



STATE OF NEW YORK  
OFFICE OF GENERAL SERVICES  
DESIGN AND CONSTRUCTION GROUP  
THE GOVERNOR NELSON A. ROCKEFELLER  
EMPIRE STATE PLAZA  
ALBANY, NY 12242



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**ADDENDUM NO. 2 TO PROJECT NO. 44302**

**CONSTRUCTION WORK  
REPLACE TRUCK TRAP  
CONTROL BUILDING No. 13  
HALE CREEK CORRECTIONAL FACILITY  
279 MALONEY ROAD  
JOHNSTOWN, NEW YORK**

July 2, 2014

**NOTE:** This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

**SPECIFICATION**

1. Page 000101-1 **DELETE** 100% submission marks.
2. **ADD** the accompanying section in its entirety, SECTION 013113 PROJECT SCHEDULE, in the project manual.
3. Page 013119 – 2, **ADD** the following Article to PART 1 GENERAL:  
**“1.05 PROJECT SCHEDULE MEETINGS**  
A. Initial and Monthly Project Schedule meetings will be held according to the requirements in Section 013113.”
4. **REPLACE** SECTION 024116 – STRUCTURE DEMOLITION with new SECTION 024116 – STRUCTURE DEMOLITION, attached.
5. **REPLACE** SECTION 323114 GATE CONTROL SYSTEM with new SECTION 323114 GATE CONTROL SYSTEM DOCUMENT, attached.

**DRAWINGS**

6. C-101 **ADD** the following to general note 6, prior to the last sentence: “Upon acceptance and occupancy of new Control Building, remove and dispose of existing guard shack.”

**END OF ADDENDUM**

Margaret F. Larkin  
Acting Executive Director

## **SECTION 013113**

### **PROJECT SCHEDULE**

#### **PART 1 GENERAL**

##### **1.01 RELATED REQUIREMENTS AND INFORMATION SPECIFIED ELSEWHERE**

- A. Summary of Work: Section 011000.
- B. Administrative Requirements: Section 013000.
- C. Project Meetings: Section 013119.

##### **1.02 SUMMARY**

- A. Section includes administrative and procedural requirements to plan, schedule, and document the progress of the Project, and predict and prevent delays to established activities and milestones during performance of the Work.

##### **1.03 DEFINITIONS**

- A. Project: Work to be performed as part of one or more Contracts.
- B. Schedule: A comprehensive leveling of necessary procedural tasks, the sequencing of those tasks, and the incorporated resource allocation required to successfully complete the Work by the Project completion date.
- C. Activity: A task or grouping of tasks containing an anticipated start-date and corresponding duration, comprising a generalized portion of the Work, that can be identified and measured for planning, coordinating, monitoring, and controlling the project.
- D. Milestone: A significant start or finish to Work on the Project defined by both the Director's Representative and the Contractors.
- E. Bid Milestones: Milestones or phases identified and included in the Contract Documents to be utilized by the Contractors in developing the Baseline Project Schedule.
- F. Spreadsheet: The electronic Excel© file provided to the Contractors for establishing activities, anticipated start, duration, and budgeted cost for Work of the Project.
- G. Baseline Project Schedule: The Activities and their prescribed durations recognizing the completion of the Work of the Project in accordance with the Contract duration and approved by the Director's Representative and Contractors.

1. Updates to the Baseline Project Schedule, including but not limited to starts, finishes, and activity percent complete, as agreed upon at the Project Schedule meeting by the Contractors and the Director's Representative, shall be defined as the Project Schedule.
  2. The Baseline Project Schedule will remain unaltered as a tool to measure progress outlined and anticipated during the initial Project Schedule meeting.
- H. Resource: Any labor, material, or equipment, shared or exclusive, required for the completion of an Activity or the Work, which recognizes an associated cost.

#### **1.04 DEVELOPMENT OF THE PROJECT SCHEDULE**

- A. An electronic file will be provided at project award to the Contractors and is to be utilized to complete the Baseline Project Schedule. This file is an Excel® spreadsheet exported from the Scheduling Software and requires the completion of four specified columns including activity name, original duration, anticipated start, and budgeted cost.
- B. The Contractors will complete the Spreadsheet with information relating to activity naming, duration, anticipated start date, and budgeted cost and submit to the Director's Representative for review prior to the initial Project Schedule meeting.
- C. The Director's Representative will schedule the initial Project Schedule meeting within 15 calendar-days of Project Award. The meeting will be conducted by the Director's Representative for review of the Contractors' initial completed Spreadsheet. The mutual agreements reached at this and subsequent meetings form the basis for the Baseline Project Schedule, and will be used for coordinating, scheduling, and monitoring the Work of all related contracts.
  1. The Director's Representative will import the Spreadsheet of each Contractor into the Scheduling Software and present the completed Baseline Project Schedule for review prior to the initial Project Schedule meeting.
- D. The Contractors will sign the CMU 01 Agreement form (blank included in Document 013113) within five (5) calendar-days of final Baseline Project Schedule review and approval by the Director's Representative. Failure to complete and submit the Spreadsheets, develop the Baseline Project Schedule, and sign the CMU 01 Agreement form will not absolve the Contractors of the scheduling requirements. The Contractors will be required to provide the necessary resources, at no additional charge to the State, to complete the Project in the manner defined by the Director's Representative.
- E. A Baseline Project Schedule recognizing early completion will be reviewed by the Director's Representative prior to acceptance.
- F. Bid Milestones are to be incorporated into the project schedule.

