Date: October 9, 2025

To: All Plan Holders

Our Ref: **ADDENDUM NO. 1**

Subject: Odessa-Montour CSD
2023 Capital Improvements Project – Phase 2&3
Arcadis Reference No. 143500

Arcadis Architects, Engineers and Landscape Architects, a New York General Partnership
59-61 Court Street
Suite 300
Binghamton, NY 13901
United States
Phone: 607 772 0007

All contractors submitting proposals for the above project shall take note of the following changes, additions, interpretations, clarifications, etc., in connection with the bidding documents.

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated September 29, 2025 and any previously issued addenda, as noted below.

**Previously Issued Addenda**

None

**Index to Addendum** **Pages**



**Attachments**

AD1-00 41 00 – Bid Form GC

AD1-00 41 00 – Bid Form MC

AD1-00 41 00 – Bid Form EC

AD1-00 41 00 – Bid Form PC

AD1-00 41 00 – Bid Form FSC

AD1-01 23 00 – Alternates

AD1-01 45 33 – Special Inspections and Testing

AD1-01 56 39 – Tree and Plant Protection

AD1-01 57 13 – Temporary Erosion and Sediment Control

AD1-03 31 00 – Cast-In-Place Concrete

AD1-05 12 00 – Structural Steel Framing

AD1-HH-A1 – Typical Classroom Floor Pattern

**PHASE 2**

## I. GENERAL

A. Use front end specification divisions 00 and 01 from Phase 2 for both Phase 2 and Phase 3.

## II. SPECIFICATIONS

A. Section 00 41 00 – Bid Form GC:
1. Delete section in its entirety and replace with attached section AD1-00 41 00 – Bid Form GC.

B. Section 00 41 00 – Bid Form MC:
1. Delete section in its entirety and replace with attached section AD1-00 41 00 – Bid Form MC.

C. Section 00 41 00 – Bid Form EC:
1. Delete section in its entirety and replace with attached section AD1-00 41 00 – Bid Form EC.

D. Section 00 41 00 – Bid Form PC:
1. Delete section in its entirety and replace with attached section AD1-00 41 00 – Bid Form PC.

E. Section 00 41 00 – Bid Form FSC:
1. Delete section in its entirety and replace with attached section AD1-00 41 00 – Bid Form FSC.

F. Section 01 10 00 – Summary:
1. Paragraph 1.7, add the following items:
"O. Division 31 – Earthwork: All sections.
P. Division 32 – Exterior Improvements – All sections.
Q. Division 33 – Utilities – All sections.
R. Division 34 – Transportation – All sections."

G. Section 01 23 00 – Alternates:
1. Add the attached specification section AD1-01 23 00 – Alternates.

H. Section 01 45 33 – Special Inspections and Testing:
1. Add the attached specification section AD1-01 45 33 – Special Inspections and Testing.

B. Section 01 56 39 – Tree and Plant Protection:
1. Add the attached specification section AD1-01 56 39 – Tree and Plant Protection:

C. Section 01 57 13 – Temporary Erosion and Sediment Control:
1. Add the attached specification section AD1-01 57 13 – Temporary Erosion and Sediment Control.

D. Section 03 31 00 – Cast-In-Place Concrete:
1. Add the attached specification section AD1-03 31 00 – Cast-In-Place Concrete.

E. Section 05 12 00 – Structural Steel Framing:
1. Add the attached specification section AD1-05 12 00 – Structural Steel Framing.

F. Section 08 57 59 – Service and Teller Window Units:
1. Paragraph 2.01, subparagraph A., 4.: Revise "Single horizontal sliding" to "Fixed with transaction tray".

2. Paragraph 2.01, subparagraph A., 4., a.: Delete in its entirety.
3. Paragraph 2.01, subparagraph a., 6.: Insert the following subparagraph: “a. Basis of Design: C.R. Laurence Co., Inc.; Product “C9ASA Countertop Two-Way Electronic Communicator, or Equal”.
4. Paragraph 2.01, subparagraph A., 7., a.: Revise “Product SBRWP3 CRL Powder Painted Bullet Resistant Level 3 Manual Sliding Service Window” to “Product N1V1P CRL Powder Painted Bullet Resistant Level 3 Fixed Interior Glazed Service Window”.

G. Section 08 80 00 – Glazing:

1. Insert the following subparagraph 2.05 – INSULATING GLASS UNITS:

“**2.04 INSULATING GLASS UNITS**

A. Manufacturers:
   1. Glass: Any of the manufacturers specified for float glass.
   2. Substitutions: See Section 01 60 00 – Product Requirements.

B. Fabricator: Certified by glass manufacturer for type of glass, coating, and treatment involved and capable of providing specified warranty.

C. Insulating Glass Units: Types as indicated.
   1. Durability: Certified by an independent testing agency to comply with ASTM E2190.
   2. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
   3. Metal-Edge Spacers: Stainless steel, mitered and spigoted corners.
   4. Spacer Color: Black
   5. Edge Seal:
      a. Dual-Sealed System: Provide polyisobutylene sealant as primary seal applied between spacer and glass panes, and silicone, polysulfide, or polyurethane sealant as secondary seal applied around perimeter.
      b. Color: Black.
   6. Purge interpane space with dry air, hermetically sealed.

D. Type IG-1 – Insulating Glass Units: Vision glass, double glazed.
   1. Applications: Exterior glazing unless otherwise indicated.
   2. Space between lites filled with argon.
   3. Outboard Lite: Fully tempered float glass, ¼ inch thick, minimum.
      a. Tint: Bronze.
   4. Metal edge spacer.
   5. Inboard Lite: Fully tempered float glass, ¼ inch thick, minimum.
      a. Tint: Clear
   6. Total Thickness: 1 inch.
   7. Thermal Transmittance (U-Value), Summer – Center of Glass: 0.29 maximum, nominal.
   8. Visible Light Transmittance (VLT): 36 percent, minimum.
   9. Solar Heat Gain Coefficient (SHGC): 22, maximum.
   10. Glazing Method: Dry glazing method, gasket glazing.
   11. Safety glazing required.”

## III. DRAWINGS

A. Drawing HH-HM102 – Crawlspace Abatement Plan – Highschool:
   1. Delete in its entirety.

B. Drawing AD1-HH-A1 – Typical Classroom Floor Pattern:
   1. Refer to drawing “AD1-HH-A1 – Typical Classroom Floor Pattern: for information on the typical floor pattern that shall be used in classrooms 001, 002, 003, 004, 005, 006, 007, 008, 010, and 012. Refer to specification section “09 65 00 Resilient Flooring” for information on the RHT flooring.

## PHASE 3

## I. GENERAL

A. Delete the division 00 and 01 specifications in their entirety.

## II. SPECIFICATIONS

A. Section 05 12 00 – Structural Steel Framing:
   1. Add the attached specification section AD1-05 12 00 – Structural Steel Framing.

## III. DRAWINGS

A. Drawing BG-A100 – Overall Demolition and Renovation Plans:
   1. Question: Prese provide spec for 2-post bus and vehicle lifts.
      a. **Clarification:** Add the following to notes A10 & A11 – “bus lift is being provide and installed by a third party contractor through a state contract. General Contractor to coordinate with third party contractor for concrete foundation requirements. That may differ from what is shown on structural drawings.”

B. Drawing BG-A200 – Exterior Elevations:
   1. Detail 1, change the dimensional letters on the face of the building to read “Transportation Department” instead of “Odessa-Montour Central School District”.

**END OF ADDENDUM**

**DOCUMENT 00 41 00**

**BID FORM – GENERAL CONSTRUCTION**

TO: Odessa-Montour CSD

PROJECT: 2023 Capital Improvements Project Phase 2 & 3

In accordance with Documents 00 21 13 - Instructions to Bidders and 00 31 00 - Information Available to Bidders, and in compliance with the proposed Contract Documents for the construction of the referenced project, please be advised that:

The Undersigned _____
(Name of Contractor)

_____
(Address)

having examined the Bidding Documents as prepared by Arcadis, having visited the site, and having familiarized themselves with the local conditions and any other conditions affecting the work of this Project, including the availability of materials and labor, hereby agrees to execute a contract to furnish all labor, materials, equipment, transportation, and services necessary to perform and complete the construction of the Project in accordance with the Contract Documents within the time limit, for the sums given as follows:

**BASE BID – CONTRACT NO. 1 - GENERAL CONSTRUCTION**

The construction and completion of all labor, material, equipment, services and related items incidental to and necessary to complete satisfactorily the work as shown on the Bidding Documents for the total lump sum of *(which includes the Allowance(s) noted in Specification Section 01 21 00 – Price and Payment Procedures)*:

_____(Dollars)_____(Figures)

**ALTERNATES**

Bidders are required to bid on all alternates indicated within the bidding documents. Refer to Section 01 23 00 – Alternates for description of alternates. Bidders shall set forth in the space provided therefore the amount to be added to or deducted from the Base Bid. If the Bidder does not desire to make a change from the Base Bid, they shall so indicate by using the words "No Change".

The Undersigned proposes the following additions to or deductions from the Base Bid for the alternates listed below subject to the conditions of the specifications sections applicable to the work described in the Alternate.

1. ALTERNATE NO. GC-1 – BUS GARAGE CONCRETE:

[ADD] [DEDUCT]_____

_____DOLLARS ($_____)

2. ALTERNATE NO. GC-2 – GUIDANCE OFFICE CEILINGS:

[ADD] [DEDUCT]_____

_____DOLLARS ($_____)

**ADDENDA**

Receipt of the following addenda are hereby acknowledged and the work of the same are hereby included in the sum of the Base Bid and/or Alternate:

Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____

**BID BOND**

Enclosed is a Bid Bond, Certified Check, Cashier's Check in the amount of

_____
Dollars ($_____), made payable to the Owner, and the Undersigned agrees that in case of failure to execute the necessary Contract and furnish the required Performance Bond and Payment Bond within the time limit set forth, the Bid Bond, Certified Check, or Cashier's Check, shall become and remain the property of the Owner as liquidated damages for the delay and additional expense caused the Owner thereby.

**GENERAL AGREEMENTS**

The sum given within this Bid is based upon the following general agreements:

1. The sum given in the Base Bid represents the entire cost of the Project. The sum given shall include any and all cost for insurance, including all insurance required by the Agreement, any and all fees for licenses and permits. The Undersigned agrees that no claim will be made for any additional costs regardless of any increases in costs such as higher wage scales or material prices. No amount is included in the Base Bid for sales or use taxes on materials and supplies to be incorporated in the work, except as specified.

2. The Undersigned has carefully checked all the figures used in compiling the sum given in the Base Bid and understands that the Owner will not be responsible for any errors or omissions incurred by the Undersigned in making up of this bid. The Undersigned further understands that no modification or withdrawal of this proposal will be permitted after the time specified for the receipt of bids.

3. The Undersigned agrees that this Bid shall be good and may not be withdrawn for a period of forty-five (45) consecutive calendar days after the time specified for the receipt of bids.

4. The Undersigned agrees to furnish the performance bond and payment bond as specified prior to the execution of the Contract.

5. The Undersigned hereby agrees to commence work under this Contract within ten (10) working days of receipt of "Notice to Proceed".

6. The Undersigned hereby agrees that on or before the date indicated in the Instructions to Bidders, they shall have substantially completed all the work of the Contract Documents as specified and that within Fifteen (15) working days from the date of substantial completion, they shall have fully completed the work of the total Contract as specified.

7. The undersigned agrees to provide the Owner with a breakdown of project costs for informational purposes only, prior to award of contract.

Dated: _____, 2026

Signed _____

For _____
(Name of Company)

Street _____

City _____

State _____

Zip _____

Telephone _____

## NON-COLLUSIVE BIDDING CERTIFICATION

TO: Odessa-Montour CSD

HEREINAFTER REFERRED TO AS THE OWNER, IN ACCORDANCE WITH SEALED BIDS FOR:

2023 Capital Improvements Project Phase 2 & 3

SUBMITTED UNDER DATE OF:_____

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 hereto 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 purpose 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.

COMPANY:_____

BY:_____

## CERTIFICATION OF NON-SEGREGATED FACILITIES

By the submission of this bid, the bidder, offeror, or subcontractor certifies that they do not maintain or provide for their employees any segregated facilities at any of their establishments, and that they do not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. They certify further that they will not maintain or provide for their employees any segregated facilities at any of their establishments, and that they will not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. The bidder, offeror, applicant or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms, restaurants, and other eating area, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. They further agree that (except where they have obtained identical certifications from proposed subcontractors for specific time periods) they will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000.00; that they will retain such certifications in their files; and that they will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTE: The penalty for making false statement in offers is prescribed in 18 U.S.C. 1001.

_____
Name and Title of Signer
(Please Type)

_____
(Signature)

_____
(Date)

## CERTIFICATION

I, _____, the _____ of _____
(Name) (Title) (Name of Company)

hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

**Dated:** _____ _____
**Signature**

## IRAN DIVESTMENT ACT CERTIFICATION

As a result of the Iran Divestment Act of 2012 (Act), Chapter 1 of the 2012 Laws of New York, a new provision has been added to the State Finance Law (SFL), § 165-a, effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list (prohibited entities list) of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date, at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, Bidder/Contractor (or any assignee) certifies that once the prohibited entities list is posted on the OGS website, it will not utilize on such Contract any subcontractor that is identified on the prohibited entities list.

Additionally, Bidder/Contractor is advised that once the list is posted on the OGS website, any Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to the solicitation, must certify at the time the Contract is renewed, extended or assigned that it is not included on the prohibited entities list.

During the term of the Contract, should the New York State Education Department (AGENCY) receive information that a person is in violation of the above-referenced certification, AGENCY will offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then AGENCY shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

AGENCY reserves the right to reject any bid or request for assignment for an entity that appears on the prohibited entities list prior to the award of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the prohibited entities list after contract award.

Signature:_____

Print Name:_____

Title:_____

Company Name:_____

Date: :_____

Attach to each copy of the Bid Form a Bid Bond using AIA Document A310, a certified check, or a cashier's check payable to the Owner. Any Bid Bond on other forms may be considered an irregularity in bidding. AIA forms as required by these Contract Documents are available from the American Institute of Architects, 1735 New York Avenue, NW, Washington, DC 20006, or from the Architect's office at cost.

**DOCUMENT 00 41 00**

**BID FORM – MECHANICAL CONSTRUCTION**

TO: Odessa-Montour CSD

PROJECT: 2023 Capital Improvements Project Phase 2 & 3

In accordance with Documents 00 21 13 - Instructions to Bidders and 00 31 00 - Information Available to Bidders, and in compliance with the proposed Contract Documents for the construction of the referenced project, please be advised that:

The Undersigned _____
(Name of Contractor)

_____
(Address)

having examined the Bidding Documents as prepared by Arcadis, having visited the site, and having familiarized themselves with the local conditions and any other conditions affecting the work of this Project, including the availability of materials and labor, hereby agrees to execute a contract to furnish all labor, materials, equipment, transportation, and services necessary to perform and complete the construction of the Project in accordance with the Contract Documents within the time limit, for the sums given as follows:

**BASE BID – CONTRACT NO. 2 - MECHANICAL CONSTRUCTION**

The construction and completion of all labor, material, equipment, services and related items incidental to and necessary to complete satisfactorily the work as shown on the Bidding Documents for the total lump sum of *(which includes the Allowance(s) noted in Specification Section 01 21 00 – Price and Payment Procedures)*:

_____(Dollars)_____(Figures)

**ALTERNATES**

Bidders are required to bid on all alternates indicated within the bidding documents. Refer to Section 01 23 00 – Alternates for description of alternates. Bidders shall set forth in the space provided therefore the amount to be added to or deducted from the Base Bid. If the Bidder does not desire to make a change from the Base Bid, they shall so indicate by using the words "No Change".

The Undersigned proposes the following additions to or deductions from the Base Bid for the alternates listed below subject to the conditions of the specifications sections applicable to the work described in the Alternate.

1. ALTERNATE NO. MC-1 – GUIDANCE OFFICE MECHANICALS:

[ADD] [DEDUCT]_____

_____DOLLARS ($_____)

**ADDENDA**

Receipt of the following addenda are hereby acknowledged and the work of the same are hereby included in the sum of the Base Bid and/or Alternate:

Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____

**BID BOND**

Enclosed is a Bid Bond, Certified Check, Cashier's Check in the amount of

_____
Dollars ($_____), made payable to the Owner, and the Undersigned agrees that in case of failure to execute the necessary Contract and furnish the required Performance Bond and Payment Bond within the time limit set forth, the Bid Bond, Certified Check, or Cashier's Check, shall become and remain the property of the Owner as liquidated damages for the delay and additional expense caused the Owner thereby.

**GENERAL AGREEMENTS**

The sum given within this Bid is based upon the following general agreements:

1. The sum given in the Base Bid represents the entire cost of the Project. The sum given shall include any and all cost for insurance, including all insurance required by the Agreement, any and all fees for licenses and permits. The Undersigned agrees that no claim will be made for any additional costs regardless of any increases in costs such as higher wage scales or material prices. No amount is included in the Base Bid for sales or use taxes on materials and supplies to be incorporated in the work, except as specified.

2. The Undersigned has carefully checked all the figures used in compiling the sum given in the Base Bid and understands that the Owner will not be responsible for any errors or omissions incurred by the Undersigned in making up of this bid. The Undersigned further understands that no modification or withdrawal of this proposal will be permitted after the time specified for the receipt of bids.

