

City of Plattsburgh WRRF
53 Green Street
Plattsburgh, New York 12901



To: All Bidders **Date Issued:** January 24, 2020

Subject: Dewatering Upgrades Project
Bidding Documents

ADDENDUM NO. 1

This addendum consisting of 68 pages (inclusive of attachments) shall be part of the Contract Documents as provided in the Agreement for the above-referenced project.

Acknowledge the receipt of this addendum by inserting its number (No. 1) and date (January 24, 2020) on the Bid Forms. Failure to do so may subject the bidder to disqualification.

List of Attachments:

1. Pre-bid Meeting Sign-in Sheet
2. Davis Bacon wage rates
3. Revised Drawing Sheets M-3, M-16, E-6
4. Specification 002114 Instructions to Bidders
5. Specification 013513.54 Special Procedure for MOPO and Construction Sequence
6. Specification 024119 Selective Demolition
7. Specification 400559.23 Stainless Steel Slide Gates
8. Specification 407346 Load Cells

CHANGES TO SPECIFICATIONS

Section 00 21 14 Instructions to Bidders

- **INSERT** a new paragraph 8A:

ARTICLE 8A. ADDITIONAL DOCUMENTS TO BE SUBMITTED WITH BID FORM

- Bidders Qualification Statement
- Non-Collusive Affidavit



- Bid Bond
- EEO Policy Statement
- Documented proof that EPA Form 6100-2 “DBE Subcontractor Participation Form” was given to MWBE subcontractors
- EPA Form 6100-3 “DBE Subcontractor Performance Form”
- EPA Form 6100-4 “DBE Subcontractor Utilization Form”
- Lobbying Certification
- AIS Contractor Certification

Section 01 35 13.54 Special Procedure for MOPO and Construction Sequence

- **INSERT** a new paragraph 1.2.C.7:

West clarifier (No. 1) work is to be completed first, then the east clarifier (No. 2).

- **INSERT** a new paragraph 1.4.J:

General and Mechanical Contractor’s shall complete floor penetration infills successively; one at a time. Contractor’s to coordinate with Owner to temporarily shut down one of the two belt conveyors below the infill being worked on and to temporarily remove and reinstall exhaust duct.

Section 02 41 19 Selective Demolition

- **INSERT** a new paragraph 3.9.H:

South Truck Bay Annex overhead door.

Section 40 05 59.23 Stainless Steel Slide Gates

- **INSERT** the following at the end of 2.2A:

RW Gate Company

Section 40 73 46 Load Cells

- **INSERT** the following after paragraph 2.1.B.1.b:

1) Manufacturer:

a. Rice Lake RoughDeck AX Series

b. Substitutions: Or equal

- **REPLACE** paragraph 2.1.B.2.a with the following:

a) Single-end beam load cell.

b) Tandem axel platform with on/off ramps and anchor tabs.

- **REPLACE** paragraph 2.1.B.3.a with the following:
 - a) Range: 0-80,000lbs
 - b) Weigh Module Length: 14ft
- **INSERT** the following after paragraph 2.1.B.2.d:
 - e) Provide anchor bolts for securing the weigh modules and on/off ramps to concrete base.

CHANGES TO DRAWINGS

<u>Sheet No.</u>	<u>Description</u>
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Cover	Delete "Digested" from sheet I-3.
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S-14	Add Note 5 to describe temporary shoring tower loading as follows:
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5. Temporary shoring towers that will support the existing walkways during construction should be designed for dead load of 1,600 lbs/ft and live load of 300 lbs/ft. The existing walkway has a span of 26-ft. This results in an end reaction of 24,700 lbs and an approximate shoring tower design load. Shoring tower engineer shall confirm loads taking into consideration final support locations.

S-18	Add Note 1 to describe guide track replacement work as follows:
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1. Guide track replacement includes replacement of the existing guide track along the edge of the concrete fillet shown as shown in section 2/S-18 plus 4 ft each side of fillet as shown on the enlarged plan 1/S18. Length of guide track to be replaced is approximately 44-ft at each fillet. Guide track is cast into new concrete per section 2/S-18. For 4-ft extensions on each side of the fillet, the existing guide track will have to be removed, the surface of the existing concrete patched with a patching mortar and the studs on the back side of the plate set in an epoxy adhesive.

M-3	Revised Note 3 to include demolition of bollards, and revised demolition of overhead door to removal of overhead door.
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M-16	Added dimensions to Photo B pier demolition note.
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H-4	Add Note 3 as follows:
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Mechanical Contractor shall remove the two existing exhaust ducts in the center back to the elbow off the main header. Provide two new 16-inch exhaust ducts and associated grilles as a replacement in kind. Coordinate construction sequence with the General Contractor.

E-6 Clarified existing polymer system electrical connections.

I-3 Delete "Digested" from drawing title.

QUESTIONS AND ANSWERS

Q1: Please provide the engineer's estimate for the project.

A1: Estimates for the base and alternate bid are as follows:

General Contract: \$3.9M

Electrical Contract: \$1.6M

Mechanical/HVAC Contract: \$0.25M

Q2: Can the bid period be extended one week at a minimum?

A2: No.

Q3: Does the City require building permits and what are the fees?

A3: No.

Q4: South truck bay annex demolition to include bollards?

A4: Yes.

Q5: Where should general contractor's construction trailer be located and where is the source of temporary power?

A5: Locate construction trailer south of the south truck bay and provide temporary power from Solids Handling Building Annex second floor electrical room.

Q6: How are contracts divided?

A6: See Specification Section 01 12 00 Multiple Contract Summary

Q7: What equipment and/or demolished materials are to be turned over to Owner?

A7: See Specification Section 024119, Paragraph 3.9.

Q8: Who is responsible for cleaning the aeration tanks and primary clarifiers?

A8: The Owner will clean the aeration tanks and primary clarifiers.

Q9: Where is temporary heat required?

A9: Temporary heat is not required.

Q10: Which contract is responsible for work shown on P&IDs?

A10: All panels and instruments labeled Division 26 are by the electrical prime contract and those labeled Division 23 are by the mechanical prime contract. Instruments and panels either labeled by another division or not labeled are by the general prime contract.

Q11: Can RW Gate be added to named slide gate manufacturers?

A11: Yes.

Q12: Please clarify the scope of work related to the platform and load cells shown on Drawing I-6 and Drawing I-8, Detail E.

- A12: The platform is integral to the load cell. There is no existing scale or platform. Scales will be located under the rear wheels only. Anchor bolts must be provided for securing the scale to the floor of the Solids Handling Building. Scale is only intended to estimate weight. See revised specification section 487346 for details.
- Q13: Can you confirm the clarifier work is phased – east first, west second.
- A13: Yes, the work is phased. West clarifier work will be completed in its entirety first followed by the East clarifier if the add alternate bid items are awarded.
- Q14: There is a center curb separating BFP 1&2 from 3&4 – I assume that this curb is demolished in phase 2 of curbing removals. We'll need some space to form and place the new curb, and enough space that the demo of the existing curb in phase 2 does not damage our new curb. No dims on curbing (W/D). Note in general notes on A-1 states not to scale the drawings. As the drawings scale out, the new center curb and old center curb are too close.
- A14: The intent is to demolish the existing center curb during the second round of curbing removal. The design envisions removing the curb surrounding BFP 3&4 up to the existing center curb then setting sacrificial form boards for the new center curb against the existing. The existing center curb and form boards will then be removed in phase 2. This is only a suggested construction sequence and the general contractor remains responsible for determining the means and methods necessary to complete this work.
- Q15: 1 & 2 S-15, 4/S-15 – Detail shows new CIP concrete pier. Is there an existing pier that gets demo'd?
- A15: Yes. Contractor to demolish existing piers (2) per M-16.
- Q16: Please clarify the sequence for channel installation under floor penetration infills; we remove BFP 3&4, remove curbing, and install new curbing and grating for new North BFP. Both conveyors are still in operation until North BFP comes online. North BFP comes online, and we remove conveyor 1 and BFP 1&2. It seems like we need to get up at that deck and install the channels while the conveyors are still in operation and there is duct/conduit in the way. Is that the case?
- A16: The mechanical contractor will temporarily remove the exhaust duct adjacent to the BFP 2 & 3 floor penetrations to be infilled. The general contractor will coordinate their work with

the Owner to schedule the shutdown of each conveyor allowing access to the area above for installing the channels and setting forms. The openings will be infilled one at a time.

- Q17: S-18 – what is the scope at the guide track? There is a note that states remove and replace. There is no definition under selective demo for remove and replace. Is it removed and reinstalled? Or is it to be replaced in kind. Is it the whole track or just 4' on each side at each corner as indicated.
- A17: Guide track replacement includes replacement of the existing guide track along the edge of the concrete fillet shown as shown in section 2/S-18 plus 4 ft each side of fillet as shown on the enlarged plan 1/S18. Length of guide track to be replaced is approximately 44-ft at each fillet. Guide track is cast into new concrete per section 2/S-18. For 4-ft extensions on each side of the fillet, the existing guide track will have to be removed, the surface of the existing concrete patched with a patching mortar and the studs on the back side of the plate set in an epoxy adhesive.
- Q18: For grout at the clarifiers; is a ready-mixed topping acceptable for this? See attached mix design.
- A18: Ready-mixed topping is acceptable and mix design will be reviewed during the submittal phase.
- Q19: S-17 – at wall removed by hydro demolition, it calls out remove 4" minimum of concrete from the wall. It is a contractor's interpretation that if we remove 4" of concrete at these locations, and there is bad concrete remaining, once we reach the 4" of removal, any additional removals is above the scope of the contract documents. Can you confirm the intent is to remove 4" only at these locations?
- A19: Yes, this correct. When 4" of concrete removal is complete provide access for the engineer for assessment and determination if additional removal is required.
- Q20: M-5 section 2 – there appears to be some existing topping under the BFPs – does this get removed as well?
- A20: Yes. Contractor to demolish existing BFP platform, including topping, to finish floor.

Q21: M-7 detail B – there is a concrete floor of unknown depth and composition – does this get removed as well? Will the plant remove and salvage the garage door?

A21: Existing concrete slab to remain. Contractor to remove overhead door and turn over to Owner.

Q22: Please provide an estimate on the weight of the existing clarifiers. We are looking for the heaviest picking weight during removal.

A22: The record documents available from the Owner do not show the weights of the various clarifier components. Envirodyne Systems, one of the listed manufacturers for the new center column, estimates the weight of their product as approximately 6,500 lbs.

Q23: Please clarify if temporary pumping is required for any portion of the project. If it is required, please provide information on locations, flow rates, discharge locations, etc.

A23: No temporary pumping is required.

Q24: Another question came up from our shoring supplier regarding the 3 temporary shoring towers in the project. They are requesting the loading information. Please provide the loads for the design of the temporary shoring towers.

A24: Temporary shoring towers that will support the existing walkways during construction should be designed for dead load of 1,600 lbs/ft and live load of 300 lbs/ft. The existing walkway has a span of 26-ft. This results in an end reaction of 24,700 lbs and an approximate shoring tower design load. Shoring tower engineer shall confirm loads taking into consideration final support locations.

Q25: Can you provide more information regarding base bid item no. 3.

- A25: General Contract Bid Item No. 3 is for the delegated design of Hangers and Supports for Process Piping per Specification Section 40 05 07,.
- Q26: S-17 calls out removal and replacement of clarifier mechanism. M drawings call out the demolition of the clarifiers, new center column, and drive assembly. Is a new center column included in the scope?
- A26: The center column and drive assemblies are to be demolished and replaced. The remainder of the clarifier equipment should be removed and reinstalled. See Specification Section 46 43 31 Circular Clarifier Equipment.
- Q27: In the instructions to bidders, it does not mention contractors submitting the DBE forms with the bid per the EFC requirements. If you can, let us know if these forms need to be submitted with our bids.
- A27: Documents are to be submitted with Bid Form.

"General Decision Number: NY20200006 01/03/2020

Superseded General Decision Number: NY20190006

State: New York

Construction Types: Heavy and Highway

Counties: Clinton and Essex Counties in New York.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes and apartments up to and including 4 stories), HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts,

including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020

BRNY0002-013 06/01/2018

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 37.23	19.51+a

FOOTNOTE:

a. PAID HOLIDAYS: Memorial Day, July the 4th, Labor Day, and Thanksgiving Day (provided the employee is employed (1) day before and (1) day after the holiday.