#### **1.05 UPDATING THE PROJECT SCHEDULE**

- A. Monthly Project Schedule meetings will be held to update the actual start, actual finish, and the percent complete of activities being performed for the purpose of determining the status of construction progress on the updated Project Schedule.
  - 1. During the progress of Work on the Project, the Contractors are required to document actual start, actual finish, and activity percent complete on a daily basis.
  - 2. The Contractors and Director's Representative will review the documented progress at the Project Schedule meeting prior to incorporating the information on the Project Schedule.
  - 3. Any Contractor failing to progress their Work as outlined in the updated Project Schedule will be informed of their deficiencies and, if required, be requested to provide a recovery option.
  
- B. The Contractors will furnish all schedule information requested by the Director's Representative. Any Contractor who fails to furnish accurate information during the Project Schedule meeting will be required to provide all resources necessary to execute the updated Project Schedule based on progress information documented and recorded by the Director's Representative.
  
- C. Project Schedule updates recognizing early completion will be reviewed by the Director's Representative prior to acceptance of the Project Schedule update.

#### **1.06 MAINTAINING SCHEDULE**

- A. Perform the Work in accordance with the Project Schedule and provide resources necessary to maintain the progress of activities as scheduled so that no delays are caused to other Contractors engaged in the Work.
  - 1. Should any Contractor fail to maintain progress according to the Project Schedule, or cause delay to another Contractor, that Contractor shall provide such additional manpower, equipment, additional shifts, or other measures, at their own cost, to bring their operations back on schedule.
  - 2. Performing activities as part of the Work out of sequence with the Project Schedule is not permitted unless written approval is obtained from the Director's Representative prior to commencement.

#### **1.07 RECOVERY SCHEDULE**

- A. Recovery Schedule: When periodic updates indicate the Work is 15 or more calendar-days behind the approved Baseline Project Schedule's Substantial or Physical Completion dates, the Contractors will present recovery options to the Director's Representative to be incorporated into an updated Project Schedule; these include, but are not limited to, allocating additional resources for activity duration reduction or modifying activity sequencing,
  
- B. Any Contractor failing to furnish recovery options to the Director's Representative for a Recovery Schedule within 10 calendar-days subsequent to the monthly Project Schedule update will be required to provide all resources

necessary to execute an updated Project Schedule defined by a the Director's Representative .

- C. Alterations to the Project Schedule by a Recovery Schedule will require the approval of the Contractors and the Director's Representative.
- D. Approved alterations to the Project Schedule by a Recovery Schedule, will constitute the updated Project Schedule.
  - 1. The updated Project Schedule following the implemented Recovery Schedule will be recognized as the primary baseline schedule for reporting. The Baseline Project Schedule will be retained as a secondary baseline schedule and will be utilized to measure progress against the alterations.
- E. A Recovery Schedule recognizing early completion will be reviewed by the Director's Representative prior to acceptance of the Project Schedule update.

## **1.08 RESOURCE ASSIGNMENTS**

- A. Resources recognizing the budgeted cost associated with all efforts necessary for the completion of a unique activity within the schedule, and the total cumulative cost of the Work of the Project, are to be assigned by the Contractors. All Contractors are responsible for providing the information necessary for assigning resources for the Baseline and Project Schedule; all Contractors are responsible for reviewing the information.
  - 1. The Contractors may request, in writing, the deletion of resource assignment requirements within this article; resource assignments may be waved only at the discretion of, and by written approval from, the Director's Representative.

## **PART 2 PRODUCTS**

### **2.01 SCHEDULING SOFTWARE**

- A. Scheduling Software: Schedule is to be prepared utilizing the Spreadsheet provided by the Director's Representative and developed specifically to interface with the State's schedule program portfolio.
  - 1. The State's program portfolio utilizes Oracle's Primavera P6®.

### **2.02 SCHEDULE UPDATE REPORTS**

- A. The Director's Representative will submit the updated Project Schedule within five (5) calendar-days of the Project Schedule meeting utilizing the Scheduling Software.

## **PART 3 EXECUTION**

### **3.01 PROJECT SCHEDULE**

- A. The Director's Representative will export a Spreadsheet from the Scheduling Software for the Project. The Contractors are to complete the columns and rows within the form appropriate to the development of the Baseline Project Schedule.
- B. The Contractors will determine and define activities applicable to the Work of their Contract and the scope of the Project. Activities are to be appropriately placed within the Spreadsheet as indicated by the Director's Representative.
- C. Within 15 calendar-days of Project Award, the Contractor's will submit the completed Spreadsheet to be incorporated for the Baseline Project Schedule, encompassing the Work of the Project from Project Award through Physical Completion. The Contractors and Director's Representative will review the initial project schedule submissions at the initial Project Schedule meeting and complete the Baseline Project Schedule.
- D. The Baseline Project Schedule is to be approved and the CMU 01 Agreement Form signed within 30 calendar-days of Project Award. Contractors failing to complete the Spreadsheet, review the incorporated Spreadsheets and Baseline Project Schedule, and sign the CMU 01 Agreement Form may result in non-payment for Work progressing beyond 30 calendar-days subsequent to Project Award.
- E. Updates to the Project Schedule will be performed concurrent with Project Schedule meetings.

