

**EASTON DEPARTMENT OF PUBLIC WORKS  
EASTON, MASSACHUSETTS**

**RED MILL ROAD WATER TREATMENT PLANT  
CONTRACT DPW-2022-05**

**ADDENDUM NO. 3**

**November 5, 2021**

**NOTICE TO ALL BIDDERS:**

Sealed Bids from pre-qualified Subcontractors for the filed sub-bid categories designated herein will be received until **2:00 PM prevailing time on Wednesday, November 10, 2021** for the following filed sub-bids:

- Masonry
- Miscellaneous and Ornamental Iron
- Waterproofing, Damp Proofing and Caulking
- Painting
- Plumbing
- Heating, Ventilation and Air Conditioning
- Fire Protection
- Electrical Work

All filed sub-bids shall be submitted online at [www.Projectdog.com](http://www.Projectdog.com) and entitled “[**Filed Sub-bid Classification**] **Filed Sub-bid for the Red Mill Road Water Treatment Plant, Town of Easton, Massachusetts**” All electronic bids are compiled in real time upon bid close and published forthwith on ProjectDog. Official sub-bid tabulations shall be posted on ProjectDog.

Sealed Bids from pre-qualified General Bidders will be received until **2:00 p.m. prevailing time on Tuesday, November 23, 2021**. All bids shall be submitted online at [www.Projectdog.com](http://www.Projectdog.com) and entitled “**Red Mill Road Water Treatment Plant, Town of Easton, Massachusetts**” All electronic bids are compiled in real time upon bid close and published forthwith on ProjectDog. Official bid tabulations shall be posted on ProjectDog.

A non-mandatory pre-bid meeting was held at the project site, 12 Red Mill Road, Easton, MA 02375 on **October 13, 2021 at 10:00 a.m.**

The attention of all eligible bidders submitting bids for the above referenced project is called to the following Addendum to the drawings and specifications (Contract Documents). The items set forth herein, whether of omission, addition, substitution, or clarification, are all to be included in and form a part of the proposed work.

Any and all addenda shall be posted online at Projectdog.com. Each individual or firm recorded as having received the contract documents will be notified by email if and when addenda are issued. Hard copies of addenda will not be mailed or faxed to plan holders. It is the sole responsibility of the Bidder to review any and all addenda prior to the bid opening either online or at the offices of Projectdog, Inc.

If a bid is submitted prior to an Addendum being issued, the Bidder will receive an e-mail notification for informational purposes only. The Bidder must review the addendum, retract the bid, acknowledge all addenda, and re-submit the bid. If a Bidder fails to acknowledge all addenda their bid may be rejected by the Awarding Authority.

*This Addendum addresses the following:*

- *Specifications and Drawings*
- *Questions from Contractors and Answers*
- *Supplemental Information*

### **SPECIFICATIONS AND DRAWINGS**

Make the following changes, revisions, additions, and/or deletions to the Contract Documents:

#### **Specification Section 02060 – SITE CLEARING**

- Delete Paragraph 3.3-B.

#### **Specification Section 02274 – GEOMEMBRANE LINER**

- Under Paragraph 3.4-C, add the following:  
*“10. Seaming shall be a continuous process with minimum interruption along any given seam.”*

#### **Specification Section 02513 – BITUMINOUS CONCRETE PAVEMENT**

- Delete Paragraph 3.6-B-3 and replace with the following:  
*“Apply tack coats when ambient temperature is above 50°F and when temperature has not been below 35°F for 12 hours immediately prior to application.”*

#### **Specification Section 02550 – SIGNAGE**

- Under Paragraph 2.1, add the following:  
*“D. Each Well Station shall be provided with a weather resistant metallic sign that reads “WELL STATION [INSERT NUMBER]”*

#### **Specification Section 02570 – PRECAST MANHOLES, DRYWELLS, AND APPURTENANCES**

- Delete Paragraph 2.5-D and replace with the following:  
*“D. Pipe shall be 3-hole perforated by manufacturer for applications as indicated in the contract drawings.”*
- Delete Paragraph 2.7-A-1 and replace with the following:  
*“1. Structure: Precast concrete unit (5,000 psi minimum compressive strength) capable of holding 1,500 gallons below pipe inlet. Tank shall be two piece construction, one pour monolithic top and bottom section conforming to ASTM C150-81. Top section shall include at least two twenty-four*

*inch (24") diameter (minimum) openings. Reinforcement per ASTM C1227. All units shall be designed for HS-20 loading."*

- Delete Paragraph 3.9-A and replace with the following:  
*"A. On completion of a section of gravity main, including the sanitary waste lines, clearwell overflow, residual lines, and decanter lines, the Contractor shall install suitable bulkheads as required, dewater and test the gravity main for leakage."*

#### **Specification Section 02615 – DUCTILE IRON PIPE AND FITTINGS**

- Delete Paragraph 3.3-G and replace with the following:  
*"G. The Contractor shall have on hand at the start of the job the following additional bends for each size of yard piping to be installed: two 1/32 bends, two 1/16 bends, and two 1/8 bends. These bends shall be replaced each time job conditions require their use."*

#### **Specification Section 02640 – FIRE HYDRANTS, VALVES, AND APPURTENANCES**

- Under Paragraph 2.1, add the following:  
*"G. Side actuated gate valves shall be equipped with an enclosed miter gear yielding a 1:1 gear ratio. Valve stems shall be sealed by three O-rings. Two of the O-rings shall reside above the thrust collar. O-rings set in a cartridge shall not be allowed. The valve shall also be equipped with thrust washers above and below the stem thrust collar for reduction of operating torque."*

#### **Specification Section 08710 – DOOR HARDWARE**

- Delete Paragraph 2.3-E-2 and replace with the following:  
*"2. Roses: Wrought, style B."*

#### **Specification Section 11310 – VERTICAL TURBINE PUMPS**

- Delete Paragraph 2.2-A.9. and replace with the following:  
*"9. To accommodate pump removal, pump column shall be fabricated in uniform interchangeable sections (10-feet long, maximum). For a pump column with diameter of 10-inches or smaller, the column shall be connected by threaded and coupled arrangement. For a pump column with diameter of 12-inches or larger, the column shall be connected by flanged and standard mounting. Proper column sizing shall be the responsibility of the manufacturer. Refer to Paragraph 1.4 for additional requirements."*

#### **Sheet C-1**

- Delete Note 6 under "CONSERVATION NOTES" and replace with the following:  
*"6. A SIGN SHALL BE POSTED AT THE LIMIT OF WORK READING "ABSOLUTELY NO WORK BEYOND THIS POINT" TO THE SATISFACTORY OF THE CONSERVATION COMMISSION. SIGNS SHALL BE SUFFICIENT SIZE AS TO BE EASILY READ FROM A*

*DISTANCE OF 15 FEET AND BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. SIGNS SHALL BE INSTALLED A MINIMUM OF 20 FEET APART. PERMANENT SETBACK MARKERS/CONSERVATION POSTS, INSTALLED IN CONCRETE FOOTINGS OR ENGINEER-APPROVED MATERIALS, SHALL BE INSTALLED SIMULTANEOUSLY WITH THE ABOVE NOTED SIGNAGE AT THE DIRECTION OF THE CONSERVATION COMMISSION."*

#### **Sheet C-8**

- Add the following callout to the oxidized water flushing hydrant shown in Inset Plan B:  
"OXIDIZED WATER FLUSHING HYDRANT ASSEMBLY (REFER TO DETAIL ON SHEET C-18 FOR PAINTING REQUIREMENTS)"

#### **Sheet C-13**

- Add the following note under "NOTES":  
"8. CONTRACTOR SHALL SUBMIT AN EXTERIOR UTILITY SEQUENCING PLAN FOR REVIEW AND APPROVAL BY ENGINEER/OWNER."

#### **Sheet C-14**

- In the callout for the limits of paving on Norton Avenue "LIMITS OF 2" MILL AND OVERLAY (TYP.) (REFER TO SHEET C-15 FOR RED MILL ROAD PAVING PLAN", change "2" MILL AND OVERLAY" to "1 ½" MILL AND OVERLAY".