CARP0291-006 07/01/2019

	Rates	Fringes
CARPENTER		
HEAVY & HIGHWAY		
CONSTRUCTION		
Carpenter.....	\$ 33.02	21.10
Pile Driver.....	\$ 33.02	21.10

ELEC0910-001 05/01/2019

	Rates	Fringes
ELECTRICIAN.....	\$ 35.00	5.75%+20.68

ELEC1249-003 05/06/2019

	Rates	Fringes
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ELECTRICIAN (LINE
 CONSTRUCTION: LIGHTING AND
 TRAFFIC SIGNAL Including any
 and all Fiber Optic Cable
 necessary for Traffic Signal
 Systems, Traffic Monitoring
 systems and Road Weather
 information systems)

Flagman.....	\$ 27.00	6.75%+24.15
Groundman (Truck Driver)....	\$ 36.00	6.75%+24.15
Groundman Truck Driver (tractor trailer unit).....	\$ 36.00	6.75%+24.15
Lineman & Technician.....	\$ 45.00	6.75%+24.15
Mechanic.....	\$ 36.00	6.75%+24.15

FOOTNOTE:

a. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, plus President's Day, Good Friday, Decoration Day, Election Day for the President of the United States and Election Day for the Governor of the State of New York, provided the employee works the day before or the day after the holiday.

 ELEC1249-004 05/06/2019

Rates Fringes

ELECTRICIAN (Line
 Construction)
 Overhead and underground
 distribution and
 maintenance work and all
 overhead and underground
 transmission line work
 including any and all
 fiber optic ground wire,
 fiber optic shield wire or
 any other like product by

any other name
manufactured for the dual
purpose of ground fault
protection and fiber optic
capabilities :

Flagman.....	\$ 31.23	6.75%+24.15
Groundman digging machine operator.....	\$ 46.85	6.75%+24.15
Groundman truck driver (tractor trailer unit)....	\$ 41.64	6.75%+24.15
Groundman Truck driver....	\$ 41.64	6.75%+24.15
Lineman and Technician....	\$ 52.05	6.75%+24.15
Mechanic.....	\$ 41.64	6.75%+24.15

Substation:

Cable Splicer.....	\$ 57.26	6.75%+24.15
Flagman.....	\$ 31.23	6.75%+24.15
Ground man truck driver....	\$ 41.64	6.75%+24.15
Groundman digging machine operator.....	\$ 46.85	6.75%+24.15
Groundman truck driver (tractor trailer unit)....	\$ 41.64	6.75%+24.15
Lineman & Technician.....	\$ 52.05	6.75%+24.15
Mechanic.....	\$ 41.64	6.75%+24.15

Switching structures;
railroad catenary
installation and
maintenance, third rail
type underground fluid or
gas filled transmission
conduit and cable
installations (including
any and all fiber optic
ground product by any
other name manufactured
for the dual purpose of
ground fault protection
and fiber optic
capabilities), pipetype
cable installation and
maintenance jobs or
projects, and maintenance

bonding of rails; Pipetype

cable installation

Cable Splicer.....	\$ 58.71	6.75%+24.15
Flagman.....	\$ 32.02	6.75%+24.15
Groundman Digging Machine		
Operator.....	\$ 48.03	6.75%+24.15
Groundman Truck Driver		
(tractor-trailer unit)....	\$ 42.70	6.75%+24.15
Groundman Truck Driver....	\$ 42.70	6.75%+24.15
Lineman & Technician.....	\$ 53.37	6.75%+24.15
Mechanic.....	\$ 42.70	6.75%+24.15

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Presidents' Day, Memorial Day, Good Friday, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, and Election Day for the President of the United States and Election Day for the Governor of New York State, provided the employee works two days before or two days after the holiday.

 ELEC1249-008 01/01/2019

Rates	Fringes
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ELECTRICIAN (Line
 Construction)

TELEPHONE, CATV

FIBEROPTICS CABLE AND

EQUIPMENT

Cable splicer.....	\$ 32.78	3%+4.93
Groundman.....	\$ 16.49	3%+4.93
Installer Repairman-		
Teledata		
Lineman/Technician-		
Equipment Operator.....	\$ 31.12	3%+4.93
Tree Trimmer.....	\$ 25.79	3%+9.98+a

a. New Year's Day, President's Day, Good Friday, Decoration Day, Independence Day, Labor Day, Veteran's Day,

Thanksgiving Day, Day after Thanksgiving, Christmas Day.

ENGI0106-001 07/01/2018

HEAVY & HIGHWAY

Rates Fringes

Power equipment operators:

GROUP 1.....	\$ 43.47	26.05+a
GROUP 2.....	\$ 42.56	26.05+a
GROUP 3.....	\$ 39.99	26.05+a
GROUP 4.....	\$ 47.47	26.05+a
GROUP 5.....	\$ 46.47	26.05+a
GROUP 6.....	\$ 45.47	26.05+a
GROUP 7.....	\$ 45.08	26.05+a

POWER EQUIPMENT OPERATOR CLASSIFICATIONS (HEAVY & HIGHWAY):

GROUP 1: Asphalt Curb Machine, Self Propelled, Slipform, Automated Concrete Spreader (CMI Type), Automatic Fine Grader, Backhoe (Except Tractor Mounted, Rubber Tired), Backhoe Excavator Full Swing (CAT 212 or similar type), Back Filling Machine, Belt Placer (CMI Type), Blacktop Plant (Automated), Boom truck , Cableway, Caisson Auger, Central Mix Concrete Plant (Automated), Concrete Curb Machine, Self Propelled, Slipform, Concrete Pump, Crane, Cherry Picker, Derricks (steel erection), Dragline, Overhead Crane (Gantry or Straddle type), Pile Driver, Truck Crane, Directional Drilling Machine, Dredge, Dual Drum Paver, Excavator (All Purpose Hydraulically Operated) (Gradall or Similar), Front End Loader (4 cu. yd. and Over), Head Tower (Sauerman or Equal), Hoist (Two or Three Drum), Holland Loader, Maintenance Engineer, Mine Hoist, Mucking Machine or Mole Pavement Breaker(SP) Wertgen; PB-4 and similar type, Power Grader, Profiler (over 105 H.P.) Quad 9, Quarry Master (or equivalent), Scraper, Fireman, Form Tamper, Grout Pump, Gunite Machine, Hammers (Hydraulic self-propelled), Hydra-Spiker, ride-on, Hydraulic Pump (jacking system), Hydro-Blaster (Water), Mulching Machine,

Oiler, Parapet Concrete or Pavement, Shovel, Side Boom, Slip Form Paver, Tractor Drawn, BeltType Loader, Truck or Trailer Mounted Log , Chipper (Self Feeder), Tug Operator (Manned Rented Equipment Excluded), Tunnel Shovel

GROUP 2: Asphalt Paver, Backhoe (Tractor Mounted, Rubber Tired), Bituminous Recycler Machine, Bituminous Spreader and Mixer, Blacktop Plant (NonAutomated), Blast or Rotary Drill (Truck or Tractor Mounted), Boring Machine, Cage Hoist, Central Mix Plant (NonAutomated) and All Concrete Batching Plants, Cherry Picker (5 tons capacity and under), Concrete Paver (Over 16S), Crawler Drill, Self-contained, Crusher, Diesel Power Unit, Drill Rigs, Tractor Mounted, Front End Loader (Under 4 cu. yd.), Greaseman/Lubrication Engineer, HiPressure Boiler (15 lbs. and over), Hoist (One Drum), Hydro-Axe, Kolman Plant Loader and Similar Type Loaders, L.C.M. Work Boat Operator, Locomotive Mixer (for stabilized base selfpropelled), Monorail Machine, Plant Engineer, Profiler (105 H.P. and under), Grinder, Post Hole Digger and Post Driver, Power Broom (towed), Power Heaterman, Power Sweeper, Revinus Widener, Roller (Grade and Fill), Scarifier, ride-on, Shell Winder, Skid steer loader (Bobcat or similar), Span-Saw, ride-on, Steam Cleaner, Pug Mill, Pump Crete Ready Mix Concrete Plant Refrigeration Equipment (for soil stabilization)Road Widener, Roller (all above subgrade), Sea Mule, Self-contained Ride-on Rock Drill, Excluding Air-Track Type Drill, Skidder, Tractor with Dozer and/or Pusher, Trencher. Tugger Hoist, Vermeer saw (ride on, any size or type), Winch, Winch Cat

GROUP 3: A Frame Winch Hoist on Truck , Articulated Heavy Hauler, Aggregate Plant, Asphalt or Concrete Grooving, Machine (ride on), Ballast Regulator, Ride-on Boiler (used in conjunction with production), Bituminous Heater, self-propelled, Boat (powered), Cement and Bin Operator, Compressors, Dust Collectors, Fork Lift, Generators, Pumps, Welding Machines, Light Plants, Heaters (hands-off equipment), Concrete Pavement Spreader and Finisher, Concrete Paver or Mixer (16S and under), Concrete Saw (self-propelled), Conveyor, Deck Hand, Directional Drill

Machine Locator, Drill, (Core), Drill, (Well,) Farm Tractor with accessories, Fine Grade Machine, Tamper, ride-on, Tie Extractor, ride-on, Tie Handler, ride-on, Tie Inserter, ride-on, Tie Spacer, ride-on, Tire Repair, Track Liner, ride-on, Tractor, Tractor (with towed accessories), Vibratory Compactor, Vibro Tamp, Well Point

GROUP 4: Tower Cranes

GROUP 5: Cranes 50 tons and over

GROUP 6: Cranes 49 tons and below

GROUP 7: Master Mechanic

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day

 * IRON0012-002 07/01/2019

	Rates	Fringes
Ironworkers:		
SHEETER.....	\$ 31.80	28.59
STRUCTURAL, ORNAMENTAL, MACHINERY MOVER & RIGGERS, FENCE ERECTOR, REINFORCING, STONE DERRICKMAN, WELDER.....	\$ 31.55	28.59

 LAB01822-001 07/01/2018

HEAVY & HIGHWAY

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 25.67	23.75+a

GROUP 2.....	\$ 25.47	23.75+a
GROUP 3.....	\$ 25.87	23.75+a
GROUP 4.....	\$ 26.07	23.75+a
GROUP 5.....	\$ 27.67	23.75+a

LABORERS CLASSIFICATIONS (HEAVY & HIGHWAY)

GROUP 1. Basic Rate, Flagman Outboard and Hand Boats.

GROUP 2. Bull Float, Chain Saw, Concrete Aggregate Bin, Concrete Bootman, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer Paverment Breaker, Handlers of all Steel Mesh, Small Generators of Laborers' tools, installation of bridge drainage pipe, Pipe Layers, Vibrator type rollers, tamper, Drill doctor, tail or screw operator on asphalt paver, water pump operator (1 1/2" and single diaphragm) nozzle (asphalt, gunite, seeding and sand blasting), Laborers on chain link fence erection, Rock splitter and power unit, pusher type concrete saw and all other gas, electric, oil and air tool operators, Wrecking Labor.

GROUP 3. All rock or drilling machine operators (except quarry master and similar type) Acetylene Torch operator, asphalt raker, powderman.

GROUP 4. Blaster, form setters, stone or granite curb setters.

GROUP 5. Hazardous Waste, Asbestos Abatement and Removal.

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

 PAIN0201-002 05/01/2019

Rates Fringes

Painters:

Zone #2 All of ESSEX COUNTY

Lead Abatement Workers,

Structural Steel.....\$ 30.09 16.65

Painters, Drywall

Finishers, Spray.....\$ 29.09 16.65

Zone #3 All of CLINTON

COUNTY

Lead Abatement Workers,

Structural Steel.....\$ 30.09 15.45

Painters, Drywall

Finishers, Spray.....\$ 29.09 15.45

PAIN0806-003 10/01/2018

CLINTON AND ESSEX COUNTIES

 Rates Fringes

Painters:

 Structural Steel and Bridge.\$ 49.50 41.88

PLUM0773-001 05/01/2019

 Rates Fringes

Plumber and Steamfitter

 CLINTON COUNTY.....\$ 37.50 30.98

 ESSEX COUNTY.....\$ 38.50 30.98

* SHEE0083-001 06/01/2019

 Rates Fringes

Sheet metal worker.....\$ 33.73 33.04+a

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day. If any of these holidays fall on a Saturday or Sunday, either the preceding Friday or following Monday will be observed as the holiday.