### **3.02 ACTIVITIES**

- A. The Contractors are to provide activities which adequately represent the coordinating needs of the Project and scope of the Work.
  - 1. Each activity will identify the Contractors' anticipated start-date of the task or grouping of tasks, anticipated duration for the activity defined in work-days, and the budgeted cost of the activity.
  - 2. Activities are not required to realize an interlocking and dependent progression of the Work.
- B. The Contractors will identify each activity with a unique Activity Name. No Activity Name will be altered after the Baseline Project Schedule has been approved.
- C. The calendar utilized by the Baseline and Project Schedule for each activity will accurately reflect anticipated state and federal holidays as well as work being performed off-hours as defined in the Contract Documents and by the Director's Representative.

### **3.03 CONTRACTORS' OPTION**

- A. The Contractors may elect, in writing, to utilize computerized software compatible with the Scheduling Software in place of the Spreadsheet. Compatible software options include but are not limited to Microsoft Project

Professional®, Asta PowerProject®, or P3®. If the Contractors resolve to utilize compatible software, one file is to be submitted encompassing the Work of all Contracts, and the selected compatible software file is to be submitted in the proper format for interfacing with the Scheduling Software. The Contractors will notify the Director's Representative, in writing, prior to proceeding with the Contractors' Option.

1. The State will not be responsible for the Contractors' failure to properly review the compatibility properties or the requirements of this and related sections, and will not accommodate files submitted in an improper format.
2. The Contractors will be responsible for complying with all requirements of this and related sections when coordinating the development or update of a Baseline or Project Schedule utilizing compatible software under the Contractors' Option.
3. If the Contractors' elect to utilize compatible software, the Contractors will be responsible for all updating of the Project Schedule, obtaining approval of the updated activities actual start, actual finish, and activity percent complete by the Director's Representative, and submitting the properly formatted file for each update through Physical Completion; under this option, failure to create the Baseline Project Schedule, update the Project Schedule, obtain approval, or failure to submit the properly formatted file may result in withholding of payments.
4. The State will not compensate any Contractor for the selection of this optional article during the compliance of this or related sections.

B. If all Contractors elect to utilize compatible software, the Baseline Project Schedule is to be submitted within the parameters of this section and is to encompass the Work of all Contracts.

1. If any Contractor fails or refuses to provide information for developing the Baseline Project Schedule, or if in the judgment of the Director's Representative the information provided does not adequately reflect the of Work of the Project, all Contractors will be deemed not to have provided the information necessary for development of the Baseline Project Schedule and payments may be withheld.

C. The Contractors are not prohibited from developing a complete Project Schedule encompassing all Contracts utilizing the Critical Path Method.

1. The Critical Path Method is a scheduling process used to plan and coordinate the Project, arranging activities based on logical relationships in order to create a network diagram of interconnected procedures.

#### **END OF SECTION**

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PROJECT NO. \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

REPORT DATE: \_\_\_\_\_

REPORT NAME(S): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

It is agreed that the Baseline Project Schedule defined by the above listed computer reports has been reviewed and is accepted for use in coordinating, scheduling, and monitoring the work of all related contracts.

FOR CONSTRUCTION WORK CONTRACTOR: \_\_\_\_\_ DATE: \_\_\_\_\_

FOR DIRECTOR'S REPRESENTATIVE: \_\_\_\_\_ DATE: \_\_\_\_\_

## **SECTION 024116**

### **STRUCTURE DEMOLITION**

#### **PART 1 GENERAL**

##### **1.01 RELATED WORK SPECIFIED ELSEWHERE**

- A. Construction Facilities and Temporary Controls: Section 015000.
- B. Removals, Cutting and Patching: Section 017329.
- C. Earthwork: Section 310000.
- D. Topsoil: Section 329120.
- E. Seeding: Section 329219.

##### **1.02 SUBMITTALS**

- A. Quality Control Submittals:
  - 1. Permits: Submit one copy of each permit.
  - 2. Demolition Plan: For information only, submit one copy of the demolition plan required under Quality Assurance Article.

##### **1.03 QUALITY ASSURANCE**

- A. Permits: Before the Work of this Section is started, obtain all permits required by Federal, State, and local jurisdictions for all phases and operations of the Work.
- B. Demolition Plan: Before the Work of this Section is started, prepare a detailed demolition plan. The demolition plan shall include, but not be limited to, detailed outline of intended demolition and disposal procedures. The demolition plan will not relieve the Contractor of complete responsibility for the successful performance of the Work in accordance with all applicable Federal, State, and local codes and restrictions.

##### **1.04 PROJECT CONDITIONS**

- A. Existing Paint: A lead survey was performed on existing surfaces for the presence of lead based paints. No lead containing paints were found.
- C. Recycle demolition debris to the extent possible.
- D. Burning is prohibited.
- E. The use of explosives is prohibited.

