:	NYS Environmental Conservation	302.28
Amount paid to:	State Health Dept. For Marriage Licenses	315.00

Total State, County & Local Revenues: $7,184.19

Total Non-Local Revenues: $957.28

To the Supervisor:
Pursuant to Section 27, Sub 1, of the Town Law, I hereby certify that the foregoing is a full and true statement of all fees and monies received by me, Diane M. Marco, Town Clerk, Town of Rotterdam during the period stated above, in connection with my office, excepting only such fees and monies, the application of which are otherwise provided for by law.

Mollie A Collins — Supervisor — 8/1/2023 — Date

Diane M. Marco — Town Clerk — 8/1/2023 — Date

Monthly Worksheet of Daily Work
July 2023

DATE	AMOUNT DEPOSITED	DEC LICENSE SALES	DEC PORTION	TOWN PORTION	DOG AMOUNT PAID	STATE AG MKTS PORTION	TOWN PORTION	MARRIAGE FEE PAID	STATE DOH PORTION	TOWN PORTION	Games of Chance to town 3%	STATE BINGO GAMES CHANCE	TOWN PORTION	EZ PASS
7/3/2023	$526.00	$35.00	$33.06	$1.94	$441.00	$38.00	$403.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7/5/2023	$340.00	$35.00	$33.06	$1.94	$265.00	$28.00	$237.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7/6/2023	$435.00	$25.00	$23.62	$1.38	$230.00	$17.00	$213.00	$80.00	$45.00	$35.00	$0.00	$0.00	$0.00	$0.00
7/7/2023	$420.00	$0.00	$0.00	$0.00	$305.00	$27.00	$278.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
7/10/2023	$520.00	$50.00	$47.24	$2.76	$330.00	$28.00	$302.00	$80.00	$45.00	$35.00	$0.00	$0.00	$0.00	$0.00
7/11/2023	$252.29	$20.00	$18.88	$1.12	$185.00	$16.00	$169.00	$0.00	$0.00	$0.00	$37.29	$0.00	$0.00	$0.00
7/12/2023	$165.00	$0.00	$0.00	$0.00	$105.00	$9.00	$96.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7/13/2023	$280.00	$0.00	$0.00	$0.00	$160.00	$14.00	$146.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
7/14/2023	$174.15	$10.00	$9.44	$0.56	$90.00	$9.00	$81.00	$0.00	$0.00	$0.00	$54.15	$0.00	$0.00	$0.00
7/17/2023	$420.00	$25.00	$23.62	$1.38	$65.00	$5.00	$60.00	$80.00	$45.00	$35.00	$0.00	$0.00	$0.00	$0.00
7/18/2023	$376.00	$25.00	$23.62	$1.38	$261.00	$26.00	$235.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
7/19/2023	$150.00	$5.00	$4.72	$0.28	$105.00	$9.00	$96.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7/20/2023	$631.00	$0.00	$0.00	$0.00	$126.00	$14.00	$112.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7/21/2023	$428.38	$5.00	$4.72	$0.28	$270.00	$27.00	$243.00	$40.00	$22.50	$17.50	$43.38	$0.00	$0.00	$0.00
7/24/2023	$325.00	$50.00	$47.24	$2.76	$160.00	$15.00	$145.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7/25/2023	$327.00	$25.00	$23.62	$1.38	$117.00	$13.00	$104.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7/26/2023	$195.00	$10.00	$9.44	$0.56	$80.00	$6.00	$74.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
7/27/2023	$355.00	$0.00	$0.00	$0.00	$45.00	$3.00	$42.00	$40.00	$22.50	$17.50	$0.00	$0.00	$0.00	$0.00
7/28/2023	$267.04	$0.00	$0.00	$0.00	$170.00	$13.00	$157.00	$0.00	$0.00	$0.00	$32.04	$0.00	$0.00	$0.00
7/31/2023	$597.33	$0.00	$0.00	$0.00	$285.00	$23.00	$262.00	$80.00	$45.00	$35.00	$13.38	$0.00	$0.00	$0.00
Audited by dmm 7/31/2023	**$7,184.19**	$320.00	**$302.28**	**$17.72**	$3,795.00	**$340.00**	**$3,455.00**	$560.00	**$315.00**	**$245.00**	**$180.24**	**$0.00**	**$0.00**	**$0.00**

THE RED THERMO SECURED "SP" LOGO IN THE LOWER CORNER OF THIS CHECK MUST FADE TEMPORARILY WHEN WARMED BY TOUCH OR FRICTION. SEE BACK FOR ADDITIONAL FEATURES.

TOWN OF ROTTERDAM
TOWN CLERK ACCOUNT
1100 SUNRISE BLVD
ROTTERDAM, NY 12306

DATE August 1, 2023

2915

29-7/213

PAY TO THE ORDER OF Mollie Collins Superman

$ 6026.91

Six thousand two hundred twenty six 91/100 DOLLARS

KeyBank

KeyBank National Association

MEMO July Revenue

Dolly M. Mayo
Town Clerk

Mobile Deposit Safe Details on back

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RESOLUTION NO. 248.23

TO APPROVE BUDGET TRANSFERS OF GAS AND DIESEL TO THE 2023 BUDGET

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Pursuant to Section 36 of the General Municipal Law of the State of New York and Sections 102, 112 and 113 of Town Law of the State of New York, regarding the Uniform System of Accounts, the following **GAS** transfers to the various accounts for 2023 are hereby audited and approved:

Fund	*Account No.*		*Title*	*Amount*
General	A3120 4302	FROM:	Patrol Vehicle Gas	-22,218.21
General	A3310 4302	FROM:	Traffic Control Gas	-584.01
General	A3620 4302	FROM:	Safety Insp Gas	-1,075.10
General	A7110 4302	FROM:	Parks Gas	-2,310.70
General	A3410 4302	FROM:	Fire Fight Gas	-2,717.21
General	A5132 4304	INTO:	Central Gas Expenditure	+28,905.23
Highway	DA5142 4304	FROM:	Fuel Snow Removal	-1,578.57
Highway	DA5140 4304	FROM:	Fuel Brush & Weed	-3,339.44
General	A5132 4304	INTO:	Central Gas Expenditure	+4,918.01
S2	S28120 4302	FROM:	S2 Gas Oil Lube	-1,852.88
General	A5132 4304	INTO:	Central Gas Expenditure	+1,852.88
W5	W58340 4302	FROM:	W5 Gas Oil Lube	-2,186.12
General	A5132 4304	INTO:	Central Gas Expenditure	+2,186.12

SECTION 2. . Pursuant to Section 36 of the General Municipal Law of the State of New York and Sections 102, 112 and 113 of Town Law of the State of New York, regarding the Uniform System of Accounts, the following **DIESEL** transfers to the various accounts for 2023 are hereby audited and approved:

Fund	*Account No.*		*Title*	*Amount*
General	A8189 4302	FROM:	Landfill Gas	-966.90
General	A3410 4302	FROM:	Fire Fight Gas	-2,025.81
Highway	DA5148 4304	INTO:	Central Diesel Expenditure	+2,992.71
Highway	DA5142 4304	FROM:	Fuel Snow Removal	-7,018.16
Highway	DA5140 4304	FROM:	Fuel Brush & Weed	-11,602.97
Highway	A5132 4304	INTO:	Central Diesel Expenditure	+18,621.13

TOWN OF ROTTERDAM

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LEGISLATIVE REQUEST FORM

DATE: **July 26, 2023**

TO: **Mollie A. Collins, Supervisor**

FROM: **Comptroller's Office**

TITLE OF REQUEST: To approve budget transfers to the 2023 budget.

TOWN BOARD MEETING: To be placed on the Town Board Meeting of August 9, 2023

Background Information: Budget transfers for Highway Gas and Diesel are needed to correct lines.

Evaluation/Analysis: Lines with expenditures currently being appropriated to them need to be funded properly and budget transfers need to be made in order to do so.

Recommendation(s): To be placed on the Town Board meeting of August 9, 2023 and approve the transfer.

Attachment/Document(s): N/A

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): Town Law 102, 113 & 113

LEGISLATION WILL BE PREPARED BY: Supervisor's Office

RESOLUTION NO. 249.23

TO APPROVE BUDGET TRANSFERS TO THE 2023 BUDGET

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Pursuant to Section 36 of the General Municipal Law of the State of New York and Sections 102, 112 and 113 of Town Law of the State of New York, regarding the Uniform System of Accounts, the following transfers to the various accounts for 2023 are hereby audited and approved:

Fund	*Account No.*		*Title*	*Amount*
General	A8189 4323	FROM:	Leachate Disposal	-5,000.00
General	A8189 4305	INTO:	Truck/Road Repairs	+5,000.00
General	A1355 4100	FROM	Office Supplies	-76.00
General	A1355 2000	INTO:	Office Equipment	+76.00
W5	W58340 4889	FROM:	Backfill/Pavement Repair	-10,000.00
W5	W58340 4887	INTO:	Water Equip/Maint. & Supply	+10,000.00
W5	W58340 4884	FROM:	W5 Mains	-20,000.00
W5	W58340 2000	INTO:	Equipment	+20,000.00

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

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LEGISLATIVE REQUEST FORM

DATE: **August 4, 2023**

TO: **Mollie A. Collins, Supervisor**

FROM: **Comptroller's Office**

TITLE OF REQUEST: To approve budget transfers to the 2023 budget.

TOWN BOARD MEETING: To be placed on the Town Board Meeting of August 9, 2023

Background Information: Budget transfers are needed to correct lines

Evaluation/Analysis: Lines with expenditures currently being appropriated to them need to be funded properly and budget transfers need to be made in order to do so.

Recommendation(s): To be placed on the Town Board meeting of August 9, 2023 and approve the transfer.

Attachment/Document(s): Memos from James Keith, and Brad Canning.

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): Town Law 102, 113 & 113

LEGISLATION WILL BE PREPARED BY: Supervisor's Office

Memorandum

To: Mollie Collins, Supervisor

From: James Keith, Senior Building Inspector JK

Subject: Budget Transfer

Date: July 10, 2023

Please transfer the following funds to cover expenses:

From	**A8189 4323 Leachate Disposal**	**Amount** $5,000.00
To	**A8189 4305 Truck/Road Repairs**	**Amount** $5,000.00

To Cover Truck Repairs

Thank you.

cc: Marcus Montgomery
Paul Sebesta

Memorandum

To: Mollie Collins, Supervisor

From: James Keith, Senior Building Inspector

Subject: Budget Transfer

Date: July 17, 2023

Please transfer the following funds to cover expenses:

From	**W58340 4889 Backfill/Pavement Repair**	**Amount** $10,000.00
To	**W58340 4887 Water Equipment Maint. & Supply**	**Amount** $10,000.00

To Cover Equipment Repairs

Thank you.

cc: Marcus Montgomery
Paul Sebesta

Town of Rotterdam

Office of Town Assessor

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
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Date: July 19, 2023
To: Supervisor Collins, Marcus Montgomery
From: Brad Canning, Assessor
Subject: Budget transfer

I would like to request a budget transfer of $76.00 from A1355.4100 to A1355.2000 to cover cost of replacement video and camara system for the Assessor's Office

Memorandum

To: Mollie Collins, Supervisor

From: James Keith, Senior Building Inspector

Subject: Budget Transfer

Date: August 4, 2023

Please transfer the following funds to cover expenses:

From	**W58340 4884 W5 Mains**	**Amount** $20,000.00
To	**W58340 2000 W5 Equipment**	**Amount** $20,000.00

To Cover Safety Equipment

Thank you.

cc: Marcus Montgomery
Paul Sebesta

RESOLUTION NO. 250.23

TO DECLARE COMPUTER EQUIPMENT OBSOLETE

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby declares the following computer equipment obsolete and authorizes that it be sold at auction or donated otherwise:

MAKE	MODEL	S/N
*IBM	9494-HB0	66-T0174
*IBM	9494-HB0	66-R2544
*IBM	9494HB0	66-M7181
*DELL	E207WFPc	CN-0TW956-64180-7CR-7RTU
*DELL	E207WFPc	CN-0TW956-64180-79P-31YA
*DELL	E207WFPc	CN-0TW956-64180-838-1Z5U
*DELL	E207WFPc	CN-0CK630-64180-761-064L
DELL	E176FPf	CN-0CC639-74261-25T-4J0M
DELL	1909Wf	No S/N available
DELL	E207WFPc	CN-0TW956-64180-7BD-2JJU
DELL	P1913Sb	CN-0RVC21-74261-25T-4J0M
IBM	9494-HB0	66-R2798
IBM	9494-HB0	66-R2545
IBM	9494-HB0	66-M7179
LENOVO	9419-HC2	VLGF268
DELL	1909Wf	No S/N available
IBM	9494-HB0	66-M7182
IBM	9494-HB0	66-M7847
IBM	9494-HB0	66-M7846
LENOVO	9419-HC2	VLV5878

*Monitor does not function

SECTION 2. This resolution shall become effective August 9, 2023

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

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LEGISLATIVE REQUEST FORM

DATE: 7/18/23

TO: Town Board

FROM: Henry Gerhard, I.T. Project Manager and Support Liaison

TITLE OF LEGISLATIVE REQUEST: Declare the following items obsolete to be auctioned/donated:

MAKE	MODEL	S/N	MAKE	MODEL	S/N
*IBM	9494-HB0	66-T0174	*IBM	9494HB0	66-M7181
*IBM	9494-HB0	66-R2544			
*DELL	E207WFPc	CN-0TW956-64180-7CR-7RTU			
*DELL	E207WFPc	CN-0TW956-64180-79P-31YA			
*DELL	E207WFPc	CN-0TW956-64180-838-1Z5U			
*DELL	E207WFPc	CN-0CK630-64180-761-064L			
DELL	E176FPf	CN-0CC639-74261-25T-4J0M			
DELL	1909Wf	No S/N available	DELL	1909Wf	No S/N available
DELL	E207WFPc	CN-0TW956-64180-7BD-2JJU			
DELL	P1913Sb	CN-0RVC21-74261-25T-4J0M			
IBM	9494-HB0	66-R2798	IBM	9494-HB0	66-M7182
IBM	9494-HB0	66-R2545	IBM	9494-HB0	66-M7847
IBM	9494-HB0	66-M7179	IBM	9494-HB0	66-M7846
LENOVO	9419-HC2	VLGF268	LENOVO	9419-HC2	VLV5878

*Monitor does not function

TO BE PLACED ON TOWN BOARD MEETING OF: 8/9/2023

Background Information: Monitors have reached end of usefulness for Town objectives.

Evaluation/Analysis: Working monitors have some value, the others may be donated.

Recommendation(s): Auction/donation of material as soon as possible.

Attachment/Document(s): Obsolete Computer Monitor Inventory

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): None

LEGISLATION WILL BE PREPARED BY: Henry Gerhard

Obsolete Computer Monitor Inventory

Make	Model	S/N	Ratio	Size	Works?	Stand?	Outputs
Lenovo	9419-HC2	VLGF268	4:3	19"	Y	Y	DIVX, SVGA
		VLV5878	4:3	19"	Y	Y	DIVX, SVGA
Dell	E176FPf	CN-0CC639-72872-64L-0DDT	4:3	17"	Y	Y	SVGA
	1909Wf	NOT AVAILABLE	16:9	19"	Y	Y	DIVX, SVGA, USB(4), USB(D), AUDIO (2 MONITORS)
	E207WFPc	CN-0TW956-64180-7BD-2JJU	16:9	20.5"	Y	Y	DIVX, SVGA
	E207WFPc	CN-0CK630-64180-761-064L	16:9	20.5"	BLURRY	Y	DIVX, SVGA
	E207WFPc	CN-0TW956-64180-838-1Z5U	16:9	20.5"	N	Y	DIVX, SVGA
	E207WFPc	CN-0TW956-64180-79P-31YA	16:9	20.5"	N	N	DIVX, SVGA
	E207WFPc	CN-0TW956-64180-7CR-7RTU	16:9	20.5	N	N	DIVX, SVGA
	P1913Sb	CN-0RVC21-74261-25T-4J0M	4:3	19"	Y	Y	DIVX, SVGA, DISPLAYPORT, USBA(2), USB (D) AUDIO
IBM	9494-HB0	66-R2798	4:3	18"	Y	Y	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)
	9494-HB0	66-M7182	4:3	18"	Y	Y	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)
	9494-HB0	66-R2545	4:3	18"	Y	Y	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)
	9494-HB0	66-M7847	4:3	18"	Y	Y	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)
	9494-HB0	66-M7179	4:3	18"	Y	Y	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)
	9494-HB0	66-M7846	4:3	18"	Y	Y	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)
	9494-HB0	66-T0174	4:3	18"	N	N	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)
	9494-HB0	66-T0174	4:3	18"	N	Y	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)
	9494-HB0	66-T0174	4:3	18"	N	Y	DIVX, SVGA, AUDIO, SPEAKER BAR W/USB(D)

RESOLUTION NO. 251.23

TO DECLARE FOUR POLICE VEHICLES OBSOLETE

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby declares the following equipment obsolete and authorizes that it be sold at auction:

2009 Dodge Charger (VIN # 2B3LA43V39H513634)
2011 Chevrolet Impala (VIN # 2G1WF5EK5B1309236)
2016 Ford Explorer (VIN # 1FM5K8AR9GGC67176)
2020 Ford Explorer (VIN # 1FM5K8ABXLGA71227)

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
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LEGISLATIVE REQUEST FORM

DATE: July 26, 2023

TO: Legislative Review Board

FROM: Deputy Chief William Male

TITLE OF REQUEST: Declare the following police vehicles obsolete in order to be put up for auction:

2009 Dodge Charger (VIN # 2B3LA43V39H513634)

2011 Chevrolet Impala (VIN # 2G1WF5EK5B1309236)

2016 Ford Explorer (VIN # 1FM5K8AR9GGC67176)

2020 Ford Explorer (VIN # 1FM5K8ABXLGA71227)

TOWN BOARD MEETING: August 9, 2023

Background Information: The above vehicles are in need of significant repairs. It is cost prohibitive to invest in repairs due to each vehicle's age and mileage.

Evaluation/Analysis: N/A

Recommendation(s): Declare Rotterdam Police Department vehicles obsolete in order to be put up for auction at Collar City Auctions, 9423 Western Turnpike Delanson, NY 12053.

Attachment/Document(s): Memorandum prepared by Sgt. Reilly.

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): N/A

LEGISLATION WILL BE PREPARED BY: RPD

RESOLUTION NO. 252.23

ADOPTION OF THE 2023 ADJUSTED BASE PROPORTIONS

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The attached certificates of base percentages, current percentages, and base proportion certificate of adjusted base proportions for the levy of taxes on the 2023 Assessment Roll, are hereby approved by the Town Board of the Town of Rotterdam, in accordance with Article 19 of the Real Property Tax Law of the State of New York.

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE: July 17, 2023

TO: Town Board

FROM: Brad Canning, Assessor

TITLE OF LEGISLATIVE REQUEST: Adoption of the 2023 Adjusted Base Proportions

TO BE PLACED ON TOWN BOARD AGENDA OF: August 9, 2023

TO BE PLACED ON TOWN BOARD MEETING OF: August 9, 2023

Background Information: Each year, in which a municipality has adopted the homestead tax option, the town must make annual adjustments based on property value that is added to or removed from the assessment roll. The calculation of the two (2) tax rate percentages are then utilized to determine the residential tax rate and the commercial tax rate.

Evaluation/Analysis: Based on our analysis, the calculated base proportions are correct and have been reviewed and approved by the NYS Department of Real Property Tax Services.

Recommendation(s): Approval

Attachment/Document(s): Worksheet and The Homestead Tax Option Q&A.

Compliance with Purchasing Policy: n/a

Effect(s) on Existing Law(s): n/a

LEGISLATION WILL BE PREPARED BY: Town Attorney. Adopted worksheet needs to be signed and dated by the Town Clerk. Signed worksheet will then be forwarded to NYS ORPTS by Assessor

NEW YORK STATE OFFICE OF REAL PROPERTY SERVICES
W.A. HERRIMAN CAMPUS, ALBANY, NY 12227

08/01/23

CERTIFICATE OF BASE PERCENTAGES, CURRENT PERCENTAGES AND
CURRENT BASE PROPORTIONS PURSUANT TO ARTICLE 19, RPTL, FOR THE
LEVY OF TAXES ON THE 2023 ASSESSMENT ROLL

Approved Assessing Unit: 422800
Name of Portion: Town of Rotterdam

DETERMINATION OF BASE PERCENTAGES

Section I

Class	(A) 2007 Taxable Assessed Value	(B) 1989 Class Equalization Rate	(C) Estimated Market Value A/(B/100)	(D) 2008 Factor Used	(E) Adjusted Market Value (C*D)	(F) Base Percentages (E/sum of E)
Homestead	1,726,941,384	100.00	1,726,941,384	1.0074	1,739,720,750	73.4096
Nonhomestead	656,144,708	100.00	656,144,708	0.9604	630,161,378	26.5904
Total	2,383,086,092		2,383,086,092		2,369,882,128	100.0000

DETERMINATION OF CURRENT PERCENTAGES

Section II

Class	(G) 2022 Taxable Assessed Value	(H) 2022 Class Equalization Rate	(I) Estimated Market Value G/(H/100)	(J) Current Percentages (I/sum of I)
Homestead	1,901,035,305	83.00	2,290,403,982	77.74893
Nonhomestead	544,059,867	83.00	655,493,816	22.25107
Total	2,445,095,172		2,945,897,798	100.00000

DETERMINATION OF CURRENT BASE PROPORTIONS

Section III

Class	(K) Local Base Proportion for the 2008 Assessment Roll	(L) Updated Local Base Proportion K*(J/F)	(M) Prospective Current Base Proportion Column (J) Prorated to 100.00 (L/sum of L)	(N) Adusted Base Proportion used for Prior Tax Levy	(O) % difference between prior Adjusted Base Proportion and Prospective Current Base Proportion ((M/N)-1*100)	(P) Maximum Current Base Proportion (N*1.05)	(Q) Current Base Proportions for 2022 Roll
Homestead	62.4376	66.1284	67.7816	64.23008	5.53	67.4416	67.4416
Nonhomestead	37.5624	31.4325	32.2184	35.76992	-9.93		32.5584
Total	100.0000	97.5609	100.0000	100.0000			100.0000

CERTIFICATION

I, the clerk of the legislative body of the approved assessing unit identified above, hereby certify that the legislative body determined on _____ base percentages, current percentages, and current base proportions as set forth herein for the assessment roll and portion as identified above.

_____
signature

_____
title

_____
date

167

August 9, 2023

Q. What type of property qualifies as residential class property under the homestead tax option?

A. One-, two-, and three-family residential units; farm homes; mobile homes that are owner-occupied and separately assessed, and condominiums that were built as condominiums and not converted from some other form, such as rental apartments, qualify as residential property.

Also qualifying for the residential class are vacant land parcels not larger than 10 acres that are located in zones that restrict residential use to one-, two-, or three-family residential dwellings.

Q. I understand how the homestead tax option could work in my town, but how would it work in my school district?

A. School districts that are wholly contained within the boundaries of a city or town that has the homestead tax must use the homestead tax unless they opt out of the program by passing a resolution.

There is a special requirement for school districts located in more than one city or town that want to use homestead and non homestead school tax rates. That requirement is that one-fifth or more of the properties in the school district must be located in cities or towns that use the homestead tax option.

In addition, for school districts that are in more than one city or town, the determination of class shares will be based on current market value, with adjustments at the discretion of the school district within limitations set by law.

Q. How many places are using the homestead tax option?

A. At the time this pamphlet was revised, 12 cities, 17 towns, four villages and 43 school districts were using the homestead option. For more information, please visit municipal profiles on our website.

Q. In addition to adopting the homestead tax option, can "approved assessing units" also phase-in the results of the revaluation?

A. Yes. By passing a local law, approved assessing units can phase in the new revaluation assessments over a five-year period.

This option sounds simple. In reality, however, most assessment officials believe it would be extremely difficult to administer. Maybe that is why no municipality to date has decided to use the transition-assessment option.

Q. Can a municipality that has adopted the homestead tax option revoke it later?

A. Yes, simply by adopting a local law, without referendum, to rescind it before the next levy of taxes.

STATE OF NEW YORK
Andrew M. Cuomo, Governor

NYS Department of Taxation and Finance
Office of Real Property Tax Services
W.A. Harriman State Campus
Albany, NY 12227
Phone: 518-591-5232
www.tax.ny.gov

The Homestead Tax Option

(Article 19 – Section 1903 of the RPTL)

New York State Department of
Taxation and Finance
Office of Real Property Tax Services

Publication 1023 (9/11) *January 2011*

August 9, 2023
168

In a number of places in New York State, assessments of residential property frequently have been at a lower percentage of market (full) value than other types of property, such as commercial and industrial property. When a town or city with this situation decided to conduct a property revaluation to achieve correct and fair assessments, the residential properties, as a class, would bear a much larger share of the tax burden. This discouraged other municipalities with similar situations from conducting their own property revaluations. As a result of the concern for tax-burden shifts to homeowners, a State law was passed in 1981 establishing the Homestead Tax Option.

This local option prevents any large shift of the property tax burden to the residential class of property owners after a revaluation. In a revaluation, changes a remade to individual property assessments so that they are correct and uniform -- as the law requires. These changes result in increases to some individual residential property owners whose properties were under assessed before the revaluation. However, the homestead tax option prevents any large shift to the residential class of properties.

Q. What is the homestead tax option?

A. It is a local option to establish two separate property tax rates: a lower tax rate for residential property owners (homestead tax), and a higher rate for all other property owners (non-homestead tax).

Q. Is this program mandated by New York State?

A. No. It is a local-option program

Q. Is the homestead tax option available everywhere in the State?

A. No. It is available only to qualifying cities, towns, villages, counties, and school districts. It is not available in New York City, or in Nassau County except for villages and, for certain purposes, the cities.

Q. How does a municipality qualify to use the homestead tax option?

A. A city, town or village that is an assessing unit first must complete a property revaluation project that meets the State Board's regulations. That entitles the assessing unit to be certified by the State Board as an "approved assessing unit." Then the local governing body of the assessing unit can adopt a local law stating its intent to use a homestead tax and a non-homestead tax.

Q. How does the homestead tax option work?

A. The homestead tax is based on the share of property taxes paid by the residential class of property owners in the year before the new assessments from the revaluation project are used.

For example, assume that residential properties paid 40 percent of all town taxes in the Town of Smith in 1989 (the year before the revaluation project). Now, in 1990, as a result of the revaluation, the residential class represents 50 percent of the town's total taxes. As an "approved assessing unit" that has opted to use the "homestead tax option," the Town of Smith can "freeze" the residential class share of town taxes at the previous 40 percent. Thus, the town will have two tax rates: one for the residential class and another for all other property classes, such as commercial property and industrial property. The difference is that the tax rate for the residential class will be lower than the tax rate for all other property classes. For example, the town tax rate for the residential class might be something like $25 for each $1,000 of assessed valuation, while the tax rate for the nonresidential class might be $30 for each $1,000 of assessed valuation.

Q. Once the percentage shares are determined (in our example, 40 percent for residential property and 60 percent for non-residential property), do they remain that way forever?

A. No. They can change based on the following adjustments:

1. Using the example for the Town of Smith, the town would have the option of adjusting the residential share at various points between 40 and 50 percent.
2. The municipality must make annual adjustments based on property that is added to the assessment roll and property that is removed.
3. The municipality must make annual adjustments for different rates of appreciation in the two classes of property based on the changes in the current market value of the classes, subject to a 5 percent cap.

August 9, 2023

RESOLUTION NO. 253.23

TO NEGOTIATE AND EXECUTE AN AGREEMENT WITH CUMMINS SALES AND SERVICE

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Town Supervisor to negotiate and execute an agreement with Cummins Sales and Service, located at 101 Railroad Avenue Albany, NY 12205, for service maintenance of the generators at the Wastewater Treatment Plant located at 26 W Campbell Rd Schenectady, NY 12306, for a three-year term not to exceed the total lump sum of three thousand four hundred seventy-four and 99/100 ($3,474.99) dollars.

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE:	July 17, 2023
TO:	Mollie Collins, Town Supervisor
FROM:	James Keith, Senior Building Inspector
TITLE OF REQUEST:	Authorize Supervisor to enter into a Three (3) Year Maintenance Agreement – Generators - WWTP
TOWN BOARD MEETING:	August 9, 2023
Background Information:	The Town has utilized Cummins Sales and Service to service its generators. Cummins Sales and Service has been the sole provider of this service of recent.
Evaluation/Analysis:	The WWTP is up for renewal of their generator service for 3 years. Contract amount not to exceed $3, 474.99
Recommendation(s):	Authorize Supervisor to sign the Cummins Sales and Service Planned Equipment Maintenance Agreement.
Attachment/Document(s):	Cummins Sales and Services Planned Maintenance Proposal dated July 12, 2023.
Compliance with Purchasing Policy:	Yes
Effect(s) on Existing Law(s):	None
LEGISLATION WILL BE PREPARED BY:	Supervisors Office

Cummins Sales and Service

ALBANY NY BRANCH
101 RAILROAD AVENUE
ALBANY, NY 12205
Phone: 518-459-1710

PLANNED MAINTENANCE AGREEMENT

Customer Address	Customer Contact		Quote Information	
TOWN OF ROTTERDAM WATER T DPW 1100 SUNRISE BLVD Rotterdam, NY 12306	Contact: Phone: Fax: Cust Id:	James Keith 518 355-7575 518 355-2725 513424	Quote Date: Quote Expires: Quote Num: Quoted By: Quote Term:	12-JUL-23 12-AUG-23 201244 Tracie Brooks 3 Year(s)

Site Information

1	WWTP	26 WEST CAMPBELL ROAD	ROTTERDAM	NY	12306

Site	Unit Number	Manufacturer	Model	Prod Model	Serial Number	Type
1	WWTP	GENERAC	GEN SET	SG200GG20142518HP	3003050321	ST

Site	Unit Number	Service Event	Qty	Sell Price	Extended Price
1	WWTP	FULL PM SERVICE (FS)	3	782.17	2,346.51
		INSPECTION	3	376.16	1,128.48

TERM: 3 YEAR AGREEMENT

Service/Scheduled Month:
Full Service: August 2023, August 2024 and August 2025
Inspection: February 2024, February 2025 and February 2026

Based on previous PM schedule, services are tentatively scheduled for: Full Service: August 2023

For any questions regarding this proposal and to continue your services without interruption, please sign the agreement and return to:

Tracie Brooks
Tracie.brooks@cummins.com
Phone # 315-980-0357

Payment Info
Customers with a line of credit will be invoiced after the completion of service event unless requested otherwise. Customers without a line of credit including residential customers will be invoiced annually prior to services being performed.

PO# _____Purchase order must be made out to Cummins Inc. or Cummins Sales and Service

W9 available upon request.

Please note our payment remit to address is:
P.O. Box 772639
Detroit, MI 48277-2639

Unless otherwise noted, quote reflects services completed during regular business hours. Additional repairs will not be performed without customer's authorization.

Sales and Service

PLANNED MAINTENANCE AGREEMENT

Customer Address	Customer Contact		Quote Information	
TOWN OF ROTTERDAM WATER T DPW 1100 SUNRISE BLVD Rotterdam, NY 12306	Contact: Phone: Fax: Cust Id:	James Keith 518 355-7575 518 355-2725 513424	Quote Date: Quote Expires: Quote Num: Quoted By: Quote Term:	12-JUL-23 12-AUG-23 201244 Tracie Brooks 3 Year(s)

PM customers receive a discounted labor rate on recommended repairs for units on this agreement.

*If returned late the service schedule is subject to change *

For any questions regarding your account or additional sales opportunities:
John Pecori
Territory Manager Albany/ Syracuse, NY
Mobile: 518-915-5846
john.pecori@cummins.com

Standard Agreement Amount	**$3,474.99**
Proposal Total	**$3,474.99**

THERE ARE ADDITIONAL CONTRACT TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS DOCUMENT, INCLUDING LIMITATIONS OF WARRANTIES AND LIABILITY, WHICH ARE EXPRESSLY INCORPORATED HEREIN. CUSTOMER ACKNOWLEDGES THAT THE CONTRACT TERMS AND CONDITIONS HAVE BEEN READ, FULLY UNDERSTOOD, AND ACCEPTED.

Customer Approval

Signature:_____

Date:_____

CUMMINS INC

Signature:_____

Date:_____

PLANNED MAINTENANCE AGREEMENT TERMS AND CONDITIONS

These Planned Maintenance Agreement Terms and Conditions, together with the Quote on the front side and the Scope of Services, are hereinafter referred to as this 'Agreement' and shall constitute the entire agreement between the customer identified in the Quote ('Customer') and Cummins Inc. ('Cummins') and supersede any previous agreement or understanding (oral or written) between the parties with respect to the subject matter of this Agreement. Customer shall be deemed to have made an unqualified acceptance of these Terms and Conditions and it shall become a binding agreement between the parties on the earliest of the following to occur: (i) Cummins' receipt of Customer's purchase order or purchase order number; (ii) Customer's signing or acknowledgment of this Agreement; (iii) Cummins' release of Products to production pursuant to Customer's oral or written instruction or direction; (iv) Customer's payment of any amounts due to Cummins; or (v) any other event constituting acceptance under applicable law. No prior inconsistent course of dealing, course of performance, or usage of trade, if any, constitutes a waiver of or serves to explain or interpret this Agreement. Electronic transactions between Customer and Cummins will be solely governed by this Agreement, and any terms and conditions on Customer's website or other internet site will be null and void and of no legal effect on Cummins. In the event Customer delivers, references, incorporates by reference, or produces any purchase order or document, any terms and conditions related thereto: (i) shall be null and void and of no legal effect on Cummins; and (ii) this Agreement shall remain the governing terms of the transaction.

1. SCOPE OF SERVICES; PERFORMANCE OF SERVICES. Cummins shall perform the maintenance ('Services') on the equipment identified in the Quote ('Equipment') in accordance with the schedule specified in the Quote. The Services include those services defined in the 'Service Event' section of the Quote. No additional services or materials are included in this Agreement unless agreed upon by the parties in writing. Unless otherwise indicated in the Quote, Cummins will provide the labor and tools necessary to perform the Services and shall keep Customer's property free from accumulation of waste materials caused by Cummins' operations. Either party may terminate this Agreement with or without cause by providing thirty (30) days written notice to the other.
2. CUSTOMER OBLIGATIONS. Customer shall provide Cummins safe access to Customer's site and arrange for all related services and utilities necessary for Cummins to perform the Services. During the performance of the Services, Customer shall fully and completely secure all or any part of any facility where the Equipment is located to remove and mitigate any and all safety issues and risks, including but not limited to facility occupants, customers, invitees, or any third party and or property damage or work interruption arising out of the Services. Customer shall make all necessary arrangement to address and mitigate the consequences of any electrical service interruption which might occur during the Services. CUSTOMER IS RESPONSIBLE FOR OPERATING AND MAINTAINING THE EQUIPMENT IN ACCORDANCE WITH THE OWNER'S MANUAL FOR THE EQUIPMENT.

3. PAYMENT TERMS. Unless otherwise agreed to by the parties in writing and subject to credit approval by Cummins, payments are due thirty (30) days from the date of the invoice. If Customer does not have approved credit with Cummins, as solely determined by Cummins, payments are due in advance or at the time of supply of the Services. If payment is not received when due, in addition to any rights Cummins may have at law, Cummins may charge Customer eighteen percent (18%) interest annually on late payments, or the maximum amount allowed by law. Customer agrees to pay all Cummins' costs and expenses (including all reasonable attorneys' fees) related to Cummins' enforcement and collection of unpaid invoices, or any other enforcement of this Agreement by Cummins. Unless otherwise stated, the Quote excludes all applicable local, state, or federal sales and/or use or similar taxes which Cummins is required by applicable laws to collect from Customer and shall be stated on the invoice.

4. DELAYS. Any performance dates indicated in this Agreement are estimated and not guaranteed. Cummins shall not be liable for any delays in performance however occasioned, including any that result directly or indirectly from acts of Customer or causes beyond Cummins' control, including but not limited to acts of God, accidents, fire, explosions, flood, unusual weather conditions, acts of government authority, or labor disputes. AS A RESULT OF THE OUTBREAK OF THE DISEASE COVID-19 ARISING FROM THE NOVEL CORONAVIRUS, TEMPORARY DELAYS IN DELIVERY, LABOUR OR SERVICES FROM CUMMINS AND ITS SUB-SUPPLIERS OR SUBCONTRACTORS MAY OCCUR. AMONG OTHER FACTORS, CUMMINS' DELIVERY OBLIGATIONS ARE SUBJECT TO CORRECT AND PUNCTUAL SUPPLY FROM OUR SUB-SUPPLIERS OR SUBCONTRACTORS, AND CUMMINS RESERVES THE RIGHT TO MAKE PARTIAL DELIVERIES OR MODIFY ITS LABOUR OR SERVICE. WHILE CUMMINS SHALL MAKE EVERY COMMERCIALLY REASONABLE EFFORT TO MEET THE DELIVERY, SERVICE OR COMPLETION OBLIGATIONS SET FORTH HEREIN, SUCH DATES ARE SUBJECT TO CHANGE.

5. WARRANTY. Cummins shall perform the Services in a reasonable and workmanlike manner. Parts and components supplied under this Agreement are governed by the express written manufacturer's limited warranty. No other warranty for parts or components is provided under this Agreement. All Services shall be free from defects in workmanship for a period of ninety (90) days after completion of Services. In the event of a warrantable defect in workmanship of Services supplied under this Agreement ('Warrantable Defect'), Cummins' obligation shall be solely limited to correcting the Warrantable Defect. Cummins shall correct the Warrantable Defect where (i) such Warrantable Defect becomes apparent to Customer during the warranty period; (ii) Cummins receives written notice of any Warrantable Defect within thirty (30) days following discovery by Customer; and (iii) Cummins has determined that there is a Warrantable Defect. Warrantable Defects remedied under this provision shall be subject to the remaining warranty period of the original warranty of the Services. New parts supplied during the remedy of Warrantable Defects are warranted for the balance of the warranty period still available from the original warranty of such parts. The remedies set forth in this Section 5 shall not be deemed to have failed of their essential purpose so long as Cummins is willing to correct defective Services or refund the purchase price therefor.

6. LIMITATIONS OF WARRANTIES AND LIABILITY. THE REMEDIES PROVIDED IN THE LIMITED WARRANTY AND THIS AGREEMENT ARE THE SOLE AND EXCLUSIVE WARRANTIES AND REMEDIES PROVIDED BY CUMMINS TO THE CUSTOMER UNDER THIS AGREEMENT. EXCEPT AS SET OUT IN THE WARRANTY AND THIS AGREEMENT, AND TO THE EXTENT PERMITTED BY LAW, CUMMINS EXPRESSLY DISCLAIMS ALL OTHER REPRESENTATIONS, WARRANTIES, ENDORSEMENTS, AND CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY STATUTORY OR COMMON LAW IMPLIED REPRESENTATIONS, WARRANTIES AND CONDITIONS OF FITNESS FOR A PURPOSE OR MERCHANTABILITY.
NOTWITHSTANDING ANY OTHER TERM OF THIS AGREEMENT, IN NO EVENT SHALL CUMMINS, ITS OFFICERS, DIRECTORS, EMPLOYEES, OR AGENTS BE LIABLE TO CUSTOMER OR ANY THIRD PARTY FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING WITHOUT LIMITATION DOWNTIME, LOSS OF PROFIT OR REVENUE, LOSS OF DATA, LOSS OF OPPORTUNITY, DAMAGE TO GOODWILL, AND DAMAGES CAUSED BY DELAYS) IN ANY WAY RELATED TO OR ARISING FROM CUMMINS' SUPPLY OF PARTS OR SERVICES UNDER THIS AGREEMENT. IN NO EVENT SHALL CUMMINS' LIABILITY TO CUSTOMER OR ANY THIRD PARTY CLAIMING DIRECTLY THROUGH CUSTOMER OR ON CUSTOMER'S BEHALF UNDER THIS AGREEMENT EXCEED THE TOTAL COST OF PARTS AND SERVICES SUPPLIED BY CUMMINS UNDER THIS AGREEMENT. BY ACCEPTANCE OF THIS AGREEMENT, CUSTOMER ACKNOWLEDGES CUSTOMER'S SOLE REMEDY AGAINST CUMMINS FOR ANY LOSS SHALL BE THE REMEDY PROVIDED HEREIN.

7. INDEMNITY. Customer shall indemnify, defend and hold harmless Cummins from and against any and all claims, actions, costs, expenses, damages and liabilities, including reasonable attorneys' fees, brought against or incurred by Cummins related to or arising out of this Agreement or the Services supplied under this Agreement (collectively, the ('Claims'), where such Claims were caused or contributed to by, in whole or in part, the acts, omissions, fault or negligence of the Customer. Customer shall present any Claims covered by this indemnity to its insurance carrier unless Cummins directs that the defense will be handled by Cummins' legal counsel at Customer's expense.
8. CONFIDENTIALITY. Each party shall keep confidential any information received from the other that is not generally known to the public and at the time of disclosure, would reasonably be understood by the receiving party to be proprietary or confidential, whether disclosed in oral, written, visual, electronic or other form, and which the receiving party (or agents) learns in connection with this Agreement including, but not limited to: (a) business plans, strategies, sales, projects and analyses; (b) financial information, pricing, and fee structures; (c) business processes, methods and models; (d) employee and supplier information; (e) specifications; and (f) the terms and conditions of this Agreement. Each party shall take necessary steps to ensure compliance with this provision by its employees and agents.

9. GOVERNING LAW. This Agreement and all matters arising hereunder shall be governed by and construed in accordance with the laws of the State of Indiana without giving effect to any choice or conflict of law provision. The parties agree that the courts of the State of Indiana shall have exclusive jurisdiction to settle any dispute or claim arising in connection with this Agreement.
10. INSURANCE. Upon Customer's request, Cummins will provide to Customer a Certificate of Insurance evidencing Cummins' relevant insurance coverage.
11. ASSIGNMENT. This Agreement shall be binding on the parties and their successors and assigns. Customer shall not assign this Agreement without the prior written consent of Cummins.
12. INTELLECTUAL PROPERTY. Any intellectual property rights created by either party, whether independently or jointly, in the course of the performance of this Agreement or otherwise related to Cummins pre-existing intellectual property or subject matter related thereto, shall be Cummins' property. Customer agrees to assign, and does hereby assign, all right, title, and interest to such intellectual property to Cummins. Any Cummins pre-existing intellectual property shall remain Cummins' property. Nothing in this Agreement shall be deemed to have given Customer a licence or any other rights to use any of the intellectual property rights of Cummins.

13. MISCELLANEOUS. Cummins shall be an independent contractor with respect to the Services performed under this Agreement. All notices under this Agreement shall be in writing and be delivered personally, mailed via first class certified or registered mail, or sent by a nationally recognized express courier service to the addresses set forth in the Quote. No amendment of this Agreement shall be valid unless it is writing and signed by the parties hereto. Failure of either party to require performance by the other party of any provision hereof shall in no way affect the right to require such performance at any time thereafter, nor shall the waiver by a party of a breach of any of the provisions hereof constitute a waiver of any succeeding breach. Any provision of this Agreement that is invalid or unenforceable shall not affect the validity or enforceability of the remaining terms hereof.
14. ON-CALL SERVICES. Upon Customer's request, Cummins shall provide on-call services (repair, emergency work or other) on the Equipment ('On-call Services'). Any On-call Services shall be invoiced to the Customer at the Cummins current hour rate (including traveling) and shall be governed by the terms and conditions of this Agreement.
15. PRICING. To the extent allowed by law, actual prices may vary from the price at the time of order placement, as the same will be based on prices prevailing on the date of shipment. Subject to local laws, Cummins reserves the right to adjust pricing on goods and services due to input and labor cost changes and other unforeseen circumstances beyond Cummins' control.

16. To the extent applicable, this contractor and subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability. The employee notice requirements set forth in 29 CFR Part 471, Appendix A to Subpart A, are hereby incorporated by reference into this contract.
07.25.2022

Scope of Services

Generator
Planned Equipment Maintenance

INSPECTION

INTERVALS AVAILABLE: WEEKLY, MONTHLY, QUARTERLY, SEMI-ANNUALLY OR ANNUALLY

BATTERIES AND BATTERY CHARGER
- Visually inspect battery terminal connections
- Verify electrolyte level, vent caps of all cells in the starting battery system
- Visually inspect wiring, connections and insulation
- Record battery charging functions
- Record battery information
- Record battery condition test

FUEL SYSTEM
- Visually inspect ignition system (Natural Gas and Propane Only)
- Record primary tank fuel level
- Inspect engine fuel system for leaks
- Visually inspect all engine fuel hoses, clamps, pipes, components and fittings
- Visually inspect rupture/ containment basin
- Inspect day tank and controls (if applicable)
- Optional - fuel sample for laboratory analysis*

COOLING SYSTEM
- Record coolant level
- Visually inspect for coolant leaks
- Visually inspect drive belts condition
- Verify for proper coolant heater operation
- Record jacket water temperature
- Visually inspect fan, water pump, drives and pulleys
- Visually inspect all coolant hoses, clamps and connections
- Visually inspect radiator condition
- Visually inspect louver for damage
- Visually inspect fan hub and drive pulley for mechanical damage
- Record freeze point of antifreeze protection
- Record DCA level prior to changing coolant filter
- Optional - Coolant sample for laboratory analysis*

LUBRICATION SYSTEM
- Visually inspect engine oil leaks
- Visually inspect engine oil lines and connections
- Record oil level
- Optional - Oil sample for laboratory analysis*

GENSET CONTROLS AND ACCESSORIES
- Visually inspect all engine mounted wiring, senders and devices
- Visually inspect all control mounted components and wiring
- Verify all connecting plugs are tightened and in a good condition
- Visually inspect all accessory components and wiring
- Visually inspect and test lighting indicators

INTAKE AND EXHAUST SYSTEMS
- Visually inspect air filter and housing
- Visually inspect all engine piping and connections
- Record air cleaner restriction
- Visually inspect engine exhaust system for leaks
- Visually inspect rain cap
- Optional – Air filter replacement*
- Optional - Clean crankcase breather or replace filters*

GENERAL CONDITIONS
- Visually inspect governor linkage and oil level
- Visually inspect guards
- Visually inspect enclosure
- Visually inspect engine and generator mounts
- Verify emergency stop operation

TRANSFER SWITCH
- Visually inspect controls and time delay settings
- Verify function of exercise clock and record settings from controller
- Verify remote start control operation
- Record utility / source one voltage

AFTERTREATMENT (Upon request)
- Verify DEF level
- Record DPF restriction
- Visually inspect aftertreatment and controls

SWITCHGEAR (Upon Request)
- Inspection and Full Service quote available upon request.

FULL SERVICE

INCLUDES INSPECTION

OPERATIONAL & FUNCTIONAL REVIEW OF GENERATOR CRITICAL COMPONENTS
- Inspect engine cooling fan & fan drives for excessive wear or shaft wobble
- Check all pulleys, belt tensioners, slack adjusters & idler pulleys for travel, wear & overall condition
- Inspect / lubricate drive bearings, gear or belt drives, and other shaft connecting hardware

LUBRICATION OIL & FILTRATION SERVICE
- Change engine oil
- Change oil, fuel and water filters
- Post lube services operations of genset (unloaded) at rated temperature

* Additional Charge

Any additional repairs, parts, or service which are required will be brought to the attention of the owner. Repairs will only be made after proper authorization from the owner is given to Cummins. Any additional repairs, maintenance or service performed by Cummins or a Planned Equipment Maintenance Agreement holder will be at current Cummins labor rates.

Arc flash boundary and available incident energy shall be identified and marked on equipment being serviced or maintained.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/7/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Aon Risk Services Central Inc.
200 E Randolph St.
Chicago, IL 60601

CONTACT NAME: A. I. King Insurance Agency, Inc.
PHONE (A/C, No, Ext): 317-841-6004 **FAX (A/C, No):**
E-MAIL ADDRESS: cummins@aikinginsurance.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Swiss Re Corporate Solutions America Ins	29874
INSURER B : Old Republic Insurance Company	24147
INSURER C : Allianz Global Risks US Insurance Co	35300
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Cummins Inc.
500 Jackson Street
Mail Code 91676
Columbus IN 47201-6258

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	✓ COMMERCIAL GENERAL LIABILITY	✓		CGP0000001-03	8/1/2023	8/1/2024	EACH OCCURRENCE	$ 5,000,000
	CLAIMS-MADE ✓ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 5,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 5,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 5,000,000
	✓ POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 5,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY			MWTB 317015 23	8/1/2023	8/1/2024	COMBINED SINGLE LIMIT (Ea accident)	$ 2,000,000
	✓ ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
							PHYSICAL DAMAGE	$ SELF-INSURED
A	✓ UMBRELLA LIAB ✓ OCCUR			CGU0000001-03	8/1/2023	8/1/2024	EACH OCCURRENCE	$ 10,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 10,000,000
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			MWC 314311-23	8/1/2023	8/1/2024	✓ PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N	N/A					E.L. EACH ACCIDENT	$ 2,000,000
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 2,000,000
							E.L. DISEASE - POLICY LIMIT	$ 2,000,000
B	Excess Auto Liability			MWZX 317016 23	8/1/2023	8/1/2024	Limit 13,000,000	
C	Excess Liability			USL02306023	8/1/2023	8/1/2024	Limit 10,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Town of Rotterdam is listed as additional insured as required by written contract.

CERTIFICATE HOLDER

Town of Rotterdam
1100 Sunrise Blvd
Rotterdam, NY 12306

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Al King

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RESOLUTION NO. 254.23

TO AUTHORIZE PAYMENT FOR A PERMANENT AND TEMPORARY EASEMENT TO JOHN P. SANTOSUSSO

WHEREAS, the project begins on Lock Street at the existing stormwater pump station, extends along a private property (6 Lock Street), through this property and then along Isabella Street to Scrafford Road and ending at a drainage structure that was previously installed as part of a New York State Department of Transportation project; and

WHEREAS, easements are needed for construction and to maintain the stormwater collection and conveyance system to reduce flooding in the area; NOW

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to approve a payment in the amount of nine thousand four hundred thirty-five and 00/100 ($9,435.00) dollars, made payable to John P. Santosusso for the purchase of a permanent and temporary easement of the property.

SECTION 2. This resolution shall become effective on August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE: July 28, 2023

TO: Town Board

FROM: Fred Mastroianni, P.E., Town Consultant Engineer

TITLE OF REQUEST: Purchase of a Permanent and Temporary Easement for installation of drainage structure and piping on private property located 1261-1263 Main Street in Rotterdam Junction.

TOWN BOARD MEETING: August 9, 2023

Background Information: The Town has for the last several years been working on improving the stormwater collection and conveyance system to reduce flooding in the area. The project begins on Lock Street at the existing stormwater pump station, extends along a private property (6 Lock Street), through this property and then along Isabella Street to Scrafford Road and ending at a drainage structure that was previously installed as part of a New York State Department of Transportation project. The town hired a consultant to prepare design plans and construction bid documents and the project is currently on hold for implementation until the easements are obtained for installation and future maintenance of proposed stormwater system. The Town has negotiated in good faith for the purchase of the easements, including hiring an appraisal firm to determine its value.

Evaluation/Analysis: The cost for the easements was based upon the appraised value and slight increase based upon negotiations with the property owner.

Recommendation(s): I recommend that the Town Board approve issuing a payment in the amount of $9,435.00, made payable to John P. Santosusso for the purchase of a permanent and temporary easement of the property.

Attachment/Document(s): Attachments include the Town's offer letter, appraisal and easement documents.

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): N/A

LEGISLATION WILL BE PREPARED BY: Supervisor's Office

TOWN OF ROTTERDAM

Mollie A. Collins, Supervisor
Jack Dodson, Deputy Supervisor
Joseph C. Mastroianni, Councilmember
Samantha Miller-Herrera, Councilmember
Evan Christou, Councilmember

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 Ext.326 • Fax: 518-355-7976 • Website: www.rotterdamny.org

May 25, 2023

John Santosuosso
1261-1263 Main Street
Rotterdam, N.Y. 12150

Re: Lock Street Drainage Improvement Project

Dear Mr. Santosusso:

It is my understanding that our previous offer of $6,290.00, which is the appraised value, was rejected for the permanent and temporary easements needed to construct and maintain the new drainage system on your property.

Our final offer is $9,435.00, which is 50% over the appraised amount and we hope that this offer is acceptable.

If you have any questions, please contact Fred Mastroianni our Town Consultant Engineer at (518) 355-7575, ext. 354 or via email at fmastroianni@rotterdamny.org. You can also contact me to discuss our offer.

Sincerely,

Mollie A. Collins

Mollie Collins, Supervisor

RESTRICTED
APPRAISAL REPORT

of property owned by

JOHN P. SANTOSUOSSO

situated at

1261 MAIN STREET
with additional access via
ISABELLA STREET
TOWN OF ROTTERDAM
SCHENECTADY COUNTY
NEW YORK

as of

JANUARY 4, 2023

requested by

FRED C. MASTROIANNI, PE
CONSULTANT ENGINEER
TOWN OF ROTTERDAM

prepared by

EMPIRE STATE APPRAISAL CONSULTANTS

Empire State Appraisal Consultants
a subsidiary of Hudson River Appraisal Group, Inc.
6844 NY-32
Greenville, NY 12083
ph. 518-758-7594
esac@berk.com

January 30, 2023

Fred C. Mastroianni, PE
1100 Sunrise Boulevard
Rotterdam, NY 12306

RE: 1261 MAIN STREET DRAINAGE EASEMENTS

Dear Mr. Mastroianni,

In accordance with your request, we have prepared a Restricted Appraisal Report of the above referenced property, for purposes of making an estimate of the fee simple value of the subject land, together with the value of a proposed permanent and temporary easement for the installation of a stormwater drainage pipe, to be placed, over a portion of the subject property.

IDENTITY OF CLIENT, INTENDED USERS AND INTENDED USE OF REPORT

This Restricted Appraisal Report, completed under Standard 2-2b of the Uniform Standards of Professional Appraisal Practice (USPAP 2020-2021[1]), was prepared for our clients, Fred C. Mastroianni and the Town of Rotterdam, to assist them in determining the market value of the land, and the damages affected by the placement of the easements. We have established that the clients understand the limited utility of this Restricted Report and has established that such report is suitable for their intended use. Any use by other entities is unintended.

LOCATION / IDENTIFICATION

The appraised property is located at 1261 Main Street and the terminus of Isabella Street, in the Town of Rotterdam, Schenectady County, New York. Tax map identification is section 20.5, block 7, lot 18.1.

[1] The Appraisal Foundations Appraisal Standards Board (ASB) has extended the current addition of USPAP until December 31, 2023.

PURPOSE OF THE APPRAISAL

The purpose of the appraisal is to estimate the total damages to the market value of the subject land resulting from the placement of a permanent easement over a portion of the land, together with the rental value of a temporary easement, as of January 4, 2023, which was the date of our inspection. The property rights appraised are the fee simple interest and the easement interest in the subject property. Market value is defined according to *The Dictionary of Real Estate Appraisal*, 14th Edition, published by the American Institute of Real Estate Appraisers.

DATE OF INSPECTION

January 4, 2023

OWNERSHIP, SALES HISTORY AND OCCUPANCY

The subject property is owned by John P. Santosuosso and was acquired on February 16, 2018 from Michael K. Couch for an indicated sale price of $170,000, according to deed Libre 1982 at page 1, and recorded in the Schenectady County Clerk's Office. The property is reportedly not presently listed for sale, and has not been offered for sale within the last three years.

PROPERTY DESCRIPTION

SITE

Size/shape:	1.43± acres / 62,459[2] square feet, with a very irregular shape
Frontage:	46 feet of frontage on Main Street and 50 feet of frontage at the terminus of Isabella Street.
Topography / Terrain:	Generally level to lightly sloping, containing a mix of open lawn and lightly wooded terrain. The parcel contains an unimproved dirt driveway, beginning at the terminus of Isabella Street, and continues to the rear of the two family dwelling located on Main Street.
Utilities:	Municipal sewer and water, natural gas and electric
Building Improvements:	2 ½ story, two-family residence of brick construction, containing approximately 2,790 square feet, constructed in the early 1900's. The subject's improvements are not part of this appraisal, as the easement affects the land only.

SUMMARY

The subject is an above average size parcel compared to the immediate surrounding neighborhood and contains adequate frontage, depth and generally level to lightly sloping terrain, well suited for residential development.

[2] Tax map appears inaccurate compared with the recent survey data

DESCRIPTION OF ACQUISITION

The acquisition consists of a permanent easement of 2,250 square feet of unimproved land, traversing the rear portion of the parcel, beginning at the westerly property line, having a width of 10 feet, and continuing in an easterly direction 225 feet to the Isabella Street frontage, as detailed in Exhibit A, Description of Easement Area, (addenda).

PURPOSE OF THE TAKING

The purpose of the taking is for the construction of a new storm water drainage pipeline by the Town of Rotterdam. The proposed drainage pipe will be located in the center of the ten foot wide easement, and reported to be four feet below the surface. Two catch basins are to be installed within the easement.

AFTER THE ACQUISITION

In the after situation, the site contains the same 62,459 square feet of land, with 2,250 square feet now encumbered by a permanent easement for an underground storm water drainage pipe. Access to the subject parcel, its overall utility and site visibility are generally the same as in the before situation. We note that before this taking, the subject site contained sufficient land for additional improvements, and after the placement of the easement, an adequate amount of land remains for any additional building improvements in conformance with building regulations and the surrounding neighborhood. A description of the restrictions within the permanent easement is detailed in the addenda of this report.

DESCRIPTION OF THE TEMPORARY EASEMENT

The temporary easement consists of 1,900 square feet located along both sides of the permanent easement, having a width of 5 feet on each side, and continuing 155 feet along the northerly side of the permanent easement, and 225 feet along the southerly side. The purpose of the temporary easement is in connection with the construction, site work and re-grading of the area, and will be terminated upon the approval of the completed work. It is anticipated the temporary easement will encumber the property for a period not to exceed one year, and the land encumbered by the temporary easement will be restored to its former condition.

INDIRECT DAMAGES

We do not observe any diminution in value or indirect damages to the property as a result of the takings, nor are there any special benefits, inasmuch as the overall market appeal and potential for additional development is similar as in the before situation.

SCOPE OF WORK AND REPORTING PROCESS

In preparing this appraisal, the appraiser made an inspection of the subject property, and researched sales of similar properties in order to process the sales comparison approach to value. The Income Approach was used to value the temporary easement.

ENVIRONMENTAL OBSERVATIONS

The value estimated is based on the assumption that the property is not negatively affected by the existence of hazardous substances or detrimental environmental conditions; however, the appraiser is not an expert in the identification of detrimental environmental conditions. It is possible that tests and inspections made by a qualified expert would reveal the existence of additional hazardous substances or detrimental environmental conditions on or around the property that would negatively affect its value.

TAX ASSESSMENT

The current Town of Rotterdam assessments are as follows:

Land	$ 27,400
Improvements	152,600
TOTAL	$180,000

The New York State Equalization Rate for the Town of Rotterdam was 83% in 2022, equating to an equalized full value of $216,870[3].

ZONING

The subject is located in both the B-1, Business Zone, which encompasses an area of approximately 26,475 square feet of land, containing the subject improvements along the Main Street frontage, with the remaining 35,984 square feet of unimproved rear land, accessed via Isabella Street within the A-1, Agricultural District. The B-1 Business Zone permits single and multi-family residences, together with various retail and commercial uses. The A-1 Agricultural District, in addition to various agricultural uses, permits single-family residences and private garages, requiring a minimum of one acre. The easement is located solely within the A-1 district.

HIGHEST AND BEST USE

After considering the necessary criteria of physically possible, legally permissible, financially feasible and maximally productive, it is our conclusion the highest and best use of the subject property, both before the placement of the easement and after the placement of the easement, is for residential use.

APPRAISAL PROBLEM AND APPROACHES TO VALUE

This appraisal problem is concerned with finding the market value of the subject land before the placement of a permanent easement on a portion of the site, and then the value of the 2,250 square feet of land to be placed under a permanent easement. The rental value of the temporary easement will also be calculated. The Sales Comparison Approach is the only meaningful method to utilize in this appraisal problem, and will be

[3] $180,000 ÷ 0.83 = $216,870 (r)

applied to find the value of the damages. The Income Approach will be utilized to value the temporary easement, while the Cost Approach will not be utilized, as the appraisal is concerned with vacant land value.

VALUE CONCLUSION

Based upon the Sales Comparison and Income approaches, as detailed in the addenda of this report, our value conclusion, as of January 4, 2023 is as follows:

Permanent Easement	
2,250 square feet	$ 5,340
Temporary Easement	
1,900 square feet	$ 950
TOTAL DAMAGES	$ 6,290

INDICATED EXPOSURE TIME

Approximately six months.

ADDENDA

Attached to this report is our certificate of value, subject tax plat, photos and taking maps, description of the easements, together with a Sales Comparison summary and a list of special assumptions and limiting conditions.

If you have any questions concerning the enclosed, please do not hesitate to contact us. We appreciate being asked to serve in this matter.

Very Truly Yours,
ESAC APPRAISERS - CONSULTANTS

RICHARD W. ARVIDSON
NYS Certified General
Real Estate Appraiser
Certificate #46-5767

JAMES A. SANEMETERIO
NYS Certified-General
Real Estate Appraiser
Certificate #46-40540

SINGLE FAMILY
RESIDENTIAL BUILDING SITES
MARKET DATA SYNOPSIS

COMPARABLE SALE NO.	1	2	3	4
Location	1067 Regent St Schenectady, NY	8 Pashley Rd Rotterdam, NY	101 Ulrich St Rotterdam, NY	s/s Theodora Rotterdam, NY
Date of Sale	9/22	8/22	1/22	10/21
Tax Map	50.31-3-7	16.13-5-29	13.17-2-41	59.5-12-22
Grantor	J. Nally	D. Pahe	D. Lucarelli	J. Cimino
Land Type	Elongated	Semi-Rural	Irregular	Good Utility
Sale Price	$20,000	$100,000	$40,000	$41,000
Lot Size (sq ft)	11,000	30,192	21,780	14,374.8
Price/Square Feet	$1.82	$3.31	$1.84	$2.85

COMPARABLE SALE ANALYSIS

The comparable sales have an unadjusted unit value range of $1.82 to $3.31 per square foot. After adjustment for differences such as location, size, frontage, site utility, and amenities, an adjusted value range of $2.18 to $2.57 per square foot is generated. Based upon this data, it is our conclusion that the fee simple market value of the subject land, before the placement of the easement, is $2.50 per square foot.

62,459 square feet @ $2.50 = $156,148

INDICATED VALUE VIA THE SALES COMPARISON APPROACH **SAY,** **$156,100**

PERMANENT AND TEMPORARY EASEMENT VALUATION

The permanent easement encumbers a total land area of 2,250 square feet. The property owner now has reduced control of the land within the easement, and inasmuch as the land cannot be disturbed, nor can any permanent structures be placed over it, the permanent easement rights are therefore allocated at 95% of the fee simple, previously concluded at $156,100 or $2.50 per square foot.

The value of the permanent easement is calculated as follows:

2,250 square feet @ $2.50 x 95% = $5,344
Say $5,340

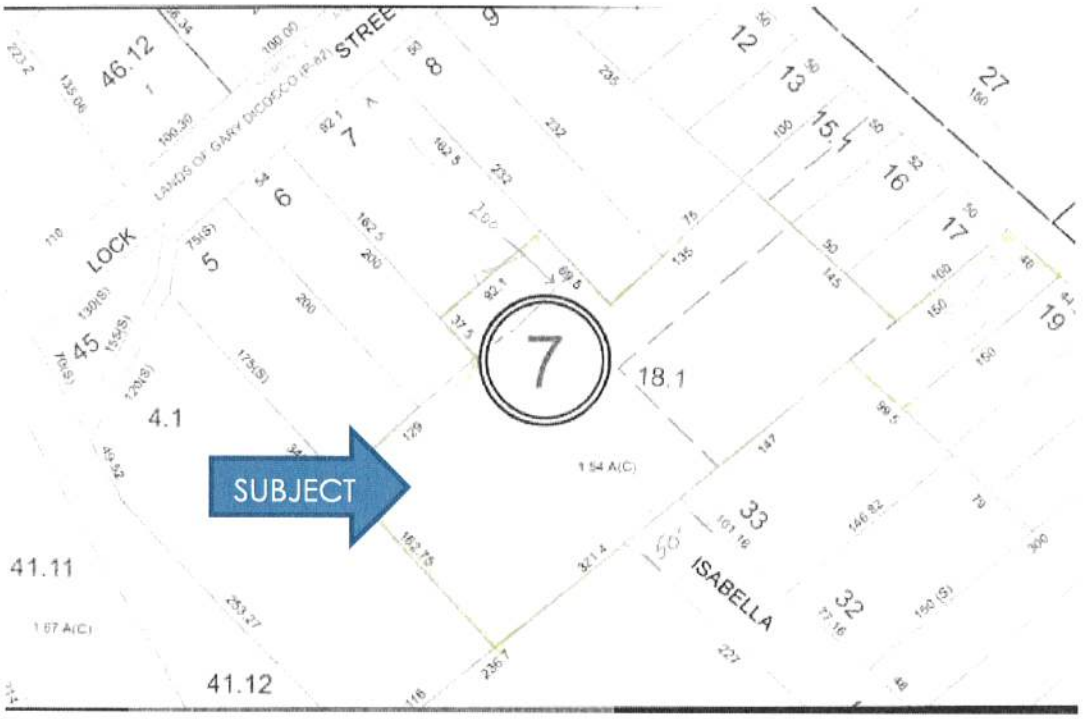
In order to value the temporary easement to be placed upon the 1,900 square feet of the subject land, we utilize the fee simple unit value conclusion previously arrived at $2.50 per square foot. An annual capitalization rate of 20% is then applied to derive the annual rental value of the temporary easement, calculated as follows:

Fee Value	1,900 sq ft @ $2.50 =	$4,750
Capitalization Rate		x .20
	Annual Rental Value	$ 950

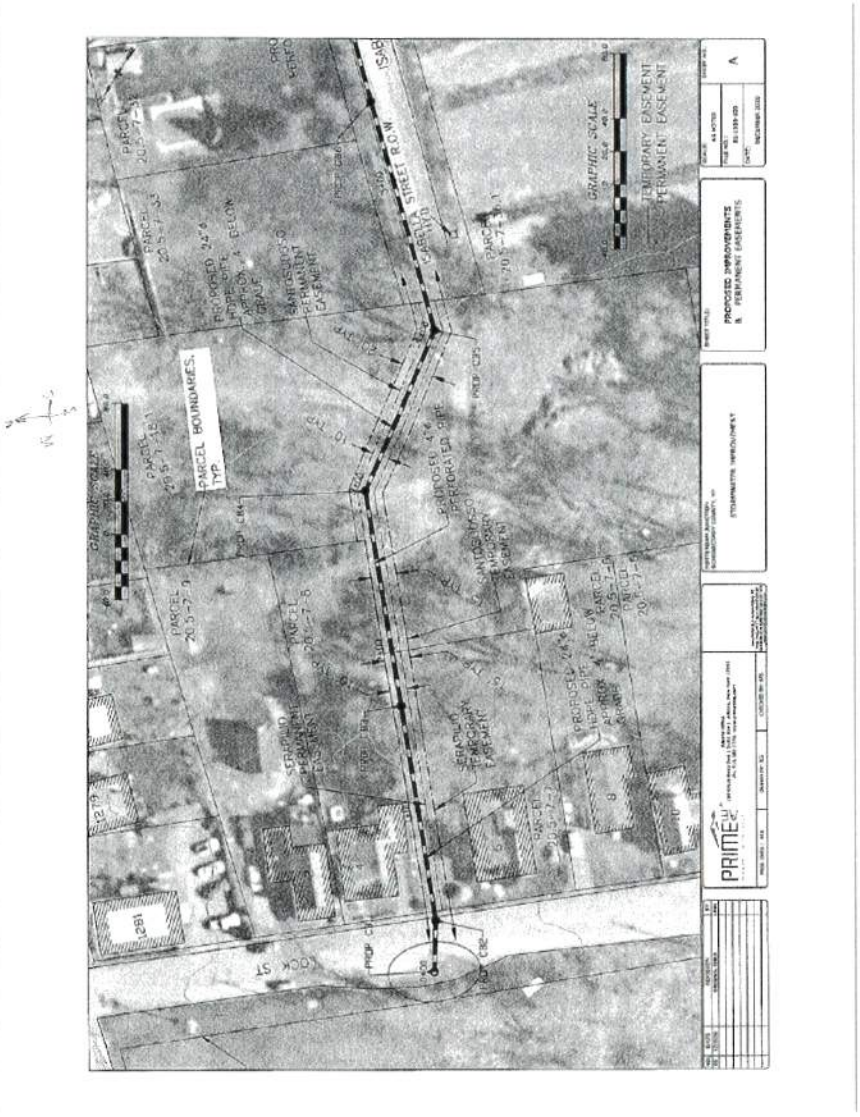
VALUATION SUMMARY

Permanent Easement	$5,340
Temporary Easement	950
Total Damages	$6,290

TAX PLAT


46.12
LOCK
45
4.1
SUBJECT
41.11
1.67 A(C)
41.12
7
18.1
1.54 A(C)
ISABELLA
33
32
27
19
LANDS OF GARY DICOCCO (P-67)

EASEMENT SURVEY



PERMANENT EASEMENT

This **PERMANENT EASEMENT** made the day of , 2022 , by and between John P. Santosuosso having an address of 1261-1263 Main Street, Rotterdam Junction, NY 12150 , party(ies) of the first part, and

TOWN OF ROTTERDAM, a municipal corporation within the County of Schenectady and State of New York, having a mailing address of 1100 Sunrise Blvd, Rotterdam, NY 12306 , party of the second part.

WITNESSETH, that the party(ies) of the first part, for and in consideration of the sum of One Dollar ($1.00) lawful money of the United States of America, and other good and valuable consideration, paid by the party of the second part, the receipt of which is hereby acknowledged, **DOES HEREBY GRANT, BARGAIN, SELL, CONVEY, TRANSFER, DELIVER AND RELEASE** to the said party of the second part a permanent easement in, under, and along the premises described in **Exhibit(s)** A hereto and depicted in the map(s) attached hereto as **Exhibit(s)** B (hereinafter, the "Easement Area"), for the purposes selected below:

(check as applicable)

- ☐ sanitary sewer mains, pipelines, laterals, pump stations, and/or other sanitary sewer facilities
- ☐ water mains, pipelines, laterals, hydrants, and/or other water facilities
- ☑ storm water pipelines, laterals, catch basins, detention/retention ponds, discharges, and/or other storm water management facilities
- ☐ pedestrian facilities, including sidewalks, multi-use paths, bike racks, benches, trash/recycling containers, and/or other pedestrian facilities
- ☐ traffic control facilities and structures
- ☑ ingress and egress
- ☐ parking
- ☐ other *(describe)*:

TOGETHER WITH the right to locate, place, build, construct, maintain, use, operate, repair, reconstruct, and protect such above-specified existing or future facilities within such Easement Area, to make required excavations therefor within such Easement Area, to inspect such existing or future facilities within such Easement Area from time to time, and to otherwise enter upon and along said Easement Area for the full and complete reasonable use, occupation, and enjoyment of the permanent easement granted herein, along with all rights and privileges incident thereto.

TO HAVE AND TO HOLD the said permanent easement unto the party of the second part and its successors and assigns forever.

1

The party(ies) of the first part hereby covenants with the party of the second part that it(they) is(are) lawfully seized and possessed of the real property constituting the Easement Area above-described, and that it has good and lawful right to convey it, and any part thereof, including the rights conveyed by this instrument.

The party of the second part hereby covenants that it will promptly restore, as nearly as is reasonably practicable and in a good and workmanlike manner, any portion of the Easement Area as may be disturbed as a result of the exercise by the party of the second part of any rights granted to it hereunder, provided such restoration is not otherwise inconsistent with the rights granted to the party of the second part hereunder.

This Permanent Easement includes and/or is subject to the following additional terms and conditions *(describe, or if none, enter "None")*:

None.

Remainder of Page Intentionally Left Blank.

Santosuosso
Permanent Easement

EXHIBIT A

ALL THAT CERTAIN TRACT, PIECE OR PARCEL OF LAND, situated in the Town of Rotterdam, County of Schenectady and State of New York being a permanent construction easement situated on land as shown on Town of Rotterdam tax map 020.5 dated March 17, 2017 as prepared by Aero Service Philadelphia, Pennsylvania 19135 and being more particularly bounded and described as follows:

BEGINNING AT A POINT along the centerline of the proposed improvements at the intersection with the westerly bounds of the Isabella Street right-of-way in the Town of Rotterdam, County of Schenectady, State of New York; said point also being on the easterly bounds of parcel 20.5-7-18.1; and

PROCEEDING THENCE along the centerline of the proposed improvements a distance of approximately 225 feet, as it winds and bends, to a point on the easterly bounds of parcel 20.5-7-7 and extending a distance of approximately 5 feet to either side of the centerline of the improvements, said point also being on the westerly bounds of parcel 20.5-7-18.1.

10 x 225

TEMPORARY EASEMENT

This **TEMPORARY EASEMENT** made the day of , 2022 , by and between John P. Santosuosso having an address of 1261-1263 Main Street, Rotterdam Junction, NY 12150 , party(ies) of the first part, and

TOWN OF ROTTERDAM, a municipal corporation within the County of Schenectady and State of New York, having a mailing address of 1100 Sunrise Blvd, Rotterdam, NY 12306 , party of the second part.

WITNESSETH, that the party(ies) of the first part, for and in consideration of the sum of One Dollar ($1.00) lawful money of the United States of America, and other good and valuable consideration, paid by the party of the second part, the receipt of which is hereby acknowledged, **DOES HEREBY GRANT, BARGAIN, SELL, CONVEY, TRANSFER, DELIVER AND RELEASE** to the said party of the second part a temporary easement in, under, and along the premises described in **Exhibit(s)** A hereto and depicted in the map(s) attached hereto as **Exhibit(s)** B (hereinafter, the "Easement Area"), giving the party of the second part, and its designee(s), the right during the Easement Period, as hereinafter defined, to enter upon the Easement Area for purposes of access, construction, installation, storage, staging, operations, clearing, replacement, repairs, maintenance, inspection, and any and all other purposes reasonably necessary to the completion of the following objective (the "Project"):

Storm sewer system installation.

The Easement Period shall commence on and shall terminate upon the earlier of the completion of the Project or .

TO HAVE AND TO HOLD the Temporary Easement herein granted to the party of the second part, its successors and assigns, during the Easement Period.

The party(ies) of the first part hereby covenants with the party of the second part that it(they) is(are) lawfully seized and possessed of the real property constituting the Easement Area above-described, and that it has good and lawful right to convey it, and any part thereof, including the rights conveyed by this instrument.

The party of the second part hereby covenants that it will promptly restore, as nearly as is reasonably practicable and in a good and workmanlike manner, any portion of the Easement

Area as may be disturbed as a result of the exercise by the party of the second part of any rights granted to it hereunder.

This Temporary Easement includes and/or is subject to the following additional terms and conditions *(describe, or if none, enter "None")*:

None.

Said Easement Area BEING over, through and upon a portion of the premises conveyed by _____ to _____ in a Deed dated _____ and recorded in the Schenectady County Clerk's Office on _____ at Liber _____, Page _____.

Remainder of Page Intentionally Left Blank.

SANTOSUOSSO

1

EXHIBIT "A"

ALL THAT CERTAIN TRACT, PIECE OR PARCEL OF LAND, situated in the Town of Rotterdam, County of Schenectady and State of New York being a temporary construction easement situated on land as shown on Town of Rotterdam tax map 020.05 dated March 17, 2017 as prepared by Aero Service Philadelphia, Pennsylvania 19135 and being more particularly bounded and described as follows:

BEGINNING AT A POINT at the centerline of the proposed improvements intersection with the westerly bounds of the Isabella Street right-of-way in the Town of Rotterdam, County of Schenectady, State of New York; said point also being on the easterly bounds of parcel 20.5-7-18.1; and

PROCEEDING THENCE along the centerline of the proposed improvements a distance of approximately 155 feet, as it winds and bends, to a point along the centerline of the proposed improvements; and

THENCE along the centerline of the proposed improvements a distance of approximately 70 feet to a point on the easterly bounds of parcel 20.5-7-7 and extending a distance of approximately 5 feet to the northerly side of the centerline and a distance of approximately 10 feet to the southerly side of the centerline.

Restrictions on the Permanent easements

Party of the first part shall not install or construct any structure in the Easement Area. Without limitation of the scope of the term "structure", such term shall include buildings, garages, sheds, fencing, and below or above-ground swimming pools. The party of the first part shall not plant or cultivate any trees in the Easement Area that are or will grow to be three or more inches in diameter at breast height (which, for purposes of this provision, shall be deemed to be four feet, six inches above ground level). The party of the second part shall have the right to move or remove any structures, equipment, trees, or other vegetation that may exist within the Easement Area, along with any other obstructions within the Easement Area, to the extent reasonably necessary and appropriate to exercise, from time to time, the rights granted under this Permanent Easement.

SUBJECT PHOTOGRAPHS

ISABELLA STREET FRONTAGE

INTERIOR DRIVEWAY – EASEMENT AREA

LAWN – EASEMENT AREA

WESTERLY EASEMENT AREA

ADDENDA

USE RESTRICTION

This appraisal report is limited to the use of the client. The opinions and conclusions in this report may not be understood properly without additional information contained in the appraiser's work file.

CERTIFICATE OF APPRAISER

The Appraiser certifies and agrees that:

1. This report was prepared in conformity with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Standards Board of the Appraisal Foundation.

2. This report conforms with the rules and regulations of the NYS Board of Real Estate Appraisal of the Department of State.

3. This appraisal report has been made in conformity with and is subject to the requirements of the Code of Professional Ethics and Standards of Professional Conduct of the appraisal organizations with which the Appraiser is affiliated.

4. The Appraiser has no present or contemplated future interest in the property appraised, and the compensation for preparing this appraisal is not contingent upon the reporting of a pre-determined value, minimum value, or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, the occurrence of a subsequent event, or the approval of a loan.

5. The Appraiser is entirely impartial and has no personal interest in or bias with respect to the subject matter of the appraisal report, the intended users of the report or the participants to a pending sale of the property. The "Opinion of Market Value" in the appraisal report is not based in whole or in part upon the race, color, creed, or national origin of the prospective owners or present occupants of the property appraised or properties in the vicinity of the property appraised.

6. The Appraiser has personally inspected the property listed in the report. To the best of the Appraiser's knowledge and belief, all statements and information in this report are true and correct, and the Appraisers have not knowingly withheld any significant information.

7. All contingent and limiting conditions imposed by the terms of the assignment, or by the undersigned, affecting the Appraiser's analyses, opinions, and conclusions are fully set forth in this report.

8. All conclusions and opinions concerning the real estate that are set forth in the appraisal report were prepared by the Appraisers, and no one provided significant professional assistance to the Appraisers signing this report, unless otherwise noted. No change of any item in the appraisal report shall be made by anyone other than the Appraisers, and the Appraisers shall have no responsibility for any such unauthorized change.

9. The appraiser has performed no services as an appraiser, or in any other capacity regarding the property that is the subject of this report, within the three-year period immediately preceding acceptance of this assignment.

RICHARD W. ARVIDSON
NYS Certified-General
Real Estate Appraiser
Certificate #46-5767

CERTIFICATE OF APPRAISER

The Appraiser certifies and agrees that:

1. This report conforms with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Standards Board of the Appraisal Foundation.

2. This report conforms with the rules and regulations of the NYS Board of Real Estate Appraisal of the Department of State.

3. This appraisal report has been reviewed in conformity with and is subject to the requirements of the Code of Professional Ethics and Standards of Professional Conduct of the appraisal organizations with which the Appraiser is affiliated.

4. The Appraiser has no present or contemplated future interest in the property appraised, and the compensation for preparing this appraisal is not contingent upon the reporting of a pre-determined value, minimum value, or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, the occurrence of a subsequent event, or the approval of a loan.

5. The Appraiser has no personal interest in or bias with respect to the subject matter of the appraisal report or the participants to the sale. The "Opinion of Market Value" in the appraisal report is not based in whole or in part upon the race, color, or national origin of the prospective owners or occupants of the properties in the vicinity of the property appraised.

6. The Appraiser has not personally inspected the subject property listed in the report. To the best of the Appraiser's knowledge and belief, all statements and information in this report are true and correct, and the Appraiser has not knowingly withheld any significant information.

7. All contingent and limiting conditions are contained herein (imposed by the terms of the assignment or by the undersigned affecting the analyses, opinions, and conclusions contained in this report).

8. All conclusions and opinions concerning the real estate that are set forth in the appraisal report were prepared by the Appraiser whose signature appears on the appraisal report. No change of any item in the appraisal report shall be made by anyone other than the Appraiser, and the Appraiser shall have no responsibility for any such unauthorized change.

9. The appraiser has performed no services as an appraiser, or in any other capacity regarding the property that is the subject of this report, within the three-year period immediately preceding acceptance of this assignment.

10. The appraiser is acting in the capacity of a supervisory appraiser.

JAMES A. SANEMETERIO
NYS Certified-General
Real Estate Appraiser
Certificate #46-40540

QUALIFICATIONS OF APPRAISER
RICHARD W. ARVIDSON

PROFESSIONAL DESIGNATIONS

NYS Certified-General Real Estate Appraiser
Certificate #46-5767

PROFESSIONAL EXPERIENCE:

Continuously and actively engaged in the appraisal of real estate for the last 15 years.

Commercial Appraisal Associate, Empire State Appraisal Consultants,
Kinderhook, New York, May 1990 - present

Staff Appraiser, Griffin Valuation & Realty Services, Ltd.,
Gerald Griffin, MAI, Kingston, New York, May 1985-1990

Real Estate Sales Person, Charles Winters Real Estate,
Saugerties, New York, 1982-1984

EDUCATION:
State University of New York
Farmingdale, New York

Completed numerous courses in real estate appraisal including all courses required for licensing and renewals by the New York State Department of State.

TYPES OF ASSIGNMENTS

Tax Certiorari	Conservation Easements	Equalization Studies
Estate Tax	Eminent Domain	Adverse Possession
Leased Fee	Feasibility Studies	Diminution
Leasehold	Scenic Easements	Appraisal Review
Revaluation	Deficiency Judgment	Development Rights
Value-in-use		

TYPES OF PROPERTY APPRAISED

Farms	Forest Lands	Service Stations
Hotels	Quarry Lands	Manufacturing Facilities
Motels	Country Clubs	Indoor Tennis Clubs
Banks	Golf Courses	Trucking Terminals
Apartments	Supermarkets	Mobile Home Parks
Warehouses	Mobile Homes	Automobile Sales
Office Buildings	Cold Storage	Horse Breeding Facilities
Business Parks	Health Clubs	Gravel Extraction & Mining
Subdivisions	Bowling Centers	Historic Properties
Theatres	Amusement Parks	Restaurants
Schools	Medical Arts	Condominiums
Estate Properties	Hydro Electric Sites	Shopping Centers & Enclosed Malls

James SanEmeterio
Hudson River Appraisal Group
Empire State Appraisal Consultants
P.O. Box 345
Greenville, New York 12083
518.929.5263 email:
jimsan@valstar.net
www.Hudsonriverappraisalgrou
p.com

NEW YORK STATE CERTIFICATION #46-40540
Certified General
Appraiser HUD / FHA
certified appraiser
USDA Rural development approved appraiser
Candidate for Designation with the Appraisal Institute

EXPERIENCE

1993 - 1999 Production manager for Habermaass Corporation, Skaneateles, N.Y. 1999 - 2013 General appraiser with Concra Appraisal Associates / Sr. Staff appraiser 2007 - present H u d s o n River Appraisal Group - owner
2018 - present E m p i r e State Appraisal Consultants - owner

EDUCATION/TRAINING

Tompkins Cortland Community College - Majoring in Construction Technology
Columbia-Greene Community College - Majoring in Business Administration (A.A.S degree program)
Educational real estate / appraisal courses with the Manfred Real Estate Learning Center
Educational real estate / appraisal courses with the Appraisal Institute
Current with NYS continuing educational requirements

PROFESSIONAL AFFILIATIONS

Columbia Greene Board of Realtors
Appraisal Institute

EXAMPLE OF CURRENT CLIENTS

The Bank of Greene County
Coxsackie Kinderhook Bank and Trust
Lee Bank
M&T Bank
Norman, Hubbard & Assoc. (AMC)
Central Hudson Electric & Gas Corp.
Serv. USDA Rural Development
National Bank of Salisbury Bank
Prospect Mortgage
Solidifi (AMC)
Valutrust (AMC)
NYS Parks and Recreation
APEX Mortgage

EXPERT TESTIMONY QUALIFIED IN NEW YORK AND MASSACHUSETTS

New York State Supreme Court / County of New York New York State Supreme Court / County of Columbia New York State Supreme Court / County of Greene New York State Bankruptcy Court / County of Albany Massachusetts State Supreme Court

PERMANENT EASEMENT

This **PERMANENT EASEMENT** made the day of , 2023 , by and between John P. Santosuosso having an address of 1261-1263 Main Street, Rotterdam Junction, NY 12150 , party(ies) of the first part, and

TOWN OF ROTTERDAM, a municipal corporation within the County of Schenectady and State of New York, having a mailing address of 1100 Sunrise Blvd, Rotterdam, NY 12306 , party of the second part.

WITNESSETH, that the party(ies) of the first part, for and in consideration of the sum of One Dollar ($1.00) lawful money of the United States of America, and other good and valuable consideration, paid by the party of the second part, the receipt of which is hereby acknowledged, **DOES HEREBY GRANT, BARGAIN, SELL, CONVEY, TRANSFER, DELIVER AND RELEASE** to the said party of the second part a permanent easement in, under, and along the premises described in **Exhibit(s)** A hereto and depicted in the map(s) attached hereto as **Exhibit(s)** B (hereinafter, the "Easement Area"), for the purposes selected below:

(check as applicable)

- ☐ sanitary sewer mains, pipelines, laterals, pump stations, and/or other sanitary sewer facilities
- ☐ water mains, pipelines, laterals, hydrants, and/or other water facilities
- ☑ storm water pipelines, laterals, catch basins, detention/retention ponds, discharges, and/or other storm water management facilities
- ☐ pedestrian facilities, including sidewalks, multi-use paths, bike racks, benches, trash/recycling containers, and/or other pedestrian facilities
- ☐ traffic control facilities and structures
- ☑ ingress and egress
- ☐ parking
- ☐ other *(describe)*:

TOGETHER WITH the right to locate, place, build, construct, maintain, use, operate, repair, reconstruct, and protect such above-specified existing or future facilities within such Easement Area, to make required excavations therefor within such Easement Area, to inspect such existing or future facilities within such Easement Area from time to time, and to otherwise enter upon and along said Easement Area for the full and complete reasonable use, occupation, and enjoyment of the permanent easement granted herein, along with all rights and privileges incident thereto.

TO HAVE AND TO HOLD the said permanent easement unto the party of the second part and its successors and assigns forever.

The party(ies) of the first part hereby covenants with the party of the second part that it(they) is(are) lawfully seized and possessed of the real property constituting the Easement Area above-described, and that it has good and lawful right to convey it, and any part thereof, including the rights conveyed by this instrument.

The party of the second part hereby covenants that it will promptly restore, as nearly as is reasonably practicable and in a good and workmanlike manner, any portion of the Easement Area as may be disturbed as a result of the exercise by the party of the second part of any rights granted to it hereunder, provided such restoration is not otherwise inconsistent with the rights granted to the party of the second part hereunder.

This Permanent Easement includes and/or is subject to the following additional terms and conditions *(describe, or if none, enter "None")*:

The party of the first part shall not install or construct any structure in the Permanent Easement Area. Without limitation of the scope of the term "structure", such term shall include buildings, garages, sheds, fencing, and below or above-ground swimming pools.

The party of the first part shall not plant or cultivate any trees in the Permanent Easement Area that are or will grow to be three or more inches in diameter at breast height (which, for purposes of this provision, shall be deemed to be four feet, six inches above ground level).

The party of the second part shall have the right to move or remove any structures, equipment, trees, or other vegetation that may exist within the Permanent Easement limits, along with any other obstructions, to the extent reasonably necessary and appropriate to exercise, from time to time, the rights granted under this Permanent Easement.

Remainder of Page Intentionally Left Blank.

IN WITNESS WHEREOF, the parties hereto have hereunto signed this Permanent Easement as of the day and year first above written.

Party(ies) of the First Part:

John P. Santosuosso

By: _____
Name: John P. Santosuosso
Title: Owner

By:_____
Name:
Title:

By:_____
Name:
Title:

By:_____
Name:
Title:

Party of the Second Part:
TOWN OF ROTTERDAM

By: _____
Name: Mollie A. Collins
Title: Town Supervisor

STATE OF NEW YORK)
COUNTY OF SCHENECTADY) ss.:

On the day of in the year 2023 before me, the undersigned, a Notary Public in and for said State, personally appeared Mollie A. Collins , personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

NOTARY PUBLIC

STATE OF NEW YORK)
COUNTY OF SCHENECTADY) ss.:

On the day of in the year 2023 before me, the undersigned, a Notary Public in and for said State, personally appeared John P. Santosuosso , personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

NOTARY PUBLIC

STATE OF NEW YORK)
COUNTY OF SCHENECTADY) ss.:

On the day of in the year 2023 before me, the undersigned, a Notary Public in and for said State, personally appeared , personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____

NOTARY PUBLIC

STATE OF NEW YORK)
COUNTY OF SCHENECTADY) ss.:

On the day of in the year 2023 before me, the undersigned, a Notary Public in and for said State, personally appeared , personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____

NOTARY PUBLIC

Exhibit A

Description of Easement Area

EXHIBIT A

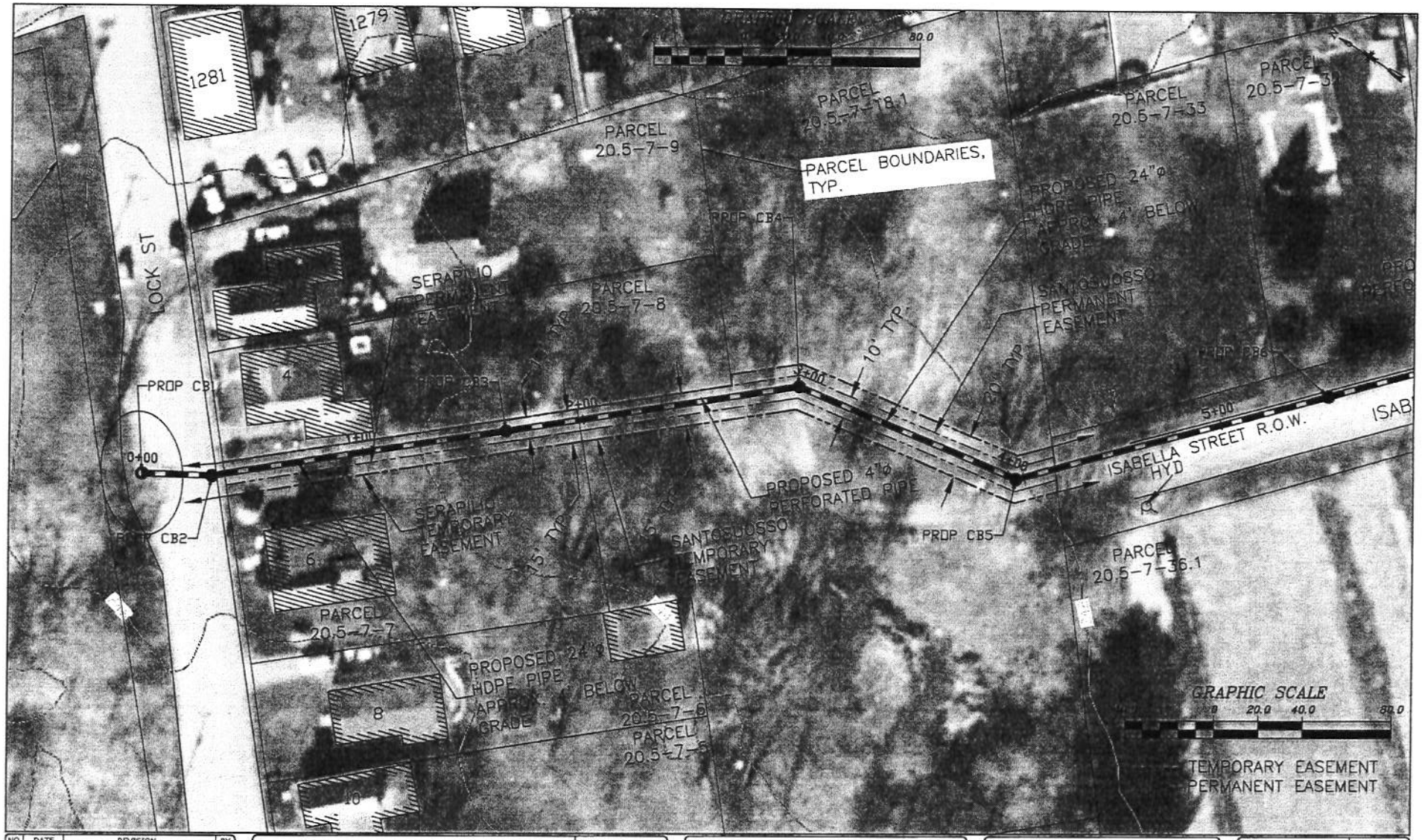
ALL THAT CERTAIN TRACT, PIECE OR PARCEL OF LAND, situated in the Town of Rotterdam, County of Schenectady and State of New York being a permanent construction easement situated on land as shown on Town of Rotterdam tax map 020.5 dated March 17, 2017 as prepared by Aero Service Philadelphia, Pennsylvania 19135 and being more particularly bounded and described as follows:

BEGINNING AT A POINT along the centerline of the proposed improvements at the intersection with the easterly bounds of the Lock Street right-of-way in the Town of Rotterdam, County of Schenectady, State of New York; said point also being on the westerly bounds of parcel 12.5-7-7; and

PROCEEDING THENCE along the centerline of the proposed improvements a distance of approximately 200 feet to a point on the easterly bounds of parcel 20.5-7-7 and extending a distance of approximately 5 feet to either side of the centerline of the improvements, said point also being on the westerly bounds of parcel 20.5-7-18.1.

Exhibit B

Map of Easement Area



NO.	DATE	REVISION	BY
00	12/2020	ORIGINAL ISSUE	JGS

PRIME AE

Albany Office
100 Great Oaks Blvd | Suite 114 | Albany, New York 12203
Ph: 518 382 1774 www.primeeng.com

PROJ. ENGR.: ATB | DRAWN BY: JGS | CHECKED BY: ATB

UNAUTHORIZED ALTERATIONS TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF NEW YORK STATE EDUCATION LAW

ROTTERDAM JUNCTION
SCHENECTADY COUNTY, NY

STORMWATER IMPROVEMENT

SHEET TITLE:

PROPOSED IMPROVEMENTS & PERMANENT EASEMENTS

SCALE: AS NOTED
FILE NO.: 01-1809-100
DATE: DECEMBER 2020
SHEET NO.: A

RESOLUTION NO. 255.23

TO ACCEPT AND AWARD BID FOR ROTTERDAM JUNCTION WD 3&4 LEAK DETECTION SURVEY

WHEREAS, Pursuant to notice duly published according to Section One Hundred Three of the General Municipal Law of the State of New York, the Town of Rotterdam on Tuesday, July 11, 2023, posted an official report of all bid submissions received to the Empire State Purchasing Group on BidNet (https://bidnetdirect.com/townofrotterdam). Additionally, the official bid report and all bids were made available in the Office of the Town Clerk for public inspection upon request for the purchase by the Town of Rotterdam of the following:

ROTTERDAM JUNCTION WD 3&4 LEAK DETECTION SURVEY

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam does hereby accept and award the bid for Rotterdam Junction WD 3&4 Leak Detection Survey for the Town of Rotterdam to Consulting Engineering Inc., located at 19655 Tanbark Lane, Strongsville, Ohio 44149, at the mutual consent of both the Town and Consulting Engineering Inc.

SECTION 2. The Supervisor of the Town of Rotterdam is hereby authorized to execute a contract with said bidder in accordance with the terms of the bid proposal as submitted. Summary of bid prices are on file in the Town Clerk's office.

SECTION 3. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE:	August 4, 2023
TO:	Town Board
FROM:	James Keith, Senior Building Inspector JK
TITLE OF REQUEST:	Award Bid for Leak Detection Survey for Rotterdam Junction Water Districts 3&4
TOWN BOARD MEETING:	August 9, 2023
Background Information:	Resolution 119.23 authorized the use of ARPA funds for engineers to prepare a bid package for a leak detection survey of Rotterdam Junction Water Districts 3&4. The Town issued a Request for Qualifications (RFQ) for engineering Services regarding the Leak Detection Survey for Rotterdam Junction Water Districts 3&4 on June 16, 2023. The Town received one response that was due by July 10, 2023 from Consulting Engineering Inc.
Evaluation/Analysis:	After a review by Prime AE, it is recommended that Consulting Engineering Inc. be appointed as the firm to provide the Leak Detection Survey for Rotterdam Junction Water Districts 3&4.
Recommendation(s):	Adopt a resolution authorizing the Town Supervisor to execute all documents to retain Consulting Engineering Inc. for a Leak Detection Survey for Rotterdam Junction Water Districts 3&4.
Attachment/Document(s):	Bid package – Leak Detection Survey Rotterdam Junction Water Districts 3&4.
Compliance with Purchasing Policy:	Yes – Competitive Bidding
Effect(s) on Existing Law(s):	N/A
LEGISLATION WILL BE PREPARED BY:	Supervisors Office

BID FOR ROTTERDAM JUNCTION WD 3 AND 4 LEAK DETECTION SURVEY 2023

BID FOR: Rotterdam Junction WD 3 & 4 Leak Detection Survey
DATE OF TB MTG. & RESOLUTION #: 6/14/2023 Res. # 204.23
DATE BID PACKETS BECOME AVAILABLE: 6/16/2023

DATE PUBLISHED IN NEWSPAPER: 6/16/2023
DATE & TIME BIDS TO BE OPENED: 7/10/2023 @ 2:00 pm

# Rec	Dropped off & Time Received @TC Office	Initials	Company/Firm/Email	Address	Contact	Phone #	Contract #s	BID Amount	Comments
1	7/6/2023 12:28	DMM	Consulting Engineering Inc.	19655 Tanbark Lane Strongsville, OH 44149	Y Chan	440-238-9699 Ext#206 440-238-9699 Fax		$19,963.00	

PRIME AE®
KB Group of NY, Inc. dba PRIME AE Group of NY
Albany Office
100 Great Oaks Boulevard | Suite 114 | Albany, New York 12203
P: 518.382.1774

July 18, 2023

Mrs. Mollie Collins, Supervisor
Town of Rotterdam
1100 Sunrise Blvd.
Rotterdam, NY 12306

Re: Town of Rotterdam
Rotterdam Junction Leak Detection Survey Project
Recommendation of Award

Dear Supervisor Collins:

Sealed bids were publicly opened for the Rotterdam Junction Leak Detection Survey Project at Town Hall on Monday, July 10, 2023. The bid results are shown in the table below:

Contractor	Bid Amount
Consulting Engineering, Inc.	$19,963.00
Allegheny Utility Solutions, LLC	No Bid
Allied Solutions	No Bid
GPRS	No Bid

PRIME AE directly contacted six (6) leak detection firms during the bid phase and the project was publicly listed on BidNet and advertised in the local newspaper. Four (4) firms obtained project plans and specifications, however, only one (1) bid was received by the deadline.

The apparent low bidder for this work is Consulting Engineering, Inc., located in Strongsville, Ohio. We have checked references for Consulting Engineering, Inc. on projects of similar size and scope and received very good feedback. The references we spoke to said they were very responsive, easy to work with, completed the work on time, and they would use Consulting Engineering, Inc. again for future water main leak detection work. They are qualified to perform the work for which they bid. The bid amount is reasonable for the scope of work involved, in our opinion.

We therefore recommend that the Town award the Rotterdam Junction Leak Detection Survey Project to Consulting Engineering, Inc. in the amount of $19,963.00.

Sincerely,
KB Group of NY, Inc. dba PRIME AE Group of NY

Jeffrey D. Trzeciak, P.E.
Senior Project Manager

cc: Jack Dodson, Deputy Town Supervisor
Diane Marco, Town Clerk

FORMS TO BE SUBMITTED WITH BID

- 004117 BID FORM
- 004313 BID BOND
- 004513 CONTRACTOR'S QUALIFICATION STATEMENT
- 004519 NONCOLLUSION AFFIDAVIT
- 004525 NON-DISCRIMINATION AND HARASSMENT IN THE WORKPLACE POLICY

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:
Consulting Engineering Inc.
19655 Tanbark Ln
Strongsville, OH 44149

SURETY *(Name and Address of Principal Place of Business)*:
Philadelphia Indemnity Insurance Co.
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004

OWNER *(Name and Address)*:
Town of Rotterdam
1100 Sunrise Blvd
Rotterdam, NY 123.06

BID
Bid Due Date: 07/10/2023
Description *(Project Name and Include Location)*:

BOND
Bond Number:
Date *(Not earlier than Bid due date)*:
Penal sum Nine-hundred Ninety-eight dollars and Fifteen cents (Words) $ 998.15 (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER	**SURETY**
Consulting Engineering Inc. (Seal)	_____ (Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature	Signature (Attach Power of Attorney)
Y Chan	_____
Print Name	Print Name
Principal Owner & Civil Engineer	_____
Title	Title
Attest: _____	Attest: _____
Signature	Signature
Ray Chan	_____
Title	Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:
Consulting Engineering Inc.
19655 Tanbark Ln
Strongsville, OH 44149

SURETY *(Name and Address of Principal Place of Business)*:
Philadelphia Indemnity Insurance Company
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004

OWNER *(Name and Address)*:
Town of Rotterdam
1100 Sunrise Blvd
Rotterdam, NY 12306

BID

Bid Due Date: July 10th, 2023

Description *(Project Name and Include Location)*:
Town of Rotterdam- Rotterdam Junction WD3&4 Leak Detection Survey - Contract No.1 - Leak Detection

BOND

Bond Number:

Date *(Not earlier than Bid due date)*: July 10th, 2023

Penal sum 5% of GAB (Words) $ 5% of GAB (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER	**SURETY**
CONSULTING ENGINEERING INC (Seal)	Philadelphia Indemnity Insurance Company (Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature	Signature (Attach Power of Attorney)
Y CHAN	Massimo Schirru
Print Name	Print Name
OWNER	Attorney in Fact
Title	Title
Attest: _____	Attest: _____
Signature	Signature
Accounting	Attorney in Fact
Title	Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SECTION 004321
ALLOWANCE FORM

1.1 BID INFORMATION

A. Bidder: Consulting Engineering Inc.

B. Project Name: Rotterdam Junction Leak Detection Survey

C. Project Location: Rotterdam, New York

D. Owner: Town of Rotterdam

E. Engineer: Prime AE Group of NY

F. Engineer Project Number: 23350.

1.2 BID FORM SUPPLEMENT

A. This form is required to be attached to the Bid Form.

B. The undersigned Bidder certifies that Base Bid submission to which this Bid Supplement is attached includes those allowances described in the Contract Documents and scheduled in Section 012100 "Allowances."

1.3 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this 28th day of June, 2023.

B. Submitted By: Consulting Engineering Inc. (Insert name of bidding firm or corporation).

C. Authorized Signature: _____ (Handwritten signature).

D. Signed By: Y Chan (Type or print name).

E. Title: Principal Owner & Civil Engineer (Owner/Partner/President/Vice President).

END OF SECTION 004321

004513

QUALIFICATIONS STATEMENT

QUALIFICATIONS STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT PERMITTED BY LAWS AND REGULATIONS

1. **SUBMITTED BY:**

   Official Name of Firm: Consulting Engineering Inc.

   Address: 19655 Tanbark Ln.

   Strongsville, OH 44149

2. **SUBMITTED TO:** Town of Rotterdam and Prime AE Group of NY

3. **SUBMITTED FOR:**

   Owner: Town of Rotterdam

   Project Name: Rotterdam Junction WD3&4 Leak Deetection Survey

   TYPE OF WORK: Water System Leak Detection Services

4. **CONTRACTOR'S CONTACT INFORMATION**

   Contact Person: Y Chan

   Title: Principal Owner & Civil Engineer

   Phone: 440-238-9699 x206

   Email: y.chan@cengr.co

EJCDC® C-451, Qualifications Statement.
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I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HEREWITH, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: Consulting Engineering Inc.

BY: Y Chan

TITLE: Principal Owner & Civil Engineer

DATED: 7/5/2023

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME
THIS 5th DAY OF July, 2023

NOTARY PUBLIC - STATE OF Ohio
MY COMMISSION EXPIRES: 10/23/2023

ELIZABETH PANKRATZ
Notary Public, State of Ohio
My Commission Expires
October 23, 2023

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Audited balance sheet for each of the last 3 years for firm named in Section 1.
5. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Required safety program submittals listed in Section 13.
8. Additional items as pertinent.

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Table of Contents

1 Introduction
- Cover Letter p.3
- Company Profile p.4

2 Experience
- Personnel pp.5-8

3 Technical Approach/Implementation
- Approach & Work Plan pp.9-11
- Policy & Affiliation Statements p.12

Company Profile

History
Founded in 1984, Consulting Engineering, Inc. (CEI) is a bona fide RSB/MBE/DBE/CSB/EDGE-certified team of consultants specially trained for the requirements of this project. CEI has successfully completed hundreds of design, study, forensic, administration, and inspection projects including transportation systems, water systems, site improvements, land surveying, structural design, construction inspection & administration, and leak detection surveys & pinpointing with expertise across North America.

Equipment
We utilize state-of-the-art leak detection equipment to identify, pinpoint, measure, and reduce water losses in metallic and non-metallic systems with varying pressure zones in rural, suburban, and high-density areas with varied distances between assets such as hydrants, valves, and meters. We are equipped with analog and digital devices from Vivax-Metrotech, Subsurface Leak Detection, Itron, Zcorr, CST/Berger, SebaKMT, Samsung, and Apple to stop water loss.

Philosophy
CEI uses the Plan-Do-Study-Act (PDSA) iterative problem-solving model. We believe what gets measured gets improved. By planning a detailed work program with scheduled metrics, we execute comprehensive leak detection services on solid footing with results going back into the PDSA feedback loop. CEI has the experience breadth, history, depth, and qualifications needed to make this program a resounding success.

Our DNA
Our partnership with ESRI allows us to utilize to capture valuable data such as asset conditions, mapping conditions, photos, and virtually any field condition allowing municipalities a means to update their system and receive accurate reports. This data is collected in real-time with GPS-enabled, devices so accountability and safety are built into the DNA of our process.

Safety
As an engineering firm, we are MUTCD and OSHA compliant. We recognize the importance of making our customers happy along with those they serve so our conduct, dress, communication, and visibility are made clear before our boots touch the ground.

Client & Financial Stability
CEI will provide a turnkey program with a path to reducing water loss while collecting valuable in-field information. By focusing on personnel, methodology, data collection, safety, and communication, CEI has been able to provide water loss reduction savings at competitive pricing since 1984.

We currently have 3 public contractual agreements in place with over 41 in the last 3 years. With the leak detection season underway, in addition to the available manpower and equipment stated in the proposal, CEI has $277,000 available to support this project.

1. Introduction

Cover Letter

Consulting Engineering Inc. (CEI) is pleased to submit its technical proposal through this cover letter to the City of Rotterdam for their Leak Detection Program.

We believe our response meets the requirements set out by the City of Rotterdam in the contract documents and CEI's methodology will abide by the City of Rotterdam's technical specifications. If the City of Rotterdam determines that CEI's response is deficient in any way, CEI respectfully requests to be notified and, where appropriate, given the opportunity to correct any such deficiency.

Please, forward any questions, comments, or concerns regarding this solicitation response to Y Chan via the contact information below. On behalf of the CEI team, we thank you for the opportunity to respond to these contract documents and look forward to serving Rotterdam.

Sincerely,

Y Chan
Civil Engineer | Principal Owner
440-238-9699 x206

Prohibition Against Retaliation – Unlawful retaliation can be any action that could discourage an employee from coming forward to make or support a claim of discrimination or harassment, including sexual harassment. Adverse action need not be job-related or occur in the workplace to constitute unlawful retaliation (e.g., threats of physical violence outside of work hours).

Unlawful retaliation against any employee who has engaged in "protected activity" is strictly prohibited by this policy as well as (where applicable) federal, state, and local law. Protected activity occurs when a person has:

- made a complaint of harassment or discrimination, either internally or with any anti-discrimination agency;
- opposed harassment or discrimination by making a verbal or informal complaint to management, or by simply informing a supervisor or management of harassment or discrimination;
- reported that another employee has been subjected to harassment or discrimination;
- encouraged a fellow employee to report harassment or discrimination;
- participated in a workplace investigation regarding harassment or discrimination;
- testified or assisted in a proceeding involving harassment or discrimination under the Human Rights Law or other anti-discrimination laws.

Even if the alleged discrimination or harassment does not turn out to rise to the level of a violation of law, the individual is protected from retaliation if the person had a good faith belief that the practices were unlawful. However, the retaliation provision is not intended to protect persons making intentionally false charges of discrimination or harassment.

Reporting of Discrimination and Harassment (including Sexual Harassment) – Reports of alleged discrimination and/or harassment (including sexual harassment) or retaliation may be made verbally or in writing. A form for the submission of a written complaint is attached to this policy and individuals are encouraged to use this form. If an individual chooses to submit a verbal complaint, such complaint will be recorded by the receiver of this complaint on this form. Employees are encouraged to report incidents of discrimination, harassment (including sexual harassment), or retaliation to their Department Head and/or the Town Supervisor as soon as possible after their occurrence. If the employee's Department Head is believed to be involved in the incident, or if the employee is not comfortable in addressing the incident with the Department Head, the report should be made directly to the Town Supervisor. If the Town Supervisor is believed to be involved in the incident or the employee is not comfortable reporting the incident to the Town Supervisor, the employee should report the incident to a member of the Town Board. Employees who believe they have been discriminated against or harassed and would like to obtain guidance as to how to proceed in filing a complaint, should contact their immediate supervisor, their Department Head, the Town Supervisor, or any member of the Town Board. Employees who work during off-hours are encouraged to contact their supervisor, their Department Head, the Town Supervisor, or any member of the Town Board at home if these individuals do not work during the employee's shift. Non-employees are encouraged to report incidents of alleged discrimination and harassment (including sexual harassment) to either the Department Head of the

remarks made by someone which are offensive or objectionable to the recipient, which cause the recipient discomfort or humiliation, or which interfere with the recipient's job performance.

Sexual harassment also occurs when a person in authority tries to trade job benefits for sexual favors. This can include hiring, promotion, continued employment or any other terms, conditions or privileges of employment. This is also called "quid pro quo" harassment.

Any employee who feels harassed should report so that any violation of this policy can be corrected promptly. Any harassing conduct, even a single incident, can be addressed under this policy.

Examples of Sexual Harassment - The following describes some of the types of acts that may be unlawful sexual harassment and that are strictly prohibited:

- Physical acts of a sexual nature, such as:
  - Touching, pinching, patting, kissing, hugging, grabbing, brushing against another employee's body or poking another employee's body;
  - Rape, sexual battery, molestation or attempts to commit these assaults.
- Unwanted sexual advances or propositions, such as:
  - Requests for sexual favors accompanied by implied or overt threats concerning the target's job performance evaluation, a promotion or other job benefits or detriments;
  - Subtle or obvious pressure for unwelcome sexual activities.
- Sexually oriented gestures, noises, remarks or jokes, or comments about a person's sexuality or sexual experience, which create a hostile work environment.
- Sex stereotyping occurs when conduct or personality traits are considered inappropriate simply because they may not conform to other people's ideas or perceptions about how individuals of a particular sex should act or look.
- Sexual or discriminatory displays or publications anywhere in the workplace, such as:
  - Displaying pictures, posters, calendars, graffiti, objects, promotional material, reading materials or other materials that are sexually demeaning or pornographic. This includes such sexual displays on workplace computers or cell phones and sharing such displays while in the workplace.
- Hostile actions taken against an individual because of that individual's sex, sexual orientation, gender identity and the status of being transgender, such as:
  - Interfering with, destroying or damaging a person's workstation, tools or equipment, or otherwise interfering with the individual's ability to perform the job;
  - Sabotaging an individual's work;
  - Bullying, yelling, name-calling.

department where services are being provided, the Town Supervisor, or a member of the Town Board.

Supervisory Responsibility – Supervisory personnel must make every effort to ensure a work environment that is free from discrimination and harassment, including sexual harassment. Any Department Head or supervisor who receives a complaint or information about suspected prohibited activity (as outlined above), observes behavior that may constitute prohibited activity, or for any reason suspects that prohibited activity is occurring, is required to report such suspected prohibited activity to the Town Supervisor, or any member of the Town Board.

In addition to being subject to corrective action or discipline if they engaged in prohibited activity themselves, supervisory personnel will be subject to discipline for failing to report suspected prohibited activity or otherwise knowingly allowing prohibited activity to continue. Supervisory personnel will also be subject to corrective action or discipline for engaging in any form of retaliation prohibited by this policy.

Investigation of Complaint – The Town Supervisor, in consultation with the Town Board, will determine the appropriate individual(s) to conduct the investigation. All complaints pursuant to this policy, whether reported in verbal or written form, will be investigated promptly, thoroughly, and in as impartial a manner as possible. The investigation will normally include conferring with the parties involved and any named or apparent witnesses. All employees are required to cooperate in an investigation, if so directed. All persons involved, including complainants, witnesses and alleged perpetrators will be accorded due process to protect their rights to a fair and impartial investigation. All relevant materials, including all electronic communications, documents, emails or phone records that are relevant to the allegations will also be considered. A written report will be prepared documenting the results of the investigation. The individual who reported the complaint and the individual about whom the complaint was made will be notified of the final determination.

Confidentiality – Complaints of discrimination and harassment, including sexual harassment, will be handled and investigated promptly and in a manner that is as impartial and confidential as possible. In no event will information concerning a complaint be released by the Town to third parties or to anyone within the Town employment who is not directly involved in the investigation or handling of the complaint unless otherwise required by law.

Corrective Action and Discipline – Any employee who is found to have violated any aspect of this policy will be subject to corrective or disciplinary action, up to and including termination of employment, as provided by Town operating procedures, including Civil Service Law Section 75, or a collective bargaining agreement. Any Elected Official who violates this policy will be subject to remedial action as provided for and/or allowed under NYS Public Officers Law, as well as any other applicable statutes. Any vendor, supplier, visitor, customer, or other non-employee who violates this policy will be subject to remedial action, to the extent that the Town is empowered to take such action.

Legal Protections and External Remedies – Nothing in this policy should be construed as in any way limiting employees' rights to file a formal complaint with the appropriate state or federal

agencies responsible for administering anti-discrimination laws. Complainants should be aware that time restrictions may apply and need to be considered.

Harassment (including sexual harassment) is not only prohibited by Town policy but is also prohibited by federal, state, and (where applicable) local law. Aside from the Town's internal process, employees may also choose to pursue legal remedies with the following governmental entities at any time.

New York State Division of Human Rights (DHR)

The Human Rights Law (HRL) applies to employers in New York State with regard to harassment and protects employees and non-employees regardless of immigration status. A complaint alleging violation of the Human Rights Law may be filed either with DHR or in New York State Supreme Court. Complaints with DHR may be filed any time within one year of the harassment. If an individual did not file at DHR, they can sue directly in state court under the HRL, within three years of the alleged discrimination. An individual may not file with DHR if they have already filed an HRL complaint in state court. Filing an internal complaint with the Town does not extend the time limits to file with DHR or in court. The one year or three years is counted from date of the most recent incident of harassment. An attorney is not needed to file a complaint with DHR, and there is no cost to file with DHR. DHR will investigate the complaint and determine whether there is probable cause to believe that discrimination has occurred. Probable cause cases are forwarded to a public hearing before an administrative law judge. If discrimination is found after a hearing, DHR has the power to award relief, which varies but may include requiring the Town to take action to stop the harassment, or redress the damage caused, including paying monetary damages, attorney's fees and civil fines.

DHR's main office contact information is: NYS Division of Human Rights, One Fordham Plaza, Fourth Floor, Bronx, New York 10458, (718) 741-8400. Contact DHR at (888) 392- 3644 or visit dhr.ny.gov/complaint for more information about filing a complaint. The website has a complaint form that can be downloaded, filled out, notarized and mailed to DHR. The website also contains contact information for DHR's regional offices across New York State.

United States Equal Employment Opportunity Commission (EEOC)

The EEOC enforces federal anti-discrimination laws, including Title VII of the 1964 federal Civil Rights Act (codified as 42 U.S.C. § 2000e et seq.). An individual can file a complaint with the EEOC anytime within 300 days from the harassment. There is no cost to file a complaint with the EEOC. The EEOC will investigate the complaint and determine whether there is reasonable cause to believe that discrimination has occurred, at which point the EEOC will issue a Right to Sue letter permitting the individual to file a complaint in federal court. The EEOC does not hold hearings or award relief but may take other action including pursuing cases in federal court on behalf of complaining parties. Federal courts may award remedies if discrimination is found to have occurred. If an employee believes that he/she has been discriminated against at work, he/she can file a "Charge of Discrimination." The EEOC has district, area, and field offices where complaints can be filed. Contact the EEOC by calling 1-800-669-4000 (1-800-669-6820 (TTY)), visiting their website at www.eeoc.gov or via email at info@eeoc.gov. If an individual filed an

004525

TOWN OF ROTTERDAM
NON-DISCRIMINATION AND HARASSMENT POLICY & AFFIDAVIT

Policy Statement – It is the policy of the Town of Rotterdam to promote a productive work environment and to prohibit conduct by any Elected Official or employee (as defined in Section 104 of the Employee Handbook) that disrupts or interferes with another's work performance or that creates an intimidating, offensive, or hostile work environment. In keeping with this goal, the Town is committed to educate Elected Officials and employees in the recognition and prevention of workplace discrimination and harassment, including sexual harassment, and to provide an effective means of eliminating such discrimination and harassment from the workplace. In short, the Town does not tolerate any form of discrimination or harassment, including sexual harassment, and will take all steps necessary to prevent and stop the occurrence of such activity in the workplace. The accompanying complaint procedure is intended to provide an effective mechanism for reporting, and resolving promptly, complaints of discrimination and harassment, including sexual harassment, without any risk of repercussion to any individual covered by this policy who, in good faith, files such complaint.

Applicability of Policy – This policy applies to all Elected Officials, Appointed Members of Boards and Commissions, employees, supervisors, and Department Heads, whether employed full or part-time, temporary or seasonal, paid or unpaid interns, volunteers, and those employed by companies contracting to provide services in the workplace. Depending on the extent of the Town's exercise of control, this policy may be applied to the conduct of non-Town employees with respect to harassment of Town employees in the workplace.

Prohibited harassment (including sexual harassment) is not limited to the physical workplace itself. It can occur while Elected Officials, employees or other individuals covered by this policy are traveling for Town business or at Town sponsored events or parties. Calls, texts, emails, and social media usage by employees or other individuals covered by this policy can constitute workplace harassment, even if they occur away from the workplace premises, on personal devices, or during non-work hours.

Prohibited Activity – No Elected Official, employee or other individuals covered by this policy shall engage in any of the following:

- Harassment: Unwanted, unreasonable verbal or physical conduct directed toward or affecting another person that disturbs, frightens, insults, threatens, intimidates, demeans, or offends that other person, that continues or is repeated after a request to cease, and that: 1) has the purpose or effect of creating an intimidating, hostile, or offensive work environment; 2) has the purpose or effect of unreasonably interfering with an individual's work performance; or 3) otherwise adversely affects an individual's employment opportunities. Harassment includes offensive or inappropriate images or written materials or electronic communications (e.g. letters, e-mail, text messages, or graffiti) as well as bias-based harassment and sexual harassment (see below).

- Bias-Based Harassment: Harassment that denigrates, offends or shows hostility or aversion toward an individual on the basis of sex, (including gender identity and the status of being transgender), sexual orientation, race, color, national origin, religion,

004519

NON-COLLUSION AFFIDAVIT

004519
Noncollusion Affidavit

Every bid or proposal made to a political subdivision of the state or any public department, agency or official thereof where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury.

By submission of this bid, each bidder and each person signing on behalf of any bidder, or in the case of a joint bid each party thereto, certifies that:

such bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation;

such bid is genuine and not collusive or sham;

said bidder has not directly induced or solicited any other bidder to put in a false or sham bid and has not directly or indirectly colluded, conspired, connived or agreed with any bidder or anyone else to put in a sham bid, nor that anyone shall refrain from bidding;

said bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the bid price of said bidder or of any other bidder, nor to fix any overhead, profit or cost element of such bid price, nor of that of any other bidder, nor to secure any advantage against the public body awarding the contract or anyone interested in the proposed contract;

all statements contained in such bid are true;

and, further, that said bidder has not directly or indirectly, submitted his bid price or any breakdown

thereof, nor the contents thereof, nor divulged information or data relative thereto, nor paid and will not pay fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such persons or persons as have a partnership or other financial interest with said bidder in his general business.

No bid shall be considered for award, neither shall any award be made where above items have not been complied with.

If the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons why the above items have not been complied with. The bid shall not be considered for award, neither shall any award be made, unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or the appointed designee, determines that such disclosure was not made for the purpose of restricting competition.

Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation or local law, and where such bid contains the certification referred to in this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to noncollusion as the act and deed of the corporation.

Signature : _____

Print Name: Y Chan

Title: Principal Owner & Civil Engineer

Business Address of Bidder: 19655 Tanbark Ln.; Strongsville, OH 44149

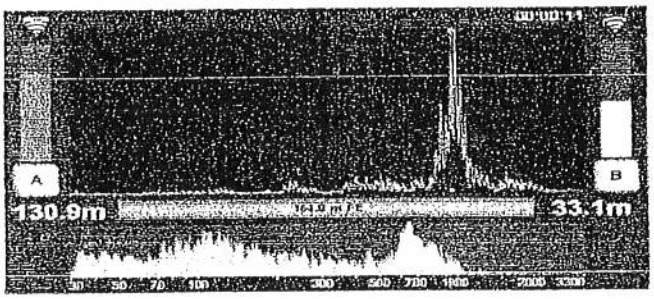
Dated: 6/28/2023

NONCOLLUSION AFFIDAVIT MUST BE INSERTED IN PROJECT MANUAL

SebaKMT Corelux C-3 Correlator

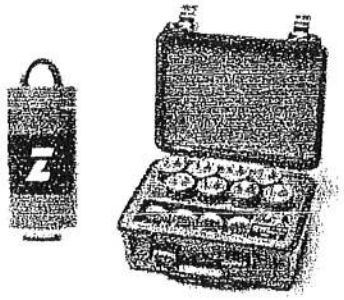
The acoustics of pressurized water travel in all directions of the pipe. This noise is recorded, amplified, and sent wirelessly to the correlator by 2 sensors (piezo mic, hydrophone) which are attached to the pipe (e.g. valve, hydrants). The C-3 compares the signals then calculates the distance based on the delays time of the signals, sensor distance, and sound velocity in the pipe.

This hybrid correlator can be used for online and offline correlations. The C-3 is capable of multi-correlation without pipe parameter input, possesses a touch display with an intuitive user interface, has long operating times, has inductive sensor charging, and can pinpoint using multi-sensors or a ground mic. This device is perfect for all piping materials.



ZCorr Digital Correlating Loggers

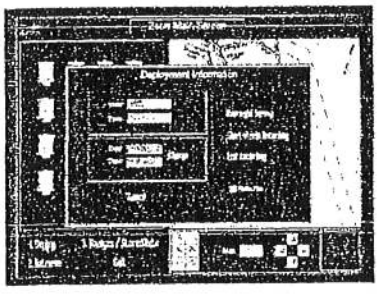
ZCorr digital correlating loggers offer significant advantages over listening loggers by detecting and pinpointing multiple leaks in a zone overnight. ZCorr's technical advances make leak surveying viable for water utilities at less effort and cost.

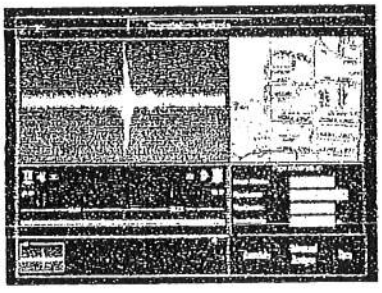


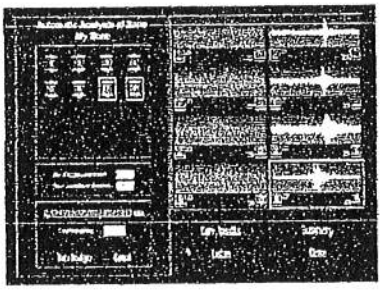
ZCorr is a software-driven approach that allows a distribution system leak survey to be efficiently directed from the office, integrating leak detection data, maps, and database tools to:

- Plan the survey and print deployment orders.
- Pinpoint leaks and print repair reports.
- Track survey progress and performance.

The ZCorr survey has 3 steps: DEPLOY, RETRIEVE and ANALYZE. Each step can be taken either in the office or in the field.

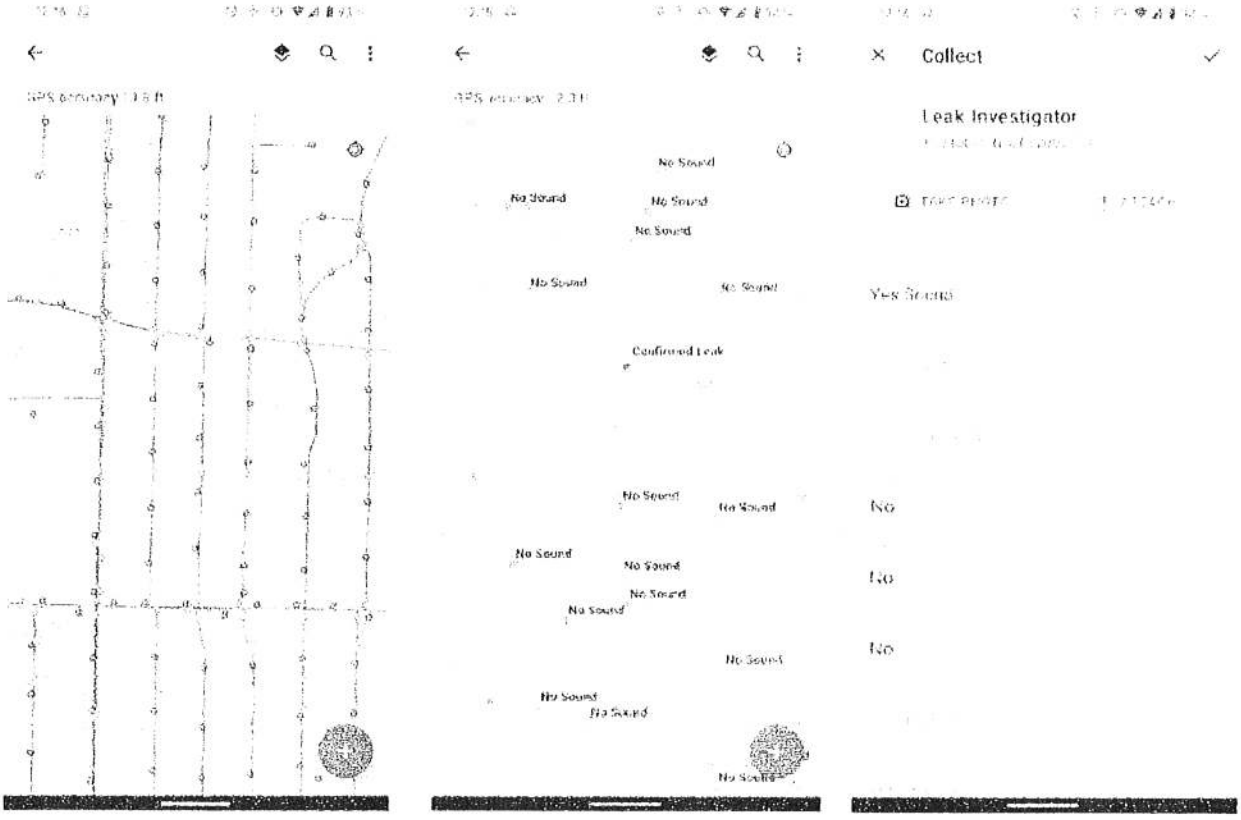






Data-Enabled Collection Devices with ArcGIS

GPS & data-enabled devices with ArcGIS Collector allow our specialists to collect photos, videos, acoustics, mapping discrepancies, and all assessment data. Our devices include Samsung, Apple, and LG phones, tablets, & PCs. With interactive mapping, we import GIS shapefile(s), update GIS information, and provide valuable information using our flexible data-driven solutions and analysis tools. By creating customizable layers, our leak detection specialists can collect information which can be represented visually and represent patterns in whatever manner we find valuable. Though this information is visually stunning, the power behind this is our teams can share and access information through mapping, embedded information, and dashboards.



Quality and Features of Proposed Equipment

CEI uses a variety of listening devices in order to leverage filtering options, annual services, and calibrations. All equipment is recharged daily while teams are outfitted with backup batteries, devices, and attachments such as headphones, attachments, cords, and lanyards. The use of different devices allows for greater comparison, re-calibration, and training options. Naturally, these devices have different performances based on material differences so the variety of equipment means greater accuracy for our customer.

SebaKMT HL 50-BT with GM-80

This ubiquitous instrument was created by Vivax-Metrotech and compatible with the GM-80 ground mic. This SebaKMT water network survey leak locator tool has outstanding acoustic properties which enable the operator to locate large and small water leaks. Three basic filter settings allow the user to adjust to any leak scenario. The integrated LCD screen displays the actual measured sound level as a number and simultaneously as a bar graph. After each new measurement, the previous level will still be displayed to compare sound levels.

This listening device can be used to investigate potential leak noises. Based on the digital readout, verification and pinpointing can be prioritized. In addition, upon the follow-up visit, the applicable appurtenance can be rechecked to confirm a leak noise is still present, at or greater than the value of the initial visit. This confirms a leak is indeed present and eliminates false-positive reporting.

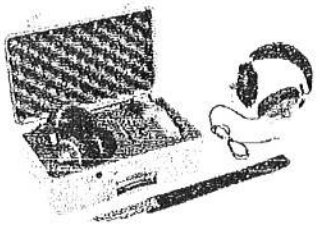
SebaKMT HL 5000 with GM-80

Along with being compatible with the GM-80 ground mic, this equipment uses modern digital signal processing technology (DSP) to clearly recognize the leak sound, even with substantial environmental ambient noise. The sounds are both audibly perceived and graphically displayed using dual segment analysis (DSA) technology. For the user this means greater reliability in locating water losses.

HWM L-mic

The well-known HWM L-mic is an easy-to-use, low cost, electronic listening stick and ground microphone combined. It is ideal for general leak sounding operations and can be fitted with either a tripod foot (for use as a ground microphone) or probe rods (for sounding at fittings or in soft ground). The control unit is hand-held with a 'trigger' operation and a volume/sensitivity rotary control. An LED indicates operation and battery status. This lightweight unit can be used to confirm the position of underground leaks audibly from ground level, sound pipe fittings penetrate soft ground to listen for leaks and carry out traditional acoustic surveys.

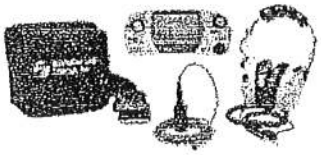
Subsurface Leak Detection LD 8



Accurate and reliable, the SubSurface LD 8 is a lightweight instrument for water leak detection of hydrants and fixtures. This leak detection tool uses contact rods attached to a piezoelectric sensor and amplifier to connect to water line fixtures so the construction professional can listen for the sound of unwanted water flows. Also, the amplifier comes with an amplification range of 55 decibels with a frequency range of 100 to 2,000 Hertz.

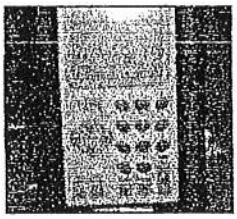
The LD-8 includes a short contact rod used for listening to hydrants while the long contact rods are used for below-grade meters and valves. Also, this water leak detector has a two-digit LCD display that is easy-to-read.

Subsurface Leak Detection LD 15



The SubSurface Instruments LD-15 Leak Survey Equipment offers the best solution for listening to leaks at hydrants, valves, and meters. It features a high-sensitivity sensor with a sealed waterproof Neodymium magnet. Equipped with an amplifier, this device has superior audio quality and amplifies to 56 db. This device includes three filter ranges and comes with both survey & pinpoint functions for water leaks. Plus, the sensor has a resonance frequency of 950 Hertz which can detect the faintest of sounds. With an IP68 protection rating, this unit is dustproof and water submersible up to 3 feet for 3 hours. It comes with a large meter display for easy reading and up to 80 hours of battery life.

Subsurface Leak Detection LC 2500



The SubSurface LC-2500 Leak Noise Correlator is lightweight and compact, yet it offers full capabilities for programming and correlating leak noise from many different pipe materials and pipe diameters. Great Sensors, powerful radios and fast processing of sounds make the LC-2500 truly the best performing correlator on the market.

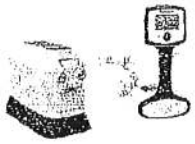
This correlator is used for QA/QC and pinpointing of the leak noises often qualified by the HL-50 in sounding. Multiple correlations are used to localize suspected leak source(s) to be verified by ground mics or additional inspection. The graphical display indicates to the technician the possible size and characteristics of the leak.

CST/Berger Magna-Trak Locator

The Magna-Trak locates ferromagnetic objects which may be concealed by earth, road surface, snow, and/or water. These objects may include hydrants, marker magnets, manhole covers, valve rods, surveying marks and rods, water meters, etc.

This metal detector will be used to locate potentially buried assets which may prove especially useful during nighttime operations, areas of heavy vegetation, or where visibility may be poor.

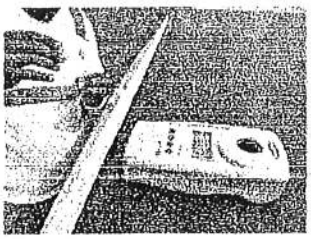
Vivax-Metrotech VM-810 Line Locator



The antenna system in the locator is different from a normal locator. Rather than place antennas on the same center line, one antenna is offset to the right and another to the left. Coupled with extremely sensitive electronics enables the locator to find which antenna is receiving the strongest signal, indicating which direction one should move to be over the buried line. The VM-810's Distance Sensitive Left/Right Guidance provides a sharper, crisper, response, allowing for greater accuracy in line location.

This line locator will verify the line location in the street to enable accurate pinpointing and field markings of leak locations.

Lovibond Chlorine Tester



Free Chlorine (hypochlorous acid) reacts with Ammonia and certain Nitrogenous compounds to form Combined Chlorine. With Ammonia, the reaction produces chloramines which have very little disinfecting power; thus, it is important to be able to determine the various fractions of Chlorine present at any one time. DPD (NN Diethyl p Phenylene Diamine Sulphate) is the preferred reagent for the determination of Free, Combined and Total Chlorine. It is available in Tablet, Liquid and Powder form.

Total Chlorine can also be measured using a Potassium Iodide reagent. This can measure concentrations of up to 300 mg/l chlorine and is widely used in food manufacturing and industrial water treatment.

CITY OF
CLEVELAND
HEIGHTS
Utilities Department

March 20, 2017

Re: Letter of Recommendation – Consulting Engineering

To Whom This May Concern:

Consulting Engineering performed leak surveys for the City of Cleveland Heights for more than 10 years. During this period the company delivered high quality services, locating hundreds of leaks and saving the City of Cleveland Heights millions of dollars over this period by reducing wasted water and preserving this very valuable resource. During my tenure at the City of Cleveland Heights and in my previous position as Director of Water in a neighboring community, I used the services of Consulting Engineers annually. I have found Ray Chan to be very responsive and committed to helping communities address their leak issues within the water distribution system.

I wholeheartedly recommend Consulting Engineering to provide leak and engineering services. The City looks forward to continuing our relationship with the company in other capacities in the future. If you would like to discuss this company in more detail, please feel free to contact me at 216-291-5990 or via email at cclinkscale@clvhts.com.

Sincerely,

Collette Clinkscale
Utilities Commissioner

40 SEVERANCE CIRCLE, CLEVELAND HEIGHTS, OHIO 44118
216 • 291 • 4444 FAX • 291 • 2064

SCHEDULE C - LIST OF MAJOR EQUIPMENT AVAILABLE

ITEM	PURCHASE DATE	CONDITION	ACQUIRED VALUE

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AMORY ENGINEERS, P.C.

WATER WORKS • WATER RESOURCES • CIVIL WORKS

25 DEPOT STREET, P.O. BOX 1768
DUXBURY, MASSACHUSETTS 02331-1768

TEL.: 781-934-0178 • FAX: 781-934-6499
WWW.AMORYENGINEERS.COM

March 23, 2017

To Whom It May Concern

Subject: **Comprehensive Leak Detection Survey Reference**

It is my pleasure to recommend Consulting Engineering, Inc. (CEI), of Strongsville, OH for leak detection services. CEI successfully performed a comprehensive leak detection survey of approximately 135 miles of the water distribution system for the Town of Middleborough, MA in 2016.

CEI's performance fulfilled the terms of the Scope of Services for the project. The comprehensive leak survey was completed on-time and within budget. Their field and office personnel were knowledgeable, cooperative and highly professional during the work.

I would recommend CEI to conduct leak detection services in the future.

Very truly yours,

AMORY ENGINEERS, P.C.

By:

Richard S. Johnson, P.E.

Consulting Engineer for the Town of Middleborough

RSJ

March 20th, 2017

TO WHOM IT MAY CONCERN

It is my pleasure to recommend Consulting Engineering, Inc. (CEI) for civil engineering and leak detection services.

CEI performed a comprehensive leak detection survey, intermittently, from 1986-2011 for 60 miles of the water distribution system for the City of East Cleveland.

Their performance fulfilled the terms of the Scope of Services outlined in our agreement. This project was a resounding success as it was completed on-time and within budget.

I confidently recommend CEI to conduct leak detection services as their expertise will provide a benefit to your city.

Respectfully,

Ross M Brankatelli PE

Ross Brankatelli, P.E.

Retired Service Director for the City of East Cleveland

City of Flagstaff

September 20, 2018

RE: Letter of recommendation for Consulting Engineering, Inc.

To whom it may concern:

It is with pleasure to write a letter of recommendation for the firm, Consulting Engineering, Inc. (CEI) I have become to know their work through a contract they won for a leak detection and valve box maintenance, in 2017.

CEI has performed nearly 255 miles of leak detection and valve-box maintenance for the City to date. 220 of these miles were completed on the first contract, during FY18, and another 35 of 90 miles have been completed in FY19. The original contract was written such that continuation each fiscal year could occur provided the work performed followed the scope of work, met the City's expectations, and City Council passed the budget.

Our evaluation team was impressed with CEI's proposal. Flagstaff is working towards real-time or synchronized data collection with our GIS and City-Works systems and CEI was very comfortable performing these tasks. Their strength is in completing the on-the-ground work. They provided us weekly updates consistently. We are working with CEI in this FY to better follow the scope of work, including collecting a photo of each valve box to populate our Collector App. Traffic control, a daily field work plan are also focus areas of our in working with CEI this FY.

In closing, it has been a delight to work with Y Chan and the field staff. Y is very responsive, as are the field staff they employ. Our main field contact for CEI, Maurice Little, has provided many recommendations for making better use of our Collector App, many or all of which we have implemented. For these reasons, I highly recommend CEI for leak detection and valve-box maintenance needs.

I can be reached at (928) 213-2405 or eyoung@flagstaffaz.gov with any questions.

Erin M. Young, RG
Water Resources Manager
City of Flagstaff, Water Services Division

City of Cleveland
Frank G. Jackson, Mayor

Department of Public Utilities
Division of Water
1201 Lakeside Avenue
Cleveland, Ohio 44114-1175
(216) 664-2444
www.clevelandwater.com

March 22, 2017

Re: Recommendation of Consulting Engineering, Inc.

To whom it may concern:

This is to verify that the firm of Consulting Engineering, Inc. of Strongsville. OH has been employed as a sub-consultant to our prime consultant on our current leak detection and water audit project.

In that capacity, they have been a member of the CH2M Hill project team working on this project. Specifically, they have worked directly for their consultant, Wachs Water Services. Central Engineering's role in the project has been surveying the CWD water distribution system to identify potential leak locations by electronically listening to fire hydrants connected to water mains. As of this time, they have listened to approximately 35,900 fire hydrants covering 2,430 miles of water mains. So far, this work has eventually led to the identification and pin pointing of approximately 400 leaks by Wachs Water Services as part of this project.

To-date, their performance has fulfilled the terms of the Scope of Services outlined in our agreement. At the current rate, Consulting Engineering's role in this project is scheduled to be completed on-time and within budget. I confidently recommend Consulting Engineering for conducting leak surveying services.

Best regards.

Very truly yours,

J. Christopher Kocsan

J. Christopher Kocsan
Sr. Budget and Management Analyst
Cleveland Division of Water

NWWA

North Wales Water Authority
PUBLICLY OWNED SINCE 1951

December 15, 2020

To Whom It May Concern,

I write this letter of recommendation for the firm Consulting Engineering, Inc. (CEI). CEI was the lowest bidder on a Contract for leak detection for 2021. North Wales Water Authority conducts full system leak detection on a three (3) year rotating basis, surveying approximately 180 miles of main and appearances annually.

CEI performed real time and synchronized data collection through ESRI's ArGIS. Using the latest electronic acoustic devices and loggers, CEI identified potential leak locations by sounding assets connected to water mains. Using the 100% correlation method, CEI performed 180 miles of leak detection for the North Wales Water Authority to date. CEI provided us with measurable results, clearly communicated their whereabouts and deployments, and conducted their tasks with the utmost safety which left us with a feeling of confidence in their expertise.

In closing, Y Chan and the field staff are very responsive to work with. Our main field contact for CEI, Maurice little, worked well with our personnel. For these reasons, I feel confident in recommending CEI for leak detection and water distribution maintenance needs.

I can be reached at dquinn@nwwater.com with any questions.

Thank you,

David Quinn,
Administrator

Reply To: ☒ Main Office: 200 W. Walnut Street, P.O. Box 1339, North Wales, PA 19454 • Phone: 215-699-4836 • wizard@nwwater.com
☐ Bucks Office: 1560 Easton Road, P.O. Box 1018, Warrington, PA 18976 • Phone: 267-482-6940 • nwwabucks@nwwater.com

DIABLO WATER DISTRICT

37 Carol Lane
P.O. Box 127
Oakley, CA 94561-0127
925-625-3798
Fax 925-625-0814
www.diablowater.org

Directors:
Edward Garcia
President

John H. de Fremery
Vice President

Kenneth L. Crockett
Howard Hobbs
Paul Seger

General Manager & Secretary:
Daniel Muelrath

General Counsel:
Jeffrey D. Polisner

December 15, 2020

RE: Leak Detection Services by Consulting Engineering Inc.

To Whom it May Concern:

Diablo Water District recently (Nov/Dec 2020) had 175 miles of water mains leak detected by Consulting Engineering Inc. We were happy with their services, staff, and management, as they finished the project on time and within budget.

Feel free to reach out to me if you have any questions about the scope of services they performed.

Sincerely,

Dan Muelrath
General Manager

VILLAGE OF
BUFFALO GROVE

Department of Public Works
Fifty One Raupp Blvd.
Buffalo Grove, IL 60089-2198
Fax 847-537-5845

David K. Haisma
Supt. of Utility Operations
Phone 847-459-2545
dhaisma@vbg.org

To whom it may concern:

It is with pleasure I write this letter of recommendation for the firm, Consulting Engineering, Inc. (CEI). I have come to know their work through a 3-year contract they won for leak detection for Buffalo Grove, IL, for 2020-2022.

CEI implemented real-time and synchronized data collection through ESRI's ArGIS. Using electronic acoustic devices and loggers, CEI identified potential leak locations by sounding assets connected to water system. By sounding all accessible assets in Phase 1, then identified points of interest in Phase 2, CEI performed 183 miles of main line leak detection for Buffalo Grove to date. CEI provided us with measurable results, clearly communicated their whereabouts and deployments, and conducted their tasks with the utmost safety which left us with a feeling of confidence in their expertise.

In closing, it has been a great to work with Y Chan and the field staff. Y is responsive, as are the field staff they employ. Our main field contact for CEI, Maurice Little, provided his expertise with our personnel. For these reasons, I recommend CEI for leak detection and water distribution maintenance needs.

I can be reached at (847) 459-2045 or DHAISMA@VBG.ORG with any questions.

X *David Haisma*

David Haisma

Customer: City of Park Ridge, IL ($19,320 Contract/yr)
Contact: Mark Miller | Superintendent of Public Works
Material: Metallic | Completed: 2020-2022 | System Age: ~100 years
Services Rendered: Annual leak detection services for 138 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Oak Park, IL ($17,490.00 Contract/yr)
Contact: James Eggen, P.E. | Superintendent of Water & Sewer Division
Material: Metallic | Completed: 2020 & 2022 | System Age: ~100 years
Services Rendered: Leak detection services for 106 miles documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Ecorse, MI ($9,675 Contract/yr)
Contact: Dulanga Pathirana, P.E. | Project Engineer for Andersen, Eckstein, & Westrick
Material: Metallic | Completed: 2023 | System Age: ~100 years
Services Rendered: Annual leak detection services for 43 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Havre de Grace, MD ($9,000 Contract/yr)
Contact: Joe Conway | Chief of Construction and Program Management
Material: Metallic | Completed: 2022 | System Age: ~100 years
Services Rendered: Annual leak detection services for 45 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Milton-Freewater, OR ($10,335 Contract/yr)
Contact: Steven Patten | Public Works Technician
Material: Metallic & Non-metallic | Completed: 2022 | System Age: ~100 years
Services Rendered: Annual leak detection services for 39 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Diablo, CA ($27,125 Contract)
Contact: Dan Muelrath | General Manager of the Diablo Water District
Material: Metallic & Non-Metallic | Completed: 2020 | System Age: ~100 years
Services Rendered: Annual leak detection services for 175 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: St. Joseph, MI ($5,400 Contract)
Contact: Tom MacDonald | Director of Public Works (retired)
Material: Metallic | Completed: 2021 | System Age: ~100 years
Services Rendered: Annual leak detection services for 50 miles of water distribution piping while documenting all listening points and leak detection results.

Customer: City of Darien, IL ($12,916.80 Contract/yr)
Contact: Kris Throm | Superintendent of Municipal Services
Material: Metallic | Completed: 2022-2023 | System Age: ~100 years
Services Rendered: Annual leak detection services for 90 miles documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS

CITY OF CAMBRIDGE
MASSACHUSETTS
Water Department

7/29/2022

To: Whom it May Concern

From: Mark Gallagher, Director of Engineering and Distribution, CWD

Date: 7/29/2022

Re: Recommendation Letter - Consulting Engineering Inc. (CEI)
City Wide Leak Detection Survey

During the Spring of 2022, CEI staff conducted a City-Wide Leak Detection Survey of the 186 miles of water main that compromise the City of Cambridge Water Distribution System. Although Cambridge is a densely populated city that presents many challenges while working in the public right of way, the CEI staff always conducted themselves in a professional manner and often adjusted their scope of work to get past these challenges. These adjustments often caused their staff to work through the night in order to complete the survey in heavily trafficked areas. The staff's flexibility, hard work and diligence resulted in the project being completed on time and within budget. To date all the locations identified by CEI have been proven to be very accurate and has allowed the City of Cambridge to repair the leaks and stop the wasting of water.

Overall CEI has proven themselves to be a reliable and professional company which resulted in a very successful project. Therefore, I would highly recommend them for any large-scale Leak Detection services.

Sincerely,

Mark Gallagher,
Director of Engineering and Distribution
Cambridge Water Department
617-349-7754

Customer: Lowell, MA Regional Water Utility ($24,72, $44,075 Contracts)
Contact: Paul Pires | Superintendent of Distribution
Material: Metallic | Completed: 2019, 2023 | System Age: ~100 years
Services Rendered: Leak detection survey services for 215 miles of water distribution piping while documenting all listening points and leak detection results.

Customer: Bellevue, WA ($15,750 Contract/yr)
Contact: Nathan Rauscher | Senior Engineering Technician, Water Operations & Maintenance
Material: Metallic & Non-metallic | Completed: 2022 (2023-2024) | System Age: ~100 years
Services Rendered: Leak comprehensive survey for 70 miles with ongoing emergency services of water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, & leaks.

Customer: U.S. Air Force ($22,000 Contract)
Contact: Gary Krivokapich. P.E., CEM | Energy Utility Manager & Engineer of Davis Monthan AFB
Material: Metallic & Non-metallic | Completed: 2022 | System Age: ~100 years
Services Rendered: Leak detection survey services for DM AVB water distribution piping while documenting all listening points and leak detection results.

Customer: City of Normal, IL ($46,600 Contract/yr)
Contact: John Burkhart | Director of Water
Material: Metallic | Completed: 2023 | System Age: ~100 years
Services Rendered: Annual leak detection services for 200 miles documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS

Customer: City of Arlington Heights, IL ($30,940 Contract/yr)
Contact: Scott Schweda | Water Superintendent
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 286 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Glenview, IL ($29,274 Contract/yr)
Contact: Jack Fragassi | Water and Sewer Supervisor
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 246 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Northbrook, IL ($24,395 Contract/yr)
Contact: Joseph Rizzo | Utilities Superintendent
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 205 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Carol Stream, IL ($23,120 Contract/yr)
Contact: Phil Modaff | Director of Public Works
Material: Metallic | Completed: 2021, 2022 | System Age: ~100 years
Services Rendered: Leak detection survey services for 177 miles of water distribution piping and private mains while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Lake Forest, IL ($22,230 Contract/yr)
Contact: Rich Volpe | Water & Sewer Superintendent
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 170 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Winnetka, IL ($25,526 Contract/yr)
Contact: Drew Ceckowski | Water & Electric Analyst
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 103 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Niles, IL ($24,564 Contract/yr)
Contact: Jack Grana | Utilities Superintendent
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 103 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: Village of Buffalo Grove, IL ($25,000 Contract/yr)
Contact: David K. Haisma | Superintendent of Water Operations
Material: Metallic | Completed: 2020-2022 | System Age: ~100 years
Services Rendered: Annual leak detection services for 183 miles with ongoing emergency services of water distribution piping while all listening points, defects, mapping discrepancies, sounds, and leaks of 4,894 assets were documented in ArcGIS. Confirmed leaks were documented and reported in Cartegraph.

Customer: Springfield, IL Water, Light, and Power ($29,000 Contract/yr)
Contact: Josh Stewart, P.E. | Water Distribution Engineer
Material: Metallic | Completed: 2019-2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 224 miles of water distribution piping while documenting all listening points and leak detection results.

Customer: City of Lakewood, OH ($23,000 Contract/yr)
Contact: Nicholas DelVecchio | City of Lakewood Division Manager
Material: Metallic | Completed: 2020-2022 | System Age: ~100 years
Services Rendered: Bi-annual leak detection services for 240 miles/year with ongoing emergency services of water distribution piping while all listening points, defects, mapping discrepancies, sounds, asset types, and leaks of more than 5,510 assets were documented in ArcGIS.

Customer: City of Bensenville, IL ($13,200 Contract/yr)
Contact: Vincent Smith | Operation Superintendent
Material: Metallic | Completed: 2021 & 2022 (2023-2024) | System Age: ~100 years
Services Rendered: Annual leak detection services for 80 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

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Representative Projects

Contact information is provided along with the attached Letters of Recommendation.

Customer: E Source and Cal Water ($317,850 Contract/yr)
Contact: Kate Gasner | Vice-President of Operations
Material: Metallic & Non-metallic | Completed: 2022-2023| System Age: ~100 years
Services Rendered: Comprehensive leak detection of 815 miles and satellite leak detection of 163 points of interest (POIs) for the Hermoso Redondo, Livermore, Mid-Peninsula, and Westlake water systems in California.

Customer: Cleveland Water Department ($130,000 Contract; $640,750 Contract)
Material: Metallic | Completed: 2017, 2021-2023 | System Age: ~100 years
Services Rendered: 2017 Leak detection survey services for 2,100 miles of water distribution piping while documenting all listening points and leak detection results in ArcGIS/ESRI where 38,186 assets surveyed. 2021-2023 Investigation of 750 POIs based on proprietary thermographic satellite images from sub-consultant Asterra/Utilis along with emergency services.

Customer: Cambridge, MA ($57,750 Contract/yr)
Contact: Mark F. Gallagher | Director of Engineering & Distribution
Material: Metallic | Completed: 2022, 2023 (2024) | System Age: ~100 years
Services Rendered: Annual leak correlation survey for 185 miles with ongoing emergency services of water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, and leaks using the 100% correlation method.

Customer: Yarmouth, MA ($48,576 Contract/yr)
Contact: Laurie J. Ruszala, P.E. | Superintendent of Water and Wastewater
Material: Metallic | Completed: 2023 (2024, 2025) | System Age: ~100 years
Services Rendered: Leak detection for 264 miles with ongoing emergency services of water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, and leaks.

Customer: City of Sandwich, MA ($29,274 Contract/yr)
Contact: Dan Mahoney | Water Superintendent
Material: Metallic | Completed: 2021, 2022, 2023 | System Age: ~100 years
Services Rendered: Leak detection survey services for 145 miles of water distribution piping while documenting all listening points and leak detection results.

Customer: Asterra/Utilis | ($51,550 Contract)
Locations: Aqua, VA; Bristol, RI; Kline, PA; N. Kingstown, RI; Oak Creek, WI; Warren, OH
Contact: Fareed Nazaryfar | Customer Success Manager
Material: Metallic & Non-Metallic | Completed: 2022 | System Age: ~100 years
Services Rendered: Comprehensive investigations of satellite POIs for water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, and leaks.

Customer: Montgomery, PA ($34,000 Contract/yr)
Contact: David Quinn | Project Manager at North Wales Water Authority
Material: Metallic | Completed: 2020, 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Annual leak correlation survey for 136 miles with ongoing emergency services of water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, and leaks using the 100% correlation method.

Reports

Reporting will be cumulative where applicable.

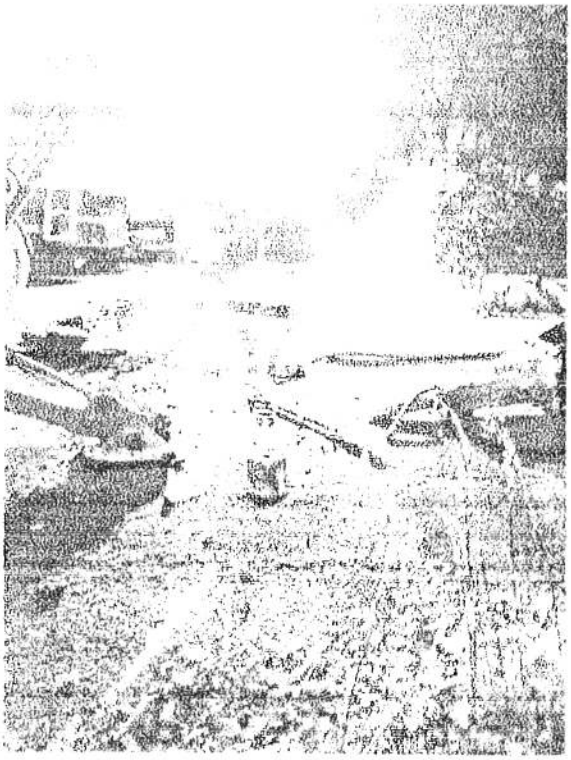
- Where info is available the date, location, pressure zone, service area, leak type, size, material, volume, cost, visibility, priority, technician, and comments will be reported.
- Immediately, reports will be for visible or potentially hazardous conditions such as water main breaks, broken services, or erosion.
- Daily reports will be emailed indicating the amount of pipe surveyed and leaks with accompanying severity, urgency, mapping discrepancies, and assets irregularities.
- Weekly, reports will include areas and appurtenances surveyed. Comments including productions rates & variation, suspicious noise, correlation activities, and pinpointed leaks.
- Monthly, reports will include survey areas, summary of critical components, disruptions, discussion of results, identified leaks, discrepancies, and graphical summarization of findings along with upcoming work.
- A final report will include compiled, pertinent data with findings, recommendation, methodology, equipment used, tabulated summary, maps, photos, analysis, and results.
- Deliverables will be transmitted electronically to our client in Microsoft Project and emailed in printable PDF format.

Inspection of water mains will be based on pipe material with the following guidelines to maximize both effectiveness and efficiency:

- Metallic Pipelines - listening through direct contact with water assets 300 linear ft (91.4m), which may include hydrants and mainline valves.
- Non-Metallic pipelines - listening through direct contact to all accessible water assets including valves, hydrants, service connections, air releases, visible pipe sections, etc. Digital correlating loggers with the ability to record sound for desktop analysis may also be utilized.

Equipment Utilization

The standard equipment listed in our proposal is the expected equipment to be available and utilized on this project. Our equipment has been proven to achieve the desired results of locating and pinpointing potential leaks on various pipe materials. All equipment has been used for 7+ projects. We perpetually carry brand new backups. The sound attenuation of non-metallic pipe demands a more frequent testing interval so we will be utilizing more contact points. The digital loggers will be utilized when there is a lack of contact points or ambient noise becomes problematic and testing of overnight pipe sections is desired.



Repaired Leak Sites

After each leak has been successfully repaired or stopped, the Surveyor shall electronically re-survey each repaired leak site to verify a positive repair by the utility owner, plus detect and locate any possible undiscovered leakage whose sound may have coincidentally been masked or overpowered by the original leak's sound. Verification and cancellations are recorded in ArcGIS for data-analysis and historical purposes.

SCHEDULE A

CURRENT EXPERIENCE

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

EJCDC® C-451, Qualifications Statement.
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3. Technical Approach/Implementation

Approach & Work Plan

Field Services

Prior to the daily execution of leak detection survey activities, all pre-work and planning will have been completed to abide by state DOT & MUTCD standards. CEI requests all water maps and areas of interest, preferably as shapefiles, to be provided before the start of field work to maximize efficiency in scheduling the route.

Daily, the sequence of work will include all the following activities with the Field Services Leader overseeing these activities which will primarily be done during normal work hours:

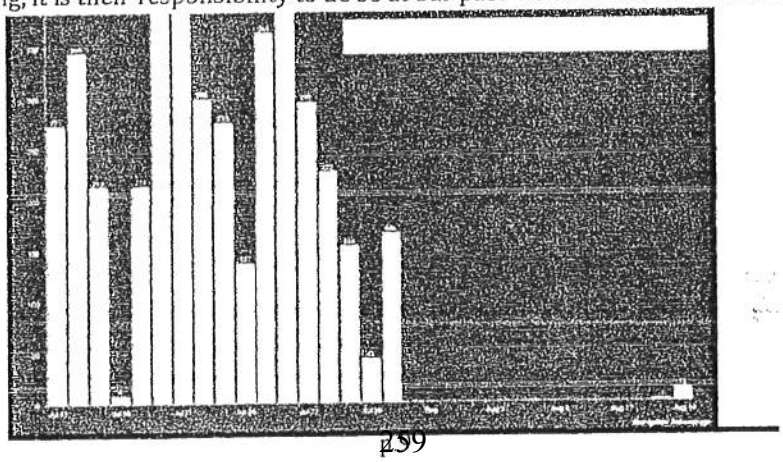
- Safety meeting.
- Anticipated work areas will be communicated weekly with daily updates by street, block areas, or ArcGIS polygons.
    - Permission for nighttime, weekend, & holiday work will be communicated.

Phase 1, Sounding:

- Listen to all accessible hydrants, hydrant auxiliary valves, main line valves, and curb stops (if needed)
    - For non-metallic water mains, apply a ground microphone over the main at a maximum of ten (10') foot intervals with attention to known main tie-ins, bends, and service taps.
    - Where mains are located off the roadway, the edge of the paved surface may be used as the listening surface when the main is within 3' of the road edge. Where the main is more than 3' from the road edge, the ground mic shall be applied directly over the main.
- Collect asset data in ArcGIS during sounding: sound intensity, identified leaks, asset defects, mapping discrepancies, visual water, photos, and comments. Move to the next identified asset in survey.
- During pinpointing, identify nearby assets to determine if leak noise is audible at other locations to narrow leak location points and assess the probable size of the leak (valves/meter boxes, etc.).

Phase 2, Pinpointing:

- Begin correlation between the two assets then place correlator sensors on two identified assets.
- Enter all know information on control box (distance, pipe material, diameter, etc.).
- Identify nearby assets to determine if leak noise is audible at other locations to narrow leak location points and assess the probable size of the leak (valves/meter boxes, etc.).
- If a leak is identified & the main location is known, then use a measuring wheel to paint or tack & hub.
- Document leak location markings with a digital photograph then upload to ArcGIS. Video is optional.
- Record pinpointed leak characteristics including, but not limited to:
    - Location information, address, and GPS coordinates
    - Suspected leak type with estimated GPM
    - Recommended corrective action(s) with any information that will assist repairs.
- Leakage rates will be determined by measurements and results obtained be as recorded by the listening device(s) and the size and shape of the correlation graph.
- *All work is conducted without in-field assistance from our client. Should our client assign somebody to ride-along, it is their responsibility to do so at our pace with no interference to our methodology.*



2. Experience

Personnel

Project Manager – 19+ years of experience

Y Chan is the Principal Owner and a Civil Engineer with a BSCE from the Ohio State University with a specialization in Structural Engineering (2003) who has managed civil design projects and leak detection programs for CEI since 2013. He managed all projects listed in this proposal while performing sounding and pinpointing, as needed. In addition to managing leak detection and water audit projects, Mr. Chan has managed and designed civil engineering and construction administration projects around the nation for ODOT, OTIC, PATH, NYCDOT, NYSDOT, PennDOT, MTA, MetroNorth, NHDES, GSA, Veterans Affairs, and numerous government entities. He is the architect of CEI's ESRI/ArcGIS program used for documenting listening points including asset defects, GIS mapping errors, photos, and acoustic results in ArcGIS Collector so the data is readily accessible. He is a DOT-certified flagger, CPR-certified, and experienced in all Bentley programs, all AutoDesk programs, and Cartegraph. He manages all budgeting, scheduling, communications, data analysis, and reports.

Experienced Oversight –30+ years of experience

Ray C. S. Chan, P.E., is the founder of CEI. He is a Structural and Hydraulic Engineer with his BSCE from the University of Illinois at Urbana-Champagne and masters from Virginia Tech. He is well-acquainted with water infrastructure projects, specializing in leak detection in the Cleveland Water System; the majority of the Cleveland master-metered suburban cities, including City of East Cleveland, Cleveland Heights (a client since 1990), the City of Bedford, the City of Lakewood, and other surrounding suburbs; and across North America.

Ray C. S. Chan, P.E., will be responsible for the program oversight. Mr. Chan has specialized in leak detection and location since 1974. He was the engineer-in-charge for the Pitometer Associates, assigned to the Cleveland Water Department in the early '80s where he detected and pinpointed leaks for the entire system (5,360 miles) including applying first generation leak correlation technique to pinpointing. Being in business for over thirty years, Mr. Chan believes in a safety-oriented team effort focused on clear communication while emphasizing quality assurance. Deliverables are expected to stay under budget while meeting established deadlines.

Field Services Leader – 14+ years of experience

Maurice Little's input is critical in the purchase of all water leak detection equipment. He is an expert in the use of all CEI leak detection equipment and the training of field technicians.

With thousands of miles of water utility experience, he has performed & executed all field services in this proposal. His conceptual skills, leak detection training, and field experience provide for the skills, knowledge, and expertise to evaluate and pinpoint leaking assets, document findings, and make recommendations for rehabilitation. Training and Certifications include ArcGIS Collector, Cartegraph, OSHA 30, Field Operations Classroom Training, Valve Operator, Truck Safety, Equipment and Inspection Training, Trimble Operation and Data Management Training, First Aid/CPR Certification, Confined Space Entry Trained, Flagger Certification, Hydrant Flushing/Flow Trained (AWWA M17, NFPA 291), DOT Certified Vehicle Driver.

In addition to CEI projects, Mr. Little has performed the following:

Client	Years	Leak Detection	Valve &/or Hydrant Assessment	UDF	Confined Space	System Iso. (Shut-downs)	On-Call Services	Metallic	Non-Metallic	Miles
Anne Arundel County, MD	2017	Yes	Yes					Yes		210
Baltimore City, MD	2007-2013	Yes	Yes		Yes	Yes	Yes	Yes		160
Baltimore County, MD	2007-2013	Yes	Yes		Yes	Yes	Yes	Yes		220
Batavia, I	2017-2018	Yes						Yes		190
Bayonne, NJ	2015	Yes						Yes		130
Buffalo Grove	2020-2022	Yes					Yes	Yes		183
Carol Stream, IL	2018	Yes	Yes	Yes				Yes		140
Charles County, MD	2017	Yes	Yes					Yes		150
Cleveland, OH (CWD)	2016-2017	Yes	Yes				Yes	Yes		2,100
DC Water	2010	Yes	Yes					Yes		660
Dupage, IL	2014	Yes		Yes				Yes		160
Edenton, NC	2009	Yes	Yes					Yes		130
Flagstaff, AZ	2017-2018	Yes	Yes					Yes	Yes	220
Georgia Environmental Finance Authority	2015	Yes						Yes		1,200
Hays, KS	2015	Yes						Yes		106
Howard County, MD	2016-2017	Yes	Yes				Yes	Yes		500
Jersey City, NJ	2015	Yes						Yes		210
Lakewood, OH	2020-2022	Yes						Yes		240
Lowell, MA	2019	Yes						Yes		215
Massachusetts Water Resources Authority	2015, 2016, 2018	Yes					Yes	Yes		3,735
McKinney, TX	2011	Yes						Yes	Yes	120

261
August 9, 2023

Client	Years	Leak Detection	Valve &/or Hydrant Assessment	UDF	Confined Space	System Iso. (Shut-downs)	On-Call Services	Metallic	Non-Metallic	Miles
Middleborough, MA	2016	Yes						Yes		135
Minneapolis, MN	2015	Yes						Yes		440
Needham, MA	2012	Yes						Yes		150
New Hampshire Department of Environmental Services	2018	Yes						Yes		732
Norridge, IL	2017	Yes		Yes				Yes		44
North Kentucky, KY	2016	Yes					Yes	Yes		160
Pagosa Springs, CO	2015	Yes						Yes		240
Piqua, OH	2017	Yes					Yes	Yes		110
Pontiac, MI	2015	Yes	Yes					Yes		
Puerto Rico Aqueducts & Sewers Authority	2015	Yes					Yes	Yes	Yes	1,700
San Antonio Water System	2015	Yes						Yes		2,400
Surrey, British Columbia Canada	2017	Yes					Yes	Yes	Yes	180
Waco, TX	2014	Yes						Yes	Yes	190
West Palm Beach, FL	2014	Yes	Yes	Yes				Yes	Yes	170
Wilson, NC	2015	Yes	Yes					Yes		130
WSSC, MD	2014, 2015	Yes	Yes					Yes		1,700

19655 Tanbark Ln | Strongsville, OH 44149
Tel: 440.238.9699 | Email: | Website:

FORMS TO BE SUBMITTED WITH BID

- 004117 BID FORM
- 004313 BID BOND
- 004513 CONTRACTOR'S QUALIFICATION STATEMENT
- 004519 NONCOLLUSION AFFIDAVIT
- 004525 NON-DISCRIMINATION AND HARASSMENT IN THE WORKPLACE POLICY

TOWN OF ROTTERDAM
ROTTERDAM JUNCTION LEAK DETECTION SURVEY

004117
Bid Form

For: Town of Rotterdam
Rotterdam Junction Leak Detection Survey

From: Consulting Engineering Inc.
(Name of Bidder)

Date Bid Submitted: 06/28/2023

The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents to perform and finish all work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for forty-five days after the day of Bid opening. BIDDER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within ten days after the date of OWNER's Notice of Award.

In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

BIDDER has examined copies of all the Bidding Documents including Addenda. BIDDER has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the work.

BIDDER has studied carefully all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions, in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have been identified in the Supplementary Conditions as provided in 5.03 of the General Conditions. BIDDER accepts the determination set forth in paragraph SC-5.03 of the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which BIDDER is entitled to rely as provided in 5.03 of the General Conditions. BIDDER acknowledges that such reports and drawings are not contract documents and may not be complete for BIDDER's purposes. BIDDER acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown, or indicated, in the bidding documents with respect to underground facilities at or contiguous to the site. BIDDER has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto. BIDDER does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for the performance and furnishing of the work in accordance with the times, price and other terms and conditions of the contract documents.

BIDDER agrees that the Work will be substantially completed and ready for final payment in accordance with 15.03 and 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement. BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.

BIDDER is aware of the general nature of work to be performed by OWNER and others at the site that relates to work for which this Bid is submitted as indicated in the contract documents.

BIDDER has correlated the information known to BIDDER. Information and observations obtained from visits to the site, reports and drawings identified in the contract documents and all additional examinations, investigations, explorations, tests, studies and data with the contract documents.

BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER and the contract documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the work for which this Bid is submitted.

This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

If the undersigned fails to execute the contract and furnish a satisfactory bond as stated in the foregoing Notice to Bidders, within ten days from the date of notification of the awarding of the contract, the OWNER may, at its option, determine that the undersigned has forfeited the contract and the certified check or bid bond accompanying this proposal shall be invoked as liquidated damages for such failure; otherwise it shall be returned to the undersigned.

BID FORM MUST BE INSERTED IN PROJECT MANUAL

Contract No. 1 – Leak Detection

1a. Leak Detection Bid Amount

The contractor shall include all costs associated with the leak detection survey in the lump sum bid for water main leak detection in the bid form below, including but not limited to labor, equipment, vehicles, mileage, hotels, meals, paper, coordination with the Town and Engineer, project management and administration, insurance, and reports.

For work of Contract No. 1a – Leak Detection, the BIDDER proposes to perform the work required in accordance with contract documents, complete for the lump sum price of:

Pay Item No.	Pay Item Description	Lump Sum $ Amount
1.	Leak Detection Bid Work per contract	$9,963.00
2.	Allowance No. 1 – Unforeseen Conditions	$10,000
	Lump Sum Bid Total (sum of all above items)	$19,963.00

Note (1) – Work included under Pay Item not limited to specification section listed.

Total Lump Sum Leak Detection Bid Amount written in numbers:

$ 19,963.00

Total Lump Sum Leak Detection Bid Amount written in words:

Nineteen-Thousand Nine-Hundred Sixty-Three Dollars Dollars and Zero Cents

Bids shall include all associated costs for completion of that particular item of work, including but not limited to all overhead and administrative costs. Failure to include any costs or work will not be grounds for extra payment.

Note: Owner retains the right to reject all bids.

