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gwinnettcounty

March 20, 2014

ADDENDUM #2

BL017-14

North Chattahoochee Interceptor Pumping Station Electrical Rehab Project

This addendum is being issued to provide clarification and answer questions received.

CLARIFICATIONS:

- C1. **REVISE Proposal Opening Due Date FROM 2:50 P.M. local time on March 24, 2014, etc. Change TO Read:**

Proposals will be received until 2:50 P.M. local time on March 27th, 2014 at the Gwinnett County Department of Finance Purchasing Office, Second Floor, 75 Langley Drive, Lawrenceville, Georgia 30046. Any bid received after this date and time will not be accepted.

- C2. Specification Section 01 11 00 Summary of Work, Part 1, 1.01 A. Item 17.
DELETE:

17. The existing discharge ball control valves will be replaced with spring loaded swing check valves. The hydraulic accumulator system and associated appurtances shall be removed.

- C3. The street address on file for permitting is 3875 River Hollow Run.

- C4. Regarding the demolition of equipment, the only pieces the contractor is required to turn over to the County are the incoming service disconnects breakers (including enclosures).

- C5. Specification Section 16310 Low Voltage Switchgear, Part 2, 2.01 MANUFACTURERS,
ADD:

- 4. Schneider Electric
5. Or approved equal**

- C6. Specification Section 16310 Low Voltage Switchgear, Part 2, 2.10 B. PROGRAMMABLE LOGIC CONTROLLER (PLC),
DELETE:

The switchgear PLCs shall be Allen Bradley Compactlogix, no equal. Provide redundant PLC (hot backup) and hardwired logic, no exceptions.

REVISE:

B. PROGRAMMABLE LOGIC CONTROLLER (PLC):

The PLCs shall be provided with Ethernet IP or Modbus TCP interface card to communicate with the new Plant SCADA with AB Compactlogix PLC. With this peer to peer communication between the two PLCs, the SCADA PLC shall be able to monitor remotely the switchgear main breakers and all tie-circuit breakers of the main switchgear.

- C7. Specification Section 16030 Electrical Acceptance Testing, Part 1, 1.01 A. SCOPE



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DELETE:

The Testing Firm shall be responsible for the Short Circuit and Protective Device Coordination Report as specified in Section 16431. The Testing Firm shall verify the protective device settings are implemented in accordance with Section 16431. The Testing Firm work includes the ARC-Fault equipment labeling work as specified in Section 16431.

REVISE:

The Testing Firm shall verify the protective device settings are implemented in accordance with the Electrical Distribution System Evaluation Report including a Short Circuit Evaluation, Protective Coordination Study and Arc Flash Analysis.

- C8. Specification Section 16030 Electrical Acceptance Testing, Part 1, 1.03 C. POST TEST SUBMITTALS
DELETE: 01999

REVISE: 01 99 99

- C9. Specification Section 16030 Electrical Acceptance Testing, Part 3, 3.06 . PROTECTIVE DEVICE FIELD SETTINGS

DELETE:

The Testing Firm shall verify, and certify in the acceptance test final report, that the protective device coordination study settings for new and existing equipment based on the Short Circuit and Protective Device Coordination Report specified in Section 16431 have been implemented and recorded on the Testing Firm's Data Sheets.

REVISE:

The Testing Firm shall verify, and certify in the acceptance test final report, that the protective device coordination study settings for new and existing equipment based on the Electrical Distribution Evaluation Report provided by the Engineer have been implemented and recorded on the Testing Firm's Data Sheets.

- C10. Specification Section 16030 Electrical Acceptance Testing, Part 3, 3.07 . PROTECTIVE DEVICE FIELD SETTINGS

DELETE:

3.07 ARC FLASH STUDY RESULTS

The Testing Firm shall provide and install labels on the project electrical equipment for personnel protective clothing requirements as specified in Section 16431.

- C11. Specification Section 16000 General Requirement for Electrical Work, Part 3, 3.01 D . ELECTRICAL EQUIPMENT LABELING

DELETE:

Electrical equipment shall have NFPA 70E labels installed stating the results of the Arc Flash analysis specified in Section 16431 Short Circuit and Protective Device Coordination Study Report.

QUESTIONS

Q1. Are the work hours listed in the bid document negotiable?

A1. **If after hours work is to be performed, this should be scheduled and coordinated in advance with Gwinnett County. This can be discussed further with the awarded contractor.**



Q2: Are there noise requirements?

A2: **Yes, refer to Specification Section 01 14 00 Unique Requirements; paragraph 3.03 B., and Specification Section 01 57 00 Environmental and Property Protection, paragraph 1.07.**

Q3: Has Cleveland Electric completed their work onsite?

A3: **Yes, Cleveland Electric is no longer onsite.**

Q4: Regarding the sink on the plumbing drawing, does this line need to be heat traced and insulated?

A4: **Yes**

Q5: Clearly define all of the requirements for the 3d laser scanning.

A5: **See specification 01 14 00, Section 3.01, Pages 4 and 5.**

Q6: What type of 3D scanning deliverable are we providing? Point cloud, Tru-view, site plan, floor plan, mechanical, Revit Model, etc.

