ADDENDUM NO. 1

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT AND PLANNING
ERIE COUNTY SEWER DISTRICT NO. 8
CONTRACT NO. 23
EAST AURORA WRRF EFFLUENT FILTERS REPLACEMENT

All bidders must **fax** or **e-mail** this sheet to Erie County Department of Environment and Planning/Division of Sewerage Management (Attn: Beth Pfalzer), to fax no. 716-858-6257 or e-mail beth.pfalzer@erie.gov. By signing and dating this sheet bidders are stating that their company has received Addendum No. 1 to the Erie County Sewer District No. 8; Contract No. 23; East Aurora WRRF Effluent Filters Replacement.

Received: _____

By: _____

Phone: _____

Date: _____

All bidders must incorporate Addendum No. 1 including all attachments when submitting bids for this contract. Bidders are also advised to acknowledge Addendum No. 1 in the Receipt of Addenda section 7.03 of the Bid Form and endorse the special notice page attached hereto and made part of Addendum No. 1. This Addendum consists of 4 pages and attachments, if any, listed on the last page.

Erie County Sewer District No. 8
East Aurora WRRF Effluent Filters Replacement
Contract No. 23

ADDENDUM No. 1

Additions and Modifications

BIDDING REQUIREMENTS SPECIFICATIONS:

1. **Advertisement for Bids – DELETE** "*January 28, 2026*" and **REPLACE** with "*February 4, 2026*."

CONTRACT REQUIREMENTS:

SPECIFICATIONS

1. **Table of Contents – DELETE** line referring to specification section 15260, Piping Insulation.

2. **Specification Section 01 12 13, Summary of Contracts – DELETE** the section in its entirety and **REPLACE** with the attached Section 01 12 13.

3. **Specification Section 01 20 13, Lump Sum Measurement – DELETE** the section in its entirety and **REPLACE** with the attached Section 01 20 13.

4. **Specification Section 01 20 16, Lump Sum Payment – DELETE** the section in its entirety and **REPLACE** with the attached Section 01 20 16.

5. **Specification Section 01 52 11, ENGINEER'S FIELD OFFICE – Paragraph 1.1.A** – after first sentence **ADD "***General Contractor, if more than one Contract is included in the project, shall be required to provide the Engineer's Field Office and furnishes as specified herein.*"

6. **Specification Section 05120, Structural Steel Framing – DELETE** the section in its entirety and **REPLACE** with the attached Section 05120.

7. **Specification Section 11510, Cloth Media Filtration System – Table 2.04.C Item 1 Filter Drives** – **DELETE** "*1/2 HP"* and **REPLACE** with "*3/4 HP*."

8. **Specification Section 11510, Cloth Media Filtration System – Table 2.04.C Item 1 Backwash Pumps** – **DELETE** "*2 HP"* and **REPLACE** with "*3 HP*."

9. **Specification Section 15060, Inside Process Piping – Paragraph 1.02.D** – **DELETE** the paragraph in its entirety.

10. **Specification Section 15100, Inside Process Valves and Hydrants – Paragraph 2.24.G – ADD** Article 2.25 as follows:

    2.25 KNIFE GATE VALVES

    A. Body material shall be compatible with adjacent piping, refer to Contract Drawings.

    B. Gates shall be round Type 304 stainless steel finish, ground on both sides with beveled edge.

    C. Packing gland shall be Type 316 stainless steel, pressure shall be adjustable by means of four stainless steel bolts. Packing shall be square braided PTFE impregnated synthetic fiber.

    D. Raised faced resilient seat shall consist of Type 316 stainless steel seat ring with chloroprene seat.

    E. Knife gate valves shall be DeZurik, Keystone, Fabri-Valve, or equal.

11. **Specification Section 15260, Piping Insulation – DELETE** the section in its entirety.

12. **Specification Section 15870, Power Ventilators – Paragraph 2.01.I – DELETE** paragraph in its entirety and **REPLACE** with "*Provide direct drive electronically commutated motor (ECM). Provide unit mounted disconnect switch*."