- G. See Section 003126 for Hazardous Materials Information.
- H. Protect utilities during the Work of this Section.
- I. Verify the location and status of all utilities within the Contract Limit Line (CLL).
- J. Disconnect the following utilities:
  - 1. Sewer: Temporarily plug inside of nearest manhole. Coordinate removal with new sewer outlet location.
  - 2. Water: Cut and temporarily plug water branch. Coordinate removal with new water inlet location.
  - 3. Electric: Comply with National Electric Code and utility regulations.
  - 4. Telephone: Comply with utility regulations.
- K. Remove fluorescent lighting fixtures containing ballasts with PCB's and as indicated or specified elsewhere. Dispose of ballasts containing PCB's in compliance with all applicable rules and regulations.
- L. Prior to beginning demolition, verify that all utilities serving the building to be demolished have been disconnected.
- M. Do not interrupt utility services to buildings which are to remain.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Plugs, Caps, Flanges: Approved cast iron thread plugs, welded caps, or flanges.
- B. Grout: ASTM C 476.
- C. Thrust Blocks: Minimum 2500 psi concrete.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Remove loose equipment, materials, supplies, and furnishings (desks, chairs, beds, mattresses, furniture, etc.) from building prior to demolition.
- B. Remove items scheduled to be salvaged for the Facility, and place in designated storage area.

### **3.02 DEMOLITION**

- A. Perform demolition in a systematic manner.

- B. Do not place demolition equipment in buildings where it will create excessive loads on supporting walls, floors, and frames. Promptly remove accumulated debris and materials.
- C. Lower structural framing members to ground by hoist or crane.

### **3.03 DISPOSAL**

- A. Remove demolition debris and excess fill from State property as soon as practicable.
- B. Do not store, sell, or burn materials on State property.

**END OF SECTION**

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## SECTION 323114

### GATE SYSTEMS

#### PART 1 GENERAL

##### 1.01 REFERENCES

- A. Materials and Finishes Standard: ANSI/BHMA A156.18-2000, “American National Standard for Materials and Finishes”.
- B. Electrical Components for Electric Operating and Locking System and Electric Locking System Standard: National Electric Code – NFPA70.

##### 1.02 DEFINITIONS

- A. Technical Advisor:
  - 1. An individual employed by an organization meeting the following requirements:
    - a. Technically qualified in the design, installation, and servicing of electrical control systems and control panels.
    - b. Having experience in the installation of the required products and systems, or having experience in the installation of other similar systems or equipment.
    - c. Personnel involved solely in sales do not qualify.
- B. Gate Control Console: The interior enclosure that houses the gate controls, typically desk or counter mounted.

##### 1.03 SUBMITTALS - GENERAL

- A. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.
- B. Submittal Requirements:
  - 1. Submittals required by this section are to be submitted in packages as follows:
    - a. Submittals Package 1: Submit Quality Control Submittals and Product Data specified below at the same time as a package.
      - 1) Submit Submittals Package 1 within 30 days of contract award.
    - b. Submittals Package 2: Submit Test Reports and Shop Drawings specified below at the same time as a package.
      - 1) Submit Submittals Package 2 within 30 days of receipt of approval of Submittals Package 1.
    - c. Submittals Package 3: Submit Contract Closeout Submittals specified below at the same time as a package.
      - 1) Submit Submittals Package 3 within 7 days after completion of the System Acceptance Test, and its acceptance by the Director’s Representative.
  - 2. It is the Contractor's responsibility to review and verify that all information

required for each submittal package is included in the submittal package. Errors or omissions found by the Contractor are to be corrected prior to the Submittals Package submission for approval. Incomplete Submittal Packages submitted for review and approval will be returned.

- a. It is the Contractor's responsibility to verify that portions of the submittal packages provided by a Sub-Contractor are complete as well as portions of the submittal packages being provided directly by the Contractor.
  - b. The Technical Advisor shall be responsible for reviewing each complete submittal package prior to its submission for review and approval.
    - 1) This review shall include review of portions of the Submittal Package assembled and inserted into the Submittals Package by the Contractor (or Sub-Contractors).
    - 2) Letter(s) from the Technical Advisor shall be included in each Submittal Package, stating that the Technical Advisor has reviewed the entire Submittal Package for accuracy and completeness and approves all materials and installation methods included in the Submittal Package.
    - 3) Errors or omissions found by the Technical Advisor are to be corrected prior to the Submittals Package's submission for approval.
3. Re-Evaluation Fee: In accordance with Article 4.7 of the General Conditions, a re-evaluation processing fee will be levied against the Contractor for each re-evaluation of any Submittal Package submission that was returned for failure to comply with the submittal requirements relative to completeness, content or format. There will be a fee of \$250 levied against the Contractor for each re-evaluation of any Submittal Package submission that was returned for failure to comply with the submittal requirements relative to completeness, content or format.

