



**DESIGN AND CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242**

ADDENDUM NO. 1 TO PROJECT NO. 44823

**CONSTRUCTION, HVAC, PLUMBING AND ELECTRICAL WORK
PROVIDE MAINTENANCE SUBHEADQUARTERS
REGION 8 RED HOOK
ROUTE 9G
RED HOOK, NY**

July 22, 2016

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.

BIDDING REQUIREMENTS:

- 1. DOCUMENT 001114 ADVERTISEMENT FOR BIDS: Plumbing Trade:** Omit Addendum No. 2 to project No. 45058 from project manual.

SPECIFICATIONS:

2. CONSTRUCTION SPECIFICATIONS:

SECTION 013200 CONSTRUCTION PROGRESS DOCUMENTATION: DELETE this section entirely and ADD "PROJECT SCHEDULE" the attached section in its entirety, (pages 013113-1 through 013113-10) to the Project Manual – Construction Work.

SECTION 332001 SUBMERSIBLE WELL PUMP: ADD the attached section in its entirety, (pages 332001-1 through 332001-3) to the Project Manual – Construction Work.

SECTION 332002 PITLESS UNIT: ADD the attached section in its entirety, (page 332002 -1) to the Project Manual – Construction Work.

SECTION 323115 SLIDING GATE OPERATOR SYSTEM, Paragraph 2.01A: CHANGE "Tymetal Corp's Positive Locking Ultimate System" to "Tymetal Corp's Industrial/Commercial grade system".

SECTION 323115 SLIDING GATE OPERATOR SYSTEM, Quality Assurance Form: CHANGE "Tymetal Corp's Positive Locking Ultimate System" to "Tymetal Corp's Industrial/Commercial grade system".

3. PLUMBING SPECIFICATIONS:

SECTION 221119 WATER SUPPLY ACCESSORIES: Paragraph 2.06; DELETE section in its entirety.

4. CONSTRUCTION DRAWINGS:

Addendum Drawing:

- a. Drawing No. SKC-1 accompanies this Addendum and forms part of the Contract Documents.

5. PLUMBING DRAWINGS:

Drawing No. P-100:

- a. ADD the following to note at “LP Tank Location” – “LP Tank NIC”.

Drawing No. P-103:

- a. In the mechanical room DELETE the compressor, CA-1, and the piping from the compressor to the tank.

Drawing No. P-105:

- a. Detail 4/P-105: ADD the following note – “Connect piping to Second Stage Regulator. Second Stage Regulator NIC.”

Drawing No. P-106:

- a. Detail 1/P-106: ADD the following notes – “LP Tank NIC. Connect piping to the First Stage Regulator. First Stage Regulator NIC.”

Drawing No. P-107

- a. Plumbing Compressor Schedule: DELETE CP-1.

6. ELECTRICAL DRAWINGS:

Drawing No. E-100:

- a. Provide 30A NEMA 4X safety switch, in line of power circuit, for well-pump. Locate the switch 5 feet due west of the well. Mount the safety switch on galvanized steel post supported by concrete footing, 8” diameter sonotube, 4’ deep (below grade).

7. ELECTRICAL DRAWINGS:

Addendum Drawing:

- a. Drawing No. SKE-1 accompanies this Addendum and forms part of the Contract Documents.
- b. Drawing No. SKE-2 accompanies this Addendum and forms part of the Contract Documents.

- c. Drawing No. SKE-3 accompanies this Addendum and forms part of the Contract Documents.
- d. Drawing No. SKE-4 accompanies this Addendum and forms part of the Contract Documents.

8. PLUMBING DRAWINGS:

Addendum Drawing:

- a. Drawing No. SKP-1 accompanies this Addendum and forms part of the Contract Documents.

END OF ADDENDUM

Margaret F. Larkin
Executive Director
Design and Construction

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 SUBMITTALS

- A. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.
- B. Schedule Submittals:
 - 1. Initial Spreadsheet
 - 2. CMU 01 Agreement Form

1.04 DEFINITIONS

- A. Project: Work to be performed as part of one or more Contracts.
- B. Project Team: Persons acting on behalf of the State or Contractors in an effort to successfully plan, schedule, and coordinate the Work of the Project.
- C. 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.
- D. 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.
- E. Milestone: A significant start or finish to Work on the Project defined by both the Director’s Representative and the Contractors.

- F. Bid Milestones: Milestones or phases identified and included in the Contract Documents to be utilized by the Contractors and Project team in developing the Baseline Project Schedule.
- G. Spreadsheet: The electronic Excel© file provided to the Contractors for establishing activities, anticipated start, duration, predecessors, successors, and budgeted cost for Work of the Project.
- H. 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.
- I. Float: The measure of latitude in starting and/or completing an activity without impeding on the successful realization of Project milestones.
 - 1. Float time is not for the exclusive use or benefit of either the State or the Contractors, but is a jointly owned expiring Project resource; float is available as needed to meet scheduled milestones and Project completion.
 - 2. Recognizing float within an activity, or chain of activities, does not permit the Contractors to disrupt progress or delay completion of an activity.
- J. Resource: Any labor, material, or equipment, shared or exclusive, required for the completion of an Activity or the Work, which recognizes an associated cost.
- K. OGS Scheduling: A member of the OGS Scheduling Department responsible for importing, updating, analyzing, reviewing, and interpreting schedule related information for the Project team to ensure compliance with this or related sections.

1.05 DEVELOPMENT OF THE PROJECT SCHEDULE

- A. An electronic file is available to the Contractors and is to be utilized to assist in completing the Baseline Project Schedule. This file is an Excel© spreadsheet exported from the Scheduling Software and requires the completion of six specified columns including activity name, original duration, anticipated start, predecessor, successor, and budgeted cost.
 - 1. Failure to acquire the file by request upon Project Award will not excuse the required submission times as noted within the section.
 - 2. Contractors may submit initial planning schedule in format compatible with the State's Scheduling Software to be utilized in developing the Baseline Project Schedule in lieu of the Spreadsheet.