13. **Specification Section 15870, Power Ventilators – Article 2.02 – DELETE** "DIRECT" and **REPLACE** with "*BELT."*

14. **Specification Section 16480, Variable Frequency Drives – Paragraph 2.01.A.1 – DELETE** "*1336 (PLUS) Series*" and **REPLACE** with "*525.*"

DRAWINGS

1. **Mechanical Process Details, Drawing MP-501 – Detail No. 8, PIPE RACK SUPPPORT DETAIL – DELETE** references to "*GALV*" and **REPLACE** with "SST."

2. **Mechanical Process Details, Drawing MP-501 – Detail No. 11, WEIR PLATE DETAIL – ADD** note "1. PROVIDE ¼" THICK TYPE 316 STAINLESS STEEL WIER PLATE FOR EACH CLOTH FILTER."

3. **HVAC Details and Schedules, Drawing MB-501 – Fan Schedule, Remarks – DELETE** Remark No. 2 in its entirety and **REPLACE** with "*2. PROVIDE HI-PRO POLYESTER COATING."*

4. **HVAC Details and Schedules, Drawing MB-501 – Louver and Motor Operated Damper Schedule, Remarks column – ADD** "*2*" to rows FB-MOD-1 and FB-MOD-2.

5. **HVAC Details and Schedules, Drawing MB-501 – Louver and Motor Operated Damper Schedule, Remarks – ADD** Remark No. 2 "*2. PROVIDE HI-PRO POLYESTER COATING FOR MOTOR OPERATED DAMPERS.*"

6. **Legend and Abbreviations, Drawing EL-001 – General Note No. 5 – DELETE** "*REFER TO DRAWING G-00002 FOR AREA CLASSIFICATION REQUIREMENTS.*" AND **REPLACE** with "*AREA CLASSIFICATIONS ARE AS FOLLOWS: FILTER ROOM – INTERIOR, WET AREA; BLOWER ROOM – INTERIOR, UNCLASSIFIED; ELECTRICAL ROOM – INTERIOR, UNCLASSIFIED.*"

7. **Electrical Details, Drawing EL-501 – LUMINAIRE "EX-XP" SPECIFICATION DETAIL – DELETE** detail in its entirety and **REPLACE** with the attached Luminaire "EX" Specification Detail.

8. **One Line Diagram, Drawing EL-601 – Disk Drive Motor 1A, 1B, 2A, 2B, 3A,3B, 4A, 4B – DELETE** "*1/2 HP"* and **REPLACE** with "*3/4 HP*."

9. **One Line Diagram, Drawing EL-601 – Backwash Pump/Waste Pump No. 1, 2, 3, 4 – DELETE** "*2 HP"* and **REPLACE** with "*3 HP*."

ATTACHMENTS

1. Specification Section 01 12 13, Summary of Contracts
2. Specification Section 01 20 13 Lum Sum Measurement
3. Specification Section 01 20 16 Lump Sump Payment
4. Specification Section 05120, Structural Steel Framing.
5. Luminaire "EX" Specification Detail.

End of Addendum

SECTION 01 12 13
SUMMARY OF CONTRACTS

PART I – GENERAL

1.1 SUMMARY

A. This section includes a general listing of work items under each Contract for projects that include multiple Contracts. These listings are not meant to be inclusive of all items of work or what is required to accomplish the Work. These listings provide the major components of the Work and responsible Contractor.

B. The Work is located at East Aurora Water Resource Recovery Facility in the Village of East Aurora. Work shall be performed on property owned by the County of Erie or within public highway rights-of-way and/or easements obtained by the County of Erie.

C. Related Sections:

1. Section 01 12 16 – Work Sequence
2. Section 01 14 17 – Coordination with Owner's Operations
3. Section 01 14 19 – Use of Site
4. Section 01 20 13 – Lump Sum Measurement
5. Section 0120 16 – Lump Sum Payment
6. Section 01 31 16 – Multiple Contract Coordination
7. Section 01 41 05 – Regulatory Requirements
8. Section 01 45 05 – Quality Control
9. Section 01 61 00 – Common Product Requirements
10. Section 01 64 00 – Owner-Furnished Products
11. Section 01 71 34 – Protection of the Work and Property

1.2 INTENT

A. The Contract Documents are complementary, are intended to cooperate and provide for, and include everything necessary for, the proper and complete orderly execution and finishing of the Work. Any work shown on the drawings concerning which there are no particular specification, or the omission from both drawings and specifications of express reference to any work which was intended under the Contract, shall not excuse or relieve Contractor or Subcontractor from furnishing the same. Work or materials described in words which have a well-known technical or trade meaning, shall be interpreted by such customary and recognized standard of meaning.