C. Quality Control Submittals (include in Submittal Package 1):

1. Technical Advisor's Qualifications Data:
  - a. Name, business address and telephone number of Technical Advisor for the required services.
  - b. Certified statement (letter) listing the qualifications of the Technical Advisor. The certification statements shall include the following:
    - 1) Information showing that the Technical Advisor is experienced in the design, installation and servicing of gate control systems, gate control consoles and associated equipment.
    - 2) Listing of a minimum of three (3) similar gate control projects that the Technical Advisor has worked on utilizing the equipment specified for the system.
2. Installer's Qualification Data: Furnish completed INSTALLER'S QUALIFICATION DATA FORM for each person who will be performing the Work.
  - a. Forms must be completely filled out. Incomplete forms will be



- F. Shop Drawings (include in Submittal Package 2):
  - 1. Point to point wiring diagrams of the existing system as installed showing all connections of field wiring to equipment (gate control console, gates, etc.) and each conductor and cable wire marker identification.
  - 2. Complete scaled and detailed drawings for the new Gate Control Console. Indicate technical data, including size, finishes and components. Show relationship of all required components with respect to console housing.
  - 2. Point to point wiring diagrams of Gate Control Console wiring to terminal strips in junction boxes being provided under this project (to existing Vehicle Compound Gate Systems).
  
- G. Contract Closeout Submittals (include in Submittal Package 3):
  - 1. Test Report: System acceptance test report.
  - 2. Certificate: Affidavit, signed by the Contractor and notarized, certifying that the system meet the contract requirements and is operating properly.
  - 3. Operation and Maintenance Data:
    - a. Deliver two copies, covering the installed products, to the Director's Representative. Include:
      - 1) Operation and maintenance data for each product.
      - 2) Complete point to point wiring diagrams (As-Built Drawings) of the system as installed. Label all conductors and show all terminations and splices. (Labels shall correspond to markers installed on each cable and conductor.)

#### **1.04 DESCRIPTION OF EXISTING SYSTEM**

- A. The existing gate systems at the vehicle compound consist of 2 sliding gates and 2 pedestrian swing gates. The gates are operated and monitored from a gate control console located at the Truck Trap Control Building, Building No. 13.
  - 1. The gate control console allows the attendant to operate the gates from inside the Control Building.
  
- B. Each sliding gate (G-1, G-2) operator is controlled and monitored by a group of pushbuttons and indicator lights located in the gate control console.
  - 1. Three pushbuttons at the gate control console control the operation of the each sliding gate operator.
    - a. Depressing the "Open" pushbutton unlocks and opens the gate.
    - b. Depressing the "Stop" pushbutton stops movement of the gate in either close or open direction.
    - c. Depressing the "Close" pushbutton closes and deadlocks the gate.
  - 2. Two indicator lights at the gate control console monitor the status of the gate.
    - a. A "Green" indicator light illuminates when the gate is completely closed and deadlocked.
    - b. A "Red" indicator light illuminates for all other conditions.
  
- C. Each Pedestrian gate (G-3, G-4) is controlled and monitored by a pushbutton and indicator lights located in the gate control console.

1. Depressing the pushbutton, the lock unlocks from the locked closed position and remains unlocked only while the pushbutton is depressed. Lock automatically deadlocks when gate is closed.
2. Two control panel indicator lights at gate control console monitor the status of the gate.
  - a. A "Green" indicator light illuminates when the gate is completely closed and deadlocked.
  - b. A "Red" indicator light illuminates for all other conditions.

#### **1.05 MODIFICATIONS TO EXISTING SYSTEM**

- A. Remove the existing gate control console.
- B. Provide a gate control console in the new Truck Trap Control Building.
- C. Provide all required materials and connections to make all gates function as described in DESCRIPTION OF COMPLETED SYSTEM.

#### **1.06 DESCRIPTION OF COMPLETED SYSTEM**

- A. The completed system shall operate as follows:
  1. Each sliding gate operator shall be controlled and monitored by a three-position selector switch and indicator lights located in the gate control console.
    - a. Moving the switch to the "Open" position unlocks and opens the gate.
      - 1) As long as the switch's handle is held in the "Open" position the gate shall continue moving until it comes to the fully open position.
      - 2) Releasing the switch's handle, will cause the switch to move to the "Stop" position and all movement of the gate will stop.
    - b. The "Stop" position of the switch is the default position of the switch. Releasing the handle of the switch from either the "Open" or "Close" position will cause the switch to move to the stop position and all movement of the gate will stop.
    - c. Moving the switch to the "Close" position, closes and deadlocks the gate.
      - 1) As long as the switch's handle is held in the "Close" position the gate shall continue moving until it comes to the fully closed position and is deadlocked.
      - 2) Releasing the switch's handle, will cause the switch to move to the "Stop" position and all movement of the gate will stop.
    - d. Gate movement may be reversed in either direction of travel by setting the control switch to the appropriate position. The control system shall automatically stop the gate, pause for 2 seconds minimum, then cause the gate to travel in the opposite direction. There is an adjustable time delay to avoid mechanical damage.