2. Bid Deposit

In accordance with the conditions established in the foregoing Notice to Bidders, attached is a certified check or bid bond drawn on

Nine-hundred Ninety-eight dollars and Fifteen cents

for the sum of 5% of the total bid amount or

$ 998.15

3. Acknowledgment of Receipt of Addenda

Addenda #	Date	Contractor's Signature

4. Address/Telephone and Telefax Number for Communications Regarding Bid

Name: Y Chan | Principal Owner & Civil Engineer

Address: 19655 Tanbark Ln.; Strongsville, OH 44149

BID FORM MUST BE INSERTED IN PROJECT MANUAL

Telephone: 440-238-9699 x206 Telefax: 440-238-9699

5. **Noncollusion Affidavit Signed (Section 004519)**

✓ Yes _____ No

6. **Contractors Qualification Statement completed (section 004513)**

✓ Yes _____ No

7. **Harassment Policy Affidavit signed (section 004525)**

✓ Yes _____ No

8. **Bidder's Signature**

If Bidder is an Individual:

By: _____ (signature)

_____ (print or type name (and title if applicable))

DBA: _____

Address: _____

_____

Phone _____

If Bidder is a Partnership:

_____ (print or type firm name)

By: _____ (signature of General Partner)

_____ (print or type name & title)

Address: _____

_____

Phone _____

If Bidder is a Corporation:

Consulting Engineering Inc. (print or type corporate name)

Ohio (state of incorporation)

By: _____ (signature of President or Vice President)

Y Chan | Principal Owner & Civil Engineer (print or type name & title)

(Corporate Seal)

Attest _____ (signature by corp. secretary/asst. secretary)

_____ (print or type name & title)

Address: 19655 Tanbark Ln.
Strongsville, OH 44149

Phone: 440-238-9699 x206

BID FORM MUST BE INSERTED IN PROJECT MANUAL

004313

BID BOND

(Attach Bid surety to this Page)

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:
Consulting Engineering Inc.
19655 Tanbark Ln
Strongsville, OH 44149

SURETY *(Name and Address of Principal Place of Business)*:
Philadelphia Indemnity Insurance Company
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004

OWNER *(Name and Address)*:
Town of Rotterdam
1100 Sunrise Blvd
Rotterdam, NY 12306

BID

Bid Due Date: July 10th, 2023

Description *(Project Name and Include Location)*:
Town of Rotterdam- Rotterdam Junction WD3&4 Leak Detection Survey - Contract No.1 - Leak Detection

BOND

Bond Number:

Date *(Not earlier than Bid due date)*: July 10th, 2023

Penal sum 5% of GAB (Words) $ 5% of GAB (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER	**SURETY**
CONSULTING ENGINEERING INC (Seal)	Philadelphia Indemnity Insurance Company (Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature	Signature (Attach Power of Attorney)
Y CHAN	Massimo Schirru
Print Name	Print Name
OWNER	Attorney in Fact
Title	Title
Attest: _____	Attest: _____
Signature	Signature
Accounting	Attorney in Fact
Title	Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

PHILADELPHIA INDEMNITY INSURANCE COMPANY
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004-0950

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS: That **PHILADELPHIA INDEMNITY INSURANCE COMPANY** (the Company), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, does hereby constitute and appoint **Michael N. Rudberg, Tayler Owen, Jill Allen Schirru and/or Massimo Schirru,** its true and lawful Attorney-in-fact with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business and to bind the Company thereby, in an amount not to exceed **$50,000,000.**

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of PHILADELPHIA INDEMNITY INSURANCE COMPANY on the 14th of November, 2016.

RESOLVED: That the Board of Directors hereby authorizes the President or any Vice President of the Company: (1) Appoint Attorney(s) in Fact and authorize the Attorney(s) in Fact to execute on behalf of the Company bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof and to attach the seal of the Company thereto; and (2) to remove, at any time, any such Attorney-in-Fact and revoke the authority given. And, be it

FURTHER RESOLVED: That the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney or certificate relating thereto by facsimile, and any such Power of Attorney so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN TESTIMONY WHEREOF, PHILADELPHIA INDEMNITY INSURANCE COMPANY HAS CAUSED THIS INSTRUMENT TO BE SIGNED AND ITS CORPORATE SEALTO BE AFFIXED BY ITS AUTHORIZED OFFICE THIS 5TH DAY OF MARCH, 2021.

(Seal)

John Glomb, President & CEO
Philadelphia Indemnity Insurance Company

On this 5th day of March, 2021 before me came the individual who executed the preceding instrument, to me personally known, and being by me duly sworn said that he is the therein described and authorized officer of the **PHILADELPHIA INDEMNITY INSURANCE COMPANY**; that the seal affixed to said instrument is the Corporate seal of said Company; that the said Corporate Seal and his signature were duly affixed.

Notary Public: Vanessa McKenzie

Commonwealth of Pennsylvania - Notary Seal
Vanessa Mckenzie, Notary Public
Montgomery County
My commission expires November 3, 2024
Commission number 1366394
Member, Pennsylvania Association of Notaries

residing at: Bala Cynwyd, PA

My commission expires: November 3, 2024

I, Edward Sayago, Corporate Secretary of PHILADELPHIA INDEMNITY INSURANCE COMPANY, do hereby certify that the foregoing resolution of the Board of Directors and the Power of Attorney issued pursuant thereto on the 5th day March, 2021 are true and correct and are still in full force and effect. I do further certify that John Glomb, who executed the Power of Attorney as President, was on the date of execution of the attached Power of Attorney the duly elected President of PHILADELPHIA INDEMNITY INSURANCE COMPANY.

In Testimony Whereof I have subscribed my name and affixed the facsimile seal of each Company this 10th day of July, 2023

Edward Sayago, Corporate Secretary
PHILADELPHIA INDEMNITY INSURANCE COMPANY

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:
Consulting Engineering Inc.
19655 Tanbark Ln
Strongsville, OH 44149

SURETY *(Name and Address of Principal Place of Business)*:
Philadelphia Indemnity Insurance Co.
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004

OWNER *(Name and Address)*:
Town of Rotterdam
1100 Sunrise Blvd
Rotterdam, NY 123.06

BID
Bid Due Date: 07/10/2023
Description *(Project Name and Include Location)*:

BOND
Bond Number:
Date *(Not earlier than Bid due date)*:
Penal sum Nine-hundred Ninety-eight dollars and Fifteen cents (Words) $998.15 (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER	**SURETY**
Consulting Engineering Inc. (Seal)	_____ (Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature	Signature (Attach Power of Attorney)
Y Chan	_____
Print Name	Print Name
Principal Owner & Civil Engineer	_____
Title	Title
Attest: _____	Attest: _____
Signature	Signature
Ray Chan	_____
Title	Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SECTION 004321
ALLOWANCE FORM

1.1 BID INFORMATION

A. Bidder: Consulting Engineering Inc.

B. Project Name: Rotterdam Junction Leak Detection Survey

C. Project Location: Rotterdam, New York

D. Owner: Town of Rotterdam

E. Engineer: Prime AE Group of NY

F. Engineer Project Number: 23350.

1.2 BID FORM SUPPLEMENT

A. This form is required to be attached to the Bid Form.

B. The undersigned Bidder certifies that Base Bid submission to which this Bid Supplement is attached includes those allowances described in the Contract Documents and scheduled in Section 012100 "Allowances."

1.3 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this 28th day of June, 2023.

B. Submitted By: Consulting Engineering Inc. (Insert name of bidding firm or corporation).

C. Authorized Signature: _____ (Handwritten signature).

D. Signed By: Y Chan (Type or print name).

E. Title: Principal Owner & Civil Engineer (Owner/Partner/President/Vice President).

END OF SECTION 004321

004513

QUALIFICATIONS STATEMENT

QUALIFICATIONS STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT PERMITTED BY LAWS AND REGULATIONS

1. **SUBMITTED BY:**

   Official Name of Firm: Consulting Engineering Inc.

   Address: 19655 Tanbark Ln.

   Strongsville, OH 44149

2. **SUBMITTED TO:** Town of Rotterdam and Prime AE Group of NY

3. **SUBMITTED FOR:**

   Owner: Town of Rotterdam

   Project Name: Rotterdam Junction WD3&4 Leak Deetection Survey

   TYPE OF WORK: Water System Leak Detection Services

4. **CONTRACTOR'S CONTACT INFORMATION**

   Contact Person: Y Chan

   Title: Principal Owner & Civil Engineer

   Phone: 440-238-9699 x206

   Email: y.chan@cengr.co

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5. **AFFILIATED COMPANIES:**

Name: N/A

Address:

6. **TYPE OF ORGANIZATION:**

☐ SOLE PROPRIETORSHIP

Name of Owner:

Doing Business As:

Date of Organization:

☐ PARTNERSHIP

Date of Organization:

Type of Partnership:

Name of General Partner(s):

☑ CORPORATION

State of Organization: Ohio

Date of Organization: 2/16/2006

Executive Officers:

- President: Y Chan
- Vice President(s): Y Chan
- Treasurer: Y Chan
- Secretary: Y Chan

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☐ LIMITED LIABILITY COMPANY

State of Organization: _____

Date of Organization: _____

Members: _____

_____

_____

_____

☐ JOINT VENTURE

Sate of Organization: _____

Date of Organization: _____

Form of Organization: _____

Joint Venture Managing Partner

- Name: _____

- Address: _____

_____

_____

Joint Venture Managing Partner

- Name: _____

- Address: _____

_____

Joint Venture Managing Partner

- Name: _____

- Address: _____

_____

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7. **LICENSING**

Jurisdiction: _____

Type of License: _____

License Number: _____

Jurisdiction: _____

Type of License: _____

License Number: _____

8. **CERTIFICATIONS**

CERTIFIED BY:

Disadvantage Business Enterprise: State of Ohio

Minority Business Enterprise: State of Ohio

Woman Owned Enterprise: _____

Small Business Enterprise: State of Ohio

Other (_____): _____

9. **BONDING INFORMATION**

Bonding Company: Philadelphia Indemnity Insurance Co.

Address: One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004

Bonding Agent: _____

Address: _____

Contact Name: _____

Phone: _____

Aggregate Bonding Capacity: _____

Available Bonding Capacity as of date of this submittal: _____

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10. FINANCIAL INFORMATION

Financial Institution: Fifth Third Bank

Address: 16046 Pearl Rd MD A97711

Strongsville, OH 44136

Account Manager: Dustin Hayden | VP

Phone: 440-238-1024

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE LAST 3 YEARS

11. CONSTRUCTION EXPERIENCE:

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

☐ YES ☑ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

☐ YES ☑ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

☐ YES ☑ NO

If YES, attach as an Attachment details including Project Owner's contact information.

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12. EQUIPMENT:

MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.

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I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HEREWITH, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: Consulting Engineering Inc.

BY: Y Chan

TITLE: Principal Owner & Civil Engineer

DATED: 7/5/2023

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME
THIS 5th DAY OF July, 2023

NOTARY PUBLIC - STATE OF Ohio
MY COMMISSION EXPIRES: 10/23/2023

ELIZABETH PANKRATZ
Notary Public, State of Ohio
My Commission Expires
October 23, 2023

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Audited balance sheet for each of the last 3 years for firm named in Section 1.
5. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Required safety program submittals listed in Section 13.
8. Additional items as pertinent.

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CONSULTING ENGINEERING, INC.

Proposal for
Water Distribution Main Leak Detection

City of Rotterdam, NY

19655 Tanbark Ln | Strongsville, OH 44149
Tel: 440.238.9699 | Email: | Website:

Table of Contents

1 Introduction
- **Cover Letter** **p.3**
- **Company Profile** **p.4**

2 Experience
- **Personnel** **pp.5-8**

3 Technical Approach/Implementation
- **Approach & Work Plan** **pp.9-11**
- **Policy & Affiliation Statements** **p.12**

1. Introduction

Cover Letter

Consulting Engineering Inc. (CEI) is pleased to submit its technical proposal through this cover letter to the City of Rotterdam for their Leak Detection Program.

We believe our response meets the requirements set out by the City of Rotterdam in the contract documents and CEI's methodology will abide by the City of Rotterdam's technical specifications. If the City of Rotterdam determines that CEI's response is deficient in any way, CEI respectfully requests to be notified and, where appropriate, given the opportunity to correct any such deficiency.

Please, forward any questions, comments, or concerns regarding this solicitation response to Y Chan via the contact information below. On behalf of the CEI team, we thank you for the opportunity to respond to these contract documents and look forward to serving Rotterdam.

Sincerely,

Y Chan
Civil Engineer | Principal Owner
440-238-9699 x206

Company Profile

History
Founded in 1984, Consulting Engineering, Inc. (CEI) is a bona fide RSB/MBE/DBE/CSB/EDGE-certified team of consultants specially trained for the requirements of this project. CEI has successfully completed hundreds of design, study, forensic, administration, and inspection projects including transportation systems, water systems, site improvements, land surveying, structural design, construction inspection & administration, and leak detection surveys & pinpointing with expertise across North America.

Equipment
We utilize state-of-the-art leak detection equipment to identify, pinpoint, measure, and reduce water losses in metallic and non-metallic systems with varying pressure zones in rural, suburban, and high-density areas with varied distances between assets such as hydrants, valves, and meters. We are equipped with analog and digital devices from Vivax-Metrotech, Subsurface Leak Detection, Itron, Zcorr, CST/Berger, SebaKMT, Samsung, and Apple to stop water loss.

Philosophy
CEI uses the Plan-Do-Study-Act (PDSA) iterative problem-solving model. We believe what gets measured gets improved. By planning a detailed work program with scheduled metrics, we execute comprehensive leak detection services on solid footing with results going back into the PDSA feedback loop. CEI has the experience breadth, history, depth, and qualifications needed to make this program a resounding success.

Our DNA
Our partnership with ESRI allows us to utilize to capture valuable data such as asset conditions, mapping conditions, photos, and virtually any field condition allowing municipalities a means to update their system and receive accurate reports. This data is collected in real-time with GPS-enabled, devices so accountability and safety are built into the DNA of our process.

Safety
As an engineering firm, we are MUTCD and OSHA compliant. We recognize the importance of making our customers happy along with those they serve so our conduct, dress, communication, and visibility are made clear before our boots touch the ground.

Client & Financial Stability
CEI will provide a turnkey program with a path to reducing water loss while collecting valuable in-field information. By focusing on personnel, methodology, data collection, safety, and communication, CEI has been able to provide water loss reduction savings at competitive pricing since 1984.

We currently have 3 public contractual agreements in place with over 41 in the last 3 years. With the leak detection season underway, in addition to the available manpower and equipment stated in the proposal, CEI has $277,000 available to support this project.

2. Experience

Personnel

Project Manager – 19+ years of experience

Y Chan is the Principal Owner and a Civil Engineer with a BSCE from the Ohio State University with a specialization in Structural Engineering (2003) who has managed civil design projects and leak detection programs for CEI since 2013. He managed all projects listed in this proposal while performing sounding and pinpointing, as needed. In addition to managing leak detection and water audit projects, Mr. Chan has managed and designed civil engineering and construction administration projects around the nation for ODOT, OTIC, PATH, NYCDOT, NYSDOT, PennDOT, MTA, MetroNorth, NHDES, GSA, Veterans Affairs, and numerous government entities. He is the architect of CEI's ESRI/ArcGIS program used for documenting listening points including asset defects, GIS mapping errors, photos, and acoustic results in ArcGIS Collector so the data is readily accessible. He is a DOT-certified flagger, CPR-certified, and experienced in all Bentley programs, all AutoDesk programs, and Cartegraph. He manages all budgeting, scheduling, communications, data analysis, and reports.

Experienced Oversight –30+ years of experience

Ray C. S. Chan, P.E., is the founder of CEI. He is a Structural and Hydraulic Engineer with his BSCE from the University of Illinois at Urbana-Champagne and masters from Virginia Tech. He is well-acquainted with water infrastructure projects, specializing in leak detection in the Cleveland Water System; the majority of the Cleveland master-metered suburban cities, including City of East Cleveland, Cleveland Heights (a client since 1990), the City of Bedford, the City of Lakewood, and other surrounding suburbs; and across North America.

Ray C. S. Chan, P.E., will be responsible for the program oversight. Mr. Chan has specialized in leak detection and location since 1974. He was the engineer-in-charge for the Pitometer Associates, assigned to the Cleveland Water Department in the early '80s where he detected and pinpointed leaks for the entire system (5,360 miles) including applying first generation leak correlation technique to pinpointing. Being in business for over thirty years, Mr. Chan believes in a safety-oriented team effort focused on clear communication while emphasizing quality assurance. Deliverables are expected to stay under budget while meeting established deadlines.

Field Services Leader – 14+ years of experience

Maurice Little's input is critical in the purchase of all water leak detection equipment. He is an expert in the use of all CEI leak detection equipment and the training of field technicians.

With thousands of miles of water utility experience, he has performed & executed all field services in this proposal. His conceptual skills, leak detection training, and field experience provide for the skills, knowledge, and expertise to evaluate and pinpoint leaking assets, document findings, and make recommendations for rehabilitation. Training and Certifications include ArcGIS Collector, Cartegraph, OSHA 30, Field Operations Classroom Training, Valve Operator, Truck Safety, Equipment and Inspection Training, Trimble Operation and Data Management Training, First Aid/CPR Certification, Confined Space Entry Trained, Flagger Certification, Hydrant Flushing/Flow Trained (AWWA M17, NFPA 291), DOT Certified Vehicle Driver.

In addition to CEI projects, Mr. Little has performed the following:

CONSULTING ENGINEERING, INC.

Client	Years	Leak Detection	Valve &/or Hydrant Assessment	UDF	Confined Space	System Iso. (Shut-downs)	On-Call Services	Metallic	Non-Metallic	Miles
Anne Arundel County, MD	2017	Yes	Yes					Yes		210
Baltimore City, MD	2007-2013	Yes	Yes		Yes	Yes	Yes	Yes		160
Baltimore County, MD	2007-2013	Yes	Yes		Yes	Yes	Yes	Yes		220
Batavia, IL	2017-2018	Yes						Yes		190
Bayonne, NJ	2015	Yes						Yes		130
Buffalo Grove	2020-2022	Yes					Yes	Yes		183
Carol Stream, IL	2018	Yes	Yes	Yes				Yes		140
Charles County, MD	2017	Yes	Yes					Yes		150
Cleveland, OH (CWD)	2016-2017	Yes	Yes				Yes	Yes		2,100
DC Water	2010	Yes	Yes					Yes		660
Dupage, IL	2014	Yes		Yes				Yes		160
Edenton, NC	2009	Yes	Yes					Yes		130
Flagstaff, AZ	2017-2018	Yes	Yes					Yes	Yes	220
Georgia Environmental Finance Authority	2015	Yes						Yes		1,200
Hays, KS	2015	Yes						Yes		106
Howard County, MD	2016-2017	Yes	Yes				Yes	Yes		500
Jersey City, NJ	2015	Yes						Yes		210
Lakewood, OH	2020-2022	Yes						Yes		240
Lowell, MA	2019	Yes						Yes		215
Massachusetts Water Resources Authority	2015, 2016, 2018	Yes					Yes	Yes		3,735
McKinney, TX	2011	Yes						Yes	Yes	120

August 9, 2023
286

CONSULTING ENGINEERING, INC.

Client	Years	Leak Detection	Valve &/or Hydrant Assessment	UDF	Confined Space	System Iso. (Shut-downs)	On-Call Services	Metallic	Non-Metallic	Miles
Middleborough, MA	2016	Yes						Yes		135
Minneapolis, MN	2015	Yes						Yes		440
Needham, MA	2012	Yes						Yes		150
New Hampshire Department of Environmental Services	2018	Yes						Yes		732
Norridge, IL	2017	Yes		Yes				Yes		44
North Kentucky, KY	2016	Yes					Yes	Yes		160
Pagosa Springs, CO	2015	Yes						Yes		240
Piqua, OH	2017	Yes					Yes	Yes		110
Pontiac, MI	2015	Yes	Yes					Yes		
Puerto Rico Aqueducts & Sewers Authority	2015	Yes					Yes	Yes	Yes	1,700
San Antonio Water System	2015	Yes						Yes		2,400
Surrey, British Columbia Canada	2017	Yes					Yes	Yes	Yes	180
Waco, TX	2014	Yes						Yes	Yes	190
West Palm Beach, FL	2014	Yes	Yes	Yes				Yes	Yes	170
Wilson, NC	2015	Yes	Yes					Yes		130
WSSC, MD	2014, 2015	Yes	Yes					Yes		1,700

CONSULTING ENGINEERING, INC.

Field Services Technician – 15+ years of experience
Damian Booker has conducted acoustic surveying and valvebox assessment & cleaning for Tucson, AZ,; Buffalo Grove, IL; Carol Stream, IL; Oak Park, IL; Park Ridge, IL; Montgomery, PA; Baltimore, MD; Cleveland, OH, & Lakewood, OH. Mr. Booker has experience with Vivax-Metrotech, CST-Berger, Sub-Surface and SebaKMT products as well as traditional equipment. Mr. Booker has been trained and performs work on ArcGIS Collector and Cartegraph. OSHA 10 Certified.

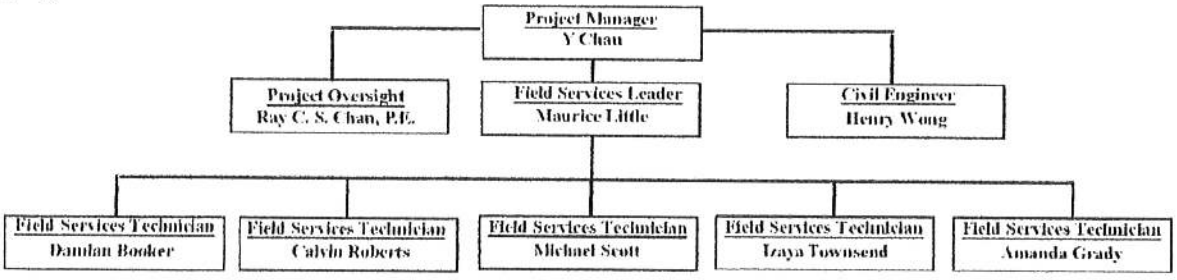
Field Services Technician – 5+ years of experience
Calvin Roberts has conducted acoustic surveying and valvebox assessment & cleaning for Flagstaff, AZ; Springfield, IL; Carol Stream, IL; Lowell, MA; Buffalo Grove, IL; Oak Park, IL; Park Ridge, IL; Diablo, CA; Montgomery, PA; Cleveland, OH; & Lakewood, OH. Mr. Roberts has experience with Vivax-Metrotech, CST-Berger, Sub-Surface and SebaKMT products as well as traditional equipment. He has been trained and performs work on ArcGIS Collector and Cartegraph. OSHA 10 Certified.

Field Services Technician – 3+ years of experience
Michael Scott is a Leak Detection Specialist who has conducted acoustic surveying and valvebox assessment & cleaning for Lowell, MA; Park Ridge, IL; Buffalo Grove, IL; Oak Park, IL; Park Ridge, IL; Diablo, CA; Montgomery, PA; Cleveland, OH; & Lakewood, OH. He has experience with Vivax-Metrotech, CST-Berger, and SebaKMT products as well as traditional equipment. He has been trained and performs work on ArcGIS Collector and Cartegraph. OSHA 10 Certified.

Field Services Technician – 2+ years of experience
Izaya Townsend has conducted acoustic surveying and valvebox assessment & cleaning for Arlington Heights, IL; Buffalo Grove, IL; Glenview, IL; Montgomery, PA; Cleveland, OH; & Lakewood, OH. Mr. Gaither has experience with Vivax-Metrotech, CST-Berger, Sub-Surface, and SebaKMT products. He has been trained and performs work on ArcGIS Collector and Cartegraph. OSHA 10 Certified.

Field Services Technician – 2+ years of experience
Amanda Grady has conducted acoustic surveying and valvebox assessment & cleaning for Springfield, IL; Buffalo Grove, IL; Montgomery, PA; Cleveland, OH; & Lakewood, OH. He has experience with Vivax-Metrotech, CST-Berger, and SebaKMT products as well as traditional equipment. She has been trained and performs work on ArcGIS Collector and Cartegraph. OSHA 10 Certified.

Data Integrity, Office Support, Civil Engineer – 30+ years of experience
Henry Wong was a Leak Detection Specialist with CEI in the '80s and '90s who now provides support to field services using ArcGIS online, scheduling access to inaccessible areas, tracking crew production, verifying data integrity, generating daily reports, etc. He is familiar with all ESRI. Cartegraph, Bentley, and AutoDesk programs.



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Tel: 440.238.9699 | Email: | Website:

3. Technical Approach/Implementation

Approach & Work Plan

Field Services

Prior to the daily execution of leak detection survey activities, all pre-work and planning will have been completed to abide by state DOT & MUTCD standards. CEI requests all water maps and areas of interest, preferably as shapefiles, to be provided before the start of field work to maximize efficiency in scheduling the route.

Daily, the sequence of work will include all the following activities with the Field Services Leader overseeing these activities which will primarily be done during normal work hours:

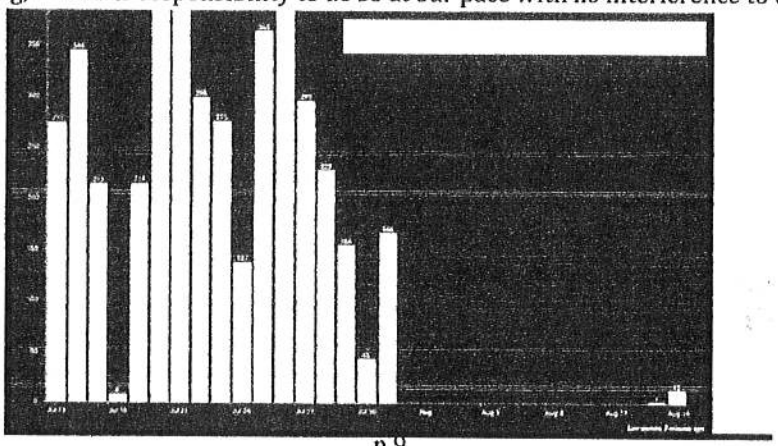
- Safety meeting.
- Anticipated work areas will be communicated weekly with daily updates by street, block areas, or ArcGIS polygons.
    - Permission for nighttime, weekend, & holiday work will be communicated.

Phase 1, Sounding:

- Listen to all accessible hydrants, hydrant auxiliary valves, main line valves, and curb stops (if needed)
    - For non-metallic water mains, apply a ground microphone over the main at a maximum of ten (10') foot intervals with attention to known main tie-ins, bends, and service taps.
    - Where mains are located off the roadway, the edge of the paved surface may be used as the listening surface when the main is within 3' of the road edge. Where the main is more than 3' from the road edge, the ground mic shall be applied directly over the main.
- Collect asset data in ArcGIS during sounding: sound intensity, identified leaks, asset defects, mapping discrepancies, visual water, photos, and comments. Move to the next identified asset in survey.
- During pinpointing, identify nearby assets to determine if leak noise is audible at other locations to narrow leak location points and assess the probable size of the leak (valves/meter boxes, etc.).

Phase 2, Pinpointing:

- Begin correlation between the two assets then place correlator sensors on two identified assets.
- Enter all know information on control box (distance, pipe material, diameter, etc.).
- Identify nearby assets to determine if leak noise is audible at other locations to narrow leak location points and assess the probable size of the leak (valves/meter boxes, etc.).
- If a leak is identified & the main location is known, then use a measuring wheel to paint or tack & hub.
- Document leak location markings with a digital photograph then upload to ArcGIS. Video is optional.
- Record pinpointed leak characteristics including, but not limited to:
    - Location information, address, and GPS coordinates
    - Suspected leak type with estimated GPM
    - Recommended corrective action(s) with any information that will assist repairs.
- Leakage rates will be determined by measurements and results obtained be as recorded by the listening device(s) and the size and shape of the correlation graph.
- *All work is conducted without in-field assistance from our client. Should our client assign somebody* to ride-along, it is their responsibility to do so at our pace with no interference to our methodology.



Reports

Reporting will be cumulative where applicable.

- Where info is available the date, location, pressure zone, service area, leak type, size, material, volume, cost, visibility, priority, technician, and comments will be reported.
- Immediately, reports will be for visible or potentially hazardous conditions such as water main breaks, broken services, or erosion.
- Daily reports will be emailed indicating the amount of pipe surveyed and leaks with accompanying severity, urgency, mapping discrepancies, and assets irregularities.
- Weekly, reports will include areas and appurtenances surveyed. Comments including productions rates & variation, suspicious noise, correlation activities, and pinpointed leaks.
- Monthly, reports will include survey areas, summary of critical components, disruptions, discussion of results, identified leaks, discrepancies, and graphical summarization of findings along with upcoming work.
- A final report will include compiled, pertinent data with findings, recommendation, methodology, equipment used, tabulated summary, maps, photos, analysis, and results.
- Deliverables will be transmitted electronically to our client in Microsoft Project and emailed in printable PDF format.

Inspection of water mains will be based on pipe material with the following guidelines to maximize both effectiveness and efficiency:

- Metallic Pipelines - listening through direct contact with water assets 300 linear ft (91.4m), which may include hydrants and mainline valves.
- Non-Metallic pipelines - listening through direct contact to all accessible water assets including valves, hydrants, service connections, air releases, visible pipe sections, etc. Digital correlating loggers with the ability to record sound for desktop analysis may also be utilized.

Equipment Utilization

The standard equipment listed in our proposal is the expected equipment to be available and utilized on this project. Our equipment has been proven to achieve the desired results of locating and pinpointing potential leaks on various pipe materials. All equipment has been used for 7+ projects. We perpetually carry brand new backups. The sound attenuation of non-metallic pipe demands a more frequent testing interval so we will be utilizing more contact points. The digital loggers will be utilized when there is a lack of contact points or ambient noise becomes problematic and testing of overnight pipe sections is desired.

Repaired Leak Sites

After each leak has been successfully repaired or stopped, the Surveyor shall electronically re-survey each repaired leak site to verify a positive repair by the utility owner, plus detect and locate any possible undiscovered leakage whose sound may have coincidentally been masked or overpowered by the original leak's sound. Verification and cancellations are recorded in ArcGIS for data-analysis and historical purposes.

Large Diameter Mains

To eliminate vehicular, pedestrian, airplane, train, and any other environmental ambient noise, CEI recommends night work for large diameter mains. This will allow us to avoid consumption while mains are fully pressurized for clear sounding. CEI will sound all listening points on large diameter mains. These mains will be reserved for our most experienced personnel who have showed a history of locating main breaks, joint leaks, packing leaks on open geared valves and bypass valves, bypass bonnet leaks, and abandoned corporations.

Adverse Conditions

CEI understands that the team may encounter various topographies, pipe materials, soil types, vegetation conditions, roadway surface covers, etc. which may add additional constraints to the leak identification effort. To combat these conditions, CEI will utilize additional techniques to pinpoint the source of a suspected leak.

- Line Locator
  - Confirming the pipeline location will be the first step in pinpointing a leak in adverse conditions. This allows the technician to prioritize the search area leading to visual inspection of other utility assets for water infiltration.
- Visual Inspection of other utilities
  - Identifying the location of other utility assets and manholes allows the technician to perform visual inspections where they may see water infiltration from the suspected leak which will in turn reduce the search area and aid in the pinpointing effort.
- Water sampling
  - Taking a residual chlorine measurement of any visible water or water infiltration of another utility will add confidence that a leak is present.
- Ground mic utilization
  - In situations where there are not 2 assets to correlate on either side of a suspected leak, a ground mic may be utilized for pinpointing.
  - A ground mic may be used to confirm correlated results. A ground mic plate will be used on non-paved surfaces as most ground mics are designed for paved roads.
- Static pressure testing
  - Pinpointing crews will be equipped with gauges that can be affixed to a fire hydrant to check the system pressure to see if a leak may be present.
- Overnight loggers
  - For high ambient noise situations, CEI may utilize overnight loggers with the ability to correlate and record suspected leak sounds.

Policy & Affiliation Statements

Health & Safety Policy

It is the policy of Consulting Engineering Inc. to provide a safe and healthy culture for our employees and to observe all State and Federal Laws and Regulations, including but not limited to training and certifications associated with our tasks in the context with which they are performed to follow safe practices and to recognize, correct, and/or avoid unsafe working conditions.

Active participation and adherence to the Safety Program is a condition of employment. No individual should work at a job that he or she knows is not safe. Therefore, we must make every workplace safe by detecting, correcting, and reporting unsafe conditions, as well as the detection of unsafe work practices.

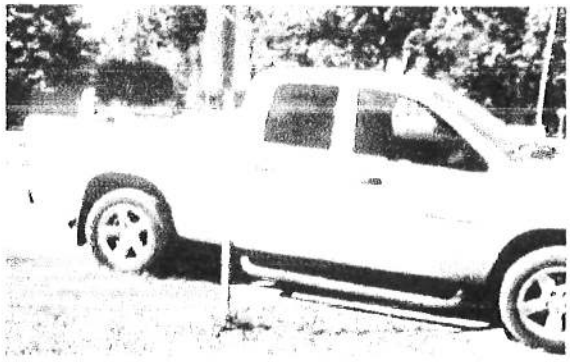
Our Safety Policy has equal importance with Consulting Engineering Inc.'s policies of providing the best quality and most productive service in our industry with a goal of preventing all accidents and injuries. Because of the many different hazards of our industry, we must maintain a constant safety awareness to achieve this goal.

Public Safety

We recognize the importance of making our customers happy along with those they serve so our conduct, dress, communication, and visibility are made clear before our boots touch the ground. Operations are planned & conducted to maximize convenience to the public including permission to access inaccessible areas.

Our plan conforms to the MUTCD (Section 6G.02 Type of Temporary Traffic Control Zone Activities, Work Duration). Our work follows the guidelines of mobile work (work that moves intermittently or continuously) which specifically mention frequent stops for activities such as utility operations. Our traffic plan satisfies Canada's Traffic Control Manual (Sections 18.3 Standards of Traffic Control and 8.24 High-visibility Apparel).

CEI's work vehicle(s) maintain an oscillating dome light, traffic cones, 4-way blinkers, CEI branded magnets & DOT-approved Class III reflective high-visibility clothing, and a survey sign for advanced traffic warning to increase visibility. The survey sign is periodically retrieved and repositioned in advanced warning areas.



CEI requests a laminated letter from the Water Utility Superintendent to be displayed in-vehicle and presented to residents and authorities should they have questions including contact information. Additionally, we carry branded identification which matches our equipment.

Any additional concerns may be found in the adverse conditions detailed in the methodology and will be addressed in the kickoff meeting.

Meter or AMR Manufacturer Affiliation

CEI has no affiliation with any meter or AMR manufacturers.

Cleanup

CEI maintains neat, orderly working conditions to ensure environmental and fire safety. Proper disposal of rubbish and maintenance of natural beauty is a part of our office and field culture.

SCHEDULE A

CURRENT EXPERIENCE

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

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SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
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EJCDC® C-451, Qualifications Statement.
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Representative Projects

Contact information is provided along with the attached Letters of Recommendation.

Customer: E Source and Cal Water ($317,850 Contract/yr)
Contact: Kate Gasner | Vice-President of Operations
Material: Metallic & Non-metallic | Completed: 2022-2023| System Age: ~100 years
Services Rendered: Comprehensive leak detection of 815 miles and satellite leak detection of 163 points of interest (POIs) for the Hermoso Redondo, Livermore, Mid-Peninsula, and Westlake water systems in California.

Customer: Cleveland Water Department ($130,000 Contract; $640,750 Contract)
Material: Metallic | Completed: 2017, 2021-2023 | System Age: ~100 years
Services Rendered: 2017 Leak detection survey services for 2,100 miles of water distribution piping while documenting all listening points and leak detection results in ArcGIS/ESRI where 38,186 assets surveyed. 2021-2023 Investigation of 750 POIs based on proprietary thermographic satellite images from sub-consultant Asterra/Utilis along with emergency services.

Customer: Cambridge, MA ($57,750 Contract/yr)
Contact: Mark F. Gallagher | Director of Engineering & Distribution
Material: Metallic | Completed: 2022, 2023 (2024) | System Age: ~100 years
Services Rendered: Annual leak correlation survey for 185 miles with ongoing emergency services of water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, and leaks using the 100% correlation method.

Customer: Yarmouth, MA ($48,576 Contract/yr)
Contact: Laurie J. Ruszala, P.E. | Superintendent of Water and Wastewater
Material: Metallic | Completed: 2023 (2024, 2025) | System Age: ~100 years
Services Rendered: Leak detection for 264 miles with ongoing emergency services of water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, and leaks.

Customer: City of Sandwich, MA ($29,274 Contract/yr)
Contact: Dan Mahoney | Water Superintendent
Material: Metallic | Completed: 2021, 2022, 2023 | System Age: ~100 years
Services Rendered: Leak detection survey services for 145 miles of water distribution piping while documenting all listening points and leak detection results.

Customer: Asterra/Utilis | ($51,550 Contract)
Locations: Aqua, VA; Bristol, RI; Kline, PA; N. Kingstown, RI; Oak Creek, WI; Warren, OH
Contact: Fareed Nazaryfar | Customer Success Manager
Material: Metallic & Non-Metallic | Completed: 2022 | System Age: ~100 years
Services Rendered: Comprehensive investigations of satellite POIs for water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, and leaks.

Customer: Montgomery, PA ($34,000 Contract/yr)
Contact: David Quinn | Project Manager at North Wales Water Authority
Material: Metallic | Completed: 2020, 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Annual leak correlation survey for 136 miles with ongoing emergency services of water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, and leaks using the 100% correlation method.

Customer: Lowell, MA Regional Water Utility ($24,72, $44,075 Contracts)
Contact: Paul Pires | Superintendent of Distribution
Material: Metallic | Completed: 2019, 2023 | System Age: ~100 years
Services Rendered: Leak detection survey services for 215 miles of water distribution piping while documenting all listening points and leak detection results.

Customer: Bellevue, WA ($15,750 Contract/yr)
Contact: Nathan Rauscher | Senior Engineering Technician, Water Operations & Maintenance
Material: Metallic & Non-metallic | Completed: 2022 (2023-2024) | System Age: ~100 years
Services Rendered: Leak comprehensive survey for 70 miles with ongoing emergency services of water distribution piping while documenting all listening points, defects, mapping discrepancies, sounds, & leaks.

Customer: U.S. Air Force ($22,000 Contract)
Contact: Gary Krivokapich. P.E., CEM | Energy Utility Manager & Engineer of Davis Monthan AFB
Material: Metallic & Non-metallic | Completed: 2022 | System Age: ~100 years
Services Rendered: Leak detection survey services for DM AVB water distribution piping while documenting all listening points and leak detection results.

Customer: City of Normal, IL ($46,600 Contract/yr)
Contact: John Burkhart | Director of Water
Material: Metallic | Completed: 2023 | System Age: ~100 years
Services Rendered: Annual leak detection services for 200 miles documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS

Customer: City of Arlington Heights, IL ($30,940 Contract/yr)
Contact: Scott Schweda | Water Superintendent
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 286 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Glenview, IL ($29,274 Contract/yr)
Contact: Jack Fragassi | Water and Sewer Supervisor
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 246 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Northbrook, IL ($24,395 Contract/yr)
Contact: Joseph Rizzo | Utilities Superintendent
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 205 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Carol Stream, IL ($23,120 Contract/yr)
Contact: Phil Modaff | Director of Public Works
Material: Metallic | Completed: 2021, 2022 | System Age: ~100 years
Services Rendered: Leak detection survey services for 177 miles of water distribution piping and private mains while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Lake Forest, IL ($22,230 Contract/yr)
Contact: Rich Volpe | Water & Sewer Superintendent
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 170 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Winnetka, IL ($25,526 Contract/yr)
Contact: Drew Ceckowski | Water & Electric Analyst
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 103 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: City of Niles, IL ($24,564 Contract/yr)
Contact: Jack Grana | Utilities Superintendent
Material: Metallic | Completed: 2021, 2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 103 miles of water distribution piping while documenting all listening points and leak detection results with ongoing emergency services.

Customer: Village of Buffalo Grove, IL ($25,000 Contract/yr)
Contact: David K. Haisma | Superintendent of Water Operations
Material: Metallic | Completed: 2020-2022 | System Age: ~100 years
Services Rendered: Annual leak detection services for 183 miles with ongoing emergency services of water distribution piping while all listening points, defects, mapping discrepancies, sounds, and leaks of 4,894 assets were documented in ArcGIS. Confirmed leaks were documented and reported in Cartegraph.

Customer: Springfield, IL Water, Light, and Power ($29,000 Contract/yr)
Contact: Josh Stewart, P.E. | Water Distribution Engineer
Material: Metallic | Completed: 2019-2022 (2023) | System Age: ~100 years
Services Rendered: Leak detection survey services for 224 miles of water distribution piping while documenting all listening points and leak detection results.

Customer: City of Lakewood, OH ($23,000 Contract/yr)
Contact: Nicholas DelVecchio | City of Lakewood Division Manager
Material: Metallic | Completed: 2020-2022 | System Age: ~100 years
Services Rendered: Bi-annual leak detection services for 240 miles/year with ongoing emergency services of water distribution piping while all listening points, defects, mapping discrepancies, sounds, asset types, and leaks of more than 5,510 assets were documented in ArcGIS.

Customer: City of Bensenville, IL ($13,200 Contract/yr)
Contact: Vincent Smith | Operation Superintendent
Material: Metallic | Completed: 2021 & 2022 (2023-2024) | System Age: ~100 years
Services Rendered: Annual leak detection services for 80 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Park Ridge, IL ($19,320 Contract/yr)
Contact: Mark Miller | Superintendent of Public Works
Material: Metallic | Completed: 2020-2022 | System Age: ~100 years
Services Rendered: Annual leak detection services for 138 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Oak Park, IL ($17,490.00 Contract/yr)
Contact: James Eggen, P.E. | Superintendent of Water & Sewer Division
Material: Metallic | Completed: 2020 & 2022 | System Age: ~100 years
Services Rendered: Leak detection services for 106 miles documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Ecorse, MI ($9,675 Contract/yr)
Contact: Dulanga Pathirana, P.E. | Project Engineer for Andersen, Eckstein, & Westrick
Material: Metallic | Completed: 2023 | System Age: ~100 years
Services Rendered: Annual leak detection services for 43 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Havre de Grace, MD ($9,000 Contract/yr)
Contact: Joe Conway | Chief of Construction and Program Management
Material: Metallic | Completed: 2022 | System Age: ~100 years
Services Rendered: Annual leak detection services for 45 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Milton-Freewater, OR ($10,335 Contract/yr)
Contact: Steven Patten | Public Works Technician
Material: Metallic & Non-metallic | Completed: 2022 | System Age: ~100 years
Services Rendered: Annual leak detection services for 39 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: City of Diablo, CA ($27,125 Contract)
Contact: Dan Muelrath | General Manager of the Diablo Water District
Material: Metallic & Non-Metallic | Completed: 2020 | System Age: ~100 years
Services Rendered: Annual leak detection services for 175 miles with ongoing emergency services while documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS.

Customer: St. Joseph, MI ($5,400 Contract)
Contact: Tom MacDonald | Director of Public Works (retired)
Material: Metallic | Completed: 2021 | System Age: ~100 years
Services Rendered: Annual leak detection services for 50 miles of water distribution piping while documenting all listening points and leak detection results.

Customer: City of Darien, IL ($12,916.80 Contract/yr)
Contact: Kris Throm | Superintendent of Municipal Services
Material: Metallic | Completed: 2022-2023 | System Age: ~100 years
Services Rendered: Annual leak detection services for 90 miles documenting all listening points, defects, mapping discrepancies, sounds, and leaks in ArcGIS

CITY OF CAMBRIDGE
MASSACHUSETTS
Water Department

7/29/2022

To: Whom it May Concern

From: Mark Gallagher, Director of Engineering and Distribution, CWD

Date: 7/29/2022

Re: Recommendation Letter - Consulting Engineering Inc. (CEI)
City Wide Leak Detection Survey

During the Spring of 2022, CEI staff conducted a City-Wide Leak Detection Survey of the 186 miles of water main that compromise the City of Cambridge Water Distribution System. Although Cambridge is a densely populated city that presents many challenges while working in the public right of way, the CEI staff always conducted themselves in a professional manner and often adjusted their scope of work to get past these challenges. These adjustments often caused their staff to work through the night in order to complete the survey in heavily trafficked areas. The staff's flexibility, hard work and diligence resulted in the project being completed on time and within budget. To date all the locations identified by CEI have been proven to be very accurate and has allowed the City of Cambridge to repair the leaks and stop the wasting of water.

Overall CEI has proven themselves to be a reliable and professional company which resulted in a very successful project. Therefore, I would highly recommend them for any large-scale Leak Detection services.

Sincerely,

Mark Gallagher,
Director of Engineering and Distribution
Cambridge Water Department
617-349-7754

Sandwich Water District
72 TUPPER ROAD, BOX 600
SANDWICH, MASSACHUSETTS 02563-0600

(508) 888-2775
Fax (508) 888-9675

To whom it may concern:

I write this letter of recommendation for the firm, Consulting Engineering, Inc. (CEI), based on consideration of personnel, equipment and references – we awarded Consulting Engineering Inc. the contract for leak detection in Sandwich, MA for FY 2021 with options to renew in FY 2022 and FY 2023.

Using the latest electronic acoustic devices, loggers, and correlators, CEI identified potential leak locations by sounding assets connected to water mains. Implementing real-time, synchronized data collection through ESRI's ArGIS, CEI provided us with well-documented, measurable results; clearly communicated their areas of work and deployments; and conducted their tasks with the utmost safety which left us with a feeling of confidence in their expertise.

We decided to purchase offline mapping tablets from CEI for our field technicians so we would have the latest information on our water system. CEI's mapping solution included iPads with screen protectors, engraving, and drop-proof and water-resistant casing.

In closing, it has been a positive and professional experience working with Y Chan and his team for our leak detection project. Y is responsive, as are the field staff they employ. Maurice Little, our main field contact with CEI, worked with our personnel. For these reasons, I confidently and highly recommend CEI for leak detection and water distribution maintenance needs.

Regards

Dani Mahoney

Superintendent

Sandwich Water District

508-888-2775 or dmahoney@sandwichmass.org

VILLAGE OF
BUFFALO GROVE

Department of Public Works
Fifty One Raupp Blvd.
Buffalo Grove, IL 60089-2198
Fax 847-537-5845

David K. Haisma
Supt. of Utility Operations
Phone 847-459-2545
dhaisma@vbg.org

To whom it may concern:

It is with pleasure I write this letter of recommendation for the firm, Consulting Engineering, Inc. (CEI). I have come to know their work through a 3-year contract they won for leak detection for Buffalo Grove, IL, for 2020-2022.

CEI implemented real-time and synchronized data collection through ESRI's ArGIS. Using electronic acoustic devices and loggers, CEI identified potential leak locations by sounding assets connected to water system. By sounding all accessible assets in Phase 1, then identified points of interest in Phase 2, CEI performed 183 miles of main line leak detection for Buffalo Grove to date. CEI provided us with measurable results, clearly communicated their whereabouts and deployments, and conducted their tasks with the utmost safety which left us with a feeling of confidence in their expertise.

In closing, it has been a great to work with Y Chan and the field staff. Y is responsive, as are the field staff they employ. Our main field contact for CEI, Maurice Little, provided his expertise with our personnel. For these reasons, I recommend CEI for leak detection and water distribution maintenance needs.

I can be reached at (847) 459-2045 or DHAISMA@VBG.ORG with any questions.

X *David Haisma*

David Haisma

NWWA

North Wales Water Authority
PUBLICLY OWNED SINCE 1951

December 15, 2020

To Whom It May Concern,

I write this letter of recommendation for the firm Consulting Engineering, Inc. (CEI). CEI was the lowest bidder on a Contract for leak detection for 2021. North Wales Water Authority conducts full system leak detection on a three (3) year rotating basis, surveying approximately 180 miles of main and appearances annually.

CEI performed real time and synchronized data collection through ESRI's ArGIS. Using the latest electronic acoustic devices and loggers, CEI identified potential leak locations by sounding assets connected to water mains. Using the 100% correlation method, CEI performed 180 miles of leak detection for the North Wales Water Authority to date. CEI provided us with measurable results, clearly communicated their whereabouts and deployments, and conducted their tasks with the utmost safety which left us with a feeling of confidence in their expertise.

In closing, Y Chan and the field staff are very responsive to work with. Our main field contact for CEI, Maurice little, worked well with our personnel. For these reasons, I feel confident in recommending CEI for leak detection and water distribution maintenance needs.

I can be reached at dquinn@nwwater.com with any questions.

Thank you,

David Quinn,
Administrator

Reply To: ☐ Main Office: 200 W. Walnut Street, P.O. Box 1339, North Wales, PA 19454 • Phone: 215-699-4836 • wizard@nwwater.com
☐ Bucks Office: 1560 Easton Road, P.O. Box 1018, Warrington, PA 18976 • Phone: 267-482-6940 • nwwabucks@nwwater.com

FORBES PARK WATER

DIABLO WATER DISTRICT

87 Carol Lane
P.O. Box 127
Oakley, CA 94561-0127
925-625-3798
Fax 925-625-0814
www.diablowater.org

Directors:
Edward Garcia
President

John H. de Fremery
Vice President

Kenneth L. Crockett
Howard Hobbs
Paul Seger

General Manager & Secretary:
Daniel Muelrath

General Counsel:
Jeffrey D. Polisner

December 15, 2020

RE: Leak Detection Services by Consulting Engineering Inc.

To Whom it May Concern:

Diablo Water District recently (Nov/Dec 2020) had 175 miles of water mains leak detected by Consulting Engineering Inc. We were happy with their services, staff, and management, as they finished the project on time and within budget.

Feel free to reach out to me if you have any questions about the scope of services they performed.

Sincerely,

Dan Muelrath
General Manager

Sandwich Water District
72 TUPPER ROAD, BOX 600
SANDWICH, MASSACHUSETTS 02563-0600

(508) 888-2775
Fax (508) 888-9675

To whom it may concern:

I write this letter of recommendation for the firm, Consulting Engineering, Inc. (CEI), based on consideration of personnel, equipment and references – we awarded Consulting Engineering Inc. the contract for leak detection in Sandwich, MA for FY 2021 with options to renew in FY 2022 and FY 2023.

Using the latest electronic acoustic devices, loggers, and correlators, CEI identified potential leak locations by sounding assets connected to water mains. Implementing real-time, synchronized data collection through ESRI's ArGIS, CEI provided us with well-documented, measurable results; clearly communicated their areas of work and deployments; and conducted their tasks with the utmost safety which left us with a feeling of confidence in their expertise.

We decided to purchase offline mapping tablets from CEI for our field technicians so we would have the latest information on our water system. CEI's mapping solution included iPads with screen protectors, engraving, and drop-proof and water-resistant casing.

In closing, it has been a positive and professional experience working with Y Chan and his team for our leak detection project. Y is responsive, as are the field staff they employ. Maurice Little, our main field contact with CEI, worked with our personnel. For these reasons, I confidently and highly recommend CEI for leak detection and water distribution maintenance needs.

Regards

Dani Mahoney

Superintendent

Sandwich Water District

508-888-2775 or dmahoney@sandwichmass.org

City of Flagstaff

September 20, 2018

RE: Letter of recommendation for Consulting Engineering, Inc.

To whom it may concern:

It is with pleasure to write a letter of recommendation for the firm, Consulting Engineering, Inc. (CEI) I have become to know their work through a contract they won for a leak detection and valve box maintenance, in 2017.

CEI has performed nearly 255 miles of leak detection and valve-box maintenance for the City to date. 220 of these miles were completed on the first contract, during FY18, and another 35 of 90 miles have been completed in FY19. The original contract was written such that continuation each fiscal year could occur provided the work performed followed the scope of work, met the City's expectations, and City Council passed the budget.

Our evaluation team was impressed with CEI's proposal. Flagstaff is working towards real-time or synchronized data collection with our GIS and City-Works systems and CEI was very comfortable performing these tasks. Their strength is in completing the on-the-ground work. They provided us weekly updates consistently. We are working with CEI in this FY to better follow the scope of work, including collecting a photo of each valve box to populate our Collector App. Traffic control, a daily field work plan are also focus areas of our in working with CEI this FY.

In closing, it has been a delight to work with Y Chan and the field staff. Y is very responsive, as are the field staff they employ. Our main field contact for CEI, Maurice Little, has provided many recommendations for making better use of our Collector App, many or all of which we have implemented. For these reasons, I highly recommend CEI for leak detection and valve-box maintenance needs.

I can be reached at (928) 213-2405 or eyoung@flagstaffaz.gov with any questions.

Erin M. Young, RG
Water Resources Manager
City of Flagstaff, Water Services Division

City of Cleveland
Frank G. Jackson, Mayor

Department of Public Utilities
Division of Water
1201 Lakeside Avenue
Cleveland, Ohio 44114-1175
(216) 664-2444
www.clevelandwater.com

March 22, 2017

Re: Recommendation of Consulting Engineering, Inc.

To whom it may concern:

This is to verify that the firm of Consulting Engineering, Inc. of Strongsville. OH has been employed as a sub-consultant to our prime consultant on our current leak detection and water audit project.

In that capacity, they have been a member of the CH2M Hill project team working on this project. Specifically, they have worked directly for their consultant, Wachs Water Services. Central Engineering's role in the project has been surveying the CWD water distribution system to identify potential leak locations by electronically listening to fire hydrants connected to water mains. As of this time, they have listened to approximately 35,900 fire hydrants covering 2,430 miles of water mains. So far, this work has eventually led to the identification and pin pointing of approximately 400 leaks by Wachs Water Services as part of this project.

To-date, their performance has fulfilled the terms of the Scope of Services outlined in our agreement. At the current rate, Consulting Engineering's role in this project is scheduled to be completed on-time and within budget. I confidently recommend Consulting Engineering for conducting leak surveying services.

Best regards.

Very truly yours,

J. Christopher Kocsan
Sr. Budget and Management Analyst
Cleveland Division of Water

AMORY ENGINEERS, P.C.

WATER WORKS • WATER RESOURCES • CIVIL WORKS

25 DEPOT STREET, P.O. BOX 1768
DUXBURY, MASSACHUSETTS 02331-1768

TEL.: 781-934-0178 • FAX: 781-934-6499
WWW.AMORYENGINEERS.COM

March 23, 2017

To Whom It May Concern

Subject: **Comprehensive Leak Detection Survey Reference**

It is my pleasure to recommend Consulting Engineering, Inc. (CEI), of Strongsville, OH for leak detection services. CEI successfully performed a comprehensive leak detection survey of approximately 135 miles of the water distribution system for the Town of Middleborough, MA in 2016.

CEI's performance fulfilled the terms of the Scope of Services for the project. The comprehensive leak survey was completed on-time and within budget. Their field and office personnel were knowledgeable, cooperative and highly professional during the work.

I would recommend CEI to conduct leak detection services in the future.

Very truly yours,

AMORY ENGINEERS, P.C.

By:

Richard S. Johnson, P.E.

Consulting Engineer for the Town of Middleborough

RSJ

March 20th, 2017

TO WHOM IT MAY CONCERN

It is my pleasure to recommend Consulting Engineering, Inc. (CEI) for civil engineering and leak detection services.

CEI performed a comprehensive leak detection survey, intermittently, from 1986-2011 for 60 miles of the water distribution system for the City of East Cleveland.

Their performance fulfilled the terms of the Scope of Services outlined in our agreement. This project was a resounding success as it was completed on-time and within budget.

I confidently recommend CEI to conduct leak detection services as their expertise will provide a benefit to your city.

Respectfully,

Ross M Brankatelli PE

Ross Brankatelli, P.E.

Retired Service Director for the City of East Cleveland

CITY OF
CLEVELAND
HEIGHTS
Utilities Department

March 20, 2017

Re: Letter of Recommendation – Consulting Engineering

To Whom This May Concern:

Consulting Engineering performed leak surveys for the City of Cleveland Heights for more than 10 years. During this period the company delivered high quality services, locating hundreds of leaks and saving the City of Cleveland Heights millions of dollars over this period by reducing wasted water and preserving this very valuable resource. During my tenure at the City of Cleveland Heights and in my previous position as Director of Water in a neighboring community, I used the services of Consulting Engineers annually. I have found Ray Chan to be very responsive and committed to helping communities address their leak issues within the water distribution system.

I wholeheartedly recommend Consulting Engineering to provide leak and engineering services. The City looks forward to continuing our relationship with the company in other capacities in the future. If you would like to discuss this company in more detail, please feel free to contact me at 216-291-5990 or via email at cclinkscale@clvhts.com.

Sincerely,

Collette Clinkscale
Utilities Commissioner

40 SEVERANCE CIRCLE, CLEVELAND HEIGHTS, OHIO 44118
216 • 291 • 4444 FAX • 291 • 2064

SCHEDULE C - LIST OF MAJOR EQUIPMENT AVAILABLE

ITEM	PURCHASE DATE	CONDITION	ACQUIRED VALUE

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Quality and Features of Proposed Equipment

CEI uses a variety of listening devices in order to leverage filtering options, annual services, and calibrations. All equipment is recharged daily while teams are outfitted with backup batteries, devices, and attachments such as headphones, attachments, cords, and lanyards. The use of different devices allows for greater comparison, re-calibration, and training options. Naturally, these devices have different performances based on material differences so the variety of equipment means greater accuracy for our customer.

SebaKMT HL 50-BT with GM-80

This ubiquitous instrument was created by Vivax-Metrotech and compatible with the GM-80 ground mic. This SebaKMT water network survey leak locator tool has outstanding acoustic properties which enable the operator to locate large and small water leaks. Three basic filter settings allow the user to adjust to any leak scenario. The integrated LCD screen displays the actual measured sound level as a number and simultaneously as a bar graph. After each new measurement, the previous level will still be displayed to compare sound levels.

This listening device can be used to investigate potential leak noises. Based on the digital readout, verification and pinpointing can be prioritized. In addition, upon the follow-up visit, the applicable appurtenance can be rechecked to confirm a leak noise is still present, at or greater than the value of the initial visit. This confirms a leak is indeed present and eliminates false-positive reporting.

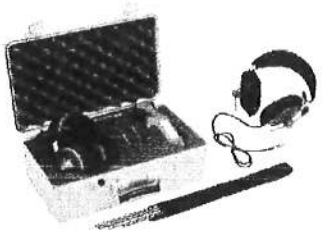
SebaKMT HL 5000 with GM-80

Along with being compatible with the GM-80 ground mic, this equipment uses modern digital signal processing technology (DSP) to clearly recognize the leak sound, even with substantial environmental ambient noise. The sounds are both audibly perceived and graphically displayed using dual segment analysis (DSA) technology. For the user this means greater reliability in locating water losses.

HWM L-mic

The well-known HWM L-mic is an easy-to-use, low cost, electronic listening stick and ground microphone combined. It is ideal for general leak sounding operations and can be fitted with either a tripod foot (for use as a ground microphone) or probe rods (for sounding at fittings or in soft ground). The control unit is hand-held with a 'trigger' operation and a volume/sensitivity rotary control. An LED indicates operation and battery status. This lightweight unit can be used to confirm the position of underground leaks audibly from ground level, sound pipe fittings penetrate soft ground to listen for leaks and carry out traditional acoustic surveys.

Subsurface Leak Detection LD 8



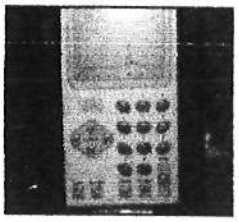
Accurate and reliable, the SubSurface LD 8 is a lightweight instrument for water leak detection of hydrants and fixtures. This leak detection tool uses contact rods attached to a piezoelectric sensor and amplifier to connect to water line fixtures so the construction professional can listen for the sound of unwanted water flows. Also, the amplifier comes with an amplification range of 55 decibels with a frequency range of 100 to 2,000 Hertz.

The LD-8 includes a short contact rod used for listening to hydrants while the long contact rods are used for below-grade meters and valves. Also, this water leak detector has a two-digit LCD display that is easy-to-read.

Subsurface Leak Detection LD 15

The SubSurface Instruments LD-15 Leak Survey Equipment offers the best solution for listening to leaks at hydrants, valves, and meters. It features a high-sensitivity sensor with a sealed waterproof Neodymium magnet. Equipped with an amplifier, this device has superior audio quality and amplifies to 56 db. This device includes three filter ranges and comes with both survey & pinpoint functions for water leaks. Plus, the sensor has a resonance frequency of 950 Hertz which can detect the faintest of sounds. With an IP68 protection rating, this unit is dustproof and water submersible up to 3 feet for 3 hours. It comes with a large meter display for easy reading and up to 80 hours of battery life.

Subsurface Leak Detection LC 2500



The SubSurface LC-2500 Leak Noise Correlator is lightweight and compact, yet it offers full capabilities for programming and correlating leak noise from many different pipe materials and pipe diameters. Great Sensors, powerful radios and fast processing of sounds make the LC-2500 truly the best performing correlator on the market.

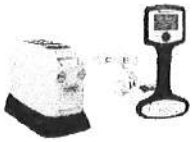
This correlator is used for QA/QC and pinpointing of the leak noises often qualified by the HL-50 in sounding. Multiple correlations are used to localize suspected leak source(s) to be verified by ground mics or additional inspection. The graphical display indicates to the technician the possible size and characteristics of the leak.

CST/Berger Magna-Trak Locator

The Magna-Trak locates ferromagnetic objects which may be concealed by earth, road surface, snow, and/or water. These objects may include hydrants, marker magnets, manhole covers, valve rods, surveying marks and rods, water meters, etc.

This metal detector will be used to locate potentially buried assets which may prove especially useful during nighttime operations, areas of heavy vegetation, or where visibility may be poor.

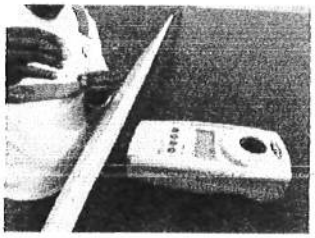
Vivax-Metrotech VM-810 Line Locator



The antenna system in the locator is different from a normal locator. Rather than place antennas on the same center line, one antenna is offset to the right and another to the left. Coupled with extremely sensitive electronics enables the locator to find which antenna is receiving the strongest signal, indicating which direction one should move to be over the buried line. The VM-810's Distance Sensitive Left/Right Guidance provides a sharper, crisper, response, allowing for greater accuracy in line location.

This line locator will verify the line location in the street to enable accurate pinpointing and field markings of leak locations.

Lovibond Chlorine Tester

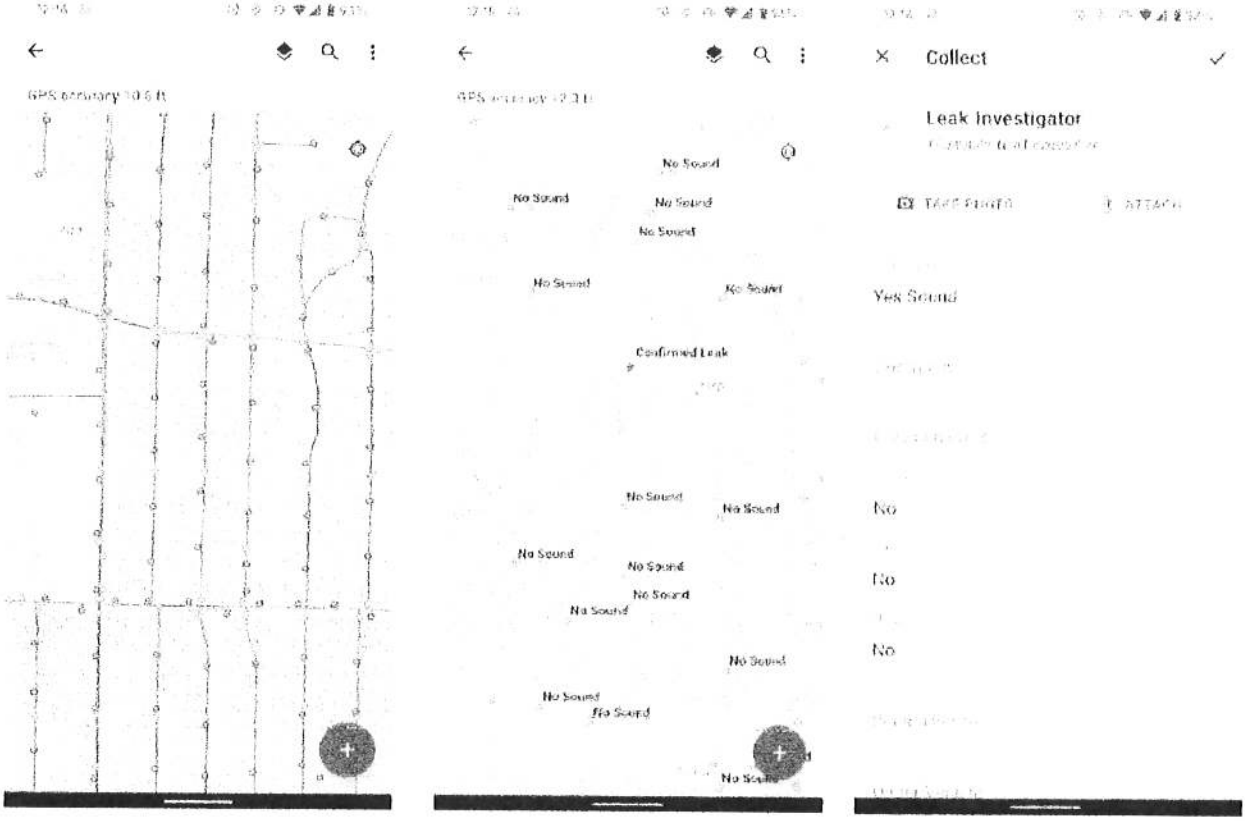


Free Chlorine (hypochlorous acid) reacts with Ammonia and certain Nitrogenous compounds to form Combined Chlorine. With Ammonia, the reaction produces chloramines which have very little disinfecting power; thus, it is important to be able to determine the various fractions of Chlorine present at any one time. DPD (NN Diethyl p Phenylene Diamine Sulphate) is the preferred reagent for the determination of Free, Combined and Total Chlorine. It is available in Tablet, Liquid and Powder form.

Total Chlorine can also be measured using a Potassium Iodide reagent. This can measure concentrations of up to 300 mg/l chlorine and is widely used in food manufacturing and industrial water treatment.

Data-Enabled Collection Devices with ArcGIS

GPS & data-enabled devices with ArcGIS Collector allow our specialists to collect photos, videos, acoustics, mapping discrepancies, and all assessment data. Our devices include Samsung, Apple, and LG phones, tablets, & PCs. With interactive mapping, we import GIS shapefile(s), update GIS information, and provide valuable information using our flexible data-driven solutions and analysis tools. By creating customizable layers, our leak detection specialists can collect information which can be represented visually and represent patterns in whatever manner we find valuable. Though this information is visually stunning, the power behind this is our teams can share and access information through mapping, embedded information, and dashboards.

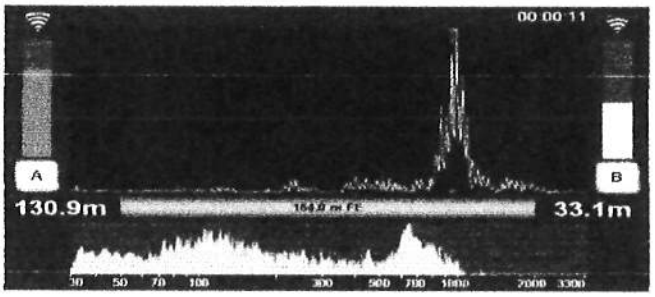


CONSULTING ENGINEERING, INC.

SebaKMT Corelux C-3 Correlator

The acoustics of pressurized water travel in all directions of the pipe. This noise is recorded, amplified, and sent wirelessly to the correlator by 2 sensors (piezo mic, hydrophone) which are attached to the pipe (e.g. valve, hydrants). The C-3 compares the signals then calculates the distance based on the delays time of the signals, sensor distance, and sound velocity in the pipe.

This hybrid correlator can be used for online and offline correlations. The C-3 is capable of multi-correlation without pipe parameter input, possesses a touch display with an intuitive user interface, has long operating times, has inductive sensor charging, and can pinpoint using multi-sensors or a ground mic. This device is perfect for all piping materials.



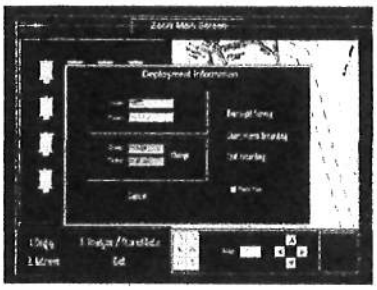
ZCorr Digital Correlating Loggers

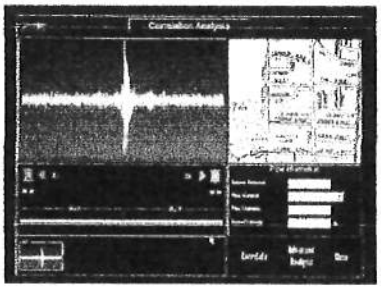
ZCorr digital correlating loggers offer significant advantages over listening loggers by detecting and pinpointing multiple leaks in a zone overnight. ZCorr's technical advances make leak surveying viable for water utilities at less effort and cost.

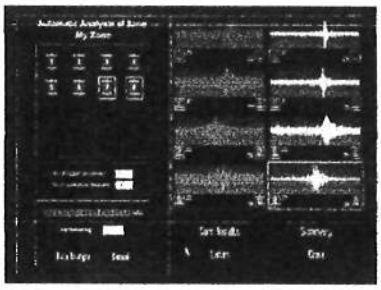
ZCorr is a software-driven approach that allows a distribution system leak survey to be efficiently directed from the office, integrating leak detection data, maps, and database tools to:

- Plan the survey and print deployment orders.
- Pinpoint leaks and print repair reports.
- Track survey progress and performance.

The ZCorr survey has 3 steps: DEPLOY, RETRIEVE and ANALYZE. Each step can be taken either in the office or in the field.







004519

NON-COLLUSION AFFIDAVIT

TOWN OF ROTTERDAM
ROTTERDAM JUNCTION LEAK DETECTION SURVEY

004519
Noncollusion Affidavit

Every bid or proposal made to a political subdivision of the state or any public department, agency or official thereof where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury.

By submission of this bid, each bidder and each person signing on behalf of any bidder, or in the case of a joint bid each party thereto, certifies that:

such bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation;

such bid is genuine and not collusive or sham;

said bidder has not directly induced or solicited any other bidder to put in a false or sham bid and has not directly or indirectly colluded, conspired, connived or agreed with any bidder or anyone else to put in a sham bid, nor that anyone shall refrain from bidding;

said bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the bid price of said bidder or of any other bidder, nor to fix any overhead, profit or cost element of such bid price, nor of that of any other bidder, nor to secure any advantage against the public body awarding the contract or anyone interested in the proposed contract;

all statements contained in such bid are true;

and, further, that said bidder has not directly or indirectly, submitted his bid price or any breakdown

thereof, nor the contents thereof, nor divulged information or data relative thereto, nor paid and will not pay fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such persons or persons as have a partnership or other financial interest with said bidder in his general business.

No bid shall be considered for award, neither shall any award be made where above items have not been complied with.

If the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons why the above items have not been complied with. The bid shall not be considered for award, neither shall any award be made, unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or the appointed designee, determines that such disclosure was not made for the purpose of restricting competition.

Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation or local law, and where such bid contains the certification referred to in this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to noncollusion as the act and deed of the corporation.

Signature :

Print Name: Y Chan

Title: Principal Owner & Civil Engineer

Business Address of Bidder: 19655 Tanbark Ln.; Strongsville, OH 44149

Dated: 6/28/2023

NONCOLLUSION AFFIDAVIT MUST BE INSERTED IN PROJECT MANUAL

004525

TOWN OF ROTTERDAM
NON-DISCRIMINATION AND HARASSMENT POLICY & AFFIDAVIT

903 Non-Discrimination and Harassment (Including Sexual Harassment) in the Workplace

Policy Statement – It is the policy of the Town of Rotterdam to promote a productive work environment and to prohibit conduct by any Elected Official or employee (as defined in Section 104 of the Employee Handbook) that disrupts or interferes with another's work performance or that creates an intimidating, offensive, or hostile work environment. In keeping with this goal, the Town is committed to educate Elected Officials and employees in the recognition and prevention of workplace discrimination and harassment, including sexual harassment, and to provide an effective means of eliminating such discrimination and harassment from the workplace. In short, the Town does not tolerate any form of discrimination or harassment, including sexual harassment, and will take all steps necessary to prevent and stop the occurrence of such activity in the workplace. The accompanying complaint procedure is intended to provide an effective mechanism for reporting, and resolving promptly, complaints of discrimination and harassment, including sexual harassment, without any risk of repercussion to any individual covered by this policy who, in good faith, files such complaint.

Applicability of Policy – This policy applies to all Elected Officials, Appointed Members of Boards and Commissions, employees, supervisors, and Department Heads, whether employed full or part-time, temporary or seasonal, paid or unpaid interns, volunteers, and those employed by companies contracting to provide services in the workplace. Depending on the extent of the Town's exercise of control, this policy may be applied to the conduct of non-Town employees with respect to harassment of Town employees in the workplace.

Prohibited harassment (including sexual harassment) is not limited to the physical workplace itself. It can occur while Elected Officials, employees or other individuals covered by this policy are traveling for Town business or at Town sponsored events or parties. Calls, texts, emails, and social media usage by employees or other individuals covered by this policy can constitute workplace harassment, even if they occur away from the workplace premises, on personal devices, or during non-work hours.

Prohibited Activity – No Elected Official, employee or other individuals covered by this policy shall engage in any of the following:

- Harassment: Unwanted, unreasonable verbal or physical conduct directed toward or affecting another person that disturbs, frightens, insults, threatens, intimidates, demeans, or offends that other person, that continues or is repeated after a request to cease, and that: 1) has the purpose or effect of creating an intimidating, hostile, or offensive work environment; 2) has the purpose or effect of unreasonably interfering with an individual's work performance; or 3) otherwise adversely affects an individual's employment opportunities. Harassment includes offensive or inappropriate images or written materials or electronic communications (e.g. letters, e-mail, text messages, or graffiti) as well as bias-based harassment and sexual harassment (see below).

- Bias-Based Harassment: Harassment that denigrates, offends or shows hostility or aversion toward an individual on the basis of sex, (including gender identity and the status of being transgender), sexual orientation, race, color, national origin, religion,

disability, pregnancy, age, marital status, veteran status, military status, arrest or conviction record, genetic information or predisposing characteristics, domestic violence victim status, or any other protected status. Bias-based harassment includes, but is not limited to: epithets, slurs or negative stereotyping; threatening, intimidating, or hostile acts; denigrating jokes; and written, electronic, or graphic material that denigrates, ridicules, objectifies, or shows hostility, aversion or contempt toward an individual or group and that is placed on walls, bulletin boards, lockers or elsewhere on or in the Town's premises, vehicles, or equipment, or is circulated in the workplace, including through electronic means.

- Discrimination: The Town of Rotterdam is an Equal Opportunity Employer. The Town does not unlawfully discriminate on the basis of sex, (including gender identity and the status of being transgender), sexual orientation, race, color, national origin, religion, disability, pregnancy, age, marital status, veteran status, military status, arrest or conviction record, genetic information or predisposing characteristics, domestic violence victim status, or any other protected status. Unlawful discrimination based on membership in these categories is prohibited by applicable federal, state, or local laws. This policy applies to all terms and conditions of employment, including, but not limited to, hiring, placement, assignments, compensation, promotion, transfer, training, leave of absence, and termination.

Definition of Sexual Harassment – This policy places special attention on the prohibition of sexual harassment in the workplace.

Sexual harassment is a form of sex discrimination and is unlawful under federal, state, and (where applicable) local law. Sexual harassment includes harassment on the basis of sex, sexual orientation, self-identified or perceived sex, gender expression, gender identity and the status of being transgender.

Sexual harassment includes unwelcome conduct which is either of a sexual nature, or which is directed at an individual because of that individual's sex when:

- Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive work environment, even if the reporting individual is not the intended target of the sexual harassment;
- Such conduct is made either explicitly or implicitly a term or condition of employment; or
- Submission to or rejection of such conduct is used as the basis for employment decisions affecting an individual's employment.

A sexually harassing hostile work environment includes, but is not limited to, words, signs, jokes, pranks, intimidation or physical violence which are of a sexual nature, or which are directed at an individual because of that individual's sex. Sexual harassment also consists of any unwanted verbal or physical advances, sexually explicit derogatory statements or sexually discriminatory

remarks made by someone which are offensive or objectionable to the recipient, which cause the recipient discomfort or humiliation, or which interfere with the recipient's job performance.

Sexual harassment also occurs when a person in authority tries to trade job benefits for sexual favors. This can include hiring, promotion, continued employment or any other terms, conditions or privileges of employment. This is also called "quid pro quo" harassment.

Any employee who feels harassed should report so that any violation of this policy can be corrected promptly. Any harassing conduct, even a single incident, can be addressed under this policy.

Examples of Sexual Harassment - The following describes some of the types of acts that may be unlawful sexual harassment and that are strictly prohibited:

- Physical acts of a sexual nature, such as:
  - Touching, pinching, patting, kissing, hugging, grabbing, brushing against another employee's body or poking another employee's body;
  - Rape, sexual battery, molestation or attempts to commit these assaults.
- Unwanted sexual advances or propositions, such as:
  - Requests for sexual favors accompanied by implied or overt threats concerning the target's job performance evaluation, a promotion or other job benefits or detriments;
  - Subtle or obvious pressure for unwelcome sexual activities.
- Sexually oriented gestures, noises, remarks or jokes, or comments about a person's sexuality or sexual experience, which create a hostile work environment.
- Sex stereotyping occurs when conduct or personality traits are considered inappropriate simply because they may not conform to other people's ideas or perceptions about how individuals of a particular sex should act or look.
- Sexual or discriminatory displays or publications anywhere in the workplace, such as:
  - Displaying pictures, posters, calendars, graffiti, objects, promotional material, reading materials or other materials that are sexually demeaning or pornographic. This includes such sexual displays on workplace computers or cell phones and sharing such displays while in the workplace.
- Hostile actions taken against an individual because of that individual's sex, sexual orientation, gender identity and the status of being transgender, such as:
  - Interfering with, destroying or damaging a person's workstation, tools or equipment, or otherwise interfering with the individual's ability to perform the job;
  - Sabotaging an individual's work;
  - Bullying, yelling, name-calling.

Prohibition Against Retaliation – Unlawful retaliation can be any action that could discourage an employee from coming forward to make or support a claim of discrimination or harassment, including sexual harassment. Adverse action need not be job-related or occur in the workplace to constitute unlawful retaliation (e.g., threats of physical violence outside of work hours).

Unlawful retaliation against any employee who has engaged in "protected activity" is strictly prohibited by this policy as well as (where applicable) federal, state, and local law. Protected activity occurs when a person has:

- made a complaint of harassment or discrimination, either internally or with any anti-discrimination agency;
- opposed harassment or discrimination by making a verbal or informal complaint to management, or by simply informing a supervisor or management of harassment or discrimination;
- reported that another employee has been subjected to harassment or discrimination;
- encouraged a fellow employee to report harassment or discrimination;
- participated in a workplace investigation regarding harassment or discrimination;
- testified or assisted in a proceeding involving harassment or discrimination under the Human Rights Law or other anti-discrimination laws.

Even if the alleged discrimination or harassment does not turn out to rise to the level of a violation of law, the individual is protected from retaliation if the person had a good faith belief that the practices were unlawful. However, the retaliation provision is not intended to protect persons making intentionally false charges of discrimination or harassment.

Reporting of Discrimination and Harassment (including Sexual Harassment) – Reports of alleged discrimination and/or harassment (including sexual harassment) or retaliation may be made verbally or in writing. A form for the submission of a written complaint is attached to this policy and individuals are encouraged to use this form. If an individual chooses to submit a verbal complaint, such complaint will be recorded by the receiver of this complaint on this form. Employees are encouraged to report incidents of discrimination, harassment (including sexual harassment), or retaliation to their Department Head and/or the Town Supervisor as soon as possible after their occurrence. If the employee's Department Head is believed to be involved in the incident, or if the employee is not comfortable in addressing the incident with the Department Head, the report should be made directly to the Town Supervisor. If the Town Supervisor is believed to be involved in the incident or the employee is not comfortable reporting the incident to the Town Supervisor, the employee should report the incident to a member of the Town Board. Employees who believe they have been discriminated against or harassed and would like to obtain guidance as to how to proceed in filing a complaint, should contact their immediate supervisor, their Department Head, the Town Supervisor, or any member of the Town Board. Employees who work during off-hours are encouraged to contact their supervisor, their Department Head, the Town Supervisor, or any member of the Town Board at home if these individuals do not work during the employee's shift. Non-employees are encouraged to report incidents of alleged discrimination and harassment (including sexual harassment) to either the Department Head of the

department where services are being provided, the Town Supervisor, or a member of the Town Board.

Supervisory Responsibility – Supervisory personnel must make every effort to ensure a work environment that is free from discrimination and harassment, including sexual harassment. Any Department Head or supervisor who receives a complaint or information about suspected prohibited activity (as outlined above), observes behavior that may constitute prohibited activity, or for any reason suspects that prohibited activity is occurring, is required to report such suspected prohibited activity to the Town Supervisor, or any member of the Town Board.

In addition to being subject to corrective action or discipline if they engaged in prohibited activity themselves, supervisory personnel will be subject to discipline for failing to report suspected prohibited activity or otherwise knowingly allowing prohibited activity to continue. Supervisory personnel will also be subject to corrective action or discipline for engaging in any form of retaliation prohibited by this policy.

Investigation of Complaint – The Town Supervisor, in consultation with the Town Board, will determine the appropriate individual(s) to conduct the investigation. All complaints pursuant to this policy, whether reported in verbal or written form, will be investigated promptly, thoroughly, and in as impartial a manner as possible. The investigation will normally include conferring with the parties involved and any named or apparent witnesses. All employees are required to cooperate in an investigation, if so directed. All persons involved, including complainants, witnesses and alleged perpetrators will be accorded due process to protect their rights to a fair and impartial investigation. All relevant materials, including all electronic communications, documents, emails or phone records that are relevant to the allegations will also be considered. A written report will be prepared documenting the results of the investigation. The individual who reported the complaint and the individual about whom the complaint was made will be notified of the final determination.

Confidentiality – Complaints of discrimination and harassment, including sexual harassment, will be handled and investigated promptly and in a manner that is as impartial and confidential as possible. In no event will information concerning a complaint be released by the Town to third parties or to anyone within the Town employment who is not directly involved in the investigation or handling of the complaint unless otherwise required by law.

Corrective Action and Discipline – Any employee who is found to have violated any aspect of this policy will be subject to corrective or disciplinary action, up to and including termination of employment, as provided by Town operating procedures, including Civil Service Law Section 75, or a collective bargaining agreement. Any Elected Official who violates this policy will be subject to remedial action as provided for and/or allowed under NYS Public Officers Law, as well as any other applicable statutes. Any vendor, supplier, visitor, customer, or other non-employee who violates this policy will be subject to remedial action, to the extent that the Town is empowered to take such action.

Legal Protections and External Remedies – Nothing in this policy should be construed as in any way limiting employees' rights to file a formal complaint with the appropriate state or federal

agencies responsible for administering anti-discrimination laws. Complainants should be aware that time restrictions may apply and need to be considered.

Harassment (including sexual harassment) is not only prohibited by Town policy but is also prohibited by federal, state, and (where applicable) local law. Aside from the Town's internal process, employees may also choose to pursue legal remedies with the following governmental entities at any time.

New York State Division of Human Rights (DHR)

The Human Rights Law (HRL) applies to employers in New York State with regard to harassment and protects employees and non-employees regardless of immigration status. A complaint alleging violation of the Human Rights Law may be filed either with DHR or in New York State Supreme Court. Complaints with DHR may be filed any time within one year of the harassment. If an individual did not file at DHR, they can sue directly in state court under the HRL, within three years of the alleged discrimination. An individual may not file with DHR if they have already filed an HRL complaint in state court. Filing an internal complaint with the Town does not extend the time limits to file with DHR or in court. The one year or three years is counted from date of the most recent incident of harassment. An attorney is not needed to file a complaint with DHR, and there is no cost to file with DHR. DHR will investigate the complaint and determine whether there is probable cause to believe that discrimination has occurred. Probable cause cases are forwarded to a public hearing before an administrative law judge. If discrimination is found after a hearing, DHR has the power to award relief, which varies but may include requiring the Town to take action to stop the harassment, or redress the damage caused, including paying monetary damages, attorney's fees and civil fines.

DHR's main office contact information is: NYS Division of Human Rights, One Fordham Plaza, Fourth Floor, Bronx, New York 10458, (718) 741-8400. Contact DHR at (888) 392- 3644 or visit dhr.ny.gov/complaint for more information about filing a complaint. The website has a complaint form that can be downloaded, filled out, notarized and mailed to DHR. The website also contains contact information for DHR's regional offices across New York State.

United States Equal Employment Opportunity Commission (EEOC)

The EEOC enforces federal anti-discrimination laws, including Title VII of the 1964 federal Civil Rights Act (codified as 42 U.S.C. § 2000e et seq.). An individual can file a complaint with the EEOC anytime within 300 days from the harassment. There is no cost to file a complaint with the EEOC. The EEOC will investigate the complaint and determine whether there is reasonable cause to believe that discrimination has occurred, at which point the EEOC will issue a Right to Sue letter permitting the individual to file a complaint in federal court. The EEOC does not hold hearings or award relief but may take other action including pursuing cases in federal court on behalf of complaining parties. Federal courts may award remedies if discrimination is found to have occurred. If an employee believes that he/she has been discriminated against at work, he/she can file a "Charge of Discrimination." The EEOC has district, area, and field offices where complaints can be filed. Contact the EEOC by calling 1-800-669-4000 (1-800-669-6820 (TTY)), visiting their website at www.eeoc.gov or via email at info@eeoc.gov. If an individual filed an

administrative complaint with DHR, DHR will file the complaint with the EEOC to preserve the right to proceed in federal court.

Local Protections

Many localities enforce laws protecting individuals from sexual harassment and discrimination. An individual should contact the county, city or town in which they live to find out if such a law exists.

Contact the Rotterdam Police Department

If the harassment involves physical touching, coerced physical confinement or coerced sex acts, the conduct may constitute a crime. Contact the Rotterdam Police Department.

004525

Town of Rotterdam Non-Discrimination and Harassment Policy Affidavit

Every bid or proposal made to the Town of Rotterdam where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury.

By *submission of this bid, each bidder and each person signing on behalf of any bidder, or in the case of a joint bid each party* thereto, certifies that:

The bidder has received the Town of Rotterdam's *903 Non-Discrimination and Harassment (Including Sexual Harassment) in the Workplace* policy;

And said bidder understands and will comply with said non-discrimination and harassment policy;

No bid shall be considered for award, neither shall any award be made where above items have not been complied with.

If the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons why the above items have not been complied with. The bid shall not be considered for award, neither shall any award be made, unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made, or the appointed designee, determines that such disclosure was not made for the purpose of restricting competition.

Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation or local law, and where such bid contains the certification referred to in this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to noncollusion as the act and deed of the corporation.

Signature : _____

Print Name: Y Chan

Title: Principal Owner & Civil Engineer

Business Address of Bidder: 19655 Tanbark Ln.; Strongsville, OH 44149

Dated: 6/28/2023

NON-DISCRIMINATION AND HARASSMENT AFFIDAVIT MUST BE INSERTED IN PROJECT MANUAL

RESOLUTION NO. 256.23

TO RECOGNIZE THE INTRODUCTION OF INTRODUCTORY LOCAL LAW NO.__ OF 2023; TO AMEND §266-50, SCHEDULE X: EXCLUSION OF CERTAIN VEHICLES AND SCHEDULING A PUBLIC HEARING THEREON

NOW THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board hereby recognizes the introduction of Introductory Local Law No. __ of 2023 to amend §266-50, Schedule X: Exclusion of Certain Vehicles, of the Town Code of the Town of Rotterdam.

SECTION 2. The Town Clerk of the Town of Rotterdam is hereby directed to publish in the official newspaper of the Town of Rotterdam not less than ten (10) days prior to the date designated for the public hearing provided for by the following public notice:

TOWN OF ROTTERDAM
NOTICE OF HEARING

PLEASE TAKE NOTICE: That the Town Board of the Town of Rotterdam will hold a public hearing at the Rotterdam Junction District #1 Firehouse, 1215 Main Street, Rotterdam Junction, New York 12150, at 7:00 p.m. on the 13th day of September, 2023 for the following purpose:

> To recognize the introduction of Introductory Local Law No. __ of 2023 to amend §266-50, Schedule X: Exclusion of Certain Vehicles, of the Town Code of the Town of Rotterdam.

BY ORDER OF THE ROTTERDAM TOWN BOARD
DIANE M. MARCO, TOWN CLERK

DATED: August 9, 2023
Daily Gazette: Please publish once on August 13, 2023
Town Clerk
Post

SECTION 3. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE:	August 2, 2023
TO:	Town Board
FROM:	Courtney E. Heinel, Esq., Town Attorney
TITLE OF REQUEST:	Resolution amending local laws regarding weight limits on certain roads within the Town.
TOWN BOARD MEETING:	August 9, 2023
Background Information:	The Town of Rotterdam is interested in enacting a local law amending the weight limits on Paul Avenue and Trinity Avenue. In addition, the Town proposes to install truck route and directional sign to encourage truck traffic not to utilize residential streets for access in the area. A Sketch of the proposed signs and locations is provided.
Evaluation/Analysis:	The Town of Rotterdam has the authority to limit the weight allowed on Town roads to preserve the condition of the roads and to protect the public interest.
Recommendation(s):	With the increased complaints of heavy weight trucks traversing residential town roads within the Town a review of the roads was conducted and weight limit restrictions on Paul Avenue and Trinity Avenue from 8 tons to 4 tons were recommended by the Town Consultant Engineer.
Attachment/Document(s):	Proposed local law amending the local laws relative to vehicle weight limits on certain town roads.
Compliance with Purchasing Policy:	N/A
Effect(s) on Existing Law(s):	Amends the weight limits on certain town roads within the town.
LEGISLATION WILL BE PREPARED BY:	Town Attorney

§ 266-50. Schedule X: Exclusion of Certain Vehicles.

In accordance with the provisions of § 266-17, all vehicles in excess of the indicated maximum gross weights are hereby excluded from the following:

Name of Street	Maximum Weight (tons)	Location
Amsterdam Avenue **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Argo Boulevard **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Arlene Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Bayberry Road	8	Entire length
Bernice Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Butler Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Cady Avenue **[Added 6-14-1989 by L.L. No. 13-1989]**	8	From its terminus to a point 225 feet north of Chrisler Avenue
Caldicott Road **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Campbell Road Extension	8	From Highbridge Road south to its terminus
Cardiff Road **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Careleon Road **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Caroline Avenue	8	Entire length
Chapel Street **[Added 6-14-1989 by L.L. No. 13-1989]**	8	From Hamburg Street to a point 270 feet north of Chrisler Avenue
Chepstow Road **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Cox Avenue	8	Entire length
Crestwood Drive	8	Entire length
Crystal Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
DeForest Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Devendorf Road	8	Entire length
Dolan Drive	8	Entire length

Name of Street	Maximum Weight (tons)	Location
Draper Avenue	8	Entire length
East Campbell Road	8	Entire length
Edgewood Avenue	8	Entire length
Elizabeth Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Ferguson Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Fiero Avenue **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
First Avenue	8	Entire length
Ford Avenue	8	Entire length
Franklin Street[1] **[Amended 2-26-1997 by L.L. No. 3-1997; 12-19-2001 by L.L. No. 17-2001]**	2	Entire length
Greenpoint Avenue **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Harold Street[2] **[Amended 2-26-1997 by L.L. No. 3-1997; 12-19-2001 by L.L. No. 17-2001]**	2	Entire length
Highbridge Road	8	Entire length
Hollywood Avenue	8	Entire length
Houlton Avenue	5	Entire length
Howell Street	8	Entire length
Hudson Street **[Added 6-14-1989 by L.L. No. 13-1989]**	8	From its terminus to a point 200 feet north of Chrisler Avenue
Keator Drive	8	Entire length
Kings Road	8	Entire length
Knox Drive	8	Entire length
Lawndale Avenue **[Added 7-10-1991 by L.L. No. 6-1991]**	8	From the intersection of Sunrise Boulevard to the point of intersection with the B-1 Retail Business District, approximately 150 feet west of Guilderland Avenue
Leonard Street **[Added 7-23-1986 by L.L. No. 15-1986]**	4	Entire length

1. **Editor's Note: According to L.L. No. 17-2001, school buses and service vehicles for the purpose of local residential pickup and delivery are excluded from this restriction**
2. **Editor's Note: According to L.L. No. 17-2001, school buses and service vehicles for the purpose of local residential pickup and delivery are excluded from this restriction.**

Downloaded from https://ecode360.com/RO0175

Name of Street	Maximum Weight (tons)	Location
Marion Avenue	4	From Chrisler Avenue to the city line
Marlette Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Martin Street **[Added 2-26-1997 by L.L. No. 3-1997]**	5	Entire length
Mary Lane	6	From Burdeck Street through its terminus at a cul-de-sac or turnaround in Glen Mary Manor
May Avenue	5	Between East Campbell Road and Hamburg Street
Melrose Street	8	Entire length
Miles Standish Road	8	Between Merritt Drive and Guilderland Avenue
Miles Standish Road	8	Between Merritt Drive and Helderburg Avenue
Myrtle Avenue	8	Entire length
~~N. Westcott Road~~	~~4~~	~~Entire length~~
Oakdale Avenue **[Added 7-10-1991 by L.L. No. 6-1991]**	8	From the intersection of Lawndale Avenue to the intersection of Vinewood Avenue
O'Brien Avenue **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Old Mariaville Road	10	From Putnam Road east to Mariaville Road
Palm Avenue **[Added 9-10-1986 by L.L. No. 18-1986]**	4	From Tulip Street to the dead end of Palm Avenue
Patton Drive **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Paul Avenue	48	**Entire length**
Peter Road	8	Entire length
Phillip Street	8	Entire length
Princetown Road **[Added 5-9-1990 by L.L. No. 9-1990]**	6	From Phillips Road to Putnam Road
Priscilla Lane	8	Entire length
Putnam Road	6	From West Campbell Road to Mariaville Road
Rensselaer Avenue **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length

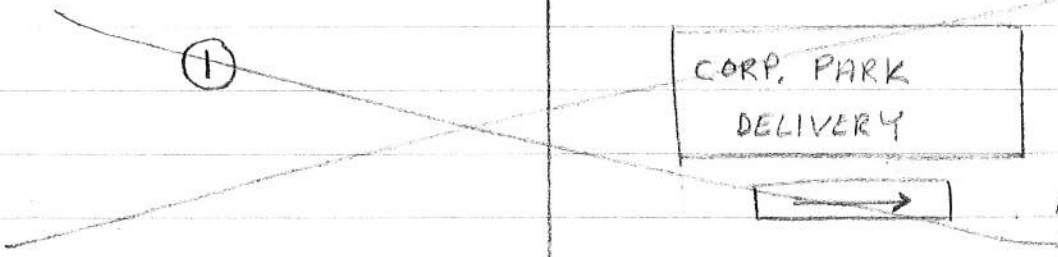
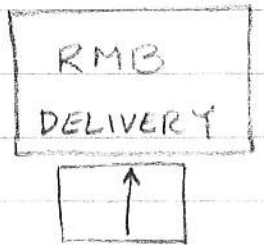
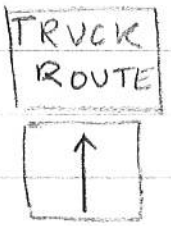
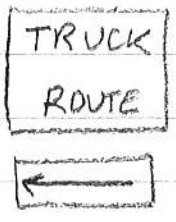
Name of Street	Maximum Weight (tons)	Location
Risoli Lane	6	From Duanesburg Road to Mary Lane
Robinwood Avenue	8	From Rt. 7, Curry Road, south to dead end
Roselawn Avenue/Laura Street	8	From Guilderland Avenue to Cedarlawn Avenue
Schermerhorn Road	4	Entire length
Spruce Street **[Added 7-23-1986 by L.L. No. 15-1986]**	4	Entire length
Sterling Road	6	Entire length
Stoodley Place	8	Entire length
Stuart Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Summer Street	8	Entire length
Sunrise Boulevard **[Added 4-26-1989 by L.L. No. 8-1989]**	8	Entire length
Taylor Street[3] **[Amended 2-26-1997 by L.L. No. 3-1997; 12-19-2001 by L.L. No. 17-2001]**	2	Entire length
Tower Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	From Altamont Avenue to Marlette Street
Trinity Avenue	48	Entire length
Vandervere Street **[Amended 10-23-2002 by L.L. No. 16-2002]**	4	Entire length
Vincent Avenue	8	Entire length
Vinewood Avenue **[Added 7-10-1991 by L.L. No. 6-1991]**	8	From the intersection of Sunrise Boulevard to the by point of intersection with the B-1 Retail Business District, approximately 150 feet west of Guilderland Avenue
Wagner Street **[Added 6-14-1989 by L.L. No. 13-1989]**	8	From Chapel Street to Cady Avenue
Wallace Avenue	8	Entire length
Wellington Avenue	8	Entire length
Westside Avenue	8	From Oaklawn Avenue to Helderberg Avenue

3. **Editor's Note: According to L.L. No. 17-2001, school buses and service vehicles for the purpose of local residential pickup and delivery are excluded from this restriction.**

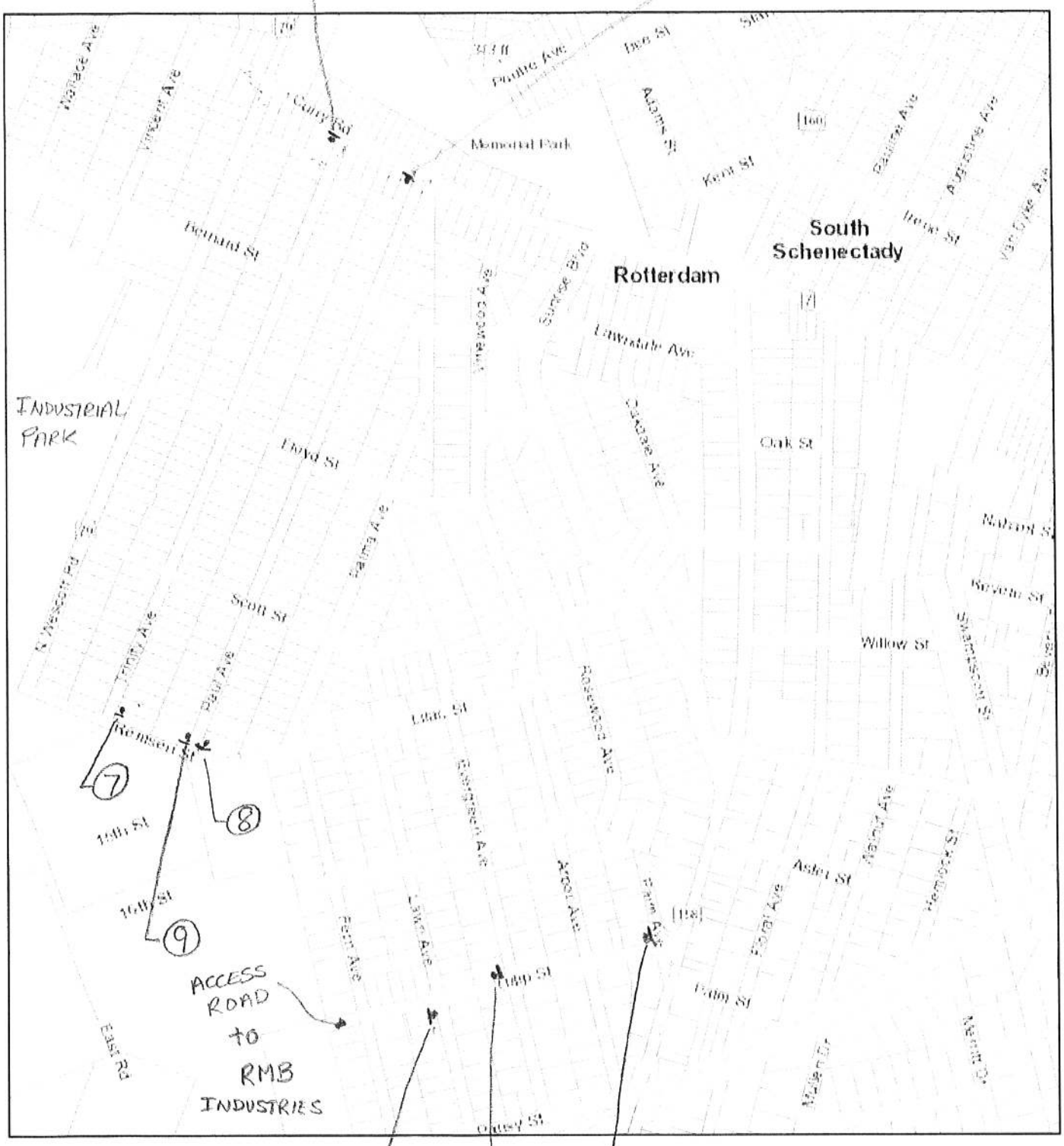
Name of Street	Maximum Weight (tons)	Location
Williams Street[4] **[Amended 2-26-1997 by L.L. No. 3-1997; 12-19-2001 by L.L. No. 17-2001]**	2	From Duanesburg Road to Mariaville Road
William Street (Carmen)	5	Entire length

4. Editor's Note: According to L.L. No. 17-2001, school buses and service vehicles for the purpose of local residential pickup and delivery are excluded from this restriction.

TRUCK RESTRICTION AND DIRECTION SIGNS

SIGN LOCATION	SIGN LEGEND
(1)	 SPECIAL SIGN 36" x 24" MUTCD M6-1 21" x 15"
(2) & (3) (7) & (8)	24" x 30" R12-1
(4) & (5)	 SPECIAL SIGN 36" x 24" MUTCD M6-3 21" x 15"
(6)	 24" x 18" MUTCD R14-1 MUTCD M6-3 21" x 15"
(9)	 24" x 18" MUTCD R14-1 MUTCD M6-1 (MOD.) 21" x 15"

truck access road



June 30, 2023

1:9,028

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0 0.07 0.15 0.3 km

Parcels

Esri Canada, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Remove "8TON'S" weight limit signs on Paul Avenue and Trinity Avenue and replace them with "4TONS" signs.

No Author

This map and information is provided as is. We make no warranties or guarantees, express or implied.

RESOLUTION NO. 257.23

TO NEGOTIATE AND EXECUTE A SHARED SERVICES AGREEMENT WITH THE TOWN OF NISKAYUNA RELATING TO I.T. SERVICES TO THE TOWN

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Town Supervisor to negotiate and execute an agreement with the Town of Niskayuna for cooperative I.T. services, at no cost to the Town of Rotterdam and the Town of Niskayuna.

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE: 7/26/2023

TO: Town Board

FROM: Henry Gerhard, I.T. Project Manager and Support Liaison

TITLE OF LEGISLATIVE REQUEST: Shared I.T. Services for Towns of Rotterdam and Niskayuna

TO BE PLACED ON TOWN BOARD MEETING OF: 8/9/2023

Background Information: Current I.T. resources for the Town of Rotterdam are less than ideal. Our Town can improve productivity and purchasing power by consolidating our resources with the adjoining Town of Niskayuna for vacation/sick day coverage and joint purchasing ability.

Evaluation/Analysis: This document, produced by Niskayuna's System Administrator and vetted by the I.T. departments for both Towns, will likely help set precedent for other municipalities in New York State to establish shared I.T. services. Attorneys for both Towns have vetted the document.

Recommendation(s): The I.T. department of the Town of Rotterdam recommends in favor of Town Board establishing this legislation.

Attachment/Document(s): Shared Services Agreement for IT Services between the Town of Niskayuna and the Town of Rotterdam.

Compliance with Purchasing Policy: No impact as stipulated in the Agreement.

Effect(s) on Existing Law(s): None.

LEGISLATION WILL BE PREPARED BY: Attorneys of the Towns of Rotterdam and Niskayuna.

Shared Services Agreement for IT Services between the Town of Niskayuna and the Town of Rotterdam

This Shared Services Agreement ("Agreement") is made and entered into as of (date) by and between Town of Niskayuna, a municipal subdivision of the State of New York, with its principal place of business located at One Niskayuna Circle, Niskayuna, N.Y. 12309 ("Niskayuna") and the Town of Rotterdam, a municipal subdivision of the State of New York, with its principal place of business located at 1100 Sunrise Blvd., Rotterdam, N.Y. 12306 ("Rotterdam"), collectively referred to as "the Towns" herein.

WHEREAS, the Towns both desire to enter into an agreement to share IT services in order to promote cost savings and efficiency; and

WHEREAS, both Towns, as parties to this agreement, each have single-employee Central Data Processing Departments that creates a less than ideal scenario given the 24/7 critical nature of operations and the needs of employees to have time off; and

WHEREAS, the Towns mutually recognize that entering into a Shared Services Agreement provides a mutually beneficial arrangement that allows the Towns to efficiently utilize the resources and expertise of each of the Towns' Central Data Processing departments as "back-up" to the other Town; and

WHEREAS, the Towns are desirous of entering into a shared services agreement to provide back-up support to the other respective Town in the event the sole employee of the Central Data Processing department of each of the Towns is unavailable.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, the Town of Niskayuna and the Town of Rotterdam agree as follows:

1. On an as-needed basis, Central Data Processing staff members can provide emergency coverage, during which time their counterpart in the other municipality is unavailable., i.e., such as during vacations or sick time. Additionally, such coverage may also be provided when needed for extra support during large projects. The hours for each employee working outside of his "home municipality" will be recorded in ¼ hour increments, with no monetary value assigned, that will accumulate into a "bank." Such bank will be capped to not exceed 20 hours at any given time. The purpose of the bank is to record the time one Town's municipality puts into work in the other municipality to ensure that both municipalities get equivalent benefits under this agreement. For example, if the Town of Niskayuna's Central Data Processing Department fills in for the Town of Rotterdam's Central Data Processing Department on a particular day and 4 hours are recorded, it would be expected as a result of the agreement that at some point in the future, the Town of Rotterdam's Central Data Processing Department would perform 4 hours of work to aid the Town of Niskayuna's Central Data Processing Department. In such example, upon completion of the work by both Parties' the bank of each would return to zero. If either Town's bank reaches 20 hours of work at one time, no such additional work may be provided until such time that the bank is reduced, or upon express written consent of the applicable executive Board(s).
2. Both parties agree that outside of emergency situations, the need for coverage shall be communicated to the other party with reasonable notice so that both parties may schedule their employees appropriately.

3. Points of Contact. The Parties designate the following POCs responsible for coordinating the activities and will meet annually to review terms and conditions and areas of mutual concern. The Parties will notify each other in the event of the separation or long-term absence of their contact persons.

[insert POC Rotterdam and Niskayuna]

4. Joint purchasing will be done according to state procurement procedures, and each Town recognizes this as an exception to the respective Town's individual procurement procedures. The necessary approvals will still be obtained, if any. During joint purchasing one town will be primary, the secondary town will reimburse the primary of their portion of the purchase.

5. Co-Location of equipment may also be provided. Equipment may be located within each other's facilities for the purpose of offsite backup. Equipment shall be isolated from each other's network, and securely stored.

6. Duration of Agreement: This Agreement shall be effective as of the date first written above and shall remain in effect for perpetuity unless terminated earlier in accordance with the Termination Provision.

7. Waiver. Neither party shall have authority to waive any applicable privilege or doctrine on behalf of the other party, nor shall any waiver of an applicable privilege or doctrine by the conduct of one party be construed to apply to the other party.

8. The Parties will notify one another, through the POC identified in this MOU, upon commencement of litigation, a hearing, or other proceeding that may involve this agreement.

9. Compensation: The respective IT services provided under this Agreement will be at no cost to either Town.

10. Termination: Either party may terminate this Agreement upon thirty (30) days written notice to the other party. The termination of this Agreement shall not affect any obligations or liabilities of either party incurred prior to the effective date of termination.

11. Confidentiality: The Towns each acknowledge that the other Town's Central Data Processing Department may have access to confidential information of the other party in the course of providing or receiving IT services. The Towns mutually agree to keep such information confidential and not to disclose it to any third party, except as required by law. In the event, it is believed such information is required to be disclosed by law, the municipality receiving such request must notify the other Town and allow the Town Attorney, or outside legal counsel, to weigh in on behalf of the impacted municipality. Failure to abide by this paragraph is grounds for automatic termination of this agreement.

12. Indemnification: The Towns shall indemnify and hold harmless each other from and against any and all claims for damages, losses, and expenses, including reasonable attorney's fees, arising out of or in connection with the performance of this Agreement.

13. Governing Law: This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to any principles of conflicts of law.

14. Entire Agreement: This Agreement constitutes the entire agreement between the Towns and supersedes all prior agreements and understanding, whether written or oral, relating to the subject matter of this Agreement.

15. Amendments: This Agreement may not be amended or modified except in writing signed by both parties.
16. Resolution of Disagreements. Disputes arising under this Agreement will be resolved informally by discussions between Points of Contact, or other officials designated by each party.

17. Notices: Any notice required or permitted under this Agreement shall be in writing and shall be deemed given when delivered personally or sent by certified mail, return receipt requested, to the parties at the addresses set forth above or to such other addresses as may be specified in writing by the parties from time to time.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

Town of Niskayuna: _____
By: Jaime Puccioni. Supervisor, Town of Niskayuna
Date: _____

Town of Rotterdam: _____
By: Mollie Collins. Supervisor, Town of Rotterdam
Date: _____

RESOLUTION NO. 258.23

TO APPROVE LAYNE CHRISTENSEN COMPANY AS THE SOLE CONTRACTOR TO PERFORM PUBLIC WATER SUPPLY WELL WORK AT THE TOWN'S WELLFIELD SITES

WHEREAS, Layne Christensen Company is a specialized public water supply well contractor that performs in a niche market with specialized equipment and highly trained licensed groundwater professionals on complicated groundwater production well projects;

WHEREAS, Layne Christensen Company is local and one of very few contractors in the northeast United States that owns specialized dual rotary and cable tool drilling equipment capable of drilling large diameter (24-inch and greater) production wells to depths greater than 100 feet;

WHEREAS, Layne Christensen Company owns specialized equipment, including cranes, and highly trained licensed personnel that routinely redevelop and maintain large diameter production wells equipped with large deep well turbine pumps and strings of drop pipe that are removed through large hatches in the well building's roofs;

WHEREAS, the Town of Rotterdam has retained Layne Christensen Company exclusively for decades to perform the specialized well work including the 2017 installation of Well No. 5 – a 24-inch diameter casing, 3,500 gallon per minute(gpm) supply, 350 hp motor; and redevelopment and repair to the town's existing large diameter production wells; in a cost effective, professional manner, with proven reliability and high-quality workmanship;

WHEREAS, the Town of Rotterdam approved a $34 million-dollar comprehensive water project that includes a new production well, Well No. 6, with a minimum diameter of 24-inch casing; capacity of 3,500 gpm; expected 350 hp motor, to supplement and provide production well redundancy;

WHEREAS, it is advantageous (experience, qualifications, institutional knowledge, reliability, specialized equipment, highly trained staff, niche market, high quality workmanship) for the Town of Rotterdam to continue a sole source relationship with Layne Christensen Company to perform the Town's specialized public water supply groundwater well work.

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby approves Layne Christensen Company, of Schoharie, New York as the sole contractor to perform public water supply well work at the town's wellfield sites pursuant to the authority conferred in Subdivision 4 Section 103 of General Municipal Law.

SECTION 2. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

RESOLUTION NO. 259.23

TO RECOGNIZE THE INTRODUCTION OF INTRODUCTORY LOCAL LAW ___ OF 2023; TO AMEND CHAPTER 270, ZONING, OF THE TOWN CODE, RELATING TO A CHANGE OF ZONE FROM GENERAL BUSINESS (B-2) TO MULTIPLE FAMILY (R-3) AND REFER TO THE PLANNING COMMISSION FOR REPORT AND RECOMMENDATION

WHEREAS, The Town has received an application for a Change of Zone request on a ±6,816 square foot parcel from General Business (B-2) to Multiple Family (R-3) where the applicant would like to convert the first-floor commercial space (±1,624 square feet) into two(2), one-bedroom apartments on the parcel known as 1725 Tower Street, Tax Map No. 59.9-7-6.2; NOW

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby recognizes the introduction of Introductory Local Law No. ____ of 2023 to amend Chapter 270, Zoning, of the Town Code, for a change of zone from General Business (B-2) to Multiple Family (R-3) on the parcel known as 1725 Tower Street, Tax Map No. 59.9-7-6.2.

SECTION 2. The Town Board hereby refers this Introductory Local Law No. ____ of 2023 to the Planning Commission of the Town of Rotterdam for report and recommendation thereon.

SECTION 3. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE:	August 1, 2023
TO:	Mollie Collins, Town Supervisor
FROM:	Joanne Schillaci, Zoning Officer
TITLE OF REQUEST:	Refer to Planning Commission for Report and Recommendation for Change of Zone from General Business (B-2) to Multiple Family (R-3)
TOWN BOARD MEETING:	August 9, 2023
Background Information:	Owner/Applicant: Carmine Petti and Frank Audino 524 Russell Road Albany, New York 12203 Change of Zone request on a ±6,816 square foot parcel from General Business (B-2) to Multiple Family (R-3). The applicant would like to convert the first-floor commercial space (±1,624 square feet) into two, one-bedroom apartments. Currently, there are two, two-bedroom apartment units on the second floor. This proposal will result in a total of four dwelling units in the existing building. The parcel is known as 1725 Tower Street, Tax Map No. 59.9-7-6.2.
Evaluation/Analysis:	Rotterdam Town Code 270-174 states that Change of Zone applications shall be referred to the Planning Board for a report and recommendation prior to a public hearing.
Recommendation(s):	Refer to Planning Commission for Report and Recommendation.
Attachment/Document(s):	Application Materials
Compliance with Purchasing Policy:	N/A
Effect(s) on Existing Law(s):	NYS Town Law Article 16 Proposed Local Law of the Year 2023
LEGISLATION WILL BE PREPARED BY:	Supervisors Office

PARTNERS
LUIGI A. PALLESCHI, P.E.
JOSEPH J. BIANCHINE, P.E.
ROBERT D. DAVIS, JR., P.L.S.

A B D ENGINEERS SURVEYORS
411 Union Street Schenectady, N.Y. 12305
518-377-0315 Fax 518-377-0379
www.abdeng.com

DEDICATED
RESPONSIVE
PROFESSIONAL

July 26, 2023

Re: 1725 Tower Street
Town of Rotterdam
Project #4287C

Mollie A. Collins, Town Supervisor
Town of Rotterdam
1100 Sunrise Boulevard
Schenectady, NY 12306

Dear Supervisor Collins:

Carmine Petti and Frank Audino are requesting a zoning change from B-2 to R-3 on 0.156± acres (6,816 SF) of Land located at 1725 Tower Street.

The purpose of the zoning change is to convert the 1st floor commercial space into two one-bedroom apartments. There are already two, two-bedroom apartment units on the second floor and this proposal will result in a total of 4 units.

Since the site is currently zoned B-2 many much more intensive uses could be placed there, such as: motor vehicle repair shop, motor vehicle fuel station (gas station), convenience store, carwash, bank, pizza shop, etc.

If rezone were granted, the conversion of a mixed-use building to 4-unit apartments will generate about the same amount of traffic. Additionally, this section of road is more residential than commercial, and without a committed commercial tenant, the space could remain vacant.

This site is already connected to Municipal water and sewer. The use will be much less intensive than many of the allowed uses in the B-2 zone. It should be in the Town's best interest to rezone this site from B-2 to R-3 and keep the residential character on Tower Street. In our opinion, the additional apartments in the "downtown" Rotterdam area will help support the existing commercial businesses on a walkable Altamont Avenue corridor.

Enclosed for the proposed change of zone at 1725 Tower Street are twenty-two (22) copies of each of the following:

1.) Application for Change of Zone.
2.) Rezone map with vicinity map.
3.) Copy of current deed.
4.) Legal description of the property.
5.) Full Environmental Assessment Form.
6.) Check in the amount of $1,000.00 for the application fee.

We would greatly appreciate being scheduled to present this application to the Town Board and Planning Commission at the August 2023 meetings. Should you have any questions or need anything further, please do not hesitate to contact me.

Very truly yours,
ABD ENGINEERS & SURVEYORS, LLP

Luigi A. Palleschi, P.E.
Partner

LAP:clv
encl.
cc: Peter Comenzo w/encl. (via email)
Carmine Petti w/encl. (via email)
Frank Audino w/encl. (via email)

4287C-07262023

****

TOWN OF ROTTERDAM CHANGE OF ZONE APPLICATION

Application Fee **$1,000**

Existing Zone Classification: B-2

Proposed Zone Classification: R-3

PART II
GENERAL INFORMATION

Legal Owner's Name: Carmine Petti and Frank Audino
Mailing Address: 524 Russel Road
City: Albany State: NY Zip: 12203
Daytime Phone: _____ E-mail: _____

If applicant is not the owner, include written owner authorization for the below-designated contact to serve as representative.

Owner's Designated Contact: Luigi A. Palleschi, P.E., ABD Engineers & Surveyors, LLP

Mailing Address: 411 Union Street
City: Schenectady State: NY Zip: 12305
Daytime Phone: 518-377-0315 E-mail: luigi@abdeng.com
Project/Proposal Site Area: (Acres or sq. ft.) 6,816 SF
Assessor Tax Parcel No.(s) of Site: 59.09-7-6.2
Adjacent Parcels Owned or Controlled and Tax Map Parcel No: (Acres or sq. ft.) 22, 500 SF, 59.9-7-4.1

Street Address of Proposed Site (if any): 1725 Tower Street

RECEIVED
JUL 28 2023
TOWN OF ROTTERDAM
PUBLIC WORKS

Describe Existing Use(s) on Proposed Site: (commercial vacant, residential, buildings, well, sewer drainfield, etc.)
The existing site is a mixed use commercial/residential building.

School District: Mohanasen

Fire District: 2

Water Supply: Rotterdam

LEGAL INFORMATION

Location of Proposal Site: (General description by which direction and how far from roads and intersections and other community features)
The site is 170 feet down Tower Street from the intersection of Tower Street and Altamont Avenue.

Name of Public Road(s) Providing Access: Tower Street

Width of Property Fronting on the Existing Public Road in Linear Feet: 71 feet

Does the Proposal Have Access to an Arterial or Planned Arterial? ( ) Yes (✓) No

Name(s) of Arterial Road(s):

A legal description of the proposed site must be attached: (X) Yes ( ) No

A copy of the assessor's map of the proposed site must be attached: (X) Yes ( ) No

A copy of the most current deed(s) of the proposed site must be attached: (X) Yes ( ) No

(All applications must contain a legal description that describes the exterior boundaries of the entire area to be rezoned. Please include the legal description for the entire area to be rezoned and also a copy of the assessor's map. A simple copy of the deed is not sufficient to process the change of zone request).

If you do not hold title to property, what is your interest in it? N/A

What factors support this rezone? (This may be provided on a separate sheet of paper if necessary)

The parcel is located on a side street that is zoned residential and not suited for heavy commercial traffic.

The site is also near condominiums and multifamily projects. The site has off stree parking and access to water, sewer, gas and other utilities.

Does any City officer, employee or family member thereof have a financial interest (as defined by General Municipal Law Section 809) in this application? YES _____ NO ✓. If yes, a statement disclosing the name, residence, nature and extent of this interest must be filed with this application.

UTILITIES

Proposed Source of Water:
( ) Individual Wells (✓) Public System ( ) Private Community System
( ) Other, please describe _____

Proposed Means of Sewage Disposal:
(✓) Public Sewer ( ) Dry Sewer ( ) Community System ( ) Septic Tank & Leachfield ( ) Other, please describe _____

PART III

****

SURVEYOR/ARCHITECT/ENGINEER VERIFICATION

****

I, the undersigned, a licensed land surveyor, architect, and/or engineer, have completed the information requested. The legal description has been prepared by me or under my supervision in accordance with the requirements of the Town of Rotterdam regulations and the laws of the State of New York.

Signed: _____ Date: July 25, 2023
Address: 411 Union Street, Schenectady, NY 12305 Phone: 518-377-0315
Zip: 12305

PLEASE AFFIX SURVEYOR/ARCHITECT/ENGINEER SEAL HERE

STATE OF NEW YORK
LUIGI A. PALLESCHI
94676
LICENSED PROFESSIONAL ENGINEER

****

LEGAL OWNER SIGNATURE

****

(Signature of legal owner or representative as authorized by legal owner)

I, the undersigned, swear or affirm under penalty of perjury that the above responses are made truthfully and to the best of my knowledge.

I further swear or affirm that I am the owner of record of the area proposed for the previously identified land use action, or, if not the owner, attached herewith is written permission from the owner authorizing my actions on his/her behalf.

Name: Carmine Petti and Frank Audino
Address: 524 Russel Road, Albany, NY

Date: July 25, 2023
Phone:
Zip: 12203

Signature of applicant or representative

7-26-23
Date

NOTARY

STATE OF NEW YORK) ss:
COUNTY OF Albany)

SUBSCRIBED AND SWORN to before me this 26th day of July, 2023

NOTARY SEAL

Notary Signature

Notary Public in and for the State of New York
Residing at: 501 New Karner, Colonie NY 12205
My appointment expires: 10/1/2024

JOY A. RODRIGUEZ
Notary Public, State of New York
Rensselaer County #01RO6269591
Commission Expires Oct. 1, 20 24

PLEASE AFFIX NOTARY SEAL HERE

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LETTER FROM PROPERTY OWNER GRANTING AUTHORIZATION TO ACT

A COPY OF THIS LETTER MUST BE SUBMITTED FOR EACH PROPERTY OWNER INVOLVED

I, Carmine Petti and Frank Audino, being duly sworn declare that I am the

(PROPERTY OWNER)

owner of the property involved in a proposed Change of Zone application request before the Town of Rotterdam for property known as parcel number (s):

Tax Parcel Number(s): 59.09-7-6.2

I hereby grant Luigi A. Palleschi, P.E., ABD Engineers & Surveyors, LLP and/or their agent(s) to act on my behalf.

I further declare that all statements, answers, and information herein submitted is in all respects true and correct to the best of my knowledge and belief.

Signature (Authorized Representative): [signature]

Date: 7-26-23

NOTARY

STATE OF NEW YORK) ss:
COUNTY OF Albany)
SUBSCRIBED AND SWORN to before me this 26th day of July, 2023

NOTARY SEAL

[signature]
Notary Signature

Notary Public in and for the State of New York
Residing at: 501 New Karner Rd, Colonie NY 12205
My appointment expires: 10/1/24

JOY A. RODRIGUEZ
Notary Public, State of New York
Rensselaer County #01RO6269591
Commission Expires Oct. 1, 2024

SCHEDULE A - LEGAL DESCRIPTION

1725 Tower Street - SBL # 59.9-7-6.2

ALL that tract, piece or parcel of land situate in the Town of Rotterdam, Schenectady County, New York lying along the westerly margin of Tower Avenue, Southerly of Altamont Avenue and being more particularly bounded and described as follows:

BEGINNING at a point on the Westerly margin of Tower Avenue; said point being in the division line between Lot No. 274 and 275 as shown on a map entitled "Map of Lots Belonging to Martin Hamm, Hamm's Corners, Town of Rotterdam, Schenectady County, State of New York", dated July 1, 1903, by William Gifford and filed in the office of Schenectady County Clerk and runs thence along said division line, North 90 deg. 00 min. 00 sec. West 96.00 feet to a point; thence through Lots Nos. 274 and 273 as shown on said map the following two (2) courses: 1) North 00 deg. 00 min. 00 sec. East 71 feet to a point; and thence 2) South 90 deg. 00 min. 00 sec. East 96.00 feet to a point in the Westerly margin of Tower Avenue; thence along said westerly margin, South 00 deg. 00 min. 00 sec. West 71.00 feet to the point or place of beginning, containing 0.16 +/- acres of land.

1727 Tower Street Parcel - SBL # 59.9-7-4.1

ALL THOSE CERTAIN LOTS, PIECES OR PARCELS OF LAND, with the buildings thereon, if any, situate, lying and being in the Town of Rotterdam, County of Schenectady and State of New York, known and distinguished on a map entitled "Map of Lots belonging to Martin Ham, Hams Corners, Town of Rotterdam, County of Schenectady, State of New York, July 1st, 1903" and filed in the office of the Clerk of Schenectady County as Lots Nos. 275 and 276, together bounded and described as follows: EASTERLY and in front by Tower Street, as designed on said map, Seventy-two (72) feet along the same; NORTHERLY by Lot No. 274, as designated on said map, One Hundred Twenty-five (125) feet along the same; SOUTHERLY by Lot No. 277, as designated on said map, One Hundred Twenty-five (125) feet along the same; and WESTERLY by Lots Nos. 327 and 328, as designated on said map, Seventy-two (72) feet along the same.

ALSO, ALL THOSE CERTAIN LOTS, PIECES OR PARCELS OF LAND, situate in the Town of Rotterdam, County of Schenectady and State of New York, known and distinguished on Map of building lots made by William Gifford, Surveyor, for Martin Ham, dated July 1st, 1903 and filed in the Schenectady County Clerk's Office on July 1st, 1903, and known and distinguished as Lots Nos. 327 and 328 and 329, on said map, to which said map reference is hereby made for a more particular description.

RECEIVED

JUL 28 2023

TOWN OF ROTTERDAM
PUBLIC WORKS

DESCRIPTION OF LAND

PROPOSED ZONE CHANGE

BEGINNING at a point in the westerly road boundary of Tower Street at its intersection with the division line between Lands N/F of Home and City Savings Bank as described in Liber 954 of Deeds at Page 123 on the north and Lands N/F of Frank Audino and Carmine Petti as described in Liber 2073 of Deeds at Page 19 on the south; thence along said westerly road boundary of Tower Street South 00° 00' 00" East, 71.00 Feet to a point at its intersection with the division line between the aforementioned Lands of Audino and Petti on the north and other Lands N/F of Frank Audino and Carmine Petti on the south; thence along said division line South 90° 00' 00" West, 96.00 Feet to a point in the aforementioned division line between Lands of Home and City Savings Bank and Audino; thence along said division line the following two (2) courses and distances:

1. North 00° 00' 00" West, 71.00 Feet to a point; thence
2. South 90° 00' 00' East, 96.00 Feet to the point and place of beginning and containing 0.16 acres of land more or less.

RECEIVED

JUL 2 8 2023

TOWN OF ROTTERDAM
PUBLIC WORKS

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: 1725 Tower Street Multifamily Conversion		
Project Location (describe, and attach a general location map): 1725 Tower Street		
Brief Description of Proposed Action (include purpose or need): Proposed change in zone of the parcel from B-2 to R-3. The existing site has a multi-use building containing two apartments on the second floor and retail on the 1st floor. The goal is to convert the existing building to entirely apartments. The existing structure would then contain 4 apartments. However a change in zone is required to do this. No site improvements are needed. Public water and sewer connections exist as well as a parking lot to accommodate it's needs.		
Name of Applicant/Sponsor: Carmine Petti and Frank Audino	Telephone: E-Mail:	
Address: 524 Russel Road		
City/PO: Albany	State: NY	Zip Code: 12203
Project Contact (if not same as sponsor; give name and title/role): Luigi A. Palleschi, P.E., ABD Engineers & Surveyors, LLP	Telephone: 518-377-0315 E-Mail: luigi@abdeng.com	
Address: 411 Union Street		
City/PO: Schnectady	State: NY	Zip Code: 12305
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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JUL 28 2023

TOWN OF ROTTERDAM
PUBLIC WORKS

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes☐No	Town Board, Change of Zone	07/28/2023
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Town Planning Commission	07/28/2023
c. City, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☐Yes☑No		
f. Regional agencies ☐Yes☑No		
g. State agencies ☐Yes☑No		
h. Federal agencies ☐Yes☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes☐No

If Yes, identify the plan(s):

NYS Heritage Areas:Mohawk Valley Heritage Corridor

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
B-2 General Buisness

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No
If Yes,
i. What is the proposed new zoning for the site? R-3 Multiple Family

C.4. Existing community services.

a. In what school district is the project site located? Mohonasen Central School District

b. What police or other public protection forces serve the project site?
Town of Rotterdam Police

c. Which fire protection and emergency medical services serve the project site?
Rotterdam

d. What parks serve the project site?
Poutre Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Residential

b. a. Total acreage of the site of the proposed action? 0.15 acres
b. Total acreage to be physically disturbed? 0 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.52 acres

c. Is the proposed action an expansion of an existing project or use? ☑ Yes ☐ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % 50 Units: 2

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

f. Does the project include new residential uses? ☑ Yes ☐ No
If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				2
At completion of all phases				4

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No
If Yes,
i. Total number of structures _____
ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length
iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No
If Yes,
i. Purpose of the impoundment: _____
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify: _____
iii. If other than water, identify the type of impounded/contained liquids and their source. _____
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No
If Yes:
i. What is the purpose of the excavation or dredging? _____
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____
iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No
If yes, describe. _____
v. What is the total area to be dredged or excavated? _____ acres
vi. What is the maximum area to be worked at any one time? _____ acres
vii. What would be the maximum depth of excavation or dredging? _____ feet
viii. Will the excavation require blasting? ☐ Yes ☐ No
ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No
If Yes:
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☐Yes ☑No
If Yes:

i. Total anticipated water usage/demand per day: 600 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐Yes ☐No
If Yes:

- Name of district or service area: Town of Rotterdam
- Does the existing public water supply have capacity to serve the proposal? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No
- Do existing lines serve the project site? ☐Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☐No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐Yes ☐No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 540 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary Wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: Rotterdam Sewage Treatment
- Name of district: Rotterdam
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project? ☑Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☑No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☐Yes ☑No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐Yes ☑No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend
☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing 11 Proposed 0 Net increase/decrease 0

iv. Does the proposed action include any shared use parking? ☐Yes ☑No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☑No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 am - 7 pm
- Saturday: 8 am - 3 pm
- Sunday: occasional
- Holidays: none

ii. During Operations:

- Monday - Friday: 24 hours
- Saturday: 24 hours
- Sunday: 24 hours
- Holidays: 24 hours

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

If yes:

i. Provide details including sources, time of day and duration:

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe:

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

lamp posts

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe:

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction:
- Operation:

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction:
- Operation:

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

Adjoining properties have a mix of residential and commercial use such as Trustco Bank and Mr. Subb.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.09	0.09	0
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0.06	0.06	0
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No
If Yes,
i. Identify Facilities:

e. Does the project site contain an existing dam? ☐ Yes ☑ No
If Yes:
i. Dimensions of the dam and impoundment:
- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☐ No
- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:
iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☑ No
☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑ Yes ☐ No
If yes, provide DEC ID number(s): V00649, 447031
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):
1911 Curry Road currently is used as a gas station and is being monitored.

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☑ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 6+ feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

Colonie loamy fine sand	100 %
	%
	%

d. What is the average depth to the water table on the project site? Average: 6+ feet

e. Drainage status of project site soils:

☑	Well Drained:	100 % of site
☐	Moderately Well Drained:	% of site
☐	Poorly Drained	% of site

f. Approximate proportion of proposed action site with slopes:

☑	0-10%:	100 % of site
☐	10-15%:	% of site
☐	15% or greater:	% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name Unnamed tributary to the Mohawk Classification C
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑ Yes ☐ No
If Yes:

i. Name of aquifer: Principal Aquifer, Sole Source Aquifer Names:Schenectady-Niskayuna SSA

m. Identify the predominant wildlife species that occupy or use the project site:
Small suburban wildlife

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐Yes ☑No
If Yes:
i. Species and listing (endangered or threatened):

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No
If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

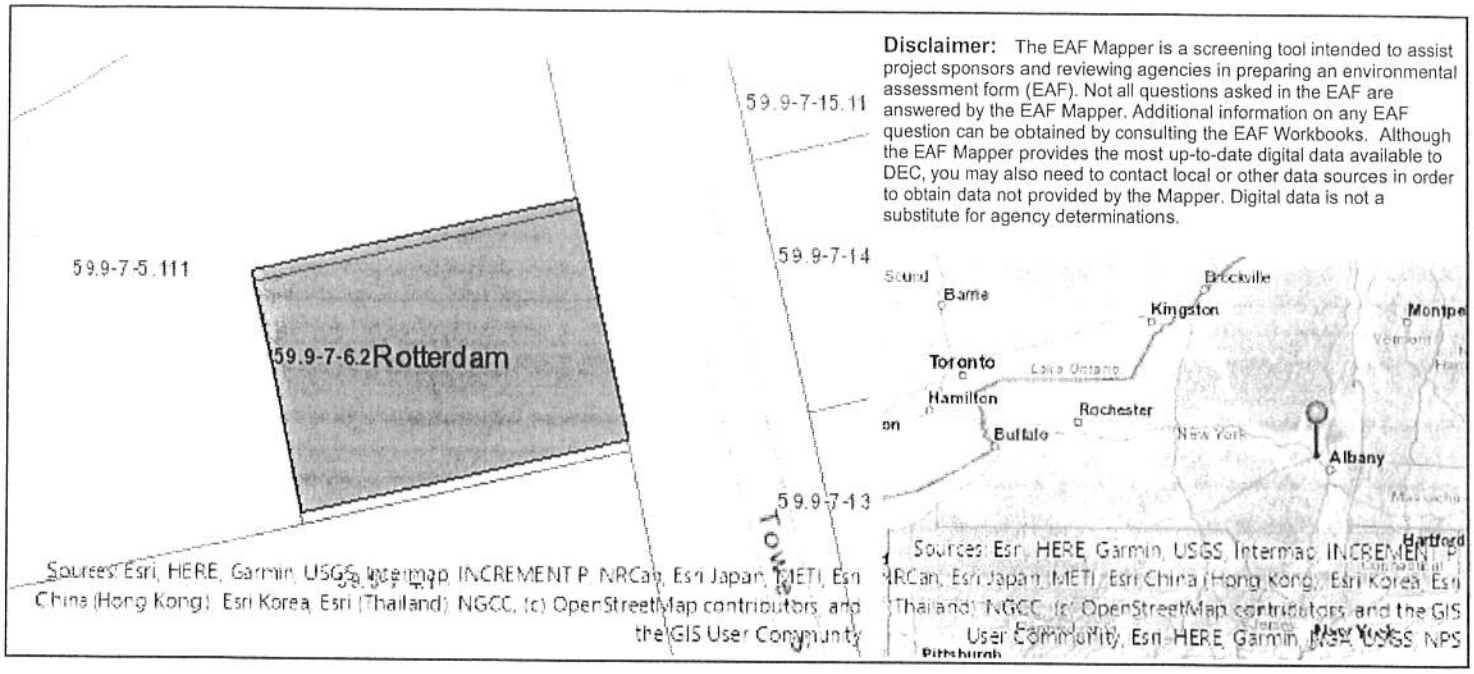
Applicant/Sponsor Name Luigi A. Palleschi, P.E., ABD Engineers & Surve Date July 25, 2023

Signature _____ Title Professional Engineer

PRINT FORM

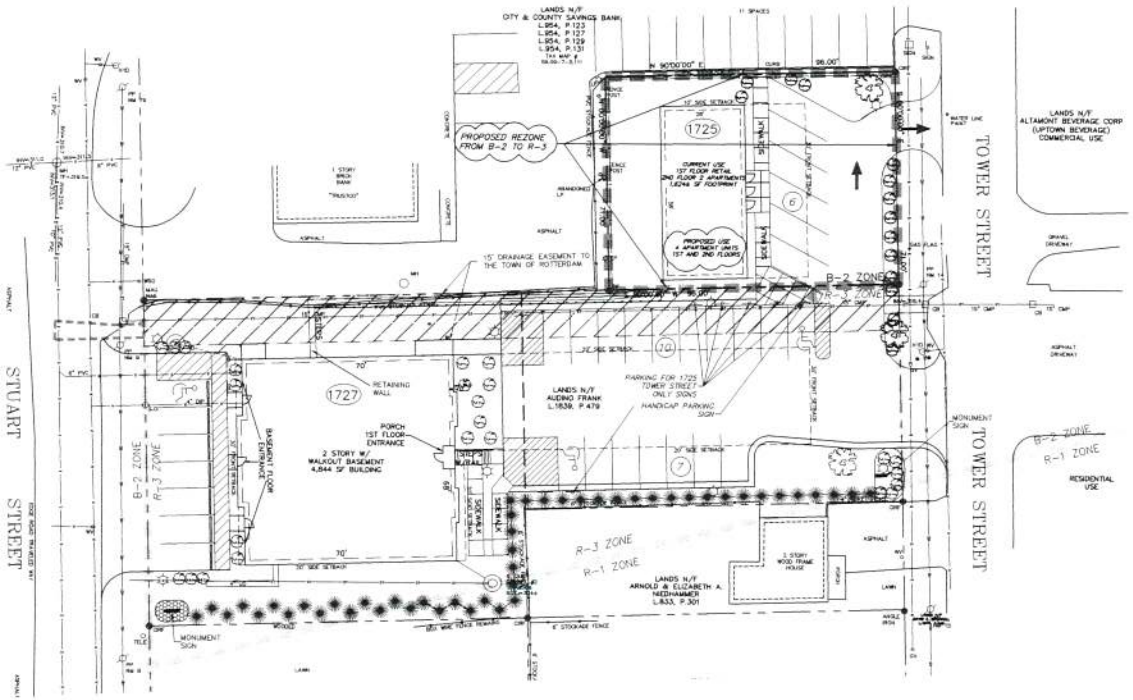
EAF Mapper Summary Report

Monday, June 19, 2023 2:40 PM



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas:Mohawk Valley Heritage Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	V00649, 447031
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer, Sole Source Aquifer Names:Schenectady-Niskayuna SSA

E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No



MAP REFERENCE:

1. "MAP OF LOTS BELONGING TO MARTIN HAM, HAM CORNERS", PREPARED BY WILLIAM GIFFORD, DATED JULY 1, 1903, AND FILED IN THE SCHENECTADY COUNTY CLERKS OFFICE IN CABINET A, AS MAP 68-69.
2. "101 TOWER STREET, SURVEY MAP OF THE LANDS OF FULLER STATION ROAD ASSOC., LLC", PREPARED BY AUSFELD & WALDRUFF LAND SURVEYORS LLP, DATED JUNE 12, 2012.
3. "SITE PLANS, TOWER STREET APARTMENTS" PREPARED BY ABD ENGINEERS & SURVEYORS, DATED FEBRUARY 13, 2013 AND LAST REVISED JULY 9, 2013.

SITE LOCATION

NOTES:

1. BASE MAPPING PREPARED BY ABD ENGINEERS AND SURVEYORS FROM A JULY 2012 FIELD SURVEY AND UPDATED JULY 2014.
2. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE-GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA. EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPE LINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN, AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. 48 HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL U.F.P.O. 1-800-962-7962.
3. ALL LIGHTING SHALL BE SHIELDED AND/OR PLACED IN SUCH A MANNER AS TO PREVENT OFF-SITE ILLUMINATION.
4. DEVELOPMENT MUST MEET ALL NYS BUILDING AND FIRE CODES.
5. SITE IS ZONED B-2 GENERAL BUSINESS. PROPOSED REZONE TO R-3.
6. SNOWFALL ACCUMULATIONS IN EXCESS OF FOUR (4) INCHES SHALL BE REMOVED FROM ALL PARKING AREAS/WALKWAYS WITHIN 48 HOURS.
7. A KNOX BOX SHALL BE INSTALLED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. TYPE AND LOCATION SHALL BE COORDINATED WITH FIRE DISTRICT #2.
8. LANDSCAPED AREAS FRONTING ON TOWER STREET SHALL CONTAIN A SPRINKLER SYSTEM.
9. LANDSCAPING SHALL BE MAINTAINED IN PERPETUITY AND DEAD/DYING PLANT MATERIALS SHALL BE REPLACED IN KIND.
10. RECIPROCAL PARKING EASEMENT AGREEMENT BETWEEN 1725 TOWER STREET AND 1727 TOWER STREET.
11. NO SITE IMPROVEMENTS NEEDED. WATER AND SEWER CONNECTION ARE EXISTING

COVERAGE STATISTICS	PROPOSED	
BUILDINGS: 45% MAX.	1,624 SF	23.8%
PAVEMENT:	2,308 SF	33.9%
GREEN SPACE:	2,884 SF	42.3%
TOTAL	6,816 SF (0.16 ACRES)	100%

SITE DATA

	EXISTING	PROPOSED	PROVIDED
ZONING:	B2	R3	
AREA:	15,000 SF MIN.	20,000 SF MIN. +3,000 SF / BR. OVER 4	6,816 SF (0.16 ACRES)##
LOT WIDTH:	100 Ft.	100 Ft.	71.00'#
SETBACKS: FRONT: SIDE: REAR:	 30 Ft. 10 Ft. 25 Ft.	 30 Ft. 20 Ft. 25 Ft.	 50.0' 10.0' & 3.0'# 18.0'#
HEIGHT: MAX:	 3 STORIES (40') MAX.	 3 STORIES (40') MAX.	 2 STORIES
PARKING:	1.5 PER APARTMENT UNIT: 2 UNITS X 1.5 = 3 SPACES 5 PER 1,000 SF RETAIL: 1,624 SF / 1,000 = = 1.6 X 5 = 8 SPACES 11 SPACES REQUIRED	1.5 PER APARTMENT UNIT: 4 UNITS X 1.5 = 6 SPACES 6 SPACES REQUIRED	 6 SPACES PROVIDED ONSITE 5 SPACES PROVIDED OFFSITE# 11 SPACES PROVIDED#

VARIANCES FOR LOT AREA, SIDE YARD WIDTH, REAR YARD DEPTH AND PARKING WERE APPROVED BY THE ROTTERDAM ZONING BOARD OF APPEALS ON DECEMBER 17, 2014.

REQUIRED VARIANCE FOR 2 ADDITIONAL BEDROOMS

OWNER/APPLICANT:
CARMINE PETTI AND FRANK AUDINO
524 RUSSEL ROAD
ALBANY, NY 12203

TAX MAP #: 59.09-7-6.2

NO.	REVISION	BY	DATE

ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS ILLEGAL

LUKE A. PALLESCHI, P.E.
N.Y.S. LICENSE NO. 94676

REZONING MAP B-2 TO R-3 MULTIFAMILY 1725 TOWER STREET

TOWN OF ROTTERDAM | COUNTY OF SCHENECTADY
STATE OF NEW YORK

ABD ENGINEERS & SURVEYORS
411 Union Street Schenectady, N.Y. 12305
518-377-0315 Fax 518-377-0379
www.abdeng.com

DATE:	SCALE:	DWG.	SHEET OF
JUNE 27, 2023	1" = 20'	4287C-RE ZONE	1 1

RESOLUTION NO. 260.23

REQUESTING BIDS FOR ROTTERDAM TOWN HALL BUILDING RENOVATIONS

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to call for bids for Rotterdam Town Hall Building Renovations.

SECTION 2. The Town Clerk of the Town of Rotterdam shall cause the following public notice to be published in the official newspaper of the Town of Rotterdam, and the Supervisor of the Town of Rotterdam shall cause the following public notice be published to the Empire State Purchasing Group on BidNet (http://www.bidnetdirect.com/townofrotterdam) at least five (5) days before the date of reception of bid proposals:

TOWN OF ROTTERDAM
NOTICE TO BIDDERS

PLEASE TAKE NOTICE: That all bids received by the Town Board of the Town of Rotterdam, by Tuesday, the 12th day of September 2023, at 11:00 A.M., will be opened electronically and in person at that time. The Town Board will subsequently post an official report to the Empire State Purchasing Group on BidNet (http://www.bidnetdirect.com/townofrotterdam) by the close of business the next day, of all bid submissions received pursuant to this notice. Additionally, the official bid report and all bids shall be available in the office of the town clerk for public inspection during regular business hours, for the purchase by the Town of Rotterdam of the following:

ROTTERDAM TOWN HALL BUILDING RENOVATIONS

Digital Copies of Specifications may be obtained from the Empire State Purchasing Group on BidNet at http://www.bidnetdirect.com/townofrotterdam. Copies of RFP documents obtained from any other source are not considered official copies. The Town of Rotterdam cannot guarantee the accuracy of any information not obtained from the BidNet Direct website and is not responsible for any errors contained by any information received from an alternate source. Only those vendors who obtain ITB, RFP or RFQ documents from the BidNet system are guaranteed to receive addendum information, if such information is issued. If you obtain the document from a source other than the source indicated, it is recommended that you register on the Empire State Purchasing Group website, http://www.bidnetdirect.com/new-york and obtain an official copy.

ALL BID PROPOSALS MUST BE SUBMITTED PRIOR TO
11:00 A.M., TUESDAY, SEPTEMBER 12, 2023

ALL HANDLING COSTS (MAIL, DELIVERY SERVICES, PRINTING ETC.) SHALL BE THE RESPONSIBILITY OF THE BIDDER

The Town Board reserves the right to accept or reject any and all bids or proposals or any specific part of any item of any bid.

BY ORDER OF THE ROTTERDAM TOWN BOARD
DIANE M. MARCO, TOWN CLERK

DATED: August 9, 2023
BidNet: Please publish on August 11, 2023
Daily Gazette: Please publish once on August 11, 2023
Town Clerk Post

SECTION 3. This resolution shall become effective August 9, 2023

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE:	August 1, 2023
TO:	Town Board
FROM:	James Keith, Senior Building Inspector
TITLE OF REQUEST:	Bid request for Town Hall Renovations
TOWN BOARD MEETING:	August 9, 2023
Background Information:	Pursuant to Resolution 104.23 the Town Board authorized Barton and Logudice to prepare design and construction phase services for renovations to Town Hall.
Evaluation/Analysis:	Renovation to Town Hall are required to upgrade critical systems including: Roof, HVAC rooftop air handling unit, removal of building columns in the meeting room, exterior brick façade/EIFS replacement, fire alarm system upgrades, replacement of exterior doors and windows, and exterior foundation repair/resurfacing.
Recommendation(s):	Call on Bids for the Rotterdam Town Hall Building Renovations
Attachment/Document(s):	Town Hall Renovations Bid package prepared by Barton and Logudice, and Resolution 104.23
Compliance with Purchasing Policy:	Yes – Competitive Bidding
Effect(s) on Existing Law(s):	N/A
LEGISLATION WILL BE PREPARED BY:	Supervisors Office

RESOLUTION NO. 104.23

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, February 22, 2023, at 7:00 p.m., the following resolution was duly adopted:

TO AUTHORIZE AN AGREEMENT WITH BARTON AND LOGUIDICE FOR PROFESSIONAL ENGINEERING SERVICES FOR DESIGN AND CONSTRUCTION PHASE SERVICES FOR THE RENOVATIONS TO THE ROTTERDAM TOWN HALL

THEREFORE, UPON MOTION OF Councilmember **DODSON**, seconded by Councilmember **MASTROIANNI,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. The Town Board of the Town of Rotterdam hereby authorizes the Supervisor to negotiate and execute an agreement with Barton and Loguidice, located at 10 Airline Drive, Suite 200, Albany New York 12205, for professional engineering services consisting of design and construction phase services for renovations to the Rotterdam Town Hall, 1100 Sunrise Boulevard, Rotterdam New York, 12306, for a total lump sum not to exceed two hundred fifty thousand and 00/100 ($250,000.00) dollars.

SECTION 2. This resolution shall become effective February 22, 2023.

DATED: February 22, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera	X		
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on February 22, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this February 24, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk

TOWN OF ROTTERDAM Office of the Town Clerk Schenectady, County NY

CONTRACT DOCUMENTS

AND

SPECIFICATIONS

FOR

TOWN OF ROTTERDAM

ROTTERDAM TOWN HALL BUILDING RENOVATIONS

CONTRACT NO. 1 – GENERAL CONSTRUCTION
CONTRACT NO. 2 – MECHANICAL CONSTRUCTION
CONTRACT NO. 3 – ELECTRICAL CONSTRUCTION

TOWN OFFICIALS

MOLLIE A. COLLINS – SUPERVISOR

JACK DODSON – DEPUTY SUPERVISOR
EVAN CHRISTOU – COUNCILPERSON
SAMANTHA MILLER-HERRERA – COUNCILPERSON
JOSEPH C. MASTROIANNI – COUNCILPERSON

DIANE M. MARCO – TOWN CLERK

AUGUST 2023

PREPARED BY:

BARTON & LOGUIDICE, ENGINEERS & ARCHITECTS, PLLC
10 AIRLINE DRIVE, SUITE 200
ALBANY, NEW YORK 12205

DRAFT

It is a violation of the New York state education law, Article 145 §7209 Special Provisions, for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect, or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.

TABLE OF CONTENTS

For
TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 1 – GENERAL CONSTRUCTION
CONTRACT NO. 2 – MECHANICAL CONSTRUCTION
CONTRACT NO. 3 – ELECRICAL CONSTRUCTION

ADDENDA, if any, as identified in Section 00 01 00

SECTION 00 00 20 ADVERTISEMENT FOR BIDS

DIVISION 00 [01] BIDDING & CONTRACT REQUIREMENTS

SECTION 00 01 00 INFORMATION FOR BIDDERS
-.01 Location of the Work
-.02 Description of the Work
-.03 Commencement and Completion of the Work
-.04 Collateral Work and Conditions of Work
-.05 Receipt & Opening of Bids
-.06 Informalities, Waivers and Withdrawals
-.07 Bid Preparation
-.08 Addenda and Interpretations
-.09 Qualifications of Bidders
-.10 Obligations of Bidders
-.11 Bid Security
-.12 Liquidated Damages for Failure to Execute Contract
-.13 Discrepancy in Bids
-.14 Lowest Bidder
-.15 Award of Contract

SECTION 00 01 50 LABOR AND EMPLOYMENT
-.01 General
-.02 Posting Minimum Wage Rates & Keeping Records
-.03 Non-Discrimination and Labor Practices
-.04 Legal Day's Work
-.05 Wage Rates
-.06 Verification of Amounts Due for Wages and Supplements
-.07 Minimum Rates

SECTION 00 01 60 ADDITIONAL INSTRUCTIONS
-.01 Borings and Subsurface Data
-.02 Preconstruction Conference
-.03 Power of Attorney
-.04 Laws and Regulations
-.05 Non-Collusive Bidding Certification
-.06 Iranian Energy Sector Divestment Certification
-.07 Prevention of Sexual Harassment Compliance
-.08 Changes and Amplifications to General Conditions
-.09 Changes and Amplifications to General Requirements
-.10 Owner Occupancy Requirements
-.11 Collateral Work
-.12 Interruptions to Building Electrical Service

DRAFT

SECTION 00 01 60 ADDITIONAL INSTRUCTIONS - Continued
-.13 Contractor's Hours of Operation
-.14 Project Schedule and Work Sequence
-.15 As-Built Drawings
-.16 Additive Bid Items
-.17 Asbestos Report

DIVISION 00 [03 & 04] BIDDING & CONTRACT REQUIREMENTS

SECTION 00 03 01 BIDDER'S CHECKLIST
SECTION 00 03 70 BID PRICES
SECTION 00 03 73 IRANIAN ENERGY SECTOR DIVESTMENT CERTIFICATION
SECTION 00 03 76 NON-DISCRIMINATION AND HARRASSEMENT & SEXUAL HARASSMENT
SECTION 00 04 80 NON-COLLUSIVE BIDDING CERTIFICATION
SECTION 00 04 81 STATEMENT OF SURETY'S INTENT
SECTION 00 04 84 PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS CERTIFICATION
SECTION 00 04 99 BID SECURITY

DIVISION 00 [05 & 06] BIDDING & CONTRACT REQUIREMENTS

SECTION 00 05 70 AGREEMENT
SECTION 00 06 10 PERFORMANCE BOND
SECTION 00 06 20 LABOR & MATERIALS PAYMENT BOND
SECTION 00 06 50 CERTIFICATE OF INSURANCE

DIVISION 00 [07] GENERAL CONDITIONS

SECTION 00 07 50 DEFINITIONS OF WORDS & TERMINOLOGY
-.01 Definitions of Words and Terms
-.02 References to Other Specifications and Codes

SECTION 00 07 51 POWERS AND DUTIES OF ENGINEER
-.01 Responsibility of the Engineer
-.02 Inspection of Work
-.03 No Waiver of Rights

SECTION 00 07 52 INSURANCE, SECURITIES AND GUARANTEES
-.01 Guarantees, Performance Bonds, Labor and Materials Payment Bonds and Guarantees
-.02 Additional Security
-.03 Contractor's Insurance

SECTION 00 07 53 STATUS OF CONTRACTOR
-.01 Representations of Contractor
-.02 Address of Contractor
-.03 Patents
-.04 Contractor's Obligations
-.05 Liability for Injuries or Damage
-.06 General Indemnification
-.07 Contractor's Claim for Disputed Work
-.08 No Claims Against Individuals
-.09 Contractor's Title to Materials
-.10 Title to Old Materials

DRAFT

SECTION 00 07 54 CONTRACTOR'S ORGANIZATION & STAFF
-.01 Superintendents, Foremen & Agents
-.02 Competency & Character of Employees
-.03 Contractor's Field Office

SECTION 00 07 55 PERMITS, TAXES, ACCESS, OTHER CONTRACTS
-.01 Laws, Regulations & Permits
-.02 Required Legal Provisions Deemed Included
-.03 Unlawful Requirements Deemed Excluded
-.04 Taxes
-.05 Access to Work and Contractor's Records

SECTION 00 07 56 TIME ELEMENTS
-.01 Commencement & Completion
-.02 Time of Essence
-.03 Progress
-.04 Approved Work Schedules
-.05 Work Suspension
-.06 Time Extensions
-.07 Engineering and Inspection Charges
-.08 Per Diem Charges for Delay

SECTION 00 07 57 CHANGES IN THE WORK
-.01 Right to Alter Contract
-.02 Minor Changes
-.03 Change Orders & Payment or Credit Therefor
-.04 Correction of Work
-.05 Emergency Powers Unimpaired

SECTION 00 07 58 ASSIGNMENT & SUBCONTRACTS
-.01 Subcontracts
-.02 Limit of Subcontracts Value
-.03 Assignment
-.04 Payment

SECTION 00 07 59 PAYMENTS
-.01 Estimated Quantities
-.02 Prices All-Inclusive
-.03 Lump Sum Prices
-.04 Unit Prices
-.05 Monthly Estimates and Payments
-.06 Withdrawal of Retained Percentage
-.07 Owner's Right to Withhold Payments
-.08 Inspection at Substantial Completion
-.09 Certificate of Substantial Completion
-.10 Payment at Substantial Completion
-.11 Final Payment
-.12 Acceptance of Final Payment
-.13 Guarantee Inspection
-.14 Acceptance of Portions of the Work
-.15 Repair or Replacement of Damaged, Defective or Faulty Work
-.16 Payment to Sub-contractors by Contractor

DRAFT

SECTION 00 07 60 CONTRACT TERMINATION
-.01 Owner's Right to Stop Work or Terminate Contract
-.02 Contractor's Right to Stop Work or Terminate Contract
-.03 Other Termination Provisions

SECTION 00 07 61 DESCRIPTION & DELINEATION OF THE WORK
-.01 Intent of Plans and Specifications
-.02 Interpretation of Plans & Specifications
-.03 Contract Drawings
-.04 Additional or Supplemental Drawings

DIVISION 00 10 GENERAL REQUIREMENTS

SECTION 00 10 12 COLLATERAL WORK
-.01 Collateral Work

SECTION 00 10 15 CONTRACTOR USE OF PREMISES
-.01 Area Available for Contractor's Use
-.02 Travel Not Obstructed
-.03 Cleaning Up

SECTION 00 10 19 SITE CONDITIONS
-.01 Pre-Bid Inspection & Examination
-.02 Borings
-.03 Protection of Existing Structures
-.04 Existing Structures Below Ground
-.05 Abandoned Structures
-.06 Latent Sub-surface Conditions
-.07 Adjustment or Changes of Existing Structures
-.08 Maintenance and Restoration of Service
-.09 Poles & Posts On Site
-.10 Notification of Other Parties

SECTION 00 10 51 LAYOUT OF WORK
-.01 Information Provided by Engineer
-.02 Services Provided by Contractor
-.03 Obligations of the Contractor
-.04 Lines, Grades and Elevations
-.05 Masonry Chases, Openings and Inserts
-.06 Payment for Layout of Work

SECTION 00 10 64 SAFETY AND HEALTH
-.01 Safety and Health Regulations
-.02 Safety and First Aid
-.03 Dust Hazards

DRAFT

SECTION 00 13 40 SUBMITTALS
-.01 Drawings Furnished by the Contractor
-.02 Transmittal, Identification and Resubmittal
-.03 Delay Through Tardy Submittal
-.04 Contractor Responsible for Accuracy
-.05 Additional Instructions
-.06 Drawings to be Checked by Contractor
-.07 Substitutes and “Or-Equal” Items
-.08 Additional Engineering Costs

SECTION 00 15 06 WORK UNDER UNUSUAL CONDITIONS
-.01 Work After Dark
-.02 Work on Sundays or Holidays
-.03 Work in Storms
-.04 Work in Cold Weather

SECTION 00 15 10 SERVICES DURING CONSTRUCTION
-.01 Sanitary Facilities
-.02 Water
-.03 Temporary Heat
-.04 Temporary Electric Light and Power
-.05 Payment for Services During Construction

SECTION 00 15 68 EROSION AND SEDIMENT CONTROL
-.01 General
-.02 Control Schedule
-.03 Control Measures
-.04 Payment

SECTION 00 15 77 MAINTENANCE OF TRAFFIC
-.01 General
-.02 Travel Not Obstructed During Excavation
-.03 Basic Maintenance and Protection of Traffic
-.04 Payment

SECTION 00 15 80 PROJECT SIGN
-.01 General
-.02 Sign Panel
-.03 Painting
-.04 Miscellaneous
-.05 Payment

SECTION 00 15 90 ENGINEER'S FIELD OFFICE TRAILER
-.01 Description
-.02 Facilities to be Provided
-.03 Location
-.04 Payment

DRAFT

SECTION 00 16 40 MATERIALS, EQUIPMENT AND WORKMANSHIP

-.01 Materials and Workmanship - General Requirements
-.02 Samples, Tests and Inspections
-.03 Removal of Finished Work for Inspection
-.04 Field Tests
-.05 Manufacturers and Suppliers
-.06 Experience and Equivalent Clauses
-.07 Installation of Equipment
-.08 Tools, Accessories and Manuals
-.09 Care and Protection of the Work
-.10 Absence of Engineer

DRAFT

MATERIALS AND PERFORMANCE (TECHNICAL) SPECIFICATIONS

DIVISION 01	**GENERAL REQUIREMENTS**	**[VACANT]**
DIVISION 02	**EXISTING CONDITIONS**	
02 41 19	SELECTIVE DEMOLITION	
DIVISION 03	**CONCRETE**	
03 30 00	CAST-IN-PLACE CONCRETE	
DIVISION 04	**MASONRY**	
04 05 13.91	RESTORATION MORTARS AND GROUTS	
04 91 00	MASONRY POINTING	
DIVISION 05	**METALS**	
05 31 23	STEEL ROOF DECKING	
05 50 01	METAL FABRICATIONS	
05 52 13	PIPE AND TUBE RAILINGS	
DIVISION 06	**WOOD, PLASTIC, AND COMPOSITES**	
06 10 01	ROUGH CARPENTRY	
DIVISION 07	**THERMAL AND MOISTURE PROTECTION**	
07 22 16	ROOF INSULATION	
07 22 16.01	TAPERED ROOF INSULATION	
07 27 26	FLUID-APPLIED MEMBRANE AIR BARRIERS	
07 46 46	FIBER CEMENT SIDING	
07 53 00	ETHYLENE-PROPYLENE-DIENE-MONOMER ROOFING SYSTEM (EPDM)	
07 60 00	FLASHING AND SHEET METAL	
07 92 00	JOINT SEALANTS	
DIVISION 08	**OPENINGS**	
08 11 13	METAL DOORS AND FRAMES	
08 41 13	ALUMINUM-FRAMED STOREFRONTS	
08 84 13	ALUMINUM WINDOWS	
08 71 00	DOOR HARDWARE	
08 80 00	GLAZING	
DIVISION 09	**FINISHES**	
09 21 16	GYPSUM BOARD ASSEMBLIES	
09 51 23	ACOUSTICAL TILE CEILINGS	
09 91 23	INTERIOR PAINTING	
DIVISION 10	**SPECIALTIES**	
10 14 19	DIMENSIONAL LETTER SIGNAGE	
DIVISION 11	**EQUIPMENT**	**[VACANT]**
DIVISION 12	**FURNISHINGS**	**[VACANT]**
DIVISION 13	**SPECIAL CONSTRUCTION**	**[VACANT]**
DIVISION 14	**CONVEYING SYSTEMS**	**[VACANT]**

DRAFT

DIVISION 21	**FIRE SUPPRESSION**	**[VACANT]**
DIVISION 22	**PLUMBING**	**[VACANT]**
DIVISION 23	**HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)**	
23 05 00	COMMON WORK RESULTS FOR HVAC	
23 05 29	HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT	
23 05 53	IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT	
23 05 96	TESTING, ADJUSTING, AND BALANCING FOR HVAC	
23 07 13	DUCT INSULATION	
23 11 23	FACILITY NATURAL-GAS PIPING	
23 23 00	REFRIGERANT PIPING	
23 31 13	METAL DUCTS	
23 74 16.13	PACKAGED, LARGE-CAPACITY, ROOFTOP AIR-CONDITIONING UNITS	
DIVISION 26	**ELECTRICAL**	
26 05 19	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES	
26 05 26	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS	
26 05 33	RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS	
26 05 53	IDENTIFICATION FOR ELECTRICAL SYSTEMS	
26 09 23	LIGHTING CONTROL DEVICES	
26 51 19	LED INTERIOR LIGHTING	
DIVISION 27	**COMMUNICATIONS**	**[VACANT]**
DIVISION 28	**ELECTRONIC SAFETY AND SECURITY**	
28 46 21.11	ADDRESSABLE FIRE-ALARM SYSTEM	
DIVISION 31	**EARTHWORK**	**[VACANT]**
DIVISION 32	**EXTERIOR IMPROVEMENTS**	**[VACANT]**
DIVISION 33	**UTILITIES**	**[VACANT]**
DIVISION 48	**ELECTRICAL POWER GENERATION**	**[VACANT]**

DRAFT

INDEX TO DRAWINGS (SEPARATE FILE)

SHEET	DESCRIPTION
T001	COVER SHEET
C101	SITE STAGING PLAN
A001	STANDARD SYMBOLS, NOTES AND ABBREVIATIONS
AD101	EXISTING/DEMO FIRST AND SECOND FLOOR PLANS
AD102	EXISTING/DEMO THIRD FLOOR AND ROOF PLANS
AD201	EXISTING/DEMO EXTERIOR ELEVATIONS
A101	FIRST FLOOR PLAN
A102	SECOND FLOOR PLAN
A103	THIRD FLOOR AND ROOF PLANS
A201	EXTERIOR ELEVATION
A301	WALL SECTIONS
A501	ROOF DETAILS
A502	ROOF DETAILS
A503	ROOF DETAILS
A601	DOOR SCHEDULE AND DETAILS
A602	WINDOW SCHEDULE AND DETAILS
A603	STOREFRONT SCHEDULE AND DETAILS
A701	SECOND FLOOR REFLECTED CEILING PLAN
M001	GENERAL NOTES, ABBREVIATIONS AND LEGEND
MD102	MECHANICAL ROOF PLAN – EXISTING CONDITIONS/DEMOLITION
M102	MECHANICAL ROOF PLAN – NEW WORK
E001	GENERAL NOTES, ABBREVIATIONS AND LEGEND
ED101	ELECTRICAL FIRST FLOOR PLAN – EXISTING CONDITIONS/DEMOLITION
ED102	ELECTRICAL SECOND FLOOR PLAN – EXISTING CONDITIONS/DEMOLITION
ED103	ELECTRICAL THIRD FLOOR PLAN – EXISTING CONDTIONS/DEMOLITION
E101	ELECTRICAL FIRST FLOOR PLAN – NEW WORK
E102	ELECTRICAL SECOND FLOOR PLAN – NEW WORK
E103	ELECTRICAL THIRD FLOOR PLAN – NEW WORK
E501	ELECTRICAL/FIRE ALARM DETAILS AND DIAGRAMS – NEW WORK

DRAFT

SECTION 00 00 20

ADVERTISEMENT FOR BIDS

Sealed bids for the furnishing of all labor and material necessary for the Town of Rotterdam Town Hall Building Renovations project will be received by the Town of Rotterdam Town Clerk at 1100 Sunrise Boulevard, Rotterdam, New York 12306 until 11:00 A.M. local time on Tuesday, September 12, 2023 at which time and place they will be publicly opened and read aloud.

Bids will be received for the following Contracts:

Contract No. 1 – General Construction: The work shall include providing all labor, materials and equipment, and other means of construction necessary and incidental for the removal and replacement of the EPDM roof and insulation, brick veneer and EIFS facades, exterior doors, storefronts, windows and awnings, repair and resurfacing of the exterior foundation, and interior improvements to the Board Room and adjacent open office space, as shown on the Contract Drawings and Specifications.

Contract No. 2 – Mechanical Construction: The work shall include providing all labor, materials and equipment, and other means of construction necessary and incidental for the removal of condensing units located on the roof, removal and replacement of a roof top unit and relocating refrigerant piping for an indoor split system unit, as shown on the Contract Drawings and Specifications.

Contract No. 3 – Electrical Construction: The work shall include providing all labor, materials and equipment, and other means of construction necessary and incidental for the removal of disconnect switches for condensing units located on the roof, removal and replacement of the fire alarm system throughout the building, light fixtures and controls within the Board Room and adjacent open office space, and a disconnect switch for a roof top unit replacement, as shown on the Contract Drawings and Specifications.

Digital copies of Bidding Documents may be obtained from the Empire State Purchasing Group on BidNet at http://www.bidnetdirect.com/townofrotterdam. Copies of Bidding Documents obtained from any other source are not considered official copies. Neither Owner nor Engineer can guarantee the accuracy, and are not responsible for any errors contained in documents obtained from an alternate source. Only those vendors who obtain documents from the BidNet system are guaranteed to receive addendum information, if such information is issued.

Each Bid must be submitted on the prescribed Bid Form and accompanied by security in an amount not less than five percentum (5%) of the amount of the bid in the form and subject to the conditions provided in the Information for Bidders. No Bidder may withdraw his Bid within forty-five (45) days after the actual date of opening thereof.

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There will be no formal Pre-Bid Meeting held, but any Bidder that would like to visit the site shall contact the Town Supervisor's office at (518) 355-7575 extension 393 to arrange a site visit. Town representatives will not answer questions relative to the project.

This is an exempt capital improvement project, and Bidders shall not include in their Bid sales and compensating use taxes on the cost of materials which are to be incorporated into the work and which are to be separately sold by the Contractor to the Town of Rotterdam prior to incorporation into the work of the Contracts.

The attention of Bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the Contracts.

The right is reserved to waive any informalities in the Bid and to reject any or all Bids.

END OF SECTION

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SECTION 00 01 00

INFORMATION FOR BIDDERS

00 01 00.01 LOCATION OF THE WORK

A. The work under Contract No. 1 – General Construction, Contract No. 2 – Mechanical Construction, and Contract No. 3 – Electrical Construction for the Town of Rotterdam Rotterdam Town Hall Building Renovations is located 1100 Sunrise Boulevard, Rotterdam, New York 12306.

00 01 00.02 DESCRIPTION OF THE WORK

A. The items of work under respective Contracts include, but are not necessarily limited to the following:

Base Bid:
Contract No. 1 – General Construction: The work shall include providing all labor, materials and equipment, and other means of construction necessary and incidental for the removal and replacement of the EPDM roof and insulation, brick veneer and EIFS facades, exterior doors, storefronts, windows and awnings, repair and resurfacing of the exterior foundation, and interior improvements to the Board Room and adjacent open office space, as shown on the Contract Drawings and Specifications.

Contract No. 2 – Mechanical Construction: The work shall include providing all labor, materials and equipment, and other means of construction necessary and incidental for the removal of condensing units located on the roof, removal and replacement of a roof top unit and relocating refrigerant piping for an indoor split system unit, as shown on the Contract Drawings and Specifications.

Contract No. 3 – Electrical Construction: The work shall include providing all labor, materials and equipment, and other means of construction necessary and incidental for the removal of disconnect switches for condensing units located on the roof, removal and replacement of the fire alarm system throughout the building, light fixtures and controls within the Board Room and adjacent open office space, and a disconnect switch for a roof top unit replacement, as shown on the Contract Drawings and Specifications.

Additive Bid Items:
Additive Bid No. 1A – Add/Deduct Unit price cost for the repair of the existing brick mortar greater than or less than the area included in the Base Bid (per square foot of brick mortar repairs).

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Additive Bid No. 1B – Add/Deduct Unit price cost for the masonry reconstruction of existing brick greater than or less than the area included in the Base Bid (per square foot of masonry reconstruction).

Additive Bid No. 1C – Add/Deduct Unit price cost for the replacement of existing metal deck greater than or less than the area included in the Base Bid (per square foot of metal deck).

00 01 00.03 COMMENCEMENT AND COMPLETION OF THE WORK

A. Upon execution of the Contract including delivery of the Performance Bond, Labor & Materials Payment Bond and insurance policies and certificates by the Contractor to the Owner and the approval thereof by the Owner's attorney, the Contractor will be notified to proceed with the work. Such notification will be in the form of a letter to proceed from the Engineer.

B. The Contractor shall give the Engineer at least five (5) days written notice of the date he intends to start work at the site.

C. All work items of the Contracts shall be substantially completed within 300 calendar days following the date the Contractor is notified to proceed with the work unless such period is extended by the Owner as provided herein.

00 01 00.04 COLLATERAL WORK AND CONDITIONS OF WORK

A. Each Bidder shall inform himself fully of the conditions relating to the construction of the Project and the employment of labor thereon. Failure to do so will not relieve a successful Bidder, as Contractor, of his obligation to furnish all material and labor necessary to carry out the provisions of his Contract. Insofar as possible, the Contractor, in carrying out the work, shall employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor. (See also Section 00 10 12.01.)

B. Each Contractor will be required to coordinate his work with the work of other Contracts. Each Contractor will be required to adjust his schedule accordingly.

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00 01 00.05 RECEIPT & OPENING OF BIDS

A. The Town of Rotterdam (herein called the Owner) invites Bids on the attached forms. Bids will be received by the Owner until the time and at the place stated in the attached Advertisement For Bids. Bids must be sealed in envelopes addressed to Town of Rotterdam, ATTN: Diane M. Marco, Town Clerk, 1100 Sunrise Boulevard, Rotterdam, New York 12306. The outside of the envelope shall bear the name and address of the Bidder and shall be labeled to clearly show the Contract designation for which the Bid is submitted.

00 01 00.06 INFORMALITIES, WAIVERS AND WITHDRAWALS

A. The Owner may consider informal any Bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities in or reject any or all Bids. Bids which do not contain a price for every numbered item contained in the Bid form will not be accepted.

B. Any Bid may be withdrawn prior to the scheduled deadline for receipt of Bids or authorized postponement thereof, but no Bid may be withdrawn within forty-five (45) days after the actual date of the opening thereof. Any Bid received after the time and date specified will not be considered, and will be returned unopened.

00 01 00.07 BID PREPARATION

A. Unless otherwise noted thereon, all blanks on the Bid forms must be appropriately filled in with ink and with both words and figures, and the Bid must be properly executed. Do not remove the Bid forms from this binder.

B. All Contract Documents, except the Performance Bond, Labor & Materials Payment Bond, Certificate of Insurance and any Addenda, are contained in this binder. All Contract Documents, except the Contract Drawings, Performance Bond and Labor & Materials Payment Bond, and Certificate of Insurance must be submitted with the Bid. The Contract Documents are defined in the Agreement.

C. Any Bidder may modify his Bid by facsimile communication at any time prior to the scheduled closing time for receipt of Bids, provided such facsimile communication is received by the Owner prior to the closing time, and, provided further, the Owner is satisfied that a written confirmation of the facsimile modification over the signature of the Bidder was mailed prior to the closing time. The facsimile communication should not reveal the Bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed Bid is opened. If written confirmation is not received within three days from the closing time, no consideration will be given to the facsimile modification.

DRAFT

00 01 00.08 ADDENDA AND INTERPRETATIONS

A. No verbal interpretation of the intent of any of the Contract Documents will be made before receipt of Bids. Requests for interpretations prior to receipt of Bids must be presented in writing to the Engineer, Barton & Loguidice, D.P.C., 443 Electronics Parkway, Liverpool, New York 13088, and to be given consideration must be received by the Engineer at least seven (7) days prior to the date set for the opening of Bids.

B. Any interpretation, and any additional information or instruction will, if issued, be in the form of a written Addendum or Addenda distributed to all holders of Contract Documents by the same method that the original documents were distributed, at least five (5) days prior to the date of the opening of Bids.

C. Failure of any Bidder to receive any such Addendum or interpretation shall not relieve such Bidder from any obligation under this Bid as submitted. All Addenda so issued shall become a part of the Contract Documents.

00 01 00.09 QUALIFICATIONS OF BIDDERS

A. The Owner reserves the right to make such investigation as he may deem necessary or advisable to determine any Bidder's ability to do the work, and the Bidder shall furnish to the Owner on request all data and information pertinent thereto. The Owner reserves the right to reject any Bid if such investigation fails to satisfy the Owner that the Bidder is fully qualified to do the work.

B. Conditional Bids will be considered informal and will be rejected.

C. Immediately following the Canvass of Bids the Low Bidder, if so requested, shall furnish the Owner a sworn and notarized financial statement, and a statement of his qualifications and experience.

00 01 00.10 OBLIGATIONS OF BIDDERS

A. At the time of the opening of Bids, each Bidder will be presumed to have inspected the Site, to have informed himself fully of the conditions relating to the work and labor required for the work, and to have read and acquainted himself with all the Contract Documents. Failure to do so will not relieve the Bidder who is awarded the Contract of his obligation to complete the work for the price or prices bid, or of any other obligation under the Contract. The failure or omission of any Bidder to receive or examine any Contract Documents shall in no way relieve him from any obligation in respect to his Bid.