3. The Undersigned agrees that this Bid shall be good and may not be withdrawn for a period of forty-five (45) consecutive calendar days after the time specified for the receipt of bids.

4. The Undersigned agrees to furnish the performance bond and payment bond as specified prior to the execution of the Contract.

5. The Undersigned hereby agrees to commence work under this Contract within ten (10) working days of receipt of "Notice to Proceed".

6. The Undersigned hereby agrees that on or before the date indicated in the Instructions to Bidders, they shall have substantially completed all the work of the Contract Documents as specified and that within Fifteen (15) working days from the date of substantial completion, they shall have fully completed the work of the total Contract as specified.

7. The undersigned agrees to provide the Owner with a breakdown of project costs for informational purposes only, prior to award of contract.

Dated: _____, 2026

Signed _____

For _____
(Name of Company)

Street _____

City _____

State _____

Zip _____

Telephone _____

## NON-COLLUSIVE BIDDING CERTIFICATION

TO: Odessa-Montour CSD

HEREINAFTER REFERRED TO AS THE OWNER, IN ACCORDANCE WITH SEALED BIDS FOR:

2023 Capital Improvements Project Phase 2 & 3

SUBMITTED UNDER DATE OF:_____

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 hereto 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 purpose 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.

COMPANY:_____

BY:_____

## CERTIFICATION OF NON-SEGREGATED FACILITIES

By the submission of this bid, the bidder, offeror, or subcontractor certifies that they do not maintain or provide for their employees any segregated facilities at any of their establishments, and that they do not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. They certify further that they will not maintain or provide for their employees any segregated facilities at any of their establishments, and that they will not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. The bidder, offeror, applicant or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms, restaurants, and other eating area, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. They further agree that (except where they have obtained identical certifications from proposed subcontractors for specific time periods) they will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000.00; that they will retain such certifications in their files; and that they will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTE: The penalty for making false statement in offers is prescribed in 18 U.S.C. 1001.

_____

Name and Title of Signer
(Please Type)

_____

(Signature)

_____

(Date)

## CERTIFICATION

I, _____, the _____ of _____
(Name) (Title) (Name of Company)

hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

**Dated:** _____ _____
**Signature**

## IRAN DIVESTMENT ACT CERTIFICATION

As a result of the Iran Divestment Act of 2012 (Act), Chapter 1 of the 2012 Laws of New York, a new provision has been added to the State Finance Law (SFL), § 165-a, effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list (prohibited entities list) of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date, at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, Bidder/Contractor (or any assignee) certifies that once the prohibited entities list is posted on the OGS website, it will not utilize on such Contract any subcontractor that is identified on the prohibited entities list.

Additionally, Bidder/Contractor is advised that once the list is posted on the OGS website, any Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to the solicitation, must certify at the time the Contract is renewed, extended or assigned that it is not included on the prohibited entities list.

During the term of the Contract, should the New York State Education Department (AGENCY) receive information that a person is in violation of the above-referenced certification, AGENCY will offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then AGENCY shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

AGENCY reserves the right to reject any bid or request for assignment for an entity that appears on the prohibited entities list prior to the award of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the prohibited entities list after contract award.

Signature:_____

Print Name:_____

Title:_____

Company Name:_____

Date: :_____

Attach to each copy of the Bid Form a Bid Bond using AIA Document A310, a certified check, or a cashier's check payable to the Owner. Any Bid Bond on other forms may be considered an irregularity in bidding. AIA forms as required by these Contract Documents are available from the American Institute of Architects, 1735 New York Avenue, NW, Washington, DC 20006, or from the Architect's office at cost.

**DOCUMENT 00 41 00**

**BID FORM – ELECTRICAL CONSTRUCTION**

TO: Odessa-Montour CSD

PROJECT: 2023 Capital Improvements Project Phase 2 & 3

In accordance with Documents 00 21 13 - Instructions to Bidders and 00 31 00 - Information Available to Bidders, and in compliance with the proposed Contract Documents for the construction of the referenced project, please be advised that:

The Undersigned _____
(Name of Contractor)

_____
(Address)

having examined the Bidding Documents as prepared by Arcadis, having visited the site, and having familiarized themselves with the local conditions and any other conditions affecting the work of this Project, including the availability of materials and labor, hereby agrees to execute a contract to furnish all labor, materials, equipment, transportation, and services necessary to perform and complete the construction of the Project in accordance with the Contract Documents within the time limit, for the sums given as follows:

**BASE BID – CONTRACT NO. 3 - ELECTRICAL CONSTRUCTION**

The construction and completion of all labor, material, equipment, services and related items incidental to and necessary to complete satisfactorily the work as shown on the Bidding Documents for the total lump sum of *(which includes the Allowance(s) noted in Specification Section 01 21 00 – Price and Payment Procedures)*:

_____(Dollars)_____(Figures)

**ALTERNATES**

Bidders are required to bid on all alternates indicated within the bidding documents. Refer to Section 01 23 00 – Alternates for description of alternates. Bidders shall set forth in the space provided therefore the amount to be added to or deducted from the Base Bid. If the Bidder does not desire to make a change from the Base Bid, they shall so indicate by using the words "No Change".

The Undersigned proposes the following additions to or deductions from the Base Bid for the alternates listed below subject to the conditions of the specifications sections applicable to the work described in the Alternate.

1. ALTERNATE NO. EC-1 – GUIDANCE OFFICE POWER:

[ADD] [DEDUCT]_____

_____DOLLARS ($_____)

**ADDENDA**

Receipt of the following addenda are hereby acknowledged and the work of the same are hereby included in the sum of the Base Bid and/or Alternate:

Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____

**BID BOND**

Enclosed is a Bid Bond, Certified Check, Cashier's Check in the amount of

_____
Dollars ($_____), made payable to the Owner, and the Undersigned agrees that in case of failure to execute the necessary Contract and furnish the required Performance Bond and Payment Bond within the time limit set forth, the Bid Bond, Certified Check, or Cashier's Check, shall become and remain the property of the Owner as liquidated damages for the delay and additional expense caused the Owner thereby.

**GENERAL AGREEMENTS**

The sum given within this Bid is based upon the following general agreements:

1. The sum given in the Base Bid represents the entire cost of the Project. The sum given shall include any and all cost for insurance, including all insurance required by the Agreement, any and all fees for licenses and permits. The Undersigned agrees that no claim will be made for any additional costs regardless of any increases in costs such as higher wage scales or material prices. No amount is included in the Base Bid for sales or use taxes on materials and supplies to be incorporated in the work, except as specified.

2. The Undersigned has carefully checked all the figures used in compiling the sum given in the Base Bid and understands that the Owner will not be responsible for any errors or omissions incurred by the Undersigned in making up of this bid. The Undersigned further understands that no modification or withdrawal of this proposal will be permitted after the time specified for the receipt of bids.

3. The Undersigned agrees that this Bid shall be good and may not be withdrawn for a period of forty-five (45) consecutive calendar days after the time specified for the receipt of bids.

4. The Undersigned agrees to furnish the performance bond and payment bond as specified prior to the execution of the Contract.

5. The Undersigned hereby agrees to commence work under this Contract within ten (10) working days of receipt of "Notice to Proceed".

6. The Undersigned hereby agrees that on or before the date indicated in the Instructions to Bidders, they shall have substantially completed all the work of the Contract Documents as specified and that within Fifteen (15) working days from the date of substantial completion, they shall have fully completed the work of the total Contract as specified.

7. The undersigned agrees to provide the Owner with a breakdown of project costs for informational purposes only, prior to award of contract.

Dated: _____, 2026

Signed _____

For _____
(Name of Company)

Street _____

City _____

State _____

Zip _____

Telephone _____

## NON-COLLUSIVE BIDDING CERTIFICATION

TO: Odessa-Montour CSD

HEREINAFTER REFERRED TO AS THE OWNER, IN ACCORDANCE WITH SEALED BIDS FOR:

2023 Capital Improvements Project Phase 2 & 3

SUBMITTED UNDER DATE OF:_____

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 hereto 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 purpose 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.

COMPANY:_____

BY:_____

## CERTIFICATION OF NON-SEGREGATED FACILITIES

By the submission of this bid, the bidder, offeror, or subcontractor certifies that they do not maintain or provide for their employees any segregated facilities at any of their establishments, and that they do not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. They certify further that they will not maintain or provide for their employees any segregated facilities at any of their establishments, and that they will not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. The bidder, offeror, applicant or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms, restaurants, and other eating area, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. They further agree that (except where they have obtained identical certifications from proposed subcontractors for specific time periods) they will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000.00; that they will retain such certifications in their files; and that they will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTE: The penalty for making false statement in offers is prescribed in 18 U.S.C. 1001.

_____
Name and Title of Signer
(Please Type)

_____
(Signature)

_____
(Date)

## CERTIFICATION

I, _____, the _____ of _____
(Name) (Title) (Name of Company)

hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

**Dated:** _____ _____
**Signature**

## IRAN DIVESTMENT ACT CERTIFICATION

As a result of the Iran Divestment Act of 2012 (Act), Chapter 1 of the 2012 Laws of New York, a new provision has been added to the State Finance Law (SFL), § 165-a, effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list (prohibited entities list) of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date, at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, Bidder/Contractor (or any assignee) certifies that once the prohibited entities list is posted on the OGS website, it will not utilize on such Contract any subcontractor that is identified on the prohibited entities list.

Additionally, Bidder/Contractor is advised that once the list is posted on the OGS website, any Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to the solicitation, must certify at the time the Contract is renewed, extended or assigned that it is not included on the prohibited entities list.

During the term of the Contract, should the New York State Education Department (AGENCY) receive information that a person is in violation of the above-referenced certification, AGENCY will offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then AGENCY shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

AGENCY reserves the right to reject any bid or request for assignment for an entity that appears on the prohibited entities list prior to the award of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the prohibited entities list after contract award.

Signature:_____

Print Name:_____

Title:_____

Company Name:_____

Date: :_____

Attach to each copy of the Bid Form a Bid Bond using AIA Document A310, a certified check, or a cashier's check payable to the Owner. Any Bid Bond on other forms may be considered an irregularity in bidding. AIA forms as required by these Contract Documents are available from the American Institute of Architects, 1735 New York Avenue, NW, Washington, DC 20006, or from the Architect's office at cost.

**DOCUMENT 00 41 00**

**BID FORM – PLUMBING CONSTRUCTION**

TO: Odessa-Montour CSD

PROJECT: 2023 Capital Improvements Project Phase 2 & 3

In accordance with Documents 00 21 13 - Instructions to Bidders and 00 31 00 - Information Available to Bidders, and in compliance with the proposed Contract Documents for the construction of the referenced project, please be advised that:

The Undersigned _____
(Name of Contractor)

_____
(Address)

having examined the Bidding Documents as prepared by Arcadis, having visited the site, and having familiarized themselves with the local conditions and any other conditions affecting the work of this Project, including the availability of materials and labor, hereby agrees to execute a contract to furnish all labor, materials, equipment, transportation, and services necessary to perform and complete the construction of the Project in accordance with the Contract Documents within the time limit, for the sums given as follows:

**BASE BID – CONTRACT NO. 4 - PLUMBING CONSTRUCTION**

The construction and completion of all labor, material, equipment, services and related items incidental to and necessary to complete satisfactorily the work as shown on the Bidding Documents for the total lump sum of *(which includes the Allowance(s) noted in Specification Section 01 21 00 – Price and Payment Procedures)*:

_____(Dollars)_____(Figures)

**ALTERNATES**

Bidders are required to bid on all alternates indicated within the bidding documents. Refer to Section 01 23 00 – Alternates for description of alternates. Bidders shall set forth in the space provided therefore the amount to be added to or deducted from the Base Bid. If the Bidder does not desire to make a change from the Base Bid, they shall so indicate by using the words "No Change".

The Undersigned proposes the following additions to or deductions from the Base Bid for the alternates listed below subject to the conditions of the specifications sections applicable to the work described in the Alternate.

1. ALTERNATE NO. PC-1 – WATER SUPPLY PIPING:

[ADD] [DEDUCT]_____

_____DOLLARS ($_____)

**ADDENDA**

Receipt of the following addenda are hereby acknowledged and the work of the same are hereby included in the sum of the Base Bid and/or Alternate:

Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____

**BID BOND**

Enclosed is a Bid Bond, Certified Check, Cashier's Check in the amount of

_____
Dollars ($_____), made payable to the Owner, and the Undersigned agrees that in case of failure to execute the necessary Contract and furnish the required Performance Bond and Payment Bond within the time limit set forth, the Bid Bond, Certified Check, or Cashier's Check, shall become and remain the property of the Owner as liquidated damages for the delay and additional expense caused the Owner thereby.

**GENERAL AGREEMENTS**

The sum given within this Bid is based upon the following general agreements:

1. The sum given in the Base Bid represents the entire cost of the Project. The sum given shall include any and all cost for insurance, including all insurance required by the Agreement, any and all fees for licenses and permits. The Undersigned agrees that no claim will be made for any additional costs regardless of any increases in costs such as higher wage scales or material prices. No amount is included in the Base Bid for sales or use taxes on materials and supplies to be incorporated in the work, except as specified.

2. The Undersigned has carefully checked all the figures used in compiling the sum given in the Base Bid and understands that the Owner will not be responsible for any errors or omissions incurred by the Undersigned in making up of this bid. The Undersigned further understands that no modification or withdrawal of this proposal will be permitted after the time specified for the receipt of bids.

3. The Undersigned agrees that this Bid shall be good and may not be withdrawn for a period of forty-five (45) consecutive calendar days after the time specified for the receipt of bids.

4. The Undersigned agrees to furnish the performance bond and payment bond as specified prior to the execution of the Contract.

5. The Undersigned hereby agrees to commence work under this Contract within ten (10) working days of receipt of "Notice to Proceed".

6. The Undersigned hereby agrees that on or before the date indicated in the Instructions to Bidders, they shall have substantially completed all the work of the Contract Documents as specified and that within Fifteen (15) working days from the date of substantial completion, they shall have fully completed the work of the total Contract as specified.

7. The undersigned agrees to provide the Owner with a breakdown of project costs for informational purposes only, prior to award of contract.

Dated: _____, 2026

Signed _____

For _____
(Name of Company)

Street _____

City _____

State _____

Zip _____

Telephone _____

## NON-COLLUSIVE BIDDING CERTIFICATION

TO: Odessa-Montour CSD

HEREINAFTER REFERRED TO AS THE OWNER, IN ACCORDANCE WITH SEALED BIDS FOR:

2023 Capital Improvements Project Phase 2 & 3

SUBMITTED UNDER DATE OF:_____

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 hereto 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 purpose 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.

COMPANY:_____

BY:_____

## CERTIFICATION OF NON-SEGREGATED FACILITIES

By the submission of this bid, the bidder, offeror, or subcontractor certifies that they do not maintain or provide for their employees any segregated facilities at any of their establishments, and that they do not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. They certify further that they will not maintain or provide for their employees any segregated facilities at any of their establishments, and that they will not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. The bidder, offeror, applicant or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms, restaurants, and other eating area, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. They further agree that (except where they have obtained identical certifications from proposed subcontractors for specific time periods) they will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000.00; that they will retain such certifications in their files; and that they will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTE: The penalty for making false statement in offers is prescribed in 18 U.S.C. 1001.

_____
Name and Title of Signer
(Please Type)

_____
(Signature)

_____
(Date)

## CERTIFICATION

I, _____, the _____ of _____
(Name) (Title) (Name of Company)

hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

**Dated:** _____ _____
**Signature**

## IRAN DIVESTMENT ACT CERTIFICATION

As a result of the Iran Divestment Act of 2012 (Act), Chapter 1 of the 2012 Laws of New York, a new provision has been added to the State Finance Law (SFL), § 165-a, effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list (prohibited entities list) of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date, at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, Bidder/Contractor (or any assignee) certifies that once the prohibited entities list is posted on the OGS website, it will not utilize on such Contract any subcontractor that is identified on the prohibited entities list.

Additionally, Bidder/Contractor is advised that once the list is posted on the OGS website, any Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to the solicitation, must certify at the time the Contract is renewed, extended or assigned that it is not included on the prohibited entities list.

During the term of the Contract, should the New York State Education Department (AGENCY) receive information that a person is in violation of the above-referenced certification, AGENCY will offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then AGENCY shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

AGENCY reserves the right to reject any bid or request for assignment for an entity that appears on the prohibited entities list prior to the award of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the prohibited entities list after contract award.

Signature:_____

Print Name:_____

Title:_____

Company Name:_____

Date: :_____

Attach to each copy of the Bid Form a Bid Bond using AIA Document A310, a certified check, or a cashier's check payable to the Owner. Any Bid Bond on other forms may be considered an irregularity in bidding. AIA forms as required by these Contract Documents are available from the American Institute of Architects, 1735 New York Avenue, NW, Washington, DC 20006, or from the Architect's office at cost.