- B. The Contractors will complete the Spreadsheet with information relating to activity naming, duration, anticipated start date, predecessor, successor, 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 include members of the Project team and will be conducted by OGS Scheduling for the purpose of reviewing the Contractors' initial planning schedule, defining the intent of the specification, and realizing a schedule management strategy for all required iterations and reporting. 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. OGS Scheduling will work with other members of the Project team to incorporate activities, task summaries, contractual or Project milestones, intermediate and critical milestones, and testing, inspection, or commissioning periods to assist in planning or coordination.
- 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.
 - 1. The Baseline Project Schedule and CMU 01 agreement are to be completed within 45 days of Project Award. Failure by the Contractors to provide the required or requested information will result in the withholding of progress payments.
- E. A Baseline Project Schedule recognizing early completion will be reviewed by members of the Project team prior to acceptance.
- F. Bid Milestones are to be incorporated into the project schedule.

1.06 UPDATING THE PROJECT SCHEDULE

- A. Monthly Project Schedule meetings will be held to review updates to the actual starts, actual finishes, and the percent complete of in-progress activities, and consider logic changes, sequencing alterations, duration amendments, time impact events, and scope changes, for the purpose of determining the status of construction progress for 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, and provide the information to OGS Scheduling in the manner defined during the Initial Project Schedule meeting.

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 members of the Project team prior to acceptance of the Project Schedule update.

1.07 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.

1.08 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.

1.09 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 Project Schedule; all Contractors are responsible for reviewing the information.
- B. Resources recognizing the total Labor/Manpower and specialized equipment associated with all efforts necessary for the completion of a unique activity within the schedule network, and the cumulative curve associated with the Work of the Project, are to be assigned concordant with the intended means and methods proposed by the Contractors. All Contractors are responsible for providing the information necessary for assigning resources for the Baseline Project Schedule; all Contractors are responsible for reviewing the information prior to approval.

PART 2 PRODUCTS

2.01 SCHEDULING SOFTWARE

- A. Scheduling Software: Schedule is to be prepared utilizing the Spreadsheet, 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. OGS Scheduling 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 Contractors' will complete the Spreadsheet including all columns and rows within the form and submit to either the web collaborative site or Director's Representative, two (2) days prior to the initial meeting, in a manner appropriate to the development of the Baseline Project Schedule.

1. If compatible software is utilized, the Contractors will be required to provide all information applicable to the Spreadsheet, and in accordance with all submission requirements noted in this section or related sections.
- 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.
- 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 Project team will review the initial project schedule submissions at the Initial Project Schedule meeting and complete the Baseline Project Schedule.
 1. The Project team will recommend tasks or summaries appropriate to planning, scheduling and coordinating, including but not limited to: establishing a focused work breakdown structure (WBS), phasing requirements, identifying logical connections critical to Substantial and Physical completion, accounting for critical submittals or submission, fabrication, and delivery of long-lead materials, products, specialized equipment, or services, and recognizing critical testing, inspection, or commissioning durations for coordination and tracking.
- D. The Baseline Project Schedule is to be approved and the CMU 01 Agreement Form signed within 45 calendar-days of Project Award. Failure to complete the Spreadsheet, review the incorporated Spreadsheets and Baseline Project Schedule, and sign the CMU 01 Agreement Form will 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 without written approval by the Director's Representative.
- C. The Project team will identify milestones, activities, or summary activities for incorporation into the Baseline or Project Schedule to assist in planning, scheduling, and coordinating the Project.

- D. 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 BASELINES

- A. OGS Scheduling will maintain a copy of the Baseline Project Schedule as the assigned project baseline schedule.

3.04 TIME IMPACT AND TIME IMPACT ANALYSIS

- A. OGS Scheduling will represent Time Impact to the Project Schedule milestones utilizing, at a minimum, a milestone event, an activity for resolution, and related work associated with the impact to the as-updated Work of the Project.
 - 1. OGS Scheduling and the Project team will use the most current Project Schedule update to prepare the Time Impact representation.
 - 2. If Project Schedules have not been updated in accordance with this specification, an update must be generated which includes an accurate realization of the Work performed and progressed up to the Time Impact event. Failure to maintain Project Schedule updates in accordance with this or related specifications will not absolve the Schedule Preparer or Contractors of the responsibility to identify Time Impact as defined at a minimum by this article.
 - 3. A Request for Time Extension will require Time Impact recognition within the CPM schedule.
 - 4. Time Impact events will be reviewed for accuracy and are to be updated in accordance with relevant new information regarding time for resolution and impact to remaining work on the Project.

3.05 REQUESTS FOR TIME EXTENSIONS

- A. The Contractors are to submit in writing to the Director's Representative a Request for Time Extension within ten (10) days of recognizing the need to amend the contractual Substantial or Physical Completion date.
 - 1. OGS Scheduling will provide Project Schedule reports, generated from the current Project Schedule update, recognizing the inability to complete the contractual, Project, or Bid Milestones by the established completion dates and a copy of the P6 file used to generate the reports.
 - 2. Submitting a Request for Time Extension does not permit the Contractors to delay Work on the current Project Schedule update.
- B. The Project team is to develop and submit CPM schedule options, in accordance with applicable requirements of this section, showing a milestone event, the time for resolution, the related work associated with the resolution or alternate options, and the newly projected Project and Bid Milestone dates.

- C. Requests for Time Extensions will be responded to within 15 calendar-days of receipt and the Contractors will be notified in writing of the refusal or acceptance of the request.
- D. Reasons for which extensions will be rejected upon receipt include, but are not limited to, the Contractors' failure to provide appropriate resources to complete the Work, misinterpretations of contract requirements, improper planning, failure to coordinate with other Contractors or the Director's Representative, misappropriated distribution of approved costs, payments, or budget for Project Work, failure to comprehend project schedule requirements, failure to provide Project Schedule updates consistent with the requirements of this or related sections, material procurement or delivery delays not associated with Special Events (*force majeure*), or subcontractor and worker related issues such as contractual disputes or work-stoppage strikes.
- E. Approved Request for Time Extensions will require the creation of a revised Project Schedule prepared by OGS Scheduling which will serve as the primary baseline

3.06 CONTRACTORS' OPTION

- A. The Contractors may elect, in writing, to utilize computerized software compatible with the Scheduling Software in place of the Spreadsheet and the OGS Scheduling provided service. 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.
 - 5. Proceeding with this option will require the Contractors to assume at the role of OGS Scheduling as recognized within this section.