B. It is understood that except as otherwise stated in the Contract Documents, the Contractor shall provide and pay for all permits, materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature necessary to execute, complete and deliver the Work.

C. Contractor shall ask for clarification where details are not provided for any portion of the Work and for which the design intent cannot be ascertained.

1.3 SCOPE OF WORK

A. General Requirements

1. Work not identified in the detailed scope of work or bid item description, but nevertheless required, shall be performed as specified, shown or intended.

2. Refer to Section 01 12 16 Work Sequence for limitations on the scheduling of the Work.

3. Refer to Sections 01 14 17 Coordination with Owner's Operations, 01 14 19 Use of Site, and for limitations while performing the Work at the site.

4. Refer to Section 01 31 16 Multiple Contract Coordination for coordination of the Work.

5. Refer to Sections 01 41 05 Regulatory Requirements, 01 61 00 Common Product Requirements, and 01 71 34 Protection of the Work and Property for addition requirements related to the Work.

B. Contract 23-A, General/Mechanical Construction: The Work includes the following detailed scope:

1. Demolition and removal of existing traveling bridge sand filter system, including tanks, pumps, filter media, metal tanks, valves, piping, and appurtenances inside the Filter Building.

2. Construction of concrete filter tanks, new grated walkways, and access stairs.

3. New cloth media disk filter system including filter media, pumps, drives, instrumentation, piping, valves, and appurtenances.

4. Concrete repairs and modifications to the existing Filter Building.

5. Integration of new filters into existing East Aurora WRRF SCADA system.

6. The following specifications:

a. Division 00

b. Division 01

c. Division 02

d. Division 03

e. Division 05

f. Division 06

g. Division 09

h. Division 14

i. Section 15060

j. Section 15100

k. Section 15140

l. Section 15170

7. The following drawings:

a. General Series

b. Civil Series

c. Structural Series

d. Mechanical Process Series

e. IC-001 through IC-006

C. Contract 23-B, HVAC Construction: The Work includes the following detailed scope:

1. Demolition of existing unit heaters, louvers, fans, and piping.

2. Replacement and installation of new unit heaters, louvers, and fans.

3. The following Specifications

a. Division 00

b. Division 01

c. Section 15140

d. Section 15813

e. Section 15870

f. Section 15890

g. Section 15910

h. Section 15985

i. Section 15990

4. The following drawings:

a. Building Mechanical (HVAC) Series

D. Contract 23-D, Electrical Construction: The Work includes the following detailed scope:

1. Demolition of existing filter and HVAC equipment power and controls conduit and wiring within the Filter Building.

2. Demolition of existing lighting system within the Filter Room.

3. New lighting system and receptacles within the Filter Room.

4. New power panels, conduit, and wire, to power the replacement filter systems and HVAC equipment.

5. New communication conduit and wire for field mounted instruments and equipment.

6. The following Specifications:

a. Division 00

b. Division 01

c. Division 16

7. The following Drawings:

a. Electrical Series

b. IC-007

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

3.1 GENERAL

A. Contractor shall furnish all labor, equipment and materials and shall perform all of the Work as shown in the Contract Documents and as directed by Engineer, tested in place and ready for use, in accordance with the obvious and expressed intent of the Contract to secure a complete installation. In general, work to be performed under each pay item is described in the Sections 01 20 13 Lump Sum Measurement and 01 20 16 Lump Sum Payment,.

The quality of workmanship and materials entering into the Work shall conform to the requirements of Section 01 45 05 Quality Control and the pertinent sections, clauses, paragraphs and sentences provided in the Contract Documents, whether or not direct reference to such occurs.

SECTION 01 20 13
LUMP SUM MEASUREMENT

PART I – GENERAL

1.1 SUMMARY

A. This section includes each lump sum item, the scope of work intended to be included in that item, and the way in which work will be measured. The scope of work in this section is intended to provide a general description of work for differentiation.