#### **Sheet E-26**

- Add the following notes under "Ductbank Section Notes":  
"5. Ductbank concrete shall be 4500 psi and shall meet the requirements of Specification Section 03300 and Sheet S-9.  
6. Ductbank rebar shall be #5 with ties spaced at 24" and meet the requirements of Specification Section 03300 and Sheet S-9."

#### **Sheet I-4**

- In the "ULTRASONIC LEVEL SCHEDULE" table, change the "VOLTAGE" column contents for LIT-511, LIT-611, LIT-711, and LIT-811 from "LOOP POWERED" to "120V".

### **QUESTIONS AND ANSWERS**

Question 1: Can you provide a sign schedule? The specs only state material and such, but not what, where, and quantities that you want.

*Answer 1: This question will be answered in Addendum #4.*

Question 2: Door Schedule, Plan A-11; Should Door #05 from electric room 107 be fire-rated?  
If yes, advise rating required.

*Answer 2: Refer to the Door/Frame schedule on Drawing A-11.*

Question 3: Finish Hardware 08710, PP.2.3.E.2 lists both escutcheon trim and rose trim at locks.  
Escutcheon trim is slightly higher cost. Which trim is required?

*Answer 3: Refer to Addendum #3.*

Question 4: Finish Hardware 08710, PP.2.6.A states “Keying System (By Owner)” Please confirm this is correct. If this is not correct, and a high security system to match existing is required per PP.2.5 & 2.6, can you please provide the manufacturer name and series of the existing key system? Costs can vary widely depending on what it is.

*Answer 4: Refer to Specification Section 08710 – Door Hardware, Paragraphs 2.5 and 2.6. For information, the Owner states that the existing system is “Medeco X4 System on a Town of Easton End User Keyway.”*

Question 5: Please confirm the scales noted on the plans and the scale bars are showing the correct scales for all of the Civil Drawings.

*Answer 5: Yes, all scales noted on the plans are correct. Refer to Addendum No. 2.*

Question 6: Please provide the test pit boring logs for test pit #3 and #4 by Briggs Engineering.

*Answer 6: Test Pits #3 and #4 were performed by Merrill Engineers. Refer to Forms 11 and 12 in Appendix C of the Specifications.*

Question 7: Please confirm if reinforcing steel is required in the electrical and communication duct banks. Also, if required, the size of the rebar and spacing required. Also the type and strength of concrete required.

*Answer 7: Refer to Addendum No. 3.*

Question 8: Would red dyed concrete be considered in lieu of reinforcing steel in the electrical and communication duct banks?

*Answer 8: Refer to Specification Section 00100 – Instructions to Bidders, Paragraph 18 – Equal Products Acceptable.*

Question 9: Norton Rd. Mill and overlay, the drawings are ambiguous, is the required mill and overlay depth 1 ½” or 2”?

*Answer 9: Refer to Addendum No. 3.*

Question 10: Please confirm what the ¾" conduit to the 1,500 gallon septic tank is for. The electrical drawings show a ¾" conduit, IS Barrier Panel and junction box. What is this feeding in the tank?

*Answer 10: Refer to Drawings C-9 (Inset Plan C), C-12, and E-17. The conduit is for the septic tank high level float switch (LSH-981).*

Question 11: Please provide detail drawings for 12" residual cleanouts and 4" decanter cleanouts.

*Answer 11: Refer to Drawing C-23 for the "Gravity Pipe Cleanout Detail".*

Question 12: The 4'h orange construction fence detail in front of the filter sock erosion controls shows steel posts @ 10' on center. This steel post will increase the cost for this item by Thousands of dollars, whereas the use of standard wooden post will only cost hundreds of dollars. Can wood posts be substituted for this short duration (20 month) project?

*Answer 12: Refer to Specification Section 00100 – Instructions to Bidders, Paragraph 18 – Equal Products Acceptable.*

Question 13: Please clarify the Reclamation limits on Red Mill Rd between drawing C-6 (grading) and C-15 (paving plan). Limits do not appear to be in the same location on the drawings.

*Answer 13: Paving limits on Red Mill Road are not shown on Drawing C-6. Refer to Drawing C-15 for the Paving Plan.*

Question 14: Please confirm silty sand sieve size requirements per Specification section 02200-2.1-H. Soil description states free from clay and fine grained silts, however gradation specs show up to 30% of material passing the #200 sieve, which usually indicates a high silt content with clay included in the soil. Please confirm/clarify this material requirement.

*Answer 14: Material passing through the #200 sieve shall be silt and free from clay, as defined in Specification Section 02200 – Earthwork, Paragraph 2.1-H – Silty Sand.*

Question 15: Would you kindly provide us with the sign in sheet for the 10/13/21 Pre-bid meeting for the project stated in the subject line?

*Answer 15: Refer to Addendum No. 2.*

Question 16: What do you require to name Tonka Water as a qualified iron and manganese system supplier (Section 11201)? I re-read your specifications and have found the following with regard to qualification of a manufacturer. Please see attached for (i) & (ii). My contact information, below, can be used to fulfill requirement (iii). My supervisor is Mary Sitko. Another technical resource during the warranty period will be the project manager. After the warranty period our Aftermarket Sales group provides excellent technical support (Jeff Emerson).

*Answer 16: Specification Section 00100 – Instructions to Bidders, Paragraph 18 – Equal Products Acceptable; Specification Section 01300 – Submittals, Paragraph 1.5; and Specification Section 11201 – Iron and Manganese Removal System, Paragraph 2.2.*

Question 17: With reference to the Easton WTP Addendum # 2 {Evidence of Authority question}, you state that a DCAMM Update statement will satisfy the Evidence of Authority. The bid already has a place for the DCAMM Update Statement. Do we attach the DCAMM Update Statement in both places?

*Answer 17: Yes, if using the DCAMM Update Statement to satisfy the “Evidence of Authority to do Business in the State” requirement, then the bidder may upload it in both locations.*

Question 18: Quick question on the Red Mill Road project, just looked over addendum 2 and saw that the column pipe is to be flanged, is that only required for the internal plant pumps or does that also include the well pumps? Typically the well pumps are T&C for ease of installation/removal, flanged would be more common on larger diameter pipe and deeper sets.

*Answer 18: Refer to Addendum No. 3.*

Question 19: I see Section 01063 page 4 (Miscellaneous Requirements) 1.11 Drone photography. That calls for a minimum of 4 pre-con drone shots and at least 4 drone photos on a monthly basis, but it says nothing more. Selective Demo also mentions pre-con photos. It seems like I may be missing something. Do you not want detailed monthly ground level site shots and views of the inside of the new building as it goes up?

*Answer 19: No. Refer to Specification Section 01603 – Miscellaneous Requirements, Paragraph 1.11-A for drone photography requirements.*

Question 20: On reviewing the relevant specification for Red Mill Road Water Treatment Plant in Easton, MA (section 11200 part 2.13), it is our opinion that Limitorque fits the description for electric valve operators.

*Answer 20: Refer to Specification Section 00100 – Instructions to Bidders, Paragraph 18 – Equal Products Acceptable and Specification Section 01300 – Submittals, Paragraph 1.5.*

Question 21: Per Section 11600, 2.3, A – calls out for 2 compact refrigerators. But on drawing A-9, it shows one full size refrigerator/freezer. Which one do you want?

*Answer 21: This question was redacted.*

Question 22: Will tree trimming/pruning be required along Red Mill Rd. for WTP equipment access to site? If required, how will it be paid?

*Answer 22: Refer to Specification Section 00100 – Instructions to Bidders, Paragraph 14 – Site Examination and Drawing G-2, General Notes #6.*

Question 23: Spec #02060 Site Clearing, paragraph 3.3, disposal, Terrestrial Invasive plants per Ct. Standards. Are there invasive species plants on site which will require treatment? Please quantify and state how this treatment is to be paid. Also, will need MA standards for the treatment of invasive species, if required, not Ct standards.

*Answer 23: Refer to Addendum No. 3.*

Question 24: In accordance with MGL, Chp 30, Sec 38a- Please provide price index for escalation calculations for asphalt, concrete, steel, etc. for this project.