**DOCUMENT 00 41 00**

**BID FORM – FOOD SERVICE CONSTRUCTION**

TO: Odessa-Montour CSD

PROJECT: 2023 Capital Improvements Project Phase 2 & 3

In accordance with Documents 00 21 13 - Instructions to Bidders and 00 31 00 - Information Available to Bidders, and in compliance with the proposed Contract Documents for the construction of the referenced project, please be advised that:

The Undersigned _____
(Name of Contractor)

_____
(Address)

having examined the Bidding Documents as prepared by Arcadis, having visited the site, and having familiarized themselves with the local conditions and any other conditions affecting the work of this Project, including the availability of materials and labor, hereby agrees to execute a contract to furnish all labor, materials, equipment, transportation, and services necessary to perform and complete the construction of the Project in accordance with the Contract Documents within the time limit, for the sums given as follows:

**BASE BID – CONTRACT NO. 5 – FOOD SERVICE CONSTRUCTION**

The construction and completion of all labor, material, equipment, services and related items incidental to and necessary to complete satisfactorily the work as shown on the Bidding Documents for the total lump sum of *(which includes the Allowance(s) noted in Specification Section 01 21 00 – Price and Payment Procedures)*:

_____(Dollars)_____(Figures)

**ALTERNATES**

Bidders are required to bid on all alternates indicated within the bidding documents. Refer to Section 01 23 00 – Alternates for description of alternates. Bidders shall set forth in the space provided therefore the amount to be added to or deducted from the Base Bid. If the Bidder does not desire to make a change from the Base Bid, they shall so indicate by using the words "No Change".

The Undersigned proposes the following additions to or deductions from the Base Bid for the alternates listed below subject to the conditions of the specifications sections applicable to the work described in the Alternate.

1. ALTERNATE NO. FSC-1 – ADDITIONAL FOOD SERVICE EQUIPMENT:

[ADD] [DEDUCT]_____

_____DOLLARS ($_____)

**ADDENDA**

Receipt of the following addenda are hereby acknowledged and the work of the same are hereby included in the sum of the Base Bid and/or Alternate:

Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____
Addendum No. _____Date_____

**BID BOND**

Enclosed is a Bid Bond, Certified Check, Cashier's Check in the amount of

_____
Dollars ($_____), made payable to the Owner, and the Undersigned agrees that in case of failure to execute the necessary Contract and furnish the required Performance Bond and Payment Bond within the time limit set forth, the Bid Bond, Certified Check, or Cashier's Check, shall become and remain the property of the Owner as liquidated damages for the delay and additional expense caused the Owner thereby.

**GENERAL AGREEMENTS**

The sum given within this Bid is based upon the following general agreements:

1. The sum given in the Base Bid represents the entire cost of the Project. The sum given shall include any and all cost for insurance, including all insurance required by the Agreement, any and all fees for licenses and permits. The Undersigned agrees that no claim will be made for any additional costs regardless of any increases in costs such as higher wage scales or material prices. No amount is included in the Base Bid for sales or use taxes on materials and supplies to be incorporated in the work, except as specified.

2. The Undersigned has carefully checked all the figures used in compiling the sum given in the Base Bid and understands that the Owner will not be responsible for any errors or omissions incurred by the Undersigned in making up of this bid. The Undersigned further understands that no modification or withdrawal of this proposal will be permitted after the time specified for the receipt of bids.

3. The Undersigned agrees that this Bid shall be good and may not be withdrawn for a period of forty-five (45) consecutive calendar days after the time specified for the receipt of bids.

4. The Undersigned agrees to furnish the performance bond and payment bond as specified prior to the execution of the Contract.

5. The Undersigned hereby agrees to commence work under this Contract within ten (10) working days of receipt of "Notice to Proceed".

6. The Undersigned hereby agrees that on or before the date indicated in the Instructions to Bidders, they shall have substantially completed all the work of the Contract Documents as specified and that within Fifteen (15) working days from the date of substantial completion, they shall have fully completed the work of the total Contract as specified.

7. The undersigned agrees to provide the Owner with a breakdown of project costs for informational purposes only, prior to award of contract.

Dated: _____, 2026

Signed _____

For _____
(Name of Company)

Street _____

City _____

State _____

Zip _____

Telephone _____

## NON-COLLUSIVE BIDDING CERTIFICATION

TO: Odessa-Montour CSD

HEREINAFTER REFERRED TO AS THE OWNER, IN ACCORDANCE WITH SEALED BIDS FOR:

2023 Capital Improvements Project Phase 2 & 3

SUBMITTED UNDER DATE OF:_____

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 hereto 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 purpose 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.

COMPANY:_____

BY:_____

## CERTIFICATION OF NON-SEGREGATED FACILITIES

By the submission of this bid, the bidder, offeror, or subcontractor certifies that they do not maintain or provide for their employees any segregated facilities at any of their establishments, and that they do not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. They certify further that they will not maintain or provide for their employees any segregated facilities at any of their establishments, and that they will not permit their employees to perform their services at any location, under their control, where segregated facilities are maintained. The bidder, offeror, applicant or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms, restaurants, and other eating area, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are, in fact, segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. They further agree that (except where they have obtained identical certifications from proposed subcontractors for specific time periods) they will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000.00; that they will retain such certifications in their files; and that they will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTE: The penalty for making false statement in offers is prescribed in 18 U.S.C. 1001.

_____
Name and Title of Signer
(Please Type)

_____
(Signature)

_____
(Date)

## CERTIFICATION

I, _____, the _____ of _____
(Name) (Title) (Name of Company)

hereby swear or affirm that the following is true:

1. The company, its principles or entities related to the company named above, is not now, nor ever has been, debarred from contracting with the United States Government or any State government.

2. The company is not now under investigation by any agency of the Federal Government or the government of any State for any actions by the company, its principles or any related entity, for any alleged malfeasance or misfeasance of any kind or nature which could lead to a debarment from governmental contracting or criminal prosecution, as well as render any contracts signed in reliance on this certification voidable by the party relying on this certification.

3. I have full legal authority under my company's organizational documents or bylaws to make this certification on the company's behalf.

4. I understand that submission of a false statement on this document will subject me to criminal prosecution.

**Dated:** _____ _____
**Signature**

## IRAN DIVESTMENT ACT CERTIFICATION

As a result of the Iran Divestment Act of 2012 (Act), Chapter 1 of the 2012 Laws of New York, a new provision has been added to the State Finance Law (SFL), § 165-a, effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list (prohibited entities list) of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date, at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, Bidder/Contractor (or any assignee) certifies that once the prohibited entities list is posted on the OGS website, it will not utilize on such Contract any subcontractor that is identified on the prohibited entities list.

Additionally, Bidder/Contractor is advised that once the list is posted on the OGS website, any Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to the solicitation, must certify at the time the Contract is renewed, extended or assigned that it is not included on the prohibited entities list.

During the term of the Contract, should the New York State Education Department (AGENCY) receive information that a person is in violation of the above-referenced certification, AGENCY will offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then AGENCY shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

AGENCY reserves the right to reject any bid or request for assignment for an entity that appears on the prohibited entities list prior to the award of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the prohibited entities list after contract award.

Signature:_____

Print Name:_____

Title:_____

Company Name:_____

Date: :_____

Attach to each copy of the Bid Form a Bid Bond using AIA Document A310, a certified check, or a cashier's check payable to the Owner. Any Bid Bond on other forms may be considered an irregularity in bidding. AIA forms as required by these Contract Documents are available from the American Institute of Architects, 1735 New York Avenue, NW, Washington, DC 20006, or from the Architect's office at cost.

**SECTION 01 23 00**

**ALTERNATES**

## 1 PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Submission procedures.

B. Documentation of changes to Contract Sum and Contract Time.

### 1.2 REQUIREMENTS

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in the Owner-Contractor Agreement.

B. Coordinate related work and modify surrounding work to integrate the work of each alternate.

C. The bidder shall enter the amount of the increase or decrease for each alternate in the appropriate column of the bid form, and this amount shall be indicated in figures and also written out in full in the space provided for each alternate.

D. References to division or sections of the Specifications to describe the work required by an alternate as indicated are not intended to restrict the work of the alternate to a single contract or trade but to provide reference to that work comprising the major portion of the Alternate. It shall be the responsibility of all Contractors to determine the extent of all the work and materials required by the alternate and to include any additional cost in their proposal for the alternate.

### 1.3 SELECTION AND AWARD OF ALTERNATIVES

A. Indicate variation of bid price for alternates described below and list in bid form document or any supplement to it, which requests a 'difference' in bid price by adding to or deducting from the base bid price.

B. The Contract will be awarded to the qualified bidder whose total lump sum base bid, together with any alternates which the Owner may wish to accept, totals the lowest number of dollars.

## 1.4 SCHEDULE OF ALTERNATES

A. CONTRACT NO. 1 – GENERAL CONSTRUCTION:

1. ALTERNATE NO. GC-1 – BUS GARAGE CONCRETE:
   a. Indicate on the Bid Form the amount to be added to the Base Bid if all work associated with the bus garage concrete pads, as indicated on the Contract Documents, is added to the Contract.

2. ALTERNATE NO. GC-2 – GUIDANCE OFFICE CEILINGS:
   a. Indicate on the Bid Form the amount to be added to the Base Bid if all work associated with the replacement of ceilings in the guidance office, as indicated on the Contract Documents, is added to the Contract.

B. CONTRACT NO. 2 – MECHANICAL CONSTRUCTION:

1. ALTERNATE NO. MC-1 – GUIDANCE OFFICE MECHANICALS:
   a. Indicate on the Bid Form the amount to be added to the Base Bid if all work associated with the replacement of mechanical systems in the guidance office, as indicated on the Contract Documents, is added to the Contract.

C. CONTRACT NO. 3 – ELECTRICAL CONSTRUCTION:

1. ALTERNATE NO. EC-1 – GUIDANCE OFFICE POWER:
   a. Indicate on the Bid Form the amount to be added to the Base Bid if all work associated with the power for mechanical equipment in the guidance office, as indicated on the Contract Documents, is added to the Contract.

D. CONTRACT NO. 4 – PLUMBING CONSTRUCTION:

1. ALTERNATE NO. PC-1 – WATER SUPPLY PIPING:
   a. Indicate on the Bid Form the amount to be added to the Base Bid if all work associated with the replacement of water piping, as indicated on the Contract Documents, is added to the Contract.

E. CONTRACT NO. 5 – FOOD SERVICE CONSTRUCTION:

1. ALTERNATE NO. FS-1 – ADDITIONAL FOOD SERVICE EQUIPMENT:
   a. Indicate on the Bid Form the amount to be added to the Base Bid if all work associated with the additional food service equipment, as indicated on the Contract Documents, is added to the Contract.

## 2 PART 2 PRODUCTS

Not Used

## 3 PART 3 EXECUTION

Not Used

**END OF SECTION**

## SECTION 01 45 33

## SPECIAL INSPECTIONS AND TESTING

## PART 1 GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

### 1.2 GENERAL REQUIREMENTS

A. Special Inspections and Testing shall be in accordance with Chapter 17 of the Building Code of New York State, adopted 2002.

B. The program of Special Inspection and Testing is a Quality Assurance program intended to ensure that the work is performed in accordance with the Contract Documents.

C. This Specification Section is intended to inform the Contractor of the Owner's quality assurance program and the extent of the Contractor's responsibilities. This Specification Section also serves to inform the Special Inspector and Inspection and Testing Agents of their requirements and responsibilities.

### 1.3 SCHEDULE OF INSPECTIONS AND TESTS

A. Required inspections and tests are described in the Schedule at the end of the Statement of Special Inspections.

### 1.4 QUALIFICATIONS

A. The Inspection and Testing Agents, including testing laboratories, shall be approved by the Owner's Representative and the Design Professional in Responsible Charge.

B. The following specific requirements for Inspection and Testing Agents may be waived by the Design Professional in Responsible Charge.

1. Inspectors performing inspections of soils and foundations shall have an education and background in geotechnical engineering.

2. The testing laboratories shall maintain a full time licensed Professional Engineer on staff who shall certify all test reports. This Engineer shall be responsible for the training of the testing technicians and shall be in responsible charge of the field and laboratory testing operations.

3. Technicians performing sampling and testing of concrete shall be ACI certified Concrete Field Testing Technicians - Grade 1.

4. Inspectors performing inspections of concrete work such as inspections of concrete placement, batching, reinforcing placement, curing and protection, shall be ACI certified Concrete Construction Inspectors or ICBO certified Reinforced Concrete Special Inspector in lieu of being a licensed P.E. or EIT.

5. Inspectors performing inspections of masonry shall be ICBO certified Structural Masonry Special Inspectors.

6. Inspectors performing inspections of structural steel shall be individuals who are either licensed Professional Engineers (P.E.) or Engineers-In-Training (EIT) with an education and background in structural engineering, and ICBO certified as Structural Steel Special Inspectors.

7. Technicians performing visual inspection of welding shall be AWS Certified Welding Inspectors or ICBO certified Structural Steel and Welding Special Inspectors. Technicians performing non-destructive testing such as ultrasonic testing, radiographic testing, magnetic particle testing, or dye-penetrant testing shall be certified as an ASNT-TC Level II or Level III Technician.

8. Inspectors performing inspections of spray fireproofing shall be ICBO certified Spray-Applied Fireproofing Special Inspectors.

9. Technicians performing standard tests described by specific ASTM Standards shall have training in the performance of such tests and must be able to demonstrate either by oral or written examination competence for the test to be conducted. They shall be under the supervision the Owner's Representative and shall not be permitted to independently evaluate test results.

## 1.5 SUBMITTALS

A. Inspection and Testing Agents shall submit to the Owner's Representative and the Design Professional in Responsible Charge for review a copy of their qualifications which shall include the names and qualifications of each of the individual inspectors and technicians who will be performing inspections or tests.

B. Inspection and Testing Agents shall disclose any past or present business relationship or potential conflict of interest with the Contractor or any of the Subcontractors whose work will be inspected or tested.

## 1.6 PAYMENT

A. The Owner will engage and pay for the services of the Inspection and Testing Agents.

B. If any materials which require Special Inspections are fabricated in a plant which is not located within 100 miles of the project, the Contractor shall be responsible for the travel expenses of the Special Inspector or Inspection and Testing Agents.

C. The Contractor shall be responsible for the cost of any retesting or reinspection of work which fails to comply with the requirements of the Contract Documents.

## 1.7 CONTRACTOR RESPONSIBILITIES

A. The Contractor shall cooperate with the Inspection and Testing Agents so that the Special Inspections and Testing may be performed without hindrance.

B. The Contractor shall provide adequate OSHA-compliant access for the Inspection and Testing Agents, for them to perform their work.

C. The Contractor shall review the Statement of Special Inspections and shall be responsible for coordinating and scheduling inspections and tests. The Contractor shall notify the Inspection and Testing Agents at least 24 hours in advance of a required test, and 3 working days in advance of a required inspection. Un-inspected work that required inspection may be rejected solely on that basis.

D. The Contractor shall provide incidental labor and facilities to provide access to the work to be inspected or tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.

E. The Contractor shall keep at the project site the latest set of construction drawings, field sketches, approved shop drawings, and specifications for use by the Special Inspector and Inspection and Testing Agents.

F. The Special Inspection program shall in no way relieve the Contractor of his obligation to perform work in accordance with the requirements of the Contract Documents or from implementing an effective Quality Control program. All work that is to be subjected to Special Inspection and Testing shall first be reviewed by the Contractor's quality control personnel.

G. The Contractor shall be solely responsible for construction site safety.

## 1.8 LIMITS ON AUTHORITY

A. The Inspection and Testing Agents may not release, revoke, alter, or enlarge on the requirements of the Contract Documents.

B. The Inspection and Testing Agents will not have control over the Contractor's means and methods of construction.

C. The Inspection and Testing Agents shall not be responsible for construction site safety.

D. The Inspection and Testing Agents have no authority to stop the work.

## 1.9 STATEMENT OF SPECIAL INSPECTIONS

A. The Statement of Special Inspections will be prepared by the Design Professional in Responsible Charge.

B. The Statement of Special Inspections shall be submitted to the State Education Department with the application for Building Permit.

## 1.10 RECORDS AND REPORTS

A. Inspection and Testing Agents shall prepare detailed daily reports of each inspection or test and submit these reports to the Owner's Representative and Design Professional in Responsible Charge. Reports shall include:
   1. Date of test or inspection.
   2. Name of inspector or technician.
   3. Location of specific areas tested or inspected.
   4. Description of test or inspection and results.
   5. Applicable ASTM standard.
   6. Weather conditions (for site inspections or testing).
   7. Signature of inspector, or of the individual overseeing the testing.

B. The Inspection and Testing Agents shall report any discrepancies from the Contract Documents found during an inspection. If the discrepancies are not corrected during the inspection, the Inspection and Testing Agents shall notify the Owner's Representative and Design Professional in Responsible Charge. Reports shall document all discrepancies identified and the corrective action taken.

C. The Testing Laboratory shall promptly notify the Design Professional in Responsible Charge and the Owner's Representative by telephone, fax or email of any test results which fail to comply with the requirements of the Contract Documents.

D. The Inspection and Testing Agents shall submit reports to the Owner's Representative and Design Professional in Responsible Charge within 7 days of the inspection or test. Handwritten reports may be submitted if final typed copies are not available.

E. At the completion of the work requiring Special Inspections, each Inspection and Testing Agent, including laboratories, shall provide a statement to the Owner's Representative and Design Professional in Responsible Charge that all work was completed in substantial conformance with the Contract Documents and that all appropriate inspections and tests were performed.

## 1.11 FINAL REPORT OF SPECIAL INSPECTIONS

A. The Final Report of Special Inspections shall be completed by the Design Professional in Responsible Charge and submitted to the New York State Education Department prior to the issuance of a Certificate of Use and Occupancy.