- 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

NEW YORK STATE OFFICE OF GENERAL SERVICES
DESIGN AND CONSTRUCTION GROUP

CMU-01 AGREEMENT

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 HVAC WORK CONTRACTOR: _____ DATE: _____

FOR PLUMBING WORK CONTRACTOR: _____ DATE: _____

FOR ELECTRICAL WORK CONTRACTOR: _____ DATE: _____

FOR DIRECTOR'S REPRESENTATIVE: _____ DATE: _____

SECTION 332001

SUBMERSIBLE WELL PUMP

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. Wiring for Motors and Motor Controllers: Section 260523.

1.02 SUBMITTALS

- A. Product Data: Catalog sheets, specifications and installation instructions for each size pump.
- B. Schedule: Complete pump schedule listing manufacturer's name, type, model number and size.
- C. Quality Control Submittals:
 - 1. Test Reports: Submit performance curves for each pump, showing capacity in gallons per minute, brake horsepower and efficiency from free delivery to shut-off head. Curves shall be based on factory tests by the manufacturer, in accordance with procedures recommended by the Hydraulic Institute.
- D. Contract Closeout Submittals:
 - 1. Operation and Maintenance Data: Deliver 2 copies, covering the installed products, to the Director's Representative.

PART 2 PRODUCTS

2.01 COMPANIES

- A. Deming Pumps; Crane Pumps & Systems, 420 Third Street, Piqua, OH 45356 (937) 778-8947, www.cranepumps.com.
- B. Gould Pumps, 2881 East Bayard Street, Seneca Falls, NY 13148, (800) 743-5700, www.goulds.com.
- C. Peerless Pump Company, PO Box 7026, Indianapolis, IN 46207, (800) 879-0182, www.peerlesspump.com.
- D. Franklin Electric, 400 E. Spring Street, Bluffton, IN 46714, (260) 824-2900, www.franklinpumps.com.
- F. Emerson Motor Company, 8110 W. Florissant Avenue, St. Louis, MO 63136, (888) 637-7333, www.emersonmotors.com.

- G. Myers Pumps; Pentair Ltd., 293 Wright Street, Delavan, WI. 53115, (888) 987-8677, www.femyers.com.

2.02 PUMP

- A. Pumping unit shall consist of a water lubricated motor and centrifugal pump suited to the conditions encountered in the well.
- B. Pumping unit shall be capable of pumping 20 gpm at a total dynamic head of 310 feet.
- C. Pump shall be 3 HP, 230 volts, single phase, Myers 4” submersible, Model No. SS30-25 with Pentek motor model #P43B0030A2, or approved equal.
- D. Submersible pump, motor, and controller shall be a “package” unit as furnished by the manufacturer.
- E. Pumps of the same type shall be of the same manufacturer, with pump parts of the same size and type interchangeable.

2.03 CONTROLS

- A. Provide a SJE/ Rhombus model 1131114X10E12B19U6A simplex control panel or approved equal to operate the submersible pump. Panel to include the following:
 - 1. NEMA 4X Enclosure
 - 2. IEC Motor contactor
 - 3. Hand-Off-Automatic (HOA) selector switch for automatic/manual pump control (mounted on enclosure door)
 - 4. Green Pump Run Indicator Light (mounted on enclosure)
 - 5. Pressure Switch Terminal Block (mounted on circuit board)
 - 6. Control Fuse (mounted on circuit board)
 - 7. Control Power Indicator
 - 8. Pump Input Power and Pump Connection Terminal Block
 - 9. Ground Lugs
 - 10. Circuit Breaker (provides pump disconnect and branch circuit protection)
 - 11. Capacitor Start Module (start/run capacitor kit provided by pump supplier for inclusion in panel)
 - 12. Pressure Switch, 50/70# setting (shipped loose for field mounting and wiring)
 - 13. Pressure switch for low pressure monitoring
 - 14. Panel shall be UL listed
- B. Provide lightening arrestor as recommended by the manufacturer of the pumping unit.
- C. Provide reset (pump on) and low water cut-off (pump off) electrodes.

2.04 SUBMERSIBLE CABLE

- A. Cable to be the type recommended by the pump manufacturer.

2.05 MOTORS

- A. Provide each submersible pump with a water lubricated motor.
- B. Motor size and capacity shall be sufficient to be non-overloading under any condition of operation.
- C. Motor shall be designed to operate with power source indicated on drawings.

2.06 DROP PIPE

- A. Drop pipe shall be standard weight galvanized steel.

PART 3 EXECUTION

3.01 PRELIMINARY WORK

- A. Prior to pump installation, plumb well to determine if any obstructions exist.
- B. Remove all obstructions prior to pump installation.

COORDINATE ARTICLE BELOW WITH ELECTRICAL DESIGNER.

3.02 INSTALLATION

- A. Install submersible pump unit, including drop pipe, control equipment and submersible cable in well.
- B. Install submersible cable in rigid ferrous metal conduit between well cap and control box.

3.03 FIELD QUALITY CONTROL

- A. After installation, run a field test of each pumping unit.
- B. Test period shall be eight hours for each pumping unit.
- C. Correct all defects and leave complete pumping units in satisfactory operating condition.

END OF SECTION

SECTION 332002

PITLESS UNIT

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. Submersible Well Pump: Section 332001.

1.02 SUBMITTALS

- A. Product Data: Manufacturer's catalog sheets, specifications, and installation instructions.

1.03 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies: Obtain approval for pitless unit from NYS Health Department Bureau of Public Water Supply.