*Answer 24: The Price Adjustment Law only applies to certain projects bid under Chapter 30, Section 39M and does not apply to projects bid under Chapter 149.*

Question 25: Per Conservation Commission Order of Conditions- general special conditions 4.-Signs “absolutely no work beyond this point” – need quantity of signs required. Also, Permanent setback markers/conservation posts, need detail, quantity, and layout locations.

*Answer 25: Refer to Addendum No. 3.*

Question 26: Item #5, Rock excavation --- Should this be two items, 1 for open rock and 1 for trench rock?

*Answer 26: All rock excavation for this project falls under Item #5 of the Bid Form (Specification Section 00301).*

Question 27: Please provide details for the following:

- a) 4” and 12” Plug Valves with Handwheel
- b) 12” side activated gate valve
- c) 12” Flapper check valve

*Answer 27: Refer to Specification Section 02640 – Fire Hydrants, Valves, and Appurtenances Paragraph 2.2 for information regarding plug valves. Refer to Specification Section 02640 – Fire Hydrants, Valves, and Appurtenances, Paragraph 2.1 and Addendum #3 for information regarding gate valves. Refer to Specification Section 02640 – Fire Hydrants, Valves, and Appurtenances, Paragraph 2.5 for information regarding flapper check valves.*

Question 28: Spec Section 02513 Subsection 3.8D states permanent overlay will be in 2 courses -- impractical with only a 1 ½” overlay thickness. Please clarify.

*Answer 28: The permanent pavement overlay is 1 ½” HMA top course and 2 ½” HMA binder course, refer to pavement details on Drawing C-22.*

Question 29: Spec Section 02513 Subsection 3.6B.3 states the use of prime coat – Prime coat not customarily allowed due to environmental regulations. Please clarify.

*Answer 29: Refer to Addendum No. 3.*

Question 30: Specs calling for DR 17 HDPE for the underdrain perforated pipe with fusion welded joints. Fusion welding not usually performed on drainage pipes. What are the perforated pipe requirements for this pipe, i.e, hole size and frequency, etc.?

*Answer 30: Refer to Addendum No. 3, Specification Section 02570 – Precast Manholes, Drywells, and Appurtenances, Paragraph 2.5, and Drawings C-11 and C-24.*



Question 31: Please confirm size of Septic Tank. It is noted as a 1500 gallon tank, however other notes reference 2000 gallon liquid level in tank. Please confirm size.

*Answer 31: The septic tank is 1,500 gallons. Refer to Addendum No. 3.*

Question 32: Reference is made to supplying additional bends for DIP, i.e. - 2 ea 1/32, 1/16, 1/8. Does this apply to each size of pipe for yard piping, 4, 6, and 12", or is this only for the process piping inside the building?

*Answer 32: Refer to Addendum No. 3.*

Question 33: What are the testing requirements for the residual and decanter DIP lines?

*Answer 33: Refer to Specification Section 02570 – Precast Manholes, Drywells, and Appurtenances, Paragraph 3.9, and Addendum No. 3.*

Question 34: Please confirm that the electrical room 107 and mechanical room 108 walls and ceilings are NOT to be painted.

*Answer 34: Refer to Drawing A-4.*

Question 35: Please confirm that HVAC ductwork is not to be painted.

*Answer 35: Refer to Specification 09900 – Painting and Coatings, Paragraph 1.2-C-1-iii and Paragraph 3.3-F-4.*

Question 36: Please provide clarification of Details for the 12" residual line cleanouts, as well as the 4" decanter line and dry sink line cleanouts. Are these cleanouts insulated per the gravity pipe cleanout detail on Drawing C-23?

*Answer 36: Refer to Drawing C-23 for the "Gravity Pipe Cleanout Detail".*

Question 37: Please provide updated Massachusetts Wage Rates for this project to include applicable wages for the project duration.

*Answer 37: Refer to Appendix A of the Specifications; updated wage rates shall be provided annually to the Contractor by the Awarding Authority.*

Question 38: With reference to the Easton WTP project {addendum # 2} the answer regarding Evidence of Authority. One of the documents we can use is the DCAMM Update statement. Does this mean we have to upload twice? Once for the Evidence of Authority, another for the DCAMM Update Statement & Cover Sheet.

*Answer 38: If using the DCAMM Update Statement to satisfy the "Evidence of Authority to do Business in the State" requirement, then the bidder may upload it in both locations.*

Question 39: Drawing E-15, note 1 and drawing E-16, note 1 both say to provide a lightning protection system for the entire building (Well Station 3 and 7). To be able to accurately price this, information is needed about these existing buildings.

Are there existing roof plans or elevation drawings (or pictures)?

Are the roofs flat or A frames?

What type of roofing material exists – shingle, tile, gravel, rubber, metal?

Are there any hatches, chimneys, flues, vent pipes, HVAC or mechanical equipment on the roof?

*Answer 39: Refer to Appendix L for the well station record drawings. Site visits can be scheduled to obtain additional information per Specification Section 00100 – Instructions to Bidders, Paragraph 14 – Site Examination.*

Question 40: How we can be listed as an approved option in the Solid Plastic Locker Specs? (see attached for Product/Comparison Info)? If you had considered Phenolic in lieu of Solid Plastic for the Lockers? We make both but Phenolic is a superior product and with the current increase in Solid Plastic pricing, Phenolic would be less costly.

*Answer 40: Refer to Specification Section 00100 – Instructions to Bidders, Paragraph 18 – Equal Products Acceptable.*

Question 41: Section 15900 2.1.A.19 mentions a Johnson Controls Hood Management System & accessories. Please confirm that this will be required for this project? Also, is this system required to be factory mounted or will field installation be acceptable as well?

*Answer 41: Yes, Johnson Controls Hood Management System & accessories will be required for this project. The system is required to be factory mounted per Specification Section 15900 – Laboratory Fume Hoods, Paragraph 2.1-A-19.*

### **SUPPLEMENTAL INFORMATION**

Attachment 1 – Pavement Plan for Red Mill Road Intersection SK-3

Attachment 2 – Revised Contract Drawings E-9, E-13, E-17, and E-28

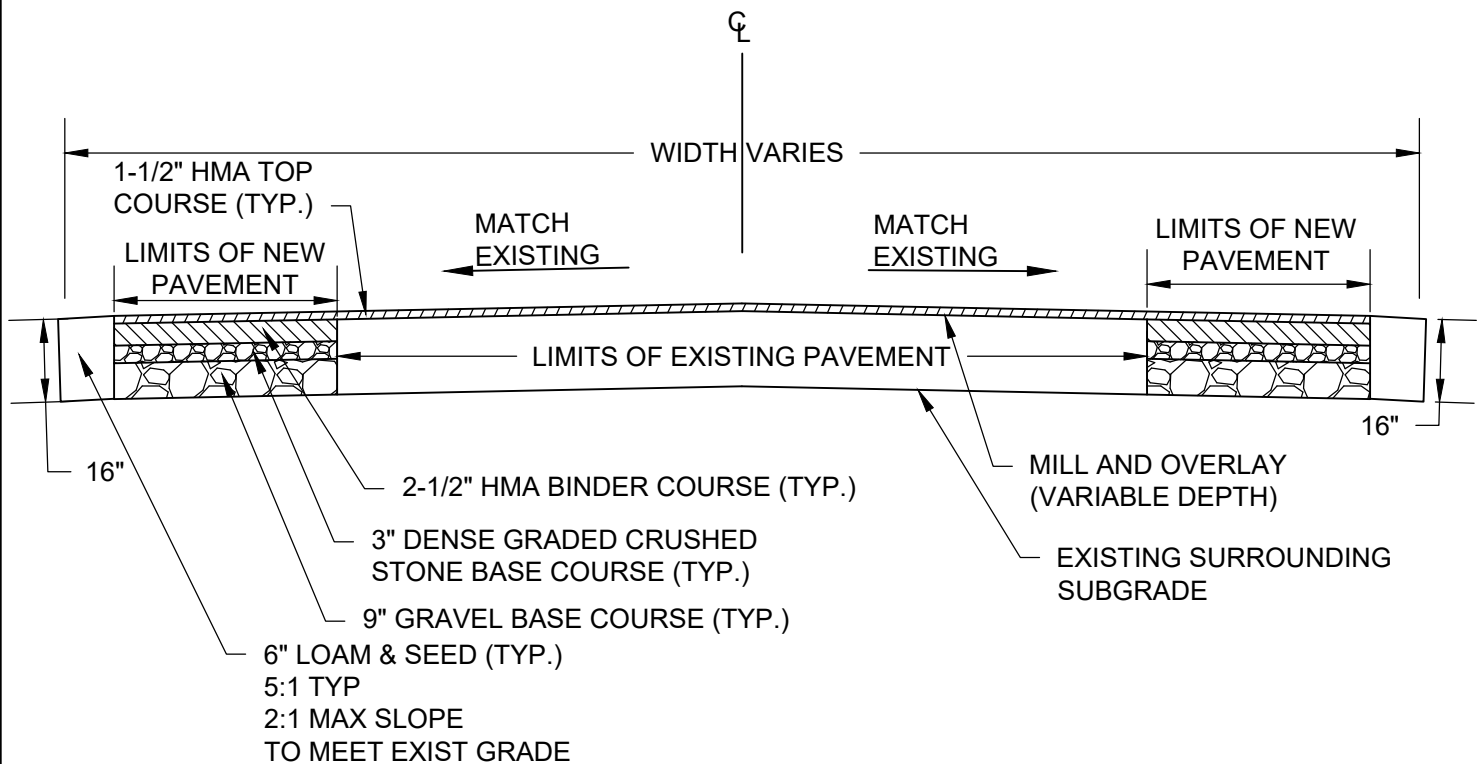
Attachment 3 – Revised Contract Drawing I-9