DRAFT

00 01 00.11 BID SECURITY

A. Each Bid must be accompanied by cash in United States currency or a certified check of the Bidder in an amount not less than five percent (5%) of the Bid. A Bid Bond, fully executed by the Bidder as principal, and having as surety thereon a surety company approved by the Owner and authorized to do business in New York State, will be accepted in lieu of cash or certified check. Checks should be made payable to the Owner.

B. Such cash, checks or Bid Bonds will be returned to all except the three lowest Bidders within three working days after the opening of Bids. The remaining deposits will be returned to the three lowest Bidders within three working days after execution of the Contract, or, if no Contract is executed within 45 calendar days after opening of Bids, upon demand of the Bidder at any time thereafter so long as he has not been notified of the acceptance of his Bid.

00 01 00.12 LIQUIDATED DAMAGES FOR FAILURE TO EXECUTE CONTRACT

A. Should the successful Bidder refuse or fail to execute the Contract and Bond within five (5) working days after receipt of notice of the acceptance of his Bid, the security deposited with his Bid shall be forfeited to the Owner as liquidated damages for such refusal or failure.

00 01 00.13 DISCREPANCY IN BIDS

A. In the event a discrepancy exists in any Bid between the prices written in words and the prices written in figures, the prices written in words shall govern. If a discrepancy exists in any Bid between unit prices and the extended totals therefor, the unit prices shall govern. In either of the above cases, the extended totals, and the total of all extensions, shall be corrected, if necessary, and the Bid may not be considered informal.

00 01 00.14 LOWEST BIDDER

A. Bids will be compared on the basis of the totals for the Contract, corrected as necessary in conformance with Article 00 01 00.13, given at the bottom of the schedule of quantities, prices and extensions. Such total in each Bid shall be the sum of all lump sum prices, plus the sum of all the extensions produced by multiplying the unit price in each case by the corresponding listed quantity.

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00 01 00.15 AWARD OF CONTRACT

A. The Contract will be awarded to that responsible Bidder whose Bid, after corrections and adjustments, totals the least number of dollars.

B. The Owner reserves the right to reject any and all Bids.

END OF SECTION

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SECTION 00 01 50

LABOR AND EMPLOYMENT

00 01 50.01 GENERAL

A. The Contractor and every Subcontractor on public works contracts shall comply with Article 8 of the State Labor Law, as amended.

00 01 50.02 POSTING MINIMUM WAGE RATES & KEEPING RECORDS

A. The Contractor and every Subcontractor on public works contracts shall post in a prominent and accessible place on the Site a legible statement of all wage rates and supplements as specified in the Contract to be paid or provided, all redeterminations of such schedules as the case may be, for the various classes of mechanics, workmen and laborers employed on the work. Other notices to be posted are the Workers' Compensation Law Section 51 notice, the Department of Labor notice that this project is a public work project on which each worker is entitled to receive the prevailing rate of wages and supplements for the occupation at which he or she is working, and all other notices required by law to be posted at the site. The Contractor shall maintain such notices in a legible manner, written in plain English in lettering no smaller than two inches in height and two inches in width, weatherproof, and shall replace any notice or schedule which is damaged, defaced, illegible or removed for any reason.

B. The Contractor and every Subcontractor shall keep original payrolls or verified transcripts thereof showing the hours and days worked by each workman, mechanic or laborer, the occupation at which he worked, the hourly wage rate paid and the supplements paid or provided, on the Site, when the Contractor or Subcontractor maintains no regular place of business in New York State and where the amount of the Contract is in excess of $25,000. All other Contractors and Subcontractors shall produce within five days on the Site and upon formal order of the Commissioner of Labor or his designated representative such original payrolls or verified transcripts thereof, as may be deemed necessary to adequately enforce the provisions of this Section.

C. Notwithstanding the aforementioned requirements, every Contractor and Subcontractor shall submit to the Owner within thirty days after issuance of its first payroll, and every thirty days thereafter, a transcript of the original payroll record, as provided by Article 8 of the Labor Law, subscribed and affirmed as true under penalties of perjury. The original payrolls or transcripts shall be preserved for three years from the completion of the work.

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00 01 50.03 NON-DISCRIMINATION AND LABOR PRACTICES

A. In accordance with Section 220-e of Article 8 of the State Labor Law, the Contractor agrees:

1. That in the hiring of employees for the work of this Contract or any Subcontract, neither he nor any Subcontractor, nor any person acting on behalf of the Contractor, or any Subcontractor, shall by reasons of race, creed, color, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which his employment relates; and

2. That neither the Contractor, nor any Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Contract on account of race, creed, color, sex, disability or national origin; and

3. That there may be deducted from the amount payable to the Contractor by the Owner, a penalty of Fifty Dollars for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of this Contract; and

4. That this Contract may be cancelled or terminated by the Owner, and all monies due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this Section of the Contract; and

5. That the aforesaid provisions of this Section covering contracts for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

6. During the performance of this Contract, the Contractor agrees as follows:

   a. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, sex, color, disability or national origin, and will take affirmative action to insure that they are afforded equal employment opportunities without discrimination because of race, creed, sex, color or national origin. Such action shall be taken with reference, but not be limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.

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b. The Contractor will send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice to be provided by the State Division of Human Rights, advising such labor union or representative of the Contractor's agreement under subparagraphs (1) through (7) (hereinafter called "non-discrimination clauses"). If the Contractor was directed to do so by the contracting agency as part of the Bid or negotiation of this Contract, the Contractor shall request such labor union or representative to furnish him with a written statement that such labor union or representative either will affirmatively cooperate, within the limits of its legal and contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses or that it consents and agrees that recruitment, employment and the terms and conditions of employment under this Contract shall be in accordance with the purposes and provisions of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the Contractor shall promptly notify the State Division of Human Rights of such failure or refusal.

c. The Contractor will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Division of Human Rights setting forth the substance of the provisions of subparagraphs (1) and (2) and such provisions of the State's laws against discrimination as the State Commissioner of Human Rights shall determine.

d. The Contractor will state, in all solicitations, or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, sex, color, disability or national origin.

e. The Contractor will comply with the provisions of Sections 291-299 of the Executive Law and the Civil Rights Law, will furnish all information and reports deemed necessary by the State Commissioner of Human Rights under these non-discrimination clauses and such sections of the Executive Law, and will permit access to his books, records and accounts by the State Commissioner of Human Rights, the Attorney General and the Commissioner of Labor for purposes of investigation to ascertain compliance with these non-discrimination clauses and such sections of the Executive Law and Civil Rights Law.

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f. This Contract may be forthwith cancelled, terminated or suspended, in whole or in part, by the contracting agency upon the basis of a finding made by the State Commissioner of Human Rights that the Contractor has not complied with these non-discrimination clauses, and the Contractor may be declared ineligible for future contracts made by or on behalf of the State or a public authority or agency of the State, until he satisfies the State Commissioner of Human Rights that he has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such finding shall be made by the State Commissioner of Human Rights after conciliation efforts by the State Division of Human Rights have failed to achieve compliance with these non-discrimination clauses and after verified complaint has been filed with the State Division of Human Rights, notice thereof has been given to the Contractor and an opportunity has been afforded him to be heard publicly before the State Commissioner of Human Rights or his designee. Such sanctions may be imposed and remedies otherwise provided by law.

g. The Contractor will include the provisions of sub-paragraph (1) through (7) of this paragraph A and in every Subcontract or purchase order in such a manner that such provisions will be binding upon each Subcontractor or vendor as to operations to be performed within the State of New York. The Contractor will take such action in enforcing such provisions of such Subcontract or purchase order as the contracting agency may direct, including sanctions or remedies for non-compliance. If the Contractor becomes involved in or is threatened with litigation with a Subcontractor or vendor as a result of such direction by the contracting agency, the Contractor shall promptly so notify the Attorney General, requesting him to intervene and protect the interest of the State of New York.

7. It is hereby agreed that all applicable provisions of the Labor Law of the State of New York shall be carried out in the performance of this Contract.

8. This agreement shall be void and of no effect unless the Contractor shall secure compensation insurance for the benefit of, and keep insured during the life of this agreement, such employees engaged therein as are required to be insured by the provisions of the Worker's Compensation Law of the State of New York.

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00 01 50.04 LEGAL DAY'S WORK

A. In accordance with Section 220 (2) of Article 8 of the State Labor Law, no laborer, workman or mechanic employed by the Contractor, a Subcontractor or other person doing or contracting to do any part of the work shall be permitted or required to work more than eight hours in any one calendar day or more than five days in any week except in cases of extraordinary emergency including fire, flood or danger to life or property, or in case of national emergency when so proclaimed by the President of the United States.

00 01 50.05 WAGE RATES

A. In accordance with Section 220 of Article 8 of the State Labor Law, the wages to be paid for a legal day's work, as hereinbefore defined, to laborers, workmen or mechanics employed by the Contractor or Subcontractors, shall be not less than the prevailing rate of wages as hereinafter defined. Each laborer, workman or mechanic employed by the Contractor, Subcontractors, or other person upon or about the work, shall be paid not less than the wages and supplements herein provided.

B. Any person or corporation that willfully pays or provides less than the stipulated wage scale or supplements shall be guilty of a misdemeanor and upon conviction shall be punished as provided by law.

C. It shall be the duty of the Commissioner of Labor, or, if the Owner is a city, the comptroller or other analogous officer of such city, to make a determination of the schedule of wages to be paid all laborers, workmen and mechanics employed on the project (if it is a public works project) including supplements for welfare, pension, vacation and other benefits. These supplements include hospital, surgical or medical insurance or benefits, life insurance or death benefits, accidental death or dismemberment insurance, and pension or retirement benefits. If the amount of supplements provided by the employer is less than the total supplements shown on the wage schedule, the difference shall be paid in cash to employees.

D. The supplements to be provided shall be in accordance with prevailing practices in the locality. The amount for wages and for supplements listed in the schedule in these Contract Documents does not necessarily include all types of prevailing wages and supplements in the locality, and a future determination by the Commissioner of Labor may require the Contractor to pay increased wages or provide additional supplements.

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00 01 50.06 VERIFICATION OF AMOUNTS DUE FOR WAGES AND SUPPLEMENTS

A. In accordance with Section 220-a of Article 8 of the State Labor Law, the New York State schedule of prevailing wages and supplements, as included in this Contract or as subsequently redetermined by the New York State Department of Labor, shall be specifically included in each and every Subcontract, regardless of tier, awarded by the Contractor or his Subcontractors.

B. Subcontractors, regardless of tier, shall provide to the Contractor a verified statement attesting that the Subcontractor has received and reviewed the prevailing wage rate and supplement schedule and agreeing that it will pay its employees the applicable wages and will pay or provide the supplements specified therein. The Contractor shall submit to the Owner copies of all such verified statements.

C. The Owner will not make final payment to the Contractor unless and until the Contractor submits the following:

1. verified statements as described in the preceding paragraph
2. certification to the amounts then due from the Contractor to any and all laborers for wages or supplements on account of labor performed upon the work under the Contract
3. certification to the amounts then due from any Subcontractor, regardless of tier, for wages and supplements, on account of labor performed upon the work under the Contract, or shall certify that the Contractor has no knowledge of such amounts owing to or on behalf of any laborers of its Subcontractors.

D. In the event it is determined by the New York State Commissioner of Labor that the wages and/or supplements of any employees of the Contractor's Subcontractors, regardless of tier, have not been paid or provided pursuant to the appropriate schedule of wages and supplements, the Contractor shall be responsible for payment of such wages or supplements.

00 01 50.07 MINIMUM RATES

A. New York State Department of Labor wage rates will be in effect on this Project.

B. The minimum wage rates designated by the Commissioner of Labor of the State of New York are attached. These minimum rates and supplements may be modified during the life of the Contract. If the prevailing wage rates should subsequently be legally modified or increased by any means other than by the action of the Owner, the Contractor shall assume full responsibility for the payment of said increases without recourse to the Owner.

END OF SECTION

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Kathy Hochul, Governor

Roberta Reardon, Commissioner

Town of Rotterdam

Joshua Conley, Project Architect
443 Electronics Parkway
Liverpool NY 13088

Schedule Year 2023
Date Requested 07/24/2023
PRC# 2023008720

Location Town of Rotterdam
Project ID#
Project Type Exterior improvements including roof replacement, canopy, windows, storefront and doors, and fiber cement panel façade.

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2023 through June 2024. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.ny.gov. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12226

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General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission: a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract MUST obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule MUST be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Both the PW 16 and PW 200 forms are available for completion online.

Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule form the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12226; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website www.labor.ny.gov.

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is REQUIRED to provide complete copies to all prime contractors who in turn MUST, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website www.labor.ny.gov.

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available on the NYSDOL website www.labor.ny.gov.

Payrolls and Payroll Records

Every contractor and subcontractor MUST keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. As per Article 6 of the Labor law, contractors and subcontractors are required to establish, maintain, and preserve for not less than six (6) years, contemperaneous, true, and accurate payroll records. At a minimum, payrolls must show the following information for each person employed on a public work project: Name, Address, Last 4 Digits of Social Security Number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid or provided, and Daily and weekly number of hours worked in each classification.

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The filing of payrolls to the Department of Jurisdiction is a condition of payment.Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall collect, review for facial validity, and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed $100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds $25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8 . Section 220-a).

Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYSDOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

Withholding of Payments

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b and 235.2 of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

Summary of Notice Posting Requirements

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

The "Public Work Project" notice must be posted at the beginning of the performance of every public work contract, on each job site.

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Every employer providing workers. compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers. Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

Apprentices

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeyworkers in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12226 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

Interest and Penalties

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

Debarment

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

Criminal Sanctions

Willful violations of the Prevailing Wage Law (Article 8 of the Labor Law) may be a felony punishable by fine or imprisonment of up to 15 years, or both.

Discrimination

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).

No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b)).

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The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of $50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c)).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d)).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

Workers' Compensation

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing worker's compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Unemployment Insurance

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.

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Town of Rotterdam

Joshua Conley, Project Architect
443 Electronics Parkway
Liverpool NY 13088

Schedule Year 2023
Date Requested 07/24/2023
PRC# 2023008720

Location Town of Rotterdam
Project ID#
Project Type Exterior improvements including roof replacement, canopy, windows, storefront and doors, and fiber cement panel façade.

Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), **MUST** be completed for **EACH** prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

Contractor Information
All information must be supplied

Federal Employer Identification Number: _____

Name: _____

Address: _____

_____

City: _____ State: _____ Zip: _____

Amount of Contract: $_____

Approximate Starting Date: ____/____/____

Approximate Completion Date: ____/____/____

Contract Type:
- [ ] (01) General Construction
- [ ] (02) Heating/Ventilation
- [ ] (03) Electrical
- [ ] (04) Plumbing
- [ ] (05) Other : _____

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12226

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Social Security Numbers on Certified Payrolls:

The Department of Labor is cognizant of the concerns of the potential for misuse or inadvertent disclosure of social security numbers. Identity theft is a growing problem and we are sympathetic to contractors' concern regarding inclusion of this information on payrolls if another identifier will suffice.

For these reasons, the substitution of the use of the last four digits of the social security number on certified payrolls submitted to contracting agencies on public work projects is now acceptable to the Department of Labor. This change does not affect the Department's ability to request and receive the entire social security number from employers during its public work/ prevailing wage investigations.

Construction Industry Fair Play Act: Required Posting for Labor Law Article 25-B § 861-d

Construction industry employers must post the "Construction Industry Fair Play Act" notice in a prominent and accessible place on the job site. Failure to post the notice can result in penalties of up to $1,500 for a first offense and up to $5,000 for a second offense. The posting is included as part of this wage schedule. Additional copies may be obtained from the NYS DOL website, https://dol.ny.gov/public-work-and-prevailing-wage
If you have any questions concerning the Fair Play Act, please call the State Labor Department toll-free at 1-866-435-1499 or email us at: dol.misclassified@labor.ny.gov .

Worker Notification: (Labor Law §220, paragraph a of subdivision 3-a)

Effective June 23, 2020

This provision is an addition to the existing wage rate law, Labor Law §220, paragraph a of subdivision 3-a. It requires contractors and subcontractors to provide written notice to all laborers, workers or mechanics of the *prevailing wage and supplement rate* for their particular job classification *on each pay stub**. It also requires contractors and subcontractors to *post a notice* at the beginning of the performance of every public work contract *on each job site* that includes the telephone number and address for the Department of Labor and a statement informing laborers, workers or mechanics of their right to contact the Department of Labor if he/she is not receiving the proper prevailing rate of wages and/or supplements for his/her job classification. The required notification will be provided with each wage schedule, may be downloaded from our website *www.labor.ny.gov* or be made available upon request by contacting the Bureau of Public Work at 518-457-5589. *In the event the required information will not fit on the pay stub, an accompanying sheet or attachment of the information will suffice.

(12.20)

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To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

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1. Purpose and Scope:

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, maintenance and repair, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

2. Background and Statutory References:

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.

Chapter 511 of the Laws of 1995 (as amended by Chapter 513 of the Laws of 1997, Chapter 655 of the Laws of 1999, Chapter 376 of the Laws of 2003 and Chapter 407 of the Laws of 2005) established the Fund.

3. Procedures and Agency Responsibilities:

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, maintenance and repair, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.

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To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND

OSC will report to DOL on all construction-related ("D") contracts approved during the month, including contract amendments, and then DOL will bill agencies the appropriate assessment monthly. An agency may then make a determination if any of the billed contracts are exempt and so note on the bill submitted back to DOL. For any instance where an agency is unsure if a contract is or is not exempt, they can call the Bureau of Public Work at the number noted below for a determination. Payment by check or journal voucher is due to DOL within thirty days from the date of the billing. DOL will verify the amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly reports and payments for deposit into the Public Work Enforcement Fund must be provided to the Administrative Finance Bureau at the DOL within 30 days of the end of each month or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public benefit corporation;
- State agency or public benefit corporation contact and phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if contract amount has been amended, reflect increase or decrease to original contract and the adjustment in the PWEF charge); and
- Brief description of the work to be performed under each contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor" should be sent to:

Department of Labor
Administrative Finance Bureau-PWEF Unit
Building 12, Room 464
State Office Campus
Albany, NY 12226

Any questions regarding billing should be directed to NYSDOL's Administrative Finance Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts should be directed to the Bureau of Public Work at (518) 457-5589.

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NEW YORK STATE OF OPPORTUNITY. Department of Labor

Required Notice under Article 25-B of the Labor Law

Attention All Employees, Contractors and Subcontractors: You are Covered by the Construction Industry Fair Play Act

The law says that you are an employee unless:

- You are free from direction and control in performing your job, **and**
- You perform work that is not part of the usual work done by the business that hired you, **and**
- You have an independently established business.

Your employer cannot consider you to be an independent contractor unless all three of these facts apply to your work.

It is against the law for an employer to misclassify employees as independent contractors or pay employees off the books.

Employee Rights: If you are an employee, you are entitled to state and federal worker protections. These include:

- Unemployment Insurance benefits, if you are unemployed through no fault of your own, able to work, and otherwise qualified,
- Workers' compensation benefits for on-the-job injuries,
- Payment for wages earned, minimum wage, and overtime (under certain conditions),
- Prevailing wages on public work projects,
- The provisions of the National Labor Relations Act, and
- A safe work environment.

It is a violation of this law for employers to retaliate against anyone who asserts their rights under the law. Retaliation subjects an employer to civil penalties, a private lawsuit or both.

Independent Contractors: If you are an independent contractor**, you must pay all taxes and Unemployment Insurance contributions required by New York State and Federal Law.**

Penalties for paying workers off the books or improperly treating employees as independent contractors:

• **Civil Penalty**	First offense: Up to $2,500 per employee Subsequent offense(s): Up to $5,000 per employee
• **Criminal Penalty**	First offense: Misdemeanor - up to 30 days in jail, up to a $25,000 fine and debarment from performing public work for up to one year. Subsequent offense(s): Misdemeanor - up to 60 days in jail or up to a $50,000 fine and debarment from performing public work for up to 5 years.

If you have questions about your employment status or believe that your employer may have violated your rights and you want to file a complaint, call the Department of Labor at (866) 435-1499 or send an email to dol.misclassified@labor.ny.gov. All complaints of fraud and violations are taken seriously. You can remain anonymous.

Employer Name:

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New York State Department of Labor
Bureau of Public Work

Attention Employees

THIS IS A:

PUBLIC WORK PROJECT

If you are employed on this project as a **worker, laborer, or mechanic** you are entitled to receive the **prevailing wage and supplements rate** for the classification at which you are working.

Chapter 629 of the Labor Laws of 2007:

These wages are set by law and must be posted at the work site. They can also be found at:

https://dol.ny.gov/public-work-and-prevailing-wage

If you feel that you have not received proper wages or benefits, please call our nearest office.*

Albany	(518) 457-2744	Patchogue	(631) 687-4882
Binghamton	(607) 721-8005	Rochester	(585) 258-4505
Buffalo	(716) 847-7159	Syracuse	(315) 428-4056
Garden City	(516) 228-3915	Utica	(315) 793-2314
New York City	(212) 932-2419	White Plains	(914) 997-9507
Newburgh	(845) 568-5156		

* For New York City government agency construction projects, please contact the Office of the NYC Comptroller at (212) 669-4443, or www.comptroller.nyc.gov – click on Bureau of Labor Law.

Contractor Name: _____

Project Location: _____

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Requirements for OSHA 10 Compliance

Article 8 §220-h requires that when the advertised specifications, for every contract for public work, is $250,000.00 or more the contract must contain a provision requiring that every worker employed in the performance of a public work contract shall be certified as having completed an OSHA 10 safety training course. The clear intent of this provision is to require that all employees of public work contractors, required to be paid prevailing rates, receive such training "prior to the performing any work on the project."

The Bureau will enforce the statute as follows:

All contractors and sub contractors must attach a copy of proof of completion of the OSHA 10 course to the first certified payroll submitted to the contracting agency and on each succeeding payroll where any new or additional employee is first listed.

Proof of completion may include but is not limited to:

- Copies of bona fide course completion card (*Note: Completion cards do not have an expiration date.)*
- Training roster, attendance record of other documentation from the certified trainer pending the issuance of the card.
- Other valid proof

**A certification by the employer attesting that all employees have completed such a course is not sufficient proof that the course has been completed.

Any questions regarding this statute may be directed to the New York State Department of Labor, Bureau of Public Work at 518-457-5589.

WICKS

Public work projects are subject to the Wicks Law requiring separate specifications and bidding for the plumbing, heating and electrical work, when the total project's threshold is $3 million in Bronx, Kings, New York, Queens and, Richmond counties; $1.5 million in Nassau, Suffolk and Westchester counties; and $500,000 in all other counties.

For projects below the monetary threshold, bidders must submit a sealed list naming each subcontractor for the plumbing, HVAC and electrical and the amount to be paid to each. The list may not be changed unless the public owner finds a legitimate construction need, including a change in specifications or costs or the use of a Project Labor Agreement (PLA), and must be open to public inspection.

Allows the state and local agencies and authorities to waive the Wicks Law and use a PLA if it will provide the best work at the lowest possible price. If a PLA is used, all contractors shall participate in apprentice training programs in the trades of work it employs that have been approved by the Department of Labor (DOL) for not less than three years. They shall also have at least one graduate in the last three years and use affirmative efforts to retain minority apprentices. PLA's would be exempt from Wicks, but deemed to be public work subject to prevailing wage enforcement.

The Commissioner of Labor shall have the power to enforce separate specification requirement s on projects, and may issue stop-bid orders against public owners for non-compliance.

Other new monetary thresholds, and similar sealed bidding for non-Wicks projects, would apply to certain public authorities including municipal housing authorities, NYC Construction Fund, Yonkers Educational Construction Fund, NYC Municipal Water Finance Authority, Buffalo Municipal Water Finance Authority, Westchester County Health Care Association, Nassau County Health Care Corp., Clifton-Fine Health Care Corp., Erie County Medical Center Corp., NYC Solid Waste Management Facilities, and the Dormitory Authority.

Contractors must pay subcontractors within a 7 days period.

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Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

This information is provided to assist you in the interpretation of particular requirements for each classification of worker contained in the attached Schedule of Prevailing Rates.

Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, building, sewer and water, tunnel work, or residential, and to make a determination of wages and supplements to be paid or provided. It is the responsibility of the public work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project. District office locations and phone numbers are listed below.

Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates.

Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use.

Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

Payrolls and Payroll Records

Contractors and subcontractors are required to establish, maintain, and preserve for not less that six (6) years, contemporaneous, true, and accurate payroll records.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury.

Paid Holidays

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

Overtime

At a minimum, all work performed on a public work project in excess of eight hours in any one day or more than five days in any workweek is overtime. However, the specific overtime requirements for each trade or occupation on a public work project may differ. Specific overtime requirements for each trade or occupation are contained in the prevailing rate schedules.

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.

The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Supplemental Benefits

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is straight time for all hours worked, some classifications require the payment or provision of supplements, or a portion of the supplements, to be paid or provided at a premium rate for premium hours worked. Supplements may also be required to be paid or provided on paid holidays, regardless of whether the day is worked. The Overtime Codes and Notes listed on the particular wage classification will indicate these conditions as required.

Effective Dates

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. The rate listed is valid until the next effective rate change or until the new annual determination which takes effect on July 1 of each year. All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. If you have any questions please contact the Bureau of Public Work or visit the New York State Department of Labor website (www.labor.ny.gov) for current wage rate information.

Apprentice Training Ratios

The following are the allowable ratios of registered Apprentices to Journey-workers.

For example, the ratio 1:1,1:3 indicates the allowable initial ratio is one Apprentice to one Journeyworker. The Journeyworker must be in place on the project before an Apprentice is allowed. Then three additional Journeyworkers are needed before a second Apprentice is allowed. The last ratio repeats indefinitely. Therefore, three more Journeyworkers must be present before a third Apprentice can be hired, and so on.

Please call Apprentice Training Central Office at (518) 457-6820 if you have any questions.

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Title (Trade)	Ratio
Boilermaker (Construction)	1:1,1:4
Boilermaker (Shop)	1:1,1:3
Carpenter (Bldg.,H&H, Pile Driver/Dockbuilder)	1:1,1:4
Carpenter (Residential)	1:1,1:3
Electrical (Outside) Lineman	1:1,1:2
Electrician (Inside)	1:1,1:3
Elevator/Escalator Construction & Modernizer	1:1,1:2
Glazier	1:1,1:3
Insulation & Asbestos Worker	1:1,1:3
Iron Worker	1:1,1:4
Laborer	1:1,1:3
Mason	1:1,1:4
Millwright	1:1,1:4
Op Engineer	1:1,1:5
Painter	1:1,1:3
Plumber & Steamfitter	1:1,1:3
Roofer	1:1,1:2
Sheet Metal Worker	1:1,1:3
Sprinkler Fitter	1:1,1:2

If you have any questions concerning the attached schedule or would like additional information, please contact the nearest BUREAU of PUBLIC WORK District Office or write to:

New York State Department of Labor
Bureau of Public Work
State Office Campus, Bldg. 12
Albany, NY 12226

District Office Locations:	Telephone #	FAX #
Bureau of Public Work - Albany	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	607-721-8005	607-721-8004
Bureau of Public Work - Buffalo	716-847-7159	716-847-7650
Bureau of Public Work - Garden City	516-228-3915	516-794-3518
Bureau of Public Work - Newburgh	845-568-5287	845-568-5332
Bureau of Public Work - New York City	212-932-2419	212-775-3579
Bureau of Public Work - Patchogue	631-687-4882	631-687-4902
Bureau of Public Work - Rochester	585-258-4505	585-258-4708
Bureau of Public Work - Syracuse	315-428-4056	315-428-4671
Bureau of Public Work - Utica	315-793-2314	315-793-2514
Bureau of Public Work - White Plains	914-997-9507	914-997-9523
Bureau of Public Work - Central Office	518-457-5589	518-485-1870

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Schenectady County General Construction

Boilermaker — 07/01/2023

JOB DESCRIPTION Boilermaker **DISTRICT** 1

ENTIRE COUNTIES
Albany, Broome, Chenango, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

WAGES
Per hour

	07/01/2023	01/01/2024 Additional
Boilermaker	$ 40.09	+ $1.31*

(*) To be allocated at later date.

SUPPLEMENTAL BENEFITS
Per hour

Journeyperson	$25.95 + 1.49**

(**) This portion of the benefit is NOT subject to the SAME PREMIUM as shown for overtime.

OVERTIME PAY
See (B, E, Q, V) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 15, 25) on HOLIDAY PAGE
Note: When a holiday falls on Sunday, the day observed by the State or Nation shall be observed, and when Christmas Day and New Year's fall on Saturday, Friday will be observed as the holiday.

REGISTERED APPRENTICES
Wages per hour
(1/2) year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5th	6th	7th	8th
65%	65%	70%	75%	80%	85%	90%	95%

Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th
19.35 +1.49**	19.35 +1.49**	20.29 +1.49**	21.23 +1.49**	22.17 +1.49**	23.13 +1.49**	24.06 +1.49**	25.01 +1.49**

(**) This portion of the benefit is NOT subject to the SAME PREMIUM as shown for overtime.

1-197

Carpenter - Building — 07/01/2023

JOB DESCRIPTION Carpenter - Building **DISTRICT** 2

ENTIRE COUNTIES
Albany, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie

WAGES

Per hour:	07/01/2023	07/01/2024 Additional	07/01/2025 Additional
Carpenter	$ 35.30	$ 1.25*	$ 1.25*
Floor Coverer	35.30	1.25*	1.25*
Carpet Layer	35.30	1.25*	1.25*
Dry-Wall	35.30	1.25*	1.25*
Diver-Wet Day	61.25	0.00	0.00
Diver-Dry Day	36.30	1.25*	1.25*
Diver Tender	36.30	1.25*	1.25*

*To be allocated at a later date

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):
- Pile Drivers/Dock Builders shall receive $0.25 per hour over the journeyman's rate of pay when performing piledriving/dock building work.

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- Certified welders shall receive $1.00 per hour over the journeyman's rate of pay when the employee is required to be certified and performs DOT or ABS specified welding work
- When an employee performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require employees to be furnished and use or wear required forms of personal protection, then the employee shall receive his regular hourly rate plus $1.50 per hour.
- Depth pay for Divers based upon deepest depth on the day of the dive (per diem payment):
  0' to 80' no additional fee
  81' to 100' additional $.50 per foot
  101' to 150' additional $0.75 per foot
  151' and deeper additional $1.25 per foot
- Penetration pay for Divers based upon deepest penetration on the day of the dive (per diem payment):
  0' to 50' no additional fee
  51' to 100' additional $.75 per foot
  101' and deeper additional $1.00 per foot
- Diver rates applies to all hours worked on dive day.

SHIFT WORK
On Agency/Owner mandated shift work, the following rates will be applicable:
1st Shift - Regular Rate
2nd Shift - Premium of 7% of base wage per hour
3rd Shift - Premium of 14% of base wage per hour
Shift work shall be defined as implementing at least two (2) shifts in a twenty-four (24) consecutive hour period. Shift work must be for a minimum of three (3) consecutive days.

NOTE - The 'Employer Registration' (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30,2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour:

Journeyman	$ 23.42

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: Any holiday which occurs on Sunday shall be observed the following Monday. If Christmas falls on a Saturday, it shall be observed on the prior Friday.

REGISTERED APPRENTICES
CARPENTER APPRENTICES
Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

$ 12.41	$12.41	$15.01	$15.01

PILEDRIVER/DOCK BUILDER APPRENTICES
Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th
65%*	70%*	75%*	80%*

*Pile Driver/Dock Builder apprentices shall receive an additional $0.25 per hour worked when performing piledriving/dock building work.
Supplemental Benefits per hour:

$ 12.41	$ 12.41	$ 15.01	$ 15.01

LINOLEUM, RESILIENT TILE, AND CARPET LAYER APPRENTICES
Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

$ 12.41	$ 12.41	$ 15.01	$ 15.01

ADDITIONAL AMOUNTS PAID PER HOUR WORKED TO APPRENTICES FOR SPECIFIC TYPES OF WORK PERFORMED:

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- Certified welders shall receive $1.00 per hour over the apprentices rate of pay when the apprentice is required to be certified and performs DOT or ABS specified welding work
- When an apprentice performs work within a contaminated area on a State and/or Federally designated hazardous waste site, and where relevant State and/or Federal regulations require the apprentice to be furnished and use or wear required forms of personal protection, then the apprentice shall receive his regular hourly rate plus $1.50 per hour.

2-291B-Alb

Carpenter - Building / Heavy&Highway — 07/01/2023

JOB DESCRIPTION Carpenter - Building / Heavy&Highway **DISTRICT** 2

ENTIRE COUNTIES
Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

PARTIAL COUNTIES
Orange: The area lying on Northern side of Orange County demarcated by a line drawn from the Bear Mountain Bridge continuing west to the Bear Mountain Circle, continue North on 9W to the town of Cornwall where County Road 107 (also known as Quaker Rd) crosses under 9W, then east on County Road 107 to Route 32, then north on Route 32 to Orrs Mills Rd, then west on Orrs Mills Rd to Route 94, continue west and south on Route 94 to the Town of Chester, to the intersection of Kings Highway, continue south on Kings Highway to Bellvale Rd, west on Bellvale Rd to Bellvale Lakes Rd, then south on Bellvale Lakes Rd to Kain Rd, southeast on Kain Rd to Route 17A, then north and southeast along Route 17A to Route 210, then follow Route 210 to NJ Border.

WAGES

Wages per hour:	07/01/2023	07/01/2024 Additional
Carpenter - ONLY for Artificial Turf/Synthetic Sport Surface	$ 34.48	$ 2.25*

*To be allocated at a later date
Note - Does not include the operation of equipment. Please see Operating Engineers rates.

SUPPLEMENTAL BENEFITS
Per hour:

Journeyman	$ 26.30

OVERTIME PAY
See (B, E, Q, X) on OVERTIME PAGE

HOLIDAY
Paid: See (5) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE
Notes:
When a holiday falls upon a Saturday, it shall be observed on the preceding Friday. Whan a holiday falls upon a Sunday, it shall be observed on the following Monday.
An employee taking an unexcused day off the regularly scheduled day before or after a paid Holiday shall not receive Holiday pay.

REGISTERED APPRENTICES
Wages per hour (1300 hour terms at the following percentage of Journeyman's wage):

1st	2nd	3rd	4th
65%	70%	75%	80%

Supplemental Benefits per hour:

1st term	$ 17.56
2nd term	18.04
3rd term	20.06
4th term	20.54

2-42AtSS

Carpenter - Heavy&Highway — 07/01/2023

JOB DESCRIPTION Carpenter - Heavy&Highway **DISTRICT** 2

ENTIRE COUNTIES
Albany, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour	07/01/2023	07/01/2024 Additional
Carpenter	$ 41.32	$ 4.00*

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Piledriver	41.32	4.00*
Diver-Wet Day	66.32	4.00*
Diver-Dry Day	42.32	4.00*
Diver-Tender	42.32	4.00*

*To be allocated at a later date.

NOTE ADDITIONAL AMOUNTS PAID FOR THE FOLLOWING WORK LISTED BELOW (per hour worked):
- When project owner mandates a single irregular work shift, the employee will receive an additional $3.00 per hour. A single irregular work shift can start any time from 5:00 p.m. to 1:00 a.m.
- State or Federal designated hazardous site, requiring protective gear shall be an additional $2.50 per hour.
- Certified welders when required to perform welding work will receive an additional $2.50 per hour.

ADDITIONAL NOTES PERTAINING TO DIVERS/TENDERS:
- Divers and Tenders shall receive one and one half (1 1/2) times their regular diver and tender rate of pay for Effluent and Slurry diving.
- Divers and tenders being paid at the specified rate for Effluent and Slurry diving shall have all overtime rates based on the specified rate plus the appropriate overtime rates (one and one half or two times the specified rate for Slurry and Effluent divers and tenders).
- The pilot of an ADS or submersible will receive one and one-half (1 1/2) times the Diver-Wet Day Rate for time submerged.
- All crew members aboard a submersible shall receive the Diver-Wet Day rate.
- Depth pay for Divers based upon deepest depth on the day of the dive (per diem payment):
  0' to 50' no additional fee
  51'to 100' additional $.50 per foot
  101'to 150' additional $0.75 per foot
  151'and deeper additional $1.25 per foot
- Penetration pay for Divers based upon deepest penetration on the day of the dive (per diem payment):
  0' to 50' no additional fee
  51' to 100' additional $.75 per foot
  101' and deeper additional $1.00 per foot
- Diver rates applies to all hours worked on dive day.

NOTE - The 'Employer Registration' (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30,2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour:

Journeyman	$ 23.75

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
- In the event a Holiday falls on a Saturday, the Friday before will be observed as a Holiday. If a Holiday falls on a Sunday, then Monday will be observed as a Holiday. Employee must work scheduled work day before and after the Holiday.
- The employee must work their scheduled workday before and their scheduled workday after the holiday to receive holiday pay.

REGISTERED APPRENTICES
CAPRENTER APPRENTICES
Wages per hour (1040 hour terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th	5th
65%	70%	75%	80%	85%

Supplemental Benefits per hour:

$ 18.37	$ 18.92	$ 20.97	$ 21.52	$ 22.07

PILEDRIVER/DOCKBUILDER APPRENTICES
Wages per hour (1300 hour terms at the following percentage of journeyman's base wage):

1st	2nd	3rd	4th
65%	70%	80%	85%

Supplemental Benefits per hour:

$ 18.37	$ 18.92	$ 21.52	$ 22.07

NOTE ADDITIONAL AMOUNTS PAID PER HOUR WORKED TO APPRENTICES FOR SPECIFIC TYPES OF WORK PERFORMED:
- When project owner mandates a single irregular work shift, the employee will receive an additional $3.00 per hour. A single irregular work shift can start any time from 5:00 p.m. to 1:00 a.m.

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- State or Federal designated hazardous site, requiring protective gear shall be an additional $2.50 per hour.
- Certified welders when required to perform welding work will receive an additional $2.50 per hour.

2-291HH-Alb

Electrician 07/01/2023

JOB DESCRIPTION Electrician **DISTRICT** 1

ENTIRE COUNTIES
Albany, Columbia, Fulton, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES
Greene: Portion of the County North of a line following the South limits of the City of Catskill in a westerly direction from the Hudson River to State Highway 23A. Then continuing on 23A to the road following the Little West Kill and continuing along this road to Delaware County.
Otsego: Only the Towns of Decatur and Worchester

WAGES
Per hour

	07/01/2023	06/01/2024 Additional
Electrician	$ 46.50	+ $2.24*
Audio/Sound	46.50	+ $2.24*
Video	46.50	+ $2.24*
Tele-Data	46.50	+ $2.24*
Solar/ Photovoltaic	46.50	+ $2.24*

(*) To be allocated at later date.

Notes: An additional 5% above rate for work over 30' above floor and requires use of a safety harness when working on tooth picks, structural steel, temporary platforms, swing scaffolds & boatswain chairs. All OSHA approved lifts are excluded.
An additional 10% above rate on towers & smokestacks over 100' high.
An additional 20% above rate in shafts over 25' deep or tunnels over 50' long that are under construction.
An additional 5% above rate when Journeymen are required to work as Lead (Pb) cable splicers.
An additional 10% above rate when Journeymen Welders are required to have ASME verification.

SUPPLEMENTAL BENEFITS
Per hour

Journeyman	$ 29.91
	+3% of wage

OVERTIME PAY
See (B, *E, Q) on OVERTIME PAGE
* DOUBLE TIME AFTER 10 HOURS ON SATURDAY

For Projects Bid on or Prior to 05/31/2019
NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFTS OF AT LEAST A FIVE (5) DAY DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1st Shift	8:00 AM to 4:30 PM	REGULAR RATE
2nd Shift	4:30 PM to 1:00 AM	REGULAR RATE PLUS 10%
3rd Shift	12:30 AM to 9:00 AM	REGULAR RATE PLUS 15%

For Projects Bid on or After 06/01/2019

1st Shift	8:00 AM to 4:30 PM	REGULAR RATE
2nd Shift	4:30 PM to 1:00 AM	REGULAR RATE PLUS 17.3%
3rd Shift	12:30 AM to 9:00 AM	REGULAR RATE PLUS 31.4%

For Projects Bid on or After 09/01/2019
NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SINGLE IRREGULAR SHIFTS OF AT LEAST A FIVE (5) DAY DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1st Shift	8:00 AM to 4:30 PM	REGULAR RATE
2nd Shift	4:30 PM to 1:00 AM	REGULAR RATE PLUS 17.3%
3rd Shift	12:30 AM to 9:00 AM	REGULAR RATE PLUS 31.4%

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: If the holiday falls on Saturday, it shall be celebrated on Friday. If the holiday falls on Sunday, it shall be celebrated on Monday.

REGISTERED APPRENTICES
Wages per hour

Terms at the following percentage of Journeyman's wage.

DRAFT

0-6mo	6-12mo	2nd yr	3rd yr	4th yr	5th yr
40%	45%	50%	60%	70%	80%

Notes: An additional 5% above rate for work over 30' above floor and requires use of a safety harness when working on tooth picks, structural steel, temporary platforms, swing scaffolds & boatswain chairs. All OSHA approved lifts are excluded.
An additional 10% above rate on towers & smoke stacks over 100' high.
An additional 20% above rate in shafts over 25' deep or tunnels over 50' long that are under construction.

Apprentices indentured on or before 12/31/2018

$29.91

Apprentices indentured on or after 01/01/2019

Supplemental Benefits per hour worked

0-12 month term	$ 15.02**
2nd year term	24.19**
3rd year term	25.33**
4th year term	26.48**
5th year term	27.62**

(**) Plus additional 3% of wage

1-236

Elevator Constructor — 07/01/2023

JOB DESCRIPTION Elevator Constructor **DISTRICT** 1

ENTIRE COUNTIES
Albany, Clinton, Essex, Fulton, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES
Madison: Madison Only the towns of: Brookfield, Hamilton, Lincoln, Madison, Smithfield, Stockbridge and the City of Oneida
Oneida: Entire county except the towns of: Camden, Florence, and Vienna.

WAGES
Per hour

	07/01/2023	01/01/2024
Mechanic	$ 53.02	$ 55.32
Helper	70% of Mechanic Wage Rate	70% of Mechanic Wage Rate

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour

	07/01/2023	01/01/2024
Journeyperson/Helper	$ 37.335*	$ 37.885*

(*)Plus 6% of hourly rate, if less than 5 years of service. Plus 8% of hourly rate, if more than 5 years of service.

OVERTIME PAY
See (D, O) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6, 15, 16) on HOLIDAY PAGE
Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE
Note: When a paid holiday falls on Saturday, it shall be observed on Friday. When a paid holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES
Wages per hour:

DRAFT

0-6 mo*	6-12 mo	2nd yr	3rd yr	4th yr
50%	55 %	65 %	70 %	80 %

(*)Plus 6% of the hourly rate, no additional supplemental benefits.

Supplemental Benefits - per hour worked:

Same as Journeyperson/Helper

1-35

Glazier 07/01/2023

JOB DESCRIPTION Glazier **DISTRICT** 1

ENTIRE COUNTIES
Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES
Per hour

	07/01/2023
Glazier Base Wage	$ 32.16
Plus additional $4.10 per hour for all hours worked, not subject to overtime/premium	
High Work Base Wage***	$ 34.31
Plus additional $4.10 per hour for all hours worked, not subject to overtime/premium	

(***)When working on Swing Stage or Lift 100 feet or more in height, measured from the ground level up.

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour

Journeyman	$ 22.65
Journeyman High Work	$ 28.30

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE
Premium is applied to the respective base wage only.

THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFT WORK OR SINGLE IRREGULAR SHIFTS STARTING BETWEEN THE HOURS LISTED BELOW:

4:00pm to 6:30am: ADDITIONAL 12.5% TO APPLICABLE WAGE RATE AND SUPPLEMENTAL BENEFIT

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: If any of the holidays are designated by federal law to be celebrated on a day other than that on which they regularly fall, then the holiday shall be celebrated on the day set by said federal law as if the day on which the holiday is celebrated was actually the holiday date.

REGISTERED APPRENTICES
Wages per hour

Apprentice Glazier 1500 hr. terms at the following percentage of Journeymans base wage.

1st	2nd	3rd	4th
50%	65%	75%	90%

+ additional $4.10 per hour for all hours worked for all terms

Apprentice Glazier Hi-Work 1500 hr. terms at the following percentage of Journeymans Hi-Work base wage.

1st	2nd	3rd	4th

DRAFT

50% 65% 75% 90%
+ additional $4.10 per hour for all hours worked for all terms

Supplemental Benefits per hour worked

Apprentice	
1st term	$ 18.98
2nd-4th term	22.65
Apprentice High Work	
1st term	22.45
2nd-4th term	28.30

1-201

Insulator - Heat & Frost — 07/01/2023

JOB DESCRIPTION Insulator - Heat & Frost **DISTRICT** 1

ENTIRE COUNTIES
Albany, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Sullivan, Ulster, Warren, Washington

WAGES

Wages per hour	07/01/2023	05/01/2024 Additional
Asbestos Worker*	$ 39.68	+ $2.00**
Insulator*	39.68	
Firestopping Worker*	33.73	

(*) On Mechanical Systems only.
(**) To be allocated at later date.
On government mandated shift work additional 12% of wage for all shifts starting after 3:30 P.M.

SUPPLEMENTAL BENEFITS
Per hour

Journeyperson	$ 25.64

OVERTIME PAY
See (*B1, **Q) on OVERTIME PAGE
*B1=Double time begins after 10 hours on Saturday
**Q=Triple time on Labor Day if worked.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
When a holiday falls on Sunday the following Monday shall be observed as the holiday.

REGISTERED APPRENTICES
Wages per hour

one year terms at the following percentage of Journeyperson's wage.

1st	2nd	3rd	4th
60 %	70 %	80 %	90 %

Supplemental Benefits per hour worked:

Apprentices	$ 25.64

1-40

Ironworker — 07/01/2023

JOB DESCRIPTION Ironworker **DISTRICT** 1

ENTIRE COUNTIES
Albany, Clinton, Columbia, Delaware, Essex, Greene, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES
Fulton: Only the Townships of Broadalbin, Mayfield, Northampton, Bleecker and Johnstown.
Hamilton: Only the Townships of Hope, Benson and Wells.
Montgomery: Only the Townships of Florida, Amsterdam, Charleston, Glen, Mohawk and Root.
Otsego: Only the Towns of Unadilla, Butternuts, Morris, Otego, Oneonta, Laurens, Millford, Maryland and Worchester.

WAGES

DRAFT

Wages Per hour	07/01/2023
Ornamental	$ 34.50
Reinforcing	34.50
Rodman	34.50
Structural & Precast	34.50
Mover/Rigger	34.50
Fence Erector	34.50
Stone Derrickman	34.50
Sheeter	34.75
Curtain Wall Installer	34.50
Metal Window Installer	34.50

SUPPLEMENTAL BENEFITS
Per hour

JOURNEYPERSON	$ 31.64

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE
THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTWORK:

1st Shift	6:00 AM to 4:30 PM	REGULAR RATE
2nd Shift	2:00 PM to 7:00 PM	REGULAR RATE PLUS 10%
3rd Shift	7:00 PM to 12:00 AM	REGULAR RATE PLUS 15%

THE FOLLOWING RATE WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SINGLE IRREGULAR SHIFTS:

Shift Starting 4:30 PM to 12:00 AM	REGULAR RATE PLUS 10%

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: Any holiday which occurs on Sunday shall be observed the following Monday.

REGISTERED APPRENTICES
Wages per hour
ONE YEAR TERMS AT THE FOLLOWING WAGE RATES:

	07/01/2023
1st year	$ 19.50
2nd year	21.50
3rd year	23.50
4th year	25.50

Supplemental Benefits per hour worked	
1st year	$ 12.28
2nd year	24.30
3rd year	26.00
4th year	27.72

1-12

Laborer - Building — 07/01/2023

JOB DESCRIPTION Laborer - Building **DISTRICT** 1

ENTIRE COUNTIES
Schenectady, Schoharie

PARTIAL COUNTIES
Fulton: Only the Townships of Bleeker, Mayfield, Northampton, Johnstown,Broadalbin and Perth.
Montgomery: Only the Townships of Mohawk, Glen, Charleston, Amsterdam, and Florida.
Saratoga: Only the Townships of Day, Hadley, Edinburg, Corinth, Moreau,South Glens Falls, Providence, Greenfield, Wilton, Galway, Northumberland, Milton, Saratoga Springs, Charlton, Ballston, Malta and Clifton Park.

WAGES
Per hour

	07/01/2023	07/01/2024 Additional
Group #1:		
All Classifications	$ 36.54	+ $2.50*

DRAFT

except as noted in
Groups 2 & 3

Group #2:
Blaster, Drilling equipment only where a separate air compressor unit supplies power, Metal formsetter (sidewalk), Well pointing & Laser operator $ 37.04 + $2.50*

Group #3:
Handling of Asbestos or Toxic Materials $ 37.89 + $2.50*

(*) To be allocated at later date.

SUPPLEMENTAL BENEFITS
Per hour

Journeyman $ 23.46

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour
1000 Hour terms at the following percentage of Journeyman's basic hourly wage.

1st	2nd	3rd	4th
65 %	70 %	80 %	80 %

Supplemental Benefits per hour worked

	07/01/2023
Apprentices	$ 23.46

1-157

Laborer - Heavy&Highway **07/01/2023**

JOB DESCRIPTION Laborer - Heavy&Highway **DISTRICT** 1

ENTIRE COUNTIES
Schenectady, Schoharie

PARTIAL COUNTIES
Fulton: Only the Townships of Bleeker, Mayfield, Northampton, Johnstown,Broadalbin and Perth.
Montgomery: Only the Townships of Mohawk, Glen, Charleston, Amsterdam, and Florida.
Saratoga: Only the Townships of Day, Hadley, Edinburg, Corinth, Moreau,South Glens Falls, Providence, Greenfield, Wilton, Galaway, Northumberland, Milton, Saratoga Springs, Charlton, Ballston, Malta and Clifton Park

WAGES
GROUP # A:
Basic, Drill Helper, Flagman, Outboard and Hand Boats.

GROUP # B:
Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of Steelmesh, Small Generators for Laborers, Tools Installation of Bridge Drainage Pipe, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor, Tail or Screw Operator on Asphalt Paver, Water Pump Operators(1-1/2" and Single Diaphragm) Nozzle (Asphalt, Gunite, Seeding, and Sand Blasting), Laborers on Chain Link Fence, Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer.

GROUP # C:
Drilling Equipment Only Where a Separate Air Compressor Unit Supplies Power, Acetylene Torch Operators, Asphalt Paver/Raker and Powderman.

GROUP # D:
Blasters, Metal Form Setters (sidewalk), Stone or Granite Curb Setters.

GROUP # E:

DRAFT

Employees performing hazardous waste removal, lead abatement and removal, or asbestos abatement and removal on a State and/or Federally designated waste site & where relevant State or Federal regulations require employees to use or wear forms of personal protection.

WAGES per hour	07/01/2023	07/01/2024 Additional
Group # A	$ 39.19	+ $3.25*
Group # B	39.39	+ $3.25*
Group # C	39.59	+ $3.25*
Group # D	39.79	+ $3.25*
Group # E	41.69	+ $3.25*

(*) To be allocated at later date.

All employees who work a single irregular workday that starts from 5:00 pm to 1:00 am on a governmental mandated night shift shall be paid an additional $5.00 per hour.

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour

Journeyman $ 26.90

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: If the holiday falls on Sunday, it will be celebrated on Monday. If the Monday Holiday is worked it will be paid at double time plus the Holiday pay. If the Holiday falls on a Saturday employer can choose to celebrate Saturday or give Friday off with pay. If the Saturday Holiday is worked it will be paid at double time plus the Holiday pay

REGISTERED APPRENTICES
Wages per hour

1000 HOUR TERMS AT THE FOLLOWING PERCENTAGE OF JOURNEYMAN'S BASE WAGE

1ST	2ND	3RD	4TH
65 %	70 %	80 %	80 %

Supplemental Benefits per hour worked

	07/01/2023
Apprentices	$ 26.90

1-157h/h

Laborer - Tunnel — 07/01/2023

JOB DESCRIPTION Laborer - Tunnel **DISTRICT** 1

ENTIRE COUNTIES
Albany, Fulton, Hamilton, Herkimer, Madison, Montgomery, Oneida, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

WAGES
Class 1: All support laborers/sandhogs working above the shaft or tunnel

Class 2: All laborers/sandhogs working in the shaft or tunnel

Class 4: Safety Miners

Class 5: Site work related to Shaft/Tunnel

Per Hour

	07/01/2023

DRAFT

Class 1	$ 45.65
Class 2	47.65
Class 4	49.90
Class 5	41.15

Toxic and hazardous waste, lead abatement and asbestos abatement work will be paid an additional $ 3.00 an hour.

All Government mandated irregular shift work Monday through Saturday is subject to Premium rate. All Government mandated irregular shift work that falls on Sunday is subject to double Premium rate.

SUPPLEMENTAL BENEFITS
Per hour

Journeyman	$ 26.91
	+1.59*

*This portion of the benefit is NOT subject to the SAME PREMIUM as shown for overtime

OVERTIME PAY
See (B, E, Q, V, X) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6, 15, 25) on HOLIDAY PAGE
Overtime: See (5, 6, 15, 16, 25) on HOLIDAY PAGE
Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES
FOR APPRENTICE RATES, refer to the appropriate Laborer Heavy & Highway wage rate contained in the wage schedule for the County and Location where the work is to be performed.

1-190/157T

Lineman Electrician — 07/01/2023

JOB DESCRIPTION Lineman Electrician **DISTRICT** 6

ENTIRE COUNTIES
Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES
A Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors, assembly of all electrical materials, conduit, pipe, or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

A Groundman/Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator/equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/truck driver may assist in installing conduit, pipe, cables and equipment.

NOTE: Includes Teledata Work within ten (10) feet of High Voltage Transmission Lines. Also includes digging of holes for poles, anchors, footer, and foundations for electrical equipment.

Below rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of fiber optic cable where no other construction trades are or have been involved. (Ref #14.01.01)

Per hour:	07/01/2023	05/06/2024
Lineman, Technician	$ 57.40	$ 58.90
Crane, Crawler Backhoe	57.40	58.90
Welder, Cable Splicer	57.40	58.90
Digging Mach. Operator	51.66	53.01
Tractor Trailer Driver	48.79	50.07
Groundman, Truck Driver	45.92	47.12
Equipment Mechanic	45.92	47.12
Flagman	34.44	35.34

DRAFT

Additional $1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work". (Ref #14.02.01-A)

Lineman, Technician	$ 57.40	$ 58.90
Crane, Crawler Backhoe	57.40	58.90
Cable Splicer	63.14	64.79
Certified Welder,		
Pipe Type Cable	60.27	61.85
Digging Mach. Operator	51.66	53.01
Tractor Trailer Driver	48.79	50.07
Groundman, Truck Driver	45.92	47.12
Equipment Mechanic	45.92	47.12
Flagman	34.44	35.34

Additional $1.00 per hour for entire crew when a helicopter is used.

Below rates apply on switching structures, maintenance projects, railroad catenary install/maintenance third rail installation, bonding of rails and pipe type cable and installation of fiber optic cable. (Ref #14.02.01-B)

Lineman, Tech, Welder	$ 58.72	$ 60.22
Crane, Crawler Backhoe	58.72	60.22
Cable Splicer	64.59	66.24
Certified Welder,		
Pipe Type Cable	61.66	63.23
Digging Mach. Operator	52.85	54.20
Tractor Trailer Driver	49.91	51.19
Groundman, Truck Driver	46.98	48.18
Equipment Mechanic	46.98	48.18
Flagman	35.23	36.13

Additional $1.00 per hour for entire crew when a helicopter is used.

Below rates applicable on all overhead and underground transmission line work & fiber optic cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction. (Ref #14.03.01)

Lineman, Tech, Welder	$ 59.91	$ 61.41
Crane, Crawler Backhoe	59.91	61.41
Cable Splicer	59.91	61.41
Digging Mach. Operator	53.92	55.27
Tractor Trailer Driver	50.92	52.20
Groundman, Truck Driver	47.93	49.13
Equipment Mechanic	47.93	49.13
Flagman	35.95	36.85

Additional $1.00 per hour for entire crew when a helicopter is used.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT	8:00 AM to 4:30 PM REGULAR RATE
2ND SHIFT	4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3 %
3RD SHIFT	12:30 AM to 9:00 AM REGULAR RATE PLUS 31.4 %

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour:

	07/01/2023	05/06/2024

DRAFT

Lineman, Technician, or Equipment Operators with Crane License	$ 29.40 *plus 7% of the hourly wage paid	$ 30.90 *plus 7% of the hourly wage paid
All other Journeyman	$ 26.40 *plus 7% of the hourly wage paid	$ 26.90 *plus 7% of the hourly wage paid

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY
See (B, E, Q, X) on OVERTIME PAGE. *Note* Double time for all emergency work designated by the Dept. of Jurisdiction.
NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY

Paid	See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.
Overtime	See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES
WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

07/01/2023	05/06/2024
$ 26.40 *plus 7% of the hourly wage paid	$ 26.90 *plus 7% of the hourly wage paid

*The 7% is based on the hourly wage paid, straight time or premium time.

6-1249a

Lineman Electrician - Teledata — 07/01/2023

JOB DESCRIPTION Lineman Electrician - Teledata **DISTRICT** 6

ENTIRE COUNTIES
Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES
Per hour:

For outside work, stopping at first point of attachment (demarcation).

	07/01/2023	01/01/2024	01/01/2025
Cable Splicer	$ 37.73	$ 39.24	$ 40.81
Installer, Repairman	$ 35.81	$ 37.24	$ 38.73
Teledata Lineman	$ 35.81	$ 37.24	$ 38.73
Tech., Equip. Operator	$ 35.81	$ 37.24	$ 38.73
Groundman	$ 18.98	$ 19.74	$ 20.53

NOTE: EXCLUDES Teledata work within ten (10) feet of High Voltage (600 volts and over) transmission lines. For this work please see LINEMAN.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED:

1ST SHIFT	REGULAR RATE

DRAFT

2ND SHIFT	REGULAR RATE PLUS 10%
3RD SHIFT	REGULAR RATE PLUS 15%

SUPPLEMENTAL BENEFITS

Per hour:	07/01/2023	01/01/2024	01/01/2025
Journeyman	$ 5.70 *plus 3% of the hourly wage paid	$ 5.70 *plus 3% of the hourly wage paid	$ 5.70 *plus 3% of the hourly wage paid

*The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE
NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

6-1249LT - Teledata

Lineman Electrician - Traffic Signal, Lighting — 07/01/2023

JOB DESCRIPTION Lineman Electrician - Traffic Signal, Lighting **DISTRICT** 6

ENTIRE COUNTIES
Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

WAGES
Lineman/Technician shall perform all overhead aerial work. A Lineman/Technician on the ground will install all electrical panels, connect all grounds, install and connect all electrical conductors which includes, but is not limited to road loop wires; conduit and plastic or other type pipes that carry conductors, flex cables and connectors, and to oversee the encasement or burial of such conduits or pipes.

A Groundman/Truck Driver shall: Build and set concrete forms, handle steel mesh, set footer cages, transport concrete in a wheelbarrow, hand or machine concrete vibrator, finish concrete footers, mix mortar, grout pole bases, cover and maintain footers while curing in cold weather, operate jack hammer, operate hand pavement breaker, tamper, concrete and other motorized saws, as a drill helper, operate and maintain generators, water pumps, chainsaws, sand blasting, operate mulching and seeding machine, air tools, electric tools, gas tools, load and unload materials, hand shovel and/or broom, prepare and pour mastic and other fillers, assist digger operator/equipment operator in ground excavation and restoration, landscape work and painting. Only when assisting a lineman technician, a groundman/truck driver may assist in installing conduit, pipe, cables and equipment.

A flagger's duties shall consist of traffic control only.
(Ref #14.01.01)

Per hour:	07/01/2023	05/06/2024
Lineman, Technician	$ 49.32	$ 50.54
Crane, Crawler Backhoe	49.32	50.54
Certified Welder	51.79	53.07
Digging Machine	44.39	45.49
Tractor Trailer Driver	41.92	42.96
Groundman, Truck Driver	39.46	40.43
Equipment Mechanic	39.46	40.43
Flagman	29.59	30.32

Above rates are applicable for installation, testing, operation, maintenance and repair on all Traffic Control (Signal) and Illumination (Lighting) projects, Traffic Monitoring Systems, and Road Weather Information Systems. Includes digging of holes for poles, anchors, footer foundations for electrical equipment; assembly of all electrical materials or raceway; placing of fish wire; pulling of cables, wires or fiber optic cable through such raceways; splicing of conductors; dismantling of such structures, lines or equipment.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED MULTIPLE SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT	8:00 AM TO 4:30 PM	REGULAR RATE
2ND SHIFT	4:30 PM TO 1:00 AM	REGULAR RATE PLUS 17.3%
3RD SHIFT	12:30 AM TO 9:00 AM	REGULAR RATE PLUS 31.4%

DRAFT

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour worked (but also required on non-worked holidays):

	07/01/2023	05/06/2024
Lineman, Technician, or Equipment Operators with Crane License	$ 29.40 *plus 7% of the hourly wage paid	$ 30.90 *plus 7% of the hourly wage paid
All other Journeyman	$ 26.40 *plus 7% of the hourly wage paid	$ 26.90 *plus 7% of the hourly wage paid

*The 7% is based on the hourly wage paid, straight time or premium time.

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE. *Note* Double time for all emergency work designated by the Dept. of Jurisdiction.
NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY
Paid: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.
Overtime: See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Governor of NYS Election Day.

NOTE: All paid holidays falling on Saturday shall be observed on the preceding Friday. All paid holidays falling on Sunday shall be observed on the following Monday. Supplements for holidays paid at straight time.

REGISTERED APPRENTICES
WAGES per hour: 1000 hour terms at the following percentage of the applicable Journeyman Lineman wage.

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

SUPPLEMENTAL BENEFITS per hour:

07/01/2023	05/06/2024
$ 26.40 *plus 7% of the hourly wage paid	$ 26.90 *plus 7% of the hourly wage paid

*The 7% is based on the hourly wage paid, straight time or premium time.

6-1249a-LT

Lineman Electrician - Tree Trimmer **07/01/2023**

JOB DESCRIPTION Lineman Electrician - Tree Trimmer **DISTRICT** 6

ENTIRE COUNTIES
Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES
Applies to line clearance, tree work and right-of-way preparation on all new or existing energized overhead or underground electrical, telephone and CATV lines. This also would include stump removal near underground energized electrical lines, including telephone and CATV lines.

Per hour:	07/01/2023	12/31/2023
Tree Trimmer	$ 29.80	$ 31.44

DRAFT

Equipment Operator	26.35	27.80
Equipment Mechanic	26.35	27.80
Truck Driver	21.95	23.15
Groundman	18.07	19.07
Flag person	14.20	14.20*

*NOTE- Rate effective on 01/01/2024 - $15.00 due to minimum wage increase

SUPPLEMENTAL BENEFITS
Per hour:

	07/01/2023	12/31/2023
Journeyman	$ 10.48 *plus 4.5% of the hourly wage paid	$ 10.48 *plus 4.5% of the hourly wage paid

* The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY
See (B, E, Q, X) on OVERTIME PAGE
NOTE: WAGE CAP - Double the straight time hourly base wage shall be the maximum hourly wage compensation for any hour worked. Contractor is still responsible to pay the hourly benefit amount for each hour worked.

HOLIDAY
Paid: See (5, 6, 8, 15) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 15, 16, 25) on HOLIDAY PAGE
NOTE: All paid holidays falling on a Saturday shall be observed on the preceding Friday.
All paid holidays falling on a Sunday shall be observed on the following Monday.

6-1249TT

Mason - Building — 07/01/2023

JOB DESCRIPTION Mason - Building **DISTRICT** 12

ENTIRE COUNTIES
Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES
Per hour 07/01/2023

Tile/Marble/Terrazzo

Setter	$ 37.41
Finisher	29.14

NOTE - The 'Employer Registration' (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30,2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour worked

Journeyman Setter	$ 21.83
Journeyman Finisher	18.87

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wages per hour

Hour Terms at the following percentage of Journeyman's wage

Setter:

DRAFT

1st term 0-500 hrs	60%
2nd term 501-1500 hrs	70%
3rd term 1501-2500 hrs	80%
4th term 2501-3500 hrs	85%
5th term 3501-4500 hrs	90%
6th term 4501-6000 hrs	95%

Finisher:

1st term 0-500 hrs	70%
2nd term 501-1500 hrs	80%
3rd term 1501-2500 hrs	90%
4th term 2501-3700 hrs	95%

Supplemental Benefits per hour worked

	07/01/2023
Setter:	
1st term 0-500 hrs	$ 12.98
2nd term 501-1500 hrs	12.98
3rd term 1501-2500 hrs	17.40
4th term 2501-3500 hrs	17.40
5th term 3501-4500 hrs	19.61
6th term 4501-6000 hrs	21.83

Finisher:

1st term 0-500 hrs	$ 12.22
2nd term 501-1500 hrs	12.22
3rd term 1501-2500 hrs	15.54
4th term 2501-3700 hrs	15.54

12-2TS.1

Mason - Building — 07/01/2023

JOB DESCRIPTION Mason - Building **DISTRICT** 12

ENTIRE COUNTIES
Albany, Columbia, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES
Warren: Only the Townships of Bolton, Lake George, Lake Luzerne,Queensbury, Stony Creek, Thurman & Warrensburg.

WAGES
Per hour

	07/01/2023
Bricklayer	$ 40.24
Cement Mason(Bldg)	40.24
Plasterer/Fireproofing*	40.24
Pointer/Caulker/Cleaner	40.24
Stone Mason	40.24
Acid Brick	40.74

(*)Fireproofing of Structural only.

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30,2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour worked

Journeyman	$ 23.13

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: Any holiday which occurs on Sunday shall be observed the following Monday.

REGISTERED APPRENTICES

DRAFT

Wages per hour

750 hour terms at the following percentage of Journey's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
60%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

All Terms $ 23.13

12-2b.1

Mason - Heavy&Highway 07/01/2023

JOB DESCRIPTION Mason - Heavy&Highway **DISTRICT** 12

ENTIRE COUNTIES
Albany, Cayuga, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Madison, Montgomery, Oneida, Oswego, Rensselaer, Saratoga, Schenectady, Schoharie, St. Lawrence, Warren, Washington

PARTIAL COUNTIES
Onondaga: For Heavy & Highway Cement Mason or Plaster Work in Onondaga County, refer to Mason-Heavy&Highway tag 1-2h/h on.

WAGES
Per hour

	07/01/2023
Mason & Bricklayer	$ 41.46

Additional $1.00 per hour for work on any swing scaffold or staging suspended by means of ropes or cables.

SUPPLEMENTAL BENEFITS
Per hour worked

Journeyman $ 21.98

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: If a holiday falls on Sunday, the Monday following shall constitute the day of the legal holiday.

REGISTERED APPRENTICES
Wages per hour

750 HR TERMS at the following percent of Journeyman's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
60%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

0 to 500 Hours	$ 13.38
All Other	21.98

12-2hh.1

Millwright 07/01/2023

JOB DESCRIPTION Millwright **DISTRICT** 6

ENTIRE COUNTIES
Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES
THE FOLLOWING RATE APPLIES TO ANY GAS/STEAM TURBINE AND OR RELATED COMPONENT WORK, INCLUDING NEW INSTALLATIONS OR MAINTENANCE AND ANY/ALL WORK PERFORMED WITHIN THE PROPERTY LIMITS OF A NUCLEAR FACILITY.

Per hour:	07/01/2023	07/01/2024	07/01/2025

DRAFT

		Additional	Additional
Millwright - Power Generation	$ 43.05	$ 2.50	$2.50

NOTE: ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):
- Certified Welders shall receive an additional $1.75 per hour provided he/she is directed to perform certified welding.
- If a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) are required, then that employee shall receive an additional $1.50 per hour.
- An employee performing the work of a machinist shall receive an additional $2.00 per hour. For the purposes of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional $1.00 per hour.

SUPPLEMENTAL BENEFITS
Per hour paid:

Journeyman	$ 27.40*

*NOTE: Subject to OT premium

OVERTIME PAY
See (B, E, E2, Q, V) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
NOTE: Any holiday that falls on Sunday shall be observed the following Monday. Any holiday that falls on Saturday shall be observed the preceding Friday.

REGISTERED APPRENTICES
WAGES per hour: One year terms at the following percentage of Journeyman's wage:

Appr. 1st year	65 %*
Appr. 2nd year	75 %*
Appr. 3rd year	80 %*
Appr. 4th year	90 %*

*NOTE: Additional premium for the following work listed below:

Certified Welder	$ 1.75
Hazardous Waste Work	1.50
Machinist	2.00
Underground (500' and below)	1.00

SUPPLEMENTAL BENEFITS per hour:

Appr. 1st year	$ 11.89
Appr. 2nd year	22.75
Appr. 3rd year	24.30
Appr. 4th year	25.85

6-1163Power

Millwright **07/01/2023**

JOB DESCRIPTION Millwright **DISTRICT** 2

ENTIRE COUNTIES
Albany, Chenango, Delaware, Fulton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie

WAGES

Per hour:	07/01/2023	07/01/2024 Additional	07/01/2025 Additional
Building	$ 37.43	$ 2.50*	$ 2.50*
Heavy & Highway	40.43	3.00*	2.50*

*To be allocated at a later date

NOTE ADDITIONAL PREMIUMS PAID FOR THE FOLLOWING WORK LISTED BELOW (amount subject to any overtime premiums):
- Certified Welders shall receive $1.75 per hour in addition to the current Millwrights rate provided he/she is directed to perform certified welding.
- For Building work if a work site has been declared a hazardous site by the Owner and the use of protective gear (including, as a minimum, air purifying canister-type chemical respirators) are required, then that employee shall receive a $1.50 premium per hour for Building work.

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- For Heavy & Highway work if the work is performed at a State or Federally designated hazardous waste site where employees are required to wear protective gear, the employees performing the work shall receive an additional $2.00 per hour over the millwright heavy and highway wage rate for all hours worked on the day protective gear was worn.
- An employee performing the work of a machinist shall receive $2.00 per hour in addition to the current Millwrights rate. For the purposes of this premium to apply, a "machinist" is a person who uses a lathe, Bridgeport, milling machine or similar type of tool to make or modify parts.
- When performing work underground at 500 feet and below, the employee shall receive an additional $1.00.

SUPPLEMENTAL BENEFITS
Per hour:

Journeyman	$ 26.32

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: Any holiday that falls on Sunday shall be observed the following Monday. Any holiday that falls on Saturday shall be observed the preceding Friday.

REGISTERED APPRENTICES
Wages per hour:

(1)year terms at the following percentage of Journeyman's rate.

1st	2nd	3rd	4th
65%	75%	80%	90%

Supplemental Benefits per hour:

Apprentices:

1st term	$ 12.04
2nd term	22.04
3rd term	23.47
4th term	24.89

2-1163.1

Operating Engineer - Building — 07/01/2023

JOB DESCRIPTION Operating Engineer - Building **DISTRICT** 1

ENTIRE COUNTIES
Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES
Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedell Road then east along Bedell Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES
CLASS A1*: Cranes, tower cranes, hydraulic cranes, locomotive crane, piledriver, cableway, derricks, whirlies, dragline, boom trucks (over 5 tons).

CLASS A:
Shovel, Excavators 18,001 lbs. and above(including rubber tire full swing), Gradalls, power road grader, all CMI equipment, front-end rubber tire loader, tractor-mounted drill (quarry master), mucking machine, concrete central mix plant, concrete pump, belcrete system, automated asphalt concrete plant, and tractor road paver, boom trucks 5 tons and under, maintenance engineer, self-contained crawler drill-hydraulic rock drill.

CLASS B:
Excavators 18,000 lbs. and under, Backhoes (rubber tired backhoe/loader combination), bulldozer, pushcat, tractor, traxcavator, scraper, LeTourneau grader, form fine grader, self-propelled soil compactor (fill roller), asphalt roller, blacktop spreader, power brooms, sweepers, trenching machine, Barber Green loader, side booms, hydro hammer, concrete spreader, concrete finishing machine, one drum hoist, power hoisting (single drum), hoist two drum or more, three drum engine, power hoisting (two drum and over), two drum and swinging engine, three drum swinging engine, hod hoist, A-L frame winches, core and well drillers (one drum), post hole digger, model CHB Vibro-Tamp or similar machine, batch bin and plant operator, dinky locomotive, skid steer loader, track excavator 5/8 cubic yard or smaller, front end rubber tired loader under four cubic yards, vacum machine (mounted or towed).

CLASS C:

DRAFT

Fork lift, high lift, all terrain fork lift: or similar, oiler, fireman and heavy-duty greaser, boilers and steam generators, pump, vibrator, motor mixer, air compressor, dust collector, welding machine, well point, mechanical heater, generators, temporary light plants, electric submersible pumps 4" and over, murphy type diesel generator, conveyor, elevators, concrete mixer, beltcrete power pack (belcrete system), seeding, and mulching machines, pumps, rotating telehandler (that does not require NYS crane license).

*** In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES per hour

	07/01/2023	07/01/2024
Class A1*	$ 50.93	$ 53.11
Class A	50.44	52.62
Class B	49.42	51.60
Class C	46.52	48.70

(*) TONNAGE RATING PREMIUMS:
Note: Additional value subject to same premiums as shown for OT
All cranes 1000 tons and over, A1 rate plus $7.00
All cranes 800-999 tons, A1 rate plus $6.00
All cranes 600-799 tons, A1 rate plus $5.00
All cranes 400-599 tons, A1 rate plus $4.00
All cranes 200-399 tons, A1 rate plus $3.00
All cranes 111-199 tons, A1 rate plus $2.25
All cranes 110 tons and under, A1 rate only

Additional $0.50 per hr on A1 rate for Tower Cranes.
Additional $2.50 per hr over B rate for Nuclear Leader work.
Additional $2.50 per hour if work requires Personal Protective Equipment for hazardous waste site activities with a level C or over rating.

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour

	07/01/2023	07/01/2024
Journeyman	$ 31.30	$32.40

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
NOTE: All hours worked on designated holidays shall be paid a double the hourly rate of pay plus 8 hours of straight time.
NOTE: If a holiday falls on Sunday, it will be celebrated on Monday. If the holiday falls on Saturday, it will be celebrated on Friday.

REGISTERED APPRENTICES
Wages per hour

1000 hours terms at the following percentage of Journeyperson's wage Class B

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour worked

	07/01/2023	07/01/2024
All terms	$ 26.60	$27.70

1-158 Alb

Operating Engineer - Heavy&Highway **07/01/2023**

DRAFT

JOB DESCRIPTION Operating Engineer - Heavy&Highway **DISTRICT** 1

ENTIRE COUNTIES
Albany, Broome, Chenango, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

PARTIAL COUNTIES
Dutchess: Defined as north of the northern boundary line of City of Poughkeepsie then due east to Route 115 to Bedell Road then east along Bedell Road to VanWagner Road then north along VanWagner Road to Bower Road then east along Bower Road to Rte. 44 east to Route 343 then along Route 343 east to the northern boundary of Town of Dover Plains and east along the northern boundary of Town of Dover Plains to Connecticut.

WAGES
CLASSIFICATION A1*: All Cranes

CLASSIFICATION A:
Asphalt Curb Machine (Self Propelled, Slipform), Asphalt Paver, Automated Concrete Spreader (CMI Type), Automatic Fine Grader, Backhoe (Except Tractor Mounted, Rubber Tired), Backhoe Excavator Full Swing (CAT 212 or similar type), Back Filling Machine, Belt Placer (CMI Type), Blacktop Plant (Automated), Blacktop Roller, Boom truck, GPS operated Bull Dozer, Cableway, Caisson Auger, Central Mix Concrete Plant (Automated), Concrete Curb Machine (Self Propelled, Slipform), Concrete Pump, Crane, Cherry Picker, Derricks (steel erection), Dragline, Overhead Crane (Gantry or Straddle type), Pile Driver, Truck Crane, Directional Drilling Machine, Dredge, Dual Drum Paver, Excavator (All PurposeHydraulically Operated) (Gradall or Similar), Front End Loader (4 cu. yd. and Over), Head Tower (Sauerman or Equal), Hoist (Two or Three Drum), Holland Loader, Maintenance Engineer, Mine Hoist, Mucking Machine or Mole, Pavement Breaker(SP) Wertgen; PB-4 and similar type, Power Grader, Profiler (over 105 H.P.), Quad 9, Quarry Master (or equivalent), Rotating Telehandler, Scraper (Including Challenger Type), Shovel, Side Boom, Slip Form Paver (If a second man is needed, he shall be an Oiler), Tractor Drawn BeltType Loader, Truck or Trailer Mounted Log Chipper (Self Feeder), Tug Operator (Manned Rented Equipment Excluded), Tunnel Shovel

CLASSIFICATION B:
Backhoe (Tractor Mounted, Rubber Tired), Bituminous Recycler Machine, Bituminous Spreader and Mixer, Blacktop Plant (NonAutomated), Blast or Rotary Drill (Truck or Tractor Mounted), Brokk, Boring Machine, Cage Hoist, Central Mix Plant [(NonAutomated) and All Concrete Batching Plants], Concrete Paver (Over 16S), Crawler Drill (Self-contained), Crusher, Diesel Power Unit, Drill Rigs, Tractor Mounted, Front End Loader (Under 4 cu. yd.), Greaseman/Lubrication Engineer, HiPressure Boiler (15 lbs. and over), Hoist (One Drum), Hydro-Axe, Kolman Plant Loader and Similar Type Loaders (If Employer requires another man to clean the screen or to maintain the equipment, he shall be an Oiler), L.C.M. Work Boat Operator, Locomotive, Material handling knuckle boom, Mini Excavator (under 18,000 lbs.), Mixer (for stabilized base self-propelled), Monorail Machine, Plant Engineer, Prentice Loader, Profiler (105 H.P. and under), Pug Mill, Pump Crete, Ready Mix Concrete Plant, Refrigeration Equipment (for soil stabilization), Road Widener, Roller (all above subgrade), Sea Mule, Self-contained Ride-on Rock Drill(Excluding Air-Track Type Drill), Skidder, Tractor with Dozer and/or Pusher, Trencher, Tugger Hoist, Vacum machine (mounted or towed), Vermeer saw (ride on, any size or type), Welder, Winch, Winch Cat

CLASSIFICATION C:
A Frame Winch Hoist on Truck, Articulated Heavy Hauler, Aggregate Plant, Asphalt or Concrete Grooving Machine (ride on), Ballast Regulator(Ride-on), Boiler (used in conjunction with production), Bituminous Heater (self-propelled), Boat (powered), Cement and Bin Operator, Concrete Pavement Spreader and Finisher Concrete Paver or Mixer (16' and under), Concrete Saw (self-propelled), Conveyor, Deck Hand, Directional Drill Machine Locator, Drill (Core and Well), Farm Tractor with accessories, Fine Grade Machine, Fireman, Fork Lift, Form Tamper, Grout Pump, Gunite Machine, Hammers (Hydraulic self-propelled), Hydra-Spiker (ride-on), Hydraulic Pump (jacking system), Hydro-Blaster (Water), Mulching Machine, Oiler, Parapet Concrete or Pavement Grinder, Post Hole Digger and Post Driver, Power Broom (towed), Power Heaterman, Power Sweeper, Revinius Widener, Roller (Grade and Fill), Scarifier (ride-on), Shell Winder, Skid steer loader (Bobcat or similar; including all attachments), Span-Saw (ride-on), Steam Cleaner, Tamper (ride-on), Tie Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on), Tire Repair, Track Liner (ride-on), Tractor, Tractor (with towed accessories), Vibratory Compactor, Vibro Tamp, Well Point, and the following hands-off equipment: Compressors, Dust Collectors, Generators, Pumps, Welding Machines, Light Plants and Heaters

- Note for all above classifications of Operating Engineer - In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES per hour

	07/01/2023	07/01/2024
Class A1*	$55.63	57.90
Class A	52.63	54.90
Class B	51.72	53.99
Class C	49.15	51.42

(*) TONNAGE RATING PREMIUMS:
Cranes over 1000 tons, A1 rate plus $7.00
Cranes from 800-999 tons, A1 rate plus $6.00
Cranes from 600-799 tons, A1 rate plus $5.00
Cranes from 400-599 tons, A1 rate plus $4.00
Cranes from 200-399 tons, A1 rate plus $3.00
Cranes from 111-199 tons, A1 rate plus $2.00

DRAFT

Cranes from 65-110 tons, A1 rate plus $1.50
Cranes from 0-64 Tons, A1 rate only
NOTE: Additional value subject to same premiums as shown for OT

– Tower Cranes, A1 rate plus $3.00
– Cranes in Luffer Configuration, A1 rate plus $5.00
– Cranes with external ballast (tray or wagon), A1 rate plus $5.00
NOTE: Additional value subject to same premiums as shown for OT

Additional $2.50 per hour for All Employees who work a single irregular work shift, of at least 5 consecutive days, starting from 5:00 PM to 1:00 AM that is mandated by the Contracting Agency.

Additional $2.50 per hr. for hazardous waste removal work on State and/or Federally designated waste site which require employees to wear Level C or above forms of personal protection.

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour

	07/01/2023	07/01/2024
Journeyperson	$ 31.50	$ 32.60

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: If the holiday falls on Sunday, it will be observed on Monday. If the observed Monday Holiday is worked, pay shall be double time plus Holiday pay for time worked. If the Holiday falls on a Saturday and is worked pay shall be double time plus Holiday pay for time worked. If the Holiday falls on a Saturday employer can choose to observe the paid holiday Saturday or give Friday off with holiday pay.

REGISTERED APPRENTICES
Wages per hour

1000 hours terms at the following percentage of Journeyperson's wage Class B

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour worked

	07/01/2023	07/01/2024
All Terms	$ 26.25	$27.10

1-158H/H Alb

Operating Engineer - Survey Crew — 07/01/2023

JOB DESCRIPTION Operating Engineer - Survey Crew **DISTRICT** 12

ENTIRE COUNTIES
Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES
Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.
Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES
These rates apply to Building, Tunnel and Heavy Highway.

Per hour:
SURVEY CLASSIFICATIONS:

DRAFT

Party Chief - One who directs a survey party.
Instrument Person - One who operates the surveying instruments.
Rod Person - One who holds the rods and assists the Instrument Person.

	07/01/2023
Party Chief	$ 49.47
Instrument Person	45.49
Rod Person	33.87

Additional $3.00/hr. for Tunnel Work
Additional $2.50/hr. for Hazardous Work Site

SUPPLEMENTAL BENEFITS
Per hour worked:

Journeyman	$ 28.90

OVERTIME PAY
See (B, E, P, *X) on OVERTIME PAGE
*Note: $24.60/Hr. Only for "ALL" premium hours paid when worked.

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
WAGES: 1000 hour terms based on the Percentage of Rod Persons Wage:

	07/01/2023
0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	$ 20.68 / PHP $17.53
1001-2000	23.70 / " 19.95
2001-3000	26.73 / " 22.43

NOTE: PHP is premium hours paid when worked.

12-158-545 D.H.H.

Operating Engineer - Survey Crew - Consulting Engineer — 07/01/2023

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer **DISTRICT** 12

ENTIRE COUNTIES
Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES
Dutchess: The northern portion of the county from the northern boundary line of the City of Poughkeepsie, north.
Genesee: Only the portion of the county that lies east of a line down the center of Route 98 to include all area that lies within the City of Batavia.

WAGES
These rates apply to feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a Consulting Engineer Agreement.

Per hour:
SURVEY CLASSIFICATIONS:

Party Chief - One who directs a survey party.
Instrument Person - One who operates the surveying instruments.
Rod Person - One who holds the rods and assists the Instrument Person.

	07/01/2023
Party Chief	$ 48.97
Instrument Person	44.99
Rod Person	33.37

DRAFT

Additional $3.00/hr. for Tunnel Work.
Additional $2.50/hr. for EPA or DEC certified toxic or hazardous waste work.

SUPPLEMENTAL BENEFITS
Per hour worked:

Journeyman	$ 28.90

OVERTIME PAY
See (B, E, Q, *X) on OVERTIME PAGE
*Note: $24.10/Hr. Only for "ALL" premium hours paid when worked.

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
WAGES: 1000 hour terms based on percentage of Rod Persons Wage:

	07/01/2023
0-1000	60%
1001-2000	70%
2001-3000	80%

SUPPLEMENTAL BENEFIT per hour worked:

0-1000	$ 20.68 / PHP $17.53
1001-2000	$ 23.70 / " 19.95
2001-3000	$ 26.73 / " 22.43

NOTE: PHP is premium hours paid when worked.

12-158-545 DCE

Operating Engineer - Tunnel — 07/01/2023

JOB DESCRIPTION Operating Engineer - Tunnel **DISTRICT** 7

ENTIRE COUNTIES
Albany, Allegany, Broome, Cayuga, Chemung, Chenango, Clinton, Columbia, Cortland, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Oneida, Onondaga, Ontario, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Yates

PARTIAL COUNTIES
Dutchess: Northern part of Dutchess, to the northern boundary line of the City of Poughkeepie, then due east to Route 115 to Bedell Road, then east along Bedell Road to VanWagner Road, then north along VanWagner Road to Bower Road, then east along Bower Road to Rte. 44 east to Rte. 343, then along Rte. 343 east to the northern boundary of the Town of Dover Plains and east along the northern boundary of the Town of Dover Plains, to the borderline of the State of Connecticut.
Genesee: Only that portion of the county that lies east of a line drawn down the center of Route 98 and the entirety of the City of Batavia.

WAGES
CLASS A: Automatic Concrete Spreader (CMI Type); Automatic Fine Grader; Backhoe (except tractor mounted, rubber tired); Belt Placer (CMI Type); Blacktop Plant (automated); Cableway; Caisson Auger; Central Mix Concrete Plant (automated); Concrete Curb Machine (self-propelled slipform); Concrete Pump (8" or over); Dredge; Dual Drum Paver; Excavator; Front End Loader (4 cu. yd & over); Gradall; Head Tower (Sauerman or Equal); Hoist (shaft); Hoist (two or three Drum); Log Chipper/Loader (self-feeder); Maintenance Engineer (shaft and tunnel); any Mechanical Shaft Drill; Mine Hoist; Mining Machine(Mole and similar types); Mucking Machine or Mole; Overhead Crane (Gantry or Straddle Type); Pile Driver; Power Grader; Remote Controlled Mole or Tunnel Machine; Scraper; Shovel; Side Boom; Slip Form Paver (If a second man is needed, they shall be an Oiler); Tripper/Maintenance Engineer (shaft & tunnel); Tractor Drawn Belt-Type Loader; Tug Operator (manned rented equipment excluded); Tunnel Shovel.

CLASS B: Automated Central Mix Concrete Plant; Backhoe (topside); Backhoe (track mounted, rubber tired); Backhoe (topside); Bituminous Spreader and Mixer, Blacktop Plant (non-automated); Blast or Rotary Drill (truck or tractor mounted); Boring Machine; Cage Hoist; Central Mix Plant(non-automated); all Concrete Batching Plants; Compressors (4 or less exceeding 2,000 c.f.m. combined capacity); Concrete Pump; Crusher; Diesel Power Unit; Drill Rigs (tractor mounted); Front End Loader (under 4 cu. yd.); Grayco Epoxy Machine; Hoist (One Drum); Hoist (2 or 3 drum topside); Knuckle Boom material handler; Kolman Plant Loader & similar type Loaders (if employer requires another person to clean the screen or to maintain the equipment, they shall be an Oiler); L.C.M. Work Boat Operator; Locomotive; Maintenance Engineer (topside); Maintenance Grease Man; Mixer (for stabilized base-self propelled); Monorail Machine; Plant Engineer; Personnel Hoist; Pump Crete; Ready Mix Concrete Plant; Refrigeration Equipment (for soil stabilization); Road Widener; Roller (all above sub-grade); Sea Mule; Shotcrete Machine; Shovel (topside); Tractor with Dozer and/or Pusher; Trencher; Tugger Hoist; Tunnel Locomotive; Vacuum Machine (mounted or towed); Welder; Winch; Winch Cat.

DRAFT

CLASS C: A Frame Truck; All Terrain Telescoping Material Handler; Ballast Regulator (ride-on); Compressors (4 not to exceed 2,000 c.f.m. combined capacity; or 3 or less with more than 1200 c.f.m. but not to exceed 2,000 c.f.m.); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (4 or any type combination)); Concrete Pavement Spreaders and Finishers; Conveyor; Drill (core); Drill (well); Electric Pump used in conjunction with Well Point System; Farm Tractor with Accessories; Fine Grade Machine; Fork Lift; Grout Pump (over 5 cu. ft.); Gunite Machine; Hammers (hydraulic-self-propelled); Hydra-Spiker (ride-on); Hydra-Blaster (water); Hydro-Blaster; Motorized Form Carrier; Post Hole Digger and Post Driver; Power Sweeper; Roller grade & fill); Scarifer (ride-on); Span-Saw (ride-on); Submersible Electric Pump (when used in lieu of well points); Tamper (ride-on); Tie-Extractor (ride-on), Tie Handler (ride-on), Tie Inserter (ride-on), Tie Spacer (ride-on); Track Liner (ride-on); Tractor with towed accessories; Vibratory Compactor; Vibro Tamp, Well Point.

CLASS D: Aggregate Plant; Cement & Bin Operator; Compressors (3 or less not to exceed 1,200 c.f.m. combined capacity); Compressors ((any size, but subject to other provisions for compressors), Dust Collectors, Generators, Pumps, Welding Machines, Light Plants (3 or less or any type or combination)); Concrete Saw (self-propelled); Form Tamper; Greaseman; Hydraulic Pump (jacking system); Junior Engineer; Light Plants; Mulching Machine; Oiler; Parapet Concrete or Pavement Grinder; Power Broom (towed); Power Heaterman (when used for production); Revinius Widener; Shell Winder; Steam Cleaner; Tractor.

Per hour:	07/01/2023	07/01/2024	07/01/2025
CLASS A	$ 53.52	$ 55.91	$ 58.43
CLASS B	52.30	54.69	57.21
CLASS C	49.51	51.90	54.42
CLASS D	46.50	48.89	51.41

Additional $5.00 per hour for Hazardous Waste Work on a state or federally designated hazardous waste site where the Operating Engineer is in direct contact with hazardous material and when personal protective equipment is required for respiratory, skin and eye protection. Fringe benefits will be paid at the hourly wage premium.

CRANES:
Crane 1: All cranes, including self-erecting.
Crane 2: All Lattice Boom Cranes and all cranes with a manufacturer's rating of fifty (50) ton and over.
Crane 3: All hydraulic cranes and derricks with a manufacturer's rating of forty nine (49) ton and below, including boom trucks.

Crane 1	$ 57.52	$ 59.51	$ 62.03
Crane 2	56.52	58.91	61.43
Crane 3	55.52	57.91	60.43

SUPPLEMENTAL BENEFITS
Per hour:

$ 24.20	$ 25.05	$ 25.55
+ 9.60*	+ 9.60*	+ 9.60*

* This portion of benefits subject to same premium rate as shown for overtime wages.

OVERTIME PAY
See (B, B2, E, Q, X) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
If a holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES
WAGES:(1000) hours terms at the following percentage of Journeyman's Class B wage.

1st term	60%
2nd term	65%
3rd term	70%
4th term	75%

SUPPLEMENTAL BENEFITS per hour: Same as Journeyman.

7-158-832TL.

Painter **07/01/2023**

JOB DESCRIPTION Painter **DISTRICT** 1

ENTIRE COUNTIES
Albany, Clinton, Essex, Franklin, Fulton, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES
Per hour

	07/01/2023	05/01/2024

DRAFT

		Additional
Painter\Wallcovers	$ 31.19**	$ 1.50***
Drywall Finishers	31.19**	$ 1.50***
Spray Rate	31.19**	$ 1.50***
Structural Steel*	32.19**	$ 1.50***
Lead Abatement	32.19**	$ 1.50***
Lead Abatement on Structural Steel	33.19**	$ 1.50***

(*)Employees working on objects with the use of swing stage, boatswain chair, pick and cables only will be paid at Structural Steel rate.
(**) Plus Additional $1.25 per hour not subject to Overtime/Premiums
(***) To be allocated at later date.

Bridge Painter
See Bridge Painter rates for the following work:
All Bridges and Tanks

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour

Journeyperson $ 19.85

OVERTIME PAY
See (B, E2, H) on OVERTIME PAGE
THE FOLLOWING ADDITIONAL HOURLY RATE WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFT(S) OR SINGULAR IRREGULAR SHIFT WHEN THE SHIFT STARTS BETWEEN THE HOURS LISTED BELOW:

2:30 PM to 6:00 AM PLUS $1.00 TO APPLICABLE RATE*

*Additional $1.00 is Not Subject to Overtime

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: If the holiday falls on Sunday, it shall be observed on Monday.

REGISTERED APPRENTICES
Wages per hour

1000 hour terms at the following percentage of Journeyperson's base wage

1st	2nd	3rd	4th	5th	6th
45%	50%	60%	70%	80%	90%

Supplemental Benefits per hour

All Terms $ 19.85

1-201-P

Painter - Bridge & Structural Steel — 07/01/2023

JOB DESCRIPTION Painter - Bridge & Structural Steel **DISTRICT** 8

ENTIRE COUNTIES
Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES
Per Hour:
STEEL:

	07/01/2023	10/01/2023
Bridge Painting:	$ 54.50	+ 3.10
	+ 10.10*	

DRAFT

ADDITIONAL $6.50 per hour for POWER TOOL/SPRAY, whether straight time or overtime.

NOTE: All premium wages are to be calculated on base rate per hour only.

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

NOTE: Generally, for Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

SHIFT WORK:

When directly specified in public agency or authority contract documents for an employer to work a second shift and works the second shift with employees other than from the first shift, all employees who work the second shift will be paid 10% of the base wage shift differential in lieu of overtime for the first eight (8) hours worked after which the employees shall be paid at time and one half of the regular wage rate. When a single irregular work shift is mandated in the job specifications or by the contracting agency, wages shall be paid at time and one half for single shifts between the hours of 3pm-11pm or 11pm-7am.

SUPPLEMENTAL BENEFITS
Per Hour:
Journeyworker:

$ 11.78
+ 30.85*

* For the period of May 1st to November 15th, this amount is payable up to 40 hours. For the period of Nov 16th to April 30th, this amount is payable up to 50 hours. EXCEPTION: First and last week of employment, and for the weeks of Memorial Day, Independence Day and Labor Day, where the amount is paid for the actual number of hours worked (no cap).

OVERTIME PAY
See (B, F, R) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (4, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES
Wage - Per hour:
Apprentices: (1) year terms

1st year
$ 21.80
+ 4.04

2nd year
$ 32.70
+ 6.06

3rd year
$ 43.60
+ 8.08

Supplemental Benefits - Per hour:

1st year
$ .90
+ 12.34

2nd year
$ 7.07
+ 18.51

3rd year
$ 9.42
+ 24.68

NOTE: All premium wages are to be calculated on base rate per hour only.

8-DC-9/806/155-BrSS

Painter - Line Striping — 07/01/2023

JOB DESCRIPTION Painter - Line Striping **DISTRICT** 8

ENTIRE COUNTIES
Albany, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Nassau, Orange, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES
Per hour:

DRAFT

Painter (Striping-Highway):	07/01/2023
Striping-Machine Operator*	$ 31.53
Linerman Thermoplastic	38.34

Note: * Includes but is not limited to: Positioning of cones and directing of traffic using hand held devices. Excludes the Driver/Operator of equipment used in the maintenance and protection of traffic safety.

Four (4), ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day.

NOTE - In order to use the '4 Day/10 Hour Work Schedule,' as your normal schedule, you must submit an 'Employer Registration for Use of 4 Day/10 Hour Work Schedule,' form PW30.1; and there must be a dispensation of hours in place on the project. If the PW30.1 is not submitted you may be liable for overtime payments for work over 8 hours per day.

SUPPLEMENTAL BENEFITS

Per hour paid:
Journeyworker:

Striping Machine Operator:	$ 10.03
Linerman Thermoplastic:	10.03

OVERTIME PAY
See (B, B2, E2, F, S) on OVERTIME PAGE

HOLIDAY

Paid:	See (5, 20) on HOLIDAY PAGE
Overtime:	See (5, 20) on HOLIDAY PAGE

REGISTERED APPRENTICES
One (1) year terms at the following wage rates:

1st Term:	$ 15.00
2nd Term:	18.92
3rd Term:	25.22

Supplemental Benefits per hour:

1st term:	$ 9.16
2nd Term:	10.03
3rd Term:	10.03

8-1456-LS

Painter - Metal Polisher — 07/01/2023

JOB DESCRIPTION Painter - Metal Polisher **DISTRICT** 8

ENTIRE COUNTIES
Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

	07/01/2023
Metal Polisher	$ 38.18
Metal Polisher*	39.28
Metal Polisher**	42.18

*Note: Applies on New Construction & complete renovation
** Note: Applies when working on scaffolds over 34 feet.

SUPPLEMENTAL BENEFITS

Per Hour:	07/01/2023
Journeyworker:	
All classification	$ 12.34

OVERTIME PAY
See (B, E, P, T) on OVERTIME PAGE

HOLIDAY

Paid:	See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE
Overtime:	See (5, 6, 9, 11, 15, 16, 25, 26) on HOLIDAY PAGE

DRAFT

REGISTERED APPRENTICES
Wages per hour:
One (1) year term at the following wage rates:

	07/01/2023
1st year	$ 16.00
2nd year	17.00
3rd year	18.00
1st year*	$ 16.39
2nd year*	17.44
3rd year*	18.54
1st year**	$ 18.50
2nd year**	19.50
3rd year**	20.50

*Note: Applies on New Construction & complete renovation
** Note: Applies when working on scaffolds over 34 feet.

Supplemental benefits:
Per hour:

1st year	$ 8.69
2nd year	8.69
3rd year	8.69

8-8A/28A-MP

Plumber — 07/01/2023

JOB DESCRIPTION Plumber **DISTRICT** 1

ENTIRE COUNTIES
Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Schenectady, Schoharie

PARTIAL COUNTIES
Hamilton: Only the Towns of Arietta, Benson, Hope, Inlet, Lake Pleasant, Morehouse and Wells.
Saratoga: Only the Towns of Charlton, Clifton Park, Galway,Halfmoon, Milton, Stillwater and Waterford and the city of Mechanicville.

WAGES
Per hour:

	07/01/2023	05/01/2024 Additional
Plumber:		
Pipefitter, Steamfitter	$ 50.68	+ $2.90*

(*) To be allocated at later date.

SUPPLEMENTAL BENEFITS
Per hour

Journeyman	$ 28.16

OVERTIME PAY
See (B1, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: Whenever a Holiday falls on Saturday, the preceding day, Friday, shall be observed as the Holiday. If a Holiday falls on a Sunday, the following day, Monday shall be observed as the Holiday.

REGISTERED APPRENTICES
Wages per hour
One year terms at the following wage rate.

1st	2nd	3rd	4th	5th
$ 23.22	$ 28.21	$ 33.20	$ 38.20	$ 45.69

Supplemental Benefits per hour:

DRAFT

Apprentices Indentured on or before April 30, 2019

All Terms	$ 28.16

Apprentices Indentured on or after May 1st, 2019

Terms 1-4	22.90
Terms 5	28.16

1-7-SF

Roofer 07/01/2023

JOB DESCRIPTION Roofer **DISTRICT** 1

ENTIRE COUNTIES
Albany, Clinton, Columbia, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Warren, Washington

WAGES
Per hour

	07/01/2023
Roofer/Waterproofer	$ 35.05
Asphalt Cold Process	35.55
Fluid Applied Roof	35.55
Pitch & Asbestos	37.05

Shift Work:
On government mandated shift work starting after 12:00pm and before 4:00am workers shall be paid $4.00 additional per hour

SUPPLEMENTAL BENEFITS
Per hour

Journeyman	$ 23.02

OVERTIME PAY
See (B, E, Q) on OVERTIME PAGE.

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: When any Holiday falls on Saturday, the Friday before such Holiday shall be recognized as the legal Holiday. When a Holiday falls on Sunday, it shall be observed the following Monday.

REGISTERED APPRENTICES
Wages per hour

Apprentice terms at the following per cent of the Roofer/Waterproofer rate. For Pitch & Asbestos work, an additional $2.00 must be paid in wages. For Asphalt Cold Process work and Fluid Applied Roof coating, an additional $0.50 must be paid in the wages.

1st Term 1500 hrs.	58% + $3.00
2nd Term 1 yr. and 1500 hrs. as 1st term.	74% + $3.00
3rd Term 1 yr. and 1500 hrs. as 2nd term.	90%

3rd Term complete at 1 yr and 1050 hrs. as 3rd term

Supplemental Benefits per hour worked

1st Term	$ 18.44
2nd Term	18.87
3rd Term	22.35

1-241

Sheetmetal Worker 07/01/2023

JOB DESCRIPTION Sheetmetal Worker **DISTRICT** 1

ENTIRE COUNTIES
Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

DRAFT

WAGES
Per hour

	07/01/2023	06/01/2024 Additional
Sheetmetal Worker	$ 37.73	+ $2.50*

(*) To be allocated at later date.

All work requiring HAZWOPER Training additional $1.00 per hour.

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour

Journeyman	$ 36.64

OVERTIME PAY
See (B,E,E5,Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
When any holiday falls on Saturday, the Friday before such holiday shall be recognized as the legal holiday. Any holiday falling on Sunday, the following Monday shall be recognized as the legal holiday.

REGISTERED APPRENTICES
Wages per hour

6 Month Terms at the following rate:

1st term	$ 20.84
2nd term	22.61
3rd term	23.50
4th term	24.39
5th term	23.04
6th term	24.20
7th term	26.14
8th term	28.07
9th term	30.00
10th term	31.93

Supplemental Benefits per hour

1st term	$ 22.65
2nd term	23.26
3rd term	23.57
4th term	24.02
5th term	30.91
6th term	31.37
7th term	32.11
8th term	32.87
9th term	33.63
10th term	34.38

1-83

Sprinkler Fitter **07/01/2023**

JOB DESCRIPTION Sprinkler Fitter **DISTRICT** 1

ENTIRE COUNTIES
Albany, Rensselaer, Saratoga, Schenectady, Warren

WAGES
Per hour 07/01/2023

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Sprinkler Fitter $ 42.73

SUPPLEMENTAL BENEFITS
Per hour

Journeyperson $ 26.47

OVERTIME PAY
See (B, H) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: When a holiday falls on Sunday, the following Monday shall be considered a holiday and all work performed on either day shall be at the double time rate. When a holiday falls on Saturday, the preceding Friday shall be considered a holiday and all work performed on either day shall be at the double time rate.

REGISTERED APPRENTICES
Wages per hour

One Half Year terms at the following wage.

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
$ 19.57	$ 21.74	$ 23.66	$ 25.84	$ 28.01	$ 30.19	$ 32.36	$ 34.53	$ 36.71	$ 38.88

Supplemental Benefits per hour

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
$ 8.74	$ 8.74	$ 20.32	$ 20.32	$ 20.57	$ 20.57	$ 20.57	$ 20.57	$ 20.57	$ 20.57

1-669-3

Teamster - Building 07/01/2023

JOB DESCRIPTION Teamster - Building **DISTRICT** 1

ENTIRE COUNTIES
Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES
Warren: Only the Townships of Bolton, Warrensburg, Thurman,Stony Creek, Lake George, Lake Luzerne and Queensbury.

WAGES
GROUP # A:
Straight trucks, winch, transit mix on the site, road oilers, dump trucks, pick-ups, panel, water trucks, fuel trucks on the site (including nozzle).

GROUP # B:
Low boy or Low boy trailer, Euclids or similar equipment.

WAGES per hour

	07/01/2023	07/01/2024
Group A	$ 30.62	$ 32.13
Group B	30.92	32.43

SUPPLEMENTAL BENEFITS

Per hour	07/01/2023	07/01/2024
Journeyperson	$ 28.74	$ 29.58

OVERTIME PAY
See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY
Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE
Note: Any holiday which occurs on Sunday shall be observed the following Monday.

1-294

Teamster - Heavy&Highway 07/01/2023

JOB DESCRIPTION Teamster - Heavy&Highway **DISTRICT** 1

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ENTIRE COUNTIES
Albany, Columbia, Fulton, Greene, Hamilton, Herkimer, Montgomery, Oneida, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES
Chenango: Entire county except the Townships of Afton, Bainbridge, Coventry, Greene, Guilford, Oxford and Smithville.
Lewis: Only the Township of Grieg, Lewis, Leyden, Lowville, Lyonsdale, Martinsburg, Turin, West Turin and Watson.
Madison: Only the Townships of Brookfield, Eaton, Hamilton, Lebanon, Lincoln, Madison, Smithfield, Stockbridge and the City of Oneida
Otsego: Entire county EXCEPT Townships of Butternuts, Laurens, Maryland, Milford, Morris, Oneonta, Otego, Unadilla and Worchester.
Warren: Only the Townships of Bolton, Warrensburg, Thurman, Stony Creek, Luzerne, Caldwell (Lake George), and Queensbury.

WAGES
GROUP #1:
Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks(straight jobs), Single Axel Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanics Helpers and Parts Chasers.

GROUP #2:
Tandems and Batch Trucks, Mechanics, Dispatcher.

GROUP #3:
Semi-Trailers, Low-boy Trucks, Asphalt Distributor Trucks, and Agitator, Mixer Trucks and dumpcrete type vehicles, Truck Mechanic, Fuel Trucks.

GROUP #4:
Specialized Earth Moving Equipment, Euclid type, or similar off-highway, where not self-loading, Straddle (Ross) Carrier, and self-contained concrete mobile truck.

GROUP #5:
Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading.

WAGES per hour	07/01/2023	07/01/2024
Group #1	$ 37.59	$ 39.75
Group #2	37.65	39.81
Group #3	37.74	39.90
Group #4	37.87	40.03
Group #5	38.03	40.19

Hazardous waste projects that require a Level C or greater protection shall be paid an additional $ 1.00 per hour.
All employees who work a single irregular work shift starting between 5pm and 1 am on governmental mandated night shifts shall be paid an additional $1.50 per hour.
For work bid on or after April 1, 1995, there shall be a 12 month carryover of the last posted rate in effect at the time of the bid.

NOTE - The "Employer Registration" (30.1) use of a '4 Day/10 Hour Work schedules' will no longer be accepted or processed. All registered projects prior to June 30, 2023 will expire within the granted time frame.

For Pre-Registered Projects Four (4), Ten (10) hour days may be worked at straight time during a week, Monday thru Thursday. Friday may be used as a make-up day. Tuesday thru Friday may be worked with no make-up day. For further clarification contact your local Bureau Office.

SUPPLEMENTAL BENEFITS
Per hour:

$ 28.13 +$1.00 per* hour worked	$28.97 +$1.00 per* hour worked

(*) not applicable to paid holidays

OVERTIME PAY
See (B, E, Q, X) on OVERTIME PAGE

HOLIDAY
Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

1-294h/h

Welder **07/01/2023**

JOB DESCRIPTION Welder **DISTRICT** 1

ENTIRE COUNTIES

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Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour	07/01/2023
Welder:	To be paid the same rate of the mechanic performing the work.*

*EXCEPTION: If a specific welder certification is required, then the 'Certified Welder' rate in that trade tag will be paid.

OVERTIME PAY

HOLIDAY

1-As Per Trade

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Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

NOTE: Supplemental Benefits are 'Per hour worked' (for each hour worked) unless otherwise noted

(AA)	Time and one half of the hourly rate after 7 and one half hours per day
(A)	Time and one half of the hourly rate after 7 hours per day
(B)	Time and one half of the hourly rate after 8 hours per day
(B1)	Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday. Double the hourly rate for all additional hours
(B2)	Time and one half of the hourly rate after 40 hours per week
(C)	Double the hourly rate after 7 hours per day
(C1)	Double the hourly rate after 7 and one half hours per day
(D)	Double the hourly rate after 8 hours per day
(D1)	Double the hourly rate after 9 hours per day
(E)	Time and one half of the hourly rate on Saturday
(E1)	Time and one half 1st 4 hours on Saturday; Double the hourly rate all additional Saturday hours
(E2)	Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
(E3)	Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
(E4)	Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
(E5)	Double time after 8 hours on Saturdays
(F)	Time and one half of the hourly rate on Saturday and Sunday
(G)	Time and one half of the hourly rate on Saturday and Holidays
(H)	Time and one half of the hourly rate on Saturday, Sunday, and Holidays
(I)	Time and one half of the hourly rate on Sunday
(J)	Time and one half of the hourly rate on Sunday and Holidays
(K)	Time and one half of the hourly rate on Holidays
(L)	Double the hourly rate on Saturday
(M)	Double the hourly rate on Saturday and Sunday
(N)	Double the hourly rate on Saturday and Holidays
(O)	Double the hourly rate on Saturday, Sunday, and Holidays
(P)	Double the hourly rate on Sunday
(Q)	Double the hourly rate on Sunday and Holidays
(R)	Double the hourly rate on Holidays
(S)	Two and one half times the hourly rate for Holidays

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(S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.

(T) Triple the hourly rate for Holidays

(U) Four times the hourly rate for Holidays

(V) Including benefits at SAME PREMIUM as shown for overtime

(W) Time and one half for benefits on all overtime hours.

(X) Benefits payable on Paid Holiday at straight time. If worked, additional benefit amount will be required for worked hours. (Refer to other codes listed.)

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Holiday Codes

PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

(1)	None
(2)	Labor Day
(3)	Memorial Day and Labor Day
(4)	Memorial Day and July 4th
(5)	Memorial Day, July 4th, and Labor Day
(6)	New Year's, Thanksgiving, and Christmas
(7)	Lincoln's Birthday, Washington's Birthday, and Veterans Day
(8)	Good Friday
(9)	Lincoln's Birthday
(10)	Washington's Birthday
(11)	Columbus Day
(12)	Election Day
(13)	Presidential Election Day
(14)	1/2 Day on Presidential Election Day
(15)	Veterans Day
(16)	Day after Thanksgiving
(17)	July 4th
(18)	1/2 Day before Christmas
(19)	1/2 Day before New Years
(20)	Thanksgiving
(21)	New Year's Day
(22)	Christmas
(23)	Day before Christmas
(24)	Day before New Year's
(25)	Presidents' Day
(26)	Martin Luther King, Jr. Day
(27)	Memorial Day
(28)	Easter Sunday

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(29) Juneteenth

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New York State Department of Labor - Bureau of Public Work
State Office Building Campus
Building 12 - Room 130
Albany, New York 12226

REQUEST FOR WAGE AND SUPPLEMENT INFORMATION

As Required by Articles 8 and 9 of the NYS Labor Law

Fax (518) 485-1870 or mail this form for new schedules or for determination for additional occupations.

This Form Must Be Typed

Submitted By: (Check Only One) ☐ Contracting Agency ☐ Architect or Engineering Firm ☐ Public Work District Office Date:

A. Public Work Contract to be let by: (Enter Data Pertaining to Contracting/Public Agency)

1. Name and complete address ☐ (Check if new or change)

Telephone Fax

E-Mail:

2. NY State Units (see Item 5).

- ☐ 01 DOT
- ☐ 02 OGS
- ☐ 03 Dormitory Authority
- ☐ 04 State University Construction Fund
- ☐ 05 Mental Hygiene Facilities Corp.
- ☐ 06 OTHER N.Y. STATE UNIT
- ☐ 07 City
- ☐ 08 Local School District
- ☐ 09 Special Local District, i.e., Fire, Sewer, Water District
- ☐ 1O Village
- ☐ 11 Town
- ☐ 12 County
- ☐ 13 Other Non-N.Y. State (Describe)

3. SEND REPLY TO ☐ (check if new or change)
Name and complete address:

Telephone Fax

E-Mail:

4. SERVICE REQUIRED. Check appropriate box and provide project information.

☐ New Schedule of Wages and Supplements.
APPROXIMATE BID DATE :

☐ Additional Occupation and/or Redetermination

PRC NUMBER ISSUED PREVIOUSLY FOR THIS PROJECT :

OFFICE USE ONLY

B. PROJECT PARTICULARS

5. Project Title

Description of Work

Contract Identification Number

Note: For NYS units, the OSC Contract No.

6. Location of Project:
Location on Site

Route No/Street Address

Village or City

Town

County

7. Nature of Project - Check One:

- ☐ 1. New Building
- ☐ 2. Addition to Existing Structure
- ☐ 3. Heavy and Highway Construction (New and Repair)
- ☐ 4. New Sewer or Waterline
- ☐ 5. Other New Construction (Explain)
- ☐ 6. Other Reconstruction, Maintenance, Repair or Alteration
- ☐ 7. Demolition
- ☐ 8. Building Service Contract

8. OCCUPATION FOR PROJECT :

- ☐ Construction (Building, Heavy Highway/Sewer/Water)
- ☐ Tunnel
- ☐ Residential
- ☐ Landscape Maintenance
- ☐ Elevator maintenance
- ☐ Exterminators, Fumigators
- ☐ Fire Safety Director, NYC Only
- ☐ Fuel Delivery
- ☐ Guards, Watchmen
- ☐ Janitors, Porters, Cleaners, Elevator Operators
- ☐ Moving furniture and equipment
- ☐ Trash and refuse removal
- ☐ Window cleaners
- ☐ Other (Describe)

9. Does this project comply with the Wicks Law involving separate bidding? YES ☐ NO ☐

10. Name and Title of Requester

Signature

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NEW YORK STATE DEPARTMENT OF LABOR
Bureau of Public Work - Debarment List

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Under Article 8 and Article 9 of the NYS Labor Law, a contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work or public building service contract/sub-contract with the state, any municipal corporation or public body for a period of five (5) years from the date of debarment when:

- Two (2) final determinations have been rendered within any consecutive six-year (6) period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements;
- One (1) final determination involves falsification of payroll records or the kickback of wages and/or supplements.

The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = New York State Department of Labor; NYC = New York City Comptroller's Office; AG = New York State Attorney General's Office; DA = County District Attorney's Office.

Debarment Database: To search for contractors, sub-contractors and/or their successors debarred from bidding or being awarded any public work contract or subcontract under NYS Labor Law Articles 8 and 9, or under NYS Workers' Compensation Law Section 141-b, access the database at this link: https://applications.labor.ny.gov/EDList/searchPage.do

For inquiries where WCB is listed as the "Agency", please call 1-866-546-9322

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NYSDOL Bureau of Public Work Debarment List 07/18/2023

Article 8

AGENCY	Fiscal Officer	FEIN	EMPLOYER NAME	EMPLOYER DBA NAME	ADDRESS	DEBARMENT START DATE	DEBARMENT END DATE
DOL	DOL	*****5754	0369 CONTRACTORS, LLC		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL	*****4018	ADIRONDACK BUILDING RESTORATION INC.		4156 WILSON ROAD EAST TABERG NY 13471	03/26/2019	03/26/2024
DOL	AG	*****1812	ADVANCED BUILDERS & LAND DEVELOPMENT, INC.		400 OSER AVE #2300HAUPPAUGE NY 11788	09/11/2019	09/11/2024
DOL	DOL	*****1687	ADVANCED SAFETY SPRINKLER INC		261 MILL ROAD P.O BOX 296EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	NYC		ALL COUNTY SEWER & DRAIN, INC.		7 GREENFIELD DR WARWICK NY 10990	03/25/2022	03/25/2027
DOL	NYC		AMJED PARVEZ		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL		ANGELO F COKER		2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		ANGELO F COKER		2610 SOUTH SALINA STREET SUITE 14SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL		ANGELO GARCIA		515 WEST AVE UNIT PH 13NORWALK CT 06850	05/12/2021	05/12/2026
DOL	DOL		ANGELO TONDO		449 WEST MOMBSHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL		ANITA SALERNO		158 SOLAR ST SYRACUSE NY 13204	01/07/2019	01/07/2024
DOL	DOL	*****4231	ANKER'S ELECTRIC SERVICE, INC.		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	NYC		ARADCO CONSTRUCTION CORP		115-46 132RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL		ARNOLD A. PAOLINI		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC		ARSHAD MEHMOOD		168-42 88TH AVENUE JAMAICA NY 11432	11/20/2019	11/20/2024
DOL	NYC	*****2591	AVI 212 INC.		260 CROPSEY AVENUE APT 11GBROOKLYN NY 11214	10/30/2018	10/30/2023
DOL	NYC		AVM CONSTRUCTION CORP		117-72 123RD ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	NYC		AZIDABEGUM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	*****8421	B & B DRYWALL, INC		206 WARREN AVE APT 1WHITE PLAINS NY 10603	12/14/2021	12/14/2026
DOL	NYC		BALWINDER SINGH		421 HUDSON ST SUITE C5NEW YORK NY 10014	02/20/2019	02/20/2024
DOL	NYC	*****8416	BEAM CONSTRUCTION, INC.		50 MAIN ST WHITE PLAINS NY 10606	01/04/2019	01/04/2024
DOL	DOL		BERNARD BEGLEY		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	NYC	*****2113	BHW CONTRACTING, INC.		401 HANOVER AVENUE STATEN ISLAND NY 10304	01/11/2021	01/11/2026
DOL	DOL	*****3627	BJB CONSTRUCTION CORP.		38 LONG RIDGE ROAD BEDFORD NY 10506	12/18/2019	12/18/2024
DOL	DOL	*****4512	BOB BRUNO EXCAVATING, INC		5 MORNINGSIDE DR AUBURN NY 13021	05/28/2019	05/28/2024
DOL	DOL		BOGDAN MARKOVSKI		370 W. PLEASANTVIEW AVE SUITE 2.329HACKENSACK NJ 07601	02/11/2019	02/11/2024
DOL	DOL		BRADLEY J SCHUKA		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	DOL		BRUCE P. NASH JR.		5841 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2018	09/12/2023
DOL	DOL	*****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL	*****9383	C.C. PAVING AND EXCAVATING, INC.		2610 SOUTH SALINA ST SUITE 12SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL	*****4083	C.P.D. ENTERPRISES, INC		P.O BOX 281 WALDEN NY 12586	03/03/2020	03/03/2025
DOL	DOL	*****5161	CALADRI DEVELOPMENT CORP.		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	DOL	*****3391	CALI ENTERPRISES, INC.		1223 PARK STREET PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		CALVIN WALTERS		465 EAST THIRD ST MT. VERNON NY 10550	09/09/2019	09/09/2024

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DOL	AG	*****7247	CENTURY CONCRETE CORP		2375 RAYNOR ST RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****0026	CHANTICLEER CONSTRUCTION LLC		4 BROTHERS ROAD WAPPINGERS FALLS NY 12590	10/20/2020	10/20/2025
DOL	NYC		CHARLES ZAHRADKA		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025
DOL	DOL		CHRISTOPHER GRECO		26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026
DOL	DOL		CHRISTOPHER J MAINI		19 CAITLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DOL		CHRISTOPHER PAPASTEFANOU A/K/A CHRIS PAPASTEFANOU		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL	*****1927	CONSTRUCTION PARTS WAREHOUSE, INC.	CPW	5841 BUTTERNUT ROAD EAST SYRACUSE NY 13057	09/12/2018	09/12/2023
DOL	DOL		CRAIG JOHANSEN		10 SOUTH 5TH ST LOCUST VALLEY NY 11560	09/26/2022	09/26/2027
DOL	DOL	*****3228	CROSS-COUNTY LANDSCAPING AND TREE SERVICE, INC.	ROCKLAND TREE SERVICE	26 NORTH MYRTLE AVENUE SPRING VALLEY NY 10956	02/18/2021	02/18/2026
DOL	DOL	*****2524	CSI ELECTRICAL & MECHANICAL INC		42-32 235TH ST DOUGLASTON NY 11363	01/14/2019	01/14/2024
DOL	DOL	*****7619	DANCO CONSTRUCTION UNLIMITED INC.		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL		DANIEL ROBERT MCNALLY		7 GREENFIELD DRIVE WARWICK NY 10990	03/25/2022	03/25/2027
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DOL		DARIAN L COKER		2610 SOUTH SALINA ST SUITE 2CSYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	NYC		DAVID WEINER		14 NEW DROP LANE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024
DOL	DOL		DELPHI PAINTING & DECORATING CO INC		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL	*****5175	EAGLE MECHANICAL AND GENERAL CONSTRUCTION LLC		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025
DOL	AG		EDWIN HUTZLER		23 NORTH HOWELLS RD BELLPORT NY 11713	08/04/2021	08/04/2026
DOL	DA		EDWIN HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****0780	EMES HEATING & PLUMBING CONTR		5 EMES LANE MONSEY NY 10952	01/20/2002	01/20/3002
DOL	NYC	*****5917	EPOCH ELECTRICAL, INC		97-18 50TH AVE CORONA NY 11368	04/19/2018	04/19/2024
DOL	DOL		FAIGY LOWINGER		11 MOUNTAIN RD 28 VAN BUREN DRMONROE NY 10950	03/20/2019	03/20/2024
DOL	DOL		FRANK BENEDETTO		19 CATLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DOL	*****4722	FRANK BENEDETTO AND CHRISTOPHER J MAINI	B & M CONCRETE	19 CAITLIN AVE JAMESTOWN NY 14701	09/17/2018	09/17/2023
DOL	DA		FREDERICK HUTZLER		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	NYC	*****6616	G & G MECHANICAL ENTERPRISES, LLC.		1936 HEMPSTEAD TURNPIKE EAST MEDOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		GABRIEL FRASSETTI			04/10/2019	04/10/2024
DOL	NYC		GAYATRI MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DOL		GEOFF CORLETT		415 FLAGGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	DA		GEORGE LUCEY		150 KINGS STREET BROOKLYN NY 11231	01/19/1998	01/19/2998
DOL	DOL		GIGI SCHNECKENBURGER		261 MILL RD EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	DA		GIOVANNA TRAVALJA		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	DOL		HANS RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	DOL		HERBERT CLEMEN		42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027

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DOL	DOL		IRENE KASELIS		32 PENNINGTON AVE WALDWICK NJ 07463	05/30/2019	05/30/2024
DOL	DOL	*****9211	J. WASE CONSTRUCTION CORP.		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	DOL		J.M.J CONSTRUCTION		151 OSTRANDER AVENUE SYRACUSE NY 13205	11/21/2022	11/21/2027
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		J.R. NELSON CONSTRUCTION		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		J.R. NELSON, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	12/12/2022	12/12/2027
DOL	DOL		J.R.N COMPANIES, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL	*****1147	J.R.N. CONSTRUCTION, LLC		531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JAMES J. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL		JAMES LIACONE		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		JAMES RACHEL		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		JASON P. RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****7993	JBS DIRT, INC.		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL	*****5368	JCH MASONRY & LANDSCAPING INC.		35 CLINTON AVE OSSINING NY 10562	09/12/2018	09/12/2023
DOL	DOL	*****2435	JEFFEL D. JOHNSON	JMJ7 AND SON	5553 CAIRNSTRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JEFFEL JOHNSON ELITE CARPENTER REMODEL AND CONSTRUCTION		C2 EVERGREEN CIRCLE LIVERPOOL NY 13090	11/21/2022	11/21/2027
DOL	DOL	*****2435	JEFFREY M. JOHNSON	JMJ7 AND SON	5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	NYC		JENNIFER GUERRERO		1936 HEMPSTEAD TURNPIKE EAST MEADOW NY 11554	11/29/2019	11/29/2024
DOL	DOL		JIM PLAUGHER		17613 SANTE FE LINE ROAD WAYNEFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL		JMJ7 & SON CONSTRUCTION, LLC		5553 CAIRNS TRAIL LIVERPOOL NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 AND SONS CONTRACTORS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS		7014 13TH AVENUE BROOKLYN NY 11228	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS AND SONS		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JMJ7 CONTRACTORS, LLC		5553 CAIRNS TRAIL CLAY NY 13041	11/21/2022	11/21/2027
DOL	DOL		JOHN GOCEK		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL		JOHN MARKOVIC		47 MANDON TERRACE HAWTHORN NJ 07506	03/29/2021	03/29/2026
DOL	DOL		JOHN WASE		8545 RT 9W ATHENS NY 12015	03/09/2021	03/09/2026
DOL	DOL		JON E DEYOUNG		261 MILL RD P.O BOX 296EAST AURORA NY 14052	05/29/2019	05/29/2024
DOL	DOL		JORGE RAMOS		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	DOL		JORI PEDERSEN		415 FLAGER AVE #302STUART FL 34994	10/31/2018	10/31/2023

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DOL	DOL		JOSE CHUCHUCA		35 CLINTON AVE OSSINING NY 10562	09/12/2018	09/12/2023
DOL	DOL		JOY MARTIN		2404 DELAWARE AVE NIGARA FALLS NY 14305	09/12/2018	09/12/2023
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****5116	JP RACE PAINTING, INC. T/A RACE PAINTING		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL	*****1147	JRN CONSTRUCTION, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		JRN PAVING, LLC		531 THIRD STREET ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		JRN PAVING, LLC		531 THIRD STREET ALBANY NY 12206	12/22/2022	12/22/2027
DOL	DOL		JULIUS AND GITA BEHREND		5 EMES LANE MONSEY NY 10952	11/20/2002	11/20/3002
DOL	DOL		KARIN MANGIN		796 PHELPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	DOL		KATE E. CONNOR		7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL	*****2959	KELC DEVELOPMENT, INC		7088 INTERSTATE ISLAND RD SYRACUSE NY 13209	03/31/2021	03/31/2026
DOL	DOL		KIMBERLY F. BAKER		7901 GEE ROAD CANASTOTA NY 13032	08/17/2021	08/17/2026
DOL	DOL	*****3490	L & M CONSTRUCTION/DRYWALL INC.		1079 YONKERS AVE YONKERS NY 10704	08/07/2018	08/07/2023
DOL	DA	*****8816	LAKE CONSTRUCTION AND DEVELOPMENT CORPORATION		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	DOL		LEROY E. NELSON JR		531 THIRD ST ALBANY NY 12206	10/25/2022	10/25/2027
DOL	DOL		LEROY E. NELSON JR		531 THIRD ST ALBANY NY 12206	12/22/2022	12/22/2027
DOL	AG	*****3291	LINTECH ELECTRIC, INC.		3006 TILDEN AVE BROOKLYN NY 11226	02/16/2022	02/16/2027
DOL	DA	*****4460	LONG ISLAND GLASS & STOREFRONTS, LLC		4 MANHASSET TRL RIDGE NY 11961	09/06/2018	09/06/2023
DOL	DOL		LOUIS A. CALICCHIA		1223 PARK ST. PEEKSKILL NY 10566	05/17/2021	05/17/2026
DOL	NYC		LUBOMIR PETER SVOBODA		27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	NYC		M & L STEEL & ORNAMENTAL IRON CORP.		27 HOUSMAN AVE STATEN ISLAND NY 10303	12/26/2019	12/26/2024
DOL	DOL	*****2196	MAINSTREAM SPECIALTIES, INC.		11 OLD TOWN RD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DA		MANUEL P TOBIO		150 KINGS STREET BROOKLYN NY 14444	08/19/1998	08/19/2998
DOL	DA		MANUEL TOBIO		150 KINGS STREET BROOKLYN NY 11231	08/19/1998	08/19/2998
DOL	NYC		MAREK FABIJANOWSKI		50 MAIN ST WHITE PLAINS NY 10606	01/04/2019	01/04/2024
DOL	NYC		MARIA NUBILE		84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	DOL		MATTHEW P. KILGORE		4156 WILSON ROAD EAST TABERG NY 13471	03/26/2019	03/26/2024
DOL	DOL		MICHAEL LENIHAN		1079 YONKERS AVE UNIT 4YONKERS NY 10704	08/07/2018	08/07/2023
DOL	DOL	*****4829	MILESTONE ENVIRONMENTAL CORPORATION		704 GINESI DRIVE SUITE 29MORGANVILLE NJ 07751	04/10/2019	04/10/2024
DOL	NYC	*****9926	MILLENNIUM FIRE PROTECTION, LLC		325 W. 38TH STREET SUITE 204NEW YORK NY 10018	11/14/2019	11/14/2024
DOL	NYC	*****0627	MILLENNIUM FIRE SERVICES, LLC		14 NEW DROP LNE 2ND FLOORSTATEN ISLAND NY 10306	11/14/2019	11/14/2024

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DOL	DOL	*****1320	MJC MASON CONTRACTING, INC.		42 FOWLER AVENUE CORTLAND MANOR NY 10567	10/25/2022	10/25/2027
DOL	DOL	*****1320	MJC MASON CONTRACTING, INC.		42 FOWLER AVENUE CORTLAND MANOR NY 10567	01/24/2023	01/24/2028
DOL	NYC		MUHAMMED A. HASHEM		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	NYC		NAMOW, INC.		84-22 GRAND AVENUE ELMHURST NY 11373	03/10/2020	03/10/2025
DOL	DA	*****9786	NATIONAL INSULATION & GC CORP		180 MILLER PLACE HICKSVILLE NY 11801	12/12/2018	12/12/2023
DOL	NYC		NAVIT SINGH		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	03/01/2022	03/01/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	11/15/2022	11/15/2027
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	09/29/2021	09/29/2026
DOL	DOL		NICHOLE E. FRASER A/K/A NICHOLE RACE		3469 STATE RT. 69 PERISH NY 13131	02/09/2022	02/09/2027
DOL	DOL	*****7429	NICOLAE I. BARBIR	BESTUCCO CONSTRUCTI ON, INC.	444 SCHANTZ ROAD ALLENTOWN PA 18104	09/17/2020	09/17/2025
DOL	NYC	*****5643	NYC LINE CONTRACTORS, INC.		402 JERICHO TURNPIKE NEW HYDE PARK NY 11040	08/10/2022	08/10/2027
DOL	DOL		PAULINE CHAHALES		935 S LAKE BLVD MAHOPAC NY 10541	03/02/2021	03/02/2026
DOL	DOL		PETER STEVENS		11 OLD TOWN ROAD SELKIRK NY 12158	02/02/2021	02/02/2026
DOL	DOL		PETER STEVENS		8269 21ST ST BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL	*****0466	PRECISION BUILT FENCES, INC.		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	NYC		RASHEL CONSTRUCTION CORP		524 MCDONALD AVENUE BROOKLYN NY 11218	09/17/2020	09/17/2025
DOL	DOL	*****1068	RATH MECHANICAL CONTRACTORS, INC.		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	DOL	*****2633	RAW POWER ELECTRIC CORP.		3 PARK CIRCLE MIDDLETOWN NY 10940	07/11/2022	07/11/2027
DOL	DA	*****7559	REGAL CONTRACTING INC.		24 WOODBINE AVE NORTHPORT NY 11768	10/01/2020	10/01/2025
DOL	DOL	*****9148	RICH T CONSTRUCTION		107 WILLOW WOOD LANE CAMILLUS NY 13031	11/13/2018	11/13/2023
DOL	DOL		RICHARD MACONE		8617 THIRD AVE BROOKLYN NY 11209	09/17/2018	09/17/2023
DOL	DOL		RICHARD REGGIO		1617 MAIN ST PEEKSKILL NY 10566	03/03/2020	03/03/2025
DOL	DOL	*****9148	RICHARD TIMIAN	RICH T CONSTRUCTI ON	108 LAMONT AVE SYRACUSE NY 13209	10/16/2018	10/16/2023
DOL	DOL		RICHARD TIMIAN JR.		108 LAMONT AVE SYRACUSE NY 13209	10/16/2018	10/16/2023
DOL	DOL		RICHARD TIMIAN JR.		108 LAMONT AVE SYRACUSE NY 13209	11/13/2018	11/13/2023
DOL	DOL		ROBBYE BISSESAR		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	01/11/2003	01/11/3003
DOL	DOL		ROBERT A. VALERINO		3841 LANYARD COURT NEW PORT RICHEY FL 34652	07/09/2019	07/09/2024
DOL	DOL		ROBERT BRUNO		5 MORNINGSIDE DRIVE AUBURN NY 13021	05/28/2019	05/28/2024
DOL	DOL		RODERICK PUGH		404 OAK ST SUITE 101SYRACUSE NY 13203	07/23/2018	07/23/2023
DOL	DOL	*****4880	RODERICK PUGH CONSTRUCTION INC.		404 OAK ST SUITE 101SYRACUSE NY 13203	07/23/2018	07/23/2023
DOL	DOL		ROMEO WARREN		161 ROBYN RD MONROE NY 10950	07/11/2022	07/11/2027
DOL	DOL		RONALD MESSEN		14B COMMERCIAL AVE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL	*****7172	RZ & AL INC.		198 RIDGE AVENUE VALLEY STREAM NY 11581	06/06/2022	06/06/2027
DOL	DOL	*****1365	S & L PAINTING, INC.		11 MOUNTAIN ROAD P.O BOX 408MONROE NY 10950	03/20/2019	03/20/2024

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DOL	DOL	*****7730	S C MARTIN GROUP INC.		2404 DELAWARE AVE NIAGARA FALLS NY 14305	09/12/2018	09/12/2023
DOL	DOL		SAL FRESINA MASONRY CONTRACTORS, INC.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL		SAL MASONRY CONTRACTORS, INC.		(SEE COMMENTS) SYRACUSE NY 13202	07/16/2021	07/16/2026
DOL	DOL	*****9874	SALFREE ENTERPRISES INC		P.O BOX 14 2821 GARDNER RDPOMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		SALVATORE A FRESINA A/K/A SAM FRESINA		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	DOL		SAM FRESINA		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13218	07/16/2021	07/16/2026
DOL	NYC	*****0349	SAM WATERPROOFING INC		168-42 88TH AVENUE APT.1 AJAMAICA NY 11432	11/20/2019	11/20/2024
DOL	DA	*****0476	SAMCO ELECTRIC CORP.		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	NYC	*****1130	SCANA CONSTRUCTION CORP.		863 WASHINGTON STREET FRANKLIN SQUARE NY 11010	03/10/2020	03/10/2025
DOL	DOL	*****2045	SCOTT DUFFIE	DUFFIE'S ELECTRIC, INC.	P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	DOL		SCOTT DUFFIE		P.O BOX 111 CORNWALL NY 12518	03/03/2020	03/03/2025
DOL	NYC	*****6597	SHAIRA CONSTRUCTION CORP.		421 HUDSON STREET SUITE C5NEW YORK NY 10014	02/20/2019	02/20/2024
DOL	DOL		SHANE NOLAN		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL		SHULEM LOWINGER		11 MOUNTAIN ROAD 28 VAN BUREN DRMONROE NY 10950	03/20/2019	03/20/2024
DOL	DA		SILVANO TRAVALJA		3735 9TH ST LONG ISLAND CITY NY 11101	01/05/2023	01/05/2028
DOL	DOL	*****0816	SOLAR ARRAY SOLUTIONS, LLC		9365 WASHINGTON ST LOCKPORT IL 60441	07/23/2018	07/23/2023
DOL	DOL	*****0440	SOLAR GUYS INC.		8970 MIKE GARCIA DR MANASSAS VA 20109	07/16/2021	07/16/2026
DOL	NYC		SOMATIE RAMSUNAHAI		115-46 132ND ST SOUTH OZONE PARK NY 11420	09/17/2020	09/17/2025
DOL	DOL	*****2221	SOUTH BUFFALO ELECTRIC, INC.		1250 BROADWAY ST BUFFALO NY 14212	02/03/2020	02/03/2025
DOL	NYC	*****3661	SPANIER BUILDING MAINTENANCE CORP		200 OAK DRIVE SYOSSET NY 11791	03/14/2022	03/14/2027
DOL	DOL		STANADOS KALOGELAS		485 RAFT AVENUE HOLBROOK NY 11741	10/19/2021	10/19/2026
DOL	DOL	*****3496	STAR INTERNATIONAL INC		89-51 SPRINGFIELD BLVD QUEENS VILLAGE NY 11427	08/11/2003	08/11/3003
DOL	DOL	*****6844	STEAM PLANT AND CHX SYSTEMS INC.		14B COMMERCIAL AVENUE ALBANY NY 12065	11/14/2019	11/14/2024
DOL	DOL	*****9933	STEED GENERAL CONTRACTORS, INC.		1445 COMMERCE AVE BRONX NY 10461	05/30/2019	05/30/2024
DOL	DOL	*****9528	STEEL-IT, LLC.		17613 SANTE FE LINE ROAD WAYNESFIELD OH 45896	07/16/2021	07/16/2026
DOL	DOL		STEFANOS PAPASTEFANOU, JR. A/K/A STEVE PAPASTEFANOU, JR.		256 WEST SADDLE RIVER RD UPPER SADDLE RIVER NJ 07458	05/30/2019	05/30/2024
DOL	DOL		STEVE TATE		415 FLAGER AVE #302STUART FL 34994	10/31/2018	10/31/2023
DOL	DOL		STEVEN MARTIN		2404 DELWARE AVE NIAGARA FALLS NY 14305	09/12/2018	09/12/2023
DOL	DOL	*****3800	SUBURBAN RESTORATION CO. INC.		5-10 BANTA PLACE FAIR LAWN PLACE NJ 07410	03/29/2021	03/29/2026
DOL	DOL	*****1060	SUNN ENTERPRISES GROUP, LLC		370 W. PLEASANTVIEW AVE SUITE 2.329HACKENSACK NJ 07601	02/11/2019	02/11/2024
DOL	DOL	*****9150	SURGE INC.		8269 21ST STREET BELLEROSE NY 11426	12/22/2022	12/22/2027
DOL	DOL		SYED RAZA		198 RIDGE AVENUE NY 11581	06/06/2022	06/06/2027
DOL	DOL	*****8209	SYRACUSE SCALES, INC.		158 SOLAR ST SYRACUSE NY 13204	01/07/2019	01/07/2024
DOL	DOL		TERRY THOMPSON		11371 RIDGE RD WOLCOTT NY 14590	02/03/2020	02/03/2025

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DOL	DOL	*****9733	TERSAL CONSTRUCTION SERVICES INC		107 FACTORY AVE P.O BOX 11070SYRACUSE NY 13208	07/16/2021	07/16/2026
DOL	DOL		TERSAL CONTRACTORS, INC.		221 GARDNER RD P.O BOX 14POMPEI NY 13138	07/16/2021	07/16/2026
DOL	DOL		TERSAL DEVELOPMENT CORP.		1935 TEALL AVENUE SYRACUSE NY 13206	07/16/2021	07/16/2026
DOL	DOL		TEST		P.O BOX 123 ALBANY NY 12204	05/20/2020	05/20/2025
DOL	DOL	*****6789	TEST1000		P.O BOX 123 ALBANY NY 12044	03/01/2021	03/01/2026
DOL	DOL	*****5766	THE COKER CORPORATION	COKER CORPORATIO N	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	12/04/2018	12/04/2023
DOL	DOL	*****5766	THE COKER CORPORATION	COKER CORPORATIO N	2610 SOUTH SALINA ST SUITE 14SYRACUSE NY 13205	09/17/2020	09/17/2025
DOL	DA	*****1050	TRI STATE CONSTRUCTION OF NY CORP.		50-39 175TH PLACE FRESH MEADOWS NY 11365	03/28/2022	03/28/2027
DOL	DA	*****4106	TRIPLE H CONCRETE CORP		2375 RAYNOR STREET RONKONKOMA NY 11779	08/04/2021	08/04/2026
DOL	DOL	*****8210	UPSTATE CONCRETE & MASONRY CONTRACTING CO INC		449 WEST MOMBSHA ROAD MONROE NY 10950	06/06/2022	06/06/2027
DOL	DOL	*****6392	V.M.K CORP.		8617 THIRD AVE BROOKLYN NY 11209	09/17/2018	09/17/2023
DOL	DOL	*****6418	VALHALLA CONSTRUCTION, LLC.		796 PHLEPS ROAD FRANKLIN LAKES NJ 07417	12/01/2020	12/01/2025
DOL	NYC	*****2426	VICKRAM MANGRU	VICK CONSTRUCTI ON	21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	NYC		VICKRAM MANGRU		21 DAREWOOD LANE VALLEY STREAM NY 11581	09/17/2020	09/17/2025
DOL	DOL		VICTOR ALICANTI		42-32 235TH ST DOUGLASTON NY 11363	01/14/2019	01/14/2024
DOL	NYC		VIKTAR PATONICH		2630 CROPSEY AVE BROOKLYN NY 11214	10/30/2018	10/30/2023
DOL	DOL		VIKTORIA RATH		24 ELDOR AVENUE NEW CITY NY 10956	02/03/2020	02/03/2025
DOL	NYC	*****3673	WALTERS AND WALTERS, INC.		465 EAST AND THIRD ST MT. VERNON NY 10550	09/09/2019	09/09/2024
DOL	DOL	*****3296	WESTERN NEW YORK CONTRACTORS, INC.		3841 LAYNARD COURT NEW PORT RICHEY FL 34652	07/09/2019	07/09/2024
DOL	DOL	*****8266	WILLIAM CHRIS MCCLENDON	MCCLENDON ASPHALT PAVING	1646 FALLS STREET NIAGARA FALLS NY 14303	05/01/2023	05/01/2028
DOL	DOL		WILLIAM CHRIS MCCLENDON		1646 FALLS STREET NIAGARA FALLS NY 14303	05/01/2023	05/01/2028
DOL	DOL		WILLIAM G. PROERFRIEDT		85 SPRUCEWOOD ROAD WEST BABYLON NY 11704	01/19/2021	01/19/2026
DOL	DOL	*****5924	WILLIAM G. PROPHY, LLC	WGP CONTRACTIN G, INC.	54 PENTAQUIT AVE BAYSHORE NY 11706	01/19/2021	01/19/2026
DOL	DOL	*****4730	XGD SYSTEMS, LLC	TDI GOLF	415 GLAGE AVE #302STUART FL 34994	10/31/2018	10/31/2023

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SECTION 00 01 60

ADDITIONAL INSTRUCTIONS

00 01 60.01 BORINGS AND SUBSURFACE DATA

No soil borings were taken at the site of the project.

00 01 60.02 PRECONSTRUCTION CONFERENCE

A. A preconstruction conference will be held after award of the Contract, but prior to commencement of construction, at the office of the Engineer, and the Contractor shall have an authorized representative of his firm present at this meeting.

00 01 60.03 POWER OF ATTORNEY

A. Attorneys-in-fact who sign Bid Bonds or Contract Bonds must file with each bond a certified and effectively dated copy of their power of attorney.

00 01 60.04 LAWS AND REGULATIONS

A. The Bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

00 01 60.05 NON-COLLUSIVE BIDDING CERTIFICATION

A. A Non-Collusive Bidding Certification form as bound in these Documents must be executed and accompany the Bid.

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00 01 60.06 IRANIAN ENERGY SECTOR DIVESTMENT CERTIFICATION

A. The Bidder hereby represents that said Bidder is in compliance with New York State General Municipal Law Section 103-g entitled “Iranian Energy Sector Divestment”.

B. By submission of this Bid, each Bidder and each person signing on behalf of any Bidder certifies and in the case of a joint Bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each Bidder is not on the list created pursuant to NYS Finance Law Section 165-a(3)(b).

C. The Bidder shall submit a signed, notarized and dated Iranian Energy Sector Divestment Certification with its Bid.

D. Said certification is mandated by Section 103-g of the General Municipal Law. Reference the Iranian Energy Sector Divestment Certification form included in Section 00 03 73 of this Bid Document.

00 01 60.07 PREVENTION OF SEXUAL HARASSMENT COMPLIANCE

A. The Bidder hereby represents that said Bidder is in compliance with New York State General Municipal Law Section 201-g entitled “Prevention of Sexual Harassment”.

B. By submission of this Bid, each Bidder and each person signing on behalf of any Bidder certifies, and in the case of a joint Bid each party thereto certifies as to its own organization, under penalty of perjury, that the Bidder has and has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Such policy shall, at a minimum, meet the requirements of Section 201-g of the Labor Law.

C. The Bidder shall submit a signed, notarized, and dated Bidder’s Statement on Sexual Harassment Certification provided in Section 00 03 76, “Bidder’s Statement on Sexual Harassment”.

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00 01 60.08 CHANGES AND AMPLIFICATIONS TO GENERAL CONDITIONS

00 07 52.03 CONTRACTOR'S INSURANCE

Insurance shall provide that the policies shall not be changed or canceled until thirty (30) days after written notice has been given to the Owner.

In reference to Article 00 07 52.03.C, the Owner's Protective Liability Insurance shall name the Owner and the Engineer, as additional insureds.

In reference to this Article insurance certificate for statutory amounts as prescribed by New York State Workers' Compensation Law §57 which reflects the Owner as the certificate holder shall be provided by Contractor and each Subcontractor.

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00 01 60.08 CHANGES AND AMPLIFICATIONS TO GENERAL CONDITIONS - Continued

Note: ACORD forms are NOT acceptable proof of New York State Workers' Compensation or disability benefits insurance coverage. The only acceptable forms are:

Form #	Form Title	Issuing Agency
C-105.2 (9-07)	Certificate of NYS Workers' Compensation Insurance Coverage	New York State Workers' Compensation Board
U-26.3	Certificate of Workers' Compensation Insurance	New York State Insurance Fund www.nysif.com
SI-12 (10-03)	Certificate of Workers' Compensation Self-Insurance	State of New York Workers' Compensation Board
GSI-105.2 (2.02)	Certificate of Participation in Workers' Compensation Group Self-Insurance	State of New York Workers' Compensation Board

Insurance certificate for statutory amounts as prescribed by New York State Workers' Compensation Law §220(8) which reflects the Owner as the certificate holder shall be provided by Contractor and each Subcontractor.

Note: ACORD forms are NOT acceptable proof of New York State workers' compensation or disability benefits insurance coverage. The only acceptable forms are:

Form #	Form Title	Issuing Agency
DB-120.1 (5/06)	Certificate of Disability Benefits Insurance	New York State Workers' Compensation Board
DB-155 (1/98)	Certificate of Disability Benefits Self-Insurance	New York State Workers' Compensation Board

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00 01 60.08 CHANGES AND AMPLIFICATIONS TO GENERAL CONDITIONS – Continued.

00 07 53.01 REPRESENTATIONS OF CONTRACTOR

In Paragraph B ADD "Further, he has notified Engineer in writing of any discrepancies, errors or omissions in the Contract Documents or Specifications."

00 07 54.03 CONTRACTOR'S FIELD OFFICE

A Contractor's Field Office is not required.

00 07 55.01 LAWS, REGULATIONS AND PERMITS

In amendment to this Article, the Contractor shall be responsible for payment of all fines associated with construction of the project that may be levied for non-compliance with the laws, regulations, permits and plans.

00 07 55.04 TAXES

Purchases by the Town of Rotterdam is not subject to any Federal, State or County sales tax. Exemption certificates will be executed upon request.

00 07 56.04 APPROVED WORK SCHEDULES

The Contractor shall submit a Gantt chart (bar graph) type work schedule to the Engineer within two weeks after award of the Contract. The work schedule shall be updated monthly, and the Contractor shall furnish updated copies to the Engineer.

00 07 61.02 INTERPRETATION OF PLANS AND SPECIFICATIONS

In amendment to this Article, Bidders are advised of their responsibility to immediately notify the Engineer, as the Owner's representative, of any errors, emissions, discrepancies or inconsistencies which the Bidder may determine through review of the Plans and Specifications during the bidding period. Final interpretation of such items shall be by the Engineer and shall be rectified, if required, by addendum, in accordance with Article 00 01 00.08. Bidders are also advised that the successful Bidder, as Contractor, shall in no way take advantage of, nor shall be entitled to additional compensation for any prior knowledge of such errors, omissions, discrepancies or inconsistencies which were not disclosed to the Engineer during the bidding period.

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00 01 60.09 CHANGES AND AMPLIFICATIONS TO GENERAL REQUIREMENTS

00 10 15 CONTRACTOR'S USE OF PREMISES

Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the work is indicated.

a. Limits: Confine constructions operations to work areas noted on drawings.
b. Owner Occupancy: Owner will occupy site and existing building during construction.
c. Work Period: All demolition and new work must be completed during daylight hours (sunrise to sunset), weather permitting.
d. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Fire Department Personnel, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
e. Deliveries: Schedule deliveries to minimize use of driveways and entrances. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
f. Existing Facilities: Protect all existing portions of the facility from damage. Repair all damage caused by construction operations to the satisfaction of the Owner.
g. General Contractor is responsible for removal of all snow and ice from their construction area as needed to allow construction work to progress during the winter months.

00 10 51 LAYOUT OF WORK

DELETE entire Section, and SUBSTITUTE THEREFOR the following:

"The Contractors shall field verify and use the existing building columns and floor and platform elevations for establishing all offsets, elevations and control points to layout their work. The cost for this work is to be included in the price given in the Bid on which the Agreement is based, and no separate payment will be made therefor."

00 13 40.01 SUBMITTALS

"Faxed" submittals will not be accepted for shop drawing review. Drawings and other data may be faxed for informational purposes only.

00 13 40.06 DRAWINGS TO BE CHECKED BY THE CONTRACTOR

The Contractor is responsible to verify all dimensions, quantities and representations in the Contract Documents. Should the Contractor identify any discrepancies, the Owner and Engineer shall be notified immediately.

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00 01 60.09 CHANGES AND AMPLIFICATIONS TO GENERAL REQUIREMENTS - Continued

00 15 10.02 WATER

The Contractor shall be permitted to use Owner's existing on-site water sources. Contractor shall coordinate use with the Owner at all times. The Contractor shall maintain the condition and cleanliness of the facilities at level equal to, or better than, their existing condition at all times.

00 15 10.04 TEMPORARY ELECTRIC LIGHT AND POWER

The Contractor shall be permitted to use Owner's existing on-site electrical power sources. Contractor shall coordinate use with the Owner at all times.

00 15 80 PROJECT SIGN

A project sign is not required for this project.

00 15 90 ENGINEER'S FIELD OFFICE TRAILER

An Engineer's Field Office Trailer is not required.

00 01 60.10 OWNER OCCUPANCY REQUIREMENTS

A. Owner will occupy site during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the work so as not to interfere with Owner's operations. All work areas shall be kept in a neat and orderly manner. All exit ways shall be maintained at all times. Contractor shall coordinate with Owner's schedule to maintain use of facilities during construction.

00 01 60.11 COLLATERAL WORK

A. The work to be performed under this Contract shall be conducted in and around the Town of Rotterdam Town Hall. Each successful Bidder, as Contractor, shall not interfere with the operations of the Owner or the work of other contractors, but shall coordinate his work with the Owner and the collateral work occurring. Any interruption of utilities shall be coordinated with the Owner and 14 days written notice provided to the Owner prior to the scheduled interruption of the utility. Contractors shall protect the work of the other contracts during all construction activities, and shall be fully responsible for any damages to the equipment and/or work items of the other contracts. Any damage to equipment or other work items shall be immediately repaired by the responsible contractor at his expense and at no expense to the Owner. Coordination of all work by all contractors is essential and shall remain a specific requirement of this Contract throughout the duration of the project. (See also Article 00 01 00.04.)

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00 01 60.11 COLLATERAL WORK - Continued

B. It is very important that the Contractor be aware at all times of continuous use of the property in and around the work area covered by this Contract by employees and the general public. All work, especially erection of equipment, hoisting of materials overhead, etc., must be performed in such a manner that ensures the safety of all individuals on the premises.

00 01 60.12 INTERRUPTIONS TO BUILDING ELECTRICAL SERVICE

A. All interruptions to the building electrical service, if required, shall be scheduled and coordinated with the Owner.

00 01 60.13 CONTRACTOR'S HOURS OF OPERATION

A. The Town Hall is open Monday through Friday, 8:00 A.M. to 4:00 P.M. Unless otherwise approved, construction hours shall be limited to daylight hours.

00 01 60.14 PROJECT SCHEDULE AND WORK SEQUENCE

A. The Contractor is encouraged to complete the project in as short a period of time as is practicable. Failure to meet the specified time frame shall require payment of delay charges as specified herein. The Contractor shall limit work to the areas affected by this Contract and shall coordinate his work with the contiguous works of each other Contractor and the Owner. Contractors shall submit a detailed bar type project schedule in accordance with Article 00 07 56.04. See Article 00 01 00.03 for completion date. The following dates are project milestones:

October 27, 2023: NTP - Notice to Proceed (approximate)

300 days after NTP: Project Addition/Renovations Completed (August 22, 2024)

B. The completion of renovations on August 22, 2024 is a critical date to the project. For each calendar day or fraction thereof after August 22, 2024, that the project is not completed and the project site are cleared of all construction materials, the Contractor shall pay the Owner agreed-upon damages as follows:

Original Contract Amount		Agreed-Upon Damages
From More Than	To and Including	Per Calendar Day
$ 0	$ 25,000	$ 50
$ 25,000	$ 50,000	$100
$ 50,000	$ 100,000	$200
$100,000	$ 500,000	$300
$500,000	$2,000,000	$500

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00 01 60.15 AS-BUILT DRAWINGS

A. The Contractor shall submit three (3) sets of as-built drawings to the Engineer indicating all necessary locations and elevations and indicating all changes made during the course of construction. Ten (10) percent of the value of relative items will be withheld from monies due the Contractor and Substantial Completion will not be granted until As-Built Drawings have been reviewed and accepted by the Engineer.

00 01 60.16 ADDITIVE BID ITEMS

A. Additive Bid No. 1: Add/Deduct Unit price cost for the repair of the existing brick mortar greater than or less than the area included in the Base Bid (per square foot of brick mortar repairs).
   1. Provide all labor, materials, supplies and equipment, and other facilities and items necessary or proper for or incidental to be able to repair patch the existing brick mortar to allow for an acceptable base for the installation of new EPDM roofing.

B. Additive Bid No. 2: Add/Deduct Unit price cost for the replacement of existing metal deck greater than or less than the area included in the Base Bid (per square foot of metal deck).
   1. Provide all labor, materials, supplies and equipment, and other facilities and items necessary or proper for or incidental to be able to replace existing plywood sheathing to allow for an acceptable base for the installation of new asphalt shingle roofing.

00 01 60.17 ASBESTOS REPORT

A. An Asbestos Survey Report was conducted for the building. The report found asbestos containing materials in the existing floor tile and mastic of the existing facility. The report is attached following this Section.

END OF SECTION

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Barton & Loguidice

July 6, 2020

Mickey Maher
Town of Rotterdam Department of Public Works
1100 Sunrise Boulevard
Rotterdam, New York 12306

Re: Rotterdam Town Hall Building Renovations
File: 904.045.001

Dear Mr. Maher:

This letter and attachments represent Barton & Loguidice, D.P.C.'s (B&L's) report for the above-referenced project.

Introduction

B&L was retained by the Town of Rotterdam to conduct a pre-renovation hazardous materials investigation at the Rotterdam Town Hall, located at 1100 Sunrise Boulevard, Rotterdam, New York. The Town Hall is a multi-use public building which was occupied during the investigation and is scheduled to for renovation. Prior to any renovation activities, impacted asbestos-containing materials (ACMs) must be removed by a NYS licensed asbestos abatement contractor.

The survey was conducted by Sebastian Reeves representing B&L during June 11-18, 2020. Mr. Reeves is a New York State Department of Labor (DOL) certified asbestos inspector. A copy of the inspector's certifications and B&L's company license are provided in Appendix A.

Discussion and Results

Asbestos Sampling

Representative sampling was conducted throughout all accessible areas of the Rotterdam Town Hall including the roof. Friable samples were collected in triplicate and submitted for analysis by polarized light microscopy (PLM) with dispersion staining. Friable samples were analyzed utilizing serial analysis. Non-friable organically bound (NOB) materials were analyzed in accordance with New York State Department of Health requirements. NOBs are first subjected to an ashing and acid washing procedure to properly break down the material. The sample is then analyzed by PLM for asbestos content. If asbestos is found, the analysis is complete. However, a negative result must be confirmed by using transmission electron microscopy (TEM). All samples were analyzed by AmeriSci of New York, Inc. located in New York, New York.

The survey included the collection of 2 sets of nine friable material samples, 10 triplicate sets of friable material samples, 4 duplicate sets of friable material samples and 31 NOB duplicate sample sets. Laboratory reports, sample chain-of-custody forms, and laboratory certifications are included in Appendix B. Material sample results are summarized in the table below:

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Rotterdam Town Hall –Asbestos Sample Results					
Sample Number	**Material Description**	**Estimated Quantity**	**Condition/ Friability**	**Lab Results (% Asbestos)**	**Material Location**
CT-1-1,2,3	2'x5' ceiling tile, white fissured checker pattern	NA	Good/Friable	NAD	Throughout Building
COUNTER-2-1,2	Vinyl countertop, tan	NA	Good/Non-Friable	NAD	Throughout Building
CAULK-3-1,2	Caulk on counter top, white	NA	Good/Non-Friable	NAD	Throughout building
FT-4-1,2	Self-adhering vinyl floor panel sub-base, blue	NA	Good/Non-Friable	NAD	Rooms 204,202 and 203
FT-5-1,2	1'x2' self-adhering vinyl floor tile, brown marble	NA	Good/Non-Friable	NAD	Rooms 204,202 and 203
SKIM-6-1,2,3,4,5,6,7,8,9	Ceiling plaster skim coat above ceiling tile, white	NA	Good/Friable	NAD	Throughout Building
BASE-7-1,2,3,4,5,6,7,8,9	Ceiling plaster base coat above ceiling tile, gray	NA	Good/Friable	NAD	Throughout Building
WALLP-8-1,2	Fabric wall paper, tan	NA	Good/Non-Friable	NAD	Rooms 204,202 and 203
CB-9-1,2	4" vinyl baseboard, brown	NA	Good/Non-Friable	NAD	Throughout building
CBMAS-10-1,2	Mastic for baseboard, yellow	NA	Good/Non-Friable	NAD	Throughout building
WB-11-1,2,3	Wallboard, joint compound and seam tape, white	NA	Good/Non-Friable	NAD	Throughout building
LINOLEUM-12-1,2	Linoleum flooring, brown marble pattern	NA	Good/Non-Friable	NAD	Rooms 204,202 and 203
CB-13-1,2	4" vinyl baseboard, baby blue	NA	Good/Non-Friable	NAD	Throughout building
CBMAS-14-1,2	Baseboard mastic, yellow	NA	Good/Non-Friable	NAD	Throughout building
RGLUE-15-1,2	Carpet glue, yellow	NA	Fair/Non-Friable	NAD	Throughout building
SINKCAULK-16-1,2	Sink caulk, white	NA	Fair/Non-Friable	NAD	Bathrooms throughout building
RGLUE-17-1,2	Carpet glue on bare concrete, yellow	NA	Poor/Non-Friable	NAD	Second floor main hallway
FMASTIC-18-1,2	Mastic residue on bare concrete, black	NA	Poor/Non-Friable	NAD	Second floor main hallway
CB-19-1,2	4" vinyl baseboard, gray	NA	Good/Non-Friable	NAD	Supervisor's / Asst. Supervisor's offices

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Rotterdam Town Hall –Asbestos Sample Results					
Sample Number	**Material Description**	**Estimated Quantity**	**Condition/ Friability**	**Lab Results (% Asbestos)**	**Material Location**
CBMAS-20-1-,2	Mastic for baseboard, yellow	NA	Good/Non-Friable	NAD	Supervisor's / Asst. Supervisor's offices
VFLOOR-21-1,2	Vinyl flooring, brown wood pattern	NA	Good/Non-Friable	NAD	Supervisor's / Asst. Supervisor's offices
HVACGLUE-22-1,2	Glue for HVAC at duct joints, yellow	NA	Fair/Non-Friable	NAD	Throughout building
RGLUE-23-1,2	Carpet glue, yellow	NA	Fir/Non-Friable	NAD	Throughout building
TAPE-24-1,2	Tape for fiberglass ceiling insulation, brown	NA	Good/Non-Friable	NAD	Throughout building
FTMORTAR-25-1,2,3	1"x 1" mortar for floor tile, white	NA	Good/Friable	NAD	Bathrooms throughout building
FTTHINSET-26-1,2,3	1"x 1" thinset for floor tile, gray	NA	Good/Friable	NAD	Bathrooms throughout building
FT-27-1,2	12"x 12" floor tile, mottled olive	NA	Good/Non-Friable	NAD	Stairwells
FTMAS-28-1,2	Mastic for floor tile, black	NA	Good/Non-Friable	NAD	Stairwells
STAIR-29-1,2	Vinyl stair tread, gray	NA	Good/Non-Friable	NAD	Stairwells
WGLAZE-30-1,2	Window glaze for stairwell doors, black	NA	Good/Friable	NAD	Stairwell entry doors
RGLUE-31-1,2	Carpet glue, yellow	NA	Good/Non-Friable	NAD	Third floor corridor
PUCK-32-1,2	Ceiling mastic puck, brown	NA	Poor/Non-Friable	NAD	Throughout third floor
PBEAM-33-1,2,3	Decorative plaster ceiling beam, white	NA	Poor/Friable	NAD	Throughout building (majority on third floor)
CB-14-1,2,3	Fire-rated ceiling board	NA	Fair/Friable	NAD	First floor archive storage
JACKET-35-1,2,3	TSI pipe jacket, white	NA	Fair/Friable	NAD	Throughout building
ES-36-1,2,3	TSI end sealant, white	NA	Fair/Friable	NAD	Throughout building
CAULK-37-1,2,3	HVAC pipe caulk,	NA	Fair/Non-Friable	NAD	Maintenance Office
FP-31-1,2	Felt paper, brown	NA	Good/Non-Friable	NAD	Third floor roof
FP-39-1,2	Felt paper, brown	NA	Good/Non-Friable	NAD	Third floor roof
LS-40-1,2,3	Lap sealant, black	NA	Fair/Non-Friable	NAD	Roof
FB-42-1	Fiberboard, dark brown	NA	Poor/Friable	NAD	Second floor roof

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Rotterdam Town Hall –Asbestos Sample Results					
Sample Number	**Material Description**	**Estimated Quantity**	**Condition/ Friability**	**Lab Results (% Asbestos)**	**Material Location**
GYP-43-1,2	Gypsum roof deck, white	NA	Poor/Friable	NAD	Second floor roof
PLASTER-44-1,2,3	Plaster exterior façade, white	NA	Poor/Friable	NAD	Main entrance archway
CAULK-45-1,2	Exterior expansion joint caulk, white	NA	Good/Non-Friable	NAD	Throughout building exterior
CAULK-46-1,2	Exterior door joint caulk, red	NA	Fair/Non-Friable	NAD	Exterior door joints
CAULK-47-1,2	Exterior window caulk, dark brown	NA	Fair/Non-Friable	NAD	Exterior window joints
THINSET-48-1,2	Exterior brick façade thinset, gray	NA	Poor/Friable	NAD	Exterior Façade
MORTAR-49-1,2	Exterior stonewall mortar, gray	NA	Fair/Friable	NAD	Exterior stone wall

NAD: No Asbestos Detected
N/A: Not Applicable
Trace: Less than 1% asbestos, considered non-asbestos containing material
Assumed: Assumed to be Asbestos due to sampling inaccessibility during the investigation

Sample locations are illustrated on the attached figures. None of the suspect materials sampled for asbestos were found to contain asbestos. A description of existing roofing materials is provided in Appendix C.

In accordance with NYSDOL Industrial Code Rule 56, materials determined to be asbestos-containing must be removed by a licensed asbestos abatement contractor prior to renovation or demolition activities affecting them. This regulation also requires that a copy of this report be provided on site for all contractors to review during the work. A copy must also be sent to the local NYSDOL asbestos control bureau office, the government entity charged with issuing demolition permits or, if no such permit is required, to the town or city clerk where the building is located. Should unidentified or concealed materials be discovered during the renovation/demolition work that were not addressed by this survey the owner and contractor will be liable to follow the procedures identified in ICR56.

Lead-Based-Paint Sampling

The lead-based paint characterization included the collection of 3 paint chip samples in areas where paint was not sufficiently adhered to the substrate. The characterization and sampling was intended to screen the major painted surfaces in the buildings. The lead-based paint laboratory report is included in Appendix B and the paint sample results are summarized in the table below:

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Rotterdam Town Hall – Lead-Based Paint Sample Results						
Sample Number	**Painted Component**	**Component Substrate**	**Color**	**Paint Condition**	**Location**	**Result (% Lead)**
Paint 1	**Floor**	**Concrete**	**Gray**	**Poor**	**Room 109 Vault Floor**	**0.774**
Paint 2	Ceiling	Plaster	White	Good	Throughout building above drop ceiling	0.0551
Paint 3	Foundation Wall	Concrete	White	Fair	Exterior Foundation Wall	< 0.0007

In the table above, the samples collected have been listed along with the location, component, substrate, color, condition, and laboratory result. Sample locations are illustrated on the attached figures. Of the 3 samples collected, 1 is considered lead-based paint by the U.S. Environmental Protection Agency (EPA – HUD) definition (greater than 0.5 % by weight). The Occupational Safety & Health Administration (OSHA) considers paint with any concentration of lead to fall under the OSHA Construction Standard for lead. All contractors disturbing lead-based or lead-containing paint must comply with this Standard cited in 29 CFR 1926.62.

PCB Caulk Sampling

B&L conducted sampling of exterior caulking affected by planned renovation activities at the Rotterdam Town Hall. The sampling for PCBs was performed in response to the NYS Education Department recommendations regarding the sampling of window caulk prior to renovation projects to support their efforts to define the issue statewide. PCBs were used as an additive in window caulk during the 1960s and 1970s.

Our service included the sampling of representative caulk materials apparently affected by the planned renovation project for asbestos and PCBs. The bulk samples collected and analyzed for the presence and concentration of PCBs are presented below. Laboratory analysis for PCBs was performed by Life Science Laboratories, Inc. of East Syracuse, New York.

The table below illustrates the sample identification, material description, and laboratory results. Laboratory reports and sample chain of custody documentation are presented in Appendix B.

Rotterdam Town Hall – Town of Rotterdam – PCB Sample Results		
Sample ID	**Material Description**	**Result (PCB ppm)**
LS-40-3	Roof lap sealant, black	<5 mg/kg
CAULK-45-3	Exterior expansion joint caulk, white	<5 mg/kg
CAULK-46-3	Exterior door joint caulk, red	<5 mg/kg
CAULK-47-3	Exterior window caulk, dark brown	<5 mg/kg
Note: 1 mg/kg = 1 part per million (ppm)		

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The applicable statute regulating PCBs is the Federal Toxic Substance Control Act (TSCA). The federal disposal regulation (40 CFR 761) establishes the prohibitions of and requirements for the manufacture, processing, distribution in commerce, use, disposal, storage, and marking of PCBs and PCB-containing items. With regard to building materials, key factors in the decision process include: the point at which a material becomes waste; the source of PCBs in a material; and the concentration of PCBs in a material at the time of disposal. If PCBs are found in caulking at concentrations greater than 50 ppm at the time of disposal, then this material would be considered a PCB Bulk Product Waste and therefore regulated under TSCA. Also, if PCBs leached from this caulking to an adjacent concrete block or other masonry materials, then any detectable concentration of PCBs in the concrete or masonry would also be regulated under TSCA.

All the results from the samples collected at the Rotterdam Town Hall were below the laboratory detection limit for PCBs.

Applicable certifications and B&L's company license are provided in Appendix A. Laboratory reports and sample chain of custody are provided in Appendix B.

Universal Waste Assessment

A visual inspection of the Rotterdam Town Hall identified the materials below which may be considered hazardous or universal waste for disposal purposes. The following table summarizes the materials observed in the building, approximate quantities and locations. The hazardous/universal waste determination, handling, and disposal/recycling of these materials will need to be made by a qualified contractor prior to building renovation or demolition.

Potential Hazardous/Universal Building Wastes

Material	Approximate Quantity	Comments/Locations
Fluorescent light bulbs	496	Room lights and hallway lights - 2 bulbs Exterior flood lights – 2 bulbs/ ballast
Fluorescent ballasts (exterior only)	7	
Thermostats and controls containing mercury	2 Thermostats	Rooms 105 and 223

The fluorescent light fixtures in the building can house ballasts potentially containing polychlorinated biphenyls (PCBs). If the ballasts are not labeled as "non-PCB", they are to be treated as PCB-containing. Under TSCA EPA regulation 40 CFR Part 761, PCB ballasts that are leaking are required to be disposed of utilizing high temperature incineration. Non-leaking ballasts, however, can be disposed of in a hazardous waste landfill. Suspect PCB containing ballasts must be transported in sealed 55 gallon drums and labeled in accordance with DOT and EPA regulations.

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Light fixtures located within hallways and rooms contain ballasts labeled as “non-PCB” and are therefore not required to be treated as PCB-containing. Exterior flood light ballasts were not accessible during the investigation and should be assumed to house PCB-containing ballasts until otherwise determined.

Fluorescent light bulbs contain a small amount of mercury and their disposal may be regulated under RECRA EPA regulations 40 CFR Part 260 – 271. Bulbs regulated under this part are those determined to be hazardous waste as indicated by TCLP sample results. Bulbs can also be assumed hazardous waste and treated as such. If the fluorescent bulbs are found to be or assumed to be hazardous waste they must be transported and labeled in accordance with DOT and EPA regulations. Mercury-containing fluorescent light bulbs are identified within interior and exterior light fixtures.

Mercury found in thermostats and HVAC controls should be recycled and transported to an appropriately licensed facility for reclamation.

If you have any questions, please call me at (518) 218-1801. It was a pleasure working with you on this project and I hope we can be of service in the future.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

Sebastian L. Reeves
Project Industrial Hygienist

John E. Rigge
Vice President

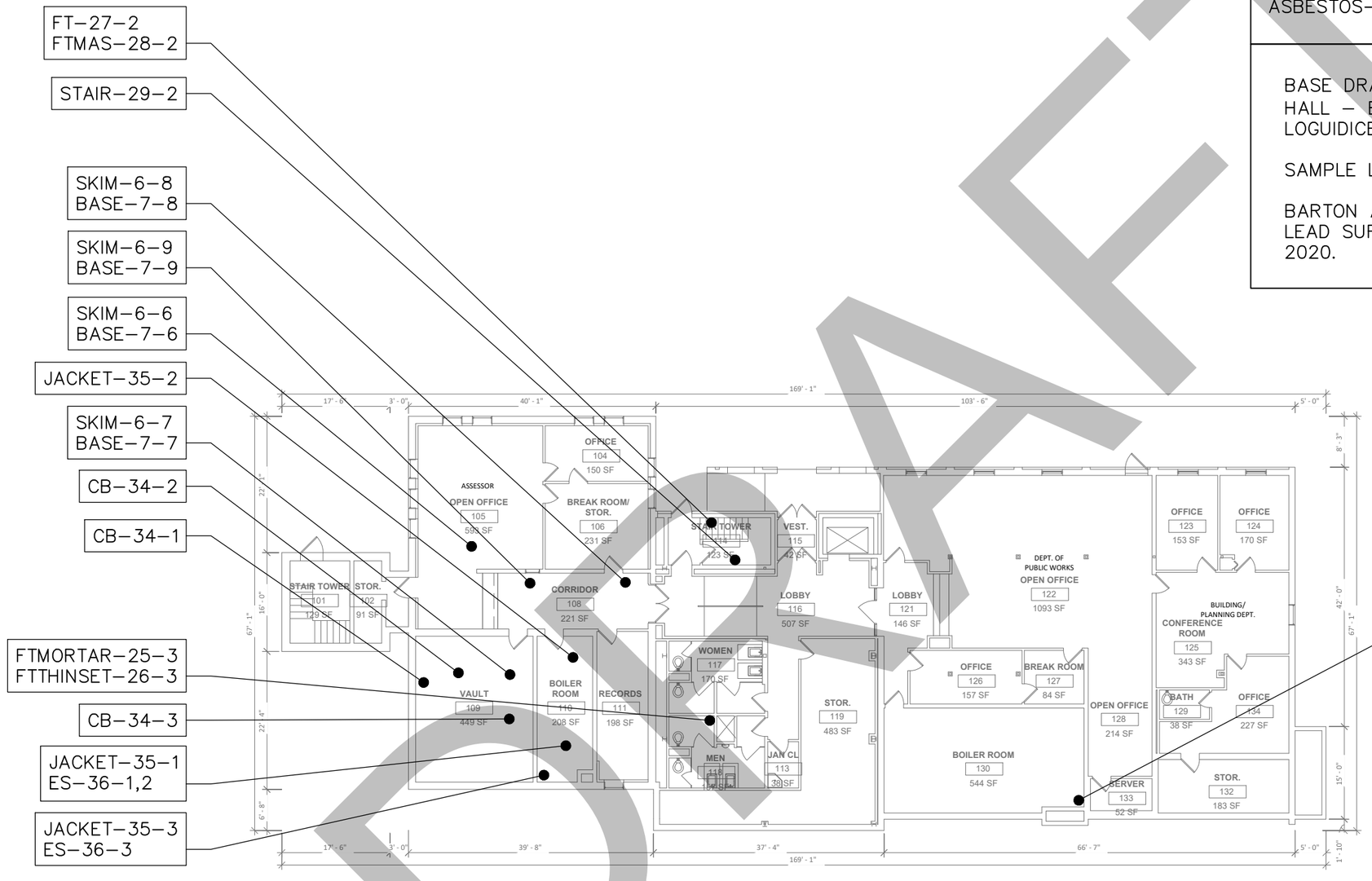
SLR/JER/tmj
Attachments

DRAFT

Figures

DRAFT

Plotted: Jul 02, 2020 - 8:30AM SYR By: bgh
Z:\BL-Vault\D2\18217AD2-1C71-4823-8927-99D5C4054147\0\2064000-2064999\2064332\L\L\904.045.001 Rotterdam Town Hall First Floor Hazardous Materials Survey (ID 2064332).dwg



LEGEND

ID-#-# ASBESTOS SAMPLE LOCATION

NOTE: SAMPLES LABELED IN **BOLD** ARE ASBESTOS-CONTAINING.