A6:

- **See specification 01-14-00, Section 3.01 E, Page 5.**
- **Files shall be submitted in AutoCAD .DWG files and .PDF.**
- **Model can be constructed in Vendor's specified design software and shall be exported to meet these deliverables.**
- **Provide 3 hardcopies, 2 electronic copies in .PDF format and the .DWG files.**
- **As Builts: Civil Plans, Floor Plans, mechanical plans, structural plans and electrical plans**

Q7: If we are providing plans;

- What accuracy:
- What scale:
- What format:

A7:

- **Accuracy shall be 1/4"**
- **Models should be built to actual scale 1:1. Plan views can be scaled to fit at 1/2 or 3/16 scale. Civil views shall be no smaller than 1" = 10'.**
- **Contractor shall provide two electronic copies of AutoCAD format (DWG) and PDF format files and three paper 11" x 17" copies as stated in Specification Section 01 14 00, 3.01, paragraph E.**

Q8: What exact plans would be required for the outside areas, and what plans for the inside of the plant?

A8: **3D model shall represent all structures (interior and exterior with exception of the inside of wet wells), and equipment (electrical and mechanical) within the property boundary (fenced area).**

Q9: Drawing E-102, Key Note # 2 states to replace existing pole with double headed fixtures. Drawing E-004, Details "A" & "B" show foundation details for pole mounted fixtures. Are new foundations required for pole lights that are to be replaced?

A9: **Yes**

Q10: If a temporary generator is provided, what sound rating must the generator meet?

A10: **75dB within 7m (23') is acceptable. See specification section 01 14 00, 3.03, paragraph B. All construction activities shall comply with the Gwinnett County Code of Ordinances. Most stringent requirement shall be used.**

Q11: Drawing E-101 ductbank detail A and B and Drawing E-003 ductbank detail D require clarification. Is concrete required from the top of the ductbank to grade or is backfilled dirt required with a concrete cap?

A11: **Reinforced concrete (with rebar doweled into existing concrete pavement) or backfill with #57 stone with a concrete cap (with rebar doweled into existing concrete pavement) are acceptable, as long as a**

24" minimum depth is maintained between the top of conduit and finished grade as shown in detail. This driveway is meant for heavy vehicle traffic.

Q12: What is the thickness and reinforcement of the existing concrete paving?

A12: Contractor shall field verify the thickness and reinforcement of the existing concrete paving.

Q13: What is the required thickness of replacement concrete paving?

A13: Replacement concrete paving shall match the existing concrete paving thickness.

Q14: Does the replacement concrete paving require reinforcement? If so, please define.

A14: Yes, match existing reinforcement with rebar doweled into existing concrete pavement.

Q15: During the site visit it was noted that recently installed overhead IMC conduits by Cleveland Electric are to remain. Please confirm these are to remain. If they are to be replaced, please provide the replacement conduit type, conduit size, and conductor requirements.

A15: These are to remain.

Q16: Drawing E102 note 1 states that all exposed conduits are to be pvc coated rigid. Will IMC conduits be permitted?

A16: Gwinnett County is now standardized on PVC coated rigid.

Q17: Yancey Power Systems is the representative of the existing Caterpillar generator. Is Yancey Power to provide any material, equipment, or services with regards to the generator modifications?

A17: No

Q18: Are there any costs required by the power company for work associated with this project? If so, who shall bare these costs? If the contractor is to bare these costs, has a power company contact and estimate been obtained? If so, please provide the contact person and/or the estimate.

A18: Specification 16000, section 1.11 states that the Contractor shall contact Georgia Power for the electrical service requirements of this project. Contract drawings and specification do not indicate modifications to the primary distribution.

Greg Rushing, CEM
Key Account Manager
Georgia Power
770-995-4814 (Office)
404-218-8967 (Mobile)
JGRUSHIN@southernco.com

Power Account Number	Power Meter
0523858004	D61499

Q19: If any costs required by the power company or any utility company are to be the contractors responsibility, can an allowance be provided on the bid form to cover these costs?

A19: Refer to A18.

Q20: Can the bid date be extended to March 27th to give us additional time to respond to the addenda containing answers to these questions?

A20: Yes

Q21: Is the roof on the existing pre-engineered metal building to be replaced?

A21: No

Q22: Is the ceiling insulation on the existing pre-engineered metal building to be replaced? If so, provide a specification.

A22: Insulation of the existing ceiling will remain. Any existing insulation that is damaged or may be damaged during construction, for wall or ceiling, shall be replaced by the Contractor and shall be included in the contractor's bid. Contractor shall furnish and install insulation where wall mounted equipment is being demolished under this scope. Additional payment by Owner for damaged insulation will not be provided. R19 insulation shall be used for walls and R30 shall be used for ceiling.

Q23: Is the center column on the end wall adjacent to the building expansion to be demolished or remain?

A23: It is to remain.

Q24: Please provide a specification on the new doors, new door hardware, and roll up door.