- e. Two control panel indicator lights at gate control console shall monitor the status of the gate.
  - 1) A “Green” indicator light shall illuminate when the gate is completely closed and deadlocked.
  - 2) A “Red” indicator light shall illuminate for all other conditions.
- 2. Each Pedestrian gate shall be controlled and monitored by a pushbutton and indicator lights located in the gate control console.
  - a. Depressing the pushbutton, the lock will unlock from the locked closed position and remain unlocked only while pushbutton is depressed. Lock will automatically deadlock when gate is closed.
  - b. Two control panel indicator lights at gate control console shall monitor the status of the gate’s door position switch and lock.
    - 1) A “Green” indicator light shall illuminate when the gate is completely closed and deadlocked.
    - 2) A “Red” indicator light shall illuminate for all other conditions.
- 3. The electrical controls of all of the sliding gates and pedestrian gates shall be interlocked to prevent more than one gate to be open at any one time, except through the use of a key operated interlock bypass switch.
  - a. Each group of interlocked gates shall have an interlock by-pass circuit, to allow the interlocked gates to be opened simultaneously when the interlock by-pass circuit is activated. Each interlock by-pass circuit shall have a key operated interlock by-pass switch and a LED indicator light.
  - b. The interlock by-pass switch shall be a key-operated, 2-position maintained contact switch, key removable when in Off position only.
    - 1) When separate interlock by-pass circuits are required, by-pass switches are keyed alike, but unlike any other switch on the panel.
  - c. The LED indicator light illuminates only when the interlocks are in the by-pass mode.
- 4. Power switches in conjunction with magnetic contactors in gate control console shall allow the attendant to switch power on and off to the console or cabinet.
  - a. At the gate control console a key operated power switch in conjunction with a magnetic contactor in the console shall allow the attendant to switch power on and off to the console and make all gates functional or non-functional from the console.
    - 1) When the power switches are in the “OFF” position, no electrical power shall be available at the gate operators or locks. All power to the gates and locks shall be disconnected at the console.
 

Exception: The heater circuit shall be independent of control console power and the control console power switch. Heater circuit shall be routed from panel-board to control console to gate motor operator. Power shall be disconnected from panel-board for service.

- 2) In the "On" position, the key shall be non-removable until the switch is returned to the "Off" position.
5. A lamp test push button on the gate control console shall allow the attendant to test the status of all indicator lights at the console. No other system operations shall be affected.
6. A circuit breaker adjacent to each gate's control switch in the gate control console will provide protection of the gate's control circuit.

## **1.07 MAINTENANCE**

- A. Spare Parts: Furnish the following and store at the site where directed:
  3. Control Panels:
    - a. One of each type key operated control panel power cut-off switch required.
    - b. One of each type two position selector switch required.
    - c. One of each type three-position selector switch required.
    - d. One of each type momentary contact push button required.
    - e. One of each type of indicator lights required.
    - f. One of each type of circuit breakers required.
    - g. One of each type of plug-in modular relay required.
    - h. One power supply.
    - i. Five of each class J fuses.

## **PART 2 PRODUCTS**

### **2.01 GATE CONTROL CONSOLES**

- A. Control Consoles: Desk type, constructed of 3/16 inch thick steel plate. Consoles shall have steel plate back, front and sides. All exposed corners and edges of console shall be rounded at not less than a one inch radius.
  1. Size: Width, depth and height as required to contain the control panel and related equipment, but within the limitations specified or shown. All switches and buttons shall be mounted within a distance that will make it unnecessary for the officer to move more than one step in either direction to reach them. Height of control panel shall be as shown on the Drawings, or if not shown, as directed.
- B. Control Panels:
  1. General: Fabricate panels of 11 gage stainless steel with holes to receive switches, circuit breakers, and indicator lights. Fabricate housings and fastening battens of 10 gage mild steel with hammer tone gray finish. Each gate controlled by panel shall have a control switch, circuit breaker, and two indicator lights mounted in a horizontal line. A green light shall go on only when the gate is locked close. A red light shall show all other conditions of the gate. Lights shall be accessible and replaceable. Identify each gate controlled from panel.
  2. Panels for Control Consoles: Panels shall form the top, be inclined down from back to front between 10 and 20 degrees from horizontal, and turn down at least one inch over front and sides. Panel shall have a continuous stainless steel hinge at the back to allow it to swing up for

maintenance, and be secured at the front, sides, and battens. Reinforce for security fasteners. Provide a pair of interior prop rods with automatic cam action to prevent accidental closing and to hold the panel in an open position for maintenance.

## **2.02 FASTENERS**

- A. Bolts and Nuts: ASTM A 307, Grade A.
  - 1. Concealed Bolts: Standard common bolts with lock washers and nuts. For items requiring servicing or replacement, drill the bolts and equip them with cotter pins and flat washers.
  - 2. Exposed Bolts: Countersunk flathead security head Torx center pin bolts, with lock washers and nuts, unless otherwise specified.
- B. Machine Screws: ANSI/ASME B18.6.3.
  - 1. Concealed Machine Screws: Security head Torx center pin screws, unless otherwise specified.
  - 2. Exposed Machine Screws: Countersunk flat head security head Torx center pin screws, unless otherwise specified.
- C. Carriage Bolts:
  - 1. Exposed Bolts: Carriage bolts, with lock nuts and washers. (When mounting control console to counter top, install carriage bolt from the underside of counter top into the control console.)
  - 2. Plain Washers: Round, ASME B18.22.1.
  - 3. Lock Washers: Helical, spring type, ASME B18.21.1.