B. The Final Report of Special Inspections will certify that all required inspections have been performed and will itemize any discrepancies that were not corrected or resolved.

## PART 2 – PRODUCTS

Not Used

## PART 3 – EXECUTION

Not Used

## PART 4 – SCHEDULE

| INSPECTION AND TESTING (Continuous & Periodic is as Defined by the BCNYS) | CONTINUOUS | PERIODIC | REFERENCE STANDARD | BCNYS REFERENCE | CHECK IF REQUIRED | IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY |
|---|---|---|---|---|---|---|
| **A. Steel Construction** | | | | | | |
| 1. Material verification of high-strength bolts, nuts and washers. | | X | Applicable ASTM material specifications. AISC ASD, Section A3.4; AISC LRFD, Section A3.3 | 1704.3 | √ | |
| 2. Inspection of high-strength bolting. | X | X | AISC LRFD, Section M2.5 | 1704.3, 1704.3.3 | √ | |
| 3. Material verification of structural steel. | | | ASTM A 6 or A 568 | 1704.3, 1708.4 | √ | |
| 4. Material verification of weld filler materials. | | | AISC, ASD, Section A3.6; AISC LRFD, Section A3.5 | 1704.3 | √ | |
| 5. Inspection of welding: | | | | | | |
| a. Structural steel | | | | | √ | |
| (1) Groove Welds | X | | AWS D1.1 | 1704.3.1 | | |
| (2) MP Fillet Welds | X | | AWS D1.1 | 1704.3.1 | | |
| (3) SP Fillet >5/16” | X | | AWS D1.1 | 1704.3.1 | | |
| (4) SP Fillet <= 5/16” | | X | AWS D1.1 | 1704.3.1 | ☐ | |
| (5) Flr & Deck Welds | | X | AWS D1.3 | - | | |
| b. Reinforcing steel | | X | AWS D1.4 ACI 318: 3.5.2 | 1903.5.2 | ☐ | |
| 6. Inspection of steel frame joint details. | | X | | 1704.3.2 | ☐ | |
| **B. Concrete Construction** | | | | | | |
| 1. Inspection of reinforcing steel, including prestressing tendons, and placement. | | X | ACI 318: 3.5, 7.1-7.7 | 1704.4, 1903.5, 1907.1, 1907.7, 1914.4 | √ | Spec 033100 |
| 2. Inspection of reinforcing steel welding. | | | AWS D1.4; ACI 318: 3.5.2 | 1704.4, 1903.5.2 | ☐ | |
| 3. Inspection of bolts to be installed in concrete prior to and during | X | | | 1704.4, 1912.5 | √ | Spec 033100 |

| INSPECTION AND TESTING (Continuous & Periodic is as Defined by the BCNYS) | CONTINUOUS | PERIODIC | REFERENCE STANDARD | | BCNYS REFERENCE | CHECK IF REQUIRED | IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY |
|---|---|---|---|---|---|---|---|
| placement. | | | | | | | |
| 4. Verify use of required design mix. | | X | ACI 318: Ch. 4, 5.2-5.4 | | 1704.4, 1904, 1905.2-1905.4, 1914.2, 1914.3 | √ | Spec 033100 |
| 5. Sampling fresh concrete: slump, air content, temperature, strength test specimens. | X | | ASTM C 172, C 31; ACI 318: 5.6, 5.8 | | 1704.4, 1905.6, 1914.10 | √ | Spec 033100 |
| 6. Inspection of placement for proper application techniques. | X | | ACI, 318: 5.9, 5.10 | | 1704.4, 1905.9, 1905.10, 1914.6, 1914.7, 1914.8 | √ | Spec 033100 |
| 7. Inspection for maintenance of specified curing temperature and techniques. | | X | ACI, 318: 5.11, 5.13 | | 1704.4, 1905.11, 1905.13, 1914.9 | √ | Spec 033100 |
| 8. Inspection of prestressed concrete. | X | | ACI 318: 18.18, 18.164 | | 1704.4 | ☐ | |
| 9. Erection of precast concrete members. | | X | ACI 318: Ch. 16 | | 1704.4 | ☐ | |
| 10. Verification of in-situ concrete strength prior to stressing of tendons and prior to removal of shores and forms from beams and slabs. | | X | SVI 318: 6.2 | | 1704.4, 1906.2 | ☐ | |
| **C. Masonry Construction**<br>L1 = Level 1 Inspection required for nonessential facilities.<br>L2 = Level 2 Inspection required for essential facilities. In general, schools are not considered essential facilities unless they are a designated emergency shelter. | | | ACI 530/ ASCE 5/TMS 402, Ch. 35 | ACI 530.1/ ASCE 6/TMS 602, Ch. 35 | | | |
| 1. Verify to ensure compliance: | | | | | | √ | |

| INSPECTION AND TESTING (Continuous & Periodic is as Defined by the BCNYS) | CONTINUOUS | PERIODIC | REFERENCE STANDARD | | BCNYS REFERENCE | CHECK IF REQUIRED | IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY |
|---|---|---|---|---|---|---|---|
| a. Proportions of site prepared mortar and grout. | | X L1 L2 | | 2.6A | 1704.5 | √ | |
| b. Placement of masonry units and construction of mortar joints. | | X L1 L2 | | 3.3B | 1704.5 | √ | |
| c. Location and placement of reinforcement, connectors, tendons, anchorages. | | X L1 L2 | | 3.4, 3.6A | 1704.5 | √ | |
| d. Prestressing technique and installation. | | X L1 L2 | | 3.6A, 3.6B | 1704.5 | ☐ | |
| e. Grade and size of tendons and anchorages. | | X L1 L2 | | 2.4B, 2.4H | 1704.5 | ☐ | |
| f. Grout specs prior to grouting. | X L2 | | | 3.2D | 1704.5 | √ | |
| g. Placement of grout. | X L2 | | | 3.5 | 1704.5 | √ | |
| h. Grouting of tendons. | X L2 | | | 3.6C | 1704.5 | ☐ | |
| 2. Inspection shall verify: | | | | | 1704.5 | ☐ | |
| a. Size and location of structural elements. | | X L1 L2 | | 3.3G | 1704.5 | √ | |
| b. Type, size, and location of anchors. | X L2 | X L1 | 1.15.4, 2.1.1 | | 1704.5 | √ | |
| c. Specified size, grade, and type of reinforcement. | | X L1 L2 | 1012 | 2.4, 3.4 | 1704.5 | √ | |
| d. Welding of reinforcing bars. | X L1 L2 | | 2.1.8.6, 2.1.8.6 | | 1704.5, 2108.9.2.11 | ☐ | |
| e. Cold/hot weather protection of masonry construction. | | X L1 L2 | | 108 | 1704.5, 2104.3, 2104.4 | √ | |
| f. Prestressing force measurement and application. | X L2 | X L1 | | 3.6B | 1704.5 | ☐ | |
| 3. Inspection prior to grouting. | | X L1 L2 | 1.12 | 3.2D, 3.4, 2.6B, 3.3B | 1704.5 | ☐ | |

| INSPECTION AND TESTING (Continuous & Periodic is as Defined by the BCNYS) | CONTINUOUS | PERIODIC | REFERENCE STANDARD | | BCNYS REFERENCE | CHECK IF REQUIRED | IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY |
|---|---|---|---|---|---|---|---|
| 4. Grout placement. | X<br>L1<br>L2 | | | 3.5,<br>3.6C | 1704.5 | ☐ | |
| 5. Preparation of grout specimens, mortar specimens, and/or prisms. | X<br>L1<br>L2 | | | 1.4 | 1704.5 | ☐ | |
| 6. Compliance with documents and submittals. | | X<br>L1<br>L2 | | 1.5 | 1704.5 | ☐ | |
| **D. Wood Construction**: Fabrication of wood structured elements and assemblies. | | X | | | 1704.6,<br>1704.2 | ☐ | |
| **E. Soils** | | | | | | | |
| 1. Site preparation. | | | | | 1704.7.1 | √ | Spec 312000 |
| 2. During fill placement. | | X | | | 1704.7.2 | √ | Spec 312000 |
| 3. Evaluation of in-place density. | | X | | | 1704.7.3 | √ | Spec 312000 |
| **F. Pile Foundations:** Installation and load tests. | | | | | 1704.8 | ☐ | |
| **G. Pier Foundations:** Seismic Design Category C, D, E. F. | | | | | 1704.9,<br>1616.3 | ☐ | |
| **H. Wall Panels and Veneers:** Seismic Design Category E, F. | | | | | 1704.10,<br>1616.3,<br>1704.5 | ☐ | |

| INSPECTION AND TESTING (Continuous & Periodic is as Defined by the BCNYS) | CONTINUOUS | PERIODIC | REFERENCE STANDARD | BCNYS REFERENCE | CHECK IF REQUIRED | IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY |
|---|---|---|---|---|---|---|
| **I. Sprayed Fire-Resistant Materials** | | | | | | |
| 1. Structural member surface conditions. | | X | | 1704.11.1 | ☐ | |
| 2. Application. | | X | | 1704.11.2 | ☐ | |
| 3. Thickness. | | X | ASTM E 605 | 1704.11.3 | ☐ | |
| 4. Density. | | X | ASTM E 605 | 1704.11.4 | ☐ | |
| 5. Bond strength. | | X | ASTM E 736 | 1704.11.5 | ☐ | |
| **J. Exterior Insulation and Finish Systems (EIFS)** | | | | 1704.12 | ☐ | |
| **K. Special Cases** | | | | 1704.13 | ☐ | |
| **L. Smoke Control** | | | | 1704.14 | ☐ | |
| **M. Special Inspections for Seismic Resistance:** Applicable to specific structures, systems, and components. | | | | | | |
| 1. Structural steel. | X | | AISC Seismic | 1707.2 | ☐ | |
| 2. Structural wood. | X | | | 1707.3 | ☐ | |
| 3. Cold-formed steel framing. | | X | | 1707.4 | ☐ | |
| 4. Storage racks and access floors. | | X | | 1707.5 | ☐ | |
| 5. Architectural components. | | X | | 1707.6 | ☐ | |
| 6. Mechanical and electrical components. | | X | | 1707.7 | ☐ | |
| 7. Seismic isolation system. | | X | | 1707.8 | ☐ | |
| **N. Structural Testing for Seismic Resistance:** Applicable to specific | | | | | | |

| INSPECTION AND TESTING (Continuous & Periodic is as Defined by the BCNYS) | CONTINUOUS | PERIODIC | REFERENCE STANDARD | BCNYS REFERENCE | CHECK IF REQUIRED | IDENTIFY SPEC SECTION AND PROVIDE CLARIFYING NOTES IF NECESSARY |
|---|---|---|---|---|---|---|
| structures, systems, and components. | | | | | | |
| 1. Testing and verification of masonry materials and assemblies. | | | | 1708.1 | ☐ | |
| 2. Testing for seismic resistance. | | | | 1708.2 | ☐ | |
| 3. Reinforcing and prestressing steel. | | | ACI 318 | 1708.3, 1903.5.2 | ☐ | |
| 4. Structural steel. | | | AISC Seismic | 1708.5 | ☐ | |
| 5. Mechanical and electrical equipment. | | | | 1708.5 | ☐ | |
| 6. Seismically isolated structures. | | | | 1708.6, 1623.8 | ☐ | |
| **O. Structural Observations** | | | | 1709.1 | ☐ | |
| Applicable to specific structures. | | | | | | |
| **P. Test Safe Load** | | | | 1712.1 | ☐ | |
| **Q. In-Situ Load Tests** | | | | 1713.1 | ☐ | |
| **R. Preconstruction Load Tests** | | | | 1714.1 | ☐ | |
| **S. Other (list)** | | | | | | |

**END OF SECTION**

**SECTION 01 56 39**

**TREE AND PLANT PROTECTION**

## PART 1 - GENERAL

### 1.01 SECTION INCLUDES

A. Marking of clearing limits.

B. Marking individual trees to be protected.

C. Marking groups of trees and shrubs to be protects

D. Tree protection fencing

E. Maintenance of trees as defined in this Section.

### 1.02 RELATED REQUIREMENTS

A. The following items of related work are specified and included in other Sections of the Specifications:

1. Section 01 57 13 Temporary Erosion and Sedimentation Control.

2. Section 31 20 00 Site Preparation

3. Section 31 13 16 Tree Pruning

### 1.03 SUMMARY

A. The General Contractor shall install and manage all tree protection during the course of performing his project responsibilities.

B. Tree protection is multilayered and sequential. When, during the course of construction, the Contractor determines the location of tree protection devices needs to be adjusted, the relocation effort shall be supervised and approved by the Certified Arborist. Do no adjustment of tree protection without approval by the Certified Arborist.

C. The General Contractor shall remove all tree protection at the end of the construction contract.

### 1.04 REFERENCES

A. The following standards shall apply to the work of this Section.

1. International Society of Arboriculture, Savoy, IL 61874 (ISA): Guide for Plant Appraisal

### 1.05 SUBMITTALS

A. Certifications: Submit appropriate evidence of certification of all arborists to be employed on the Project.

B. At least 30-days prior to ordering materials, the Contractor shall submit representative samples, certifications, manufacturer's product data and certified test results for materials to the Owner's Representative as specified below. No materials shall be ordered or delivered until the required submittals have been reviewed and approved by the Owner's Representative. Delivered materials shall closely match the approved samples. Approval shall not constitute final acceptance. The Owner reserves the right to reject, on or after delivery, any material that does not meet these Specifications.

1. Tree protection fencing: Product literature

## 1.06 QUALITY ASSURANCE

A. Work of evaluation, pruning, root pruning, fertilizing, and similar activities shall be undertaken only by certified Arborists and chemical applicators, as pertinent to the work being performed.

1. Application of chemicals shall be performed by licensed chemical applicators.

2. Arborist shall be a professional Certified Arborist with a minimum five (5) years of experience.

## 1.07 LIABILITY FOR DAMAGES

A. The Contractor shall be liable for all damage and/or disturbance to existing trees not otherwise designated for removal. Actual charges for damage to plants shall be in accordance with the schedules defined herein, with assessed charges to be deducted from sums payable under the Construction Contract.

1. Damage that, in the Owner's opinion, can be remedied by corrective maintenance shall be repaired immediately.

2. At the Owner's discretion, the Contractor shall replace trees that are damaged irreparably with new trees of size and type determined by the Owner.

3. In the event that replacement of damaged trees is not feasible or impractical as determined by the Certified Arborist, the estimated value of the trees will be determined by the Certified Arborist using the Trunk formula Method published by the Council of Tree and Landscape Appraisers in The Guide for Plant Appraisal, 9$^{th}$ Edition as modified below:

4. The following data fields are used in the formula:

| | |
|---|---|
| Estimated Value | Size, species factor, condition factor, and location value |
| Size | Based on tree DBH (4.5-feet above grade) |
| Species Factor | Relative species desirability based on 100% for the tree in that geographical location. In most cases, species desirability ratings, published by the International Society of Arboriculture, are used for adjustment. |
| Condition Factor | Rating of the tree's structure and health based on 100% |
| Location Factor | Average rating for the site and the tree's contribution and placement, based on 100% |

5. The Size is based on the DBH measurements taken in the field. DBH is used to establish cross sectional area using $\pi r^2$, where DBH is halved to product the R-value (radius value). The diameters and these equations are used to produce a Trunk Area for the tree to provide the Size value in the Estimated Value equation.

6. The Species Factor refers to the desirability of the tree in this region. The desirability used here comes from the International Society of Arboriculture's (ISA) New England Chapter. The New England Chapter publishes a Tree Species Rating Guide, which provides the most common species and the desirability for that species in the New England region on a scale of 0 to 100.

7. The Condition Factor is based on the Condition Rating assigned to the tree in the field by the Certified Arborist. The ratings will be Good, Fair, Poor, and Dead. The factors for each rating shall be: Good = 0.7, Fair = 0.5, Poor = 0.3, and Dead = 0.0.

8. The Location Factor is based on the Location Value which is the field judgment of the Certified Arborist as to how the tree is contributing to the site. The Location Values that the Owner's arborist uses are Excellent, Good, Fair, Poor, and Unacceptable. The factors for each rating shall be: Excellent = 0.9, Good = 0.7, Fair = 0.5, Poor = 0.3, and Unacceptable = 0.1.

9. To arrive at a dollar value ($), additional information will be required. An Average Nursery Price per square inch is used in the calculation to arrive a dollar value. The Average Nursery Price is provided by the local ISA chapter (the New England chapter) in the Tree Species Rating Guide. The value used for the New England chapter is $80.00 per square inch of cross sectional area. This value shall be used for this Contract.

10. The equation for Estimated Value is: Size X Species Factor X Condition Factor X Location Factor X Price/square inch. = Estimate Value

B. Damaged trees that require removal and/or replacement shall be removed according to the Specification requirements for removals, including refilling and repair of ground surface, with such costs to be borne by the Contractor in addition to assessed charges described herein.

C. The Contractor shall be liable for all damage and/or disturbance to existing adjacent lands beyond the Limit of Work. Actual damage to these areas, caused by the Contractor, shall be repaired to the satisfaction of the Owner, at no additional cost to the Owner. Repairs may include pruning or removing damaged vegetation as specified, performed and paid for under the work of Division 31 Section Tree Pruning, replacement of damaged vegetation, restoration of the ground plane to its original condition, and any other work required to restore the area to its original condition as depicted in the site photographs taken at the beginning of construction. The project will not be accepted until all repair work is complete.