A24:

See attached specifications

08120 Standard Hollow Metal Doors and Frames

08331 Overhead Coiling Doors

08710 Door Hardware

Q25: The drawings call for the existing pre-engineered metal building siding to be replaced. The siding adjacent to the existing concrete grinder access room cannot be replaced using common siding replacement methods as clearance is lacked to install the fasteners from the outside. Please provide a detail or detailed narrative as to how this siding replacement shall be handled on the wall adjacent to the precast grinder access room, if at all.

A25: Only accessible siding shall be replaced.

Q26: Drawing S-101 note # 5 requires a 5 year warranty against corrosion and workmanship on the new pre-engineered metal siding. Typical metal siding warranties generally exceed the requested 5 years, however environmental conditions at this existing pump station have caused the existing metal siding to deteriorate. These conditions and their negative impact on existing or proposed metal siding would negate any manufacturer warranty. How would you like to handle this situation?

A26: GCDWR and BC Engineers require a minimum of 5 years, regardless of the environmental condition.

Q27: If the environmental factors leading to the damage of the existing siding have been removed then the requested 5 year warranty could be altered to provide a 5 year warranty for defects in the material and/or workmanship and not uncommon environmental factors that impact the siding.

A27: GCDWR and BC Engineers require a minimum of 5 years, regardless of the environmental conditions. The current odor control unit is the main environmental factor. The odor control unit is being replaced in another project this year. In addition, the odor control project will take place and be finished before the electrical project is started. The project will consist of repair on all air ducts and related joints, replace all man-way covers, replace all bulkheads and gaskets, the demister needs to be inspected and re-attached, inspection ports need to be replaced, all inlet and outlet air piping needs to be removed and re-sealed, replace the control box ventilation fan and clean up the control box.

Q28: If the environmental factors have not changed, a metal siding designed for use in harsh conditions should be considered to obtain the desired warranty period. If this is the scenario, please provide a detailed specification for harsh condition siding and what chemicals are being used at the pump station.

A28: GCDWR and BC Engineers require a minimum of 5 years, regardless of the environmental condition. The current chemicals being used at the pump station are biocide, sodium hypochlorite and caustic soda.

Q29: The specifications note that the contractor shall provide a credit for the value of any salvaged material with the exception of the breakers that will be retained by the owner. In the prebid meeting it was noted that the salvage value was to be at the discretion of the contractor and shall be included in our lump sum pricing of the project. Please confirm this is correct and that any salvage value of materials will be reflected in the contractors lump sum bid.

A29: Yes, the contractor is to include the salvage value of materials in the contractor's lump sum bid.

Q30: Section 1 "Instruction to Bidders", 11.1 states to circle the named supplier/manufacturer. The bid sheet doesn't have any place to circle a supplier or manufacturer. Please clarify.

A30: There is no major equipment listed in the bid form. This does not apply.

Q31: Do the roof panels need to be replaced? Note 5 on S-101 states replace all exterior panels.

A31: No, panel shall only be replaced if damaged. Client and Engineer shall be brought to the attention of the damaged panels in need replacement to be field verified. The contractor should inform the Client and the Engineer of the damaged panels and the Engineer should verify if they need to be replaced.

Q32: Does the existing concrete at the location of the building extension need to be demolished?

A32: The building extension foundation shall be constructed per the manufacturers' recommendations. Existing concrete at the new building foundation locations shall be demolished. New concrete elevation shall match the existing concrete slab. Concrete topping may be required to adjust elevation.

Q33: Is there a place onsite to dispose of spoils from duct bank excavation?

A33: No, all spoils are to be hauled off-site.

Q34: Do the existing housekeeping pads on the exterior of the building need to be demolished?

A34: See note 13 on drawing S-101. Pad shall be partially demolished/reconstructed and an access ramp shall be provided.

Q35: Does everything inside the fence (including existing construction) need to be included in the laser scan?

A35: Yes

Q36: Can you please provide the existing building dimensions (L x W x H)?

A36: Existing dimensions are approximately 26'-4" x 20'-7". Inside ceiling height appears to be 15', but all dimensions shall be field verified by the Contractor. Two site visits were provided for the purpose of measurements and field verification.

Q37: Does the existing air conditioning unit need to be removed?

A37: No, the HVAC unit behind the electrical building is to remain. The small wall mounted unit behind ATS2 shall be demolished.

This addendum should be signed in the space provided below and returned with your bid. Failure to do so may result in your bid being deemed non-responsive.

Company Name _____

Authorized Representative _____

Thank you.

Holly Cafferata, CPPB
Purchasing Associate III

SECTION 08120

STANDARD HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.01 DESCRIPTION

A. This section specifies steel doors and steel door frames.

1.02 QUALITY ASSURANCE

A. References:

1. This section contains references to the following documents. They are a part of this section as specified and modified. Where a referenced document contains references to other standards, those documents are included as references under this section as if referenced directly. In the event of conflict between the requirements of this section and those of the listed documents, the requirements of this section shall prevail.
2. Unless otherwise specified, references to documents shall mean the documents in effect at the time of Advertisement for Bids or Invitation to Bid (or on the effective date of the Agreement if there were no Bids). If referenced documents have been discontinued by the issuing organization, references to those documents shall mean the replacement documents issued or otherwise identified by that organization or, if there are no replacement documents, the last version of the document before it was discontinued. Where document dates are given in the following listing, references to those documents shall mean the specific document version associated with that date, regardless of whether the document has been superseded by a version with a later date, discontinued or replaced.