## **2.03 ELECTRICAL COMPONENTS FOR ELECTRIC OPERATING AND LOCKING SYSTEM AND ELECTRIC LOCKING SYSTEM**

- A. General:
  - 1. Sliding gate components and their controls shall be suitable for connection to a 15 ampere, 208 volt, 1 phase, 60 Hz, dedicated circuit per each gate.
  - 2. Pedestrian gate components and their controls shall be suitable for connection to a 20 ampere, 120 volt, single phase, 60 Hz, dedicated circuit per each gate.
  - 3. Electrical components for which Underwriters' Laboratories, Inc. (UL) provides product listing service, shall be listed and bear the listing mark.
  - 4. Electrical components shall be the standard product of the detention equipment manufacturer except for the qualifications, which follow.
- B. Circuit Breaker: Individually protect control switch and circuit for each gate with a circuit breaker mounted in the panel adjacent to the switch: AIRPAX Series PR11-62-2 or 5, or Potter & Brumfield W28 series, 2 or 5 amp. Amperage as indicated on drawings.
- C. Control Panel Indicator Lights: Chicago Miniature Lighting, LLC 1091QM SUPER-BRITE series LEDs. 1091QM1-24VDC(RED); 1091QM5-24VDC (GREEN), 1091QM7 - 24VDC (AMBER).

- D. Three-Position Selector Switch: Allen-Bradley's 800T series, Cutler-Hammer's (Eaton) 10250T series switch, having:
1. Size: 30mm diameter for insertion in 31mm keyed panel opening.
  2. Metal Legend Plate: "OPEN – STOP – CLOSE".
  3. Operator Action: Spring return to Center (STOP) position from either left (OPEN) or right (CLOSE) positions.
  4. Handle (Knob): Black Lever Handle (Gloved Hand Lever).
  5. Contact Blocks: Configuration and number of contact blocks as required.
- E. Momentary Contact Push-button Switch: Allen-Bradley's 800T series, Cutler-Hammer's (Eaton) 10250T series switch, having:
1. Size: 30mm diameter for insertion in 31mm keyed panel opening.
  2. Push-button: Black flush head
  3. Contact Blocks: Minimum of one contact block with 1 normally open (N.O.) contact and 1 normally closed (N.C.) contact. Provide additional contact blocks as required.
- F. Key Operated Interlock Bypass Switch: Two Position Selector Switch: Allen-Bradley's 800T series, Cutler-Hammer's (Eaton) 10250T series switch, having:
1. Size: 30mm diameter for insertion in 31mm keyed panel opening.
  2. Metal Legend Plate: "INTERLOCK BYPASS".
  3. Operator Action: Maintained position for both positions. Key is non-removable when switch is in "Interlock Bypass" mode.
  4. Handle (Knob): Keyed switch, furnish three keys for each switch.
    - a. All interlock bypass switches shall be keyed alike, but unlike any other keyed switch on the board.
  5. Contact Blocks: Minimum of one contact block with 1 normally open (N.O.) contact and 1 normally closed (N.C.) contact. Provide additional contact blocks as required.
- G. Key Operated Control Panel Power Cut-off Switch (which activates a magnetic contactor): Two Position Selector Switch: Allen-Bradley's 800T series, Cutler-Hammer's (Eaton) 10250T series switch, having:
1. Size: 30mm diameter for insertion in 31mm keyed panel opening.
  2. Metal Legend Plate: "ON - OFF".
  3. Operator Action: Maintained position for both positions. Key is non-removable when switch is in "Power On" mode.
  4. Handle (Knob): Keyed switch, furnish three keys for each switch.
    - a. All Power Cut-off switches shall be keyed individually and unlike any other keyed switch.
  5. Contact Blocks: Minimum of one contact block with 1 normally open (N.O.) contact and 1 normally closed (N.C.) contact. Provide additional contact blocks as required.
- H. 24 Volt Power Supply: Silver Line Linear Power Supplies, Model SLS-24-012T or Sola Heviduty Model No. SDP-24-100, output rating (24volt/1.2 amps). Screw terminal connections, temp range 0 degrees C to +50 degrees C, automatic current limiting, DC output adjustable 10 percent minimum.
- I. Contactors and relays: ABB MDRC's Modular DIN Rail Components.

- J. Wiring Conductors: Provide wiring in accordance with Section 260501.
- K. Protect motors with automatic reset type thermal overload controls, and limit switches.
- L. Interlocking components: Provide all accessories (relays, contactors, etc.) required to perform the interlocking requirements summarized in DESCRIPTION OF COMPLETED SYSTEM, and elsewhere in this section.
- M. Markers:
  - 1. Premarked self-adhesive; W. H. Brady Co.'s B940, Thomas and Betts Co.'s E-Z code WSL self-laminating, Ideal Industries' Mylar/Cloth wire markers, or Markwick Corp.'s permanent wire markers.
  - 2. Flexible sleeve markers: Plastic Extruded Parts Inc.'s FS series.
  - 3. Snap-on markers: Plastic Extruded Parts Inc.'s RS series.
  - 4. Thermal transfer (non-smearing), Brady's ID PAL hand held labeling tool portable thermal transfer printer or equal.

## **2.04 INTERLOCKING**

- A. Electrically interlock the following gates at the control panel(s). Gates shall remain in the locked closed position, if more than one control switch is pressed simultaneously.
  - 1. Gates G-1, G-2, G-3 and G-4 shall be interlocked so only one of these gates can be unlocked (from the locked closed position) at any time.
- B. Interlock bypass the following:
  - 1. Gates G-1, G-2 G-3 and G-4.