TEAM0687-003 06/01/2018

Rates Fringes

Truck drivers:

HEAVY & HIGHWAY

CONSTRUCTION

GROUP 1:.....\$ 25.82 25.16+a

GROUP 2:.....\$ 26.04 25.16+a

FOOTNOTE:

a. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, provided the employee has worked the day before and the day after the holiday.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-ups, panel trucks, flatboy materials trucks (straight jobs), single axle dump trucks, dumpsters and receivers, greasers, truck tireman, parts chaser, tandems and batch trucks, mechanics, semi trailer, lowboy trucks, asphalt distributor trucks and agitator, mixer trucks and dumpcrete type vehicles, truck mechanic, fuel truck and bus

GROUP 2: Specialized earth moving equipment - euclid type or similar off-highway equipment, where not self-loaded, straddle (ross) carrier, self-contained concrete unit, off highway tandem back dump, twin engine equipment and double hitched equipment where not self loaded

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year.

Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were

prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010

08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

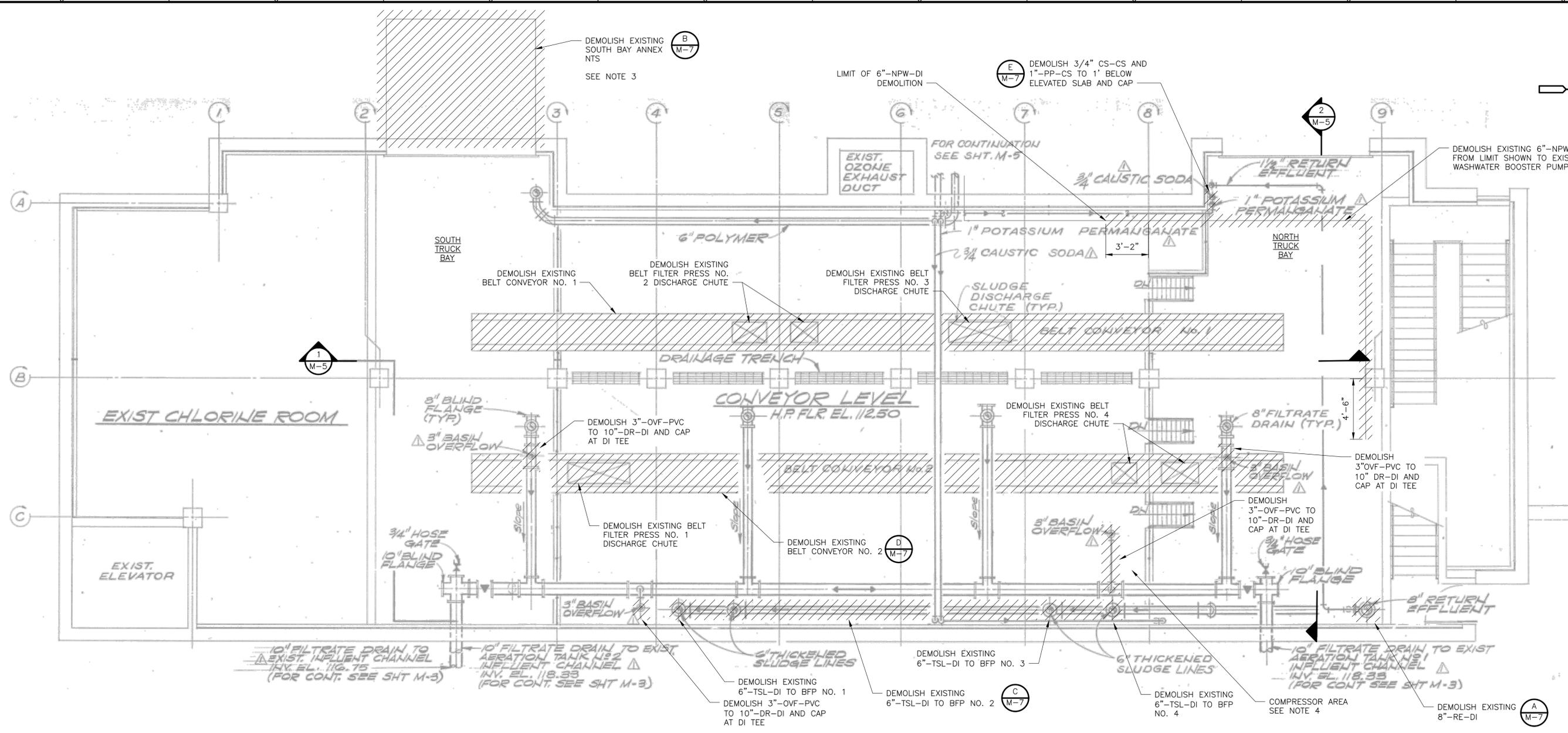
4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

"

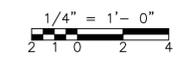
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FIRST FLOOR DEMOLITION PLAN AT FF EL. 112.50

PLAN
1/4" = 1'-0"

- NOTES:
1. BASE PLAN IS DRAWING M-2, ENTITLED "MODIFICATIONS TO FIRST AND NEW CONVEYOR LEVEL FLOOR PLAN SOLIDS HANDLING BLDG", FROM THE "CLINTON COUNTY NEW YORK CONSTRUCTION OF SLUDGE DEWATERING FACILITY" PROJECT, DATED 1983, BY METCALF AND EDDY OF NEW YORK.
 2. CONTRACTOR TO DEMOLISH EXISTING CONVEYORS, CONVEYOR SUPPORTS, DRIP PANS, ROLLER AND APPURTENANCES UNLESS OTHERWISE NOTED.
 3. CONTRACTOR TO DEMOLISH EXISTING SOUTH TRUCK BAY ANNEX TO GRADE. ANNEX IS 12' LONG BY 15' WIDE, WOOD FRAMED WITH ORIENTED STRAND BOARD SHEATHING, FIBERGLASS BATT INSULATION AND TWO BOLLARDS. EXISTING CONCRETE SLAB TO REMAIN. REMOVE OVERHEAD DOOR AND TURN OVER TO OWNER.
 4. DEMOLISH COMPRESSED AIR PIPING FROM COMPRESSOR DISCHARGE TO BELT FILTER PRESSES ON SECOND FLOOR. CONFIRM LIMITS OF DEMOLITION WITH OWNER. COMPRESSED AIR PIPING TO HOSE REEL ON THIS LEVEL TO REMAIN.



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	1/24/20	RV	PD	ADDENDUM NO. 1

DESIGNED BY: P. DUFFANY
 DRAWN BY: VIGNESH
 SHEET CHK'D BY: P. DUFFANY
 CROSS CHK'D BY: G. BOLD
 APPROVED BY: G. BOLD
 DATE: JANUARY 2020

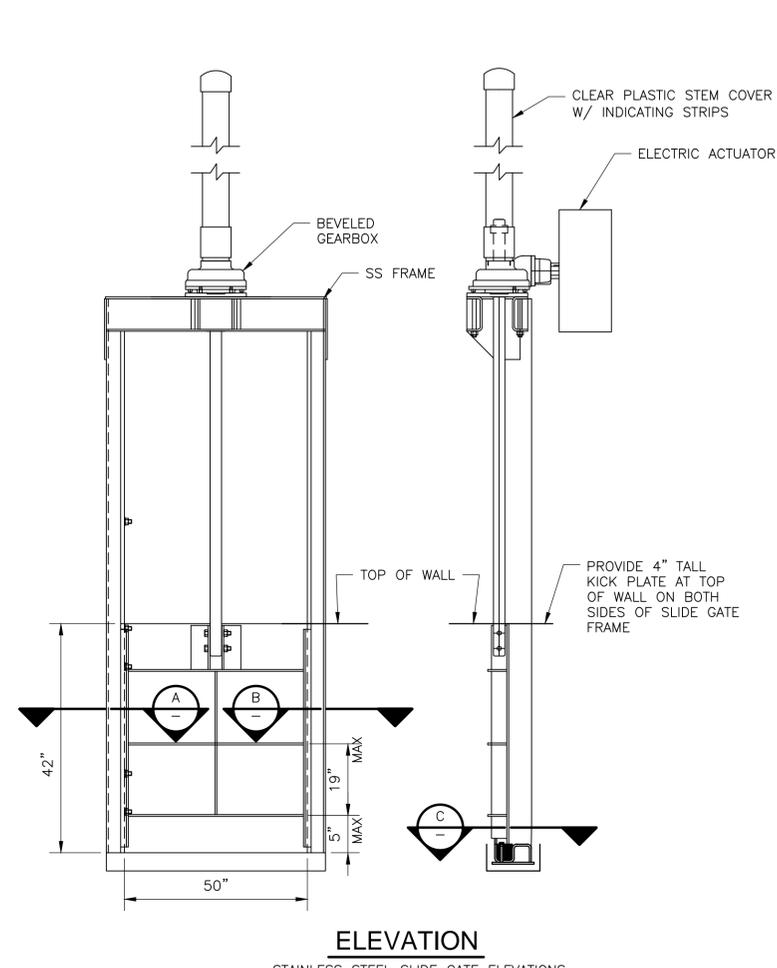
CDM Smith
 11 British American Boulevard
 Latham, NY 12110
 Tel: (618) 782-4500

CITY OF PLATTSBURGH, NEW YORK
 WATER RESOURCE RECOVERY FACILITY
 DEWATERING UPGRADES PROJECT

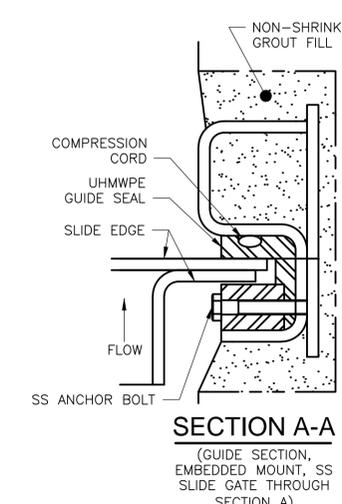
SOLIDS HANDLING BUILDING
 CONVEYOR DEMOLITION PLAN
 SHEET NO. M-3

PROJECT NO. 20738-229451
 FILE NAME: M003CODM.DWG
 SHEET NO. M-3
 ISSUE FOR BID

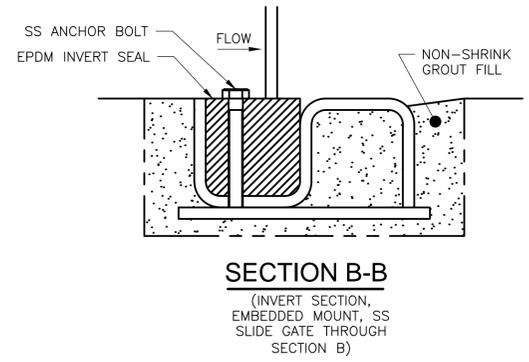
XREFS: [CDMS_2234] Incores: [CB Stamp, Slide Gate] Last saved by: SRAJ Time: 1/31/2020 7:01:59 PM
 pw:\p\cdmsmith.com\FW_EXT\20738\229451\04 Design Services NM_10%_05 Process Mechanical\10 CADD\MO16DWPS.dwg
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ELEVATION
STAINLESS STEEL SLIDE GATE ELEVATIONS



SECTION A-A
(GUIDE SECTION, EMBEDDED MOUNT, SS SLIDE GATE THROUGH SECTION A)