Reference	Title
ANSI/DHI A115.1	Preparation for Mortise Locks for 1-3/8 Inch and 1-3/4 Inch Doors
ANSI/DHI A115.2	Preparation for Bored Locks for 1-3/4 Inch and 1-3/8 Inch Doors
ANSI/DHI A115.4	Preparation for Lever Extension Flush Bolts
ANSI/DHI A115.7	Preparation for Floor Closers—Light Duty, Center Hung, Single or Double Acting; Center Hung, Single or Double Acting; Offset Hung, Single Acting
ANSI/SDI 100	Recommended Specifications--Standard Steel Doors and Frames
ANSI/SDI A151.1	Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors and Hardware Reinforcing
ASTM A526/A526M	Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality
ASTM A591	Steel Sheet, Cold-Rolled, Electrolytic Zinc-Coated (R83)
ASTM C578	Preformed, Cellular Polystyrene Thermal Insulation
ASTM C591	Unfaced Preformed Rigid Cellular Polyurethane Thermal Insulation
ASTM D2863	Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)

Reference	Title
DOD-P-21035A	Paint, High Zinc Dust Content, Galvanizing Repair (Metric)
NFPA 80	Fire Doors and Windows
NFPA 252	Fire Tests of Door Assemblies
SDI 105	Recommended Erection Instructions for Steel Frames
SDI 107	Hardware on Steel Doors (Reinforcement—Application)
SDI 111-F	Recommended Completed Opening Anchors for Standard Steel Doors and Frames
UL 10B	Fire Tests of Door Assemblies

- B. Certificates of Compliance: Manufacturers' certificates shall be provided attesting that doors, frames, and accessories meet the specified requirements. The grade and model number of each door shall be included.

1.03 SUBMITTALS

- A. The following information shall be provided:

1. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the Contractor, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The Engineer shall be the final authority for determining acceptability of requested deviations. The remaining portions of the paragraph not underlined will signify compliance on the part of the Contractor with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.
2. Shop drawings containing the following information:
 - a. Elevations of each door type
 - b. Size of doors and frames
 - c. Metal gages
 - d. Details of door and frame construction
 - e. Methods of anchorage
 - f. Louver details
 - g. Glazing details
 - h. Weatherstripping
 - i. Provisions for and location of hardware
 - j. Details of installation

- k. Schedule showing location of each door, frame, and swing of door

1.04 DELIVERY AND STORAGE

- A. Doors, frames, and accessories shall be delivered undamaged and with protective wrappings or packaging. Doors and frames shall be stored on platforms under cover in clean, dry, ventilated, and accessible locations, with 1/4-inch airspace between doors. Damp or wet packaging shall be removed immediately and affected surfaces wiped dry. Damaged materials shall be replaced with new.

PART 2 PRODUCTS

2.01 STEEL DOORS

- A. General:

- 1. Steel doors shall be 1-3/4 inches thick and conform to ANSI/SDI 100 unless otherwise specified. Doors shall be either hollow steel construction or composite construction, and shall be prepared to receive hardware specified in Section 08710.

- B. Hollow Steel Doors:

- 1. Unless otherwise specified, hollow steel doors shall be fabricated from cold rolled steel and shall be extra heavy duty doors conforming to ANSI/SDI 100, Grade III, Model 3, of the sizes and designs specified. Face sheets, as well as lock and hinge edges, shall have a smooth, seamless and unbroken surface, with top and bottom edges closed flush to the door face sheets. No inverted channels will be allowed.
 - 2. Unless otherwise specified, inner structure shall be formed as a unitized grid composed of minimum 18 gage steel vertical and horizontal channels with rigidized webbing. The grid shall be unitized by double projection welding at each junction, and the applicable hardware reinforcements attached by multiple welds. The grid shall form the flush top and bottom sections of the door. Hinge and lock accommodations shall be preformed as an integral part of the continuous vertical member forming the periphery of the unitized grid. The back-up reinforcement of hinges and lock shall extend not less than 5 inches into the interior of the unitized grid and join the parallel inner vertical member of the grid structure. Inside surfaces of the face sheets shall be coated with a synthetic resin based sound deadener. The face sheets shall be attached to the grid assembly by double projection multiple series welds.

- C. Insulated Steel Door Systems:

- 1. Insulated steel doors, where specified, shall have a full door thickness of polystyrene or polyurethane insulation to provide an overall door insulation value of R6. Doors shall have face sheets, edges, and frames of galvanized steel; magnetic weatherstripping; nonremovable-pin hinges; thermal-break aluminum threshold; and vinyl door bottom. Doors and frames shall receive phosphate treatment, rust-inhibitive primer, and baked acrylic enamel finish. Doors shall have been tested in accordance with ANSI/SDI A151.1

and shall have met the requirements for Level C. Doors shall be prepared to receive hardware specified in Section 08710.

2.02 STANDARD STEEL FRAMES

A. General:

1. Steel frames shall conform to ANSI/SDI 100, shall be of the sizes and shapes specified, and unless otherwise specified, shall be fully welded unit type frames. Steel frames shall be provided for doors.