PART 2 PRODUCTS

2.01 PITLESS UNIT

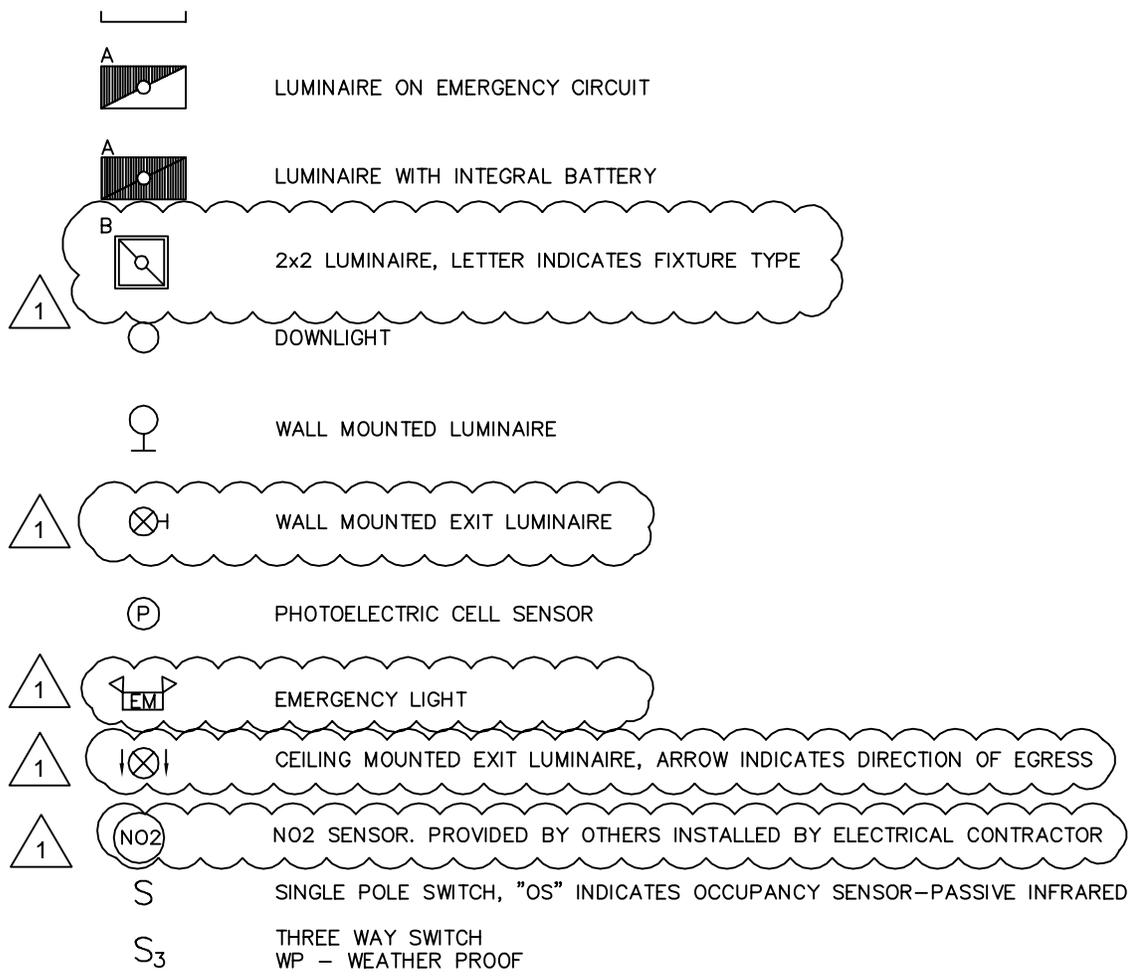
- A. Pitless Unit: Model No. 5PS67WBWE21.5T2S by Baker Mfg., Co., Evansville, Wisconsin or approved equal.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install the Work of this Section in accordance with the manufacturer's printed instructions and as indicated on the Drawings.

END OF SECTION



- 24. CONTRACTOR SHALL SIZE FOR VOLTAGE DROP PER CURRENT VERSION OF NEC AS ADOPTED BY THE AUTHORITY H
- 25. ALL ELECTRICAL MATERIALS SHALL BE INVENTORIED & RETURNED TO DOT. ITEMS REFUSED BY DOT SHALL BECOME ELECTRICAL CONTRACTOR.

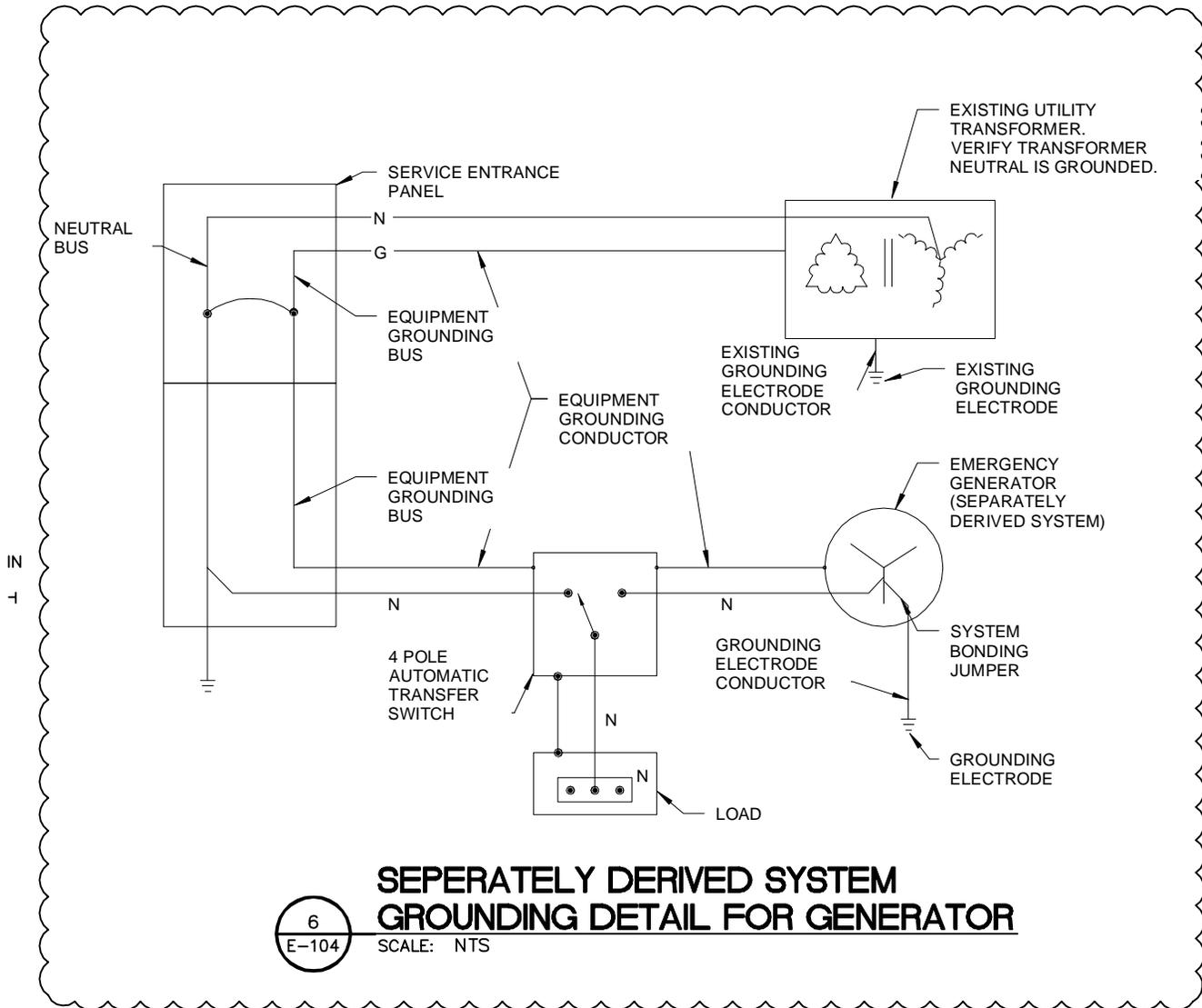
26. ELECTRICAL CONTRACTOR TO PROVIDE COORDINATED POWER STUDY AND ARC FLASH LABELING ON ALL PANELBOARDS AND ELECTRICAL DEVICES SUCH AS, BUT NOT LIMITED TO, SAFETY SWITCHES.