## 1.08 ON-SITE PRECONSTRUCTION CONFERENCE

A. Before the start of any work on the site, preceding the arrival of equipment, materials or vehicles to the site, and prior to the commencement of any clearing on the site, the Contractor shall arrange a preconstruction conference on the site with the Owner, the Certified Arborist and the Owner's Representatives to identify trees and shrubs that are to be protected or removed. Do no clearing without a clear understanding of existing conditions to be preserved. In addition to the responsibilities and penalties described in this Part of the Specification, the Contractor shall be held responsible for any and all clearing, damage or destruction to plant material that results from the Contractor's failure to schedule and attend the preconstruction conference on site. In the event of said clearing, damage or destruction the Contractor will be assessed the full penalties described in this Section.

## PART 2 - PRODUCTS

### 2.01 TREE PROTECTION FENCING

A. In areas of heavy construction traffic and/or other areas where the tree protection fencing may require frequent adjustment, the contractor shall use Portable chain link fencing equal to commonly available rent-a-fence products. Fencing shall consist of panels of chain link fence in new or near-new condition. Fabric shall be uniform, square mesh diagonal pattern measuring approximately 2-inches on its parallel sides. Provide standard 12-foot panel sections, 8-foot height, with vertical and horizontal cross bars. Panels shall be free standing. Provide weights as required to prevent wind-blown failure. Panels shall be connected with approved corrosion resistant wire, ties, or similar attachment system.

B. In areas of limited construction traffic and/or areas where adjustments to the fencing alignment will be limited, the contractor may use high visibility high tensile strength plastic fencing to delineate vegetation to be protected. Fencing shall be a minimum 4-ft in height and secured to metal stakes set at 4-ft intervals.

### 2.02 MULCH & COMPOST

A. Wood Chip Mulch: Wood chips for mulching plants may be either hardwood or softwood chips as produced by a chipping machine, which meet the specified requirements. No leaves, young green growth, branches, twigs 2-inches or less in diameter, wood shavings, sawdust, stones or extraneous materials shall be included. Chips shall not exceed 2-inches in greatest dimension. Submit samples for the Owner's Representative's approval.

## PART 3 - EXECUTION

### 3.01 PRECONSTRUCTION MEETING - IDENTIFICATION OF TREES TO REMAIN

A. Prior to starting site demolition operations, meet with the Certified Arborist and the Owner's Representative to identify trees to remain and trees to be removed.

B. Provide color coded ribbon to tag the trees to remain (green) and trees to be remove (orange).

C. Tag each tree as directed by the Certified Arborist and the Owner's Representative.

D. Stake out the location of portable fencing for tree protection. Outline these areas with safety orange spray paint.

E. The Contractor shall be responsible for the protection of all existing trees designated to remain for the length of the construction period, including liability for all damages as specified herein. The placement of protection devices additional to those specified shall, however, be at the Contractor's discretion and with no additional cost to the Owner.

## 3.02 PROTECTION OF EXISTING TREES

A. The Contractor shall not damage existing trees to remain. The Contractor is required to install protection as necessary to assure undamaged plant material and adjacent conditions.

B. Protect trunks, roots and branches of all trees to remain.

C. Tree protection work shall include trunk protection, root zone protection as determined by the Owner's Representative, and all additional protection deemed appropriate by the Owner's Representative.

D. Tree protection shall remain in place and be maintained in working condition by the Contractor until directed for removal by the Owner's Arborist. Remove tree protection devices in accordance with the approved schedule of removal in accordance with the approved tree protection sequencing plan.

E. Damage no plants to remain by burning, by pumping of water, by cutting of live roots or branches, or by any other means. No plants to be saved shall be used for crane stays, guys or other fastenings. Do not park vehicles within the limits of tree protection fencing. Do not store construction materials within tree protection fencing.

F. Adjust the location of tree protection fencing as directed by the Certified Arborist.

G. Work to be performed by the General Contractor: Establish and carry out maintenance program as approved by the Owner for all trees and plants to be saved within the work limits throughout the time of construction. As a minimum, the maintenance program shall include the following:

1. Watering during drought periods.

2. Pruning of all broken, dead, diseased or weak branches as specified, performed and paid for under the work of Division 31 Section Tree Pruning.

3. Removal and disposal of debris generated by maintenance activities.

## 3.03 TREE CUTTING, PRUNING AND REMOVAL

A. Pruning shall be specified, performed and paid for under the work of Division 31 Section Tree Pruning

B. Tree removal shall be specified, performed and paid for under the work of Division 31 Section Tree Pruning.

**END OF SECTION**

## SECTION 01 57 13

## TEMPORARY EROSION AND SEDIMENT CONTROL

## PART 1 - GENERAL

### 1.01 RELATED REQUIREMENTS

A. Section 31 20 00 - Earthmoving.

B. Section 32 92 19 - Seeding.

### 1.02 REFERENCE STANDARDS

A. Erosion and Sediment Control Guidelines: Conform to the latest edition of "NEW YORK STANDARDS and SPECIFICATIONS for EROSION and SEDIMENT CONTROL" by NYS Department of Environmental Conservation DOW (i.e., Bluebook). Refer to these guidelines for construction and maintenance of all items (Temporary and Permanent Structural, Vegetative and Biotechnical) included in the Storm Water Pollution and Prevention Plan (SWPPP).

B. Storm Water Management: Conform to the latest edition of "NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL" prepared by Center for Watershed Protection for NYS Department of Environmental Conservation.

### 1.03 PERFORMANCE REQUIREMENTS

A. A Storm Water Pollution and Prevention Plan (SWPPP) is not required for this project. The contractor shall still be responsible for installing and maintaining the temporary storm water and diversion control items as shown on the drawings before starting any grading or excavation and maintain compliance of all Storm Water Pollution SPDES regulations. Provide any temporary sediment and erosion control measures that may be required within limits of the work, including any staging areas, throughout construction in conformance with the plan, and as directed by the Owner's Representative. Place the permanent control practices required before the removal of the temporary storm water diversion and control items.

B. During construction conduct operations in such a manner as to prevent or reduce to a minimum any damage to any drainage system from pollution by debris, sediment, chemical or other foreign material, or from the manipulation of equipment and/or materials in or near a drainage way flowing directly to a stream. Any water which has been used for wash purposes or other similar operations which become polluted with sewage, silt, cement, concentrated chlorine, oil, fuels, lubricants, bitumens, or other impurities shall not be discharged into any drainage system or water body.

C. In the event of conflict between these specifications and the regulation of other Federal, State, or local jurisdictions, the more restrictive regulations shall apply.

D. The Contractor shall adhere to all requirements of the Storm Water Pollution Prevention Plan as presented on Drawing No(s). C130 & C530. Comply with all applicable NYSDEC regulatory requirements.

E. The Contractor will submit copies of certificates documenting that on-site workers have completed a NYS Department of Environmental Conservation endorsed Erosion & Sediment Control training as required by General Permit GP-0-20-001.

F. Verify that all applicable permits have been obtained prior to beginning earth disturbing activities on site.

1. Owner will obtain permits and pay for securities required by authority having jurisdiction.

2. Owner will withhold payment to Contractor equivalent to all fines resulting from non-compliance with applicable regulations.

G. Provide to Owner a Performance Bond covering erosion and sedimentation preventive measures only, in an amount equal to 100 percent of the cost of erosion and sedimentation control work.

## 1.04 DESCRIPTION

A. The Work shall consist of furnishing, installing, inspecting, maintaining, and removing soil and erosion control measures as shown on the contract documents or as ordered by the Owner's Representative during the life of the contract to provide erosion and sediment control.

B. Temporary structural measures provide erosion control protection to a critical area for an interim period. A critical area is any disturbed, denuded slope or disturbed area subject to erosion. These are used during construction to prevent offsite sedimentation. Temporary structural measures shall include stabilized construction entrance, dust control, sediment traps, silt fence, storm drain inlet protection, or other erosion control devices or methods as required.

C. Permanent structural measures also control protection to a critical area. They are used to convey runoff to a safe outlet. They remain in place and continue to function after completion of construction. Permanent structural measures shall include land grading, rock outlets, and or other erosion control devices or methods as required.

D. Vegetative measures shall include mulching, protecting vegetation, seeding, and topsoiling or other methods as required.

E. Weekly/bi-weekly inspections will be completed by the Owner's Representative. The Contractor shall comply with and correct all deficiencies found as a result of these inspections. At the end of the construction season when soil disturbance activities will be finalized or suspended until the following spring, the frequency of the inspections may be reduced. If soil disturbance is completely suspended and

the site is properly stabilized, a minimum of monthly inspections must be maintained. The stabilization activities must be completed before snow cover or frozen ground. If vegetation is required, seeding, planting and/or sodding must be scheduled to avoid die-off from fall frosts and allow for proper germination/establishment. Weekly inspections must resume no later than March 15.

## 1.05 DEFINITIONS – VEGETATIVE MATERIALS MEASURES

A. Mulching: Applying coarse plant residue or chips, other suitable materials, to cover the soil surface to provide initial erosion control while seeding is establishing. Includes hay, straw, wood cellulose, fiber mats, flexible growth medium and other materials approved by the Owner's Representative.

B. Protecting Vegetation: The protecting of trees, shrubs, ground cover and other vegetation from damage by construction equipment to preserve existing vegetation determined important for soil erosion control, water quality protection, shade, screenings, buffers, wildlife habitat, wetland protection, and other values.

C. Temporary Seeding: Erosion control protection to a critical area for an interim period. A critical area is any disturbed, denuded slope subject to erosion. Temporary control is achieved by covering all bare ground areas that exist as a result of the construction activities.

D. Permanent Seeding: Grasses established and combined with shrubs to provide perennial vegetative cover on disturbed, denuded, slopes subject to erosion. Provide permanent stabilization to all disturbed areas void of, or having insufficient, cover to prevent erosion and sediment transport.

E. Topsoiling: Spreading of a specified quality and quantity of topsoil materials on graded or constructed subsoil areas to provide acceptable plant cover growing conditions, thereby reducing erosion, reducing irrigation needs, and the need for nitrogen fertilizer application. Placed before permanent seeding is installed.

F. Sodding: Stabilizing disturbed soil areas with a permanent stand of grass with sod and preventing runoff with sediment to downstream areas.

## 1.06 DEFINITIONS – TEMPORARY STRUCTURAL MEASURES

A. Stabilized Construction Entrance: A stabilized pad of aggregate underlain with geo-textile located at any point where traffic enters or leaves a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area to reduce or eliminate tracking of sediment onto public rights-of-way or streets.

B. Dust Control: Prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and/or traffic safety problems.

C. Silt Fence: A temporary barrier of geo-textile fabric installed on contours across the slope to intercept sediment laden runoff from small drainage areas. The silt fence shall reduce runoff velocity and effect deposition of transported sediment load. Replace after **9-months**.

D. Storm Drain Inlet Protection: A temporary, semi-permeable barrier installed around storm inlets to prevent sediment laden water from entering a storm drainage system.

E. Check Dam: Small barriers or dams constructed of stone bagged sand or gravel, or other durable material across a drainage way. Used to reduce erosion in a drainage channel by restricting the velocity of flow in the channel.

F. Sediment Trap: A temporary sediment control device formed by excavation and/or embankment to intercept sediment laden runoff and retain sediment in order to protect drainage ways, properties, and rights-of-way downstream of the sediment trap from sedimentation.

## 1.07 DEFINITIONS – PERMANENT STRUCTURAL MEASURES

A. Riprap: A layer of stone designed to protect slopes that are subject to erosion.

B. Rock Outlet Protection: A section of rock protection placed at the outlet end of the culverts, conduits, or channels to reduce the depth, velocity, and energy of water such that the flow will not erode the receiving downstream reach.

C. Grass Lined Waterway: A natural or man-made channel of parabolic or trapezoidal cross-section that is below adjacent ground level and is stabilized by suitable vegetation. Used to convey runoff without causing damage by erosion.

## 1.08 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

B. Manufacturers cut sheets for erosion control materials; including silt fence (fabric & mesh), stone materials, tree protection fencing, turbidity curtains, and erosion control blankets.

# PART 2 - PRODUCTS

## 2.01 MATERIALS

A. Mulch: Use one of the following:

1. Straw or hay.

2. Wood chips, or bark.

3. Erosion control matting or netting.

B. Seeding: Temporary, see Seeding Section 32 92 19.

C. Silt Fence Fabric: Polypropylene geotextile resistant to common soil chemicals, mildew, and insects; non-biodegradable; in longest lengths possible; fabric including seams with the following minimum average roll lengths:

1. Equivalent Opening Size: 40-80 U.S. Std. Sieve, maximum, when tested in accordance with ASTM D4751.

2. Flow Through Rate: 25 gal/min/sf, minimum, when tested in accordance with ASTM D4491.

3. Ultraviolet Resistance: Retaining at least 70 percent of tensile strength, when tested in accordance with ASTM D4355 after 500 hours exposure.

4. Grab Tensile Strength: 110 lb-f, minimum, in cross-machine direction; 124 lb-f, minimum, in machine direction; when tested in accordance with ASTM D4632.

5. Elongation at Failure: 20 percent, when tested in accordance with ASTM D4632.

6. Mullen Burst Strength: 300 PSI, when tested in accordance with ASTM D3786.

7. Puncture Strength: 60 lbs, when tested in accordance with ASTM D4833.

8. Minimum Trapezoidal Tear Strength: 50 lb-f, minimum, when tested in accordance with ASTM D4533.

9. Color: Manufacturer's standard, with embedment and fastener lines preprinted.

10. Manufacturers:
    a. Ten Cate Geosynthetics; Mirafi 170N: www.tencate.com.
    b. US Fabrics; US180NW: www.usfabricsinc.com.
    c. Propex Operating Company; Geotex 701: www.geotextile.com
    d. Willacoochee Industrial Fabrics; WINfab 800N: www.winfabusa.com
    e. Substitutions: See Section 01 60 00 - Product Requirements, and as listed on the current NYSDOT List of Approved Materials.

D. Wire Fence for Reinforced Silt Fence: Minimum 14 gage with a maximum 6-in. mesh opening.

E. Silt Fence Posts: One of the following, minimum 3.5-feet long with minimum 18-in embedment:

1. Steel U- or T-section, with minimum mass of 1.33 lb per linear foot.

2. Softwood, 4-inch by 4-inch in cross section.

3. Hardwood, 2-inch by 2-inch in cross section.

F. Gravel: See Section 31 20 00 for aggregate.

G. Riprap & Outlet Protection Stone: See Section 31 20 00.

## PART 3 - EXECUTION

### 3.01 WORK AREAS

A. The Owner's Representative has the authority to limit the surface area of erodible earth exposed by earthwork operations and to direct the Contractor to provide immediate temporary or permanent erosion measures to minimize damage to property and contamination of watercourses and water impoundments. Under no circumstances will the area of erodible earth material exposed at one time exceed 40,000 sq. ft., unless a permit has been obtained from the NYSDEC. The Owner's Representative may increase or decrease this area of erodible earth material exposed at one time as determined by his analysis of project, weather and other conditions. The Owner's Representative may limit the area of clearing and grubbing and earthwork operations in progress commensurate with the Contractor's demonstrated capability in protecting erodible earth surfaces with temporary, permanent, vegetative or biotechnical erosion control measures. All limitations shall be at no additional cost to the Owner.

B. Schedule the work so as to minimize the time that earth areas will be exposed to erosive conditions. Provide temporary structural measures immediately to prevent any soil erosion.

C. Provide temporary seeding on disturbed earth or soil stockpiles exposed for more than **7-days** or for any temporary shutdown of construction. See Section 32 92 19 for types and rates. Also, apply hay or straw at a rate of 3 bales/1000 sq. ft. (2 tons per acre) or wood fiber hydromulch at the manufacturer's recommended rate when seeding alone is not sufficient to provide stabilization. Hay or straw shall be anchored.

D. Coordinate the use of permanent controls or finish materials shown with the temporary erosion measures.

E. All erosion and sediment control devices must be maintained in working order until the site is stabilized. All preventative and remedial maintenance work, including clean out, repair, replacement, re-grading, re-seeding, or re-mulching, must be performed immediately.

F. After final stabilization (80% minimum vegetative cover) has been achieved temporary sediment and erosion controls must be removed. Areas disturbed during removal must be stabilized immediately.

## 3.02 PREPARATION

A. Schedule work so that the minimum amount of soil practical is exposed at any one time.

## 3.03 SCOPE OF PREVENTIVE MEASURES

A. In all cases, if permanent erosion resistant measures have been installed temporary preventive measures are not required.

B. Stabilized Construction Entrances: Traffic-bearing aggregate surface.

1. Width: As required; 20-feet, minimum.

2. Length: 50-feet, minimum.

3. Provide at each construction entrance from public right-of-way.

4. Where necessary to prevent tracking of mud onto right-of-way, provide wheel washing area out of direct traffic lane, with drain into sediment trap or basin.