B. Welded Frames:

1. Frame faces shall be continuously welded at corner joints. Stops and rabbets shall be mechanically interlocked or continuously welded. All welds shall be ground smooth. Frames shall be mortised and reinforced with heavy gage reinforcements for hinges and lock strikes. Steel spreaders to ensure proper alignment of the frame shall be used and shall remain in place until the adjacent wall construction is complete.

C. Anchors:

1. General:

- a. Steel anchors shall be provided to secure the frame to adjoining construction. Anchors shall be zinc-coated or painted with rust-inhibitive paint, not lighter than 18 gage.

2. Wall Anchors:

- a. A minimum of three anchors shall be provided for each jamb. Anchors shall be located opposite top and bottom hinges and midway between.
 - 1) Anchors for masonry work shall be corrugated or perforated steel straps or 3/16-inch diameter steel wire, adjustable or T-shaped.
 - 2) Anchors for stud partitions shall be welded or otherwise securely fastened to backs of frames. Anchors shall be designed and fastened to wood studs with nails, to closed steel studs with sheet metal screws, and to open steel studs by wiring or welding.
 - 3) Frames shall be secured to previously placed concrete or masonry with expansion bolts in accordance with SDI 111-F.
 - 4) Anchors for solid plaster partitions shall be secured solidly to back of frames and tied into the lath. Adjustable top strut anchors shall be provided on each side of frame for fastening to structural members or ceiling construction above. Size and type of strut anchors shall be as recommended by the frame manufacturer.

3. Floor Anchors:

- a. Floor anchors drilled for 3/8-inch anchor bolts shall be provided at bottom of each jamb member. Where floor fill occurs, bottom of frames shall be terminated at the indicated finished floor levels and supported by adjustable extension clips resting on and anchored to the structural slabs.

2.03 FIRE DOORS AND FRAMES

A. Labels:

1. Fire doors and frames shall bear the label of Underwriters Laboratories, Inc. (UL), Factory Mutual Engineering Corporation (FM), or Warnock Hersey International (WHI) attesting to the rating required. Testing shall be in accordance with NFPA 252 or UL 10B. Labels shall be metal with raised letters, and shall bear the name or file number of the door and frame manufacturer. Labels shall be permanently affixed at the factory to frames and to the hinge edge of the door. Door labels shall not be painted.

B. Oversized Doors:

1. For fire doors and frames which exceed the size for which testing and labeling are available, certificates shall be provided stating that the doors and frames are identical in design, materials, and construction to a door which has been tested and meets the requirements for the class indicated.

C. Steel Astragal on Fire Doors:

1. Astragal on pairs of labeled fire doors shall conform to NFPA 80 and UL requirements.

2.04 LOUVERS, ASTRAGALS, AND MOLDINGS

A. Louvers:

1. Louvers, where specified, shall be stationary sightproof type for interior doors or metal frames and shall be inverted Y type for exterior doors. Louver blades shall be welded or tenoned to frame and the entire louver assembly fastened to the door with moldings. Moldings on the room or nonsecurity side of the door shall be detachable; moldings on the security side of the door shall be an integral part of the louver. Louvers shall be formed of 20-gage steel for interior doors and panels and of 16-gage steel for exterior doors and panels. Louvers for exterior doors shall have steel-framed 18 by 16 aluminum wire cloth mesh insect screens rigidly secured to louvers to permit ready removal. Louvers, before screening, except for exterior doors, shall have a minimum of 35 percent net-free opening. Louvers for exterior doors shall have a minimum of 30 percent net-free opening.

B. Astragals:

1. Pairs of exterior steel doors which will not have aluminum astragals or removable mullions shall have overlapping steel astragals provided with the doors.

C. Moldings:

1. Moldings shall be provided around glass and louvers; moldings shall be nonremovable on the outside of exterior doors and on the corridor side of interior doors. Other moldings may be stationary or removable. Inside moldings shall be secured to the stationary moldings, or snap-on moldings provided. Muntins shall interlock at intersections and shall be fitted and welded to stationary moldings.

2.05 PLASTIC FOAM CORES

A. Plastic foam cores shall be:

1. Rigid polyurethane foam conforming to ASTM C591, Type 1 or 2, foamed-in-place or in board form, with an oxygen index of not less than 22 percent when tested in accordance with ASTM D2863.
2. Rigid polystyrene foam board conforming to ASTM C578, Type I or II.

2.06 WEATHERSTRIPPING

A. Weatherstripping shall be as specified in Section 08710.

2.07 HARDWARE PREPARATION

A. Doors and frames to receive finish hardware shall be reinforced, drilled, and tapped for hardware in accordance with the applicable requirements of SDI 107 and ANSI/DHI A115.1, A115.2, A115.4, and A115.7. Drilling and tapping for surface-applied hardware shall be done in the field, but additional reinforcing for surface-applied hardware shall be built into the door at the factory. Hardware shall be located in accordance with the requirements of ANSI/SDI 100, as applicable.