	SHEET TITLE: LEGEND AND GENERAL NOTES	
	PROJECT: PROVIDE MAINTENANCE SUBHEADQUARTERS	
CONTRACT: ELECTRICAL PROJ. NO: 44823 - E DATE: 6/27/2016 DRAWN: BBE APPROVED: NUB	WARNING: THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.	DWG NO: SKE-1

ITE LIGHTING CIRCUITRY &
 TO EP1.
 & 1-#10 Cu GND IN 3/4" C

1



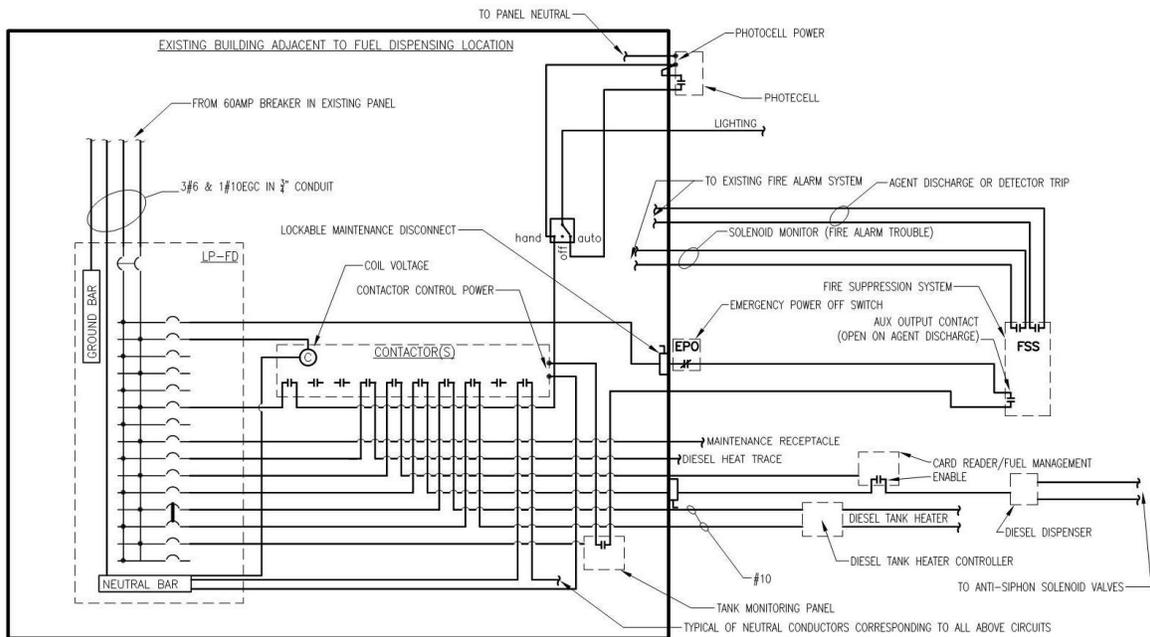
6
 E-104

SCALE: NTS

OGS
 NYS OFFICE OF GENERAL SERVICES
Serving New York

CONTRACT: ELECTRICAL
 PROJ. NO: 44823 - E
 DATE: 6/27/2016
 DRAWN: BBE
 APPROVED: NUB

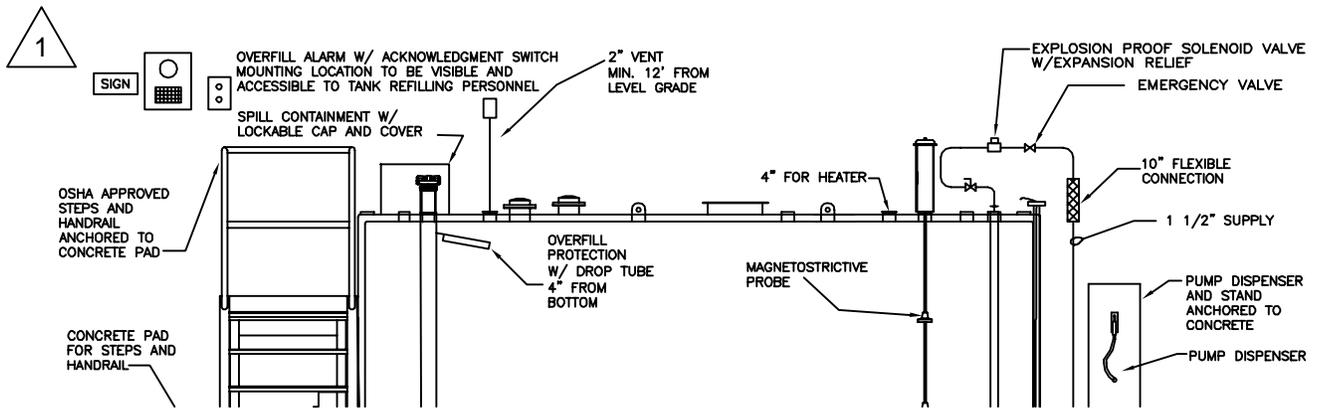
SHEET TITLE: RISER DIAGRAMS AND DETAILS	
PROJECT: PROVIDE MAINTENANCE SUBHEADQUARTERS	
WARNING: THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.	DWG NO: SKE-2