C. Linear Sediment Barriers: Silt fences.

1. Provide linear sediment barriers:
   a. Along downhill perimeter edge of disturbed areas, including soil stockpiles.
   b. Along the top of the slope or top bank of drainage channels and swales that traverse disturbed areas.
   c. Along the toe of cut slopes and fill slopes.
   d. Perpendicular to flow across the bottom of existing and new drainage channels and swales that traverse disturbed areas or carry runoff from disturbed areas; space at maximum of 200-feet apart.
   e. Across the entrances to culverts that receive runoff from disturbed areas.

2. Space sediment barriers with the following maximum slope length upslope from barrier fence:

| | | Slope Length / Fence Length | |
|---|---|---|---|
| a. | Slope of Less Than 2 Percent: | NA | NA |
| b. | Slope Between 2 and 10 Percent: | 250-feet / | 2,000-feet |
| c. | Slope Between 10 and 20 Percent: | 150-feet / | 1,000-feet |
| d. | Slope Between 20 and 33 Percent: | 80-feet / | 750-feet |
| e. | Slope Between 30 and 50 Percent: | 70-feet / | 350-feet |
| f. | Slope Greater Than 50 Percent: | 30-feet / | 175-feet |

D. Storm Drain Inlet Protection: Protect each inlet using one of the following measures:

1. Filter fabric wrapped around hollow concrete blocks blocking entire inlet face area; use one piece of fabric wrapped at least 1-1/2 times around concrete blocks and secured to prevent dislodging; orient cores of blocks so runoff passes into inlet.

2. Stone and block protection with concrete blocks placed around the inlet and then wrapped with fabric and surrounded with stone.

3. Paved surface inlet protection consisting of sandbags or manufactured surface barriers placed around the inlet in a manner that does not divert flow away from the inlet.

4. Manufactured insert inlet protection shall be installed and anchored in accordance with manufacturer's recommendations and design details.

E. Soil Stockpiles: Protect using one of the following measures:

1. Cover with mulch at least 4-inches thickness of pine needles, sawdust, shredded bark, wood chips, or 6-inches of straw or hay.

2. Apply temporary seed and hydromulch.

F. Mulching: Use only for areas that may be subjected to erosion for less than 6-months.

1. Wood Chips: Use only on slopes 3:1 or flatter; no anchoring required.

G. Temporary Seeding: Use where temporary vegetated cover is required. Includes all disturbed areas that have been inactive for greater than **7-days**.

H. Check Dams: Use in drainage channels where the maximum drainage area does not exceed two (2) acres.

1. Shall not have a height greater than 2-ft. Center shall be maintained 9-in lower than abutments at natural ground elevation.

2. Side slopes shall be 2:1 or flatter.

3. Spacing shall be in accordance with the NYS Bluebook, or as shown on the project plans.

## 3.04 INSTALLATION

A. Stabilized Construction Entrance and Other Traffic-Bearing Aggregate Surfaces:

1. Excavate minimum of 6-inches.

2. Place geotextile fabric full width and length, with minimum 12-inch overlap at joints.

3. Place and compact at least 6-inches of 1.5 to 3.5-inch diameter stone.

B. Silt Fences:

1. Store and handle fabric in accordance with ASTM D4873.

2. Where slope gradient is less than 3:1 or barriers will be in place less than 6-months, use nominal 16-inch high barriers with minimum 36-inch long posts spaced at 6-feet maximum, with fabric embedded at least 4-inches in ground.

3. Where slope gradient is steeper than 3:1 or barriers will be in place over 6-months, use nominal 28-inch high barriers, minimum 48-inch long posts spaced at 6-feet maximum, with fabric embedded at least 6-inches in ground.

4. Where slope gradient is steeper than 3:1 and vertical height of slope between barriers is more than 20-feet, use nominal 32-inch high barriers with woven wire reinforcement and steel posts spaced at 4-feet maximum, with fabric embedded at least 6-inches in ground.

5. Install with top of fabric at nominal height and embedment as specified.

6. Embed bottom of fabric in a trench on the upslope side of fence, with 2-inches of fabric laid flat on bottom of trench facing upslope; backfill trench and compact.

7. Do not splice fabric width; minimize splices in fabric length; splice at post only, overlapping at least 18-inches, with extra post.

8. Fasten fabric to wood posts using one of the following:
   a. Four nails per post with 3/4 inch diameter flat or button head, 1-inch long, and 14 gage, 0.083 inch shank diameter.
   b. Five staples per post with at least 17 gage, 0.0453 inch wire, 3/4-inch crown width and 1/2-inch long legs.

9. Fasten fabric to steel posts using wire, nylon cord, or integral pockets.

10. Wherever runoff will flow around end of barrier or over the top, provide temporary splash pad or other outlet protection; at such outlets in the run of the barrier, make barrier not more than 12-inches high with post spacing not more than 4-feet.

C. Inlet Protection:

1. Store and handle fabric in accordance with ASTM D4873.

2. For lawn areas where drainage area is 1-acre or less per structure, use Fabric Drop Inlet Protection practice. Install in accordance with NYS Bluebook guidelines.

3. For paved areas where drainage area is 1-acre or less per structure, use Stone and Block Drop Inlet Protection practice. Install in accordance with NYS Bluebook guidelines.

D. Mulching Over Large Areas:

1. Dry Straw and Hay: Apply 2-1/2 tons per acre; anchor using dull disc harrow or emulsified asphalt applied using same spraying machine at 100 gallons of water per ton of mulch.

2. Erosion Control Matting: Comply with manufacturer's instructions.

E. Mulching Over Small and Medium Areas:

1. Dry Straw and Hay: Apply 4 to 6-inches depth.

2. Erosion Control Matting: Comply with manufacturer's instructions.

F. Temporary Seeding:

1. When hydraulic seeder is used, seedbed preparation is not required.

2. When surface soil has been sealed by rainfall or consists of smooth undisturbed cut slopes, and conventional or manual seeding is to be used, prepare seedbed by scarifying sufficiently to allow seed to lodge and germinate.

3. If temporary mulching was used on planting area but not removed, apply nitrogen fertilizer at 1 pound per 1000 sq ft.

4. On soils of very low fertility, apply 10-10-10 fertilizer at rate of 12 to 16 pounds per 1000 sq ft.

5. Incorporate fertilizer into soil before seeding.

6. Apply seed uniformly; if using drill or cultipacker seeders place seed 1/2 to 1 inch deep.

7. Irrigate as required to thoroughly wet soil to depth that will ensure germination, without causing runoff or erosion.

8. Repeat irrigation as required until grass is established.

## 3.05 MAINTENANCE

A. Inspect preventive measures weekly, and within 24-hours after the end of any storm that produces 0.5-inches or more rainfall at the project site, and daily during prolonged rainfall.

B. Repair deficiencies immediately.

C. Silt Fences:

1. Promptly replace fabric that deteriorates unless need for fence has passed.

2. Remove silt deposits that exceed one-third of the height of the fence.

3. Repair fences that are undercut by runoff or otherwise damaged, whether by runoff or other causes.

D. Stabilized Construction Entrance:

1. Maintain entrance in a condition which will prevent tracking of sediment onto public rights-of-way or streets.

2. Top dress as needed with additional aggregate.

3. Any sediment tracked onto adjacent streets shall be removed immediately.

E. Clean out temporary sediment control structures weekly and relocate soil on site.

F. Place sediment in appropriate locations on site; do not remove from site.

## 3.06 CLEAN UP

A. Remove temporary measures after permanent measures have been installed, unless permitted to remain by Project Representative.

B. Clean out temporary sediment control structures that are to remain as permanent measures. Dispose of materials in accordance with all appropriate local, state, and federal disposal regulations.

C. Where removal of temporary measures would leave exposed soil, shape surface to an acceptable grade and finish to match adjacent ground surfaces.

**END OF SECTION**

**SECTION 03 31 00**

**CAST-IN-PLACE CONCRETE**

## PART 1 GENERAL

### 1.01 SUMMARY

1. Section Includes Cast-in-place (CIP) structural concrete, including

    a. Concrete Formwork and Formwork Accessories
    b. Concrete Mixtures and Admixtures
    c. Steel Concrete Reinforcement and Accessories
    d. Curing compounds
    e. Grout
    f. Crack repair and epoxy adhesives
    g. Joint fillers and sealants
    h. Handling, placing, and constructing

2. Products Installed But Not Furnished Under This Section:

    a. Anchor rods, leveling plates, railing sleeves, brackets, and other embedded items of steel, vinyl, plastic, or other materials. Refer to Structural Steel-Section 051200, and Metal Fabrications –Section 055000 or other specification sections where the embedded item is described.

    b. Sleeves for pipe, conduit and other items passing through or embedded in concrete. Refer to the specification section where the item is described.

3. Related Sections.

    a. Code Required Special Inspections and Procedures – Section 014533
    b. Structural Steel – Section 051200

### 1.02 DEFINITIONS

A. ACI 301, Section 1.2 - Definitions:
    1. Add the following definitions:
        - Cementitious Material: Cementitious materials include cement, ground blast furnace slag and fly ash.
        - Corrosion Inhibitor Admixture: A liquid admixture, calcium nitrite that inhibits corrosion of concrete-embedded steel in the presence of chloride ions.
        - Pumped Concrete: Concrete that is conveyed by pumping pressure through rigid pipe or flexible hose.
        - Water-to-Cementitious Ratio (w/c): An equational value representing quantity in pounds of free moisture available for

cement hydration divided by quantity of cementitious materials in pounds per cubic yard concrete.

## 1.03 REFERENCES

A. Work on this project shall conform to all requirements of ACI 301-05 published by the American Concrete Institute, Farmington Hills, Michigan, except as modified by these Contract Documents.

B. Reference publications
1. ACI 301-05: Specifications for Structural Concrete.
2. ACI 302.1R-04: Guide for Concrete Floor and Slab Construction.
3. ACI 304.2R-96: Placing Concrete by Pumping Methods.
4. ACI 305R-99: Hot Weather Concreting.
5. ACI 306R-88: Cold Weather Concreting (Re-approved 1997).
6. ACI 308.1-98: Standard Specification for Curing Concrete.
7. ACI 318-08 Building Code Requirements for Reinforced Concrete.
8. ASTM C 94/C 94M - 04: Standard Specification for Ready- Mixed Concrete.
9. ASTM C 494/C 494M - 04: Standard Specification for Chemical Admixtures for Concrete.
10. ASTM C 311-77 Standard Methods of Sampling and Testing Fly Ash or Natural Pozzolans For Use As A Mineral Admixture in Portland Cement Concrete.
11. Manual of Standard Practice, MSP-1-01 of the Concrete Reinforcing Steel Institute.

## 1.04 STANDARDS PRODUCING ORGANIZATIONS

A. Refer to ACI 301-14

## 1.05 SUBMITTALS

A. Submittals Package: Submit product data for design mix(es) and materials for concrete specified below at the same time as a package.

B. Product Data:
1. Mix Design: Submit proposed concrete design mix(es) together with name and location of batching plant at least 28 days prior to the start of concrete work.
   a. Include test results of proposed concrete proportions based on previous field experience or laboratory trial batches in accordance with ACI 301, Section 4.
   b. Pumped Concrete: Include test results of proposed design mix(es) tested under actual field conditions with the maximum horizontal run and vertical lift required for this project.
2. Portland Cement: Brand and manufacturer’s name.
3. Fly Ash: Name and location of source, and DOT test numbers.
4. Air-entraining Admixture: Brand and manufacturer’s name.

5. Water-reducing Admixture: Brand and manufacturer's name.
6. High Range Water-reducing Admixture (Superplasticizer): Brand and manufacturer's name.
7. Accelerating Admixture: Brand and manufacturer's name.
8. Aggregates: Name and location of source, and DOT test numbers.

C. Reinforcing Steel
1. Shop Drawings: Placing drawings for bar reinforcement.
2. Affidavit by the bar reinforcement manufacturer certifying that bar material meets the contract requirements.

## 1.06 QUALITY ASSURANCE

A. Refer to Section 014533-Special Inspections and Testing, for Concrete Construction inspection and testing to be performed by the Owner's Inspection and Testing Agency.

B. Qualifications of Crew Pumping Concrete: Workers pumping concrete shall have had at least one year of experience pumping concrete.

C. Concrete batching plants shall be currently approved as concrete suppliers by the New York State Department of Transportation.

D. Truck mixers for concrete shall be currently approved by the New York State Department of Transportation.

E. Pumping equipment for pumped concrete shall be subject to the approval of the Architect.

F. Fly ash supplier shall be on the New York State Department of Transportation's current "Approved List of Suppliers of Fly Ash".

G. Source Quality Control: The Owner reserves the right to inspect and approve the following items, at his own discretion, either with his own forces or with a designated inspection agency:
1. Batching and mixing facilities and equipment.
2. Sources of materials.

H. Pre-Construction Conference: Attend a Pre-Construction Conference at the job site conducted by the Architect's Representative prior to the start of concrete placement for the purpose of reviewing the requirements and procedures of the Contract Documents.

I. Field Quality Control

1. ACI 301, Section 1.6.4.2 - Testing Services:
a. Add the following paragraph:
- 1.6.4.2.e Strength Tests for Pumped Concrete: Prepare strength test specimens and make strength tests from concrete samples obtained at the truck discharge chute and

at the end of the pump delivery line in accordance with paragraph 16.3.4.4.

2. ACI 301, Section 1.6.3.3.
   a. Add the following paragraph:
   - 1.6.3.3.c Make available to the Owner's Inspections and Testing Agency whatever test samples are required to make tests. Furnish shipping boxes for compression test cylinders.

3. Adjustment to Concrete Mixes: Mix design adjustments may be requested by the Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, at no additional cost to the Owner and as accepted by the Architect. Laboratory test data for revised mix design and strength results must be submitted to and accepted by the Architect's Representative before using in the work.

4. Test results will be reported by the Owner's Testing Agency in writing to the Architect's Representative and Contractor within 24 hours after tests. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-day tests and 28-day tests.

5. Nondestructive Testing: Impact hammer, Windsor probe, or other nondestructive device may be permitted but shall not be used as the sole basis for acceptance or rejection.

6. Additional Tests: The Architect shall require additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by the Architect's Representative. The Owner's Testing Agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed. Contractor shall pay for such tests when unacceptable concrete is verified, including all inspection and Engineering fees when non-conforming work is verified.

## 1.07 DELIVERY

A. ASTM C 94/C 94M - 04, Article 13.1 - Batch Ticket Information: In addition to the information required by Paragraph 16.1, also include the following:
   1. Type and brand, and amount of cement.
   2. Weights of fine and coarse aggregates.
   3. Class and brand, and amount of fly ash (if any).

## PART 2 PRODUCTS

### 2.01 MATERIALS

A. Cement: ASTM C 150, Type I or II Portland cement.

B. Water: Potable

C. Air-entraining Admixture: ASTM C 260, and on the New York State Department of Transportation's current "Approved List".

D. Water-reducing Admixture: ASTM C 494/C 494M - 04, Type A, and on the New York State Department of Transportation's current "Approved List".

E. High Range Water-reducing Admixture (Superplasticizer): ASTM C 494/C 494M - 04, Type F, and on the New York State Department of Transportation's current "Approved List".

F. Retarding Admixture: ASTM C 494, Type D, Water-reducing and retarding, for use in hot weather concreting, and on the New York State Department of Transportation's current "Approved List".

G. Accelerating Admixture: Non-corrosive admixture, containing no chloride, complying with ASTM C 494, Type C or E, and on the New York State Department of Transportation's current "Approved List".

H. Fly Ash: ASTM C 618, including Table 1 (except for footnote A), Class F except that loss on ignition shall not exceed 4.0 percent.

I. ACI 301, Section 4.2.1.2 - Aggregates:
   1. Add the following paragraph:
      - Fine aggregate for pumped concrete shall meet the requirements of ASTM C 33, except 15 to 30 percent shall pass the No. 50 sieve and 5 to 10 percent shall pass the No. 100 sieve. The fineness modulus of the fine aggregate for pumped concrete shall not vary more than 0.20 from the average value used in proportioning.
   2. Add the following paragraph:
      - Aggregates shall be taken from storage silos or other approved locations that have been tested and approved by the New York State Department of Transportation, unless otherwise approved in writing by the Architect.

J. Moisture-Retaining Cover: Waterproof paper, polyethylene film, or polyethylene-coated burlap complying with ASTM C 171.

K. Joint Fillers and Sealants (Contraction Joints within the building and in the concrete slabs on grade):
   1. Elastomeric Polyurethane Joint Sealant
      a). Sikaflex-1cSL by Sika Corporation, 201 Polito Avenue,

Lyndhurst, NJ 07071

b). Sonolastic® SL 2 by BASF Building Systems

c). Eucolastic II, as manufactured by the Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110

L. Reinforcing Steel

1. Bar Reinforcement: ASTM A 615, Grade 60, deformed steel bars.
2. Fabric Reinforcement: ASTM A 185, welded wire fabric, fabricated into flat sheets unless otherwise indicated.
3.. Bar Supports; Either of the Following Types:
   a. Galvanized steel or AISI Type 430 stainless steel, and without plastic tips.
   b. Insoluble plastic, with minimum 1,500 psi tensile strength and capable of retaining fabricated shape at temperatures between 5 degrees F and 170 degrees F.
   c. Solid concrete brick
4. Fabric Reinforcement Supports:
   a. Uni Zag by Universal Form Clamp, 840 South 25th Avenue, Bellwood, IL 60104, (800)728-1958.
   b. Continuous Support, “CS” by Dayton Superior, 721 Richard Street, Miamisburg, OH 45342, (800) 745-3700.
   c. Solid concrete brick
5. Tie Wire: Black annealed wire, 16-1/2 gage or heavier.