2.08 FINISHES

A. Hot-Dip Zinc-Coated and Factory-Primed Finish:

1. Where specified, doors and frames shall be fabricated from galvanized steel, ASTM A526, Coating Designation G60 or A60 (galvannealed). Damaged zinc-coated surfaces shall be repaired by the application of zinc dust paint conforming to DOD-P-21035. Zinc-coated surfaces shall be phosphate treated and factory primed as specified in ANSI/SDI 100.

2.09 FABRICATION AND WORKMANSHIP

A. Finished doors and frames shall be strong and rigid, neat in appearance, and free from defects, waves, scratches, cuts, dents, ridges, holes, warp, and buckle. Molded members shall be clean cut, straight, and true, with joints coped or mitered, well formed, and in true alignment. Exposed welded and soldered joints shall be ground smooth. Door frame sections shall be designed for use with the wall construction specified. Corner joints shall be well formed and in true alignment. Fastenings shall be concealed where practicable. On wraparound frames for masonry partitions, a throat opening shall be provided 1/8 inch larger than the actual masonry thickness. Frames in exposed masonry walls or partitions shall be designed to allow sufficient space between the inside back of trim and masonry to receive caulking compound.

2.10 PRODUCT DATA

- A. The following information shall be provided:
 - 1. Detail specifications and instructions for installation, adjustments, cleaning, and maintenance.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Frames:
 - 1. Frames shall be set in accordance with SDI 105, and plumbed, aligned, and braced securely until permanent anchors are set. Bottoms of frames shall be anchored with expansion bolts or powder-actuated fasteners. Wall anchors shall be built in or secured to adjoining construction. Where frames require ceiling struts or overhead bracing, frames shall be anchored to the struts or bracing. Frames shall be backfilled with mortar. When an additive is provided in the mortar, inside of frames shall be coated with corrosion-inhibiting bituminous material. For frames to be installed in exterior walls and to be filled with mortar or grout, the stops shall be filled with strips of rigid insulation to keep the grout out of the stops and to facilitate installation of stop-applied head and jamb seals.
- B. Doors:
 - 1. Doors shall be hung in accordance with clearances specified in ANSI/SDI 100. After erection and glazing, hardware shall be cleaned and adjusted.
- C. Fire Doors and Frames:
 - 1. Fire doors and frames, including hardware, shall be installed in accordance with NFPA 80.

3.02 PROTECTION

- A. Doors and frames shall be protected from damage, and damaged doors and frames repaired prior to completion and acceptance of the project or replaced with new, as directed. Rusted frames shall be wire brushed until all rust is removed, cleaned thoroughly, and applied with an all-over coat of rust-inhibitive paint of the same type used for shop coat.

3.03 CLEANING

- A. Upon completion, exposed surfaces of doors and frames shall be cleaned thoroughly. Mastic smears and other unsightly marks shall be removed.

END OF SECTION

SECTION 08331
OVERHEAD COILING DOORS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Overhead coiling insulated doors.

1.02 RELATED SECTIONS

- A. Section 08710 – Door Hardware: Product Requirements for cylinder core and keys.
- B. See Contract Drawings for structural specifications.

1.03 REFERENCES

- A. **NFRC 102** – Test Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.
- B. **ASTM E 90** – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Element.
- C. **ASTM E 330** – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
- D. **ASTM A 653** – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- E. **ASTM A 666** – Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- F. **ASTM A 924** – Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- G. **ASTM B 221** – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- H. **NEMA 250** – Enclosures for Electrical Equipment (1000 Volts Maximum).
- I. **NEMA MG 1** – Motors and Generators.

1.04 DESIGN / PERFORMANCE REQUIREMENTS

A. Overhead coiling insulated doors:

1. Wind Loads: Design door assembly to withstand wind/suction load of 20 psf (958 Pa) without damage to door or assembly components in conformance with ASTM E 330.
2. Operation: Design door assembly, including operator, to operate for not less than 20,000 cycles.

B. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

1.05 SUBMITTALS

A. Submit under provisions of this Section.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Details of construction and fabrication.
4. Installation instructions.

C. Shop Drawings: Include detailed plans, elevations, details of framing members, anchoring methods, required clearances, hardware, and accessories. Include relationship with adjacent construction.

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long, representing actual product, color, and patterns.

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

G. Operation and Maintenance Data: Submit lubrication requirements and frequency, and periodic adjustments required.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience in the fabrication and installation of security closures.
- B. Installer Qualifications: Installer Qualifications: Company specializing in performing Work of this section with minimum three years and approved by manufacturer.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- C. Store materials in a dry, warm, ventilated weathertight location.

1.08 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.09 COORDINATION

- A. Coordinate Work with other operations and installation of adjacent materials to avoid damage to installed materials.

1.10 WARRANTY

- A. Warranty: Manufacturer's limited door and operator system, except the counterbalance spring and finish, to be free from defects in materials and workmanship for 3 years or 20,000 cycles, whichever occurs first.

- B. Warranty: Manufacturer's limited door warranty for 2 years for all parts and components.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. **Manufacturer Basis of Design:** Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: info@overheaddoor.com.