BASE DRAWING ENTITLED "ROTTERDAM TOWN HALL – EXISTING CONDITIONS" BY BARTON AND LOGUIDICE, D.P.C.

SAMPLE LOCATIONS ARE APPROXIMATE.

BARTON AND LOGUIDICE, D.P.C. ASBESTOS AND LEAD SURVEY COMPLETED JUNE 11, 12, AND 18, 2020.

DRAFT
7/2/2020

1"=20' 20' 0 20' 40'

TOWN OF ROTTERDAM
TOWN MUNICIPAL BUILDING RENOVATIONS

ASBESTOS SURVEY FIRST FLOOR

SCHENECTADY COUNTY, NEW YORK

Barton & Loguidice

Date
JULY 2020

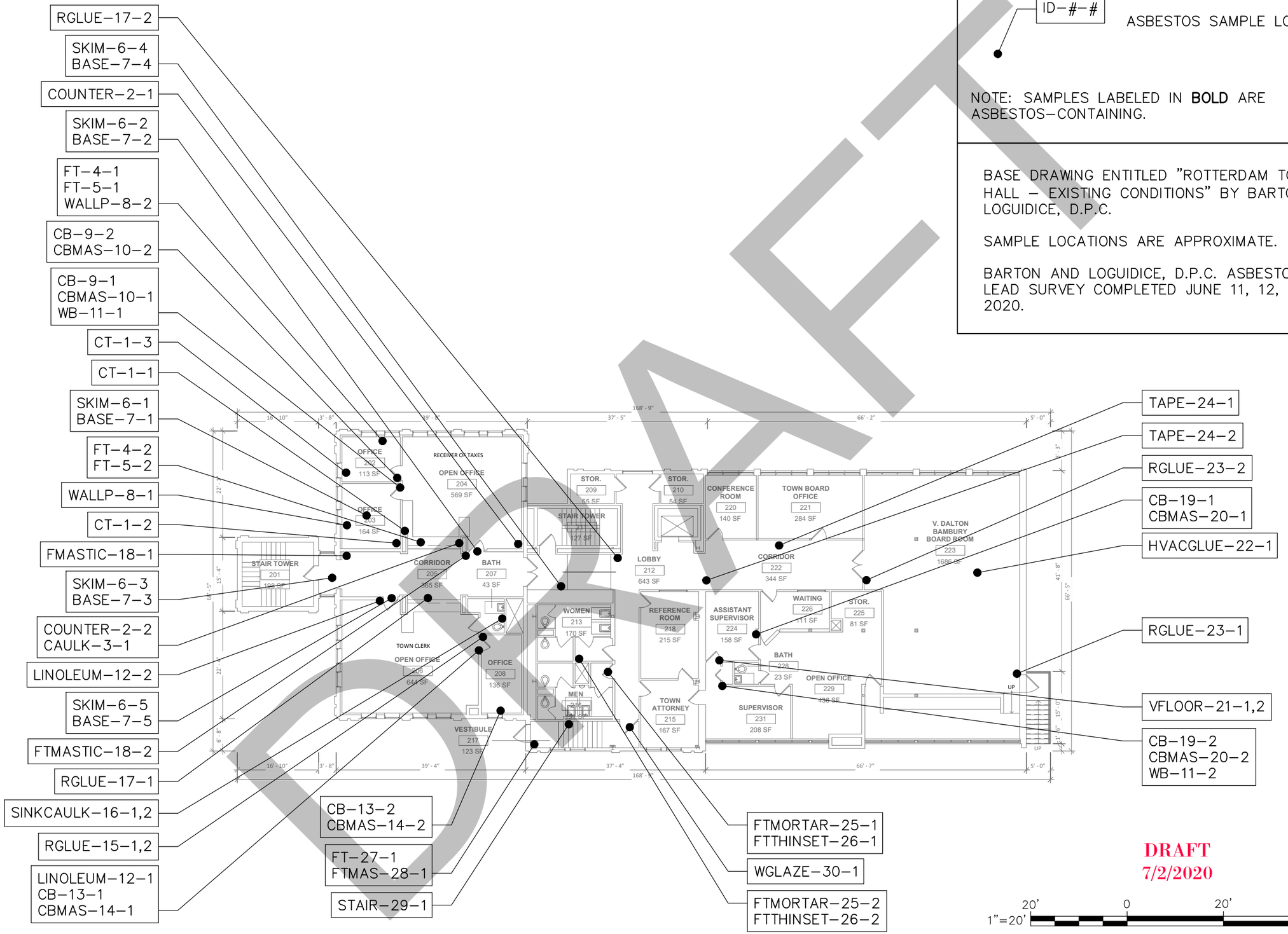
Scale
AS SHOWN

Figure Number
1

Project Number
904.045.001

DRAFT

Plotted: Jul 02, 2020 - 8:31AM SYR By: bgh
Z:\BL-Vault\D2\18217AD2-1C71-4823-8927-99D5C4054147\0\2056000-2056999\2056483\LL\904.045.001 Rotterdam Town Hall Second Floor Hazardous Materials Survey (ID 2056483).dwg



DRAFT
7/2/2020

20' 0 20' 40'
1"=20'

LEGEND

ID–#–# ASBESTOS SAMPLE LOCATION

NOTE: SAMPLES LABELED IN **BOLD** ARE ASBESTOS–CONTAINING.

BASE DRAWING ENTITLED "ROTTERDAM TOWN HALL – EXISTING CONDITIONS" BY BARTON AND LOGUIDICE, D.P.C.

SAMPLE LOCATIONS ARE APPROXIMATE.

BARTON AND LOGUIDICE, D.P.C. ASBESTOS AND LEAD SURVEY COMPLETED JUNE 11, 12, AND 18, 2020.

TOWN OF ROTTERDAM
TOWN MUNICIPAL BUILDING RENOVATIONS

ASBESTOS SURVEY SECOND FLOOR

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice

Date
JULY 2020

Scale
AS SHOWN

Figure Number
2

Project Number
904.045.001

LEGEND

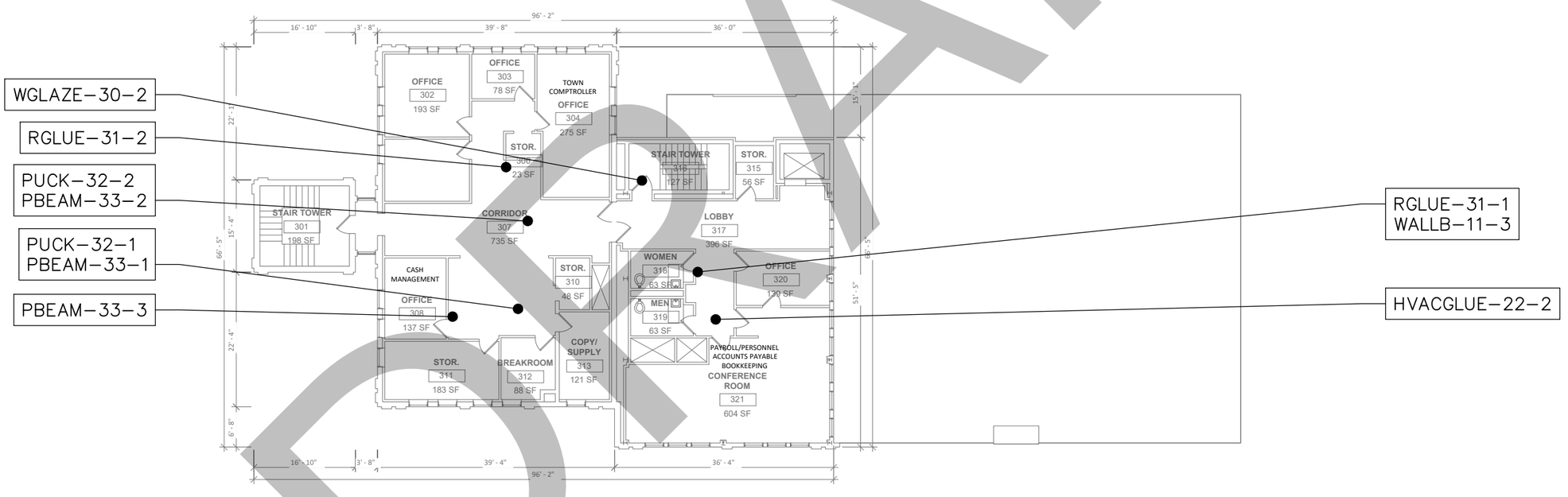
ID-#-# ASBESTOS SAMPLE LOCATION

NOTE: SAMPLES LABELED IN **BOLD** ARE ASBESTOS-CONTAINING.

BASE DRAWING ENTITLED "ROTTERDAM TOWN HALL – EXISTING CONDITIONS" BY BARTON AND LOGUIDICE, D.P.C.

SAMPLE LOCATIONS ARE APPROXIMATE.

BARTON AND LOGUIDICE, D.P.C. ASBESTOS AND LEAD SURVEY COMPLETED JUNE 11, 12, AND 18, 2020.



DRAFT
7/2/2020

20' 0 20' 40'
1"=20'

TOWN OF ROTTERDAM
TOWN MUNICIPAL BUILDING RENOVATIONS

ASBESTOS SURVEY THIRD FLOOR

SCHENECTADY COUNTY, NEW YORK

Barton & Loguidice

Date
JULY 2020

Scale
AS SHOWN

Figure Number
3

Project Number
904.045.001

DRAFT

Plotted: Jul 02, 2020 - 8:31AM SYR By: bgh
Z:\BL-Vault\D2\18217AD2-1C71-4823-8927-99D5C4054147\0\2056000-2056999\2056875\L\L\904.045.001 Rotterdam Town Hall Third Floor and Roof Hazardous Materials Survey (ID 2056875).dwg

LEGEND

ID-#-# ASBESTOS SAMPLE LOCATION

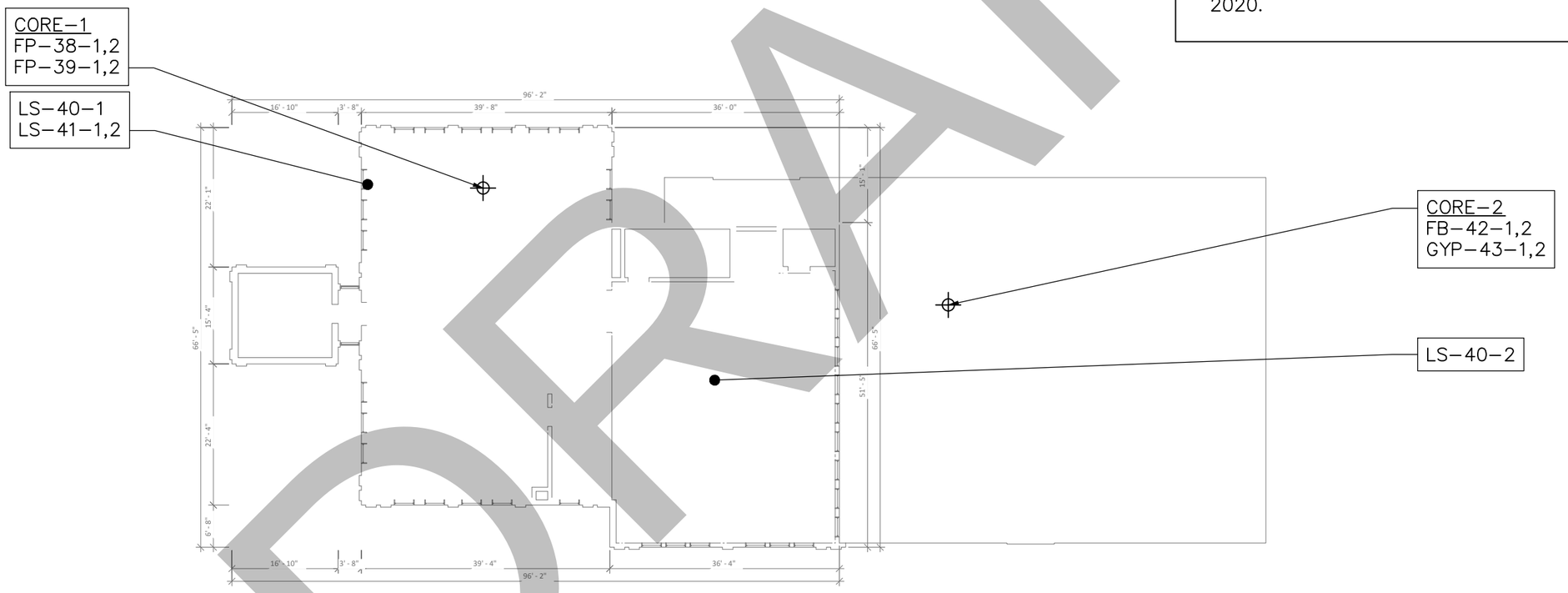
ROOF CORE

NOTE: SAMPLES LABELED IN **BOLD** ARE ASBESTOS-CONTAINING.

BASE DRAWING ENTITLED "ROTTERDAM TOWN HALL – EXISTING CONDITIONS" BY BARTON AND LOGUIDICE, D.P.C.

SAMPLE LOCATIONS ARE APPROXIMATE.

BARTON AND LOGUIDICE, D.P.C. ASBESTOS AND LEAD SURVEY COMPLETED JUNE 11, 12, AND 18, 2020.



DRAFT
7/2/2020

20' 0 20' 40'
1"=20'

TOWN OF ROTTERDAM
TOWN MUNICIPAL BUILDING RENOVATIONS

ASBESTOS SURVEY ROOF

SCHENECTADY COUNTY, NEW YORK

Barton & Loguidice

Date
JULY 2020

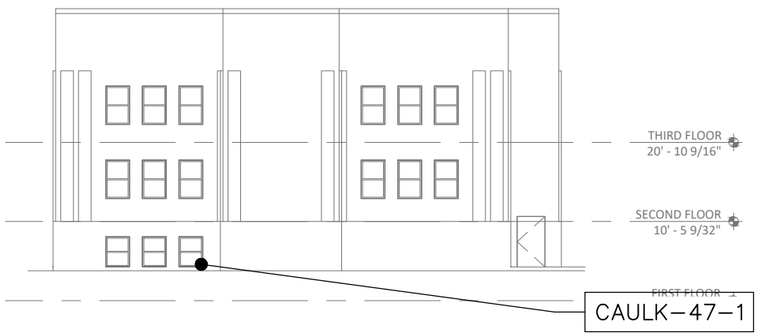
Scale
AS SHOWN

Figure Number
4

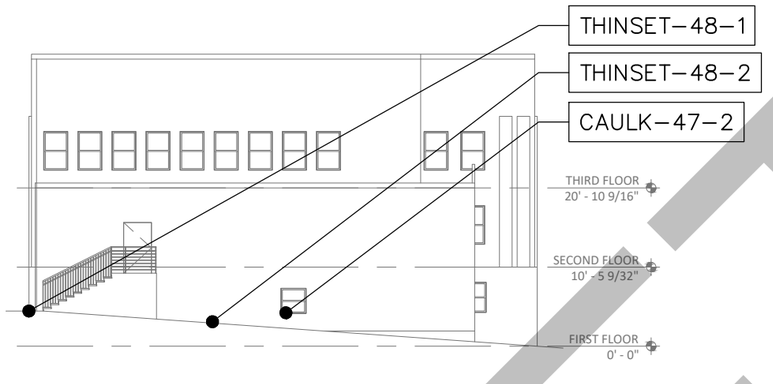
Project Number
904.045.001

DRAFT

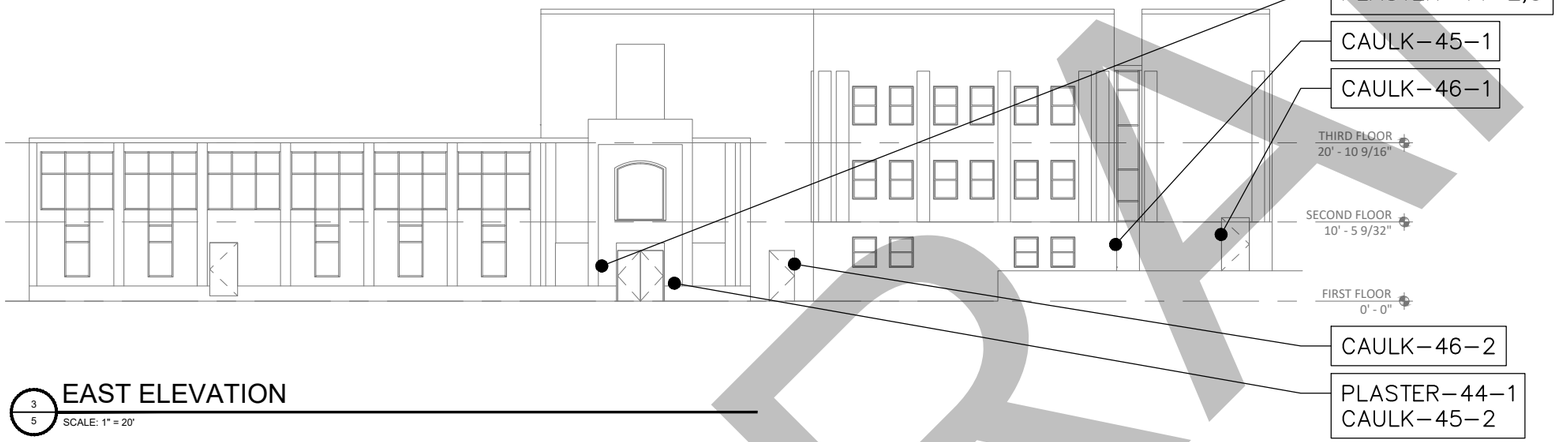
Plotted: Jul 02, 2020 - 8:31AM SYR By: bgh
Z:\BL-Vault\D2\18217AD2-1C71-4823-8927-99D5C4054147\0\2056000-2056999\2056875\LL\904.045.001 Rotterdam Town Hall Third Floor and Roof Hazardous Materials Survey (ID 2056875).dwg



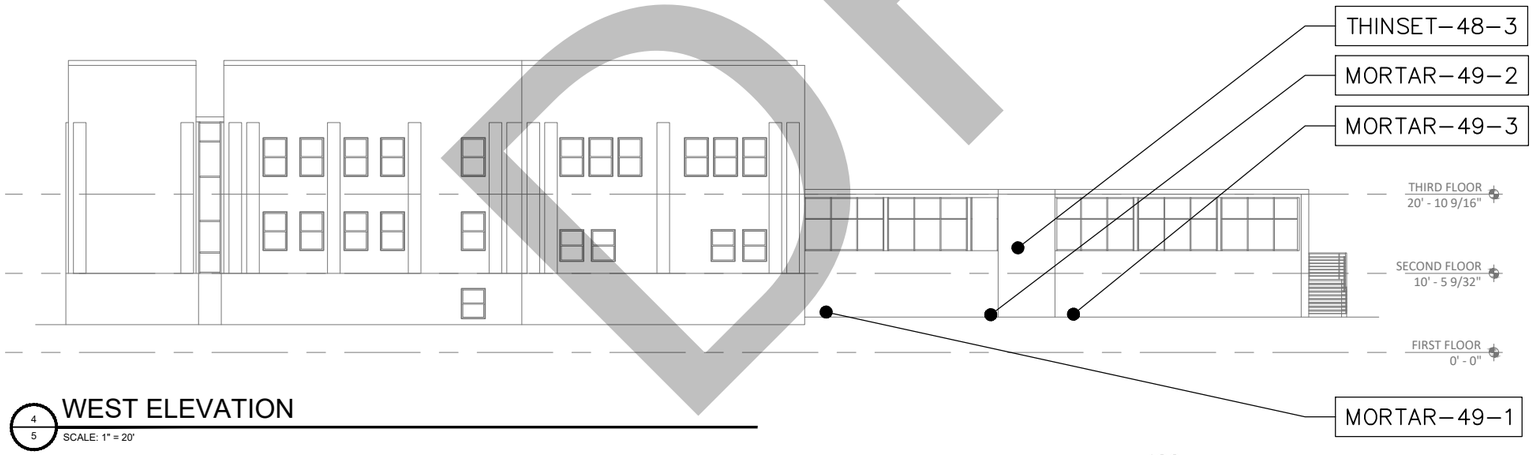
1/5 NORTH ELEVATION
SCALE: 1" = 20'



2/5 SOUTH ELEVATION
SCALE: 1" = 20'



3/5 EAST ELEVATION
SCALE: 1" = 20'



4/5 WEST ELEVATION
SCALE: 1" = 20'

LEGEND

ID–#–# ASBESTOS SAMPLE LOCATION

NOTE: SAMPLES LABELED IN **BOLD** ARE ASBESTOS–CONTAINING.

BASE DRAWING ENTITLED "ROTTERDAM TOWN HALL – EXISTING CONDITIONS" BY BARTON AND LOGUIDICE, D.P.C.

SAMPLE LOCATIONS ARE APPROXIMATE.

BARTON AND LOGUIDICE, D.P.C. ASBESTOS AND LEAD SURVEY COMPLETED JUNE 11, 12, AND 18, 2020.

DRAFT
7/2/2020

20' 0 20' 40'
1"=20'

TOWN OF ROTTERDAM
TOWN MUNICIPAL BUILDING RENOVATIONS

ASBESTOS SURVEY EXTERIOR

SCHENECTADY COUNTY, NEW YORK

Barton & Loguidice

Date
JULY 2020

Scale
AS SHOWN

Figure Number
5

Project Number
904.045.001

DRAFT

Plotted: Jul 02, 2020 – 8:31AM SYR By: bgh
Z:\BL–Vault\D2\18217AD2–1C71–4823–8927–99D5C4054147\0\2062000–2062999\2062095\L\L\904.045.001 Rotterdam Town Hall Exterior Hazardous Materials Survey (ID 2062095).dwg

LEGEND

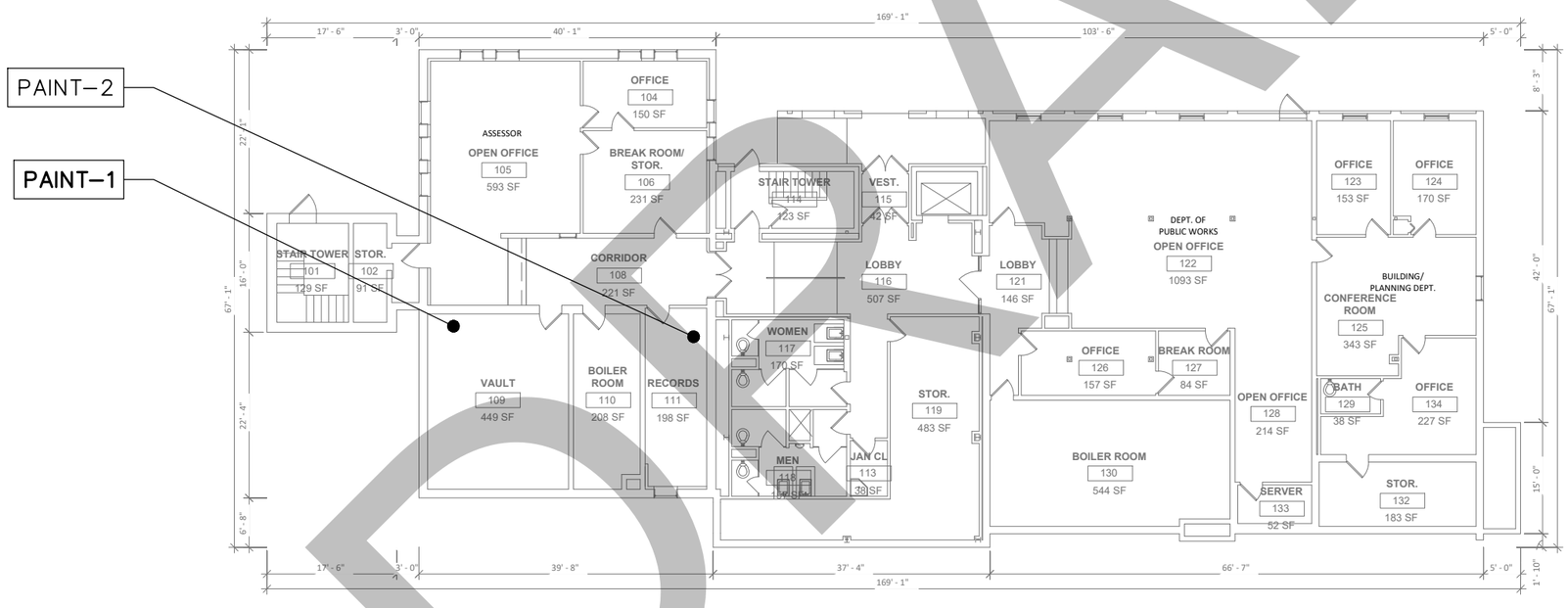
ID-#-# LEAD SAMPLE LOCATION

NOTE: SAMPLES LABELED IN **BOLD** ARE LEAD-BASED PAINT.

BASE DRAWING ENTITLED "ROTTERDAM TOWN HALL – EXISTING CONDITIONS" BY BARTON AND LOGUIDICE, D.P.C.

SAMPLE LOCATIONS ARE APPROXIMATE.

BARTON AND LOGUIDICE, D.P.C. ASBESTOS AND LEAD SURVEY COMPLETED JUNE 11, 12, AND 18, 2020.



DRAFT
7/2/2020

20' 0 20' 40'
1"=20'

TOWN OF ROTTERDAM
TOWN MUNICIPAL BUILDING RENOVATIONS

LEAD-BASED PAINT SURVEY FIRST FLOOR

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice

Date
JULY 2020

Scale
AS SHOWN

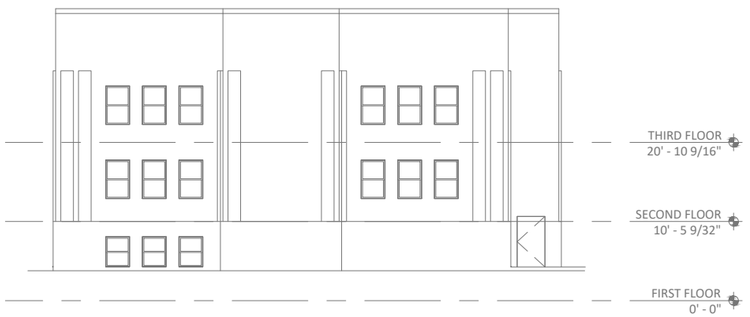
Figure Number
6

Project Number
904.045.001

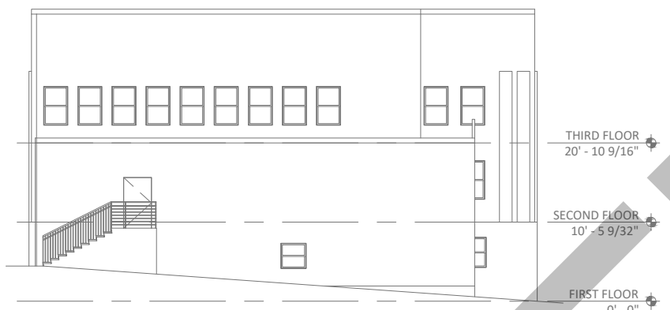
DRAFT

August 9, 2023

Plotted: Jul 02, 2020 - 8:31AM SYR By: bgh
Z:\BL-Vault\D2\18217AD2-1C71-4823-8927-99D5C4054147\0\2064000-2064999\2064332\L\LL\904.045.001 Rotterdam Town Hall First Floor Hazardous Materials Survey (ID 2064332).dwg



1/7 NORTH ELEVATION
SCALE: 1" = 20'



2/7 SOUTH ELEVATION
SCALE: 1" = 20'

3/7 EAST ELEVATION
SCALE: 1" = 20'

4/7 WEST ELEVATION
SCALE: 1" = 20'

LEGEND

ID-#-# LEAD SAMPLE LOCATION

NOTE: SAMPLES LABELED IN **BOLD** ARE LEAD-BASED PAINT.

BASE DRAWING ENTITLED "ROTTERDAM TOWN HALL – EXISTING CONDITIONS" BY BARTON AND LOGUIDICE, D.P.C.

SAMPLE LOCATIONS ARE APPROXIMATE.

BARTON AND LOGUIDICE, D.P.C. ASBESTOS AND LEAD SURVEY COMPLETED JUNE 11, 12, AND 18, 2020.

DRAFT
7/2/2020

20' 0 20' 40'
1"=20'

TOWN OF ROTTERDAM
TOWN MUNICIPAL BUILDING RENOVATIONS

LEAD-BASED PAINT SURVEY EXTERIOR

SCHENECTADY COUNTY, NEW YORK

Barton & Loguidice

Date
JULY 2020

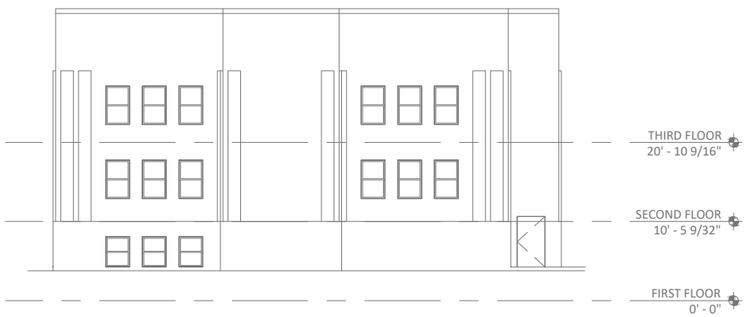
Scale
AS SHOWN

Figure Number
7

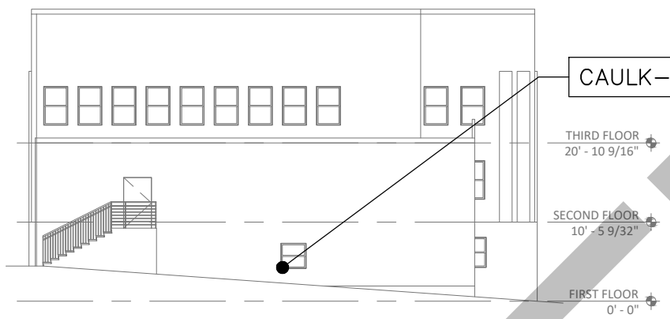
Project Number
904.045.001

DRAFT

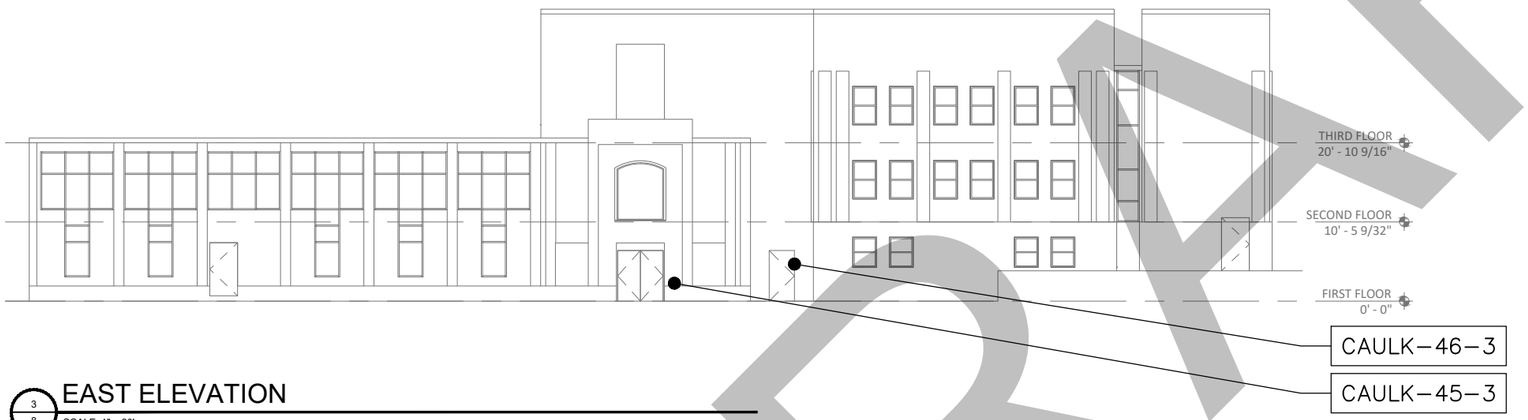
Plotted: Jul 02, 2020 - 8:31AM SYR By: bgh
Z:\BL-Vault\D2\18217AD2-1C71-4823-8927-99D5C4054147\0\2062000-2062999\2062095\LL\904.045.001 Rotterdam Town Hall Exterior Hazardous Materials Survey (ID 2062095).dwg



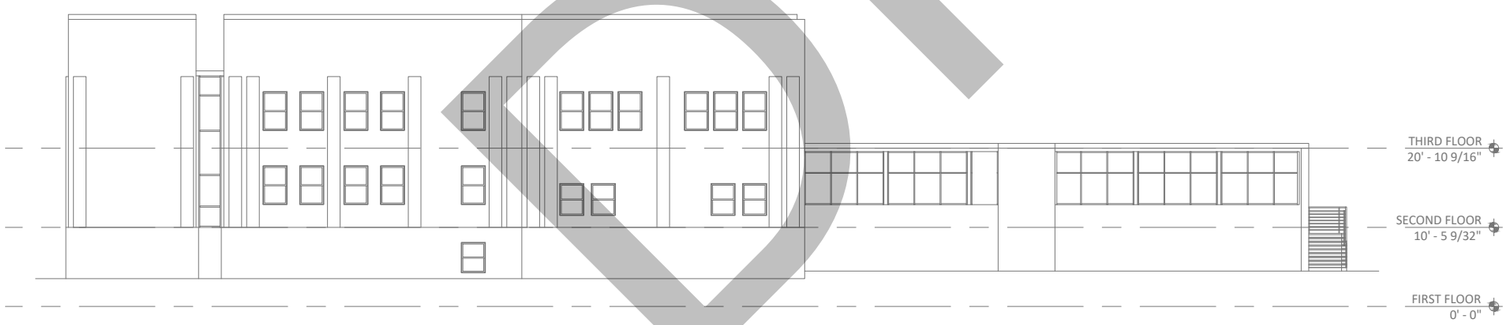
1/8 NORTH ELEVATION
SCALE: 1" = 20'



2/8 SOUTH ELEVATION
SCALE: 1" = 20'



3/8 EAST ELEVATION
SCALE: 1" = 20'



4/8 WEST ELEVATION
SCALE: 1" = 20'

LEGEND

ID–#–# PCB SAMPLE LOCATION

NOTE: SAMPLES LABELED IN **BOLD** ARE PCB–CONTAINING.

BASE DRAWING ENTITLED "ROTTERDAM TOWN HALL – EXISTING CONDITIONS" BY BARTON AND LOGUIDICE, D.P.C.

SAMPLE LOCATIONS ARE APPROXIMATE.

BARTON AND LOGUIDICE, D.P.C. ASBESTOS AND LEAD SURVEY COMPLETED JUNE 11, 12, AND 18, 2020.

DRAFT
7/2/2020

1"=20' 20' 0 20' 40'

TOWN OF ROTTERDAM
TOWN MUNICIPAL BUILDING RENOVATIONS
SCHENECTADY COUNTY, NEW YORK

PCB SURVEY EXTERIOR

Barton & Loguidice

Date
JULY 2020

Scale
AS SHOWN

Figure Number
8

Project Number
904.045.001

DRAFT

Plotted: Jul 02, 2020 – 8:31AM SYR By: bgh
Z:\BL–Vault\D2\18217AD2–1C71–4823–8927–99D5C4054147\0\2062000–2062999\2062095\L\L\904.045.001 Rotterdam Town Hall Exterior Hazardous Materials Survey (ID 2062095).dwg

Appendix A

NYSDOL Inspector Certification & Company License

DRAFT

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Barton & Loguidice, D.P.C.

443 Electronics Parkway

Liverpool, NY 13088

FILE NUMBER: 99-0130
LICENSE NUMBER: 29267
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 02/12/2020
EXPIRATION DATE: 02/28/2021

Duly Authorized Representative – Scott D Nostrand:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

NEW YORK STATE OF OPPORTUNITY. Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

LAB ID: 11480

April 01, 2020

MR. PAUL J. MUCHA
AMERICA SCIENCE TEAM NEW YORK, INC
117 EAST 30TH ST
NEW YORK, NY 10016

Certificate Expiration Date:
April 01, 2021

Dear Mr. Mucha,

Enclosed are certificate(s) of approval issued to your environmental laboratory for the current permit year. The certificate(s) supersede(s) any previously issued one(s) and is(are) in effect through the expiration date listed. Please carefully examine the certificate(s) to insure that the categories, subcategories, analytes, and methods for which your laboratory is approved are correct. In addition, verify that your laboratory's name, address, lead technical director, and identification number are accurate.

Pursuant to NYCRR Subpart 55-2.2, original certificates must be posted conspicuously in the laboratory and copies shall be made available to any client of the laboratory upon request.

Pursuant to NYCRR Subpart 55-2.6, any misrepresentation of the fields of accreditation (category - method - analyte) for which your laboratory is approved may result in denial, suspension, or revocation of your certification. Any use of the Environmental Laboratory Approval Program (ELAP) or National Environmental Laboratory Accreditation Program (NELAP) name, reference to the laboratory's approval status, and/or using the NELAP logo in any catalogs, advertising, business solicitations, proposals, quotations, laboratory analytical reports, or other materials must include the laboratory's ELAP identification number and distinguish between testing for which the laboratory is approved and testing for which the laboratory is not approved.

If you have any questions, please contact us at the Environmental Laboratory Approval Program, Wadsworth Center, New York State Department of Health, Empire State Plaza, Albany NY, 12237; by phone at (518) 485-5570; by facsimile at (518) 485-5568; and by email at elap@health.ny.gov.

Sincerely,

Victoria Pretti

Victoria Pretti
Director and QA Officer
Environmental Laboratory Approval Program

DRAFT

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER

Expires 12:01 AM April 01, 2021
Issued April 01, 2020

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. PAUL J. MUCHA
AMERICA SCIENCE TEAM NEW YORK, INC
117 EAST 30TH ST
NEW YORK, NY 10016

NY Lab Id No: 11480

is hereby APPROVED as an Environmental Laboratory for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material	Item 198.1 of Manual
	EPA 600/M4/82/020
Asbestos in Non-Friable Material-PLM	Item 198.6 of Manual (NOB by PLM)
Asbestos in Non-Friable Material-TEM	Item 198.4 of Manual

DRAFT

Serial No.: 61966

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.

STATE OF NEW YORK - DEPARTMENT OF LABOR

ASBESTOS CERTIFICATE

N.Y.S

SEBASTIAN L REEVES

CLASS(EXPIRES)

D INSP(04/20)

CERT# 13-21983

DMV# 538220837

MUST BE CARRIED ON ASBESTOS PROJECTS

DRAFT

Appendix B

Asbestos Laboratory Reports, Laboratory Certifications, & Sample Chain-of-Custody Forms

DRAFT

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

Barton & Loguidice, D.P.C.
Attn: John E. Rigge
443 Electronics Parkway

Liverpool, NY 13088

Date Received 06/23/20 **AmeriSci Job #** 220063743
Date Examined 06/24/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 3
RE: 904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
PLASTER-44-1 44 **Location:** Bulk Material	220063743-01	*No*	NAD [1] (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey/White, Homogeneous, Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 5 %, Non-fibrous 95 %			
PLASTER-44-2 44 **Location:** Bulk Material	220063743-02	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey/White, Homogeneous, Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 5 %, Non-fibrous 95 %			
PLASTER-44-3 44 **Location:** Bulk Material	220063743-03	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey/White, Homogeneous, Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 4 %, Non-fibrous 96 %			
THINSET-48-1 48 **Location:** Bulk Material	220063743-04	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
THINSET-48-2 48 **Location:** Bulk Material	220063743-05	*No*	NAD (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

DRAFT

See Reporting notes on last page

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
THINSET-48-3 48 **Location:** Bulk Material	220063743-06	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MORTAR-49-1 49 **Location:** Bulk Material	220063743-07	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MORTAR-49-2 49 **Location:** Bulk Material	220063743-08	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
MORTAR-49-3 49 **Location:** Bulk Material	220063743-09	***No***	NAD (by NYS ELAP 198.1) by Bo Sun on 06/24/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
CAULK-45-1 45 **Location:** Bulk Material	220063743-10	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 06/24/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 13.1 %			
CAULK-45-2 45 **Location:** Bulk Material	220063743-11	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 06/24/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 7.4 %			

DRAFT

See Reporting notes on last page

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
CAULK-46-1 46 **Location:** Bulk Material	220063743-12	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 06/24/20
Analyst Description: Red, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 10.2 %			
CAULK-46-2 46 **Location:** Bulk Material	220063743-13	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 06/24/20
Analyst Description: Red, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 7.7 %			
CAULK-47-1 47 **Location:** Bulk Material	220063743-14	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 06/24/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 8.4 %			
CAULK-47-2 47 **Location:** Bulk Material	220063743-15	***No***	NAD (by NYS ELAP 198.6) by Bo Sun on 06/24/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 8 %			

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Reporting Notes:

(1) This PLM job was analyzed using Motic BA310 Pol Scope S/N 1190000538

Analyzed by: Bo Sun

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By: _____ END OF REPORT

Table I
Summary of Bulk Asbestos Analysis Results

904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	PLASTER-44-1	44	----	----	----	----	NAD	NA
Location: Bulk Material								
02	PLASTER-44-2	44	----	----	----	----	NAD	NA
Location: Bulk Material								
03	PLASTER-44-3	44	----	----	----	----	NAD	NA
Location: Bulk Material								
04	THINSET-48-1	48	----	----	----	----	NAD	NA
Location: Bulk Material								
05	THINSET-48-2	48	----	----	----	----	NAD	NA
Location: Bulk Material								
06	THINSET-48-3	48	----	----	----	----	NAD	NA
Location: Bulk Material								
07	MORTAR-49-1	49	----	----	----	----	NAD	NA
Location: Bulk Material								
08	MORTAR-49-2	49	----	----	----	----	NAD	NA
Location: Bulk Material								
09	MORTAR-49-3	49	----	----	----	----	NAD	NA
Location: Bulk Material								
10	CAULK-45-1	45	0.133	69.9	17.0	13.1	NAD	NAD
Location: Bulk Material								
11	CAULK-45-2	45	0.113	72.4	20.2	7.4	NAD	NAD
Location: Bulk Material								
12	CAULK-46-1	46	0.068	61.3	28.5	10.2	NAD	NAD
Location: Bulk Material								
13	CAULK-46-2	46	0.160	74.3	18.1	7.7	NAD	NAD
Location: Bulk Material								
14	CAULK-47-1	47	0.328	54.0	37.6	8.4	NAD	NAD
Location: Bulk Material								
15	CAULK-47-2	47	0.411	55.0	37.0	8.0	NAD	NAD
Location: Bulk Material								

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501

August 9, 2023

See Reporting notes on last page

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Table I
Summary of Bulk Asbestos Analysis Results

904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM

502

Hitachi #747 - Noran

Analyzed by: Gabriella Morozov; Date Analyzed 6/25/2020

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or NYSDOH ELAP 198.1 for New York friable samples or NYSDOH ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or NYSDOH ELAP 198.4; for New York samples); NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, AIHA-LAP, LLC (PLM) Lab ID 102843.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:

August 9, 2020

Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/18/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
PLASTER-44-1	6/18/2020	BULK	% Asbestos	PLM
PLASTER-44-2	6/18/2020	BULK	% Asbestos	PLM
PLASTER-44-3	6/18/2020	BULK	% Asbestos	PLM
THINSET--48-1	6/18/2020	BULK	% Asbestos	PLM
THINSET-48-2	6/18/2020	BULK	% Asbestos	PLM
THINSET-48-3	6/18/2020	BULK	% Asbestos	PLM
MORTAR-49-1	6/18/2020	BULK	% Asbestos	PLM
MORTAR-49-2	6/18/2020	BULK	% Asbestos	PLM
MORTAR-49-3	6/18/2020	BULK	% Asbestos	PLM
	6/18/2020	BULK	% Asbestos	PLM
	6/18/2020	BULK	% Asbestos	PLM
	6/18/2020	BULK	% Asbestos	PLM
	6/18/2020	BULK	% Asbestos	PLM
	6/18/2020	BULK	% Asbestos	PLM

Comments: **Stop at first positive (> than 1% asbestos) in each triplicate sample series.**
Prices as per agreement.

Report Results to:

E-mail:	**John Rigge**	**TAT: 72RS**	jrigge@bartonandloguidice.com
	Sebastian Reeves		sreeves@bartonandloguidice.com
Written:	John Rigge		10 calendar days
Invoice:	John Rigge		10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:		6/22/2020
Received by Lab.:	6/23/20 1030	
Received by Analyst:		6.24.20 14:15

#220063743

DRAFT

Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/18/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
CAULK-45-1	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-45-2	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-46-1	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-46-2	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-47-1	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-47-2	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/18/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM

Comments: **Advance to TEM if PLM result is 1% asbestos or less.**
Stop at first positive in each sample set.

Report Results to:

E-mail: **John Rigge** **TAT: 72RS** jrigge@bartonandloguidice.com
Sebastian Reeves sreeves@bartonandloguidice.com
Written: John Rigge 10 calendar days
Invoice: John Rigge 10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:		6/22/2020
Received by Lab.:	6/23/20 1030	
Received by Analyst:	Bo Swt	6.24.20 1431

#220063743

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AMERI SCI

AmeriSci New York
117 EAST 30TH ST.
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-3114

PLM Bulk Asbestos Report

Barton & Loguidice, D.P.C.
Attn: John E. Rigge
443 Electronics Parkway

Liverpool, NY 13088

Date Received 06/18/20 **AmeriSci Job #** 220063220
Date Examined 06/19/20 **P.O. #**
ELAP # 11480 **Page** 1 **of** 19
RE: 904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
CT-1-1 1 **Location:** Bulk Material	220063220-01	*No*	NAD [1] (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 42.1 %			
CT-1-2 1 **Location:** Bulk Material	220063220-02	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 38.9 %			
CT-1-3 1 **Location:** Bulk Material	220063220-03	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 45.6 %			
SKIM-6-1 6 **Location:** Bulk Material	220063220-04	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/18/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SKIM-6-2 6 **Location:** Bulk Material	220063220-05	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/18/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

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See Reporting notes on last page

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
SKIM-6-3 6 **Location:** Bulk Material	220063220-06	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/18/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SKIM-6-4 6 **Location:** Bulk Material	220063220-07	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/18/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SKIM-6-5 6 **Location:** Bulk Material	220063220-08	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/18/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SKIM-6-6 6 **Location:** Bulk Material	220063220-09	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/18/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SKIM-6-7 6 **Location:** Bulk Material	220063220-10	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
SKIM-6-8 6 **Location:** Bulk Material	220063220-11	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
SKIM-6-9 6 **Location:** Bulk Material	220063220-12	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
BASE-7-1 7 **Location:** Bulk Material	220063220-13	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
BASE-7-2 7 **Location:** Bulk Material	220063220-14	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
BASE-7-3 7 **Location:** Bulk Material	220063220-15	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
BASE-7-4 7 **Location:** Bulk Material	220063220-16	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
BASE-7-5 7 **Location:** Bulk Material	220063220-17	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

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PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
BASE-7-6 7 **Location:** Bulk Material	220063220-18	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
BASE-7-7 7 **Location:** Bulk Material	220063220-19	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
BASE-7-8 7 **Location:** Bulk Material	220063220-20	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
BASE-7-9 7 **Location:** Bulk Material	220063220-21	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
WALLP-8-1 8 **Location:** Bulk Material	220063220-22	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Beige, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 6.9 %			
WALLP-8-2 8 **Location:** Bulk Material	220063220-23	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Beige, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 8.1 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
WB-11-1 11	220063220-24 **Location:** Bulk Material	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White/Brown, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 70 %, Non-fibrous 30 %			
WB-11-2 11	220063220-25 **Location:** Bulk Material	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White/Brown, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 65 %, Non-fibrous 35 %			
WB-11-3 11	220063220-26 **Location:** Bulk Material	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White/Brown, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 15 %, Non-fibrous 85 %			
TAPE-24-1 24	220063220-27 **Location:** Bulk Material	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black/Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 8 %, Non-fibrous 3 %			
TAPE-24-2 24	220063220-28 **Location:** Bulk Material	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black/Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Fibrous glass 10 %, Non-fibrous 4.3 %			
COUNTER-2-1 2	220063220-29 **Location:** Bulk Material	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: OffWhite/Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 3.6 %			

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PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
COUNTER-2-2 2 **Location:** Bulk Material	220063220-30	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: OffWhite/Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2 %			
CAULK-3-1 3 **Location:** Bulk Material	220063220-31	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 6.5 %			
CAULK-3-2 3 **Location:** Bulk Material	220063220-32	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 16.3 %			
FT-4-1 4 **Location:** Bulk Material	220063220-33	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Blue, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 1.7 %			
FT-4-2 4 **Location:** Bulk Material	220063220-34	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Blue, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2.1 %			
FT-5-1 5 **Location:** Bulk Material	220063220-35	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2.5 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
FT-5-2 5 **Location:** Bulk Material	220063220-36	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 3.2 %			
CB-9-1 9 **Location:** Bulk Material	220063220-37	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 1.3 %			
CB-9-2 9 **Location:** Bulk Material	220063220-38	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 1.7 %			
CBMAS-10-1 10 **Location:** Bulk Material	220063220-39	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 28.8 %			
CBMAS-10-2 10 **Location:** Bulk Material	220063220-40	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 20.4 %			
LINOLEUM-12-1 12 **Location:** Bulk Material	220063220-41	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2.9 %			

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PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
LINOLEUM-12-2 12 **Location:** Bulk Material	220063220-42	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 3 %			
CB-13-1 13 **Location:** Bulk Material	220063220-43	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 2.6 %			
CB-13-2 13 **Location:** Bulk Material	220063220-44	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 3.2 %			
CBMAS-14-1 14 **Location:** Bulk Material	220063220-45	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 51.3 %			
CBMAS-14-2 14 **Location:** Bulk Material	220063220-46	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 15.4 %			
RGLUE-15-1 15 **Location:** Bulk Material	220063220-47	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 36.7 %			

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PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
RGLUE-15-2 15 **Location:** Bulk Material	220063220-48	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 33.7 %			
SINKCAULK-16-1 16 **Location:** Bulk Material	220063220-49	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: OffWhite, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.7 %			
SINKCAULK-16-2 16 **Location:** Bulk Material	220063220-50	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: OffWhite, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.8 %			
RGLUE-17-1 17 **Location:** Bulk Material	220063220-51	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 35.5 %			
RGLUE-17-2 17 **Location:** Bulk Material	220063220-52	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 34.2 %			
FMASTIC-18-1 18 **Location:** Bulk Material	220063220-53	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 25.2 %			

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PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
FMASTIC-18-2 18 **Location:** Bulk Material	220063220-54	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 16.3 %			
CB-19-1 19 **Location:** Bulk Material	220063220-55	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 1.1 %			
CB-19-2 19 **Location:** Bulk Material	220063220-56	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 1.2 %			
CBMAS-20-1 20 **Location:** Bulk Material	220063220-57	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 33.2 %			
CBMAS-20-2 20 **Location:** Bulk Material	220063220-58	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 28.5 %			
VFLOOR-21-1 21 **Location:** Bulk Material	220063220-59	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.6 %			

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PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
VFLOOR-21-2 21 **Location:** Bulk Material	220063220-60	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.6 %			
HVACGLUE-22-1 22 **Location:** Bulk Material	220063220-61	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Green, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 21 %			
HVACGLUE-22-2 22 **Location:** Bulk Material	220063220-62	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Green, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 21.7 %			
RGLUE-23-1 23 **Location:** Bulk Material	220063220-63	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 36 %			
RGLUE-23-2 23 **Location:** Bulk Material	220063220-64	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 37.3 %			
FT-27-1 27 **Location:** Bulk Material	220063220-65	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 3.3 %			

DRAFT

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
FT-27-2 27 **Location:** Bulk Material	220063220-66	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 44.7 %			
FTMAS-28-1 28 **Location:** Bulk Material	220063220-67	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 7.9 %			
FTMAS-28-2 28 **Location:** Bulk Material	220063220-68	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow/Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 9.2 %			
STAIR-29-1 29 **Location:** Bulk Material	220063220-69	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 48.5 %			
STAIR-29-2 29 **Location:** Bulk Material	220063220-70	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 47.5 %			
GLAZE-30-1 30 **Location:** Bulk Material	220063220-71	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 0.3 %			

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PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

DRAFT

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
GLAZE-30-2 30 **Location:** Bulk Material	220063220-72	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 10.1 %			
RGLUE-31-1 31 **Location:** Bulk Material	220063220-73	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 23.6 %			
RGLUE-31-2 31 **Location:** Bulk Material	220063220-74	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 36.3 %			
PUCK-32-1 32 **Location:** Bulk Material	220063220-75	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 44.7 %			
PUCK-32-2 32 **Location:** Bulk Material	220063220-76	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Brown, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 43.2 %			
ES-36-1 36 **Location:** Bulk Material	220063220-77	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow/White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 16.2 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

DRAFT

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
ES-36-2 36 **Location:** Bulk Material	220063220-78	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow/White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 18.6 %			
ES-36-3 36 **Location:** Bulk Material	220063220-79	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Yellow/White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 13.4 %			
CAULK-37-1 37 **Location:** Bulk Material	220063220-80	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
CAULK-37-2 37 **Location:** Bulk Material	220063220-81	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
FP-38-1 38 **Location:** Bulk Material	220063220-82	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80 %, Fibrous glass Trace, Non-fibrous 20 %			
FP-38-2 38 **Location:** Bulk Material	220063220-83	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80 %, Fibrous glass Trace, Non-fibrous 20 %			

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
FP-39-1 39 **Location:** Bulk Material	220063220-84	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80 %, Fibrous glass Trace, Non-fibrous 20 %			
FTMORTAR-25-1 25 **Location:** Bulk Material	220063220-85	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
FTMORTAR-25-2 25 **Location:** Bulk Material	220063220-86	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
FTMORTAR-25-3 25 **Location:** Bulk Material	220063220-87	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
FTTHINSET-26-1 26 **Location:** Bulk Material	220063220-88	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
FTTHINSET-26-2 26 **Location:** Bulk Material	220063220-89	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			

DRAFT

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
FTTHINSET-26-3 26 **Location:** Bulk Material	220063220-90	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
PBEAM-33-1 33 **Location:** Bulk Material	220063220-91	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
PBEAM-33-2 33 **Location:** Bulk Material	220063220-92	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
PBEAM-33-3 33 **Location:** Bulk Material	220063220-93	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: White, Homogeneous, Non-Fibrous, Cementitious, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 100 %			
CB-34-1 34 **Location:** Bulk Material	220063220-94	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey/Brown, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 10 %, Non-fibrous 90 %			
CB-34-2 34 **Location:** Bulk Material	220063220-95	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey/Brown, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 40 %, Non-fibrous 60 %			

DRAFT

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
CB-34-3 34 **Location:** Bulk Material	220063220-96	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey/Brown, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 15 %, Non-fibrous 85 %			
JACKET-35-1 35 **Location:** Bulk Material	220063220-97	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Silver/White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 37 %, Fibrous glass 3 %, Non-fibrous 60 %			
JACKET-35-2 35 **Location:** Bulk Material	220063220-98	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Silver/White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 30 %, Fibrous glass 10 %, Non-fibrous 60 %			
JACKET-35-3 35 **Location:** Bulk Material	220063220-99	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Silver/White, Heterogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 28 %, Fibrous glass 12 %, Non-fibrous 60 %			
FB-42-1 42 **Location:** Bulk Material	220063220-100	*No*	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 22.5 %			
FB-42-2 42 **Location:** Bulk Material	220063220-101	*No*	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Dark Brown, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 60 %, Non-fibrous 40 %			

DRAFT

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
GYP-43-1 43 **Location:** Bulk Material	220063220-102	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2 %, Non-fibrous 98 %			
GYP-43-2 43 **Location:** Bulk Material	220063220-103	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 2 %, Non-fibrous 98 %			
FP-39-2 39 **Location:** Bulk Material	220063220-104	***No***	NAD (by NYS ELAP 198.1) by Jared C. Clarke on 06/19/20
Analyst Description: Grey, Homogeneous, Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Cellulose 80 %, Fibrous glass Trace, Non-fibrous 20 %			
LS-40-1 40 **Location:** Bulk Material	220063220-105	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 14.1 %			
LS-40-2 40 **Location:** Bulk Material	220063220-106	***No***	NAD (by NYS ELAP 198.6) by Jared C. Clarke on 06/19/20
Analyst Description: Black, Homogeneous, Non-Fibrous, Bulk Material **Asbestos Types:** **Other Material:** Non-fibrous 4.6 %			

DRAFT

PLM Bulk Asbestos Report

904.045.001; Rotterdam Town Hall; Asbestos Investigation,
Building: Town Hall

DRAFT

Reporting Notes:

(1) This PLM job was analyzed using Motic BA310 Pol Scope S/N 1190000326

Analyzed by: Jared C. Clarke

*NAD/NSD =no asbestos detected; NA =not analyzed; NA/PS=not analyzed/positive stop, (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; PLM Bulk Asbestos Analysis by Appd E to Subpt E, 40 CFR 763 (NVLAP 200546-0), ELAP PLM Method 198.1 for NY friable samples, which includes the identification and quantitation of vermiculite or ELAP 198.6 for NOB samples or EPA 400 pt ct by EPA 600-M4-82-020 (NY ELAP Lab 11480); Note:PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. NAD or Trace results by PLM are inconclusive, TEM is currently the only method that can be used to determine if this material can be considered or treated as non asbestos-containing in NY State (also see EPA Advisory for floor tile, FR 59,146,38970,8/1/94) National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the lab.This PLM report relates ONLY to the items tested. AIHA-LAP, LLC Lab ID 102843, RI Cert AAL-094, CT Cert PH-0186, Mass Cert AA000054.

Reviewed By: _____ END OF REPORT _____

Table I
Summary of Bulk Asbestos Analysis Results

904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
01	CT-1-1	1	0.222	22.7	35.2	42.1	NAD	NAD
Location: Bulk Material								
02	CT-1-2	1	0.142	26.8	34.4	38.9	NAD	NAD
Location: Bulk Material								
03	CT-1-3	1	0.215	21.7	32.7	45.6	NAD	NAD
Location: Bulk Material								
04	SKIM-6-1	6	----	----	----	----	NAD	NA
Location: Bulk Material								
05	SKIM-6-2	6	----	----	----	----	NAD	NA
Location: Bulk Material								
06	SKIM-6-3	6	----	----	----	----	NAD	NA
Location: Bulk Material								
07	SKIM-6-4	6	----	----	----	----	NAD	NA
Location: Bulk Material								
08	SKIM-6-5	6	----	----	----	----	NAD	NA
Location: Bulk Material								
09	SKIM-6-6	6	----	----	----	----	NAD	NA
Location: Bulk Material								
10	SKIM-6-7	6	----	----	----	----	NAD	NA
Location: Bulk Material								
11	SKIM-6-8	6	----	----	----	----	NAD	NA
Location: Bulk Material								
12	SKIM-6-9	6	----	----	----	----	NAD	NA
Location: Bulk Material								
13	BASE-7-1	7	----	----	----	----	NAD	NA
Location: Bulk Material								
14	BASE-7-2	7	----	----	----	----	NAD	NA
Location: Bulk Material								
15	BASE-7-3	7	----	----	----	----	NAD	NA
Location: Bulk Material								
16	BASE-7-4	7	----	----	----	----	NAD	NA
Location: Bulk Material								

DRAFT

524

August 9, 2023

See Reporting notes on last page

DRAFT

Table I
Summary of Bulk Asbestos Analysis Results

904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
17	BASE-7-5	7	----	----	----	----	NAD	NA
Location: Bulk Material								
18	BASE-7-6	7	----	----	----	----	NAD	NA
Location: Bulk Material								
19	BASE-7-7	7	----	----	----	----	NAD	NA
Location: Bulk Material								
20	BASE-7-8	7	----	----	----	----	NAD	NA
Location: Bulk Material								
21	BASE-7-9	7	----	----	----	----	NAD	NA
Location: Bulk Material								
22	WALLP-8-1	8	0.264	68.5	24.6	6.9	NAD	NAD
Location: Bulk Material								
23	WALLP-8-2	8	0.239	67.4	24.5	8.1	NAD	NAD
Location: Bulk Material								
24	WB-11-1	11	----	----	----	----	NAD	NA
Location: Bulk Material								
25	WB-11-2	11	----	----	----	----	NAD	NA
Location: Bulk Material								
26	WB-11-3	11	----	----	----	----	NAD	NA
Location: Bulk Material								
27	TAPE-24-1	24	0.253	86.4	2.6	11.0	NAD	NAD
Location: Bulk Material								
28	TAPE-24-2	24	0.218	83.6	2.1	14.3	NAD	NAD
Location: Bulk Material								
29	COUNTER-2-1	2	0.294	93.9	2.5	3.6	NAD	NAD
Location: Bulk Material								
30	COUNTER-2-2	2	0.134	94.5	3.5	2.0	NAD	NAD
Location: Bulk Material								
31	CAULK-3-1	3	0.341	83.0	10.5	6.5	NAD	NAD
Location: Bulk Material								
32	CAULK-3-2	3	0.156	70.9	12.7	16.3	NAD	NAD
Location: Bulk Material								

525

August 9, 2023

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
33	FT-4-1	4	0.232	19.4	78.9	1.7	NAD	NAD
Location:	Bulk Material							
34	FT-4-2	4	0.289	21.3	76.6	2.1	NAD	NAD
Location:	Bulk Material							
35	FT-5-1	5	0.189	28.7	68.8	2.5	NAD	NAD
Location:	Bulk Material							
36	FT-5-2	5	0.292	32.9	63.9	3.2	NAD	NAD
Location:	Bulk Material							
37	CB-9-1	9	0.274	29.0	69.7	1.3	NAD	NAD
Location:	Bulk Material							
38	CB-9-2	9	0.210	22.0	76.4	1.7	NAD	NAD
Location:	Bulk Material							
39	CBMAS-10-1	10	0.215	61.5	9.7	28.8	NAD	NAD
Location:	Bulk Material							
40	CBMAS-10-2	10	0.254	57.1	22.5	20.4	NAD	NAD
Location:	Bulk Material							
41	LINOLEUM-12-1	12	0.228	27.0	70.1	2.9	NAD	NAD
Location:	Bulk Material							
42	LINOLEUM-12-2	12	0.263	25.5	71.5	3.0	NAD	NAD
Location:	Bulk Material							
43	CB-13-1	13	0.206	21.9	75.5	2.6	NAD	NAD
Location:	Bulk Material							
44	CB-13-2	13	0.229	22.7	74.1	3.2	NAD	NAD
Location:	Bulk Material							
45	CBMAS-14-1	14	0.338	28.2	20.5	51.3	NAD	NAD
Location:	Bulk Material							
46	CBMAS-14-2	14	0.220	32.2	52.3	15.4	NAD	NAD
Location:	Bulk Material							
47	RGLUE-15-1	15	0.272	50.1	13.2	36.7	NAD	NAD
Location:	Bulk Material							
48	RGLUE-15-2	15	0.268	49.2	17.0	33.7	NAD	NAD
Location:	Bulk Material							

DRAFT

526

August 9, 2023

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
49	SINKCAULK-16-1	16	0.214	33.0	62.3	4.7	NAD	NAD
Location: Bulk Material								
50	SINKCAULK-16-2	16	0.255	30.0	65.2	4.8	NAD	NAD
Location: Bulk Material								
51	RGLUE-17-1	17	0.250	57.8	6.7	35.5	NAD	NAD
Location: Bulk Material								
52	RGLUE-17-2	17	0.264	59.8	6.0	34.2	NAD	NAD
Location: Bulk Material								
53	FMASTIC-18-1	18	0.233	63.1	11.7	25.2	NAD	NAD
Location: Bulk Material								
54	FMASTIC-18-2	18	0.191	66.2	17.5	16.3	NAD	NAD
Location: Bulk Material								
55	CB-19-1	19	0.208	22.6	76.3	1.1	NAD	NAD
Location: Bulk Material								
56	CB-19-2	19	0.241	23.4	75.4	1.2	NAD	NAD
Location: Bulk Material								
57	CBMAS-20-1	20	0.300	49.8	17.0	33.2	NAD	NAD
Location: Bulk Material								
58	CBMAS-20-2	20	0.188	36.9	34.7	28.5	NAD	NAD
Location: Bulk Material								
59	VFLOOR-21-1	21	0.167	28.6	66.7	4.6	NAD	NAD
Location: Bulk Material								
60	VFLOOR-21-2	21	0.167	28.6	66.7	4.6	NAD	NAD
Location: Bulk Material								
61	HVACGLUE-22-1	22	0.260	55.6	23.4	21.0	NAD	NAD
Location: Bulk Material								
62	HVACGLUE-22-2	22	0.274	55.8	22.5	21.7	NAD	NAD
Location: Bulk Material								
63	RGLUE-23-1	23	0.172	55.2	8.8	36.0	NAD	NAD
Location: Bulk Material								
64	RGLUE-23-2	23	0.248	53.6	9.1	37.3	NAD	NAD
Location: Bulk Material								

DRAFT

527

August 9, 2023

See Reporting notes on last page

Table I
Summary of Bulk Asbestos Analysis Results
904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
65	FT-27-1	27	0.244	10.6	86.1	3.3	NAD	NAD
Location: Bulk Material								
66	FT-27-2	27	0.219	41.3	14.0	44.7	NAD	NAD
Location: Bulk Material								
67	FTMAS-28-1	28	0.172	79.4	12.6	7.9	NAD	NAD
Location: Bulk Material								
68	FTMAS-28-2	28	0.196	61.9	28.9	9.2	NAD	NAD
Location: Bulk Material								
69	STAIR-29-1	29	0.193	38.2	13.3	48.5	NAD	NAD
Location: Bulk Material								
70	STAIR-29-2	29	0.145	38.3	14.2	47.5	NAD	NAD
Location: Bulk Material								
71	GLAZE-30-1	30	0.078	97.0	2.7	0.3	NAD	NAD
Location: Bulk Material								
72	GLAZE-30-2	30	0.103	83.9	5.9	10.1	NAD	NAD
Location: Bulk Material								
73	RGLUE-31-1	31	0.311	44.0	32.4	23.6	NAD	NAD
Location: Bulk Material								
74	RGLUE-31-2	31	0.416	45.2	18.6	36.3	NAD	NAD
Location: Bulk Material								
75	PUCK-32-1	32	0.151	48.1	7.2	44.7	NAD	NAD
Location: Bulk Material								
76	PUCK-32-2	32	0.289	52.6	4.2	43.2	NAD	NAD
Location: Bulk Material								
77	ES-36-1	36	0.121	34.5	49.4	16.2	NAD	NAD
Location: Bulk Material								
78	ES-36-2	36	0.114	32.8	48.6	18.6	NAD	NAD
Location: Bulk Material								
79	ES-36-3	36	0.153	36.0	50.6	13.4	NAD	NAD
Location: Bulk Material								
80	CAULK-37-1	37	----	----	----	----	NAD	NA
Location: Bulk Material								

See Reporting notes on last page

DRAFT

528
August 9, 2023

Table I
Summary of Bulk Asbestos Analysis Results
904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
81	CAULK-37-2	37	----	----	----	----	NAD	NA
Location: Bulk Material								
82	FP-38-1	38	----	----	----	----	NAD	NA
Location: Bulk Material								
83	FP-38-2	38	----	----	----	----	NAD	NA
Location: Bulk Material								
84	FP-39-1	39	----	----	----	----	NAD	NA
Location: Bulk Material								
85	FTMORTAR-25-1	25	----	----	----	----	NAD	NA
Location: Bulk Material								
86	FTMORTAR-25-2	25	----	----	----	----	NAD	NA
Location: Bulk Material								
87	FTMORTAR-25-3	25	----	----	----	----	NAD	NA
Location: Bulk Material								
88	FTTHINSET-26-1	26	----	----	----	----	NAD	NA
Location: Bulk Material								
89	FTTHINSET-26-2	26	----	----	----	----	NAD	NA
Location: Bulk Material								
90	FTTHINSET-26-3	26	----	----	----	----	NAD	NA
Location: Bulk Material								
91	PBEAM-33-1	33	----	----	----	----	NAD	NA
Location: Bulk Material								
92	PBEAM-33-2	33	----	----	----	----	NAD	NA
Location: Bulk Material								
93	PBEAM-33-3	33	----	----	----	----	NAD	NA
Location: Bulk Material								
94	CB-34-1	34	----	----	----	----	NAD	NA
Location: Bulk Material								
95	CB-34-2	34	----	----	----	----	NAD	NA
Location: Bulk Material								
96	CB-34-3	34	----	----	----	----	NAD	NA
Location: Bulk Material								

DRAFT

529
August 9, 2023

See Reporting notes on last page

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Table I
Summary of Bulk Asbestos Analysis Results

904.045.001; Rotterdam Town Hall; Asbestos Investigation, Building: Town Hall

AmeriSci Sample #	Client Sample#	HG Area	Sample Weight (gram)	Heat Sensitive Organic %	Acid Soluble Inorganic %	Insoluble Non-Asbestos Inorganic %	** Asbestos % by PLM/DS	** Asbestos % by TEM
97	JACKET-35-1	35	----	----	----	----	NAD	NA
Location: Bulk Material								
98	JACKET-35-2	35	----	----	----	----	NAD	NA
Location: Bulk Material								
99	JACKET-35-3	35	----	----	----	----	NAD	NA
Location: Bulk Material								
100	FB-42-1	42	0.668	48.6	28.9	22.5	NAD	NAD
Location: Bulk Material								
101	FB-42-2	42	----	----	----	----	NAD	NA
Location: Bulk Material								
102	GYP-43-1	43	----	----	----	----	NAD	NA
Location: Bulk Material								
103	GYP-43-2	43	----	----	----	----	NAD	NA
Location: Bulk Material								
104	FP-39-2	39	----	----	----	----	NAD	NA
Location: Bulk Material								
105	LS-40-1	40	0.191	51.0	34.9	14.1	NAD	NAD
Location: Bulk Material								
106	LS-40-2	40	0.302	51.9	43.5	4.6	NAD	NAD
Location: Bulk Material								

Analyzed by: Gabriella Morozov; Date Analyzed 6/20/2020 Hitachi #747-Noram

**Quantitative Analysis (Semi/Full); Bulk Asbestos Analysis - PLM by Appd E to Subpt E, 40 CFR 763 or NYSDOH ELAP 198.1 for New York friable samples or NYSDOH ELAP 198.6 for New York NOB samples; TEM (Semi/Full) by EPA 600/R-93/116 (or NYSDOH ELAP 198.4; for New York samples); NAD = no asbestos detected during a quantitative analysis; NA = not analyzed; Trace = <1%; (SOF-V) = Sprayed On Fireproofing containing Vermiculite; (SM-V) = Surfacing Material containing Vermiculite; Quantitation for beginning weights of <0.1 grams should be considered as qualitative only; Qualitative Analysis: Asbestos analysis results of "Present" or "NVA = No Visible Asbestos" represents results for Qualitative PLM or TEM Analysis only (no accreditation coverage available from any regulatory agency for qualitative analyses): NVLAP (PLM) 200546-0, NYSDOH ELAP Lab 11480, AIHA-LAP, LLC (PLM) Lab ID 102843.

Warning Note: PLM limitation, only TEM will resolve fibers <0.25 micrometers in diameter. TEM bulk analysis is representative of the fine grained matrix material and may not be representative of non-uniformly dispersed debris for which PLM evaluation is recommended (i.e. soils and other heterogenous materials).

Reviewed By:

530

August 9, 2023

Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
CT-1-1	6/11/2020	BULK	% Asbestos	PLM
CT-1-2	6/11/2020	BULK	% Asbestos	PLM
CT-1-3	6/11/2020	BULK	% Asbestos	PLM
SKIM-6-1	6/11/2020	BULK	% Asbestos	PLM
SKIM-6-2	6/11/2020	BULK	% Asbestos	PLM
SKIM-6-3	6/11/2020	BULK	% Asbestos	PLM
SKIM-6-4	6/11/2020	BULK	% Asbestos	PLM
SKIM-6-5	6/11/2020	BULK	% Asbestos	PLM
SKIM-6-6	6/12/2020	BULK	% Asbestos	PLM
SKIM-6-7	6/12/2020	BULK	% Asbestos	PLM
SKIM-6-8	6/12/2020	BULK	% Asbestos	PLM
SKIM-6-9	6/12/2020	BULK	% Asbestos	PLM
BASE-7-1	6/11/2020	BULK	% Asbestos	PLM
BASE-7-2	6/11/2020	BULK	% Asbestos	PLM

Comments: **Stop at first positive (> than 1% asbestos) in each triplicate sample series.**
Prices as per agreement.

Report Results to:

E-mail: **John Rigge** **TAT: 72RS** jrigge@bartonandloguidice.com
Sebastian Reeves sreeves@bartonandloguidice.com
Written: John Rigge 10 calendar days
Invoice: John Rigge 10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:	Lian Henry	6/16/2020
Received by Lab.:		6/18/20 1:38
Received by Analyst:		6/19/20 16:09

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Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
BASE-7-3	6/11/2020	BULK	% Asbestos	PLM
BASE-7-4	6/11/2020	BULK	% Asbestos	PLM
BASE-7-5	6/11/2020	BULK	% Asbestos	PLM
BASE-7-6	6/12/2020	BULK	% Asbestos	PLM
BASE-7-7	6/12/2020	BULK	% Asbestos	PLM
BASE-7-8	6/12/2020	BULK	% Asbestos	PLM
BASE-7-9	6/12/2020	BULK	% Asbestos	PLM
WALLP-8-1	6/11/2020	BULK	% Asbestos	PLM
WALLP-8-2	6/11/2020	BULK	% Asbestos	PLM
WB-11-1	6/11/2020	BULK	% Asbestos	PLM
WB-11-2	6/11/2020	BULK	% Asbestos	PLM
WB-11-3	6/11/2020	BULK	% Asbestos	PLM
TAPE-24-1	6/11/2020	BULK	% Asbestos	PLM
TAPE-24-2	6/11/2020	BULK	% Asbestos	PLM

Comments: **Stop at first positive (> than 1% asbestos) in each triplicate sample series.**
Prices as per agreement.

Report Results to:

E-mail: **John Rigge** **TAT: 72RS** jrigge@bartonandloguidice.com
Sebastian Reeves sreeves@bartonandloguidice.com
Written: John Rigge 10 calendar days
Invoice: John Rigge 10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:	Lan Henry	6/16/2020
Received by Lab.:		6/16/20
Received by Analyst:		6/16/20 1:38 16:09

220063220

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Asbestos Bulk Sample Chain-of-Custody
10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
COUNTER-2-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
COUNTER-2-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-3-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-3-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FT-4-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FT-4-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FT-5-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FT-5-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CB-9-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CB-9-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CBMAS-10-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CBMAS-10-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
LINOLEUM-12-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
LINOLEUM-12-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM

Comments: **Advance to TEM if PLM result is 1% asbestos or less.**
Stop at first positive in each sample set.

Report Results to:

E-mail: **John Rigge** **TAT: 72RS** jrigge@bartonandloguidice.com
Sebastian Reeves sreeves@bartonandloguidice.com
Written: John Rigge 10 calendar days
Invoice: John Rigge 10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:	Ian Henry	6/16/2020
Received by Lab.:		6/18/20
Received by Analyst:		6/19/20 1:28

220063220

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Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
CB-13-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CB-13-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CBMAS-14-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CBMAS-14-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
RGLUE-15-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
RGLUE-15-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
SINKCAULK-16-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
SINKCAULK-16-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
RGLUE-17-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
RGLUE-17-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FMASTIC-18-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FMASTIC-18-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CB-19-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CB-19-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM

Comments: **Advance to TEM if PLM result is 1% asbestos or less.**
Stop at first positive in each sample set.

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Sebastian Reeves sreeves@bartonandloguidice.com
Written: John Rigge 10 calendar days
Invoice: John Rigge 10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:	Liar Henry	6/16/2020
Received by Lab.:		6/18/20
Received by Analyst:		6/19/20 1338

6-09

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Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
CBMAS-20-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CBMAS-20-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
VFLOOR-21-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
VFLOOR-21-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
HVACGLUE-22-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
HVACGLUE-22-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
RGLUE-23-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
RGLUE-23-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FT-27-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FT-27-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FTMAS-28-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FTMAS-28-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
STAIR-29-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
STAIR-29-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM

Comments: **Advance to TEM if PLM result is 1% asbestos or less.**
Stop at first positive in each sample set.

Report Results to:

E-mail:	**John Rigge**	**TAT: 72RS**	jrigge@bartonandloguidice.com
	Sebastian Reeves		sreeves@bartonandloguidice.com
Written:	John Rigge		10 calendar days
Invoice:	John Rigge		10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:	Liar Henry	6/16/2020
Received by Lab.:		6/18/20
Received by Analyst:		6/19/20 1:28

220063220

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Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
GLAZE-30-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
GLAZE-30-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
RGLUE-31-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
RGLUE-31-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
PUCK-32-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
PUCK-32-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
ES-36-1	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
ES-36-2	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
ES-36-3	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-37-1	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
CAULK-37-2	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FP-38-1	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FP-38-2	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
FP-39-1	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM

Comments: **Advance to TEM if PLM result is 1% asbestos or less.**
Stop at first positive in each sample set.

Report Results to:

E-mail: **John Rigge** **TAT: 72RS** jrigge@bartonandloguidice.com
Sebastian Reeves sreeves@bartonandloguidice.com
Written: John Rigge 10 calendar days
Invoice: John Rigge 10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:	Liar Henry	6/16/2020
Received by Lab.:		6/18/20
Received by Analyst:		6/19/20 16:09 1:28

220063220

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Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
FTMORTAR-25-1	6/11/2020	BULK	% Asbestos	PLM
FTMORTAR-25-2	6/11/2020	BULK	% Asbestos	PLM
FTMORTAR-25-3	6/12/2020	BULK	% Asbestos	PLM
FTTHINSET-26-1	6/11/2020	BULK	% Asbestos	PLM
FTTHINSET-26-2	6/11/2020	BULK	% Asbestos	PLM
FTTHINSET-26-3	6/12/2020	BULK	% Asbestos	PLM
PBEAM-33-1	6/11/2020	BULK	% Asbestos	PLM
PBEAM-33-2	6/11/2020	BULK	% Asbestos	PLM
PBEAM-33-3	6/11/2020	BULK	% Asbestos	PLM
CB-34-1	6/12/2020	BULK	% Asbestos	PLM
CB-34-2	6/12/2020	BULK	% Asbestos	PLM
CB-24-3	6/12/2020	BULK	% Asbestos	PLM
JACKET-35-1	6/12/2020	BULK	% Asbestos	PLM
JACKET-35-2	6/12/2020	BULK	% Asbestos	PLM

Comments: **Stop at first positive (> than 1% asbestos) in each triplicate sample series.**
Prices as per agreement.

Report Results to:

E-mail: **John Rigge** **TAT: 72RS** jrigge@bartonandloguidice.com
Sebastian Reeves sreeves@bartonandloguidice.com
Written: John Rigge 10 calendar days
Invoice: John Rigge 10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:	Lian Henry	6/16/2020
Received by Lab.:		6/18/20 1:32
Received by Analyst:		6/18/20 1:01

220063220

DRAFT

Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
JACKET-35-3	6/12/2020	BULK	% Asbestos	PLM
FB-42-1	6/12/2020	BULK	% Asbestos	PLM
FB-42-2	6/12/2020	BULK	% Asbestos	PLM
GYP-43-1	6/12/2020	BULK	% Asbestos	PLM
GYP-43-2	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM
	6/12/2020	BULK	% Asbestos	PLM

Comments: **Stop at first positive (> than 1% asbestos) in each triplicate sample series.**
Prices as per agreement.

Report Results to:

E-mail: **John Rigge** **TAT: 72RS** jrigge@bartonandloguidice.com
Sebastian Reeves sreeves@bartonandloguidice.com
Written: John Rigge 10 calendar days
Invoice: John Rigge 10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:	Ian Henry	6/16/2020
Received by Lab.:		6/18/20
Received by Analyst:		6/15/20 16:09 1:38

220063220

DRAFT

Barton & Loguidice

Asbestos Bulk Sample Chain-of-Custody
10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall**
Asbestos Investigation
Building: Town hall

Project No.: **904.045.001**
Date Sampled: **6/11-12/2020**
Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Medium	Analysis Required	Method Reference
FP-39-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
LS-40-1	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
LS-40-2	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/11/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM
	6/12/2020	BULK (NOB)	% Asbestos	PLM grav. / TEM

Comments: **Advance to TEM if PLM result is 1% asbestos or less.**
Stop at first positive in each sample set.

Report Results to:

E-mail:	**John Rigge**	**TAT: 72RS**	jrigge@bartonandloguidice.com
	Sebastian Reeves		sreeves@bartonandloguidice.com
Written:	John Rigge		10 calendar days
Invoice:	John Rigge		10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:		6/16/2020
Received by Lab.:	for LH	6/18/20 1128
Received by Analyst:		6/19/20 11:09

220063220

DRAFT

LSL Life Science Laboratories, Inc.

John Rigge
Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, NY 13088

Phone: **(315) 457-5200**
FAX: **(315) 451-0052**

Laboratory Analysis Report

Prepared For

Barton & Loguidice, D.P.C.

Client Project ID:

Rotterdam Town Hall / Proj.# 904.045.001

LSL Project ID: **2009259**

Receive Date/Time: 06/23/20 13:46

DRAFT

Life Science Laboratories, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose. By the Client's acceptance and/or use of this report, the Client agrees that LSL is hereby released from any and all liabilities, claims, damages or causes of action affecting or which may affect the Client as regards to the results contained in this report. The Client further agrees that the only remedy available to the Client in the event of proven non-conformity with the above warranty shall be for LSL to re-perform the analytical test(s) at no charge to the Client. The data contained in this report are for the exclusive use of the Client to whom it is addressed, and the release of these data to any other party, or the use of the name, trademark or service mark of Life Science Laboratories, Inc. especially for the use of advertising to the general public, is strictly prohibited without express prior written consent of Life Science Laboratories, Inc. This report may only be reproduced in its entirety. No partial duplication is allowed. The Chain of Custody and the Sample Receipt documents submitted with these samples are considered by LSL to be an appendix of this report and may contain data qualifiers and specific information that pertains to the samples included in this report. The analytical result(s) in this report are only representative of the sample(s) submitted for analysis. LSL makes no claim of a sample's representativeness, or integrity, if sampling was not performed by LSL personnel.

LSL Central Lab
5854 Butternut Drive
East Syracuse, NY 13057
Tel. (315) 445-1900
Fax (315) 445-1104
NYS DOH ELAP #10248

LSL North Lab
131 St. Lawrence Avenue
Waddington, NY 13694
Tel. (315) 388-4476
Fax (315) 388-4061
NYS DOH ELAP #10900

LSL Finger Lakes Lab
16 N. Main St., PO Box 424
Wayland, NY 14572
Tel. (585) 213-4090
Fax (585) 213-4192
NYS DOH ELAP #11667

LSL Southern Tier Office
Cuba, NY
Tel. (585) 209-4032

LSL MidLakes Office
Canandaigua, NY
Tel. (585) 728-3320

This report was reviewed by: Kristin E. Carpenter Date: 06/30/20
Kristin E. Carpenter, Quality Staff

A copy of this report was sent to: *Sabastian Reeves*

Date Printed: 6/30/20

August 9, 2023

-- LABORATORY ANALYSIS REPORT --

Barton & Loguidice, D.P.C. Liverpool, NY

Sample ID: LS-40-3 **LSL Sample ID:** 2009259-001
Location: 2nd Story Roof
Sampled: 06/12/20 0:00 **Sampled By:** SLR
Sample Matrix: SHW as Recd

Analytical Method / Analyte	Result	Units	Prep Method	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8082A PCBs			EPA 3550C			
Aroclor-1016	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1221	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1232	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1242	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1248	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1254	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1260	<5	mg/kg		6/24/20	6/24/20	CRT
Surrogate (DCB)	85	%R		6/24/20	6/24/20	CRT

Sample ID: Caulk-45-3 **LSL Sample ID:** 2009259-002
Location: Expansion Joint
Sampled: 06/18/20 0:00 **Sampled By:** SLR
Sample Matrix: SHW as Recd

Analytical Method / Analyte	Result	Units	Prep Method	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8082A PCBs			EPA 3550C			
Aroclor-1016	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1221	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1232	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1242	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1248	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1254	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1260	<5	mg/kg		6/24/20	6/24/20	CRT
Surrogate (DCB)	78	%R		6/24/20	6/24/20	CRT

Sample ID: Caulk-46-3 **LSL Sample ID:** 2009259-003
Location: Door Caulk
Sampled: 06/18/20 0:00 **Sampled By:** SLR
Sample Matrix: SHW as Recd

Analytical Method / Analyte	Result	Units	Prep Method	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8082A PCBs			EPA 3550C			
Aroclor-1016	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1221	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1232	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1242	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1248	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1254	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1260	<5	mg/kg		6/24/20	6/24/20	CRT
Surrogate (DCB)	73	%R		6/24/20	6/24/20	CRT

DRAFT

Analysis performed at: *(1) LSL Central Lab, (2) LSL North Lab, (3) LSL Finger Lakes Lab*

-- LABORATORY ANALYSIS REPORT --

Barton & Loguidice, D.P.C. *Liverpool, NY*

Sample ID: **Caulk-47-3** **LSL Sample ID:** **2009259-004**

Location: Window Caulk

Sampled: 06/18/20 0:00 **Sampled By:** SLR

Sample Matrix: SHW as Recd

Analytical Method / Analyte	Result	Units	Prep Method	Prep Date	Analysis Date & Time	Analyst Initials
(1) EPA 8082A PCBs			EPA 3550C			
Aroclor-1016	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1221	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1232	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1242	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1248	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1254	<5	mg/kg		6/24/20	6/24/20	CRT
Aroclor-1260	<5	mg/kg		6/24/20	6/24/20	CRT
Surrogate (DCB)	92	%R		6/24/20	6/24/20	CRT

DRAFT

Analysis performed at: *(1) LSL Central Lab, (2) LSL North Lab, (3) LSL Finger Lakes Lab*

2009259

B+LEng

2827

Barton & Loguidice

PCB Bulk Sample Chain-o

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: **Rotterdam Town Hall** Project No.: **904.045.001**
PCB Caulking Investigation Date Sampled: **6/11-18/2020**
Building: Town hall Sampled by: **SLR**

Sample Identification	Date Sampled	Sample Area	Analysis Required	Notes
001A **LS-40-3**	6/12/2020	2nd Story Roof	PCBs in Caulk	Black Lap Sealant
002A **CAULK-45-3**	6/18/2020	Expansion Joint	PCBs in Caulk	Exterior Caulk
003A **CAULK-46-3**	6/18/2020	Door Caulk	PCBs in Caulk	Exterior Caulk
004A **CAULK-47-3**	6/18/2020	Window Caulk	PCBs in Caulk	Exterior Caulk

Comments:

Report Results to:

Fax:	**John Rigge**	**TAT: 72RS**	jrigge@bartonandloguidice.com
E-mail:	**Sebastian Reeves**		sreeves@bartonandloguidice.com
Written:	Sebastian Reeves		10 calendar days
Invoice:	Sebastian Reeves		10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:		6/22/2020
Received by Lab.:		6-23-20 13:40
Received by Analyst:		

23.0° via Fed Ex

DRAFT

PHOENIX
Environmental Laboratories, Inc.

Thursday, June 25, 2020

Attn: John Rigge
Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, NY 13088

Project ID: **ROTTERDAM TOWN HALL**
SDG ID: **GCG19060**
Sample ID#s: CG19060 - CG19062

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

DRAFT

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Sample Id Cross Reference

June 25, 2020

SDG I.D.: GCG19060

Project ID: ROTTERDAM TOWN HALL

Client Id	Lab Id	Matrix
PAINT 1	CG19060	BULK
PAINT 2	CG19061	BULK
PAINT 3	CG19062	BULK

DRAFT

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

June 25, 2020

FOR: Attn: John Rigge
Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, NY 13088

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	SLR	06/12/20	
Location Code:	BARTLOG	Received by:	SW	06/23/20	11:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	904.045.001				

Laboratory Data

SDG ID: GCG19060
Phoenix ID: CG19060

Project ID: ROTTERDAM TOWN HALL
Client ID: PAINT 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Lead	0.774	0.065	%	100	06/25/20	EK	SW6010D
Total Metals Digest	Completed				06/23/20	F/AG	SW3050B

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 25, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

DRAFT

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

June 25, 2020

FOR: Attn: John Rigge
Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, NY 13088

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	SLR	06/12/20	
Location Code:	BARTLOG	Received by:	SW	06/23/20	11:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	904.045.001				

Laboratory Data

SDG ID: GCG19060
Phoenix ID: CG19061

Project ID: ROTTERDAM TOWN HALL
Client ID: PAINT 2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Lead	0.0551	0.0016	%	1	06/24/20	TH	SW6010D
Total Metals Digest	Completed				06/23/20	F/AG	SW3050B

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 25, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

DRAFT

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

June 25, 2020

FOR: Attn: John Rigge
Barton & Loguidice, D.P.C.
443 Electronics Parkway
Liverpool, NY 13088

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	SLR	06/18/20	
Location Code:	BARTLOG	Received by:	SW	06/23/20	11:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	904.045.001				

Laboratory Data

SDG ID: GCG19060
Phoenix ID: CG19062

Project ID: ROTTERDAM TOWN HALL
Client ID: PAINT 3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Lead	< 0.0007	0.0007	%	1	06/24/20	TH	SW6010D
Total Metals Digest	Completed				06/23/20	F/AG	SW3050B

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 25, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

DRAFT

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

June 25, 2020

QA/QC Data

SDG I.D.: GCG19060

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 534692 (mg/kg), QC Sample No: CG18940 (CG19060, CG19061, CG19062)													
ICP Metals - Soil													
Lead	BRL	0.33	<0.32	<0.32	NC	110	103	6.6	104			75 - 125	35

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
June 25, 2020

DRAFT

Thursday, June 25, 2020

Criteria: None

State: NY

Sample Criteria Exceedances Report

GCG19060 - BARTLOG

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

DRAFT

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

June 25, 2020 SDG I.D.: GCG19060

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

DRAFT

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

June 25, 2020

SDG I.D.: GCG19060

The samples in this delivery group were received at 23.6°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

DRAFT

Illex Bag 23-6

Barton & Loguidice

Paint Chip Bulk Sample Chain-of-Custody

10 Airline Drive, Suite 200
Albany, New York 12205
Phone (518) 218-1801 Fax (518) 218-1805

Project: Rotterdam Town Hall
LBP Investigation
Building: Town hall

Project No.: 904.045.001
Date Sampled: 6/11-18/2020
Sampled by: SLR

Sample Identification	Date Sampled	Sample Area	Analysis Required	Method Reference
19060 Paint 1	6/12/2020	Blue/Gray - Rm 109 floor	Percent by Weight	AAS
19061 Paint 2	6/12/2020	White - on ceiling plaster	Percent by Weight	AAS
19062 Paint 3	6/18/2020	White - on exterior concrete	Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
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			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS
			Percent by Weight	AAS

Comments:

Report Results to:

E-mail:	John Rigge	TAT: 5-Day Standard	jrigge@bartonandloguidice.com
	Sebastian Reeves		sreeves@bartonandloguidice.com
Written:	John Rigge		10 calendar days
Invoice:	John Rigge		10 calendar days

Chain-of-Custody:	Signature	Date
Relinquished by:		6/22/2020
Received by Lab.:		
Received by Analyst:	Illex Kingsville	6.23.20

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Appendix C

Description of Existing Roofing Material

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Appendix C

Re: Rotterdam Town Hall Building Renovations
Hazardous Materials Investigation at the Rotterdam Town Hall

File: 904.045.001

The following represents the descriptions of the exiting roofing material present at the proposed roof replacement areas for Rotterdam Town Hall. Sampling for asbestos-containing materials was performed during this effort as well.

Second Floor Roof – Rotterdam Town Hall

1. Main Field:
   EPDM - rolled rubber roofing
   1.75" press board insulation
   Gypsum roof deck

2. Perimeter Flashing:
   EPDM – rolled rubber roofing
   Lap sealant
   Brick parapet beneath aluminum flashing cover

Third Floor Roof – Rotterdam Town Hall

3. Main Field:
   EPDM - rolled rubber roofing
   3.25" Iso insulation
   Felt Paper backing
   Corrugated steel roof deck

4. Perimeter Flashing:
   EPDM – rolled rubber roofing
   Lap sealant
   Brick parapet

Figures depicting the approximate locations of test cuts are attached.

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listen
The power to
solve℠

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&Loguidice

www.bartonandloguidice.com

The following sections are a separate digital file.

DIVISION 00 [03 & 04]

BIDDING & CONTRACT REQUIREMENTS

SECTION 00 03 01 BIDDER'S CHECKLIST

SECTION 00 03 70 BID PRICES

SECTION 00 03 73 IRANIAN ENERGY SECTOR DIVESTMENT CERTIFICATION

SECTION 00 03 76 STATEMENT ON NON-DISCRIMINATION AND SEXUAL HARASSMENT

SECTION 00 04 80 NON-COLLUSIVE BIDDING CERTIFICATION

SECTION 00 04 81 STATEMENT OF SURETY'S INTENT

SECTION 00 04 84 PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS CERTIFICATION

SECTION 00 04 99 BID SECURITY

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CONTRACT DOCUMENTS

AND

SPECIFICATIONS

FOR

TOWN OF ROTTERDAM

ROTTERDAM TOWN HALL BUILDING RENOVATIONS

CONTRACT NO. 1 – GENERAL CONSTRUCTION
CONTRACT NO. 2 – MECHANICAL CONSTRUCTION
CONTRACT NO. 3 – ELECTRICAL CONSTRUCTION

TOWN OFFICIALS

MOLLIE A. COLLINS – SUPERVISOR

JACK DODSON – DEPUTY SUPERVISOR
EVAN CHRISTOU – COUNCILPERSON
SAMANTHA MILLER-HERRERA – COUNCILPERSON
JOSEPH C. MASTROIANNI – COUNCILPERSON

DIANE M. MARCO – TOWN CLERK

AUGUST 2023

PREPARED BY:

BARTON & LOGUIDICE, ENGINEERS & ARCHITECTS, PLLC
10 AIRLINE DRIVE, SUITE 200
ALBANY, NEW YORK 12205

BID PACKAGES SUBMITTED BY:

Name of Company: _____
Address: _____
_____
Phone: _____

It is a violation of the New York state education law, Article 145 §7209 Special Provisions, for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect, or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.

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It is a violation of the New York state education law, Article 145 §7209 Special Provisions, for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect, or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.

SECTION 00 03 01

BIDDER'S CHECKLIST

(All pages of this Section to be completed by
Bidder PRIOR to Bid Submission)

Bid Prices, Page 00 03 70-1 to 00 03 70- : All blanks appropriately filled in ink with both words and figures, and signed where applicable. ☐

State and Federal Requirements: Each of the following forms must be executed and submitted with Bid:

IRANIAN ENERGY SECTOR DIVESTMENT CERTIFICATION, Page 00 03 73-1 to 00 03 73-2: Requires Bidder's signature. ☐

BIDDER'S STATEMENT ON NON-DISCRIMINATION AND HARASSMENT (including Sexual Harassment) IN THE WORKPLACE, Page 00 03 76-1 to 00 03 76-7: Requires Bidder's signature. ☐

NON-COLLUSIVE BIDDING CERTIFICATION, Page 00 04 80-1: Requires Bidder's signature. ☐

STATEMENT OF SURETY'S INTENT, Page 00 04 81-1: Requires completion and signature by Surety's Representative. ☐

PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS CERTIFICATION, Page 00 04 84-1 to 00 04 84-2: Requires completion and signature by Bidder. ☐

BID SECURITY, Page 00 04 99-1: Attach Bid Security to page labeled "BID SECURITY" (ATTACH HERE - CERTIFIED CHECK, CASH OR BID BOND). ☐

NOTE: To Bid multiple Contracts, the Bidder must fill in all associated pages for each specific Contract being Bid.

END OF SECTION

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SECTION 00 03 70

BID FOR CONSTRUCTION OF
CONTRACT NO. 1 – GENERAL CONSTRUCTION
TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS

TO THE TOWN OF ROTTERDAM:

Pursuant to and in compliance with your Advertisement for Bids and the Information for Bidders relating thereto, the undersigned hereby offers to furnish all plant, labor, materials, supplies, equipment and other facilities and things necessary or proper for or incidental to the construction and completion of Contract No. 1 – General Construction, required by and in strict accordance with the applicable provisions of all Contract Documents for the following lump sum price:

Base Bid Item

1. Lump Sum Contract No. 1 – General Construction

_____ _____ _____
Dollars Cents
(Price Written in Words) (Price Written in Figures)

Additive Bid Items

1. Additive Bid No. 1A: Add/Deduct Unit price cost for the repair of the existing brick mortar as described in Section 00 01 60.16.

Add/Deduct:

_____ _____ _____
Dollars Cents
(Price Written in Words) (Price Written in Figures)

2. Additive Bid No. 1B: Add/Deduct Unit price cost for the masonry reconstruction of existing brick as described in Section 00 01 60.16.

Add/Deduct:

_____ _____ _____
Dollars Cents
(Price Written in Words) (Price Written in Figures)

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3. Additive Bid No. 1C: Add/Deduct Unit price cost for the replacement of existing metal deck as described in Section 00 01 60.16.

Add/Deduct:

_____ _____ _____

(Price Written in Words) Dollars (Price Written in Figures) Cents

Acknowledgement of Addenda

Addendum No.	Date Received
_____	_____
_____	_____
_____	_____

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SECTION 00 03 70

BID FOR CONSTRUCTION OF
CONTRACT NO. 2 – MECHANICAL CONSTRUCTION
TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS

TO THE TOWN OF ROTTERDAM:

Pursuant to and in compliance with your Advertisement for Bids and the Information for Bidders relating thereto, the undersigned hereby offers to furnish all plant, labor, materials, supplies, equipment, allowances and other facilities and things necessary or proper for or incidental to the construction and completion of Contract No. 2 – Mechanical Construction, required by and in strict accordance with the applicable provisions of all Contract Documents for the following lump sum price:

Base Bid Item

1. Lump Sum Contract No. 2 – Mechanical Construction

_____	_____	_____
	Dollars	Cents
(Price Written in Words)	(Price Written in Figures)	

Acknowledgement of Addenda

Addendum No.	Date Received
_____	_____
_____	_____
_____	_____

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SECTION 00 03 70

BID FOR CONSTRUCTION OF
CONTRACT NO. 3 – ELECTRICAL CONSTRUCTION
TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS

TO THE TOWN OF ROTTERDAM:

Pursuant to and in compliance with your Advertisement for Bids and the Information for Bidders relating thereto, the undersigned hereby offers to furnish all plant, labor, materials, supplies, equipment, allowances and other facilities and things necessary or proper for or incidental to the construction and completion of Contract No. 3 – Electrical Construction, required by and in strict accordance with the applicable provisions of all Contract Documents for the following lump sum price:

Base Bid Item

1. Lump Sum Contract No. 3 – Electrical Construction

_____	_____	_____
	Dollars	Cents
(Price Written in Words)	(Price Written in Figures)	

Acknowledgement of Addenda

Addendum No.	Date Received
_____	_____
_____	_____
_____	_____

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SECTION 00 03 70

BID
TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS

The signer of this Proposal as Bidder declares that the only person, persons, company or parties interested in the proposal are named in this Proposal; that the Bid is made without any connection with any person making another Bid for the same Contract; that the Bid is in all respects fair and without collusion or fraud; that no officer, agent or employee of the Owner is directly or indirectly interested in the Bid; and that he has carefully examined the annexed form of Contract and Contract Documents.

In accordance with Section 139-d of the State Finance Law, Section 103-d of the General Municipal Law, or Section 2878 of the Public Authorities Law, the Bidder further certifies that: (a) the Bid has been arrived at by the Bidder independently and has been submitted without collusion with any other vendor of materials, supplies or equipment of the type described in the invitation for Bids; and (b) the contents of the Bid have not been communicated by the Bidder nor, to its best knowledge and belief, by any of its employees or agents, to any person not an employee or agent of the Bidder or its surety on any bond furnished herewith prior to the official opening of the Bid. Section 620 of the Penal Law makes violation of this statute a crime punishable as perjury.

If written notice of the acceptance of this Bid is mailed or delivered to the undersigned within forty-five (45) days after the date of opening of the Bids, or any time thereafter before this Bid is withdrawn, the undersigned will, within five (5) days after the date of such mailing, or delivering of such notice, execute and deliver a contract in the form of Contract attached hereto.

The undersigned hereby designates as his office to which such notice of acceptance may be mailed, or delivered:

Company Name: _____

Contact Name: _____

Address: _____

City, State, Zip: _____

Telephone/Fax: _____

Email: _____

FEIN:
(Federal Employee
Identification Number) _____

The undersigned further agrees to comply with the requirements as to conditions of employment, wage rates and hours of labor set forth in the Contract Documents.

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SECTION 00 03 70

BID
TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS

This bid may be withdrawn at any time prior to the scheduled time for the opening of bids or any authorized postponement thereof.

Accompanying this Bid, is a Bid security in the form of a certified check*, cash*, or a bid bond* for the sum of _____ ($_____) Dollars. In case this Bid is accepted by the Owner, and the undersigned shall fail to execute a contract with and give the required bonds to the Owner within five (5) days after the date of a written notice by the Owner to the undersigned so to do, this Bid security shall be forfeited and will be retained by the Owner as liquidated damages.

Dated _____, 20____ **_____
_____
_____

_____
Signature of Bidder

Print Name of Signer of Bid _____
Address _____
_____
_____

* Cross out designations not applicable.

** Insert bidder's name; if a corporation, give the state of incorporation using the phrase "a corporation organized under the law of"; if a partnership, give the name of the partners, using also the phrase "co-partners trading and doing business under the firm name and style of"; if an individual using a trade name, give individual name, using also the phrase "an individual doing business under the firm name and style of".

END OF SECTION

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SECTION 00 03 73

IRANIAN ENERGY SECTOR DIVESTMENT CERTIFICATION

1. Contractor/proposer hereby represents that said contractor/proposer is in compliance with New York State General Municipal Law Section 103-g entitled "Iranian Energy Sector Divestment", in that said contractor/proposer has not:

   a) Provided goods or services of $20 million or more in the energy sector of Iran including but not limited to the provision of oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran; or

   b) Acted as a financial institution and extended $20 million or more in credit to another person for forty-five (45) days or more, if that person's intent was to use the credit to provide goods or services in the energy sector in Iran.

2. Any contractor/proposer who has undertaken any of the above and is identified on a list created pursuant to Section 165-a (3) (b) of the New York State Finance Law as a person engaging in investment activities in Iran, shall not be deemed a responsible bidder pursuant to Section 103 of the New York State General Municipal Law.

3. Except as otherwise specifically provided herein, every contractor/ proposer submitting a bid/proposal in response to this request for bids/request for proposals must certify and affirm the following under penalties of perjury:

   a) "By submission of this bid, each bidder and each person signing on behalf of any bidder certifies and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, that each bidder is not on the list created pursuant to NYS Finance Law Section 165-a (3) (b)."

   The Owner will accept this statement electronically in accordance with the provisions of Section 103 of the General Municipal Law.

4. Except as otherwise specifically provided herein, any bid/proposal that is submitted without having complied with subdivision (a) above, shall not be considered for award. In any case where the bidder/proposer cannot make the certification as set forth in subdivision (a) above, the bidder/proposer shall so state and shall furnish with the bid a signed statement setting forth in detail the reasons therefore. The Owner reserves its rights, in accordance with General Municipal Law Section 103-g to award the bid/proposal to any bidder/proposer who cannot make the certification, on a case-by-case basis under the following circumstances:

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a) The investment activities in Iran were made before April 12, 2012, the investment activities in Iran have not been expanded or renewed after April 12, 2012 and the bidder/proposer has adopted, publicized and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or

b) The Owner has made a determination that the goods or services are necessary for the Owner to perform its functions and that, absent such an exemption, the Owner would be unable to obtain the goods or services for which the bid/proposal is offered. Such determination shall be made by the Owner in writing and shall be a public document.

_____ _____
Signature Title

_____ _____
Company Name Date

State of _____)
) SS:
County of _____)

On this _____ day of _____, 20____, before me personally came and appeared_____ to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

_____

END OF SECTION

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903 Non-Discrimination and Harassment (Including Sexual Harassment) in the Workplace

Policy Statement – It is the policy of the Town of Rotterdam to promote a productive work environment and to prohibit conduct by any Elected Official or employee (as defined in Section 104 of the Employee Handbook) that disrupts or interferes with another's work performance or that creates an intimidating, offensive, or hostile work environment. In keeping with this goal, the Town is committed to educate Elected Officials and employees in the recognition and prevention of workplace discrimination and harassment, including sexual harassment, and to provide an effective means of eliminating such discrimination and harassment from the workplace. In short, the Town does not tolerate any form of discrimination or harassment, including sexual harassment, and will take all steps necessary to prevent and stop the occurrence of such activity in the workplace. The accompanying complaint procedure is intended to provide an effective mechanism for reporting, and resolving promptly, complaints of discrimination and harassment, including sexual harassment, without any risk of repercussion to any individual covered by this policy who, in good faith, files such complaint.

Applicability of Policy – This policy applies to all Elected Officials, Appointed Members of Boards and Commissions, employees, supervisors, and Department Heads, whether employed full or part-time, temporary or seasonal, paid or unpaid interns, volunteers, and those employed by companies contracting to provide services in the workplace. Depending on the extent of the Town's exercise of control, this policy may be applied to the conduct of non-Town employees with respect to harassment of Town employees in the workplace.

Prohibited harassment (including sexual harassment) is not limited to the physical workplace itself. It can occur while Elected Officials, employees or other individuals covered by this policy are traveling for Town business or at Town sponsored events or parties. Calls, texts, emails, and social media usage by employees or other individuals covered by this policy can constitute workplace harassment, even if they occur away from the workplace premises, on personal devices, or during non-work hours.

Prohibited Activity – No Elected Official, employee or other individuals covered by this policy shall engage in any of the following:

- Harassment: Unwanted, unreasonable verbal or physical conduct directed toward or affecting another person that disturbs, frightens, insults, threatens, intimidates, demeans, or offends that other person, that continues or is repeated after a request to cease, and that: 1) has the purpose or effect of creating an intimidating, hostile, or offensive work environment; 2) has the purpose or effect of unreasonably interfering with an individual's work performance; or 3) otherwise adversely affects an individual's employment opportunities. Harassment includes offensive or inappropriate images or written materials or electronic communications (e.g. letters, e-mail, text messages, or graffiti) as well as bias-based harassment and sexual harassment (see below).

- Bias-Based Harassment: Harassment that denigrates, offends or shows hostility or aversion toward an individual on the basis of sex, (including gender identity and the status of being transgender), sexual orientation, race, color, national origin, religion,

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disability, pregnancy, age, marital status, veteran status, military status, arrest or conviction record, genetic information or predisposing characteristics, domestic violence victim status, or any other protected status. Bias-based harassment includes, but is not limited to: epithets, slurs or negative stereotyping; threatening, intimidating, or hostile acts; denigrating jokes; and written, electronic, or graphic material that denigrates, ridicules, objectifies, or shows hostility, aversion or contempt toward an individual or group and that is placed on walls, bulletin boards, lockers or elsewhere on or in the Town's premises, vehicles, or equipment, or is circulated in the workplace, including through electronic means.

- Discrimination: The Town of Rotterdam is an Equal Opportunity Employer. The Town does not unlawfully discriminate on the basis of sex, (including gender identity and the status of being transgender), sexual orientation, race, color, national origin, religion, disability, pregnancy, age, marital status, veteran status, military status, arrest or conviction record, genetic information or predisposing characteristics, domestic violence victim status, or any other protected status. Unlawful discrimination based on membership in these categories is prohibited by applicable federal, state, or local laws. This policy applies to all terms and conditions of employment, including, but not limited to, hiring, placement, assignments, compensation, promotion, transfer, training, leave of absence, and termination.

Definition of Sexual Harassment – This policy places special attention on the prohibition of sexual harassment in the workplace.

Sexual harassment is a form of sex discrimination and is unlawful under federal, state, and (where applicable) local law. Sexual harassment includes harassment on the basis of sex, sexual orientation, self-identified or perceived sex, gender expression, gender identity and the status of being transgender.

Sexual harassment includes unwelcome conduct which is either of a sexual nature, or which is directed at an individual because of that individual's sex when:

- Such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive work environment, even if the reporting individual is not the intended target of the sexual harassment;
- Such conduct is made either explicitly or implicitly a term or condition of employment; or
- Submission to or rejection of such conduct is used as the basis for employment decisions affecting an individual's employment.

A sexually harassing hostile work environment includes, but is not limited to, words, signs, jokes, pranks, intimidation or physical violence which are of a sexual nature, or which are directed at an individual because of that individual's sex. Sexual harassment also consists of any unwanted verbal or physical advances, sexually explicit derogatory statements or sexually discriminatory

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remarks made by someone which are offensive or objectionable to the recipient, which cause the recipient discomfort or humiliation, or which interfere with the recipient's job performance.

Sexual harassment also occurs when a person in authority tries to trade job benefits for sexual favors. This can include hiring, promotion, continued employment or any other terms, conditions or privileges of employment. This is also called "quid pro quo" harassment.

Any employee who feels harassed should report so that any violation of this policy can be corrected promptly. Any harassing conduct, even a single incident, can be addressed under this policy.

Examples of Sexual Harassment - The following describes some of the types of acts that may be unlawful sexual harassment and that are strictly prohibited:

- Physical acts of a sexual nature, such as:
  - Touching, pinching, patting, kissing, hugging, grabbing, brushing against another employee's body or poking another employee's body;
  - Rape, sexual battery, molestation or attempts to commit these assaults.
- Unwanted sexual advances or propositions, such as:
  - Requests for sexual favors accompanied by implied or overt threats concerning the target's job performance evaluation, a promotion or other job benefits or detriments;
  - Subtle or obvious pressure for unwelcome sexual activities.
- Sexually oriented gestures, noises, remarks or jokes, or comments about a person's sexuality or sexual experience, which create a hostile work environment.
- Sex stereotyping occurs when conduct or personality traits are considered inappropriate simply because they may not conform to other people's ideas or perceptions about how individuals of a particular sex should act or look.
- Sexual or discriminatory displays or publications anywhere in the workplace, such as:
  - Displaying pictures, posters, calendars, graffiti, objects, promotional material, reading materials or other materials that are sexually demeaning or pornographic. This includes such sexual displays on workplace computers or cell phones and sharing such displays while in the workplace.
- Hostile actions taken against an individual because of that individual's sex, sexual orientation, gender identity and the status of being transgender, such as:
  - Interfering with, destroying or damaging a person's workstation, tools or equipment, or otherwise interfering with the individual's ability to perform the job;
  - Sabotaging an individual's work;
  - Bullying, yelling, name-calling.

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Prohibition Against Retaliation – Unlawful retaliation can be any action that could discourage an employee from coming forward to make or support a claim of discrimination or harassment, including sexual harassment. Adverse action need not be job-related or occur in the workplace to constitute unlawful retaliation (e.g., threats of physical violence outside of work hours).

Unlawful retaliation against any employee who has engaged in "protected activity" is strictly prohibited by this policy as well as (where applicable) federal, state, and local law. Protected activity occurs when a person has:

- made a complaint of harassment or discrimination, either internally or with any anti-discrimination agency;
- opposed harassment or discrimination by making a verbal or informal complaint to management, or by simply informing a supervisor or management of harassment or discrimination;
- reported that another employee has been subjected to harassment or discrimination;
- encouraged a fellow employee to report harassment or discrimination;
- participated in a workplace investigation regarding harassment or discrimination;
- testified or assisted in a proceeding involving harassment or discrimination under the Human Rights Law or other anti-discrimination laws.

Even if the alleged discrimination or harassment does not turn out to rise to the level of a violation of law, the individual is protected from retaliation if the person had a good faith belief that the practices were unlawful. However, the retaliation provision is not intended to protect persons making intentionally false charges of discrimination or harassment.

Reporting of Discrimination and Harassment (including Sexual Harassment) – Reports of alleged discrimination and/or harassment (including sexual harassment) or retaliation may be made verbally or in writing. A form for the submission of a written complaint is attached to this policy and individuals are encouraged to use this form. If an individual chooses to submit a verbal complaint, such complaint will be recorded by the receiver of this complaint on this form. Employees are encouraged to report incidents of discrimination, harassment (including sexual harassment), or retaliation to their Department Head and/or the Town Supervisor as soon as possible after their occurrence. If the employee's Department Head is believed to be involved in the incident, or if the employee is not comfortable in addressing the incident with the Department Head, the report should be made directly to the Town Supervisor. If the Town Supervisor is believed to be involved in the incident or the employee is not comfortable reporting the incident to the Town Supervisor, the employee should report the incident to a member of the Town Board. Employees who believe they have been discriminated against or harassed and would like to obtain guidance as to how to proceed in filing a complaint, should contact their immediate supervisor, their Department Head, the Town Supervisor, or any member of the Town Board. Employees who work during off-hours are encouraged to contact their supervisor, their Department Head, the Town Supervisor, or any member of the Town Board at home if these individuals do not work during the employee's shift. Non-employees are encouraged to report incidents of alleged discrimination and harassment (including sexual harassment) to either the Department Head of the

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department where services are being provided, the Town Supervisor, or a member of the Town Board.

Supervisory Responsibility – Supervisory personnel must make every effort to ensure a work environment that is free from discrimination and harassment, including sexual harassment. Any Department Head or supervisor who receives a complaint or information about suspected prohibited activity (as outlined above), observes behavior that may constitute prohibited activity, or for any reason suspects that prohibited activity is occurring, is required to report such suspected prohibited activity to the Town Supervisor, or any member of the Town Board.

In addition to being subject to corrective action or discipline if they engaged in prohibited activity themselves, supervisory personnel will be subject to discipline for failing to report suspected prohibited activity or otherwise knowingly allowing prohibited activity to continue. Supervisory personnel will also be subject to corrective action or discipline for engaging in any form of retaliation prohibited by this policy.

Investigation of Complaint – The Town Supervisor, in consultation with the Town Board, will determine the appropriate individual(s) to conduct the investigation. All complaints pursuant to this policy, whether reported in verbal or written form, will be investigated promptly, thoroughly, and in as impartial a manner as possible. The investigation will normally include conferring with the parties involved and any named or apparent witnesses. All employees are required to cooperate in an investigation, if so directed. All persons involved, including complainants, witnesses and alleged perpetrators will be accorded due process to protect their rights to a fair and impartial investigation. All relevant materials, including all electronic communications, documents, emails or phone records that are relevant to the allegations will also be considered. A written report will be prepared documenting the results of the investigation. The individual who reported the complaint and the individual about whom the complaint was made will be notified of the final determination.

Confidentiality – Complaints of discrimination and harassment, including sexual harassment, will be handled and investigated promptly and in a manner that is as impartial and confidential as possible. In no event will information concerning a complaint be released by the Town to third parties or to anyone within the Town employment who is not directly involved in the investigation or handling of the complaint unless otherwise required by law.

Corrective Action and Discipline – Any employee who is found to have violated any aspect of this policy will be subject to corrective or disciplinary action, up to and including termination of employment, as provided by Town operating procedures, including Civil Service Law Section 75, or a collective bargaining agreement. Any Elected Official who violates this policy will be subject to remedial action as provided for and/or allowed under NYS Public Officers Law, as well as any other applicable statutes. Any vendor, supplier, visitor, customer, or other non-employee who violates this policy will be subject to remedial action, to the extent that the Town is empowered to take such action.

Legal Protections and External Remedies – Nothing in this policy should be construed as in any way limiting employees' rights to file a formal complaint with the appropriate state or federal

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agencies responsible for administering anti-discrimination laws. Complainants should be aware that time restrictions may apply and need to be considered.

Harassment (including sexual harassment) is not only prohibited by Town policy but is also prohibited by federal, state, and (where applicable) local law. Aside from the Town's internal process, employees may also choose to pursue legal remedies with the following governmental entities at any time.

New York State Division of Human Rights (DHR)

The Human Rights Law (HRL) applies to employers in New York State with regard to harassment and protects employees and non-employees regardless of immigration status. A complaint alleging violation of the Human Rights Law may be filed either with DHR or in New York State Supreme Court. Complaints with DHR may be filed any time within one year of the harassment. If an individual did not file at DHR, they can sue directly in state court under the HRL, within three years of the alleged discrimination. An individual may not file with DHR if they have already filed an HRL complaint in state court. Filing an internal complaint with the Town does not extend the time limits to file with DHR or in court. The one year or three years is counted from date of the most recent incident of harassment. An attorney is not needed to file a complaint with DHR, and there is no cost to file with DHR. DHR will investigate the complaint and determine whether there is probable cause to believe that discrimination has occurred. Probable cause cases are forwarded to a public hearing before an administrative law judge. If discrimination is found after a hearing, DHR has the power to award relief, which varies but may include requiring the Town to take action to stop the harassment, or redress the damage caused, including paying monetary damages, attorney's fees and civil fines.

DHR's main office contact information is: NYS Division of Human Rights, One Fordham Plaza, Fourth Floor, Bronx, New York 10458, (718) 741-8400. Contact DHR at (888) 392- 3644 or visit dhr.ny.gov/complaint for more information about filing a complaint. The website has a complaint form that can be downloaded, filled out, notarized and mailed to DHR. The website also contains contact information for DHR's regional offices across New York State.

United States Equal Employment Opportunity Commission (EEOC)

The EEOC enforces federal anti-discrimination laws, including Title VII of the 1964 federal Civil Rights Act (codified as 42 U.S.C. § 2000e et seq.). An individual can file a complaint with the EEOC anytime within 300 days from the harassment. There is no cost to file a complaint with the EEOC. The EEOC will investigate the complaint and determine whether there is reasonable cause to believe that discrimination has occurred, at which point the EEOC will issue a Right to Sue letter permitting the individual to file a complaint in federal court. The EEOC does not hold hearings or award relief but may take other action including pursuing cases in federal court on behalf of complaining parties. Federal courts may award remedies if discrimination is found to have occurred. If an employee believes that he/she has been discriminated against at work, he/she can file a "Charge of Discrimination." The EEOC has district, area, and field offices where complaints can be filed. Contact the EEOC by calling 1-800-669-4000 (1-800-669-6820 (TTY)), visiting their website at www.eeoc.gov or via email at info@eeoc.gov. If an individual filed an

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administrative complaint with DHR, DHR will file the complaint with the EEOC to preserve the right to proceed in federal court.

Local Protections

Many localities enforce laws protecting individuals from sexual harassment and discrimination. An individual should contact the county, city or town in which they live to find out if such a law exists.

Contact the Rotterdam Police Department

If the harassment involves physical touching, coerced physical confinement or coerced sex acts, the conduct may constitute a crime. Contact the Rotterdam Police Department.

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NON-COLLUSION BIDDING CERTIFICATION

A. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, an in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1) The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purposes of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and

3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

B. A bid shall not be considered for award nor shall any award be made where (A), (1), (2), and (3) above have not been complied with; provided however, that if in any case the bidder cannot make the foregoing certificating, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reason therefore. Where (A), (1), (2), and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made or his designee, determines that such disclosure was not made for the purpose of restricting competition.

C. The fact that the bidder (A) has published price lists, rates or tariffs governing items being procured, (B) has informed prospective customers of proposed or pending publication of new or revised price lists for such items or (C) has sold the same item to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning subparagraph (A)(1).

D. Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or state services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation, or local law, and where such bid contains the certification referred to in subdivision one (1) of this section, shall be deemed to have been authorized by the board of directors of the bidder, and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non-collusion as the act and deed of the corporation.

Name of Firm: _____

Signed by: _____ Title: _____

Signature: _____ Date: _____

Email: _____

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RESOLUTION AUTHORIZING SUBMISSION OF BIDS BY CORPORATION AND EXECUTION OF NON-COLLUSION CERTIFICATE AND WAIVER OF IMMUNITY CLAUSE

Resolved that _____be authorized to sign and submit the bid or proposal of this corporation for _____ Town of Rotterdam, New York, Schenectady County, and to include in such bid or proposal the certificate as to non-collusion and waiver of immunity clause required by Section 103 of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalties of perjury.

The foregoing is a true and correct copy of the resolution adopted by _____ _____ corporation at a meeting of its board of directors held on the _____ day of _____ _____, **20__.**

(SEAL OF THE CORPORATION)

_____

Signature of Secretary

INDIVIDUAL EXECUTION OF NON-COLLUSION CERTIFICATE AND WAIVER OF IMMUNITY CLAUSE

I, _____ hereby sign and submit this bid or proposal for _____ Town of Rotterdam, New York, Schenectady County, and to include in such bid or proposal the certificate as to non-collusion and waiver of immunity clause required by Section 103 of the General Municipal Law as the act and deed of this individual, and for any inaccuracies or misstatements in such certificate this individual bidder shall be liable under the penalties of perjury.

_____ _____

Signature of Individual Date

TOWN OF ROTTERDAM WAIVER ON IMMUNITY CLAUSE

The undersigned bidder agrees to sign a Waiver of Immunity Clause agreeing if called before a Grand Jury to testify concerning the bid or contract, to sign a Waiver of Immunity against Criminal transaction, bid or contract:

Name of Firm:_____

Signed by:_____ Title: _____

Signature:_____ Date:_____

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SECTION 00 04 81

STATEMENT OF SURETY'S INTENT

To: _____

We have reviewed the Bid of _____
(Contractor)

of _____
(Address)

for _____

_____
(Project)

Bids for which will be received on _____
(Bid Opening Date)

and wish to advise that should this Bid of the Contractor be accepted and the Contract awarded to him, it is our present intention to become surety on the Performance Bond and Labor and Materials Payment Bond required by the Contract.

Any arrangement for the bonds required by the Contract is a matter between the Contractor and ourselves, and we assume no liability to you or third parties if for any reason we do not execute the requisite bonds.

We are duly authorized to transact business in the State of New York, and we appear on the U.S. Treasury Department's most current list (Circular 570 as amended).

Attest:

_____ _____

_____
Surety's Authorized Signature(s)

Attach Power of Attorney

(Corporate seal if any. If no seal, write "No Seal" across this place and sign.)

END OF SECTION

DRAFT

SECTION 00 04 84

PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS CERTIFICATION

1. Contractor hereby certifies and warrants that all wood products to be used under this Contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods).

   a) Which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State of any government agency or political subdivision or public benefit corporation.

   b) In addition, when any portion of this Contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor certifies through the submitted bid proposal that any and all subcontractors have been informed and are in compliance with the specification's and provisions regarding use of tropical hardwoods as detailed in Section 165 of New York State Finance law.

2. Qualifications for an exemption under this law will be the responsibility of the Contractor to establish to meet with the approval of the State. Otherwise, the bid may not be considered responsive. Upon executing this certification the bidder acknowledges that proof of qualifications for exemption are the responsibility of the Contractor to meet with the approval of the state.

3. Except as otherwise specifically provided herein, every contractor/ proposer submitting a bid/proposal in response to this request for bids/request for proposals must certify and affirm the following under penalties of perjury:

   a) "By submission of this Bid, each Bidder and each person signing on behalf of any Bidder certifies and in the case of a joint Bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief, wood to be used under this contract award complies with NYS Finance Law Section 165".

FIRM: _____

By: _____

Title: _____

(CORPORATE SEAL IF ANY)

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STATE OF)
) SS:
COUNTY OF)

On this_____ day of_____, 20____, before me personally came and appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

END OF SECTION

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SECTION 00 04 99

BID SECURITY

(ATTACHED HERE - CERTIFIED CHECK, CASH OR BID BOND)

END OF SECTION

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SECTION 00 05 70

AGREEMENT

This CONTRACT, in four (4) copies, made and entered into this _____ day of _____, 20__, by and between the Town of Rotterdam, a municipal corporation, organized and existing under the laws of the State of New York, with its principal office and place of business located at the Town of Rotterdam Town Hall, 1100 Sunrise Boulevard, Rotterdam, New York 12306, hereinafter designated as "Owner", Party of the First Part,

and _____

_____

_____ of _____

County of _____ State of _____

hereinafter designated as the Contractor, Party of the Second Part.

WITNESSETH: That the parties hereto, each in consideration of the Agreements on the part of the other herein contained, have mutually agreed, and hereby mutually agree, the Party of the First Part for itself and its successors, and the Party of the Second Part for itself, himself or themselves and its successors, his or their executors, administrators and assigns as follows:

Article 1. DESCRIPTION. Under this Agreement and Contract, the Contractor shall furnish all materials and perform all work required to furnish and install complete Contract No. ___.

Article 2. In consideration of the payments to be made as hereinafter provided, and of the performance by the Owner of all matters and things to be performed by the Owner as hereinafter provided, the Contractor agrees, at his own sole cost and expense to perform all the labor and services, and to furnish all the labor and materials, plant and equipment necessary to complete, and to complete in good, substantial, workmanlike and approved manner, the work described under Article 1 hereof, within the time hereinafter specified and in accordance with the terms, conditions and provisions of this Contract and with the instructions, order and directions of the Engineer made in accordance with this Contract.

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Article 3. The Owner agrees to pay and the Contractor agrees to accept, as full compensation for all work done and materials furnished, and also for all costs and expense incurred, and loss or damages sustained by reason of the action of the elements or growing out of the nature of the work, or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all risks of every description connected with the work, and for all expenses incurred by, or in consequence of, the suspension or discontinuance of the work as herein specified, and for well and faithfully completing the work, and the whole thereof, as herein provided, and for maintaining the work in good condition until the final payment is made, the prices stipulated in the proposal hereto attached.

Article 4. CONTRACT DOCUMENTS. The following Documents shall constitute integral parts of the Agreement, the whole to be collectively known and referred to as the Contract: Advertisement For Bids, Information for Bidders, Wage Rates, Additional Instructions, Bid Documents, Agreement, Performance Bond, Labor & Materials Payment Bond, Insurance Certificates, General Conditions, General Requirements, Specifications, Contract Drawings, and all interpretations of, or addenda to the CONTRACT DOCUMENTS issued by the Owner or the Engineer with the approval of the Owner.

The Table of Contents, Indices, Headings, Titles contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretations of the provisions to which they refer.

Article 5. Contractor agrees to comply with all requirements of the Contract Documents and with all provisions of law and implementing regulations. If the Contractor shall fail to comply with any of the terms, conditions, provisions, or stipulations of this Contract, then the Owner may make use of any or all remedies at law or in equity, or as provided in the Contract and shall have the right and power to proceed in accordance with the provisions thereof.

Article 6. The following alterations and addenda have been made and included in this Contract before it was signed by the parties hereto:

_____

_____

_____

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Article 7. This agreement shall be construed and enforced in accordance with the laws of the State of New York.

Article 8. The Contractor agrees:

(a) He hereby voluntarily and irrevocably submits himself to the jurisdiction and venue of any court of competent jurisdiction over the subject matter of this Contract located within the State of New York in which any litigation is brought based on or arising out of this Contract.

(b) Any litigation brought by the Contractor based on or arising out of this Contract shall be brought only in the Supreme Court of the State of New York within the County in which the Owner is located.

(c) Any legal process or notice connected with any litigation may be served on the Contractor by United States registered mail, postage pre-paid, addressed to the Contractor at his address stated in this Contract or at the Address stated in this Contract for the furnishing of notices to the Contractor or at the Contractor's last known address, and that service in such manner shall constitute good and valid service of process upon the Contractor.

(d) The Contractor hereby waives any defense which might be available to it in any such litigation based on or alleging lack of jurisdiction or venue, or, if process is served in the manner provided in Subparagraph (c) immediately above, invalid service of process, and that he will duly enter his appearance in any such action.

(e) This Contract may be presented in court as conclusive evidence of the foregoing agreement.

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IN WITNESS WHEREOF, the parties to this Agreement have hereunto set their hands and seals and have executed this Agreement in four (4) copies the day and year first above written.

_____ (OWNER)

By: _____

(Seal)

CONTRACTOR

_____

(Seal) By: _____

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(ACKNOWLEDGMENT OF OFFICER OF OWNER ATTESTING CONTRACT)

State of _____)
) SS:
County of _____)

On this _____ day of _____, 20___, before me personally came and appeared _____to me known, who, being by me duly sworn, did depose and say that he is the _____ of the _____described in and which executed the foregoing instrument; that he knows the seal of said Owner; that one of the impressions appearing on said instrument is a true and correct impression of such seal; and that he affixed it thereto and attested the same over his signature by virtue of the authority in him vested.

_____

(ACKNOWLEDGMENT OF CONTRACTOR, IF A CORPORATION)

State of _____)
) SS:
County of _____)

On this _____ day of _____, 20____, before me personally came and appeared _____to me known, who, being by me duly sworn, did depose and say that he resides at _____ _____; that he is the _____ of _____, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

_____

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(ACKNOWLEDGMENT OF CONTRACTOR, IF A PARTNERSHIP)

State of _____)
) SS:
County of _____)

On this _____ day of _____, 20____, before me personally came and appeared _____to me known and known to me to be one of the members of the firm of _____ described in and who executed the foregoing instrument, and he acknowledged to me that he executed the same as and for the act and deed of said firm.

_____

(ACKNOWLEDGMENT OF CONTRACTOR, IF AN INDIVIDUAL)

State of _____)
) SS:
County of _____)

On this _____ day of _____, 20____, before me personally came and appeared _____ to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

_____

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(ACKNOWLEDGMENT OF CONTRACTOR, IF A LIMITED LIABILITY COMPANY)

State of _____)
) SS:
County of _____)

On this _____ day of _____, 20____, before me personally came and appeared _____, to me known, who being by me duly sworn, did depose and say that he resides at _____ _____; that he is the _____ of _____, the limited liability company described in and which executed the foregoing instrument; that he knows the seal of said limited liability company; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the managing members of said limited liability company, and that he signed his name thereto by like order.

_____

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(Certification of Owner's Attorney)

I, the undersigned, the duly authorized and acting legal representative of _____ _____ do hereby certify as follows:

I have examined the foregoing Contract and surety bonds and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions and provisions thereof.

By:_____
Owner's Attorney

_____
(Date)

END OF SECTION

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SECTION 00 06 10

PERFORMANCE BOND

(ATTACH PERFORMANCE BOND HERE)

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END OF SECTION

SECTION 00 06 20

LABOR & MATERIALS PAYMENT BOND

(ATTACH LABOR & MATERIALS PAYMENT BOND HERE)

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SECTION 00 06 50

CERTIFICATE OF INSURANCE

(ATTACH INSURANCE CERTIFICATES HERE)

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GENERAL CONDITIONS

SECTION 00 07 50

DEFINITIONS OF WORDS & TERMINOLOGY

00 07 50.01 DEFINITIONS OF WORDS AND TERMS

Wherever the following words or corresponding pronouns are used in this Contract, they shall have the meaning given herein:

A. CONTRACT, OR CONTRACT DOCUMENTS: each of the various documents referred to in the Agreement, both severally and as a whole, including all additions, deletions, modifications and interpretations incorporated therein or appended thereto by or with approval of the Owner prior to the execution of the Contract.

B. OWNER: the party of the first part to this Contract, or any duly authorized agents or officers empowered to act therefor.

C. CONTRACTOR: the party of the second part to this Contract, or the legal representatives or agents appointed by said party for the performance of the work.

D. ENGINEER: the firm of Barton & Loguidice, engaged by the Owner to provide Engineering services in connection with the work of this Contract, or its representatives duly authorized in writing to act therefor.

E. SURETY: the person, persons, firm or corporation who executes the Contractor's Performance Bond and Labor & Materials Payment Bond.

F. SUBCONTRACTOR: any person, other than employee of the Contractor, or any firm or corporation who contracts to act for or in behalf of the Contractor in performing any part of the work in connection with the Contract, exclusive of one who furnishes only materials or equipment.

G. PROJECT: the entire facility or improvement to which the Contract relates.

H. SITE: the area or areas bounded by the property lines shown on the Plans, and other areas that may be similarly designated.

I. THE WORK: all labor, equipment and materials required, either expressly or by implication, to be furnished by the Contractor under this Contract or in connection with Change Orders or Supplemental Agreements thereto.

J. SUPPLEMENTAL AGREEMENT: an alteration or modification of the Contract Documents, made after execution of the Contract and agreed to in writing by the Contractor and the Owner.

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K. CHANGE ORDER: a written order from the Owner to the Contractor directing an alteration or modification of the nature, scope or type of the work.

L. BOND OR PERFORMANCE BOND: the guarantee signed by the Surety, that the Contractor will complete all the work as required by the Contract.

M. LABOR & MATERIALS PAYMENT BOND: the guarantee, signed by the Surety, that the Contractor will pay for all Labor and Material required by the Contract.

N. SPECIFICATIONS: also referred to as DETAIL SPECIFICATIONS or TECHNICAL SPECIFICATIONS. The written directions, requirements, descriptions of materials, equipment, construction systems, standards and workmanship as applied to the work and specifically including Division 2 - Division 48 of the Contract Documents.

O. PLANS, DRAWINGS OR CONTRACT DRAWINGS: only those drawings listed as such in the Contract Documents with all Addenda thereto.

P. SHOP DRAWINGS, SETTING DRAWINGS, WORKING DRAWINGS, CONSTRUCTION DRAWINGS: drawings prepared, or caused to be prepared, by the Contractor, Subcontractors, or by their equipment or material suppliers in their behalf, including standard or stock equipment drawings, necessary to the performance of the work in addition to the Contract Drawings, or as may be required by the Engineer to be submitted for review.

Q. ADDITIONAL DRAWINGS, SUPPLEMENTARY DRAWINGS: drawings, in addition to the Contract Drawings, which may be prepared and issued by the Engineer as part of the instructions to or requests of the Contractor in connection with the work of the Contract or appertaining to changes in the work.

R. ADDENDUM, ADDENDA: additional Contract provisions, deletions or changes issued by the Owner prior to the receipt of bids.

S. WRITTEN NOTICE: all written and authoritatively signed communications required in the normal conduct of the work or required to obtain compliance with the Contract provisions or preserve the rights of any party to the Contract. Written notice shall be considered as served when either delivered in person or deposited in a post-paid wrapper in a regularly maintained U.S. Mailbox and addressed to the person, firm or corporation intended to receive such notice, or to their appropriate agent, to the last business address of such known to the server. If mailed, the period of notice shall run from the time of the postal cancellation. It shall be incumbent upon each party to the Contract, and the Engineer, to advise the other parties to the Contract, and the Engineer, of any change in their business address until completion of the Contract and the expiration of all guarantee periods connected therewith.

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T. DIRECTED, ORDERED, REQUIRED, DESIGNATED, PERMITTED, GRANTED, INSTRUCTED, CONSIDERED NECESSARY, APPROVED, SATISFACTORY, ACCEPTABLE: words referring to action or satisfaction of the Engineer, unless another meaning is specifically stated. The same shall apply to words of like import.

U. AS SHOWN, AS SHOWN ON THE PLANS: words referring to lines, numbers, or statements, or combinations thereof, on the Contract Drawings, unless another meaning is specifically stated.

V. ELEVATION: or any abbreviation of the word "elevation", followed by figures, shall refer to the distance in feet above the datum established by the Engineer for the Project.

W. ACT OF GOD: an earthquake, flood, excessive wind or other unusual natural occurrence. Rain, snow, wind, flood, lightning or other natural phenomenon of normal intensity for the locality shall not be included in the meaning of the term.

X. APPROVED EQUAL, EQUAL: in the Contract Documents or Contract Drawings wherever brand names are specified and followed by the phrase "or approved equal", this phrase shall be modified to read "or equal".

00 07 50.02 REFERENCES TO OTHER SPECIFICATIONS AND CODES

References in these Specifications to published specifications and codes of private and governmental technical societies and agencies shall mean the latest specification for the item or operation involved. Abbreviations of these organizations used in these Specifications may include the following:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AGA	American Gas Association
AGCA	Associated General Contractors of America
AGMA	American Gear Manufacturers Association
AISC	American Institute of Steel Construction
AMCA	American Mechanical Contractors Association
ANSI	American National Standards Institute
APWA	American Public Works Association
ARI	American Refrigeration Institute
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigeration & Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWS	American Welding Society

DRAFT

AWWA	American Water Works Association
CEMA	Conveyor Equipment Manufacturers Association
CIPRA	Cast-Iron Pipe Research Association
FM	Factory Mutual System
HEI	Heat Exchange Institute
HI	Hydraulics Institute
IEEE	Institute of Electrical and Electronics Engineer
IPCEA	Insulated Powers Cable Electric Association
NAFM	National Association of Fan Manufacturers
NBC	National Building Code
NBFPU	National Board of Fire Protection Underwriters
NBCA	National Bituminous Concrete Association
NCPI	National Clay Pipe Institute
NEC	National Electrical Code
NELA	National Electrical Lamp Association
NEMA	National Electrical Manufacturers Association
NETA	National Electrical Testing Association
NFPA	National Fire Protection Association
NSWMA	National Solid Wastes Management Association
NYSDOT	New York State Department of Transportation, Standard Specifications (Construction and Materials)
NYSECC	New York State Energy Conservation Code
OSHA	Occupational, Safety and Health Act
PCA	Portland Cement Association
SAE	Society of Automotive Engineers
SMACNA	Sheet Metal & Air Conditioning Contractors National Association
SSPC	Steel Structures Painting Council
UL	Underwriter Laboratories', Inc.
USEPA	United States Environmental Protection Agency

END OF SECTION

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GENERAL CONDITIONS

SECTION 00 07 51

POWERS AND DUTIES OF ENGINEER

00 07 51.01 RESPONSIBILITY OF THE ENGINEER

A. The Engineer shall decide questions which may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of work, interpretation of Drawings and Specifications and all questions as to the acceptable fulfillment of the Agreement on the part of the Contractor. The duties and responsibilities of the Engineer as set forth herein shall not be extended except through written consent of the Engineer and the Owner.

1. Observation of the Work: The Engineer will make periodic visits to the site to observe the progress and the quality of the executed work. All materials and each part or detail of the work shall be subject at all times to observation by the Engineer and the Owner, and the Contractor will be held strictly to the intent of the Contract Documents in regard to quality of materials, workmanship, and the diligent execution of the Contract. Observations may be made at the site or at the source of material supply, whether mill, plant or shop. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make their observations and construction review.

2. Acceptability of Work: The Engineer's decision as to the acceptability or adequacy of the work shall be final and binding upon the Contractor. The Contractor agrees to abide by the Engineer's decision relative to the acceptability of the work.

3. Engineer's Decisions: All claims of the Owner or the Contractor shall be presented to the Engineer for decision which shall be final except in cases where time and/or financial considerations are involved.

4. The Engineer shall not be responsible for the Contractors or any Subcontractor's construction means, methods, controls, techniques, sequences, procedures or construction safety or their failure to complete the work in accordance with the Contract Documents.

5. Oral Agreements: No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms or obligations contained in any of the Contract Documents, and none of the provisions of the Contract Documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or

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modification thereof in writing, and no evidence shall be introduced in any proceedings of any other waiver or modification.

00 07 51.02 INSPECTION OF WORK

A. Inspection services, performed by the Engineer pursuant to this Contract, whether of material or work, and whether performed prior to, during or after completion of construction, are performed solely for the purpose of determining general conformity of the work with the Contract Plans and Specifications.

Nothing contained herein shall create, or be deemed to create:

1. any duty upon the Engineer to supervise the construction procedures and safety procedures followed by any Contractor or Subcontractor or their respective employees or by any other persons at the job site, or

2. any liability whatsoever by the Engineer to any employees or any Contractor or Subcontractor or to any other person.

00 07 51.03 NO WAIVER OF RIGHTS

A. No inspection or approval by the Owner, the Engineer, or any of their employees, nor any order, measurement or certification by the Engineer, nor payment for, nor acceptance of the whole or any part of the work by the Owner or the Engineer, nor any order of the Owner for payment of money, nor any possession taken by the Owner, nor any extension of time shall operate as a waiver of any provision of the Contract, or of any right to damage herein provided or of any power herein reserved. Neither shall a waiver of any breach of the Contract be construed to be a waiver of any other or subsequent breach. All remedies in the Contract shall be construed as being cumulative, in addition to each and every other remedy herein contained. The Owner shall have any and all legal and equitable remedies and recourse which they would in any case have.

END OF SECTION

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GENERAL CONDITIONS

SECTION 00 07 52

INSURANCE, SECURITIES AND GUARANTEES

00 07 52.01 GUARANTEES, PERFORMANCE BONDS, LABOR AND MATERIALS PAYMENT BONDS AND GUARANTEES

A. The Contractor shall furnish Performance and Labor and Materials Payment Bonds each in an amount not less than the full amount of the accepted bid. The Performance Bond shall guarantee faithful performance of the work in compliance with all Contract Documents. The Labor and Materials Payment Bonds shall guarantee the payment of all persons performing labor or furnishing materials in connection therewith. The Bonds shall be in a form approved by the Owner and dated the same as the executed Agreement. The Surety company or companies shall be designated by the Contractor and shall be authorized to transact business in New York State, and if this is a Federally aided project, shall appear on the U.S. Treasury Department's most current list (Circular 570 as amended). The premium for these Bonds shall be paid by the Contractor and shall be included as a part of their Bid. An Attorney-in-fact who signs Performance or Labor and Materials Payment Bonds shall file with each Bond or copy thereof a certified copy of their Power-Of-Attorney to sign such Bonds.

B. Cash in the form of United States currency or a certified check payable to the Owner in the full amount of the accepted Bid, deposited with the Owner, will be accepted in lieu of both Bonds. Such deposit shall serve as the Performance, and Labor and Materials Payment Bonds for all purposes specified, and the Contractor agrees that such deposit, or such portion thereof as may be required to satisfactorily complete the work, shall be forfeited to the Owner.

C. The Owner reserves the right to order or approve additions to, omissions from, or changes in the work without notice to the Surety.

D. The Contractor guarantees all the work, materials and equipment called for in the Contract against defects in materials or workmanship for a period of twelve months following the date of the Notice of Substantial Completion. Under this guarantee, the Contractor shall make good, at their own expense and without delay, any failure of any part due to poor or faulty materials, construction or installation, or to the failure of any equipment to satisfactorily perform the work required of it by the Specifications. The Contractor shall also make good any damage to any part of the Project, the environment or other property of the Owner caused by such failure. Any work replaced or rebuilt during the above-mentioned guarantee period shall be similarly guaranteed for a 12-month period starting from the date of acceptance of the repair, reconstruction or replacement.

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E. The Contractor's Performance and Labor and Materials Payment Bonds specified in the above paragraph shall fully cover all guarantees specified.

00 07 52.02 ADDITIONAL SECURITY

A. At any time the Owner may become dissatisfied with the Surety or Sureties who furnished the Performance Bond and the Labor and Materials Payment Bonds, or if for other reasons the Bond(s) shall, in the opinion of the Owner, cease to be adequate security to the Owner, the Contractor shall, within five days after notice from the Owner, substitute a new Bond(s) acceptable to the Owner in form, amount and Surety. The premium on such Bond(s) shall be paid by the Contractor. No payments on any Monthly Estimate shall become due and none shall be made until the new Surety shall have been approved and the Bond(s) executed and accepted.

00 07 52.03 CONTRACTOR'S INSURANCE

A. The Contractor, at their own expense, shall procure and maintain until one year after the date of the Notice of Certificate of Substantial Completion or one year after the Contractor or any Subcontractor last performs any work under the Contract, even if the Project is abandoned or deferred, insurance for liability for damages required by law of the kinds and in the amounts stated herein and as may be modified by provisions in the Additional Instructions, through insurance companies authorized to operate in New York State. The insurance shall cover all operations necessary to complete the work, whether performed by the Contractor or Subcontractors. Before starting work, the Contractor shall furnish the Owner one duplicate original policy and five certificates of insurance for each and every type of insurance required.

B. All liability insurance required by this Contract shall be maintained in force during the term of this Contract and until one year after the date of the Notice of Substantial Completion or one year after the Contractor or any Subcontractor last performs any work under the Contract, even if the Project is abandoned or deferred.

1. Commercial General Liability Insurance — $1,000,000 Occurrence
   Bodily Injury & Property Damage — $2,000,000 Aggregate

2. Automobile Liability
   Bodily Injury & Property Damage — $1,000,000 Combined Single Limit

3. Umbrella Liability — $4,000,000 Occurrence
   $4,000,000 Aggregate

4. Workers Compensation & Employers Liability — Statutory

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C. Additional Insured – Contractor shall name Contractor, Owner, the Engineers and any other entity required by contract as additional insured on all liability policies except Workers Compensation and Owners, Contractors Protective Liability with respect to all operations under the Contract by the Contractor, Subcontractor, including suspension and omissions of the Owner. The additional insured status shall be on a primary and non contributing basis over all other valid and collectible insurance, with respect to this Contract.

D. Additional Conditions

1. Waiver of Subrogation: The Contractor and Subcontractors waive all rights against (1) each other and any of their subcontractors, agents and employees, each of the other, and (2) the Owner, the Engineer, the Engineer's consultants, separate contractors, and any of their subcontractors, sub-subcontractors, agents and employees for damages caused by bodily injury, property damage, fire or other causes of loss to the extent covered by insurance provided under the Contract or other insurance applicable to the work, except such rights as they may have to proceeds of such insurance held by the Owner as a fiduciary. The Subcontractor shall require of the Subcontractor's sub-subcontractors, agents and employees, by appropriate agreements, written where legally required for validity, similar waivers in favor of the parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

2. Commercial General Liability (CGL):

a. Coverage with limits of Insurance of not less than $1,000,000 each occurrence and $2,000,000 Annual Aggregate.
b. If the CGL coverage contains a General Aggregate Limit, such General Aggregate shall apply separately to each project/location.
c. CGL coverage shall be written on ISO Occurrence Form CG 00 01 1093 or a substitute form providing equivalent coverage and shall cover liability arising from premises, operations, independent contractors, products-completed operations, and personal and advertising injury and contractual liability.
d. Contractor, Owner and all other parties required of the Contractor, shall be included
as additional insureds on the CGL. Coverage for the additional insureds shall apply as Primary and noncontributing Insurance before any other insurance or self-insurance, including any deductible, maintained by, or provided to, the additional insureds.

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e. Contractor and Subcontractor shall maintain CGL coverage for itself and all additional insureds for the duration of the project and maintain Completed Operations coverage for itself and each additional insured for at least one year after Contractor or Subcontractor last performs any work under the Contract.

3. Auto Liability:

a. Business Auto Liability with a combined single limit of at least $1,000,000 each accident.
b. Business Auto coverage must include coverage for liability arising out of all owned, leased, hired and non-owned automobiles.
c. General Contractor, Owner, Engineers and all other parties required of the General Contractor, shall be included as additional insureds on the auto policy.

4. Umbrella Insurance:

a. Umbrella limits must be at $4,000,000 each occurrence and $4,000,000 aggregate.
b. Umbrella coverage for such additional insureds shall apply as primary before any other insurance or self-insurance, including any deductible, maintained by, or provided to, the additional insured other than the CGL, Auto Liability and Employers Liability coverages maintained by Contractor.

5. Workers Compensation and Employers Liability:

a. Statutory for New York State. All other states Employers Liability/Insurance limits of at least $500,000 each accident for bodily injury by accident and $500,000 each employee for injury by disease.

6. Property Insurance (Builders Risk):

a. The Contractor shall provide and maintain, at their own expense, such property insurance as required by Contract. Policy(s) shall provide cover for fire, extended cover including open (special) perils and theft to insure all work and materials of the Contract against loss or damage. The value of the insurance shall at all times be equal to or greater than the full value of the Contract. Insurance policies shall be in the name of the Owner and payable to the Owner. Any proceeds there to shall be retained by the Owner as security for the performance by the Contractor in making good any loss, damage or injury. Upon such satisfactory performance by the Contractor, the proceeds shall be paid by the Owner to the Contractor.

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E. Owners, Contractors Protective Liability Insurance

1. Owners Protective Liability Insurance at the limits stated in the Additional Instructions issued in the name of the Owner to and covering the liability for damages imposed by law upon the Owner with respect to all operations under the Contract by the Contractor or their Subcontractor, including supervisory acts and omissions of the Owner. Unless otherwise stated in the Additional Instructions, a minimum of $1,000,000 per occurrence / $2,000,000 aggregate is required.

F. Insurance Certificates

1. Attached to each certificate of insurance shall be a copy of the Additional Insured Endorsement that is part of the Commercial General Liability Policy. These certificates and the insurance policies required shall contain a provision that coverage afforded under the policies will not be cancelled or allowed to expire until at least 30 days prior written notice has been given to the Contractor/Owner.

END OF SECTION

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GENERAL CONDITIONS

SECTION 00 07 53

STATUS OF CONTRACTOR

00 07 53.01 REPRESENTATIONS OF CONTRACTOR

The Contractor warrants and represents that:

A. They are familiar with all Federal, State, County and Municipal laws, ordinances, regulations and codes pertinent to the work and those employed in connection therewith, including any special acts relating to the work or the Project.

B. They have carefully examined all the Contract Documents and the Site and has, thereby satisfied themselves as to: the location and nature of the work; the quantity, quality and nature of both surface and subsurface structures and materials apt to be encountered; the quantity, quality and types of plant, equipment and other facilities necessary for the performance of the work; the general and local conditions; and all other matters which may in any way affect the work or their performance under the Contract.

C. Such work, both temporary and permanent, required under the Contract can be satisfactorily constructed and used for its intended purpose, without injury to any person or damage to any property.

D. They are financially solvent and experienced in and competent to perform the work of the Contract.

E. If a corporation foreign to the State of New York, they are aware of the provisions of Article 13 of the Business Corporation Law, with specific reference to the requirements in Section 1301 that certain corporations may not do business in this State without first obtaining a certificate of authority from the Secretary of State.

F. If a corporation, they are aware of the provisions of Article 145 of the Education Law, with specific reference to the requirements and prohibitions of Section 7209 relating to the practice of professional engineering, or the use of the word "engineer" or "engineering" in a corporate name.

00 07 53.02 ADDRESS OF CONTRACTOR

A. Both the address given in the bid and the Contractor's office at or near the Site, if such is established, are designated as places to either of which letter, notices, or other communications to the Contractor may be mailed or delivered. The delivery at either place, or the depositing, in a post-paid wrapper addressed to either place, in any regularly maintained U.S. Post Office Box, of any letter, notice, or other

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communication shall be deemed sufficient service thereof upon the Contract. If at any time during the life of the Contract, it is necessary to change either address, the Contractor shall give written notice to the Owner, the Surety and the Engineer.

B. Nothing herein shall act to prevent or invalidate the personal delivery in hand of any letter, notice or other communication to the Contractor.

00 07 53.03 PATENTS

A. The Contractor shall pay, as part of this Contract, all costs and fees required to obtain the legal right to use patented equipment, designs, or procedures to be used, as part of the work on this Contract.

B. The Contractor shall defend, indemnify, keep and save harmless the Owner from all costs, damages, liabilities, judgments and expenses, including reasonable attorney fees which may in any way arise against the Owner because of the use of any patented material, equipment or process furnished or used in the performance of the work or because of the use of patented designs supplied by the Contractor and accepted by the Owner.

C. If any claim, suit or action at law or inequity of any kind involving any such patent is brought against the Owner, the Owner may retain from any moneys due or to become due to the Contractor an amount considered sufficient by the Owner to protect itself against loss until such action is settled and satisfactory evidence to that effect has been supplied to the Owner.

00 07 53.04 CONTRACTOR'S OBLIGATIONS

A. The Contractor shall furnish all the plant, machinery, labor, equipment, material, tools, appliances, shoring, bracing and scaffolding necessary to the proper and safe completion of the work in the manner specified, shown and directed within the time specified. They shall suitably cover the work whenever necessary, and otherwise protect it from damage from any cause whatsoever.

B. If in the opinion of the Engineer the Contractor's procedures or appliances appear at any time, either before or during progress of the work, to be inadequate or insufficient to provide the quality of the work, or the rate of progress specified, they may order the Contractor to improve their character and increase their sufficiency, and the Contractor shall comply therewith. However, failure of the Engineer to issue such an order shall not relieve the Contractor of their obligations to secure the safety, quality or progress of the work, and the Contractor alone shall be responsible for the safety, adequacy and efficiency of their methods, plant and appliances.

DRAFT

00 07 53.05 LIABILITY FOR INJURIES OR DAMAGE

A. The Contractor shall be solely responsible and liable for the safety and protection of all persons, including but not limited to the Owner, Engineer, Contractor and Subcontractor and their employees, suppliers and visitors, and shall be solely responsible and liable for the safety and protection of property, including but not limited to the Site and its appurtenances and equipment, and they shall be solely responsible for all physical injuries, including death, to any such persons and for all damage to any such property and its appurtenances, which occurs on account of the work, or because of any negligence, fault or default of the Contractor, a Subcontractor or any of their officers, employees or agents.

B. The Contractor shall have on the project site at all times, while work is in progress, at least one person skilled in safety and health procedures and familiar with State and Federal safety and health regulations whose responsibility shall be to observe methods and procedures. They shall have the duty and authority to stop and/or correct all unsafe and unhealthy conditions.

00 07 53.06 GENERAL INDEMNIFICATION

A. To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Engineer, Engineer's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from performance of the Contractor's Work under this Contract, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, the Contractor's Subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Paragraph.

00 07 53.07 CONTRACTOR'S CLAIM FOR DISPUTED WORK

A. If the Contractor believes they or their Subcontractor or anyone directly or indirectly employed by any of them has sustained damage for disputed work, for which they claim they should be compensated, they shall give written notice to the Engineer, describing the nature and circumstances of the disputed work, within seven days after sustaining such damage. The Contractor shall also file with the Engineer, within 30 days of the date on which the alleged damage occurred, an itemized statement of the character and amounts of such damage. Unless both statements shall be filed as so required, the claim for compensation shall be considered invalid and the Contractor shall not be entitled to any payment therefor.

DRAFT

B. The Contractor shall proceed diligently with performance of the disputed work pending final resolution of their claim for damages.

C. During the progress of such disputed work, the Contractor shall provide to the Engineer daily records and make reports of all labor, material and equipment used in connection with such work and the cost thereof as specified in Section 00 07 57.03.

D. If the Owner determines that the work in question is Contract work and not a Changed condition, they shall direct the Contractor to continue the disputed work, and the Contractor must promptly comply.

E. If the Owner determines that the work in question is not Contract work and is a Changed condition, they shall direct the Contractor to continue the work and shall have prepared a Change Order in accordance with Section 00 07 57.03.

00 07 53.08 NO CLAIMS AGAINST INDIVIDUALS

A. No claim shall be made by the Contractor or their Subcontractor or anyone directly or indirectly employed by any of them against any officer, employee or agent of the Owner and the Engineer for, or because of, anything done or failure to be done in connection with the work.

00 07 53.09 CONTRACTOR'S TITLE TO MATERIALS

A. Neither the Contractor nor any Subcontractor shall purchase any materials, equipment or supplies for work subject to any chattel mortgage or under a conditional sale agreement or other agreement by which an interest is retained by the seller. The Contractor shall obtain and maintain good and clear title to all materials and supplies used by them in the work until attachment to or incorporation in the work.

B. Nothing in the Contract shall be construed as vesting in the Contractor any property right in materials or equipment specified after they shall have been attached to or incorporated in the work or the ground, nor in materials and equipment for which partial payments have been made. All such materials and equipment shall become the property of the Owner upon such attachment or incorporation.

DRAFT

00 07 53.10 TITLE TO OLD MATERIALS

A. All materials removed from existing structures or construction, and all materials or articles of intrinsic or historic value found in excavations or on the Site shall be brought to the attention of the Engineer, and if they shall so order, shall become or remain the property of the Owner, and shall be carefully preserved for future use. If not claimed by the Owner, such materials or articles shall be removed from the Site and disposed of by the Contractor at their own expense.

END OF SECTION

DRAFT

GENERAL CONDITIONS

SECTION 00 07 54

CONTRACTOR'S ORGANIZATION & STAFF

00 07 54.01 SUPERINTENDENTS, FOREMEN & AGENTS

A. The Contractor shall at all times, except during periods of shut-down or work suspension that have been approved or directed, have a competent superintendent, foreman or other representative on the Site, who shall see that the work is performed in accordance with the Contract Documents and directions of the Engineer given thereunder, and who shall have authority to act for the Contractor and to receive and carry out orders from the Engineer, and who shall receive materials and equipment shipped to the Contractor. The Contractor shall be responsible for the acts of their superintendents, foremen, agents and employees during the life of the Contract.

00 07 54.02 COMPETENCY & CHARACTER OF EMPLOYEES

A. The Contractor shall employ only competent and skillful persons to perform the work. This provision shall apply equally to common laborers and skilled craftsmen or tradesmen.

B. Whenever the Engineer informs the Contractor that any person on the work is, in the Engineer's opinion, incompetent, intemperate, unfaithful, insufficiently skillful, or disorderly, or refuses to carry out the provisions of the Contract, or to stop doing unsatisfactory work when so ordered, or who uses threatening or abusive language to, or engages in offensive, hostile, or harassing conduct toward the Owner, Engineer, or any authorized representative(s) thereof, such person shall be discharged from the work by the Contractor and shall not again be employed without written consent of the Engineer.

00 07 54.03 CONTRACTOR'S FIELD OFFICE

A. Unless waived by provisions within Additional Instructions, the Contractor shall provide, furnish and maintain for their own use a field office, with telephone, on the Site during the entire period of construction. The Contractor shall obtain approval of the Engineer of the type, size and location of such office, shanties or other temporary structures on the Site, prior to their erection.

DRAFT

B. The Contractor will receive no direct payment for providing, maintaining or removing the Contractor's Field Office specified above, and compensation for same shall be included, as part of their overhead, in the prices to be paid for the various items in this Contract.

END OF SECTION

DRAFT

GENERAL CONDITIONS

SECTION 00 07 55

PERMITS, TAXES, ACCESS, OTHER CONTRACTS

00 07 55.01 LAWS, REGULATIONS & PERMITS

A. The Contractor shall procure at their own expense all necessary permits from the Federal, State, County, Town, municipal or other public agencies that may be involved in the work or the Project or have jurisdiction thereover, and shall serve all notices required by law or ordinance and pay all fees and charges incidental thereto. They shall at all times keep themselves fully informed of all laws, ordinances and regulations which in any way affect the work, the materials, methods and equipment used in the work, the conduct of the work, and persons engaged or employed on the work, and of all orders, instructions and decrees of bodies, agencies or tribunals having any authority or jurisdiction over the work or the Project.

B. If the Contractor should discover any discrepancy or inconsistency in any Contract Documents relating to any permit, law, ordinance, regulation, code, order, decree or instruction, they shall immediately report the same in writing to the Engineer.

C. The Contractor shall at all times observe and comply with all such existing and all laws which come into existence during the execution of the Contract, as well as permits, codes, decrees, ordinances, regulations, orders and instructions, and shall cause their superintendents, foremen, employees and agents to do likewise.

00 07 55.02 REQUIRED LEGAL PROVISIONS DEEMED INCLUDED

A. All clauses and provisions of law required by law to be included in the Contract shall be deemed to be included herein, and the Contract shall be interpreted, administered and enforced as though they were included. If, through oversight or otherwise, any such clause or provision is not included, or is not correctly included, the Contract shall immediately be physically amended or corrected, at the request of either party, to provide the necessary compliance.

B. The inclusion in the Contract Documents of any portion of any law or ordinance or code, regulation, decree, order, permit, instruction or interpretation emanating from a public body or agency, shall not be construed to mean that all such laws or legal requirements deemed necessary, in effect, or applicable to all or any portion of the work or the Contract have been included.

DRAFT

00 07 55.03 UNLAWFUL REQUIREMENTS DEEMED EXCLUDED

A. If the Contract Documents contain any unlawful provision not an essential part of the Contract and which shall not appear to have been a controlling or material inducement to the making of the Contract by the parties thereto, such provision shall be construed to be of no effect and shall, upon written notice by either party, be deemed stricken from the Contract without affecting the binding force of the remainder on both parties.

00 07 55.04 TAXES

A. The Contractor shall pay all sales, use, excise, transportation and other taxes and fees for which they are liable under the Contract. The cost of such taxes and fees shall be included in the price, or total of several prices, given in the Bid on which the Agreement is based, and no separate payment will be made therefor.

00 07 55.05 ACCESS TO WORK AND CONTRACTOR'S RECORDS

A. The Owner and the Engineer, and their employees, agents and representatives, shall have access to the work, the Site, and the premises used by the Contractor, and the Contractor shall provide and maintain safe and suitable facilities therefor. Subcontractors, and any other parties who may contract with the Owner to do work on the Site shall, for all purposes which may be required by their contracts, have the same privileges and facilities.

B. Whenever requested, the Contractor shall give the Engineer access to invoices, bills of lading, trip tickets, lists of employees, survey notes and other such data connected with the work.

END OF SECTION

DRAFT

GENERAL CONDITIONS

SECTION 00 07 56

TIME ELEMENTS

00 07 56.01 COMMENCEMENT & COMPLETION

A. The Contractor shall begin performance of the work within the time specified in the Information for Bidders, and shall substantially complete the work within the time specified in the Information for Bidders.

00 07 56.02 TIME OF ESSENCE

A. Since the provisions of this Contract relating to the commencement and completion of the work are to enable the Owner to construct and place in use an improvement or facility in accordance with a pre-determined program, such provisions are of the essence of this Contract. It is agreed that the Owner will suffer damages if the work is not completed in the time specified.

00 07 56.03 PROGRESS

A. The rate of progress shall be as uniform as practicable and such that all the work will be completed within the time specified, or within any time extensions that may be granted by the Owner.

B. The Engineer will notify the Contractor in writing if, at any time, they are of the opinion the work is unnecessarily delayed and will not be completed on time. The Contractor shall, within 10 days after receipt of such notice, take such action as will, in the opinion of the Engineer, improve the rate of progress to an extent that will insure completion of the work within the time specified. If the Contractor shall fail or refuse to take such steps within 10 days, the Owner may notify the Contractor to stop work or terminate the Contract in accordance with the provisions of Article 00 07 60.01, OWNER'S RIGHT TO STOP WORK OR TERMINATE CONTRACT.

00 07 56.04 APPROVED WORK SCHEDULES

A. Unless waived by provision in the Information for Bidders, within three weeks after award of the Contract, the Contractor shall submit to the Engineer for approval three copies of their proposed work schedule. The schedule shall show the Contractor's proposed relative order and sequence of commencement and completion of all salient portions of the work, including the delivery and installation of equipment, and shall give the estimated dates of commencement and completion of the various portions of the work.

DRAFT

B. If more than one Contract is to be awarded on the same phase of the project, the General Contractor shall provide the Engineer with additional copies of their work schedule after the schedule shall have been approved. The Engineer will transmit these to the other Contractors for reference in the preparation of their proposed work schedules and submittal of same for approval. In such case each Contractor other than the General Contractor shall submit their proposed schedule for approval within three weeks after receipt of a copy of the General Contractor's approved schedule.

C. Each Contractor shall adhere to the approved schedule for their Contract. If a Contractor causes one or more other Contractors to be damaged by failing to adhere to their schedule, they shall save harmless the Owner and the Engineer from any and all actions and charges of the other Contractors against the Owner or the Engineer as the result of such failure.

D. If the Contractor is behind schedule any month, the Contractor shall indicate what measures it will take in the next thirty (30) days to put the work back on schedule. If the Engineer finds the revised schedule not acceptable they may require the Contractor to submit a new revised schedule.

E. If the Contractor fails to submit a work schedule within the time period described or any revision or update when required, the Owner may withhold payment pursuant to Section 00 07 59.07 of the Contract until such time as the Contractor submits the required work schedule.

F. See also Article 00 10 12.01, COLLATERAL WORK.

00 07 56.05 WORK SUSPENSION

A. When, in the opinion of the Engineer, good cause of suspension of the work exists, the Contractor shall suspend the work or any portion thereof, upon written order of the Engineer, for such period of time as the Engineer may direct. If the reason for suspension is beyond the control of the Contractor, the time within which the work is required to be completed shall be extended by the number of calendar days the work is suspended.

00 07 56.06 TIME EXTENSIONS

A. Should the work be obstructed or delayed through the neglect, delay or default of any other Contractor on the Project, or by an Act of God, or by a general strike, or by delays caused by governmental authorities having jurisdiction over the work, or by delay on the part of the Owner in performing any work or furnishing any material or equipment stated in the Contract to be furnished by the Owner, or by any Supplementary Agreement or Change Order issued by the Owner, the Contractor shall have no claim for damages against the Owner or the Engineer, other than the price or prices agreed upon under Supplemental Agreement, or Change Order, but shall be entitled to such an extension of time for completion of

DRAFT

the work as the Engineer certifies is equitable because of such obstruction, delay, Supplemental Agreement, or Change Order, provided that claim for a time extension is made by the Contractor, in writing within seven days from the end of the time when the alleged cause therefore shall have occurred. Time necessary for Shop Drawing review, for changes to meet actual conditions, and delays incurred by seasonal and weather limitations for the locality should be normally anticipated and are neither compensatory nor eligible for extensions of time. See also ARTICLE 00 10 12.01, COLLATERAL WORK, and 00 07 57.03, CHANGE ORDERS AND PAYMENT OR CREDIT THEREFOR.

00 07 56.07 ENGINEERING AND INSPECTION CHARGES

A. When the work embraced in the Contract is not substantially completed on or before the date specified therein, or within any time extensions granted by the Owner, engineering and inspection expenses incurred by the Owner in connection with the work from the specified or extended date of substantial completion until the date of actual Substantial Completion shall be charged to the Contractor. The date of actual substantial completion shall be determined as the date of issuance of the Notice of Substantial Completion.

B. Supplementary Agreements or Change Orders added to the original Contract, as well as extenuating circumstances beyond the control of the Contractor, will be given due consideration by the Owner prior to assessing engineering and inspection charges against the Contractor.

C. In addition, should the Contractor apply for and receive dispensation to work more than eight hours per day or forty hours per week by the Industrial Commissioner, the Contractor will be charged the associated overtime premium rate for the Engineer's on-site inspection representative(s).

D. Should the remaining minor punch list items not be completed within sixty (60) days of the Notice of Substantial Completion or within any time extensions granted by the Owner, the Contractor shall pay the Owner for any engineering and inspection expenses incurred by the Owner from the specified or extended date of minor punch list completion until when such punch list items are fully complete.

E. These additional engineering and inspection charges shall be in the form of agreed-upon damages to the Owner and shall be deducted from moneys due or to become due the Contractor.

DRAFT

00 07 56.08 PER DIEM CHARGES FOR DELAY

A. For each calendar day or fraction thereof that any work except minor punch list items as listed on the Notice of Substantial Completion shall remain uncompleted after the Contract time specified for the substantial completion of the work in the Information For Bidders or extensions thereof granted by the Owner, the Contractor shall pay the Owner agreed-upon damages as follows, unless modified in the Additional Instructions:

Original Contract Amount		Agreed-Upon Damages
From More Than	To and Including	Per Calendar Day
$ 0	$ 25,000	$ 50
$ 25,000	$ 50,000	$ 100
$ 50,000	$ 100,000	$ 200
$ 100,000	$ 500,000	$ 300
$ 500,000	$ 2,000,000	$ 500
$ 2,000,000	$ 5,000,000	$ 600
$ 5,000,000	$10,000,000	$ 800
$10,000,000		$1,000

B. The date of actual Substantial Completion shall be determined as the date of issuance of the Notice of Substantial Completion.

C. Such sums shall be in addition to engineering and inspection charges as provided for in ARTICLE 00 07 56.07 and shall not be in the nature of a penalty, but agreed-upon damages to the Owner in such case and shall be a part of the consideration of the Contract.

D. The sums and charges specified above shall be deducted from moneys due or to become due the Contractor and the amount still owing, if any, shall be paid on demand by the Contractor or the Surety. Such payments shall not relieve the Contractor or the Surety from any other obligation under the Contract.

E. Before assessing engineering and inspection charges, or per diem charges for damages, the Owner will give due consideration to any and all Supplementary Agreements and Change Orders as well as extenuating circumstances beyond control of the Contractor including any delays due to any preference, priority or allocation order duly issued by the Government. Such charges will be assessed, however, in cases in which the Owner considers the Contractor liable as the result of slow work, inefficient operation, insufficient labor, equipment or material, the removal and replacement of poor work, or other unwarranted reasons.

END OF SECTION

DRAFT

GENERAL CONDITIONS

SECTION 00 07 57

CHANGES IN THE WORK

00 07 57.01 RIGHT TO ALTER CONTRACT

A. The Owner may at any time alter or modify the Contract Documents, and the Contractor shall conform to such alterations or modifications after the Owner and the Contractor shall have entered into a Supplementary Agreement in writing therefor. The Contractor shall perform no work and furnish no material in connection with the alterations or modifications, nor shall they receive any additional payment therefor, unless and until such a Supplementary Agreement has been executed, as required by law. The Owner and the Contractor agree that alterations and modifications thus made shall in no way compromise the validity or coverage of the original Contract or Bond, or the liability of the signers thereof. All work performed under any such Supplementary Agreement shall be subject to all the provisions of the original Contract not expressly altered or modified.

00 07 57.02 MINOR CHANGES

A. When ordered by the Engineer, the Contractor shall make minor changes in the location of the work, installation of equipment, and other things called for in the Contract, at no additional cost to the Owner. Such minor changes shall be limited to matters that do not alter the character, quantity or cost of the work as a whole. The Engineer shall be the sole judge of what constitutes a minor change.

00 07 57.03 CHANGE ORDERS & PAYMENT OR CREDIT THEREFOR

A. The Owner, without invalidating the Contract, may make changes by altering, adding to or deducting from the work the contract sum being adjusted accordingly. All such work shall be executed in conformity with the terms and conditions of the original Contract, unless otherwise provided in the order for same. Any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

B. No instructions, either written or verbal, shall be construed as an order for changes unless it be in the form of a Change Order, bearing the signed approval of the Owner and the signed acceptance of the Contractor, except in the case of disagreement as to value of changes, when the Contractor's signature to the order will not be mandatory. Change Order shall describe or enumerate the work to be performed and state the price, if any, to be added to or deducted from the Contract sum. If the nature of the work is such that a Change Order, as above, cannot be issued until the work has been advanced sufficiently to obtain exact quantities, said work will be authorized in writing by the Owner, with the accompanying

DRAFT

statement that a Change Order will be issued when the necessary information is at hand.

C. Except as provided in the above paragraph, no change shall be made, unless in pursuance of a Change Order, and no claim for an addition to the Contract sum shall be valid unless so ordered. If the Contractor believes that any instructions, by drawing or otherwise, involves extra cost under their Contract, they shall give the Owner and the Engineer written notice and then proceed as indicated in Article 00 07 53.07, Contractor's Claim for Disputed Work.

D. The value of any Change Order shall be determined by one or more of the following methods and in the following order:

1. By prices specifically named in the specifications or proposals.

2. By acceptance of agreed unit prices based on estimated cost plus overhead and profit as applicable.

3. By estimate of the actual cost of labor and materials plus overhead and profit, cost to be determined as the work progresses.

4. By actual cost of labor and materials plus overhead and profit, cost to be determined as the work progresses.

5. By estimate of the value as deducible from the approved detailed estimate.

E. Overhead shall be defined as an allowance to compensate for all costs, charges and expenses, direct or indirect, except for the actual cost of labor and material as defined by the following paragraph. Overhead shall be considered to include, but not be limited to insurance (other than as mentioned in the following paragraph) bond or bonds, field and office supervisors and assistants above the level of foreman, use of small tools and minor equipment, incidental job burdens, general office expense, etc.