### **END OF ADDENDUM NO. 3**

**EASTON DEPARTMENT OF PUBLIC WORKS  
EASTON, MASSACHUSETTS  
RED MILL ROAD WATER TREATMENT PLANT  
CONTRACT DPW-2022-05**


**ADDENDUM NO. 3**

**ATTACHMENT 1**



## DETAIL

NOTES:

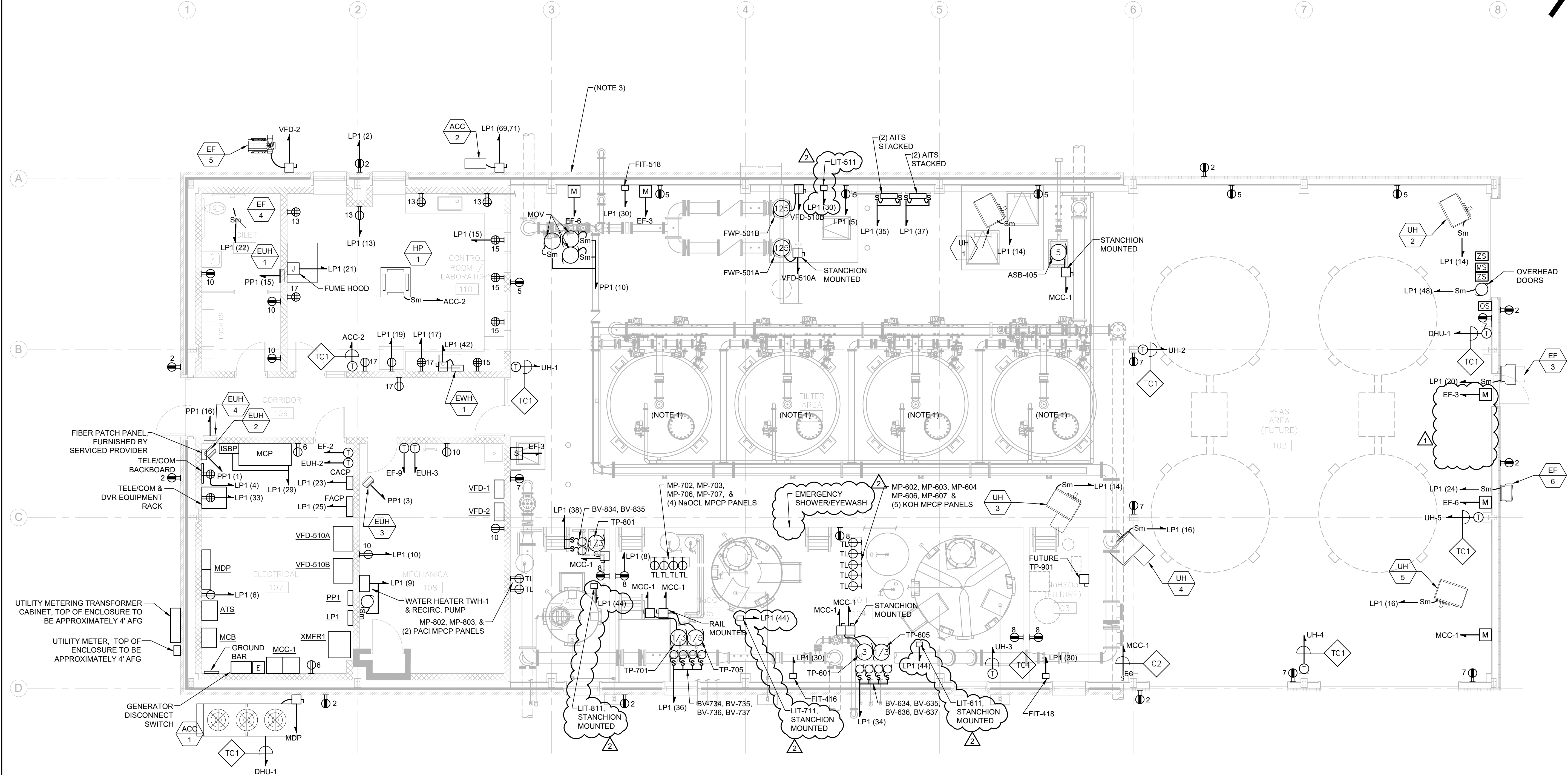
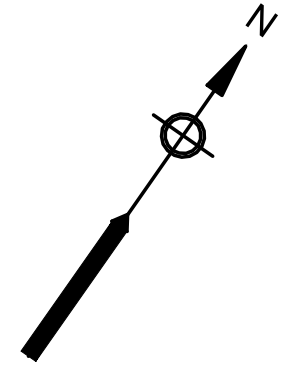
 <b>ENVIRONMENTAL</b> <b>PARTNERS</b> — An Apex Company —	NOVEMBER 2021	RED MILL ROAD WATER TREATMENT PLANT
	DPW-2022-05	ADDENDUM NO. 3
	SK-3	PAVEMENT PLAN FOR RED MILL ROAD INTERSECTION

**EASTON DEPARTMENT OF PUBLIC WORKS  
EASTON, MASSACHUSETTS  
RED MILL ROAD WATER TREATMENT PLANT  
CONTRACT DPW-2022-05**

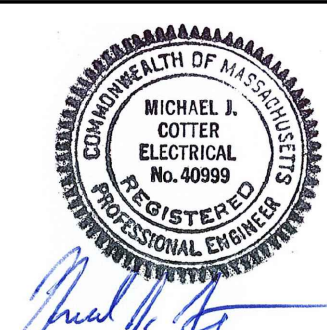
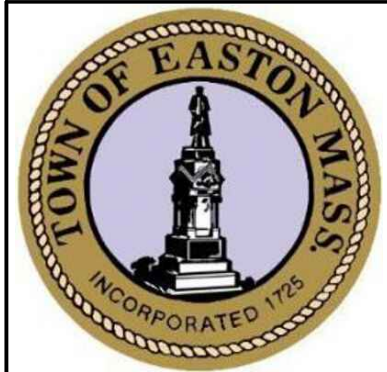
**ADDENDUM NO. 3**



**ATTACHMENT 2**

- NOTES:
1. REFER TO M-DRAWINGS AND I-DRAWINGS FOR LOCATIONS OF FILTER VALVES AND INSTRUMENTATION
  2. REFER TO M-DRAWINGS, P-DRAWINGS, FP-DRAWINGS AND H-DRAWINGS FOR EQUIPMENT LOCATIONS
  3. PROVIDE A LIGHTNING PROTECTION SYSTEM FOR THE ENTIRE BUILDING, REFER TO SPECIFICATION 16601 FOR REQUIREMENTS.