GENERAL NOTES:

- (THIS DRAWING ONLY)
- A. PROVIDE A 2 POLE 60 AMPERE TRIP ELEMENT BREAKER IN AN EXISTING PANEL AS DIRECTED. OR IF SUFFICIENT SPACE EXISTS IN AN EXISTING BREAKER, PROVIDE BRANCH BREAKERS IN THAT PANEL AS DIRECTED.
 - B. GROUNDING CONDUCTORS ARE TO BE PROVIDED IN ALL CONDUITS REGARDLESS OF WHAT IS DEPICTED ON THIS DIAGRAM.
 - C. PROVIDE ALL WIRING IN CONDUIT.
 - D. THE MAINTENANCE RECEPTACLE CONDUCTORS SHALL NOT BE ROUTED THROUGH THE CONTACTOR.
 - E. MOUNT THE PHOTOCELL ON THE EXTERIOR OF THE BUILDING AT APPROXIMATELY 10 FEET ABOVE GRADE AS DIRECTED.
 - F. MOUNT SAFETY SWITCHES OUTDOORS, IN SIGHT OF THE DISPENSING LOCATION, OUTSIDE OF THE HAZARDOUS AREA, AS DIRECTED. BREAK NEUTRAL CONDUCTORS IN SAFETY SWITCHES AS WELL.
 - G. COMPONENTS SHOWN ON THE DIAGRAM ARE TYPICAL, NOT ALL INSTALLATIONS WILL REQUIRE ALL OF THE COMPONENTS SHOWN.
 - H. PROVIDE THE NUMBER OF CONTACTORS AS REQUIRED TO OPEN ALL LINE AND NEUTRAL CONDUCTORS SHOWN ON THE DIAGRAM.
 - I. THE EMERGENCY POWER SWITCH SHALL BE LOCATED A MINIMUM OF 20 FEET FROM ALL DISPENSERS AND A MAXIMUM OF 100 FEET FROM ALL DISPENSERS AS DIRECTED.
 - J. SEALING FITTINGS ARE NOT SHOWN. PROVIDE SEALING FITTINGS AT LOCATIONS INDICATED BY AND DEPICTED IN ARTICLES: 500, 501, 511, 514 AND 515 OF THE 2008 NEC.
 - K. ABOVE GROUND TANKS: UNLESS SPECIFIED BY THE TANK MANUFACTURER, PROVIDE A GROUND ROD FOR EACH TANK WITH A MINIMUM OF A #2 GROUNDING CONDUCTOR BETWEEN THE TANK AND THE ROD.
 - L. ALL COMPLETED RACEWAY SYSTEMS SHALL BE INSPECTED AND APPROVED PRIOR TO CONDUCTORS BEING INSTALLED.
 - M. MINIMUM CONDUCTOR SIZE #12 UNLESS OTHERWISE NOTED.
 - N. LOCATE THE MAINTENANCE RECEPTACLE AS DIRECTED OUTSIDE OF THE HAZARDOUS AREA.

5 **TYPICAL FUEL ISLAND ONE LINE DIAGRAM**
 E-105 SCALE: NTS



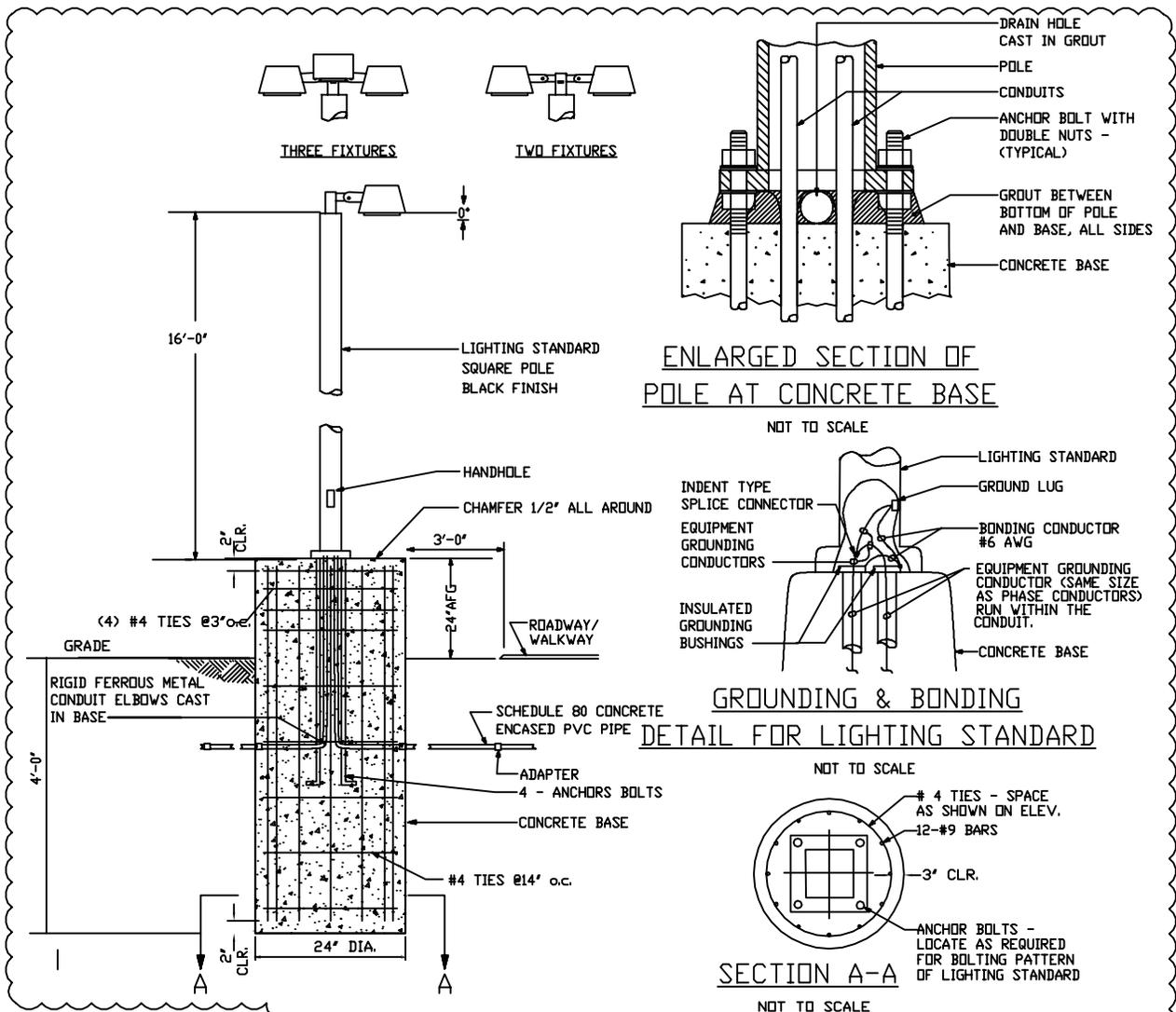
CONTRACT: ELECTRICAL
 PROJ. NO: 44823 - E
 DATE: 6/27/2016
 DRAWN: BBE
 APPROVED: NUB