F. Actual cost of labor and material shall be defined as the amount paid for the following items, to the extent determined reasonable and necessary.

1. Cost of materials delivered to the job site for incorporation into the Contract work.

2. Wage paid to workmen and foremen and wage supplements paid to labor organizations in accordance with current labor agreements.

3. Premiums or taxes paid by the Contractor for Worker's Compensation Insurance, unemployment insurance, FICA tax and other payroll taxes as required by law, net of actual and anticipated refunds and rebates.

4. Sales tax paid as required by law.

DRAFT

5. Allowance for use of construction equipment (exclusive of hand tools and minor equipment), as approved for use by the Engineer. The rate on self-owned equipment used for periods of under one week will be the Associated Equipment Distributor's published monthly rate divided by 22 days to establish a daily rate and divided again by eight hours to establish an hourly rate. Equipment used for periods of 5 days or more will be billed at a rate equal to 45% of the published monthly rate. In the alternative, the Engineer may approve for reimbursement a rate representing the allocable costs of ownership. Self-owned equipment is defined to include equipment rented from controlled or affiliated companies. Rented equipment will be paid for at the actual rental cost.

6. Gasoline, oil and grease required for operation and maintenance will be paid for at the actual cost. When, in the opinion of the Contractor, and as approved by the Engineer, suitable equipment is not available on the Site, the moving of said equipment to and from the Site will be paid for at actual cost.

7. When the material furnished under item (1) is used material, its value shall be pro-rated to the value of new material, but should be no more than its cost. When, in the opinion of the Engineer, the salvage value of salvageable material furnished under item (1) exceeds the cost of salvage, a suitable credit shall be given the Owner.

G. Regardless of the method used to determine the value of any change, the Contractor will be required to submit evidence satisfactory to the Engineer to substantiate each and every item that constitutes their proposal of the value of the change. The amounts allowed for overhead and profit shall not exceed the applicable percentages as established in the two following paragraphs.

H. If the work is done directly by the Contractor, overhead in an amount of 10% may be added if method B, C or D is used, and to the cost of the labor and materials plus overhead there may be added 10% for profit. The percentages for overhead and profit may vary according to the nature, extent and complexity of the work involved, but in no case shall exceed the percentages set forth in this paragraph and in the following paragraph. No percentages for overhead and profit will be allowed on payroll taxes or on the premium portion of overtime pay.

I. If the work is done by a Subcontractor, Subcontractor's overhead in the amount of 5% may be added to cost of labor and materials if method B, C or D is used and to the cost of labor and materials plus overhead there may be added 10% for the Subcontractor's profit. To this amount there may be added 10% for the Contractor's combined overhead and profit. No percentage for overhead and profit will be allowed on payroll taxes or on the premium portion of overtime pay. However, to the extent that the aggregate dollar value of changes under a contract exceeds $75,000, the 10% overhead applied to total costs of labor and materials incurred by the prime Contractor shall be reduced to 5%, and the combined

DRAFT

overhead and profit of 10% applied to sub-contract billings shall be reduced to 5%. In addition, on all individual Change Orders in excess of $75,000, the overhead shall be no more than 5% of the total actual cost of labor and materials incurred by the prime Contractor, and the combined prime Contractor's overhead and profit allowance applied to Sub-contract billings shall be no more than 5%.

J. The Owner shall determine by which of the foregoing methods the value of any changes shall be computed.

00 07 57.04 CORRECTION OF WORK

A. Any materials, plant or equipment delivered to the Site for use in the work which may be disapproved by the Engineer as unsuitable or not in keeping with the Specifications shall be immediately removed by the Contractor from the Site.

B. If any portion of the work is damaged in any way, or if defects or faults develop before the Inspection at Substantial Completion and issuance of a Certificate of Substantial Completion, or before the expiration of the 12-month guarantee period, the Contractor shall repair, replace or otherwise make good the damage or defects to the satisfaction of the Engineer, regardless of whether the work may have previously passed the specified inspections and tests. No additional payment will be made for such remedial work.

C. Failure on the part of the Engineer to condemn defective work shall not imply acceptance of the work, nor act to release the Contractor from their obligations to repair, replace or otherwise make good the work at their own expense, notwithstanding that such work may have been estimated for payment or that partial or full payments may have been made therefor.

00 07 57.05 EMERGENCY POWERS UNIMPAIRED

A. The provisions of this shall not detract from the authority of the Contractor or the Engineer to act in case of emergency, as provided elsewhere in the Contract Documents.

END OF SECTION

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GENERAL CONDITIONS

SECTION 00 07 58

ASSIGNMENT & SUBCONTRACTS

00 07 58.01 SUBCONTRACTS

A. Should the Contractor desire to subcontract any portion of the work, they shall first submit to the Engineer a statement outlining the nature and amount of the work proposed to be subcontracted and the name of the person, firm or corporation they proposes as Subcontractor. If requested by the Engineer, the Contractor shall also provide a statement as to the proposed Subcontractor's experience, financial ability, insurance certificates, or other qualifications for the nature and scope of the work proposed to be undertaken.

B. The proposed Subcontractor shall not enter upon the Site nor perform any work, either on or off the Site, until written approval of the Subcontractor has been granted by the Engineer and the Surety.

C. Subcontracts shall in no way, directly or indirectly, release, compromise or modify the responsibility of the Contractor or the Surety for the satisfactory and full completion of the work. The Owner shall not be liable to any Subcontractor for any lien on structures to be constructed as part of the work or claim on moneys due the Contractor or any other lien, claim or damages whatsoever. The approval of the Engineer and the Surety of a Subcontractor shall in no way create a contractual obligation between the Owner and the Subcontractor.

D. In the event a Subcontractor shall disregard the directions of the Engineer, or fail in any other way to abide by all conditions of the Contract, the Contractor shall, upon written order of the Engineer, require the Subcontractor to discontinue work under the Contract.

E. The Contractor shall be responsible for the coordination of all of their Subcontractors engaged upon the work, both in connection with their own work and the work of other contractors, if any, working collaterally on the Project.

F. The divisions or sections of the various Contract Documents and Bid Items are not intended to define portions of the work to be divided among Subcontractors, nor to influence the Contractor to award Subcontracts, nor to limit or enlarge the work performed by any trade, unless a Subcontractor experienced in providing a certain specialized type of work is specifically required in the Contract.

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00 07 58.02 LIMIT OF SUBCONTRACTS VALUE

A. The Owner reserves the right to limit the total value of all Subcontracts to fifty (50) percent of the total Contract price.

00 07 58.03 ASSIGNMENT

A. In accordance with the provisions of Section 109 of the General Municipal Law of the State of New York, the Contractor shall not assign, convey, transfer, sublet or otherwise dispose of this Contract, or of their right, title or interest therein, or their power to execute such Contract, to any other person or corporation without the prior written consent of the Owner.

B. If the Contractor shall, without such consent of the Owner, assign, convey, transfer, sublet or otherwise dispose of this Contract to any other person or corporation, the Owner may revoke and annul the Contract, in which instance the Owner shall be relieved and discharged from any and all liability and obligations to the Contractor arising from the Contract, and to the persons or corporation to which the Contract shall have been assigned, conveyed, transferred, sublet or otherwise disposed of, and the Contractor and their assignees, conveyees, transferees or sublessees shall forfeit and lose all moneys theretofore earned under such Contract, except so much as they may be required to pay their employees.

C. Nothing herein shall prevent an assignment by the Contractor for the benefit of their creditors made pursuant to the laws of the State of New York.

00 07 58.04 PAYMENT

A. Payment to Subcontractors and/or material suppliers shall be in accordance with Section 106b of the General Municipal Law of the State of New York.

END OF SECTION

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GENERAL CONDITIONS

SECTION 00 07 59

PAYMENTS

00 07 59.01 ESTIMATED QUANTITIES

A. The Contractor agrees that the estimated quantities given in the Bid are only for the purpose of comparing bids and that they are satisfied with and will at no time dispute the said estimates as a means of comparing the aforesaid bids, that they will make no claim for loss of profits or anticipated profits because of any difference between the said estimated quantities and the quantities of the various classes of work actually furnished or performed, that the Owner shall not be held responsible if any of the said estimated quantities should be found to not even approximate those actually measured during performance of the work, and that the Engineer may direct an increase, decrease or omission of the quantities of any class or part of the work as may be deemed necessary or desirable.

00 07 59.02 PRICES ALL-INCLUSIVE

A. The price or prices herein agreed to shall be for the work complete, and shall include the furnishings of all labor, tools, plant, equipment and materials therefor, whether required directly or indirectly, unless otherwise specified.

00 07 59.03 LUMP SUM PRICES

A. A lump sum price stated in the Bid for an item shall be for the work complete as shown on the Plans and described in the Specifications for the corresponding item and shall include the cost of all labor, tools, plant, equipment and materials, specified or implied, incidental to the work of the item complete and ready for the service intended.

B. Within three weeks after execution of the Contract, the Contractor shall submit to the Engineer for approval three copies of a detailed schedule showing the breakdown of all lump sum bid prices in the Contract. The schedule shall indicate the quantities and amount estimated for each part of the work. The schedule shall be apportioned by the Contractor for labor and for materials, if so requested by the Engineer. The Contractor shall revise the schedule until it is satisfactory to the Engineer. The approved breakdown will be used in the preparation of monthly estimates and payments to the Contractor.

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00 07 59.04 UNIT PRICES

A. A unit price stated in the Bid for an item of the work specified to be measured for payment by units of volume, weight, area, length or number shall be paid for each unit of the net amount of the work of the item actually performed or furnished and incorporated in the finished work in accordance with the Specifications, Plans and as directed, as measured along the payment lines specified or shown, local custom to the contrary notwithstanding. It is agreed that the planimeter shall be considered an instrument of precision for the measurement on drawings and plans of areas in connection with the estimation of quantities in cases where geometric methods would be comparatively laborious.

00 07 59.05 MONTHLY ESTIMATES AND PAYMENTS

A. Unless otherwise noted in the Additional Instructions or the Specifications once each month, on a day of the month selected by the Engineer, they will make an estimate of the value of the work done during the previous month, provided such value exceeds one thousand dollars. The Engineer shall submit this Monthly Estimate to the Owner for payment. The Owner will pay the Contractor each month, within 30 days of the date of the Monthly Estimate, a sum equal to ninety-five (95) percent of the Monthly Estimate, retaining five (5) percent of each estimate until the work or major portions thereof is substantially completed.

B. The work will be considered Substantially Complete when the work of the Contract including all alterations or modifications (see Section 00 07 57 - CHANGES IN THE WORK) is at least ninety-nine (99) percent complete and the estimated value of minor items to be completed is equal to or less than one (1) percent.

C. The Engineer will include in the Monthly Estimates the delivered cost of equipment and non-perishable materials on site and off site which have been tested or inspected by the Engineer and approved by them for incorporation in the work. Only equipment and materials for which the Contractor furnishes the Engineer receipted invoices as evidence that they have unconditional title thereto will be included. Such invoices shall be furnished the Engineer at least ten days in advance of the established date of preparation of Monthly Estimates.

D. The Contractor shall provide and maintain insurance for the said equipment and materials (on site and off site) as specified in 00 07 52.03.

E. Payments made for materials and equipment delivered will in no way affect the Contractor's responsibilities regarding the same.

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00 07 59.06 WITHDRAWAL OF RETAINED PERCENTAGE

A. Pursuant to Section 106 of New York State General Municipal Law and notwithstanding any inconsistent provisions of any general, special or local law under any contract made or awarded by any political subdivision, or any officer, board or agency thereof, or of any district therein, the Contractor may, from time to time, withdraw the whole or any portion of the amount retained from payments to the Contractor pursuant to the terms of the Contract, upon depositing with the Fiscal Officer of the Political Subdivision or district therein (1) bonds or notes of the United States of America, or obligations, the payment of which is guaranteed by the United States of America, or (2) bonds or notes of the State of New York, or (3) bonds of any political subdivision of the State of New York, of a market value equal to the amount withdrawn. The Fiscal Officer of the Political Subdivision or of a district therein, from time to time shall pay the same, when and as collected, to the Contractor who deposited such obligations. When the deposit is in the form of coupon bonds, the coupons shall be delivered to the Contractor as they respectively come due. The Contractor shall not be entitled to interest or income on, or the coupons of, any obligations so deposited by them, the proceeds of which shall have been used or applied by the Political Subdivision or district therein pursuant to the terms of the Contract. The Fiscal Officer shall be entitled to charge a reasonable fee for such service.

00 07 59.07 OWNER'S RIGHT TO WITHHOLD PAYMENTS

A. The Owner may withhold from the Contractor such portions of any approved payments due them as the Owner may judge necessary to:

1. Protect the Owner from loss due to defective work not remedied;

2. Failure to provide work schedule or revisions thereto;

3. Assure the payment of just claims then due and unpaid for labor or materials;

4. Protect the Owner from loss due to injury to persons or damage to the work or property of other Contractors, Subcontractors, or others caused by acts of neglect of the Contractor or their Subcontractors. The Owner shall have the right as agent for the Contractor to apply moneys so withheld as the Owner may deem proper to secure such protection or satisfy such claims, and such payments shall be deemed made for the account of the Contractor.

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00 07 59.08 INSPECTION AT SUBSTANTIAL COMPLETION

A. The Engineer will make an Inspection of the work as soon as possible after the Contractor gives written notice that the work is substantially complete. The Contractor shall assist the Engineer, as may be required, in making the Inspection. Cost to the Contractor, if any, to assist the Engineer in making the Inspection shall be included in the appropriate bid item as selected by the Contractor and no additional payment will be made to the Contractor for their work. After making the Inspection, the Engineer will notify the Contractor in writing of the results, including particulars regarding any part of the work which, in their opinion, is incomplete or requires correction or additional cleaning. The Contractor shall make good any incomplete or defective work before again asking for another Inspection. If in the opinion of the Engineer the work is substantially complete, the Engineer shall issue in writing a Notice of Substantial Completion. Said Notice will list those minor items requiring completion before Final Payment.

B. See also ARTICLE 00 07 57.04, CORRECTION OF WORK.

00 07 59.09 CERTIFICATE OF SUBSTANTIAL COMPLETION

A. Upon issuance of the Notice of Substantial Completion by the Engineer, and the submission by the Contractor of a written statement from Surety that the Performance Bond (Labor & Materials Payment Bonds included) in the amount of one hundred (100) percent of the value of the Contract is in force for a period of one year following the date of Notice of Substantial Completion, the Engineer will file a Certificate of Substantial Completion with the Owner and the Contractor, certifying that the work is substantially complete and setting forth the amount of work performed and compensation earned by the Contractor. All prior estimates of the amount and value of work performed shall be subject to correction in this certification.

00 07 59.10 PAYMENT AT SUBSTANTIAL COMPLETION

A. Within 30 days after the filing of the Certificate of Substantial Completion the Owner will pay the Contractor one hundred (100) percent of the full value of the work certified therein, less twice the value of any minor work remaining to be completed and all prior payments and advances to or for the account of the Contractor, and the amount necessary to satisfy any claims, liens or judgements against the Contractor which have not been discharged.

DRAFT

00 07 59.11 FINAL PAYMENT

A. The Contractor shall fully complete the remaining minor items within sixty (60) days of the issuance of the Notice of Substantial Completion.

B. Upon certification by the Engineer that the remaining items of the Contract including all corrections, alterations and/or modifications have been completed and that no repairs, renewals or replacements are required of the Contractor, or that, if required, such remedies have been effected, the Engineer shall prepare a Final Payment request recommending to the Owner payment to the Contractor of the amount retained at the time of substantial completion less any amount necessary to satisfy any claims, liens or judgements against the Contractor which have not been discharged.

C. Within 30 days after the receipt from the Contractor of acceptable affidavits, certificates or waivers as evidence that no right to any claim or lien exists, the Owner will pay the remainder of the Contract as indicated in the Final Payment.

D. See also Article 00 01 50.06, VERIFICATION OF AMOUNTS DUE FOR WAGES AND SUPPLEMENTS.

00 07 59.12 ACCEPTANCE OF FINAL PAYMENT

A. Acceptance by the Contractor of the Final Payment shall serve as a release to the Owner of all claims and of all liability to the Contractor for all things done or furnished in connection with the work, and for any and all acts of neglect of the Owner or others relating to or because of the work, except the Contractor's claim for interest upon the Final Payment, if this payment is unduly delayed. No payment whatsoever shall operate to release the Contractor or the Surety from their obligations under the Contract or Bond.

00 07 59.13 GUARANTEE INSPECTION

A. On or about one year from and after the date of the Notice of Substantial Completion, the Engineer will again inspect the work. The Contractor shall assist the Engineer, as may be required, to make the one year inspection. Cost to the Contractor, if any, to assist the Engineer in making the one year inspection shall be included in the appropriate bid item as selected by the Contractor and no additional payment will be made to the Contractor for this work. The Contractor shall provide any and all repairs, renewals or replacements which may be revealed as necessary in this Guarantee Inspection and which, in the opinion of the Engineer, are the responsibility of the Contractor. Should the Contractor fail to comply with written instructions of the Engineer regarding these remedies, the Owner will cause the remedies to be made by others and will pay the cost which will be reimbursed by the Contractor and/or their Surety.

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B. The Contractor and their Surety agree that the Contractor's Performance Bond (Labor & Materials Payment Bonds included) shall cover fully all guarantees as specified herein and in ARTICLE 00 07 52.01.

00 07 59.14 ACCEPTANCE OF PORTIONS OF THE WORK

A. The Owner reserves the right to accept for their service and use any portion of the work at any time during the life of the Contract without prejudice to the Owner in enforcing any provisions of the Contract.

B. The Owner may accept the portion or portions of the work which is substantially complete under the following agreed procedures:

1. The Contractor will be notified by the Engineer in advance as to what portion or portions of the work the Owner intends to accept for their use and service.

2. The retained percentage for the Substantially Completed portion or portions of work shall be released in accordance with ARTICLE 00 07 59.09.

3. The guarantee period applicable to that portion or portions of the work shall start from the date of acceptance.

4. The remaining minor items of the portion or portions of substantially completed work shall be finished or corrected to the satisfaction of the Engineer.

5. The Owner will assume responsibility for maintenance, heat, utilities and insurance on accepted portion or portions of the work.

6. All applicable provisions specified in this Section for work deemed substantially complete shall apply.

00 07 59.15 REPAIR OR REPLACEMENT OF DAMAGED, DEFECTIVE OR FAULTY WORK

A. If any portion of the work is damaged in any way, or if defects or faults develop before the inspection at Substantial Completion, or before the expiration of the 12-month guarantee period, the Contractor shall repair, replace or otherwise make good the damage or defect to the satisfaction of the Engineer, regardless of whether the work may have previously passed the specified inspections and tests. No additional payment will be made for such remedial work.

B. Failure on the part of the Engineer to condemn defective work shall not imply acceptance of the work, nor act to release the Contractor from their obligations to repair, replace or otherwise make good the work at their own expense,

DRAFT

notwithstanding that such work may have been estimated for payment or that partial or full payments may have been made therefor.

00 07 59.16 PAYMENT TO SUBCONTRACTORS BY CONTRACTOR

A. Within fifteen calendar days of the receipt of the payment from the Owner, the Contractor shall pay the Subcontractors, and/or material suppliers a sum equal to the value of the work performed less any amount necessary to satisfy claims, liens or judgements that have been discharged less any amount retained as hereafter described.

1. The retained amount shall not exceed more than 5% on each payment except that 10% of each payment may be retained, if the Subcontractor(s) and/or material suppliers failed to provide a Performance Bond (Labor & Materials Payment Bonds included) in the full amount of the Sub-contract.

2. The Contractor shall not retain any money from Subcontractor(s) and/or material suppliers, after receipt of the Certificate of Substantial Completion payment.

B. Within fifteen calendar days of the receipt of the payment from the Contractor, the Subcontractor(s) and/or material suppliers shall pay each of their Subcontractors and/or material suppliers in same manner as the Contractor has paid the Subcontractor(s) and/or material suppliers.

C. The Owner shall not be under any obligation to see that the Contractor makes any payment to a Subcontractor and/or material suppliers.

END OF SECTION

DRAFT

GENERAL CONDITIONS

SECTION 00 07 60

CONTRACT TERMINATION

00 07 60.01 OWNER'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

A. The Owner, by seven days written notice to the Contractor and without prejudice to any other rights or remedies it may have, may terminate the employment of the Contractor and their right to proceed, either as to the entire work or any portion thereof on which delay shall have occurred, and may take possession of and complete the work by contract or otherwise, as the Owner may deem expedient, in the event of any of the following:

1. If the Contractor shall refuse or fail, after being warned by the Engineer, to supply enough competent workmen, equipment or proper materials, or

2. If the Contractor shall refuse or fail to perform the work or any part thereof with sufficient diligence to insure its completion within the time specified, or shall fail to complete the work within said period, or

3. If the Contractor shall fail to promptly pay persons supplying labor or materials for the work, or

4. If the Contractor shall fail or refuse to regard laws, ordinances, permits or orders from the Engineer or otherwise substantially violate any provision of this Contract, or

5. If the Contractor shall be adjudged bankrupt or make an assignment for the benefit of creditors, or

6. If a receiver or liquidator shall be appointed for the Contractor or for any of their property and shall not be dismissed within 20 days after such appointment, or the proceedings in connection therewith shall not be stayed on appeal within the said 20 days.

B. If the Owner so terminates or stops the Contractor, the Contractor shall not be entitled to receive any further payment until the work is completed. If the unpaid balance of moneys to be paid the Contractor hereunder shall exceed the cost of completing the work, including the cost of additional administrative, managerial, engineering, and inspection services and or delay, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor and the Surety shall be liable to the Owner for the excess.

C. If the right of the Contractor to proceed is terminated as provided herein, the Owner may take possession of and use in completing the work such materials,

DRAFT

plant, equipment, supplies and appliances as may be on the Site and necessary to the work, provided that the termination was not made pursuant to paragraphs "E" or "F" above.

00 07 60.02 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

A. In the event the work shall be halted by order of a Court or any other public authority having jurisdiction for a period of 90 days or more without act or fault of the Contractor or any Subcontractor, the Contractor, upon 10 days written notice to the Owner, may terminate the Contract or discontinue performance of the work. In either case the liability of the Owner to the Contractor shall be determined as provided in ARTICLE 00 07 60.01, except that the Contractor shall not be obligated to pay to the Owner any excess of the cost of completing the work over the unpaid balance of the payments to be made to the Contractor hereunder.

00 07 60.03 OTHER TERMINATION PROVISIONS

A. In addition to the provisions set forth in this Section 00 07 60, specific references relating to termination or cancellation of the Contract are contained elsewhere herein. These include but are not limited to:

00 01 50.03	NON-DISCRIMINATION AND LABOR PRACTICES
00 07 52.03.A	WORKER'S COMPENSATION INSURANCE
00 07 56.03	PROGRESS
00 07 58.03	ASSIGNMENT

END OF SECTION

DRAFT

GENERAL CONDITIONS

SECTION 00 07 61

DESCRIPTION & DELINEATION OF THE WORK

00 07 61.01 INTENT OF PLANS AND SPECIFICATIONS

A. The intent of the Plans, Specifications and other Contract Documents is to provide for the work outlined and delineated therein, complete in every detail for the purpose designated. The Contractor agrees to furnish everything necessary for the work as intended, any omission in the Plans or Specifications notwithstanding.

B. The Contractor shall furnish all materials, tools, plant equipment and labor, except those specifically set forth herein as to be furnished by the Owner, required to construct and place in complete and satisfactory working order the work contemplated by the Contract Documents. The mention in any part of the Specifications of any specific liability, duty or responsibility of the Contractor will not be construed as a restriction, limitation or waiver of any general liability, duty or responsibility of the Contractor, such mention being merely for explanatory purposes. The Contractor shall be solely responsible for the adequacy of their plant, tools and equipment, approval of the Engineer notwithstanding.

C. The Contractor shall do the work in a manner judged to best promote rapid construction consistent with due regard for the safety of life and the preservation of property, the satisfaction of the Engineer, and the intent of the Contract Documents.

D. The Contractor shall:

1. make all necessary excavations or embankments.
2. do all clearing and grubbing.
3. place all sheeting, shoring, bracing and supports.
4. furnish all underdrains.
5. provide draining, pumping bailing, ditching and diking for surface or below ground water.
6. provide all things necessary to protect, support and maintain structures, utilities, drains, conduits, culverts, trees, fences, poles, walls, earth banks, shrubbery, sidewalks, railways, roadways and drives.
7. repair all damage done to items in (6) above.
8. do all fencing, lighting and watching.
9. drive all piles and construct all foundations.
10. construct all concrete, brick, stone, tile and timber work.
11. place all iron and steel work and reinforcement.

DRAFT

12. lay all water pipes, sewers, drains and conduits and make all connections to or between such.
13. resurface and repave all streets, sidewalks, roads or drives open cut or damaged.
14. refill all trenches and excavations.
15. provide all fences, bridges, fills, detours and signs for maintenance of travel in public ways.
16. make all connections to or between existing structures and utilities.
17. construct all buildings and structures.
18. furnish and install equipment.
19. clean up and dispose of all rubbish and surplus materials.

00 07 61.02 INTERPRETATION OF PLANS & SPECIFICATIONS

A. The Engineer shall interpret the Plans and Specifications, and any Change Orders or Supplemental Agreements. Anything shown on the Plans but not included in the Specifications, or mentioned in the Specifications but not shown on the Plans, shall have the same effect as if set forth in both. In the event of a conflict between the Plans and Specifications, the Specifications shall govern. The attention of the Engineer shall be called to any discrepancies, as required by ARTICLE 00 13 40.06.

00 07 61.03 CONTRACT DRAWINGS

A. The location, nature and many details of the work are shown on the Contract Drawings. The work shall be constructed as shown on these Plans and such other drawings as may be issued during the life of the Contract by the Engineer, or furnished by the Contractor and approved by the Engineer.

B. The purpose of the Contract Drawings together with other Contract Documents, is to provide Bidders with sufficient information to prepare adequate and equitable Bids and to provide an adequate and equitable basis for the Agreement. The Contract Drawings may or may not provide sufficient detail for the actual construction of all segments of the work as shown and specified. The Contractor shall furnish Construction Drawings or other drawings, as specified or requested, or, as may be required to adequately delineate for their workers all details necessary for the work.

C. The Contract Drawings were prepared on full-size prints. Reduced-size prints may have been prepared for the convenience of Bidders and others. During construction, the Contractor shall obtain data and information from full-size prints in preference to reduced-size prints.

D. Unless otherwise stated in the Information For Bidders, the Contractor will be furnished, free of charge, three copies of the Contract Documents, including three sets of Contract Drawings. Any other copies of the Contract Documents which

DRAFT

the Contractor may desire can be obtained by their from the Engineer at the cost of duplication thereof.

E. The Contractor shall keep at least one set of Specifications and one full-size set of Plans on the Site, and shall at all times give the Engineer and the Owner access thereto.

00 07 61.04 ADDITIONAL OR SUPPLEMENTAL DRAWINGS

A. The Engineer may prepare Additional Drawings or Supplemental Drawings during the course of the work, in connection with minor changes, Change Orders, Supplemental Agreements, or to augment or amplify the Contract Drawings or other drawings, or as part of orders or instructions, and the Contractor shall abide by such drawings in the same manner as specified for the Contract Drawings.

B. Drawings required by the Contractor are discussed in Article 00 13 40.01.

END OF SECTION

DRAFT

GENERAL REQUIREMENTS

SECTION 00 10 12

COLLATERAL WORK

00 10 12.01 COLLATERAL WORK

A. The Owner may award other contracts in connection with the Project, the work under which may proceed concurrently with the work of this Contract. In this event the Contractor shall coordinate their operations with those of the other contractors, and shall cooperate with them in the arrangement for the storage of materials and performance of the work.

B. The Contractor and their Subcontractors shall keep themselves informed of the progress of the work of other contractors and subcontractors and shall notify the Engineer immediately of defective workmanship or insufficient progress on the part of others, where such will interfere with their own operations. Either failure of the Contractor to keep themselves informed of the progress of work under other contracts on the Site, or failure of the Contractor to give proper notice of same, shall be deemed as acceptance by them of the status of the work under other contracts as it may affect their own work.

C. See also ARTICLE 00 07 56.04, APPROVED WORK SCHEDULES, and ARTICLE 00 07 56.06, TIME EXTENSIONS.

END OF SECTION

DRAFT

GENERAL REQUIREMENTS

SECTION 00 10 15

CONTRACTOR USE OF PREMISES

00 10 15.01 AREA AVAILABLE FOR CONTRACTOR'S USE

A. The Contractor shall confine their operations to those portions of the Owner's property, and to the right-of-ways or easements, temporary or permanent, acquired or designated for the work of the Contract as shown on the Drawings. Private property adjacent the Site shall not be entered upon or used by the Contractor for any purpose without the written consent of the Owner thereof. A copy of such consent shall be filed with the Engineer.

B. When required, the Contractor shall provide and maintain fences at their own expense, along the roadways and around the grounds occupied by them for the protection of adjoining property and all persons lawfully using same. Fences shall be of materials and construction suitable in the opinion of the Engineer for their intended purpose.

C. All work within or abutting private property shall be performed in such ways as to create the minimum of inconvenience and disturbance to the private property and its users. Excavated materials or supplies of any kind shall not be stored on off-site public or private property without written consent of the Owner thereof, and all walks and drives shall be kept open to uninterrupted passage. A copy of each such written consent shall be filed with the Engineer.

D. Materials delivered upon public streets shall be neatly stored between the sidewalk and the curb or ditch line, and at least 10 feet from any fire hydrant. A passageway of at least three feet shall be preserved on the sidewalk line.

00 10 15.02 TRAVEL NOT OBSTRUCTED

A. The Contractor shall not needlessly hinder or inconvenience travel on any public or private way, nor shall they wholly obstruct same without written permission of the Owner. If they are permitted to obstruct a traveled way, the Contractor shall provide plain and appropriately worded signs and adequate barricades and lighting at the nearest cross streets, and at each end of the obstructed portion, announcing such obstruction and directing traffic to and along an approved detour.

B. Unless otherwise specified or permitted, all entrances and exits of fire houses, industrial plants, commercial buildings and public buildings shall be kept open and maintained in passable condition at all times. The Contractor shall give notice to the owner of each traveled way before interfering therewith.

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00 10 15.03 CLEANING UP

A. The Contractor shall remove from the Site and dispose of, at their own expense, all rubbish, refuse and unused materials, as the work progresses. If such work is neglected, the Engineer will give written notice thereof to the Contractor. If the work is not performed within five days thereafter, the Owner will employ other persons to do such work, and the expense thereof shall be deducted from any monies due or to become due the Contractor.

B. The Contractor shall clean and leave free from obstruction all pipes, buildings, manholes and other structures. This work shall be coordinated with the Engineer's Inspection at Substantial Completion, or as directed. All rubbish, refuse, unused materials, plant and equipment shall be removed from the Site, and the entire Site shall be left in a neat condition. All equipment installed in the work by the Contractor shall be cleaned and left in a bright and new-appearing condition.

END OF SECTION

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GENERAL REQUIREMENTS

SECTION 00 10 19

SITE CONDITIONS

00 10 19.01 PRE-BID INSPECTION & EXAMINATION

A. The Contractor warrants and represents that they visited the Site prior to submitting their Bid, and that they have satisfied themselves as to the location and nature of the work and the quantity, quality, type and nature of both surface and subsurface structures and materials apt to be encountered.

B. See also 00 07 53.01.B.

00 10 19.02 BORINGS

A. Any data on subsurface conditions that may have been obtained by the Owner prior to the advertisement for bids, through test borings, test pits, seismic explorations, or other means, was obtained by the Owner for their sole use and only for their own purposes. Any such data, known or recalled as of the date of advertisement for bids, are shown on separate drawings or in separate schedules and reports which are not any part of the Contract Documents. All such data are made available to Bidders, the Contractor and other interested parties only as a convenience and without express or implied representation, assurance or guarantee that any of the information is complete, correct, or adequate or representative of a true or typical picture of subsurface conditions on the Site.

B. The Contractor, both during their status as Bidder and after execution of the Contract, shall satisfy themselves as to the nature, character, quality and quantity of above ground and below ground conditions apt to be encountered. Any reliance on data made available by the Owner shall be at the Contractor's sole risk.

C. No claim whatsoever shall be made by the Contractor against the Owner or Engineer for or on account of such data available, or neglected to be made available, by the Owner or Engineer.

D. The Contractor at any time, and any holder of Contract Documents during the period between advertisement for and receipt of bids, will be permitted to make test borings, test pits, soundings or similar subsurface investigations on the Site. Prior to making these investigations the Contractor and/or any holder of Contract Documents must notify the Engineer when and where they propose to make such investigations.

DRAFT

E. The locations where test boring samples, if any, may be examined are given in the Additional Instructions.

F. See also ARTICLES 00 07 53.01.B, 00 07 53.07, 00 07 59.01, 00 10 19.04 and 00 10 19.06.

00 10 19.03 PROTECTION OF EXISTING STRUCTURES

A. The Contractor shall at all times have on the Site suitable and sufficient plant and materials to adequately protect, support and sustain any and all existing structures and facilities, whether above or below ground, and shall use same as may be necessary or required to protect, support and sustain any and all such structures as may become weakened, endangered, undermined or uncovered.

B. They shall, at their own expense, support and sustain in their places and protect from direct or indirect damage all water, gas, steam, air or other mains or pipes, sanitary and storm water sewers and drains, conduits, subways, service connections, buildings, poles, wires, fences, pavements, sidewalks, curbs, railways, trees and other structures and property and appurtenances thereto on or in the vicinity of the Site, and shall assume all liability for damage thereto, including damage arising out of settlement or lateral movement of walls of excavations, whether occurring during performance of the work or the 12-month period of guarantee.

C. In the event of damage or danger to any such structure or facility the Contractor shall immediately notify the Engineer, and shall promptly repair or protect the structure as the Engineer may direct.

00 10 19.04 EXISTING STRUCTURES BELOW GROUND

A. The Contract Drawings show the location and character of certain existing subsurface structures and facilities apt to be encountered in excavations or located in such proximity to the work as to require precautions for their protection. The sizes, materials, locations and depths shown are only approximate, and the Contractor shall satisfy themselves as to the accuracy and completeness of such information. The Contractor shall not be relieved from any of their obligations, nor be entitled to claim for damages or additional compensation, sustained or arising out of inadequacy or inaccuracy of the information given.

00 10 19.05 ABANDONED STRUCTURES

A. Any structures, facilities or appurtenances therefor which are abandoned or become so by reason of the work, shall, at the Contractor's expense, be broken up and filled with approved material, if directed by the Engineer.

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00 10 19.06 LATENT SUB-SURFACE CONDITIONS

A. In the event that latent sub-surface conditions are found to materially differ from those on which the Plans and Specifications are based, the Contractor shall immediately notify the Engineer before they are disturbed. After prompt investigation, the Engineer will determine what changes, if any, should be made in the Plans and Specifications because of the revealed conditions, and shall instruct the Contractor accordingly. Any change in the cost of the work resulting therefrom shall be adjusted as provided in Section 00 07 57.

00 10 19.07 ADJUSTMENT OR CHANGES OF EXISTING STRUCTURES

A. If, in the opinion of the Engineer, an underground pipe or other structure requires realignment or relocation, and such realignment or relocation was not included in the Plans or Specifications, the Engineer will issue a Change Order for such work, and the Contractor shall be compensated therefor as provided in Section 00 07 57. The Contractor shall strip or uncover and support or sustain the structure at their own expense prior to such Change Order, as part of their work under the original Contract, and they shall not be entitled to claim for damage or delay due to its presence or discovery.

B. Wherever existing utilities come within limits of the work, the Contractor shall notify both the Engineer and the Utility before in any way disturbing same. Any work of realignment, relocation, removal or extension of the utilities shall be done as mutually agreed by the Utility, the Contractor and the Engineer. The Contractor shall maintain satisfactory drainage of the excavation at all times from revelation of the structure until completion of its realignment or readjustment. Interruption of service by utilities shall be kept to a minimum.

C. The Contractor shall not cause nor permit interference with or hindrance to any municipal department, individual, public service corporation, or other company in protecting its structures and facilities, nor in removing, replacing or relocating same.

00 10 19.08 MAINTENANCE AND RESTORATION OF SERVICE

A. The Contractor shall, at their own expense, provide for the maintenance of flow in all water courses and all sanitary and storm sewers, drains, connections and appurtenances thereto. The contents of sewers, drains or service connections shall not be permitted to flow into excavations, sewers or other parts of the work without written permission of the Engineer, and the Contractor shall, at their own expense, immediately remove from the Site and adequately dispose of all offensive matter, in an approved manner.

B. The flow of water, and normal water pressure, in all water mains, conduits and service connections encountered on the Site, shall be provided for and maintained by the Contractor at their own expense. When water mains or service connections

DRAFT

must be disturbed to the extent that service must be shut off, the Contractor shall give at least 24 hours notice to the Utility and all customers served by the lines involved. Such notice shall give the estimated times of shut-off, and restoration of service. If fire hydrants are involved, the fire department serving the area shall be similarly notified.

C. In the event of accidental disruption of water service, it shall be deemed an emergency, and the Contractor shall proceed with the necessary repairs immediately and continuously, giving this work priority over all other operations, until service has been satisfactorily restored. The Contractor shall give immediate notice of such break or service interruption to the Engineer, the Utility, and all customers affected, and shall supply, at their own expense, assistance in supplying an emergency source of water when necessary by means of temporary lines, tank trucks, or other means. All lines and connections shall be restored to the satisfaction of the Engineer and the Utility.

D. All portions of the foregoing provisions regarding water service which are applicable to sewer, gas, telephone or other services shall apply also to maintenance and emergency repair of such services.

00 10 19.09 POLES & POSTS ON-SITE

A. Poles or posts of any Utility located within the lines of the work which, in the opinion of the Engineer, will impede progress of the work, shall be supported or removed and replaced by the Contractor at their own expense and in accordance with the requirements of the Utility involved. The Contractor shall remove, relocate, replace or support all other poles and posts at their own expense and to the satisfaction of the Engineer.

B. The Contractor shall employ no equipment which will unduly interfere with wires or other overhead facilities.

00 10 19.10 NOTIFICATION OF OTHER PARTIES

A. In addition to notices to Utilities and others required elsewhere herein, the Contractor shall give written notice of their proposed construction operations to the owners of all public and private utilities at least seven days in advance of breaking ground in any area in which a utility is located. Copies of each such notice shall be simultaneously sent to the Engineer.

END OF SECTION

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GENERAL REQUIREMENTS

SECTION 00 10 51

LAYOUT OF WORK

00 10 51.01 INFORMATION PROVIDED BY ENGINEER

A. The Engineer will provide, on the Contract Drawings, sufficient information for the Contractor to establish baselines, offsets and other survey control points. Unless otherwise noted, no additional survey work will be provided by the Engineer.

00 10 51.02 SERVICES PROVIDED BY CONTRACTOR

A. Unless otherwise noted in the Additional Instructions or Specification, the Contractor will establish such additional lines, grades and elevations as they deem necessary and will include the following:

1. Structures & Buildings: Corner stakes at all principal corners of exterior walls or foundations. Two bench marks in the vicinity of the structure or building.

2. Sewers: Offset grade line stakes, on one side, with stations approximately forty linear feet on centers.

3. Water Mains & Force Mains: When laid to grade, the same as for sewers. When not laid to grade, none.

4. Roads & Runways: Offset center line grade stakes, on one side, with stations approximately fifty linear feet on centers.

5. Embankments: Slope stakes on both sides at approximately one hundred linear feet on centers, with additional stakes at principal breaks in grade.

6. Tunnels & Borings: Center line and offset baseline on the surface, on starting end. Also, one progress check every fifty linear feet of long tunnels.

7. Other Types of Construction: The Contractor will provide control stakes as they deem necessary to properly layout their work.

8. On Traverse or Cross-country type of construction, such as pipelines and roads, a temporary center line may be required for clearing purposes.

DRAFT

9. The Contractor will issue a grade letter for pipeline and road construction which is to be laid or installed to a predetermined grade. All other stakes will have the information marked on a witness stake beside the hub.

B. The Contractor shall provide all the necessary materials for control points, including all: stakes, hubs, lath, grade boards, cleats, nails and such other materials as may be required.

C. The Contractor shall also provide such non-technical assistance as may be required in the establishment of marks, other than primary or basic controls, such as clearing sight lines and driving stakes.

D. The Contractor shall erect and establish all grade boards, batter boards and construction control lines from the information provided by the Engineer.

E. The Contractor shall layout the work to best suit their methods of operations, using the Engineer's information provided to assure the construction will be in the position the design anticipated.

00 10 51.03 OBLIGATIONS OF THE CONTRACTOR

A. The Contractor shall carefully preserve and protect all stakes, marks, monuments and points provided or described by the Engineer, and shall reimburse the Owner for any and all additional engineering costs incurred because of the replacement or reestablishment of any such items which may be moved, removed, obliterated or destroyed due to their construction operations. When directed, the Contractor shall provide suitable barricades for the protection of points.

B. The Contractor shall bear the entire cost of rectifying work improperly done due to their own negligence in preserving and protecting marks, or to moving or removing same without approval of the Engineer.

C. They shall inform the Engineer a reasonable time in advance of their operations of the times and places they propose to work, so that lines, grades and elevations may be established and necessary measurements for record and payment may be made with the minimum of inconvenience or delay to either themselves or the Engineer. No additional compensation will be paid the Contractor for any delay caused by insufficient notice.

00 10 51.04 LINES, GRADES AND ELEVATIONS

A. The terms "invert" or "grade" used in the Contract Documents in connection with pipes, sewers, channels, flumes and similar structures shall mean the inside bottom of the pipe or other surface on which the liquid flows along the center line of the completed work. "Subgrade" refers to the bottom line or surface to which excavations are necessarily made to construct the work as shown or specified,

DRAFT

exclusive of any additional depth of excavation required for any special foundation.

B. The term "Grade Letter" shall mean a data sheet giving the amount of cut or fill from offset stakes to the invert or grade.

C. All work shall be constructed in accordance with the lines and grades shown, specified or directed. The Contractor shall be responsible for maintaining alignment and grade between points provided or described on the Contract Drawings.

00 10 51.05 MASONRY CHASES, OPENINGS AND INSERTS

A. If the Owner awards other contracts for collateral work on the Site, it shall be the obligation and responsibility of the General Contractor to provide all openings and chases in their work to fit both their own work and that of the other contractors. The General Contractor shall provide all openings shown on the Contract Drawings, or reasonably implied thereby, as confirmed or modified by Additional Drawings or drawings submitted by Contractors and approved by the Engineer.

B. Where pipes or conduits pass through slabs or walls, the sleeves or opening forms shall be provided by the installer of the pipes or conduits but shall be placed by the General Contractor.

C. If hanger inserts or similar items are required, they shall be furnished by the installer of the pipe or other equipment for which the hangers are intended, but shall be placed by the General Contractor.

D. Any expense resulting from mislocated, defective, or ill-timed work shall be borne by the Contractor responsible therefor. No Contractor shall alter the work of another Contractor without the consent of the Engineer and knowledge of the Contractor involved, and no Contractor shall endanger any work by cutting, excavating or other operations.

00 10 51.06 PAYMENT FOR LAYOUT OF WORK

A. The cost to the Contractor of providing the services and materials specified in this Section 00 10 51 shall be included in the price, or total of prices, given in the Bid on which the Agreement is based, and no separate payment will be made therefor. Any cost to the Owner for additional engineering layout work, as set forth in ARTICLE 00 10 51.03, will be deducted from monies due or to become due the Contractor.

END OF SECTION

DRAFT

GENERAL REQUIREMENTS

SECTION 00 10 64

SAFETY AND HEALTH

00 10 64.01 SAFETY AND HEALTH REGULATIONS

A. The Contractor shall comply with the U.S. Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL 91-596) and under Section 107 of the Contract Work Hours and Safety Standard Act (PL 91-54), latest revisions.

B. In order to protect the general public and the lives and health of their employees under the Contract, the Contractor shall comply with all pertinent provisions of the latest issues of the Federal Register, Bureau of Labor Standards, Safety and Health Regulations; New York State Industrial Code Rule 30 pertaining to Tunneling Operations; New York State Industrial Code Rule 23 pertaining to Trenching Operations; and the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc., and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under this Contract. In case of a conflict between the above noted authorities, the most stringent shall prevail.

C. The Contractor shall have on the project site at all times, while work is in progress, at least one person skilled in safety and health procedures and familiar with State and Federal safety and health regulations whose responsibility shall be to observe methods and procedures. They shall have the duty and authority to stop and/or correct all unsafe and unhealthy conditions.

00 10 64.02 SAFETY AND FIRST AID

A. The Contractor shall at all times exercise caution in their operations and shall be responsible for the safety and protection of all persons on or about the Site. All hazards shall be avoided or guarded in accordance with the provisions of the Manual of Accident Prevention in Construction of the AGCA, unless such provisions contravene local law. The safety provisions of all applicable laws, codes and ordinances shall be observed.

B. The Contractor shall provide and maintain at the Site, at each location where work is in progress, as part of their plant, an approved first aid kit. Ready access thereto shall be provided at all times when workers are employed on the work.

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C. The Contractor shall take due precautions against infectious diseases, and shall arrange for the immediate isolation and removal from the Site of any employee who becomes ill or is injured while engaged on the work.

00 10 64.03 DUST HAZARDS

A. If, in the construction of the work covered by the Contract, a harmful dust hazard is created for which appliances or methods for the elimination of dust have been approved by the Board of Standards and Appeals, such appliances or methods shall be installed and maintained and effectively operated by the Contractor at their expense.

B. The Contract shall be void and of no effect unless the Contractor complies with the provisions of this subdivision of the Contract and Labor Law Section 222-a.

END OF SECTION

DRAFT

GENERAL REQUIREMENTS

SECTION 00 13 40

SUBMITTALS

00 13 40.01 DRAWINGS FURNISHED BY THE CONTRACTOR

A. The Contractor shall prepare, or cause to be prepared by their suppliers or Subcontractors, and submit to the Engineer for review, Shop Drawings, Setting Drawings, Working Drawings and Construction Drawings as may be specified or directed or necessary to the performance of the work. Deviations from the drawings and specifications shall be called to the attention of the Engineer at the time of the first submission of Shop Drawings, or other drawings, for consideration. Corrections or comments made on the Shop Drawings or other drawings during review do not relieve the Contractor from compliance with the requirements of the Contract Drawings and Specifications. Approval is only for general conformance with the design concept of the Project and with information set forth in the Contract Drawings and Specifications. Contractor is responsible for dimensions to be confirmed and correlated at the job site, information that pertains solely to the fabrication process or to the means and methods of construction, coordination with the work of all trades, and performing all work in a safe and satisfactory manner. Approval does not modify Contractor's duty to comply with the Contract Documents.

B. Within thirty days of the execution of the Agreement, the Contractor shall submit a schedule of submittals which includes a complete list of products proposed for the work tabulated by Specification Section, including manufacturer or fabricator, model number or other identifying designation.

C. Shop, Setting or Working Drawings shall be submitted for each type and model of fabricated materials and equipment. They shall provide complete and accurate working dimensions, weights, assembly and sectional views, details necessary to coordinating the work, anchor bolt and installation plans and instructions, parts lists and descriptions, materials and finishes lists, lists of any tools and spare parts required, diagrams of control wiring and piping, the location, sizes and types of connections to other work or other items, and any other data required to comply with the Contract or provide the workmen and the Engineer with information necessary to complete and inspect the work.

D. Electrical equipment drawings and data shall show physical dimensions, installation details, elementary and connection diagrams for each motor controller, interconnection diagrams for all equipment, identification of components external to electrical equipment, the coordination of control circuits, and definition of the contract arrangement and control action of the primary and final control elements.

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E. If the Contractor proposes to furnish and install equipment requiring a layout or arrangement materially changed from that shown on the Contract Drawings as illustrative of one acceptable arrangement, they shall submit, for review, drawings showing the proposed arrangement and the appertaining changes to wiring, piping, structures and other equipment.

F. Submittals such as pre-printed manufacturers' installation instructions, maintenance data, parts lists, test results, or similar informational material are not considered Shop Drawings and will not be reviewed. Any submittal not required or otherwise requested will be returned to the Contractor.

G. See also ARTICLE 00 13 40.08, ADDITIONAL ENGINEERING COSTS.

00 13 40.02 TRANSMITTAL, IDENTIFICATION AND RESUBMITTAL

A. Unless otherwise approved, all Shop Drawings shall be submitted electronically. The Contractor shall accompany all drawings and other data submitted to the Engineer with a letter of transmittal to the attention of the designated Shop Drawing coordinator for the project.

B. All drawings shall be suitably identified with the name of the Project, Contract Number, Contractor name, name of the equipment or materials manufacturer, specification section designation and item number (if applicable) date, and initials indicating approval of such submittal by the Contractor under the applicable specification.

C. If the Engineer makes comments or corrections, they will be noted on the drawings, or explained in a letter of transmittal, or both. The Contractor shall make any requested revisions or additions and resubmit the drawings in the same manner as for the initial submittal.

D. After the Engineer completes its review, the submittal will be marked with one of the following dispositions:
1. Approved
2. Approved as Noted
3. No Action Required
4. Revise and Resubmit
5. Not Approved

E. Submittals marked “Approved”: Submittals that conform to the Contract Documents without comment will be issued a disposition of “Approved”. The Contractor may order, fabricate, or ship the materials included in the submittal.

F. Submittals marked “Approved As Noted”: Submittals that conform to the Contract Documents with correction of minor clarifications or omissions will be issued a disposition of “Approved As Noted”. The Contractor may order,

DRAFT

fabricate, or ship the materials included in the submittal that incorporates the Engineer's comments.

G. Submittals marked "No Action Required": Informational submittals will be issued a disposition of "No Action Required", acknowledging to the Contractor the Engineer's receipt of the submittal.

H. Submittals marked "Revise and Resubmit": Submittals that include a named manufacturer or supplier, but contain insufficient information to determine conformance to the Contract Documents will be issued a disposition of "Revise and Resubmit". The Contractor shall make corrections to satisfy the deficiencies indicated and repeat the submittal procedure. The resubmittal shall conform to the submittal numbering procedure specified herein.

I. Submittals marked "Not Approved": Submittals that do not conform to the Contract Documents will be issued a disposition of "Not Approved". The Contractor shall revise the submittal to incorporated equipment or products that comply with the requirements of the Contract Documents.

J. Upon return of a submittal marked "Approved" or "Approved as Noted", the Contractor may order, ship or fabricate the materials so noted. A submittal marked "Approved as Noted" should not be resubmitted for further review. Submittals marked "Revise as Noted - Resubmit" include extensive corrections or corrections of major importance affecting other items and require the submittal to be amended and resubmitted for a final review. Submittals marked "Rejected - Resubmit as Specified" are reserved for materials or equipment which are unacceptable. The Contractor shall resubmit for materials or equipment which are acceptable and in accordance with the Specifications.

K. More than one resubmittal per material or equipment will be considered an additional cost to the Engineer which shall be reimbursed by the Contractor. Refer to Article 00 13 40.08 for method of reimbursement.

00 13 40.03 DELAY THROUGH TARDY SUBMITTAL

A. All submittals shall be made on such a schedule and at such time as to permit adequate review. The Contractor shall make due allowance for possible revisions and resubmittals. Delays caused by tardy submittal of drawings or data for review shall be the responsibility of the Contractor. No work covered by submitted drawings, or drawings specified to be submitted, shall be performed until such drawings and data have been reviewed.

B. See also ARTICLE 00 07 56.04, APPROVED WORK SCHEDULES.

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00 13 40.04 CONTRACTOR RESPONSIBLE FOR ACCURACY

A. The Contractor shall be responsible for the accuracy and completeness of the drawings and other data they submit, for their conformity to the Plans and Specifications, and for the proper fit and clearance of all construction work.

B. The Owner retains for the Engineer the option to refuse to review submitted data that are improperly identified or incomplete or which have not been checked by the Contractor for compliance with the Contract Documents.

00 13 40.05 ADDITIONAL INSTRUCTIONS

A. The Engineer may from time-to-time issue additional instructions to the Contractor as may be necessary to amplify, augment, modify or clarify the Contract Documents. These may be in the form of drawings, specifications, interpretations, orders and instructions, and may be in connection with or made a part of a Supplemental Agreement, Change Order, or Minor Change.

B. See also SECTION 00 07 57, CHANGES IN THE WORK.

00 13 40.06 DRAWINGS TO BE CHECKED BY CONTRACTOR

A. The Contractor shall check all dimensions, quantities and representations in the Specifications, Contract Drawings, Additional Drawings and all Supplemental Agreements, Change Orders and Instructions, and shall immediately notify the Engineer of any and all errors, omissions, or discrepancies therein which they may find. The Contractor will not be permitted to take advantage of any such error, omission or discrepancy in any Contract Document or subsequent document, as full instructions will be provided by the Engineer in such case.

00 13 40.07 SUBSTITUTES AND "OR-EQUAL" ITEMS

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item, the Specification or description is intended to establish the type, function and quality required. Unless the Specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment may be accepted by the Engineer under the following circumstances:

1. "Or-Equal": If in Engineer's sole discretion an item of material or equipment proposed by Contractor is of similar quality and functionally equal to that named and sufficiently similar so that no change in related work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed equal items.

DRAFT

2. Substitute Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, it will be considered a proposed substitute item. Contractor shall submit sufficient information as provided below in advance to provide adequate time to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for review by the Engineer will include the following or as the Engineer may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor. If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall first make written application to Engineer for review thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation of the proposed substitute will prejudice Contractor's achievement of Substantial Completion on time, whether or not the substitute for use in the work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for work on the project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by Engineer in evaluating the proposed substitute. Engineer may require Contractor to furnish additional data about the proposed substitute.

00 13 40.08 ADDITIONAL ENGINEERING COSTS

A. In the event that the Contractor fails to submit acceptable Shop Drawings (i.e., Shop Drawings which are returned marked "Approved" or "Approved as Noted") within two submittals, further review of the Shop Drawings will be considered an Additional cost. Similarly, all Engineering Costs associated with the review of a substitution will be considered an Additional cost.

B. Additional Engineering Costs include redesign, additional Shop Drawing reviews, investigations, consultant fees and revisions to the Contract Documents required because of the proposed substitution. Additional Engineering Costs will be the total of:

DRAFT

1. Billing Rates Schedule
2. Direct Expenses Plus 10%
3. Consultant Fees Plus 10%

C. Additional Engineering Costs shall be deducted from Contractor Payments by the Owner, in accordance with the Agreement for Engineering Services between the Owner and the Engineer.

END OF SECTION

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GENERAL REQUIREMENTS

SECTION 00 15 06

WORK UNDER UNUSUAL CONDITIONS

00 15 06.01 WORK AFTER DARK

A. Unless specifically required elsewhere herein, the Contractor shall perform no work after dark except in emergencies. When time permits, they shall inform the Engineer in advance of such work and shall obtain the Engineer's approval. When time does not permit advance notice to the Engineer, they shall inform the Engineer at the earliest possible moment.

B. The placing of concrete shall be so scheduled as to be started early enough in daylight hours to allow sufficient time for the completion of the section under construction before dark, including the work of finishers.

C. When, in order to minimize interference with existing structures or utilities, or maintain traffic, it may, in the opinion of the Engineer, be expedient or necessary to do work after dark, such work shall be performed by the Contractor at no additional cost to the Owner, and the Contractor shall provide adequate lighting therefor.

00 15 06.02 WORK ON SUNDAYS OR HOLIDAYS

A. Unless specifically required elsewhere herein, the Contractor shall do no work on Sundays or locally recognized legal Holidays except in an emergency, and then shall confine their operations to only the work considered necessary to be performed at such time.

00 15 06.03 WORK IN STORMS

A. If required by the Engineer, masonry work and the mixing and placing of concrete shall be halted during rain storms, and all fresh work shall be immediately protected with suitable coverings. The Contractor shall keep a sufficient quantity of such coverings at the Site as part of their plant and equipment.

B. No paving, exterior painting, fine grading, seeding or roofing shall be done during rain or snow storms.

DRAFT

00 15 06.04 WORK IN COLD WEATHER

A. Certain Specifications contain provisions prohibiting the performance of certain work in cold weather, or outlining the conditions under which such work may be so performed. In the absence of specific mention elsewhere in the Contract Documents, the judgement of the Engineer shall govern in any case where temperature may adversely affect or prevent the performance of good work.

END OF SECTION

DRAFT

GENERAL REQUIREMENTS

SECTION 00 15 10

SERVICES DURING CONSTRUCTION

00 15 10.01 SANITARY FACILITIES

A. The Contractor shall provide on the Site, at their own expense, one or more toilets, suitably screened from public observation for the use of all persons employed on the work. They shall be provided, maintained and removed, when directed, by the Contractor, in such quantity, locations and manner as approved by the Engineer. Contents shall be removed and disposed of in a manner and at such times as shall be approved. Chemical toilets are to be preferred.

B. The Contractor shall not permit or condone the committance of nuisances on or about the Site. Any employee found violating these provisions shall be discharged in accordance with the provisions of ARTICLE 00 07 54.02.

C. The Contractor shall comply with any and all sanitary regulations as may have been established for the locality.

D. If the Owner awards other contracts for collateral work on the Project, the provision of sanitary convenience shall be the responsibility of the General Contractor, and all such facilities shall be made available to other Contractors and all Subcontractors until the date of the Certificate of Substantial Completion of the General Contract. Each Contractor, however, shall be individually responsible for the acts of their employees and Subcontractors, and for all provisions of this Section after completion of the General Contract.

00 15 10.02 WATER

A. The Contractor shall provide at all times sufficient drinking water from an approved source and by approved means, for all persons having reason to be on the Site in connection with the work.

B. If an ample supply is owned or controlled by the Owner, and is available at or near the Site, such supply will be made available to the Contractor, subject at all times to the requirements of the Owner established therefor, and at a cost to the Contractor as determined by the current schedule of charges filed by the Utility for all customers. Permission to use the water must be obtained in writing.

C. If water is obtained from a public or private supply not owned or controlled by the Owner, the Contractor shall make such arrangement for service with the owners thereof as they may require.

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D. Non-potable water for other than drinking purposes may be obtained at the Site from the ground or surface sources, at the Contractor's own expense. The water must, however, be suitable for the purpose intended and shall be approved by the Engineer. The Specifications, for instance, contain requirements for water for making concrete and mortar.

E. If the Owner awards other contracts for collateral work on the Project, it shall be the responsibility of the General Contractor to obtain potable water for drinking purposes, and such water shall be made available to all Contractors, until the date of the Certificate of Substantial Completion for the General Contract. Each Contractor, however, shall be individually responsible for providing potable water for their own employees and their Subcontractors after completion of the General Contract.

F. If the General Contractor provides water, whether potable or non-potable, for their own purposes during construction of the work, besides drinking water, such water shall be made available to other Contractors and their Subcontractors during the life of the General Contract. Removal of temporary facilities shall be by the General Contractor, but such installation and meters shall remain until need therefor by each Contractor has ceased, or until the date of the Certificate of Substantial Completion of the General Contract. Each Contractor shall provide their own services after completion of the General Contract.

00 15 10.03 TEMPORARY HEAT

A. If the Owner awards other contracts for collateral work on the Project, it shall be the obligation and responsibility of the General Contractor to provide and maintain temporary heat in all above ground structures, and in all below ground structures other than manholes and similar pipeline appurtenances, by means of portable electric, oil or gas-fired appliances. The General Contractor shall provide and pay for all fuel and electric power used by such appliances, and any wiring or connections required, and shall provide suitable smoke pipes or other devices to prevent the deposit of smoke or smudge on building components or equipment.

B. After their installation by the Heating & Ventilating Contractor, the permanent heating system facilities may be used for temporary heating purposes, the operation thereof, and any temporary wiring or piping required and all power consumed shall be the obligation and responsibility of the General Contractor, who shall also be responsible to the Heating & Ventilating Contractor for the repair of any damage of work of the Heating & Ventilating Contract suffered as the result of use by the General Contractor.

C. After enclosure of all spaces to be heated, except for doors, windows and similar apertures, temporary enclosures for all apertures shall be provided. Temperatures in the entirety of such spaces shall be continuously maintained at not less than 50oF between October 15 and May 15, unless written permission is granted otherwise by the Engineer. The General Contractor shall securely install on each

DRAFT

floor of each building near the center of the building, a suitable thermometer. Either the temporary or the permanent heating system shall be available for around-the-clock use during the season specified above.

D. The Owner will supply all heat after the date of the Certificate of Substantial Completion of the General Contract.

E. No portion of the Temporary Heat provisions herein contained shall be construed to waive or modify any provisions regarding maintenance of air or materials temperatures for the protection of the work contained elsewhere in the Contract Documents.

00 15 10.04 TEMPORARY ELECTRIC LIGHT AND POWER

A. If the Owner awards other contracts for collateral work on the Project, it shall be the obligation and responsibility of the General Contractor to provide and maintain temporary facilities for furnishing light and power necessary for operations under the General Contract, and to make all necessary arrangements therefor, including all required conductors, outlets and connections, ordering the meter, paying all fees and inspection charges and pay for all power bills until the date of the Certificate of Substantial Completion of the General Contract.

B. The facilities shall be available to other Contractors and their Subcontractors for their use in connection with their work. The installation and meters shall remain until need for same by each Contractor has ceased, or until the date of the Certificate of Substantial Completion of the General Contract. Each Contractor shall provide their own services after completion of the General Contract.

C. It shall be the responsibility of the General Contractor to provide, prior to the completion of their Contract, temporary power of proper voltage and capacity necessary to test and operate all equipment installed under this Contract.

00 15 10.05 PAYMENT FOR SERVICES DURING CONSTRUCTION

A. The General Contractor will receive no direct payment for providing, maintaining or removing any of the temporary facilities or services specified in this Section 00 15 10, and compensation for same shall be included, in the price, or total of prices, given in the Bid on which this Agreement is based, and no separate payment will be made therefor.

END OF SECTION

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GENERAL REQUIREMENTS

SECTION 00 15 68

EROSION AND SEDIMENT CONTROL

00 15 68.01 GENERAL

A. The Contractor shall control erosion and sediment caused by construction activities through the use of scheduling, phased construction and restoration, berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains and other erosion control devices or methods.

B. In the event of conflict between these specification requirements and pollution control laws, rules or regulations of other Federal, State or local agencies, the more restrictive laws, rules or regulations shall apply.

00 15 68.02 CONTROL SCHEDULE

A. At the preconstruction conference, or prior to the start of the applicable construction, the Contractor shall be required to submit, for acceptance, their schedules for the accomplishment of erosion and sediment control. They shall also submit, for acceptance, their proposed method of erosion and sediment control on haul roads and borrow pits and their plan for disposal of waste materials or control details for other potential sources of pollution.

B. The Contractor shall schedule and conduct their operations to minimize erosion of soils and to prevent silting and muddying of streams, rivers, irrigation systems, impoundments (lakes, reservoirs, etc.) and lands adjacent to or affected by the work. Construction of drainage facilities and performance of other contract work which will contribute to the control of erosion and sedimentation shall be carried out prior to earthwork operations and maintained in conjunction with earthwork operations. The area of bare soil exposed at any one time by construction operations shall not exceed the maximum acreage allowable under applicable State and Federal laws.

00 15 68.03 CONTROL MEASURES

A. In carrying out erosion control measures, the Contractor will be guided by, but not limited to, the following controls:

1. When borrow material is obtained from other than commercially operated sources, erosion of the borrow site shall be so controlled both during and after completion of the work that erosion will be minimized and sediment will be prevented from entering streams or other bodies of water. Waste

DRAFT

or disposal areas and construction roads shall be located and constructed in a manner that will prevent sediment entering streams.

2. Frequent fording of live streams will not be permitted; therefore, temporary bridges or other structures shall be used wherever an appreciable number of stream crossings are necessary. Unless otherwise approved in writing by the Engineer, mechanized equipment shall not be operated in live streams.

3. When work areas or gravel pits are located in or adjacent to live streams or other bodies of water, such areas shall be separated from the main stream by a dike or other barrier to prevent entry of sediment into a flowing stream. Care shall be taken during the construction and removal of such barriers to prevent the muddying of a stream or body of water.

4. All waterways shall be cleared as soon as practicable of falsework, piling, debris or other obstructions placed during construction operations and not a part of the finished work.

5. Ditches which are filled, or partly inoperative shall be cleaned, stabilized, and made operative before the Contractor stops work for any day, and shall be maintained in a condition satisfactory to the Engineer for the duration of the Contract.

6. Water from aggregate washing, dewatering or other operations containing sediment shall be treated by filtration, settling basin or other means sufficient to reduce the turbidity so as not to cause a substantial visible contrast to natural conditions in the receiving waters.

7. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near rivers, streams, and impoundments or into natural or man-made channels leading thereto. Wash water or waste from concrete mixing operations shall not be allowed to enter live streams or other bodies of water.

8. All applicable regulations of environmental protection agencies, conservation agencies, and fish and wildlife agencies and statutes relating to the prevention and abatement of pollution shall be complied within the performance of the Contract.

9. Slopes exceeding 15 percent require special treatment such as water diversion berms, straw bale sediment barriers, sodding, fabric blankets or mesh, or the use of an approved mulch tacking agent over straw or hay mulch applied over seeded areas.

DRAFT

B. The erosion and sediment control features installed by the Contractor shall be acceptably maintained by the Contractor throughout the Contract period. When it becomes necessary, the Engineer will inform the Contractor of unsatisfactory construction procedures and operations insofar as erosion control, water and air pollution are concerned. If the unsatisfactory construction procedures and operations are not corrected promptly, the Engineer may suspend the performance of any or all of other construction until the unsatisfactory condition has been corrected.

00 15 68.04 PAYMENT

A. Unless a specific payment item is included in the Bid, payment for Erosion and Sediment Control shall be included in the price, or total of prices, given in the Bid on which this Agreement is based, and no separate payment will be made therefor.

END OF SECTION

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GENERAL REQUIREMENTS

SECTION 00 15 77

BASIC MAINTENANCE OF TRAFFIC

00 15 77.01 GENERAL

A. This work shall consist of basic maintenance and protection of traffic within the limits of and for the duration of the Contract.

00 15 77.02 TRAVEL NOT OBSTRUCTED DURING EXCAVATION

A. The Contractor shall not needlessly hinder or inconvenience travel on any public or private way, nor shall they wholly obstruct same without written permission of the Owner. If they are permitted to obstruct a traveled way, the Contractor shall provide plain and appropriately worded signs and adequate barricades and lighting at the nearest cross streets and at each end of the obstructed portion, announcing such obstruction and directing traffic to and along an approved detour.

B. Unless otherwise specified or permitted, all entrances and exits of fire houses, industrial plants, commercial buildings and public buildings shall be kept open and maintained in passable condition at all times. The Contractor shall give notice to the Owner of each traveled way before interfering therewith. A minimum of 24 hours notice shall also be given to local police and fire control agencies.

00 15 77.03 BASIC MAINTENANCE AND PROTECTION OF TRAFFIC

A. Traffic shall be maintained over a reasonably smooth traveled way which shall be so marked by signs, delineators, guiding devices and other methods that a person who has no knowledge of conditions may safely and with a minimum of discomfort and inconvenience ride, drive or walk, day or night, over all or any portion of the highway and/or structure under construction where traffic is to be maintained.

1. Surface. Maintain the surface condition of the traveled way so it is consistent with the appropriate speed limit.

2. Drainage. Maintain the drainage facilities and other highway elements, old or new, including detours.

3. Bus Stops. Maintain existing bus stops, if any, so bus passengers are reasonably accommodated.

DRAFT

4.	Pedestrian Traffic.	Provide adequate protection for pedestrian traffic during all phases of construction.
5.	Intersecting Highways.	Provide ingress and egress to and from intersecting highways, homes, businesses and commercial establishments.
6.	Dust Control and Spillage.	Control dust and keep the traveled way free from materials spilled from hauling equipment. This shall also apply to dust control and spilled material resulting from the Contractor's operations in the areas outside the Contract limits. The Contractor shall provide for the control of dust, as necessary, during the construction period. Dust shall be controlled by water spray, or as approved by Engineer. Exposed soils shall be graded, seeded and mulched as soon as practicable.
7.	Flaggers.	Provide the necessary traffic control equipment and flaggers for adequate traffic control on the traveled way.
8.	Repairs.	Make the necessary repairs to existing pavement and structure wearing surfaces as required to provide a reasonably smooth traveled way where vehicle operation is maintained.
9.	Responsibility to the Public.	Protect the public from damage to person and property which may result directly or indirectly from any construction operation.
10.	Snow and Ice Control.	Maintain the traveled way in such a condition and conduct operations in such a manner that snow and ice may be readily controlled by others as and when necessary, and in such a manner that proper drainage is provided for the melting of snow in the banks resulting from normal plowing. The Contractor shall not, however, be responsible for snow and ice control on the pavement or traveled way.

DRAFT

00 15 77.04 PAYMENT

A. Unless a specific payment item is included in the Bid, payment for Basic Maintenance of Traffic shall be included in the price, or total of prices, given in the Bid on which this Agreement is based, and no separate payment will be made therefor.

END OF SECTION

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GENERAL REQUIREMENTS

SECTION 00 15 80

PROJECT SIGN

00 15 80.01 GENERAL

A. If directed in the Additional Instructions, the Contractor shall provide and erect a project sign or signs at the project site identifying the project and the applicable funding agencies participating in the project. The project sign(s) shall also indicate the title and description of the project, Owner, Engineer and Contractor. The sign(s) shall be erected within twenty-one (21) days after the construction contract is awarded, and shall be in accordance with the specifications and detailed drawing included in the Additional Instructions.

00 15 80.02 SIGN PANEL

A. Each sign panel shall be constructed of 3/4" minimum thickness marine plywood rabbetted into a 2" x 4" lumber frame. All fasteners used in the construction of each sign shall be of a rustproof nature.

00 15 80.03 PAINTING

A. Each sign face shall be painted with the proper paint colors for the background, lettering and emblem as specified in the Additional Instructions. All supports, trim and the back of the sign panel, shall be painted with at least two coats of the same color paint as used for each sign face. All paint used shall be exterior grade paint, suitable for use on wood signs.

00 15 80.04 MISCELLANEOUS

A. Sign(s) shall be located in a prominent position and aligned as determined by the Engineer. Adequate support for the project sign(s) shall be provided by the Contractor. The bottom edge of each sign shall be a minimum of 3 feet above grade. The project sign(s) shall be maintained in good condition by the Contractor for the duration of construction. The removal of the project sign(s) from the construction site by the Contractor shall be at the completion of construction, when ordered by the Engineer.

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00 15 80.05 PAYMENT

A. Unless a specific payment item is included in the Bid, payment for Project Sign, including fabrication, erection, maintenance and removal of each sign, shall be included in the price, or total prices, given in the Bid on which this Agreement is based, and no separate payment will be made therefor.

END OF SECTION

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GENERAL REQUIREMENTS

SECTION 00 15 90

ENGINEER'S FIELD OFFICE TRAILER

00 15 90.01 DESCRIPTION

A. Unless waived by provisions within the Additional Instructions, the Contractor shall provide a field office trailer for the exclusive use of the Engineer and their assistants. The trailer shall be separate from that of the Contractor, and shall be ready for occupancy within ten days following execution of the Contract.

00 15 90.02 FACILITIES TO BE PROVIDED

A. The name of the supplier and proposed layout shall be submitted to the Engineer and approved prior to delivery of the trailer.

B. The trailer office shall be new or in first class condition and shall be not less than 12 feet by 56 feet, excluding the tongue.

C. Washroom with hot water supply and toilet facilities within the trailer shall be supplied with potable water and connected to a sanitary sewage disposal system. The trailer shall be fully air conditioned. A gas or oil heat system shall be provided within the field office. A minimum of one month's fuel storage shall be provided, together with the necessary appurtenances to control heat and check fuel storage. Heating and air conditioning equipment shall be capable of maintaining an air temperature of 70^{o}F.

D. An individual, unlisted, direct line telephone service shall be provided for the exclusive use of the Engineer. Telephone service, local and toll charge calls, shall be paid by the Contractor.

E. It shall be the responsibility of the Contractor to maintain the field office trailer and all facilities furnished with it. Maintenance shall include removal of snow, janitorial services, and adequate protection of pipes.

F. It shall be the Contractor's responsibility to furnish adequate heat, electric power and light to the field office trailer at their expense. Adequate lighting shall consist of a minimum, of four, two lamp, 4' fluorescent lights.

DRAFT

G. The following office furniture and equipment shall be furnished with the trailer:

Two 8' flat top double desks with 2 sets of two drawer metal file cabinets in each desk.

1 built-in drafting table 36" x 72" with double storage cabinets underneath.

4 swivel chairs.

2 drafting stools.

1 four drawer, fireproof legal size filing cabinet with lock.

2 plan racks with space for 5 plan hangers each.

4 wall coat hooks.

2 large metal waste baskets.

1 refrigerator, minimum 2 cubic feet.

00 15 90.03 LOCATION

A. The trailer shall be erected on an approved location convenient for inspection of the work, as directed by the Engineer. The field office trailer shall be moved once if directed by the Engineer.

00 15 90.04 PAYMENT

A. Payment for the Engineer's Field Office Trailer, and all services to be provided with it, not included under other unit or lump sum price items shall be made at the price stated in the Bid.

END OF SECTION

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GENERAL REQUIREMENTS

SECTION 00 16 40

MATERIALS, EQUIPMENT AND WORKMANSHIP

00 16 40.01 MATERIALS AND WORKMANSHIP - GENERAL REQUIREMENTS

A. All workmanship, materials, equipment and appliances shall comply in all respects with the applicable Specifications, unless specific exception is made.

B. All materials furnished or incorporated in the work shall be new, unused and of the quality and characteristics specified. Used materials may be furnished or incorporated in the work only under special circumstances and only with the Engineer's prior written approval. If the quality or characteristics of any material are not specifically set forth in the Contract Documents, the material used shall be that customarily used in first class work of a similar nature and character.

C. All workmanship in manufacture and construction not specifically covered in the Specifications shall be of the first class order and equal to that customarily used in first class work of a similar nature and character. The Contractor shall exercise special care during construction to make all structures watertight.

D. See also ARTICLE 00 07 54.02 and 00 07 53.08.

00 16 40.02 SAMPLES, TESTS AND INSPECTIONS

A. All materials, equipment and workmanship shall be subject to inspection, examination and tests by the Engineer, or persons or corporations designated by them, at any and all times during manufacture or construction and at any place or places where manufacture or construction are performed.

B. If required by the Specifications, or if requested by the Engineer, the Contractor shall submit to the Engineer for examination, testing and approval, typical samples of materials and appliances. Samples shall be submitted sufficiently in advance of the time they are proposed to be used in the work so that neither rejections and re-submittals nor the time reasonably required for testing shall cause delay. Each unit, lot or batch of materials submitted shall be properly tagged or labeled and identified with the portion of the work for which they are intended. Transmittals shall be covered by a letter of transmittal in the manner specified for the submittal of drawings ARTICLE 00 13 40.02.

C. All laboratory tests called for in the Specifications or requested by the Engineer shall be performed at the Contractor's expense. Documentary evidence that materials pass the required inspection and tests shall be furnished to the Engineer prior to the use of the materials in the work. Bureaus, laboratories and agencies

DRAFT

used for the inspection and testing of materials, equipment and appliances will be selected by the Contractor, who will submit their names to the Engineer for approval prior to the performance by them of any tests.

00 16 40.03 REMOVAL OF FINISHED WORK FOR INSPECTION

A. If, at any time prior to the date of the Certificate of Substantial Completion, the Engineer considers it necessary or advisable to examine any portion of the work already completed by removing or tearing out materials or coverings, or by excavating or otherwise exposing the portion of the work to be examined, the Contractor, upon receipt of a written request from the Engineer, shall promptly perform such work as is necessary so to do.

B. If the work in question is found to be defective, or not in conformance with the Specifications, due to the fault of or omission of the Contractor, or if any work shall be covered over without the consent or approval of the Engineer, whether or not defective, the Contractor shall bear all the expense of such removal, tearing out, excavating or exposing and of satisfactory reconstruction.

C. If, however, such consent or approval shall have been given, and the work exposed is found to be satisfactory and in conformance with the Specifications, the Contractor shall be compensated for the expenses of such removal, examination and reconstruction as provided in ARTICLE 00 07 57.03.

00 16 40.04 FIELD TESTS

A. The Contractor, at their own expense, shall conduct all tests specified or required by law or permit of installed equipment and materials, when ordered by and under the supervision of the Engineer. The Engineer at their own discretion may make additional field tests of materials and equipment on the Site. The Contractor shall furnish, at their own expense, the materials required for all field tests and reasonable labor and plant to assist the Engineer in conducting the tests.

00 16 40.05 MANUFACTURERS AND SUPPLIERS

A. Within 30 days following the execution of the Contract, the Contractor shall submit to the Engineer the name or names of the manufacturers or vendors from whom they propose to purchase the equipment and materials specified for the work. Following approval of the manufacturer or supplier by the Engineer, the Contractor shall submit complete and detailed drawings, bulletins, specifications and other data in connection with the equipment and materials and arrangement thereof they propose. See also ARTICLES 00 13 40.01 through 00 13 40.04 and 00 13 40.06.

B. No award shall be made by the Contractor, and no work in connection with the equipment or materials shall proceed prior to review of the submitted data. All

DRAFT

items of equipment of like type shall be the product of one manufacturer, unless specified otherwise or specifically permitted by the Engineer.

00 16 40.06 EXPERIENCE AND EQUIVALENT CLAUSES

A. Unless otherwise specified, shown or permitted, all equipment and materials shall be the product of manufacturers who have built equipment or produced materials of a like or similar type, character, size and capacity for at least three years prior to submittal for approval and who, if requested by the Engineer, shall submit evidence thereof.

B. Wherever reference is made in the Contract Documents to any specific material, equipment, appliance or model, it is understood that any product considered to be equivalent by the Engineer may be used, and such reference is for the purpose of illustration and establishment of a standard. This provision is understood to hold true in all instances, use or omission of the term "or equal" notwithstanding.

00 16 40.07 INSTALLATION OF EQUIPMENT

A. All equipment shall be installed in a neat and workmanlike manner as shown on the Plans or as directed, and shall be accurately leveled, aligned and adjusted for satisfactory operation and so installed that all necessary connections can be readily made.

B. The Contractor shall furnish, install and protect all necessary bearing plates, guides, rails, anchor and attachment bolts and fastenings and all other appliances and appurtenances required for the installation of all components of the equipment specified. Adequate templates and installation drawings and instructions shall be provided. Anchor bolts shall be of the size, type and material recommended by the manufacturer or directed by the Engineer.

C. The Contractor shall furnish all oils and greases for initial operation, and shall provide the Engineer with a list of the lubricants used on each item of equipment. Insofar as possible, all lubricants shall be obtained from one manufacturer, approved by the Engineer and by the equipment manufacturers. Each piece of equipment shall bear a substantial metal or plastic nameplate, securely fastened in a convenient place inscribed with the name of the manufacturer, the year of manufacture, model number, serial number and basic rating data.

00 16 40.08 TOOLS, ACCESSORIES AND MANUALS

A. Unless otherwise specified, the Contractor shall furnish for each type, model or size of equipment a complete set of any special tools and accessories, suitably identified, which may be required to adjust, operate, repair or maintain the equipment.

DRAFT

B. The Contractor shall also furnish and deliver to the Engineer five complete sets of bulletins, diagrams, parts lists, instructions, manuals and other data required for operation, maintenance and repair of the equipment.

00 16 40.09 CARE AND PROTECTION OF THE WORK

A. During the life of the Contract, the Contractor shall be solely responsible for the care and protection of the work and for all materials, appliances, supplies and equipment to be used in the work, both during storage and after installation or incorporation in the work. They shall protect all materials to be used in the work, all work in progress, and all completed work from damage by flood, fire, freezing or other undesirable results of weather, accident, theft and vandalism. Any damage or loss shall be made good by the Contractor at their own expense before a Certificate of Substantial Completion will be issued.

B. See also ARTICLES 00 07 59.07, 00 07 59.08 and 00 07 57.04.

00 16 40.10 ABSENCE OF ENGINEER

A. The Contractor shall perform no backfilling or covering operations of any underground portions of the work until after the Engineer or their inspector shall have inspected or tested and approved the work. If such work is covered in absence of an inspector, it shall be exposed by the Contractor for inspection as specified in ARTICLE 00 16 40.03.

END OF SECTION

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SECTION 02 41 19

SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.

B. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and store.

C. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.

E. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

1.4 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

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1.5 PREINSTALLATION MEETINGS

A. Predemolition Conference: Conduct conference at Project site.

1. Inspect and discuss condition of construction to be selectively demolished.
2. Review structural load limitations of existing structure.
3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
5. Review areas where existing construction is to remain and requires protection.

1.6 INFORMATIONAL SUBMITTALS

A. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's building manager's and other tenants' on-site operations are uninterrupted.
2. Interruption of utility services. Indicate how long utility services will be interrupted.
3. Coordination for shutoff, capping, and continuation of utility services.
4. Use of elevator and stairs.
5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

1.7 CLOSEOUT SUBMITTALS

A. Inventory: Submit a list of items that have been removed and salvaged.

1.8 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

C. Storage or sale of removed items or materials on-site is not permitted.

D. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

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1.9 COORDINATION

A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.

3.2 PREPARATION

A. Refrigerant: Before starting demolition, remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction.

3.3 PROTECTION

A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
4. Cover and protect furniture, furnishings, and equipment that have not been removed.
5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."

B. Remove temporary barricades and protections where hazards no longer exist.

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3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
   1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
   2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
   3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
   4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
   5. Maintain fire watch during and for at least 1 hours after flame-cutting operations.
   6. Maintain adequate ventilation when using cutting torches.
   7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
   8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
   9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
   10. Dispose of demolished items and materials promptly.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove demolition waste materials from Project site
   1. Do not allow demolished materials to accumulate on-site.
   2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
   3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

B. Burning: Do not burn demolished materials.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION

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SECTION 03 30 00

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 DESCRIPTION

A. Under this Section, the Contractor shall furnish all labor, materials and equipment for plain and reinforced Cast-In-Place Concrete work including accessory items of work herein described, as shown on the Plans, as specified, and/or directed.

1.02 REFERENCES

A. Reference to standard specifications for the following organizations is intended to specify minimum standards for quality of materials and performance of workmanship, and for standard test methods.
   1. American Society for Testing and Materials (ASTM) Publications, Latest Edition.
   2. American Concrete Institute (ACI) Standards, Latest Edition.
   3. Standard Specifications - Construction and Materials, New York State Department of Transportation (NYSDOT), Latest Edition, including Addenda thereto.

1.03 QUALITY ASSURANCE

A. Perform work in accordance with ACI 301 and ACI 302.

B. Acquire cement and aggregate from same source for all work.

C. Conform to ACI 305R when concreting during hot weather, except as herein modified.

D. Conform to ACI 306R when concreting during cold weather, except as herein modified.

1.04 SUBMITTALS, SAMPLES AND TESTS

A. Product Data: Provide data on joint devices, attachment accessories and admixtures.

B. Concrete:
   1. Samples and tests of all materials to be incorporated in the concrete shall be submitted in ample time for testing before delivery. All materials are subject to inspection and testing by a commercial testing laboratory approved by the Engineer at the Owner's expense. All materials are subject to approval by the Engineer prior to their delivery to the site.

DRAFT

2. The Contractor shall obtain from the manufacturer, prior to the actual delivery of the concrete, a statement giving the sources, specific gravities, and sieve analyses of the aggregates and the dry weights of cement and saturated-surface-dry weights of fine and coarse aggregate and quantities, type and name of admixture (if any) and of water per cubic yard of concrete that will be used in the manufacture of each class of concrete to be provided. This data shall be sent to the Engineer for review and approval.
   a. Aggregates shall be tested for gradation, purity and accelerated soundness. Tests shall comply with ASTM C33, C136, ASTM C40, and ASTM C88. The source of the material shall not be changed without retesting.
   b. Cement shall have representative mill test reports on physical and chemical requirements. All cement stored at job site or at concrete supplier's place for over 60 days shall be tested for compliance with ASTM C150.
   c. Contractor shall submit concrete mix design to be reviewed by the Engineer.
   d. Tests of other materials may be required by the Engineer.

PART 2 - PRODUCTS

2.01 MATERIALS

A. All materials shown, specified or required to be incorporated in cast-in-place concrete shall be of finest quality, and shall be delivered, stored and handled so as to prevent damage. Damaged or inferior materials will be rejected. Approved brands or sources must be used, without change for the entire project. All materials shall be proportioned to produce a well graded mixture of high density and maximum workability.

B. Portland Cement shall be a standard brand in compliance with ASTM C150 Type I. Only one brand shall be used for exposed work. Generally, Type I cement shall be used; however, Types II or III may be employed with the approval of the Engineer or if shown, or specified.

C. Fine Aggregates shall be clean, sharp, natural sand, free from loam, clay, organic impurities or frozen materials and shall conform to ASTM C33 in all respects. Sand shall be tested for impurities in accordance with ASTM C40.

D. Coarse Aggregates shall consist of strong, clean, crushed limestone or crushed gravel, free from harmful material and meeting all of the requirements of ASTM C33. Coarse aggregate shall also comply with New York State Department of Transportation Material Designation 703-02. Crushed limestone and crushed gravel shall meet the Physical Requirements (Testing) Designation 703-0201 and 703-0202, respectively.

DRAFT

E. Water used in mixing concrete shall be clean and free from all acid, alkali or organic matter and shall be obtained from a public water supply unless specifically permitted otherwise by the Engineer.

F. Ready Mix Concrete shall comply with ASTM Specification C94, this Specification, and used subject to the Engineer's approval.

G. Admixtures, where shown or specified, shall be as follows:
1. Air entraining agent shall be "Daravair" or "Darex AEA" as manufactured by W.R. Grace Co., or Master Builder's "MBVR", or equal meeting the requirements of ASTM C260.
2. Water reducing agent shall be Sika "Plastiment", Master Builder's "Pozzolith", W.R. Grace's "WRDA", or equal meeting the requirements of ASTM C494.
3. High range water reducers or superplasticizers shall be Sika "Sikament-FF", W.R. Grace's "Daracem-100" or "WRDA-19", or equal meeting the requirements of ASTM C494.

H. Bonding Agent, where shown or specified, shall be "Dural 104" bonding compound manufactured by Dural International Corporation, "Sikadur 32 Hi Mod" by Sika Corporation, or equal.

I. Anchorage Items, where shown or specified, shall be as follows:
1. Inserts for fastening shelf angles shall be malleable iron adjustable wedge type, with bolt and washer, if required, as manufactured by Hohman & Barnard, Inc., Richmond Screw Anchor Co., Inc., or equal.
2. Threaded inserts for fastening of soffits of concrete beams shall malleable iron, as manufactured by Hohman & Barnard, Inc., Richmond Screw Anchor Co., Inc., or equal.
3. Ceiling hanger inserts shall be standard type wire as manufactured by Hohman & Barnard, Inc., Heckman Building Products, Inc., or equal.
4. Masonry anchor slots shall be galvanized sheet metal, felt filled, as manufactured by Hohman & Barnard, Inc., Heckman Building Products, Inc., or equal.
5. Flashing reglets shall be O'Keefe's Inc., PVC "Watertite Type P", or equal to size and shape shown.

J. Flexible Sleeve, where shown or specified, shall be of resilient rubber with a flanged, serrated waterstop and shall be cast directly into the walls of the concrete structure as shown on the Contract Documents. Flexible sleeve shall conform to the following physical requirements:

DRAFT

PROPERTY	ASTM TEST REQUIREMENTS		
	METHOD	MIN.	MAX.
Tensile Strength, psi	D412	1500	-
Ultimate Elongation, percent	D412	450	-
Hardness, Type A durometer	D2240	45	55

1. Flexible sleeve must permit a minimum of 10 degrees deflection in all directions. Flexible sleeve shall be "Lockjoint Flexible Manhole Sleeve" as manufactured by Chardon Rubber Company, or equal.

K. Forms shall be wood, metal, or other approved materials as follows:
1. Plywood shall be Commercial Standard Douglas Fir, moisture resistant, concrete form plywood, at least 5-ply 5/8" thick.
2. Metal forms shall be as approved, and must produce surfaces equal to those specified for wood forms.
3. Form oil shall be an approved non-staining mineral oil, such as "Duogaurd II" by W.R. Meadows, or equal.
4. Form ties shall be of approved design, adjustable length and free of devices that will leave hole or depression larger than 7/8" diameter. When forms are removed no metal shall be left within 1" of finished surface.

L. Waterstops, where shown or specified, shall be minimum 3/8-inch thick across their entire section, heavy duty, serrated type manufactured from virgin polyvinyl chloride compound, "Model RB6-38H" as manufactured by Vinylex Corporation, or equal. They shall have a tensile strength of minimum 1800 psi and an elongation of minimum 200%.
1. Waterstops shall be open bulb type, 6-inch wide unless otherwise shown or directed by the Engineer. The waterstops shall be supported during concrete placement to prevent dislodgement and to insure that the ends remain at right angles to the joint. Field joints shall be butt welded with an electric iron in accordance with the manufacturer's instructions.
2. Sample of the waterstops to be used shall be submitted to the Engineer for approval.

M. Premolded Joint Filler, where shown or specified, shall be premolded, resilient, non-extruding type, 1/2-inch thick unless shown otherwise, full depth of concrete section as manufactured by Celotex Corporation, "Fibre Expansion Joint Filler" by W.R. Meadows, or equal.
1. Sample of the premolded filler proposed to be used shall be submitted to the Engineer for approval.

DRAFT

N. Joint Sealant, where shown or specified, shall be elastomeric polyurethane sealant material, black in unexposed locations, and grey in exposed locations, and have balanced properties of elongation recovery and tensile strength, and shall be Sonneborn "Sonolastic NP1", Sika "Sikaflex 1A", or equal.

O. Protective Covering for concrete finish slabs, where shown or specified, shall be "Orange Label Sisalkraft", Polyethylene Film as manufactured by Fortifiber Corp., or equal.

P. Non-Shrink Grout, where shown or specified, shall be premixed compound consisting of non-metallic aggregate, natural aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 2,400 psi in 48 hours and 7,000 psi in 28 days; such as "Masterflow" as manufactured by Master Builders, "SikaGrout 212" as manufactured by Sika, or approved equal.

1. Non-Shrink grout shall be used under structural steel column baseplates and all equipment baseplates. All work shall be done in strict accordance with the manufacturer's recommendations. At the request of the Engineer, the manufacturer's representative shall be called to the job site for consultation regarding detailed use of the grout.

Q. Grout for fillets, channels, or other non-structural applications shall consist of one (1) part cement (Portland Cement Type 2) and three (3) parts fine aggregate (sand) with sufficient mixing water for the intended application.

R. Cementitious Coating Materials, where shown or specified, shall be "Thoroseal" with "Acryle 60" bonding agent, as manufactured by Thoro System Products, "Anchor Masonry Surfacer" as manufactured by Anti Hydro Waterproofing Company, or equal.

S. Curing Compound shall be acrylic based "Kure-N-Seal" as manufactured by Sonneborn, acrylic based "CS-309", or water based "VOCOMP-20" as manufactured by W.R. Meadows, or equal.

T. Vapor Retarder, where shown or specified, shall be "Moistop" as manufactured by Fortifiber Corp. Vapor Barrier shall be "Premoulded Membrane Vaporseal" as manufactured by W.R. Meadows, or equal.

U. Perimeter Insulation, where shown or specified, shall be "Styrofoam Square Edge" as manufactured by the Dow Chemical Corporation, "Foamular 250" as manufactured by UC Industries, or equal.

V. Penetrating Sealer, where shown or specified, shall be two components, 50% solids penetrating epoxy sealer. The penetrating sealer shall be fully compatible with the types of form oil, curing compound and joint sealant used.

DRAFT

1. Concrete surfaces to be treated must be dry, cured for a minimum of 21 days, free from surface accumulations of dust, dirt, oil, debris, concrete curing compounds, bond breakers, or other compounds which would prevent penetration and intimate contact between the concrete surface and the penetrating sealer. Concrete surfaces require preparation per manufacturer's directions prior to sealer installation.
2. Penetrating sealer shall be "Spec-Seal" as manufactured by Conspec, Inc., or equal.

W. Metal Slab Joints, where shown or specified, shall be keyed type, minimum 18 gauge, galvanized steel by Heckmann Building Products, or equal.

X. Vapor Barrier: 10 mil 0.254 mm) thick clear polyethylene film type recommended for below grade application.

2.02 CONCRETE MIX DESIGN

A. The Contractor shall submit concrete mix designs to be reviewed by the Engineer. The mix designs shall be confirmed by making and testing trial mixes for each class of concrete to be incorporated in the work. All testing shall be made by an approved testing laboratory at the expense of the Contractor. Mix designs shall conform to the ACI 301, except as may be modified in the Plans and/or Specifications.

B. No job concrete shall be poured until the mix design for that concrete has been approved by the Engineer. Once the mix has been approved, it shall not be changed, except when requested by the Engineer, or if requested by the Contractor and approved by the Engineer.

C. Ready-mixed concrete from an established company will be approved, if conforming to ASTM C94, and to this specification. All concrete shall be batched, mixed, delivered to the site, and shall conform to these requirements and be controlled in a manner to assure uniform concrete for the quality specified.

D. Water/cement ratios of all mixes shall be determined from w/c curve plotted from tests of the cement and aggregates used on the job. If necessary to increase the water content of the mix due to field conditions, sufficient cement must be added to maintain the design water/cement ratio. Accelerating or retarding admixtures may be permitted by the Engineer if requested by the Contractor to compensate for adverse weather conditions.
1. The various classes of concrete shall be designated as follows:

DRAFT

MAXIMUM PERMISSIBLE WATER-CEMENT RATIOS FOR CONCRETE (WHEN STRENGTH DATA FROM TRIAL BATCHES OR FIELD EXPERIENCE ARE NOT AVAILABLE) Maximum permissible water-cement ratio					
CLASS	MIN. 28-DAY COMPRESSIVE STRENGTH IN PSI*	NON-AIR-ENTRAINED CONCRETE		AIR-ENTRAINED CONCRETE	
		ABSOLUTE RATIO BY WEIGHT	US GAL. PER 94-LB. BAG OF CEMENT	ABSOLUTE RATIO BY WEIGHT	US GAL. PER 94-LB. BAG OF CEMENT
A	5,000	**	**	**	**
B	4,000	0.44	5.0	0.35	4.0
C	3,000	0.58	6.6	0.46	5.2
D	2,500	0.67	7.6	0.54	6.1
E	2,000	0.71	8.0	-	-

*28-day strength. With most materials, water/cement ratios shown will provide average strengths greater than indicated in Section 5.4 of ACI 318R as being required.
**For strength above 4,500 psi (non-air-entrained concrete) and 4,000 psi (air-entrained concrete) proportions shall be established by methods of Section 5.3 of ACI 318R.

Unless otherwise specified, all concrete shall be Class "B", non-air-entrained except exposed concrete which shall be air-entrained. When foundation walls or grade beams are exposed to weather above grade, the entire wall shall be considered exposed concrete.

2. Maximum size aggregates shall be used as follows unless otherwise designated by the Engineer.

1-1/2"	general work
3/4"	thin sections; heavy reinforcing
3/4"	columns, beams and slabs
Over 1-1/2"	massive structures, with approval
3/8"	floor toppings

3. Slump - Maximum:

Reinforced concrete – general	4"
Reinforced concrete - thin walls, columns	5"
Non-reinforced concrete	3"
Pavements, including sidewalks	3"
Heavy mass concrete	3"

4. Air Content: Use an approved air entraining admixture. The entrained content shall be controlled between 4% - 6%. See Plans for concrete work requiring air entrainment.
   a. For mixes containing coarse aggregate with a top size of 3/4" or smaller and for exposed concrete subject to frost and salt action, air contents shall be increased to the range of 5% - 7%.

DRAFT

5. Should the Contractor feel it advantageous to employ concrete additives to improve workmanship or facilitate his work, he shall obtain the approval of the Engineer prior to his use of additives.
6. Use of accelerating admixtures in cold weather will not relax cold weather placement requirements.

2.03 STORAGE OF MATERIALS

A. Portland cement shall be stored in a weather-tight structure. No cement that has taken a warehouse set shall be used and any stored over sixty (60) days shall be rejected unless tested for soundness and setting time under ASTM C150. Such tests shall be at the Contractor's expense.

B. Fine and coarse aggregates shall be kept separated and free from deleterious substances. All topsoil shall be removed from the storage area. Materials shall be stockpiled in layers to prevent segregation; however, re-mixing may be required if gradation is not maintained. Care shall be taken not to inter-mix materials in the area with the aggregates.

C. Any materials that have deteriorated or become contaminated will be rejected for use in the concrete and must be promptly disposed of by the Contractor.

PART 3 - EXECUTION

3.01 FIELD QUALITY CONTROL

A. Before each pour, forms and reinforcing shall be inspected and approved by the Engineer. The Contractor shall give at least 24 hours' notice before such an inspection is required. No pour shall be started until the Engineer has given approval. No concreting may be done in the absence of the Engineer without written permission of the Engineer.

B. Concrete Batch Ticket:
1. The Contractor shall require the manufacturer of the concrete to furnish to the Engineer with each batch of concrete before unloading at the site, a delivery ticket on which is printed, stamped, or written, information concerning said concrete as follows:
   - Name of ready-mix batch plant
   - Serial number of ticket
   - Date
   - Truck number
   - Name of purchaser
   - Specific designation of job (name and location)
   - Designation of the concrete by compressive strength
   - Amount of concrete in cubic yards
   - Time loaded or of first mixing of cement and aggregates
   - Reading of revolution counter at the first addition of water

DRAFT

- Type and brand, and amount of cement
- Type and brand, and amount of admixtures
- Total water added by producer (and W/C ratio)
- Water added at job site (upon approval of the Engineer)
- Maximum size of aggregate
- Weights of fine and coarse aggregate
- Ingredients certified as being previously approved
- Signature or initials of ready-mix representative

C. Concrete Testing:

1. The Owner shall employ an approved commercial testing laboratory at its own expense to provide field sampling, testing and inspection of all concrete. Continuous inspection by the approved testing laboratory shall be provided during all concrete pours. The Contractor shall maintain a record set of plans at the site showing date and amount of each pour, test results and temperature. If any portion of the work shows low test results, the Engineer may require batch plant inspection, additional testing, load tests, cored samples, and/or replacement of the faulty work, etc., at the Contractor's expense.
2. The Owner, through its approved testing laboratory, shall make all laboratory or field tests as required and shall furnish all necessary equipment. The Owner, through its approved testing laboratory, shall transport all test cylinders from the site to the laboratory.
3. Field concrete inspection: The Owner, through its approved testing laboratory, shall provide a competent field concrete inspector whose minimum duties shall be as follows:
    a. Check each truck on arrival to make sure that the concrete is not retempered.
    b. Make necessary slump tests for uniformity control.
    c. Make air tests and yield tests as required.
    d. Make any and all test cylinders as may be required in the Specifications.
    e. Notify the Engineers and/or his representative if any test results vary from the specified limits.
4. Tests:
    a. Concrete shall be tested by an approved testing laboratory as follows:
        - Standard 6" x 12" compression cylinders shall be in compliance with ASTM C39 in sets of four and shall be moist cured. Break 2 at 7 days, and 2 at 28 days. One set shall be made for approval of each mix design, one set for first pour of 50 cubic yards or less, and one set for each additional pour of 50 cubic yards. If less than 50 cubic yards are placed in one day, one set shall be made for each day's pour.

DRAFT

- All test cylinders shall be cast, moist cured and broken under laboratory conditions in accordance with the ASTM C31 and ASTM C39. All four cylinders of a test shall be taken from the middle third of a single load. Each cylinder shall be properly labeled with an identifying mark, the mix proportions, air content, amount of water, slump, and the location in the structure where the concrete was placed. Test reports shall include all this information. Distribute copies of reports as requested by the Engineer. Should any results be questionable, the Engineer shall be notified immediately so that corrective measures can be taken. Any test cylinder which has broken and fails to meet requirements shall be preserved for inspection by the Engineer.

D. Records:
   1. Maintain records of concrete placement. Record date, location, quantity, air temperature and test samples taken.

3.02 BATCHING AND MIXING

A. All Batching and Mixing shall conform to the following and the ACI 304, "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete".

B. Aggregates and bulk cement shall be measured to within 1% by weight. Cement in standard sacks need not be weighed. Water shall be measured by volume or by weight to within 1/2%. Aggregate weights shall be corrected for moisture content. Admixtures shall be added through appropriate dispensing equipment to an accuracy of 3%.

C. The complete plant assembly shall be approved by the Engineer and shall conform to the following requirements:
   1. Provide ready adjustment of aggregate weights for varying moisture contents.
   2. Provide means of accurately controlling and easily checking water-cement ratio.
   3. Provide accurate control of all materials with positive shut-off.
   4. Facilities shall be provided for prompt removal of excess materials in hoppers.
   5. Each specified size of aggregate shall be measured separately with a separate beam scale.
   6. Bulk cement shall be dropped through canvas drop chutes or telescopic flexible hose tremie.

DRAFT

D. Concrete mixers or mixer trucks shall not be loaded to more than the rated capacity of the truck.

E. All concrete shall be mixed not less than 60 revolutions in the drum of a modern power mixer, at the rated speed of rotation. Mix not less than an additional 30 revolutions after the addition of any further water to the mix.

F. Do not add raw materials to the drum until all of the preceding batch has been discharged. For transit mixers, the wash water shall be discharged and not used as part of the mix water for the next batch.

G. Transit-mixed concrete shall be transported to the job site unmixed and only after arrival at the job site shall mixing begin. All concrete shall be unloaded from the mixer within 45 minutes after completion of mixing. All concrete still remaining in the truck shall be rejected.

H. The total time interval from the time the cement makes contact with the aggregate to the complete unloading from the mixer shall not exceed 90 minutes, unless such time is extended by the Engineer. The time may be reduced in hot weather or under unusual conditions, if unsatisfactory results are obtained.

3.03 FORMWORK

A. The Contractor shall design and construct suitable and adequate formwork in conformance with ACI 347R. All shoring shall be properly braced to safely withstand all vertical, moving and lateral forces during the construction period. Responsibility for adequacy and safety rests with the Contractor. Materials shall be as stated in Paragraph 2.1.

B. General requirements for all forms shall be as follows:

1. Forms shall be constructed of wood, plywood, or steel.
   a. All forms shall be set true to line, plumb, and properly braced so as to maintain the desired position and shape during and after pouring concrete. Forms shall be sufficiently tight to prevent leakage.
   b. All joints between sheets shall be backed up to assure that both sheets are in the same plane. Edges of abutting sheets shall be straight and true and shall be forced tightly together to minimize fins. Quality of form contact surfaces shall be subject to Engineer's approval.
   c. Form ties shall be designed for the specific wall thickness required, and after removal of the external portion, no metal shall remain closer than one inch (1") from the surface. Ties to be left in place shall be equipped with washers or other approved devices to prevent seepage of moisture along the tie. The removable portion shall be oil or grease coated.

DRAFT

d. Immediately following the removal of forms, the projecting ties shall be removed and all holes filled with grout flush with the wall. Care shall be taken to use the same brand of cement and same mix proportions used in the wall to prevent color differences.

e. Forms for walls and columns shall be provided with removable cleanout panels, to allow removal of chips and debris. All plywood forms must be new when first used on this job, but may be reused if kept in good condition. All forms shall be swept or flushed clean of shavings, debris, and other loose material. Loose earth and rock shall be scraped from footing trenches before pouring concrete.

f. Provide 3/4" chamfer strips, unless noted otherwise on the drawings, at all exposed corners of columns, beams and walls where later finish is not to be applied.

g. All forms and shores for floor and roof slabs and beams shall be "crowned" or "cambered" 1/4" for each 12 feet of span to eliminate dead load deflection. All forms shall be oiled with a non-staining mineral form oil before placing reinforcing.

h. Build into forms all hangers, anchors, bolts, inserts, sleeves, etc., required to be set as part of this work, place and secure in exact position.

C. Form removal shall be as follows:

1. It shall be the Contractor's responsibility to determine the time at which forms may be removed without endangering the structure, subject to the following limitations, unless documentation is provided to modify these requirements:

   Footing forms - 24 hours minimum; continue curing as specified.

   Wall forms - 2 days minimum for ten (10) feet high. Add one (1) day for each additional five (5) feet of height; continue curing as specified.

   Superstructure slabs, beams and columns shall not be stripped until the concrete attains at least 75% of its design strength as proven by test cylinders, and until a minimum of 14 days has elapsed.

   Reshoring - immediately after stripping, fully reshore all slabs which are to be used to support shores for upper slabs. All forms for upper floor pours must be supported by shoring to at least two levels of full strength concrete.

DRAFT

3.04 JOINTS FOR CONCRETE

A. Joints for concrete shall include all expansion joints, construction joints and contraction joints.

B. All joints shall be constructed at locations shown on the drawings, or as directed by the Engineer. Additional joints may be constructed by the Contractor subject to the approval of the Engineer.

C. Expansion Joints:
1. Expansion joints shall be constructed where shown and as directed. Reinforcement, corner protection angles or other fixed items embedded or bonded into concrete shall not be run continuously through expansion joints. Reinforcement shall be discontinued 2 inches from the joint face. A slightly rounded edging shall be provided to finish neatly all edges around expansion joints.
2. Preformed expansion joint filler material, sealant and waterstops, where shown on the drawings, shall be as specified in Paragraph 2.1.

D. Construction Joints:
1. The location of construction joints shall be chosen by the Contractor and shall be subject to the Engineer's approval except where specifically located on the Plans.
2. Horizontal construction joints in walls will not be permitted, except with the approval of the Engineer. In order to minimize shrinkage, long continuous walls shall not be poured at one time. No more than 50 feet in horizontal direction shall be poured without a construction joint, unless prior approval is obtained from the Engineer.
3. Reinforcing shall be discontinuous through a construction joint, unless otherwise noted on drawings. As shown or specified on the drawings, additional No. 3 reinforcing bars spaced at 12-inches on center shall be placed horizontally in each construction joint at the center of the section. These bars shall be 4-feet long and shall extend 2-feet on each side of the joint. Reinforcement projecting through joint shall be kept clean.
4. As indicated on the drawings, all construction joints shall be provided with a keyway and a PVC waterstop as specified in Paragraph 2.1. The joint surface of the concrete previously placed shall be cleaned of all foreign matter and laitance by means of sandblasting with steam and sharp sand, or by other approved methods, until coarse aggregate is exposed. The concrete surface shall be saturated for a period of 6 hours and excess water then removed.
5. The new concrete shall be preceded by about 1/2-inch of soft mortar of the same proportions as that in the concrete. When accessible, this shall be scrubbed into the surface of the joint with wire brooms. When waterproofing is required, the entire joint shall be parged with a grout of approved mixture as recommended by the manufacturer of the waterproofing admixture, or one composed of one part integral

DRAFT

waterproofing, three parts water and sufficient Portland Cement to form a thick, creamy mixture. This grout shall be fresh when followed by the new concrete. In column forms and deep narrow forms, the concrete placement shall be started with an oversanded mix with 5/8-inch maximum aggregate, and extra sack of cement per cubic yard, and a 5-inch slump. This mix shall be placed maximum 2 inches deep on the construction joint. A mortar layer shall not be used.

6. As indicated on drawings, a metal keyed floor slab joint may be used in lieu of above method.

E. Contraction (Control) Joints:

1. Contraction joints shall be located as shown on the drawings or as directed. Reinforcement through the joint shall be continuous as shown on the drawings and/or as directed by the Engineer.
2. Sawcut contraction joints (Type "A") shall be made by cutting the concrete surface and filling with the sealant material as specified under paragraph 2.1. Cutting shall be done after the surface is firm enough not to be damaged by the cutting blade. Time of cutting shall be approved by the Engineer.
3. Formed contraction joints (Type "B") shall be made by tooling with a 1/4-inch radius edging tool and filled with the sealant material as specified under paragraph 2.1.
4. Premolded Contraction Joints (Type AC@) shall be "Kold-Seal Zipper Strip" by Vinylex or "Zip Cap Control Joint" by Greenstreak Products, or equal.
5. As indicated on drawings, a metal keyed floor slab joint may be used in lieu of above method.

3.05 INSERTS AND SLEEVES

A. The Contractor shall cooperate with all other Contractors in permitting the placing of all necessary sleeves, conduit, or inserts for hangers for their trades. The Contractor shall notify the trades of all pours in ample time for the responsible Contractor to place all embedded items, sleeves, slots, holes or chases.

B. Accurately set all slots, chases, anchor bolts, opening, etc. All inserts for hanging mechanical equipment shall be provided and set by the Contractor for the trade involved. All sleeves for piping passing through floors and walls shall be provided by the Contractor for the trade involved and set by the General Contractor.

C. All conduit which must be placed in concrete slabs shall be installed after, and above the bottom reinforcing, but before, and under the top reinforcing. Where conduit cross-overs are necessary, they shall be located so that reinforcing is not displaced from its specified position.

DRAFT

D. All anchor bolts for the structural steel shall be carefully set as shown on the fabricator's approved anchor bolt plan.

E. If, in the judgement of the Engineer, embedded items are located or grouped in a manner that will weaken the structure, the Contractor shall take the necessary corrective steps.

F. All inserts and sleeves where the outside diameter is greater than the spacing between the reinforcing steel, the reinforcing bars shall be warped around such inserts and sleeves. Unless shown otherwise on the drawings, provide, as a minimum, two #4 diagonal bars per face at 90 degrees to each other all around the inserts and sleeves.

G. Where openings are left in new concrete or are made in existing concrete for the insertion of wall castings, pipes or other fixtures, the space around these fixtures shall be made watertight by completely filling with a non-shrinking concrete containing an admixture of "SikaSet-C", "Anti-Hydro" Concrete Waterproofing Agent, or equal.

3.06 CONVEYING AND PLACING CONCRETE

A. The placing or depositing of all concrete shall be done in accordance with ACI 304, and as modified herein.

B. Preparation Prior to Placing Concrete:
1. Prepare previously placed concrete surfaces by cleaning with steel brush and applying bonding agent in accordance with manufacturer=s instructions.
2. In locations where new concrete is dowelled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.
3. Before placing concrete, all debris, water, snow and ice shall be removed from places to be occupied by concrete. Wood forms shall be wetted except in freezing weather or oiled, and the reinforcement cleaned of ice or other coatings.

C. Conveying, transporting, and placing shall be done as rapidly as practicable and without segregation, loss of ingredients, and without unnecessary rehandling. The tempering of concrete will not be permitted.

D. Concrete shall be deposited as nearly as practical to its final position to avoid segregation due to rehandling or flowing. The concreting shall be carried on at such a rate that the concrete is at all times plastic and workable and flows readily into the spaces between the reinforcing bars. No concrete that has partially hardened or been contaminated by foreign material shall be deposited on the work, nor shall retempered concrete be used. Once the concreting is started, it shall be carried on as a continuous operation until the placing of the panel or

DRAFT

section is completed. All concrete shall be compacted by suitable means during the placing operation, and thoroughly worked around reinforcement and embedded fixtures and into corners of the forms. Tremies shall be used for deep forms, and concrete shall not be dropped more than 6'-0".

E. Vibrating:
   1. During and immediately after depositing, all concrete shall be thoroughly compacted by vibrating the concrete internally with mechanical vibrating equipment. Care must be taken not to over-vibrate the concrete. Maintain spare vibrator(s) at the site for use in the event of breakdowns.
   2. Spade and work the coarse aggregate away from forms, and work concrete around reinforcement to avoid air pockets, voids, and honeycombed sections. Hand spading slabs will be required in addition to mechanical vibration.

F. During concreting, check shoring frequently with level. Strengthen or adjust shoring as required. Ensure reinforcement, inserts, embedded parts and formed joints are not disturbed during concrete placement.

G. Placing of concrete in supported elements shall not be started until the concrete previously placed in columns and walls is no longer plastic and has been in place at least two hours.

H. Screed all work to level surfaces at the proper elevations. Rake surfaces to provide bond for floor finishes where specified.

I. No concrete shall be deposited under water without written permission of the Engineer and then only in accordance with his directions. Proper tremie equipment and techniques must be used, should the need arise.

J. The Contractor shall have available at all times, sufficient approved materials such that, when started, concrete shall be continuous operation until placement of panel or section is complete. Should placing of concrete be suspended or unavoidably interrupted once a pour has been started, provide bulkheads and keyways at formed surface at which to stop pour.

K. All laitance shall be removed from previous pours before additional concrete is placed.

L. Place concrete continuously between predetermined expansion, control and construction joints.

DRAFT

3.07 PROTECTION AND CURING

A. All concrete shall be protected against injury by sun, rain, freezing, mechanical damage, or premature drying. All concrete shall be maintained above 50°F in a moist or wet condition for at least the first 7 days after placement.

B. On vertical surfaces keep forms on, or cover with burlap blankets, kept wet. When forms are exposed to the sun, minimize moisture loss by keeping the forms wet until they can be removed safety.
   1. For the preservation of moisture, apply one of the following procedures to concrete not in contact with forms, immediately after completion of placement and finishing:
      a. continuous sprinkling
      b. application of absorptive mats or fabric kept continuously wet
      c. application of waterproof sheet materials as specified in Part 2, herein
      d. application of the curing agent specified in Part 2, herein

C. On horizontal surfaces and floors to receive later finishes, cover with wet burlap, wet sand, or curing paper and keep saturated. Cement finish floors shall be covered with protective covering material with lapped and sealed edges after the concrete has set sufficiently to carry worker's weight. Covering shall remain in place until floor is cleaned. Weight covering with planks as required to hold it in place.

D. Cold weather protection shall conform to A.C.I. 306R, except as modified herein.
   1. Prior to pouring, it shall be the Contractor's responsibility to keep the forms free from snow, ice, mud or debris at all times, by means of covers, enclosures, live steam or heating below the forms, as necessary. Use of torches, open flames, salts, straw, hay or chemical is prohibited.
   2. When air temperature is 40°F, or less, use only heated concrete, delivered to the forms at temperatures between 65°F and 85°F. All portions of freshly poured concrete shall be continually maintained at a temperature of not less than 50°F for seven days. Specified temperature shall be maintained by heated enclosures, insulating blankets, insulated forms, or whatever approved methods are required to attain the specified result.
   3. Concrete shall not be poured on frozen soil. After pouring, protect against freezing and heaving of subgrade. Any frozen concrete will be rejected and removed at the Contractor's expense. Accelerating admixtures shall not be accepted in lieu of winter protection.

E. Hot weather protection shall conform to ACI 305R, except as modified herein.
   1. During warm dry weather special care and precautions should be taken to prevent premature setting which may cause shrinkage and surface checking. No concrete shall be placed at temperatures above 90°F without approval of the Engineer.

DRAFT

F. No water (except curing spray) shall be allowed to come in contact with the concrete or masonry surface for a minimum of 24 hours. Should the rising water place a stress on the concrete, proper bracing shall be provided. Loading shall not occur without prior approval by the Engineer, and proper safety precautions shall be the responsibility of the Contractor.

G. Curing compound may be used as specified in Paragraph 2.1 provided discoloration does not occur and application is in accordance with manufacturer's direction and is compatible with concrete finish.

3.08 FOOTINGS AND MATS

A. Hand trim excavation to required levels.

B. Where shown on the drawings provide concrete mud mat to the thickness indicated.

C. Support reinforcing on bricks or precast blocks, or where mud mat is used, on chairs or bolsters, 3" clear of soil.

D. Columns and wall dowels shall be positioned, supported and tied in place before concrete is poured. Footing bottoms shall be inspected and approved by the Engineer before placing mud mat or footings.

3.09 SUPPORTED SLABS ON FORMS

A. Forms shall be built to required dimensions and camber as specified above. Reinforcing shall be located as shown on approved placing plans. Support bars at specified heights with bolsters, chairs, etc., so that reinforcing will not be moved from the specified position during placing of concrete.

B. Refer to Article 3.5 for installation of conduits.

3.10 SLABS ON GROUND

A. Subgrade and base to be prepared as specified in Contract Documents.

B. Form depressed ribs under partitions as required by sloping gravel, or provide permanent side forms to retain gravel.

C. Trench subgrade for electric conduit as detailed on Plans. All reinforcing shall be above electric conduit.

D. Place slabs of thickness shown on Plans, vibrate, screed, float level, and finish as specified below.

DRAFT

3.11 CONCRETE FINISHES - FORMED SURFACES

A. After the forms are removed, all concrete surfaces shall be inspected, and any poor joints, voids, stone pockets or other defective areas noted by the Engineer shall be repaired immediately at the Contractor's expense by cutting away the unsound area to a minimum depth of 1 inch, and refilling with mortar mixed using the same brand of cement as the original pour. Edges of the patch shall be square with the face, with feather-edging prohibited. Obtain approval of corrective action prior to repair.

B. Care shall be taken to saturate the patched area and holes shall be filled in 1/2-inch layers with a delay for an initial set to take place before the succeeding layer is applied. If, in the opinion of the Engineer, improper consolidation is too extensive, or if the structure appears weakened by the voids, complete removal of the concrete in question may be required. Patches shall be kept moist for a minimum of three days.

C. Rubbed finishes shall be as follows:

1. Type A: Surfaces shall be rubbed until all marks are obliterated and a uniformly smooth finish is obtained.
2. Type B: Surfaces shall be rubbed until they are uniformly smooth, but the complete obliteration of all marks is not required.
3. Type C: All fins, burrs and projections shall be removed, any honey-comb or tie-holes shall be filled and patched.

D. The type of finish to be used shall be as scheduled or as noted on the Plans. Where the type of finish is not shown or scheduled, exposed faces shall be given a Type B finish and unexposed faces shall be given Type C finish.

E. Rubbing shall begin as soon as practicable after removal of forms and shall be expedited to completion as rapidly as practicable.

F. Surfaces shall be rubbed with carborundum and water until all fins, bubbles, hollows and other defects are removed. Grout or mortar shall not be used in the rubbing process, and plastering of surfaces will not be permitted. Power tools shall be used for rubbing with hand work limited to inaccessible corners or very small areas.

3.12 FLOOR AND SLAB FINISHING

A. Finished floors and slabs shall be level to within 1/8" of finish floor elevation in ten feet. If this variation occurs, it must not be abrupt, but must taper so that the 1/8" variation takes place in not under 4 feet. Areas with drains shall have the surfaces sloped uniformly and true to the effect that no surface ponding occurs. If required by the Engineer, replace, grind or furnish underlayment to correct the variation, at the Contractor's expense. All floors and slabs shall be cured and protected as specified.

DRAFT

B. Troweled Finish: Provide a floated finish, followed by a power troweling and then a hand troweling thoroughly consolidating the surface. Provide a finished surface essentially free from trowel marks and uniform in texture and appearance.
   1. Where exposed concrete finish is specified, provide a steel troweled finish.
   2. Under quarry tile and ceramic tile screed to accurate lines and levels as required to receive these materials. Floors receiving tile are to be steel troweled finished and are indicated on the Plans.

C. Float Finish: A float finish shall be applied to all exterior concrete and those areas not intended for occupancy, such as culvert inverts, bottoms of manholes and catch basins, pads, etc.

D. Broom Finish: Provide a floated finish. While the surface is still plastic, provide a textured finish by drawing a fiber bustle broom uniformly over the surface in one direction only. Provide "medium" texturing unless noted otherwise on the Contract Drawings. Sidewalks, walkways, or exterior ramps shall be given a broom finish, perpendicular to traffic, sufficient to leave marks without appreciable disturbance of the surface.

E. Dusting with dry cement or cement sand mixtures, to hasten drying, is prohibited. Dry time shall be controlled by controlling the water content and slump of the concrete when placed.

3.13 BONDING

A. For the bonding of new and old concrete, such provisions shall be made by means of steps, dovetails, bonding agents as specified in Paragraph 2.1, or other devices as shown, or directed.

B. When placing of concrete is suspended or unavoidably interrupted, all necessary grooves for bonding future work shall be made before the concrete has attained its initial set. When the work is resumed, concrete previously placed shall be roughened, cleaned of all foreign material and laitance by means of sandblasting with steam and sharp sand or other approved methods, until coarse aggregate is exposed, and thoroughly wetted and slushed with mortar containing the same proportion of cement and fine aggregate as used in the concrete to be placed. Follow manufacturer's preparation recommendations when using a bonding agent.

3.14 MISCELLANEOUS CONCRETE WORK

A. Pour all sump pits, canopies, copings and provide all other miscellaneous concrete and cement work shown on the drawings. All such concrete shall be reinforced as shown. Provide all cement filled stair treads as detailed. Place bottoms and walls of pits and trenches monolithically or provide waterstops and keys.

DRAFT

B. Concrete Walks: Provide 4 inches thick minimum. Provide contraction joints spaced every 5 linear feet, unless otherwise indicated. Cut contraction joints 3/4-inch deep with a jointing tool after the surface has been finished. Provide 1/2-inch thick transverse expansion joints at changes in direction, where sidewalk abuts curb, steps, rigid pavement, or other similar structures. Provide a transverse slope of 1/4-inch per foot, and limit variation in cross section to 1/4-inch in 5 feet unless otherwise indicated.

C. Curbs and Gutters: Provide contraction joints spaced every 10 feet maximum, unless otherwise indicated. Cut contraction joints 3/4-inch deep with a jointing tool after the surface has been finished. Provide expansion joints 1/2-inch thick and spaced every 100 feet maximum, unless otherwise indicated. Provide a broom finish.

D. Equipment Bases: Unless otherwise shown, all equipment shall be erected on bases of Class "B" concrete. Thickness shall be as noted on the Plans, but at no time shall it measure less than 1 inch.

E. Concrete Stairs, Steps and Platforms: Stairs, steps and platforms shall be formed to required profiles shown on the Plans. Place reinforcing as required. Finish of stairs and steps shall be monolithic. Where shown on Plans, provide for nosings. Exterior stairs, steps and platforms shall have a non-slip finish. Before final troweling, embed abrasive grits, as specified in Paragraph 2.1, in the surface.

3.15 CEMENTITIOUS COATING

A. Cementitious Coating shall be applied to all exposed exterior and interior Cast-In-Place Concrete surfaces except concrete floors and walking surfaces in accordance with the schedule shown on the Plans, or otherwise directed.

B. The surfaces to be coated shall be clean, free of all laitance, dirt, grease, curing compound, form treatments, efflorescence, paint and other foreign matter. All formed tie-rod holes and honeycombed areas shall be patched flush with the surrounding area using mortar as recommended by cementitious coating manufacturer.

C. All areas scheduled to be coated will receive two coats of cementitious coating as specified in Paragraph 2.1, applied at a minimum rate of 2 pounds per square yard per coat. The first coat shall be allowed to set before the second coat is applied. Sufficient materials shall be applied to fully seal all pores and voids. All coatings shall be done strictly in accordance with the manufacturer's recommendations.

END OF SECTION

DRAFT

SECTION 04 05 13.91

RESTORATION MORTARS AND GROUTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Work of this Section includes all labor, materials, equipment, and services necessary to complete the work of mortar as shown on the drawings and specified herein, including, but not limited to, the following:
   1. Mortar for rebuilding stone masonry.
   2. Custom mortar(s) for pointing existing and new stone masonry.

B. Related Sections: The following Sections contain requirements that relate to this Section:
   3. Section 04 91 00, “Masonry Pointing.”
   4. Other Sections which affect or are affected by the work of this section.

C. Use all means necessary to avoid damaging historic building and wall elements and materials to remain. All people working on this project shall accord all historic materials and finishes the same care and protection as is normally given to new materials and finishes on a newly completed building.

1.03 QUALITY ASSURANCE

A. Restoration Specialist: Award work of mortar and grout preparation to a firm that is regularly engaged in preparation of mortars and patching materials to match historic mortars and masonry units. Firm shall demonstrate to Owner’s satisfaction that, within previous five (5) years, it has successfully performed and completed in a timely manner at least three (3) projects similar in scope and type to work required on this project involving a building of historic significance.
   1. Foreman: Mortar preparation shall be directly supervised by a full-time foreman with experience equal to or greater than that required of Restoration Specialist. Foreman shall be on site daily for duration of work of this Section. Same foreman shall remain on project throughout work unless Owner deems his performance unacceptable.
   2. Mechanics: Mortar preparation shall be carried out by a steady crew of skilled mechanics who are thoroughly experienced with materials and methods specified and have a minimum of three (3) years’ experience

DRAFT

with work on historic buildings similar to that required by this Section. In acceptance or rejection of work of this Section, no allowance will be made for workers' incompetence or lack of skill.

B. Source of Materials: Obtain each type of material required for mortars from a single source to ensure uniform quality, performance, and appearance.

1.04 SUBMITTALS

A. Qualification Data: Submit qualification data for firm and personnel specified in "Quality Assurance" Article that demonstrates that both firm and personnel have capabilities and experience complying with requirements specified. For firm and foreman, provide a list of at least three (3) completed projects similar in size and scope to work required on this project. For each project list project name, address, architect, supervising preservation agency, scope of contractor's work, and other relevant information. Submit this information with the bid.
   1. QD1 Firm Qualification.
   2. QD2 Foreman Qualification.

B. Product Data (PD1): Submit manufacturer's published technical data for each product to be used in work of this Section including material description, chemical composition (ingredients and proportions), physical properties, recommendations for application and use, test reports and certificates verifying that product complies with specified requirements, and Material Safety Data Sheets (MSDS).

C. Samples: Include materials and proportions with each mortar sample.
   1. S1 Mortar for Rebuilding Stone Units: Cured 4-inch x 4-inch x 1-inch samples.
   2. S2 Mortar for Pointing Stone Masonry: Cured samples set in 1/2-inch by 6-inch plastic or aluminum channels.
   3. S3 Sand: Two-pound sample of each type and grade of sand proposed for use in mortars, patching mortars, and grouts. Include sieve analysis with each sample.

D. Additional Submittals (ASx): Submit any additional submittals required by the Architect to ensure proper completion of the work of this Section. Number additional submittals consecutively.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver and store materials in manufacturer's original sealed containers or packaging, clearly labeled with manufacturer's name, address and product identification, including grade, type, and color. Immediately reseal containers after partial use.

DRAFT

B. Store materials in spaces complying with pertinent federal, state, and local laws, codes, and regulations.
   1. Maintain temperatures in storage spaces within range recommended by manufacturer of material being stored in each case. Protect liquid components from freezing.
   2. Store products and materials at least 4 inches above floor and protect them from water, dampness, or high humidity.

C. Deliver, store, and handle all products and materials to prevent damage, deterioration, or degradation and intrusion of foreign material.

D. Discard and remove from site deteriorated or contaminated materials and products that have exceeded their expiration dates. Replace with fresh materials.

1.06 PROJECT CONDITIONS

A. Prohibited Materials: Masonry cements, masonry mortars, and all other ingredients except those specifically specified in this Section or those specifically reviewed by Owner/Engineer in writing are strictly prohibited.

B. Coordination: Coordinate preparation of mortars specified herein with mortars specified elsewhere in these specifications to ensure proper completion of all work.

1.07 ENVIRONMENTAL CONDITIONS

A. General: Perform work only when temperature of products being used and air temperature and humidity comply with manufacturer's requirements and requirements of this Section. In case of conflict, the most stringent requirements shall govern.

B. Proprietary Materials: Do not use proprietary patching materials and mortars unless temperatures are between 50 deg F and 80 deg F and will remain within that range for at least 48 hours after work has been completed unless work at other temperatures is specifically approved by manufacturer and reviewed by Owner/Engineer.

C. Mortars: Do not mix or use mortars when air or masonry temperature is below 40 deg F or when it is expected to drop below 40 deg F within 48 hours of mortar application.
   1. Remove masonry work determined by Owner/Engineer to have been damaged by freezing conditions and replace mortar to comply with requirements of this Section to Owner/Engineer's satisfaction.

DRAFT

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

A. Grade and Quality: Materials shall conform to requirements of this Section and shall be new, free from defects, and of recent manufacture.

B. Ready-Mixed Products: Wherever a ready-mixed product is specified for use, containers shall bear labels giving exact formula of contents.

C. Manufacturer's Instructions: Comply with material manufacturer's instructions for use of products (including surface preparation, mixing, applying, drying, etc.). In case of conflict with requirements of this Section, the more stringent requirements shall govern in each case.

2.02 MORTAR AND GROUT MATERIALS

A. White Portland Cement: ASTM C 150, Type I.

B. Portland Cement: ASTM C 150, Type I or Type II, non-staining. Do not use masonry cement.

C. Hydrated Lime: ASTM C 207, Type S.

D. Sand: ASTM C 144. Clean sharp sand, free of loam, silt, soluble salts, organic matter, and other deleterious substances. Where mortar is to match existing mortar, select sand or other aggregate to provide mortar matching color and texture of original mortar (with minimum addition of pigment).
   1. Sand for Patching Mortars and Grouts: Provide fine sand, sieve sand, sieve and mix different sands, or use a combination of these methods and other approved methods to provide aggregate of size and color to match existing material following requirements of Section 2.4 Replication Mortar Mix.

E. Water: Clean, potable, and free of materials detrimental to mortars and grouts, masonry units, and embedded accessories.

F. Additional Additives: Do not use admixtures or other ingredients other than those specified except as specifically reviewed in writing by Owner/Engineer.

2.03 MORTAR MIXES

A. Mortar for Setting Stone Units: Mortar shall comply with ASTM C 270, "Standard Specification for Mortar for Unit Masonry," Type "N" Mortar with a 28 day cube compressive strength of a minimum of 750 psi.

DRAFT

B. Mortar for Pointing Stone Masonry: Mortar shall comply with ASTM C 270, “Standard Specification for Mortar for Unit Masonry,” Type “N” Mortar with a 28 day cube compressive strength of a minimum of 750 psi and shall match cleaned mortar in existing stone masonry.

2.04 REPLICATION MORTAR MIX

A. The following mortar mix is designed to replicate the visual characteristics of the original pointing mortar while allowing for adjustments in the mix design that enhance the mortar's performance as part of the masonry assembly. The proportions of this mix conform to a Type N mortar (ASTM C270), which has a minimum compressive strength of 750 psi after 28 days. A Type N mortar is recommended based on the kind of stone used and an exterior exposure.

B. Sieving of the listed sand will be necessary to remove all material that is retained by a #16 sieve. Thus, the specification for the sand should require conformance to ASTM C144 with this modification.

C. All ratios listed below are expressed in parts per volume, not weight. Mortar materials should be carefully measured by known volume.
1. 1/2 (one half) part grey Portland cement (conforming to ASTM C150, Type I)
2. 1/2 (one half) part white Portland cement (conforming to ASTM C10, Type I).
3. 1 (one) part hydrated lime (conforming to ASTM C 207, Type S)
4. 4 (four) parts "180 sand," described as a natural white mason sand, and sold by Schofield Stone, 831 Main Street, Bridgewater, New Jersey 08807; www.schofieldstone.com.
5. 2 (two) parts "107 sand", described as a light yellow mason sand, and sold by Schofield Stone, 831 Main Street, Bridgewater, New Jersey 08807; www.schofieldstone.com.

D. Both the 180 sand and the 107 sand should be run through a screen to remove all particles that do NOT pass a US Standard #16 screen (1.18 mm).

2.05 MIXING OF MORTARS AND GROUTS

A. Measure ingredients carefully using containers so that proportions are controlled and maintained throughout all work periods.

B. Mix mortar and grout in an approved type of power operated batch mixer. Mix for time required to produce a homogeneous plastic mortar but not less than five minutes: approximately two minutes for mixing dry materials and not less than three minutes for mixing after water has been added.

DRAFT

C. Use minimum amount of water to produce a workable consistency for mortar's intended purpose.
   1. Mortar for Pointing: As dry a consistency as will produce a mortar sufficiently plastic to be worked into joints.
   2. Mortar for Grout: Consistency appropriate for insertion into joints at repairs and/or modification of existing units.

D. Where mortar is required in small batches of less than one cubic yard and Owner/Engineer specifically accepts, mortar may be mixed by hand in clean wooden or metal boxes prepared for that purpose provided that Owner/Engineer accepts mixing boxes and methods of mixing and transferring mortar.

E. After mixing, mortars for pointing masonry and mortars for setting masonry shall sit for 20 minutes prior to use to allow for initial shrinkage. Mortar shall be placed in final position within one hour of mixing. Re-tempering of partially hardened material is not permitted.

F. Mixing Proprietary Products: Mix proprietary products in strict accordance with manufacturer's directions.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install mortars and grouts as part of work of the following Sections:
   1. Section 04 91 00, "Masonry Pointing."

END OF SECTION

DRAFT

SECTION 04 91 00

MASONRY POINTING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Work of this Section includes all labor, materials, equipment, and services necessary to complete the work of masonry pointing as indicated and specified herein, including, but not limited to, the following:
   1. Removing existing mortar, preparing joint surfaces, installing new custom mortar(s), and tooling joints to match profile of original joints.
   2. Pointing joints in rebuilt stone masonry.
      a. Removal of cement paste from finished joint to expose aggregate so that new joints shall match existing weathered joints.
   3. Cleaning excess mortar from masonry surfaces.

B. Intent: It is the specific intent of this Section to provide for the uniform appearance and weather tightness of mortar joints that match the profiles of original mortar joints at Stone masonry. All work required to accomplish this intent shall be included. Contractor shall correct damage to existing masonry caused by pointing work to Owner/Engineer's satisfaction at no additional cost to Owner.

C. Related Sections: The following Sections contain requirements that relate to this Section:
   1. Section 04 05 13.91, "Restoration Mortars and Grouts"
   2. Other Sections which affect or are affected by the work of this section.

1.03 QUALITY ASSURANCE

A. Restoration Specialist: Award masonry pointing work to a firm regularly engaged in pointing masonry on historic buildings that can demonstrate to Owner's satisfaction that, within previous five (5) years, the firm has successfully performed and completed in a timely manner at least three (3) projects similar in scope and type to work required on this project involving a building of historic significance.

DRAFT

1. Foreman: Masonry pointing shall be directly supervised by a full-time foreman with experience equal to or greater than that required of Restoration Specialist. Foreman shall be on site daily for duration of work of this Section. Same foreman shall remain on project throughout work unless Owner deems his performance unacceptable.
2. Mechanics: Masonry pointing shall be carried out by a steady crew of skilled mechanics who are thoroughly experienced with materials and methods specified and have a minimum of three (3) years' experience with work on historic buildings similar to that required by this Section. In acceptance or rejection of work of this Section, no allowance will be made for workers' incompetence or lack of skill.

B. Qualification of Technicians Preparing Mortar Joints: Each technician proposed for use on project shall be required to successfully complete joint preparation samples specified below in presence of Owner/Engineer prior to beginning work on project. Unsuccessful performance in completing these samples will be grounds for rejection of this technician for this job.
1. Cutting and Raking Joints 1/4-Inch or Greater in Width: Six linear feet without damage to arrises or surfaces of masonry.
2. Hand Raking Joints Less than 1/4-Inch Wide: Six linear feet without more than 1/4-inch chip per three feet of joint.

C. Specialty Tools and Equipment: Purchase special tools and equipment, purchase and modify standard tools and/or special tools and equipment, and design, provide, and fabricate custom tools and equipment as required to remove mortar from joints in stone masonry without damaging faces or arrises of masonry units. In acceptance or rejection of work of this Section, no allowance will be made for inadequate performance of tools and equipment or for damage caused by use of tools and equipment. Contractor shall provide tools that allow mortar to be removed from joints without causing damage to masonry units.

D. Source of Materials: Obtain each type of material used for masonry pointing from a single source to ensure a match in quality, performance, and appearance.

E. Repair or replace all masonry units damaged during masonry pointing as directed by Owner/Engineer and to Owner/Engineer's satisfaction at no additional cost.

1.04 SUBMITTALS

A. Qualification Data: Submit qualification data for firm and personnel specified in "Quality Assurance" Article that demonstrates that both firm and personnel have capabilities and experience complying with requirements specified. For firm and foreman, provide a list of at least three (3) completed projects similar in size and scope to work required on this project. For each project list project name, address, architect, supervising preservation agency, scope of contractor's work, and other relevant information. Submit this information with the bid.

DRAFT

1. QD1 Firm Qualification.
2. QD2 Foreman Qualification.

B. Mortar Samples: Samples of all mortars required for work of this Section as specified under Section 04 05 13.91, “Restoration Mortars and Grouts.”

C. Product Data (PD1): Submit manufacturer’s published technical data for each product to be used in work of this Section including material description, chemical composition (ingredients and proportions), physical properties, recommendations for application and use, test reports and certificates verifying that product complies with specified requirements, and Material Safety Data Sheets (MSDS).

D. Work Description: Detailed description of materials and procedures to be used in joint preparation and pointing, including but not limited to:
1. WD1 Proposed materials, methods, tools, and equipment for preparation and pointing.
2. WD2 Descriptions outlining proposed methods and procedures for protection of personnel, public, and existing construction during work of this Section.

E. Field Samples
1. General: Submit paperwork as for samples and provide samples at project site.
   a. Locate field samples as directed by Owner/Engineer.
   b. Notify Owner/Engineer 48 hours prior to start of each field sample.
   c. Prepare field samples in presence of Owner/Engineer. Samples not prepared in Owner/Engineer’s presence will not be accepted.
   d. Use crew that will execute the work and follow requirements of this Section.
   e. Allow field samples involving mortar to dry to attain final color, at least seven days. Notify Owner/Engineer when field samples are ready for inspection.
   f. Repeat field samples as necessary to obtain Owner/Engineer’s acceptance.
   g. Protect accepted field samples to ensure that they are without damage, deterioration, or alteration at time of Substantial Completion.
   h. Reviewed field samples in undamaged condition at time of Substantial Completion may be incorporated into the work.
   i. Reviewed field samples will represent minimum acceptable standards for masonry pointing work. Subsequent masonry pointing that does not meet standards of reviewed field samples will be rejected.

DRAFT

2. Prepare the Following Field Samples
   a. FS1 Joint Preparation in Stone Masonry: Two units; one of each type of stone.
   b. FS2 Pointing of Joints in Stone Masonry: Two units; one of each type of stone.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store materials in manufacturer's original sealed containers or packaging, clearly labeled with manufacturer's name, address, and product identification, including grade, type, and color. Immediately reseal containers after partial use.
   1. Maintain temperatures in storage spaces within range recommended by manufacturer of material being stored in each case. Protect liquid components from freezing.
   2. Store products and materials at least 4 inches above floor and protect them from water, dampness, or high humidity.

B. Deliver, store, and handle all products and materials to prevent damage, deterioration, or degradation and intrusion of foreign material.

C. Discard and remove from site deteriorated or contaminated materials and products that have exceeded their expiration dates. Replace with fresh materials.

1.06 PROJECT CONDITIONS

A. Safety: Provide all measures necessary to protect all persons, whether or not involved with work of this Section, from risk or harm caused by work of this Section.

B. Protection of Building and Property
   1. Protect all adjacent elements and materials from damage or deterioration during work of this Section. Provide all necessary protection and procedures to protect masonry not being pointed and all other elements and materials.
   2. Repair damage to elements and materials caused by masonry pointing work, using mechanics experienced in the respective type of work, to Owner/Engineer's satisfaction at no additional cost.
   3. Protect all components of storm drainage systems against damage and blockage caused or accelerated by work of this Section.
   4. Protection from Weather: Protect exposed areas of building, including areas of masonry from which mortar has been removed, from penetration by wind, water, or other forces at all times when work is not in progress.

C. Protection of Environment: Provide all precautions necessary to protect site, site features, air, water, and other elements of the environment from damage or deterioration caused by work of this Section.

DRAFT

D. Dust: Minimize dissemination of dust to greatest extent possible.
   1. Use all means necessary to prevent dust from entering building.

E. Protection of Masonry Being Pointed: Use all necessary care to protect existing masonry from damage during work of this Section. Take special care in removing existing mortar to ensure that no arrises are damaged, chipped, or broken. Contractor shall replace or repair masonry units damaged by work of this Section to complete satisfaction of Owner/Engineer at no additional cost.

F. Staining: Prevent mortar from staining face of masonry to be left exposed. Protect sills, ledges, and projections from mortar droppings. Immediately remove mortar in contact with such masonry. Protect base of walls from rain splashed mud and mortar splatter by means of coverings spread on ground and over wall surface.

G. Protection from Rain: Protect pointed joints from direct attack by rain or other precipitation for at least 24 hours after mortar has been applied.

H. Coordination: Coordinate work of this Section with work of other sections to ensure proper completion of work.

I. Contract Drawings: Drawings are two-dimensional representations of three-dimensional objects and do not show all surfaces. Perform work on surfaces of projections, reveals, ornament, and other elements associated with areas on which work is indicated.

J. Access for Inspection and Review: Provide Owner/Engineer access on a regular basis to locations on which testing or field samples are being carried out, on which work is ongoing, and where work has been completed to allow for inspections and review. Provide means of access and safety precautions required to facilitate inspections and reviews.

1.07 ENVIRONMENTAL CONDITIONS

A. Use materials only within manufacturers' recommended temperature ranges.

B. All Masonry Pointing work is to be done when the ambient air temperature is min. 40°F and rising. No work shall be performed when the ambient air temperature is below 40°F.

C. Cold Weather Protection of Completed Masonry Pointing Work: Protect completed masonry in the following manner. Temperature ranges indicated apply to anticipated minimum night temperatures.
   1. Temperature Range 40 deg F to 32 deg F: Protect masonry from rain or snow for at least 24 hours by covering with weather-resistive membrane.

D. Damage Caused by Freezing: Remove stone masonry restoration work determined by Owner/Engineer to have been damaged by freezing conditions. Replace work to comply with requirements of this Section.

DRAFT

E. Hot Weather Construction: During hot weather, protect stone masonry restoration work from premature or too-rapid curing by use of dampened fabric coverings.

F. Use of Patching Mortars: Apply proprietary patching materials only when temperature of masonry, temperature of air, and temperature of patching material are between 50 deg F and 85 deg F, unless material manufacturer's requirements are more restrictive.

PART 2 - PRODUCTS

2.01 TOOLS

A. Hand Tools for Joint Preparation: Chisels, hammers, and mallets.
   1. Chisels
      a. Thickness: Chisels shall have a maximum thickness of 5/8 times joint width extending back from tip of chisel at least twice depth at which chisel will be inserted into joint.
      b. Sharpness: Chisels shall be sharp.
   2. Special Tools: Provide special knives or special thin cutter blades for use in joints less than 1/8-inch wide.

B. Electric Grinder for Use in Joint Preparation: Small, hand-held electric grinders with diamond or abrasive blades no greater than 3/32 inch thick and a maximum of 4-1/2 inch diameter may be used to cut joints only under certain conditions as described in Part 3, below and if specifically reviewed by Owner/Engineer.

C. Pneumatic Die Grinder for Use in Joint Preparation: Small, pneumatic die grinder with special blades may be used to partially prepare joints only under certain conditions as described in Part 3, below, and if specifically approved by Owner/Engineer.
   1. Grinder: "Right Angle Die Grinder," 25,000 RPM, 0.30 horsepower, as supplied by McMaster-Carr (Product No. 4576A88), P.O. Box 440, New Brunswick, NJ 08903-0440 (730) 329-3200, or Owner/Engineer reviewed equal.
   2. Blades: Thin diamond matrix blades not exceeding 0.090-inch-thick and 3 inches in diameter as manufactured by CDP Diamond Products, 11919 Globe, P.O. Box 51727, Livonia, MI 48151 (800) 521-0638, or Owner/Engineer reviewed equal. Provide the following blades as appropriate for joint conditions and as reviewed by Owner/Engineer.

Blade Diameter	Blade Thickness	Arbor Size	Grit and Grinding Medium
2 3/4 inches	0.060 inch	1/4 inch	N40 30/40 100 Con

DRAFT

3 inches	0.090 inch	1/4 inch	N40 30/40 100 Con
2 1/2 inches	0.090 inch	1/4 inch	N40 30/40 100 Con

D. Brushes: Stiff, soft fiber bristle brushes.

E. Trowels for Pointing: Long, thin pointing trowels narrower than joints being pointed.
   1. Fabricate special trowels for pointing as necessary to provide for proper insertion and compaction of mortar.

2.02 MORTAR

A. Follow requirements of Section 04 05 13.91 – "Restoration Mortars and Grouts". Mortar and grout for each location shall match existing original mortar (in clean condition) in color, texture, and other visual qualities. Match existing mortar on the building.

2.03 MISCELLANEOUS PRODUCTS AND EQUIPMENT

A. Air Compressor and Accessories: Air compressor capable of supplying compressed air at flow rate and pressure for optimum operation of tools and equipment.
   1. Filters: Provide filters to remove water, oil, and abrasive particles from air used to drive tools and to blow clean masonry to be pointed.

B. Moisture Retaining Cover: Burlap backed by polyethylene sheet. Provide Burlene, or Owner/Engineer reviewed equal.

C. Cleaner to remove Excess Mortar: "Sure Klean® Limestone & Masonry Afterwash" as manufactured by ProSoCo, Inc., 3741 Greenway Circle, Lawrence KS 66046 (800) 255-4255, or Owner/Engineer reviewed equal.

D. Cleaner to remove Lime Stains: "Sure Klean® 101 Lime Solvent" manufactured by ProSoCo, Inc., 3741 Greenway Circle, Lawrence, KS 66046 (800)-255-4255, or Owner/Engineer reviewed equal.

PART 3 - EXECUTION

3.01 GENERAL PREPARATION

A. Examine areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of work. Do not proceed until unsatisfactory conditions have been corrected.

DRAFT

B. Before removing mortar using hand methods or power methods that generate airborne dust, erect dust impervious barriers and take other measures necessary to prevent dust from traveling beyond work platform.

3.02 JOINT PREPARATION

A. Remove mortar from joints to a depth of 2 ½ times joint width, or to sound mortar, whichever is greater. In all cases remove all deteriorated, weathered, and loose material.

B. Provide shims or wedges as required and/or phase mortar removal to prevent loosening of stones in the mortar removal process.

C. Do not damage faces and arrises of masonry units in any way during joint preparation.

D. Joint preparation shall cease if, in Owner/Engineer's judgment, Contractor's methods are damaging masonry units. Work shall not resume until tools, technicians, and methodology have been corrected to meet quality standard of accepted field sample.

E. Remove completely mortar from surfaces of masonry units adjoining joint to allow new mortar to bond directly with masonry units. Remove mortar to create surface at rear of joint that is uniform and roughly perpendicular to sides of joint.

F. Mortar Removal

1. Hand Tools: Use only hand tools to remove mortar from all joints less than 1/4-inch wide, from joints less than 4 inches long, and from other joints in which use of power tools might damage masonry units. Use hand tools to complete mortar removal from joints where power tools have been used to partially remove mortar.
   a. Rake mortar from narrow joints using a sharp knife blade or cutter made for this purpose. Cutter may be used with or without aid of a hammer.
   b. Sharpen chisels hourly to minimize chipping.
   c. When using chisels, do not apply chisel to surface of mortar where there is no void into which mortar can be driven.

DRAFT

2. Electric and Pneumatic Tools: With specific prior acceptance from Owner/Engineer following successful demonstrations of skill by mechanics, accepted electric grinders and pneumatic die grinders with thin abrasive blades may be used to partially remove mortar from horizontal joints in stone masonry and from joints in stone masonry where there is no danger of cutting into adjacent masonry units.
    a. Demonstrated Ability of Mechanics: Prior to beginning work, demonstrate that technicians using power tools are proficient in use of these tools for joint preparation. Failure to demonstrate to Owner/Engineer's satisfaction that each worker is proficient and that use of power tools to partially remove mortar from joints does not result in damage to masonry shall result in prohibition of use of power tools for joint preparation. If proficiency is not demonstrated, or if work in progress results in damage to masonry to remain, all power tool work shall cease, power tools shall be removed from project site, and joints shall be prepared using only hand tools.
    b. Limitations on Use of Power Tools
        1) Do not use power tools on joints less than 1/4 inch wide, on other joints less than 4 inches long, or where ornament or other surface irregularity might make damage to masonry units likely.
        2) Use power tools only to score one kerf cut in center of each joint to depth of mortar removal required. Remove remaining mortar using hand tools.
        3) Stop kerf at least 2 inches from inside corners and projecting elements. Remove remaining mortar using hand tools.
        4) Construct jigs to guide power tools as required to prevent damage to adjacent masonry units.

G. Cleaning: Remove loose mortar and foreign material from raked joints using a fine, stiff, natural bristle brush. Remove remaining particles, dust, and dirt using filtered, oil-free compressed air. Ensure that dust and dirt are not blown back into joints that have previously been cleaned.

H. Repair or replace masonry units damaged during joint preparation process to Owner/Engineer's satisfaction at no additional cost.

3.03 MORTAR APPLICATION

A. Wetting: Thoroughly wet masonry 24 hours prior to and again immediately before pointing. Let surfaces dry slightly. At time of pointing, surfaces shall be damp, so that they do not rapidly absorb moisture, but free of standing water (saturated, surface dry).
    1. Failure to Properly Wet Substrate: Evidence that masonry being pointed or previously pointed masonry has not been properly dampened to prevent

DRAFT

too rapid absorption of water from mortar will be cause for Owner/Engineer to reject pointing work. Remove rejected pointing, properly prepare substrate as specified herein, and provide new pointing to meet requirements of this Section at no additional cost.

B. Pointing: Point joints as follows.
   1. In areas where bedding mortar is disaggregated or missing, fill voids behind joint surface with same mortar used for wall reconstruction.
   2. Repoint in lifts as necessary to prevent cracking of completed repointing.
   3. Using a long, thin pointing trowel, tightly pack mortar into joints in layers not exceeding 3/8 inch thick to fill joint to match original sound joints.
   4. Begin by filling areas from which mortar is missing to a depth greater than 3/4 inch in 3/8-inch-thick layers to within 3/4 inch of wall surface to provide a uniform substrate for final pointing. Fill final 3/4-inch-depth continuously and uniformly in 1/4-inch-thick layers.
   5. Firmly iron each layer to compact mortar to ensure full bond between mortar and masonry units and a firm, solid joint.
   6. Allow each layer to reach thumbprint hardness before applying succeeding layer. Do not let previous layer dry out before applying succeeding layer.
   7. Do not spread mortar over edges onto exposed surfaces of masonry units. Do not featheredge mortar.
   8. Leave small section of vertical joints (2") at base of wall open every two feet to allow water collecting behind wall to exit. No weep device is required.
   9. When stopping work at end of each day or for other reasons, stagger layers of mortar so that there will be no through joints in pointing. Stagger joints in layers so that joints are at least 3 inches from each other.
   10. Where one day's work joins that of previous day, dampen previous work to ensure good bond.

C. Finishing Joints:
   1. It is the intent to have new pointing and joints match the existing weathered joints.
   2. Tool surface of joint to recess mortar slightly from face of stone.
   3. Remove cement paste from finished joints to expose aggregate.

3.04 JOINT TOOLING

A. Tooling: Tool joints after final layer of mortar is "leather hard."

B. Profile: Tool to match profile of original joint(s) at Stone exactly. Solidly compress mortar so that it adheres well to masonry on both sides and forms a dense surface. Premature or late tooling will result in unacceptable finishes, which will be rejected.

C. Overworking: Do not over tool joint surface. Excessive tooling will draw excess binder and pigment to the surface. Excessively tooled joints will be rejected.

DRAFT

3.05 CURING

A. Keep newly pointed joints damp for at least 48 hours after mortar has been inserted.

B. Ensure masonry temperature remains as required by specifications until mortar is thoroughly cured.

C. Failure to properly cure mortar including, but not limited to, failure to keep masonry damp or allowing masonry to be exposed to precipitation or direct application of water shall be cause for Owner/Engineer to reject pointing work. Remove rejected pointing, prepare joints, and provide new pointing to comply with requirements of this Section.

3.06 CLEANING AND REPAIR OF MORTAR JOINTS

A. Water Washing: Wash pointed masonry with clean filtered water to remove mortar debris from masonry surfaces.
   1. Wash within 48 hours following completion of pointing.
   2. Use rough towels along with water to remove mortar debris. Remove remaining mortar with blunt-edged wood scrapers or stiff fiber bristle brushes that will not damage mortar or stone. Do not use wire brushes.

B. Removal of Lime Stains and Efflorescence: Clean completed work with Sure Klean 101 Lime Solvent, or Owner/Engineer reviewed equal to remove lime staining and efflorescence.

C. Repair of Pointed Joints: As cleaning progresses, examine joints to locate cracks, holes and other defects. Carefully point up and fill such defects with mortar to match adjacent. Where necessary in opinion of Owner/Engineer, cut out joints and refill with pointing mortar. Ensure that color matches that of adjacent pointing. Exposed joint surfaces shall be free from protruding mortar, holes, pits, depressions, and other defects.

3.07 CORRECTIVE MEASURES

A. Should mortar in any joint fail in adhesion or cohesion or should a crack occur in any joint surface, cut out mortar and repoint following requirements of this Section to Owner/Engineer’s satisfaction.

B. Should Owner/Engineer determine that any masonry pointing work does not equal or exceed minimum standard established by accepted field sample, remove mortar to a depth of 3/4 inch and repoint following requirements of this Section to Owner/Engineer’s satisfaction.

END OF SECTION

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SECTION 05 31 00

STEEL DECKING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Roof deck.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Roof deck.

B. Shop Drawings:

1. Include layout and types of deck panels, anchorage details, reinforcing channels, pans, cut deck openings, special jointing, accessories, and attachments to other construction.

1.3 INFORMATIONAL SUBMITTALS

A. Certificates:

1. Welding certificates.
2. Product Certificates: For each type of steel deck.

B. Test and Evaluation Reports:

1. Product Test Reports: For tests performed by a qualified testing agency, indicating that power-actuated mechanical fasteners comply with requirements.

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Welding Qualifications: Qualify procedures and personnel in accordance with SDI QA/QC and the following welding code:
   a. AWS D1.3/D1.3M.

B. FM Approvals' RoofNav Listing: Provide steel roof deck evaluated by FM Approvals and listed in its "RoofNav" for Class 1 fire rating and Class 1-90 windstorm ratings. Identify materials with FM Approvals Certification markings.

DRAFT

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store products in accordance with SDI MOC3. Stack steel deck on platforms or pallets and slope to provide drainage. Protect with a waterproof covering and ventilate to avoid condensation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. AISI Specifications: Comply with calculated structural characteristics of steel deck in accordance with AISI S100.

2.2 ROOF DECK

A. Roof Deck: Fabricate panels, without top-flange stiffening grooves, to comply with SDI RD and with the following:

1. Galvanized-Steel Sheet: ASTM A653/A653M, Structural Steel (SS), G90 zinc coating.
2. Deck Profile: As indicated .
3. Profile Depth: As indicated.
4. Design Uncoated-Steel Thickness: As indicated.
5. Span Condition: As indicated.
6. Side Laps: Overlapped

2.3 ACCESSORIES

A. Provide manufacturer's standard accessory materials for deck that comply with requirements indicated.

B. Mechanical Fasteners: Corrosion-resistant, low-velocity, power-actuated or pneumatically driven carbon-steel fasteners; or self-drilling, self-threading screws.

C. Side-Lap Fasteners: Corrosion-resistant, hexagonal washer head; self-drilling, carbon-steel screws, No. 10 minimum diameter.

D. Flexible Closure Strips: Vulcanized, closed-cell, synthetic rubber.

E. Miscellaneous Sheet Metal Deck Accessories: Steel sheet, minimum yield strength of 33,000 psi, not less than 0.0359-inch design uncoated thickness, of same material and finish as deck; of profile indicated or required for application.

F. Pour Stops and Girder Fillers: Steel sheet, minimum yield strength of 33,000 psi, of same material and finish as deck, and of thickness and profile recommended by SDI standards for overhang and slab depth.

G. Column Closures, End Closures, Z-Closures, and Cover Plates: Steel sheet, of same material, finish, and thickness as deck unless otherwise indicated.

DRAFT

H. Weld Washers: Uncoated steel sheet, shaped to fit deck rib, **0.0747 inch** thick, with factory-punched hole of 3/8-inch minimum diameter.

I. Flat Sump Plates: Single-piece steel sheet, 0.0747 inch thick, of same material and finish as deck. For drains, cut holes in the field.

J. Recessed Sump Pans: Single-piece steel sheet, 0.0747 inch thick, of same material and finish as deck, with 3-inch- wide flanges and level recessed pans of 1-1/2-inch minimum depth. For drains, cut holes in the field.

K. Galvanizing Repair Paint: ASTM A780/A780M.

L. Repair Paint: Manufacturer's standard rust-inhibitive primer of same color as primer.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Install deck panels and accessories in accordance with SDI C, SDI NC, and SDI RD, as applicable; manufacturer's written instructions; and requirements in this Section.

B. Install temporary shoring before placing deck panels if required to meet deflection limitations.

C. Locate deck bundles to prevent overloading of supporting members.

D. Place deck panels on supporting frame and adjust to final position with ends accurately aligned and bearing on supporting frame before being permanently fastened. Do not stretch or contract side-lap interlocks.

E. Place deck panels flat and square and fasten to supporting frame without warp or deflection.

F. Cut and neatly fit deck panels and accessories around openings and other work projecting through or adjacent to deck.

G. Provide additional reinforcement and closure pieces at openings as required for strength, continuity of deck, and support of other work.

H. Comply with AWS requirements and procedures for manual shielded metal arc welding, appearance and quality of welds, and methods used for correcting welding work.

I. Mechanical fasteners may be used in lieu of welding to fasten deck. Locate mechanical fasteners and install in accordance with deck manufacturer's written instructions.

3.2 INSTALLATION OF ROOF DECK

A. Fasten roof-deck panels to steel supporting members by arc spot (puddle) welds of the surface diameter indicated or arc seam welds with an equal perimeter that is not less than 1-1/2 inches long, and as follows:

DRAFT

1. Weld Diameter: 3/4 inch, nominal.
2. Weld Spacing: Weld edge and interior ribs of deck units with a minimum of two welds per deck unit at each support. Space weld 12 inches apart in Zone 1 and 6 inches apart in Zones 2 and 3, based on roof-area definitions in FM Global Loss Prevention Data Sheet 1-28.
3. Weld Washers: Install weld washers at each weld location.

B. Side-Lap and Perimeter Edge Fastening: Fasten side laps and perimeter edges of panels between supports, at intervals not exceeding the lesser of one-half of the span or 18 inches, and as follows:

1. Mechanically fasten with self-drilling, No. 10 diameter or larger, carbon-steel screws.
2. Mechanically clinch or button punch.
3. Fasten with a minimum of 1-1/2-inch- long welds.

C. End Bearing: Install deck ends over supporting frame with a minimum end bearing of 1-1/2 inches, with end joints as follows:

1. End Joints: Lapped 2 inches minimum.

D. Roof Sump Pans and Sump Plates: Install over openings provided in roof deck and mechanically fasten flanges to top of deck. Space mechanical fasteners not more than 12 inches apart with at least one fastener at each corner.

1. Install reinforcing channels or zees in ribs to span between supports and weld or mechanically fasten.

E. Miscellaneous Roof-Deck Accessories: Install ridge and valley plates, finish strips, end closures, and reinforcing channels in accordance with deck manufacturer's written instructions. Weld or mechanically fasten to substrate to provide a complete deck installation.

1. Weld cover plates at changes in direction of roof-deck panels unless otherwise indicated.

F. Flexible Closure Strips: Install flexible closure strips over partitions, walls, and where indicated. Install with adhesive in accordance with manufacturer's written instructions to ensure complete closure.

3.3 REPAIR

A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on both surfaces of deck with galvanized repair paint in accordance with ASTM A780/A780M and manufacturer's written instructions.

B. Repair Painting:

1. Wire brush and clean rust spots, welds, and abraded areas on both surfaces of prime-painted deck immediately after installation, and apply repair paint.
2. Apply repair paint, of same color as adjacent shop-primed deck, to bottom surfaces of deck exposed to view.
3. Wire brushing, cleaning, and repair painting of bottom deck surfaces are included in Section 099113 "Painting"

DRAFT

4. Wire brushing, cleaning, and repair painting of rust spots, welds, and abraded areas of both deck surfaces are included in Section 099113 "Painting".

3.4 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Tests and Inspections:

1. Special inspections and qualification of welding special inspectors for cold-formed steel floor and roof deck in accordance with quality-assurance inspection requirements of SDI QA/QC.
   a. Field welds will be subject to inspection.
2. Steel decking will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

END OF SECTION

DRAFT

SECTION 05 52 13

PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel railings.
2. Railing gates at the level of exit discharge.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Manufacturer's product lines of mechanically connected railings.
2. Handrail brackets.
3. Shop primer.
4. Intermediate coats and topcoats.
5. Bituminous paint.
6. Nonshrink, nonmetallic grout.
7. Anchoring cement.
8. Metal finishes.
9. Paint products.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

C. Samples: For each type of exposed finish.

D. Delegated Design Submittal: For railings, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For delegated design professional engineer testing agency.

B. Welding certificates.

C. Product Test Reports: For tests on railings performed by a qualified testing agency, in accordance with ASTM E894 and ASTM E935.

1.4 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel in accordance with the following:

DRAFT

1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
2. AWS D1.2/D1.2M, "Structural Welding Code - Aluminum."
3. AWS D1.6/D1.6M, "Structural Welding Code - Stainless Steel."

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design railings, including attachment to building construction.

2.2 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.

B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

1. Provide type of bracket with flange tapped for concealed anchorage to threaded hanger bolt and that provides 1-1/2-inch clearance from inside face of handrail to finished wall surface.

2.3 STEEL RAILINGS

A. Tubing: ASTM A500/A500M (cold formed) or ASTM A513/A513M, Type 5.

B. Pipe: ASTM A53/A53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.

1. Provide galvanized finish for exterior installations and where indicated.

C. Plates, Shapes, and Bars: ASTM A36/A36M.

2.4 FASTENERS

A. Fastener Materials:

1. Ungalvanized-Steel Railing Components: Plated steel fasteners complying with ASTM F1941/ASTM F1941M, Class Fe/Zn 5 for zinc coating.
2. Hot-Dip Galvanized Railing Components: Type 304 stainless steel or hot-dip zinc-coated steel fasteners complying with ASTM A153/A153M or ASTM F2329/F2329M for zinc coating.
3. Aluminum Railing Components: Type 304 stainless steel fasteners.
4. Stainless Steel Railing Components: stainless steel fasteners.

DRAFT

B. Post-Installed Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC193 or ICC-ES AC308.

1. Material for Exterior Locations and Where Stainless Steel Is Indicated: Alloy Group 2 stainless steel bolts, ASTM F593, and nuts, ASTM F594.

2.5 MISCELLANEOUS MATERIALS

A. Handrail Brackets: Cast aluminum, center of handrail 2-1/2 inches from wall.

B. Welding Rods and Bare Electrodes: Select in accordance with AWS specifications for metal alloy welded.

1. For aluminum and stainless steel railings, provide type and alloy as recommended by producer of metal to be welded and as required for color match, strength, and compatibility in fabricated items.

C. Etching Cleaner for Galvanized Metal: Complying with MPI#25.

D. Galvanizing Repair Paint: High-zinc-dust-content paint, complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

E. Shop Primers: Provide primers that comply with Section 099100 "Painting"."

F. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.

1. Use primer containing pigments that make it easily distinguishable from zinc-rich primer.

G. Epoxy Zinc-Rich Primer: Complying with MPI#20 and compatible with topcoat.

H. Shop Primer for Galvanized Steel: Primer formulated for exterior use over zinc-coated metal and compatible with finish paint systems indicated.

I. Intermediate Coats and Topcoats: Provide products that comply with Section 099113" Painting."

J. Epoxy Intermediate Coat: Complying with MPI #77 and compatible with primer and topcoat.

K. Polyurethane Topcoat: Complying with MPI #72 and compatible with undercoat.

L. Bituminous Paint: Cold-applied asphalt emulsion, complying with ASTM D1187/D1187M.

M. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout, complying with ASTM C1107/C1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.

N. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.

DRAFT

1. Water-Resistant Product: At exterior locations and where indicated on Drawings, provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

2.6 FABRICATION

A. Cut, drill, and punch metals cleanly and accurately.

1. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated.
2. Remove sharp or rough areas on exposed surfaces.

B. Form work true to line and level with accurate angles and surfaces.

C. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove flux immediately.
4. At exposed connections, finish exposed welds to comply with NOMMA's "Voluntary Joint Finish Standards" for Finish #1 welds; ornamental quality with no evidence of a welded joint.

D. Welded Connections for Aluminum Pipe: Fabricate railings to interconnect members with concealed internal welds that eliminate surface grinding, using manufacturer's standard system of sleeve and socket fittings.

E. Nonwelded Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.

F. Form changes in direction as follows:

1. As detailed.
2. By bending or by inserting prefabricated elbow fittings.

G. Bend members in jigs to produce uniform curvature for each configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.

H. Close exposed ends of hollow railing members with prefabricated cap and end fittings of same metal and finish as railings.

I. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated. Close ends of returns unless clearance between end of rail and wall is 1/4 inch or less.

J. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.

DRAFT

1. At brackets and fittings fastened to plaster or gypsum board partitions, provide crush-resistant fillers or other means to transfer loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.

K. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work.

1. Fabricate anchorage devices capable of withstanding loads imposed by railings.
2. Coordinate anchorage devices with supporting structure.

L. Toe Boards: Where indicated, provide toe boards at railings around openings and at edge of open-sided floors and platforms. Fabricate to dimensions and details indicated.

2.7 STEEL AND IRON FINISHES

A. Galvanized Railings:

1. Hot-dip galvanize exterior steel railings, including hardware, after fabrication.
2. Comply with ASTM A123/A123M for hot-dip galvanized railings.
3. Comply with ASTM A153/A153M for hot-dip galvanized hardware.

B. For galvanized railings, provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.

C. Preparing Galvanized Railings for Shop Priming: After galvanizing, thoroughly clean railings of grease, dirt, oil, flux, and other foreign matter, and treat with etching cleaner.

1. Comply with SSPC-SP 16.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Perform cutting, drilling, and fitting required for installing railings.

1. Fit exposed connections together to form tight, hairline joints.
2. Install railings level, plumb, square, true to line; without distortion, warp, or rack.
3. Set railings accurately in location, alignment, and elevation; measured from established lines and levels.
4. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
5. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
6. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.

B. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

DRAFT

1. Coat concealed surfaces of aluminum that will be in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

3.2 ANCHORING POSTS

A. Form or core-drill holes not less than 5 inches deep and 3/4 inch larger than OD of post for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with nonshrink, nonmetallic grout **or** anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions.

B. Anchor posts to metal surfaces with flanges, angle type, or floor type, as required by conditions, connected to posts and to metal supporting members.

3.3 ATTACHING RAILINGS

A. Attach handrails to walls with wall brackets, except where end flanges are used. Provide brackets with 1-1/2-inch clearance from inside face of handrail and finished wall surface.

B. Secure wall brackets and railing end flanges to building construction as follows:

1. For concrete and solid masonry anchorage, use drilled-in expansion shields and hanger or lag bolts.

C. Install railing gates level, plumb, and secure for full opening without interference.

D. Touchup Painting:

1. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

3.4 CLEANING

A. Clean by washing thoroughly with clean water and soap and rinsing with clean water.

B. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas, and repair galvanizing to comply with ASTM A780/A780M.

END OF SECTION

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SECTION 06 10 00

ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Rooftop equipment bases and support curbs.
2. Wood blocking**,** cants, and nailers.

1.2 ACTION SUBMITTALS

A. Product Data:

1. For each type of process and factory-fabricated product.
2. For preservative-treated wood products.

1.3 INFORMATIONAL SUBMITTALS

A. Material Certificates:

1. For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
2. For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained.

B. Evaluation Reports: For the following, from ICC-ES:

1. Wood-preservative-treated wood.
2. Engineered wood products.
3. Shear panels.
4. Power-driven fasteners.
5. Post-installed anchors.
6. Metal framing anchors.

DRAFT

1.4 QUALITY ASSURANCE

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: Comply with DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
3. Dress lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content:

1. Boards: 19 percent.
2. Dimension Lumber: 19 percent unless otherwise indicated.

C. Engineered Wood Products: Acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.

1. Allowable design stresses, as published by manufacturer, are to meet or exceed those indicated. Manufacturer's published values are to be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

2.2 PRESERVATIVE TREATMENT

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat all rough carpentry unless otherwise indicated.

1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.

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2.3 MISCELLANEOUS LUMBER

A. Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Rooftop equipment bases and support curbs.
3. Cants.

B. Dimension Lumber Items: Standard, Stud, or No. 3 grade lumber of any species.

C. Concealed Boards: 19 percent maximum moisture content and any ofthe following species and grades:

1. Mixed southern pine or southern pine; No. 3 grade; SPIB.
2. Eastern softwoods; No. 3 Common grade; NeLMA.
3. Northern species; No. 3 Common grade; NLGA.
4. Western woods; Standard or No. 3 Common grade; WCLIB or WWPA.

2.4 FASTENERS

A. General: Fasteners are to be of size and type indicated and comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M or Type 304 stainless steel.

B. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

C. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01, ICC-ES AC58, ICC-ES AC193 or ICC-ES AC308] as appropriate for the substrate.

2.5 METAL FRAMING ANCHORS

A. Allowable design loads, as published by manufacturer, are to meet or exceed those of products of manufacturers listed. Manufacturer's published values are to be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency. Framing anchors are to be punched for fasteners adequate to withstand same loads as framing anchors.

B. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A653/A653M, G60 coating designation.

1. Use for interior locations unless otherwise indicated.

DRAFT

C. Hot-Dip, Heavy-Galvanized Steel Sheet: ASTM A653/A653M; structural steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B (HSLAS Type B); G185 coating designation; and not less than 0.036 inch thick.

1. Use for wood-preservative-treated lumber and where indicated.

2.6 MISCELLANEOUS MATERIALS

A. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.

C. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

D. Install shear wall panels to comply with manufacturer's written instructions.

E. Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.

F. Do not splice structural members between supports unless otherwise indicated.

G. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

H. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

I. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code (IBC).
2. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.
3. ICC-ES evaluation report for fastener.

DRAFT

3.2 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes **wet** apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION

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SECTION 07 46 46

FIBER CEMENT SIDING

PART I – GENERAL

1.1 SECTION INCLUDES:

A. Fiber cement lap siding boards, panels, trim, fascia and accessories.

1.2 RELATED SECTIONS

A. Section 05 40 00 – Cold-Formed Metal Framing

B. Section 06 10 00 - Rough Carpentry

C. Section 06 16 00 - Sheathing

D. Section 07 20 00 - Thermal Protection

E. Section 07 25 00 - Weather Barriers

F. Section 07 60 00 - Flashing and Sheet Metal

G. Section 07 90 00 - Joint Protection

1.3 REFERENCES

A. ASTM International (ASTM):

1. ASTM C 1185 - Standard Test Methods for Sampling and Testing Non-Asbestos Fiber Cement.

a. ASTM C 1186 – Standard Specification for Flat Fiber-Cement Sheets.

2. ASTM E 84 - Standard Test for Surface Burning Characteristics of Building Materials.

3. ASTM E 136 – Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C.

4. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.

B. Florida Building Code - Test Protocol HVHZ

1. Testing Application Standard (TAS) 201, 202

DRAFT

1.4 SUBMITTALS

A. Submit under provisions of Section 01 33 00.

B. Product Data: Submit manufacturer's product description, standard detail drawings relevant to the project, storage and handling requirements, and installation instructions.

C. Product Test Reports and Code Compliance: Documents demonstrating product compliance with local building code, such as test reports or evaluation reports from qualified, independent testing/certification agencies.

D. Shop Drawings: Submit drawings, including plan, section, and elevation drawings, showing installation details that demonstrate product layout, dimensions, finish colors, edge/termination conditions/treatments, compression and control joints, openings, and penetrations.

F. Samples: Submit samples of each product type proposed for use.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. All fiber cement panels specified in this section must be supplied by a manufacturer with a minimum of 10 years of experience in fabricating and supplying fiber cement cladding systems.

2. Provide technical and design support as needed regarding installation requirements and warranty compliance provisions.

B. Installer Qualifications: All products listed in this section are to be installed by a single installer trained by manufacturer or representative.

C. Mock-Up Wall: Provide a mock-up wall as an evaluation tool for product and installation workmanship.

D. Pre-Installation Meetings: Prior to beginning installation, conduct conference(s) to verify and discuss substrate conditions, manufacturer's installation instructions and warranty requirements, and project requirements.