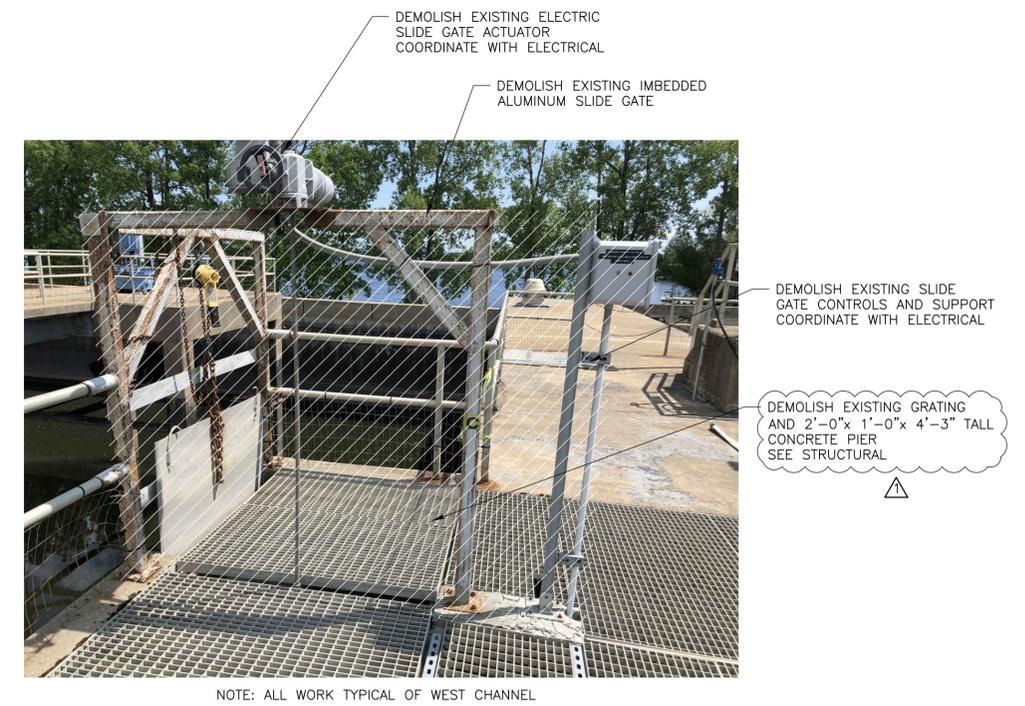


SECTION B-B
(INVERT SECTION, EMBEDDED MOUNT, SS SLIDE GATE THROUGH SECTION B)

NOTE: SEE STRUCTURAL FOR PLAN VIEW LOCATION

STAINLESS STEEL SLIDE GATE

DETAIL A
NTS



NOTE: ALL WORK TYPICAL OF WEST CHANNEL

EAST CHANNEL SLIDE GATE DEMOLITION

PHOTO B
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	1/24/20	RV	PD	ADDENDUM NO. 1

DESIGNED BY: P. DUFFANY
 DRAWN BY: VIGNESH
 SHEET CHK'D BY: P. DUFFANY
 CROSS CHK'D BY: G. BOLD
 APPROVED BY: G. BOLD
 DATE: JANUARY 2020



CITY OF PLATTSBURGH, NEW YORK

**WATER RESOURCE RECOVERY FACILITY
DEWATERING UPGRADES PROJECT**

**SLIDE GATE
DEMOLITION AND NEW WORK**

PROJECT NO. 20738-229451
 FILE NAME: MO16DWPS.DWG

SHEET NO.
M-16



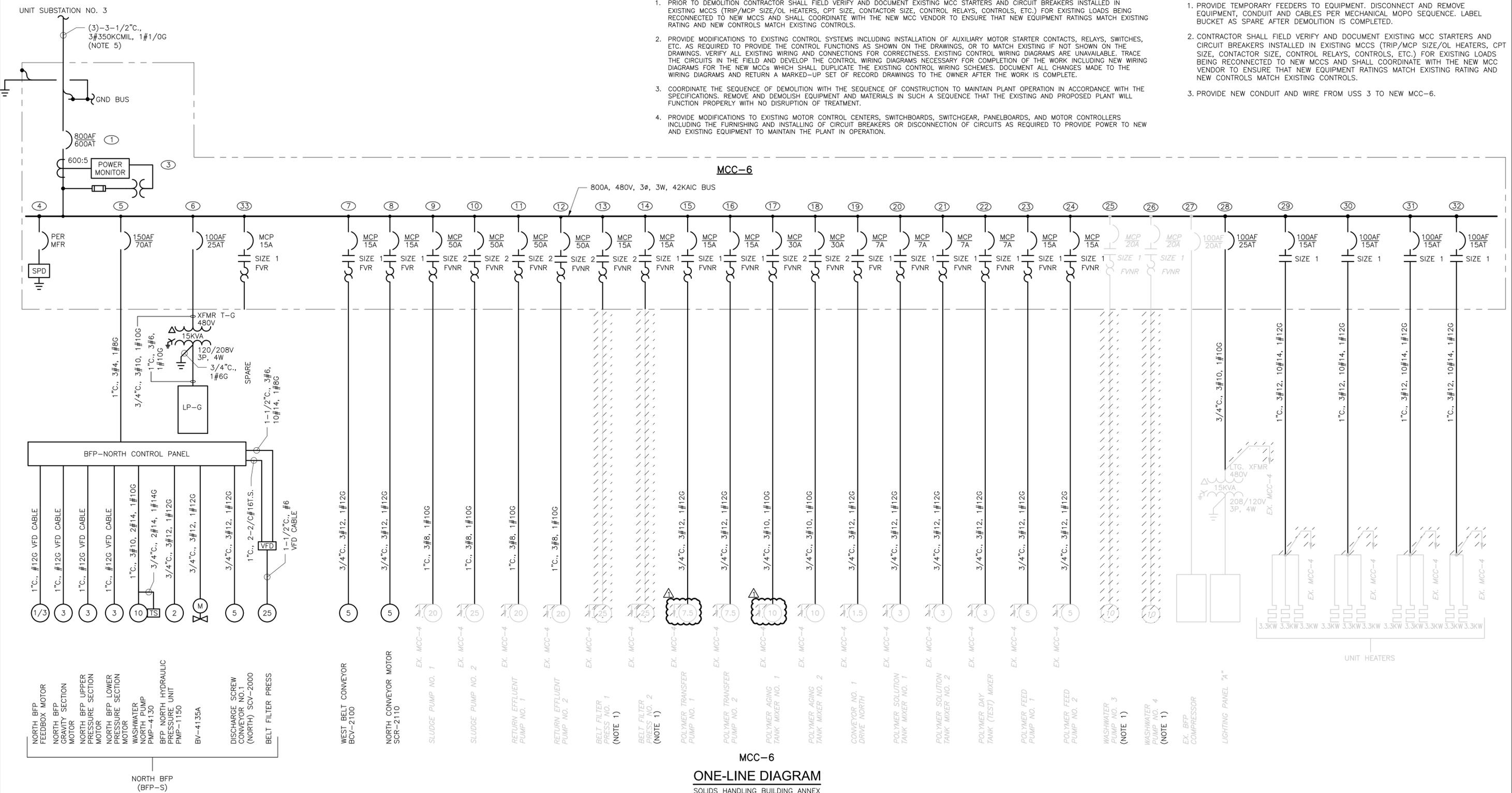
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 Last saved by: BARRETTZM Time: 1/3/2020 11:45:27 AM
 pw:\lpw.cdm-smith.com\FW_EX\20738\229451\04 Design Services NM_10%_09 Electrical\10 CADD\E006NFD.dwg
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GENERAL NOTES:

1. PRIOR TO DEMOLITION CONTRACTOR SHALL FIELD VERIFY AND DOCUMENT EXISTING MCC STARTERS AND CIRCUIT BREAKERS INSTALLED IN EXISTING MCCS (TRIP/MCP SIZE/OL HEATERS, CPT SIZE, CONTACTOR SIZE, CONTROL RELAYS, CONTROLS, ETC.) FOR EXISTING LOADS BEING RECONNECTED TO NEW MCCS AND SHALL COORDINATE WITH THE NEW MCC VENDOR TO ENSURE THAT NEW EQUIPMENT RATINGS MATCH EXISTING RATINGS AND NEW CONTROLS MATCH EXISTING CONTROLS.
2. PROVIDE MODIFICATIONS TO EXISTING CONTROL SYSTEMS INCLUDING INSTALLATION OF AUXILIARY MOTOR STARTER CONTACTS, RELAYS, SWITCHES, ETC. AS REQUIRED TO PROVIDE THE CONTROL FUNCTIONS AS SHOWN ON THE DRAWINGS, OR TO MATCH EXISTING IF NOT SHOWN ON THE DRAWINGS. VERIFY ALL EXISTING WIRING AND CONNECTIONS FOR CORRECTNESS. EXISTING CONTROL WIRING DIAGRAMS ARE UNAVAILABLE. TRACE THE CIRCUITS IN THE FIELD AND DEVELOP THE CONTROL WIRING DIAGRAMS NECESSARY FOR COMPLETION OF THE WORK INCLUDING NEW WIRING DIAGRAMS FOR THE NEW MCCs WHICH SHALL DUPLICATE THE EXISTING CONTROL WIRING SCHEMES. DOCUMENT ALL CHANGES MADE TO THE WIRING DIAGRAMS AND RETURN A MARKED-UP SET OF RECORD DRAWINGS TO THE OWNER AFTER THE WORK IS COMPLETE.
3. COORDINATE THE SEQUENCE OF DEMOLITION WITH THE SEQUENCE OF CONSTRUCTION TO MAINTAIN PLANT OPERATION IN ACCORDANCE WITH THE SPECIFICATIONS. REMOVE AND DEMOLISH EQUIPMENT AND MATERIALS IN SUCH A SEQUENCE THAT THE EXISTING AND PROPOSED PLANT WILL FUNCTION PROPERLY WITH NO DISRUPTION OF TREATMENT.
4. PROVIDE MODIFICATIONS TO EXISTING MOTOR CONTROL CENTERS, SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, AND MOTOR CONTROLLERS INCLUDING THE FURNISHING AND INSTALLING OF CIRCUIT BREAKERS OR DISCONNECTION OF CIRCUITS AS REQUIRED TO PROVIDE POWER TO NEW AND EXISTING EQUIPMENT TO MAINTAIN THE PLANT IN OPERATION.

NOTES:

1. PROVIDE TEMPORARY FEEDERS TO EQUIPMENT. DISCONNECT AND REMOVE EQUIPMENT, CONDUIT AND CABLES PER MECHANICAL MOPO SEQUENCE. LABEL BUCKET AS SPARE AFTER DEMOLITION IS COMPLETED.
2. CONTRACTOR SHALL FIELD VERIFY AND DOCUMENT EXISTING MCC STARTERS AND CIRCUIT BREAKERS INSTALLED IN EXISTING MCCS (TRIP/MCP SIZE/OL HEATERS, CPT SIZE, CONTACTOR SIZE, CONTROL RELAYS, CONTROLS, ETC.) FOR EXISTING LOADS BEING RECONNECTED TO NEW MCCS AND SHALL COORDINATE WITH THE NEW MCC VENDOR TO ENSURE THAT NEW EQUIPMENT RATINGS MATCH EXISTING RATING AND NEW CONTROLS MATCH EXISTING CONTROLS.
3. PROVIDE NEW CONDUIT AND WIRE FROM USS 3 TO NEW MCC-6.



MCC-6
ONE-LINE DIAGRAM
 SOLIDS HANDLING BUILDING ANNEX

REV. NO.	DATE	DRWN	CHKD	REMARKS
1/20	ZB	WR		REVISED PER ADDENDUM NO. 1

DESIGNED BY: Z. BARRETT
 DRAWN BY: Z. BARRETT
 SHEET CHK'D BY: N. HOLWAY
 CROSS CHK'D BY: G. BOLD
 APPROVED BY: W. RYAN
 DATE: JANUARY 2020



CITY OF PLATTSBURGH, NEW YORK
**WATER RESOURCE RECOVERY FACILITY
 DEWATERING UPGRADES PROJECT**

MCC-6 ONE-LINE DIAGRAM

PROJECT NO. 20738-229451
 FILE NAME: E006NFD.DWG
 SHEET NO. E-6
 1/24/20



SECTION 002114 - INSTRUCTIONS TO BIDDERS

City of Plattsburgh, NY

WRRF Dewatering Upgrades Project

Contract No. 1G – General

Contract No. 1M – Mechanical

Contract No. 1E – Electrical

INSTRUCTIONS TO BIDDERS

ARTICLE 1. QUALIFICATIONS OF BIDDERS

1.1 Bidders may be investigated by OWNER to determine if they are qualified to perform the Work. All Bidders shall be prepared to submit within five days of OWNER's or ENGINEER's request, written evidence of such information and data necessary to make this determination.