PLAN  
SCALE: 3/16" = 1'-0"



	10/21/21	ADDENDUM NO. 2	Scale	AS NOTED
	11/05/21	ADDENDUM NO. 3	Date	AUGUST 2021
			Job No.	307-2002
			Designed by	RLB
			Drawn by	RLB
			Checked by	MC
MARK	DATE	DESCRIPTION	Approved by	MC

Scale	AS NOTED
Date	AUGUST 2021
Job No.	307-2002
Designed by	RLB
Drawn by	RLB
Checked by	MC
Approved by	MC

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

RED MILL ROAD WATER TREATMENT PLANT  
TOWN OF EASTON, MA

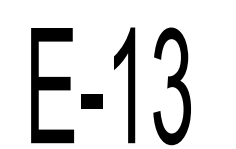
ELECTRICAL  
WTP FIRST FLOOR POWER PLAN

FOR CONSTRUCTION  
Sheet No.

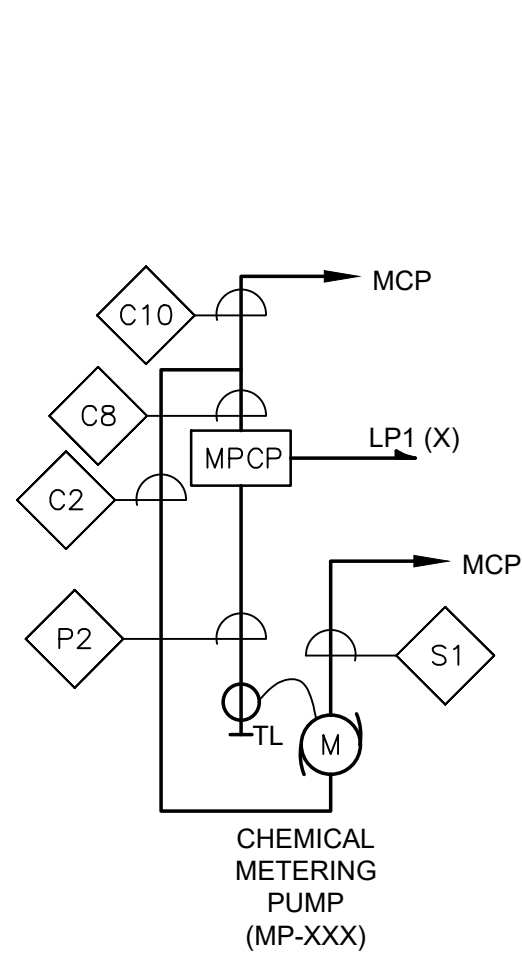
E-9



1. REFER TO M-DRAWINGS AND I-DRAWINGS FOR LOCATIONS OF FILTER VALVES AND INSTRUMENTATION
2. REFER FP-DRAWINGS FOR EQUIPMENT LOCATIONS



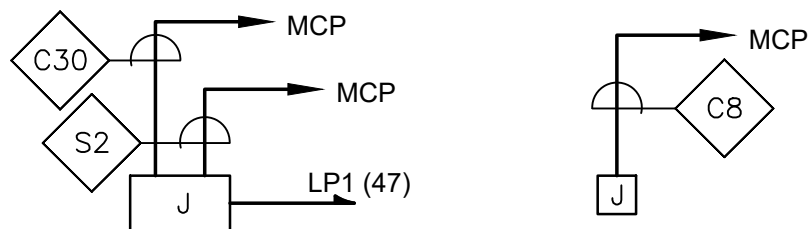




TYPICAL FOR: MP-602 - LP1(39), MP-603 - LP1(41), MP-604 - LP1(39), MP-606 - LP1(41), MP-607 - LP1(39), MP-702 - LP1(43), MP-703 - LP1(45), MP-706 - LP1(43), MP-707 - LP1(45), MP-802 - LP1(41), MP-803 - LP1(43)

BLOCK WIRING DIAGRAM  
CHEMICAL METERING PUMPS

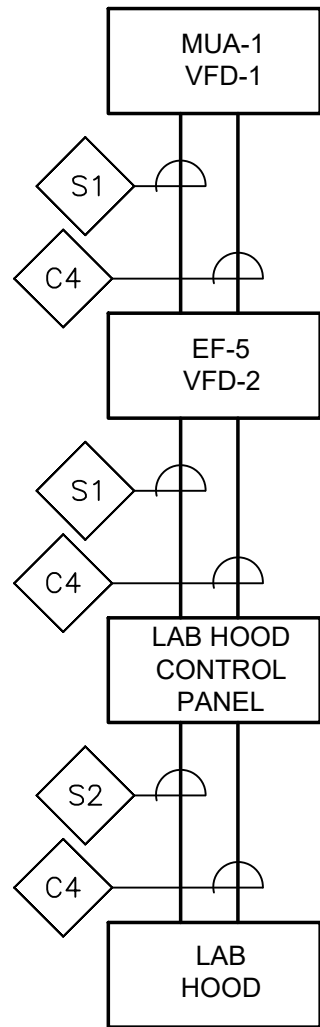
NOT TO SCALE



BLOCK WIRING DIAGRAM  
FUTURE NaHSO3  
CHEMICAL METERING AND TRANSFER PUMPS

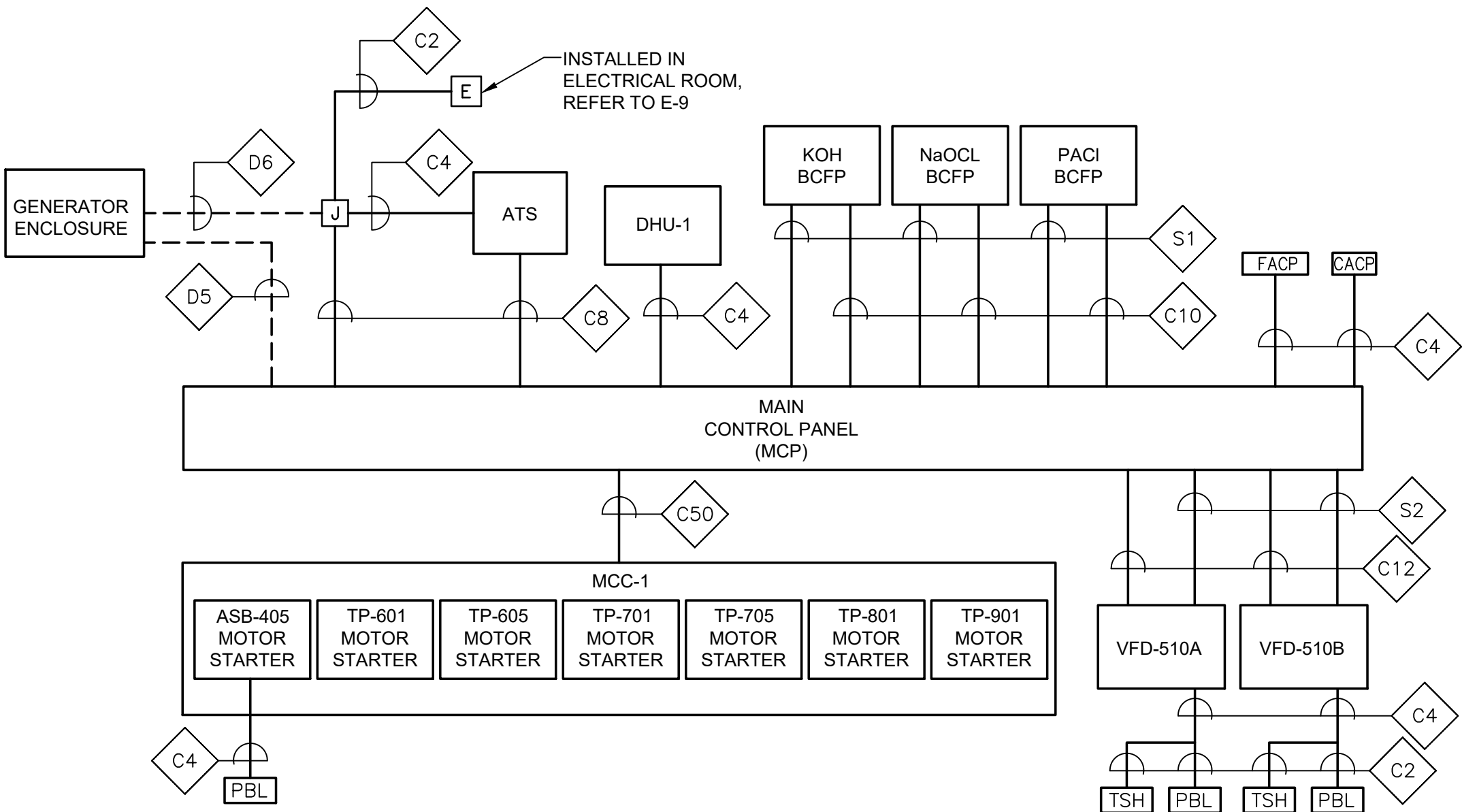
NOT TO SCALE

- NOTES:  
1. PROVIDE 36" OF EACH WIRE IN THE JUNCTION BOX FOR FUTURE USE.