DRAFT

1.6 DELIVERY, STORAGE, AND HANDLING

A. Fiber cement panels must be stored flat and kept dry, off the ground before installation. A waterproof cover over panels and accessories should be used at all times prior to installation.

B. If panels are exposed to water or water vapor prior to installation, allow to completely dry before installing. Moisture saturation before installation can cause shrinkage and panel damage.

C. Panels MUST be carried on edge. Do not carry or lift panels flat. Improper handling may cause cracking or panel damage.

D. Do not stack product more than three pallets high.

1.7 WARRANTY

A. Provide manufacturer's 30-year limited warranty against manufacturing defects.

B. Warranty provides for the original purchaser and transfers to one subsequent owner. See warranty for detailed information on terms, conditions and limitations.

PART II: PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Nichiha USA, Inc., 3150 Avondale Mill Road, Macon, GA 31216, Tel. 478-238-9070, Fax: 478-238-9160, www.nichiha.com.

B. Sales Office: Nichiha USA, Inc., 6465 East Johns Crossing, Suite 250, Johns Creek, GA 30097. Toll free: 1.866.424.4421, Office: 770.805.9466, Fax: 770.805.9467, www.nichiha.com.

1. Basis of Design Product: NichiPanel (Fiber Cement Panel Siding).
    a. Profiles: Cedar, Grooved, Smooth, or Stucco.
    b. Profile color: primed.
        i. Finish Color(s): See finish schedule.
    c. Width: 4 feet or 16 inches.
    d. Lengths: 8, 10, or 12 feet (16 in. wide panel offered only in 12-foot length).
    e. Thickness: 5/16 inch.
    f. Weight: 2.2 lbs. per square foot.

DRAFT

g. Coverage: 16 sq. ft. (12’ x 16” panel); 32 sq. ft. (8’ panel); 40 sq. ft. (10’ panel); or 48 sq. ft. (12’ panel).

h. Factory sealed on five [5] sides.

2. Optional: NichiTrim boards as manufactured by Nichiha (with separate warranty and performance provisions).

a. Profiles: Smooth or Cedar

b. Profile color: primed.

i. Finish Color(s): See finish schedule.

c. Widths: 2-1/2”, 3-1/2”, 5-1/2”, 7-1/4”, 9-1/4”, or 11-1/4”.

d. Thickness: 3/4 or 1 inch.

e. Length: 10 feet.

f. Weight: 4.7 lbs. per sq. ft. (3/4” board); 6.2 lbs. per sq. ft. (1” board)

C. Requests for substitutions will be considered in accordance with provisions of Substitution Procedures.

2.2 FIBER CEMENT PANEL SIDING PERFORMANCE REQUIREMENTS:

A. Fiber Cement Panel Siding (NichiPanel) – Must comply with ASTM C-1186, Type A, Grade II requirements:

1. Equilibrium Flexural Strength: min. 1,450 psi; Wet Flexural Strength: min. 1015 psi.

2. Water Tightness: No water droplets observed on any specimen.

3. Freeze-thaw: Min. 80% strength retention.

4. Warm Water: No evidence of cracking, delamination, swelling, or other defects observed.

5. Heat-Rain: No crazing, cracking, or other deleterious effects, surface or joint changes observed in any specimen.

6. Surface Burning (ASTM E-84): Flame Spread: 0, Smoke Developed: 5.

B. Non-Combustible (ASTM E-136): Meets performance requirements.

C. Wind Loads (ASTM E-330): Allowable wind loads vary depending upon panel dimensions, fasteners, wall assembly type and dimensions. Consult siding manufacturer’s third-party code compliance evaluation report(s) to choose fastener schedule(s) that meet project wind load requirements.

DRAFT

D. Florida Building Code - High Velocity Hurricane Zone (TAS 201-202): -75 psf allowable design pressure.

E. Miami-Dade County Product Control Division: Approved. -75 psf allowable design pressure.

2.3 INSTALLATION COMPONENTS

A. Fasteners: Corrosion resistant fasteners, such as hot-dipped galvanized nails and screws appropriate to local building codes and practices must be used. Use Stainless Steel fasteners in high humidity and high-moisture regions. Siding manufacturer is not liable for corrosion resistance of fasteners. Do not use aluminum fasteners, staples, clipped head nails or fasteners that are not rated or designed for intended use. *See manufacturer's instructions and third-party code compliance reports for appropriate fasteners for the construction method used and the project's required wind load engineering.*

B. Flashing: Flash all areas specified in manufacturer's instructions. Do not use raw aluminum flashing. Flashing must be galvanized, anodized, or PVC coated.

C. Sealant: Sealant shall be polyurethane, or hybrid, and comply with ASTM C834 or C920.

PART III: EXECUTION

3.1 EXAMINATION

A. Verification of Conditions:

1. Fiber cement panels can be installed over braced wood, steel studs and sheathing including plywood, OSB, plastic foam or fiberboard sheathing. Fiber cement panels can also be installed over Structural Insulated Panels (SIP's), Concrete Masonry Units (CMU's) and Concrete Block Structures (CBS's).

2. Allowable stud spacing: See manufacturer's installation instructions for details.

3. A weather resistive barrier is required when installing fiber cement panels. Use an approved weather resistive barrier (WRB) as defined by the 2018 IRC. Refer to local building codes.

DRAFT

4. Appropriate flashing shall be used to prevent moisture penetration around all doors, windows, wall bottoms, material joints, transitions, and penetrations. Refer to local building codes for best practices.

B. Examine site to ensure substrate conditions are within specification for proper installation.

C. Do not begin installation until unacceptable conditions have been corrected.

D. Do not install boards or components that appear to be damaged or defective. Do not install wet siding.

3.2 INSTALLATION

A. General: Install products in accordance with the latest installation guidelines of the manufacturer and all applicable building codes and other laws, rules, regulations and ordinances. Review all manufacturer installation, maintenance instructions, and other applicable documents before installation.

1. Consult with your local dealer or Nichiha Technical Department before installing any Nichiha fiber cement product on a building higher than 45 feet or three stories. Special installation conditions may be required.

B. Board Cutting

1. Always cut fiber cement panels outside or in a well ventilated area. Do not cut the products in an enclosed area. Use a dust collection system with HEPA filter.

2. Always wear safety glasses and NIOSH/OSHA approved respirator whenever cutting, drilling, sawing, sanding or abrading the products. Refer to manufacturer SDS for more information.

3. Use a dust-reducing circular saw with a diamond-tipped or carbide-tipped blade.

a. Recommended circular saw: Makita 7-1/4” Circular Saw with Dust Collector (#5057KB).

b. Recommended blade: Tenryu Board-Pro Plus PCD Blade (#BP-18505).

c. Shears (electric or pneumatic) or jig saw can be used for complicated cuttings, such as service openings, curves, radii and scrollwork.

4. Silica Dust Warning: Fiber cement products may contain some amounts of crystalline silica, a naturally occurring, potentially hazardous mineral when airborne in dust form. Consult product SDS or visit https://www.osha.gov/silica-crystalline.

DRAFT

C. Fastening

1. Fasten panels in keeping with appropriate wind-load rated schedules provided in the manufacturer code compliance certifications and approvals.
2. Fiber cement panels must be jointed on studs.
3. Fasteners must penetrate at least 1" into wood studs and ½" into steel studs.
4. Fastener head must be flush to the panel surface.
5. Fasteners shall be placed a minimum of 3/8" from panel edges.

D. Joint Installation Using Caulk: Leave a 1/4" gap between each panel and fill with recommended sealant.

E. Battens or Trim: Caulk panels when using battens or trim.

F. Horizontal Joints: Non-corrosive Z-flashing shall be used. Do not fill the gap between the bottom of the panel and the flashing with sealant.

G. Trim Joints (corners and around windows and doors): For vertical joints, leave a ¼" gap between panel edge and trim and fill with recommended sealant. For horizontal joints above windows and doors, use a metal flashing over the trim, leaving a ¼" gap between panel and flashing. For horizontal joints underneath window sills or trim, leave a ¼" gap and fill with recommended sealant.

3.3 CLEANING AND MAINTENANCE

A. Review manufacturer guidelines for detailed care instructions.

B. Paint: All unfinished (pre-primed) products must be painted within 12 months of installation with exterior grade 100% acrylic latex paints. Follow the paint manufacturer's instructions for use, care, and future repainting. Do not use stain or oil based paints.

C. Field Cut Edges: All exposed field cut edges, such as outside edges, field cut butt joints, cuts around doors and windows, or bottom ends of corners and window trim, must be coated with primer, paint, or sealant.

D. Dents/Chips/Scratches: Any minor surface damage to fiber cement boards must be patched with exterior grade cementitious patching or putty. Follow the product instructions.

E. Sealant: Use an exterior grade high-quality sealant (caulk) that complies with either ASTM C-834 or ASTM C-920 for all gaps that require sealant. When replacing caulk in the

DRAFT

future, carefully remove the old caulk first and then follow the manufacturer's instructions and siding manufacturer requirements.

F. Cleaning: Wash down exterior surfaces at least every 12 months to remove any dirt and debris. *DO NOT use high-pressure power washers which may damage fiber cement.* A mild household detergent and soft bristle brush or cloth may be used if needed. Rinse with clean water from a standard garden hose. For mildew removal, consult your paint manufacturer's instructions prior to the use of commercial mold and mildew cleaners.

END SECTION

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SECTION 07 53 23

ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Adhered ethylene-propylene-diene-terpolymer (EPDM) roofing system.
2. Accessory roofing materials.
3. Substrate board.
4. Roof insulation.
5. Insulation accessories and cover board.
6. Walkways.

1.2 PREINSTALLATION MEETINGS

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. For insulation and roof system component fasteners, include copy of FM Approvals' RoofNav listing.

B. Shop Drawings: Include roof plans, sections, details, and attachments to other work, including the following:

1. Layout and thickness if insulation.
2. Base flashings and membrane terminations.
3. Flashing details at penetrations.
4. Tapered insulation, thickness, and slopes.
5. Roof plan showing orientation of steel roof deck and orientation of roof membrane and fastening spacings and patterns for mechanically fastened roofing system.
6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
7. Tie-in with air barrier.

C. Samples: For the following products:

1. Roof membrane and flashings of color required.
2. Roof paver, full sized, in each color and texture required.
3. Walkway pads or rolls, of color required.

D. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with wind uplift performance requirements.

DRAFT

1.4 INFORMATIONAL SUBMITTALS

A. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer, certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
   a. Submit evidence of complying with performance requirements.
2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.

B. Product Test Reports: For components of roof membrane and insulation, for tests performed by a qualified testing agency, indicating compliance with specified requirements.

C. Field quality-control reports.

D. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.6 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturers: A qualified manufacturer that is listed in FM Approvals' RoofNav for roofing system identical to that used for this Project.
2. Installers: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 30 years from Date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Accelerated Weathering: Roof membrane to withstand 2000 hours of exposure when tested in accordance with ASTM G152, ASTM G154, or ASTM G155.

DRAFT

B. Impact Resistance: Roof membrane to resist impact damage when tested in accordance with ASTM D3746, ASTM D4272, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.

C. Wind Uplift Resistance: Design roofing system to resist the following wind uplift pressures when tested in accordance with FM Approvals 4474, UL 580, or UL 1897.

D. FM Approvals' RoofNav Listing: Roof membrane, base flashings, and component materials comply with requirements in FM Approvals 4450 or FM Approvals 4470 as part of a roofing system, and are listed in FM Approvals' RoofNav for Class 1 or noncombustible construction, as applicable. Identify materials with FM Approvals Certification markings.

1. Fire/Windstorm Classification: Class 1A-90.
2. Hail-Resistance Rating: FM Global Property Loss Prevention Data Sheet 1-34 MH.

E. SPRI's Directory of Roof Assemblies Listing: Roof membrane, base flashings, and component materials comply with requirements in FM Approvals 4450 or FM Approvals 4470 as part of a roofing system, and are listed in SPRI's Directory of Roof Assemblies for roof assembly identical for that specified for this Project.

1. Wind Uplift Load Capacity: 90 psf.

F. Exterior Fire-Test Exposure: ASTM E108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

G. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

2.2 ETHYLENE-PROPYLENE-DIENE-TERPOLYMER (EPDM) ROOFING

A. EPDM Sheet: ASTM D4637/D4637M, Type II, scrim or fabric internally reinforced, EPDM sheet.

1. Thickness: 90 mils , nominal.
2. Exposed Face Color: Black.

2.3 ACCESSORY ROOFING MATERIALS

A. General: Accessory materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.

1. Adhesive and Sealants: Comply with VOC limits of authorities having jurisdiction.

B. Sheet Flashing: 60-mil- thick EPDM, partially cured or cured, according to application.

C. Protection Sheet: Epichlorohydrin or neoprene nonreinforced flexible sheet, 55 to 60 mils thick, recommended by EPDM manufacturer for resistance to hydrocarbons, non-aromatic solvents, grease, and oil.

D. Slip Sheet: Manufacturer's standard, of thickness required for application.

DRAFT

E. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.

F. Bonding Adhesive: Manufacturer's standard**.**

G. Modified Asphaltic Fabric-Backed Membrane Adhesive: Roofing system manufacturer's standard modified asphalt, asbestos-free, cold-applied adhesive formulated for compatibility and use with fabric-backed membrane roofing.

H. Water-Based, Fabric-Backed Membrane Adhesive: Roofing system manufacturer's standard water-based, cold-applied adhesive formulated for compatibility and use with fabric-backed membrane roofing.

I. Low-Rise, Urethane, Fabric-Backed Membrane Adhesive: Roof system manufacturer's standard spray-applied, low-rise, two-component urethane adhesive formulated for compatibility and use with fabric-backed membrane roofing.

J. Seaming Material: Manufacturer's standard, synthetic-rubber polymer primer and 3-inch- wide minimum, butyl splice tape with release film

K. Lap Sealant: Manufacturer's standard, single-component sealant**,** colored to match membrane roofing.

L. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.

M. Metal Termination Bars: Manufacturer's standard, predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.

N. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening components to substrate, and acceptable to roofing system manufacturer.

O. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, molded pipe boot flashings, preformed inside and outside corner sheet flashings, reinforced EPDM securement strips, T-joint covers, in-seam sealants, termination reglets, cover strips, and other accessories.

1. Provide white flashing accessories for white EPDM membrane roofing.

2.4 SUBSTRATE BOARD

A. Glass-Mat Gypsum Roof Substrate Board: ASTM C1177/C1177M, water-resistant gypsum board.

1. Thickness: **1/4 inch**.
2. Surface Finish: Factory primed.

B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening substrate panel to roof deck.

DRAFT

2.5 ROOF INSULATION

A. Polyisocyanurate Board Insulation: ASTM C1289, Type II, Class 1 felt facer, Type II, Class 2 coated glass-fiber facer or Type II, Class 3 uncoated glass-fiber facer on both major surfaces.

1. Size: 48 by 48 inches
2. Thickness:
   a. Base Layer: 1-1/2 inches.

B. Tapered Insulation: Provide factory-tapered insulation boards.

1. Material: Match roof insulation.
2. Minimum Thickness: 1/4 inch.
3. Slope:
   a. Roof Field: 1/4 inch per foot unless otherwise indicated on Drawings.
   b. Saddles and Crickets: 1/2 inch per foot unless otherwise indicated on Drawings.

2.6 INSULATION ACCESSORIES AND COVER BOARD

A. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation **and cover boards** to substrate, and acceptable to roofing system manufacturer.

B. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:

1. Modified asphaltic, asbestos-free, cold-applied adhesive.
2. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
3. Full-spread, spray-applied, low-rise, two-component urethane adhesive.

C. Polyisocyanurate Insulation Cover Board: ASTM C1289 Type II, Class 4, Grade 1, 1/2 inch thick, with a minimum compressive strength of 80 psi.

D. Protection Mat: Woven or nonwoven polypropylene, polyolefin, or polyester fabric; water permeable and resistant to UV degradation; type and weight as recommended by roofing system manufacturer for application.

2.7 WALKWAYS

A. Walkway Roof Pavers: Heavyweight, hydraulically pressed concrete units, with top edges beveled 3/16 inch, factory cast for use as roof pavers; absorption not greater than 5 percent, ASTM C140/C140M; no breakage and maximum 1 percent mass loss when tested for freeze-thaw resistance, ASTM C67; and as follows:

1. Size: **24 by 24 inches**. Manufacture pavers to dimensional tolerances of plus or minus 1/16 inch in length, height, and thickness.
2. Weight: **22 lb/sq. ft.**.
3. Compressive Strength: 7500 psi, minimum.
4. Colors and Textures: As selected by Architect from manufacturer's full range.

DRAFT

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.

1. Verify that minimum concrete drying period recommended by roofing system manufacturer has passed.
2. Verify that concrete substrate is visibly dry and free of moisture, and that minimum concrete internal relative humidity is not more than **75** percent, or as recommended by roofing system manufacturer when tested in accordance with ASTM F2170.
   a. Test Frequency: One test probe per each **1000 sq. ft.**, or portion thereof, of roof deck, with not less than three test probes.
   b. Submit test reports within 24 hours of performing tests.
3. Verify that concrete-curing compounds that will impair adhesion of roofing components to roof deck have been removed.
4. Verify that joints in precast concrete roof decks have been grouted flush with top of concrete.

3.2 PREPARATION

A. Perform fastener-pullout tests in accordance with roof system manufacturer's written instructions.

1. Submit test result within 24 hours of performing tests.
   a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.

B. Install sound-absorbing insulation strips in accordance with acoustical roof deck manufacturer's written instructions.

3.3 INSTALLATION OF ROOFING, GENERAL

A. Install roofing system in accordance with roofing system manufacturer's written instructions, FM Approvals' RoofNav assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.

B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

C. Install roof membrane and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition and to not void warranty for existing roofing system.

D. Coordinate installation and transition of roofing system component serving as an air barrier with air barrier specified under Section 072726 "Fluid-Applied Membrane Air Barriers."

DRAFT

3.4 INSTALLATION OF SUBSTRATE BOARD

A. Install substrate board with long joints in continuous straight lines, with end joints staggered not less than 24 inches in adjacent rows.

1. At steel roof decks, install substrate board at right angle to flutes of deck.
   a. Locate end joints over crests of steel roof deck.
2. Tightly butt substrate boards together.
3. Cut substrate board to fit tight around penetrations and projections, and to fit tight to intersecting sloping roof decks.
4. Fasten substrate board to top flanges of steel deck in accordance with recommendations in FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheet 1-29.
5. Fasten substrate board to top flanges of steel deck to resist uplift pressure at corners, perimeter, and field of roof in accordance with roofing system manufacturers' written instructions.
6. Loosely lay substrate board over roof deck.

3.5 INSTALLATION OF INSULATION

A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at end of workday.

B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.

C. Installation Over Metal Decking:

1. Install base layer of insulation with joints staggered not less than 24 inches in adjacent rows and with long joints continuous at right angle to flutes of decking.
   a. Locate end joints over crests of decking.
   b. Where installing composite and noncomposite insulation in two or more layers, install noncomposite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.
   c. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
   d. Make joints between adjacent insulation boards not more than 1/4 inch in width.
   e. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches.
      1) Trim insulation so that water flow is unrestricted.
   f. Fill gaps exceeding 1/4 inch with insulation.
   g. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
   h. Loosely lay base layer of insulation units over substrate.
   i. Mechanically attach base layer of insulation and substrate board using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to metal decks.
      1) Fasten insulation in accordance with requirements in FM Approvals' RoofNav for specified Windstorm Resistance Classification.
      2) Fasten insulation to resist specified uplift pressure at corners, perimeter, and field of roof.

DRAFT

2. Install upper layers of insulation and tapered insulation with joints of each layer offset not less than 12 inches from previous layer of insulation.
   a. Staggered end joints within each layer not less than 24 inches in adjacent rows.
   b. Install with long joints continuous and with end joints staggered not less than 12 inches in adjacent rows.
   c. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
   d. Make joints between adjacent insulation boards not more than 1/4 inch in width.
   e. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches.
   f. Trim insulation so that water flow is unrestricted.
   g. Fill gaps exceeding 1/4 inch with insulation.
   h. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
   i. Loosely lay each layer of insulation units over substrate.
   j. Adhere each layer of insulation to substrate using adhesive in accordance with FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheet 1-29, as follows:
      1) Set each layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F of equiviscous temperature.
      2) Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
      3) Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

3.6 INSTALLATION OF COVER BOARDS

A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction.

1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
2. At internal roof drains, conform to slope of drain sump.
   a. Trim cover board so that water flow is unrestricted.
3. Cut and fit cover board tight to nailers, projections, and penetrations.
4. Loosely lay cover board over substrate.
5. Adhere cover board to substrate using adhesive in accordance with FM Approvals' RoofNav assembly requirements and FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification, as follows:
   a. Set cover board in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F of equiviscous temperature.
   b. Set cover board in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
   c. Set cover board in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

B. Install slip sheet over cover board and immediately beneath roofing.

DRAFT

3.7 ADHERED ROOFING INSTALLATION

A. Adhere roof membrane over area to receive roofing in accordance with roofing system manufacturer's written instructions.

B. Unroll membrane roof membrane and allow to relax before installing.

C. Start installation of roofing in presence of roofing system manufacturer's technical personnel**.**

D. Accurately align roof membrane, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.

E. Bonding Adhesive: Apply to substrate and underside of roof membrane at rate required by manufacturer, and allow to partially dry before installing roof membrane. Do not apply to splice area of roof membrane.

F. Hot Roofing Asphalt: Apply a solid mopping of hot roofing asphalt to substrate at temperature and rate required by manufacturer, and install fabric-backed roofing. Do not apply to splice area of roof membrane.

G. Fabric-Backed Roof Membrane Adhesive: Apply to substrate at rate required by manufacturer, and install fabric-backed roof membrane.

H. In addition to adhering, mechanically fasten roof membrane securely at terminations, penetrations, and perimeters.

I. Apply roof membrane with side laps shingled with slope of roof deck where possible.

J. Adhesive Seam Installation: Clean both faces of splice areas, apply splicing cement.

1. Firmly roll side and end laps of overlapping roof membrane to ensure a watertight seam installation.
2. Apply lap sealant and seal exposed edges of roofing terminations.
3. Apply a continuous bead of in-seam sealant before closing splice if required by roofing system manufacturer.

K. Tape Seam Installation: Clean and prime both faces of splice areas, apply splice tape.

1. Firmly roll side and end laps of overlapping roof membrane to ensure a watertight seam installation.
2. Apply lap sealant and seal exposed edges of roofing terminations.

L. Factory-Applied Seam Tape Installation: Clean and prime surface to receive tape.

1. Firmly roll side and end laps of overlapping roof membrane to ensure a watertight seam installation.
2. Apply lap sealant and seal exposed edges of roofing terminations.

M. Spread sealant or mastic bed over deck-drain flange at roof drains, and securely seal roof membrane in place with clamping ring.

N. Adhere protection sheet over roof membrane at locations indicated.

DRAFT

3.8 INSTALLATION OF BASE FLASHING

A. Install sheet flashings and preformed flashing accessories, and adhere to substrates in accordance with roofing system manufacturer's written instructions.

B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.

C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.

D. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.

E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.9 INSTALLATION OF WALKWAYS

A. Roof-Paver Walkways: Install walkway roof pavers in accordance with manufacturer's written instructions.

1. Install roof paver walkways at the following locations:
    a. Perimeter of each rooftop unit.
    b. Between each rooftop unit location, creating a continuous path connecting rooftop unit locations.
    c. Between each roof hatch and each rooftop unit location or path connecting rooftop unit locations.
    d. Top and bottom of each roof access ladder.
    e. Between each roof access ladder and each rooftop unit location or path connecting rooftop unit locations.
    f. Locations indicated on Drawings.
    g. As required by roof membrane manufacturer's warranty requirements.
2. Provide 3 inches of space between adjacent roof pavers.

3.10 FIELD QUALITY CONTROL

A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion, in presence of Architect, and to prepare inspection report.

B. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.

3.11 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing system, inspect roofing system for

DRAFT

deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and in accordance with warranty requirements.

C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION

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SECTION 07 92 00

JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Silicone joint sealants.
   2. Urethane joint sealants.
   3. Latex joint sealants.
   4. Acoustical joint sealants.

1.3 PRECONSTRUCTION TESTING

A. Preconstruction Compatibility and Adhesion Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.
   1. Use manufacturer's standard test method to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
   2. Submit not fewer than eight pieces of each kind of material, including joint substrates, shims, joint-sealant backings, secondary seals, and miscellaneous materials.
   3. Schedule sufficient time for testing and analyzing results to prevent delaying the Work.
   4. For materials failing tests, obtain joint-sealant manufacturer's written instructions for corrective measures including use of specially formulated primers.

B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates as follows:
   1. Locate test joints where indicated on Project or, if not indicated, as directed by Contruction Manager.
   2. Conduct field tests for each application indicated below:
      a. Each kind of sealant and joint substrate indicated.
   3. Notify Construction Manager seven days in advance of dates and times when test joints will be erected.
   4. Arrange for tests to take place with joint-sealant manufacturer's technical representative present.
      a. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.

DRAFT

1) For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.

5. Report whether sealant failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. For sealants that fail adhesively, retest until satisfactory adhesion is obtained.
6. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

1.4 ACTION SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

C. Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch- wide joints formed between two 6-inch- long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

D. Joint-Sealant Schedule: Include the following information:
1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.5 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.

B. Sealant, Waterproofing, and Restoration Institute (SWRI) Validation Certificate: For each sealant specified to be validated by SWRI's Sealant Validation Program.

C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.

D. Preconstruction Compatibility and Adhesion Test Reports: From sealant manufacturer, indicating the following:
1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.

E. Preconstruction Field-Adhesion Test Reports: Indicate which sealants and joint preparation methods resulted in optimum adhesion to joint substrates based on testing specified in "Preconstruction Testing" Article.

DRAFT

F. Field-Adhesion Test Reports: For each sealant application tested.

G. Warranties: Sample of special warranties.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.

C. Product Testing: Test joint sealants using a qualified testing agency.
   1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.
   2. Test according to SWRI's Sealant Validation Program for compliance with requirements specified by reference to ASTM C 920 for adhesion and cohesion under cyclic movement, adhesion-in-peel, and indentation hardness.

D. Mockups: Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

E. Preinstallation Conference: Conduct conference at Project site.

1.7 PROJECT CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

   1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
   2. When joint substrates are wet.
   3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
   4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.8 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Five (5) years from date of Substantial Completion.

B. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Five (5) years from date of Substantial Completion.

DRAFT

C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
   1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
   2. Disintegration of joint substrates from natural causes exceeding design specifications.
   3. Mechanical damage caused by individuals, tools, or other outside agents.
   4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

B. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
   1. Architectural Sealants: 250 g/L.
   2. Sealant Primers for Nonporous Substrates: 250 g/L.
   3. Sealant Primers for Porous Substrates: 775 g/L.

C. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.2 SILICONE JOINT SEALANTS

A. Single-Component, Nonsag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 100/50, for Use NT.
   1. For exterior wall sealant.
   2. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      a. Dow Corning Corporation; 790.
      b. Pecora Corporation; 301 NS.
      c. Sika Corporation, Construction Products Division; SikaSil-C990.
      d. Tremco Incorporated; Spectrem 1.

2.3 URETHANE JOINT SEALANTS

A. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.
   1. For interior non-tintable joints subject to traffic.
   2. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      a. BASF Building Systems; Sonolastic NP1.
      b. Sika Corporation, Construction Products Division; Sikaflex - 1a.
      c. Tremco Incorporated; Vulkem 116.

DRAFT

B. Multi-Component, Pourable, Traffic-Grade, Urethane Joint Sealant: ASTM C 920, Type S, Grade M, Class 25, for Use T.
   1. For interior tintable horizontal traffic exposure sealant.
   2. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      a. BASF Building Systems; Sonolastic SL 2.
      b. Pecora Corporation; Dynatrol II-SG.
      c. Sika Corporation. Construction Products Division; Sikaflex – 2c SL.

2.4 LATEX JOINT SEALANTS

A. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
   1. Use for exposed interior joints in vertical and horizontal non-traffic surfaces.
   2. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      a. BASF Building Systems; Sonolac.
      b. Pecora Corporation; AC-20+.
      c. Tremco Incorporated; Tremflex 834.

2.5 ACOUSTICAL JOINT SEALANTS

A. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
   1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      a. Pecora Corporation; AC-20 FTR.
      b. USG Corporation; SHEETROCK Acoustical Sealant.

B. Acoustical Sealant for Concealed Joints. Manufacture’s standard, nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant recommended for sealing interior joints to reduce airborne sound transmission.
   1. Products:
      a. Pecora Coporation; BA-98.
      b. Tremco; Tremco Acoustical Sealant.

2.6 JOINT SEALANT BACKING

A. General: Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

DRAFT

2.7 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
   1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
   2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Remove laitance and form-release agents from concrete.
   3. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

DRAFT

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
   1. Do not leave gaps between ends of sealant backings.
   2. Do not stretch, twist, puncture, or tear sealant backings.
   3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
   1. Place sealants so they directly contact and fully wet joint substrates.
   2. Completely fill recesses in each joint configuration.
   3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
   1. Remove excess sealant from surfaces adjacent to joints.
   2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
   3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.

3.4 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

DRAFT

3.5 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION

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SECTION 08 11 13

HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Standard and custom hollow metal doors and frames.
2. Steel sidelight, borrowed lite and transom frames.
3. Louvers installed in hollow metal doors.
4. Light frames and glazing installed in hollow metal doors.

B. Related Sections:

1. Division 08 Section "Glazing" for glass view panels in hollow metal doors.
2. Division 08 Section "Door Hardware".
3. Division 09 Sections "Exterior Painting" and "Interior Painting" for field painting hollow metal doors and frames.

C. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI/SDI A250.8 - Recommended Specifications for Standard Steel Doors and Frames.
2. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frames Anchors and Hardware Reinforcing.
3. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames.
4. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
5. ANSI/SDI A250.11 - Recommended Erection Instructions for Steel Frames.
6. ASTM A1008 - Standard Specification for Steel Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
7. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
8. ASTM A924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
9. ASTM C 1363 - Standard Test Method for Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus.
10. ANSI/BHMA A156.115 - Hardware Preparation in Steel Doors and Frames.

DRAFT

11. ANSI/SDI 122 - Installation and Troubleshooting Guide for Standard Steel Doors and Frames.
12. ANSI/NFPA 80 - Standard for Fire Doors and Fire Windows; National Fire Protection Association.
13. ANSI/NFPA 105: Standard for the Installation of Smoke Door Assemblies.
14. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; National Fire Protection Association.
15. UL 10C - Positive Pressure Fire Tests of Door Assemblies.
16. UL 1784 - Standard for Air Leakage Tests of Door Assemblies.

1.3 QUALITY ASSURANCE

A. Source Limitations: Obtain hollow metal doors and frames through one source from a single manufacturer wherever possible.

B. Quality Standard: In addition to requirements specified, furnish SDI-Certified manufacturer products that comply with ANSI/SDI A250.8, latest edition, "Recommended Specifications for Standard Steel Doors and Frames".

C. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to UL10C (neutral pressure at 40” above sill) or UL 10C.

1. Oversize Fire-Rated Door Assemblies Construction: For units exceeding sizes of tested assemblies, attach construction label certifying doors are built to standard construction requirements for tested and labeled fire rated door assemblies except for size.
2. Temperature-Rise Limit: Where indicated and at vertical exit enclosures (stairwell openings) and exit passageways, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F (250 deg C) above ambient after 30 minutes of standard fire-test exposure.
3. Smoke Control Door Assemblies: Comply with NFPA 105.

    a. Smoke "S" Label: Doors to bear “S” label, and include smoke and draft control gasketing applied to frame and on meeting stiles of pair doors.

D. Fire-Rated, Borrowed-Light Frame Assemblies: Assemblies complying with NFPA 80 that are listed and labeled, by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 257. Provide labeled glazing material.

E. Storm Shelter Openings: Provide complete door systems for hurricane or tornado storm shelters, and other areas of refuge, complying and tested according to ICC 500 (2014/2020), ICC/NSSA Standard for the Design and Construction of Storm Shelters.

1. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.

F. Pre-Submittal Conference: Conduct conference with attendance by representatives of Supplier, Installer, and Contractor to review proper methods and procedures for installing hollow metal doors and frames and to verify installation of electrical knockout boxes and conduit at frames with electrified or access control hardware.

DRAFT

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project site storage. Do not use non-vented plastic.

B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.

C. Store hollow metal work under cover at Project site. Place in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4-inch high wood blocking. Do not store in a manner that traps excess humidity.

1. Provide minimum 1/4-inch space between each stacked door to permit air circulation. Door and frames to be stacked in a vertical upright position.

1.5 PROJECT CONDITIONS

A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

1.6 COORDINATION

A. Coordinate installation of anchorages for hollow metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

B. Building Information Modeling (BIM) Support: Utilize designated BIM software tools and obtain training needed to successfully participate in the Project BIM processes. All technical disciplines are responsible for the product data integration and data reliability of their Work into the coordinated BIM applications.

1.7 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.

B. Warranty includes installation and finishing that may be required due to repair or replacement of defective doors.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide steel doors and frames from a SDI Certified manufacturer:

1. CECO Door Products (C).
2. Curries Company (CU).
3. Pioneer Industries (PI).

DRAFT

2.2 MATERIALS

A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.

B. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

C. Frame Anchors: ASTM A 653/A 653M, Commercial Steel (CS), Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

2.3 HOLLOW METAL DOORS

A. General: Provide 1-3/4 inch doors of design indicated, not less than thickness indicated; fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8 and ANSI/NAAMM HMMA 867.

B. Exterior Doors (Energy Efficient): Face sheets fabricated of commercial quality hot-dipped zinc coated steel that complies with ASTM A924 A60. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model, ANSI/SDI A250.4 for physical performance level, and HMMA 867 for door construction.

1. Design: Flush panel.
2. Core Construction: Foamed in place polyurethane and steel stiffened laminated core with no stiffener face welds, in compliance with HMMA 867 “Laminated Core”.
    a. Provide 22-gauge steel stiffeners at 6 inches on-center internally welded at 5" on-center to integral core assembly, foamed in place polyurethane core chemically bonded to all interior surfaces. No stiffener face welding is permitted.
    b. Thermal properties to rate at a fully operable minimum U-Factor 0.37 and R-Value 2.7, including insulated door, thermal-break frame and threshold.
    c. Kerf Type Frames: Thermal properties to rate at a fully operable minimum U-Factor 0.38 and R-Value 2.6, including insulated door, kerf type frame, and threshold.
3. Level/Model: Level 3 and Physical Performance Level A (Extra Heavy Duty), Minimum 16 gauge (0.053 inch - 1.3-mm) thick steel, Model 2.
4. Vertical Edges: Vertical edges to be mechanically interlocked with hairline seam. Beveled Lock Edge, 1/8 inch in 2 inches (3 mm in 50 mm).
5. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet. Doors with an inverted top channel to include a steel closure channel, screw attached, with the web of the channel flush with the face sheets of the door. Plastic or composite channel fillers are not acceptable.
6. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9".
7. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.

C. Manufacturers Basis of Design:

1. CECO Door Products (C) Energy Efficient - Trio-E Series.

DRAFT

2.4 HOLLOW METAL FRAMES

A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile.

B. Thermal Break Frames: Subject to the same compliance standards and requirements as standard hollow metal frames. Tested for thermal performance in accordance with NFRC 102, and resistance to air infiltration in accordance with NFRC 400. Where indicated provide thermally broken frame profiles available for use in both masonry and drywall construction. Fabricate with 1/16" positive thermal break and integral vinyl weatherstripping.

C. Exterior Frames: Fabricated of hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60.

1. Fabricate frames with mitered or coped corners. Profile as indicated on drawings.
2. Frames: Minimum 14 gauge (0.067-inch -1.7-mm) thick steel sheet.
3. Manufacturers Basis of Design:

a. CECO Door Products (C) – Thermal Break TQB Series.

D. Fire rated frames: Fabricate frames in accordance with NFPA 80, listed and labeled by a qualified testing agency, for fire-protection ratings indicated.

E. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 Table 4 with reinforcement plates from same material as frames.

2.5 FRAME ANCHORS

A. Jamb Anchors:

1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, formed from A60 metallic coated material, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
2. Stud Wall Type: Designed to engage stud and not less than 0.042 inch thick.
3. Compression Type for Drywall Slip-on (Knock-Down) Frames: Adjustable compression anchors.

B. Floor Anchors: Floor anchors to be provided at each jamb, formed from A60 metallic coated material, not less than 0.042 inches thick.

C. Mortar Guards: Formed from same material as frames, not less than 0.016 inches thick.

2.6 LIGHT OPENINGS AND GLAZING

A. Stops and Moldings: Provide stops and moldings around glazed lites where indicated. Form corners of stops and moldings with butted or mitered hairline joints at fabricator's shop. Fixed and removable stops to allow multiple glazed lites each to be removed independently. Coordinate frame rabbet widths between fixed and removable stops with the type of glazing and installation indicated.

DRAFT

B. Moldings for Glazed Lites in Doors and Loose Stops for Glazed Lites in Frames: Minimum 20 gauge thick, fabricated from same material as door face sheet in which they are installed.

C. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch (16 mm) high unless otherwise indicated. Provide fixed frame moldings and stops on outside of exterior and on secure side of interior doors and frames.

D. Preformed Metal Frames for Light Openings: Manufacturer's standard frame formed of 0.048-inch-thick, cold rolled steel sheet; with baked enamel or powder coated finish; and approved for use in doors of fire protection rating indicated. Match pre-finished door paint color where applicable.

2.7 ACCESSORIES

A. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.

B. Grout Guards: Formed from same material as frames, not less than 0.016 inches thick.

2.8 FABRICATION

A. Fabricate hollow metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal. Where practical, fit and assemble units in manufacturer's plant. When shipping limitations so dictate, frames for large openings are to be fabricated in sections for splicing or splining in the field by others.

B. Tolerances: Fabricate hollow metal work to tolerances indicated in ANSI/SDI A250.8.

C. Hollow Metal Doors:

1. Exterior Doors: Provide optional weep-hole openings in bottom of exterior doors to permit moisture to escape where specified.
2. Glazed Lites: Factory cut openings in doors with applied trim or kits to fit. Factory install glazing where indicated.
3. Astragals: Provide overlapping astragals as noted in door hardware sets in Division 08 Section "Door Hardware" on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted.
4. Continuous Hinge Reinforcement: Provide welded continuous 12 gauge strap for continuous hinges specified in hardware sets in Division 08 Section "Door Hardware".

D. Hollow Metal Frames:

1. Shipping Limitations: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
2. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.

DRAFT

a. Welded frames are to be provided with two steel spreaders temporarily attached to the bottom of both jambs to serve as a brace during shipping and handling. Spreader bars are for bracing only and are not to be used to size the frame opening.

3. Sidelight and Transom Bar Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
4. High Frequency Hinge Reinforcement: Provide high frequency hinge reinforcements at door openings 48-inches and wider with mortise butt type hinges at top hinge locations.
5. Continuous Hinge Reinforcement: Provide welded continuous 12 gauge straps for continuous hinges specified in hardware sets in Division 08 Section "Door Hardware".
6. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated for removable stops, provide security screws at exterior locations.
7. Mortar Guards: Provide guard boxes at back of hardware mortises in frames at all hinges and strike preps regardless of grouting requirements.
8. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
9. Jamb Anchors: Provide number and spacing of anchors as follows:

    a. Masonry Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:

        1) Two anchors per jamb up to 60 inches high.
        2) Three anchors per jamb from 60 to 90 inches high.
        3) Four anchors per jamb from 90 to 120 inches high.
        4) Four anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof above 120 inches high.

    b. Stud Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:

        1) Three anchors per jamb up to 60 inches high.
        2) Four anchors per jamb from 60 to 90 inches high.
        3) Five anchors per jamb from 90 to 96 inches high.
        4) Five anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
        5) Two anchors per head for frames above 42 inches wide and mounted in metal stud partitions.
10. Door Silencers: Except on weatherstripped or gasketed doors, drill stops to receive door silencers. Silencers to be supplied by frame manufacturer regardless if specified in Division 08 Section "Door Hardware".
11. Bituminous Coating: Where frames are fully grouted with an approved Portland Cement based grout or mortar, coat inside of frame throat with a water based bituminous or asphaltic emulsion coating to a minimum thickness of 3 mils DFT, tested in accordance with UL 10C and applied to the frame under a 3rd party independent follow-up service procedure.

E. Hardware Preparation: Factory prepare hollow metal work to receive template mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to the Door

DRAFT

Hardware Schedule and templates furnished as specified in Division 08 Section "Door Hardware."

1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
2. Reinforce doors and frames to receive non-template, mortised and surface mounted door hardware.
3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.
4. Coordinate locations of conduit and wiring boxes for electrical connections with Division 26 Sections.

2.9 STEEL FINISHES

A. Prime Finishes: Doors and frames to be cleaned, and chemically treated to insure maximum finish paint adhesion. Surfaces of the door and frame exposed to view to receive a factory applied coat of rust inhibiting shop primer.

1. Shop Primer: Manufacturer's standard, fast-curing, lead and chromate free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; and compatible with substrate and field-applied coatings.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. General Contractor to verify the accuracy of dimensions given to the steel door and frame manufacturer for existing openings or existing frames (strike height, hinge spacing, hinge back set, etc.).

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Remove welded in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.

B. Prior to installation, adjust and securely brace welded hollow metal frames for square, level, twist, and plumb condition.

C. Tolerances shall comply with SDI-117 "Manufacturing Tolerances Standard Steel Doors and Frames."

D. Drill and tap doors and frames to receive non-template, mortised, and surface-mounted door hardware.

DRAFT

E. Verify tolerances against manufacturers installations instructions for tornado and hurricane storm shelter openings.

3.3 INSTALLATION

A. General: Install hollow metal work plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.

B. Hollow Metal Frames: Install hollow metal frames of size and profile indicated. Comply with ANSI/SDI A250.11 and NFPA 80 at fire rated openings.

1. Set frames accurately in position, plumbed, leveled, aligned, and braced securely until permanent anchors are set. After wall construction is complete and frames properly set and secured, remove temporary braces, leaving surfaces smooth and undamaged. Shim as necessary to comply with installation tolerances.
2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with post-installed expansion anchors.
3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with mortar.
4. Grout Requirements: Do not grout head of frames unless reinforcing has been installed in head of frame. Do not grout vertical or horizontal closed mullion members.

C. Hollow Metal Doors: Fit hollow metal doors accurately in frames, within clearances specified below. Shim as necessary.

1. Non-Fire-Rated Standard Steel Doors:

    a. Jambs and Head: 1/8 inch plus or minus 1/16 inch.
    b. Between Edges of Pairs of Doors: 1/8 inch plus or minus 1/16 inch.
    c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch.
    d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch.

2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.

D. Field Glazing: Comply with installation requirements in Division 08 Section "Glazing" and with hollow metal manufacturer's written instructions.

3.4 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable.

B. Remove grout and other bonding material from hollow metal work immediately after installation.

C. Prime-Coat and Painted Finish Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat, or painted finishes, and apply touchup of compatible air drying, rust-inhibitive primer, zinc rich primer (exterior and galvanized openings) or finish paint.

DRAFT

3.5 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

END OF SECTION

DRAFT

SECTION 08 43 13

ALUMINUM-FRAMED STOREFRONTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Aluminum-framed storefront systems.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For aluminum-framed storefronts. Include plans, elevations, sections, full-size details, and attachments to other work.

1. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.

C. Samples: For each type of exposed finish required.

1.4 INFORMATIONAL SUBMITTALS

A. Energy Performance Certificates: NFRC-certified energy performance values from manufacturer.

B. Product test reports.

C. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

DRAFT

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer and that employs a qualified glazing contractor for this Project who is certified under the North American Contractor Certification Program (NACC) for Architectural Glass & Metal (AGM) contractors and that employs glazing technicians certified under the Architectural Glass and Metal Technician (AGMT) certification program.

B. Testing Agency Qualifications: Qualified in accordance with ASTM E699 for testing indicated and accredited by IAS or ILAC Mutual Recognition Arrangement as complying with ISO/IEC 17025 and acceptable to Owner and Architect.

C. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.

1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed storefronts that do not comply with requirements or that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

B. Special Finish Warranty, Factory-Applied Finishes: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of baked enamel, powder coat, or organic finishes within specified warranty period.

1. Warranty Period: 20 years from date of Substantial Completion.

C. Special Finish Warranty, Anodized Finishes: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of anodized finishes within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. EFCO Corp. – Basis of Design.

B. CR Laurence.

DRAFT

C. Coral Architectural Products.

D. An Approved Equal.

2.2 PERFORMANCE REQUIREMENTS

A. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed storefronts representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.

1. Aluminum-framed storefronts shall withstand movements of supporting structure, including, but not limited to, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
2. Failure also includes the following:
    a. Thermal stresses transferring to building structure.
    b. Glass breakage.
    c. Noise or vibration created by wind and thermal and structural movements.
    d. Loosening or weakening of fasteners, attachments, and other components.
    e. Failure of operating units.

B. Structural Loads:

1. Wind Loads: As indicated on Drawings.
2. Other Design Loads: As indicated on Drawings.

C. Deflection of Framing Members Supporting Glass: At design wind load, as follows:

1. Deflection Normal to Wall Plane: Limited to 1/175 of clear span for spans of up to 13 feet 6 inches and to 1/240 of clear span plus 1/4 inch for spans greater than 13 feet 6 inches.
2. Deflection Parallel to Glazing Plane: Limited to amount not exceeding that which reduces glazing bite to less than 75 percent of design dimension and that which reduces edge clearance between framing members and glazing or other fixed components to less than 1/8 inch.
    a. Operable Units: Provide a minimum 1/16-inch clearance between framing members and operable units.
3. Cantilever Deflection: Limited to 2l/175 at unsupported cantilevers.

D. Structural: Test in accordance with ASTM E330/E330M as follows:

1. When tested at positive and negative wind-load design pressures, storefront assemblies do not evidence deflection exceeding specified limits.
2. When tested at 150 percent of positive and negative wind-load design pressures, storefront assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
3. Test Durations: As required by design wind velocity, but not less than 10 seconds.

E. Water Penetration under Static Pressure: Test in accordance with ASTM E331 as follows:

DRAFT

1. No evidence of water penetration through fixed glazing and framing areas when tested in accordance with a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 15 lbf/sq. ft..

F. Energy Performance: Certified and labelled by manufacturer for energy performance as follows:

1. Thermal Transmittance (U-factor):
   a. Fixed Glazing and Framing Areas: U-factor for the system of not more than 0.38 Btu/sq. ft. x h x deg F as determined in accordance with NFRC 100.
2. Solar Heat Gain Coefficient (SHGC):
   a. Fixed Glazing and Framing Areas: SHGC for the system of not more than 0.38 as determined in accordance with NFRC 200.
3. Air Leakage:
   a. Fixed Glazing and Framing Areas: Air leakage for the system of not more than 0.06 cfm/sq. ft. at a static-air-pressure differential of 1.57 lbf/sq. ft. when tested in accordance with ASTM E283.
4. Condensation Resistance Factor (CRF):
   a. Fixed Glazing and Framing Areas: CRF for the system of not less than 55 as determined in accordance with AAMA 1503.

G. Windborne-Debris Impact Resistance: Passes ASTM E1886 missile-impact and cyclic-pressure tests in accordance with ASTM E1996 for Wind Zone 1 for basic protection.

1. Large-Missile Test: For glazing located within 30 feet of grade.
2. Small-Missile Test: For glazing located between 30 feet and 60 feet above grade.

H. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.3 ALUMINUM-FRAMED STOREFRONT SYSTEMS

A. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.

1. Exterior Framing Construction: Thermally broken .
2. Interior Vestibule Framing Construction: Nonthermal.
3. Glazing System: Retained mechanically with gaskets on two sides and structural sealant on two sides.
4. Glazing Plane: Front.
5. Finish: Color anodic finish.
6. Fabrication Method: Field-fabricated stick system.
7. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
8. Steel Reinforcement: As required by manufacturer.

B. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.

DRAFT

C. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

2.4 GLAZING

A. Glazing: Comply with Section 08 80 00 "Glazing."

B. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.

C. Glazing Sealants: As recommended by manufacturer.

2.5 MATERIALS

A. Sheet and Plate: ASTM B209.

B. Extruded Bars, Rods, Profiles, and Tubes: ASTM B221.

C. Structural Profiles: ASTM B308/B308M.

D. Steel Reinforcement:

1. Structural Shapes, Plates, and Bars: ASTM A36/A36M.
2. Cold-Rolled Sheet and Strip: ASTM A1008/A1008M.
3. Hot-Rolled Sheet and Strip: ASTM A1011/A1011M.

E. Steel Reinforcement Primer: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods in accordance with recommendations in SSPC-SP COM, and prepare surfaces in accordance with applicable SSPC standard.

2.6 FABRICATION

A. Form or extrude aluminum shapes before finishing.

B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

C. Fabricate components that, when assembled, have the following characteristics:

1. Profiles that are sharp, straight, and free of defects or deformations.
2. Accurately fitted joints with ends coped or mitered.
3. Physical and thermal isolation of glazing from framing members.
4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
5. Provisions for field replacement of glazing from interior for vision glass and exterior for spandrel glazing or metal panels.

DRAFT

6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

D. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.

E. After fabrication, clearly mark components to identify their locations in Project in accordance with Shop Drawings.

2.7 ALUMINUM FINISHES

A. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.

1. Color: Medium bronze as selected by Architect from full range of industry colors and color densities.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Comply with manufacturer's written instructions.

B. Do not install damaged components.

C. Fit joints to produce hairline joints free of burrs and distortion.

D. Rigidly secure nonmovement joints.

E. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.

F. Seal perimeter and other joints watertight unless otherwise indicated.

G. Metal Protection:

1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

H. Set continuous sill members and flashing in full sealant bed, as specified in Section 079200 "Joint Sealants," to produce weathertight installation.

I. Install joint filler behind sealant as recommended by sealant manufacturer.

J. Install components plumb and true in alignment with established lines and grades.

DRAFT

3.2 INSTALLATION OF GLAZING

A. Install glazing as specified in Section 08 80 00 "Glazing."

3.3 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Field Quality-Control Testing: Perform the following test on representative areas of aluminum-framed storefronts.

1. Water-Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested in accordance with AAMA 501.2 and shall not evidence water penetration.
   a. Perform a minimum of two tests in areas as directed by Architect.
2. Air Leakage: ASTM E783 at 1.5 times the rate specified for laboratory testing in "Performance Requirements" Article but not more than 0.09 cfm/sq. ft. at a static-air-pressure differential of 1.57 lbf/sq. ft..
   a. Perform a minimum of two tests in areas as directed by Architect.
3. Water Penetration: ASTM E1105 at a minimum uniform and cyclic static-air-pressure differential of 0.67 times the static-air-pressure differential specified for laboratory testing in "Performance Requirements" Article, but not less than 6.24 lbf/sq. ft., and shall not evidence water penetration.

C. Aluminum-framed storefronts will be considered defective if they do not pass tests and inspections.

D. Prepare test and inspection reports.

END OF SECTION

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DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Automatic operators.
4. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.
2. Division 08 Section “Aluminum-Framed Storefronts”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
8. State Building Codes, Local Amendments.

DRAFT

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:

a. Type, style, function, size, label, hand, and finish of each door hardware item.
b. Manufacturer of each item.
c. Fastenings and other pertinent information.
d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
e. Explanation of abbreviations, symbols, and codes contained in schedule.
f. Mounting locations for door hardware.
g. Door and frame sizes and materials.
h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

DRAFT

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

    a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    b. Complete (risers, point-to-point) access control system block wiring diagrams.
    c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Closeout Procedures.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity.

DRAFT

Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.

2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.

G. Keying Conference: Conduct keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

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1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

DRAFT

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Please note that ASSA ABLOY is transitioning the Yale Commercial brand to Arrow. This affects only the brand name; the products and product numbers will remain unchanged. The brand transition is expected to be complete in or about August of 2024, and products shipping after that time will be branded Arrow.

D. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 continuous geared hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:.

a. Ives (IV).
b. Pemko (PE).

2.3 POWER TRANSFER DEVICES

A. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length

DRAFT

required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

    a. McKinney (MK) - Electrical Connecting Kit: QC-R001.
    b. McKinney (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

    a. McKinney (MK) - QC-C Series.

2.4 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Pulls, where applicable, shall be provided with a 10” clearance from the finished floor on the push side to accommodate wheelchair accessibility.
5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.

6. Manufacturers:

    a. Rockwood (RO).

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

1. Manufacturers:

    a. Match Existing, Field Verify.

B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:

1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.

DRAFT

3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.
5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Match Facility Standard.

C. Large Format Interchangeable Cores: Provide removable cores (LFIC) as specified, core insert, removable by use of a special key, and for use with only the core manufacturer's cylinder and door hardware.

D. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. New System: Key locks to a new key system as directed by the Owner.

E. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Control Keys (where required): Two (2).
4. Permanent Control Keys (where required): Two (2).

F. Construction Keying: Provide temporary keyed construction cores.

G. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

DRAFT

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.7 ELECTRIC STRIKES

A. Surface Mounted Rim Electric Strikes: Surface mounted rim exit device electric strikes conforming to ANSI/BHMA A156.31, Grade 1, and UL Listed for both Burglary Resistance and for use on fire rated door assemblies. Construction includes internally mounted solenoid with two heavy-duty, stainless steel locking mechanisms operating independently to provide tamper resistance. Strikes tested for a minimum of 500,000 operating cycles. Provide strikes with 12 or 24 VDC capability supplied standard as fail-secure unless otherwise specified. Option available for latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike. Strike requires no cutting to the jamb prior to installation.

1. Manufacturers:

    a. Folger Adam (FO) - 310-4 Series.
    b. HES (HS) - 9400/9500/9600/9700/9800 Series.

B. Provide electric strikes with in-line power controller and surge suppressor by the same manufacturer as the strike with the combined products having a five year warranty.

2.8 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. Exit devices shall have a five-year warranty.

2. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

3. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.

4. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.

DRAFT

5. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.

6. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.

7. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

   a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
   b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

8. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.

9. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

10. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.

11. Rail Sizing: Provide exit device rails factory sized for proper door width application.

12. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

   1. Manufacturers:

      a. Arrow, formerly known as Yale (YA) - 7000 Series.
      b. Sargent Manufacturing (SA) - 80 Series.
      c. Von Duprin (VD) - 35A/98 XP Series.

2.9 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

DRAFT

3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.

4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Heavy duty surface mounted door closers shall have a 30-year warranty.

2. Manufacturers:

a. Arrow, formerly known as Yale (YA) - 4400 Series.
b. Norton Rixson (NO) - 7500 Series.
c. Sargent Manufacturing (SA) - 351 Series.

2.10 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.

4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:

DRAFT

a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.

6. Manufacturers:

a. Rockwood (RO).

2.11 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

a. Rockwood (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

a. Norton Rixson (RF).
b. Rockwood (RO).
c. Sargent Manufacturing (SA).

2.12 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

DRAFT

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko (PE).

2.13 ELECTRONIC ACCESSORIES

A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.

1. Manufacturers:

a. Securitron (SU) - DPS Series.

B. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multi-voltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.

1. Manufacturers:

a. Securitron (SU) - AQL Series.

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2.14 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.15 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

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B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Closeout Procedures. Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

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3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.

2. The supplier is responsible for handing and sizing all products.

3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.

B. Manufacturer’s Abbreviations:

1. PE - Pemko
2. SA - SARGENT
3. HS - HES
4. FO - Folger Adam
5. RO - Rockwood
6. RF - Rixson

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7. NO - Norton
8. MK - McKinney
9. SU - Securitron
10. OT - Other

Hardware Sets

Set: 1.0

Doors: 101

2	Continuous Hinge	DFM_SLF-HD1-M		PE
1	Concealed Vert Rod Exit, Nightlatch	NB 16 64 AD8410 106 x 863	US10BE	SA
1	Concealed Vert Rod Exit, Dummy	NB 16 AD8410 863	US10BE	SA
3	Core	Match existing; field verify	US4	SA
1	Electric Strike	310-4-X LCBMA	613	FO
1	Rectifier	2001M		HS
1	ElectroLynx Adaptor	2004M		HS
1	SMART Pac Bridge Rectifier	2005M3		HS
2	Conc Overhead Stop	6-X36	613E	RF
2	Automatic Opener	6300 Series	690	NO
1	Threshold	273x224DFGT MSES25SS		PE
2	Sweep	315DN		PE
2	ElectroLynx Harness	QC-C1500P		MK
2	Position Switch	DPS - M/W		SU
2	Door Switch	564		NO
1	Power Supply	AQL4-R8E1		SU
1	Wiring Diagram	Elevation and Point to Point as Specified		OT

Notes: Perimeter and meeting stile gasket by door / frame manufacturer.

Operational narrative:
- Doors normally closed and dogged.
- Access by pull or operator switch which releases the electric strike and engages the auto operator for entry.
- During locked condition, entry by valid credential which releases the electric strike and energizes operator switch for manual or auto operator entry.
- Egress free for immediate exit. ADA exit by operator switch.
- Electric strike remains (fail secure) in event of power loss ensuring positive latching.

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Set: 2.0

Doors: 102

2	Continuous Hinge	DFM_SLF-HD1-M		PE
2	Push Pull	RM372 Mtg-Type 12XHD	10BE	RO
2	Conc Overhead Stop	6-X36	613E	RF
1	Automatic Opener	6300 Series	690	NO
2	Door Switch	564		NO
1	Power Supply	AQL4-R8E1		SU
1	Wiring Diagram	Elevation and Point to Point as Specified		OT

Notes: Perimeter and meeting stile gasket by door / frame manufacturer.

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Set: 3.0

Doors: 114, 208

1	Continuous Hinge	DFM_HD1-M		PE
1	Rim Exit Device, Storeroom	64 8804 863	US10BE	SA
1	Core	Match existing; field verify	US4	SA
1	Electric Strike	9500-LBSM	613E	HS
1	Rectifier	2001M		HS
1	ElectroLynx Adaptor	2004M		HS
1	SMART Pac Bridge Rectifier	2005M3		HS
1	Surface Closer	351 CPS	EP	SA
1	Kick Plate	K1050 10" high CSK BEV	10BE	RO
1	Threshold	273x224DFGT MSES25SS		PE
1	Gasketing	303DS (Head & Jambs)		PE
1	Rain Guard	346D (Omit at overhangs)		PE
1	Sweep	315DN		PE
1	ElectroLynx Harness	QC-C**** x Length Required		MK
1	ElectroLynx Harness	QC-C1500P		MK
1	Position Switch	DPS - M/W		SU
1	Power Supply	AQL4-R8E1		SU
1	Wiring Diagram	Elevation and Point to Point as Specified		OT

Notes:
Operational narrative:
• Door normally closed and secure.
• Access by valid credential presentation releasing electric strike for a pre-determined time limit and then relocking.
• Egress always free for immediate exit.
• Door position switch provides open/closed monitoring to both access control system and intrusion alarm service.
• Latch remains projected/locked (fail secure) in event of power loss. Key override cylinder for emergency access.

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Set: 4.0

Doors: ST-1A, ST-1B

1	Continuous Hinge	DFM_HD1-M		PE
1	Rim Exit Device, Exit Only	8810 EO	US10BE	SA
1	Surface Closer	351 CPS	EP	SA
1	Kick Plate	K1050 10" high CSK BEV	10BE	RO
1	Threshold	273x224DFGT MSES25SS		PE
1	Gasketing	303DS (Head & Jambs)		PE
1	Rain Guard	346D (Omit at overhangs)		PE
1	Sweep	315DN		PE

Set: 5.0

Doors: 201

1	Continuous Hinge	DFM_HD1-M		PE
1	Rim Exit Device, Exit Only	8810 EO	US10BE	SA
1	Surface Closer	351 CPS	EP	SA
1	Kick Plate	K1050 10" high CSK BEV	10BE	RO
1	Threshold	273x224DFGT MSES25SS		PE
1	Gasketing	303DS (Head & Jambs)		PE
1	Rain Guard	346D (Omit at overhangs)		PE
1	Sweep	315DN		PE
1	Alarm	xxx		xx

END OF SECTION

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SECTION 10 14 19

DIMENSIONAL LETTER SIGNAGE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Dimensional characters.
   a. Fabricated channel dimensional characters.
   b. Illuminated, fabricated channel dimensional characters.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For signs.

1. Include fabrication and installation details and attachments to other work.
2. Show sign mounting heights, locations of supplementary supports to be provided by other installers, and accessories.
3. Show message list, typestyles, graphic elements, and layout for each sign at least half size.
4. Show locations of electrical service connections.
5. Include diagrams for power, signal, and control wiring.

C. Samples: For each exposed product and for each color and texture specified.

1.3 INFORMATIONAL SUBMITTALS

A. Sample warranty.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.5 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

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PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Thermal Movements: For exterior fabricated channel dimensional characters, allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F , ambient; 180 deg F , material surfaces.

2.2 DIMENSIONAL CHARACTERS

A. Fabricated Channel Characters: Metal face and side returns , formed free from warp and distortion; with uniform faces, sharp corners, and precisely formed lines and profiles; internally braced for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners; and as follows.

1. Character Material: Sheet or plate aluminum .
2. Character Height: As indicated on Drawings.
3. Character Depth: As indicated on Drawings.
4. Finishes:
    a. Integral Aluminum Finish: Anodized color as selected by Architect from full range of industry colors and color densities .
    b. Integral Stainless Steel Finish: As selected by Architect from full range of industry finishes .
5. Mounting: As indicated on Drawings .
    a. Hold characters at 2-inch distance from wall surface.

2.3 DIMENSIONAL CHARACTER MATERIALS

A. Stainless Steel Sheet: ASTM A240/A240M or ASTM A666, Type 316, stretcher-leveled standard of flatness.

2.4 ACCESSORIES

A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signs, noncorrosive and compatible with each material joined, and complying with the following:

1. Use concealed fasteners and anchors unless indicated to be exposed.
2. For exterior exposure, furnish stainless steel or hot-dip galvanized devices unless otherwise indicated.
3. Exposed Metal-Fastener Components, General:
    a. Fabricated from same basic metal and finish of fastened metal unless otherwise indicated.
4. Sign Mounting Fasteners:
    a. Concealed Studs: Concealed (blind), threaded studs welded or brazed to back of sign material, screwed into back of sign assembly, or screwed into tapped lugs cast integrally into back of cast sign material, unless otherwise indicated.

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b. Projecting Studs: Threaded studs with sleeve spacer, welded or brazed to back of sign material, screwed into back of sign assembly, or screwed into tapped lugs cast integrally into back of cast sign material, unless otherwise indicated.
c. Through Fasteners: Exposed metal fasteners matching sign finish, with type of head indicated, installed in predrilled holes.

2.5 FABRICATION

A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.

1. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.
2. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed connections of flux, and dress exposed and contact surfaces.
3. Conceal connections if possible; otherwise, locate connections where they are inconspicuous.
4. Internally brace dimensional characters for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners.
5. Provide rabbets, lugs, and tabs necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.
6. Castings: Fabricate castings free of warp, cracks, blowholes, pits, scale, sand holes, and other defects that impair appearance or strength. Grind, wire brush, sandblast, and buff castings to remove seams, gate marks, casting flash, and other casting marks before finishing.

PART 3 - EXECUTION

3.1 INSTALLATION OF DIMENSIONAL CHARACTERS

A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.

1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
2. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.
3. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

B. Mounting Methods:

1. Concealed Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
   a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place sign in position and push until flush to surface,

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embedding studs in holes. Temporarily support sign in position until adhesive fully sets.

b. Thin or Hollow Surfaces: Place sign in position and flush to surface, install washers and nuts on studs projecting through opposite side of surface, and tighten.

2. Projecting Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
   a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place spacers on studs, place sign in position, and push until spacers are pinched between sign and substrate, embedding the stud ends in holes. Temporarily support sign in position until adhesive fully sets.
   b. Thin or Hollow Surfaces: Place spacers on studs, place sign in position with spacers pinched between sign and substrate, and install washers and nuts on stud ends projecting through opposite side of surface, and tighten.
3. Through Fasteners: Drill holes in substrate using predrilled holes in sign as template. Countersink holes in sign if required. Place sign in position and flush to surface. Install through fasteners and tighten.
4. Back Bar and Brackets: Remove loose debris from substrate surface and install backbar or bracket supports in position, so that signage is correctly located and aligned.
5. Adhesive: Clean bond-breaking materials from substrate surface and remove loose debris. Apply linear beads or spots of adhesive symmetrically to back of sign and of suitable quantity to support weight of sign after cure without slippage. Keep adhesive away from edges to prevent adhesive extrusion as sign is applied and to prevent visibility of cured adhesive at sign edges. Place sign in position, and push to engage adhesive. Temporarily support sign in position until adhesive fully sets.

C. Remove temporary protective coverings and strippable films as signs are installed.

END OF SECTION

DRAFT

SECTION 23 05 00

COMMON WORK RESULTS FOR HVAC

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Motors.

B. Related Requirements:

1. Section 231123 "Facility Natural-Gas Piping" for gas meters.
2. Section 232216 "Steam and Condensate Piping Specialties" for steam and condensate meters.
3. Section 230923.13 "Energy Meters" for thermal-energy meters connecting with the DDC system.
4. Section 230923.14 "Flow Instruments" for primary flow instruments connecting with the DDC system.

1.2 DEFINITIONS

A. Existing Piping To Remain: Existing piping that is not to be removed and that is not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 ACTION SUBMITTALS

1.4 INFORMATIONAL SUBMITTALS

1.5 CLOSEOUT SUBMITTALS

1.6 QUALITY ASSURANCE

1.7 COORDINATION

A. Coordinate features of motors, installed units, and accessory devices to be compatible with the following:

1. Motor controllers.
2. Torque, speed, and horsepower requirements of the load.
3. Ratings and characteristics of supply circuit and required control sequence.

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4. Ambient and environmental conditions of installation location.

PART 2 - PRODUCTS

2.1 MOTORS

A. Motor Requirements, General:

1. Content includes motors for use on alternating-current power systems of up to 600 V and installed at equipment manufacturer's factory or shipped separately by equipment manufacturer for field installation.
2. Comply with requirements in this Section except when stricter requirements are specified in equipment schedules or Sections.
3. Comply with NEMA MG 1 unless otherwise indicated.
4. Comply with IEEE 841 for severe-duty motors.

B. Motor Characteristics:

1. Duty: Continuous duty at ambient temperature of 40 deg C and at altitude of 3300 ft. above sea level.
2. Capacity and Torque Characteristics: Sufficient to start, accelerate, and operate connected loads at designated speeds, at installed altitude and environment, with indicated operating sequence, and without exceeding nameplate ratings or considering service factor.

C. Polyphase Motors:

1. Description: NEMA MG 1, Design B, medium induction motor.
2. Efficiency: Premium Efficient, as defined in NEMA MG 1.
3. Service Factor: 1.15.
4. Multispeed Motors: Variable torque.
   a. For motors with 2:1 speed ratio, consequent pole, single winding.
   b. For motors with other than 2:1 speed ratio, separate winding for each speed.
5. Rotor: Random-wound, squirrel cage.
6. Bearings: Regreasable, shielded, antifriction ball bearings suitable for radial and thrust loading.
7. Temperature Rise: Match insulation rating.
8. Insulation: Class F .
9. Code Letter Designation:
   a. Motors 15 Hp and Larger: NEMA starting Code F or Code G.
   b. Motors Smaller Than 15 Hp: Manufacturer's standard starting characteristic.

D. Additional Requirements for Polyphase Motors:

1. Motors Used with Variable-Frequency Controllers: Ratings, characteristics, and features coordinated with and approved by controller manufacturer.
   a. Windings: Copper magnet wire with moisture-resistant insulation varnish, designed and tested to resist transient spikes, high frequencies, and short time-rise pulses produced by pulse-width-modulated inverters.
   b. Premium-Efficient Motors: Class B temperature rise; Class F insulation.

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c. Inverter-Duty Motors: Class F temperature rise; Class H insulation.
d. Thermal Protection: Comply with NEMA MG 1 requirements for thermally protected motors.

E. Electronically Commutated Motors:

1. Microprocessor-Based Electronic Control Module: Converts 120 V or 240 V single-phase AC power to three-phase DC power to operate the brushless DC motor.
2. Three-phase power motor module with permanent magnet rotor.
3. Circuit board or digital speed controller/LED display.
4. Building Automation System Interface: Via AC voltage signal DC voltage signal or Digital Serial Interface (DSI).

PART 3 - EXECUTION

3.1 CONNECTIONS

A. Install meters and gauges adjacent to machines and equipment to allow space for service and maintenance of meters, gauges, machines, and equipment.

3.2 ADJUSTING

A. After installation, calibrate meters according to manufacturer's written instructions.

B. Adjust faces of meters and gauges to proper angle for best visibility.

END OF SECTION

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SECTION 23 05 29

HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Metal pipe hangers and supports.
2. Trapeze pipe hangers.
3. Fastener systems.
4. Equipment stands.
5. Equipment supports.

B. Related Requirements:

1. Section 233113 "Metal Ducts" for duct hangers and supports.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: Show fabrication and installation details and include calculations for the following; include Product Data for components:

1. Equipment supports.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design trapeze pipe hangers and equipment supports.

2.2 METAL PIPE HANGERS AND SUPPORTS

A. Carbon-Steel Pipe Hangers and Supports:

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1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
2. Galvanized Metallic Coatings: Pregalvanized, hot-dip galvanized, or electro-galvanized.
3. Nonmetallic Coatings: Plastic coated, or epoxy powder-coated.
4. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
5. Hanger Rods: Continuous-thread rod, nuts, and washer made of carbon steel .

B. Copper Pipe and Tube Hangers:

1. Description: MSS SP-58, Types 1 through 58, copper-plated steel, factory-fabricated components.
2. Hanger Rods: Continuous-thread rod, nuts, and washer made of copper-plated steel .

2.3 TRAPEZE PIPE HANGERS

A. Description: MSS SP-58, Type 59, shop- or field-fabricated pipe-support assembly made from structural carbon-steel shapes with MSS SP-58 carbon-steel hanger rods, nuts, saddles, and U-bolts.

2.4 FASTENER SYSTEMS

A. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

B. Mechanical-Expansion Anchors: Insert-wedge-type anchors for use in hardened portland cement concrete; with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

1. Indoor Applications: Zinc-coated steel.
2. Outdoor Applications: Stainless steel.

2.5 EQUIPMENT SUPPORTS

A. Description: Welded, shop- or field-fabricated equipment support made from structural carbon-steel shapes.

2.6 OUTDOOR EQUIPMENT STANDS

A. Description: Individual foot supports with elevated adjustable channel cross bars and clamps/fasteners/bolts for ground or roof supported outdoor equipment components, without roof membrane penetration, in a pre-fabricated system that can be modularly-assembled on site.

B. Foot Material: Rubber or polypropylene.

C. Rails Material: Hot dip galvanized carbon steel.

D. Wind/Sliding Load Resistance: Up to 100 mph minimum.

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2.7 MATERIALS

A. Structural Steel: ASTM A36/A36M, carbon-steel plates, shapes, and bars; galvanized.

B. Grout: ASTM C1107/C1107M, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.

1. Properties: Nonstaining, noncorrosive, and nongaseous.
2. Design Mix: 5000-psi, 28-day compressive strength.

PART 3 - EXECUTION

3.1 APPLICATION

A. Comply with requirements in Section 078413 "Penetration Firestopping" for firestopping materials and installation for penetrations through fire-rated walls, ceilings, and assemblies.

B. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb .

3.2 HANGER AND SUPPORT INSTALLATION

A. Fastener System Installation:

1. Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 4 inches thick in concrete after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners according to powder-actuated tool manufacturer's operating manual.
2. Install mechanical-expansion anchors in concrete after concrete is placed and completely cured. Install fasteners according to manufacturer's written instructions.

B. Install hangers and supports complete with necessary attachments, inserts, bolts, rods, nuts, washers, and other accessories.

C. Equipment Support Installation: Fabricate from welded-structural-steel shapes.

D. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.

E. Install lateral bracing with pipe hangers and supports to prevent swaying.

F. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.

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G. Load Distribution: Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.

H. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

I. Insulated Piping:

1. Attach clamps and spacers to piping.
   a. Piping Operating above Ambient Air Temperature: Clamp may project through insulation.
   b. Piping Operating below Ambient Air Temperature: Use thermal-hanger shield insert with clamp sized to match OD of insert.
   c. Do not exceed pipe stress limits allowed by ASME B31.9 for building services piping.
2. Install MSS SP-58, Type 39, protection saddles if insulation without vapor barrier is indicated. Fill interior voids with insulation that matches adjoining insulation.
   a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 and larger if pipe is installed on rollers.
3. Install MSS SP-58, Type 40, protective shields on cold piping with vapor barrier. Shields shall span an arc of 180 degrees.
   a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 and larger if pipe is installed on rollers.
4. Shield Dimensions for Pipe: Not less than the following:
   a. NPS 1/4 to NPS 3-1/2: 12 inches long and 0.048 inch thick.

3.3 EQUIPMENT SUPPORTS

A. Fabricate structural-steel stands to suspend equipment from structure overhead or to support equipment above floor.

B. Grouting: Place grout under supports for equipment and make bearing surface smooth.

C. Provide lateral bracing, to prevent swaying, for equipment supports.

3.4 ADJUSTING

A. Hanger Adjustments: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.

B. Trim excess length of continuous-thread hanger and support rods to 1-1/2 inches .

3.5 PAINTING

A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.

1. Apply paint by brush or spray to provide a minimum dry film thickness of 2.0 mils.

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B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A780/A780M.

3.6 HANGER AND SUPPORT SCHEDULE

A. Specific hanger and support requirements are in Sections specifying piping systems and equipment.

B. Comply with MSS SP-58 for pipe-hanger selections and applications that are not specified in piping system Sections.

C. Use hangers and supports with galvanized metallic coatings for piping and equipment that will not have field-applied finish.

D. Use nonmetallic coatings on attachments for electrolytic protection where attachments are in direct contact with copper tubing.

E. Use carbon-steel pipe hangers and supports and metal trapeze pipe hangers and and attachments for general service applications.

F. Use stainless steel pipe hangers stainless steel or corrosion-resistant attachments for hostile environment applications.

G. Use copper-plated pipe hangers and copper or stainless steel attachments for copper piping and tubing.

H. Use padded hangers for piping that is subject to scratching.

I. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers NPS 3/4 to NPS 24.
2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers NPS 3/4 to NPS 24 if longer ends are required for riser clamps.

J. Hanger-Rod Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Steel Turnbuckles (MSS Type 13): For adjustment up to 6 inches for heavy loads.
2. Steel Clevises (MSS Type 14): For 120 to 450 deg F piping installations.
3. Swivel Turnbuckles (MSS Type 15): For use with MSS Type 11, split pipe rings.
4. Malleable-Iron Sockets (MSS Type 16): For attaching hanger rods to various types of building attachments.
5. Steel Weldless Eye Nuts (MSS Type 17): For 120 to 450 deg F piping installations.

K. Building Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Steel or Malleable Concrete Inserts (MSS Type 18): For upper attachment to suspend pipe hangers from concrete ceiling.

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2. Top-Beam C-Clamps (MSS Type 19): For use under roof installations with bar-joist construction, to attach to top flange of structural shape.
3. Side-Beam or Channel Clamps (MSS Type 20): For attaching to bottom flange of beams, channels, or angles.
4. Center-Beam Clamps (MSS Type 21): For attaching to center of bottom flange of beams.
5. Welded Beam Attachments (MSS Type 22): For attaching to bottom of beams if loads are considerable and rod sizes are large.
6. C-Clamps (MSS Type 23): For structural shapes.
7. Top-Beam Clamps (MSS Type 25): For top of beams if hanger rod is required tangent to flange edge.
8. Side-Beam Clamps (MSS Type 27): For bottom of steel I-beams.
9. Steel-Beam Clamps with Eye Nuts (MSS Type 28): For attaching to bottom of steel I-beams for heavy loads.
10. Linked-Steel Clamps with Eye Nuts (MSS Type 29): For attaching to bottom of steel I-beams for heavy loads, with link extensions.
11. Malleable-Beam Clamps with Extension Pieces (MSS Type 30): For attaching to structural steel.
12. Welded-Steel Brackets: For support of pipes from below or for suspending from above by using clip and rod. Use one of the following for indicated loads:
    a. Light (MSS Type 31): 750 lb.
    b. Medium (MSS Type 32): 1500 lb.
    c. Heavy (MSS Type 33): 3000 lb.
13. Side-Beam Brackets (MSS Type 34): For sides of steel or wooden beams.
14. Plate Lugs (MSS Type 57): For attaching to steel beams if flexibility at beam is required.
15. Horizontal Travelers (MSS Type 58): For supporting piping systems subject to linear horizontal movement where headroom is limited.

L. Spring Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Restraint-Control Devices (MSS Type 47): Where indicated to control piping movement.
2. Spring Cushions (MSS Type 48): For light loads if vertical movement does not exceed 1-1/4 inches.
3. Spring-Cushion Roll Hangers (MSS Type 49): For equipping Type 41, roll hanger with springs.
4. Spring Sway Braces (MSS Type 50): To retard sway, shock, vibration, or thermal expansion in piping systems.
5. Variable-Spring Hangers (MSS Type 51): Preset to indicated load and limit variability factor to 25 percent to allow expansion and contraction of piping system from hanger.
6. Variable-Spring Base Supports (MSS Type 52): Preset to indicated load and limit variability factor to 25 percent to allow expansion and contraction of piping system from base support.
7. Variable-Spring Trapeze Hangers (MSS Type 53): Preset to indicated load and limit variability factor to 25 percent to allow expansion and contraction of piping system from trapeze support.
8. Constant Supports: For critical piping stress and if necessary to avoid transfer of stress from one support to another support, critical terminal, or connected equipment. Include auxiliary stops for erection, hydrostatic test, and load-adjustment capability. These supports include the following types:
    a. Horizontal (MSS Type 54): Mounted horizontally.
    b. Vertical (MSS Type 55): Mounted vertically.

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c. Trapeze (MSS Type 56): Two vertical-type supports and one trapeze member.

M. Comply with MSS SP-58 for trapeze pipe-hanger selections and applications that are not specified in piping system Sections.

N. Use powder-actuated fasteners or mechanical-expansion anchors instead of building attachments where required in concrete construction.

END OF SECTION

DRAFT

SECTION 23 05 53

IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Equipment labels.
2. Warning signs and labels.
3. Duct labels.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For color, letter style, and graphic representation required for each identification material and device.

C. Equipment-Label Schedule: Include a listing of all equipment to be labeled with the proposed content for each label.

D. Valve-numbering scheme.

E. Valve Schedules: Provide for each piping system. Include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 EQUIPMENT LABELS

A. Metal Labels for Equipment:

1. Material and Thickness: stainless steel, 0.025-inch minimum thickness, with predrilled or stamped holes for attachment hardware.
2. Letter and Background Color: As indicated for specific application under Part 3.
3. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
4. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances of up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
5. Fasteners: Stainless steel rivets or self-tapping screws.
6. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

DRAFT

B. Label Content: Include equipment's Drawing designation or unique equipment number, Drawing numbers where equipment is indicated (plans, details, and schedules), and the Specification Section number and title where equipment is specified.

2.2 WARNING SIGNS AND LABELS

A. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/8 inch thick, with predrilled holes for attachment hardware.

B. Letter and Background Color: As indicated for specific application under Part 3.

C. Maximum Temperature: Able to withstand temperatures of up to 160 deg F.

D. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.

E. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances of up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.

F. Fasteners: Stainless steel rivets or self-taping screws.

G. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

H. Label Content: Include caution and warning information plus emergency notification instructions.

2.3 DUCT LABELS

A. Letter and Background Color: As indicated for specific application under Part 3.

B. Maximum Temperature: Able to withstand temperatures up to 160 deg F.

C. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.

D. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances of up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.

E. Fasteners: Stainless steel rivets or self-tapping screws.

F. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

G. Duct Label Contents: Include identification of duct service using same designations or abbreviations as used on Drawings. Also include the following:

DRAFT

1. Flow-Direction Arrows: Include flow-direction arrows on main distribution ducts. Arrows may be either integral with label or may be applied separately.
2. Lettering Size: Size letters in accordance with ASME A13.1 for piping .

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean piping and equipment surfaces of incompatible primers, paints, and encapsulants, as well as dirt, oil, grease, release agents, and other substances that could impair bond of identification devices.

3.2 INSTALLATION, GENERAL REQUIREMENTS

A. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.

B. Coordinate installation of identifying devices with locations of access panels and doors.

C. Install identifying devices before installing acoustical ceilings and similar concealment.

D. Locate identifying devices so that they are readily visible from the point of normal approach.

3.3 INSTALLATION OF EQUIPMENT LABELS, WARNING SIGNS, AND LABELS

A. Permanently fasten labels on each item of mechanical equipment.

B. Sign and Label Colors:

1. White letters on an ANSI Z535.1 safety-blue background .

C. Locate equipment labels where accessible and visible.

3.4 INSTALLATION OF DUCT LABELS

A. Install self-adhesive duct labels showing service and flow direction with permanent adhesive on air ducts.

1. Provide labels in the following color codes:
   a. For air supply ducts: White letters on blue background .
   b. For exhaust-, outside-, relief-, return-, and mixed-air ducts: White letters on green background .

B. Locate label near each point where ducts enter into and exit from concealed spaces and at maximum intervals of 20 ft. where exposed or are concealed by removable ceiling system.

END OF SECTION

DRAFT

SECTION 23 0 593

TESTING, ADJUSTING, AND BALANCING FOR HVAC

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Testing, Adjusting, and Balancing of Air Systems:
   a. Variable-air-volume systems.
2. Testing, Adjusting, and Balancing of Hydronic Piping Systems:
   a. Variable-flow hydronic systems.
3. Testing, adjusting, and balancing of equipment.
4. HVAC-control system verification.

1.3 DEFINITIONS

A. AABC: Associated Air Balance Council.

B. NEBB: National Environmental Balancing Bureau.

C. TAB: Testing, adjusting, and balancing.

D. TABB: Testing, Adjusting, and Balancing Bureau.

E. TAB Specialist: An independent entity meeting qualifications to perform TAB work.

F. TDH: Total dynamic head.

G. UFAD: Underfloor air distribution.

1.4 PREINSTALLATION MEETINGS

A. TAB Conference: Conduct a TAB conference at Project site after approval of the TAB strategies and procedures plan, to develop a mutual understanding of the details. Provide a minimum of 14 days' advance notice of scheduled meeting time and location.

1. Minimum Agenda Items:
   a. The Contract Documents examination report.

DRAFT

b. The TAB plan.
c. Needs for coordination and cooperation of trades and subcontractors.
d. Proposed procedures for documentation and communication flow.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: Within 30 days of Contractor's Notice to Proceed, submit documentation that the TAB specialist and this Project's TAB team members meet the qualifications specified in "Quality Assurance" Article.

B. Contract Documents Examination Report: Within 30 days of Contractor's Notice to Proceed, submit the Contract Documents review report, as specified in Part 3.

C. Strategies and Procedures Plan: Within 30 days of Contractor's Notice to Proceed, submit TAB strategies and step-by-step procedures, as specified in "Preparation" Article.

D. System Readiness Checklists: Within 30 days of Contractor's Notice to Proceed, submit system readiness checklists, as specified in "Preparation" Article.

E. Examination Report: Submit a summary report of the examination review required in "Examination" Article.

F. Certified TAB reports.

G. Sample report forms.

H. Instrument calibration reports, to include the following:

1. Instrument type and make.
2. Serial number.
3. Application.
4. Dates of use.
5. Dates of calibration.

1.6 QUALITY ASSURANCE

A. TAB Specialists Qualifications, Certified by NEBB :

1. TAB Field Supervisor: Employee of the TAB specialist and certified by NEBB .
2. TAB Technician: Employee of the TAB specialist and certified by NEBB .

B. Instrumentation Type, Quantity, Accuracy, and Calibration: Comply with requirements in ASHRAE 111, Section 4, "Instrumentation."

C. ASHRAE/IES 90.1 Compliance: Applicable requirements in ASHRAE/IES 90.1, Section 6.7.2.3 - "System Balancing."

D. Code and AHJ Compliance: TAB is required to comply with governing codes and requirements of authorities having jurisdiction.

DRAFT

1.7 FIELD CONDITIONS

A. Partial Owner Occupancy: Owner may occupy completed areas of building before Substantial Completion. Cooperate with Owner during TAB operations to minimize conflicts with Owner's operations.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine the Contract Documents to become familiar with Project requirements and to discover conditions in systems designs that may preclude proper TAB of systems and equipment.

B. Examine installed systems for balancing devices, such as test ports, gauge cocks, thermometer wells, flow-control devices, balancing valves and fittings, and manual volume dampers. Verify that locations of these balancing devices are applicable for intended purpose and are accessible.

C. Examine the approved submittals for HVAC systems and equipment.

D. Examine design data, including HVAC system descriptions, statements of design assumptions for environmental conditions and systems output, and statements of philosophies and assumptions about HVAC system and equipment controls.

E. Examine ceiling plenums and underfloor air plenums used for HVAC to verify that they are properly separated from adjacent areas and sealed.

F. Examine equipment performance data, including fan and pump curves.

1. Relate performance data to Project conditions and requirements, including system effects that can create undesired or unpredicted conditions that cause reduced capacities in all or part of a system.
2. Calculate system-effect factors to reduce performance ratings of HVAC equipment when installed under conditions different from the conditions used to rate equipment performance. To calculate system effects for air systems, use tables and charts found in AMCA 201, "Fans and Systems," or in SMACNA's "HVAC Systems - Duct Design." Compare results with the design data and installed conditions.

G. Examine system and equipment installations and verify that field quality-control testing, cleaning, and adjusting specified in individual Sections have been performed.

H. Examine test reports specified in individual system and equipment Sections.

I. Examine HVAC equipment and verify that bearings are greased, belts are aligned and tight, filters are clean, and equipment with functioning controls is ready for operation.

J. Examine terminal units, such as variable-air-volume boxes, and verify that they are accessible and their controls are connected and functioning.

DRAFT

K. Examine temporary and permanent strainers. Verify that temporary strainer screens used during system cleaning and flushing have been removed and permanent strainer baskets are installed and clean.

L. Examine control valves for proper installation for their intended function of isolating, throttling, diverting, or mixing fluid flows.

M. Examine heat-transfer coils for correct piping connections and for clean and straight fins.

N. Examine system pumps to ensure absence of entrained air in the suction piping.

O. Examine operating safety interlocks and controls on HVAC equipment.

P. Examine control dampers for proper installation for their intended function of isolating, throttling, diverting, or mixing air flows.

Q. Report deficiencies discovered before and during performance of TAB procedures. Observe and record system reactions to changes in conditions. Record default set points if different from indicated values.

3.2 PREPARATION

A. Prepare a TAB plan that includes the following:

1. Equipment and systems to be tested.
2. Strategies and step-by-step procedures for balancing the systems.
3. Instrumentation to be used.
4. Sample forms with specific identification for all equipment.

B. Perform system-readiness checks of HVAC systems and equipment to verify system readiness for TAB work. Include, at a minimum, the following:

1. Airside:
   a. Verify that leakage and pressure tests on air distribution systems have been satisfactorily completed.
   b. Duct systems are complete with terminals installed.
   c. Volume, smoke, and fire dampers are open and functional.
   d. Clean filters are installed.
   e. Fans are operating, free of vibration, and rotating in correct direction.
   f. Variable-frequency controllers' startup is complete and safeties are verified.
   g. Automatic temperature-control systems are operational.
   h. Ceilings are installed.
   i. Windows and doors are installed.
   j. Suitable access to balancing devices and equipment is provided.
2. Hydronics:
   a. Verify leakage and pressure tests on water distribution systems have been satisfactorily completed.
   b. Piping is complete with terminals installed.
   c. Water treatment is complete.
   d. Systems are flushed, filled, and air purged.

DRAFT

e. Strainers are pulled and cleaned.
f. Control valves are functioning in accordance with the sequence of operation.
g. Shutoff and balance valves have been verified to be 100 percent open.
h. Pumps are started and proper rotation is verified.
i. Pump gauge connections are installed directly at pump inlet and outlet flanges or in discharge and suction pipe prior to valves or strainers.
j. Variable-frequency controllers' startup is complete and safeties are verified.
k. Suitable access to balancing devices and equipment is provided.

3.3 GENERAL PROCEDURES FOR TESTING AND BALANCING

A. Perform testing and balancing procedures on each system in accordance with the procedures contained in NEBB's "Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems" and in this Section.

B. Cut insulation, ducts, pipes, and equipment casings for installation of test probes to the minimum extent necessary for TAB procedures.

1. After testing and balancing, patch probe holes in ducts with same material and thickness as used to construct ducts.
2. After testing and balancing, install test ports and duct access doors that comply with requirements in Section 233300 "Air Duct Accessories."
3. Where holes for probes are required in piping or hydronic equipment, install pressure and temperature test plugs to seal systems.
4. Install and join new insulation that matches removed materials. Restore insulation, coverings, vapor barrier, and finish in accordance with Section 230713 "Duct Insulation," Section 230716 "HVAC Equipment Insulation," and Section 230719 "HVAC Piping Insulation."

C. Mark equipment and balancing devices, including damper-control positions, valve position indicators, fan-speed-control levers, and similar controls and devices, with paint or other suitable, permanent identification material to show final settings.

D. Take and report testing and balancing measurements in inch-pound (IP) units.

3.4 TESTING, ADJUSTING, AND BALANCING OF HVAC EQUIPMENT

A. Test, adjust, and balance HVAC equipment indicated on Drawings, including, but not limited to, the following:

1. Motors.
2. Fans and ventilators.
3. Condensing units.
4. Heat pumps.
5. Coils.
6. Fan coil units.

DRAFT

3.5 GENERAL PROCEDURES FOR BALANCING AIR SYSTEMS

A. Prepare test reports for both fans and outlets. Obtain manufacturer's outlet factors and recommended testing procedures. Crosscheck the summation of required outlet volumes with required fan volumes.

B. Prepare schematic diagrams of systems' Record drawings duct layouts.

C. For variable-air-volume systems, develop a plan to simulate diversity.

D. Determine the best locations in main and branch ducts for accurate duct-airflow measurements.

E. Check airflow patterns from the outdoor-air louvers and dampers and the return- and exhaust-air dampers through the supply-fan discharge and mixing dampers.

F. Locate start-stop and disconnect switches, electrical interlocks, and motor starters.

G. Verify that motor starters are equipped with properly sized thermal protection.

H. Check dampers for proper position to achieve desired airflow path.

I. Check for airflow blockages.

J. Check condensate drains for proper connections and functioning.

K. Check for proper sealing of air-handling-unit components.

3.6 PROCEDURES FOR VARIABLE-AIR-VOLUME SYSTEMS

A. Adjust the variable-air-volume systems as follows:

1. Verify that the system static pressure sensor is located two-thirds of the distance down the duct from the fan discharge.
2. Verify that the system is under static pressure control.
3. Select the terminal unit that is most critical to the supply-fan airflow. Measure inlet static pressure, and adjust system static pressure control set point so the entering static pressure for the critical terminal unit is not less than the sum of the terminal-unit manufacturer's recommended minimum inlet static pressure plus the static pressure needed to overcome terminal-unit discharge system losses.
4. Calibrate and balance each terminal unit for maximum and minimum design airflow as follows:
    a. Adjust controls so that terminal is calling for maximum airflow. Some controllers require starting with minimum airflow. Verify calibration procedure for specific project.
    b. Measure airflow and adjust calibration factor as required for design maximum airflow. Record calibration factor.
    c. When maximum airflow is correct, balance the air outlets downstream from terminal units.
    d. Adjust controls so that terminal is calling for minimum airflow.

DRAFT

e. Measure airflow and adjust calibration factor as required for design minimum airflow. Record calibration factor. If no minimum calibration is available, note any deviation from design airflow.
f. On constant volume terminals, in critical areas where room pressure is to be maintained, verify that the airflow remains constant over the full range of full cooling to full heating. Note any deviation from design airflow or room pressure.

5. After terminals have been calibrated and balanced, test and adjust system for total airflow. Adjust fans to deliver total design airflows within the maximum allowable fan speed listed by fan manufacturer.
   a. Set outside-air, return-air, and relief-air dampers for proper position that simulates minimum outdoor-air conditions.
   b. Set terminals for maximum airflow. If system design includes diversity, adjust terminals for maximum and minimum airflow, so that connected total matches fan selection and simulates actual load in the building.
   c. Where duct conditions allow, measure airflow by main Pitot-tube traverse. If necessary, perform multiple Pitot-tube traverses close to the fan and prior to any outlets, to obtain total airflow.
   d. Where duct conditions are unsuitable for Pitot-tube traverse measurements, a coil traverse may be acceptable.
6. Measure fan static pressures as follows:
   a. Measure static pressure directly at the fan outlet or through the flexible connection.
   b. Measure static pressure directly at the fan inlet or through the flexible connection.
   c. Measure static pressure across each component that makes up the air-handling system.
   d. Report any artificial loading of filters at the time static pressures are measured.
7. Set final return and outside airflow to the fan while operating at maximum return airflow and minimum outdoor airflow.
   a. Balance the return-air ducts and inlets.
   b. Verify that terminal units are meeting design airflow under system maximum flow.
8. Re-measure the inlet static pressure at the most critical terminal unit, and adjust the system static pressure set point to the most energy-efficient set point to maintain the optimum system static pressure. Record set point and give to controls Contractor.
9. Verify final system conditions as follows:
   a. Re-measure and confirm that minimum outdoor, return, and relief airflows are within design. Readjust to match design if necessary.
   b. Re-measure and confirm that total airflow is within design.
   c. Re-measure final fan operating data, speed, volts, amps, and static profile.
   d. Mark final settings.
   e. Test system in economizer mode. Verify proper operation and adjust if necessary. Measure and record all operating data.
   f. Verify tracking between supply and return fans.

3.7 GENERAL PROCEDURES FOR HYDRONIC SYSTEMS

A. Prepare test reports for pumps, coils, and other equipment. Obtain approved submittals and manufacturer-recommended testing procedures. Crosscheck the summation of required coil and equipment flow rates with pump design flow rate.

B. Prepare schematic diagrams of systems' Record drawings piping layouts.

DRAFT

C. In addition to requirements in "Preparation" Article, prepare hydronic systems for testing and balancing as follows:

1. Check expansion tank for proper setting.
2. Check highest vent for adequate pressure.
3. Check flow-control valves for proper position.
4. Locate start-stop and disconnect switches, electrical interlocks, and motor controllers.
5. Verify that motor controllers are equipped with properly sized thermal protection.
6. Check that air has been purged from the system.

D. Measure and record upstream and downstream pressure of each piece of equipment.

E. Measure and record upstream and downstream pressure of pressure-reducing valves.

F. Check settings and operation of automatic temperature-control valves, self-contained control valves, and pressure-reducing valves. Record final settings.

1. Check settings and operation of each safety valve. Record settings.

3.8 PROCEDURES FOR AIR-COOLED CONDENSING UNITS

A. Verify proper rotation of fan(s).

B. Measure and record entering- and leaving-air temperatures.

C. Measure and record entering and leaving refrigerant pressures.

D. Measure and record operating data of compressor(s), fan(s), and motors.

3.9 PROCEDURES FOR HEAT-TRANSFER COILS

A. Measure, adjust, and record the following data for each hydronic coil:

1. Entering- and leaving-water temperature.
2. Water flow rate.
3. Water pressure drop.
4. Dry-bulb temperature of entering and leaving air.
5. Wet-bulb temperature of entering and leaving air for cooling coils.
6. Airflow.
7. Air pressure drop.

B. Measure, adjust, and record the following data for each electric heating coil:

1. Nameplate data.
2. Airflow.
3. Entering- and leaving-air temperature at full load.
4. Air pressure drop.
5. Voltage and amperage input of each phase at full load.
6. Calculated kilowatt at full load.
7. Fuse or circuit-breaker rating for overload protection.

DRAFT

C. Measure, adjust, and record the following data for each steam coil:

1. Dry-bulb temperature of entering and leaving air.
2. Airflow.
3. Inlet steam pressure.

D. Measure, adjust, and record the following data for each refrigerant coil:

1. Dry-bulb temperature of entering and leaving air.
2. Wet-bulb temperature of entering and leaving air.
3. Airflow.
4. Air pressure drop.
5. Entering and leaving refrigerant pressure and temperatures.

3.10 HVAC CONTROLS VERIFICATION

A. In conjunction with system balancing, perform the following:

1. Verify HVAC control system is operating within the design limitations.
2. Confirm that the sequences of operation are in compliance with Contract Documents.
3. Verify that controllers are calibrated and function as intended.
4. Verify that controller set points are as indicated.
5. Verify the operation of lockout or interlock systems.
6. Verify the operation of valve and damper actuators.
7. Verify that controlled devices are properly installed and connected to correct controller.
8. Verify that controlled devices travel freely and are in position indicated by controller: open, closed, or modulating.
9. Verify location and installation of sensors to ensure that they sense only intended temperature, humidity, or pressure.

B. Reporting: Include a summary of verifications performed, remaining deficiencies, and variations from indicated conditions.

3.11 TOLERANCES

A. Set HVAC system's airflow rates and water flow rates within the following tolerances:

1. Supply, Return, and Exhaust Fans and Equipment with Fans: Plus or minus 10 percent . If design value is less than 100 cfm, within 10 cfm.
2. Air Outlets and Inlets: Plus or minus 10 percent . If design value is less than 100 cfm, within 10 cfm.
3. Heating-Water Flow Rate: Plus or minus 10 percent . If design value is less than 10 gpm, within 10 percent.

B. Maintaining pressure relationships as designed shall have priority over the tolerances specified above.

DRAFT

3.12 PROGRESS REPORTING

A. Initial Construction-Phase Report: Based on examination of the Contract Documents as specified in "Examination" Article, prepare a report on the adequacy of design for system-balancing devices. Recommend changes and additions to system-balancing devices, to facilitate proper performance measuring and balancing. Recommend changes and additions to HVAC systems and general construction to allow access for performance-measuring and -balancing devices.

3.13 FINAL REPORT

A. General: Prepare a certified written report; tabulate and divide the report into separate sections for tested systems and balanced systems.

1. Include a certification sheet at the front of the report's binder, signed and sealed by the certified testing and balancing engineer.
2. Include a list of instruments used for procedures, along with proof of calibration.
3. Certify validity and accuracy of field data.

B. Final Report Contents: In addition to certified field-report data, include the following:

1. Pump curves.
2. Fan curves.
3. Manufacturers' test data.
4. Field test reports prepared by system and equipment installers.
5. Other information relative to equipment performance; do not include Shop Drawings and Product Data.

C. General Report Data: In addition to form titles and entries, include the following data:

1. Title page.
2. Name and address of the TAB specialist.
3. Project name.
4. Project location.
5. Architect's name and address.
6. Engineer's name and address.
7. Contractor's name and address.
8. Report date.
9. Signature of TAB supervisor who certifies the report.
10. Table of Contents with the total number of pages defined for each section of the report. Number each page in the report.
11. Summary of contents, including the following:
    a. Indicated versus final performance.
    b. Notable characteristics of systems.
    c. Description of system operation sequence if it varies from the Contract Documents.
12. Nomenclature sheets for each item of equipment.
13. Data for terminal units, including manufacturer's name, type, size, and fittings.
14. Notes to explain why certain final data in the body of reports vary from indicated values.
15. Test conditions for fans performance forms, including the following:

DRAFT

a. Settings for outdoor-, return-, and exhaust-air dampers.
b. Conditions of filters.
c. Cooling coil, wet- and dry-bulb conditions.
d. Heating coil, dry-bulb conditions.
e. Face and bypass damper settings at coils.
f. Fan drive settings, including settings and percentage of maximum pitch diameter.
g. Variable-frequency controller settings for variable-air-volume systems.
h. Settings for pressure controller(s).
i. Other system operating conditions that affect performance.

16. Test conditions for pump performance forms, including the following:
    a. Variable-frequency controller settings for variable-flow hydronic systems.
    b. Settings for pressure controller(s).
    c. Other system operating conditions that affect performance.

D. System Diagrams: Include schematic layouts of air and hydronic distribution systems. Present each system with single-line diagram and include the following:

1. Quantities of outdoor, supply, return, and exhaust airflows.
2. Water and steam flow rates.
3. Duct, outlet, and inlet sizes.
4. Pipe and valve sizes and locations.
5. Terminal units.
6. Balancing stations.
7. Position of balancing devices.

E. Apparatus-Coil Test Reports:

1. Coil Data:
    a. System identification.
    b. Location.
    c. Coil type.
    d. Number of rows.
    e. Fin spacing in fins per inch o.c.
    f. Make and model number.
    g. Face area in sq. ft..
    h. Tube size in NPS.
    i. Tube and fin materials.
    j. Circuiting arrangement.
2. Test Data (Indicated and Actual Values):
    a. Airflow rate in cfm.
    b. Average face velocity in fpm.
    c. Air pressure drop in inches wg.
    d. Outdoor-air, wet- and dry-bulb temperatures in deg F.
    e. Return-air, wet- and dry-bulb temperatures in deg F.
    f. Entering-air, wet- and dry-bulb temperatures in deg F.
    g. Leaving-air, wet- and dry-bulb temperatures in deg F.
    h. Water flow rate in gpm.
    i. Water pressure differential in feet of head or psig.
    j. Entering-water temperature in deg F.
    k. Leaving-water temperature in deg F.
    l. Refrigerant expansion valve and refrigerant types.

DRAFT

m. Refrigerant suction pressure in psig.
n. Refrigerant suction temperature in deg F.
o. Inlet steam pressure in psig.

F. Fan Test Reports: For supply, return, and exhaust fans, include the following:

1. Fan Data:
   a. System identification.
   b. Location.
   c. Make and type.
   d. Model number and size.
   e. Manufacturer's serial number.
   f. Arrangement and class.
   g. Sheave make, size in inches, and bore.
   h. Center-to-center dimensions of sheave and amount of adjustments in inches.
2. Motor Data:
   a. Motor make, and frame type and size.
   b. Horsepower and speed.
   c. Volts, phase, and hertz.
   d. Full-load amperage and service factor.
   e. Sheave make, size in inches, and bore.
   f. Center-to-center dimensions of sheave and amount of adjustments in inches.
   g. Number, make, and size of belts.
3. Test Data (Indicated and Actual Values):
   a. Total airflow rate in cfm.
   b. Total system static pressure in inches wg.
   c. Fan speed.
   d. Discharge static pressure in inches wg.
   e. Suction static pressure in inches wg.

G. Round, Flat-Oval, and Rectangular Duct Traverse Reports: Include a diagram with a grid representing the duct cross-section and record the following:

1. Report Data:
   a. System fan and air-handling-unit number.
   b. Location and zone.
   c. Traverse air temperature in deg F.
   d. Duct static pressure in inches wg.
   e. Duct size in inches.
   f. Duct area in sq. ft..
   g. Indicated airflow rate in cfm.
   h. Indicated velocity in fpm.
   i. Actual airflow rate in cfm.
   j. Actual average velocity in fpm.
   k. Barometric pressure in psig.

H. System-Coil Reports: For reheat coils and water coils of terminal units, include the following:

1. Unit Data:
   a. System and air-handling-unit identification.
   b. Location and zone.

DRAFT

c. Room or riser served.
d. Coil make and size.
e. Flowmeter type.

2. Test Data (Indicated and Actual Values):
   a. Airflow rate in cfm.
   b. Entering-water temperature in deg F.
   c. Leaving-water temperature in deg F.
   d. Water pressure drop in feet of head or psig.
   e. Entering-air temperature in deg F.
   f. Leaving-air temperature in deg F.

I. Instrument Calibration Reports:

1. Report Data:
   a. Instrument type and make.
   b. Serial number.
   c. Application.
   d. Dates of use.
   e. Dates of calibration.

3.14 VERIFICATION OF TAB REPORT

A. Commissioning Authority shall randomly select measurements, documented in the final report, to be rechecked. Rechecking shall be limited to the lesser of either 10 percent of the total measurements recorded or the extent of measurements that can be accomplished in a normal 8-hour business day .

B. If rechecks yield measurements that differ from the measurements documented in the final report by more than the tolerances allowed, the measurements shall be noted as "FAILED."

C. If the number of "FAILED" measurements is greater than 10 percent of the total measurements checked during the final inspection, the TAB shall be considered incomplete and shall be rejected.

D. If recheck measurements find the number of failed measurements noncompliant with requirements indicated, proceed as follows:

1. TAB specialists shall recheck all measurements and make adjustments. Revise the final report and balancing device settings to include all changes; resubmit the final report and request a second final inspection. All changes shall be tracked to show changes made to previous report.
2. If the second final inspection also fails, Owner may pursue others Contract options to complete TAB work.

E. Prepare test and inspection reports.

END OF SECTION

DRAFT

SECTION 23 07 13

DUCT INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes insulating the following duct services:

1. Indoor, concealed supply and outdoor air.
2. Indoor, exposed supply and outdoor air.
3. Indoor, concealed return located in unconditioned space.
4. Indoor, exposed return located in unconditioned space.

B. Related Sections:

1. Section 230719 "HVAC Piping Insulation."
2. Section 233113 "Metal Ducts" for duct liners.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include thermal conductivity, water-vapor permeance thickness, and jackets (both factory- and field-applied if any).

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Skilled mechanics who have successfully completed an apprenticeship program or craft training program , certified by the Department of Labor, Bureau of Apprenticeship and Training.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Packaging: Insulation material containers are to be marked with the manufacturer's name, appropriate ASTM standard designation, type and grade, and maximum use temperature.

1.5 COORDINATION

A. Coordinate sizes and locations of supports, hangers, and insulation shields specified in Section 230529 "Hangers and Supports for HVAC Piping and Equipment."

B. Coordinate clearance requirements with duct Installer for duct insulation application. Before preparing ductwork Shop Drawings, establish and maintain clearance requirements for installation of insulation and field-applied jackets and finishes and for space required for maintenance.

DRAFT

PART 2 - PRODUCTS

2.1 INSULATION MATERIALS

A. Comply with requirements in "Duct Insulation Schedule, General," "Indoor Duct and Plenum Insulation Schedule," and "Aboveground, Outdoor Duct and Plenum Insulation Schedule" articles for where insulating materials are to be applied.

B. Products do not contain asbestos, lead, mercury, or mercury compounds.

C. Products that come in contact with stainless steel have a leachable chloride content of less than 50 ppm when tested in accordance with ASTM C871.

D. Insulation materials for use on austenitic stainless steel are qualified as acceptable in accordance with ASTM C795.

E. Foam insulation materials do not use CFC or HCFC blowing agents in the manufacturing process.

F. Mineral Wool Blanket: Basalt volcanic rock-derived fibers bonded with a thermosetting resin, unfaced; suitable for maximum use temperature up to 1200 deg F in accordance with ASTM C447. Comply with ASTM C553.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Johns Manville; a Berkshire Hathaway company.
   b. Owens Corning.
   c. ROCKWOOL.

G. Mineral Wool Board: Basalt volcanic rock-derived fibers bonded with a thermosetting resin; suitable for maximum use temperature up to 1100 deg F in accordance with ASTM C411. Comply with ASTM C612, Type III, unfaced.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Johns Manville; a Berkshire Hathaway company.
   b. Owens Corning.
   c. ROCKWOOL.

2.2 ADHESIVES

A. Materials are compatible with insulation materials, jackets, and substrates and for bonding insulation to itself and to surfaces to be insulated unless otherwise indicated.

B. Glass-Fiber and Mineral Wool Adhesive: Comply with MIL-A-3316C, Class 2, Grade A.

DRAFT

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Childers Brand; H. B. Fuller Construction Products.
   b. Eagle Bridges - Marathon Industries.
   c. Foster Brand; H. B. Fuller.
   d. Mon-Eco Industries, Inc.

C. ASJ Adhesive, and FSK Jacket Adhesive: Comply with MIL-A-3316C, Class 2, Grade A for bonding insulation jacket lap seams and joints.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Childers Brand; H. B. Fuller Construction Products.
   b. Eagle Bridges - Marathon Industries.
   c. Foster Brand; H. B. Fuller.
   d. Mon-Eco Industries, Inc.

2.3 MASTICS AND COATINGS

A. Materials are compatible with insulation materials, jackets, and substrates.

B. Vapor-Retarder Mastic: Water based; suitable for indoor use on below ambient services.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Childers Brand; H. B. Fuller Construction Products.
   b. Vimasco Corporation.
2. Water-Vapor Permeance: Comply with ASTM C755, Section 7.2.2, Table 2, for insulation type and service conditions.
3. Service Temperature Range: Minus 20 to plus 180 deg F.
4. Comply with MIL-PRF-19565C, Type II, for permeance requirements , with supplier listing on DOD QPD - Qualified Products Database.
5. Color: White .

C. Vapor-Retarder Mastic, Solvent Based, Interior Use: Suitable for indoor use on below ambient services.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Childers Brand; H. B. Fuller Construction Products.
   b. Eagle Bridges - Marathon Industries.
   c. Foster Brand; H. B. Fuller.
   d. Mon-Eco Industries, Inc.
2. Water-Vapor Permeance: Comply with ASTM C755, Section 7.2.2, Table 2, for insulation type and service conditions.
3. Service Temperature Range: 0 to 180 deg F.

DRAFT

4. Color: White .

2.4 SEALANTS

A. FSK and Metal Jacket Flashing Sealants:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Childers Brand; H. B. Fuller Construction Products.
   b. Eagle Bridges - Marathon Industries.
   c. Foster Brand; H. B. Fuller.
   d. Mon-Eco Industries, Inc.
2. Materials are compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F.
5. Color: Aluminum.

2.5 FACTORY-APPLIED JACKETS

A. Insulation system schedules indicate factory-applied jackets on various applications. When factory-applied jackets are indicated, comply with the following:

1. FSK Jacket: Aluminum-foil, fiberglass-reinforced scrim with kraft-paper backing; complying with ASTM C1136, Type II.

2.6 FIELD-APPLIED JACKETS

A. Field-applied jackets comply with ASTM C921, Type I, unless otherwise indicated.

B. FSK Jacket: Aluminum-foil-face, fiberglass-reinforced scrim with kraft-paper backing.

2.7 TAPES

A. FSK Tape: Foil-face, vapor-retarder tape matching factory-applied jacket with acrylic adhesive; complying with ASTM C1136.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. 3M Industrial Adhesives and Tapes Division.
   b. Avery Dennison Corporation, Specialty Tapes Division.
   c. Ideal Tape Co., Inc., an American Biltrite Company.
   d. Knauf Insulation.
2. Width: 3 inches .
3. Thickness: 6.5 mils .
4. Adhesion: 90 ounces force/inch in width.

DRAFT

5. Elongation: 2 percent.
6. Tensile Strength: 40 lbf/inch in width.
7. FSK Tape Disks and Squares: Precut disks or squares of FSK tape.

B. Aluminum-Foil Tape: Vapor-retarder tape with acrylic adhesive.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. 3M Industrial Adhesives and Tapes Division.
   b. Avery Dennison Corporation, Specialty Tapes Division.
   c. Ideal Tape Co., Inc., an American Biltrite Company.
   d. Knauf Insulation.
   e. Sekisui Voltek, LLC.
2. Width: 2 inches .
3. Thickness: 3.7 mils .
4. Adhesion: 100 ounces force/inch in width.
5. Elongation: 5 percent.
6. Tensile Strength: 34 lbf/inch in width.

2.8 SECUREMENTS

A. Insulation Pins and Hangers:

1. Metal, Adhesively Attached, Perforated-Base Insulation Hangers: Baseplate welded to projecting spindle that is capable of holding insulation, of thickness indicated, securely in position indicated when self-locking washer is in place. Comply with the following requirements:
   a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      1) AGM Industries, Inc.
      2) Gemco.
      3) Midwest Fasteners, Inc.
   b. Baseplate: Perforated, galvanized carbon-steel sheet, 0.030 inch thick by 2 inches square.
   c. Spindle: Copper- or zinc-coated, low-carbon steel , fully annealed, 0.106-inch-diameter shank, length to suit depth of insulation indicated.
   d. Adhesive: Recommended by hanger manufacturer. Product with demonstrated capability to bond insulation hanger securely to substrates indicated without damaging insulation, hangers, and substrates.
2. Nonmetal, Adhesively Attached, Perforated-Base Insulation Hangers: Baseplate fastened to projecting spindle that is capable of holding insulation, of thickness indicated, securely in position indicated when self-locking washer is in place. Comply with the following requirements:
   a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      1) Gemco.
      2) Midwest Fasteners, Inc.

DRAFT

b. Baseplate: Perforated, nylon sheet, 0.030 inch thick by 1-1/2 inches in diameter.
c. Spindle: Nylon, 0.106-inch- diameter shank, length to suit depth of insulation indicated, up to 2-1/2 inches.
d. Adhesive: Recommended by hanger manufacturer. Product with demonstrated capability to bond insulation hanger securely to substrates indicated without damaging insulation, hangers, and substrates.

3. Self-Sticking-Base Insulation Hangers: Baseplate welded to projecting spindle that is capable of holding insulation, of thickness indicated, securely in position indicated when self-locking washer is in place. Comply with the following requirements:
   a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      1) AGM Industries, Inc.
      2) Gemco.
      3) Midwest Fasteners, Inc.
   b. Baseplate: Galvanized carbon-steel sheet, 0.030 inch thick by 2 inches square.
   c. Spindle: Copper- or zinc-coated, low-carbon steel , fully annealed, 0.106-inch-diameter shank, length to suit depth of insulation indicated.
   d. Adhesive-backed base with a peel-off protective cover.
4. Insulation-Retaining Washers: Self-locking washers formed from 0.016-inch- thick, aluminum sheet, with beveled edge sized as required to hold insulation securely in place but not less than 1-1/2 inches in diameter.
   a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      1) AGM Industries, Inc.
      2) Gemco.
      3) Midwest Fasteners, Inc.
      4) Nelson Stud Welding.
   b. Protect ends with capped self-locking washers incorporating a spring steel insert to ensure permanent retention of cap in exposed locations.

B. Staples: Outward-clinching insulation staples, nominal 3/4-inch- wide, stainless steel or Monel.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of insulation application.

1. Verify that systems to be insulated have been tested and are free of defects.
2. Verify that surfaces to be insulated are clean and dry.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

DRAFT

3.2 PREPARATION

A. Surface Preparation: Clean and dry surfaces to receive insulation. Remove materials that will adversely affect insulation application.

3.3 GENERAL INSTALLATION REQUIREMENTS

A. Install insulation materials, accessories, and finishes with smooth, straight, and even surfaces; free of voids throughout the length of ducts and fittings.

B. Install insulation materials, vapor barriers or retarders, jackets, and thicknesses required for each item of duct system as specified in insulation system schedules.

C. Install accessories compatible with insulation materials and suitable for the service. Install accessories that do not corrode, compress, or otherwise damage insulation or jacket .

D. Install insulation with longitudinal seams at top and bottom of horizontal runs.

E. Install multiple layers of insulation with longitudinal and end seams staggered.

F. Keep insulation materials dry during application and finishing. Replace insulation materials that get wet during storage or in the installation process before being properly covered and sealed in accordance with Contract Documents.

G. Install insulation with tight longitudinal seams and end joints. Bond seams and joints with adhesive recommended by insulation material manufacturer.

H. Install insulation with least number of joints practical.

I. Where vapor barrier is indicated, seal joints, seams, and penetrations in insulation at hangers, supports, anchors, and other projections with vapor-barrier mastic.

1. Install insulation continuously through hangers and around anchor attachments.
2. For insulation application where vapor barriers are indicated, extend insulation on anchor legs from point of attachment to supported item to point of attachment to structure. Taper and seal ends at attachment to structure with vapor-barrier mastic.
3. Install insert materials and install insulation to tightly join the insert. Seal insulation to insulation inserts with adhesive or sealing compound recommended by insulation material manufacturer.

J. Apply adhesives, mastics, and sealants at manufacturer's recommended coverage rate and wet and dry film thicknesses.

K. Install insulation with factory-applied jackets as follows:

1. Draw jacket tight and smooth, but not to the extent of creating wrinkles or areas of compression in the insulation.
2. Cover circumferential joints with 3-inch- wide strips, of same material as insulation jacket. Secure strips with adhesive and outward clinching staples along both edges of strip, spaced 4 inches o.c.

DRAFT

3. Overlap jacket longitudinal seams at least 1-1/2 inches. Clean and dry surface to receive self-sealing lap. Staple laps with outward clinching staples along edge at 2 inches o.c.
    a. For below ambient services, apply vapor-barrier mastic over staples.
4. Cover joints and seams with tape, according to insulation material manufacturer's written instructions, to maintain vapor seal.
5. Where vapor barriers are indicated, apply vapor-barrier mastic on seams and joints and at ends adjacent to duct flanges and fittings.

L. Cut insulation in a manner to avoid compressing insulation.

M. Finish installation with systems at operating conditions. Repair joint separations and cracking due to thermal movement.

N. Repair damaged insulation facings by applying same facing material over damaged areas. Extend patches at least 4 inches beyond damaged areas. Adhere, staple, and seal patches similar to butt joints.

3.4 PENETRATIONS

A. Insulation Installation at Interior Wall and Partition Penetrations (That Are Not Fire Rated): Install insulation continuously through walls and partitions.

3.5 INSTALLATION OF MINERAL-WOOL INSULATION

A. Blanket Insulation Installation on Ducts and Plenums: Secure with adhesive and insulation pins.

B. Comply with manufacturer's written installation instructions.

1. Apply adhesives according to manufacturer's recommended coverage rates per unit area, for 50 percent coverage of duct and plenum surfaces.
2. Apply adhesive to entire circumference of ducts and to all surfaces of fittings and transitions.
3. Install either capacitor-discharge-weld pins and speed washers or cupped-head, capacitor-discharge-weld pins on sides and bottom of horizontal ducts and sides of vertical ducts as follows:
    a. On duct sides with dimensions 18 inches and smaller, place pins along longitudinal centerline of duct. Space 3 inches maximum from insulation end joints, and 16 inches o.c.
    b. On duct sides with dimensions larger than 18 inches, place pins 16 inches o.c. each way, and 3 inches maximum from insulation joints. Install additional pins to hold insulation tightly against surface at cross bracing.
    c. Pins may be omitted from top surface of horizontal, rectangular ducts and plenums.
    d. Do not overcompress insulation during installation.
    e. Impale insulation over pins and attach speed washers.
    f. Cut excess portion of pins extending beyond speed washers or bend parallel with insulation surface. Cover exposed pins and washers with tape matching insulation facing.
4. For ducts and plenums with surface temperatures below ambient, install a continuous unbroken vapor barrier. Create a facing lap for longitudinal seams and end joints with

DRAFT

insulation by removing 2 inches from one edge and one end of insulation segment. Secure laps to adjacent insulation section with 1/2-inch outward-clinching staples, 1 inch o.c. Install vapor barrier consisting of factory- or field-applied jacket, adhesive, vapor-barrier mastic, and sealant at joints, seams, and protrusions.

a. Repair punctures, tears, and penetrations with tape or mastic to maintain vapor-barrier seal.
b. Install vapor stops for ductwork and plenums operating below 50 deg F at 18-foot intervals. Vapor stops consist of vapor-barrier mastic applied in a Z-shaped pattern over insulation face, along butt end of insulation, and over the surface. Cover insulation face and surface to be insulated a width equal to two times the insulation thickness, but not less than 3 inches.

5. Overlap unfaced blankets a minimum of 2 inches on longitudinal seams and end joints. At end joints, secure with steel bands spaced a maximum of 18 inches o.c.
6. Install insulation on rectangular duct elbows and transitions with a full insulation section for each surface. Install insulation on round and flat-oval duct elbows with individually mitered gores cut to fit the elbow.
7. Insulate duct stiffeners, hangers, and flanges that protrude beyond insulation surface with 6-inch- wide strips of same material used to insulate duct. Secure on alternating sides of stiffener, hanger, and flange with pins spaced 6 inches o.c.

C. Board Insulation Installation on Ducts and Plenums: Secure with adhesive and insulation pins.

1. Apply adhesives according to manufacturer's recommended coverage rates per unit area, for 100 percent coverage of duct and plenum surfaces.
2. Apply adhesive to entire circumference of ducts and to all surfaces of fittings and transitions.
3. Install either capacitor-discharge-weld pins and speed washers or cupped-head, capacitor-discharge-weld pins on sides and bottom of horizontal ducts and sides of vertical ducts as follows:
   a. On duct sides with dimensions 18 inches and smaller, place pins along longitudinal centerline of duct. Space 3 inches maximum from insulation end joints, and 16 inches o.c.
   b. On duct sides with dimensions larger than 18 inches, space pins 16 inches o.c. each way, and 3 inches maximum from insulation joints. Install additional pins to hold insulation tightly against surface at cross bracing.
   c. Pins may be omitted from top surface of horizontal, rectangular ducts and plenums.
   d. Do not overcompress insulation during installation.
   e. Cut excess portion of pins extending beyond speed washers or bend parallel with insulation surface. Cover exposed pins and washers with tape matching insulation facing.
4. For ducts and plenums with surface temperatures below ambient, install a continuous unbroken vapor barrier. Create a facing lap for longitudinal seams and end joints with insulation by removing 2 inches from one edge and one end of insulation segment. Secure laps to adjacent insulation section with 1/2-inch outward-clinching staples, 1 inch o.c. Install vapor barrier consisting of factory- or field-applied jacket, adhesive, vapor-barrier mastic, and sealant at joints, seams, and protrusions.
   a. Repair punctures, tears, and penetrations with tape or mastic to maintain vapor-barrier seal.
   b. Install vapor stops for ductwork and plenums operating below 50 deg F at 18-foot intervals. Vapor stops consist of vapor-barrier mastic applied in a Z-shaped pattern over insulation face, along butt end of insulation, and over the surface. Cover

DRAFT

insulation face and surface to be insulated a width equal to two times the insulation thickness, but not less than 3 inches.

5. Install insulation on rectangular duct elbows and transitions with a full insulation section for each surface. Groove and score insulation to fit as closely as possible to outside and inside radius of elbows. Install insulation on round and flat-oval duct elbows with individually mitered gores cut to fit the elbow.
6. Insulate duct stiffeners, hangers, and flanges that protrude beyond insulation surface with 6-inch- wide strips of same material used to insulate duct. Secure on alternating sides of stiffener, hanger, and flange with pins spaced 6 inches o.c.

3.6 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.

B. Perform tests and inspections.

C. All insulation applications will be considered defective Work if sample inspection reveals noncompliance with requirements.

3.7 DUCT INSULATION SCHEDULE, GENERAL

A. Plenums and Ducts Requiring Insulation:

1. Indoor, concealed supply and outdoor air.
2. Indoor, exposed supply and outdoor air.
3. Indoor, concealed return located in unconditioned space.
4. Indoor, exposed return located in unconditioned space.
5. Outdoor, exposed supply and return.

B. Items Not Insulated:

1. Metal ducts with duct liner of sufficient thickness to comply with energy code and ASHRAE/IESNA 90.1.
2. Factory-insulated flexible ducts.
3. Flexible connectors.
4. Vibration-control devices.
5. Factory-insulated access panels and doors.

3.8 INDOOR DUCT AND PLENUM INSULATION SCHEDULE

A. Concealed, round and flat-oval, supply-air duct insulation is the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.

B. Concealed, round and flat-oval, outdoor-air duct insulation is the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.

C. Concealed, rectangular, supply-air duct insulation is one of the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.

DRAFT

2. Mineral Wool Board: 1-1/2 inches thick and 3 lb/cu. ft. nominal density.

D. Concealed, rectangular, return-air duct insulation is one of the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.
2. Mineral Wool Board: 1-1/2 inches thick and 3 lb/cu. ft. nominal density.

E. Concealed, rectangular, outdoor-air duct insulation is one of the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.
2. Mineral Wool Board: 1-1/2 inches thick and 3 lb/cu. ft. nominal density.

F. Exposed, round and flat-oval, supply-air duct insulation is the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.

G. Exposed, round and flat-oval, outdoor-air duct insulation is the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.

H. Exposed, rectangular, supply-air duct insulation is one of the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.
2. Mineral Wool Board: 1-1/2 inches thick and 3 lb/cu. ft. nominal density.

I. Exposed, rectangular, return-air duct insulation is one of the following:

1. Mineral Wool Blanket: 2 inches thick and 1 lb/cu. ft. nominal density.
2. Mineral Wool Board: 1-1/2 inches thick and 3 lb/cu. ft. nominal density.

J. Exposed, rectangular, outdoor-air duct insulation is one of the following:

1. Mineral Wool Blanket: 1-1/2 inches 2 inches thick and 1 lb/cu. ft. nominal density.
2. Mineral Wool Board: 1-1/2 inches thick and 3 lb/cu. ft. nominal density.

3.9 INDOOR, FIELD-APPLIED JACKET SCHEDULE

A. Install jacket over insulation material. For insulation with factory-applied jacket, install the field-applied jacket over the factory-applied jacket.

B. If more than one material is listed, selection from materials listed is Contractor's option.

C. Ducts and Plenums, Concealed:

1. None.

D. Ducts and Plenums, Exposed:

1. None.

END OF SECTION

DRAFT

SECTION 23 11 23

FACILITY NATURAL-GAS PIPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pipes, tubes, and fittings.
2. Piping specialties.
3. Joining materials.
4. Manual gas shutoff valves.
5. Pressure regulators.
6. Dielectric fittings.

1.2 DEFINITIONS

A. CWP: Cold working pressure.

B. Exposed, Exterior Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. An example includes rooftop locations.

C. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.

D. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below roof, spaces above ceilings, unexcavated spaces, crawlspaces, and tunnels.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Piping specialties.
2. Valves. Include pressure rating, capacity, settings, and electrical connection data of selected models.
3. Pressure regulators. Indicate pressure ratings and capacities.
4. Dielectric fittings.

1.4 INFORMATIONAL SUBMITTALS

A. Certificates:

1. Welding certificates.

DRAFT

B. Field Quality-Control Submittals:

1. Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For pressure regulators to include in emergency, operation, and maintenance manuals.

1.6 QUALITY ASSURANCE

A. Qualifications:

1. Steel Support Welding: Qualify procedures and personnel in accordance with AWS D1.1/D1.1M, "Structural Welding Code - Steel."
2. Pipe Welding: Qualify procedures and operators in accordance with the ASME Boiler and Pressure Vessel Code.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Handling Flammable Liquids: Remove and dispose of liquids from existing natural-gas piping in accordance with requirements of authorities having jurisdiction.

B. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.

C. Store and handle pipes and tubes having factory-applied protective coatings to avoid damaging coating, and protect from direct sunlight.

1.8 PROJECT CONDITIONS

A. Perform site survey, research public utility records, and verify existing utility locations. Contact utility-locating service for area where Project is located.

B. Interruption of Existing Natural-Gas Service: Do not interrupt natural-gas service to facilities occupied by Owner or others unless permitted under the following conditions, and then only after arranging to provide purging and startup of natural-gas supply in accordance with requirements indicated:

1. Notify Owner no fewer than five days in advance of proposed interruption of natural-gas service.
2. Do not proceed with interruption of natural-gas service without Owner's written permission.

DRAFT

1.9 COORDINATION

A. Coordinate requirements for piping identification for natural-gas piping. Comply with requirements in Section 220553 "Identification of Plumbing Piping and Equipment."

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Comply with NFPA 54andthe International Fuel Gas Code.

B. Minimum Operating-Pressure Ratings:

1. Piping and Valves: 100 psig minimum unless otherwise indicated.
2. Service Regulators: 65 psig minimum unless otherwise indicated.

C. Natural-Gas System Pressure within Buildings:

1. Two pressure ranges. Primary pressure is more than 0.5 psig, but not more than 2 psig, and is reduced to secondary pressure of 0.5 psig or less.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 PIPES, TUBES, AND FITTINGS

A. Steel Pipe: ASTM A53/A53M, black steel, Schedule 40, Type E or S, Grade B.

1. Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
2. Wrought-Steel Welding Fittings: ASTM A234/A234M for butt welding and socket welding.
3. Unions: ASME B16.39, Class 150, malleable iron with brass-to-iron seat, ground joint, and threaded ends.
4. Forged-Steel Flanges and Flanged Fittings: ASME B16.5, minimum Class 150, including bolts, nuts, and gaskets of the following material group, end connections, and facings:
    a. Material Group: 1.1.
    b. End Connections: Threaded or butt welding to match pipe.
    c. Lapped Face: Not permitted underground.
    d. Gasket Materials: ASME B16.20, metallic, flat, asbestos free, aluminum O-rings, and spiral-wound metal gaskets.
    e. Bolts and Nuts: ASME B18.2.1, carbon steel aboveground and stainless steel underground.

2.3 JOINING MATERIALS

A. Joint Compound and Tape: Suitable for natural gas.

DRAFT

B. Welding Filler Metals: Comply with AWS D10.12/D10.12M for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.

2.4 MANUAL GAS SHUTOFF VALVES

A. See "Underground, Manual Gas Shutoff Valve Schedule" and "Aboveground, Manual Gas Shutoff Valve Schedule" articles for where each valve type is applied in various services.

B. General Requirements for Metallic Valves, NPS 2 and Smaller: Comply with ASME B16.33.

1. CWP Rating: 125 psig .
2. Threaded Ends: Comply with ASME B1.20.1.
3. Dryseal Threads on Flare Ends: Comply with ASME B1.20.3.
4. Tamperproof Feature: Locking feature for valves indicated in "Underground, Manual Gas Shutoff Valve Schedule" and "Aboveground, Manual Gas Shutoff Valve Schedule" articles.
5. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for valves 1 inch and smaller.
6. Service Mark: Valves NPS 1-1/4 to NPS 2 having initials "WOG" permanently marked on valve body.

C. General Requirements for Metallic Valves, NPS 2-1/2 and Larger: Comply with ASME B16.38.

1. CWP Rating: 125 psig .
2. Flanged Ends: Comply with ASME B16.5 for steel flanges.
3. Tamperproof Feature: Locking feature for valves indicated in "Underground, Manual Gas Shutoff Valve Schedule" and "Aboveground, Manual Gas Shutoff Valve Schedule" articles.
4. Service Mark: Initials "WOG" permanently marked on valve body.

D. Bronze Plug Valves: MSS SP-78.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. A.Y. McDonald Mfg. Co.
   b. Lee Brass Company.
2. Body: Bronze, complying with ASTM B584.
3. Plug: Bronze.
4. Ends: Threaded, socket, or flanged as indicated in "Underground, Manual Gas Shutoff Valve Schedule" and "Aboveground, Manual Gas Shutoff Valve Schedule" articles.
5. Operator: Square head or lug type with tamperproof feature where indicated.
6. Pressure Class: 125 psig.
7. Listing: Valves NPS 1 and smaller are to be listed and labeled by an NRTL acceptable to authorities having jurisdiction.
8. Service: Suitable for natural-gas service with "WOG" indicated on valve body.

DRAFT

2.5 PRESSURE REGULATORS

A. General Requirements:

1. Single stage and suitable for natural gas.
2. Steel jacket and corrosion-resistant components.
3. Elevation compensator.
4. End Connections: Threaded for regulators NPS 2 and smaller; flanged for regulators NPS 2-1/2 and larger.

B. Appliance Pressure Regulators: Comply with ANSI Z21.18.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Canadian Meter Company, LLC; a Honeywell Company.
   b. Dormont; a WATTS brand.
   c. Eaton.
   d. Maxitrol Company.
2. Body and Diaphragm Case: Die-cast aluminum.
3. Springs: Zinc-plated steel; interchangeable.
4. Diaphragm Plate: Zinc-plated steel.
5. Seat Disc: NBR.
6. Seal Plug: UV-stabilized, mineral-filled nylon.
7. Factory-Applied Finish: Minimum three-layer polyester and polyurethane paint finish.
8. Regulator may include vent limiting device, instead of vent connection, if approved by authorities having jurisdiction.
9. Maximum Inlet Pressure: 2 psig .

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine roughing-in for natural-gas piping system to verify actual locations of piping connections before equipment installation.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Close equipment shutoff valves before turning off natural gas to premises or piping section.

B. Inspect natural-gas piping in accordance with the International Fuel Gas Code to determine that natural-gas utilization devices are turned off in piping section affected.

C. Comply with NFPA 54andthe International Fuel Gas Code requirements for preventing accidental ignition.

DRAFT

3.3 INSTALLATION OF OUTDOOR PIPING

A. Comply with the International Fuel Gas Code for installation and purging of natural-gas piping.

B. Install underground, natural-gas piping buried at least 36 inches below finished grade. Comply with requirements in Section 312000 "Earth Moving" for excavating, trenching, and backfilling.

1. If natural-gas piping is installed less than 36 inches below finished grade, install it in containment conduit.

C. Install underground, PE, natural-gas piping in accordance with ASTM D2774.

D. Steel Piping with Protective Coating:

1. Apply joint cover kits to pipe after joining to cover, seal, and protect joints.
2. Repair damage to PE coating on pipe as recommended in writing by protective coating manufacturer.
3. Replace pipe having damaged PE coating with new pipe.

E. Copper Tubing with Protective Coating:

1. Apply joint cover kits over tubing to cover, seal, and protect joints.
2. Repair damage to PE coating on pipe as recommended in writing by protective coating manufacturer.

F. Install fittings for changes in direction and branch connections.

G. Install pressure gauge downstream from each service regulator. Pressure gauges are specified in Section 230519 "Meters and Gauges for HVAC Piping."

3.4 INSTALLATION OF INDOOR PIPING

A. Comply with the International Fuel Gas Code for installation and purging of natural-gas piping.

B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements are used to size pipe and calculate friction loss, expansion, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.

C. Arrange for pipe spaces, chases, slots, sleeves, and openings in building structure during progress of construction, to allow for mechanical installations.

D. Do not install piping in concealed locations unless sleeved with the sleeve open at both ends.

E. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.

F. Where installing piping above accessible ceilings, allow sufficient space for ceiling panel removal.

DRAFT

G. Locate valves for easy access. Do not locate valves within return air plenums.

H. Install natural-gas piping at uniform grade of 2 percent down toward drip and sediment traps.

I. Install piping free of sags and bends.

J. Install fittings for changes in direction and branch connections.

K. Verify final equipment locations for roughing-in.

L. Comply with requirements in Sections specifying gas-fired appliances and equipment for roughing-in requirements.

M. Drips and Sediment Traps: Install drips at points where condensate may collect, including service-meter outlets. Locate where accessible to permit cleaning and emptying. Do not install where condensate is subject to freezing.

1. Construct drips and sediment traps using tee fitting with bottom outlet plugged or capped. Use nipple a minimum length of 3 pipe diameters, but not less than 3 inches long and same size as connected pipe. Install with space below bottom of drip to remove plug or cap.
2. Install sediment trap on both sides of regulators for gas reduction to 2 psig with valve and capped.

N. Extend relief vent connections for service regulators, line regulators, and overpressure protection devices to outdoors and terminate with weatherproof vent cap.

O. Conceal pipe installations in walls, pipe spaces, utility spaces, above ceilings, below grade or floors, and in floor channels unless indicated to be exposed to view.

P. Concealed Location Installations: Except as specified below, install concealed natural-gas piping and piping installed under the building in containment conduit constructed of steel pipe with welded joints as described in Part 2. Install a vent pipe from containment conduit to outdoors and terminate with weatherproof vent cap.

1. Prohibited Locations:
   a. Do not install natural-gas piping in or through circulating air ducts, clothes or trash chutes, chimneys or gas vents (flues), ventilating ducts, or dumbwaiter or elevator shafts.
   b. Do not install natural-gas piping in solid walls or partitions.

Q. Use eccentric reducer fittings to make reductions in pipe sizes. Install fittings with level side down.

R. Connect branch piping from top or side of horizontal piping.

S. Install unions in pipes NPS 2 and smaller, adjacent to each valve, at final connection to each piece of equipment. Unions are not required at flanged connections.

T. Do not use natural-gas piping as grounding electrode.

DRAFT

3.5 INSTALLATION OF VALVES

A. Install manual gas shutoff valve for each gas appliance.

3.6 PIPING JOINT CONSTRUCTION

A. Ream ends of pipes and tubes and remove burrs.

B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

C. Threaded Joints:

1. Thread pipe with tapered pipe threads complying with ASME B1.20.1.
2. Cut threads full and clean using sharp dies.
3. Ream threaded pipe ends to remove burrs and restore full inside diameter of pipe.
4. Apply appropriate tape or thread compound to external pipe threads unless dryseal threading is specified.
5. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.

D. Welded Joints:

1. Construct joints in accordance with AWS D10.12/D10.12M, using qualified processes and welding operators.
2. Bevel plain ends of steel pipe.
3. Patch factory-applied protective coating as recommended by manufacturer at field welds and where damage to coating occurs during construction.

E. Flanged Joints: Install gasket material, size, type, and thickness appropriate for natural-gas service. Install gasket concentrically positioned.

F. Flared Joints: Cut tubing with roll cutting tool. Flare tube end with tool to result in flare dimensions complying with SAE J513. Tighten finger tight, and then use wrench. Do not overtighten.

3.7 INSTALLATION OF HANGERS AND SUPPORTS

A. Comply with requirements for seismic-restraint devices specified in Section 230548 "Vibration and Seismic Controls for HVAC."

B. Comply with requirements in Section 230529 "Hangers and Supports for HVAC Piping and Equipment" for hangers, supports, and anchor devices.

C. Install hangers for steel piping , with maximum horizontal spacing and minimum rod diameters, to comply with MSS SP-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.

D. Support horizontal piping within 12 inches of each fitting.

DRAFT

E. Support vertical runs of steel piping to comply with MSS SP-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.

3.8 PIPING CONNECTIONS

A. Connect to utility's gas main according to utility's procedures and requirements.

B. Install natural-gas piping electrically continuous, and bonded to gas-appliance equipment grounding conductor of the circuit powering the appliance in accordance with NFPA 70.

C. Where installing piping adjacent to appliances, allow space for service and maintenance of appliances.

D. Connect piping to appliances using manual gas shutoff valves and unions. Install valve within 72 inches of each gas-fired appliance and equipment. Install union between valve and appliances or equipment.

3.9 LABELING AND IDENTIFICATION

A. Comply with requirements in Section 230553 "Identification for HVAC Piping and Equipment" for piping and valve identification.

3.10 FIELD QUALITY CONTROL

A. Tests and Inspections:

1. Test, inspect, and purge natural gas in accordance with the International Fuel Gas Code and authorities having jurisdiction.
2. Natural-gas piping will be considered defective if it does not pass tests and inspections.

B. Prepare test and inspection reports.

3.11 OUTDOOR PIPING SCHEDULE

A. Aboveground natural-gas piping is to be the following:

1. Steel pipe with malleable-iron fittings and threaded joints.

3.12 INDOOR PIPING SCHEDULE FOR SYSTEM PRESSURES LESS THAN 0.5 PSIG

A. Aboveground, branch piping NPS 1 and smaller is to be the following:

1. Steel pipe with malleable-iron fittings and threaded joints.

DRAFT

3.13 INDOOR PIPING SCHEDULE FOR SYSTEM PRESSURES MORE THAN 0.5 PSIG AND LESS THAN 5 PSIG

A. Aboveground, branch piping NPS 1 and smaller is to be the following:

1. Steel pipe with malleable-iron fittings and threaded joints.

3.14 ABOVEGROUND, MANUAL GAS SHUTOFF VALVE SCHEDULE

A. Distribution piping valves for pipe sizes NPS 2 and smaller are to be the following:

1. Bronze plug valve.

END OF SECTION

DRAFT

SECTION 23 23 00

REFRIGERANT PIPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Copper tube and fittings.
2. Steel pipe and fittings.
3. Valves and specialties.
4. Refrigerants.

1.2 ACTION SUBMITTALS

A. Product Data: For the following:

1. Solenoid valves.
2. Thermostatic expansion valves.
3. Hot-gas bypass valves.
4. Strainers.
5. Filter dryers.
6. Pressure-regulating valves.
7. Mufflers.

B. Product Data Submittals: For each product.

1. Submit data for each type of refrigerant piping, fitting, valve, piping specialty, and refrigerant.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Store piping with end caps in place to ensure that piping interior and exterior are clean when installed.

B. Prepare valves and specialties for shipping as follows:

1. Protect internal parts against rust and corrosion.
2. Protect threads and other end connections.

C. Use the following precautions during storage:

1. Maintain valve and specialty end protection.

DRAFT

2. Store valves and specialties indoors and maintain at higher-than-ambient-dew-point temperature. If outdoor storage is necessary, store valves off the ground in watertight enclosures.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Test Pressure for Refrigerant R-410A:

1. Suction Tubing for Refrigeration and Air-Conditioning Applications Other than Heat Pumps: 300 psig .
2. Hot-Gas and Tubing Lines: 535 psig .

2.2 COPPER TUBE AND FITTINGS

A. Copper Tube: ASTM B280, Type ACR.

B. Wrought-Copper Fittings, Brazed Joint: ASME B16.50.

C. Wrought-Copper Unions: ASME B16.22.

D. Brazing Filler Metals: AWS A5.8M/A5.8.

2.3 VALVES AND SPECIALTIES

A. Service Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. Danfoss, Inc.
   b. Emerson Climate Technologies; Emerson Electric Co.
   c. Parker Hannifin Corporation.
2. Body: Forged brass with brass cap, including key end to remove core.
3. Core: Removable ball-type check valve with stainless steel spring.
4. Seat: Polytetrafluoroethylene.
5. End Connections: Copper spring.
6. Working Pressure Rating: 500 psig .
7. Maximum Operating Temperature: 275 deg F .

B. Refrigerant Locking Caps:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. C & D Valve, LLC.
   b. JB Industries.
   c. RectorSeal HVAC; a CSW Industrials Company.

DRAFT

2. Description: Locking-type, tamper-resistant, threaded caps to protect refrigerant-charging ports from unauthorized refrigerant access and leakage.
3. Material: Brass, with protective shroud or sleeve.
4. Refrigerant Identification: Universal design.
5. Special Tool: For installing and unlocking.

C. Thermostatic Expansion Valves: Comply with AHRI 750 I-P.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Danfoss, Inc.
   b. Emerson Climate Technologies; Emerson Electric Co.
   c. Parker Hannifin; Sporlan Division (Zoomlock).
2. Body, Bonnet, and Seal Cap: Forged brass or steel.
3. Diaphragm, Piston, Closing Spring, and Seat Insert: Stainless steel.
4. Packing and Gaskets: Non-asbestos.
5. Capillary and Bulb: Copper tubing filled with refrigerant charge.
6. Suction Temperature: 40 deg F .
7. End Connections: Socket, flare, or threaded union.
8. Working Pressure Rating: 450 psig .

2.4 REFRIGERANTS

A. R-410A, ASHRAE 34: Pentafluoroethane/Difluoromethane.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Arkema Inc.
   b. DuPont Fluorochemicals Div.
   c. Genetron Refrigerants; Honeywell International Inc.

PART 3 - EXECUTION

3.1 PIPING APPLICATION SCHEDULES

A. Refrigerant: R-410A

B. Suction, Hot-Gas, and Liquid Tubing for Conventional Air-Conditioning (Cooling-Only) Applications, NPS 1-1/2 (DN 40) and Smaller: Copper, Type ACR, annealed-temper tubing and wrought-copper fittings with brazed joints.

3.2 VALVE AND SPECIALTY APPLICATIONS

A. Install thermostatic expansion valves as close as possible to distributors on evaporators.

1. Install valve so diaphragm case is warmer than bulb.

DRAFT

2. Secure bulb to clean, straight, horizontal section of suction line using two bulb straps. Do not mount bulb in a trap or at bottom of the line.
3. If external equalizer lines are required, make connection where it will reflect suction-line pressure at bulb location.

B. Provide refrigerant locking caps on refrigerant charging ports that are located outdoors unless otherwise protected from unauthorized access by a means acceptable to authority having jurisdiction.

3.3 INSTALLATION OF PIPING, GENERAL

A. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems; indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Shop Drawings.

B. Install refrigerant piping in accordance with ASHRAE 15.

C. Install piping in concealed locations unless otherwise indicated and except in equipment rooms and service areas.

D. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.

E. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.

F. Install piping adjacent to machines to allow service and maintenance.

G. Install piping free of sags and bends.

H. Install fittings for changes in direction and branch connections.

I. Select system components with pressure rating equal to or greater than system operating pressure.

J. Install piping as short and direct as possible, with a minimum number of joints, elbows, and fittings.

K. Arrange piping to allow inspection and service of refrigeration equipment. Install valves and specialties in accessible locations to allow for service and inspection.

L. Install refrigerant piping in rigid or flexible conduit in locations where exposed to mechanical injury.

M. Slope refrigerant piping as follows:

1. Install horizontal suction lines with a uniform slope downward to compressor.
2. Install traps and double risers to entrain oil in vertical runs.
3. Liquid lines may be installed level.

DRAFT

N. When brazing or soldering, remove solenoid-valve coils and sight glasses; also remove valve stems, seats, packing, and accessible internal parts of refrigerant specialties. Do not apply heat near expansion-valve bulb.

O. Install piping with adequate clearance between pipe and adjacent walls and hangers or between pipes for insulation installation.

P. Identify refrigerant piping and valves in accordance with Section 230553 "Identification for HVAC Piping and Equipment."

3.4 PIPE JOINT CONSTRUCTION

A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.

B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

C. Fill pipe and fittings with an inert gas (nitrogen or carbon dioxide), during brazing or welding, to prevent scale formation.

D. Brazed Joints: Construct joints in accordance with AWS BRH, "Brazing Handbook," Ch. 35, "Pipe and Tubing."

1. Use Type BCuP (copper-phosphorus) alloy for joining copper socket fittings with copper pipe.

E. Threaded Joints: Thread steel pipe with tapered pipe threads in accordance with ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and to restore full ID. Join pipe fittings and valves as follows:

1. Apply appropriate tape or thread compound to external pipe threads unless dry-seal threading is specified.
2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.

F. Welded Joints: Construct joints in accordance with AWS D10.12M/D10.12.

G. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.

3.5 INSTALLATION OF HANGERS AND SUPPORTS

A. Comply with requirements for seismic restraints in Section 230548 "Vibration and Seismic Controls for HVAC."

B. Comply with Section 230529 "Hangers and Supports for HVAC Piping and Equipment" for hangers, supports, and anchor devices.

C. Install the following pipe attachments:

DRAFT

1. Adjustable steel clevis hangers for individual horizontal runs less than 20 ft. long.
2. Roller hangers and spring hangers for individual horizontal runs 20 ft. or longer.
3. Pipe Roller: MSS SP-58, Type 44 for multiple horizontal piping 20 ft. or longer, supported on a trapeze.
4. Spring hangers to support vertical runs.
5. Copper-clad hangers and supports for hangers and supports in direct contact with copper pipe.

D. Install hangers for copper tubing , with maximum horizontal spacing and minimum rod diameters, to comply with MSS SP-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.

E. Support horizontal piping within 12 inches of each fitting.

F. Support vertical runs of copper tubing to comply with MSS SP-58, locally enforced codes, and authorities having jurisdiction requirements, whichever are most stringent.

3.6 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Tests and Inspections:

1. Comply with ASME B31.5, Chapter VI.
2. Test refrigerant piping, specialties, and receivers. Isolate compressor, condenser, evaporator, and safety devices from test pressure if they are not rated above the test pressure.
3. Test high- and low-pressure side piping of each system separately at not less than the pressures indicated in "Performance Requirements" Article.
   a. Fill system with nitrogen to the required test pressure.
   b. System must maintain test pressure at the manifold gauge throughout duration of test.
   c. Test joints and fittings with electronic leak detector or by brushing a small amount of soap and glycerin solution over joints.
   d. Remake leaking joints using new materials, and retest until satisfactory results are achieved.

C. Prepare test and inspection reports.

3.7 SYSTEM CHARGING

A. Charge system using the following procedures:

1. Install core in filter dryers after leak test but before evacuation.
2. Evacuate entire refrigerant system with a vacuum pump to 500 micrometers. If vacuum holds for 12 hours, system is ready for charging.
3. Break vacuum with refrigerant gas, allowing pressure to build up to 2 psig.
4. Charge system with a new filter-dryer core in charging line.

DRAFT

3.8 ADJUSTING

A. Adjust thermostatic expansion valve to obtain proper evaporator superheat.

B. Adjust high- and low-pressure switch settings to avoid short cycling in response to fluctuating suction pressure.

C. Adjust set-point temperature of air-conditioning or chilled-water controllers to the system design temperature.

D. Perform the following adjustments before operating the refrigeration system, according to manufacturer's written instructions:

1. Open shutoff valves in condenser water circuit.
2. Verify that compressor oil level is correct.
3. Open compressor suction and discharge valves.
4. Open refrigerant valves but not bypass valves that are used for other purposes.
5. Check open compressor-motor alignment and verify lubrication for motors and bearings.

E. Replace core of replaceable filter dryer after system has been adjusted and after design flow rates and pressures are established.

END OF SECTION

DRAFT

SECTION 23 31 13

METAL DUCTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Single-wall rectangular ducts and fittings.
2. Single-wall round ducts and fittings.
3. Sheet metal materials.
4. Duct liner.
5. Sealants and gaskets.
6. Hangers and supports.

B. Related Sections:

1. Section 230593 "Testing, Adjusting, and Balancing for HVAC" for testing, adjusting, and balancing requirements for metal ducts.
2. Section 233119 "HVAC Casings" for factory- and field-fabricated casings for mechanical equipment.
3. Section 233300 "Air Duct Accessories" for dampers, sound-control devices, duct-mounting access doors and panels, turning vanes, and flexible ducts.

1.3 DEFINITIONS

A. OSHPD: Office of Statewide Health Planning and Development (State of California).

1.4 ACTION SUBMITTALS

A. Product Data: For each type of the following products:

1. Liners and adhesives.
2. Sealants and gaskets.

B. Shop Drawings:

1. Fittings.
2. Seam and joint construction.

DRAFT

3. Penetrations through fire-rated and other partitions.
4. Locations for duct accessories, including dampers, turning vanes, and access doors and panels.
5. Hangers and supports, including methods for duct and building attachment and vibration isolation.

1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: A single set of plans or BIM model, drawn to scale, showing the items described in this Section, and coordinated with all building trades.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Duct Design: Duct construction, including sheet metal thicknesses, seam and joint construction, reinforcements, and hangers and supports, shall comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" and with performance requirements and design criteria indicated in "Duct Schedule" Article.

B. Structural Performance: Duct hangers and supports shall withstand the effects of gravity loads and stresses within limits and under conditions described in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" .

C. Airstream Surfaces: Surfaces in contact with airstream shall comply with requirements in ASHRAE 62.1.

D. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 5 - "Systems and Equipment," and Section 7 - "Construction and System Startup."

E. ASHRAE/IES Compliance: Applicable requirements in ASHRAE/IES 90.1, Section 6.4.4 - "HVAC System Construction and Insulation."

F. Duct Dimensions: Unless otherwise indicated, all duct dimensions indicated on Drawings are inside clear dimensions and do not include insulation or duct wall thickness.

2.2 SINGLE-WALL RECTANGULAR DUCTS AND FITTINGS

A. General Fabrication Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" based on indicated static-pressure class unless otherwise indicated.

B. Transverse Joints: Fabricate joints in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-1, "Rectangular Duct/Transverse Joints," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

DRAFT

C. Longitudinal Seams: Select seam types and fabricate in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-2, "Rectangular Duct/Longitudinal Seams," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

D. Elbows, Transitions, Offsets, Branch Connections, and Other Duct Construction: Select types and fabricate in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Ch. 4, "Fittings and Other Construction," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

2.3 SINGLE-WALL ROUND DUCTS AND FITTINGS

A. General Fabrication Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Ch. 3, "Round, Oval, and Flexible Duct," based on indicated static-pressure class unless otherwise indicated.

1. Manufacturers: Subject to compliance with requirements, undefined:
    a. McGill AirFlow LLC.
    b. SEMCO, LLC; part of FlaktGroup.
    c. Sheet Metal Connectors, Inc.
    d. Spiral Manufacturing Co., Inc.

B. Transverse Joints: Select joint types and fabricate in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-1, "Round Duct Transverse Joints," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

C. Longitudinal Seams: Select seam types and fabricate in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-2, "Round Duct Longitudinal Seams," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

D. Tees and Laterals: Select types and fabricate in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-5, "90 Degree Tees and Laterals," and Figure 3-6, "Conical Tees," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

2.4 SHEET METAL MATERIALS

A. General Material Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections.

DRAFT

B. Galvanized Sheet Steel: Comply with ASTM A 653/A 653M.

1. Galvanized Coating Designation: G60 .
2. Finishes for Surfaces Exposed to View: Mill phosphatized.

C. Reinforcement Shapes and Plates: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.

D. Tie Rods: Galvanized steel, 1/4-inch- minimum diameter for lengths 36 inches or less; 3/8-inch-minimum diameter for lengths longer than 36 inches.

2.5 DUCT LINER

A. Fibrous-Glass Duct Liner: Comply with ASTM C 1071, NFPA 90A, or NFPA 90B; and with NAIMA AH124, "Fibrous Glass Duct Liner Standard."

1. Maximum Thermal Conductivity:
   a. Type I, Flexible: 0.27 Btu x in./h x sq. ft. x deg F at 75 deg F mean temperature.
2. Antimicrobial Erosion-Resistant Coating: Apply to the surface of the liner that will form the interior surface of the duct to act as a moisture repellent and erosion-resistant coating. Antimicrobial compound shall be tested for efficacy by an NRTL and registered by the EPA for use in HVAC systems.
3. Solvent -Based Liner Adhesive: Comply with NFPA 90A or NFPA 90B and with ASTM C 916.

B. Insulation Pins and Washers:

1. Cupped-Head, Capacitor-Discharge-Weld Pins: Copper- or zinc-coated steel pin, fully annealed for capacitor-discharge welding, 0.106-inch- diameter shank, length to suit depth of insulation indicated with integral 1-1/2-inch galvanized carbon-steel washer.
2. Insulation-Retaining Washers: Self-locking washers formed from 0.016-inch- thick stainless steel; with beveled edge sized as required to hold insulation securely in place, but not less than 1-1/2 inches in diameter.

2.6 SEALANT AND GASKETS

A. General Sealant and Gasket Requirements: Surface-burning characteristics for sealants and gaskets shall be a maximum flame-spread index of 25 and a maximum smoke-developed index of 50 when tested in accordance with UL 723; certified by an NRTL.

B. Two-Part Tape Sealing System:

1. Tape: Woven cotton fiber impregnated with mineral gypsum and modified acrylic/silicone activator to react exothermically with tape to form hard, durable, airtight seal.
2. Tape Width: 4 inches .
3. Sealant: Modified styrene acrylic.
4. Water resistant.
5. Mold and mildew resistant.

DRAFT

6. Maximum Static-Pressure Class: 10 inch wg, positive and negative.
7. Service: Indoor and outdoor.
8. Service Temperature: Minus 40 to plus 200 deg F.
9. Substrate: Compatible with galvanized sheet steel (both PVC coated and bare), stainless steel, or aluminum.

C. Water-Based Joint and Seam Sealant:

1. Application Method: Brush on.
2. Solids Content: Minimum 65 percent.
3. Shore A Hardness: Minimum 20.
4. Water resistant.
5. Mold and mildew resistant.
6. VOC: Maximum 75 g/L (less water).
7. Maximum Static-Pressure Class: 10 inch wg, positive and negative.
8. Service: Indoor or outdoor.
9. Substrate: Compatible with galvanized sheet steel (both PVC coated and bare), stainless steel, or aluminum sheets.

D. Solvent-Based Joint and Seam Sealant:

1. Application Method: Brush on.
2. Base: Synthetic rubber resin.
3. Solvent: Toluene and heptane.
4. Solids Content: Minimum 60 percent.
5. Shore A Hardness: Minimum 60.
6. Water resistant.
7. Mold and mildew resistant.
8. Maximum Static-Pressure Class: 10-inch wg, positive or negative.
9. Service: Indoor or outdoor.
10. Substrate: Compatible with galvanized sheet steel (both PVC coated and bare), stainless steel, or aluminum sheets.

E. Flanged Joint Sealant: Comply with ASTM C 920.

1. General: Single-component, acid-curing, silicone, elastomeric.
2. Type: S.
3. Grade: NS.
4. Class: 25.
5. Use: O.

F. Flange Gaskets: Butyl rubber, neoprene, or EPDM polymer with polyisobutylene plasticizer.

G. Round Duct Joint O-Ring Seals:

1. Seal shall provide maximum leakage class of 3 cfm/100 sq. ft. at 1-inch wg and shall be rated for10-inch wg static-pressure class, positive or negative.
2. EPDM O-ring to seal in concave bead in coupling or fitting spigot.
3. Double-lipped, EPDM O-ring seal, mechanically fastened to factory-fabricated couplings and fitting spigots.

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2.7 HANGERS AND SUPPORTS

A. Hanger Rods for Noncorrosive Environments: Galvanized-steel rods and nuts.

B. Hanger Rods for Corrosive Environments: Electrogalvanized, all-thread rods or galvanized rods with threads painted with zinc-chromate primer after installation.

C. Strap and Rod Sizes: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 5-1, "Rectangular Duct Hangers Minimum Size," and Table 5-2, "Minimum Hanger Sizes for Round Duct."

D. Steel Cables for Galvanized-Steel Ducts: Galvanized steel complying with ASTM A 603.

E. Steel Cables for Stainless-Steel Ducts: Stainless steel complying with ASTM A 492.

F. Steel Cable End Connections: Galvanized-steel assemblies with brackets, swivel, and bolts designed for duct hanger service; with an automatic-locking and clamping device.

G. Duct Attachments: Sheet metal screws, blind rivets, or self-tapping metal screws; compatible with duct materials.

H. Trapeze and Riser Supports:

1. Supports for Galvanized-Steel Ducts: Galvanized-steel shapes and plates.
2. Supports for Stainless-Steel Ducts: Stainless-steel shapes and plates.
3. Supports for Aluminum Ducts: Aluminum or galvanized steel coated with zinc chromate.

PART 3 - EXECUTION

3.1 DUCT INSTALLATION

A. Drawing plans, schematics, and diagrams indicate general location and arrangement of duct system. Indicated duct locations, configurations, and arrangements were used to size ducts and calculate friction loss for air-handling equipment sizing and for other design considerations. Install duct systems as indicated unless deviations to layout are approved on Shop Drawings and coordination drawings.

B. Install ducts in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" unless otherwise indicated.

C. Install ducts in maximum practical lengths with fewest possible joints.

D. Install factory- or shop-fabricated fittings for changes in direction, size, and shape and for branch connections.

E. Unless otherwise indicated, install ducts vertically and horizontally, and parallel and perpendicular to building lines.

F. Install ducts close to walls, overhead construction, columns, and other structural and permanent enclosure elements of building.

DRAFT

G. Install ducts with a clearance of 1 inch, plus allowance for insulation thickness.

H. Route ducts to avoid passing through transformer vaults and electrical equipment rooms and enclosures.

I. Where ducts pass through non-fire-rated interior partitions and exterior walls and are exposed to view, cover the opening between the partition and duct or duct insulation with sheet metal flanges of same metal thickness as the duct. Overlap openings on four sides by at least 1-1/2 inches.

J. Install fire , combination fire/smoke, and smoke dampers where indicated on Drawings and as required by code, and by local authorities having jurisdiction. Comply with requirements in Section 233300 "Air Duct Accessories" for fire and smoke dampers and specific installation requirements of the damper UL listing.

K. Install heating coils, cooling coils, air filters, dampers, and all other duct-mounted accessories in air ducts where indicated on Drawings.

L. Protect duct interiors from moisture, construction debris and dust, and other foreign materials both before and after installation. Comply with SMACNA's "IAQ Guidelines for Occupied Buildings Under Construction," Appendix G, "Duct Cleanliness for New Construction Guidelines."

M. Elbows: Use long-radius elbows wherever they fit.

1. Fabricate 90-degree rectangular mitered elbows to include turning vanes.
2. Fabricate 90-degree round elbows with a minimum of three segments for 12 inches and smaller and a minimum of five segments for 14 inches and larger.

N. Branch Connections: Use lateral or conical branch connections.

3.2 INSTALLATION OF EXPOSED DUCTWORK

A. Protect ducts exposed in finished spaces from being dented, scratched, or damaged.

B. Trim duct sealants flush with metal. Create a smooth and uniform exposed bead. Do not use two-part tape sealing system.

C. Grind welds to provide smooth surface free of burrs, sharp edges, and weld splatter. When welding stainless steel with a No. 3 or 4 finish, grind the welds flush, polish the exposed welds, and treat the welds to remove discoloration caused by welding.

D. Maintain consistency, symmetry, and uniformity in arrangement and fabrication of fittings, hangers and supports, duct accessories, and air outlets.

E. Repair or replace damaged sections and finished work that does not comply with these requirements.

DRAFT

3.3 DUCT SEALING

A. Seal ducts for duct static-pressure, seal classes, and leakage classes specified in "Duct Schedule" Article in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

B. Seal ducts at a minimum to the following seal classes in accordance with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible":

1. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."
2. Unconditioned Space, Supply-Air Ducts in Pressure Classes 2-Inch wg and Lower: Seal Class B.
3. Unconditioned Space, Supply-Air Ducts in Pressure Classes Higher Than 2-Inch wg: Seal Class A.
4. Unconditioned Space, Return-Air Ducts: Seal Class B.
5. Conditioned Space, Supply-Air Ducts in Pressure Classes 2-Inch wg and Lower: Seal Class C.
6. Conditioned Space, Supply-Air Ducts in Pressure Classes Higher Than 2-Inch wg: Seal Class B.
7. Conditioned Space, Return-Air Ducts: Seal Class C.

3.4 HANGER AND SUPPORT INSTALLATION

A. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Chapter 5, "Hangers and Supports."

B. Building Attachments: Concrete inserts, powder-actuated fasteners, or structural-steel fasteners appropriate for construction materials to which hangers are being attached.

1. Where practical, install concrete inserts before placing concrete.
2. Install powder-actuated concrete fasteners after concrete is placed and completely cured.
3. Use powder-actuated concrete fasteners for standard-weight aggregate concretes or for slabs more than 4 inches thick.
4. Do not use powder-actuated concrete fasteners for lightweight-aggregate concretes or for slabs less than 4 inches thick.

C. Hanger Spacing: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 5-1, "Rectangular Duct Hangers Minimum Size," and Table 5-2, "Minimum Hanger Sizes for Round Duct," for maximum hanger spacing; install hangers and supports within 24 inches of each elbow and within 48 inches of each branch intersection.

D. Hangers Exposed to View: Threaded rod and angle or channel supports.

E. Support vertical ducts with steel angles or channel secured to the sides of the duct with welds, bolts, sheet metal screws, or blind rivets; support at each floor and at a maximum intervals of 16 feet.

F. Install upper attachments to structures. Select and size upper attachments with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

DRAFT

3.5 CONNECTIONS

A. Make connections to equipment with flexible connectors complying with Section 233300 "Air Duct Accessories."

B. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for branch, outlet and inlet, and terminal unit connections.

3.6 PAINTING

A. Paint interior of metal ducts that are visible through registers and grilles and that do not have duct liner. Apply one coat of flat, black, latex paint over a compatible galvanized-steel primer. Paint materials and application requirements are specified in Section 099113 "Exterior Painting" and Section 099123 "Interior Painting."

3.7 DUCT CLEANING

A. Clean new duct system(s) before testing, adjusting, and balancing.

B. For cleaning of existing ductwork, see Section 230130.52 "Existing HVAC Air Distribution System Cleaning."

C. Use duct cleaning methodology as indicated in NADCA ACR.

D. Use service openings for entry and inspection.

1. Provide openings with access panels appropriate for duct static-pressure and leakage class at dampers, coils, and any other locations where required for inspection and cleaning access. Provide insulated panels for insulated or lined duct. Patch insulation and liner as recommended by duct liner manufacturer. Comply with Section 233300 "Air Duct Accessories" for access panels and doors.
2. Disconnect and reconnect flexible ducts as needed for cleaning and inspection.
3. Remove and reinstall ceiling to gain access during the cleaning process.

E. Particulate Collection and Odor Control:

1. When venting vacuuming system inside the building, use HEPA filtration with 99.97 percent collection efficiency for 0.3-micron-size (or larger) particles.
2. When venting vacuuming system to outdoors, use filter to collect debris removed from HVAC system, and locate exhaust downwind and away from air intakes and other points of entry into building.

F. Clean the following components by removing surface contaminants and deposits:

1. Air outlets and inlets (registers, grilles, and diffusers).
2. Supply, return, and exhaust fans including fan housings, plenums (except ceiling supply and return plenums), scrolls, blades or vanes, shafts, baffles, dampers, and drive assemblies.

DRAFT

3. Air-handling unit internal surfaces and components including mixing box, coil section, air wash systems, spray eliminators, condensate drain pans, humidifiers and dehumidifiers, filters and filter sections, and condensate collectors and drains.
4. Coils and related components.
5. Return-air ducts, dampers, actuators, and turning vanes except in ceiling plenums and mechanical equipment rooms.
6. Supply-air ducts, dampers, actuators, and turning vanes.
7. Dedicated exhaust and ventilation components and makeup air systems.

G. Mechanical Cleaning Methodology:

1. Clean metal duct systems using mechanical cleaning methods that extract contaminants from within duct systems and remove contaminants from building.
2. Use vacuum-collection devices that are operated continuously during cleaning. Connect vacuum device to downstream end of duct sections so areas being cleaned are under negative pressure.
3. Use mechanical agitation to dislodge debris adhered to interior duct surfaces without damaging integrity of metal ducts, duct liner, or duct accessories.
4. Clean fibrous-glass duct liner with HEPA vacuuming equipment; do not permit duct liner to get wet. Replace fibrous-glass duct liner that is damaged, deteriorated, or delaminated or that has friable material, mold, or fungus growth.
5. Clean coils and coil drain pans in accordance with NADCA ACR. Keep drain pan operational. Rinse coils with clean water to remove latent residues and cleaning materials; comb and straighten fins.
6. Provide drainage and cleanup for wash-down procedures.
7. Antimicrobial Agents and Coatings: Apply EPA-registered antimicrobial agents if fungus is present. Apply antimicrobial agents in accordance with manufacturer's written instructions after removal of surface deposits and debris.

3.8 STARTUP

A. Air Balance: Comply with requirements in Section 230593 "Testing, Adjusting, and Balancing for HVAC."

3.9 DUCT SCHEDULE

A. Fabricate ducts with galvanized sheet steel except as otherwise indicated and as follows:

1. Fabricate all ducts to achieve SMACNA pressure class, seal class, and leakage class as indicated below.

B. Supply Ducts:

1. Ducts Connected to Fan Coil Units, Furnaces, Heat Pumps, and Terminal Units :
   a. Pressure Class: Positive 2- inch wg.
   b. Minimum SMACNA Seal Class: C.
   c. SMACNA Leakage Class for Rectangular: 6.
   d. SMACNA Leakage Class for Round and Flat Oval: 6.

DRAFT

C. Return Ducts:

1. Ducts Connected to Fan Coil Units, Furnaces, Heat Pumps, and Terminal Units :
   a. Pressure Class: Positive or negative 2- inch wg.
   b. Minimum SMACNA Seal Class: .
   c. SMACNA Leakage Class for Rectangular: 6.
   d. SMACNA Leakage Class for Round and Flat Oval: 6.

D. Outdoor-Air (Not Filtered, Heated, or Cooled) Ducts:

1. Ducts Connected to Fan Coil Units, Furnaces, Heat Pumps, and Terminal Units :
   a. Pressure Class: Positive or negative 2- inch wg.
   b. Minimum SMACNA Seal Class: C.
   c. SMACNA Leakage Class for Rectangular: 6.
   d. SMACNA Leakage Class for Round and Flat Oval: 6.

E. Intermediate Reinforcement:

1. Galvanized-Steel Ducts: Galvanized steel .

F. Liner:

1. Transfer Ducts: Fibrous glass, Type I , 1 inch(es) thick.

G. Elbow Configuration:

1. Rectangular Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 4-2, "Rectangular Elbows."
   a. Velocity 1000 fpm or Lower:
      1) Radius Type RE 1 with minimum 0.5 radius-to-diameter ratio.
      2) Mitered Type RE 4 without vanes.
   b. Velocity 1000 to 1500 fpm:
      1) Radius Type RE 1 with minimum 1.0 radius-to-diameter ratio.
      2) Radius Type RE 3 with minimum 0.5 radius-to-diameter ratio and two vanes.
      3) Mitered Type RE 2 with vanes complying with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 4-3, "Vanes and Vane Runners," and Figure 4-4, "Vane Support in Elbows."
   c. Velocity 1500 fpm or Higher:
      1) Radius Type RE 1 with minimum 1.5 radius-to-diameter ratio.
      2) Radius Type RE 3 with minimum 1.0 radius-to-diameter ratio and two vanes.
      3) Mitered Type RE 2 with vanes complying with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 4-3, "Vanes and Vane Runners," and Figure 4-4, "Vane Support in Elbows."
2. Rectangular Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 4-2, "Rectangular Elbows."
   a. Radius Type RE 1 with minimum 1.5 radius-to-diameter ratio.
   b. Radius Type RE 3 with minimum 1.0 radius-to-diameter ratio and two vanes.

DRAFT

c. Mitered Type RE 2 with vanes complying with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 4-3, "Vanes and Vane Runners," and Figure 4-4, "Vane Support in Elbows."

3. Round Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-4, "Round Duct Elbows."
   a. Minimum Radius-to-Diameter Ratio and Elbow Segments: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 3-1, "Mitered Elbows." Elbows with less than 90-degree change of direction have proportionately fewer segments.
      1) Velocity 1000 fpm or Lower: 0.5 radius-to-diameter ratio and three segments for 90-degree elbow.
      2) Velocity 1000 to 1500 fpm: 1.0 radius-to-diameter ratio and four segments for 90-degree elbow.
      3) Velocity 1500 fpm or Higher: 1.5 radius-to-diameter ratio and five segments for 90-degree elbow.
      4) Radius-to Diameter Ratio: 1.5.
   b. Round Elbows, 12 Inches and Smaller in Diameter: Stamped or pleated.

H. Branch Configuration:

1. Rectangular Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 4-6, "Branch Connection."
   a. Rectangular Main to Rectangular Branch: 45-degree entry.
   b. Rectangular Main to Round Branch: Conical spin in.
2. Round and Flat Oval: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 3-5, "90 Degree Tees and Laterals," and Figure 3-6, "Conical Tees." Saddle taps are permitted in existing duct.
   a. Velocity 1000 fpm or Lower: 90-degree tap.
   b. Velocity 1000 to 1500 fpm: Conical tap.
   c. Velocity 1500 fpm or Higher: 45-degree lateral.

END OF SECTION

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SECTION 23 74 16.13

PACKAGED, LARGE-CAPACITY, ROOFTOP AIR-CONDITIONING UNITS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes packaged, large-capacity, rooftop air conditioning units (RTUs) with the following components:

1. Fans, drives, and motors.
2. Gas furnaces.
3. Electrical power connections.
4. Controls.
5. Roof curbs.
6. Accessories.

1.3 DEFINITIONS

A. RTU: Rooftop unit. As used in this Section, this abbreviation means packaged, large-capacity, rooftop air-conditioning units. This abbreviation is used regardless of whether the unit is mounted on the roof or on a concrete base on ground.

1.4 ACTION SUBMITTALS

A. Shop Drawings: For each packaged, large-capacity, rooftop air-conditioning units.

1. Include plans, elevations, sections, and mounting attachment details.
2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include diagrams for power, signal, and control wiring.

1.5 INFORMATIONAL SUBMITTALS

A. System startup reports.

DRAFT

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For RTUs to include in emergency, operation, and maintenance manuals.

1.7 WARRANTY

A. Warranty: Manufacturer agrees to repair or replace components of outdoor, semi-custom, air-handling unit that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 1 year(s) from date of Substantial Completion.
2. Warranty Period for Heat Exchangers: Manufacturer's standard, but not less than five years from date of Substantial Completion

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by an NRTL, and marked for intended location and application.

B. NFPA Compliance: Comply with NFPA 90A for design, fabrication, and installation of RTUs and components.

C. ASHRAE 62.1 Compliance: Applicable requirements in ASHRAE 62.1, Section 5 - "Systems and Equipment" and Section 7 - "Construction and Startup."

D. ASHRAE 15 Compliance: For refrigeration system safety.

E. ASHRAE/IES 90.1 Compliance: Applicable requirements in ASHRAE/IES 90.1, Section 6 - "Heating, Ventilating, and Air-Conditioning."