N. Chemical Curing and Anti-Spalling Compound: ASTM C-309, Type 1D, Class B, with a minimum 18 percent total solids content. No thinning of material allowed.

1. SureCure Emulsion, Kaufman Products, Inc. 3811 Curtis Avenue, Baltimore, MD 21226, (800) 637-6372.
2. Cure & Seal by Symons Corp., 200 East Touhy Ave., PO Box 5018, Des Plaines, IL 60017-5018, (847) 298-3200.
3. Kure-N-Seal by Sonneborn/ BASF Building Systems, 889 Valley Park Dr., Shakopee, MN 55379, (800) 433-9517.
4. Day-Chem Cure & Seal UV 26 percent (J-22 UV) by Dayton Superior Corp., 721 Richard St., Miamisburg, OH 45342, (800) 745-3700.
5. Acrylseal HS by Master Builders/ BASF Building Systems, 23700 Chagrin Blvd., Cleveland, OH 44122, (800) 628-9990.

## 2.02 PROPORTIONING OF MIXES

A. Normal weight concrete for concrete foundation piers and walls, concrete columns, and for all other concrete unless otherwise specified, shall have a minimum compressive strength of 4500 psi and a water cement ratio of 0.45. Slump: Maximum 4 inches; minimum 2 inches before the addition of any water-reducing admixtures or high-range water-reducing admixtures (superplasticizers) at the Site.

B. Normal weight concrete for interior slabs, ramps, stairs and footings shall have a minimum compressive strength of 3500 psi and a water cement ratio of 0.50. Slump: Maximum 3 inches; minimum 2 inches before the

addition of any water-reducing admixtures or high-range water-reducing admixtures (superplasticizers) at the Site.

C. Normal weight concrete for exterior slabs, ramps and stairs to be exposed to deicing salts shall have a minimum compressive strength of 5000 psi and a water cement ratio of 0.45. Slump: Maximum 3 inches; minimum 2 inches before the addition of any water-reducing admixtures or high-range water-reducing admixtures (superplasticizers) at the Site.

D. Optional Material: Fly ash may be substituted for (Portland) cement in normal weight and lightweight concrete up to a maximum of 40 percent by weight of the required minimum (Portland) cement. If fly ash is incorporated in a concrete design mix, make necessary adjustments to the design mix to compensate for the use of fly ash as a partial replacement for (Portland) cement.

a. Adjustments shall include the required increase in air-entraining admixture to provide the specified air content.
b. Lower early strength of the concrete shall be considered in deciding when to remove formwork.

E. Slump for Pumped Concrete: When a water-reducing admixture is not used, maximum slump shall be 4 inches. When a water-reducing admixture is used, maximum slump shall be 6 inches and when a high-range water-reducing admixture (superplasticizers) is used, maximum slump shall be 8 inches.

F. Design Air Content: Design air content for concrete required to be air entrained shall be 6 percent by volume, with an allowable tolerance of plus or minus 1.5 percent for total air content, except as otherwise specified. Use air-entraining admixture, not air-entrained cement. Concrete to be air-entrained shall be exterior foundation walls and piers, spectator seating area concrete beams and deck, all concrete columns, exterior slabs, ramps, and stairs.

G. ACI 301, Section 4.2.2.3: Change article to read as follows:

- 4.2.2.3 - Size of Coarse Aggregates:
  - 4.2.2.3.a Normal Weight Concrete: Coarse aggregates shall conform to graduation requirements for various sizes as tabulated in Table No. 2 of ASTM C 33. The sizes of coarse aggregates for various classes of Work shall be as follows with all percentages being determined by weight.
  - 4.2.2.3.c For concrete Work having a minimum cross-sectional dimension of not more than 6 inches, the coarse aggregate shall be a well graded mixture of No. 67 (3/4” to No. 4) and No. 57 (1” to No. 4), provided that not more than 50 percent nor less than 30 percent shall be Size No. 67 and not more than 70 percent nor less than 50 percent shall be Size No. 57.
  - 4.2.2.3.d For concrete Work having a minimum cross-sectional dimension greater than 6 inches and not more than

12 inches, including concrete floors, the coarse aggregate shall consist of a mixture of No. 67, No. 57 and No. 467 (1 ½" to No. 4), providing that not more than 25 percent nor less than 10 percent shall be Size No. 67 and not more than 40 percent shall be Size No. 467.

- 4.2.2.3.e For concrete Work having a minimum cross-sectional dimension of more than 12 inches, the coarse aggregate shall consist of a mixture of No. 67, No. 57 and No. 357 (2" to No. 4), providing not more than 25 percent nor less than 10 percent shall be Size No. 67 and not more than 40 percent shall be Size No. 357.

H. Admixtures: Do not use admixtures in concrete unless specified or approved in writing by the Architect.

I. ACI 301, Section 4.1.2.1 - Mixture Proportions:
1. Add the following to paragraph 4.1.2.1:
   - Proposed design mix(es) for pumped concrete and the pumping equipment shall have been tested under actual field conditions with the maximum horizontal run and vertical lift required for this project.

## 2.03 JOINTS

A. ACI 301, Section 5.3.2.6 - Construction joints and other bonded joints:
1. Delete the following subparagraphs:
   - Use an acceptable surface retarder in accordance with manufacturer's recommendations.
   - Roughen the surface in an acceptable manner that exposes the aggregate uniformly and does not leave laitance, loosened particles of aggregate, or damaged concrete at the surface; or

B. ACI 301, Section 10.2.5 – Isolation-joint filler materials:
1. Add the following paragraphs:
   - Except as otherwise shown on the Drawings, expansion joints shall be as follows:
   - In joints required to receive a sealant, the joint filler shall be 1/2 inch thick and recessed as required to form a caulking slot.
   - In joints not required to receive a sealant, the joint filler shall be 1/2 inch thick and extend through the full cross-section of the concrete.
   - Tool edges of concrete with 1/8 inch radius edging tool.

## 2.04 PRODUCTION OF CONCRETE

A. Provide ready-mixed concrete, either central-mixed or truck-mixed, unless otherwise approved in writing by the Architect.

B. ACI 301, Section 5.3.2.1 Weather considerations

1. Delete paragraph under 5.3.2.1.c - Hot Weather, and add the following:

- 5.3.2.1.c Provide adequate controls to insure that the temperature of the concrete when placed does not exceed 90 degrees F., and make every effort to place it at a lower temperature. The temperature of the concrete as placed shall not be so high as to cause difficulty from loss of slump, flash set or cold joints. Ingredients may be cooled before mixing by shading the aggregates, fog spraying the coarse aggregate, chilling the mixing water or other approved means. Mixing water may be chilled with flake ice or well-crushed ice of a size that will melt completely during mixing, providing the water equivalent of the ice is calculated into the total amount of mixing water.

C. Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placement and curing.

1. In cold weather, comply with ACI 306R.
   a. When air temperature is below 40 degrees F (4 degrees C) heat the mixing water and, if necessary, the aggregates to obtain a concrete mixture temperature of not less than 50 degrees F (10 degrees C) and not more than 80 degrees F (27 degrees C) at point of placement. If the mixing water is heated, do not exceed a temperature of 140 degrees F at the time it is added to the cement and aggregates.
2. In hot weather, comply with ACI 305R.
   a. When air temperature is between 85 degrees F (30 degrees C ) and 90 degrees F (32 degrees C), reduce mixing and delivery time from 1 1/2 hours to 75 minutes, and when air temperature is above 90 degrees F (32 degrees C), reduce mixing and delivery time to 60 minutes.

## PART 3 EXECUTION

### 3.01 EXAMINATION AND PREPARATION

A. Do not use items of aluminum for mixing, chuting, conveying, forming or finishing concrete, except magnesium alloy tools may be used for finishing.

B. Check items of aluminum required to be embedded in the concrete and insure that they are coated, painted or otherwise isolated in an approved manner.

C. Install waterstops in accordance with manufacturer’s printed instructions.

D. Hardened concrete, reinforcement, forms, and earth which will be in contact with fresh concrete shall be free from frost at the time of concrete placement.

E. Do not deposit concrete in water. Keep excavations free of water by pumping or by other approved methods.

F. Prior to placement of concrete, remove all hardened concrete spillage and foreign materials from the space to be occupied by the concrete.

## 3.02 ADMIXTURE ADDITIONS AT THE SITE

A. Site additions shall be limited to high-range water-reducers, non-chloride accelerators, and corrosion inhibitors. Comply with manufacturers' printed instructions for discharge of admixtures shall be furnished.

B. High-Range Water-Reducers:
   1. Concrete shall arrive at a slump of 2 to 4 inches (50 to 100 mm). Water additions at the Site shall be limited to comply with water-to-cementitious ratio requirements.
   2. Following addition of high-range water-reduced concrete, a minimum of 70 revolutions or 5 minutes of mixing shall be completed to assure a consistent mixture.

C. All concrete with other admixture additions shall mix a minimum of 70 revolutions or 5 minutes to assure a consistent mixture.

## 3.03 PLACING

A. ACI 301, Section 5.3.2.3 Conveying equipment:
   1. Add the following paragraphs:
      - 5.3.2.3.d When pumping concrete, the lubricating mortar for the delivery line shall not be discharged into an area of concrete placement.
      - 5.3.2.3.e The inside diameter of the delivery lines for pumped concrete shall be the greater of either a minimum of 5 inches or 3 times the maximum size of coarse aggregate.

B. ACI 301, Section 5.3.2.2 - Conveying:
   1. Add the following paragraph:
      - Operation of truck mixers and agitators and discharge limitations shall conform to the requirements of ASTM C 94.

C. ACI 301, Section 5.3.2.4 - Depositing:
   1. Add the following paragraph:
      - Do not allow concrete to free fall more than 4 feet.

## 3.04 REPAIRING SURFACE DEFECTS

A. ACI 301, Section 5.3,7 – Repair of surface defects:
   1. Add the following paragraph:
      - 5.3.7.1.a Finish patched areas to match the texture of the surrounding surface.

B. ACI 301, Section 5.3.7.2 - Repair of tie holes:
   1. Delete last paragraph in 5.3.7.2 and replace with the following:
      - The patch mixture shall consist of a mixture of dry-pack mortar, consisting of one part Portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for placing and handling. For surfaces exposed to view, blend white Portland cement and standard Portland cement so that, when dry, patching mortar will match surrounding color. Provide test areas at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.

## 3.05 FINISHING FORMED SURFACES

A. Finish Schedule: Except where indicated otherwise on the Drawings, provide the finishes below:
   1. Rough Form Finish for concrete surfaces not exposed to view.
   2. Smooth Form Finish for exterior concrete surfaces exposed to view. Remove forms as soon as removal operations will not damage concrete (reference ACI 301-05.2.3.2), and perform necessary patching.

## 3.06 SLABS

A. Slabs On Grade: Provide saw-cut type control joints unless otherwise shown, using the early entry dry saw-cut method. Saw-cut joints within 4 hours of finishing the slab.

B. ACI 301, Section 5.3.4 – Finishing unformed surfaces:
   1. Add the following paragraph to section 5.3.4.1 Placement:
      - Provide monolithic finishes on concrete floors and slabs without the addition of mortar or other filler material. Finish surfaces in true planes, true to line, with particular care taken during screeding to maintain an excess of concrete in front of the screed so as to prevent low spots. Screed and darby concrete to true planes while plastic and before free water rises to the surface. Do not perform finishing operations during the time free water (bleeding) is on the surface.

C. Finish Schedule: Except where indicated otherwise on the Drawings, provide the finishes below:
   1. Floated Finish for:
      a. Treads and platforms of exterior steps and stairs.
      b. Slabs and fill over which waterproofing, roofing, vapor barrier, insulation, terrazzo, or resin bound flooring is required.
   2. Troweled Finish for:
      a. Interior slabs that are to be exposed to view.

b. Slabs and fill over which resilient wood flooring, resilient tile or sheet flooring, carpet, or thin-film coating system is required.
c. Slabs and fill over which thin-set ceramic tile is required, except fine-broom finished surface.
d. Treads and platforms of interior steps and stairs.

3. Broom or Belt Finish for:
   a. Exterior slab. Texture as approved by the Architect's Representative.
4. Scratched Finish for:
   a. Surfaces to be covered with ceramic tile set in a bonded thick mortar bed, except screed to a Class B tolerance.
   b. Surfaces to be covered with floor topping.

D. ACI 302 Chapter 8.2.8.2 - Tools for jointing; Saw-cutting.
   1. Add the following paragraph:

      - Early-entry dry-cut saws are required in place of conventional wet-cut saws.

E. Floor flatness and levelness tolerances: For flatness and levelness tolerances of floor slabs refer to ACI 302 Chapter 8.15. Floor surface tolerances shall be 1/8 inch over a horizontal distance of 10 feet in any direction, unless otherwise specified by floor profile quality classifications in ACI 302..
   1. When flatness or levelness tolerances are not met then the floor shall be ground or scarified and repoured to meet specifications.

## 3.07 CURING AND PROTECTION

A. Cure all exposed concrete using supervised wet cure or an approved curing compound.

B. Hot Weather Concreting: Comply with ACI 305R whenever the atmospheric temperature or the form surface temperature is at or above 90 degrees F., or climatic conditions of wind and/or low humidity will cause premature drying of the concrete.

C. Curing Temperature: Maintain the temperature of the concrete at 50 degrees F. or above during the curing period. Keep the concrete temperature as uniform as possible and protect from rapid atmospheric temperature changes. Avoid temperature changes in concrete which exceeds 5 degrees F. in any one hour and 50 degrees F. in any 24-hour period.

D. Curing of Slabs to Receive Moisture-Sensitive Finish Flooring, including vinyl composition tile (VCT), rubber flooring, sheet vinyl, resilient tile, carpet, ceramic tile, wood flooring, and laminates:

- Cure the slab by covering with a moisture retaining cover as defined above for a period of 7 days.
- Do not add water (ponding or wet bulap)
- Do not use curing compounds or cure-and-seal materials unless approved in writing by the Architect. Architect will require written approval from the adhesive and floor covering manufacturer that the curing compound or cure-and-seal material will not compromise the adhesion of the floor covering to the concrete slab, and will not require removal of the curing compound or cure-and-seal material prior to placement of the finish floor covering.

**END OF SECTION**

**SECTION 05 12 00**

**STRUCTURAL STEEL FRAMING**

## PART 1 - GENERAL

### 1.1 SUMMARY

A. Section Includes:
   1. Structural shapes, plates, and bars.
   2. Bolts, connectors, and anchors.
   3. Grout.
   4. Connection Design

B. Related Requirements:
   1. Section 078443 – Joint Firestopping

### 1.2 PERFORMANCE REQUIREMENTS

A. Structural Performance: Structural Steel Connections shall be selected, completed or designed by the fabricator to withstand the design loads indicated.

B. Delegated Engineering Responsibility. Structural Steel Connection Design is delegated by the Engineer of Record (EOR) to a qualified licensed professional engineer retained by the structural steel fabricator. The Connection Design Engineer retained by the fabricator shall prepare calculations, shop drawings, and other structural design details for submission to the Engineer of Record with the fabricator's structural steel shop drawings.

### 1.3 RELATED SECTIONS

A. Section 014533 - Code Required Special Inspections

B. Section 053100 – Fluted Steel Decks

C. Section 055000 – Metal Fabrications

D. Section 055113 – Metal Pan Stairs

### 1.4 REFERENCE STANDARDS

A. American Institute of Steel Construction:
   1. AISC 303 - Code of Standard Practice for Steel Buildings and Bridges.

2. AISC 341 - Seismic Provisions for Structural Steel Buildings.
3. AISC 360 - Specification for Structural Steel Buildings.

B. ASTM International:
1. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
2. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
3. ASTM A108 - Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished.
4. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
5. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
6. ASTM A325 - Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
7. ASTM A354 - Standard Specification for Quenched and Tempered Alloy Steel Bolts, Studs, and Other Externally Threaded Fasteners.
8. ASTM A449 - Standard Specification for Quenched and Tempered Steel Bolts and Studs.
9. ASTM A490 - Standard Specification for Structural Bolts, Alloy Steel, Heat Treated, 150 ksi Minimum Tensile Strength.
10. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
11. ASTM A514/A514M - Standard Specification for High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding.
12. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts.
13. ASTM A572/A572M - Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
14. ASTM A588/A588M - Standard Specification for High-Strength Low-Alloy Structural Steel with 50 ksi (345 MPa) Minimum Yield Point to 4-in. (100-mm) Thick.
15. ASTM A618/A618M - Standard Specification for Hot-Formed Welded and Seamless High-Strength Low-Alloy Structural Tubing.
16. ASTM A852/A852M - Standard Specification for Quenched and Tempered Low-Alloy Structural Steel Plate with 70 ksi (485 MPa) Minimum Yield Strength to 4 in. (100 mm) Thick.
17. ASTM A992/A992M - Standard Specification for Structural Steel Shapes.
18. ASTM E94 - Standard Guide for Radiographic Examination.
19. ASTM E164 - Standard Practice for Ultrasonic Contact Examination of Weldments.
20. ASTM E165 - Standard Test Method for Liquid Penetrant Examination.
21. ASTM E709 - Standard Guide for Magnetic Particle Examination.
22. ASTM F436 - Standard Specification for Hardened Steel Washers.
23. ASTM F959 - Standard Specification for Compressible-Washer-Type Direct Tension Indicators for Use with Structural Fasteners.
24. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.