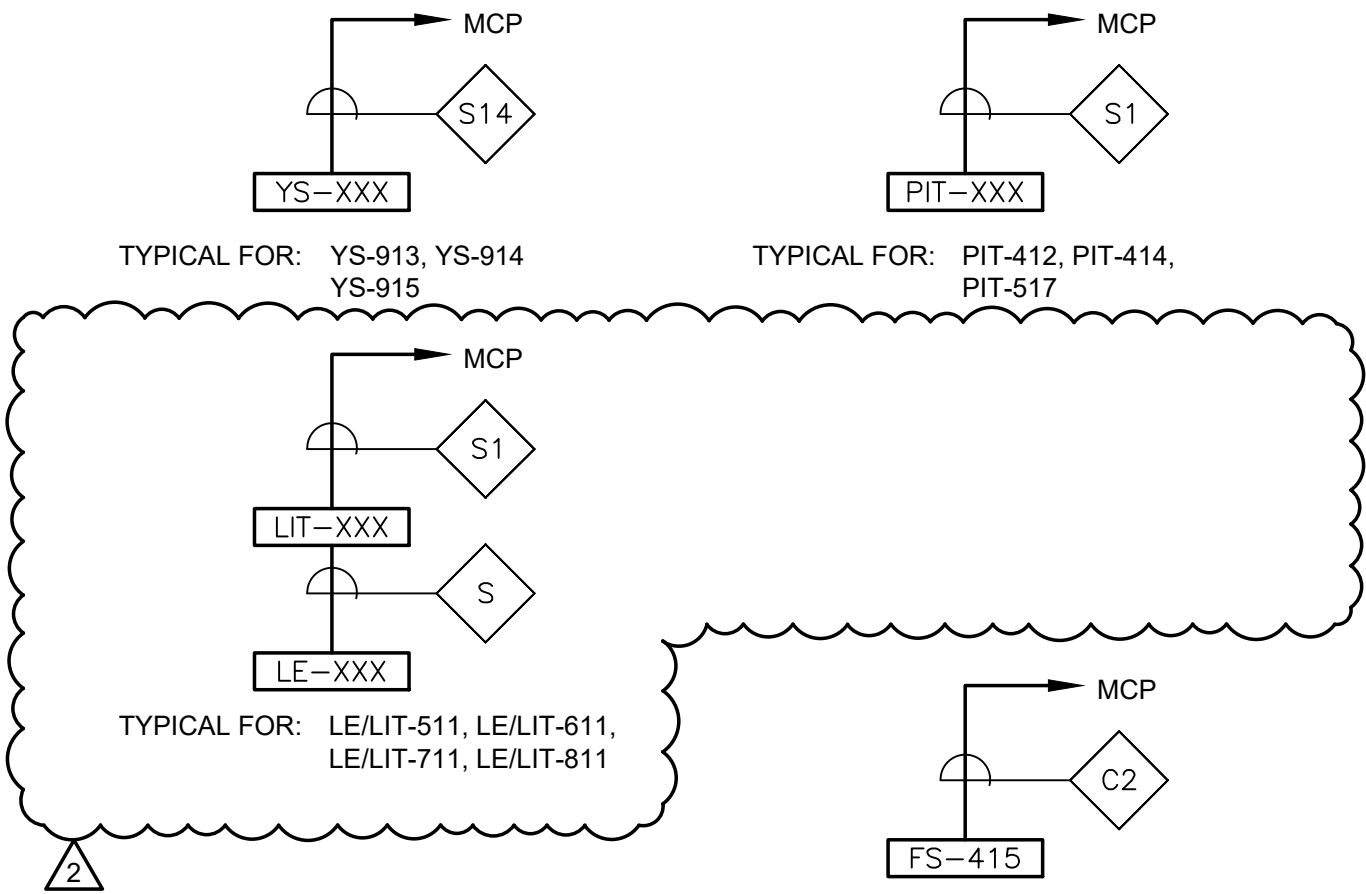
CONTROL BLOCK WIRING DIAGRAM  
FUME HOOD

NOT TO SCALE



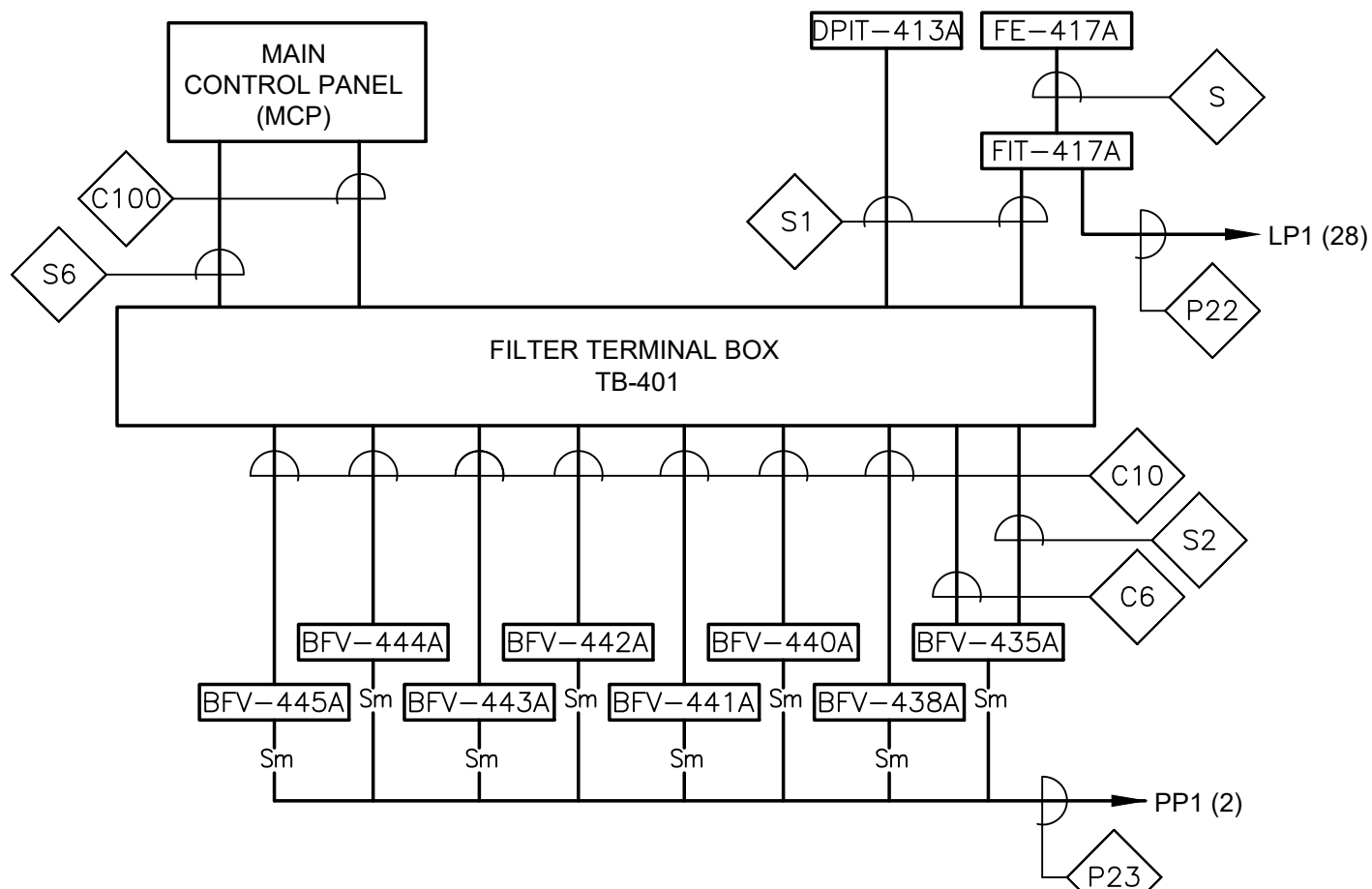
MAIN CONTROL PANEL  
BLOCK WIRING DIAGRAM