1.2 The investigation of a Bidder will seek to determine whether the organization is adequate in size, is authorized to do business in the jurisdiction where the project is located, has had previous experience and whether available equipment and financial resources are adequate to assure OWNER that the Work will be completed in accordance with the terms of the Agreement. The amount of other work to which the Bidder is committed may also be considered.

1.3 In evaluating Bids, OWNER will consider the qualifications of only those Bidders whose Bids are in compliance with the prescribed requirements.

1.4 OWNER reserves the right to reject any Bid if the evidence submitted by, or the investigation of, such Bidder fails to satisfy OWNER that such Bidder is properly qualified to carry out the obligations of the Contract Documents and to complete the Work contemplated therein.

ARTICLE 2. COPIES OF CONTRACT DOCUMENTS

2.1 Complete sets of Contract Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.

2.2 OWNER and ENGINEER in making copies of Contract Documents available do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

ARTICLE 3. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

3.1 Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may in any manner affect cost, progress or performance of the Work, (c) become familiar with Federal, State and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the requirements of the Contract Documents.

3.2 Before submitting a Bid, Bidders may, at their own expense, make such investigations and tests as they may deem necessary to determine their Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

3.3 On request, OWNER will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for the submission of a Bid.

3.4 The lands upon which the Work is to be performed, rights-of-way for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Supplementary Conditions, General Requirements or on the Drawings.

3.5 The submission of a Bid will constitute an incontrovertible representation that the Bidder has complied with every requirement of this Article 3 and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

ARTICLE 4. INTERPRETATIONS

4.1 All questions about the meaning or intent of the Contract Documents shall be received in writing by CDM Smith, duffanypd@cdmsmith.com Attn: Patrick Duffany, at least ten days before the date set herein for the opening of bids.

4.2 Written clarifications or interpretations will be issued by Addenda not later than five days before the bid opening date. Only questions answered by formal written Addenda will be binding. Oral and other clarifications or interpretations will be without legal effect. Addenda will be sent by delivery service with return receipt requested, to all parties recorded as having received the Contract Documents.

4.3 Bidders are responsible for determining that they have received all Addenda issued.

ARTICLE 5. PRE-BID CONFERENCE

5.1 A pre-bid conference will be held on **January 15, 2020 at 10 AM** at the City of Plattsburgh WRRF, 53 Green Street, Plattsburgh, NY to discuss the requirements of the Contract Documents.

ARTICLE 6. BID SECURITY

6.1 Each Bid must be accompanied by cash, bid bond, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to OWNER. The Bid Security shall be in the amount stated in the Invitation to Bid. Bid Security shall be sealed in a separate envelope from the Bid and then attached to the envelope containing the Bid. All Bid Securities except those of the three lowest responsible and eligible Bidders will be returned within five days, Saturdays, Sundays, and legal holidays excluded, after opening of the Bids. All Bid Securities will be returned on the execution of the Agreement or if no award is made, within 45 days after the actual date of opening of the Bids, unless forfeited under the conditions herein stipulated.

6.2 In case a party to whom a Contract is awarded shall fail or neglect to execute the Agreement and furnish the satisfactory bonds within the time specified, OWNER may determine that the Bidder has abandoned the Contract, and thereupon the Bid Forms and acceptance shall be null and void and the Bid Security accompanying the Bid Form shall be forfeited to OWNER as liquidated damages for such failure or neglect and to indemnify said OWNER for any loss which may be sustained by failure of the Bidder to execute the Agreement and furnish the bonds as aforesaid, provided that the amount forfeited to OWNER shall not exceed the difference between the Bid Price of said Bidder and that of the next lowest

responsible and eligible bidder and provided further that, in case of death, disability, or other unforeseen circumstances affecting the Bidder, such Bid Security may be returned to the Bidder. After execution of the Agreement and acceptance of the bonds by OWNER, the Bid Security accompanying the Bid Form of the Successful Bidder will be returned.

ARTICLE 7. PERFORMANCE, PAYMENT AND OTHER BONDS

7.1 Performance, Payment and other Bonds shall be provided in accordance with Article 6 of the Conditions of the Contract.

7.2 All Bonds required as Contract Security shall be furnished with the executed Agreement.

ARTICLE 8. BID FORM

8.1 Each Bid shall be submitted on the Bid Form on the perforated pages appended to the Project Manual. The Bid Form shall be removed and submitted separately. All blank spaces for Bid prices must be filled in with the unit price for the item or the lump sum for which the Bid is made.

8.2 Bid Forms shall be completed in ink or by typewriter. The Bid price of each item on the form shall be stated in words, and figures. If unit prices are required on the Bid Form, discrepancies between unit prices and their respective total amounts will be resolved in favor of the unit prices. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

8.3 Bids by corporations shall be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

8.4 Bids by Limited Liability Companies shall be executed in the Limited Liability name by the Manager (or other Limited Liability Company officer/representative accompanied by evidence of authority to sign). The Limited Liability Company address and state where the Limited Liability Company was formed shall be shown below the signature.

8.5 Bids by partnerships shall be executed in the partnership name and signed by a partner, whose title shall appear under the signature. The official address of the partnership shall be shown below the signature.

8.6 All names shall be typed or printed below the signature.

8.7 The Bid shall contain an acknowledgement of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

8.8 The address to which communications regarding the Bid are to be directed shall be shown.

8.9 One copy of each Bid shall be submitted in a sealed opaque envelope bearing on the outside the Bidder's name, address, and the Project Title for which the Bid is submitted. (If forwarded by mail, Bid and sealed envelope marked as described above shall be enclosed in another envelope with the notation "BID ENCLOSED" on the face and addressed as indicated in the Invitation to Bid.)

ARTICLE 8A. ADDITIONAL DOCUMENTS TO BE SUBMITTED WITH BID FORM

- **Bidders Qualification Statement**
- **Non-Collusive Affidavit**
- **Bid Bond**
- **EEO Policy Statement**
- **Documented proof that EPA Form 6100-2 “DBE Subcontractor Participation Form” was given to MWBE subcontractors**
- **EPA Form 6100-3 “DBE Subcontractor Performance Form”**
- **EPA Form 6100-4 “DBE Subcontractor Utilization Form”**
- **Lobbying Certification**
- **AIS Contractor Certification**

ARTICLE 9. RECEIPT OF BIDS

9.1 Sealed Bids for the work of this Contract will be received at the time and place indicated in the Invitation to Bid.

9.2 OWNER may consider informal any Bid not prepared and submitted in accordance with the provisions hereof.

9.3 Bidders are cautioned that it is the responsibility of each individual bidder to assure that their bid is in the possession of the responsible official or the designated alternate prior to the stated time and at the place of the Bid Opening. Owner is not responsible for bids delayed by mail and/or delivery services, of any nature.

ARTICLE 10. MODIFICATION AND WITHDRAWAL OF BIDS

10.1 Bids may be modified only by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

10.2 Bids may be withdrawn prior to the scheduled time (or authorized postponement thereof) for the opening of Bids.

10.3 Any Bid received after the time and date specified shall not be considered. No Bid may be withdrawn for a period of 45 days, after the actual date of the opening of the Bids.

ARTICLE 11. AWARD OF CONTRACT

11.1 The Contract will be awarded to the lowest responsible and eligible Bidder (Successful Bidder). Such a Bidder shall possess the skill, ability, and integrity necessary for the faithful performance of the work. The term "lowest responsible and eligible Bidder" as used herein shall mean the Bidder whose Bid is the lowest of those Bidders possessing the skill, ability and integrity necessary to the faithful performance of the Work.

11.2 OWNER reserves the right to reject any and all Bids, to waive any and all informalities if it is in Owner's best interest to do so, and the right to disregard all nonconforming, non-responsive or conditional Bids.

11.3 A Bid which includes for any item a Bid Price that is abnormally low or high may be rejected as unbalanced.

11.4 OWNER also reserves the right to reject the Bid of any Bidder that OWNER considers to be unqualified relative to Article 1 above.

11.5 If the Contract is to be awarded, OWNER will give the Successful Bidder a Notice of Award within 45 days, after the actual date of the opening of the Bids. All bids shall remain open for 45 days, after the actual date of the opening of the Bids but OWNER may, at OWNER's sole discretion, release any Bid and return the Bid Security prior to that date.

ARTICLE 12. EXECUTION OF AGREEMENT

12.1 When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by at least six unsigned copies of the Agreement and all other applicable Contract Documents. Within 15 days, excluding Saturdays, Sundays and legal holidays, after the date of receipt of such notification CONTRACTOR shall execute and return all copies of the Agreement and all other applicable Contract Documents to OWNER.

ARTICLE 13. SAFETY AND HEALTH REGULATIONS

13.1 This project is subject to the Safety and Health Regulations (CFR 29, Part 1926 and all subsequent amendments) as promulgated by the U.S. Department of Labor on June 24, 1974 and CFR 29, Part 1910, General Industry Safety and Health Regulations Identified as Applicable to Construction.

13.2 The Successful Bidder shall comply with the Department of Labor Safety and Health Regulations for Construction promulgated under the Occupational Safety and Health Act of 1970 (PL-91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL-91-54).

13.3 The Successful Bidder shall have a competent person or persons, as required under the Occupational Safety and Health Act, on the Site to inspect the Work and to supervise the conformance of the Work with the regulations of the Act.

ARTICLE 14. FEDERAL WAGE RATES

14.1 Davis Bacon (DB) Prevailing Wage Requirements

14.1.1 The following clauses shall apply to any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2012 Appropriations Act, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash

equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1 (b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The Owner(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known) or their representatives, and the Owner(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the Owner(s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Owner(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account, assets for the meeting of obligations under the plan or program.

(2) Withholding. The Owner(s) shall, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, their correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the Owner, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or

EPA. As to each payroll copy received, the Owner shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the Owner(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the Owner(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or its agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in their first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1,3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general dispute clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Owner(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(11) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

15.1.2 Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full shall apply to any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall apply in addition to the clauses required by Item 1, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of

forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The Owner, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 1, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Owner shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Owner shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

14.2 It is the responsibility of the Contractor before the bid opening to request, if necessary, any additional information on Federal Wage Rates for those tradespeople who are not covered by the applicable Federal Wage Determination, but who may be employed for the proposed work under this Contract.

14.3 Building rates will apply to all work associated with the construction of all the buildings. Those rates will apply to the complete structure, including the foundation, and the installation of all equipment and utilities within and below the structure. Where utility lines pass out through the walls of the structure, building rates will apply up to five feet outside the walls.

14.4 All other construction will be covered by Heavy and Highway Rates.

ARTICLE 15. AMERICAN IRON AND STEEL REQUIREMENT

15.1 This project is subject to the American Iron and Steel Requirements of P.L. 113-76, the Consolidated Appropriations Act of 2014.