B. or comparable product by on of the following:

1. ACME Rolling Doors.
2. Alpine Overhead Doors, Inc.
3. AlumaTek, Inc.
4. C.H.I. Overhead Doors.
5. City-Gates.
6. Cookson Company.
7. Cornell Iron Works, Inc.
8. Dynamic Closures Corp.
9. Lawrence Roll-Up Doors, Inc.
10. Mahon Door Corporation.
11. McKeon Rolling Steel Door Company, Inc.
12. Metro Door.
13. QMI Security Solutions.
14. Raynor.
15. Southwestern Steel Rolling Door Co.
16. Wayne-Dalton Corp.
17. Windsor Door.

2.02 INSULATED OVERHEAD COILING SERVICE DOORS

A. Overhead Coiling Stormtite Insulated Service Doors: Overhead Door Corporation 625 Series.

1. Curtain: Interlocking roll-formed slats as specified following. Endlocks shall be attached to each end of alternate slats to prevent lateral movement.
 - a. Flat profile type F-265i for doors up to 40 feet (12.19 m) wide.

- b. Front slat fabricated of:
 - 1) 24 gauge galvanized steel.
 - c. Back slat fabricated of:
 - 1) 24 gauge galvanized steel.
 - d. Slat cavity filled with CFC-free foamed-in-place, polyurethane insulation.
 - 1) R-Value: 7.7, U-Value: 0.13.
2. Finish:
- a. Galvanized Steel: Slats and hood galvanized in accordance with ASTM A 653 and receive rust-inhibitive, roll coating process, including 0.2 mil thick baked-on prime paint, and 0.6 mil thick baked-on polyester top coat.
 - 1) Powder coat: PowderGuard
 - a) PowderGuard Premium: Weather resistant polyester powder coat color as selected by the Architect.
3. Weatherseals:
- a. Vinyl bottom seal, exterior guide and internal hood seals.
 - b. Interior guide weatherseal.
 - c. Lintel weatherseal.
4. Bottom Bar: Three structural steel angles.
- a. Two galvanized steel angles minimum thickness 1/8 inch (3 mm) bolted back to back to reinforce curtain in the guides.
5. Guides: Three Structural steel angles
- a. Finish: PowderGuard Weathered finish with iron/black powder.
6. Brackets:
- a. Galvanized steel to support counterbalance, curtain and hood.
7. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
8. Hood: Provide with internal hood baffle weatherseal.
- a. 24 gauge galvanized steel with intermediate supports as required.
9. Manual Operation:
- a. Chain hoist.
10. Windload Design:
- a. Standard windload shall be 20 PSF.
11. Locking:
- a. Chain keeper locks for chain hoist operation.

- 12. Wall Mounting Condition:
 - a. Face-of-wall mounting.
- 13. Insulated Vision Lites: Not required.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify opening sizes, tolerances and conditions are acceptable.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.03 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
- E. Coordinate installation of sealants and backing materials at frame perimeter as specified by the manufacturer and approved by the Engineer.
- F. Instruct Owner's personnel in proper operating procedures and maintenance schedule.

3.04 ADJUSTING

- A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.
- B. Adjust hardware and operating assemblies for smooth and noiseless operation.

3.05 CLEANING

- A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.
- B. Remove labels and visible markings.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

3.06 PROTECTION

- A. Protect installed products until completion of project.

END OF SECTION

SECTION 08710

FINISH HARDWARE

PART 1--GENERAL

1.01 DESCRIPTION

This section specifies finish hardware, including trim, attachments, and fastenings specified or required for proper and complete installation.

1.02 SUBMITTALS

Submittals shall comply with applicable paragraphs of this specification. Hardware lists and catalog information shall be submitted.

A. HARDWARE LIST:

The Contractor shall submit a hardware list, identifying each hardware item by manufacturer, manufacturer's catalog number, catalog cuts, and exact location in the work. The hardware list shall be in suitable form to facilitate ready checking and approval by the Construction Manager. Approval of the hardware schedule does not relieve the hardware supplier from the responsibility of furnishing the job complete.

PART 2--PRODUCTS

2.01 FINISH OF HARDWARE

The finish of hardware shall be as specified. Care shall be taken to coordinate the finish of the various manufacturers to insure an acceptable uniform finish.

2.02 LOCK UNIFORMITY

Except where otherwise specified, all locksets, latchsets, padlocks, cylinders, and component parts as specified hereinafter, shall be by one manufacturer and shall be compatible to the existing keying system.

2.03 LOCK STRIKES

All locks strikes shall be boxed and shall have a curved lip of sufficient length to protect the trim and jamb.

2.04 KEYING AND MASTERKEYING

Locksets, padlocks, and cylinders shall be keyed, masterkeyed and grand masterkeyed with Sargent keyways at the factory, where records shall be established and maintained as directed.

Master keys and grand master keys shall be identified with a registry number, not stamped with "MASTER" or letter "M". Individual room keys shall not be stamped with a key cut but with a plain identification number. Keys shall be factory cut and stamped "DO NOT DUPLICATE."

Locksets, padlocks, and cylinders shall be construction keyed. Contractor and hardware supplier shall be held responsible for permanent keys until all are delivered to the Owner or otherwise cleared to the Owner's complete satisfaction.

The Contractor shall furnish five additional construction master keys.