SHEET TITLE: RISER DIAGRAMS AND DETAILS

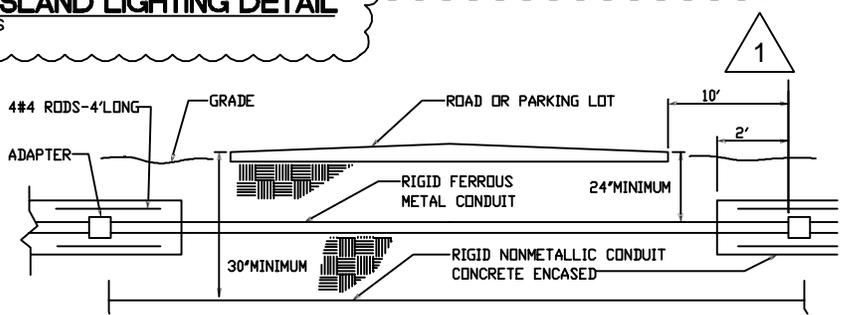
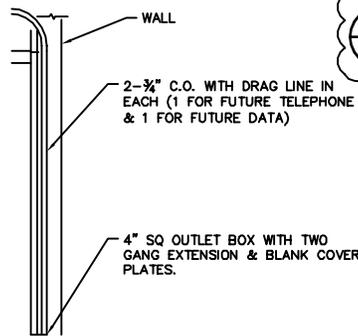
PROJECT: PROVIDE MAINTENANCE SUBHEADQUARTERS

WARNING: THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.

DWG NO: **SKE-3**



3 FUEL ISLAND LIGHTING DETAIL
 E-106 SCALE: NTS



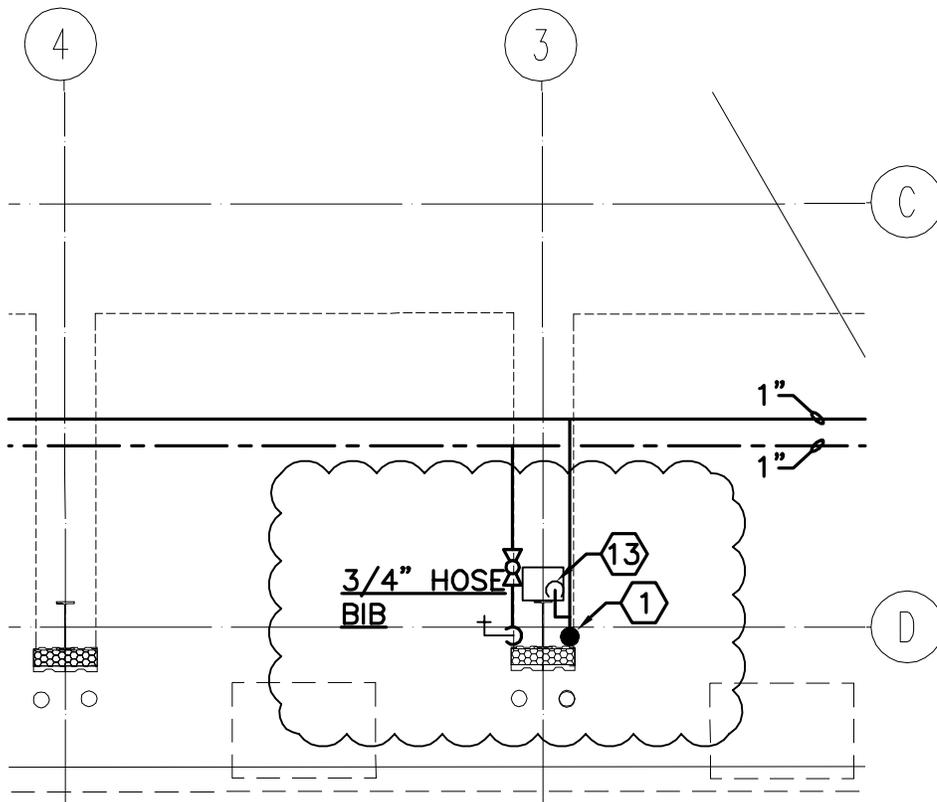
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CONTRACT:	ELECTRICAL
PROJ. NO:	44823 - E
DATE:	6/27/2016
DRAWN:	BBE
APPROVED:	NUB

SHEET TITLE:	LUMINAIRE SCHEDULES AND DETAILS
PROJECT:	PROVIDE MAINTENANCE SUBHEADQUARTERS
WARNING: THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.	DWG NO: SKE-4

KEYED NOTES:

- ⑩ 3/4" HW-DROP, 1" CW-DROP TO MASTER MIXING VALVE. 1" HW-RISE TO CIELING. SEE DETAIL 2/PL-104.
 - ⑪ 2" CW UP TO FILTER DISINFECTANT STATION AND HYDRO-PNEUMATIC TANK SYSTEM.
 - ⑫ AIR COMPRESSOR (10 H.P.) AND VERTICAL STORAGE (80 GAL. CAP.) 208 VOLTS, 3 PHASE SERVICE (REF. ELECTRICAL) PROVIDE CONCRETE PAD.
- ⑬ 1/2" CA CONNECTION TO 4-WAY AUTOMATIC TIRE INFLATOR. CONNECT PER MANUFACTURER'S INSTRUCTIONS AND ENCASE WITH 14 GAUGE STEEL CABINET. REF. SPECIFICATION 221520.