Mr. Jonathan Ruff, P.E.
Environmental Manager

City of Plattsburgh, NY

END OF DOCUMENT 002114

SECTION 013513.54 – SPECIAL PROCEDURES FOR MAINTENANCE OF PLANT OPERATION AND SEQUENCE OF CONSTRUCTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The City of Plattsburgh Water Resource Recovery Facility (WRRF) is operated 24 hours a day, seven days a week. The existing facility will be maintained in continuous operation by the Owner at all times during the entire construction period, except for periods specifically delineated within this Section. The Contractor shall schedule and conduct his work such that it will not impede any part of the treatment process, create potential hazards to operating equipment and/or personnel, reduce the quality of the plant effluent, interrupt chemical and hauled waste receiving truck traffic or cause treatment process upsets. It shall be the Contractor's responsibility to ensure complete compatibility with the facility operations in his working schedules and sequenced construction activities.
- B. The Owner currently utilizes three of the four belt filter presses (BFP) to dewater thickened sludge, four hours per day, five days per week on average. Dewatered cake is transferred to one of two conveyor belts on the first floor of the Solids Handling Building which in turn load a truck in either the North or South Truck Bay. During construction, at least two of the existing BFPs, one belt conveyor and one truck bay must remain in operation at all times except for scheduled outages with the Owner.
- C. Critical Elements for Maintenance of Treatment Plant Operations (MOPO):
 - 1. Existing BFP No. 1 and 2 along with belt conveyor No. 1 and 2 must remain operational until new North BFP is placed into service including electrical and control systems and HVAC systems.
 - 2. Washwater booster pumps supplying BFP No. 1 and 2 must remain in operation until new North BFP and associated booster pump are placed into service and BFP No. 1 and 2 are scheduled for demolition.
 - 3. North BFP must be placed into service and operational before demolition of belt conveyor No. 2 and installation of new East belt conveyor.
 - 4. East belt conveyor must be placed into service and operational before demolition of belt conveyor No. 1 and installation of new West belt conveyor.
 - 5. North BFP along with East and West belt conveyors must be placed into service and operational before demolition of BFP No. 1 and 2.
 - 6. Critical electrical components and sequencing are shown on Sheets E-4 and E-13.
 - 7. **West clarifier (No. 1) work is to be completed first, then the east clarifier (No. 2).**

1.3 SEQUENCE OF CONSTRUCTION - GENERAL

- A. In order to maintain continuous plant operations during construction, a phased construction sequence shall be required. Specific constraints and steps are outlined and are intended to suggest a sequence for specific activities. This sequence shall be coordinated with the Owner and the Engineer.
- B. The detailed sequence of construction shall be based upon the schedule submitted by the Contractor and approved by the Engineer. However, as a guide for bidders in the preparation of their bid, a suggested sequence of construction is described below for specific portions of the work. The Project Coordinator may alter the sequence as approved by the Engineer, providing plant operations are maintained.
- C. The order of construction shall be subject to the approval of the Owner and Engineer; such approval or direction, however, shall in no way relieve the Contractors' responsibility to perform the work in strict accordance with the Contract Documents. The construction plans and specifications have been developed to minimize the construction impacts on the operation of the WRRF. The Contractor shall note the requirements of this Section with regard to the operation of the facility and the phasing of construction when developing his work sequence. The Contractor's work sequence must be specifically detailed in the required schedule.
- D. The following work sequence provides for completing the construction of the project within the requirements of the Owner's plant operation and schedule limitations. It does not purport to cover any sequences necessitated by the actual construction methods. This is a partial outline only. Portions of the work not specifically itemized must be scheduled by the Project Coordinator in accordance with the requirements of the approved construction sequence.
- E. Some of the tasks below may overlap one another in performance of the work. Numerical and alphabetical identification of the tasks does not necessarily conform with actual order of construction.

1.4 SEQUENCE OF CONSTRUCTION

- A. Electrical Contractor shall install new MCC-6 prior to demolition of BFP No. 3 and 4 as follows:
 - 1. Transfer loads identified on Sheet E-4 from existing MCC-6 to MCC-5.
 - 2. Demolish existing MCC-6 and install new MCC-6.
 - 3. Transfer MOPO loads identified on Sheet E-4 from MCC-4 to new MCC-6.
- B. Contractor's shall demolish BFP No. 3 and 4 with associated pumps, piping, curbed area, electrical and control systems. This includes the supply and exhaust air ducts north of the main runs and in the area of the BFPs being removed.
- C. Install and make ready for operation the new North BFP as follows:
 - 1. General Contractor
 - a. Provide new curbed area.
 - b. Provide North BFP with associated reversible discharge screw, sludge and polymer piping and control panel.
 - c. Provide North BFP washwater booster pump and associated piping.

2. Electrical Contractor
 - a. Provide power from MCC-6 to North BFP.
 - b. Provide control circuits from North BFP to associated control panel.
 - c. Extend new conduit and wire from MCC-6 to existing remaining loads. Re-connect loads to new MCC-6.
 3. Mechanical Contractor
 - a. Provide new exhaust air ducts, intakes and connections to North BFP hood.
 4. During this time, existing BFP No. 1 and 2, their associated washwater booster pumps and Belt Conveyor No. 1 and 2 will remain operational.
- D. General and Electrical Contractor's shall demolish existing Belt Conveyor No. 2 then install and make ready for operation the new East Belt Conveyor along with associated electrical and control systems.
1. During this time, the new North BFP and existing BFP No. 2 will be in service and discharge to existing Belt Conveyor No. 1.
- E. Contractor's shall demolish existing Belt Conveyor No. 1 and the exhaust air duct in the North and South Truck Bay then install and make ready for operation the new West Belt Conveyor along with associated electrical and control systems.
1. The new exhaust air ducts on the conveyor level shall be installed after Belt Conveyor No. 1 is removed and before the West Belt Conveyor is installed.
 2. During this time, the new North BFP and existing BFP No. 1 will be in service and discharge to the new East Belt Conveyor.
- F. Contractor's shall demolish BFP No. 1 and 2 with associated pumps, piping, curbed area, electrical and control systems. This includes the remaining supply and exhaust air ducts in the Belt Filter Press Room.
- G. Install and make ready for operation the new South BFP as follows:
1. General Contractor
 - a. Provide new curbed area.
 - b. Provide South BFP with associated reversible discharge screw, sludge and polymer piping and control panel.
 - c. Provide South BFP washwater booster pump and associated piping.
 - d. Temporarily remove the North BFP reversible screw conveyor to allow adequate access for rigging the South BFP into position. This work shall be completed within one calendar day.
 2. Electrical Contractor
 - a. Demolish existing MCC-4 and install new MCC-4.
 - b. Extend new conduit and wire from MCC-4 to existing remaining loads. Re-connect remaining existing loads to new MCC-4
 - c. Provide power from MCC-4 to South BFP.

- d. Provide control circuits from South BFP to associated control panel.
3. Mechanical Contractor
- a. Provide new 42"x20" supply air duct after demolition of BFP No. 2 and before the installation of the South BFP.
 - b. Provide remainder of supply air duct in the Belt Filter Press Room after the South BFP is rigged into position by the General Contractor.
 - c. Provide new exhaust air ducts, intakes and connections to South BFP hood.
4. During this time, the North BFP will be in service along with the East and West Belt Conveyor.
- H. General and Electrical Contractor's shall install and make ready for operation the South Leveling Screw Conveyor in the South Truck Bay.
- I. General and Electrical Contractor's shall install and make ready for operation the North Leveling Screw Conveyor in the North Truck Bay.
- J. General and Mechanical Contractor's shall complete floor penetration infills successively; one at a time. Contractor's to coordinate with Owner to temporarily shut down one of the two belt conveyors below the infill being worked on. Mechanical contractor to temporarily remove and reinstall exhaust duct work at infill.**

END OF SECTION – 013513.24

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Demolition and removal of selected portions of building or structure.
- 2. Concrete removal by means of hydrodemolition.
- 3. Salvage of existing items to be reused or recycled.

- B. Related Requirements:

- 1. Section 003126 "Existing Hazardous Material Information," Section 011000 "Summary" for restrictions on use of the premises, Owner-occupancy requirements, and phasing requirements.
- 3. Section 017300 "Execution" for cutting and patching procedures.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Remove Hazardous Materials: Isolate and remove hazardous materials from existing construction and properly dispose as required by existing regulations.
- C. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- D. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.
- E. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.
- F. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated as Remove and Salvage, demolition waste becomes property of Contractor.

1.5 PREINSTALLATION MEETINGS

- A. Pre-demolition Conference: Conduct conference at Project site
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.

1.6 INFORMATIONAL SUBMITTALS

- A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.
- B. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Use of elevator and stairs.
 - 5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- C. Submit the following items prior to beginning hydrodemolition operations:
 - 1. Qualifications of Hydrodemolition Contractor.
 - 2. Hydrodemolition equipment specifications, including robot size and weight, supply water requirements, water consumption, and ultra-high-pressure hose specifications.
 - 3. Location and layout of the hydrodemolition equipment.
 - 4. Location and layout of the temporary water supply.
 - 5. Vacuum equipment specifications, including type, manufacturer, capacities, and filtration systems.
 - 6. Location and layout of any fuel system required for the equipment.
 - 7. Debris removal equipment specifications and method for concrete debris removal. The debris removal process must not impact the ongoing hydrodemolition operations.
 - 8. Location and layout of the wastewater containment, treatment and disposal system(s), including any permits required to properly discharge the water.
 - 9. Copies of hydrodemolition water quality tests performed.

10. Qualification certification(s) of the hydrodemolition operator.
11. Hand-held water blasting equipment and/or chipping hammer specifications to be used for detail chipping, if necessary.
12. Equipment to be used for final wash down of the hydrodemolished surface to create a pour-ready surface

- D. Pre-demolition Photographs or Video: Show existing conditions of adjoining construction, including finish surfaces, that might be misconstrued as damage caused by demolition operations. Comply with Section 013233 "Photographic Documentation." Submit before Work begins.

1.7 QUALITY ASSURANCE

- A. Hydrodemolition companies, as well as individual employees performing and supervising hydrodemolition concrete removal, must meet the following requirements:
1. Work shall be performed by organizations that have successfully performed at least ten verifiable projects similar in scope to this project within the last three years.
 2. Work shall be under the immediate control of a person experienced in hydrodemolition who has supervised five verifiable projects of similar type and size within the last three years. Supervising personnel shall be present during all operations.
 3. The hydrodemolition equipment operator must be trained and certified by the equipment manufacturer in the proper use and safe operation of the equipment and have a minimum of two years' experience with the equipment on jobs of similar type and size.

1.8 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Engineer of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
1. If suspected hazardous materials are encountered, do not disturb; immediately notify Engineer and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
1. Maintain fire-protection facilities in service during selective demolition operations.
 2. Owner will provide access to potable water to be used for hydrodemolition.

- F. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

2.2 HYDRODEMOLITION EQUIPMENT

- A. Concrete removals shall be performed with a computerized, self-propelled hydrodemolition machine that utilizes a 36,000 psi ultra-high-pressure water jet stream and required water consumption of 16 gallons per minute (or less) per pump. Equipment shall be capable of removing concrete to the depth specified herein and/or as shown on the drawings and shall be capable of removing rust and laitance from exposed reinforcement designated to remain in place. The equipment shall be capable of removing concrete to within one inch of vertical surfaces. Independent of the number of passes required to achieve the specified depth of removal, rotary heads only shall be used for the final pass of the hydrodemolition machine.
- B. Hand-held high-pressure 10,000 psi (690 bar) minimum wands or 35 lb. (16 kg) maximum jackhammers shall be used in areas that are inaccessible to the self-propelled machine or in patching areas that require work to remove the remaining unsound concrete. Vacuum Equipment: Vacuum equipment shall be of sufficient capacity to collect all debris from the hydrodemolition operation. The equipment shall be capable of removing wet debris and water in the same pass.
- C. Wastewater Treatment Equipment. All wastewater shall be collected and must be treated in in settlement tanks to remove suspended solids in accordance with the Owners requirements. After removal of solids, the wastewater can be disposed of at the treatment plant at a location to be provided by the Owner. Disposal of solids will be the responsibility of the Contractor.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 2. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
 - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 - e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
 - f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
 - g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.

3.3 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
 - 5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."
- B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

1. Strengthen or add new supports when required during progress of selective demolition.
- C. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 5. Maintain adequate ventilation when using cutting torches.
 6. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 7. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 8. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Work in Historic Areas: Selective demolition may be performed only in areas of Project that are not designated as historic. In historic spaces, areas, and rooms, or on historic surfaces, the terms "demolish" or "remove" shall mean historic "removal" or "dismantling" as specified in Section 024296 "Historic Removal and Dismantling."
- D. Removed and Salvaged Items:
1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers.
 3. Store items in a secure area until delivery to Owner.
 4. Transport items to Owner's storage area on-site.
 5. Protect items from damage during transport and storage.
- E. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 3. Protect items from damage during transport and storage.
 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- F. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Engineer, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.
- B. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, and then remove concrete between saw cuts.
- C. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.
- D. Roofing
1. Remove existing roof membrane, flashings, copings, and roof accessories.
 2. Remove existing roofing system down to substrate.

3.6 HYDRODEMOLITION

- A. Install temporary protection and other safety requirements prior to starting hydrodemolition. The General Contractor shall adequately shield the work area to prevent debris resulting from the hydrodemolition operation from traveling beyond the boundaries of the work area in order to protect the public from flying debris both around and/or under the work area.
- B. Remove the concrete in the areas designated on the drawings using hydrodemolition to the depth specified in the drawings, in these specifications, and as demonstrated and approved by the Engineer in the hydrodemolition test cut area. Maintain the quality and depth of cut demonstrated in the test area throughout the project. If delaminations exist beyond the minimum removal depth, removals shall continue until all unsound and delaminated concrete has been removed.
- C. Areas inaccessible to the hydrodemolition equipment shall be removed using hand-held high-pressure water blasting or pneumatic tools. If the hydrodemolition removal exposes reinforcing steel, then shadows under reinforcing steel scheduled to remain in place shall be removed to 3/4 inches below the steel using hand-held high-pressure water blasting or pneumatic tools.