B. The Contract Documents include detailed descriptions of the Work, intended to cooperate and provide for, and include everything necessary for, the proper and complete orderly execution and finishing of the Work.

C. Related Sections:

1. Section 01 12 13 – Summary of Contracts
2. Section 01 20 16 – Lump Sum Payment
3. Section 01 21 16 – Contingency Allowances
4. Section 01 23 00 – Alternates
5. Section 01 26 10 – Contract Modification Procedures
6. Section 01 29 73 – Schedule of Values
7. Section 01 57 20 – Temporary Bypass Pumping

D. Where separate items identified in this section are not separated on the Bid Form form, Contractor shall separate these items on their payment schedule, submitted in accordance with Section 01 29 73 Schedule of Values so measurement can be appropriately identified for payment.

E. Refer to Section 01 20 16 Lump Sum Payment for information and requirements for the payment of the measured item(s).

1.2 CONSTRUCTION (EACH CONTRACT)

A. Scope of Work

1. This item includes all labor, materials, tools and equipment required to complete the Work contained in the Contract Documents for each Contract, generally described and delineated for each in Section 01 12 13 Summary of Contracts, that is not listed under any other bid item. Section 01 12 13 Summary of Contracts contains a general listing of the Work included in the Contract Documents.

2. This item includes administration of the project for items including, without limitation, bonds, insurance, project management, schedules, coordination,

photographs, project meetings, temporary utilities, field offices, temporary structures and facilities, temporary equipment, health and safety, regulatory requirements, stormwater protection, dust control, testing, inspections, waste management, and project closeout that is not otherwise included in or associated with any other item.

B. Measurement

1. Measurement of work completed under this item shall be the relative percentage of work included in this item, based on the percentage of each major work component as indicated on the Schedule of Values. Refer to Section 01 29 73 Schedule of Values for detailed information and requirements regarding the Schedule of Values. The percentage completed shall be determined by Engineer.

2. Measurement of work completed under this item may include equipment or materials received and inspected by Engineer prior to installation, if recommended by Engineer and accepted by Owner. If equipment or materials are included in this measurement, those equipment or materials must be maintained in the same condition as when inspected.

1.3 GENERAL CONTINGENCY ALLOWANCE (EACH CONTRACT)

A. Scope of Work

1. Contractor shall furnish all labor, materials, equipment, products and other items required to perform unspecified additional work as determined in the field and authorized in writing by Engineer. Work performed under this item is to be determined based on approved Contractor proposals. See Section 01 21 16 Contingency Allowances for detailed information.

B. Measurement

1. Measurement shall be the actual work performed under this item, recommended for payment by Engineer and approved by Owner.

2. Measurement for approved unit price work under this item shall be the number of units completed, as determined by Engineer.

3. Measurement for approved lump sum work under this item is the percentage of the total work completed, as determined by Engineer.

1.4 GENERAL CONTRACT – SCADA PROGRAMMING ALLOWANCE

A. Scope of Work

1. Contractor shall furnish all labor, materials, equipment, products and other items required to integrate the cloth media filtration system into the facility's SCADA system including programming, software, hardware, and as determined in the field and authorized in writing by Engineer. Work performed under this item is to be determined based on approved Contractor proposals. See Section 01 21 16 Contingency Allowances for detailed information.

B. Measurement

1. Measurement shall be the actual work performed under this item, recommended for payment by Engineer and approved by Owner.

2. Measurement for approved unit price work under this item shall be the number of units completed, as determined by Engineer.

3. Measurement for approved lump sum work under this item is the percentage of the total work completed, as determined by Engineer.

4.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 01 20 16
LUMP SUM PAYMENT

PART I – GENERAL

1.1 SUMMARY

A. This section includes how payment will be determined based on the measurement for each lump sum pay item. The scope of work in this section is intended to provide a general description of work for payment differentiation.

B. The Contract Documents include detailed descriptions of the Work, intended to cooperate and provide for, and include everything necessary for, the proper and complete orderly execution and finishing of the Work.