F. UL Compliance: Comply with UL 1995.

2.2 MANUFACTURERS

A. <Click here to find, evaluate, and insert list of manufacturers and products.>

2.3 FANS, DRIVES, AND MOTORS

A. Fan and Drive Assemblies: Statically and dynamically balanced and designed for continuous operation at maximum-rated fan speed and motor horsepower.

B. Supply-Air Fans: Centrifugal, rated according to AMCA 210; galvanized or painted steel; mounted on solid-steel shaft.

1. Shafts: With field-adjustable alignment.

DRAFT

a. Turned, ground, and polished hot-rolled steel with keyway.

2. Shaft Bearings:
   a. Heavy-duty, self-aligning, pillow-block type with an L-50 rated life of minimum 100,000 hours according to ABMA 9.
3. Housings: Formed- and reinforced-steel panels to form curved scroll housings with shaped cutoff and spun-metal inlet bell.
   a. Bracing: Steel angle or channel supports for mounting and supporting fan scroll, wheel, motor, and accessories.
4. Centrifugal Fan Wheels: Inlet flange, backplate, and shallow blades with inlet and tip curved forward in direction of airflow and mechanically fastened to flange and backplate; steel or aluminum hub swaged to backplate and fastened to shaft with setscrews.
5. Mounting: For internal vibration isolation. Factory-mount fans with manufacturer's standard vibration isolation mounting devices having a minimum static deflection of 1 inch .
6. Shaft Lubrication Lines: Extended to a location outside the casing.
7. Flexible Connector: Factory fabricated with a fabric strip minimum 3-1/2 inches wide, attached to two strips of minimum 2-3/4-inch-wide by 0.028-inch- thick, galvanized-steel sheet.
   a. Flexible Connector Fabric: Glass fabric, double coated with neoprene. Fabrics, coatings, and adhesives shall comply with UL 181, Class 1.

C. Drives, Direct: Factory-mounted, direct drive.

D. Drives, Belt: Factory-mounted, V-belt drive, with adjustable alignment and belt tensioning, and with 1.5or1.25 service factor based on fan motor.

1. Pulleys: Cast iron or cast steel with split, tapered bushing, dynamically balanced at the factory.
2. Belts: Oil resistant, non-sparking and nonstatic; in matched sets for multiple-belt drives.
3. Belt Guards: Comply with requirements specified by OSHA and fabricate according to SMACNA's "HVAC Duct Construction Standards"; 0.146-inch- thick, 3/4-inch diamond-mesh wire screen, welded to steel angle frame; prime coated.

E. Motors:

1. Comply with NEMA designation, temperature rating, service factor, and efficiency requirements for motors specified in Section 230513 "Common Motor Requirements for HVAC Equipment."
2. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0.
3. Enclosure Type: Open, dripproof .
4. Enclosure Materials: Cast iron .
5. Efficiency: Premium efficient as defined in NEMA MG 1.
6. Motor Pulleys: Adjustable pitch for use with 5 -hp motors and smaller; fixed pitch for use with motors larger than 5 hp. Select pulley size so pitch adjustment is at the middle of adjustment range at fan design conditions.
7. Controllers, Electrical Devices, and Wiring: Comply with requirements for electrical devices and connections specified in electrical Sections.

DRAFT

2.4 GAS FURNACES

A. Description: Factory assembled, piped, and wired; complying with ANSI Z21.47/CSA 2.3 and NFPA 54.

B. CSA Approval: Designed and certified by and bearing label of CSA.

C. Burners: Stainless steel.

1. Fuel: Natural gas.
2. Ignition: Electronically controlled electric spark or hot-surface igniter with flame sensor.
3. Gas Control Valve: Two stage .
4. Gas Train: Single-body, regulated, redundant, 24-V ac gas valve assembly containing pilot solenoid valve, pilot filter, pressure regulator, pilot shutoff, and manual shutoff.

D. Heat-Exchanger and Drain Pan: Stainless steel.

E. Venting, Power: Power vented, with integral, motorized centrifugal fan interlocked with gas valve.

F. Safety Controls:

1. Gas Manifold: Safety switches and controls complying with ANSI standards .

2.5 ELECTRICAL POWER CONNECTIONS

A. RTU shall have a single connection of power to unit with unit-mounted disconnect switch accessible from outside unit and control-circuit transformer with built-in overcurrent protection.

2.6 CONTROLS

A. Basic Unit Controls:

1. Control-voltage transformer.
2. Wall-mounted thermostat or sensor with the following features:
   a. Heat-cool-off switch.
   b. Fan on-auto switch.
   c. Fan-speed switch.
   d. Automatic changeover.
   e. Adjustable deadband.
   f. Exposed set point.
   g. Exposed indication.
   h. Degree F indication.
   i. Unoccupied-period-override push button.
   j. Data entry and access port to input temperature and humidity set points, occupied and unoccupied periods, and output room temperature and humidity, supply-air temperature, operating mode, and status.

B. DDC Controller:

DRAFT

1. Controller shall have volatile-memory backup.
2. Safety Control Operation:
    a. Smoke Detectors: Stop fan and close outdoor-air damper if smoke is detected. Provide additional contacts for alarm interface to fire alarm control panel.
    b. Firestats: Stop fan and close outdoor-air damper if air greater than 130 deg F enters unit. Provide additional contacts for alarm interface to fire alarm control panel.
    c. Fire Alarm Control Panel Interface: Provide control interface to coordinate with operating sequence described in Section 284621.11 "Addressable Fire-Alarm Systems."
    d. Low-Discharge Temperature: Stop fan and close outdoor-air damper if supply air temperature is less than 40 deg F .
    e. Defrost Control for Condenser Coil: Pressure differential switch to initiate defrost sequence.
3. Scheduled Operation: Occupied and unoccupied periods on seven -day clock with a minimum of two programmable periods per day.
4. Unoccupied Period:
    a. Heating Setback: Plus 10 deg F .
    b. Cooling Setback: System off.
5. Supply Fan Operation:
    a. Occupied Periods: Run fan continuously.
    b. Unoccupied Periods: Cycle fan to maintain setback temperature.
6. Hot-Gas Reheat-Coil Operation:
    a. Occupied Periods: Humidistat opens hot-gas valve to provide hot-gas reheat, and cycles compressor.
    b. Unoccupied Periods: Reheat not required.
7. Gas Furnace Operation:
    a. Occupied Periods: Stage burner to maintain room temperature.
    b. Unoccupied Periods: Cycle burner to maintain setback temperature.

C. Interface Requirements for HVAC Instrumentation and Control System:

1. Interface relay for scheduled operation.
2. Interface relay to provide indication of fault at the central workstation and diagnostic code storage.
3. Provide BACnet compatible interface for central HVAC control workstation for the following:
    a. Adjusting set points.
    b. Monitoring supply fan start, stop, and operation.
    c. Inquiring data to include outdoor-air damper position, supply- and room-air temperature and humidity.
    d. Monitoring occupied and unoccupied operations.
    e. Monitoring constant and variable motor loads.
    f. Monitoring variable-frequency drive operation.
    g. Monitoring cooling load.
    h. Monitoring economizer cycles.
    i. Monitoring air-distribution static pressure and ventilation air volume.

DRAFT

2.7 ROOF CURBS

A. Wind and Seismic Restraints: Metal brackets compatible with the curb and casing, painted to match RTU, used to anchor unit to the curb, and designed for loads at Project site. Comply with requirements in Section 230548 "Vibration and Seismic Controls for HVAC" for wind-load requirements.

B. Materials: Galvanized steel with corrosion-protection coating, watertight gaskets, and factory-installed wood nailer; complying with NRCA standards.

1. Curb Insulation and Adhesive: Comply with NFPA 90A or NFPA 90B.
   a. Materials: ASTM C 1071, Type I or II.
   b. Thickness: 1-1/2 inches .
2. Application: Factory applied with adhesive and mechanical fasteners to the internal surface of curb.
   a. Liner Adhesive: Comply with ASTM C 916, Type I.
   b. Mechanical Fasteners: Galvanized steel, suitable for adhesive attachment, mechanical attachment, or welding attachment to duct without damaging liner when applied as recommended by manufacturer and without causing leakage in cabinet.
   c. Liner materials applied in this location shall have air-stream surface coated with a temperature-resistant coating or faced with a plain or coated fibrous mat or fabric depending on service air velocity.
   d. Liner Adhesive: Comply with ASTM C 916, Type I.

C. Curb Dimensions: Height of 14 inches .

2.8 MATERIALS

A. Steel:

1. ASTM A36/A36M for carbon structural steel.
2. ASTM A568/A568M for steel sheet.

B. Stainless Steel:

1. Manufacturer's standard grade for casing.
2. Manufacturer's standard type, ASTM A240/A240M for bare steel exposed to airstream or moisture.

C. Galvanized Steel: ASTM A653/A653M.

D. Aluminum: ASTM B209.

E. Corrosion-Resistant Coating: Coat with a corrosion-resistant coating capable of withstanding a 3000 -hour salt-spray test according to ASTM B117.

1. Standards:
   a. ASTM B117 for salt spray.
   b. ASTM D2794 for minimum impact resistance of 100 in-lb.

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c. ASTM B3359 for cross-hatch adhesion of 5B.
2. Application: Spray.
3. Thickness: 1 mil .
4. Gloss: Minimum gloss of 60 on a 60-degree meter.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of RTUs.

B. Examine roughing-in for RTUs to verify actual locations of piping and duct connections before equipment installation.

C. Examine roofs for suitable conditions where RTUs will be installed.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Unit Support: Install unit level on structural . Coordinate wall penetrations and flashing with wall construction. Secure RTUs to structural support with anchor bolts.

3.3 PIPING CONNECTIONS

A. Piping installation requirements are specified in other Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Where installing piping adjacent to RTU, allow space for service and maintenance.

C. Connect piping to unit mounted on vibration isolators with flexible connectors.

D. Connect condensate drain pans using NPS 1-1/4 , ASTM B88, Type M copper tubing. Extend to nearest equipment or roof drain. Construct deep trap at connection to drain pan and install cleanouts at changes in direction.

E. Gas Piping: Comply with applicable requirements in Section 231123 "Facility Natural-Gas Piping." Connect gas piping to burner, full size of gas train inlet, and connect with union and shutoff valve with sufficient clearance for burner removal and service.

F. Hot- and Chilled-Water Piping: Comply with applicable requirements in Section 232113 "Hydronic Piping" and Section 232116 "Hydronic Piping Specialties." Install shutoff valve and union or flange at each coil supply connection. Install balancing valve and union or flange at each coil return connection.

G. Steam and Condensate Piping: Comply with applicable requirements in Section 232213 "Steam and Condensate Heating Piping" and Section 232216 "Steam and Condensate Heating Piping

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Specialties." Install shutoff valve at steam supply connections, float and thermostatic trap, and union or flange at each coil return connection. Install gate valve and inlet strainer at supply connection of dry steam humidifiers, and inverted bucket steam trap to condensate return connection.

H. Refrigerant Piping: Comply with applicable requirements in Section 232300 "Refrigerant Piping." Install shutoff valve and union or flange at each supply and return connection.

3.4 DUCT CONNECTIONS

A. Comply with duct installation requirements specified in other HVAC Sections. Drawings indicate the general arrangement of ducts. The following are specific connection requirements:

1. Install ducts to termination at top of roof curb.
2. Remove roof decking only as required for passage of ducts. Do not cut out decking under entire roof curb.
3. Connect supply ducts to RTUs with flexible duct connectors specified in Section 233300 "Air Duct Accessories."
4. Install return-air duct continuously through roof structure.

3.5 ELECTRICAL CONNECTIONS

A. Connect electrical wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

B. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."

C. Install electrical devices furnished by manufacturer, but not factory mounted, according to NFPA 70 and NECA 1.

D. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.

1. Nameplate shall be laminated acrylic or melamine plastic signs as specified in Section 260553 "Identification for Electrical Systems."
2. Nameplate shall be laminated acrylic or melamine plastic signs as layers of black with engraved white letters at least 1/2 inch high.
3. Locate nameplate where easily visible.

3.6 CONTROL CONNECTIONS

A. Install control and electrical power wiring to field-mounted control devices.

B. Connect control wiring according to Section 260523 "Control-Voltage Electrical Power Cables."

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3.7 STARTUP SERVICE

A. Engage a factory-authorized service representative to perform startup service.

B. Complete installation and startup checks according to manufacturer's written instructions.

1. Inspect for visible damage to unit casing.
2. Inspect for visible damage to furnace combustion chamber.
3. Inspect for visible damage to compressor, coils, and fans.
4. Inspect internal insulation.
5. Verify that labels are clearly visible.
6. Verify that clearances have been provided for servicing.
7. Verify that controls are connected and operable.
8. Verify that filters are installed.
9. Clean condenser coil and inspect for construction debris.
10. Clean furnace flue and inspect for construction debris.
11. Connect and purge gas line.
12. Remove packing from vibration isolators.
13. Inspect operation of barometric relief dampers.
14. Verify lubrication on fan and motor bearings.
15. Inspect fan-wheel rotation for movement in correct direction without vibration and binding.
16. Adjust fan belts to proper alignment and tension.
17. Start unit according to manufacturer's written instructions.
    a. Start refrigeration system.
    b. Do not operate below recommended low-ambient temperature.
    c. Complete startup sheets and attach copy with Contractor's startup report.
18. Inspect and record performance of interlocks and protective devices; verify sequences.
19. Operate unit for an initial period as recommended or required by manufacturer.
20. Perform the following operations for both minimum and maximum firing. Adjust burner for peak efficiency.
    a. Measure gas pressure on manifold.
    b. Inspect operation of power vents.
    c. Measure combustion-air temperature at inlet to combustion chamber.
    d. Measure flue-gas temperature at furnace discharge.
    e. Perform flue-gas analysis. Measure and record flue-gas carbon dioxide and oxygen concentration.
    f. Measure supply-air temperature and volume when burner is at maximum firing rate and when burner is off. Calculate useful heat to supply air.
21. Calibrate thermostats.
22. Adjust and inspect high-temperature limits.
23. Inspect outdoor-air dampers for proper stroke and interlock with return-air dampers.
24. Start refrigeration system and measure and record the following when ambient is a minimum of 15 deg F above return-air temperature:
    a. Coil leaving-air, dry- and wet-bulb temperatures.
    b. Coil entering-air, dry- and wet-bulb temperatures.
    c. Outdoor-air, dry-bulb temperature.
    d. Outdoor-air-coil, discharge-air, dry-bulb temperature.
25. Inspect controls for correct sequencing of heating, mixing dampers, refrigeration, and normal and emergency shutdown.

DRAFT

26. Measure and record the following minimum and maximum airflows. Plot fan volumes on fan curve.
    a. Supply-air volume.
    b. Return-air volume.
    c. Relief-air volume.
    d. Outdoor-air intake volume.
27. Simulate maximum cooling demand and inspect the following:
    a. Compressor refrigerant suction and hot-gas pressures.
    b. Short circuiting of air through condenser coil or from condenser fans to outdoor-air intake.
28. Verify operation of remote panel including pilot-light operation and failure modes. Inspect the following:
    a. High-temperature limit on gas-fired heat exchanger.
    b. Low-temperature safety operation.
    c. Filter high-pressure differential alarm.
    d. Economizer to minimum outdoor-air changeover.
    e. Relief-air fan operation.
    f. Smoke and firestat alarms.
29. After startup and performance testing and prior to Substantial Completion, replace existing filters with new filters.

3.8 ADJUSTING

A. Adjust damper linkages for proper damper operation.

B. Comply with requirements in Section 230593 "Testing, Adjusting, and Balancing for HVAC" for air-handling system testing, adjusting, and balancing.

C. Occupancy Adjustments: When requested within 12 months from date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose.

3.9 CLEANING

A. After completing system installation and testing, adjusting, and balancing RTUs and air-distribution systems and after completing startup service, clean RTUs internally to remove foreign material and construction dirt and dust. Clean fan wheels, cabinets, dampers, coils, and filter housings, and install new, clean filters.

END OF SECTION

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SECTION 26 05 19

LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Copper building wire.
2. Metal-clad cable, Type MC.
3. Fire-alarm wire and cable.
4. Connectors and splices.

1.2 ACTION SUBMITTALS

A. Product Data:

1. Copper building wire.
2. Metal-clad cable, Type MC.
3. Fire-alarm wire and cable.
4. Connectors and splices.

PART 2 - PRODUCTS

2.1 COPPER BUILDING WIRE

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Alpha Wire; brand of Belden, Inc.
2. Belden Inc.
3. Southwire Company, LLC.

B. Description: Flexible, insulated and uninsulated, drawn copper current-carrying conductor with an overall insulation layer or jacket, or both, rated 600 V or less.

C. Standards:

1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
2. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."

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D. Conductors: Copper, complying with ASTM B3 for bare annealed copper and with ASTM B8 for stranded conductors.

E. Conductor Insulation:

1. Type THHN and Type THWN-2. Comply with UL 83.
2. Type XHHW-2. Comply with UL 44.
3. .

2.2 METAL-CLAD CABLE, TYPE MC

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Alpha Wire; brand of Belden, Inc.
2. Belden Inc.
3. Okonite Company (The).
4. Southwire Company, LLC.

B. Description: A factory assembly of one or more current-carrying insulated conductors in an overall metallic sheath.

C. Standards:

1. Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.
2. Comply with UL 1569.
3. Conductor and Cable Marking: Comply with wire and cable marking according to UL's "Wire and Cable Marking and Application Guide."

D. Circuits:

1. Single circuit .
2. Power-Limited Fire-Alarm Circuits: Comply with UL 1424.

E. Conductors: Copper, complying with ASTM B3 for bare annealed copper and with ASTM B8 for stranded conductors .

F. Ground Conductor: Insulated .

G. Conductor Insulation:

1. Type THHN/THWN-2. Comply with UL 83.
2. Type XHHW-2. Comply with UL 44.

H. Armor: Steel , interlocked.

I. Jacket: PVC applied over armor.

DRAFT

2.3 FIRE-ALARM WIRE AND CABLE

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Allied Wire & Cable Inc.
2. Prysmian Cables and Systems; Prysmian Group North America.
3. West Penn Wire; brand of Belden, Inc.

B. Signaling Line Circuits: Twisted, shielded pair, size as recommended by system manufacturer.

1. Circuit Integrity Cable: Twisted shielded pair, NFPA 70, Article 760, Classification CI, for power-limited fire-alarm signal service Type FPL. NRTL listed and labeled as complying with UL 1424 and UL 2196 for a two-hour rating.

C. Non-Power-Limited Circuits: Solid-copper conductors with 600 V rated, 75 deg C, color-coded insulation, and complying with requirements in UL 2196 for a two-hour rating.

1. Low-Voltage Circuits: No. 16 AWG, minimum, in pathway.
2. Line-Voltage Circuits: No. 12 AWG, minimum, in pathway.
3. Multiconductor Armored Cable: NFPA 70, Type MC, copper conductors, Type TFN/THHN conductor insulation, copper drain wire, copper armor with outer jacket with red identifier stripe, NTRL listed for fire-alarm and cable tray installation, plenum rated.

2.4 CONNECTORS AND SPLICES

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. 3M Electrical Products.
2. Hubbell Utility Solutions; Hubbell Incorporated.
3. ILSCO.
4. NSi Industries LLC.

B. Description: Factory-fabricated connectors, splices, and lugs of size, ampacity rating, material, type, and class for application and service indicated; listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.

C. Jacketed Cable Connectors: For steel and aluminum jacketed cables, zinc die-cast with set screws, designed to connect conductors specified in this Section.

D. Lugs: One piece, seamless, designed to terminate conductors specified in this Section.

1. Material: Copper .
2. Type: One hole with long barrels.
3. Termination: Compression .

DRAFT

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

A. Feeders:

1. Copper; solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
2. Copper for feeders smaller than No. 4 AWG; copper or aluminum for feeders No. 4 AWG and larger. Conductors must be solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

B. Branch Circuits:

1. Copper:
   a. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.
   b. Solid for No. 12 AWG and smaller; stranded for No. 10 AWG and larger.

C. ASD Output Circuits Cable: Extra-flexible stranded for all sizes.

D. Power-Limited Fire Alarm and Control: Solid for No. 12 AWG and smaller.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

A. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspaces: Type THHN/THWN-2, single conductors in raceway .

B. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN/THWN-2, single conductors in raceway .

3.3 INSTALLATION, GENERAL

A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.

B. Complete raceway installation between conductor and cable termination points in accordance with Section 260533.13 "Conduits for Electrical Systems" prior to pulling conductors and cables.

C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.

E. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

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F. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

G. Complete cable tray systems installation according to Section 260536 "Cable Trays for Electrical Systems" prior to installing conductors and cables.

3.4 INSTALLATION OF FIRE-ALARM WIRE AND CABLE

A. Comply with NFPA 72.

B. Wiring Method: Install wiring in metal pathway according to Section 270528.29 "Hangers and Supports for Communications Systems."

1. Install plenum cable in environmental airspaces, including plenum ceilings.
2. Fire-alarm circuits and equipment control wiring associated with fire-alarm system must be installed in a dedicated pathway system.
    a. Cables and pathways used for fire-alarm circuits, and equipment control wiring associated with fire-alarm system, may not contain any other wire or cable.
3. Fire-Rated Cables: Use of two-hour, fire-rated fire-alarm cables, NFPA 70, Types MI and CI, is not permitted.
4. Signaling Line Circuits: Power-limited fire-alarm cables must not be installed in the same cable or pathway as signaling line circuits.

C. Wiring within Enclosures: Separate power-limited and non-power-limited conductors as recommended by manufacturer. Install conductors parallel with or at right angles to sides and back of the enclosure. Bundle, lace, and train conductors to terminal points with no excess. Connect conductors that are terminated, spliced, or interrupted in any enclosure associated with fire-alarm system to terminal blocks. Mark each terminal according to system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks, or plug connectors.

D. Cable Taps: Use numbered terminal strips in junction, pull, and outlet boxes; cabinets; or equipment enclosures where circuit connections are made.

E. Color-Coding: Color-code fire-alarm conductors differently from the normal building power wiring. Use one color-code for alarm circuit wiring and another for supervisory circuits. Color-code audible alarm-indicating circuits differently from alarm-initiating circuits. Use different colors for visible alarm-indicating devices. Paint fire-alarm system junction boxes and covers red.

F. Risers: Install at least two vertical cable risers to serve the fire-alarm system. Separate risers in close proximity to each other with a minimum one-hour-rated wall, so the loss of one riser does not prevent receipt or transmission of signals from other floors or zones.

G. Wiring to Remote Alarm Transmitting Device: 1 inch conduit between the fire-alarm control panel and the transmitter. Install number of conductors and electrical supervision for connecting wiring as needed to suit monitoring function.

DRAFT

3.5 CONNECTIONS

A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.

B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.

C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inch of slack.

D. Comply with requirements in Section 284621.11 "Addressable Fire-Alarm Systems" for connecting, terminating, and identifying wires and cables.

3.6 IDENTIFICATION

A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."

B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

3.7 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly.

END OF SECTION

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SECTION 26 05 26

GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Grounding and bonding conductors.
2. Grounding and bonding connectors.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 GROUNDING AND BONDING CONDUCTORS

A. Equipment Grounding Conductor:

1. General Characteristics: 600 V, THHN/THWN-2 , copper wire or cable, green color, in accordance with Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

B. ASTM - Bare Copper Grounding and Bonding Conductor:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. ERICO; brand of nVent Electrical plc.
   b. Harger Lightning & Grounding; business of Harger, Inc.
2. Referenced Standards: Complying with one or more of the following:
   a. Soft or Annealed Copper Wire: ASTM B3.
   b. Concentric-Lay Stranded Copper Conductor: ASTM B8.
   c. Tin-Coated Soft or Annealed Copper Wire: ASTM B33.
   d. 19-Wire Combination Unilay-Stranded Copper Conductor: ASTM B787/B787M.

2.2 GROUNDING AND BONDING CONNECTORS

A. Performance Criteria:

1. Regulatory Requirements:

DRAFT

a. Listed and labeled in accordance with NFPA 70, by qualified electrical testing laboratory recognized by authorities having jurisdiction, and marked for intended location and application.

2. Listing Criteria:
   a. Grounding and Bonding Equipment: UL CCN KDER; including UL 467.
   b. Grounding and Bonding Equipment for Communications: UL CCN KDSH; including UL 467.

B. UL KDER - Crimped Lug Pressure-Type Grounding and Bonding Busbar Terminal :

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. ABB, Electrification Business.
   b. Burndy; brand of Hubbell Electrical Solutions; Hubbell Incorporated.
   c. Harger Lightning & Grounding; business of Harger, Inc.
   d. ILSCO.
2. General Characteristics: Cast silicon bronze, solderless compression-type wire terminals; with long barrel and two holes spaced on 5/8 or 1 inch centers for two-bolt connection to busbar.

C. UL KDER - Crimped Pressure-Type Grounding and Bonding Cable Connector :

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. ABB, Electrification Business.
   b. allG Fabrication (formerly ALT).
   c. Burndy; brand of Hubbell Electrical Solutions; Hubbell Incorporated.
   d. ILSCO.
2. General Characteristics: Crimp-and-compress connectors that bond to conductor when connector is compressed around conductor.
   a. Copper , C and H shaped.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine facility's grounding electrode system and equipment grounding for compliance with requirements for maximum ground-resistance level and other conditions affecting performance of grounding and bonding of electrical system.

B. Inspect test results of grounding system measured at point of electrical service equipment connection.

C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.

DRAFT

D. Proceed with connection of electrical service equipment only after unsatisfactory conditions have been corrected.

3.2 SELECTION OF GROUNDING AND BONDING PRODUCTS

A. Grounding and Bonding Conductors:

1. Provide solid conductor for 8 AWG and smaller, and stranded conductors for 6 AWG and larger unless otherwise indicated.
2. Custom-Length Insulated Equipment Bonding Jumpers: 6 AWG, 19-strand, Type THHN.
3. Bonding Cable: 28 kcmil, 14 strands of 17 AWG conductor, 1/4 inch in diameter.
4. Bonding Conductor: 4 AWG or 6 AWG, stranded conductor.
5. Bonding Jumper: Copper tape, braided conductors terminated with copper ferrules; 1-5/8 inch wide and 1/16 inch thick.
6. Tinned Bonding Jumper: Tinned-copper tape, braided conductors terminated with copper ferrules; 1-5/8 inch wide and 1/16 inch thick.

B. Grounding and Bonding Connectors:

1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
2. Underground Connections: Welded connectors except at test wells and as otherwise indicated.
3. Connections to Ground Rods at Test Wells: Bolted connectors.
4. Connections to Structural Steel: Welded connectors.

3.3 INSTALLATION OF GROUNDING AND BONDING

A. Comply with manufacturer's published instructions.

B. Reference Standards:

1. Ground Bonding Common with Lightning Protection System: Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system. Bond electrical power system ground directly to lightning protection system grounding conductor at closest point to electrical service grounding electrode. Use bonding conductor sized same as system grounding electrode conductor, and install in conduit.
2. Consult Architect for resolution of conflicting requirements.

C. Special Techniques:

1. Grounding and Bonding Conductors:
   a. Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
   b. Underground Grounding Conductors:
      1) Bury at least 30 inch below grade.
2. Grounding and Bonding Connectors: Make connections so possibility of galvanic action or electrolysis is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact are galvanically compatible.

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a. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer in order of galvanic series.
b. Make connections with clean, bare metal at points of contact.
c. Make aluminum-to-steel connections with stainless steel separators and mechanical clamps.
d. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
e. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.
f. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
    1) Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.
    2) Use exothermic-welded connectors for outdoor locations; if disconnect-type connection is required, use bolted clamp.

3. Grounding at Service:
    a. Equipment grounding conductors and grounding electrode conductors must be connected to ground busbar. Install main bonding jumper between neutral and ground buses.
4. Grounding Separately Derived Systems:
    a. Permanent Generators: Install grounding electrode(s) at location of permanent generators having switched neutral connections. Electrode must be connected to equipment grounding conductor and to frame of generator.
5. Grounding Underground Distribution System Components:
    a. Duct-Bank Grounding Conductor: Bury 12 inch above duct bank when indicated as part of duct-bank installation.
    b. Comply with IEEE C2 grounding requirements.
6. Equipment Grounding and Bonding:
    a. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
        1) Feeders and branch circuits.

3.4 PROTECTION

A. After installation, protect grounding and bonding cables and equipment from construction activities. Remove and replace items that are contaminated, defaced, damaged, or otherwise caused to be unfit for use prior to acceptance by Owner.

END OF SECTION

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SECTION 26 05 29

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Support, anchorage, and attachment components.
2. Fabricated metal equipment support assemblies.

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A. Steel Slotted Support Systems: Preformed steel channels and angles with minimum 13/32 inch diameter holes at a maximum of 8 inch on center in at least one surface.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Allied Tube & Conduit; Atkore International.
   b. Cooper B-line; brand of Eaton, Electrical Sector.
   c. MIRO Industries.
   d. Unistrut; Atkore International.
2. Standard: Comply with MFMA-4 factory-fabricated components for field assembly.
3. Material for Channel, Fittings, and Accessories: Galvanized steel .
4. Channel Width: Selected for applicable load criteria .
5. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
6. Protect finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

C. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:

1. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.

DRAFT

a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1) Cooper B-line; brand of Eaton, Electrical Sector.
   2) Hilti, Inc.
   3) ITW Ramset/Red Head; Illinois Tool Works, Inc.

2. Clamps for Attachment to Steel Structural Elements: MSS SP-58 units are suitable for attached structural element.

PART 3 - EXECUTION

3.1 SELECTION

A. Comply with the following standards for selection and installation of hangers and supports, except where requirements on Drawings or in this Section are stricter:

1. NECA NEIS 101

B. Comply with requirements for raceways and boxes specified in Section 260533 "Raceway and Boxes for Electrical Systems."

C. Maximum Support Spacing for Raceways: Space supports for EMT as required by NFPA 70. Minimum rod size must be 1/4 inch in diameter.

D. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted or other support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.

1. Secure raceways and cables to these supports with two-bolt conduit clamps .

3.2 INSTALLATION OF SUPPORTS

A. Comply with NECA NEIS 101 for installation requirements except as specified in this article.

B. Raceway Support Methods: In addition to methods described in NECA NEIS 1, EMT may be supported by openings through structure members, in accordance with NFPA 70.

C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination must be weight of supported components plus 200 lb.

D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:

1. To Existing Concrete: Expansion anchor fasteners.

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2. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inch thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inch thick.
3. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.

E. Drill holes for expansion anchors in concrete at locations and to depths that avoid the need for reinforcing bars.

3.3 PAINTING

A. Touchup:

1. Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
   a. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils.

B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A780.

END OF SECTION

DRAFT

SECTION 26 05 33

RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Type EMT-S raceways and elbows.
2. Fittings for conduit, tubing, and cable.
3. Threaded metal joint compound.
4. Metallic outlet boxes, device boxes, rings, and covers.
5. Cabinets, cutout boxes, junction boxes, pull boxes, and miscellaneous enclosures.
6. Cover plates for device boxes.

1.2 ACTION SUBMITTALS

A. Product Data: For the following:

1. Raceways.
2. Floor boxes.
3. Cabinets, cutout boxes, and miscellaneous enclosures.

PART 2 - PRODUCTS

2.1 TYPE EMT-S RACEWAYS AND ELBOWS

A. Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics: UL 797 and UL Category Control Number FJMX.

B. Steel Electrical Metal Tubing (EMT-S) and Elbows:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Allied Tube & Conduit; Atkore International.
   b. Western Tube; Zekelman Industries.
   c. Wheatland Tube; Zekelman Industries.
2. Material: Steel.
3. Options:
   a. Interior Coating: Zinc .

DRAFT

b. Minimum Trade Size: Metric designator 21 (trade size 3/4).
c. Colors: As indicated on Drawings.

2.2 FITTINGS FOR CONDUIT, TUBING, AND CABLE

A. Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.

B. Fittings for Type EMT Raceways:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Allied Tube & Conduit; Atkore International.
   b. Crouse-Hinds; brand of Eaton, Electrical Sector.
   c. Southwire Company, LLC.
2. General Characteristics: UL 514B and UL Category Control Number FKAV.
3. Options:
   a. Material: Steel .
   b. Coupling Method: Compression coupling .
   c. Expansion and Deflection Fittings: UL 651 with flexible external bonding jumper.

C. Fittings for Type FMC Raceways:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. American Fittings Corp. (AMFICO).
   b. Liquid Tight Connector Co.
   c. Southwire Company, LLC.
2. General Characteristics: UL 514B and UL Category Control Number ILNR.

2.3 ELECTRICALLY CONDUCTIVE CORROSION-RESISTANT COMPOUNDS FOR THREADED CONDUIT

A. Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics: UL 2419 and UL Category Control Number FOIZ.

B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. ABB, Electrification Business.

DRAFT

2.4 WIREWAYS AND AUXILIARY GUTTERS

A. Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics: UL 870 and UL Category Control Number ZOYX.

B. Metal Wireways and Auxiliary Gutters:

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. ABB, Electrification Business.
   b. Cooper B-line; brand of Eaton, Electrical Sector.
   c. Hoffman; brand of nVent Electrical plc.
2. Additional Characteristics:
   a. Fittings and Accessories: Include covers, couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
   b. Finish: Manufacturer's standard enamel finish.
3. Options:
   a. Degree of Protection: Type 1 unless otherwise indicated.

2.5 METALLIC OUTLET BOXES, DEVICE BOXES, RINGS, AND COVERS

A. Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics: UL 514A and UL Category Control Number QCIT.

B. Metallic Outlet Boxes:

1. Description: Box having pryout openings, knockouts, threaded entries, or hubs in either the sides of the back, or both, for entrance of conduit, conduit or cable fittings, or cables, with provisions for mounting outlet box cover, but without provisions for mounting wiring device directly to box.
2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. ABB, Electrification Business.
   b. Crouse-Hinds; brand of Eaton, Electrical Sector.
   c. Pass & Seymour; Legrand North America, LLC.
   d. Wiremold; Legrand North America, LLC.
3. Options:
   a. Material: Sheet steel .
   b. Sheet Metal Depth: Minimum 2.8 inch .
   c. Luminaire Outlet Boxes and Covers: Nonadjustable, listed and labeled for attachment of luminaire weighing up to 50 lb .

DRAFT

C. Metallic Device Boxes:

1. Description: Box with provisions for mounting wiring device directly to box.
2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. ABB, Electrification Business.
   b. Crouse-Hinds; brand of Eaton, Electrical Sector.
   c. Raco Taymac Bell; brand of Hubbell Electrical Solutions; Hubbell Incorporated.
3. Options:
   a. Material: Sheet steel .
   b. Sheet Metal Depth: minimum 2.8 inch .

2.6 CABINETS, CUTOUT BOXES, JUNCTION BOXES, PULL BOXES, AND MISCELLANEOUS ENCLOSURES

A. Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics:
   a. Non-Environmental Characteristics: UL 50.
   b. Environmental Characteristics: UL 50E.

B. Indoor Sheet Metal Junction and Pull Boxes:

1. Description: Box with a blank cover that serves the purpose of joining different runs of raceway or cable.
2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Cooper B-line; brand of Eaton, Electrical Sector.
   b. Hoffman; brand of nVent Electrical plc.
   c. Raco Taymac Bell; brand of Hubbell Electrical Solutions; Hubbell Incorporated.
3. Options:
   a. Degree of Protection: Type 1 .

2.7 COVER PLATES FOR DEVICE BOXES

A. Performance Criteria:

1. Regulatory Requirements: Listed and labeled in accordance with NFPA 70 and marked for intended location and use.
2. General Characteristics:
   a. Reference Standards: UL 514D and UL Category Control Numbers QCIT and QCMZ.
   b. Wallplate-Securing Screws: Metal with head color to match wallplate finish.

B. Nonmetallic Cover Plates for Device Boxes:

DRAFT

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. ABB, Electrification Business.
   b. Crouse-Hinds; brand of Eaton, Electrical Sector.
   c. Leviton Manufacturing Co., Inc.
   d. Pass & Seymour; Legrand North America, LLC.
   e. Raco Taymac Bell; brand of Hubbell Electrical Solutions; Hubbell Incorporated.
   f. Wiremold; Legrand North America, LLC.
2. Options:
   a. Wallplate Material: 0.060 inch thick high-impact thermoplastic (nylon) with smooth finish and color matching wiring device .

PART 3 - EXECUTION

3.1 SELECTION OF RACEWAYS

A. Unless more stringent requirements are specified in Contract Documents or manufacturers' written instructions, comply with NFPA 70 for selection of raceways. Consult Architect for resolution of conflicting requirements.

B. Indoors:

1. Concealed in Ceilings and Interior Walls and Partitions: EMT .
2. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC .

3.2 SELECTION OF BOXES AND ENCLOSURES

A. Unless more stringent requirements are specified in Contract Documents or manufacturers' written instructions, comply with NFPA 70 for selection of boxes and enclosures. Consult Architect for resolution of conflicting requirements.

B. Degree of Protection:

1. Indoors:
   a. Type 1 unless otherwise indicated.

3.3 INSTALLATION OF RACEWAYS

A. Installation Standards:

1. Unless more stringent requirements are specified in Contract Documents or manufacturers' written instructions, comply with NFPA 70 for installation of raceways. Consult Architect for resolution of conflicting requirements.
2. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.

DRAFT

3. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.
4. Comply with NECA NEIS 101 for installation of steel raceways.
5. Install raceways square to the enclosure and terminate at enclosures without hubs with locknuts on both sides of enclosure wall. Install locknuts hand tight, plus one-quarter turn more.
6. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to metric designator 35 (trade size 1-1/4) and insulated throat metal bushings on metric designator 41 (trade size 1-1/2) and larger conduits terminated with locknuts.

B. General Requirements for Installation of Raceways:

1. Complete raceway installation before starting conductor installation.
2. Provide stub-ups through floors with coupling threaded inside for plugs, set flush with finished floor. Plug coupling until conduit is extended above floor to final destination or a minimum of 2 ft above finished floor.
3. Make bends in raceway using large-radius preformed ells except for parallel bends. Field bending must be in accordance with NFPA 70 minimum radii requirements. Provide only equipment specifically designed for material and size involved.
4. Conceal conduit within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.
5. Support conduit within 12 inch of enclosures to which attached.
6. Install raceway sealing fittings at accessible locations in accordance with NFPA 70 and fill them with listed sealing compound. For concealed raceways, install fitting in flush steel box with blank cover plate having finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings in accordance with NFPA 70.
7. Do not install conduits within 2 inch of the bottom side of a metal deck roof.
8. Keep raceways at least 6 inch away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
9. Cut conduit perpendicular to the length. For conduits metric designator 53 (trade size 2) and larger, use roll cutter or a guide to make cut straight and perpendicular to the length. Ream inside of conduit to remove burrs.
10. Install pull wires in empty raceways. Provide polypropylene or monofilament plastic line with not less than 200 lb tensile strength. Leave at least 12 inch of slack at both ends of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.

C. Stub-ups to Above Recessed Ceilings:

1. Provide EMT for raceways.
2. Provide a conduit bushing or insulated fitting to terminate stub-ups not terminated in hubs or in an enclosure.

D. Raceway Fittings: Install fittings in accordance with NEMA FB 2.10 guidelines.

1. EMT: Provide compression , steel fittings. Comply with NEMA FB 2.10.
2. Flexible Conduit: Provide only fittings listed for use with flexible conduit type. Comply with NEMA FB 2.20.

DRAFT

3.4 INSTALLATION OF BOXES AND ENCLOSURES

A. Provide boxes in wiring and raceway systems wherever required for pulling of wires, making connections, and mounting of devices or fixtures.

B. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to center of box unless otherwise indicated.

C. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.

D. Locate boxes so that cover or plate will not span different building finishes.

E. Support boxes in recessed ceilings independent of ceiling tiles and ceiling grid.

F. Fasten junction and pull boxes to, or support from, building structure. Do not support boxes by conduits.

G. Do not install aluminum boxes, enclosures, or fittings in contact with concrete or earth.

H. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to ensure a continuous ground path.

I. Boxes and Enclosures in Areas or Walls with Acoustical Requirements:

1. Seal openings and knockouts in back and sides of boxes and enclosures with acoustically rated putty.
2. Provide gaskets for wallplates and covers.

3.5 PROTECTION

A. Protect coatings, finishes, and cabinets from damage and deterioration.

1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

3.6 CLEANING

A. Boxes: Remove construction dust and debris from device boxes, outlet boxes, and floor-mounted enclosures before installing wallplates, covers, and hoods.

END OF SECTION

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SECTION 26 05 53

IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Labels.
2. Tapes and stencils.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Signs, labels, and tags required for personnel safety must comply with the following standards:

1. Safety Colors: NEMA Z535.1.
2. Facility Safety Signs: NEMA Z535.2.
3. Safety Symbols: NEMA Z535.3.
4. Product Safety Signs and Labels: NEMA Z535.4.
5. Safety Tags and Barricade Tapes for Temporary Hazards: NEMA Z535.5.

2.2 COLOR AND LEGEND REQUIREMENTS

A. Raceways and Cables Carrying Circuits at 1000 V or Less:

1. Black letters on orange field .
2. Legend: Indicate voltage.

B. Color-Coding for Phase- and Voltage-Level Identification, 1000 V or Less: Use colors listed below for ungrounded branch-circuit conductors.

1. Colors for 208Y/120 V Circuits:
   a. Phase A: Black.
   b. Phase B: Red.
   c. Phase C: Blue.
2. Color for Neutral: White .
3. Color for Equipment Grounds: Green .

C. Warning Label Colors:

1. Identify system voltage with black letters on orange background.

DRAFT

D. Warning labels and signs must include, but are not limited to, the following legends:

1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."

E. Equipment Identification Labels:

1. Black letters on white field.

PART 3 - EXECUTION

3.1 PREPARATION

A. Self-Adhesive Identification Products: Before applying electrical identification products, clean substrates of substances that could impair bond, using materials and methods recommended by manufacturer of identification product.

3.2 INSTALLATION

A. Verify and coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and operation and maintenance manual. Use consistent designations throughout Project.

B. Install identifying devices before installing acoustical ceilings and similar concealment.

C. Verify identity of item before installing identification products.

D. Coordinate identification with Project Drawings, manufacturer's wiring diagrams, and operation and maintenance manual.

E. Apply identification devices to surfaces that require finish after completing finish work.

F. Install signs with approved legend to facilitate proper identification, operation, and maintenance of electrical systems and connected items.

G. System Identification for Raceways and Cables under 1000 V: Identification must completely encircle cable or conduit. Place identification of two-color markings in contact, side by side.

1. Secure tight to surface of conductor, cable, or raceway.

H. Auxiliary Electrical Systems Conductor Identification: Identify field-installed alarm, control, and signal connections.

I. Elevated Components: Increase sizes of labels, signs, and letters to those appropriate for viewing from floor.

J. Accessible Fittings for Raceways: Identify cover of junction and pull box of the following systems with wiring system legend and system voltage. System legends must be as follows:

DRAFT

1. "EMERGENCY POWER."
2. "POWER."

K. Vinyl Wraparound Labels:

1. Secure tight to surface of raceway or cable at location with high visibility and accessibility.
2. Attach labels that are not self-adhesive type with clear vinyl tape, with adhesive appropriate to location and substrate.

L. Self-Adhesive Labels:

1. Install unique designation label that is consistent with wiring diagrams, schedules, and operation and maintenance manual.
2. Unless otherwise indicated, provide single line of text with 1/2 inch high letters on 1-1/2 inch high label; where two lines of text are required, use labels 2 inch high.

M. Self-Adhesive Vinyl Tape: Secure tight to surface at location with high visibility and accessibility.

1. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for minimum distance of 6 inch where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding.

N. Tape and Stencil: Comply with requirements in painting Sections for surface preparation and paint application.

3.3 IDENTIFICATION SCHEDULE

A. Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment. Install access doors or panels to provide view of identifying devices.

B. Identify conductors, cables, and terminals in enclosures and at junctions, terminals, pull points, and locations of high visibility. Identify by system and circuit designation.

C. Power-Circuit Conductor Identification, 1000 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use vinyl wraparound labels self-adhesive vinyl tape to identify phase.

1. Locate identification at changes in direction, at penetrations of walls and floors, at 50 ft maximum intervals in straight runs, and at 25 ft maximum intervals in congested areas.

D. Equipment Identification Labels:

1. Indoor Equipment: Self-adhesive label .
2. Equipment to Be Labeled:
   a. Enclosures and electrical cabinets.
   b. Emergency system boxes and enclosures.
   c. Enclosed switches.

DRAFT

END OF SECTION

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SECTION 26 09 23

LIGHTING CONTROL DEVICES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Indoor occupancy and vacancy sensors.
2. Switchbox-mounted occupancy sensors.
3. Emergency shunt relay.
4. Conductors and cables.

B. Related Requirements:

1. Section 262726 "Wiring Devices" for wall-box dimmers, non-networkable wall-switch occupancy sensors, and manual light switches.

1.2 ACTION SUBMITTALS

A. Product Data:

1. For each type of product.

PART 2 - PRODUCTS

2.1 INDOOR OCCUPANCY AND VACANCY SENSORS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Acuity Brands
2. Leviton Manufacturing Co., Inc.
3. WattStopper; Legrand North America, LLC.

B. General Requirements for Sensors:

1. Wall and Ceiling-mounted, solid-state indoor occupancy and vacancy sensors.
2. Dual technology.
3. Separate power pack.
4. Hardwired connection to switch .
5. Listed and labeled in accordance with NFPA 70, by a qualified electrical testing laboratory recognized by authorities having jurisdiction, and marked for intended location and application.

DRAFT

6. Operation:
    a. Combination Sensor: Unless otherwise indicated, sensor must be programmed to turn lights on when coverage area is occupied and turn them off when unoccupied, or to turn off lights that have been manually turned on; with a time delay for turning lights off, adjustable over a minimum range of 1 to 15 minutes.
7. Sensor Output: Sensor is powered from the power pack .
8. Power Pack: Dry contacts rated for 20 A LEDload at 120 V(ac). Sensor has 24 V(dc), 150 mA, Class 2 power source.
9. Mounting:
    a. Sensor: Suitable for mounting in any position in a standard device box or outlet box.
    b. Relay: Externally mounted through a 1/2 inch knockout in a standard electrical enclosure.
    c. Time-Delay and Sensitivity Adjustments: Recessed and concealed behind hinged door.
10. Indicator: Digital display, to show when motion is detected during testing and normal operation of sensor.
11. Bypass Switch: Override the "on" function in case of sensor failure.

C. Dual-Technology Type: WallandCeiling mounted; detect occupants in coverage area using PIR and ultrasonic detection methods. The particular technology or combination of technologies that control on-off functions is selectable in the field by operating controls on unit.

1. Sensitivity Adjustment: Separate for each sensing technology.
2. Detector Sensitivity: Detect occurrences of 6 inch minimum movement of any portion of a human body that presents a target of not less than 36 sq. inch, and detect a person of average size and weight moving not less than 12 inch in either a horizontal or a vertical manner at an approximate speed of 12 inch/s.
3. Detection Coverage (Standard Room): Detect occupancy anywhere within a circular area of 1000 sq. ft. when mounted on a 96 inch high ceiling.
4. Detection Coverage (Room, Wall Mounted): Detect occupancy anywhere within a 180-degree pattern centered on the sensor over an area of 3000 sq. ft. when mounted 48 inch above finished floor.

2.2 SWITCHBOX-MOUNTED OCCUPANCY SENSORS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Acuity Brands
2. Leviton Manufacturing Co., Inc.
3. WattStopper; Legrand North America, LLC.

B. General Requirements for Sensors: Automatic-wall-switch occupancy sensor with manual on-off switch, suitable for mounting in a single gang switchbox using hardwired connection .

1. Listed and labeled in accordance with NFPA 70, by a qualified electrical testing laboratory recognized by authorities having jurisdiction, and marked for intended location and application.

DRAFT

2. Occupancy Sensor Operation: Unless otherwise indicated, turn lights on when coverage area is occupied, and turn lights off when unoccupied; with a time delay for turning lights off, adjustable over a minimum range of 1 to 15 minutes.
3. Operating Ambient Conditions: Dry interior conditions, 32 to 120 deg F.
4. Switch Rating: Not less than 1200 VA LEDload at 120 V.

2.3 EMERGENCY SHUNT RELAY

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. WattStopper; Legrand North America, LLC.

B. Description: NC, electrically held relay, arranged for wiring in parallel with manual or automatic switching contacts; complying with UL 924.

1. Coil Rating: 120 V.

2.4 CONDUCTORS AND CABLES

A. Power Wiring to Supply Side of Remote-Control Power Sources: Not smaller than No. 12 AWG. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

B. Classes 2 and 3 Control Cable: Multiconductor cable with stranded-copper conductors not smaller than No. 18 AWG. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

C. Class 1 Control Cable: Multiconductor cable with stranded-copper conductors not smaller than No. 14 AWG. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine lighting control devices before installation. Reject lighting control devices that are wet, moisture damaged, or mold damaged.

B. Examine walls and ceilings for suitable conditions where lighting control devices will be installed.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

DRAFT

3.2 INSTALLATION OF SENSORS

A. Coordinate layout and installation of ceiling-mounted devices with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, smoke detectors, fire-suppression systems, and partition assemblies.

B. Install and aim sensors in locations to achieve not less than 90 percent coverage of areas indicated. Do not exceed coverage limits specified in manufacturer's instructions.

3.3 INSTALLATION OF WIRING

A. Wiring Method: Comply with Section 260519 "Low-Voltage Electrical Power Conductors and Cables." Minimum conduit size is 1/2 inch.

B. Wiring within Enclosures: Separate power-limited and nonpower-limited conductors in accordance with conductor manufacturer's instructions.

C. Size conductors in accordance with lighting control device manufacturer's instructions unless otherwise indicated.

D. Splices, Taps, and Terminations: Make connections only on numbered terminal strips in junction, pull, device, and outlet boxes; terminal cabinets; and equipment enclosures.

3.4 IDENTIFICATION

A. Identify components and power and control wiring in accordance with Section 260553 "Identification for Electrical Systems.

1. Identify controlled circuits in lighting contactors.
2. Identify circuits or luminaires controlled by photoelectric and occupancy sensors at each sensor.

B. Label time switches and contactors with a unique designation.

3.5 ADJUSTING

A. Occupancy Adjustments: When requested within 12 months from date of Substantial Completion, provide on-site assistance in adjusting lighting control devices to suit actual occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose.

1. For occupancy and motion sensors, verify operation at outer limits of detector range. Set time delay to suit Owner's operations.
2. For daylighting controls, adjust set points and deadband controls to suit Owner's operations.
3. Align high-bay occupancy sensors using manufacturer's laser aiming tool.

END OF SECTION

DRAFT

SECTION 26 51 19

LED INTERIOR LIGHTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Recessed, linear.
2. Materials.
3. Luminaire support.

B. Related Requirements:

1. Section 260923 "Lighting Control Devices" for automatic control of lighting, including time switches, photoelectric relays, occupancy sensors, and multipole lighting relays and contactors.

1.3 DEFINITIONS

A. CCT: Correlated color temperature.

B. CRI: Color Rendering Index.

C. Fixture: See "Luminaire."

D. IP: International Protection or Ingress Protection Rating.

E. LED: Light-emitting diode.

F. Lumen: Measured output of lamp and luminaire, or both.

G. Luminaire: Complete lighting unit, including lamp, reflector, and housing.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Arrange in order of luminaire designation.

DRAFT

2. Include data on features, accessories, and finishes.
3. Include physical description and dimensions of luminaires.
4. Include emergency lighting units, including batteries and chargers.
5. Include life, output (lumens, CCT, and CRI), and energy-efficiency data.
6. Include photometric calculations where any substitution fixtures are utilized indicating point by point illuminance (fc), average area illuminance, max-to-min ratio and average-to-min ratios.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For luminaires and lighting systems to include in operation and maintenance manuals.

1. Provide a list of all lamp types used on Project; use ANSI and manufacturers' codes.

1.6 QUALITY ASSURANCE

A. Provide luminaires from a single manufacturer for each luminaire type.

B. Each luminaire type shall be binned within a three-step MacAdam Ellipse to ensure color consistency among luminaires.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect finishes of exposed surfaces by applying a strippable, temporary protective covering before shipping.

1.8 WARRANTY

A. Warranty: Manufacturer and Installer agree to repair or replace components of luminaires that fail in materials or workmanship within specified warranty period.

B. Warranty Period: Five year(s) from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 LUMINAIRE REQUIREMENTS

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Factory-Applied Labels: Comply with UL 1598. Include recommended lamps. Locate labels where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.

1. Label shall include the following lamp characteristics:

DRAFT

a. "USE ONLY" and include specific lamp type.
b. Lamp diameter, shape, size, wattage, and coating.
c. CCT and CRI.

C. Recessed luminaires shall comply with NEMA LE 4.

2.2 RECESSED, LINEAR .

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Cooper Lighting Solutions; Signify North America Corp.
2. Finelite; Legrand North America, LLC.
3. Lithonia Lighting; Acuity Brands Lighting, Inc.

B. Nominal Operating Voltage: 120 V ac .

C. Lamp:

1. Minimum 3,000 lm.
2. Minimum allowable efficacy of 85 lm/W.
3. CRI of minimum 80 . CCT of 3500K .
4. Rated lamp life of 50,000 hours to L70.
5. Dimmable from 100 percent to zero percent of maximum light output.
6. Internal driver.
7. User-Replaceable Lamps:
   a. Bulb shape complying with ANSI C78.79.
   b. Lamp base complying with [**ANSI C81.61**] [**or**] [**IEC 60061-1**].
8. Lens Thickness: At least 0.125-inch minimum unless otherwise indicated.

D. Doors, Frames, and Other Internal Access: Smooth operating, free of light leakage under operating conditions, and designed to permit relamping without use of tools. Components are designed to prevent doors, frames, lenses, diffusers, and other components from falling accidentally during relamping and when secured in operating position.

E. Standards:

1. ENERGY STAR certified.
2. RoHS compliant.
3. UL Listing: Listed for damp location.
4. NEMA LE 4.

2.3 MATERIALS

A. Metal Parts:

1. Free of burrs and sharp corners and edges.
2. Sheet metal components shall be steel unless otherwise indicated.
3. Form and support to prevent warping and sagging.

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B. Steel:

1. ASTM A568/A568M for sheet steel.

C. Galvanized Steel: ASTM A653/A653M.

D. Aluminum: ASTM B209.

2.4 METAL FINISHES

A. Variations in finishes are unacceptable in the same piece. Variations in finishes of adjoining components are acceptable if they are within the range of approved Samples and if they can be and are assembled or installed to minimize contrast.

2.5 LUMINAIRE SUPPORT

A. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for channel and angle iron supports and nonmetallic channel and angle supports.

B. Tamper-resistant aircraft cable.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Examine roughing-in for luminaire to verify actual locations of luminaire and electrical connections before luminaire installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Comply with NECA 1.

B. Install luminaires level, plumb, and square with ceilings and walls unless otherwise indicated.

C. Install lamps in each luminaire.

D. Supports:

1. Sized and rated for luminaire weight.
2. Able to maintain luminaire position after cleaning and relamping.
3. Provide support for luminaire without causing deflection of ceiling or wall.

DRAFT

4. Luminaire-mounting devices shall be capable of supporting a horizontal force of 100 percent of luminaire weight and a vertical force of 400 percent of luminaire weight.

E. Ceiling-Grid-Mounted Luminaires:

1. Secure to any required outlet box.
2. Secure luminaire to the luminaire opening using approved fasteners in a minimum of four locations, spaced near corners of luminaire.

F. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables" for wiring connections.

3.3 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

3.4 ADJUSTING

A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting the direction of aim of luminaires to suit occupied conditions. Make up to two visits to Project during other-than-normal hours for this purpose. Some of this work may be required during hours of darkness.

1. During adjustment visits, inspect all luminaires. Replace lamps or luminaires that are defective.
2. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.
3. Adjust the aim of luminaires in the presence of the Architect.

END OF SECTION

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SECTION 28 46 21.11

ADDRESSABLE FIRE-ALARM SYSTEMS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Existing fire-alarm system to be modified.
2. Addressable fire-alarm system.
3. Fire-alarm control unit (FACU).
4. Manual fire-alarm boxes.
5. System smoke detectors.
6. Carbon monoxide detectors.
7. Heat detectors.
8. Fire-alarm notification appliances.
9. Fire-alarm addressable interface devices.
10. Digital alarm communicator transmitters (DACTs).

1.3 DEFINITIONS

A. DACT: Digital alarm communicator transmitter.

B. EMT: Electrical metallic tubing.

C. FACU: Fire-alarm control unit.

D. NICET: National Institute for Certification in Engineering Technologies.

1.4 SEQUENCING AND SCHEDULING

A. Existing Fire-Alarm Equipment: Maintain existing equipment fully operational until new equipment has been tested and accepted. When new equipment is installed, label it "NOT IN SERVICE" until it is accepted. Remove labels from new equipment when put into service, and label existing fire-alarm equipment "NOT IN SERVICE" until removed from building.

B. Equipment Removal: After acceptance of new fire-alarm system, remove existing disconnected fire-alarm equipment and wiring.

DRAFT

1.5 ACTION SUBMITTALS

A. Approved Permit Submittal: Submittals must be approved by authorities having jurisdiction prior to submitting them to Architect.

B. Product Data: For each type of product, including furnished options and accessories.

1. Include construction details, material descriptions, dimensions, profiles, and finishes.
2. Include rated capacities, operating characteristics, and electrical characteristics.

C. Shop Drawings: For fire-alarm system.

1. Comply with recommendations and requirements in "Documentation" section of "Fundamentals" chapter in NFPA 72.
2. Include plans, elevations, sections, and details, including details of attachments to other Work.
3. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and locations. Indicate conductor sizes, indicate termination locations and requirements, and distinguish between factory and field wiring.
4. Detail assembly and support requirements.
5. Include voltage drop calculations for notification-appliance circuits.
6. Include battery-size calculations.
7. Include input/output matrix.
8. Include written statement from manufacturer that equipment and components have been tested as a system and comply with requirements in this Section and in NFPA 72.
9. Include performance parameters and installation details for each detector.
10. Include floor plans to indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits and point-to-point wiring diagrams.

D. Delegated Design Submittal: For notification appliances and smoke and heat detectors, in addition to submittals listed above, indicate compliance with performance requirements and design criteria, including analysis data signed and sealed by qualified professional engineer responsible for their preparation.

1. Drawings showing location of each notification appliance and smoke and heat detectors, ratings of each, and installation details as needed to comply with listing conditions of device.
2. Design Calculations: Calculate requirements for selecting spacing and sensitivity of detection, complying with NFPA 72. Calculate spacing and intensities for strobe signals and sound-pressure levels for audible appliances.
3. Indicate audible appliances required to produce square wave signal per NFPA 72.

1.6 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

B. Qualification Statements: For Installer.

C. Sample Warranty: Submittal must include line item pricing for replacement parts and labor.

1.7 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.

DRAFT

1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
    a. Comply with "Records" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.
    b. Provide "Fire-Alarm and Emergency Communications System Record of Completion Documents" in accordance with "Completion Documents" Article in "Documentation" section of "Fundamentals" chapter in NFPA 72.
    c. Complete wiring diagrams showing connections between devices and equipment. Each conductor must be numbered at every junction point with indication of origination and termination points.
    d. Riser diagram.
    e. Device addresses.
    f. Record copy of site-specific software.
    g. Provide "Inspection and Testing Form" in accordance with "Inspection, Testing and Maintenance" chapter in NFPA 72, and include the following:
        1. Equipment tested.
        2. Frequency of testing of installed components.
        3. Frequency of inspection of installed components.
        4. Requirements and recommendations related to results of maintenance.
        5. Manufacturer's user training manuals.
    h. Manufacturer's required maintenance related to system warranty requirements.
    i. Abbreviated operating instructions for mounting at FACU and each annunciator unit.

B. Software and Firmware Operational Documentation:

1. Software operating and upgrade manuals.
2. Program Software Backup: On USB media and approved online or cloud solution.
3. Device address list.

1.8 MAINTENANCE MATERIAL SUBMITTALS

A. Extra Stock Material: Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Smoke Detectors, Fire Detectors: Quantity equal to 10 percent of amount of each type installed, but no fewer than one unit of each type.
2. Detector Bases: Quantity equal to two percent of amount of each type installed, but no fewer than one unit of each type.
3. Keys and Tools: One extra set for access to locked or tamperproofed components.
4. Audible and Visual Notification Appliances: Four of each type installed.
5. Fuses: Two of each type installed in system. Provide in box or cabinet with compartments marked with fuse types and sizes.

1.9 QUALITY ASSURANCE

A. Installer Qualifications:

1. Personnel must be trained and certified by manufacturer for installation of units required for this Project.
2. Installation must be by personnel certified by NICET as fire-alarm Level II technician.
3. Obtain certification by NRTL in accordance with NFPA 72.
4. Licensed or certified by authorities having jurisdiction.

DRAFT

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace fire-alarm system equipment and components that fail because of defects in materials or workmanship within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 ADDRESSABLE FIRE-ALARM SYSTEM

A. Description:

1. Noncoded, addressable system, with multiplexed signal transmission and voice-and-strobe notification for evacuation.

B. Performance Criteria:

1. Regulatory Requirements:
   a. Fire-Alarm Components, Devices, and Accessories: Listed and labeled by a NRTL in accordance with NFPA 70 for use with selected fire-alarm system and marked for intended location and application.
2. General Characteristics:
   a. Automatic sensitivity control of certain smoke detectors.
   b. Fire-alarm signal initiation must be by one or more of the following devices:
      1. Manual stations.
      2. Heat detectors.
      3. Smoke detectors.
      4. Carbon monoxide detectors.
   c. Fire-alarm signal must initiate the following actions:
      1. Continuously operate alarm notification appliances, including voice evacuation notices.
      2. Identify alarm and specific initiating device at FACU.
      3. Transmit alarm signal to remote alarm receiving station.
      4. Activate voice/alarm communication system.
      5. Recall elevators to primary or alternate recall floors.
      6. Activate elevator power shunt trip.
      7. Activate emergency lighting control.
      8. Record events in system memory.
   d. Supervisory signal initiation must be by one or more of the following devices and actions:
      1. Elevator shunt-trip supervision.
      2. Zones or individual devices have been disabled.
   e. System trouble signal initiation must be by one or more of the following devices and actions:
      1. Open circuits, shorts, and grounds in designated circuits.
      2. Loss of communication with addressable sensor, input module, relay, control module.
      3. Loss of primary power at FACU.
      4. Ground or single break in internal circuits of FACU.
      5. Abnormal ac voltage at FACU.
      6. Break in standby battery circuitry.

DRAFT

7. Failure of battery charging.
8. Abnormal position of switch at FACU.
9. Voice signal amplifier failure.

f. System Supervisory Signal Actions:
1. Identify specific device initiating event at FACU.
2. Record event on system printer.
3. After time delay of 200 seconds, transmit trouble or supervisory signal to remote alarm receiving station.

g. Document Storage Box:
1. Description: Enclosure to accommodate standard 8-1/2-by-11 inch manuals and loose document records. Legend sheet will be permanently attached to door for system required documentation, key contacts, and system information. Provide two key ring holders with location to mount standard business cards for key contact personnel.
2. Material and Finish: 18-gauge cold-rolled steel; four mounting holes.
3. Color: Red powder-coat epoxy finish.
4. Labeling: Permanently screened with 1 inch high lettering "SYSTEM RECORD DOCUMENTS" with white indelible ink.
5. Security: Locked with 3/4 inch barrel lock. Provide solid 12 inch stainless steel piano hinge.

2.2 FIRE-ALARM CONTROL UNIT (FACU)

A. Description: Field-programmable, microprocessor-based, modular, power-limited design with electronic modules.

B. Performance Criteria:

1. Regulatory Requirements: Comply with NFPA 72 and UL 864.
2. General Characteristics:
a. System software and programs must be held in nonvolatile flash, electrically erasable, programmable, read-only memory, retaining information through failure of primary and secondary power supplies.
b. Include real-time clock for time annotation of events on event recorder and printer.
c. Provide communication between FACU and remote circuit interface panels, annunciators, and displays.
d. FACU must be listed for connection to central-station signaling system service.
e. Provide nonvolatile memory for system database, logic, and operating system and event history. System must require no manual input to initialize in the event of complete power down condition. FACU must provide minimum 500-event history log.
f. Addressable Initiation Device Circuits: FACU must indicate which communication zones have been silenced and must provide selective silencing of alarm notification appliance by building communication zone.
1. Addressable Control Circuits for Operation of Notification Appliances and Mechanical Equipment: FACU must be listed for releasing service.
g. Alphanumeric Display and System Controls: Arranged for interface between human operator at FACU and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and programming and control menu.
1. Annunciator and Display: LCD, three lines of 40 characters, minimum.
2. Keypad: Arranged to permit entry and execution of programming, display, and control commands and to indicate control commands to be entered into system for control of smoke-detector sensitivity and other parameters.
h. Initiating-Device, Notification-Appliance, and Signaling-Line Circuits:

DRAFT

1. Pathway Class Designations: NFPA 72, Class B
2. Pathway Survivability: Level 0.
3. Install no more than 256 addressable devices on each signaling-line circuit.

i. Notification-Appliance Circuit:
   1. Audible appliances must sound in three-pulse temporal pattern, as defined in NFPA 72.
   2. Where notification appliances provide signals to sleeping areas, alarm signal must be 520 Hz square wave with intensity 15 dB above average ambient sound level or 5 dB above maximum sound level, or at least 75 dB(A-weighted), whichever is greater, measured at pillow.
   3. Visual alarm appliances must flash in synchronization where multiple appliances are in same field of view, as defined in NFPA 72.

j. Elevator Recall: Initiate by one of the following alarm-initiating devices:
   1. Elevator lobby detectors except lobby detector on designated floor.
   2. Smoke detectors in elevator machine room.
   3. Smoke detectors in elevator hoistway.

k. Elevator controller must be programmed to move cars to alternate recall floor if lobby detectors located on designated recall floors are activated.

l. Transmission to Remote Alarm Receiving Station: Automatically transmit alarm, supervisory, and trouble signals to remote alarm station.

m. Voice/Alarm Signaling Service: Central emergency communication system with redundant microphones, preamplifiers, amplifiers, and tone generators provided as special module that is part of FACU.

n. Provide eight (8) alarm channels for automatic, simultaneous transmission of different announcements to different zones or for manual transmission of announcements by use of central-control microphone. Amplifiers must comply with UL 1711.
   1. Allow application of, and evacuation signal to, indicated number of zones and simultaneously allow voice paging to other zones selectively or in combination.
   2. Programmable tone and message sequence selection.
   3. Standard digitally recorded messages for "Evacuation" and "All Clear."
   4. Generate tones to be sequenced with audio messages of type recommended by NFPA 72 and that are compatible with tone patterns of notification-appliance circuits of FACU.

o. Status Annunciator: Indicate status of various voice/alarm speaker zones.

p. Preamplifiers, amplifiers, and tone generators must automatically transfer to backup units, on primary equipment failure.

q. Primary Power: 24 V(dc) obtained from 120 V(ac) service and power-supply module. Initiating devices, notification appliances, signaling lines, trouble signals, supervisory and DACT must be powered by 24 V(dc) source.

r. Alarm current draw of entire fire-alarm system must not exceed 80 percent of power-supply module rating.

s. Secondary Power: 24 V(dc) supply system with batteries, automatic battery charger, and automatic transfer switch.

t. Batteries: Sealed, valve-regulated, recombinant lead acid.

C. Accessories:

1. Instructions: Computer printout or typewritten instruction card mounted behind plastic or glass cover in stainless steel or aluminum frame. Include interpretation and describe appropriate response for displays and signals. Briefly describe functional operation of system under normal, alarm, and trouble conditions.

DRAFT

2.3 MANUAL FIRE-ALARM BOXES

A. General Requirements for Manual Fire-Alarm Boxes: Comply with UL 38. Boxes must be finished in red with molded, raised-letter operating instructions in contrasting color; must show visible indication of operation; and must be mounted on recessed outlet box. If indicated as surface mounted, provide manufacturer's surface back box.

1. Double-action mechanism requiring two actions to initiate alarm, pull-lever type; with integral addressable module arranged to communicate manual-station status (normal, alarm, or trouble) to FACU.
2. Station Reset: Key- or wrench-operated switch.

2.4 SYSTEM SMOKE DETECTORS

A. Photoelectric Smoke Detectors:

1. Performance Criteria:
   a. Regulatory Requirements:
      1. NFPA 72.
      2. UL 268.
   b. General Characteristics:
      1. Detectors must be two-wire type.
      2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.
      3. Base Mounting: Detector and associated electronic components must be mounted in twist-lock module that connects to fixed base. Provide terminals in fixed base for connection to building wiring.
      4. Integral Visual-Indicating Light: LED type, indicating detector has operated and power-on status.
      5.
      6. Remote Control: Unless otherwise indicated, detectors must be digital-addressable type, individually monitored at FACU for calibration, sensitivity, and alarm condition.
      7. Rate-of-rise temperature characteristic of combination smoke- and heat-detection units must be selectable at FACU for 15 or 20 deg F per minute.
      8. Fixed-temperature sensing characteristic of combination smoke- and heat-detection units must be independent of rate-of-rise sensing and must be settable at FACU to operate at 135 or 155 deg F.
      9. Multiple levels of detection sensitivity for each sensor.
      10. Sensitivity levels based on time of day.

2.5 CARBON MONOXIDE DETECTORS

A. Description: Carbon monoxide detector listed for connection to fire-alarm system.

B. Performance Criteria:

1. Regulatory Requirements:
   a. NFPA 72
   b. NFPA 720.
   c. UL 2075.
2. General Characteristics:
   a. Mounting: Adapter plate for outlet box mounting.

DRAFT

b. Testable by introducing test carbon monoxide into sensing cell.
c. Detector must provide alarm contacts and trouble contacts.
d. Detector must send trouble alarm when nearing end-of-life, power supply problems, or internal faults.
e. Locate, mount, and wire in accordance with manufacturer's written instructions.
f. Provide means for addressable connection to fire-alarm system.
g. Test button simulates alarm condition.

2.6 HEAT DETECTORS

A. Combination-Type Heat Detectors:

1. Performance Criteria:
   a. Regulatory Requirements:
      1. NFPA 72.
      2. UL 521.
   b. General Characteristics:
      1. Temperature sensors must test for and communicate sensitivity range of device.
   c. Actuated by fixed temperature of 135 deg F or rate of rise that exceeds 15 deg F per minute unless otherwise indicated.
   d. Mounting: Twist-lock base interchangeable with smoke-detector bases.
   e. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.

2.7 FIRE-ALARM NOTIFICATION APPLIANCES

A. Fire-Alarm Voice/Tone Notification Appliances:

1. Description: Notification appliances capable of outputting voice evacuation messages.
2. Performance Criteria:
   a. Regulatory Requirements:
      1. NFPA 72.
      2. UL 1480.
   b. General Characteristics:
      1. Speakers for Voice Notification: Locate speakers for voice notification to provide intelligibility requirements of "Notification Appliances" and "Emergency Communications Systems" chapters in NFPA 72.
      2. Low-Range Units: Rated ¼W to 2 W.
      3. Mounting: Flush.
      4. Matching Transformers: Tap range matched to acoustical environment of speaker location.
      5. Combination Devices: Factory-integrated audible and visible devices in single-mounting assembly, equipped for mounting as indicated, and with screw terminals for system connections.

B. Fire-Alarm Visible Notification Appliances:

1. Performance Criteria:
   a. Regulatory Requirements:
      1. NFPA 72.
      2. UL 1971.
   b. General Characteristics:

DRAFT

1. Rated Light Output:
   2.7.B.1.b.1.a 15/30/75/110 cd, selectable in field.
2. Clear or nominal white polycarbonate lens mounted on aluminum faceplate.
3. Mounting: Wall mounted unless otherwise indicated.
4. Flashing must be in temporal pattern, synchronized with other units.
5. Strobe Leads: Factory connected to screw terminals.
6. Mounting Faceplate: Factory finished, red.

2.8 FIRE-ALARM ADDRESSABLE INTERFACE DEVICES

A. Performance Criteria:

1. Regulatory Requirements:
   a. NFPA 72.
2. General Characteristics:
   a. Include address-setting means on module.
   b. Store internal identifying code for control panel use to identify module type.
   c. Monitor Module: Microelectronic module providing system address for alarm-initiating devices for wired applications with normally open contacts.
   d. Integral Relay: Capable of providing direct signal to elevator controller to initiate elevator recall and to circuit-breaker shunt trip for power shutdown.
      1. Allow control panel to switch relay contacts on command.
      2. Have minimum of two normally open and two normally closed contacts available for field wiring.

2.9 DIGITAL ALARM COMMUNICATOR TRANSMITTERS (DACTs)

A. Performance Criteria:

1. Regulatory Requirements:
   a. NFPA 72.
2. General Characteristics:
   a. DACT must be acceptable to remote central station and must be listed for fire-alarm use.
   b. Functional Performance: Unit must receive alarm, supervisory, or trouble signal from FACU and automatically capture one telephone line(s) and dial preset number for remote central station. When contact is made with central station(s), signals must be transmitted. If service on either line is interrupted for longer than 45 seconds, transmitter must initiate local trouble signal and transmit signal indicating loss of telephone line to remote alarm receiving station over remaining line. Transmitter must automatically report telephone service restoration to central station. If service is lost on both telephone lines, transmitter must initiate local trouble signal.
   c. Local functions and display at DACT must include the following:
      1. Verification that both telephone lines are available.
      2. Programming device.
      3. LED display.
      4. Manual test report function and manual transmission clear indication.
      5. Communications failure with central station or FACU.
   d. Digital data transmission must include the following:
      1. Address of alarm-initiating device.
      2. Address of supervisory signal.
      3. Address of trouble-initiating device.
      4. Loss of ac supply.
      5. Loss of power.

DRAFT

6. Low battery.
7. Abnormal test signal.
8. Communication bus failure.

e. Secondary Power: Integral rechargeable battery and automatic charger.

f. Self-Test: Conducted automatically every 24 hours with report transmitted to central station.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions for compliance with requirements for ventilation, temperature, humidity, and other conditions affecting performance of the Work.

1. Verify that manufacturer's written instructions for environmental conditions have been permanently established in spaces where equipment and wiring are installed, before installation begins.

B. Examine roughing-in for electrical connections to verify actual locations of connections before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Preinstallation Testing: Perform verification of functionality of installed components of existing system prior to starting work. Document equipment or components not functioning as designed.

B. Interruption of Existing Fire-Alarm Service: Do not interrupt fire-alarm service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary guard service in accordance with requirements indicated:

1. Notify Owner no fewer than seven days in advance of proposed interruption of fire-alarm service.
2. Do not proceed with interruption of fire-alarm service without Owner's written permission.

3.3 INSTALLATION OF EQUIPMENT

A. Comply with NECA 305, NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire-alarm equipment. Install electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."

1. Devices placed in service before other trades have completed cleanup must be replaced.
2. Devices installed, but not yet placed, in service must be protected from construction dust, debris, dirt, moisture, and damage in accordance with manufacturer's written storage instructions.

B. Install wall-mounted equipment, with tops of cabinets not more than 78 inch above finished floor.

C. Manual Fire-Alarm Boxes:

DRAFT

1. Install manual fire-alarm box in normal path of egress within 60 inch of exit doorway.
2. Mount manual fire-alarm box on background of contrasting color.
3. Operable part of manual fire-alarm box must be between 42 and 48 inch above floor level. Devices must be mounted at same height unless otherwise indicated.

D. Smoke- and Heat-Detector Spacing:

1. Comply with "Smoke-Sensing Fire Detectors" section in "Initiating Devices" chapter in NFPA 72, for smoke-detector spacing.
2. Comply with "Heat-Sensing Fire Detectors" section in "Initiating Devices" chapter in NFPA 72, for heat-detector spacing.

E. Install cover on each smoke detector that is not placed in service during construction. Cover must remain in place except during system testing. Remove cover prior to system turnover.

F. Single-Station Smoke Detectors: Where more than one smoke alarm is installed within dwelling or suite, they must be connected so that operation of smoke alarm causes alarm in smoke alarms to sound.

G. Remote Status and Alarm Indicators: Install in visible location near each smoke detector, sprinkler water-flow switch, and valve-tamper switch that is not readily visible from normal viewing position.

H. Audible Alarm-Indicating Devices: Install not less than 6 inch below ceiling. Install bells and horns on flush-mounted back boxes with device-operating mechanism concealed behind grille. Install devices at same height unless otherwise indicated.

I. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inch below ceiling. Install devices at same height unless otherwise indicated.

J. Device Location-Indicating Lights: Locate in public space near device they monitor.

3.4 ELECTRICAL CONNECTIONS

A. Connect wiring in accordance with Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

B. Ground equipment in accordance with Section 260526 "Grounding and Bonding for Electrical Systems."

C. Install electrical devices furnished by manufacturer, but not factory mounted, in accordance with NFPA 70 and NECA 1.

D. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.

3.5 PATHWAYS

A. Pathways above recessed ceilings and in inaccessible locations may be routed exposed.

1. Exposed pathways located less than 96 inch above floor must be installed in EMT.

B. Pathways must be installed in EMT.

DRAFT

C. Exposed EMT must be painted red enamel.

3.6 CONNECTIONS

A. Make addressable connections with supervised interface device to the following devices and systems. Install interface device less than 36 inch from device controlled. Make addressable confirmation connection when such feedback is available at device or system being controlled.

1. Alarm-initiating connection to elevator recall system and components.
2. Supervisory connections at elevator shunt-trip breaker.

3.7 IDENTIFICATION

A. Install framed instructions in location visible from FACU.

3.8 GROUNDING

A. Ground FACU and associated circuits.

B. Ground shielded cables at control panel location only. Insulate shield at device location. Only use shielded cable as directed by FACU manufacturer.

3.9 FIELD QUALITY CONTROL

A. Field tests must be witnessed by authorities having jurisdiction.

B. Tests and Inspections:

1. Visual Inspection: Conduct visual inspection prior to testing.
   a. Inspection must be based on completed record Drawings and system documentation that is required by "Completion Documents, Preparation" table in "Documentation" section of "Fundamentals" chapter in NFPA 72.
   b. Comply with "Visual Inspection Frequencies" table in "Inspection" section of "Inspection, Testing and Maintenance" chapter in NFPA 72; retain "Initial/Reacceptance" column and list only installed components.
2. System Testing: Comply with "Test Methods" table in "Testing" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.
3. Test audible appliances for public operating mode in accordance with manufacturer's written instructions. Perform test using portable sound-level meter complying with Type 2 requirements in ASA S1.4 Part 1/IEC 61672-1.
4. Test audible appliances for private operating mode in accordance with manufacturer's written instructions.
5. Test visible appliances for public operating mode in accordance with manufacturer's written instructions.
6. Factory-authorized service representative must prepare "Fire Alarm System Record of Completion" in "Documentation" section of "Fundamentals" chapter in NFPA 72 and "Inspection and Testing Form" in "Records" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.

C. Reacceptance Testing: Perform reacceptance testing to verify proper operation of added or replaced devices and appliances.

DRAFT

D. Fire-alarm system will be considered defective if it does not pass tests and inspections.

E. Prepare test and inspection reports.

F. Maintenance Test and Inspection: Perform tests and inspections listed for weekly, monthly, quarterly, and semiannual periods. Use forms developed for initial tests and inspections.

G. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.

3.10 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

3.11 MAINTENANCE

A. Maintenance Service: Beginning at Substantial Completion, maintenance service must include 12 months' full maintenance by skilled employees of manufacturer's designated service organization. Include preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper operation. Parts and supplies must be manufacturer's authorized replacement parts and supplies.

1. Include visual inspections in accordance with "Visual Inspection Frequencies" table in "Testing" paragraph of "Inspection, Testing and Maintenance" chapter in NFPA 72.
2. Perform tests in "Test Methods" table in "Testing" paragraph of "Inspection, Testing and Maintenance" chapter in NFPA 72.
3. Perform tests per "Testing Frequencies" table in "Testing" paragraph of "Inspection, Testing and Maintenance" chapter in NFPA 72.

3.12 SOFTWARE SERVICE AGREEMENT

A. Comply with UL 864.

B. Technical Support: Beginning at Substantial Completion, service agreement must include software support for two years.

C. Upgrade Service: At Substantial Completion, update software to latest version. Install and program software upgrades that become available within two years from date of Substantial Completion. Upgrading software must include operating system and new or revised licenses for using software.

1. Upgrade Notice: At least 30 days to allow Owner to schedule access to system and to upgrade computer equipment if necessary.

END OF SECTION

DRAFT

N

TRUE OR CALLED NORTH

TOWN OF ROTTERDAM

ROTTERDAM TOWN HALL BUILDING RENOVATIONS

CONTRACT NO 1. - GENERAL CONSTRUCTION
CONTRACT NO. 2 - MECHANICAL CONSTRUCTION
CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION

Barton & Loguidice

SHEET INDEX

SHEET NO.	SHEET TITLE
T001	COVER
C101	SITE STAGING PLAN
A001	STANDARD SYMBOLS, NOTES AND ABBREVIATIONS
AD101	EXISTING/DEMO FIRST AND SECOND FLOOR PLANS
AD102	EXISTING/DEMO THIRD FLOOR AND ROOF PLANS
AD201	EXISTING/DEMO EXTERIOR ELEVATIONS
A101	FIRST FLOOR PLAN
A102	SECOND FLOOR PLAN
A103	THIRD FLOOR AND ROOF PLANS
A201	EXTERIOR ELEVATIONS
A301	WALL SECTIONS
A501	ROOF DETAILS
A502	ROOF DETAILS
A503	ROOF DETAILS
A601	DOOR SCHEDULE AND DETAILS

SHEET INDEX

SHEET NO.	SHEET TITLE
A602	WINDOW SCHEDULE AND DETAILS
A603	STOREFRONT SCHEDULE AND DETAILS
A701	SECOND FLOOR REFLECTED CEILING PLAN
M001	GENERAL NOTES, ABBREVIATIONS AND LEGEND
MD102	MECHANICAL ROOF PLAN- EXISTING CONDITIONS/DEMOLITION
M102	MECHANICAL ROOF PLAN-NEW WORK
E001	GENERAL NOTES, ABBREVIATIONS AND LEGEND
ED101	ELECTRICAL FIRST FLOOR PLAN- EXISTING CONDITIONS/DEMOLITION
ED102	ELECTRICAL SECOND FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION
ED103	ELECTRICAL THIRD FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION
E101	ELECTRICAL FIRST FLOOR PLAN- NEW WORK
E102	ELECTRICAL SECOND FLOOR PLAN- NEW WROK
E103	ELECTRICAL THIRD FLOOR PLAN- NEW WORK
E 501	ELECTRICAL/FIRE ALARM DETAILS AND DIAGRAMS- NEW WORK

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 §7209 SPECIAL PROVISIONS, FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING PROFESSIONAL SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

TOWN OF ROTTERDAM
SCHENECTADY COUNTY, NEW YORK

JULY 2023

95% REVIEW SET

PREPARED AND APPROVED BY

DATE SIGNED

PROFESSIONAL ENGINEERS LICENSE NO.

Sheet Number
T001

Project Number
904.055.001

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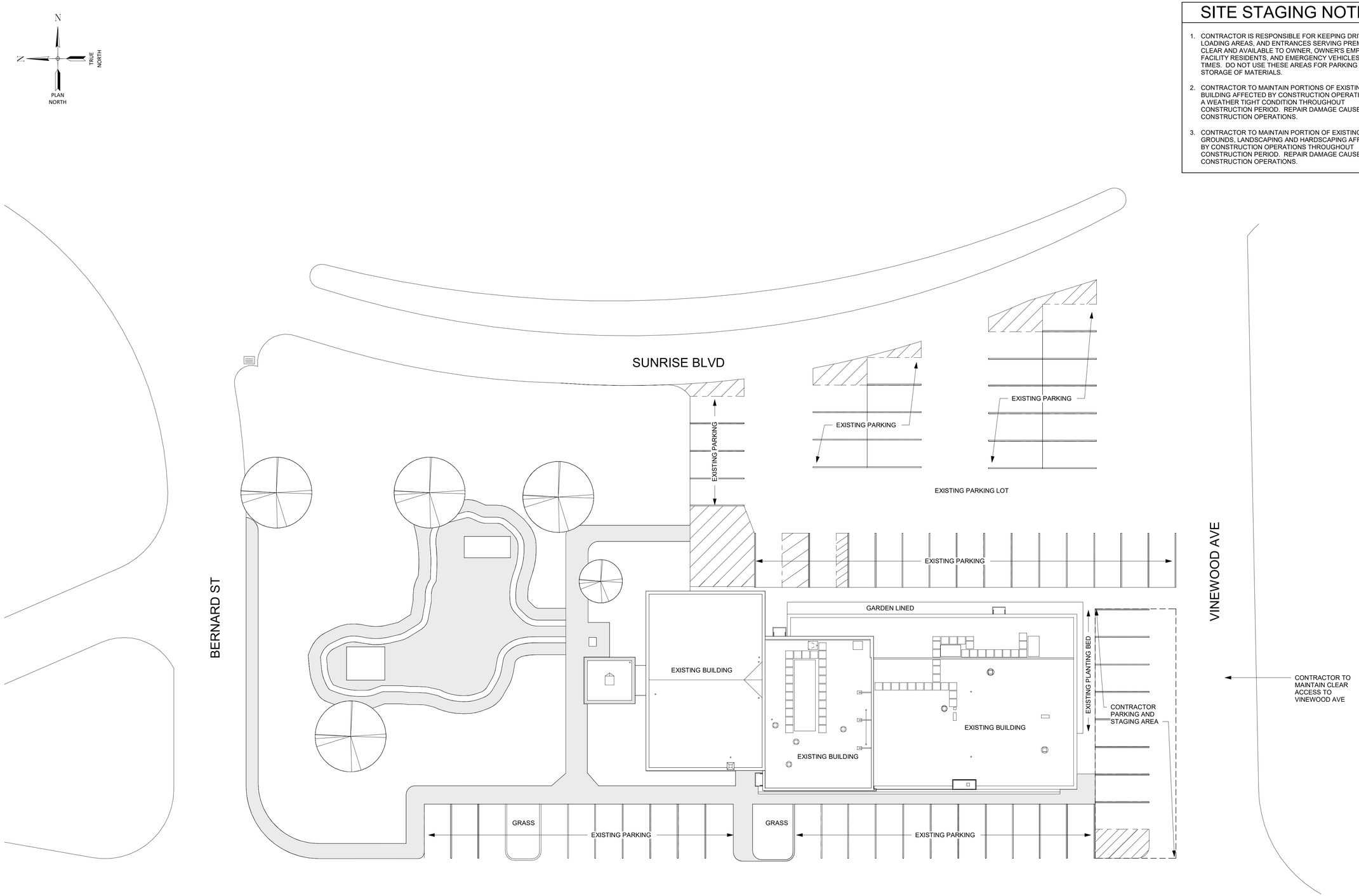
SITE STAGING NOTES

1. CONTRACTOR IS RESPONSIBLE FOR KEEPING DRIVEWAYS, LOADING AREAS, AND ENTRANCES SERVING PREMISES CLEAR AND AVAILABLE TO OWNER, OWNER'S EMPLOYEES, FACILITY RESIDENTS, AND EMERGENCY VEHICLES AT ALL TIMES. DO NOT USE THESE AREAS FOR PARKING OR FOR STORAGE OF MATERIALS.
2. CONTRACTOR TO MAINTAIN PORTIONS OF EXISTING BUILDING AFFECTED BY CONSTRUCTION OPERATIONS IN A WEATHER TIGHT CONDITION THROUGHOUT CONSTRUCTION PERIOD. REPAIR DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.
3. CONTRACTOR TO MAINTAIN PORTION OF EXISTING GROUNDS, LANDSCAPING AND HARDSCAPING AFFECTED BY CONSTRUCTION OPERATIONS THROUGHOUT CONSTRUCTION PERIOD. REPAIR DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.



SITE STAGING PLAN

SCALE: 1/16" = 1'-0"

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

SITE STAGING PLAN

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

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Date: JULY 2023
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Project Number: 904.055.001

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ABBREVIATIONS:

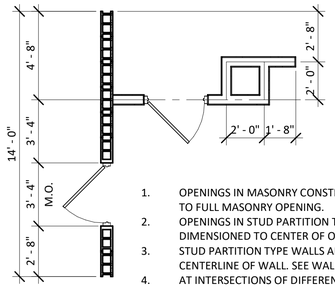
∠ - ANGLE
ACT - ACOUSTICAL CEILING TILE
ALUM - ALUMINUM
BLDG - BUILDING
BSMT - BASEMENT
BOT - BOTTOM
BUR - BUILT UP ROOF
CB - CATCH BASIN
C/C - CENTER TO CENTER
CCTV - CLOSED CIRCUIT TELEVISION
CJ - CONTROL JOINT
CL - CENTER LINE
CLG - CEILING
CLR - CLEAR
CMU - CONCRETE MASONRY UNITS
COL - COLUMN
CONC - CONCRETE
CONST - CONSTRUCTION
CONT - CONTINUOUS
CPP - CORRUGATED POLYETHYLENE PIPE
CPT - CARPET
CT - CERAMIC TILE
DEMO - DEMOLISH, DEMOLITION
DN - DOWN
DS - DOWNSPOUT
DTL - DETAIL
DWG - DRAWING
E.F. - EACH FACE
E.W. - EACH WAY
EA - EACH
ELEC - ELECTRICAL
ELEV - ELEVATION
EMBED - EMBEDMENT
EPS - EXPANDED POLYSTYRENE
EQUIP - EQUIPMENT
EW - EACH WAY
EXP - EXPOSED
EXP ANCHOR - EXPANSION ANCHOR
EXT - EXTERIOR
EX, EXIST - EXISTING
FIN FLR - FINISHED FLOOR
FND - FOUNDATION
FRP - FIBER REINFORCED PLASTIC
FT - FIRE TREATED
FTG - FOOTING
FV - FIELD VERIFY
GA - GAUGE
GALV - GALVANIZED
GC - GENERAL CONTRACTOR
GL BLK - GLASS BLOCK
GWB - GYPSUM WALL BOARD
GWT - GLAZED WALL TILE
HBD - HARDBOARD
HC - HANDICAP

ABBREVIATIONS (CONT.):

HM - HOLLOW METAL
INSUL - INSULATION
IGU - INSULATED GLASS UNIT
INV - INVERT
JT - JOINT
LAM - LAMINATE
MANUF - MANUFACTURER
MAS - MASONRY
MAX - MAXIMUM
MIN - MINIMUM
MR - MOISTURE RESISTANT
MTL - METAL
MO - MASONRY OPENING
NIC - NOT IN CONTRACT
NTS - NOT TO SCALE
O.C. - ON CENTER
OD - OUTSIDE DIAMETER
PL - PLATE
PERF - PERFORATED
PLAS - PLASTIC
PLYWD - PLYWOOD
PNT - PAINT
PT - PRESSURE TREATED
PPT - PRESSURE PRESERVATIVE TREATED
PVMT - PAVEMENT
QT - QUARRY TILE
R - RISER
RD - ROOF DRAIN
RAD - RADIUS
REQ'D - REQUIRED
RO - ROUGH OPENING
SC - SOLID CORE
SAN - SANITARY
SHT - SHEET
SIM - SIMILAR
SQ - SQUARE
SS - STAINLESS STEEL
STL - STEEL
SUS - SUSPENDED
SV - SHEET VINYL
T - TREAD
T/ - TOP OF
T&B - TOP AND BOTTOM
TEMP - TEMPERED
TYP - TYPICAL
VCT - VINYL COMPOSITION TILE
UG - UNDERGROUND
UNO - UNLESS NOTED OTHERWISE
VB - VAPOR BARRIER
W/ - WITH
WD - WOOD
WDO - WINDOW
WWF - WELDED WIRE FABRIC
XPS - EXTRUDED POLYSTRENE

GENERAL NOTES:

1. ALL DIMENSIONS TO, OF, AND IN EXISTING BUILDING SHALL BE VERIFIED IN FIELD BY CONTRACTOR.
2. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER CONTRACTORS ON SITE.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR FOR A COMPLETE INSTALLATION.
4. ALL WORK SHALL COMPLY WITH NYS FIRE PREVENTION AND BUILDING CODE, LOCAL BUILDING CODES, AS WELL AS NATIONAL PLUMBING AND ELECTRICAL CODES.
5. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR PREPARATIONS AND INSTALLATION OF MATERIALS.
6. DO NOT CHANGE SIZE NOR SPACING OF STRUCTURAL ELEMENTS.
7. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
8. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR AND/OR SUBCONTRACTORS ARE SOLELY RESPONSIBLE FOR EXECUTING THE WORK AND MAINTAINING THE WORK SITE IN ACCORDANCE WITH ALL APPLICABLE SAFETY CODES AND STANDARDS.
9. CONTRACTOR SHALL PROVIDE PROTECTIVE BARRICADES, SIGNS AND LIGHTING TO PREVENT ANY UNAUTHORIZED PASSAGE INTO WORK AREA.
10. PROTECT ALL EXISTING AND NEW BUILDING ELEMENTS INSTALLED BY OTHER CONTRACTS FROM DAMAGE. CONTRACTOR SHALL RESTORE ALL DAMAGED ELEMENTS TO ORIGINAL OR BETTER CONDITION.
11. BRACE BUILDING UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: FLOOR DECK, ROOF DECK, BRACING MEMBERS, SHEAR WALLS.
12. DESIGNED PER "NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE", AS PART OF THE UNOFFICIAL COMPILATION CODES, RULES AND REGULATIONS OF THE STATE OF NEW YORK INCLUDING THE LATEST SUPPLEMENTS WHEN DESIGNED.
13. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK, HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE UNDERGROUND UTILITIES.
14. CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ALL PROPOSED DEVIATIONS OR SUBSTITUTIONS FROM DIMENSIONS, MATERIALS, OR EQUIPMENT SHOWN ON THE DRAWINGS AND MAKE ONLY THOSE DEVIATIONS OR SUBSTITUTIONS ACCEPTABLE TO THE ARCHITECT/ENGINEER. NO CHANGES SHALL BE MADE WITH APPROVAL BY THE ARCHITECT/ENGINEER.
15. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ORDER AND/OR INSTALLATION OF MATERIAL.
16. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES IN DIMENSIONS BETWEEN EXISTING CONDITIONS AND/OR ARCHITECTURAL DRAWINGS AND THE STRUCTURAL DRAWINGS.
17. ANY ELEMENT NOT LABELED AS EXISTING SHALL BE CONSIDERED NEW.
18. PROVIDE ALL DEMO REQUIRED FOR NEW INSTALLATIONS SHOWN, AND PATCH EXISTING MATERIALS BACK TO ORIGINAL CONDITION, OR TO A CONDITION TO RECEIVE NEW WORK AS APPLICABLE.
19. EXAMINE ALL MECHANICAL, ELECTRICAL, PLUMBING & OTHER TRADE DRAWINGS FOR ADDITIONAL AND INCIDENTAL WORK RELATED TO OPENINGS, PENETRATIONS, EQUIPMENT PADS, EQUIPMENT ITEM OR TAG NUMBERS, AND OTHER ADDITIONAL WORK. COORDINATE WITH ALL OTHER TRADES & PROVIDE ALL LABOR & MATERIALS FOR A COMPLETE INSTALLATION.



1. OPENINGS IN MASONRY CONSTRUCTION ARE DIMENSIONED TO FULL MASONRY OPENING.
2. OPENINGS IN STUD PARTITION TYPE CONSTRUCTION ARE DIMENSIONED TO CENTER OF OPENING.
3. STUD PARTITION TYPE WALLS ARE DIMENSIONED TO CENTERLINE OF WALL. SEE WALL TYPE FOR WALL THICKNESS.
4. AT INTERSECTIONS OF DIFFERENT PARTITION TYPES THE PARTITION WITH THE GREATEST FIRE RATING SHALL BE CONTINUED THROUGH THE INTERSECTION (UNO)

DIMENSIONING CONVENTIONS

SCALE: 1/4" = 1'-0"

2020 EXISTING BUILDING CODE OF NEW YORK STATE

SECTION 705 REROOFING

705.1 GENERAL: MATERIALS AND METHODS OF APPLICATION USED FOR RECOVERING OR REPLACING AN EXISTING ROOF COVERING SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 15 OF THE BUILDING CODE OF NEW YORK STATE.

EXCEPTIONS: 2. RECOVERING OR REPLACING AN EXISTING ROOF COVERING SHALL NOT BE REQUIRED TO MEET THE REQUIREMENT FOR SECONDARY (EMERGENCY OVERFLOW) DRAINS OR SCUPPER IN SECTION 1502 OF THE BUILDING CODE OF NEW YORK STATE FOR ROOFS THAT PROVIDE FOR POSITIVE ROOF DRAINAGE. FOR THE PURPOSES OF THIS EXCEPTION, EXISTING SECONDARY DRAINAGE OR SCUPPER SYSTEMS REQUIRED IN ACCORDANCE WITH THIS CODE SHALL NOT BE REMOVED UNLESS THEY ARE REPLACED BY SECONDARY DRAINS OR SCUPPERS DESIGNED AND INSTALLED IN ACCORDANCE WITH SECTION 1502 OF THE BUILDING CODE OF NEW YORK STATE.

705.2 STRUCTURAL AND CONSTRUCTION LOADS: STRUCTURAL ROOF COMPONENTS SHALL BE CAPABLE OF SUPPORTING THE ROOF-COVERING SYSTEM AND THE MATERIAL AND EQUIPMENT LOADS THAT WILL BE ENCOUNTERED DURING INSTALLATION OF THE SYSTEM.

705.3 ROOF REPLACEMENT: ROOF REPLACEMENT SHALL INCLUDE THE REMOVAL OF ALL EXISTING LAYERS OF ROOF COVERINGS DOWN TO THE ROOF DECK.

705.6 FLASHING: FLASHING SHALL BE RECONSTRUCTED IN ACCORDANCE WITH APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS. METAL FLASHING TO WHICH BITUMINOUS MATERIALS ARE TO BE ADHERED SHALL BE PRIMED PRIOR TO INSTALLATION.

ENERGY CODE COMPLIANCE

COMPLIANCE METHOD (C101.5)
RESIDENTIAL (R202) YES ☐ NO ☒ IF YES, INDICATE COMPLIANCE METHOD BELOW:

ENERGY CONSERVATION CONSTRUCTION CODE OF NYS ☐ CHECK ONE CHAPTER BOX & ONE GLAZING AREA BOX BELOW:
CHAPTER 4 ☐ ONE/TWO FAMILY DWELLING WITH GLAZING AREA *15% ☐ 315% ☐
CHAPTER 5 ☐ R-2, R-4 OR TOWNHOUSE WITH GLAZING AREA *25% ☐ 325% ☐
CHAPTER 6 ☐

COMMERCIAL (C202) YES ☒ NO ☐ IF YES, INDICATE COMPLIANCE METHOD BELOW:
ENERGY CONSERVATION CONSTRUCTION CODE OF NYS ☐
CHAPTER 7 ☐
CHAPTER 8 ☐

EXEMPT BUILDING? (C401.1) YES ☐ NO ☒ IF YES, DESCRIBE EXEMPTION TYPE BELOW:

HISTORIC BUILDING? (C101.7) YES ☐ NO ☒

ALTERATION IN EXISTING BUILDING? (C503) YES ☒ NO ☐ IF YES, LIST BUILDING SYSTEM(S) UNDERGOING SUBSTANTIAL ALTERATION(S) BELOW: STRUCTURAL, MECHANICAL, ELECTRICAL

PROJECT LOCATION (C301.1)
COUNTY: SCHENECTADY
ZONE: 5A

THERMAL VALUES OF BUILDING COMPONENTS (C401,C402,C403,C404,C405,C406,C407)
FILL IN VALUES BELOW AS APPLICABLE:

FOUNDATION WALL CONSTRUCTION - U-VALUE:	N/A
FOUNDATION WALL INSULATION - R-VALUE:	N/A
-INSULATION DEPTH:	N/A
BELOW GRADE WALL INSULATION - R-VALUE:	N/A
BASEMENT WALLS - U-VALUE:	N/A
BASEMENT WALL INSULATION - R-VALUE:	N/A
-INSULATION DEPTH:	N/A
CRAWL SPACE WALLS - U-VALUE:	N/A
CRAWL SPACE WALL INSULATION - R-VALUE:	N/A
HEATED SLAB ON GRADE INSULATION - R-VALUE:	N/A
UNHEATED SLAB ON GRADE INSULATION - R-VALUE:	N/A
SLAB EDGE INSULATION - R-VALUE:	N/A
-INSULATION DEPTH:	N/A
FLOORS OVER UNHEATED SPACES - U-VALUE:	N/A
FLOORS OVER UNHEATED SPACES INSULATION - R-VALUE:	N/A
INTERIOR WALLS SEPARATING CONDITIONED & UNCONDITIONED SPACES INSULATION - R-VALUE:	N/A
EXTERIOR WALL CONSTRUCTION - U-VALUE:	N/A
EXTERIOR WALL INSULATION - R-VALUE:	N/A
ROOF/CEILING CONSTRUCTION - U-VALUE:	N/A
ROOF/CEILING INSULATION - R-VALUE:	R-30
SKYLIGHTS - U-VALUE:	N/A
WINDOWS - U-VALUE:	U-0.37
-AIR INFILTRATION RATE:	<0.06 CFM/FT^2
- % WINDOW AREA:	
-PROJECTION FACTOR:	
EXTERIOR DOORS - U-VALUE:	
-AIR INFILTRATION RATE:	<0.6 CMF/FT^2
- % DOOR AREA:	
FENESTRATION SOLAR HEAT GAIN COEFFICIENT:	
DUST INSULATION - R-VALUE:	
PIPE INSULATION - R-VALUE:	

STANDARD SYMBOLS

- Ref / X / X — BUILDING SECTION
- Ref / X / X — WALL SECTION
- Ref / X / X — DETAIL CALL-OUT
- N / PLAN NORTH / TRUE NORTH — FLOOR PLAN NORTH ARROW
- Room name / 101 — ROOM IDENTIFICATION TAG
- A / D XX.X B / C — INTERIOR ELEVATION MARKER
- XX.X — EXTERIOR ELEVATION MARKER
- # — DOOR IDENTIFICATION TAG
- 1t — WINDOW IDENTIFICATION TAG
- 1i — WALL IDENTIFICATION TAG
- X x — KEY NOTE TAG
- FEC — FIRE EXTINGUISHER CABINET
- xx'-x" — ELEVATION MARKER
- X — NEW COLUMN GRID MARKER
- EX x — EXISTING COLUMN GRID MARKER
- 1 — DRAWING REVISION CLOUD
- 1 A101 — SIM — DETAIL BOUNDARY
- Room name / 150 SF — ROOM NAME WITH ROOM SQUARE FEET
- 1 A001 — VIEW TITLE

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TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION
SCHENECTADY COUNTY, NEW YORK

STANDARD SYMBOLS, NOTES AND ABBREVIATIONS

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

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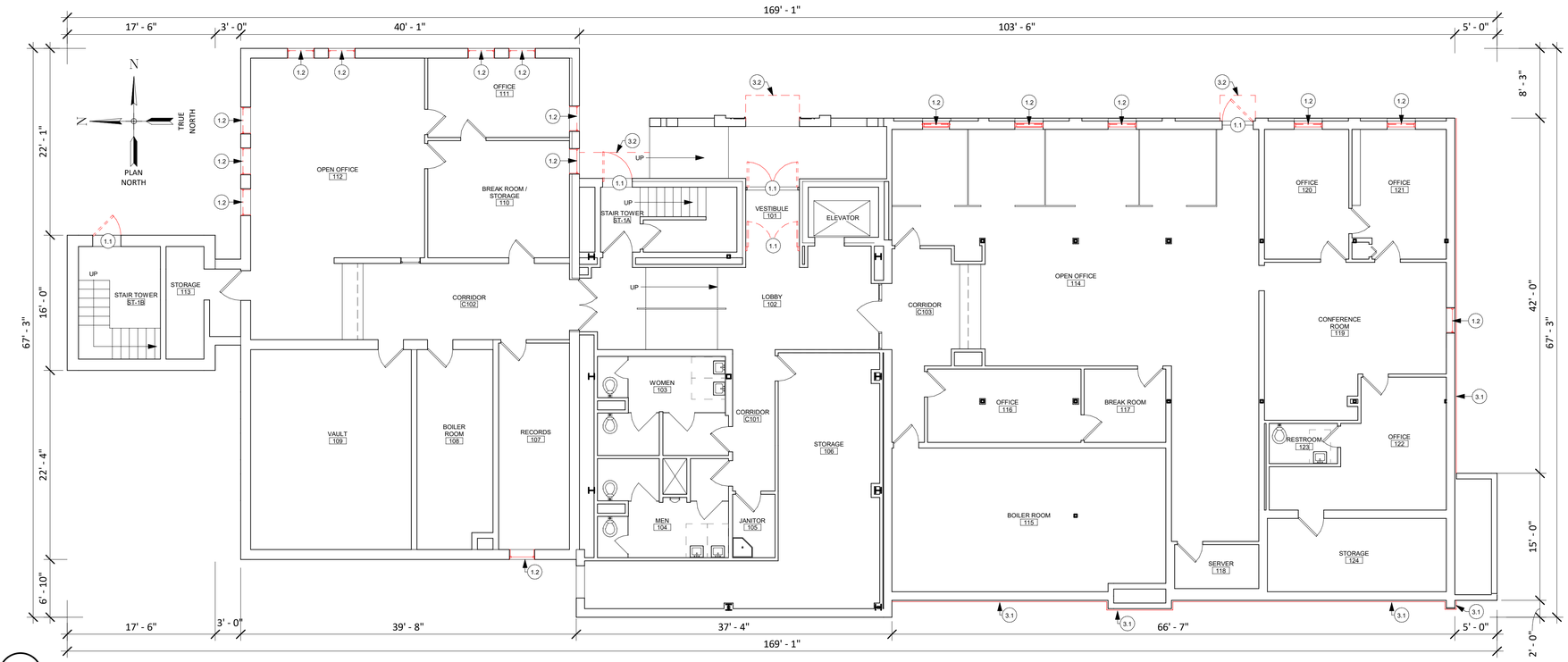
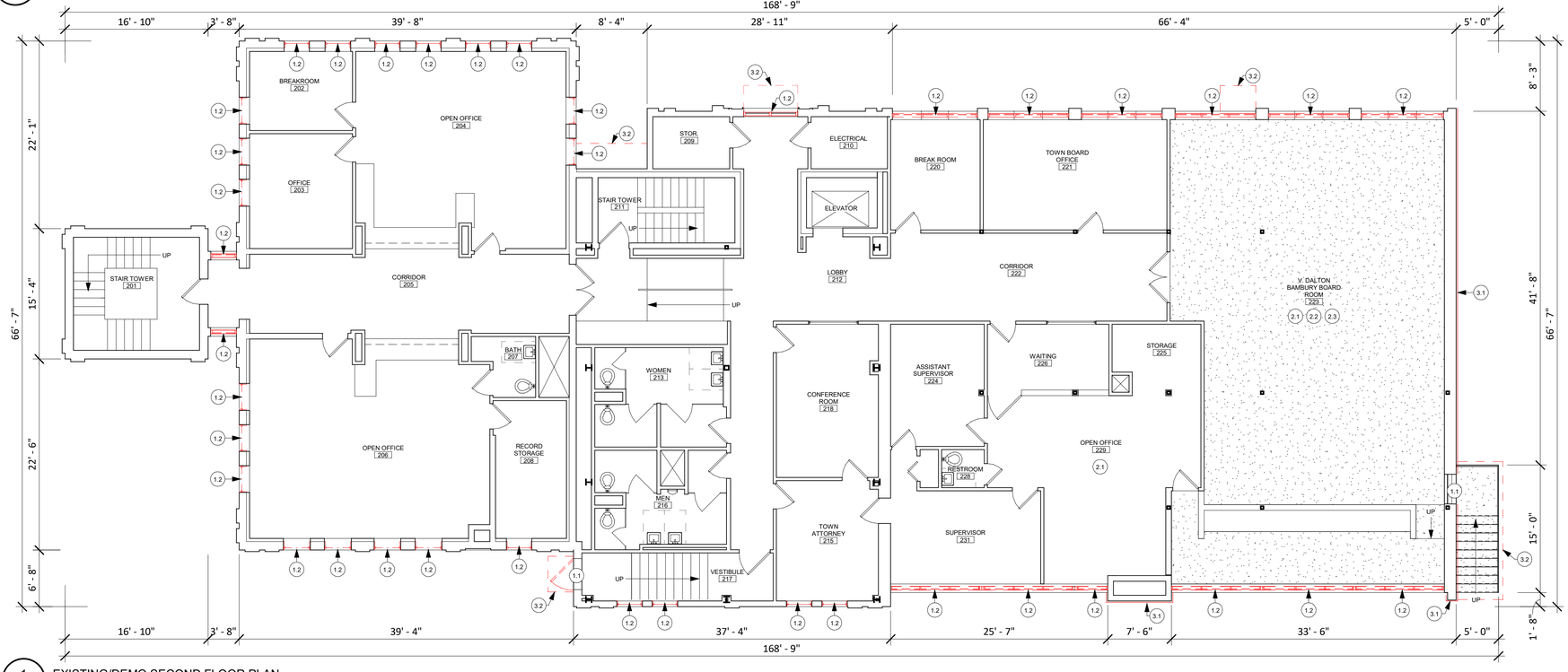


2 AD101 EXISTING/DEMO FIRST FLOOR PLAN
1/8" = 1'-0"



1 AD101 EXISTING/DEMO SECOND FLOOR PLAN
1/8" = 1'-0"

DEMOLITION LEGEND

	INDICATES EPDM ROOF REMOVAL
	INDICATES TYPICAL CARPET REMOVAL
	TYPICAL DEMOLITION ITEM

DEMO KEY NOTES

WINDOW(S) AND DOOR(S):

1.1 REMOVE EXISTING DOOR, FRAME, HARDWARE AND RELATED IN ITS ENTIRETY.

1.2 REMOVE EXISTING WINDOW SYSTEM IN ITS ENTIRETY.

INTERIOR FINISHES:

2.1 REMOVE EXISTING ACT GRID AND LIGHTING FIXTURES IN THEIR ENTIRETY.

2.2 REMOVE EXISTING CARPET IN ITS ENTIRETY. INCLUDING BUT NOT LIMITED TO ADHESIVES, TRANSITION STRIPS, ETC. DOWN TO EXISTING CONCRETE FLOOR.

2.3 REMOVE EXISTING WALL BASE IN ITS ENTIRETY. INCLUDING BUT NOT LIMITED TO BASE, FASTENERS, ADHESIVES, ETC.

WALL:

3.1 REMOVE THIN BRICK VENEER AND RIGID INSULATION IN THEIR ENTIRETY.

3.2 REMOVE EXTERIOR AWNING AND RELATED FASTENERS IN THEIR ENTIRETY. PATCH ANY HOLES OR SCUFFS IN EXISTING BRICK.

3.3 REMOVE EXISTING EIFS AND RIGID INSULATION IN THEIR ENTIRETY.

3.4 REMOVE EXISTING COLUMNS AND RELATED GYPSUM FRAMING IN THEIR ENTIRETY. REFER TO STRUCTURAL DRAWINGS.

GENERAL NOTES

1. CONTRACTOR TO REVIEW AND COORDINATE DEMOLITION OF ALL WORK WITH OWNER PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR(S) SHALL COORDINATE WITH OWNER WHICH ITEMS SHALL BE TURNED OVER TO THE LANDLORD PRIOR TO THE START OF WORK. THIS SHALL BE, BUT NOT LIMITED TO ITEMS LISTED ON THE CONTRACT DRAWINGS OR IDENTIFIED BY THE OWNER.
2. ALL QUESTIONS REGARDING DEMOLITION INFORMATION CONTAINED ON THIS DRAWING SHALL BE ADDRESSED TO THE ARCHITECT.
3. FIELD VERIFY EXISTING CONDITIONS, AND VERIFY WITH ARCHITECT ANY DISCREPANCIES OR CHANGES TO THE CONTRACT DOCUMENTS PRIOR TO COMMENCING DEMOLITION WORK.
4. PROTECT EXISTING BUILDING FINISHES THAT ARE TO REMAIN DURING CONSTRUCTION.
5. CONTRACTOR SHALL ACQUAINT THEMSELVES WITH THE INTENT OF THE NEW CONSTRUCTION, AND PERFORM DEMOLITION THAT IS COMPATIBLE WITH THE PROPOSED SCOPE OF THE PROJECT AS A WHOLE.
6. CONTRACTOR TO RELOCATE EXISTING PLUMBING, MECHANICAL & ELECTRICAL TO ACCOMMODATE NEW WORK.

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CONTRACT NO 1. - GENERAL CONSTRUCTION
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EXISTING/DEMO FIRST AND SECOND FLOOR PLANS

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
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DRAFT

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0' 4' 8' 16' 32'

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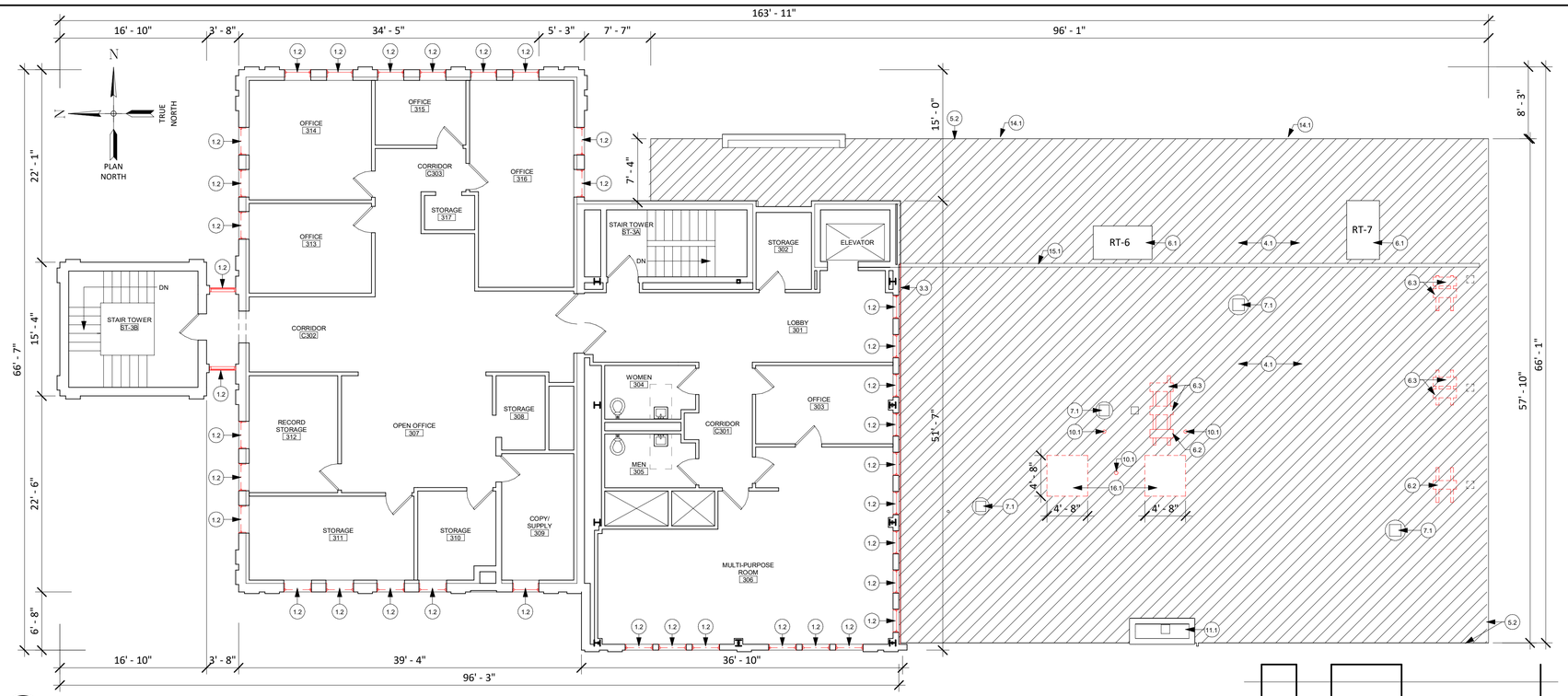
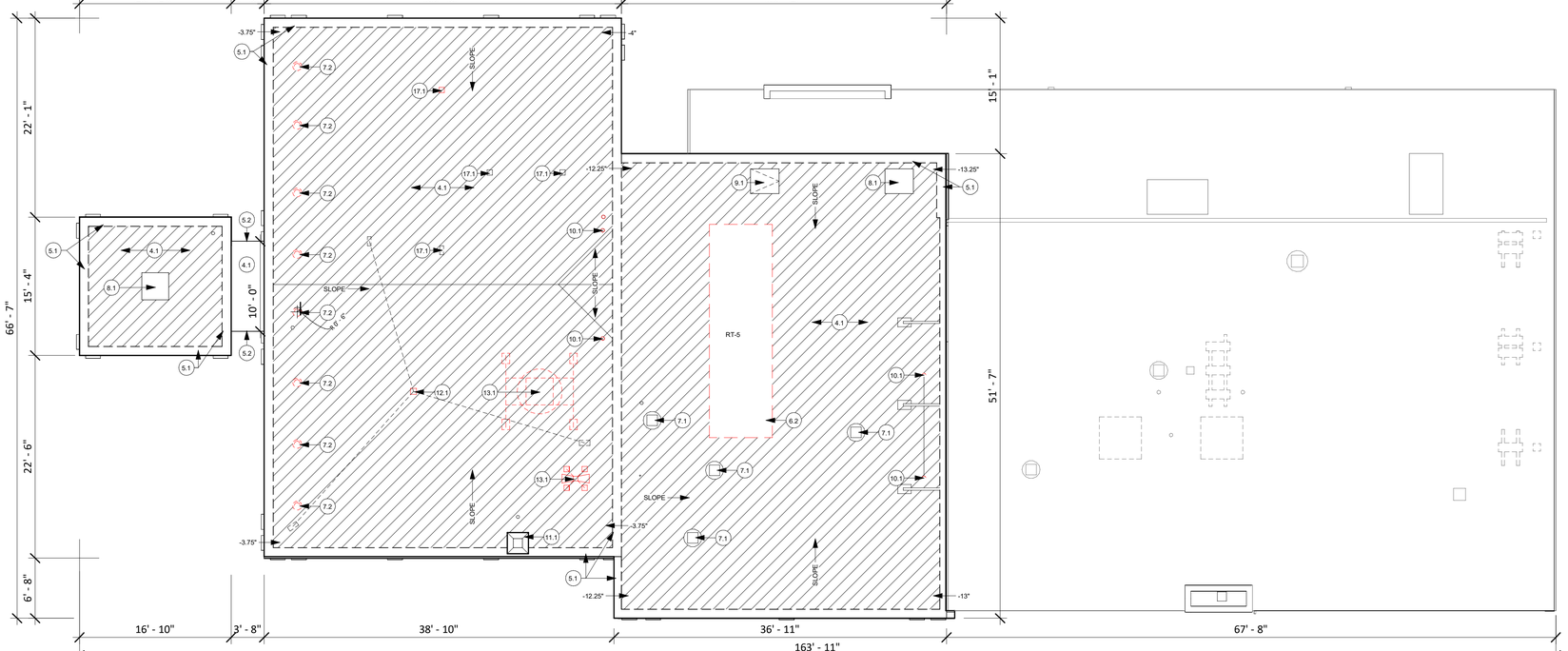
Checked by

August 9, 2023



2 AD102 EXISTING/DEMO THIRD FLOOR PLAN
1/8" = 1'-0"



1 AD102 EXISTING/DEMO ROOF PLAN
1/8" = 1'-0"

DEMOLITION LEGEND

	INDICATES EPDM ROOF REMOVAL
	INDICATES TYPICAL CARPET REMOVAL
	TYPICAL DEMOLITION ITEM

DEMO KEY NOTES

WINDOW(S) AND DOOR(S):

1.1 REMOVE EXISTING DOOR, FRAME, HARDWARE AND RELATED IN ITS ENTIRETY.

1.2 REMOVE EXISTING WINDOW SYSTEM IN ITS ENTIRETY.

INTERIOR FINISHES:

2.1 REMOVE EXISTING LIGHTING FIXTURES IN THEIR ENTIRETY.

2.2 REMOVE EXISTING CARPET IN ITS ENTIRETY. INCLUDING BUT NOT LIMITED TO ADHESIVES, TRANSITION STRIPS, ETC. DOWN TO EXISTING CONCRETE FLOOR.

2.3 REMOVE EXISTING WALL BASE IN ITS ENTIRETY. INCLUDING BUT NOT LIMITED TO BASE, FASTENERS, ADHESIVES, ETC.

WALL:

3.1 REMOVE THIN BRICK VENEER AND RIGID INSULATION IN THEIR ENTIRETY.

3.2 REMOVE EXTERIOR AWNING AND RELATED FASTENERS IN THEIR ENTIRETY. PATCH ANY HOLE OR SCUFFS IN EXISTING BRICK.

3.3 REMOVE EXISTING EIFS AND RIGID INSULATION IN THEIR ENTIRETY.

3.4 REMOVE EXISTING COLUMNS. REFER TO STRUCTURAL DRAWINGS.

ROOF:

4.1 REMOVE EXISTING EPDM MEMBRANE ROOFING, TAPERED INSULATION SYSTEM, RIGID INSULATION SYSTEM, VAPOR BARRIER AND FULLY EXPOSE ROOF DECK AND PREPARE FOR REPLACEMENT.

5.1 REMOVE EXISTING METAL ROOF COPING SYSTEM AND PREPARE FOR REPLACEMENT.

5.2 REMOVE EXISTING DRIP EDGE METAL ROOF COPING SYSTEM(S) AND PREPARE FOR REPLACEMENT.

6.1 EXISTING HVAC EQUIPMENT, CURBING AND ELECTRICAL ROOF PENETRATIONS TO REMAIN, REMOVE ALL LAYERS OF EXISTING MEMBRANE FLASHING AND PREPARE FOR REPLACEMENT.

6.2 EXISTING HVAC EQUIPMENT TO BE REPLACED, CURBING AND ELECTRICAL ROOF PENETRATIONS TO REMAIN, REMOVE EXISTING MEMBRANE FLASHINGS AND PREPARE FOR REPLACEMENT.

6.3 EXISTING HVAC EQUIPMENT, CURBING AND ELECTRICAL ROOF PENETRATIONS TO BE REMOVED.

7.1 EXISTING ROOF VENT AND CURBING TO REMAIN, REMOVE ALL EXISTING MEMBRANE LAYERS OF FLASHING AND PREPARE FOR REPLACEMENT.

7.2 EXISTING ROOF VENT AND CURBING AND LAYERS OF FLASHING TO BE REMOVED.

8.1 EXISTING SMOKE VENT TO REMAIN, REMOVE ALL LAYERS OF EXISTING MEMBRANE FLASHING AND PREPARE FOR REPLACEMENT.

9.1 EXISTING ROOF HATCH TO REMAIN, REMOVE ALL EXISTING LAYERS OF MEMBRANE FLASHING AND PREPARE FOR REPLACEMENT.

10.1 REMOVE EXISTING ROOF DRAIN STRAINER (DRAIN BOWL/ASSEMBLY TO REMAIN), PREPARE FOR NEW ROOFING & STRAINER COVER REPLACEMENT.

11.1 EXISTING CHIMNEY TO REMAIN, REMOVE ALL LAYERS OF EXISTING MEMBRANE FLASHING AND PREPARE FOR REPLACEMENT.

12.1 EXISTING ANTENNA AND ASSOCIATED CURBING AND STRUCTURE TO BE REMOVED.

13.1 EXISTING SIRENS AND ASSOCIATED CURBING AND STRUCTURE TO BE REMOVED.

14.1 EXISTING EDGE SCUPPER AND DOWNSPOUT TO BE REMOVED.

15.1 EXISTING EXPANSION JOINT BETWEEN BUILDING ADDITIONS.

16.1 EXISTING SKYLIGHTS TO BE REMOVED.

17.1 EXISTING CURBING TO BE REMOVED.

GENERAL NOTES

1. CONTRACTOR TO REVIEW AND COORDINATE DEMOLITION OF ALL WORK WITH OWNER PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR(S) SHALL COORDINATE WITH LANDLORD WHICH ITEMS SHALL BE TURNED OVER TO THE LANDLORD PRIOR TO THE START OF WORK. THIS SHALL BE, BUT NOT LIMITED TO ITEMS LISTED ON THE CONTRACT DRAWINGS OR IDENTIFIED BY THE LANDLORD.
2. ALL QUESTIONS REGARDING DEMOLITION INFORMATION CONTAINED ON THIS DRAWING SHALL BE ADDRESSED TO THE ARCHITECT.
3. FIELD VERIFY EXISTING CONDITIONS, AND VERIFY WITH ARCHITECT ANY DISCREPANCIES OR CHANGES TO THE CONTRACT DOCUMENTS PRIOR TO COMMENCING DEMOLITION WORK.
4. PROTECT EXISTING BUILDING FINISHES THAT ARE TO REMAIN DURING CONSTRUCTION.
5. CONTRACTOR SHALL ACQUAINT THEMSELVES WITH THE INTENT OF THE NEW CONSTRUCTION, AND PERFORM DEMOLITION THAT IS COMPATIBLE WITH THE PROPOSED SCOPE OF THE PROJECT AS A WHOLE.
6. CONTRACTOR TO RELOCATE EXISTING PLUMBING TO ACCOMMODATE NEW WORK.

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 §7209 SPECIAL PROVISIONS, FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING PROFESSIONAL SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION
SCHENECTADY COUNTY, NEW YORK

EXISTING/DEMO THIRD FLOOR AND ROOF PLANS

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: AD102
Project Number: 904.055.001

Plotted: 7/25/2023 3:26:00 PM
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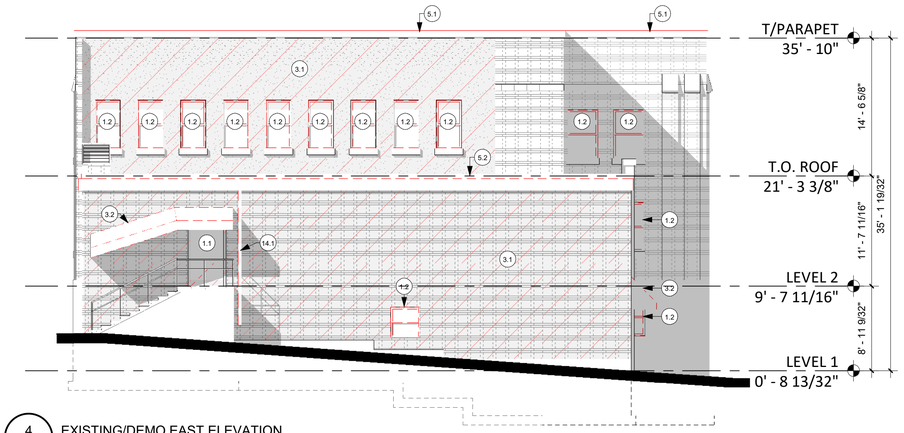
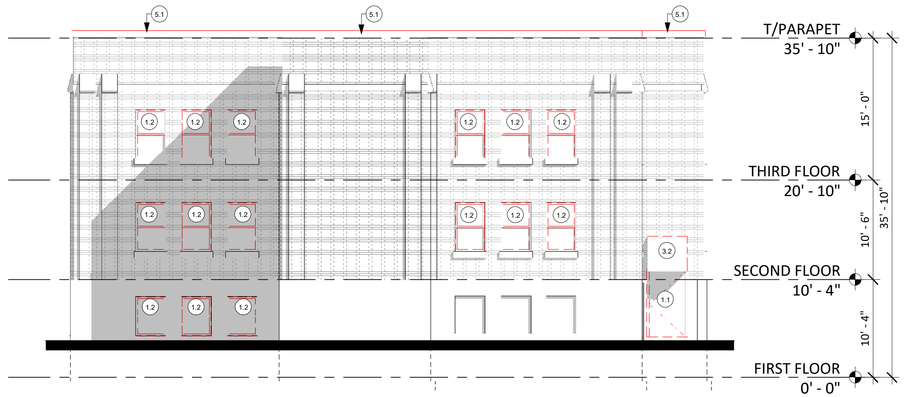
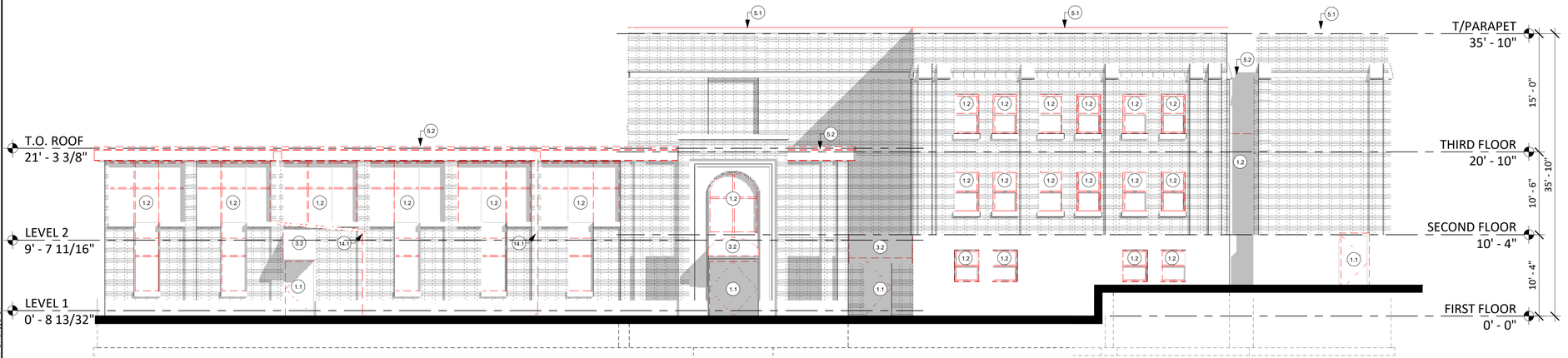
Drawn by ZSS Designed by JDC In Charge of
Checked by



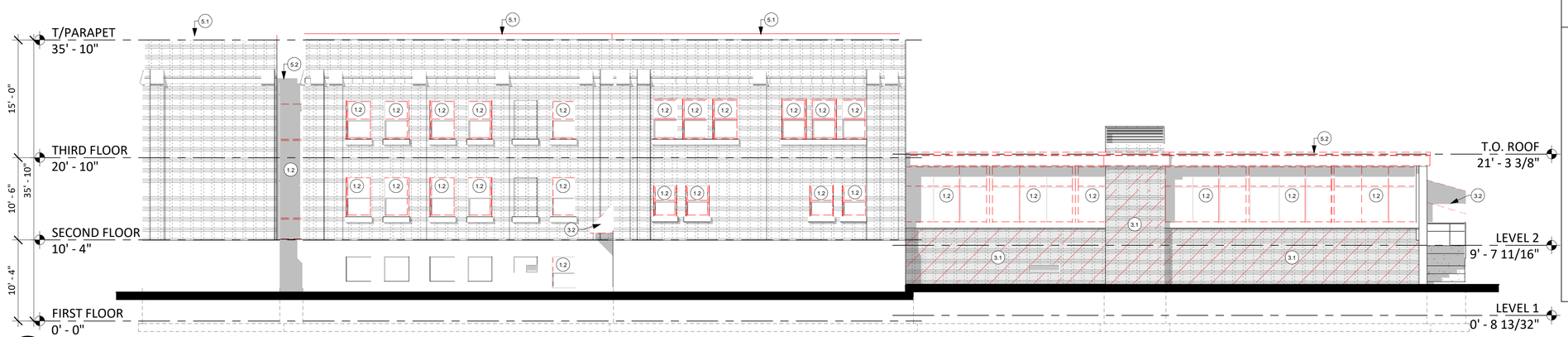
4 AD201 EXISTING/DEMO EAST ELEVATION
1/8" = 1'-0"



3 AD201 EXISTING/DEMO WEST ELEVATION
1/8" = 1'-0"



2 AD201 EXISTING/DEMO NORTH ELEVATION
1/8" = 1'-0"



1 AD201 EXISTING/DEMO SOUTH ELEVATION
1/8" = 1'-0"

DEMOLITION LEGEND

	INDICATES TYPICAL DOOR DEMOLITION
	TYPICAL WINDOW DEMOLITION
	THIN BRICK VENEER REMOVAL
	EIFS REMOVAL
	EXISTING BRICK TO REMAIN
	EXISTING EIFS TO REMAIN

DEMO KEY NOTES

WINDOW(S) AND DOOR(S):

1.1 REMOVE EXISTING DOOR, FRAME, HARDWARE AND RELATED IN ITS ENTIRETY.

1.2 REMOVE EXISTING WINDOW SYSTEM IN ITS ENTIRETY.

INTERIOR FINISHES:

2.1 REMOVE EXISTING ACT GRID AND LIGHTING FIXTURES IN THEIR ENTIRETY.

2.2 REMOVE EXISTING CARPET IN ITS ENTIRETY. INCLUDING BUT NOT LIMITED TO ADHESIVES, TRANSITION STRIPS, ETC. DOWN TO EXISTING CONCRETE FLOOR.

2.3 REMOVE EXISTING WALL BASE IN ITS ENTIRETY. INCLUDING BUT NOT LIMITED TO BASE, FASTENERS, ADHESIVES, ETC.

WALL:

3.1 REMOVE THIN BRICK VENEER AND RIGID INSULATION IN THEIR ENTIRETY.

3.2 REMOVE EXTERIOR AWNING AND RELATED FASTENERS IN THEIR ENTIRETY. PATCH ANY HOLES OR SCUFFS IN EXISTING BRICK.

3.3 REMOVE EXISTING EIFS AND RIGID INSULATION IN THEIR ENTIRETY.

3.4 REMOVE EXISTING COLUMNS AND RELATED GYPSUM FRAMING IN THEIR ENTIRETY. REFER TO STRUCTURAL DRAWINGS.

GENERAL NOTES

1. CONTRACTOR TO REVIEW AND COORDINATE DEMOLITION OF ALL WORK WITH OWNER PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR(S) SHALL COORDINATE WITH OWNER WHICH ITEMS SHALL BE TURNED OVER TO THE LANDLORD PRIOR TO THE START OF WORK. THIS SHALL BE, BUT NOT LIMITED TO ITEMS LISTED ON THE CONTRACT DRAWINGS OR IDENTIFIED BY THE OWNER.
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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION
SCHENECTADY COUNTY, NEW YORK

EXISTING/DEMO EXTERIOR ELEVATIONS

B&L
Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: AD201
Project Number: 904.055.001

Designed by: JDC
Drawn by: ZSS
Checked by: In Charge of TOWN OF ROTTERDAM

Plotted: 7/25/2023 3:26:04 PM
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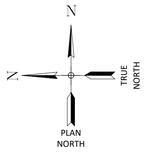

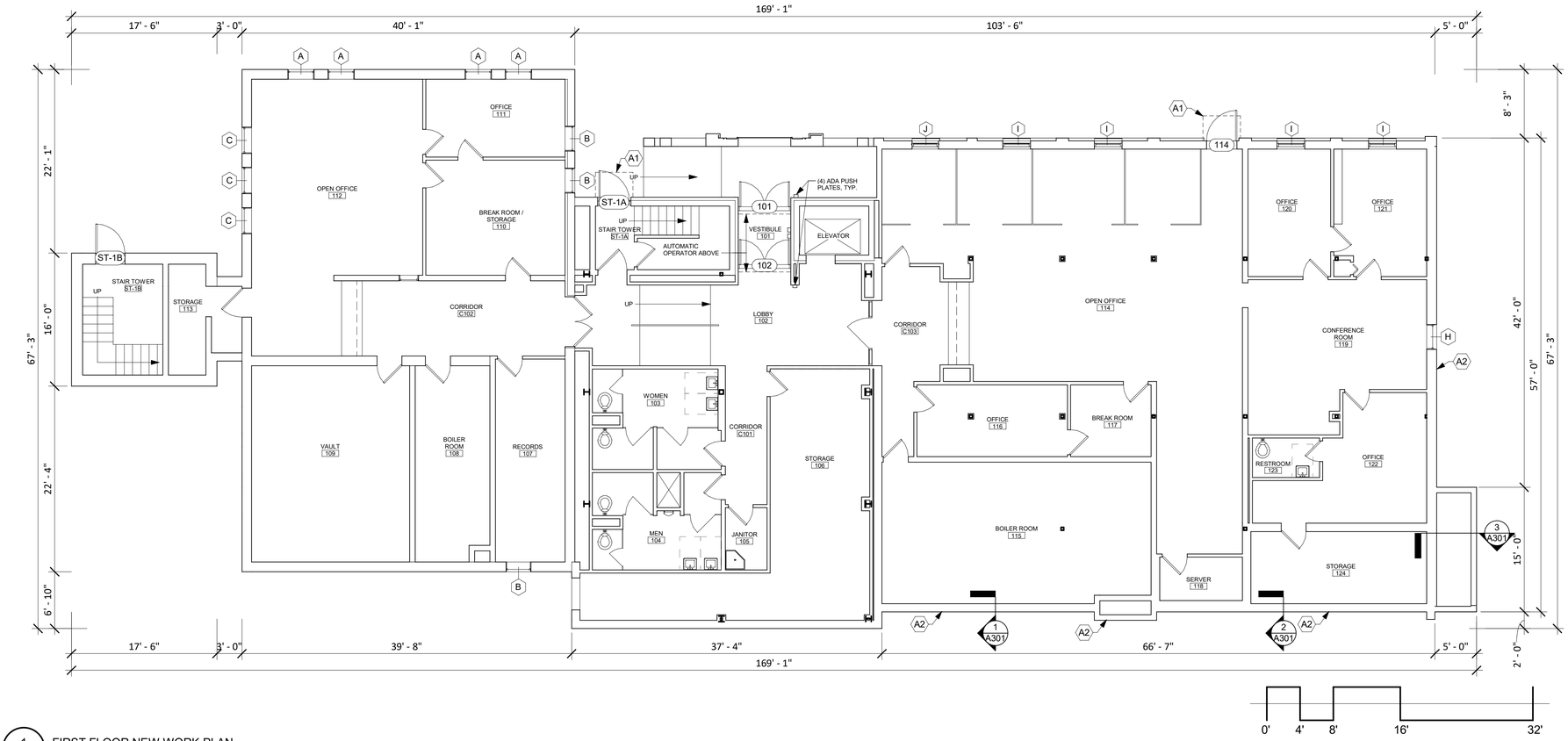

1 / A101 FIRST FLOOR NEW WORK PLAN
1/8" = 1'-0"

NEW WORK LEGEND

	INDICATES AREA OF NEW EPDM ROOF
	INDICATES LOCATION OF NEW CARPETING

KEY NOTES

- A1 LOCATION OF PREFABRICATED MAPES CANOPY, REFER TO DETAIL 8/A503.
- A2 INSTALL NICHIHA PANELING, FASTENER, AND TRIM PIECES TO EXISTING MASONRY WALL. MAINTAIN REQUIRED CLEARANCES AND EXPANSION GAPS AS SPECIFIED.
- A3 INFILL REMAINING SKYLIGHT PENETRATION FROM DEMOLITION PHASE. MATCH EXISTING CONDITIONS.
- A4 GALVANIZED STEEL GUARD RAIL TO BE INSTALLED TO ROOF DECK.
- A5 BUILDING SIGNAGE BY OWNER, INSTALLED BY CONTRACTOR.
- A6 CONTINUOUS COPING TO BE INSTALLED TO EXISTING MASONRY WALL AND NEW ROOF SYSTEM.
- A7 REPAIR EIFS TO MATCH EXISTING ON FOUNDATION WALL. IDENTIFY ANY CRACKING, PEELING, DISCOLORATION, ETC. AND PATCH TO MATCH EXISTING.
- A7 REPAIR CONCRETE STAIR & RAILING. SEE DETAILS.

GENERAL NOTES

1. CONTRACTOR TO MAKE SITE VISITS AS NECESSARY TO FIELD VERIFY ALL EXISTING CONDITIONS AND COMPONENTS.
2. PATCH ALL HOLES, GOUGES, SCRATCHES, ETC. IN EXISTING SURFACES (THAT WILL BE PAINTED) AND WHERE DEMOLITION OCCURRED, TO PREPARE FOR FINISHING.

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

FIRST FLOOR PLAN

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: A101
Project Number: 904.055.001

Plotted: 7/25/2023 3:25:50 PM
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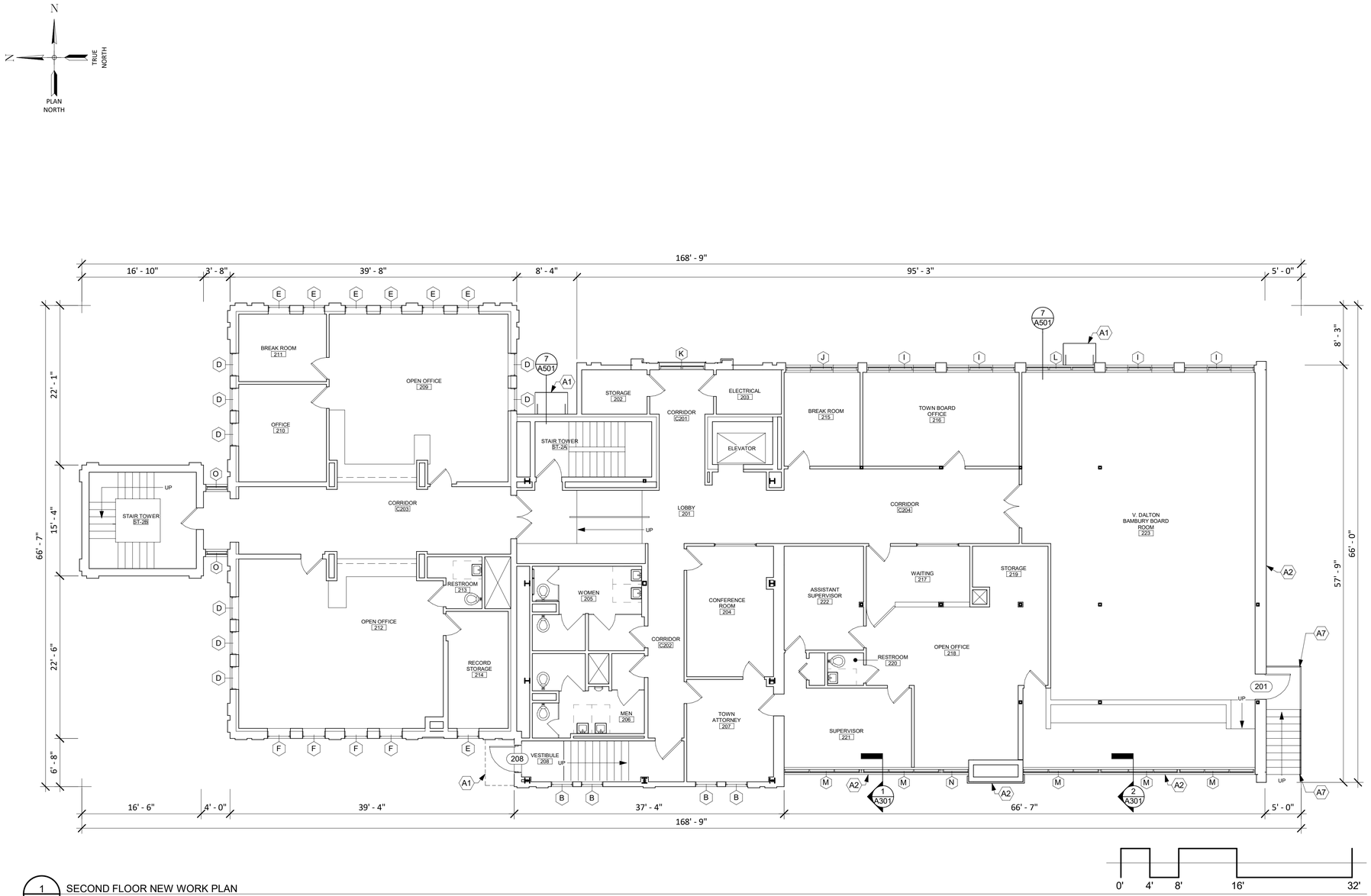

1 / A102 SECOND FLOOR NEW WORK PLAN
1/8" = 1'-0"

NEW WORK LEGEND

	INDICATES AREA OF NEW EPDM ROOF
	INDICATES LOCATION OF NEW CARPETING

KEY NOTES

- A1 LOCATION OF PREFABRICATED MAPES CANOPY, REFER TO DETAIL 8/A503.
- A2 INSTALL NICHIHA PANELING, FASTENER, AND TRIM PIECES TO EXISTING MASONRY WALL. MAINTAIN REQUIRED CLEARANCES AND EXPANSION GAPS AS SPECIFIED.
- A3 INFILL REMAINING SKYLIGHT PENETRATION FROM DEMOLITION PHASE. MATCH EXISTING CONDITIONS.
- A4 GALVANIZED STEEL GUARD RAIL TO BE INSTALLED TO ROOF DECK.
- A5 BUILDING SIGNAGE BY OWNER, INSTALLED BY CONTRACTOR.
- A6 CONTINUOUS COPING TO BE INSTALLED TO EXISTING MASONRY WALL AND NEW ROOF SYSTEM.
- A7 REPAIR EIFS TO MATCH EXISTING ON FOUNDATION WALL. IDENTIFY ANY CRACKING, PEELING, DISCOLORATION, ETC. AND PATCH TO MATCH EXISTING.
- A7 REPAIR CONCRETE STAIR & RAILING. SEE DETAILS.

GENERAL NOTES

1. CONTRACTOR TO MAKE SITE VISITS AS NECESSARY TO FIELD VERIFY ALL EXISTING CONDITIONS AND COMPONENTS.
2. PATCH ALL HOLES, GOUGES, SCRATCHES, ETC. IN EXISTING SURFACES (THAT WILL BE PAINTED) AND WHERE DEMOLITION OCCURRED, TO PREPARE FOR FINISHING.

ROOM FINISH SCHEDULE

SPACE		FLOOR		BASE		WALLS												CEILING	COMMENTS	ROOM NUMBER
						NORTH WALL			EAST WALL			SOUTH WALL			WEST WALL					
ROOM NUMBER	DESCRIPTION	MATERIAL	PATTERN	MATERIAL	TYPE	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL		
223	V. DALTON BAMBURY BOARD ROOM	EXT'G		VINYL	VB-1	EXT'G	PT	PC-1	EXT'G	PT	PC-1	EXT'G	PT	PC-1	EXT'G	PT	PC-1	ACT-1		223

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

SECOND FLOOR PLAN

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: A102
Project Number: 904.055.001

Plotted: 7/25/2023 3:25:51 PM
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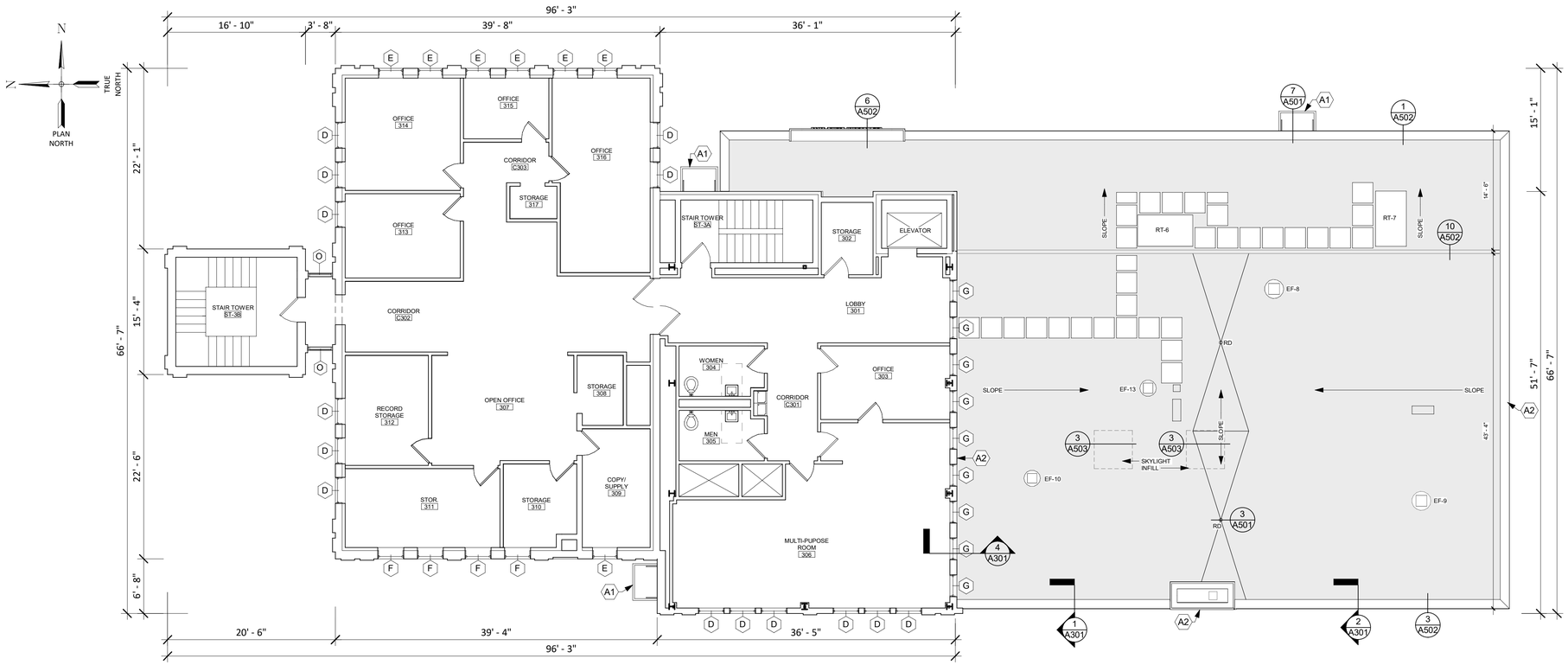
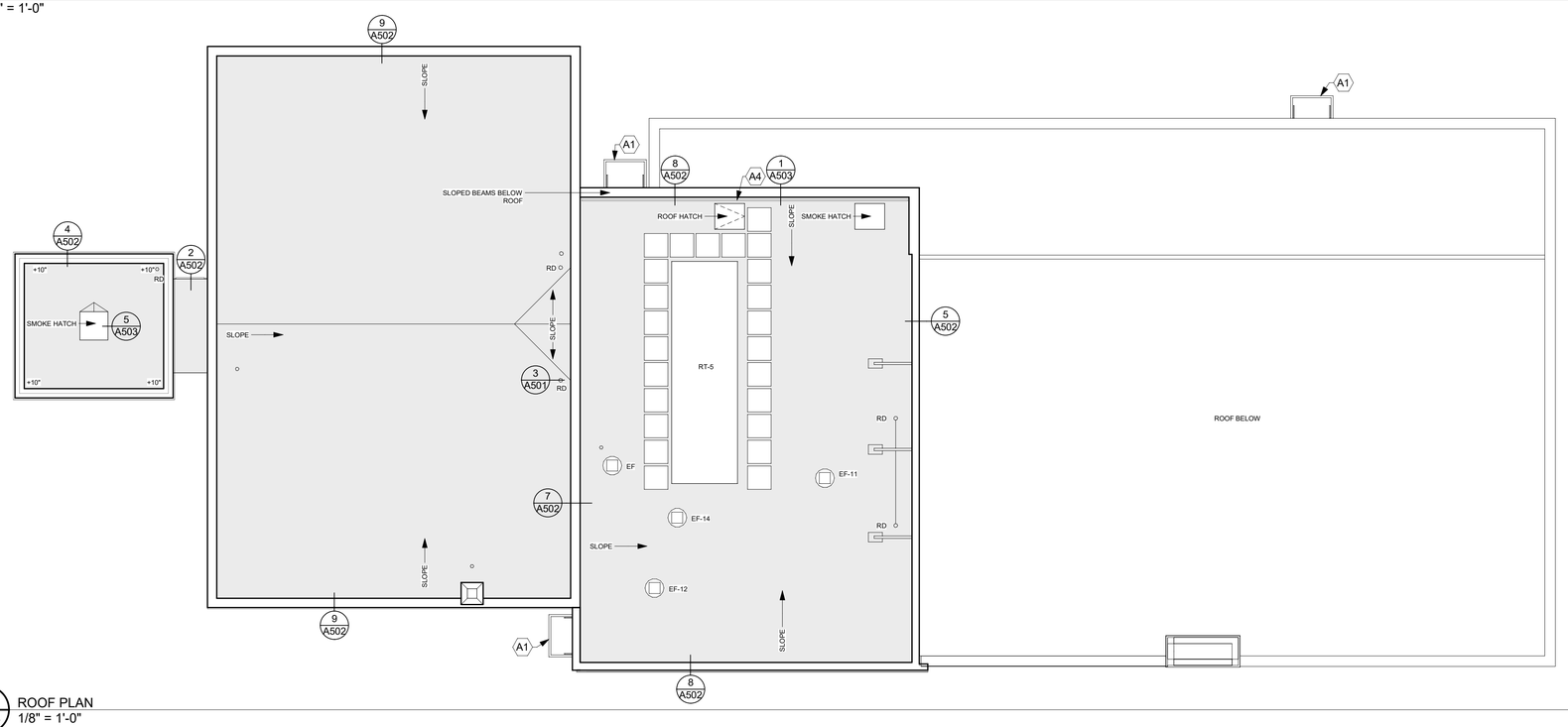


2 / A103 THIRD FLOOR NEW WORK PLAN
1/8" = 1'-0"



1 / A103 ROOF PLAN
1/8" = 1'-0"

NEW WORK LEGEND

	INDICATES AREA OF NEW EPDM ROOF
	INDICATES LOCATION OF NEW CARPETING

KEY NOTES

- A1 LOCATION OF PREFABRICATED MAPES CANOPY, REFER TO DETAIL 8/A503.
- A2 INSTALL NICHIHA PANELING, FASTENER, AND TRIM PIECES TO EXISTING MASONRY WALL. MAINTAIN REQUIRED CLEARANCES AND EXPANSION GAPS AS SPECIFIED.
- A3 INFILL REMAINING SKYLIGHT PENETRATION FROM DEMOLITION PHASE. MATCH EXISTING CONDITIONS.
- A4 GALVANIZED STEEL GUARD RAIL TO BE INSTALLED TO ROOF DECK.
- A5 BUILDING SIGNAGE BY OWNER, INSTALLED BY CONTRACTOR.
- A6 CONTINUOUS COPING TO BE INSTALLED TO EXISTING MASONRY WALL AND NEW ROOF SYSTEM.
- A7 REPAIR EIFS TO MATCH EXISTING ON FOUNDATION WALL. IDENTIFY ANY CRACKING, PEELING, DISCOLORATION, ETC. AND PATCH TO MATCH EXISTING.
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GENERAL NOTES

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

THIRD FLOOR AND ROOF PLANS

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: A103
Project Number: 904.055.001

Plotted: 7/25/2023 3:25:52 PM
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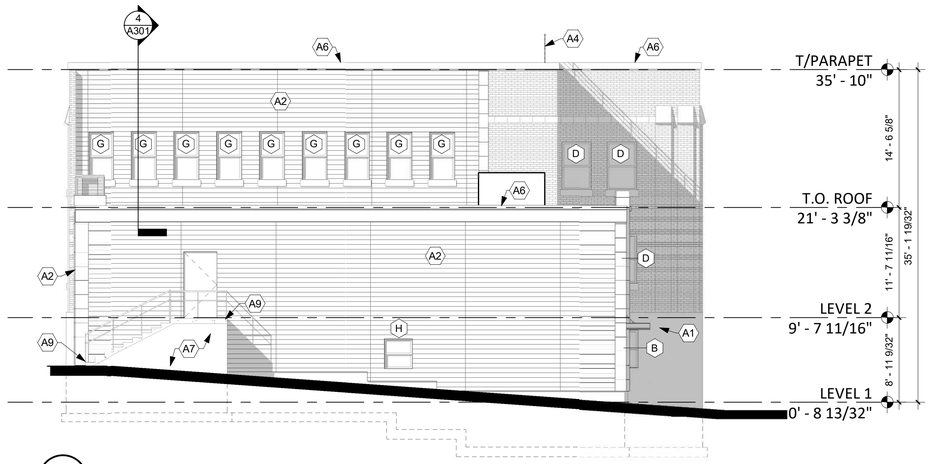
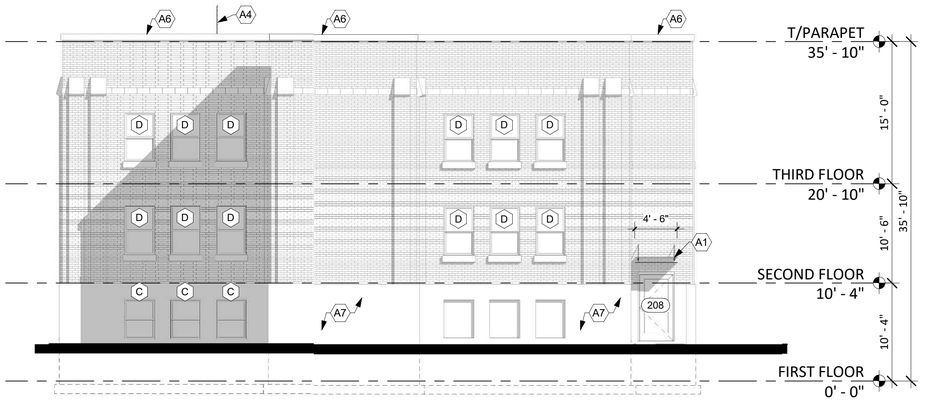
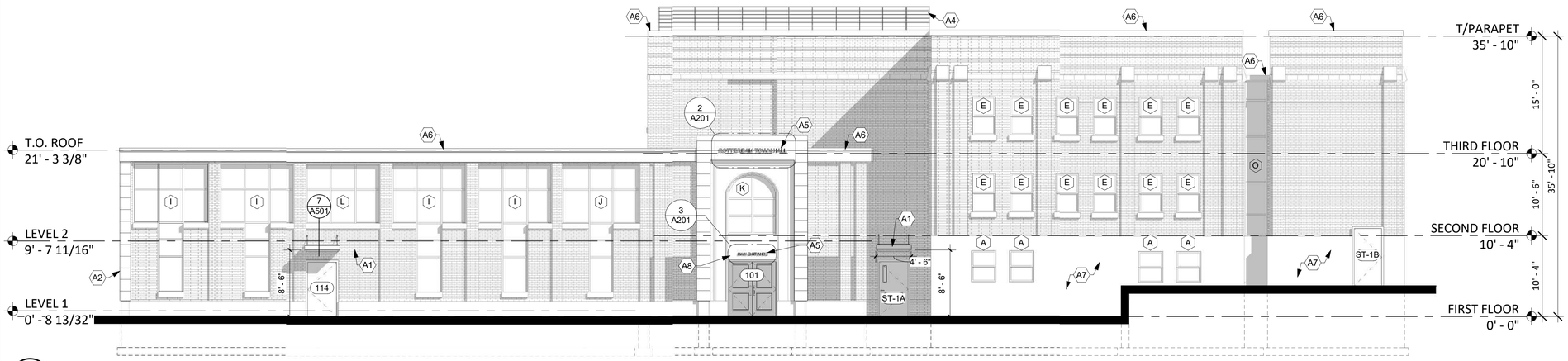
August 9, 2023



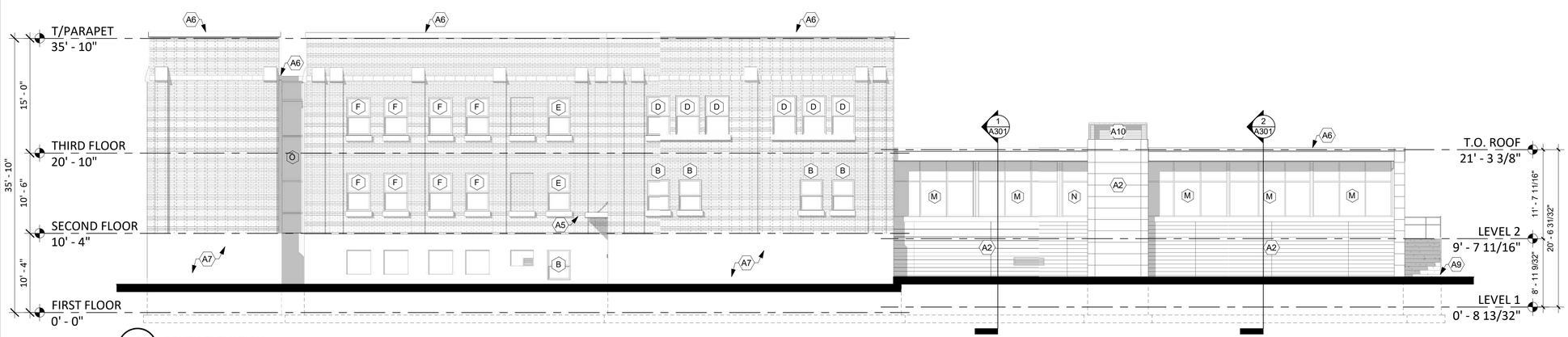
7 A201 EAST ELEVATION
1/8" = 1'-0"



6 A201 WEST ELEVATION
1/8" = 1'-0"



5 A201 NORTH ELEVATION
1/8" = 1'-0"



4 A201 SOUTH ELEVATION
1/8" = 1'-0"

ELEVATION LEGEND

	INDICATES AREA OF EXISTING MASONRY WALL
	INDICATES LOCATION OF NEW NICHIHA PANELING

ELEVATION KEY NOTES

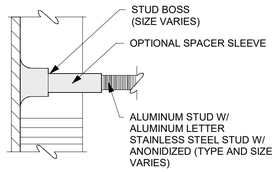
- A1 LOCATION OF PREFABRICATED MAPES CANOPY, REFER TO DETAIL 8/A501.
- A2 INSTALL NICHIHA PANELING, FASTENER, AND TRIM PIECES TO EXISTING MASONRY WALL. MAINTAIN REQUIRED CLEARANCES AND EXPANSION GAPS AS SPECIFIED.
- A3 INFILL REMAINING SKYLIGHT PENETRATION FROM DEMOLITION PHASE. MATCH EXISTING CONDITIONS.
- A4 GALVANIZED STEEL GUARD RAIL TO BE INSTALLED TO ROOF DECK.
- A5 BUILDING SIGNAGE PROVIDED AND INSTALLED BY CONTRACTOR.
- A6 CONTINUOUS COPING TO BE INSTALLED TO EXISTING MASONRY WALL AND NEW ROOF SYSTEM.
- A7 REPAIR TO MATCH EXISTING FOUNDATION WALL. IDENTIFY ANY CRACKING, PEELING, DISCOLORATION, ETC. AND PATCH TO MATCH EXISTING.
- A8 REPAIR PREVIOUS AWNING LOCATION. PATCH AND SEAL PENETRATIONS, EIFS TO MATCH EXISTING.
- A9 REPAIR CONCRETE STAIR & RAILING. SEE DETAILS.
- A10 SCRAPE & PAINT EXISTING LOUVERS.

GENERAL NOTES

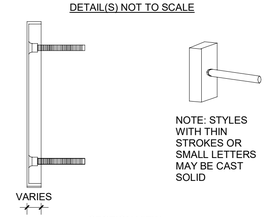
1. CONTRACTOR TO MAKE SITE VISITS AS NECESSARY TO FIELD VERIFY ALL EXISTING CONDITIONS AND COMPONENTS.
2. PATCH ALL HOLES, GOUGES, SCRATCHES, ETC. IN EXISTING SURFACES (THAT WILL BE PAINTED) AND WHERE DEMOLITION OCCURRED, TO PREPARE FOR FINISHING.