1
P-103

SUPPLY PIPING PLAN

SCALE: 1/8" = 1'-0"



NORTH



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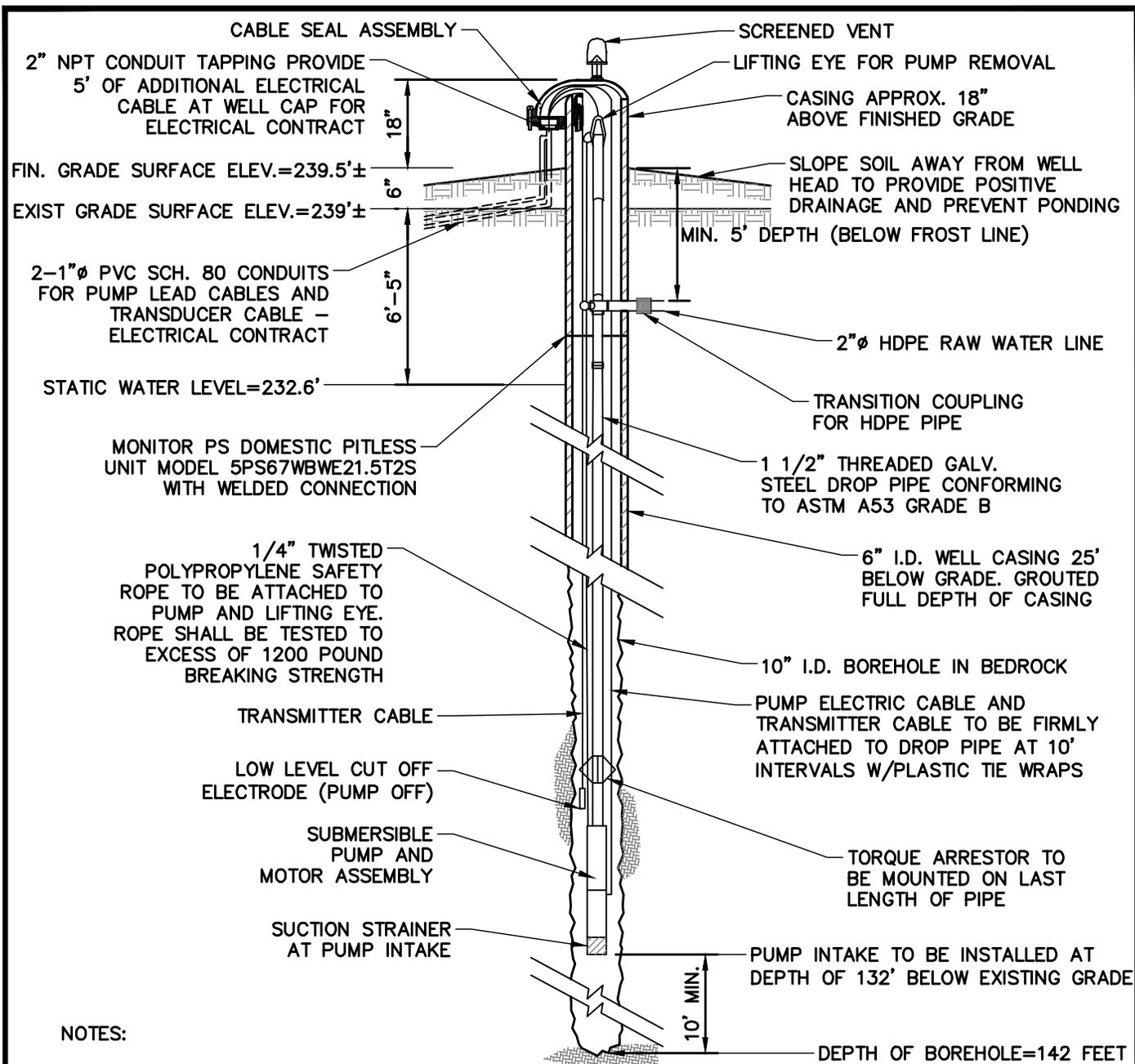
CONTRACT: PLUMBING
 PROJ. NO: 44823 - E
 DATE: 6/10/2016
 DRAWN: CJH
 APPROVED: JA

SHEET TITLE: SUPPLY PIPING PLAN

PROJECT: PROVIDE MAINTENANCE SUBHEADQUARTERS

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DWG NO:
SKP-1



NOTES:

1. DISINFECT WELL IN ACCORDANCE WITH AWWA STANDARD C654 (LATEST EDITION).
2. PROVIDE AND INSTALL MYERS 4" SUBMERSIBLE PUMP MODEL SS30-25 WITH SUCTION STRAINER, NPT DISCHARGE, BUILT IN CHECK VALVE AND 2 30V/1Ø/60HZ 3 HP PENTEK MOTOR MODEL P43B0030A2.
3. PITLESS WELL UNIT SHALL BE FURNISHED WITH A LOCKING WELL CAP.
4. RAW WATER LINE SHALL BE HDPE PIPE CONFORMING TO AWWA C901, ASTM D3350 AND ASTM D2737.
5. NEWLY INSTALLED WELL PUMP SHALL BE TESTED BEFORE ACCEPTANCE OF WORK IN THE PRESENCE OF THE PROJECT ENGINEER TO INSURE THAT THEY DELIVER THE DESIGN FLOW RATE.

1 WELL DETAIL
SCALE: NTS

 DESIGN & CONSTRUCTION	 Engineering and Land Surveying, P.C. <small>1533 Crescent Road - Clifton Park, NY 12065</small>	SHEET TITLE: <p style="text-align: center;">WELL DETAIL</p>
CONTRACT: CONSTRUCTION PROJ. NO: 44823-C DATE: 07/21/2016 DRAWN: MLB APPROVED: WPL		PROJECT: <p style="text-align: center;">PROVIDE MAINTENANCE SUBHEADQUARTERS</p>
		WARNING: THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS "A" MISDEMEANOR.
		DWG NO: <p style="text-align: right;">SKC-1</p>