C. Related Sections:

1. Section 01 12 13 – Summary of Contracts
2. Section 01 20 13 – Lump Sum Measurement
3. Section 01 21 16 – Contingency Allowances
4. Section 01 23 00 – Alternates
5. Section 01 26 10 – Contract Modification Procedures
6. Section 01 29 73 – Schedule of Values
7. Section 01 29 76 – Progress Payment Procedures
8. Section 01 57 20 – Temporary Bypass Pumping

D. Refer to Section 01 29 76 Progress Payment Procedures for information and requirements for the payment process.

E. Retention for each Bid Form item shall be eligible for release when all the Work contained in the Contract Documents is substantially complete, regardless of the completion of any individual Bid Form item.

F. Final payment for each Bid Form item shall be for the remainder of the lump sum price stated in the proposal unless modifications have been made to the Contract or set-offs have been imposed. Refer to Section 01 26 10 Contract Modification Procedures and GCC Article 14 for information on what modifications may impact final payment.

1.2 CONSTRUCTION (EACH CONTRACT)

A. Payment

1. Payment under this Bid Form item shall be a percentage of the lump sum price measured, less any deductions.

2. If Engineer determines any work to be defective, deductions may be taken from the payment in accordance with GCC Article 14.03-F.

1.3 GENERAL CONTINGENCY ALLOWANCE

A. Payment

1. Payment for approved lump sum contingency allowance work will be based on the percentage of work completed, as determined by the Engineer.

2. Payment for approved unit price contingency allowance work will be based on the number of units completed, as determined by the Engineer.

1.4 GENERAL CONTRACT – SCADA PROGRAMMING ALLOWANCE

A. Payment

1. Payment for approved lump sum contingency allowance work will be based on the percentage of work completed, as determined by the Engineer.

2. Payment for approved unit price contingency allowance work will be based on the number of units completed, as determined by the Engineer.

PART 2 PRODUCTS

NOT USED

PART 3 EXECUTION

NOT USED

END OF SECTION

SECTION 05120

STRUCTURAL STEEL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Structural steel materials.

2. Shrinkage-resistant grout.

B. Related Requirements:

1. Section 05500 "Metal Fabrications" for miscellaneous steel fabrications and other steel items not defined as structural steel.
2. Section 05505 “Concrete and Masonry Anchors” for concrete anchor and dowel products.

1.2 DEFINITIONS

A. Structural Steel: Elements of the structural frame indicated on Drawings and as described in ANSI/AISC 303.

1.3 COORDINATION

A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.

B. Coordinate installation of anchorage items to be embedded in or attached to other construction without delaying the Work. Provide setting diagrams, sheet metal templates, instructions, and directions for installation.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference via Microsoft Teams (or similar) meeting.

1.5 ACTION SUBMITTALS

A. Product Data: For Each Type of Product

B. Shop Drawings: Show fabrication of structural steel components and erection drawings.

1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.

2. Include embedment Drawings.

3. Clearly indicate where the fabricator proposes to use slotted holes.

4. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.

5. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical, high-strength bolted connections.

C. Delegated Design Submittal: For structural-steel connections indicated on Drawings to comply with design loads, include analysis data signed and sealed by a qualified Professional Engineer in the state of New York responsible for their preparation.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Contractor's fabricator and installer.

B. Welding certificates.

C. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers, certifying that shop primers are compatible with topcoats.

D. Mill test reports for structural-steel materials, including chemical and physical properties.

E. Product Test Reports: For the following:

1. Bolts, nuts, and washers, including mechanical properties and chemical analysis.

2. Direct-tension indicators.

3. Tension-control, high-strength, bolt-nut-washer assemblies.

4. Shop primers.

5. Non-shrink grout.

F. Survey of existing conditions.

1.7 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel in accordance with AWS D1.6/D1.6M.

B. Comply with applicable provisions of the following specifications and documents:

1. AISC 303 "Code of Standard Practice for Steel Buildings and Bridges" (2016)

2. AISC 360 "Specification for Structural Steel Buildings" (2016)

3. AISC 370 "Specification for Structural Stainless Steel Buildings" (2021)

4. Research Council on Structural Connections (RCSC) "Specification for Structural Joints Using High-Strength Bolts." (2014)

C. Certification: Affidavit by the structural steel manufacturer certifying that structural steel items meet the contract requirements.