## **2.05 IDENTIFICATION PLATES**

- A. Locking Systems and Control Consoles: Each locking system and control console shall have an engraved plate containing the following information:
  - 1. Manufacturer's name, telephone number, type of system (Locking), date of installation, and name of installer.
  - 2. Permanently attach plate to the inside of the motor cabinet of sliding gates, and inside the housing of control consoles.

## **2.06 ACCESSORIES**

- A. Include all accessories required to perform the functions summarized in DESCRIPTION OF COMPLETED SYSTEM and as indicated on the drawings.

# **PART 3 EXECUTION**

## **3.01 VERIFICATION AND RECORDING OF EXISTING CONDITIONS**

- A. Test of Existing Systems:
  - 1. Prior to modifying the existing system, test the existing system to ascertain their operating condition:
    - a. Individually test all functions of the system.
    - b. Test the system function step by step as summarized in DESCRIPTION OF EXISTING SYSTEM.
  - 2. All tests shall be witnessed by the Technical Advisor and Director's Representative.
  - 3. Prepare a written report for the Director's Representative indicating the repairs required, if any, to make the existing system function properly.
  - 4. Repairs to the existing system are not included in the Work unless requested by Order on Contract.
  
- B. Conductor and cable marking and wiring diagrams of existing system:
  - 1. Prior to disconnecting any conductors (or cables), provide wire markers on each conductor (or cable). Wire marker identification designations shall be unique for each conductor (or cable).
  - 2. Create Point-To-Point wiring diagrams of existing system as installed showing connections of existing field wiring to equipment. Point-To-Point wiring diagrams shall show how each conductor (or cable) is connected to the equipment as follows:
    - a. Shall show wire marker identification designations for each conductor.
    - b. Shall show wire marker identification designations for each cable and indicating color of each conductor within the cable.
  - 3. Submit Point-To-Point wiring diagrams for review and approval prior to modifying the existing systems.

### **3.02 INTERRUPTIONS TO EXISTING SYSTEMS**

- A. Prior to making changes or removals relative to an existing system, notify the Director's Representative and have procedures approved.

### **3.03 INSTALLATION**

- A. Provide all materials and work as required by this specification section and as indicated on the drawings.
- B. Neatly install and securely fasten hardware.
- C. Identify conductors with markers at terminal strips, consoles and pullboxes. Designations shall correspond to point to point wiring diagrams.

### **3.04 FIELD QUALITY CONTROL**

- A. Preliminary System Test:

1. Preparation: Have the Technical Advisor adjust the completed system and then operate it long enough to assure that it is performing properly.
  2. Run a preliminary test for the purpose of:
    - a. Determining whether the system is in a suitable condition to conduct the acceptance test.
    - b. Checking and adjusting equipment.
- B. System Acceptance Test:
1. Preparation: Notify the Director's Representative at least three working days prior to the test so arrangements can be made to have a Facility Representative witness the test.
  2. Test the system function step by step as summarized under DESCRIPTION OF COMPLETED SYSTEM for each gate.
  3. Supply all equipment necessary for system adjustment and testing.
  4. Submit written report of test results signed and dated by Technical Advisor and the Director's Representative.

**END OF SECTION**

**INSTALLER'S QUALIFICATION DATA FORM**

Please Print - Submit this form for each individual.

**System Name and Specification No.** (data is being submitted for):

Provide information in detail showing that listed Qualifying Experience meets the contract requirements for the above listed specification.

<b>Installer's Name:</b>	<b>Telephone No.:</b> (Work)
<b>Employer's Name and Address:</b>	
<b>Name of Supervisor:</b>	<b>Telephone No.:</b>

**QUALIFYING EXPERIENCE:**

<b>Project No. 1:</b>	<b>Dates of work:</b>	<u>From:</u>	<u>To:</u>
<b>Name and Address of project:</b>			
<b>Name of Supervisor:</b> _____		<b>Telephone No.:</b> _____	
<b>Type of work performed on project:</b>			

<b>Project No. 2:</b>	<b>Dates of work:</b>	<u>From:</u>	<u>To:</u>
<b>Name and Address of project:</b>			
<b>Name of Supervisor:</b> _____		<b>Telephone No.:</b> _____	
<b>Type of work performed on project:</b>			

<b>Project No. 3:</b>	<b>Dates of work:</b>	<u>From:</u>	<u>To:</u>
<b>Name and Address of project:</b>			
<b>Name of Supervisor:</b> _____		<b>Telephone No.:</b> _____	
<b>Type of work performed on project:</b>			

<b>Project No. 4:</b>	<b>Dates of work:</b>	<u>From:</u>	<u>To:</u>
<b>Name and Address of project:</b>			
<b>Name of Supervisor:</b> _____		<b>Telephone No.:</b> _____	
<b>Type of work performed on project:</b>			

<b>Project No. 5:</b>	<b>Dates of work:</b>	<u>From:</u>	<u>To:</u>
<b>Name and Address of project:</b>			
<b>Name of Supervisor:</b> _____		<b>Telephone No.:</b> _____	
<b>Type of work performed on project:</b>			

By my signature, I affirm that all information presented on this form is accurate.

<b>Signature of Installer:</b> _____	<b>Date:</b> _____
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