3 A201 LOWER SIGNAGE DETAIL
1/2" = 1'-0"

2 A201 SIGNAGE DETAIL
3/8" = 1'-0"



DETAIL(S) NOT TO SCALE



SECTION VIEW

NOTES:
TYPICAL STUD LENGTH 2" BEYOND BACK OF LETTER.
LETTERS UNDER 15" HIGH - 10/24 STUDS, 15"+ HIGH - 1/4-20 STUDS. LESS THAN 3/8" STROKE, 6-32 OR 4-40 STUDS. STANDARD CAST STUDS ARE IN LINE FOR BRICK MORTAR (2-5/8" ON CENTER FOR MORTAR)

1 A201 LETTER CAST/STUD MOUNTS

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 §7209 SPECIAL PROVISIONS, FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING PROFESSIONAL SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

EXTERIOR ELEVATIONS

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: A201
Project Number: 904.055.001

Plotted: 7/25/2023 3:25:56 PM
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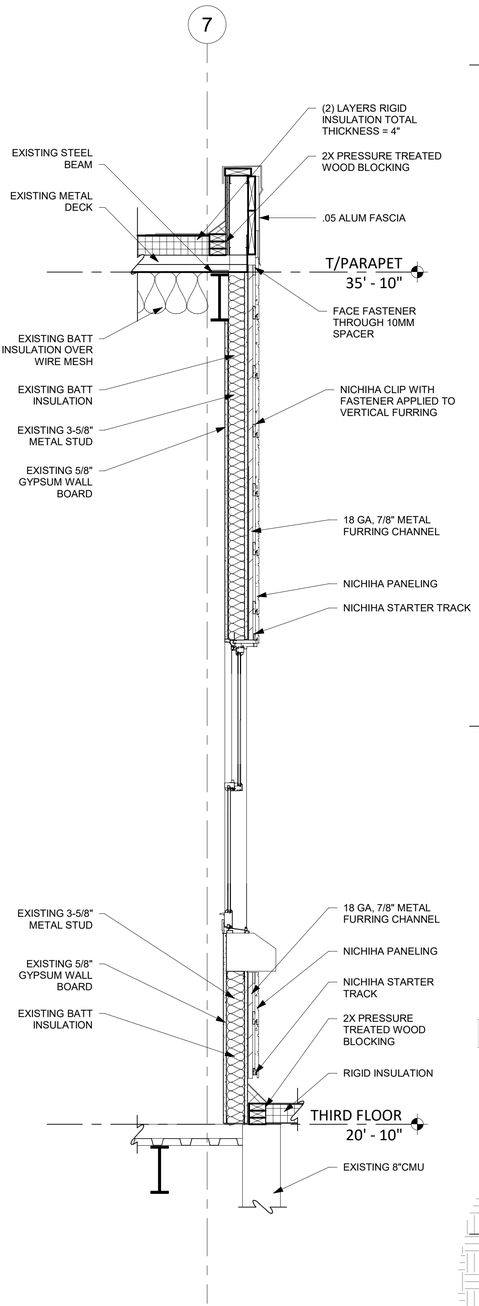
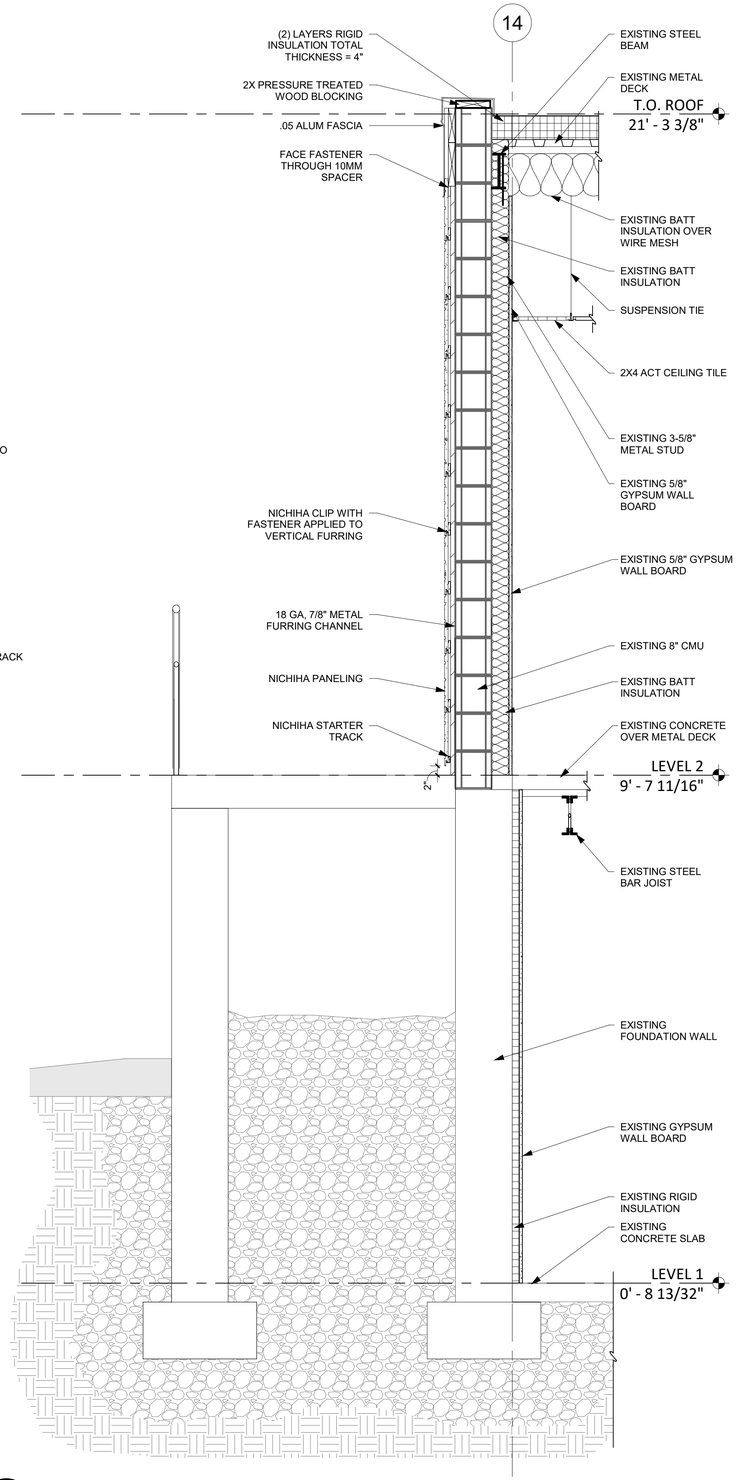
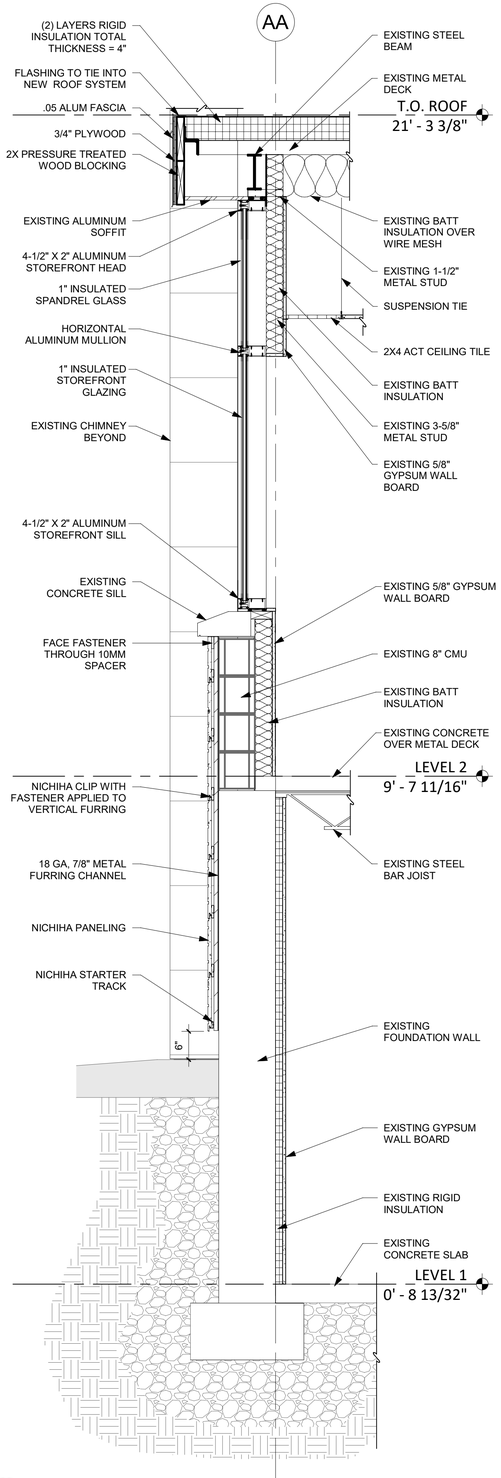
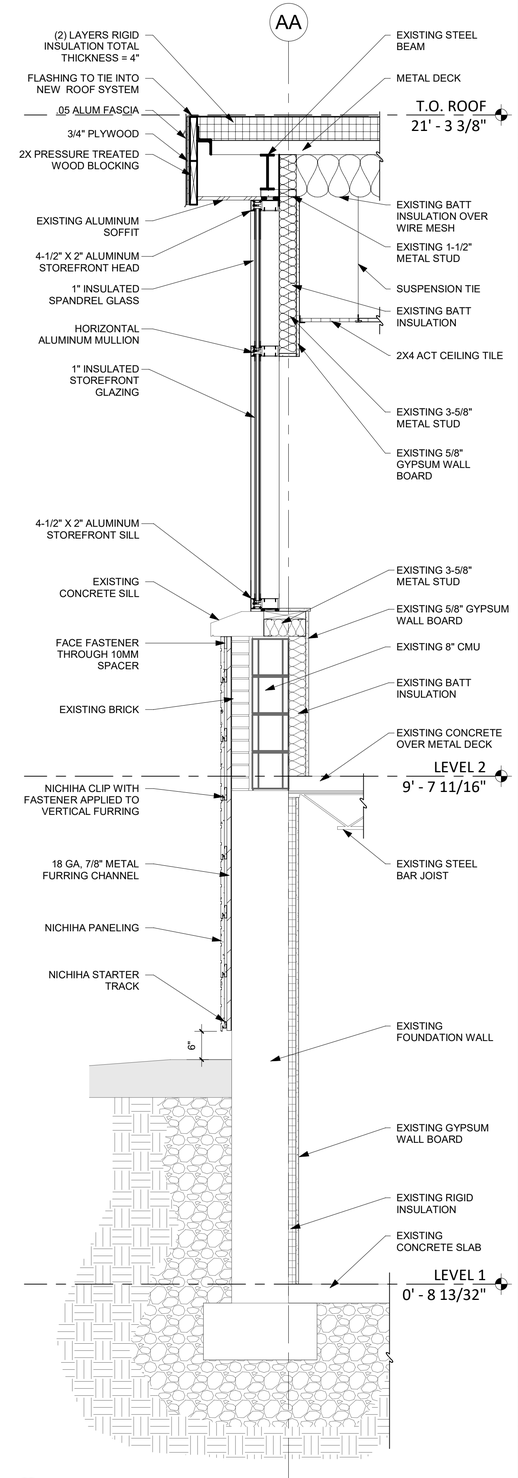
Drawn by ZSS Designed by JDC Checked by In Charge of









4 / A301 WALL SECTION 4
3/4" = 1'-0"

3 / A301 WALL SECTION 3
3/4" = 1'-0"

2 / A301 WALL SECTION 2
3/4" = 1'-0"

1 / A301 WALL SECTION 1
3/4" = 1'-0"

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 §7209 SPECIAL PROVISIONS, FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING PROFESSIONAL SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

WALL SECTIONS

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date
JULY 2023

Scale
AS SHOWN

Sheet Number
A301

Project Number
904.055.001

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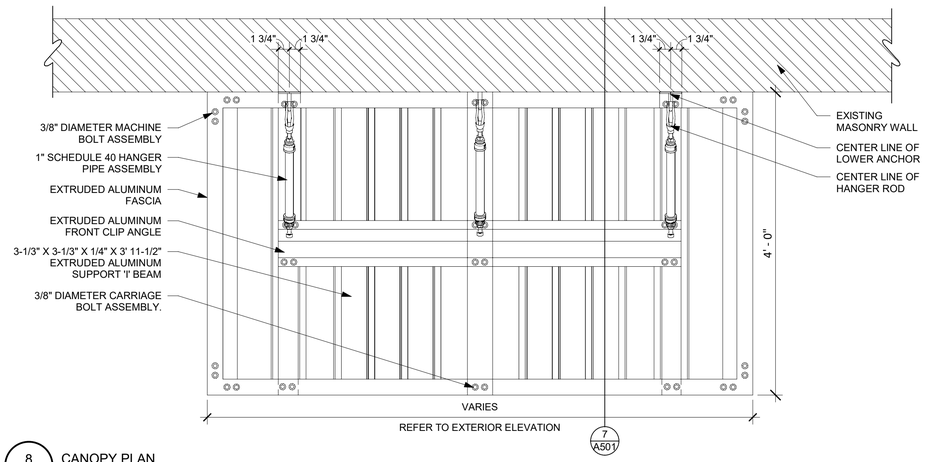
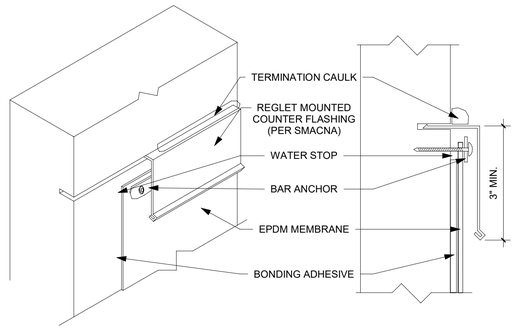
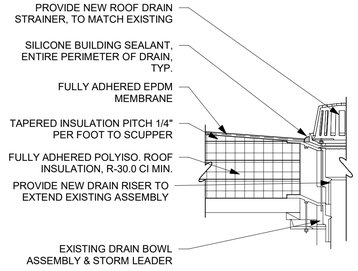
Checked by ____ Drawn by ZSS Designed by JDC In Charge of ____



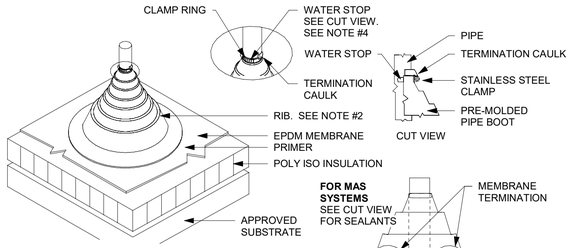
8 / A501 CANOPY PLAN
1" = 1'-0"



6 / A501 REGLET MOUNTED COUNTER FLASHING TERMINATION DETAIL
6" = 1'-0"

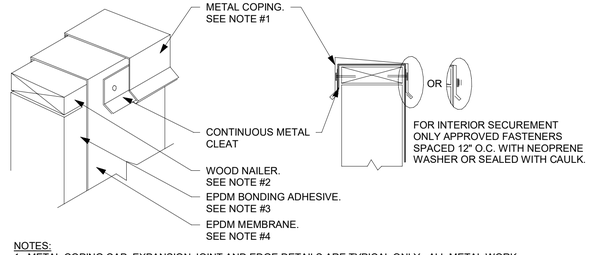


3 / A501 ROOF DRAIN DETAIL
1 1/2" = 1'-0"



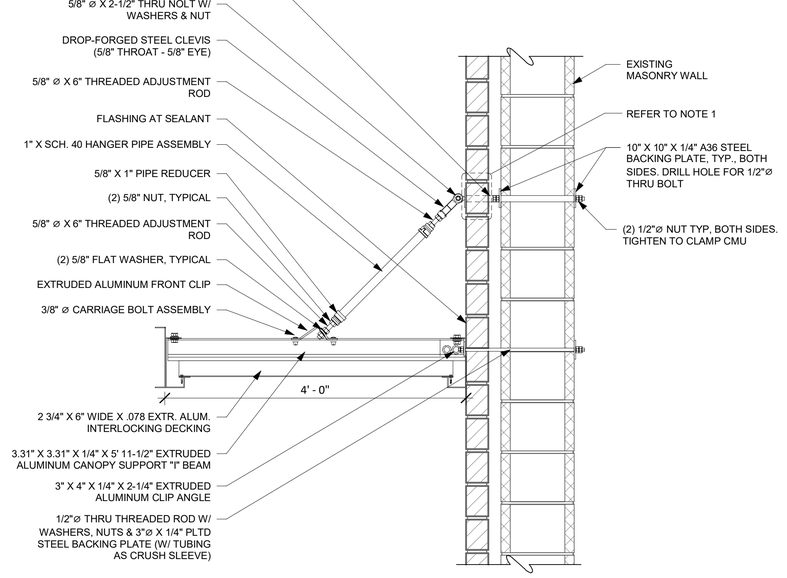
NOTES:
1. WHEN USING SEAM TAPE PRODUCTS, FIRST CLEAN THE MEMBRANE WITH EPDM CLEANER. THEN APPLY PRIMER.
2. CUT ABOVE RIB TO FIT DESIRED PIPE SIZE.
3. IF FIELD SEAM INTERSECTS WITHIN THE PIPE BOOT FLANGE, T-JOINT COVER IS REQUIRED.
4. APPLY WATER STOP TO THE PENETRATION WHERE THE BOOT WILL BE COMPRESSED WITH THE CLAMPING RING
5. INSTALL MEMBRANE SECUREMENT, CONSISTING OF 4 FASTENERS AND SEAM PLATES PER PIPE FLASHING. WHEN POSSIBLE, INSTALL CLOSE ENOUGH TO BE COVERED BY BOOT FLANGE WITHOUT INTERFERING WITH THE BOOT TO DECK MEMBRANE SEAM AREA.
6. APPLY TERMINATION CAULK TO THE TOP OF THE PIPE BOOT AS SHOWN ABOVE.

5 / A501 PEEL AND STICK PREFAB PIPE BOOT DETAIL
12" = 1'-0"



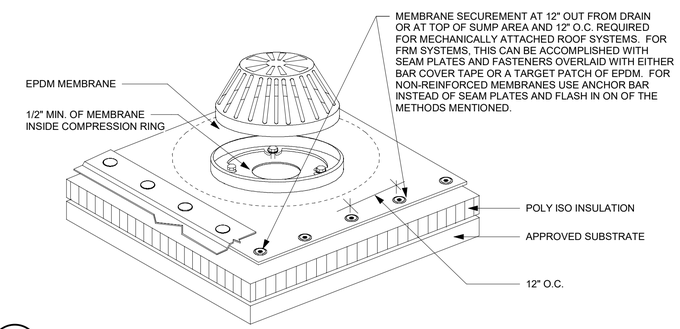
NOTES:
1. METAL COPING CAP, EXPANSION JOINT AND EDGE DETAILS ARE TYPICAL ONLY. ALL METAL WORK SHOULD BE INSTALLED TO SHEET METAL CODES (SMACNA). CLEAN ALL METAL PRIOR TO INSTALLATION OF ROOF MATERIALS.
2. ALL WOOD NAILERS TO BE APPROVED MATERIAL. ATTACHMENT OF WOOD NAILER TO BE ACCOMPLISHED BY USING FASTENERS PROVIDED NO LESS THAT 125 LB OF PULLOUT RESISTANCE PER LINEAR FOOT, WITH FASTENER SPACING NO GREATER THAN 24" BETWEEN FASTENERS.
3. ALL PARAPET WALLS AND ROOF CURBS MUST BE SUITABLE FOR FLASHING, I.E. CLEAN, TIGHT SMOOTH, NO CRACKS, ETC.
4. WHEN FIELD MEMBRANE IN USED AS WALL OR CURB FLASHING, VERTICAL SEAMS MUST BE STRIPPED IN AT BASE OF ANGLE CHANGE WITH A 7" WIDE STRIP OF PEEL AND STICK FLASHING. SEE DETAIL 9/A504.

2 / A501 EPDM MEMBRANE COPING TERMINATION DETAIL
12" = 1'-0"

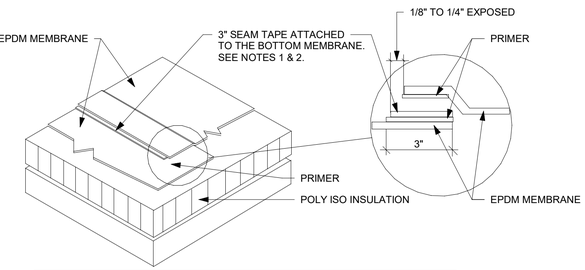


NOTES:
1. REMOVE BRICKS AS REQUIRED FOR INSTALLATION OF PLATES AND EYEBOLT ANCHOR. REPLACE BRICKS AS NEEDED.

7 / A501 CANOPY DETAIL
1" = 1'-0"



4 / A501 MEMBRANE SECUREMENT AT DRAIN DETAIL
12" = 1'-0"



NOTES:
1. WHEN USING SEAM TAPE AND BAR COVER TAPE, FIRST CLEAN THE MEMBRANE WITH THE MFR CLEANER. THEN APPLY THE MFR PRIMER

1 / A501 SEAM TAPE APPLICATION DETAIL
12" = 1'-0"

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION
SCHENECTADY COUNTY, NEW YORK

ROOF DETAILS

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

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Date: JULY 2023
Scale: AS SHOWN
Sheet Number: A501
Project Number: 904.055.001

Plotted: 7/25/2023 3:25:57 PM
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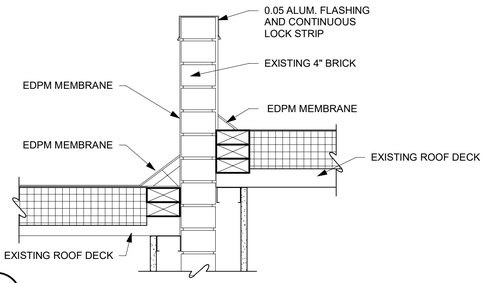
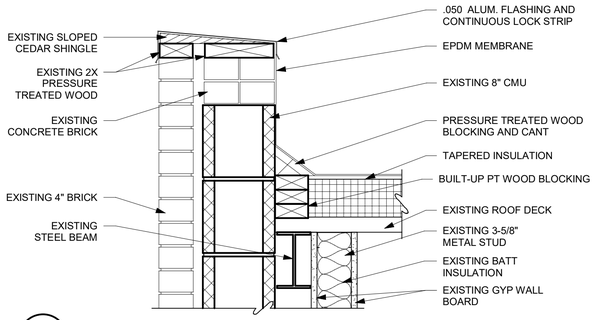
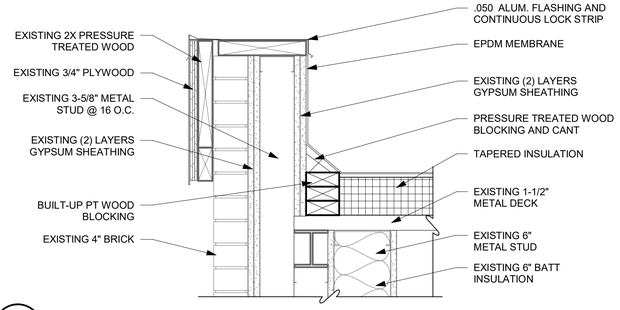


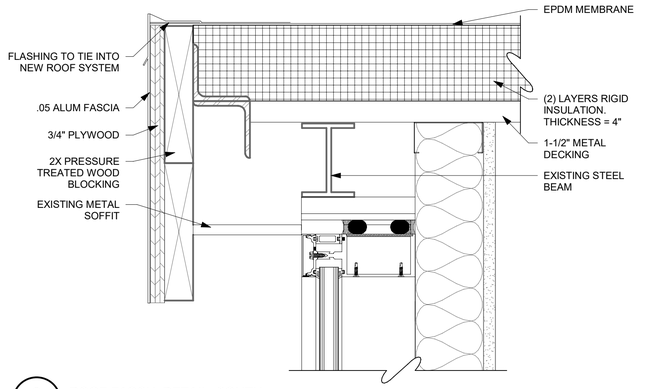
10 / A502 LOW ROOF SPLIT DETAIL
1 1/2" = 1'-0"



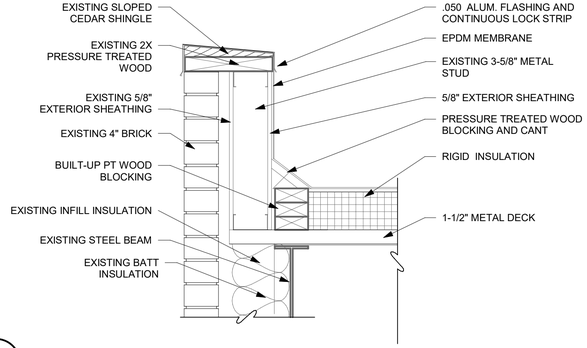
9 / A502 HIGH ROOF_NORTH/SOUTH DETAIL
1 1/2" = 1'-0"



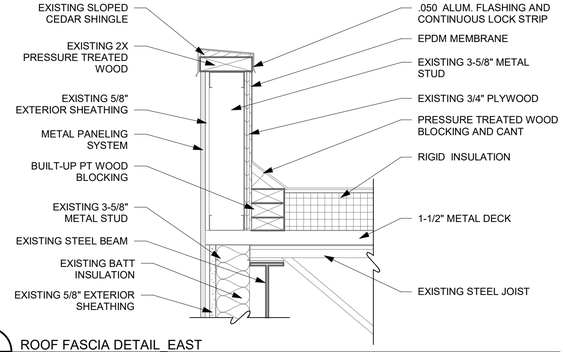
6 / A502 ENTRY PARAPET DETAIL
1 1/2" = 1'-0"



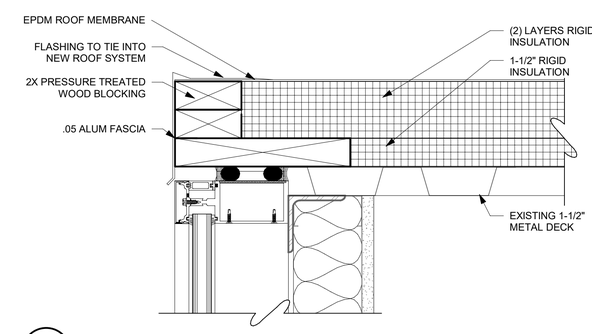
3 / A502 ROOF FASCIA DETAIL_SOUTH
3" = 1'-0"



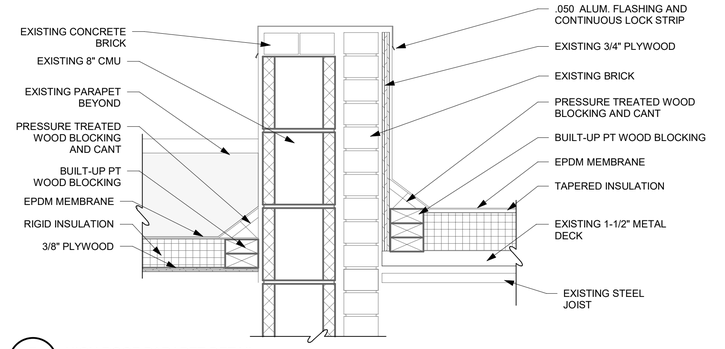
8 / A502 ROOF DETAIL_NORTH/SOUTH BRICK FACE
1 1/2" = 1'-0"



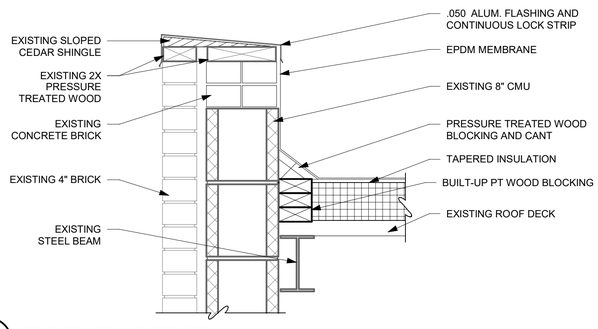
5 / A502 ROOF FASCIA DETAIL_EAST
1 1/2" = 1'-0"



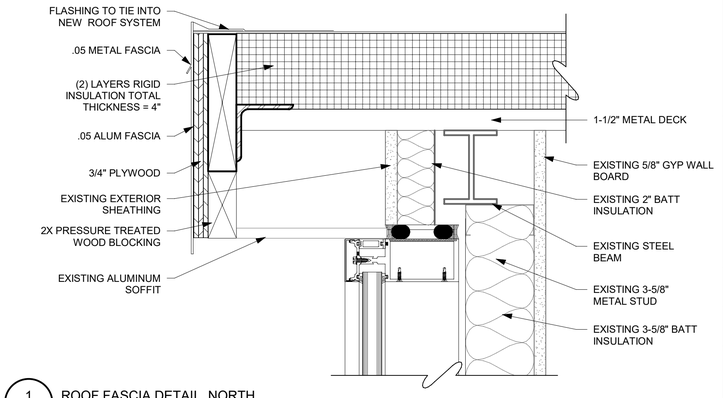
2 / A502 CONNECTOR ROOF DETAIL
3" = 1'-0"



7 / A502 HIGH ROOF PARAPET DETAIL
1 1/2" = 1'-0"



4 / A502 STAIR TOWER PARAPET DETAIL
1 1/2" = 1'-0"



1 / A502 ROOF FASCIA DETAIL_NORTH
3" = 1'-0"

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

ROOF DETAILS

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

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Date
JULY 2023

Scale
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Sheet Number
A502

Project Number
904.055.001

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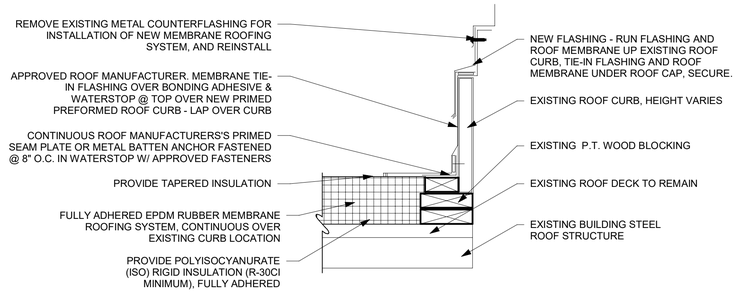
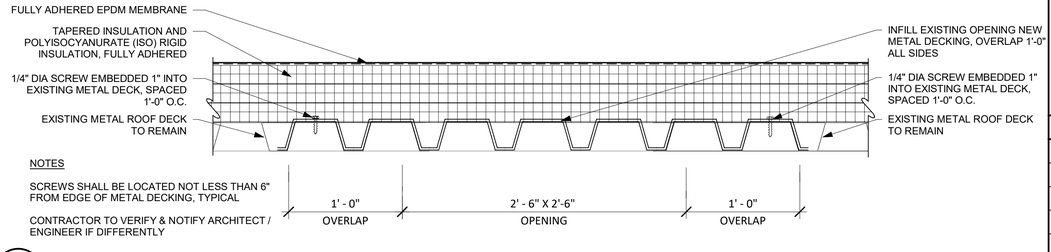
Checked by

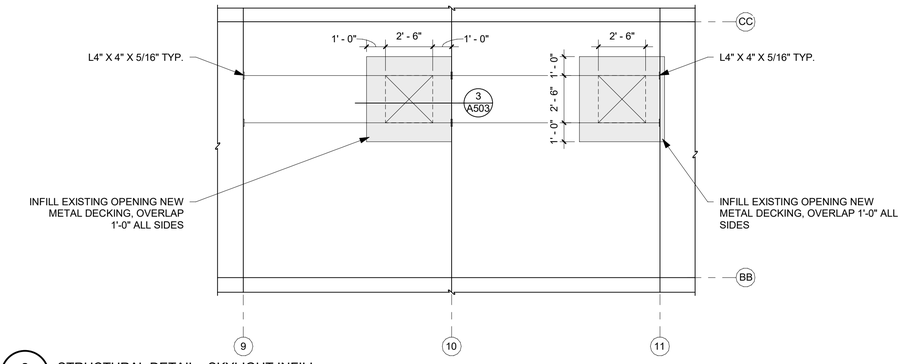
August 9, 2023



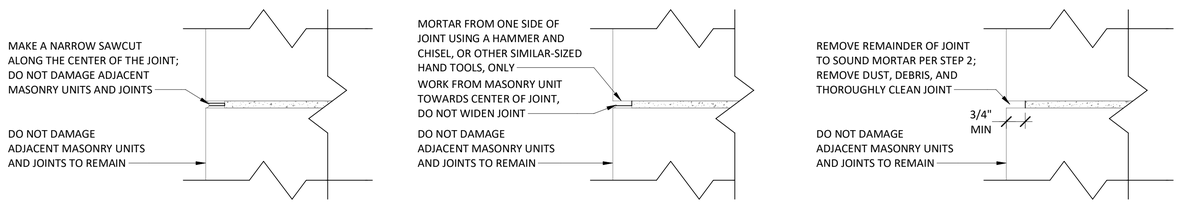
5 / A503 TYPICAL ROOF EQUIPMENT / CURB DETAIL
1 1/2" = 1'-0"



3 / A503 INFILL DETAIL
1 1/2" = 1'-0"

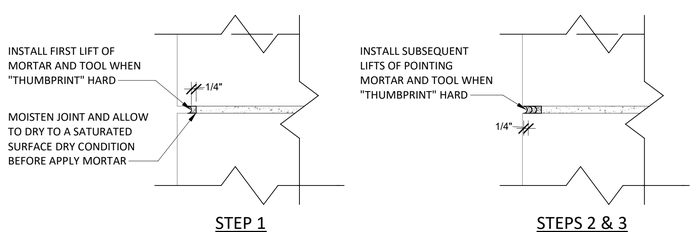


2 / A503 STRUCTURAL DETAIL - SKYLIGHT INFILL
1/4" = 1'-0"



MORTAR REMOVAL NOTES:

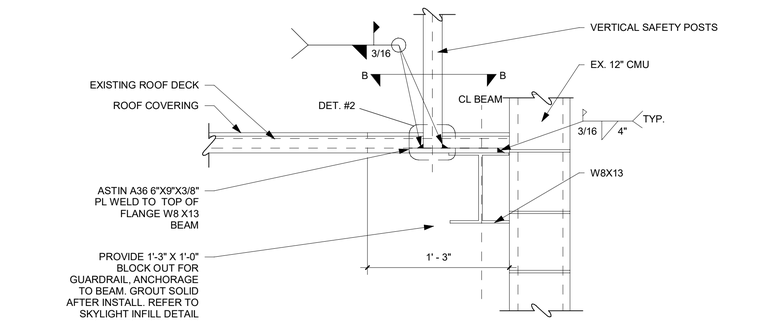
1. REPLACE ALL MASONRY UNITS AND MORTAR JOINTS DAMAGED DURING RE-POINTING.
2. "HALF-MOONS" CREATED BY GRINDERS ARE NOT ACCEPTABLE AND SHALL BE REMOVED TO ACHIEVE UNIFORM MIN 3/4" DEPTH.
3. REMOVE EXCESS MORTAR FROM ALL HEAD AND BED JOINTS AFTER CUTTING AND GRINDING BY CHIPPING OR OTHER MANUAL MEANS, POWER TOOL USE IS NOT PERMITTED



MORTAR INSTALLATION NOTES:

1. MORTAR USED FOR PLACEMENT, OF THE REPLACE ALL MASONRY UNITS AND MORTAR JOINTS DAMAGED DURING RE-POINTING.
2. "HALF-MOONS" CREATED BY GRINDERS ARE NOT ACCEPTABLE AND SHALL BE REMOVED TO ACHIEVE UNIFORM MIN 3/4" DEPTH.
3. REMOVE EXCESS MORTAR FROM ALL HEAD AND BED JOINTS AFTER CUTTING AND GRINDING BY CHIPPING OR OTHER MANUAL MEANS, POWER TOOL USE IS NOT PERMITTED.

4 / A503 MASONRY REPOINTING DETAIL
3" = 1'-0"



1 / A503 ROOF GUARD RAIL DETAIL
1 1/2" = 1'-0"

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ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

ROOF DETAILS

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

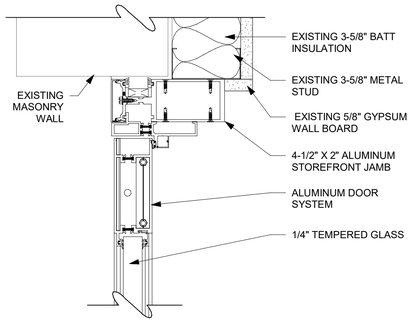
443 Electronics Parkway
Liverpool, NY
13088

Barton & Loguidice, D.P.C.

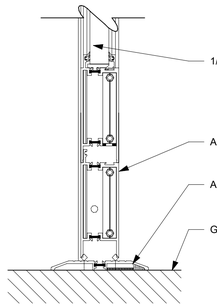
DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: A503
Project Number: 904.055.001

Plotted: 7/25/2023 3:25:58 PM
C:\Users\zsoper\Documents\904.055.001 - Town Hall Renovations - Central File_zsoperDMABA.rvt
Drawn by ZSS Designed by JDC In Charge of
Checked by



2 / A601 TOP RAIL DOOR DETAIL
3" = 1'-0"

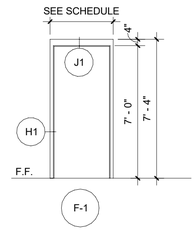


1 / A601 THRESHOLD DOOR DETAIL
3" = 1'-0"

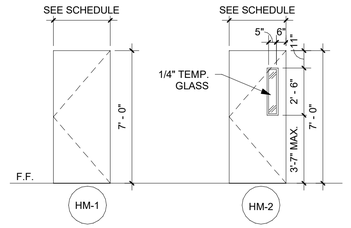
DOOR SCHEDULE

DOOR NUMBER	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	DOOR FINISH	FIRE RATING	HARDWARE	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FRAME JAMB	FRAME HEAD	COMMENTS
101	6' - 0"	7' - 0"	AL-1 (2)	PF	-	1	F-2	AL	PF	J-2	H-2	RECONNECT EXISTING ACCESS CONTROL
102	6' - 0"	7' - 0"	AL-1 (2)	PF	-	2	F-2	AL	PF	J-2	H-2	
114	3' - 8"	7' - 0"	HM-1	PF	-	3	F-1	HM	PF	J-1	H-1	RECONNECT EXISTING ACCESS CONTROL
201	3' - 6"	7' - 0"	HM-1	PF	-	5	F-1	HM	PF	J-1	H-1	
208	3' - 6"	7' - 0"	HM-1	PF		3	F-1	HM	PF	J-1	H-1	RECONNECT EXISTING ACCESS CONTROL
ST-1A	3' - 8"	7' - 0"	HM-2	PF	-	4	F-1	HM	PF	J-1	H-1	
ST-1B	3' - 6"	7' - 4"	HM-2	PF	-	4	F-1	HM	PF	J-1	H-1	

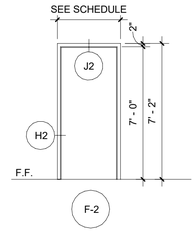
TYPICAL DOOR AND FRAME TYPES



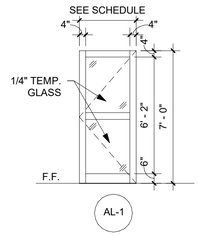
HOLLOW METAL FRAME TYPES



HOLLOW METAL DOOR TYPES

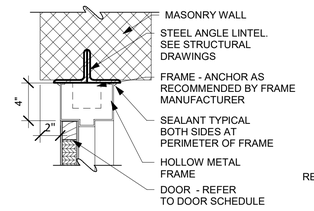


ALUMINUM FRAME TYPES



ALUMINUM DOOR TYPES

TYPICAL DOOR HEAD AND JAMB DETAILS



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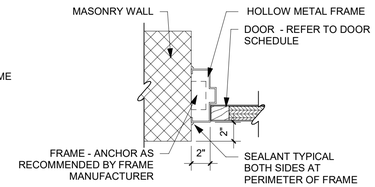

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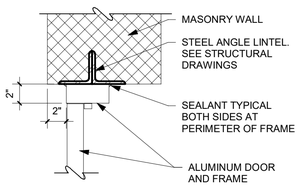

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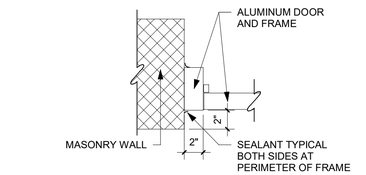

J2

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

DOOR SCHEDULE AND DETAILS

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: A601
Project Number: 904.055.001

Plotted: 7/25/2023 3:25:58 PM
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Drawn by ZSS Designed by JDC In Charge of
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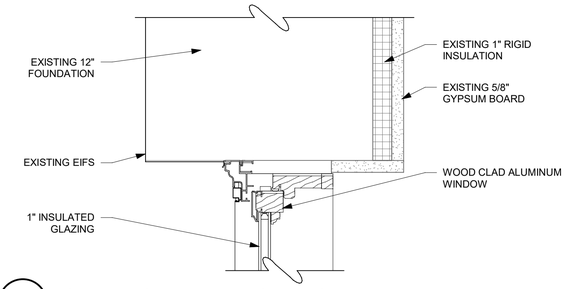
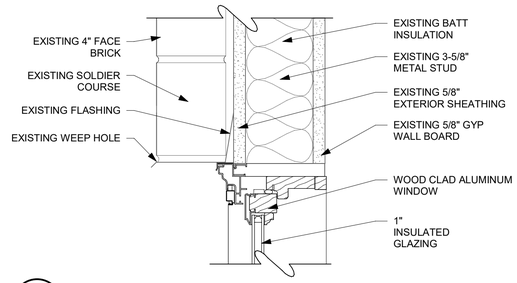
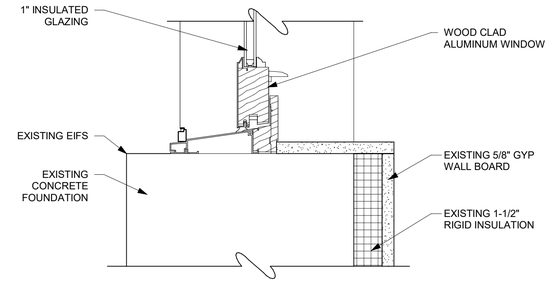


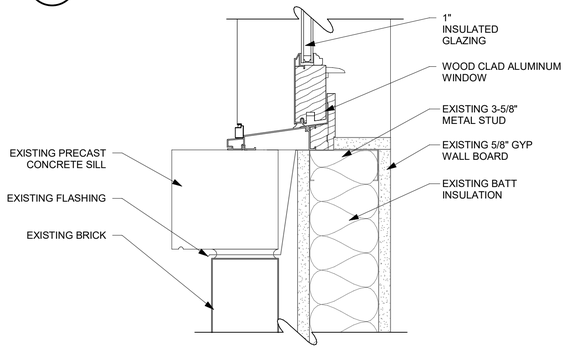
11/A602 DOUBLE HUNG HEAD DETAIL_FOUNDATION
3" = 1'-0"



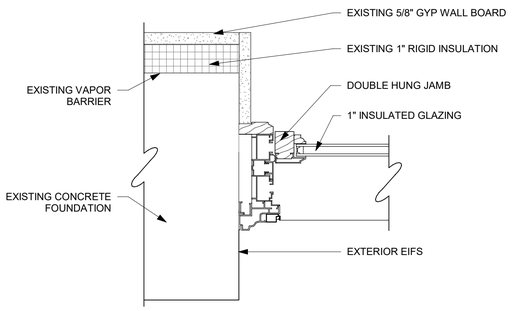
7/A602 DOUBLE HUNG HEAD DETAIL_BRICK
3" = 1'-0"



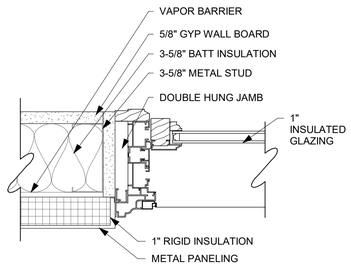
10/A602 DOUBLE HUNG SILL_FOUNDATION
3" = 1'-0"



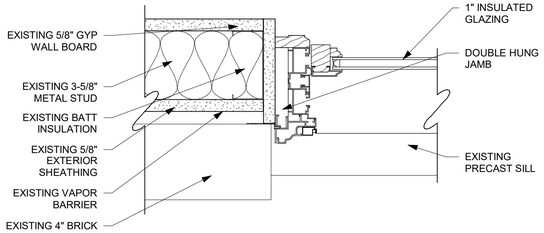
6/A602 DOUBLE HUNG SILL DETAIL_BRICK
3" = 1'-0"



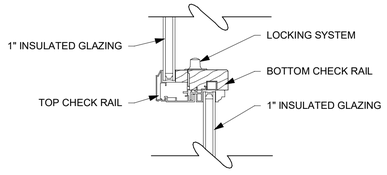
9/A602 DOUBLE HUNG JAMB DETAIL_FOUNDATION
3" = 1'-0"



5/A602 DOUBLE HUNG JAMB DETAIL METAL PANELING
3" = 1'-0"

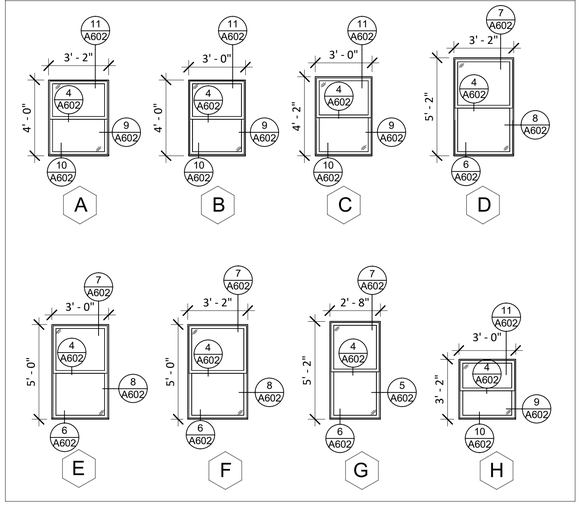


8/A602 DOUBLE HUNG JAMB DETAIL
3" = 1'-0"



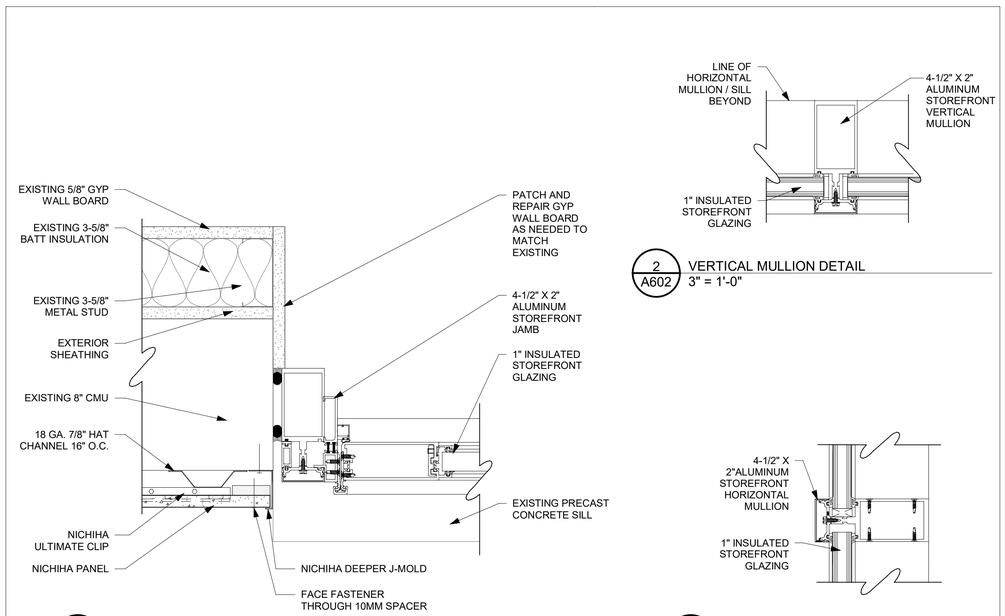
4/A602 DOUBLE HUNG CHECK RAIL DETAIL
3" = 1'-0"

WINDOW ELEVATIONS



WINDOW SCHEDULE

KEYNOTE	COUNT	TYPE	MATERIAL	WIDTH	HEIGHT	COMMENTS
A	4	38" x 48"	ALUM	3' - 2"	4' - 0"	
B	7	36" x 48"	ALUM	3' - 0"	4' - 0"	
C	3	38" x 50"	ALUM	3' - 2"	4' - 2"	
D	22	38" x 62"	ALUM	3' - 2"	5' - 2"	
E	14	36" x 60"	ALUM	3' - 0"	5' - 0"	
F	8	38" x 60"	ALUM	3' - 2"	5' - 0"	
G	9	32" x 62"	ALUM	2' - 8"	5' - 2"	
H	1	36" X 38"	ALUM	3' - 0"	3' - 2"	



3/A602 STOREFRONT JAMB DETAIL METAL PANELING
3" = 1'-0"

2/A602 VERTICAL MULLION DETAIL
3" = 1'-0"

1/A602 HORIZONTAL MULLION DETAIL
3" = 1'-0"

STOREFRONT DETAILS CONTINUED

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TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1 - GENERAL CONSTRUCTION

WINDOW SCHEDULE AND DETAILS

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
Scale: AS SHOWN
Sheet Number: A602
Project Number: 904.055.001

Plotted: 7/25/2023 3:25:59 PM
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Drawn by ZSS Designed by JDC In Charge of
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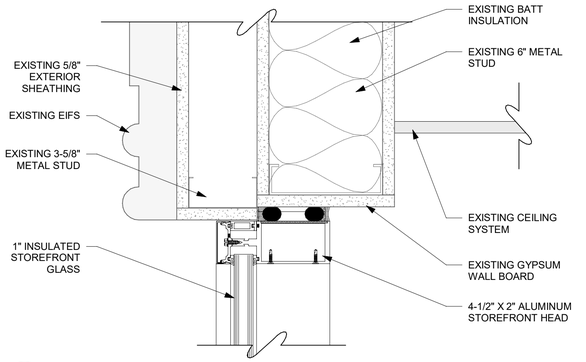
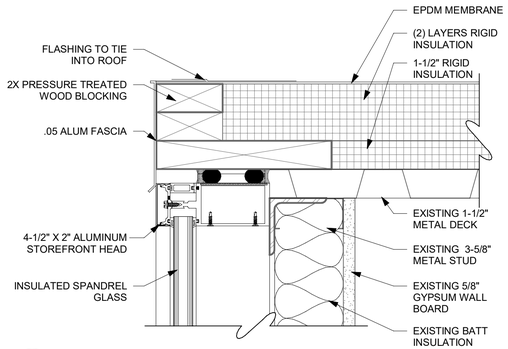
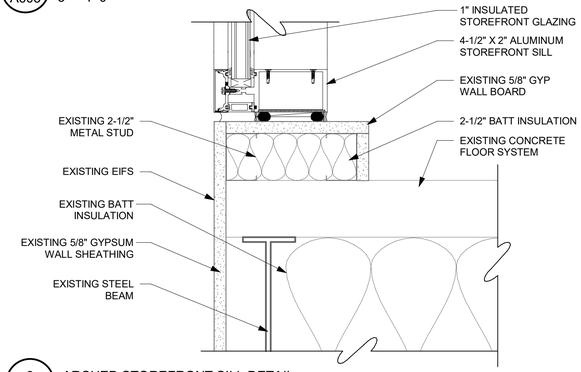
August 9, 2023



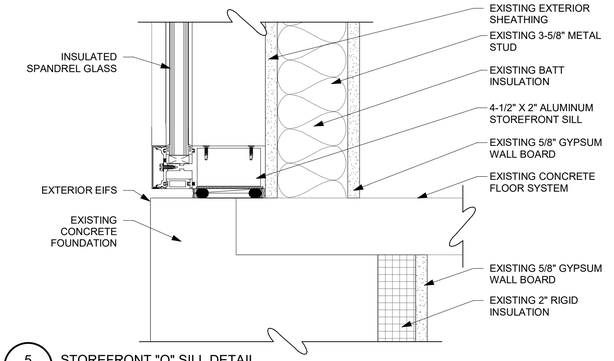
10 / A603 ARCHED STOREFRONT HEAD DETAIL
3" = 1'-0"



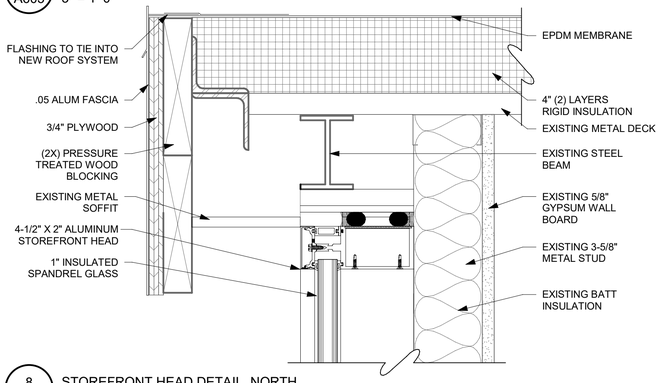
6 / A603 STOREFRONT "O" HEAD DETAIL
3" = 1'-0"



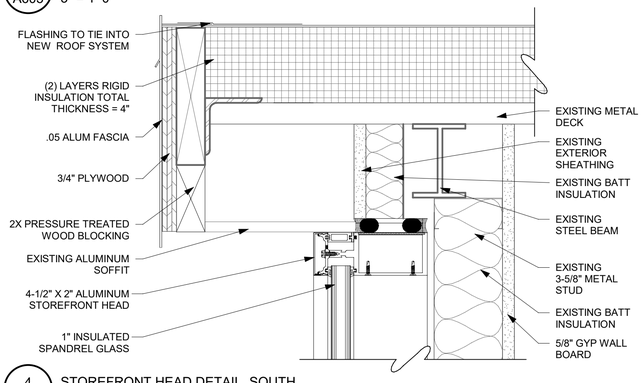
9 / A603 ARCHED STOREFRONT SILL DETAIL
3" = 1'-0"



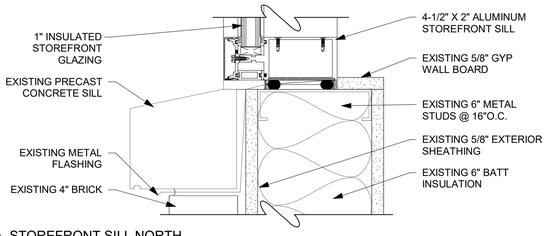
5 / A603 STOREFRONT "O" SILL DETAIL
3" = 1'-0"



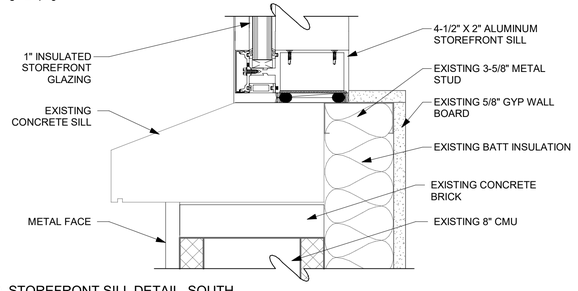
8 / A603 STOREFRONT HEAD DETAIL_NORTH
3" = 1'-0"



4 / A603 STOREFRONT HEAD DETAIL_SOUTH
3" = 1'-0"



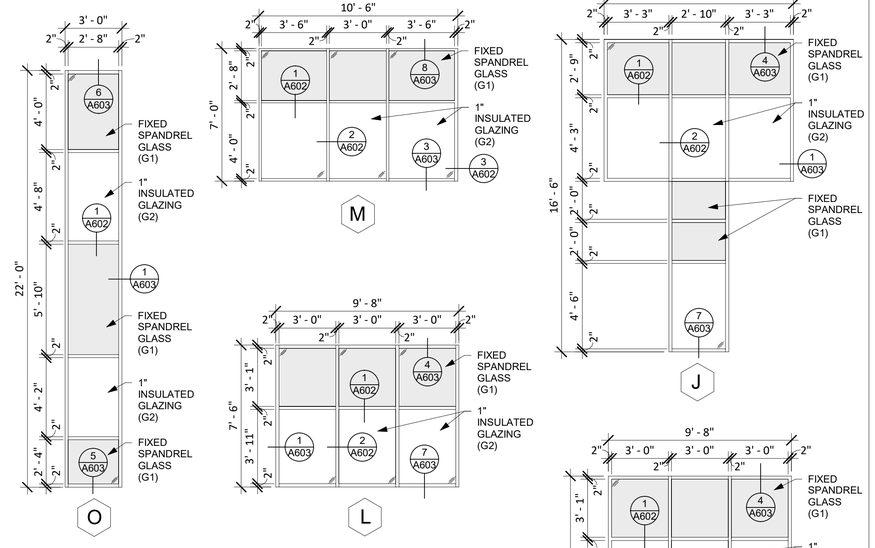
7 / A603 STOREFRONT SILL NORTH
3" = 1'-0"

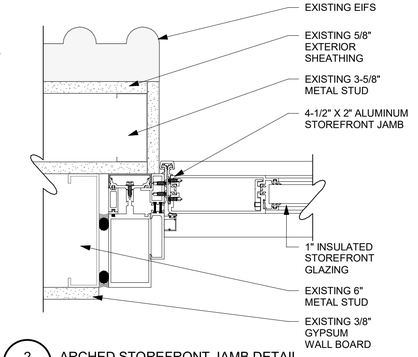


3 / A603 STOREFRONT SILL DETAIL_SOUTH
3" = 1'-0"

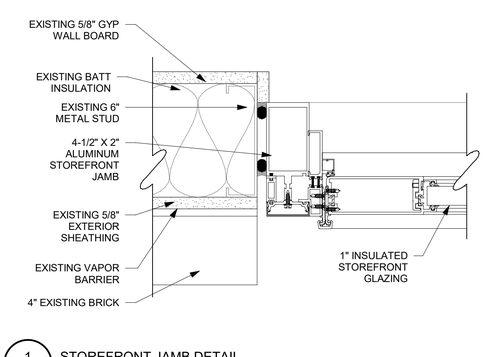
STOREFRONT SCHEDULE						
TYPE	COUNT	WIDTH	HEIGHT	MATERIAL	GLASS TYPE	COMMENTS
I	4	9'-6"	16'-6"	ALUM	G1/G2	
J	1	10'-0"	16'-6"	ALUM	G1/G2	
K	1	6'-4"	9'-0"	ALUM	G1	
L	1	9'-6"	7'-6"	ALUM	G1/G2	
M	5	10'-4"	7'-0"	ALUM	G1/G2	
N	1	3'-6"	7'-0"	ALUM	G1/G2	
O	2	3'-0"	20'-0"	ALUM	G1/G2	

STOREFRONT ELEVATIONS





2 / A603 ARCHED STOREFRONT JAMB DETAIL
3" = 1'-0"



1 / A603 STOREFRONT JAMB DETAIL
3" = 1'-0"

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TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

STOREFRONT SCHEDULE AND DETAILS

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

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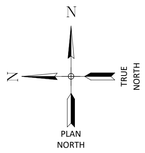

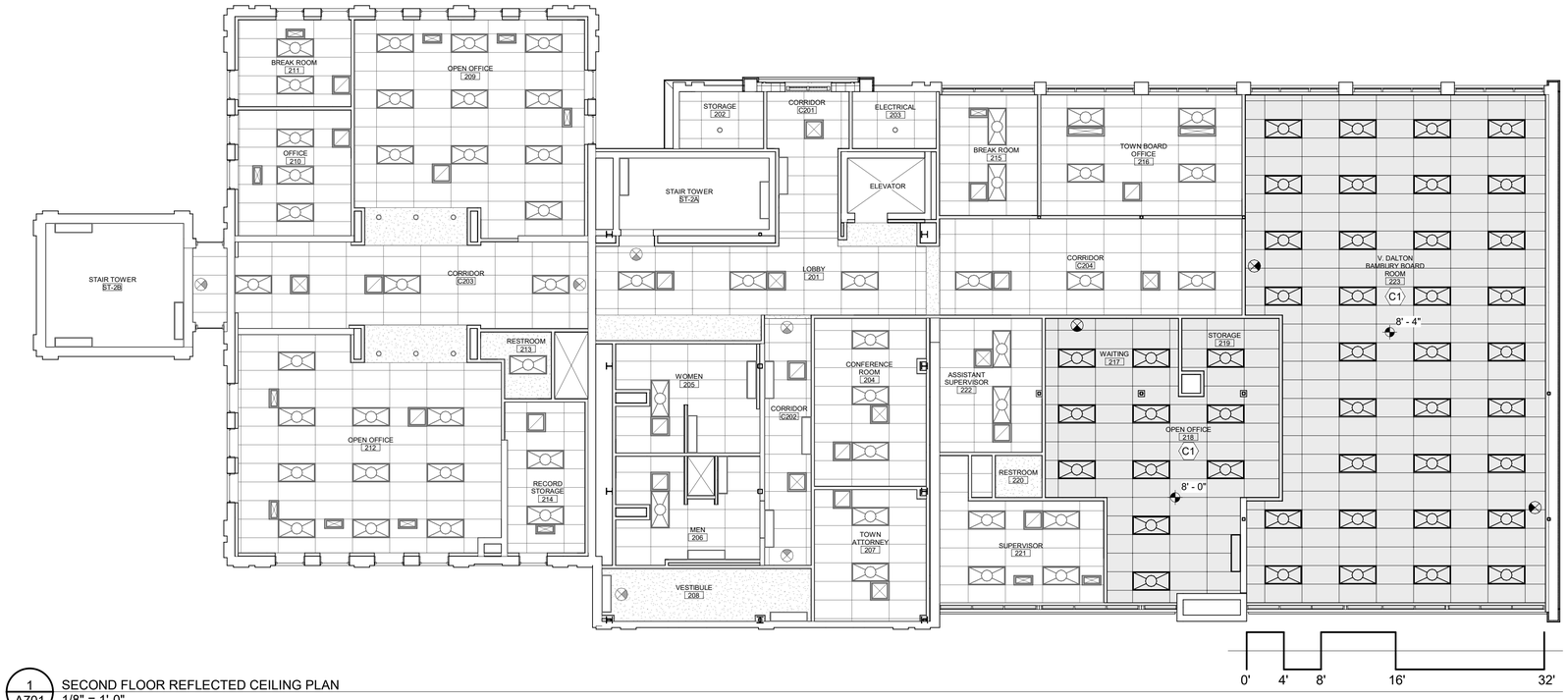

1 / A701 SECOND FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

MATERIAL LEGEND

- EXISTING GYPSUM WALLBOARD FASCIA, SOFFIT, CEILING
- EXISTING 2'X4' CEILING GRID TO REMAIN
- NEW 2'X4' CEILING GRID, ACOUSTIC CEILING TILES AND LEDS

SYMBOL LEGEND

- EXISTING 6" RECESSED CAN LIGHTING FIXTURE
- EXISTING 2' X 4' LED LIGHT FIXTURE
- NEW 2' X 4' LED LIGHT FIXTURE (SEE ELECTRICAL DRAWINGS)
- EXISTING EXIT SIGN
- NEW EXIT SIGN (SEE ELECTRICAL DRAWINGS)
- X'-X" CEILING HEIGHT ELEVATION

RCP KEY NOTES

C1 NEW ACT GRID IN THIS LOCATION

** NOTE: THE ABOVE STANDARD SYMBOLS ARE PROVIDED FOR GENERAL REFERENCE AND MAY OR MAY NOT BE REPRESENTATIVE OF ALL SYMBOLS USED THROUGHOUT THE CONTRACT DOCUMENTS. COORDINATE WITH ALL OTHER TRADES FOR RELATED WORK.

GENERAL NOTES

CEILINGS:

1. SUSPENDED GRID CEILINGS SHALL BE ARRANGED SO THAT A GRID IS SPACED EQUALLY FROM EACH REMOTE WALL, IN EACH DIRECTION, WITH NO TILE LESS THAN 6" UNLESS OTHERWISE NOTED.
2. ALL CEILINGS TO BE 8'-0" A.F.F. UNLESS NOTED OTHERWISE.
3. USE 20 GA FRAMING FOR ALL SOFFITS.
4. USE #12 TEK SCREWS AT ALL CONNECTIONS.
5. ALL HANGING STUDS TO BE ADEQUATELY FASTENED TO THE STRUCTURE ABOVE.
6. PROVIDE 3-5/8" 20 GA DIAGONAL KICKERS @ 4'-0" O.C. ABOVE CEILING FROM HUNG STUDS TO BOTTOM OF DECK ABOVE.

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ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO 1. - GENERAL CONSTRUCTION

SECOND FLOOR REFLECTED CEILING PLAN

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice Engineers, PLLC
10 Airline Drive
Suite 200
Albany, NY
12205

DRAFT

Date: JULY 2023
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GENERAL NOTES

1 ALL WORK SHALL MEET THE REQUIREMENTS OF ALL STATE AND LOCAL CODES AND REQUIREMENTS. COORDINATE WITH THE LOCAL UTILITY PROVIDERS FOR ADDITIONAL REQUIREMENTS. THESE CODES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
- INTERNATIONAL BUILDING CODE - 2018 EDITION
- INTERNATIONAL EXISTING BUILDING CODE - 2018 EDITION
- INTERNATIONAL ENERGY CONSERVATION CODE - 2018 EDITION
- NATIONAL ELECTRICAL CODE (NFPA 70) - 2017 EDITION
- INTERNATIONAL FIRE CODE - 2018 EDITION

2 CONTRACTOR IS RESPONSIBLE TO FURNISH ANY AND ALL PERMITS REQUIRED FOR THE INSTALLATION OF THIS WORK. COORDINATE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND/OR CODE INSPECTORS TO SCHEDULE ALL INSPECTIONS REQUIRED AS APPROPRIATE DURING THE CONSTRUCTION. PROVIDE REMEDIES FOR ANY VIOLATIONS NOTED BY THE INSPECTOR.

3 ALL WORK SHALL BE CONDUCTED IN A SAFE MANNER IN ACCORDANCE WITH OSHA, INDUSTRY AND GOVERNMENT STANDARDS AND GUIDELINES.

4 PROVIDE ANY/ALL MISCELLANEOUS FITTINGS, BENDS, CONNECTORS, AND APPURTENANCES NECESSARY FOR A COMPLETE AND FUNCTIONAL SYSTEM WHETHER EXPLICITLY SHOWN OR NOT. PROVIDE NAIL PLATES AND SIMILAR PROTECTION FOR SYSTEMS AS REQUIRED BY THE CODE.

5 COORDINATE FINAL LOCATIONS AND MOUNTING HEIGHTS FOR EQUIPMENT, OUTLETS, SWITCHES, ETC. WITH THE OWNER, ANSI A117.1 AND CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.

6 CONTRACTOR SHALL USE ONLY NEW, HEAVY DUTY, COMMERCIAL GRADE MATERIALS. ALL MATERIALS AND EQUIPMENT USED SHALL BE LISTED AND LABELED FOR THE APPLICATION IN WHICH THEY ARE USED.

7 COORDINATE ELECTRICAL INSTALLATIONS AROUND OTHER SYSTEMS AND BUILDING STRUCTURE TO AVOID OBSTRUCTIONS AND PRESERVE CLEARANCES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE DETAILED SHOP DRAWINGS WHERE SPACE AND/OR COORDINATION AREAS ARISE AND TO CONFIRM ALL SPACE ALLOCATIONS.

8 LOCATE AND INSTALL COMPONENTS REQUIRING ACCESS SO THAT THEY MAY BE SERVICED, RESET, REPLACED AND/OR RECALIBRATED WITH NORMAL TOOLS AND EQUIPMENT. PROVIDE ARCHITECT-APPROVED ACCESS DOORS IN BUILDING CONSTRUCTION WHEN ACCESS CANNOT OTHERWISE BE PROVIDED.

9 OPENINGS MADE FOR ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE NEAT AND OF A MINIMUM SIZE. SEAL AROUND OPENINGS WITH APPROPRIATE MATERIALS TO PRESENT A FINISHED APPEARANCE AND PROVIDE SUITABLE WEATHERPROOFING.

10 INSTALL ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. EQUIPMENT, DEVICES AND MATERIALS OF SIMILAR FUNCTION, TYPE, OR SYSTEM SHALL BE OF THE SAME MANUFACTURER.

11 PROVIDE HANGERS, SUPPORTS, AND SWAY BRACING FOR CONDUIT IN ACCORDANCE WITH THE APPROPRIATE CODE AND MATERIAL TYPE AND SECURELY ATTACH TO APPROPRIATE BUILDING STRUCTURE FOR ADEQUATE SUPPORT. PROVIDE APPROPRIATELY SIZED SLEEVES WHERE CONDUITS PENETRATE FOUNDATIONS, SLABS, FLOORS OR EXTERIOR WALLS. PROVIDE SEALANT FOR ANY/ALL EXTERIOR WALL PENETRATIONS, INCLUDING FOR SUPPORTS AND FASTENERS. DO NOT CUT OR ALTER ANY STRUCTURAL MEMBERS OR COMPONENTS WITHOUT THE WRITTEN PERMISSION AND APPROVAL OF THE ARCHITECT AND/OR REGISTERED DESIGN PROFESSIONAL.

12 CONTRACTOR IS RESPONSIBLE TO DISPOSE OF ALL DEMOLITION AND CONSTRUCTION DEBRIS PROPERLY AND IN ACCORDANCE WITH APPLICABLE LOCAL AND ENVIRONMENTAL REGULATIONS. EACH CONTRACTOR IS RESPONSIBLE TO PATCH ANY/ALL OPENINGS MADE IN WALLS, CEILINGS AND FLOORS DURING PERFORMANCE OF THEIR WORK UNLESS OTHERWISE NOTED. CUTTING AND PATCHING SHALL BE PERFORMED BY A QUALIFIED CONTRACTOR. PATCH WORK SHALL MATCH EXISTING CONDITIONS IN BOTH APPEARANCE AND FUNCTION.

13 PROVIDE FIRE PROOFING MATERIALS NECESSARY TO MAINTAIN CODE REQUIRED FIRE AND SMOKE BARRIERS AT ALL ELECTRICAL SYSTEM PENETRATIONS. INSTALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S SYSTEMS SHEETS APPROPRIATE FOR THE SPECIFIC INSTALLATION. MAINTAIN SYSTEMS SHEETS ON SITE FOR THE INSPECTORS REFERENCE DURING INSPECTIONS.

14 PROTECT ALL ELECTRICAL SYSTEMS AND EQUIPMENT DURING AND AFTER CONSTRUCTION UNTIL THE OWNER BECOMES RESPONSIBLE FOR THE SPACE.

15 PROVIDE IDENTIFICATION FOR ALL ELECTRICAL SYSTEMS AS REQUIRED BY THE APPLICABLE CODES.

16 DRAWINGS DEPICT GENERAL LOCATIONS FOR NEW & EXISTING ITEMS. CONTRACTOR SHALL EXPECT SOME VARIATION AND SHALL ACCOMMODATE WITHOUT ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE PROPOSED EQUIPMENT TO INSURE THAT EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.

17 PROVIDE MODULAR SEALING DEVICES TO FILL ANNULAR SPACE BETWEEN ALL, CONDUITS, ETC AND GENERAL BUILDING CONSTRUCTION FOR ALL PENETRATIONS TO THE EXTERIOR. PRODUCT SHALL CONSIST OF EPDM INTERLOCKED SEALING ELEMENTS AND STAINLESS STEEL PRESSURE PLATES WITH STAINLESS STEEL CONNECTING BOLTS AND NUTS.

18 CONTRACTOR SHALL WARRANT AND GUARANTEE, FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF OWNER ACCEPTANCE, ALL MATERIALS, EQUIPMENT AND WORKMANSHIP. CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE ANY DEFECTIVE EQUIPMENT OR SYSTEM COMPONENTS IN A TIMELY MANNER AFTER NOTIFICATION BY THE OWNER WITHIN 90 DAYS OF SYSTEM ACCEPTANCE.

19 PROVIDE AS BUILT DRAWINGS AND OPERATING AND MAINTENANCE MANUALS TO THE BUILDING OWNER UPON COMPLETION OF THE PROJECT WITHIN 90 DAYS OF SYSTEM ACCEPTANCE.

20 PROVIDE EQUIPMENT SUBMITTALS UNDER THE PROVISIONS OF THE DIVISION 1 SPECIFICATIONS OR IN DUPLICATE ABSENT DIVISION 1 SPECIFICATIONS. NO EQUIPMENT SHALL BE INSTALLED WITHOUT PRIOR ACCEPTANCE BY THE ARCHITECT AND/OR ENGINEER.

PLUMBING AND FUEL GAS NOTES

1 PROVIDE TESTING EQUIPMENT AND CONDUCT PRELIMINARY AND FINAL TESTING REQUIRED BY THE CODE, AUTHORITY HAVING JURISDICTION AND/OR UTILITY FOR ALL DRAINAGE, VENT, STORM, SEWER, FUEL GAS AND WATER SYSTEMS. CLEAN ALL PIPING SYSTEMS AFTER INSTALLATION AND PROTECT OPEN ENDS OF PIPING.

2 ALL PIPING SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS. PROVIDE PIPING, FITTINGS, AND JOINTS PER THE FOLLOWING IN ACCORDANCE WITH ALL CODE REQUIREMENTS:
- UNDERGROUND DRAIN, WASTE, VENT - SOLID-WALL PVC SCHEDULE 40, SOLVENT FITTINGS

3 PROVIDE MATERIALS AND EQUIPMENT WITH LESS THAN 8-PERCENT LEAD CONTENT. FLUXES AND SOLDERS SHALL BE LEAD FREE.

4 PROVIDE SPECIAL CONNECTION FITTINGS REQUIRED TO MEET THE CODE WHERE CONNECTIONS ARE MADE TO EXISTING PLUMBING AND NATURAL GAS SYSTEMS.

5 PROVIDE ACCESSIBLE FULL-OPEN AND SHUTOFF VALVES IN ACCORDANCE WITH THE CODE AND MANUFACTURER RECOMMENDATIONS, WHETHER EXPLICITLY SHOWN OR NOT. GAS VALVES SHALL BE THREADED BRONZE PLUG VALVES RATED AT 125 PSIG. LOCATE VALVES TO ALLOW FULL STEM MOVEMENT AND PROVIDE STEM EXTENSIONS FOR ALL VALVES ON INSULATED PIPING SYSTEMS. PROVIDE VALVES AT EACH PIECE OF EQUIPMENT CONNECTED TO A PIPING SYSTEM UNLESS PROHIBITED BY CODE.

6 PROVIDE FLASHINGS REQUIRED FOR BUILDING ENVELOPE PENETRATIONS ASSOCIATED WITH THE PLUMBING SYSTEMS TO MAINTAIN THE BUILDING ENVELOPE IN ITS UNALTERED CONDITION. PROVIDE INSULATION SHIELDS WHERE FUEL GAS VENTS PENETRATE INSULATED ASSEMBLIES.

7 LOCATE FUEL GAS VENTS AS REQUIRED BY THE CODE, AWAY FROM BUILDING OPENINGS, AND AS AUTHORIZED BY THE ARCHITECT. PROVIDE INSECT SCREENS AND TERMINATIONS AS REQUIRED BY THE CODE. ALL NEW VENTS THROUGH THE ROOF SHALL BE 3" AND TERMINATE A MINIMUM 12" ABOVE THE ROOF, OR AS DIRECTED BY THE PLUMBING CODE.

8 PROVIDE UNIONS, DRIPS AND SEDIMENT TRAPS AT EACH PIECE OF GAS UTILIZATION EQUIPMENT AS REQUIRED BY THE CODE AND/OR MANUFACTURER RECOMMENDATIONS.

9 PROVIDE PRESSURE REGULATORS AT EACH PIECE OF GAS UTILIZATION EQUIPMENT SUITABLE FOR THE SYSTEM PRESSURE AND EQUIPMENT. PROVIDE A VENT IN ACCORDANCE WITH THE CODE FOR ALL PRESSURE REGULATORS.

10 PROVIDE CONDENSATE DRAIN SYSTEM FOR ALL REQUIRED FUEL BURNING APPLIANCES AND AIR CONDITIONING COILS INCLUDING TRAP, AUXILIARY DRAIN SYSTEM, AND PIPING FROM DRAINS. CONNECT FUEL BURNING APPLIANCE AND AIR CONDITIONING CONDENSATE DRAIN TO SANITARY WASTE OR STORM SYSTEM, AS PERMITTED BY THE LOCAL AUTHORITY. PROVIDE COMPLETE CODE MANDATED AUXILIARY DRAIN SYSTEM OF PIPING OR WATER LEVEL DETECTION AT CONTRACTORS OPTION.

11 PROVIDE ONE-PIECE, CAST BRASS, CHROME PLATED ESCUTCHEONS AT ALL PIPING PENETRATIONS THROUGH FINISHED SURFACES.

12 PROVIDE PIPING SUPPORTS SPACED IN ACCORDANCE WITH THE CODE. STEEL PIPING SUPPORTS SHALL BE CARBON STEEL, CLEVIS TYPE. COPPER PIPING SUPPORTS SHALL BE COPPER. SUPPORT WATER AND GAS PIPING INDEPENDENTLY AT EACH VALVE AND PIECE OF EQUIPMENT. SUPPORT HORIZONTAL PLUMBING PIPING AT EACH FITTING AND COUPLING. SUPPORT VERTICAL PLUMBING PIPING AT BASE AND AT EACH FLOOR. PIPING INSULATION SHALL BE PROTECTED FROM CRUSHING BY SHIELDS OR OTHER APPROVED MANNER.

13 PROVIDE DIELECTRIC NIPPLES AT ALL TRANSITIONS BETWEEN FERROUS AND NON-FERROUS PIPING. NIPPLES SHALL BE STEEL, THREADED, LINED WITH AN INERT MATERIAL AND RATED AT 300 PSI. PROVIDE SHUTOFF VALVE IMMEDIATELY UPSTREAM OF EACH DIELECTRIC FITTING.

14 ALL INDOOR FUEL GAS PIPING SHALL BE PAINTED YELLOW OR OTHERWISE IDENTIFIED ALONG ITS ENTIRE LENGTH. ALL OUTDOOR FUEL GAS PIPING SHALL BE PAINTED TO MATCH BUILDING WITH TWO COATS OF EXTERIOR GRADE EPOXY PAINT.

COMMISSIONING GENERAL NOTES

1 THE OWNER SHALL HIRE AN APPROVED COMMISSIONING AGENCY TO CONFORM WITH SECTION C408 OF THE IECC AND PROVIDE BARTON & LOGUIDICE WITH COPIES OF ALL DOCUMENTATION. DOCUMENTATION TO BE PROVIDED, BY THE COMMISSIONING AGENCY, TO THE OWNER, BARTON & LOGUIDICE, AND THE CODE AUTHORITY UPON REQUEST, INCLUDE: THE COMMISSIONING PLAN; PRELIMINARY COMMISSIONING REPORT; O&M MANUAL AND FINAL COMMISSIONING REPORT. DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 90 DAYS OF RECEIPT OF OCCUPANCY.

2 SYSTEMS TO BE COMMISSIONED INCLUDE: LIGHTING SYSTEMS AND CONTROLS.

3 THE COMMISSIONING AGENCY SHALL DEVELOP A COMMISSIONING PLAN IN ACCORDANCE WITH C408.2.1 WHICH SHALL INCLUDE AT A MINIMUM: AN ACTIVITY NARRATIVE OF WHAT MUST BE ACCOMPLISHED DURING EACH PHASE INCLUDING PERSONNEL INVOLVEMENT; A LIST OF EQUIPMENT AND SYSTEMS TO BE TESTED; A DESCRIPTION OF TESTS; OPERATIONAL FUNCTIONS TO BE TESTED; CONDITIONS UNDER WHICH TESTS WILL BE PERFORMED; AND THE MEASURABLE CRITERIA FOR ACCEPTABLE PERFORMANCE.

4 FUNCTIONAL PERFORMANCE TESTING, DEMONSTRATING THE PROPER FUNCTIONALITY OF SYSTEMS, SHALL MEET THE REQUIREMENTS OF C408.2.3 AND C408.3. FUNCTIONS TESTED SHALL INCLUDE, AT A MINIMUM: EQUIPMENT CALIBRATIONS; LIGHTING CONTROL SYSTEM; OCCUPANCY SENSOR CONTROLS; TIME-SWITCH CONTROLS AND DAYLIGHT RESPONSIVE CONTROLS.

MECHANICAL NOTES

1 PROVIDE 26 GAUGE, GALVANIZED SHEET METAL LOW PRESSURE DUCTWORK WITH SLIP FITTINGS IN ACCORDANCE WITH SMACNA, NFPA 90A AND NFPA 90B STANDARDS. SEAL ALL DUCTWORK SEAMS WITH APPROVED UL 181A OR UL 181B MATERIALS. PROVIDE DUCT STRAPS AND SUPPORTS IN ACCORDANCE WITH SMACNA STANDARDS. PROTECT DUCT OPENINGS DURING CONSTRUCTION AND CLEAN NEW DUCT SYSTEMS PRIOR TO BALANCING.

2 PROVIDE UL 181, CLASS 1 LISTED, INSULATED, FLEXIBLE DUCT AT EACH DIFFUSER/REGISTER CONNECTION. FLEXIBLE DUCT SHALL BE 2-PLY VINYL FILM SUPPORTED WITH HELICALLY WOUND SPRING-STEEL WIRE WITH FIBROUS-GLASS INSULATION AND POLYETHYLENE VAPOR BARRIER FILM. DUCT INSULATION SHALL COMPLY WITH ASHRAE/IESNA 90.1. FLEXIBLE DUCT SHALL BE LIMITED TO 6' TOTAL LENGTH AND SHALL BE INSTALLED AND SUPPORTED FULLY ELONGATED. FLEXIBLE DUCT SHALL BE CLAMPED TO METAL DUCTS WITH NYLON STRAPS.

3 PROVIDE EXTERIOR DUCT INSULATION WITH VAPOR BARRIER ON ALL SUPPLY AIR DUCTS. INSULATION WITHIN THE BUILDING THERMAL ENVELOPE SPACE SHALL BE R-6. INSULATION OUTSIDE THE BUILDING CONDITIONED SPACE, AS DEFINED BY THE INTERNATIONAL ENERGY CODE, SHALL BE R-12. ALL INSULATION SHALL MEET THE REQUIREMENTS LIMITS OF 25/50 FOR FLAME AND SMOKE DEVELOPMENT.

4 PROVIDE ACCESSIBLE BALANCING DAMPERS IN THE BRANCH DUCT AT EACH INDIVIDUAL REGISTER, GRILLE, AND DIFFUSER. PROVIDE FIRE, SMOKE, AND RADIATION DAMPERS NECESSARY TO PROTECT DUCT AND TRANSFER OPENINGS PER THE CODE.

5 ALL REFRIGERATION WORK SHALL BE PERFORMED BY LICENSED PERSONNEL ACCORDING TO ASHRAE 15. RECLAIM AND DISPOSE OF EXISTING REFRIGERANTS IN ACCORDANCE WITH ALL LAWS. ALL REFRIGERANT PIPING SHALL BE BRAZED, TYPE ACR COPPER, PURGED WITH NITROGEN. TEST ALL PIPING WITH NITROGEN TO PRESSURE APPLICABLE TO APPLICABLE REFRIGERANT PRIOR TO PLACING SYSTEM IN SERVICE. PROVIDE 1-1/2" INSULATION WITH VAPOR BARRIER TO PREVENT CONDENSATION. PROVIDE REFRIGERANT AS NECESSARY. PROVIDE A SIGNED CERTIFICATION OF TEST UPON COMPLETION TO THE ENGINEER.

6 PROVIDE THERMOSTATS, CONTROLLERS, PANELS, WIRING, ETC NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONING AUTOMATIC CONTROL SYSTEM. CONTROLS/THERMOSTAT SHALL PROVIDE A HEATING SETBACK OF 55˚F AND COOLING SETBACK OF 85˚F, 5˚F DEADBAND, WITH A 7-DAY CLOCK, 2-HR OCCUPANT OVERRIDE, AND 10-HR BATTERY BACKUP. PROVIDE TRAINING TO OWNER PERSONNEL UPON COMPLETION OF WORK. COMMISSION CONTROL SYSTEM AND PROVE OPERATION PRIOR TO TRAINING.

7 TEST, ADJUST, AND BALANCE (TAB) ALL AIR AND WATER HVAC SYSTEMS CONSTRUCTED OR MODIFIED AS PART OF THIS PROJECT UPON COMPLETION OF THE WORK. TAB WORK SHALL BE PERFORMED BY A NEBB CERTIFIED BALANCING AGENT AND MEET ALL NEBB REQUIREMENTS FOR THE BALANCING OF SYSTEMS SPECIFIC TO THIS WORK. PROVIDE ALL ANCILLARY PARTS, COMPONENTS, AND ADJUSTMENTS TO EQUIPMENT NECESSARY TO ACHIEVE A FULLY FUNCTIONAL SYSTEM. PROVIDE A WRITTEN REPORT TO THE ENGINEER UPON COMPLETION OF THE BALANCING.

8 PROVIDE GRAVITY BALANCED BACKDRAFT DAMPERS AT ALL EXTERIOR DUCT OPENINGS AS CLOSE AS POSSIBLE TO FAN INLET. DAMPERS SHALL HAVE ADJUSTABLE TENSION RETURN SPRING, STEEL BALL BEARINGS, AND CENTRAL PIVOTED, PARALLEL BLADES WITH VINYL SEALS. ELECTRIC ACTUATORS SHALL BE PROVIDED WHERE MOTOR OPERATED DAMPERS ARE INDICATED. PROVIDE WITH ALUMINUM BIRD SCREEN.

9 PROVIDE METAL-EDGED, FACTORY FABRICATED, GLASS FABRIC FLEXIBLE CONNECTOR DOUBLE COATED WITH NEOPRENE AT EACH FAN-DUCT CONNECTION POINT.

10 PROVIDE ACCESS AND SERVICE SPACE FOR ALL EQUIPMENT IN ACCORDANCE WITH IMC SECTION 306 AND OSHA REQUIREMENTS. PROVIDE PERMANENT ACCESS TO ALL EQUIPMENT INSTALLED OVER 16' ABOVE GRADE AND PROVIDE WORK SPACE PLATFORMS WITH GUARDS AT ALL EQUIPMENT LOCATED ON SLOPED ROOFS. ENSURE A GFCI PROTECTED, 115V, 20A RECEPTACLE IS LOCATED WITHIN 20' OF EACH PIECE OF EQUIPMENT OR PROVIDE ONE IF NECESSARY.

ABBREVIATIONS

A	AMP(S)
AC	ABOVE COUNTER
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFR	ABOVE FINISHED ROOF
AIC	AMPERES INTERRUPTING CURRENT
ALT	ALTERNATE
ARCH	ARCHITECT
AT	AMP TRIP
AWG	AMERICAN WIRE GAUGE
BC	BENEATH COUNTER
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
C	CONDUIT
CFM	CUBIC FEET PER MINUTE
CKT	CIRCUIT
CO	CARBON MONOXIDE
CO	CONTINUOUS OTHER
CU	COPPER
DEMO	DEMOLITION
DISC	DISCONNECT
Ø	DIAMETER
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EMT	ELECTRICAL METALLIC TUBING
ETR	EXISTING TO REMAIN
F	DEGREE FAHRENHEIT
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
G	GROUND CONDUCTOR
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HS	HORN STROBE

MECHANICAL LEGEND

AIRFLOW
FIRE DAMPER
DAMPER
EXHAUST GRILLE
RETURN GRILLE
SUPPLY GRILLE
THERMOSTAT

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 2 - MECHANICAL CONSTRUCTION
SCHENECTADY COUNTY, NEW YORK

GENERAL NOTES, ABBREVIATIONS AND LEGEND

TOWN OF ROTTERDAM

Barton & Loguidice
Engineers & Architects, PLLC
443 Electronics Parkway
Liverpool, NY 13088
NYS CERT. OF AUTH.:

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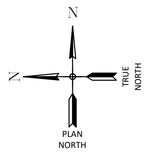
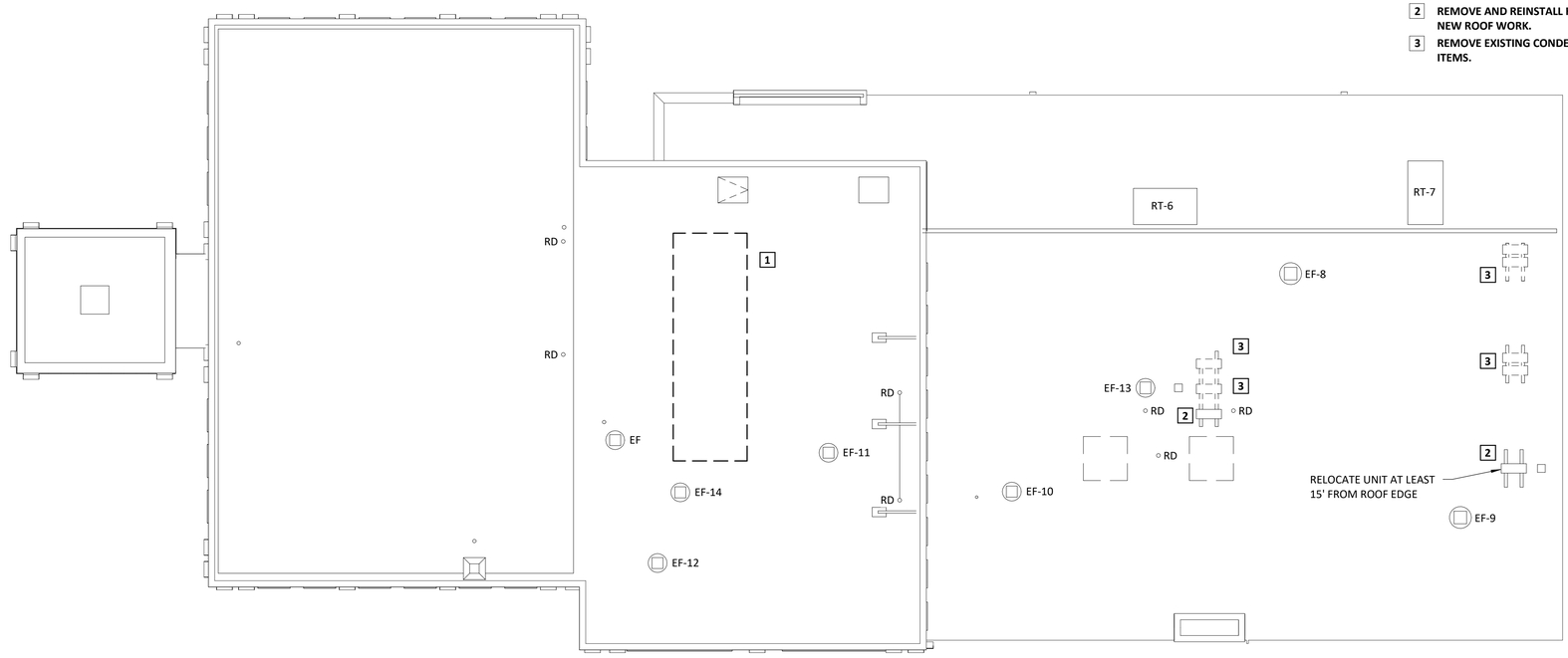


GENERAL NOTES:

1. ALL NOTES ON MEP001 APPLY TO THIS DRAWING.
2. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING ASSOCIATED WITH THEIR WORK. WHERE EQUIPMENT IS COMPLETELY DEMOLISHED OR REMOVED AND REPLACED WITH NEW EQUIPMENT, ALL FINISHES, FLOORING, BASE AND WALL SHALL BE PATCHED TO MATCH SURROUNDING AREAS. FEATHER INTO EXISTING FINISHED CONDITIONS TO TRANSITION NEW PATCH WORK WITH EXISTING FINISHED CONDITIONS. ALL PATCHING AND PAINTING SHALL BE DONE IN A MANNER TO MATCH THE EXISTING SURFACE IN APPEARANCE AND FUNCTION. ALL PATCHING SHALL BE PERFORMED BY A CONTRACTOR SKILLED IN THE APPROPRIATE CRAFT AND FINAL PATCHING IS SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT.

DEMO WORK KEYED NOTES:

1. **DEMOLISH EXISTING ROOFTOP UNIT. MAINTAIN EXISTING NATURAL GAS AND ELECTRICAL CONNECTIONS FOR EXTENSION TO NEW UNIT.**
2. **REMOVE AND REINSTALL HVAC EQUIPMENT TO ACCOMODATE NEW ROOF WORK.**
3. **REMOVE EXISTING CONDENSING UNIT AND ALL ASSOCIATED ITEMS.**



MECHANICAL ROOF PLAN - EXISTING CONDITIONS/DEMOLITION

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 2 - MECHANICAL CONSTRUCTION

MECHANICAL ROOF PLAN - EXISTING CONDITIONS/DEMOLITION

SCHENECTADY COUNTY, NEW YORK

Barton & Loguidice
Engineers & Architects, PLLC
443 Electronics Parkway
Liverpool, NY 13088
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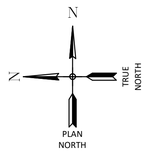


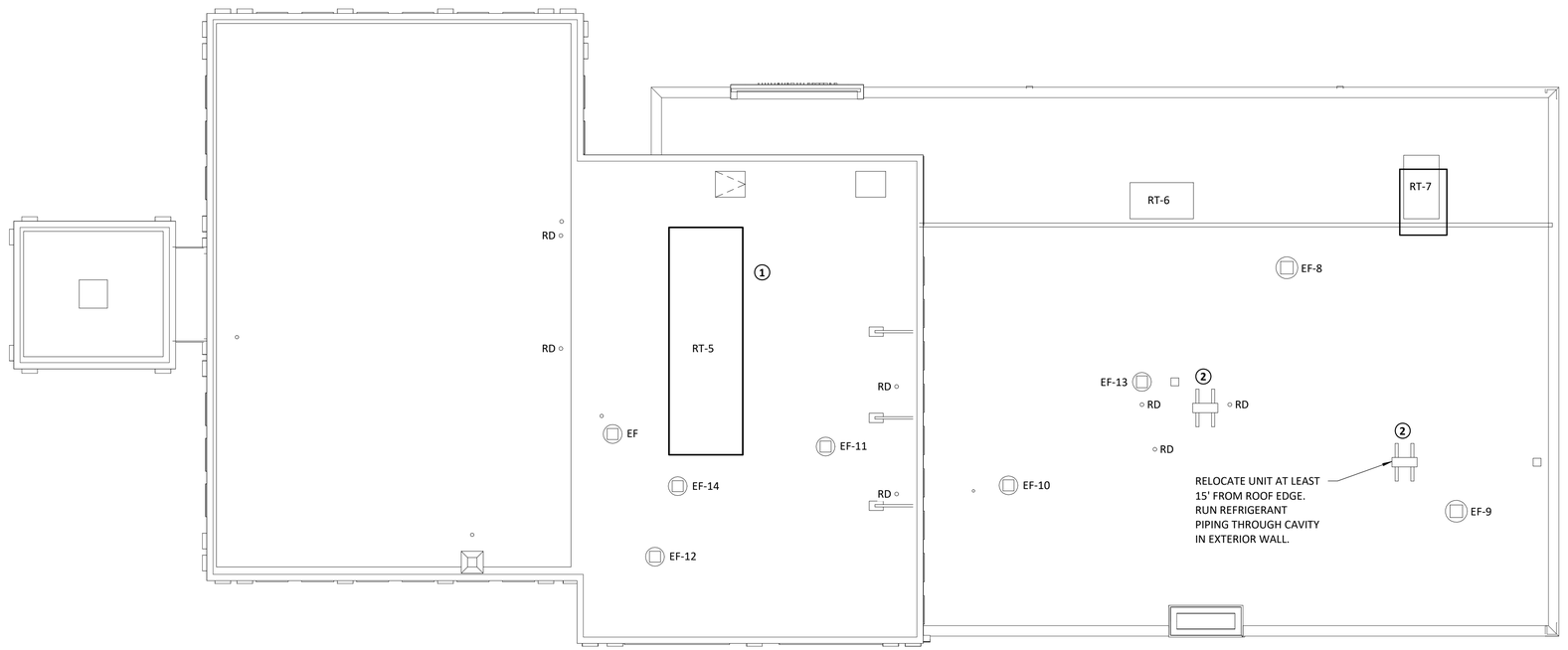
GENERAL NOTES:

1. ALL NOTES ON MEP001 APPLY TO THIS DRAWING.

NEW WORK KEYED NOTES:

(1) **PROVIDE NEW ROOFTOP UNIT PER SCHEDULE. PROVIDE TRANSITION ROOF CURB AND NEW INSULATED DUCTWORK AS REQUIRED FOR NEW ROOFTOP UNIT CONNECTION. REBALANCE SYSTEM TO VALUES INDICATED.**

(2) **REINSTALL HVAC EQUIPMENT TO MATCH PRE-CONSTRUCTION CONDITIONS.**



MECHANICAL ROOF PLAN - NEW WORK

SCALE: 1/8" = 1'-0"

ROOFTOP UNIT SCHEDULE

MARK	WEIGHT (LBS)	SUPPLY FAN DATA					RELIEF/EXHAUST FAN DATA			DESIGN AMBIENT		GAS HEATING COIL						DX COOLING COIL						ELECTRICAL		BASIS OF DESIGN		NOTES
		TOTAL CFM	MIN OA CFM	HP	ESP (IN WG)	QTY	HP	CFM	ESP (IN WG)	SUM DB/WB (°F)	WIN DB (°F)	EAT DB (°F)	LAT DB (°F)	INPUT (MBH)	OUTPUT (MBH)	AFUE (%)	MIN STAGES	TOTAL CAPACITY (MBH)	SENS. CAPACITY (MBH)	EAT DB/WB (°F)	LAT DB/WB (°F)	IEER	COMPRESSOR QTY	COMPRESSOR STAGES	VOLTS / PHASE	MCA / MOCP	MANUFACTURER	MODEL	
RT-5	6000	6555	1400	7.5	1.25	2	3	6555	0.5	95 / 75	-7	52.0	78.1	200.3	190.4	81	2	302.2	198.1	80.0 / 67.0	51.1 / 51.0	14.8	3	5	208 / 3	164 / 200	TRANE	SFHM25EL	1-3

NOTES:
1. **PROVIDE UNIT WITH DISCONNECT, ENTHALPY ECONOMIZER WITH ULTRA LOW LEAK DAMPER AND RELIEF AIR FAN, INTEGRATED CONTROL SYSTEM, 2" MERV 13 FILTERS, AND ROOF CURB.**
2. **PROVIDE WITH UNIT POWERED CONVENIENCE OUTLET.**
3. **PROVIDE WITH THERMOSTAT AND CONTROL WIRING.**

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

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ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 2 - MECHANICAL CONSTRUCTION

MECHANICAL ROOF PLAN - NEW WORK

TOWN OF ROTTERDAM SCHENECTADY COUNTY, NEW YORK

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M102

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904.055.001

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Checked by: Checker Drawn by: Author Designed by: Designer In Charge of:

GENERAL NOTES

1 ALL WORK SHALL MEET THE REQUIREMENTS OF ALL STATE AND LOCAL CODES AND REQUIREMENTS. COORDINATE WITH THE LOCAL UTILITY PROVIDERS FOR ADDITIONAL REQUIREMENTS. THESE CODES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
- INTERNATIONAL BUILDING CODE - 2018 EDITION
- INTERNATIONAL EXISTING BUILDING CODE - 2018 EDITION
- INTERNATIONAL ENERGY CONSERVATION CODE - 2018 EDITION
- NATIONAL ELECTRICAL CODE (NFPA 70) - 2017 EDITION
- INTERNATIONAL FIRE CODE - 2018 EDITION

2 CONTRACTOR IS RESPONSIBLE TO FURNISH ANY AND ALL PERMITS REQUIRED FOR THE INSTALLATION OF THIS WORK. COORDINATE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND/OR CODE INSPECTORS TO SCHEDULE ALL INSPECTIONS REQUIRED AS APPROPRIATE DURING THE CONSTRUCTION. PROVIDE REMEDIES FOR ANY VIOLATIONS NOTED BY THE INSPECTOR.

3 ALL WORK SHALL BE CONDUCTED IN A SAFE MANNER IN ACCORDANCE WITH OSHA, INDUSTRY AND GOVERNMENT STANDARDS AND GUIDELINES.

4 PROVIDE ANY/ALL MISCELLANEOUS FITTINGS, BENDS, CONNECTORS, AND APPURTENANCES NECESSARY FOR A COMPLETE AND FUNCTIONAL SYSTEM WHETHER EXPLICITLY SHOWN OR NOT. PROVIDE NAIL PLATES AND SIMILAR PROTECTION FOR SYSTEMS AS REQUIRED BY THE CODE.

5 COORDINATE FINAL LOCATIONS AND MOUNTING HEIGHTS FOR EQUIPMENT, OUTLETS, SWITCHES, ETC. WITH THE OWNER, ANSI A117.1 AND CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.

6 CONTRACTOR SHALL USE ONLY NEW, HEAVY DUTY, COMMERCIAL GRADE MATERIALS. ALL MATERIALS AND EQUIPMENT USED SHALL BE LISTED AND LABELED FOR THE APPLICATION IN WHICH THEY ARE USED.

7 COORDINATE ELECTRICAL INSTALLATIONS AROUND OTHER SYSTEMS AND BUILDING STRUCTURE TO AVOID OBSTRUCTIONS AND PRESERVE CLEARANCES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE DETAILED SHOP DRAWINGS WHERE SPACE AND/OR COORDINATION AREAS ARISE AND TO CONFIRM ALL SPACE ALLOCATIONS.

8 LOCATE AND INSTALL COMPONENTS REQUIRING ACCESS SO THAT THEY MAY BE SERVICED, RESET, REPLACED AND/OR RECALIBRATED WITH NORMAL TOOLS AND EQUIPMENT. PROVIDE ARCHITECT-APPROVED ACCESS DOORS IN BUILDING CONSTRUCTION WHEN ACCESS CANNOT OTHERWISE BE PROVIDED.

9 OPENINGS MADE FOR ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE NEAT AND OF A MINIMUM SIZE. SEAL AROUND OPENINGS WITH APPROPRIATE MATERIALS TO PRESENT A FINISHED APPEARANCE AND PROVIDE SUITABLE WEATHERPROOFING.

10 INSTALL ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. EQUIPMENT, DEVICES AND MATERIALS OF SIMILAR FUNCTION, TYPE, OR SYSTEM SHALL BE OF THE SAME MANUFACTURER.

11 PROVIDE HANGERS, SUPPORTS, AND SWAY BRACING FOR CONDUIT IN ACCORDANCE WITH THE APPROPRIATE CODE AND MATERIAL TYPE AND SECURELY ATTACH TO APPROPRIATE BUILDING STRUCTURE FOR ADEQUATE SUPPORT. PROVIDE APPROPRIATELY SIZED SLEEVES WHERE CONDUITS PENETRATE FOUNDATIONS, SLABS, FLOORS OR EXTERIOR WALLS. PROVIDE SEALANT FOR ANY/ALL EXTERIOR WALL PENETRATIONS, INCLUDING FOR SUPPORTS AND FASTENERS. DO NOT CUT OR ALTER ANY STRUCTURAL MEMBERS OR COMPONENTS WITHOUT THE WRITTEN PERMISSION AND APPROVAL OF THE ARCHITECT AND/OR REGISTERED DESIGN PROFESSIONAL.

12 CONTRACTOR IS RESPONSIBLE TO DISPOSE OF ALL DEMOLITION AND CONSTRUCTION DEBRIS PROPERLY AND IN ACCORDANCE WITH APPLICABLE LOCAL AND ENVIRONMENTAL REGULATIONS. EACH CONTRACTOR IS RESPONSIBLE TO PATCH ANY/ALL OPENINGS MADE IN WALLS, CEILINGS AND FLOORS DURING PERFORMANCE OF THEIR WORK UNLESS OTHERWISE NOTED. CUTTING AND PATCHING SHALL BE PERFORMED BY A QUALIFIED CONTRACTOR. PATCH WORK SHALL MATCH EXISTING CONDITIONS IN BOTH APPEARANCE AND FUNCTION.

13 PROVIDE FIRE PROOFING MATERIALS NECESSARY TO MAINTAIN CODE REQUIRED FIRE AND SMOKE BARRIERS AT ALL ELECTRICAL SYSTEM PENETRATIONS. INSTALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S SYSTEMS SHEETS APPROPRIATE FOR THE SPECIFIC INSTALLATION. MAINTAIN SYSTEMS SHEETS ON SITE FOR THE INSPECTORS REFERENCE DURING INSPECTIONS.

14 PROTECT ALL ELECTRICAL SYSTEMS AND EQUIPMENT DURING AND AFTER CONSTRUCTION UNTIL THE OWNER BECOMES RESPONSIBLE FOR THE SPACE.

15 PROVIDE IDENTIFICATION FOR ALL ELECTRICAL SYSTEMS AS REQUIRED BY THE APPLICABLE CODES.

16 DRAWINGS DEPICT GENERAL LOCATIONS FOR NEW & EXISTING ITEMS. CONTRACTOR SHALL EXPECT SOME VARIATION AND SHALL ACCOMMODATE WITHOUT ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE PROPOSED EQUIPMENT TO INSURE THAT EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.

17 PROVIDE MODULAR SEALING DEVICES TO FILL ANNULAR SPACE BETWEEN ALL, CONDUITS, ETC AND GENERAL BUILDING CONSTRUCTION FOR ALL PENETRATIONS TO THE EXTERIOR. PRODUCT SHALL CONSIST OF EPDM INTERLOCKED SEALING ELEMENTS AND STAINLESS STEEL PRESSURE PLATES WITH STAINLESS STEEL CONNECTING BOLTS AND NUTS.

18 CONTRACTOR SHALL WARRANT AND GUARANTEE, FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF OWNER ACCEPTANCE, ALL MATERIALS, EQUIPMENT AND WORKMANSHIP. CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE ANY DEFECTIVE EQUIPMENT OR SYSTEM COMPONENTS IN A TIMELY MANNER AFTER NOTIFICATION BY THE OWNER WITHIN 90 DAYS OF SYSTEM ACCEPTANCE.

19 PROVIDE AS BUILT DRAWINGS AND OPERATING AND MAINTENANCE MANUALS TO THE BUILDING OWNER UPON COMPLETION OF THE PROJECT WITHIN 90 DAYS OF SYSTEM ACCEPTANCE.

20 PROVIDE EQUIPMENT SUBMITTALS UNDER THE PROVISIONS OF THE DIVISION 1 SPECIFICATIONS OR IN DUPLICATE ABSENT DIVISION 1 SPECIFICATIONS. NO EQUIPMENT SHALL BE INSTALLED WITHOUT PRIOR ACCEPTANCE BY THE ARCHITECT AND/OR ENGINEER.

ELECTRICAL NOTES

1 PROVIDE AND UTILIZE NECESSARY SAFETY EQUIPMENT WHEN WORKING WITH EXISTING, ENERGIZED ELECTRICAL EQUIPMENT.

2 TEST ALL ELECTRICAL CONNECTIONS AND COMPONENTS PRIOR TO ENERGIZING SYSTEM AND CORRECT ALL DEFICIENCIES IDENTIFIED.

3 ALL CONDUCTORS SHALL BE COPPER, SINGLE CONDUCTORS, MINIMUM SIZE #12, UNO. MINIMUM RACEWAY SIZE SHALL BE 3/4". PROVIDE CONDUCTORS, CABLING, RACEWAYS AND BOXES IN ACCORDANCE WITH ALL CODE REQUIREMENTS.

4 ALL GROUNDING ELECTRODE CONDUCTORS, EQUIPMENT GROUNDS AND BONDING JUMPERS SHALL BE COPPER AND SOLID FOR #8 AND SMALLER CONDUCTORS. PROVIDE GROUNDING CONNECTIONS AND COMPONENTS IN ACCORDANCE WITH ALL CODE REQUIREMENTS.

5 PROVIDE ADDITIONAL COPPER GROUNDING CONDUCTORS TO BUILDING STEEL, CONCRETE REBAR, AND OTHER METAL PIPING SYSTEMS AS APPLICABLE. ALL GROUNDING ELEMENTS SHALL BE SIZED IN ACCORDANCE WITH THE CODE. CONTRACTOR SHALL TEST AND REPORT ANY GROUND RESISTANCE GREATER THAN 10 OHMS.

6 PROVIDE SOLID CONDUCTORS FOR #10 CONDUCTORS AND SMALLER, PROVIDE STRANDED CONDUCTORS FOR LARGER CONDUCTORS. PROVIDE A FULL SIZE NEUTRAL CONDUCTOR AND INSULATED EQUIPMENT GROUNDING CONDUCTOR FOR EACH BRANCH CIRCUIT AND FEEDER, UNO.

7 INSTALL ALL CONDUCTORS AND CABLES IN ACCORDANCE WITH CODE REQUIREMENTS AND NETA STANDARDS. CONDUCTORS ARE SIZED BASED ON A MINIMUM OF 75°C EQUIPMENT TERMINALS. AS NECESSARY, INCREASE CONDUCTOR SIZES, AT NO ADDITIONAL COST TO THE OWNER, WHEN 60°C EQUIPMENT TERMINALS ARE INSTALLED. ALL CONDUCTORS AND RACEWAYS SHALL BE INSTALLED CONCEALED WITHIN BUILDING SYSTEMS WITHOUT WRITTEN PERMISSION BY THE ARCHITECT. PROVIDE ALL NECESSARY SUPPORTS AND INSTALL ALL CONDUCTORS PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURAL MEMBERS. SPRING STEEL SUPPORTS ARE PERMITTED FOR RACEWAYS 1" AND SMALLER.

8 AS NECESSARY, INCREASE CONDUCTOR SIZES, AT NO ADDITIONAL COST TO THE OWNER, TO LIMIT VOLTAGE DROP IN FEEDERS TO 2% AND BRANCH CIRCUITS TO 3% AT DESIGN LOADS.

9 PROVIDE 6"-12" SLACK AT ALL WIRING DEVICES.

FIRE ALARM GENERAL NOTES

1 CONTRACTOR SHALL SECURE AND PAY FOR SPECIAL FIRE ALARM SYSTEM PERMITS IF REQUIRED BY THE LOCAL MUNICIPALITY. FIRE ALARM SYSTEM SHALL BE DESIGNED AND INSTALLED TO MEET THE REQUIREMENTS OF THE IFC AND/OR LOCAL MUNICIPALITY. SYSTEM SHALL BE DESIGNED AND INSTALLED BY THOSE PERSONS WITH AT LEAST 3-YEARS EXPERIENCE IN DESIGNING AND INSTALLING FIRE ALARM SYSTEMS. SUCCESSFUL CONTRACTOR SHALL SUBMIT A COMPLETE SHOP DRAWING PACKAGE, INCLUDING DEVICE/EQUIPMENT LAYOUT, EQUIPMENT CUTSHEETS, WIRING DIAGRAMS, VOLTAGE DROP CALCULATION AND BATTERY CALCULATIONS TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO PERFORMING ANY WORK. IF REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION, THE SHOP DRAWING PACKAGE SHALL BE SEALED BY A PROFESSIONAL ENGINEER. ANY INSTALLATIONS PERFORMED PRIOR TO A REVIEW OF THE DESIGN BY EITHER THE ARCHITECT OF RECORD OR AUTHORITY HAVING JURISDICTION IS COMPLETELY AND SOLELY AT THE RISK OF THE CONTRACTOR.

2 IN ADDITION TO THE BUILDING CODE, COMPLY WITH NFPA 72 FOR DESIGN, LAYOUT, INSTALLATION AND COMMISSIONING OF FIRE ALARM EQUIPMENT.

3 COMPLY WITH RECOMMENDATIONS IN THE "DOCUMENTATION" SECTION OF THE "FUNDAMENTALS OF FIRE ALARM SYSTEMS" CHAPTER IN NFPA 72.

4 COMPLY WITH THE "RECORDS" SECTION OF THE "INSPECTION, TESTING AND MAINTENANCE" CHAPTER IN NFPA 72.

5 PROVIDE "RECORD OF COMPLETION DOCUMENTS" ACCORDING TO NFPA 72 ARTICLE "PERMANENT RECORDS" IN THE "RECORDS" SECTION OF THE "INSPECTION, TESTING AND MAINTENANCE" CHAPTER.

6 PROVIDE "MAINTENANCE, INSPECTION AND TESTING RECORDS" ACCORDING TO NFPA 72 ARTICLE OF THE SAME NAME.

7 PERSONNEL SHALL BE TRAINED AND CERTIFIED BY MANUFACTURER FOR INSTALLATION OF UNITS REQUIRED FOR THIS PROJECT.

8 ADJUST STROBE AND HORN STROBE COMBINATION DEVICE OUTPUT TO MEET INSTALLATION REQUIREMENTS.

9 PERFORM FIELD TESTS IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION AND MAKE CORRECTIONS AND MODIFICATIONS AS REQUIRED TO ACHIEVE COMPLIANCE.

COMMISSIONING GENERAL NOTES

1 THE OWNER SHALL HIRE AN APPROVED COMMISSIONING AGENCY TO CONFORM WITH SECTION C408 OF THE IECC AND PROVIDE BARTON & LOGUIDICE WITH COPIES OF ALL DOCUMENTATION. DOCUMENTATION TO BE PROVIDED, BY THE COMMISSIONING AGENCY, TO THE OWNER, BARTON & LOGUIDICE, AND THE CODE AUTHORITY UPON REQUEST, INCLUDE: THE COMMISSIONING PLAN; PRELIMINARY COMMISSIONING REPORT; O&M MANUAL AND FINAL COMMISSIONING REPORT. DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 90 DAYS OF RECEIPT OF OCCUPANCY.

2 SYSTEMS TO BE COMMISSIONED INCLUDE: LIGHTING SYSTEMS AND CONTROLS.

3 THE COMMISSIONING AGENCY SHALL DEVELOP A COMMISSIONING PLAN IN ACCORDANCE WITH C408.2.1 WHICH SHALL INCLUDE AT A MINIMUM: AN ACTIVITY NARRATIVE OF WHAT MUST BE ACCOMPLISHED DURING EACH PHASE INCLUDING PERSONNEL INVOLVEMENT; A LIST OF EQUIPMENT AND SYSTEMS TO BE TESTED; A DESCRIPTION OF TESTS; OPERATIONAL FUNCTIONS TO BE TESTED; CONDITIONS UNDER WHICH TESTS WILL BE PERFORMED; AND THE MEASURABLE CRITERIA FOR ACCEPTABLE PERFORMANCE.

4 FUNCTIONAL PERFORMANCE TESTING, DEMONSTRATING THE PROPER FUNCTIONALITY OF SYSTEMS, SHALL MEET THE REQUIREMENTS OF C408.2.3 AND C408.3. FUNCTIONS TESTED SHALL INCLUDE, AT A MINIMUM: EQUIPMENT CALIBRATIONS; LIGHTING CONTROL SYSTEM; OCCUPANCY SENSOR CONTROLS; TIME-SWITCH CONTROLS AND DAYLIGHT RESPONSIVE CONTROLS.

ABBREVIATIONS

A	AMP(S)	JB	JUNCTION BOX
AC	ABOVE COUNTER		
AF	AMP FRAME	KVA	KILOVOLT-AMPERES
AFF	ABOVE FINISHED FLOOR	KW	KILOWATT
AFG	ABOVE FINISHED GRADE	KWH	KILOWATT-HOUR
AFR	ABOVE FINISHED ROOF		
AIC	AMPERES INTERRUPTING CURRENT	LBS	POUNDS
ALT	ALTERNATE		
ARCH	ARCHITECT	MAX	MAXIMUM
AT	AMP TRIP	MCB	MAIN CIRCUIT BREAKER
AWG	AMERICAN WIRE GAUGE	MIN	MINIMUM
BC	BENEATH COUNTER	NCO	NON-CONTINUOUS OTHER
BFF	BELOW FINISHED FLOOR	NIC	NOT IN CONTRACT
BFG	BELOW FINISHED GRADE	NTS	NOT TO SCALE
C	CONDUIT	OS	OCCUPANCY SENSOR
CFM	CUBIC FEET PER MINUTE	OTH	OTHER
CKT	CIRCUIT		
CO	CARBON MONOXIDE	PNL	PANEL
CO	CONTINUOUS OTHER		
CU	COPPER	SD	SMOKE DETECTOR
DEMO	DEMOLITION	TYP	TYPICAL
DISC	DISCONNECT		
Ø	DIAMETER	UC	UNDER COUNTER
		UL	UNDERWRITERS LABORATORY
EC	ELECTRICAL CONTRACTOR	UNO	UNLESS NOTED OTHERWISE
EF	EXHAUST FAN		
EMT	ELECTRICAL METALLIC TUBING	V	VOLTAGE
ETR	EXISTING TO REMAIN	VA	VOLT-AMPERES
F	DEGREE FAHRENHEIT	W	WASTE
FAAP	FIRE ALARM ANNUNCIATOR PANEL	W	WATT
FACP	FIRE ALARM CONTROL PANEL	W/	WITH
FLA	FULL LOAD AMPS	W/O	WITHOUT
		WP	WEATHERPROOF
G	GROUND CONDUCTOR		
GC	GENERAL CONTRACTOR	XFMR	TRANSFORMER
GFI	GROUND FAULT CIRCUIT INTERRUPTER	Ø	PHASE
GND	GROUND		
HS	HORN STROBE		

SPECIAL SYSTEMS LEGEND

- S — SECURITY ALARM
- DL — DOOR LOCK
- CR — CARD READER
- K — KEY PAD
- DR — DOOR RELEASE
- H — ADA PUSH BUTTON
- FACP — FIRE ALARM CONTROL PANEL
- P — PULL STATION
- FH — HORN/STROBE FIRE ALARM DEVICE
- S — SMOKE DETECTOR
- H — HEAT DETECTOR
- DOOR HOLD
- STROBE FIRE ALARM DEVICE

ELECTRICAL LEGEND

- DUPLEX RECEPTACLE, 20 AMP
- $_{WP}$ — WEATHERPROOF RECEPTACLE, 20 AMP
- ELECTRICAL PANELBOARD
- ELECTRICAL DISCONNECT SWITCH
- ELECTRICAL HOMERUN

LIGHTING LEGEND

- $ — SINGLE POLE SWITCH, 20 AMP
- $_3$ — THREE WAY SWITCH, 20 AMP
- $_{D/OC}$ — DIMMER/OCCUPANCY SENSOR SWITCH
- 2X4 LIGHT FIXTURE
- EXIT LIGHT FIXTURE, ILLUMINATED FACE INDICATED
- EMERGENCY REMOTE HEAD

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION
SCHENECTADY COUNTY, NEW YORK

GENERAL NOTES, ABBREVIATIONS AND LEGEND

TOWN OF ROTTERDAM

Barton & Loguidice
Engineers & Architects, PLLC
443 Electronics Parkway
Liverpool, NY 13088
NYS CERT. OF AUTH.:

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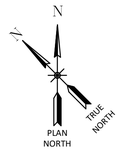


GENERAL NOTES:

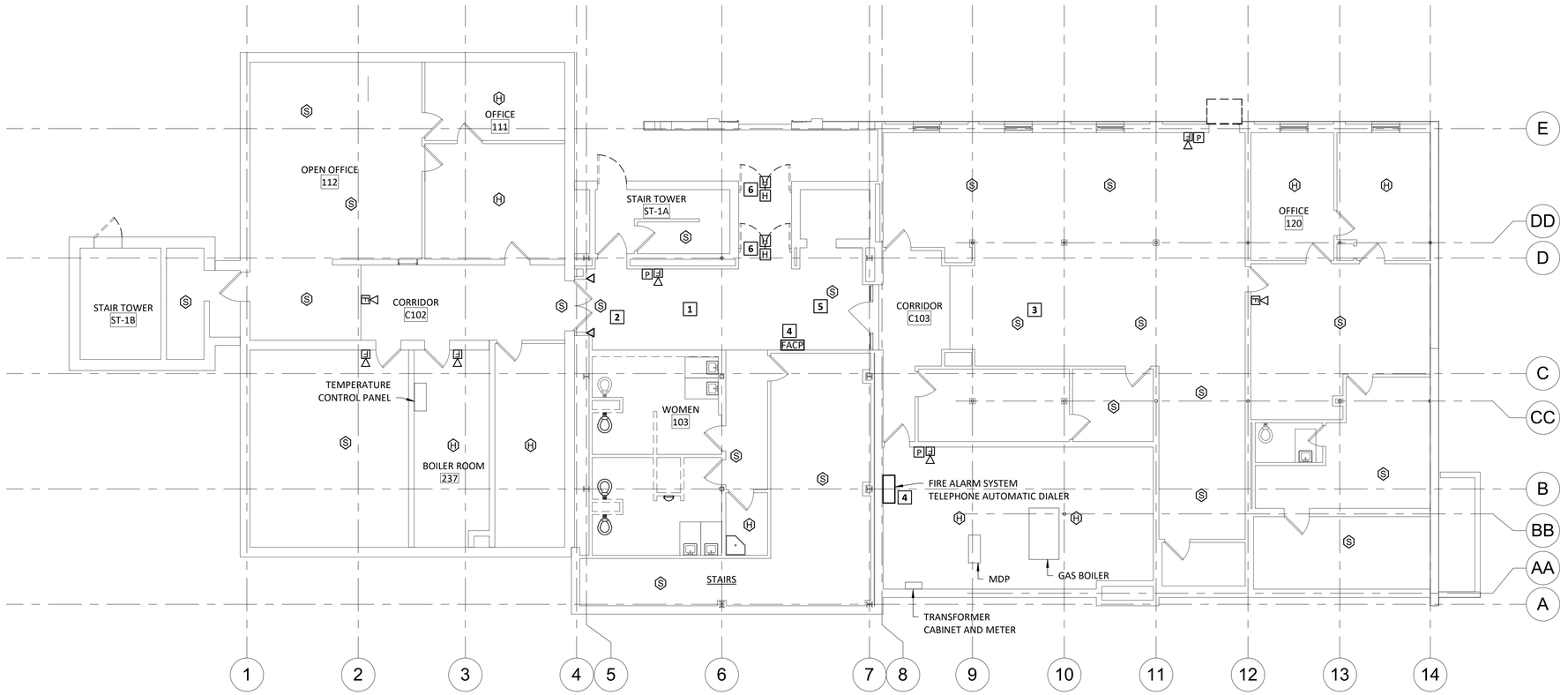
1. ELEVATOR IS TIED INTO FIRE ALARM SYSTEM.
2. THE EXISTING FIRE ALARM SYSTEM IS TO REMAIN ACTIVE AND FULLY OPERATIONAL UNTIL THE NEW SYSTEM HAS BEEN ENERGIZED, TESTED AND ACCEPTED BY THE LOCAL AHJ. CONTRACTOR SHALL MAKE ALL PROVISIONS NECESSARY TO INSTALL THE NEW SYSTEM WHILE PROTECTING AND MAINTAINING THE EXISTING SYSTEM'S OPERATION.
3. AFTER ACCEPTANCE OF THE NEW FIRE ALARM SYSTEM, THE CONTRACTOR SHALL COMPLETELY DEMOLISH THE EXISTING FIRE ALARM SYSTEM, INCLUDING ALL EQUIPMENT, DEVICES AND WIRING. EXPOSED CONDUITS MAY REMAIN IN PLACE HOWEVER ALL WIRING IS TO BE REMOVED. STAINLESS STEEL COVERPLATES MAY BE USED TO COVER ALL DEVICE OPENINGS IN GYPSUM WALLS AND CEILING. COVER PLATES MUST BE SIZED APPROPRIATELY AND FULLY COVER EACH OPENING. CONTRACTOR SHALL PROVIDE CUSTOM COVER PLATES WHERE OPENINGS ARE LARGER THAN STANDARD SIZES, THE INSTALLATION OF MULTIPLE PLATES FOR A SINGLE OPENING WILL NOT BE ACCEPTED. WHERE DEVICES ARE DEMOLISHED IN DROP CEILING AREAS, NEW CEILING TILES TO MATCH THE EXISTING TILES SHALL BE PROVIDED BY THE CONTRACTOR.
4. ALL WORK INVOLVING TEMPORARY SHUTDOWNS OF THE EXISTING FIRE ALARM SYSTEM, ELECTRICAL SYSTEM, AIR HANDLING EQUIPMENT, ROOMS, ETC. SHALL BE COORDINATED WITH THE OWNER AND A MINIMUM 5 DAYS WRITTEN NOTICE SHALL BE PROVIDED.

GENERAL NOTES:

5. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING ASSOCIATED WITH THEIR WORK. WHERE EQUIPMENT IS COMPLETELY DEMOLISHED OR REMOVED AND REPLACED WITH NEW EQUIPMENT, ALL FINISHES, FLOORING, BASE AND WALL SHALL BE PATCHED TO MATCH SURROUNDING AREAS. FEATHER INTO EXISTING FINISHED CONDITIONS TO TRANSITION NEW PATCH WORK WITH EXISTING FINISHED CONDITIONS. ALL PATCHING AND PAINTING SHALL BE DONE IN A MANNER TO MATCH THE EXISTING SURFACE IN APPEARANCE AND FUNCTION. ALL PATCHING SHALL BE PERFORMED BY A CONTRACTOR SKILLED IN THE APPROPRIATE CRAFT AND FINAL PATCHING IS SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT.

EXISTING CONDITIONS/DEMOLITION KEYED NOTES:

1. **DEMOLISH FIRE ALARM ANNUNCIATION DEVICES. TYPICAL ALL DEVICES SHOWN.**
2. **DEMOLISH EXISTING DOOR HOLDER DEVICES AND CONTROL WIRING. RETAIN AND EXTEND AS REQUIRED EXISTING POWER CIRCUIT AND INCORPORATE INTO NEW FIRE ALARM SYSTEM.**
3. **DEMOLISH EXISTING FIRE ALARM INITIATION DEVICE. TYPICAL ALL DEVICES SHOWN.**
4. **MAINTAIN EXISTING FIRE ALARM CONTROL SYSTEM IN FULL AND COMPLETE OPERATION UNTIL SUCH TIME AS THE AHJ ACCEPTS THE NEW SYSTEM. UPON ACCEPTANCE, DEMOLISH FIRE ALARM CONTROL PANEL AND ALL ASSOCIATED WIRING, DEVICES, COMPONENTS, ETC. DEMOLISH ELECTRICAL POWER IN ITS ENTIRETY BACK TO THE ELECTRICAL PANEL AND MARK EXISTING BREAKERS AS SPARE.**
5. **COORDINATE WITH EXISTING ELEVATOR MANUFACTURER FOR REPLACEMENT AND INTERCONNECTION OF NEW FIRE ALARM COMPONENTS. CONTRACTOR SHALL SUB-CONTRACT WITH AUTHORIZED ELEVATOR MANUFACTURER'S REPRESENTATIVE FOR ANY REPROGRAMMING AND/OR ADDITIONAL EQUIPMENT REQUIRED FOR FULL AND PROPER OPERATION OF THE EXISTING ELEVATOR CONTROLLER.**
6. **DEMOLISH EXISTING ADA ENTRY PUSH BUTTONS. PULL BRANCH CIRCUITRY/CABLING BACK AND PROVIDE JUNCTION BOX(ES) ABOVE CEILING TO ALLOW FOR CIRCUITRY EXTENSION IN NEW WORK. DISCONNECT ELECTRICAL CONNECTION FOR DOOR OPERATOR TO ACCOMMODATE DOOR REPLACEMENT.**



ELECTRICAL FIRST FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

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ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION
ELECTRICAL FIRST FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION
SCHENECTADY COUNTY, NEW YORK
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TRUE NORTH

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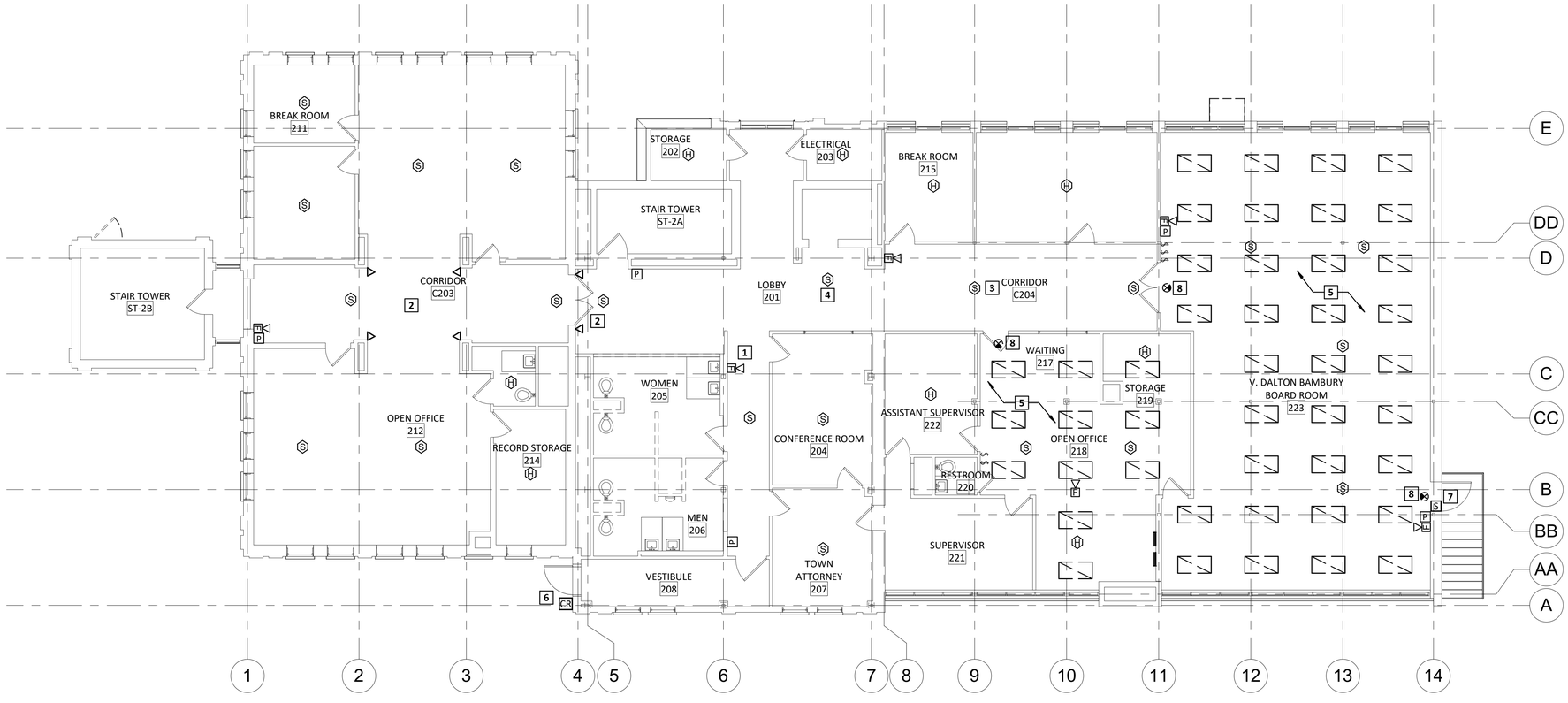
3. **DEMOLISH EXISTING FIRE ALARM INITIATION DEVICE. TYPICAL ALL DEVICES SHOWN.**
4. **COORDINATE WITH EXISTING ELEVATOR MANUFACTURER FOR REPLACEMENT AND INTERCONNECTION OF NEW FIRE ALARM COMPONENTS. CONTRACTOR SHALL SUB-CONTRACT WITH AUTHORIZED ELEVATOR MANUFACTURER'S REPRESENTATIVE FOR ANY REPROGRAMMING AND/OR ADDITIONAL EQUIPMENT REQUIRED FOR FULL AND PROPER OPERATION OF THE EXISTING ELEVATOR CONTROLLER.**
5. **DEMOLISH EXISTING LIGHT FIXTURES AND LIGHTING CONTROL DEVICES IN ROOM. EXISTING BRANCH CIRCUITRY TO REMAIN FOR REUSE IN NEW WORK. TYPICAL ALL LIGHT FIXTURES AND LIGHTING CONTROL DEVICES IN ROOM.**
6. **DISCONNECT EXISTING ACCESS CONTROL DEVICE AND BRANCH CIRCUITRY/CBALING. MAKE BRANCH CIRCUITRY/CABLING SAFE FOR DOOR REPLACEMENT WORK BY GENERAL CONTRACTOR. EXISTING ACCESS CONTROL DEVICE TO BE RECONNECTED IN NEW WORK.**
7. **DISCONNECT EXISTING DOOR SECURITY BRANCH CIRCUITRY/CABLING FROM DOOR. PULL BRANCH CIRCUITRY/CABLING BACK TO JUNCTION BOX AND MAKE SAFE FOR DOOR REPLACEMENT WORK BY GENERAL CONTRACTOR.**
8. **DEMOLISH EXIT LIGHT FIXTURE, BRANCH CIRCUITRY TO REMAIN FOR RECONNECTION TO NEW EXIT LIGHT FIXTURE IN NEW WORK.**



ELECTRICAL SECOND FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION

ELECTRICAL SECOND FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION

SCHENECTADY COUNTY, NEW YORK

TOWN OF ROTTERDAM

Barton & Loguidice
Engineers & Architects, PLLC
443 Electronics Parkway
Liverpool, NY 13088

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Project Number: 904.055.001

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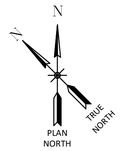


GENERAL NOTES:

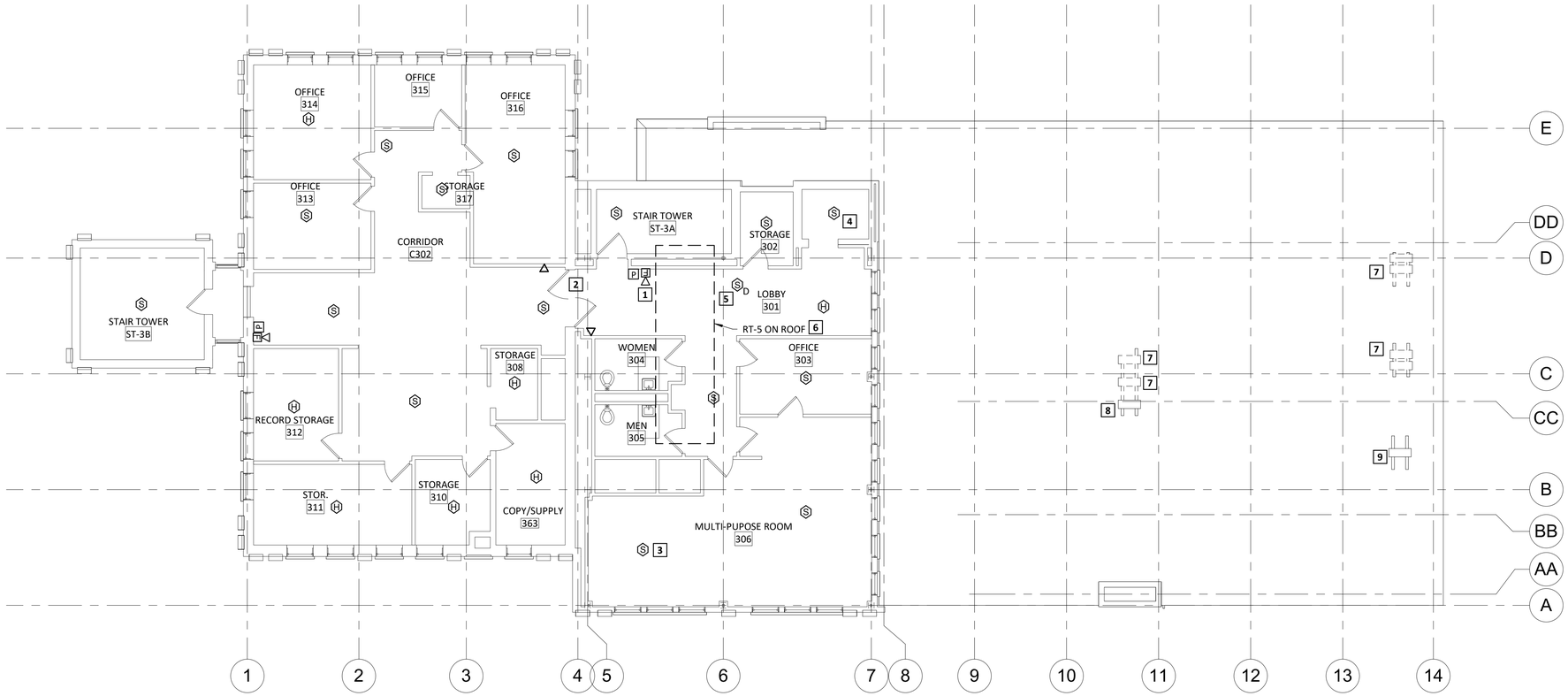
1. ELEVATOR IS TIED INTO FIRE ALARM SYSTEM.
2. THE EXISTING FIRE ALARM SYSTEM IS TO REMAIN ACTIVE AND FULLY OPERATIONAL UNTIL THE NEW SYSTEM HAS BEEN ENERGIZED, TESTED AND ACCEPTED BY THE LOCAL AHJ. CONTRACTOR SHALL MAKE ALL PROVISIONS NECESSARY TO INSTALL THE NEW SYSTEM WHILE PROTECTING AND MAINTAINING THE EXISTING SYSTEM'S OPERATION.
3. AFTER ACCEPTANCE OF THE NEW FIRE ALARM SYSTEM, THE CONTRACTOR SHALL COMPLETELY DEMOLISH THE EXISTING FIRE ALARM SYSTEM, INCLUDING ALL EQUIPMENT, DEVICES AND WIRING. EXPOSED CONDUITS MAY REMAIN IN PLACE HOWEVER ALL WIRING IS TO BE REMOVED. STAINLESS STEEL COVERPLATES MAY BE USED TO COVER ALL DEVICE OPENINGS IN GYPSUM WALLS AND CEILING. COVER PLATES MUST BE SIZED APPROPRIATELY AND FULLY COVER EACH OPENING. CONTRACTOR SHALL PROVIDE CUSTOM COVER PLATES WHERE OPENINGS ARE LARGER THAN STANDARD SIZES, THE INSTALLATION OF MULTIPLE PLATES FOR A SINGLE OPENING WILL NOT BE ACCEPTED. WHERE DEVICES ARE DEMOLISHED IN DROP CEILING AREAS, NEW CEILING TILES TO MATCH THE EXISTING TILES SHALL BE PROVIDED BY THE CONTRACTOR.
4. ALL WORK INVOLVING TEMPORARY SHUTDOWNS OF THE EXISTING FIRE ALARM SYSTEM, ELECTRICAL SYSTEM, AIR HANDLING EQUIPMENT, ROOMS, ETC. SHALL BE COORDINATED WITH THE OWNER AND A MINIMUM 5 DAYS WRITTEN NOTICE SHALL BE PROVIDED.

GENERAL NOTES:

5. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING ASSOCIATED WITH THEIR WORK. WHERE EQUIPMENT IS COMPLETELY DEMOLISHED OR REMOVED AND REPLACED WITH NEW EQUIPMENT, ALL FINISHES, FLOORING, BASE AND WALL SHALL BE PATCHED TO MATCH SURROUNDING AREAS. FEATHER INTO EXISTING FINISHED CONDITIONS TO TRANSITION NEW PATCH WORK WITH EXISTING FINISHED CONDITIONS. ALL PATCHING AND PAINTING SHALL BE DONE IN A MANNER TO MATCH THE EXISTING SURFACE IN APPEARANCE AND FUNCTION. ALL PATCHING SHALL BE PERFORMED BY A CONTRACTOR SKILLED IN THE APPROPRIATE CRAFT AND FINAL PATCHING IS SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT.

EXISTING CONDITIONS/DEMOLITION KEYED NOTES:

1. **DEMOLISH FIRE ALARM ANNUNCIATION DEVICES. TYPICAL ALL DEVICES SHOWN.**
2. **DEMOLISH EXISTING DOOR HOLDER DEVICES AND CONTROL WIRING. RETAIN AND EXTEND AS REQUIRED EXISTING POWER CIRCUIT AND INCORPORATE INTO NEW FIRE ALARM SYSTEM.**
3. **DEMOLISH EXISTING FIRE ALARM INITIATION DEVICE. TYPICAL ALL DEVICES SHOWN.**
4. **COORDINATE WITH EXISTING ELEVATOR MANUFACTURER FOR REPLACEMENT AND INTERCONNECTION OF NEW FIRE ALARM COMPONENTS. CONTRACTOR SHALL SUB-CONTRACT WITH AUTHORIZED ELEVATOR MANUFACTURER'S REPRESENTATIVE FOR ANY REPROGRAMMING AND/OR ADDITIONAL EQUIPMENT REQUIRED FOR FULL AND PROPER OPERATION OF THE EXISTING ELEVATOR CONTROLLER.**
5. **DEMOLISH EXISTING ROOF TOP UNIT SMOKE DETECTOR AND SAMPLING TUBE. CUT AND MODIFY EXISTING DUCT AS REQUIRED TO INSTALL NEW SAMPLING TUBES, SMOKE DETECTION EQUIPMENT AND WIRING. PATCH ANY OVERSIZED AND/OR UNUSED OPENINGS IN THE DUCT WITH SHEET METAL SCREWED AND TAPED TO THE EXISTING DUCT. PATCH INSULATION TO MATCH EXISTING AND SEAL TO MAINTAIN VAPOR BARRIER.**
6. **DISCONNECT EXISTING RTU FEEDER TO ALLOW FOR DEMOLITION OF UNIT. FEEDERS SHALL REMAIN FOR NEW RTU INSTALLATION SHOWN IN NEW WORK.**
7. **DEMOLISH CONDENSING UNIT ELECTRICAL CONNECTION, DISCONNECT AND FEEDER BACK TO PANEL. REMOVE BREAKER IF REQUIRED FOR NEW EQUIPMENT AND TURN OVER TO OWNER. RELABEL PANEL SCHEDULE.**
8. **DISCONNECT ELECTRICAL CONNECTION FOR HVAC EQUIPMENT TO ACCOMMODATE NEW ROOF WORK. RECONNECT EXISTING FEEDERS WHEN ROOF WORK IS COMPLETE.**
9. **DISCONNECT ELECTRICAL CONNECTION FOR HVAC EQUIPMENT TO ACCOMMODATE NEW ROOF WORK. PROVIDE JUNCTION BOX AND EXTEND BRANCH CIRCUITRY AS NECESSARY FOR HVAC EQUIPMENT RELOCATION. PROVIDE ADDITIONAL BRANCH CIRCUITRY AS NECESSARY FOR EXTENSION.**



ELECTRICAL THIRD FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION

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ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION

ELECTRICAL THIRD FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION

TOWN OF ROTTERDAM SCHENECTADY COUNTY, NEW YORK

Barton & Loguidice
Engineers & Architects, PLLC
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Liverpool, NY 13088
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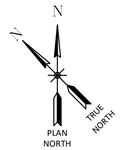

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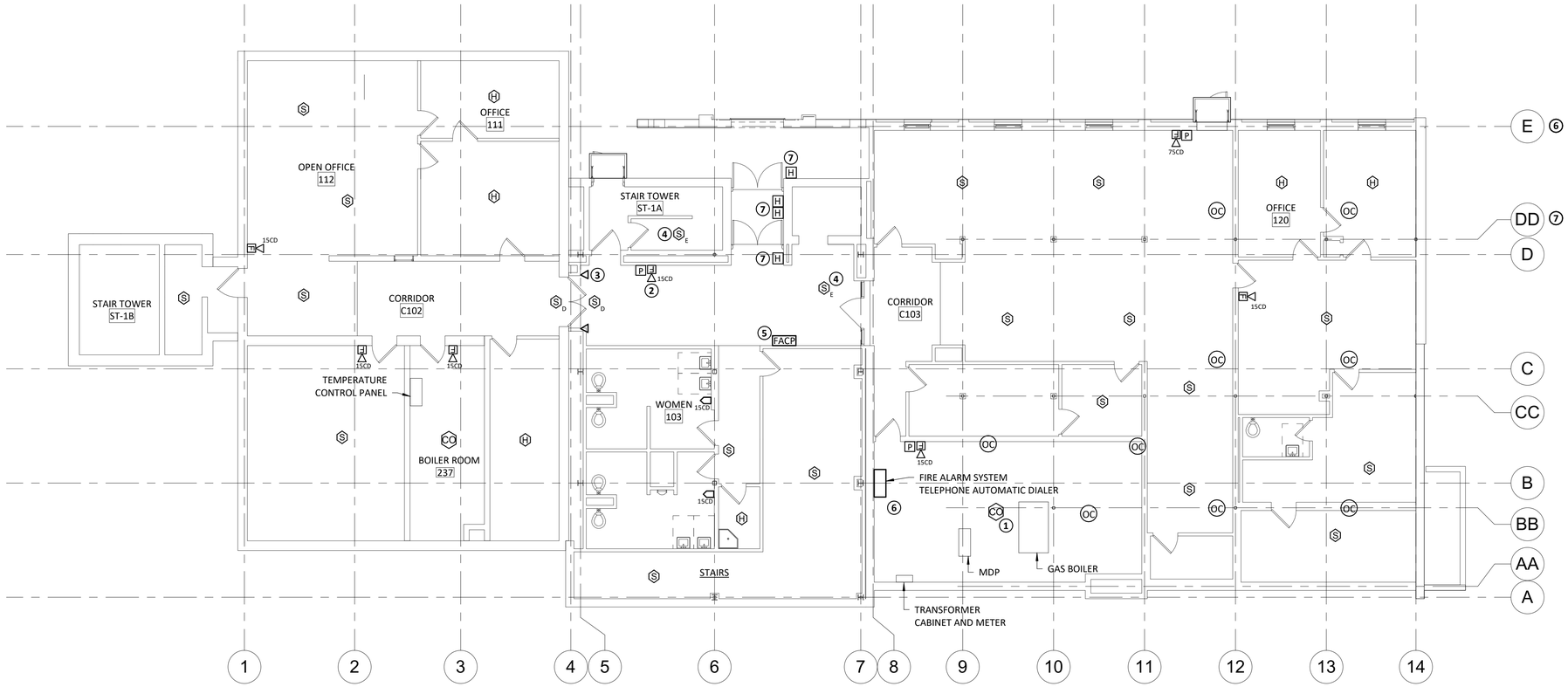
NEW WORK KEYED NOTES:

1. **PROVIDE NEW FIRE ALARM INITIATION DEVICE. PROVIDE CONDUIT, BOX COVER AND NEW WIRING FROM FIRE ALARM INITIATION DEVICE/CIRCUIT. SPLICING OF CONDUCTORS IS NOT PERMITTED. REFER TO FIRE ALARM DEVICE MOUNTING DIAGRAM ON E501 FOR ADDITIONAL INFORMATION. TYPICAL ALL INITIATION DEVICES.**
2. **PROVIDE NEW FIRE ALARM ANNUNCIATION DEVICE. PROVIDE CONDUIT, BOX COVER AND NEW WIRING FROM FIRE ALARM ANNUNCIATION DEVICE/CIRCUIT. SPLICING OF CONDUCTORS IS NOT PERMITTED. REFER TO FIRE ALARM DEVICE MOUNTING DIAGRAM ON E501 FOR ADDITIONAL INFORMATION. TYPICAL ALL ANNUNCIATION DEVICES.**
3. **REPLACE EXISTING DOOR HOLDER, PROVIDE POWER CONDUCTORS FROM NEW NAC POWER SUPPLY, USING 24V AUXILIARY OUTPUT. TYPICAL ALL DOOR HOLDERS.**
4. **PROVIDE FIRE ALARM RELAY AND MONITORING MODULES FOR ELEVATOR PRIMARY RECALL, SECONDARY RECALL, ELEVATOR SHUNT, FIRE HAT FUNCTIONS, AND ELEVATOR SHUNT POWER MONITORING.**
5. **REMOVE EXISTING FACP FROM WALL AND REINSTALL TEMPORARILY SO NEW FACP CAN BE INSTALLED IN THIS LOCATION. EXTEND EXISTING BRANCH CIRCUITS AS NEEDED SO EXISTING FACP REMAINS ACTIVE. MINIMIZE DOWN TIME TO THE GREATEST EXTENT POSSIBLE WHEN TRANSITIONING TO THE NEW FACP. PROVIDE NEW INTELLIGENT ADDRESSABLE FACP, POWER FROM SAME SOURCE AS EXISTING FACP. FACP SHALL POWER NAC DEVICES ON FIRST FLOOR AND THE BASEMENT. CONNECT NEW FACP TO DACT TO TRANSMIT SIGNALS. CONNECT TO EXISTING CONTACTS. THE FACP SHALL PROVIDE DISCRIMINATING ALARM TRANSMISSION FOR MANUAL PULL STATION ACTIVATION AND SMOKE DETECTION. FACP SHALL ALSO TRANSMIT SUPERVISORY AND TROUBLE SIGNALS.**
6. **PROVIDE NEW WIRING AND CONNECT FACP TO WIRELESS DACT TO TRANSMIT SIGNALS. CONNECT TO EXISTING CONTACTS. FOR THE PURPOSE OF THE BID, THE FACP SHALL PROVIDE DISCRIMINATING ALARM TRANSMISSION FOR FLOW MANUAL PULL STATION ACTIVATION, SMOKE DETECTION, AND HEAT DETECTION. FACP SHALL ALSO TRANSMIT SUPERVISORY AND TROUBLE SIGNALS.**
7. **PROVIDE NEW ADA ENTRY PUSH BUTTONS ACCORDING TO ARCHITECTURAL DRAWINGS. EXTEND BRANCH CIRCUITRY/CABLING FROM NEW JUNCTION BOX ABOVE CEILING TO THE NEW BUTTON LOCATIONS. PROVIDE ADDITIONAL BRANCH CIRCUITRY/CABLING, JUNCTION BOX AND WIREMOLD AS NECESSARY FOR EXTENSION. TERMINATE BRANCH CIRCUITRY/CABLING AT PUSH BUTTONS IN ACCORDANCE WITH HARDWARE MANUFACTURER'S REQUIREMENTS TO PROVIDE A COMPLETE AND FUNCTIONAL ADA ENTRY SYSTEM. EXTEND BRANCH CIRCUITRY FROM DEMOLISHED DOOR OPERATOR TO NEW DOOR OPERATOR HARDWARE, PROVIDE ADDITIONAL BRANCH CIRCUITRY AS NECESSARY.**



ELECTRICAL FIRST FLOOR PLAN - NEW WORK

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ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION

ELECTRICAL FIRST FLOOR PLAN - NEW WORK

TOWN OF ROTTERDAM SCHENECTADY COUNTY, NEW YORK

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PLAN NORTH

TRUE NORTH

LIGHT FIXTURE SCHEDULE

DESIGNATION	MANUFACTURER	DESCRIPTION	MOUNTING	LAMPS	LUMENS	WARMTH	CRI	MODEL	WATTS
A	LITHONIA LIGHTING	2X4 LED	RECESSED	LED	3000	3500K	80	STAKP-2X4-80CRI-35K-COLT-MIN10-ZT-MVOLT	22 W
B	LITHONIA LIGHTING	EXIT SIGN	CEILING/WALL	LED	N/A	N/A	N/A	LHQM-LED-H0-M6	4 W

LIGHT FIXTURE SCHEDULE NOTES:

1. ARCHITECT TO SELECT ALL DIFFUSERS, TRIM, FINISHES, ETC DURING SUBMITTAL REVIEW FROM ALL AVAILABLE OPTIONS.
2. MOUNT FIXTURES AS SHOWN ON DRAWING.
3. PROVIDE POWER SUPPLIES, CONNECTORS AND NECESSARY MOUNTING ACCESSORIES FOR FIXTURES.
4. COORDINATE DIMMER SWITCHES WHERE APPLICABLE WITH SPECIFIC FIXTURE TYPES (LED/FLUORESCENT).
5. PROVIDE EXIT LIGHT FIXTURE WITH SINGLE WET LOCATION REMOTE HEAD SIMILAR TO ELMRW-LP220L-DWHXD-SGL WHERE INDICATED. PROVIDE BRANCH CIRCUITRY FROM EXIT LIGHT FIXTURE TO REMOTE HEAD.

GENERAL NOTES:

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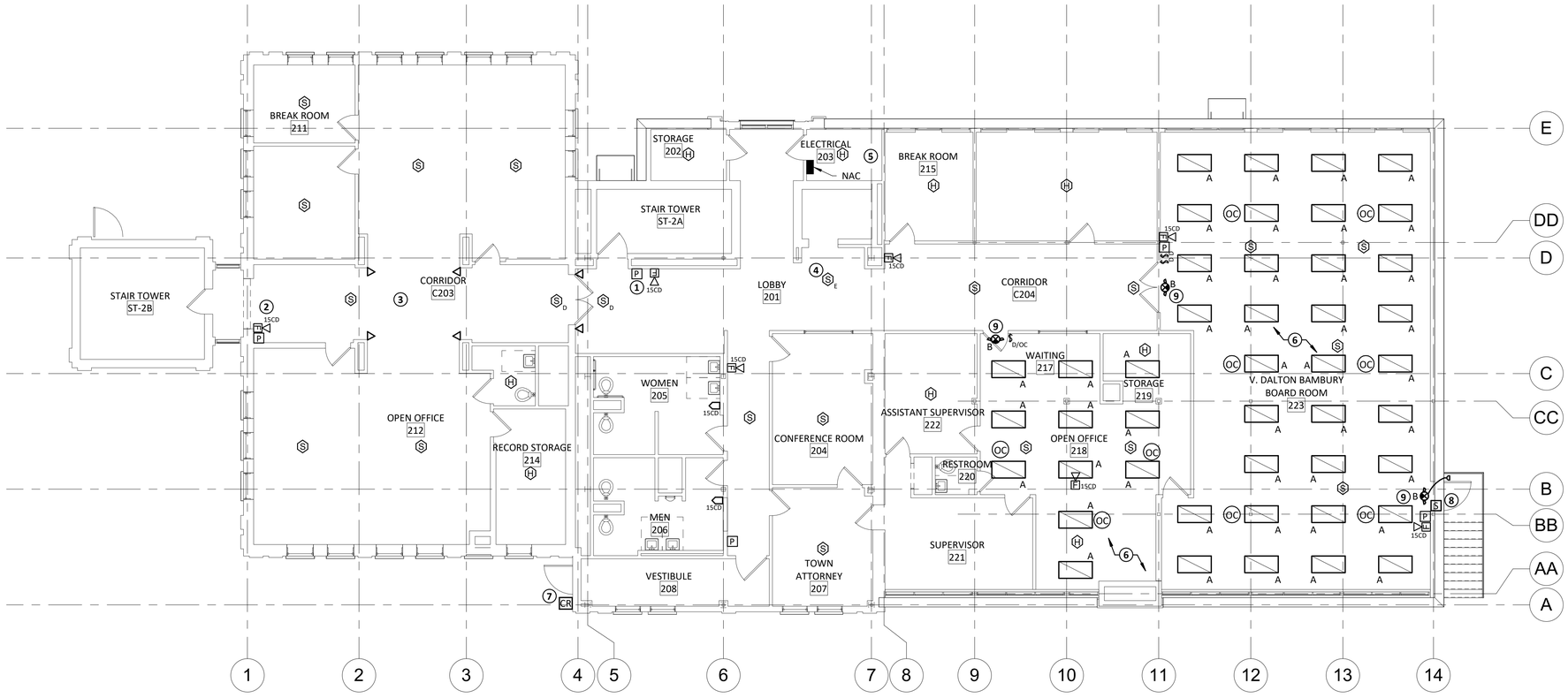
NEW WORK KEYED NOTES:

1. **PROVIDE NEW FIRE ALARM INITIATION DEVICE. PROVIDE CONDUIT, BOX COVER AND NEW WIRING FROM FIRE ALARM INITIATION DEVICE/CIRCUIT. SPLICING OF CONDUCTORS IS NOT PERMITTED. REFER TO FIRE ALARM DEVICE MOUNTING DIAGRAM ON E501 FOR ADDITIONAL INFORMATION. TYPICAL ALL INITIATION DEVICES.**
2. **PROVIDE NEW FIRE ALARM ANNUNCIATION DEVICE. PROVIDE CONDUIT, BOX COVER AND NEW WIRING FROM FIRE ALARM ANNUNCIATION DEVICE/CIRCUIT. SPLICING OF CONDUCTORS IS NOT PERMITTED. REFER TO FIRE ALARM DEVICE MOUNTING DIAGRAM ON E501 FOR ADDITIONAL INFORMATION. TYPICAL ALL ANNUNCIATION DEVICES.**
3. **REPLACE EXISTING DOOR HOLDER, PROVIDE POWER CONDUCTORS FROM NEW NAC POWER SUPPLY, USING 24V AUXILIARY OUTPUT. TYPICAL ALL DOOR HOLDERS.**
4. **PROVIDE FIRE ALARM RELAY AND MONITORING MODULES FOR ELEVATOR PRIMARY RECALL, SECONDARY RECALL, ELEVATOR SHUNT, FIRE HAT FUNCTIONS, AND ELEVATOR SHUNT POWER MONITORING.**
5. **PROVIDE NEW NAC POWER SUPPLY, CONNECT TO DEDICATED 120V CIRCUIT. POWER NAC DEVICES ON SECOND AND THIRD FLOOR FROM THIS PANEL. EACH LEVEL SHALL HAVE A DEDICATED CIRCUIT, MINIMUM. NAC POWER SUPPLY SHALL HAVE AUXILIARY 24V OUTPUT TO PROVIDE POWER FOR DOOR HOLDERS. PROVIDE 120V, 20A CIRCUIT BREAKER AND (2)#12AWG AND (1)#12AWG GND IN 3/4"C FROM EXISTING PANEL FOR NAC POWER SUPPLY. POWER NAC DEVICES ON SECOND AND THIRD FLOORS FROM THIS PANEL.**
6. **PROVIDE LIGHT FIXTURES PER LIGHT FIXTURE SCHEDULE. EXTEND EXISTING BRANCH CIRCUITRY TO NEW FIXTURES, PROVIDE ADDITIONAL BRANCH CIRCUITRY AND JUNCTION BOXES AS NECESSARY FOR CONTROL CIRCUIT REVISIONS. PROVIDE NEW LIGHTING CONTROL DEVICES AND LOW VOLTAGE CABLING FROM DEVICES TO FIXTURES. TYPICAL ALL LIGHT FIXTURES AND CONTROL DEVICES IN SPACE.**
7. **RECONNECT EXISTING ACCESS CONTROL DEVICE AND BRANCH CIRCUITRY/CABLING AFTER NEW DOOR INSTALLATION. TEST CARD READER OPERATION AND REPROGRAM CARD SYSTEM AS NECESSARY FOR COMPLETE AND FUNCTIONAL CARD READER OPERATION.**
8. **RECONNECT EXISTING DOOR SECURITY BRANCH CIRCUITRY/CABLING AFTER NEW DOOR INSTALLATION. TEST DOOR SECURITY OPERATION FOR COMPLETE AND FUNCTIONAL SECURITY ALARM.**
9. **PROVIDE EXIT FIXTURE PER SCHEDULE AND EXTEND EXISTING LOCAL EMERGENCY LIGHTING CIRCUIT TO EXIT LIGHT FIXTURES.**



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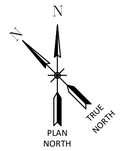

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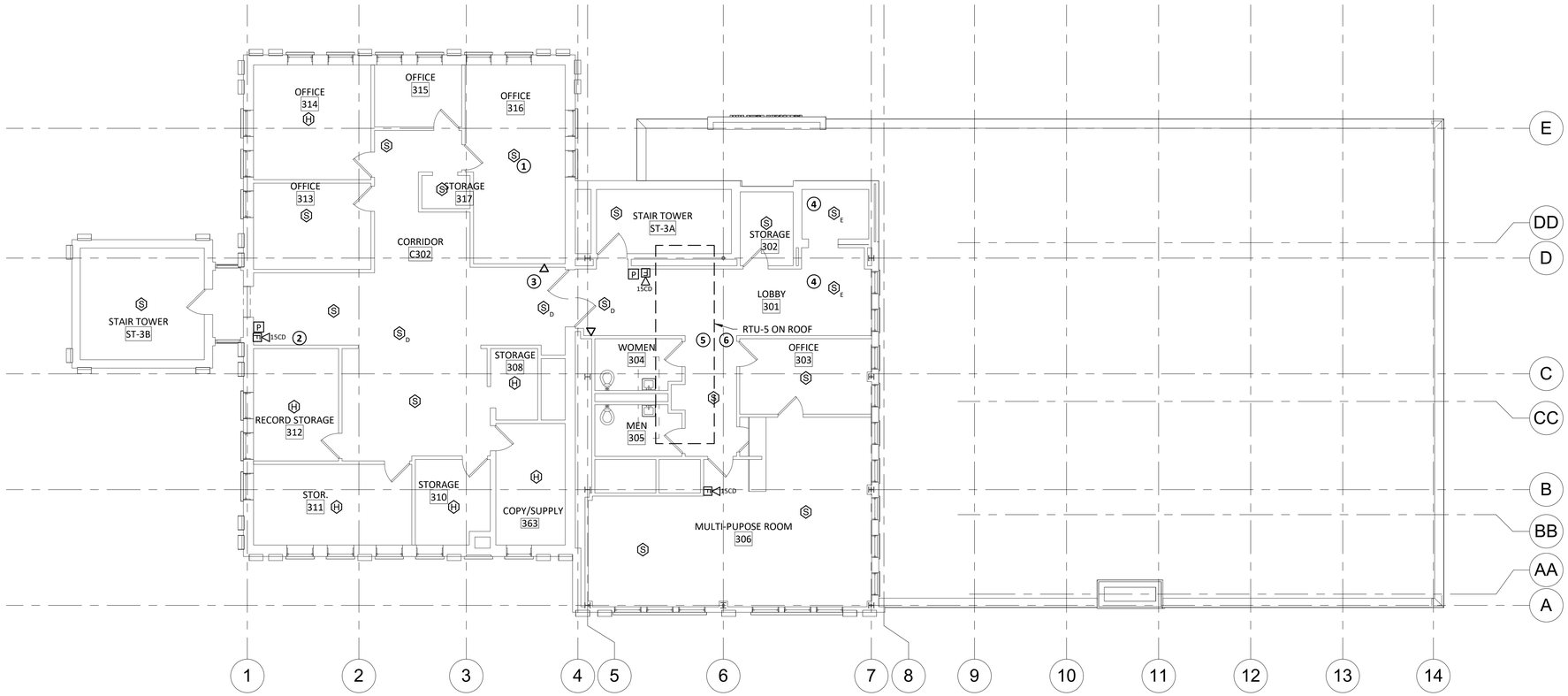
5. **PROVIDE NEW DUCT DETECTOR IN THE RETURN DUCT WORK WHERE IT ENTERS THE BUILDING, PRIOR TO ANY BRANCHES. PROVIDE REMOTE LED INSTALLED WHERE VISIBLE FROM THE CORRIDOR. PROVIDE FIRE ALARM RELAY WIRED TO THE AHU TO INITIATE SHUTDOWN. AHU SHALL BE INCAPABLE OF RESTARTING UNTIL THE FACP HAS BEEN RESET.**
6. **PROVIDE 208V, 3-PHASE, 200A FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE FOR RTU. RECONNECT EXISTING FEEDER TO NEW DISCONNECT SWITCH AND RTU.**



ELECTRICAL THIRD FLOOR PLAN - NEW WORK

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 §7209 SPECIAL PROVISIONS, FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING PROFESSIONAL SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION
SCHENECTADY COUNTY, NEW YORK

ELECTRICAL THIRD FLOOR PLAN - NEW WORK

TOWN OF ROTTERDAM

Barton & Loguidice
Engineers & Architects, PLLC
443 Electronics Parkway
Liverpool, NY 13088

NYS CERT. OF AUTH.:

REVIEW ONLY
NOT FOR
CONSTRUCTION

NYS EXP.:

Date: JULY 2023

Scale: AS SHOWN

Sheet Number: E103

Project Number: 904.055.001

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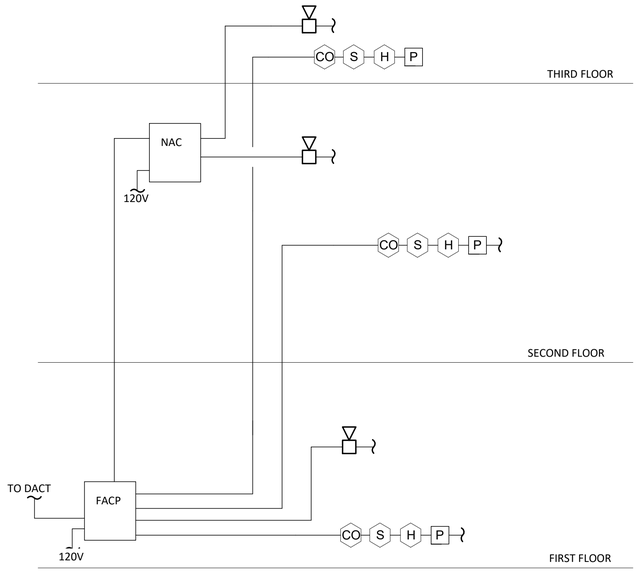
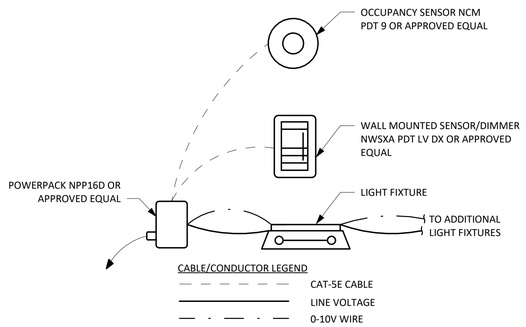
Checked by: Checker Drawn by: Author Designed by: Designer In Charge of:



FIRE ALARM RISER DIAGRAM

SCALE: NONE

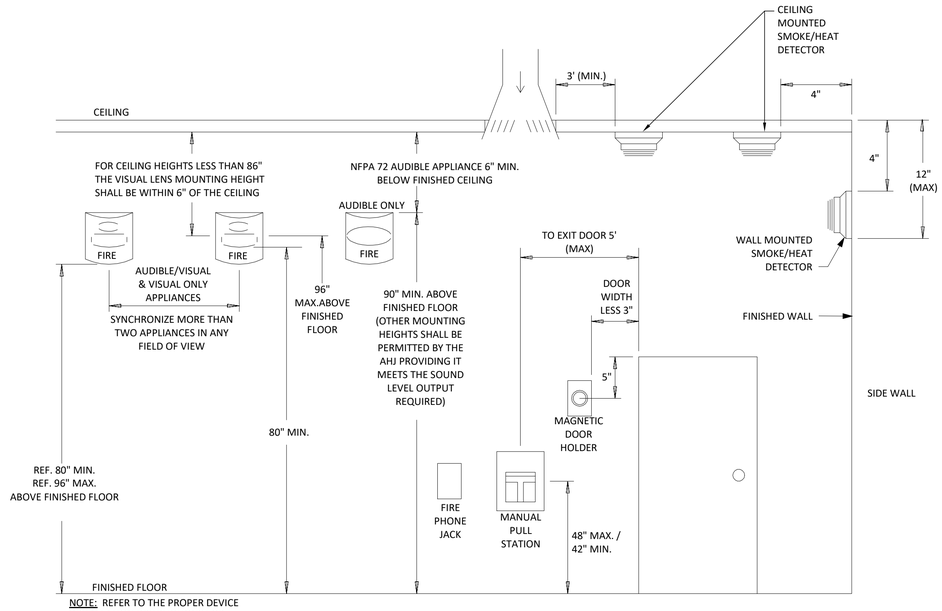


LIGHTING CONTROL DIAGRAM DONE - WALL/CEILING DIMMING/OCCUPANCY

SCALE: NONE

FIRE ALARM SEQUENCE OF OPERATIONS

	REPORT ALARM STATUS ON BUILDING FIRE ALRM PANEL	REPORT SUPERVISORY STATUS ON BUILDING FIRE ALARM PANEL	REPORT TROUBLE STATUS ON BUILDING FIRE ALARM PANEL	TRANSMIT ALARM STATUS TO FIRE ALARM DIALER	TRANSMIT SUPERVISORY STATUS TO FIRE ALARM DIALER	TRANSMIT TROUBLE STATUS TO FIRE ALARM DIALER	ACTIVATE BUILDING NOTIFICATION APPLIANCES	RECALL ELEVATOR TO PRIMARY FLOOR	RECALL ELEVATOR TO SECONDARY FLOOR	SHUNT POWER TO ELEVATOR CONTROLLER	RELEASE DOOR HOLDERS	ASSOCIATED FIRE HAT FUNCTION (CONFIRM EXISTING WIRING WITH ELEVATOR CONTROLLER)	ACTIVATE ELECTRIC BELL	
MANUAL PULL STATION	X			X			X				X			
SMOKE DETECTOR	X			X			X				X			
HEAT DETECTOR	X			X			X				X			
ELEVATOR LOBBY SMOKE DETECTOR – PRIMARY FLOOR	X			X			X		X		X	X		
ELEVATOR LOBBY SMOKE DETECTOR – SECONDARY FLOOR	X			X			X	X			X	X		
ELEVATOR HOISTWAY SMOKE DETECTOR	X			X			X	X			X	X		
ELEVATOR HOISTWAY HEAT DETECTOR	X			X			X			X	X	X		
ELEVATOR SHUNT POWER LOSS		X		X										
NAC BOOSTER PANEL FAULT			X			X								
PANEL FAULT			X			X								
STAIR ENTRANCE SMOKE DETECTOR														



NOTE: MEASUREMENTS SHOWN ARE TO THE CLOSEST EDGE OF THE DETECTOR

NOTE: REFER TO THE PROPER DEVICE INSTALLATION INSTRUCTIONS FOR BACKBOX MOUNTING HEIGHT

FIRE ALARM DEVICE MOUNTING DIAGRAM

SCALE: NONE

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REVISIONS

TOWN OF ROTTERDAM
ROTTERDAM TOWN HALL BUILDING RENOVATIONS
CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION

ELECTRICAL/FIRE ALARM DETAILS AND DIAGRAMS - NEW WORK

TOWN OF ROTTERDAM — SCHENECTADY COUNTY, NEW YORK

Barton & Loguidice
Engineers & Architects, PLLC
443 Electronics Parkway
Liverpool, NY 13088
B&L
NYS CERT. OF AUTH.:

REVIEW ONLY
NOT FOR CONSTRUCTION

NYS EXP.:

Date: JULY 2023

Scale: AS SHOWN

Sheet Number: E501

Project Number: 904.055.001

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Checked by: Checker Drawn by: Author Designed by: Designer In Charge of:

RESOLUTION NO. 261.23

TO AMEND RESOLUTION 296.21 RELATING TO THE USE OF ARPA FUNDS

WHEREAS, by Resolution No. 119.23 adopted on March 8, 2023, the Town Board voted in favor of amending Section 1 of Resolution 296.21 to read in its entirety as follows:

> "SECTION 1. The Town Board of the Town of Rotterdam, upon recommendation from the Director of Finance, does hereby accept the American Rescue Plan Act (ARPA) funds (into line A 4989 4989 00 (Fed Aid)) for use in support of 2021 expenses outside the initial budget with expenditures designated toward the purchase of 210 Phillips Road ($260,000.00) and 212 Phillips Road ($215,000.00) for the future use as Town parkland (total of $475,000.00 paid from line A7110 4153 (Parks Improvements), and to fund the improvements to Sewer District 7 Extension 2 ($415,000.00 paid from Capital Project - H131 (Carmen Rd Sewer SD7 Ext 2), and to fund the leak detection work, valve/hydrant(s) assessment, lead service/pipe inventory, redundant source evaluation, and consolidation review for Water Districts 3 and 4 paid from line W38310 4850 (Water District 3, Engineering Consultant).

WHEREAS, the Town Board of the Town of Rotterdam desires to authorize designation of $1,200,000.00 of funds received pursuant to the American Rescue Plan Act (ARPA) to help fund the replacement of the asbestos concrete water main on Rt. 5S; and

WHEREAS, the Town of Rotterdam has been awarded $2,470,000 under the 2018 NYS Transportation Alternatives / Congestion Mitigation Air Quality Improvement (TAP/CMAQ) Grant Program, and the total project cost was initially estimated at $2,756,000; and

WHEREAS, the project consists of pedestrian and bicycle access improvements along NYS Route 5S/Main St. from NYS Route 103/Bridge St. to Parkis St., and on Iroquois St., including: ADA compliant concrete sidewalks; paved/colored bike lanes; high-visibility crosswalks; pedestrian safety signs; sharrows connecting to the Erie Canalway Trail (Future Empire State Trail); interpretive signage; and landscaping; and

WHEREAS, Project Engineers, during the Advanced Detail Phase of the project, have determined that the existing water main will need to be replaced as it is asbestos concrete pipe that would be in direct conflict with the necessary drainage improvements; and

WHEREAS, the Town Board of the Town of Rotterdam desires to authorize designation of $1,200,000.00 of funds received pursuant to the American Rescue Plan Act (ARPA) to complete the proposed work of replacing the asbestos concrete water main on Rt. 5S; and

WHEREAS, in light of the need to fund this important replacement of an asbestos concrete water main in the Town of Rotterdam, the Town Board determines it to be appropriate to amend Resolution 296.21 accordingly; **NOW**

THEREFORE, UPON MOTION OF Councilmember _____,

seconded by Councilmember _____,

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Section 1 of Resolution 296.21 is hereby amended to read in its entirety as follows:

> "SECTION 1. The Town Board of the Town of Rotterdam, upon recommendation from the Director of Finance, does hereby accept the American Rescue Plan Act (ARPA) funds (into line A 4989 4989 00 (Fed Aid)) for use in support of 2021 expenses outside the initial budget with expenditures designated toward the purchase of 210 Phillips Road ($260,000.00) and 212 Phillips Road ($215,000.00) for the future use as Town parkland (total of $475,000.00 paid from line A7110 4153 (Parks Improvements), and to fund the improvements to Sewer District 7 Extension 2 ($415,000.00 paid from Capital Project - H131 (Carmen Rd Sewer SD7 Ext 2), and to fund the leak detection work, valve/hydrant(s) assessment, lead service/pipe inventory, redundant source evaluation, and consolidation review for Water Districts 3 and 4 paid from line W38310 4850 (Water District 3, Engineering Consultant), and to fund the replacement of the asbestos concrete water main on Rt. 5S, paid from the fund line H132 Route 5S Safety Improvements ($1,200,000.00).

SECTION 2. Pursuant to Section 36 of the General Municipal Law of the State of New York and Sections 102, 112 and 113 of Town Law of the State of New York, regarding the Uniform System of Accounts, the following transfers to the various accounts for 2023 are hereby audited and approved:

Fund	Account No.	Title		Amount
General	A 909	FROM:	Fund Balance	-$1,200,000.00
H132 Route5S Safety Improvements		INTO:	Capital Project	+$1,200,000.00

SECTION 3. This resolution shall become effective August 9, 2023.

DATED: August 9, 2023

NAME	AYES	NOES	ABSTAIN
Christou			
Miller-Herrera			
Dodson			
Mastroianni			
Collins			

TOWN OF ROTTERDAM

John F. Kirvin Government Center • 1100 Sunrise Boulevard • Rotterdam, NY 12306
Telephone: 518-355-7575 • Fax: 518-355-7976 • Website: www.rotterdamny.org

LEGISLATIVE REQUEST FORM

DATE: August 7, 2023

TO: Mollie Collins, Town Supervisor

FROM: Paul Sebesta, Deputy Comptroller

TITLE OF LEGISLATIVE REQUEST: Designation of ARPA Funds

TO BE PLACED ON TOWN BOARD AGENDA OF: August 9, 2023

TO BE PLACED ON TOWN BOARD MEETING OF: August 9, 2023

Background Information: The Town of Rotterdam has been awarded $2,470,000 under the 2018 NYS Transportation Alternatives / Congestion Mitigation Air Quality Improvement (TAP/CMAQ) Grant Program. The total project cost was initially estimated at $2,756,000. The project consists of pedestrian and bicycle access improvements along NYS Route 5S/Main St. from NYS Route 103/Bridge St. to Parkis St., and on Iroquois St., including: ADA compliant concrete sidewalks; paved/colored bike lanes; high-visibility crosswalks; pedestrian safety signs; sharrows connecting to the Erie Canalway Trail (Future Empire State Trail); interpretive signage; and landscaping.

Evaluation/Analysis: Project Engineers, during the Advanced Detail Phase of the project, have determined that the existing water main will need to be replaced as it is asbestos concrete pipe that would be in direct conflict with the necessary drainage improvements. This additional cost is estimated at $1,200,000 and will be part of the Town's share of the project which also includes $551,000 that was bonded in 2022.

Recommendation(s): Designate $1,200,000 of ARPA Funds to finance the replacement of the asbestos concrete water main on Rt. 5S.

Attachment/Document(s):

Compliance with Purchasing Policy: N/A

Effect(s) on Existing Law(s): N/A

LEGISLATION WILL BE PREPARED BY: Supervisors Office

RESOLUTION NO. 119.23

At the regularly scheduled public meeting of the Town Board of the Town of Rotterdam, held at the John F. Kirvin Government Center 1100 Sunrise Blvd. Rotterdam, New York on Wednesday, March 8, 2023, at 7:00 p.m., the following resolution was duly adopted:

TO AMEND RESOLUTION 296.21 RELATING TO THE USE OF ARPA FUNDS

WHEREAS, by Resolution No. 59.23 adopted on January 11, 2023, the Town Board voted in favor of amending Section 1 of Resolution 296.21 to read in its entirety as follows:

> "SECTION 1. The Town Board of the Town of Rotterdam, upon recommendation from the Director of Finance, does hereby accept the American Rescue Plan Act (ARPA) funds (into line A 4989 4989 00 (Fed Aid)) for use in support of 2021 expenses outside the initial budget with expenditures designated toward the purchase of 210 Phillips Road ($260,000.00) and 212 Phillips Road ($215,000.00) for the future use as Town parkland (total of $475,000.00 paid from line A7110 4153 (Parks Improvements))."

WHEREAS, the Town Board of the Town of Rotterdam desires to authorize designation of $415,000.00 of funds received pursuant to the American Rescue Plan Act (ARPA) to help fund the continued improvements to Sewer District 7 Extension 2; and

WHEREAS, the Town of Rotterdam has also received two proposals from Prime AE Group of New York, Inc. to conduct leak detection work and valve/hydrant(s) assessment, lead service/pipe inventory, redundant source evaluation, and consolidation review for Water Districts 3 and 4 for a total cost of $136,700.00; and

WHEREAS, the Town Board of the Town of Rotterdam desires to authorize designation of $136,700.00 of funds received pursuant to the American Rescue Plan Act (ARPA) to complete the proposed work for Water Districts 3 and 4;

WHEREAS, in light of the need to fund these important improvement projects in the Town of Rotterdam, the Town Board determines it to be appropriate to amend Resolution 296.21 accordingly; **NOW**

THEREFORE, UPON MOTION OF Councilmember **DODSON,** seconded by Councilmember **MASTROIANNI,**

BE IT RESOLVED BY THE TOWN BOARD AS FOLLOWS:

SECTION 1. Section 1 of Resolution 296.21 is hereby amended to read in its entirety as follows:

"SECTION 1. The Town Board of the Town of Rotterdam, upon recommendation from the Director of Finance, does hereby accept the American Rescue Plan Act (ARPA) funds (into line A 4989 4989 00 (Fed Aid)) for use in support of 2021 expenses outside the initial budget with expenditures designated toward the purchase of 210 Phillips Road ($260,000.00) and 212 Phillips Road ($215,000.00) for the future use as Town parkland (total of $475,000.00 paid from line A7110 4153 (Parks Improvements), and to fund the improvements to Sewer District 7 Extension 2 ($415,000.00 paid from Capital Project - H131 (Carmen Rd Sewer SD7 Ext 2), and to fund the leak detection work, valve/hydrant(s) assessment, lead service/pipe inventory, redundant source evaluation, and consolidation review for Water Districts 3 and 4 paid from line W38310 4850 (Water District 3, Engineering Consultant).

SECTION 2. Pursuant to Section 36 of the General Municipal Law of the State of New York and Sections 102, 112 and 113 of Town Law of the State of New York, regarding the Uniform System of Accounts, the following transfers to the various accounts for 2023 are hereby audited and approved:

Fund	Account No.	Title	Amount
General	A 909	FROM: Fund Balance	-$415,000.00
General	A 909	FROM: Fund Balance	-$136,700.00
H131 Carman Rd SD7 Ext 2		INTO: Capital Project	+$415,000.00
Water Dist. 3	SW3 909	INTO: Fund Balance	+$136,700.00

SECTION 3. This resolution shall become effective March 8, 2023.

DATED: March 8, 2023

NAME	AYES	NOES	ABSTAIN
Christou	X		
Miller-Herrera			X
Dodson	X		
Mastroianni	X		
Collins	X		

I, Diane M. Marco, Town Clerk of the Town of Rotterdam, Schenectady County, New York, **DO HEREBY CERTIFY** that the foregoing resolution was approved by the Town Board of the Town of Rotterdam on March 8, 2023, and that the foregoing resolution is a true and correct transcript of the original resolution and of the whole thereof and that said resolution is on file in the Town Clerk's office.

I DO FURTHER CERTIFY that each of the members of the Town Board had due notice of the said Town Board meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Town of Rotterdam this March 10, 2023.

Diane M. Marco

Diane M. Marco, Town Clerk