1. Submit evidence of steel material compliance with this Specification. Evidence shall consist of certification of the source of material, copies of purchase orders and manufacturer's certifications. For stock material, submit copies of latest mill or purchase orders for material replacement.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Store materials to permit easy access for inspection and identification. Keep steel members off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect steel members and packaged materials from corrosion and deterioration.

1. Do not store materials on structure in a manner that might cause distortion, damage, or overload to members or supporting structures. Repair or replace damaged materials or structures as directed.

B. Store fasteners in a protected place in sealed containers with manufacturer's labels intact.

1. Fasteners may be repackaged provided Owner's testing and inspecting agency observes repackaging and seals containers.

2. Clean and relubricate bolts and nuts that become dry or rusty before use.

3. Comply with manufacturer’s written instructions for cleaning and lubricating ASTM F593, Group 2 (Type 316).

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Connections: Provide details of simple shear connections required by the Contract Documents to be selected or completed by structural-steel fabricator to withstand loads indicated and comply with other information and restrictions indicated.

1. Select and complete connections using schematic details indicated and AISC 370.

B. Construction: Combined system of braced frame, moment frames, and wood shear walls.

2.2 STRUCTURAL-STEEL MATERIALS

A. W-Shapes: Stainless Steel ASTM A276/A276M, Type 316L.

B. Channels, Angles, S-shapes, & M-shapes: Stainless Steel ASTM A276/A276M, Type 316L.

C. Welding Electrodes: Comply with AWS requirements.

2.3 BOLTS AND CONNECTORS

A. Stainless Steel Bolts and Nuts: Regular hexagon-head annealed stainless steel bolts, ASTM F593 (ISO 3506-1); with hex nuts, ASTM F594 (ASTM F836M); and, where indicated, flat washers; Alloy Group 2 (A4)

B. Post-Installed Anchors: Fasteners shall conform to the requirements of Section 05505.

2.4 SHRINKAGE-RESISTANT GROUT

A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C1107/C1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

2.5 FABRICATION

A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate in accordance with ANSI/AISC 303 and to ANSI/AISC 370.

1. Camber structural-steel members where indicated.

2. Fabricate beams with rolling camber up.

3. Identify high-strength structural steel in accordance with ASTM A6/A6M and maintain markings until structural-steel framing has been erected.

4. Mark and match-mark materials for field assembly.

5. Complete structural-steel assemblies, including welding of units, before starting shop-priming operations.

B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.

1. Plane thermally cut edges to be welded to comply with requirements in AWS D1.6/D1.6M.

C. Bolt Holes: Cut, drill, mechanically thermal cut, or punch standard bolt holes perpendicular to metal surfaces.

D. Finishing: Accurately finish ends of columns and other members transmitting bearing loads.

E. Cleaning: Clean and prepare steel surfaces that are to remain unpainted in accordance with SSPC-SP 1.

F. Holes: Provide holes required for securing other work to structural steel and for other work to pass through steel members.

1. Cut, drill, or punch holes perpendicular to steel surfaces.

2. Baseplate Holes: Cut, drill, mechanically thermal cut, or punch holes perpendicular to steel surfaces.

3. Weld threaded nuts to framing and other specialty items indicated to receive other work.

2.6 SHOP CONNECTIONS

A. High-Strength Bolts: Shop install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for type of bolt and type of joint specified.

1. Joint Type: Snug tightened unless notes otherwise on the drawings.

B. Weld Connections: Comply with AWS D1.6/D1.6M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.

1. Assemble and weld built-up sections by methods that maintain true alignment of axes without exceeding tolerances in ANSI/AISC 303 for mill material.

2.7 SOURCE QUALITY CONTROL

A. Testing Agency: Contractor will engage a qualified testing agency to perform shop tests and inspections.

1. Provide testing agency access to places where structural-steel work is being fabricated or produced to perform tests and inspections.

2. Bolted Connections: Inspect and test shop-bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."

3. Welded Connections: Visually inspect shop-welded connections in accordance with AWS D1.6/D1.6M and the following inspection procedures, at testing agency's option:

a. Liquid Penetrant Inspection: ASTM E165/E165M.
b. Magnetic Particle Inspection: ASTM E709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted.
c. Ultrasonic Inspection: ASTM E164.
d. Radiographic Inspection: ASTM E94/E94M.