NOT TO SCALE



INSTRUMENTATION  
BLOCK WIRING DIAGRAMS

NOT TO SCALE



FILTER CELL 401 BLOCK DIAGRAM

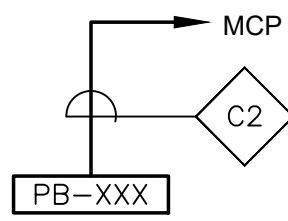
NOT TO SCALE  
(TYPICAL FOR FILTER CELL PF-401, PF-402, PF-403, PF-404)

- NOTES  
1. FILTER TERMINAL BOX TB-401 IS TYPICAL FOR TB-402, TB-403, AND TB-404. TERMINAL BOXES TO BE NEMA 4X STAINLESS STEEL, 60"x30"x12"DP, WITH BACK PANEL AND TERMINAL BLOCKS FOR CONTROL WIRING TERMINATIONS. ALL HARDWARE TO BE STAINLESS STEEL.  
2. REFER TO FILTER EQUIPMENT SCHEDULE FOR PRESSURE FILTER PF-401, PF-402, PF-403, AND PF-404 EQUIPMENT NAMES.

FILTER PF-401										
EQUIP.	BFV-435A	BFV-438A	BFV-440A	BFV-441A	BFV-442A	BFV-443A	BFV-444A	BFV-445A	FE/FIT-417A	DPIT-413A
CIRCUIT	PP1 (2)	PP1 (2)	PP1 (2)	PP1 (2)	PP1 (2)	PP1 (2)	PP1 (2)	PP1 (2)	LP1 (28)	-
FILTER PF-402										
EQUIP.	BFV-435B	BFV-438B	BFV-440B	BFV-441B	BFV-442B	BFV-443B	BFV-444B	BFV-445B	FE/FIT-417B	DPIT-413B
CIRCUIT	PP1 (4)	PP1 (4)	PP1 (4)	PP1 (4)	PP1 (4)	PP1 (4)	PP1 (4)	PP1 (4)	LP1 (28)	-
FILTER PF-403										
EQUIP.	BFV-435C	BFV-438C	BFV-440C	BFV-441C	BFV-442C	BFV-443C	BFV-444C	BFV-445C	FE/FIT-417C	DPIT-413C
CIRCUIT	PP1 (6)	PP1 (6)	PP1 (6)	PP1 (6)	PP1 (6)	PP1 (6)	PP1 (6)	PP1 (6)	LP1 (28)	-
FILTER PF-404										
EQUIP.	BFV-435D	BFV-438D	BFV-440D	BFV-441D	BFV-442D	BFV-443D	BFV-444D	BFV-445D	FE/FIT-417D	DPIT-413D
CIRCUIT	PP1 (8)	PP1 (8)	PP1 (8)	PP1 (8)	PP1 (8)	PP1 (8)	PP1 (8)	PP1 (8)	LP1 (28)	-

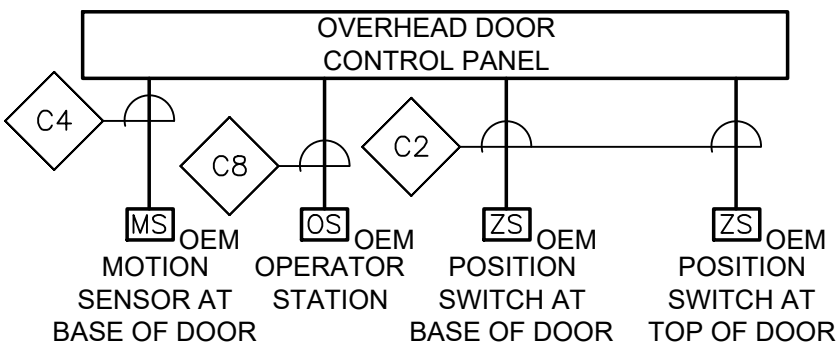
FILTER EQUIPMENT SCHEDULE

(FOR EXACT LOCATION OF EQUIPMENT - SEE M-DRAWINGS AND I- DRAWINGS)



MAN-DOWN/E-STOP PUSHBUTTONS  
BLOCK WIRING DIAGRAM

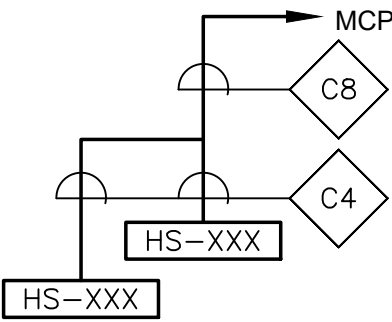
NOT TO SCALE



- NOTES  
1. COORDINATE WITH ELECTRIC DOOR OPERATOR AS SPECIFIED IN SECTION 08331.

CONTROL BLOCK WIRING DIAGRAM  
OVERHEAD DOOR

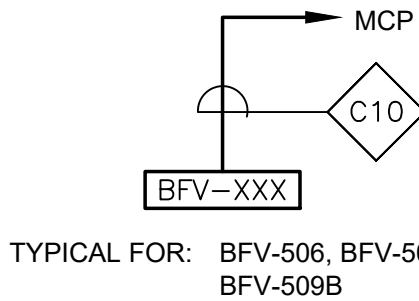
NOT TO SCALE



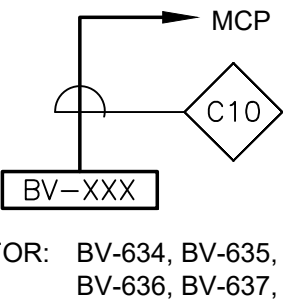
TYPICAL FOR: HS-616/HS-617, HS-618/HS-619, HS-716/HS-717, HS-718/HS-719, HS-815/HS-816

CHEMICAL TRANSFER PUMP HAND SWITCHES  
BLOCK WIRING DIAGRAM

NOT TO SCALE



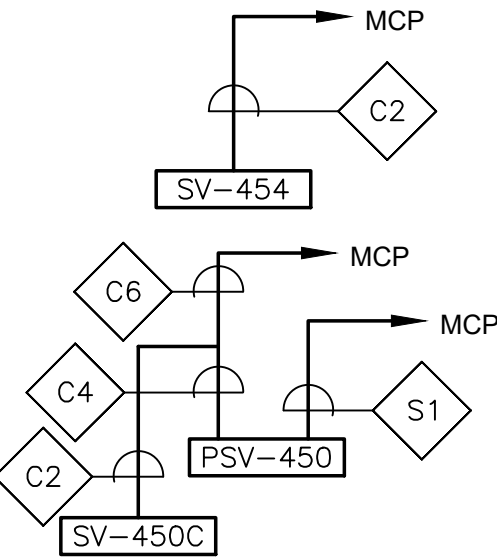
TYPICAL FOR: BFV-506, BFV-509A, BFV-509B



TYPICAL FOR: BV-634, BV-635, BV-636, BV-637, BV-734, BV-735, BV-736, BV-737, BV-834, BV-835

VALVES  
BLOCK WIRING DIAGRAMS

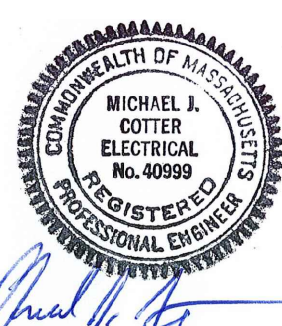
NOT TO SCALE



ENVIRONMENTAL  
PARTNERS

SAR  
ENGINEERING, INC.