2.05 DOOR CLOSERS

All door closers attached to mineral core or particle filled doors shall be installed with hex bolts.

2.06 DOOR BUTTS

Hinges shall be full mortise, template type, unless half mortise hinges are required. Hinges shall have nonrising loose pins, ball or oiltight bearings and flat button tips, except when otherwise specified. Where necessary to keep door leaf clear of walls, casings, jambs, or reveals in door openings, wide throw hinges of an approved type shall be furnished. For outswinging doors, hinges shall have a screw in the barrel to prevent removal of pin when door is closed.

2.07 MAINTENANCE RELATED ITEM

The Contractor shall provide one set of installation and adjusting tools and one set of maintenance manuals for locksets and door closers.

2.08 TEMPLATES

In order to insure proper placement and fit, all hardware for metal doors or metal frames shall be made and installed with a template. Templates or physical hardware items shall be furnished to manufacturers concerned and shall be supplied sufficiently in advance to avoid delay in the work.

2.09 SCHEDULE OF HARDWARE

Contractor to provide doors and overhead coiled door as shown on the drawings. All doors shall have required panic hardware to meet Codes and Ordinances. See Contract drawings for

additional information on doors. Refer to Electrical Contract Drawings for magnetic contact switches. All finish hardware required for the project shall be furnished. Hardware required for any particular location, but not scheduled, shall be the same as that scheduled for similar locations. Hardware shall be as hereinafter specified and scheduled on the drawings.

BUTTS--INTERIOR DOORS: Stanley, or equal 4-1/2-inch by 4-1/2-inch medium weight steel, 130-gage, polished and dull chrome-plated, BB for doors with closers.

BUTTS--EXTERIOR DOORS: Stanley, or equal 4-1/2-inch by 4-1/2-inch heavy solid brass, 180 gage with nonremovable stainless steel pins and two permanently lubricated ball races.

LOCKSETS--Sargent 7700 line, Schlage, C Series, line, or equal heavy-duty cylindrical lock with 6-pin cylinder, and 3-3/4-inch backset. Lockset shall be complete with wrought stainless steel ball type knob and 2-3/4-inch wrought stainless steel rose, or stainless steel cover.

LATCHSETS--INTERIOR DOORS: To match locksets.

CLOSERS--INTERIOR AND EXTERIOR DOORS: LCN, Smoothee, Sargent "Powerglide", or equal; size and type as suit the particular door.

FLUSH BOLTS--INTERIOR AND EXTERIOR DOORS: Automatic latching 12-inch downsets, flat plate approximately 6 inches by 1-1/4 inches, 1/2-inch bolts, complete with strikes (dustproof at floor); two required per opening.

PUSH AND PULL: Push plate 16 inches by 4 inches, 1/8-inch aluminum with beveled edges, matching pull with square 8-inch long handle with approximately 2-1/2-inch projection.

KICKPLATES--10 inches high, 16 gage, satin aluminum, beveled edges, secured with countersunk screws.

THRESHOLDS--Extruded aluminum, 4-inch wide with fluted surface.

STOPS--INTERIOR DOORS: Wall bumper, circular rubber cushion in circular metal flange, where wall bumper not possible half-dome floor stop with rubber bumper.

WEATHERSTRIPPING:

DOOR BOTTOM: Pemko 430DS, or equal, surface mounted, heavy-duty automatic door bottom.

DOOR HEAD AND JAMBS: Pemko 350DMN, or equal, surface mounted at head and jambs.

Numbers and references in hardware sets below establish quality to be furnished and installed. Suitable types having similar quality and operation as finish hardware specified may be furnished when approved by the Construction Manager. Finish shall be BHMA 630 (Satin Stainless Steel) or 626 (Satin Chromium Plated) unless otherwise specified.

Item	Manufacturer	Abbreviation
Pulls, push plates	Master Manufacturers	MM
Butts	Stanley	S
Locksets, latches, cylinders	Corbin	CO
Closers	LCN	LCN
Exit devices	Sargent	SAR
Silencers, stops and holders, flush bolts, silencers	Trimco	T
Thresholds	Pemko	P
Weatherstripping	Pemko	P
Kickplates	Pemko	P
Panic bar	Von Duprin, Inc.	VD

PART 3--EXECUTION

3.01 PACKING, MARKING AND DELIVERY

Each unit of hardware shall be individually packaged, complete with proper fastenings and all appurtenances. Each package shall be clearly marked on the outside to show the contents and specific location in the work. Except where otherwise specified, all hardware shall be delivered to the job site.

3.02 INSPECTION AND ADJUSTMENT

The Contractor shall be responsible for proper installation and adjustment of all hardware items. Installation of hardware shall be checked by the Construction Manager after completion by the Contractor. Any items that do not fit properly, close, or otherwise perform in the manner intended or specified, shall be corrected prior to acceptance by the Owner.

****END OF SECTION****



Pre-bid Conference Sign-In Sheet

North Chattahoochee Interceptor Pumping Station
 Electrical Rehab Project
 Gwinnett County, Georgia
 Bid Number: BL017-14

Date: March 11, 2014

<u>Name</u>	<u>Company</u>	<u>Contact Number</u>	<u>Email Address</u>
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