- D. Clean the area to remove all loose debris and other materials scheduled to be removed during the hydrodemolition. Thoroughly clean the demolished area using a water blaster held at a maximum of 12" from the deck surface. The surface shall be vacuumed immediately following the high-pressure water cleaning to remove any debris or wastewater. Following the cleaning, the surface shall be free of all debris, loose material, slurry, cement paste and any other material that might interfere with the bond of the new concrete overlay leaving a pour-ready surface.
- E. Areas where pneumatic tools were used must be thoroughly cleaned to remove rust and laitance from existing reinforcing.
- F. Any areas contaminated by materials detrimental to a good bond as a result of the General Contractor's operations shall require additional removals and/or cleaning until a clean surface is obtained, at no additional cost to the owner.
- G. At all locations where exposed reinforcement is designated to remain in place, exercise caution to avoid damaging the reinforcement during removal of concrete. Any reinforcement damaged by these operations shall be repaired or replaced at no cost to the owner.
- H. Wastewater containment shall be the sole responsibility of the General Contractor. The General Contractor shall provide a comprehensive plan for hydrodemolition wastewater containment, treatment, and disposal. At no time, shall water be allowed to run freely into live traffic areas, into other areas of the structure, or into areas accessible to the public.
 - 1. All equipment needed, including piping, pumps, hoses, settling areas and pH adjustment equipment (if needed) required for the proper collection, clean up and disposal of wastewater from the work area shall be provided and maintained by the General Contractor. The system shall be designed by the General Contractor and approved by the engineer to meet the discharge requirements of the local governing authority.
 - 2. All wastewater generated by the General Contractor's operations including hydrodemolition and clean up water must be contained by the General Contractor and must pass through the General Contractor's approved collection system. No water will be allowed to flow directly into any drainage system without pre-treatment. At no time will wastewater be allowed to enter any body of water (river, lakes, ponds, etc.)
 - 3. At a minimum, wastewater shall be treated to reduce Total Suspended Solids (TSS) to < 20 mg/L prior to disposal at the Owner's Facility.
 - 4. The General Contractor shall remove daily from the site all concrete debris, sludge and other materials generated by his work and legally dispose of all such material

3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and recycle or dispose of them according to Section 017419 "Construction Waste Management and Disposal."
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 - 4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

- B. Burning: Do not burn demolished materials.

3.8 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.9 REMOVE AND SALVAGE SCHEDULE

- A. One set of BFP belts and bearings from BFP No. 3 & 4.
- B. Proximity sensors and timers from BFP No. 3 & 4.
- C. Unit heaters schedule for removal.
- D. Buckets removed from MCC-4 and MCC-5 not scheduled for re-installation.
- E. Primary clarifier effluent gate actuator.
- F. H2S apparatus in the Belt Filter Press Room.
- G. VFD's scheduled for removal.
- H. South Truck Bay Annex over head door.**

END OF SECTION 024119

SECTION 400559.23 - STAINLESS STEEL SLIDE GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Concrete work is included in Division 03.
- C. Surface preparation and shop priming is included in Section 09 91 10.
- D. Field painting is included in Section 09 91 00.

1.2 SUMMARY

- A. Section Includes:
 - 1. Stainless steel slide gates.
- B. Related Requirements:
 - 1. Section 400523 “Common Work Results for Process Valves” for powered lifting devices.
 - 2. Section 460553 “Identification for Water and Wastewater Equipment” for nameplates for equipment specified in this Section.
 - 3. Section 400557 “Actuators for Process Valves and Gates.”

1.3 DEFINITIONS

- A. Operating Head: Distance from centerline of gate to maximum water level of channel.

1.4 ACTION SUBMITTALS

- A. Product Data: Manufacturer's product information for system materials and component equipment.
- B. Shop Drawings:
 - 1. System materials and component equipment.
 - 2. Description of materials cross-referenced to a sectional drawing listing material by trade name and ASTM reference number.
 - 3. Certified shop and installation drawings showing details of construction, dimensions and anchor bolt locations. General arrangement drawings and catalog cut sheets are not acceptable shop drawings.
 - 4. Installation and anchoring requirements, fasteners, and other details.
 - 5. Descriptive literature, bulletins and/or catalogs of the equipment.

6. The weight of each component.
7. Description of surface preparation and shop prime painting of gates and accessories.
8. Gate identification number, location, service, type, size, design pressure, operator details, stem details, and loads.
9. Listing of forces transmitted to floor stands if applicable.

1.5 INFORMATIONAL SUBMITTALS

- A. Manufacturer's Certificate: Products meet or exceed specified requirements.
- B. Manufacturer's Instructions: Detailed instructions on installation requirements, including storage and handling procedures.
- C. Source Quality-Control Submittals: Results of factory tests and inspections.
- D. Field Quality-Control Submittals: Results of Contractor-furnished tests and inspections.
- E. Manufacturer Reports:
 1. Certify that equipment has been installed according to manufacturer's instructions.
 2. Document activities on Site, adverse findings, and recommendations.
- F. Qualifications Statements:
 1. Submit qualifications for manufacturer and licensed professional.

1.6 DELEGATED DESIGN SUBMITTALS

- A. Delegated Design Submittals: Submit signed and sealed Shop Drawings with design calculations and assumptions for seating pressure.
- B. Copy of PE License of Engineer of Record.

1.7 CLOSEOUT SUBMITTALS

- A. Section 017700 "Closeout Procedures" for closeout procedure requirements.
- B. Project Record Documents: Record actual locations of installed slide gates and components.
- C. Operation and Maintenance Data: Submit maintenance instructions for equipment and accessories.

1.8 MAINTENANCE MATERIAL SUBMITTALS

- A. Section 017700 "Closeout Procedures" for maintenance materials requirements.
- B. Spare Parts:
 1. Furnish one set of manufacturer's recommended spare parts.

- C. O&M Manual: two copies of manufacturer's operation and maintenance manuals.
 - 1. Include required cuts, drawings, equipment lists, descriptions, etc. to instruct operating and maintenance personnel unfamiliar with such equipment.
 - 2. Include trouble shooting data and full preventive maintenance schedules.
- D. Factory Representative: Provide two days to instruct representatives of the Owner on proper operation and maintenance of the equipment.

1.9 QUALITY ASSURANCE

- A. The slide gates, operators, operating stems and appurtenances specified under this Section shall be furnished by manufacturers who are fully experienced, reputable and qualified in the manufacture of the equipment furnished.

The slide gates, operators, operating stems and all related equipment shall be designed, constructed and installed in accordance with the best practices and methods and shall operate satisfactorily when installed as shown on the Drawings.

- B. A factory employed service technician who has complete knowledge of proper operation and maintenance of the equipment provided under this section shall be provided for one eight-hour day to instruct representatives of the Owner and Engineer on the proper operation and maintenance of the equipment. This work may be conducted in conjunction with the inspection of the installation and test runs as provided under Part 3.
- C. This instruction period shall be scheduled with the Owner at least ten days in advance and shall take place prior to start-up and acceptance by the Owner. Manufacturer's shop welds, welding procedures, and welders shall be qualified and certified in accordance with the requirements of the latest edition of ASME, Section IX or AWS D1.6. Field welds are not acceptable.
- D. Gates shall be shop inspected for proper operation prior to shipping.
- E. Gate manufacturer shall be ISO 9001:2008 certified or shall provide an alternate quality assurance plan for review and approval by the Engineer.
- F. Slide gates shall be substantially watertight under the design head conditions.
- G. Slide gates shall be designed to withstand the design head in the as tabulated on the Drawings and shall be suitable for the wastewater and chemical environments specified herein.
- H. The gate's sealing system shall have been tested through a cycle test in an abrasive environment and elevated temperatures specified and should show the leakage requirements are still obtained after a minimum 25,000 cycles with less than 0.02 inches of wear.
- A. Materials in Contact with Potable Water: Certified to NSF Standard 61 and NSF Standard 372.

1.10 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.

- B. Licensed Professional: Professional engineer experienced in design of specified Work and licensed in State of New York.

1.11 DELIVERY, STORAGE, AND HANDLING

- A. Handle all gates and appurtenances with care. Gates, frames and appurtenances which are cracked, chipped, distorted or otherwise damaged or dropped will not be acceptable. Protect all threads, seats, ends, etc., from damage and corrosion.
- B. Section 016000 “Product Requirements” for transporting, handling, storing, and protecting products requirements.
- C. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
- D. Store materials according to manufacturer's instructions.
- E. Protect materials from physical damage, moisture and dust by storing in clean, dry location remote from areas involved in construction operations.
 - 1. Provide additional protection according to manufacturer's instructions.

1.12 EXISTING CONDITIONS

- A. Field Measurements: Verify field measurements prior to fabrication. Document field measurements on Shop Drawings.

1.13 WARRANTY

- A. Section 017700 “Closeout Procedures” for warranties requirements.
- B. Furnish three-year manufacturer's warranty for slide gates.
- C. Furnish five-year manufacturer's warranty that clear plastic stem covers will not crack, discolor, or become opaque.

PART 2 - PRODUCTS

2.1 PERFORMANCE AND DESIGN CRITERIA

- A. Seating pressure:
 - 1. 4'-3" feet of water.
 - 2. Measurement: From maximum water surface to centerline of gate.
- B. Minimum Vertical Loading: 50 percent of force on the gate from operating head acting on horizontal centerline of gate, multiplied by effective gate area, plus weight of slide and stem.
- C. Gate Reinforcement: As required for deflection not greater than 1/360 of span.

D. Operating Head:

1. Safety Factor: Design gate to operate under specified operating head with safety factory of **five**.

2.2 STAINLESS STEEL SLIDE GATES

A. **Manufacturers:** Whipps Inc. (bassis of design); Golden Harvest, Inc.; Waterman Industries; **RW Gate Company**; or equal.

B. Description:

1. Comply with AWWA C561.
2. Self-contained stainless steel slide gate, with extended frame, yoke, lifting stem attached to yoke, lift and lift support, stem, stem guide, and stem block.
3. Size: As indicated on Drawings

C. Gates: Type 304 stainless steel, self-contained type with disc arranged to lower or raise to open and with guides designed to mount on the face of or embedded in concrete.

1. Disc or Sliding Member: Type 304 and the stainless steel plate reinforced with "U" or angle-shaped stainless steel members welded to the plate not more than **16 inch** apart.
 - a. Deflection: 1/360 of span of the gate under the design head.
 - b. Reinforcing Ribs: Extend into guides so they overlap seating surface of the guide.
 - c. A Specially Molded Resilient Seal:
 - 1) Mounted on bottom of embedded unit discs or on the edge of the disc to provide flush bottom closure.
 - 2) Seal Shape: Produce a seating surface with minimum width of **3/4 inch** and extend into secondary slot of the guide.
 - 3) Vertical Seal Face: In contact with seating surface of guide providing a proper seal at the corners.
 - d. Reinforcements, Retainer and Bolts: Same material as disc.
 - e. The invert of embedded unit frames to have an angle welded to the lower ends of the guides forming a seating surface for a resilient seal mounted on the disc. Angle to be the same material as the guides.
2. Minimum Thickness: **1/4 inch**.
3. Configuration: Removable.

D. Guides: Type 304 stainless steel construction, designed for maximum rigidity, weighing a minimum of **3 lbs per foot**.