25. ASTM F1852 - Standard Specification for Twist-Off Type Tension Control Structural Bolt/Nut/Washer Assemblies, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
26. ASTM F2329 - Standard Specification for Zinc Coating, Hot-Dip, Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners.

C. American Welding Society:
1. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination.
2. AWS D1.1 - Structural Welding Code - Steel.

D. Research Council on Structural Connections:
1. RCSC - Specification for Structural Joints Using ASTM F3125 Grades A325 or A490 Bolts.

E. SSPC: The Society for Protective Coatings:
1. SSPC - Steel Structures Painting Manual.
2. SSPC Paint 15 - Steel Joist Shop Paint.
3. SSPC Paint 20 - Zinc-Rich Primers (Type I - Inorganic and Type II - Organic).
4. SSPC SP 3 - Power Tool Cleaning.
5. SSPC SP 6 - Commercial Blast Cleaning.
6. SSPC SP 10 - Near-White Blast Cleaning.

## 1.5 SUBMITTALS

A. Section 012500 - Submittal Procedures: Requirements for submittals.

B. Shop Drawings shall include the following:
1. Indicate profiles, sizes, spacing, and locations of structural members, openings, attachments, and bolts.
2. Connection details.
3. Cambers and loads.
4. Indicate welded connections with AWS A2.4 welding symbols, distinguishing between shop and field welds, and show size, length, and type of each weld.
5. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify high strength bolted slip-critical, direct-tension, or tensioned shear/bearing connections.
6. Submit details of all moment connections and other non-standard connections not covered by standard details, signed and sealed by a Professional Engineer for approval prior to fabrication.
7. Submit a signed and sealed letter stating that all shop fabrication drawings have been prepared and reviewed under the connection Design Engineer’s supervision.

C. Manufacturer's Mill Certificates: Certify products meet or exceed specified requirements.

D. Mill Test Reports: Submit indicating structural strength, destructive and non-destructive test analysis.

E. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification.

F. Qualification data for firms and persons specified in the Qualifications section documenting compliance with the specified requirements.

## 1.6 QUALITY ASSURANCE

A. Perform Work in accordance with the following:
   1. Structural Steel: AISC 303, ASIC 341 and AISC 360.
   2. High Strength Bolted Connections: AISC Specification for Structural Joints Using ASTM A325 or A490 Bolts.
   3. Perform Work in accordance with IBC 2015.

## 1.7 QUALIFICATIONS

A. Fabricator: Company specializing in performing Work of this section with minimum 5 years documented experience with any of the following current AISC Certification:
   1. Standard Steel Building Structures (STD).
   2. Conventional Steel Building Structures (SBD).
   3. Complex Steel Building Structures (CBD).

B. Erector: Company specializing in performing Work of this section with minimum 5 years documented experience with any of the following current AISC Certification:
   1. Certified Steel Erector (CSE).
   2. Advanced Certified Steel Erector (ACSE).

C. Shop Painter: Company specializing in performing Work of this section with minimum 5 years documented experience with any the following current AISC Certification:
   1. Sophisticated Paint Endorsement - Enclosed (P1).
   2. Sophisticated Paint Endorsement - Covered (P2).
   3. Sophisticated Paint Endorsement - Outside (P3).
   4. Welders and Welding Procedures: AWS D1.1 qualified.

D. Professional Engineer Qualifications: Current active registration in New York State with experience with structural steel framing connection design similar to that indicated and shown in the contract drawings.

## 1.8 CONNECTIONS

A. All connections shall conform to AISC Steel Construction Manual.

B. Retain a Professional Engineer to be responsible for the design of connections not specifically designed and detailed by the Engineer of Record (EOR).

C. For all framed beam shear connections, use end plate (shop welded), single angle or double angle header connections (shop bolted or welded) or shear tabs where practical.

D. Framed beam shear connections shall not be less than one half of the depth of the connected member.

E. All connections shall be designed and detailed to resist connection forces provided on the Structural Drawings. Where these forces are not provided or unless shown otherwise on the Structural drawings, connect all simply supported non-composite flexural members (beams, channels, etc.) at each end for one half of the total uniformly distributed factored load of the laterally supported beam. For composite beams, increase connection load at each end to 75 % of the total uniformly distributed factored load on the steel section only.

F. Connect for the factored moment where shown on the structural design drawings. Design connections for eccentricities where shown on the structural design drawings.

G. For spandrel beams, provide full depth web connection or top and bottom flange clips where detailed and shown on structural design drawings.

H. Provide reinforcement of unconnected sides of HSS members, where detailed and shown on the structural design drawings.

I. Bolted connections shall be bearing-type unless otherwise shown on the structural design drawings. Use of oversize holes shall be subject to approval and such connections shall be detailed as slip-critical.

J. Vertical and Horizontal Bracings. Connect all tension and compression members for the axial force shown on the drawings plus the shear force due to direct member loading, if applicable.

K. Prior to erection diagram review, the fabricator is to be provided the necessary information to locate punched or drilled holes from (9/16”) to (15/16”) diameter for other trades to attach blocking or other material where shown on structural design drawings.

L. Provide holes for pipes and ducts as indicated on structural design drawings and reinforce only those as detailed and shown on the structural design drawings. Cutting holes in any structural steel member in the field is not permitted without the written approval of the Engineer of Record.

M. Structural steel members shall not be spliced unless approved by the EOR in writing. Except for splices shown on structural design drawings, do not splice vertical and horizontal members unless necessary to accommodate shipping lengths or material availability. Ensure that splice connections develop the factored load at the splice location of the member unless otherwise indicated on the drawings.

## PART 2 - PRODUCTS

### 2.1 STRUCTURAL STEEL

A. Structural W-Shapes and WT-Shapes: ASTM A992/A992M. ASTM A572/A572M; Grade 50. ASTM A913/A913M; Grade 50.

B. Structural WT-Shapes: Cut from structural W-shapes.

C. Channels and Angles: ASTM A36/A36M.

D. Round Hollow Structural Sections: ASTM A500/A500M, Grade B.

E. Rectangular Hollow Structural Sections: ASTM A500/A500M, Grade B.

F. Structural Pipe: ASTM A53/A53M, Grade B.

G. Structural Plates and Bars: ASTM A36/A36M.

H. Floor Plates: ASTM A786/A786M raised pattern.

I. Sliding Bearing Plates: Teflon coated.

### 2.2 BOLTS, CONNECTORS, AND ANCHORS

A. Bolts: Heavy hex, structural type
   1. ASTM A325; Type 1, plain, or hot dipped.

B. Nuts: ASTM A563; heavy hex type.
   1. Finish: Plain or Hot dipped galvanized.

C. Heavy hex, structural type.
   1. ASTM A325; Type 1, plain, or hot dipped.

D. Washers: ASTM F436; Type 1, beveled. Furnish clipped washers where space limitations require.
   1. Finish: Plain or Hot dipped galvanized.

E. Compressible-Washer-Type Direct Tension Indicators: ASTM F959; Type 325.
   1. Finish: Mechanically galvanized.

F. Tension Control Assemblies: ASTM F1852; Type 1, heavy hex head, twist off type; complete with washers and heavy hex nuts.
   1. Finish: Unfinished.

G. Anchor Rods: ASTM F1554; Grade 36.
   1. Shape: Hooked or Straight.
   2. Plate Washers: ASTM A36/A36M.

H. Threaded Rods: ASTM A36/A36M.
   1. Finish: Hot dipped galvanized.

I. Forged Structural Steel Hardware:
   1. Clevises and Turnbuckles: ASTM A108; Grade 1085.
   2. Eye Nuts and Eye Bolts: ASTM A108; Grade 1030.
   3. Sleeve Nuts: ASTM A108; Grade 1018.
   4. Rod Ends, Yoke Ends and Pins, Cotter Pins, and Coupling Nuts: Carbon steel.

## 2.3 WELDING MATERIALS

A. Welding Materials: AWS D1.1; type required for materials

## 2.4 FABRICATION

A. Continuously seal joined members by intermittent welds and plastic filler. Continuous welds. Grind exposed welds smooth.

B. Fabricate connections for bolt, nut, and washer connectors.

C. Develop required camber for members.

## 2.5 FINISHES

A. Items noted to by “Architecturally Exposed Structural Steel” to be prepared and finished in accordance with the High-Performance Coatings Specification.

B. Unless noted otherwise, prepare structural component surfaces in accordance with SSPC SP-3.

C. Shop prime structural steel members to a dry film thickness not less than 1.5 mils. Do not prime surfaces that will be fireproofed, field welded, in contact with concrete, or at slip critical faying surfaces
   .
   1. Primer: Fabricator’s standard lead, chromate, and asphalt free, rust inhibiting primer compatible with architectural finishes.

D. Galvanizing: ASTM A123/A123M; hot dip galvanize after fabrication.

1. Galvanizing for Bolts, Connectors, and Anchors:
    a. Hot-Dipped Galvanizing:
    b. Bolts, Nuts, and Washers: ASTM F2329.
2. Connectors and Anchors: ASTM A153/A153M.
    a. Mechanical Galvanizing: ASTM B695; Class 50 minimum.

## 2.6 ACCESSORIES

A. Grout: Non-shrink type, pre-mixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing additives, capable of developing minimum compressive strength of 7,000 psi at 28 days.
    1. Shop Primer: SSPC Paint 15, Type 1, red oxide.
    2. Touch-Up Primer: Match shop primer.

## 2.7 SOURCE QUALITY CONTROL

A. Section 01 40 00 – Quality Requirements: Testing, inspection and analysis requirements.
    1. Shop test bolted and welded connections as specified for field quality control tests.
    2. When fabricator is approved by authority having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.
    3. Specified shop tests are not required for Work performed by approved fabricator.

# PART 3 - EXECUTION

## 3.1 EXAMINATION

A. Section 01 73 00 – Execution: Requirements for installation examination.

B. Verify bearing surfaces are at correct elevation.

C. Verify anchors rods are set in correct locations and arrangements with correct exposure for steel attachment.

## 3.2 PREPARATION

A. Section 01 73 00 – Execution: Requirements for installation preparation.
    1. Furnish templates for installation of anchor rods and embedment in concrete and masonry work.

## 3.3 ERECTION

A. Allow for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in alignment until completion of erection and installation of permanent bracing.
   1. Field weld components indicated on shop drawings.
   2. Field connect members with threaded fasteners; tighten to snug tight for bearing type connections.
   3. Do not field cut or alter structural members without approval of Architect/Engineer.
   4. After erection, touch up welds and abrasions to match shop finishes.

## 3.4 GROUT INSTALLATION

A. Remove defective concrete, laitance, dirt, oil, grease and other foreign material from concrete surfaces by brushing, hammering, chipping or other similar means until sound, clean concrete surface is achieved.
   1. Rough concrete lightly, but not enough to interfere with placement of grout.
   2. Remove foreign materials from metal surfaces in contact with grout.
   3. Align, level and maintain final positioning of components to be grouted.
   4. Saturate concrete surfaces with clean water; remove excess water, leave none standing.
   5. Shim bearing plates and equipment supports to proper elevation as shown on drawings, snug tighten anchor bolts.
   6. Fill void under bearing surface with grout. Install and pack grout to remove air pockets.
   7. Moist cure grout.
   8. Remove forms after grout is set. Trim grout edges to from smooth surface, splayed 45 degrees.
   9. Tighten anchor bolts after grout has cured for a minimum of 3 days.

## 3.5 TOLERANCES

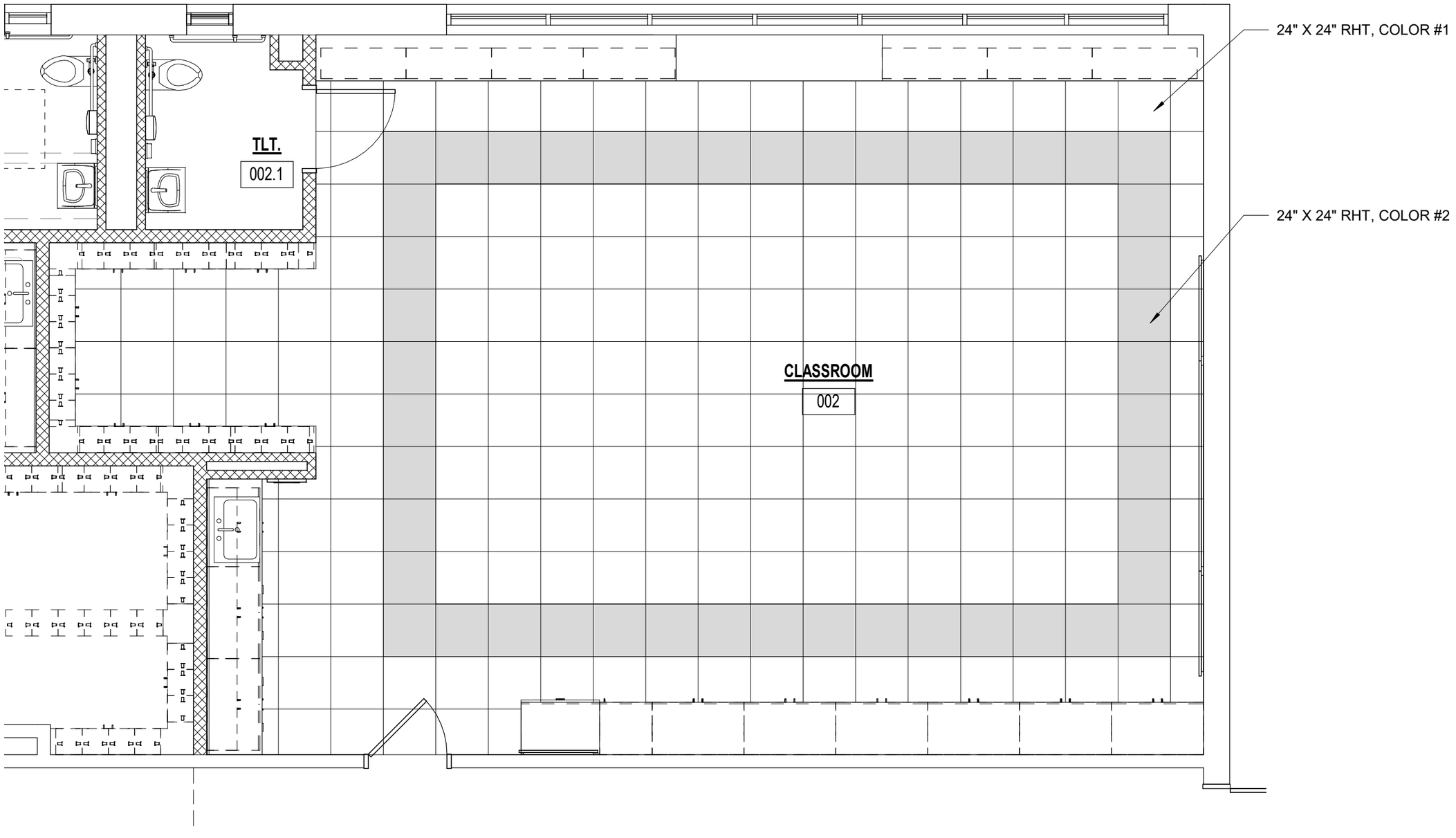
A. Section 01 40 00 - Quality Requirements: Tolerances.
   1. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
   2. Maximum Offset From Alignment: 1/4 inch.

## 3.6 FIELD QUALITY CONTROL

A. Section 01 45 33 – Code Required Special Inspections and Testing.
   1. Section 01 73 00 - Execution: Requirements for testing, adjusting, and balancing.
   2. Bolted Connections: Inspect in accordance with AISC 303.
      a. Visually inspect all bolted connections.
      b. For Direct Tension Indicators, comply with requirements of ASTM F959. Verify that gaps are less than gaps specified in Table 2.
   3. Welding: Inspect welds in accordance with AWS D1.1.

a. Certify welders and conduct inspections and tests as required. Record types and locations of defects found in work. Record work required and performed to correct deficiencies.
b. Visually inspect all welds.
c. Ultrasonic Inspection: ASTM E164; perform on all full penetration welds.
d. Liquid Penetrant Inspection: ASTM E165.
e. Magnetic Particle Inspection: ASTM E709.
f. Radiographic Inspection: ASTM E94.
g. Correct defective bolted connections and welds.

**END OF SECTION**

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AD1-HH-A1

# FLOOR PATTERN - TYPICAL CLASSROOM

Scale: 1/4" = 1'-0"

TYPICAL FOR CLASSROOMS 012, 010, 008, 007, 006, 005, 004, 003, 002, AND 001.

| | | | |
|---|---|---|---|
| IBI PROJECT 143500 | DRAWN BY BMB | SCALE 1/4" = 1'-0" | DATE 10/07/25 |
| CLIENT PROJECT NO. 55-01-01-040-001-022 | REFERENCE DRAWING | | ISSUE |

SHEET NO. AD1-HH-A1

PROJECT TITLE
ODESSA-MONTOUR CENTRAL SCHOOL DISTRICT
2023 CAPITAL IMPROVEMENTS - PHASE 2

ODESSA ELEMENTARY & HIGH SCHOOL

SHEET TITLE
TYPICAL CLASSROOM FLOOR PATTERN



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