4. Prepare test and inspection reports.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify, with certified steel erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.

1. Prepare a certified survey of existing conditions. Include bearing surfaces, anchor rods, bearing plates, and other embedments showing dimensions, locations, angles, and elevations.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place unless otherwise indicated on Drawings.

1. Do not remove temporary shoring supporting composite deck construction and structural-steel framing until cast-in-place concrete has attained its design compressive strength.

3.3 ERECTION

A. Set structural steel accurately in locations and to elevations indicated and in accordance with ANSI/AISC 303 and ANSI/AISC 370.

B. Baseplates, Bearing Plates, and Leveling Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.

1. Set plates for structural members on wedges, shims, or setting nuts as required.

2. Weld plate washers to top of baseplate.

3. Snug-tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.

4. Promptly pack shrinkage-resistant grout solidly between bearing surfaces and plates, so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for grouting.

C. Maintain erection tolerances of structural steel within ANSI/AISC 303 "Code of Standard Practice for Steel Buildings and Bridges."

D. Align and adjust various members that form part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that are in permanent contact with members. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.

1. Level and plumb individual members of structure. Slope roof framing members to slopes indicated on Drawings.

2. Make allowances for difference between temperature at time of erection and mean temperature when structure is completed and in service.

E. Splice members only where indicated.

F. Do not use thermal cutting during erection unless approved by the Engineer. Finish thermally cut sections within smoothness limits in AWS D1.6/D1.6M.

G. Do not enlarge unfair holes in members by burning or using drift pins. Ream holes that must be enlarged to admit bolts.

3.4 FIELD CONNECTIONS

A. High-Strength Bolts: Install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for bolt and joint type specified.

1. Joint Type: Snug tightened unless otherwise noted on the drawings.

B. Weld Connections: Comply with AWS D1.6/D1.6M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.

1. Comply with ANSI/AISC 303 and ANSI/AISC 370 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.

2. Assemble and weld built-up sections by methods that maintain true alignment of axes without exceeding tolerances in ANSI/AISC 303 for mill material.

3.5 FIELD QUALITY CONTROL

A. Special Inspections: Contractor will engage a special inspector to perform the following special inspections:

1. Verify structural-steel materials and inspect steel frame joint details.

2. Verify weld materials and inspect welds.

3. Verify connection materials and inspect high-strength bolted connections.

B. Bolted Connections: Inspect and test bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."

C. Welded Connections: Visually inspect field welds according to AWS D1.6/D1.6M.

1. In addition to visual inspection, test and inspect field welds according to AWS D1.6/D1.6M and the following inspection procedures, at testing agency's option:

a. Liquid Penetrant Inspection: ASTM E 165.
b. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted. Test a minimum of 10% of field-welded fillet welds.
c. Ultrasonic Inspection: ASTM E 164. Test 100% of field-welded groove welds.
d. Radiographic Inspection: ASTM E 94.

END OF SECTION

1. EXIT SIGN.

2. TOP BACK OR END MOUNT.

3. IMPACT-RESISTANT, THERMOPLASTIC HOUSING.

4. SIX INCH LETTERS

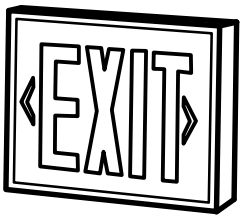
5. SINGLE FACE
   (DOUBLE FACE AS INDICATED ON CONTRACT DRAWINGS -2)

6. UNIVERSAL CHEVRON ARROWS

7. RED LED FACE

8. DUAL VOLTAGE 120/277VOLT.

9. SELF CONTAINED EMERGENCY SEALED
   NICKEL-CADMIUM BATTERY BACKUP
   POWER TO PROVIDE A MINIMUM OF
   90 MINUTES OF ILLUMINATION.
   SOLID STATE BATTERY CHARGING CIRCUIT
   WITH SELF DIAGNOSTIC AND TEST SWITCH.



MANUFACTURERS:
   LITHONIA: LQM SERIES
   McPHILBEN DAY-BRITE: CXX SERIES
   OR APPROVED EQUAL

LUMINAIRE 'EX' SPECIFICATION

NOT TO SCALE