1. Holes for anchor bolts every **18 inches** for face mounted units or embedding keyways for embedded units.
2. Guides to extend beneath opening a sufficient amount to support the disc in fully down or open position for downward opening gates.
3. Weld angle to guides across the invert of the opening on face-mounted gates and up both sides of all gates. Attach a hollow bulb "J" or "P"-seal to angle with stainless steel strips

- and attaching bolts. Arrange seal so it deflects **1/16 inch** minimum. Angle, strips and bolts to be the same material as the guides.
4. Where guides extend above operating floor, they must be sufficiently strong, so no further reinforcing is required.
 5. Where required, the yoke supporting the operating bench stand will be formed by two angles welded at top of the guides providing a one-piece rigid frame.
 6. Angles are not acceptable yoke members
 7. The portion of the face mounted frame, where the anchor bolts penetrate, shall have a minimum thickness of ½-inch. Guide extensions shall be a C channel shape or similar for rigidity and shall have a weight of not less than 6 lb/ft. Angles are not acceptable guide extensions. Guides shall extend beneath the opening a sufficient amount to support the disc in the fully down or open position for downward opening gates.
- E. Yokes: Cast iron. Bolted to gate frame.
1. Arrangement: Disc and stem to be removable without disconnecting the yoke.
- F. Seats: Impacted into dovetail slots and held in position without use of screws or other fasteners.
1. Maximum Clearance between Seating Faces: **0.004 inch** when gate is fully closed.
- G. Wedges: Machined brass blocks with angled faces and secured with a stud bolt to prevent slippage during operation.
1. Wedge Types: Side, top, and bottom.
- H. Frames: One-piece configuration.
1. Mounting: Embedded.
 2. Material: Type 304 stainless steel.
 3. Furnish continuous embed.
 4. Thickness: **1/4 inch**.
 5. Seats: Ultra-high-molecular-weight polymer.
 6. Bottom Flush Closure: Resilient seal securely attached to frame along invert.
 7. The frame shall be sufficiently strong so that where the guide extends above the operating floor to support the hoisting yoke no further reinforcing of the frame will be required.
- I. Lifting Nut: Brass.
1. Grease fitting.
 2. Polymer bearing pads above and below lifting nut.
- J. Lifting Stem: Type 304 stainless steel for the entire length.
1. Tensile Strength: **60,000 psi**.
 2. Diameter: Of sufficient size at base of thread to lift the weight of the gate, offset the resistance of the gate to the maximum unbalanced head and fully allow for starting impact.
 3. Transmit in compression at least two times the rated output of the crank operated floor stand with a **40 pound** effort on the crank.
 4. Stems More Than One Section: Joined by stainless steel couplings pinned and bolted to the stems.

5. Threaded and Keyed Couplings of Same Size: To be interchangeable.
6. Bronze Stop Collars: On the stem preventing over closing of the gate.
7. Minimum Diameter: **1-1/2 inch** to withstand twice the rated output of the operator.
8. Slenderness Ratio (l/r): Less than 200.
9. Stem Guides: Provide as recommended by manufacturer. High nickel content cast iron, bronze brushed, mounted in a high nickel content cast iron bracket. Adjustable in two directions and spaced at sufficient intervals to adequately support the stem. Spacing not to exceed **10 feet**.
10. Configuration: Rising. Removable.
11. Thread: Machine cut threads, Acme type, double lead. Cut threads are not acceptable.
12. Diameter: **1-1/8 inch**.
13. Fully lubricated.
14. Maximum Number of Turns: 16 per **foot** of travel.
15. Stem Covers: Provide rising stem gates with clear fracture resistant polycarbonate covers.
 - a. Will not discolor or become opaque for a minimum of 5 years after installation.
 - b. Capped, vented, and of a length to allow full travel of gate.
 - c. Bottom end mounted in a housing or adapter plate for easy field mounting.
 - d. Indicator markings showing gate position.

2.3 FINISHES

- A. Stainless-Steel Surfaces: Mill finish.

2.4 ACCESSORIES

- A. Hardware: Type 304 stainless steel. Conform to ASTM A193/A194 and F593/F594 unless otherwise specified.
- B. Attaching Bolts and Anchor Bolts: Type 304 stainless steel. Furnished by slide gate manufacturer.
- C. Nameplates: Per Section 460553, "Identification for Water and Wastewater Equipment."

2.5 SOURCE QUALITY CONTROL

- A. Section 014000 "Quality Requirements" for testing, inspection, and analysis requirements.
- B. Shop inspection and testing of completed assemblies.
- C. Owner Inspection: Make completed clarifier equipment available for inspection at manufacturer's factory prior to packaging for shipment. Notify Owner seven days before inspection is allowed.
- D. Owner Witnessing: Allow witnessing of factory inspections and test at manufacturer's test facility. Notify Owner at least seven days before inspections and tests are scheduled.
- E. Certificate of Compliance: When fabricator is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.

1. Specified shop tests are not required for Work performed by approved fabricator.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 017300 "Execution" for installation examination requirements.
- B. Verify facilities are ready to receive slide gates.

3.2 PREPARATION

- A. Section 017300 "Execution" for installation preparation requirements.
- B. Clean surfaces according to manufacturer's instructions.

3.3 INSTALLATION

- A. Install slide gates according to manufacturer's instructions.
- B. Ensure products are installed plumb, true, and free of warp or twist.
- C. Locate operators to avoid interference with handrails and other Work.
- D. Gate Installation: Under the supervision of the gate manufacturer's factory representative.
 1. Factory Representative: Furnish services for two-days. Who has complete knowledge of proper installation, startup and operation of cast iron slide gates. Inspect the final installation and supervise a test of the equipment.
- E. If there are difficulties in operation of the equipment due to the manufacturer's fabrication or Contractor's installation, additional service will be provided at no cost to the Owner.
- F. Guides: Surface and Flange Mounted.
 1. Install guides with expansion anchors.
 2. Position guides at elevation as indicated on Drawings.
- G. Guides: Recessed.
 1. Cut slot in concrete to receive guides.
 2. Position guides at elevation as indicated on Drawings.
 3. Grout guides in place according to manufacturer's instructions.
- H. Sealant:
 1. Apply **1/8 inch (3 mm)** thick layer of elastomeric sealant to back of frame.
 2. Tighten nuts snug until sealant begins to flow beyond frame.
 3. Remove excess sealant.
 4. Cure sealant for minimum seven days.

5. Tighten nuts to their final positions.

I. Lubricants: Oil and grease as required for initial operation.

3.4 FIELD QUALITY CONTROL

A. Section 014000 “Quality Requirements” for inspecting and testing requirements.

B. Inspection: Verify gate and components alignment, smooth operation, with no binding or scraping.

C. Testing per AWWA C561:

1. Leakage Under 20 feet of Seating Head: 0.05 gpm/ft. of seating perimeter
2. After installation, field test slide gates ensuring items of equipment are in compliance with Specifications, including leakage requirements.
3. For units failing to meet specified requirements, make necessary change and retest units. If unit remains unable to meet test requirements to Engineer’s satisfaction, it will be replaced with a satisfactory unit at no additional cost to Owner.

D. Manufacturer Services: Manufacturer's representative experienced in installation of products furnished per this Section for a minimum of two-days on Site for installation, inspection, field testing, and instructing and training Owner's personnel in maintenance of equipment.

E. Equipment Acceptance: Adjust, repair, modify, or replace components failing to perform as specified and re-inspect.

1. Make final adjustments to equipment under direction of manufacturer's representative.

F. Furnish physical checkout and installation certificate from equipment manufacturer's representative attesting equipment has been properly installed and is ready for startup and testing.

G. Submit the equipment manufacturer's Certificate of Field Testing.

H. Submit the equipment manufacturer's Certificate of Functional Testing.

3.5 ADJUSTING

A. Section 017300 “Execution” for starting and adjusting requirements.

B. Adjust slide gates to provide smooth operation.

3.6 DEMONSTRATION

A. Section 017900 “Demonstration and Training” for demonstration and training requirements.

B. Demonstrate equipment operation, routine maintenance, and emergency repair procedures to Owner's personnel.

- C. Slide Gate Table: Manufacturer will supply slide gates within the Dewatering Upgrades Project as indicated as shown on the Drawings. In the absence of seating and unseating head data, the manufacturer will assume a flooded basin condition from top of concrete to base of gate and assume both a seating and unseating loading condition.

- C. END OF SECTION 400559.23

SECTION 407346 - LOAD CELLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes load cells.
- B. Related Requirements:
 - 1. Section 406100 – Process Control and Enterprise Management Systems General Provisions.
 - 2. Section 407100 – Instrumentation for Process Systems.

1.3 PREINSTALLATION MEETINGS

- A. Refer to Section 406100 – Process Control and Enterprise Management Systems General Provisions.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Refer to Section 407000 – Instrumentation for Process Systems.
- B. Shop Drawings:
 - 1. Refer to Section 407000 – Instrumentation for Process Systems.

1.5 INFORMATIONAL SUBMITTALS

- A. Refer to Section 406100 - Process Control and Enterprise Management Systems General.

1.6 CLOSEOUT SUBMITTALS

- A. Refer to Section 406100 – Process Control and Enterprise Management System General Provisions.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. None Required

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
- B. Refer to Section 406100 – Process Control and Enterprise Management System General Provisions.

1.9 FIELD CONDITIONS

- A. Refer to Section 406100 – Process Control and Enterprise Management System General Provisions.

1.10 WARRANTY

- A. Refer to Section 406100 – Process Control and Enterprise Management Systems General Provisions

PART 2 - PRODUCTS

2.1 LOAD CELLS

- A. Manufacturers:
 - 1. Manufacturers and their products are subject to compliance with requirements. Provide one of the following:
 - a. Rice Lake 420 Plus Digital Weight Indicator
 - b. Substitutions: Or equal.
- B. Performance Requirements:
 - 1. Capacities and Characteristics:
 - a. Weight Indicator / Transmitter:
 - 1) Type:
 - a) Microprocessor-based transmitter.
 - 2) Function/Performance:
 - a) Measurement Rate: 15 updates per second.

- b) Resolution: Internal resolution of 300,000 counts. Display resolution of 100,000 counts.
- c) Output: 4 to 20 mA proportional to the calibrated range.
- d) Display: LED digital display. Weight indication to be selectable in pounds or kilograms.
- e) Physical:
 - Suitable for surface mounting.
 - NEMA 4X (IP66) enclosure.
 - Power Requirements: 115 VAC/60 Hz.

b. Weigh Modules:

1) **Manufacturer:**

- a) **Rice Lake RoughDeck AX Series**
- b) **Substitutions: Or equal**

2) Type:

- a) **Single-end beam load cell.**
- b) **Tandem axel platform with on/off ramps and anchor tabs.**
- c) Temperature compensated full bridge transducer.

3) Function/Performance:

- a) Range: **0-80,000lbs**
- b) **Weigh Module Length: 14ft**
- c) Total Error: plus or minus 0.02 percent of full scale.
- d) Operating Temperature: -10 to 40 degrees C temperature compensated range.
- e) Safe Load: 150 percent of full scale.

4) Physical:

- a) The load cell shall be hermetically sealed (IP68).
- b) The module shall have all stainless-steel construction.

2. Accessories Required:

- a. Summer with inputs for the number of weigh modules indicated on the Drawings or in the Instrument Device Schedule.
- b. Cables for installation between weigh modules and the summer shall be factory installed to the load cell. Length to be as required by installation indicated on the Drawings.
- c. Load cells shall be fitted with adapters for conduit connections.
- d. Cable shall be provided for installation between the summer and the transmitter. Length shall be as required by installation indicated on the drawings up to 100 feet.
- e. **Provide anchor bolts for securing the weigh modules and on/off ramps to concrete base.**

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Not required.

3.2 INSTALLATION

- A. Comply with NECA 1.
- B. Wiring Method: Conceal conductors and cables in accessible ceilings, walls, and floors where possible.
- C. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points with no excess and without exceeding manufacturer's limitations on bending radii.

3.3 IDENTIFICATION

- A. Refer to drawings for tagging designations

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.
- B. Load cells or transmitter will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

3.5 STARTUP SERVICE

- A. Perform startup service.
 - 1. Complete installation and startup checks according to manufacturer's written instructions.
 - 2. The start-up services include calibration, oversight of installations of the sensor, and start-up of the sensor/transmitter in order to provide reliable measurement at the instrument. The factory-authorized service representative or manufacturer shall work with the Contractor to verify the transmitter sends correct information to the control system (i.e., that the scaling and units are the same at the instrument and on the control system's operator interface/PLC). Submit an instrument calibration report in order to document the calibration procedure of the instruments.

3.6 MAINTENANCE SERVICE

- A. Not Required

3.7 DEMONSTRATION

- A. Train Owner's maintenance personnel to adjust, operate, and maintain units.
- B. While starting up the instruments, the manufacturer shall provide training to the Owner's instrumentation technicians. The training shall be in how to calibrate, install, troubleshoot, read the diagnostics, and maintain the sensor and transmitter.

END OF SECTION 487346