Mechanical Electrical Engineers  
159 Greenwood Drive, Suite 309  
Braintree, Massachusetts 02184  
617.338.0315  
web: www.sar.com



11/05/21	ADDENDUM NO. 3
MARK	DATE DESCRIPTION

Scale	N.T.S.
Date	AUGUST 2021
Job No.	307-2002
Designed by	RLB
Drawn by	RLB
Checked by	MC
Approved by	MC

THIS LINE IS ONE INCH  
LONG WHEN PLOTTED AT  
FULL SCALE ON A 22" X  
34" DRAWING

RED MILL ROAD WATER TREATMENT PLANT  
TOWN OF EASTON, MA

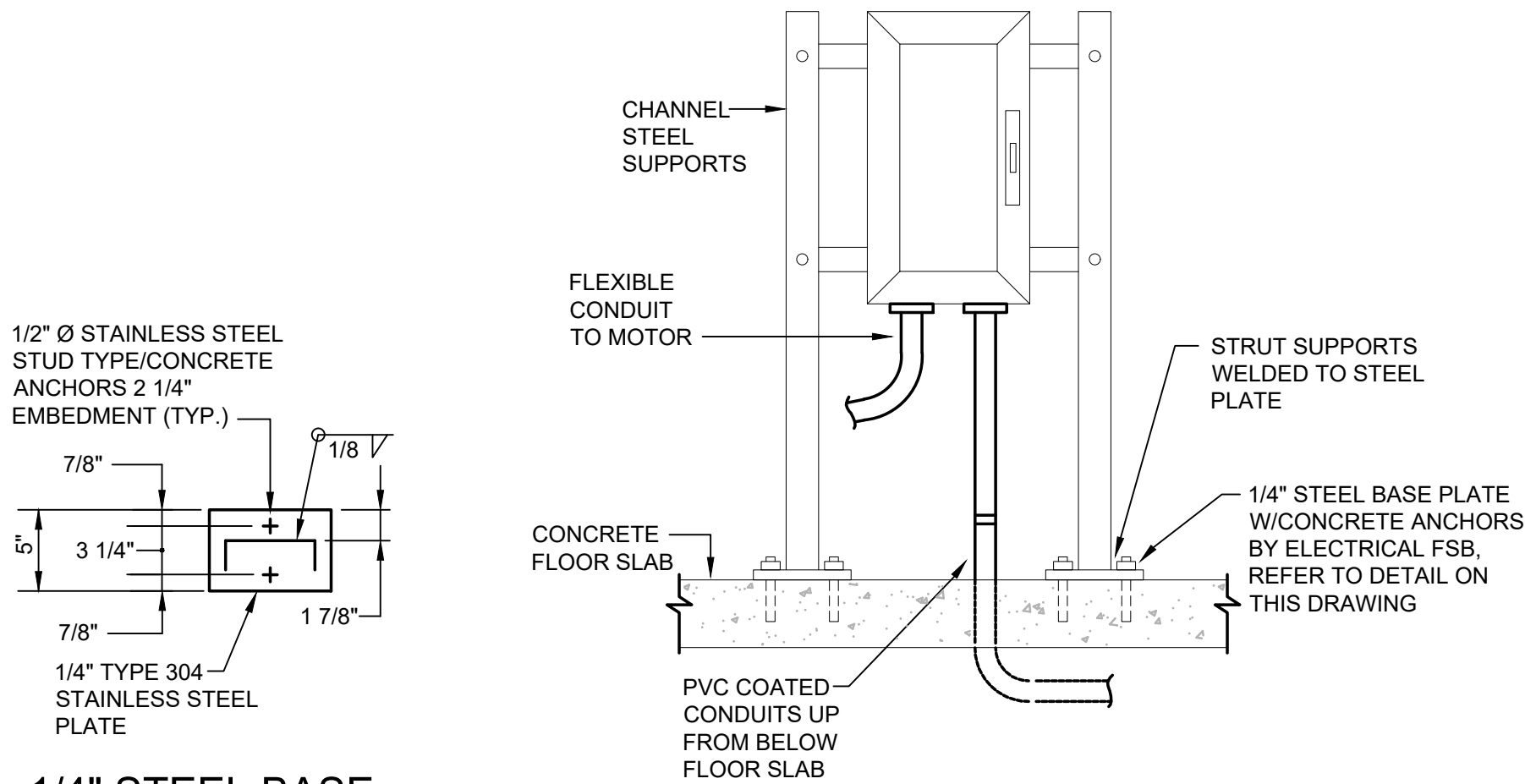
ELECTRICAL  
BLOCK DIAGRAMS I

FOR CONSTRUCTION

Sheet No.

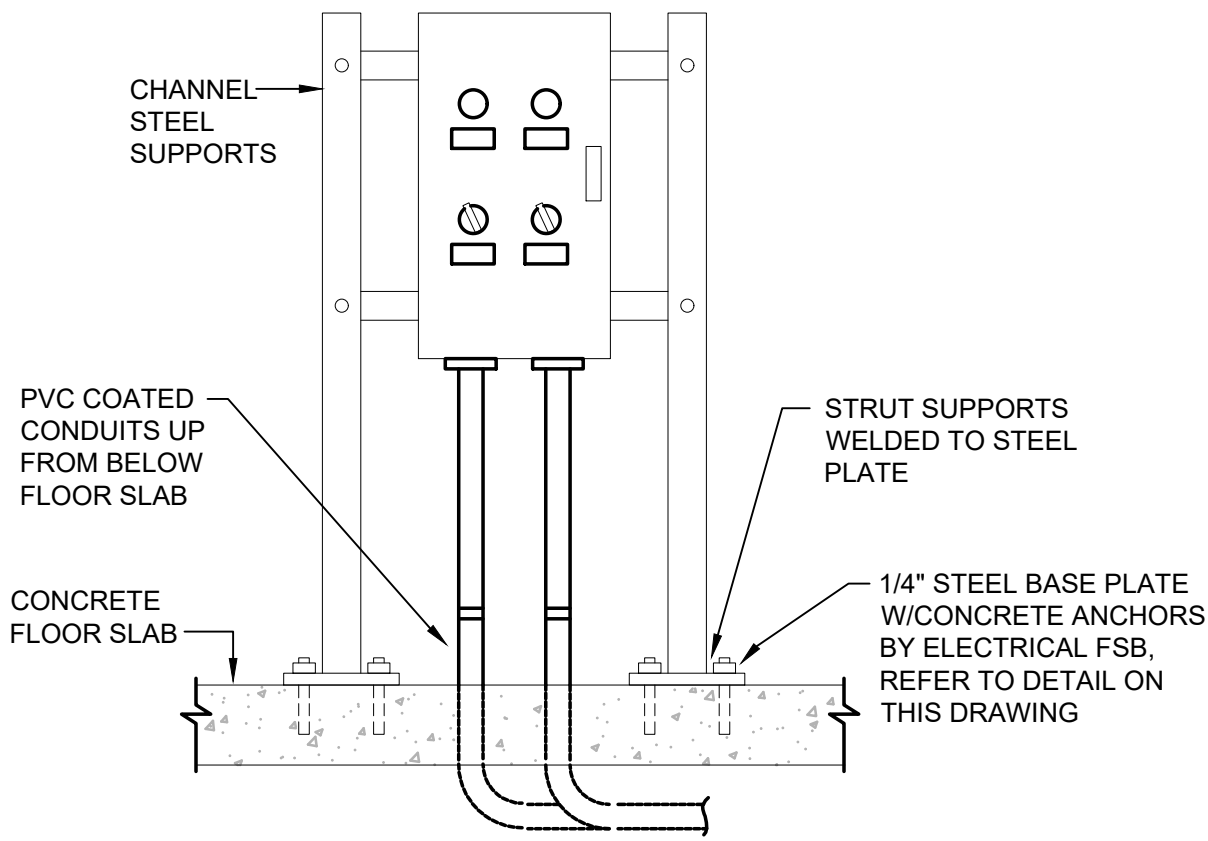
E-17



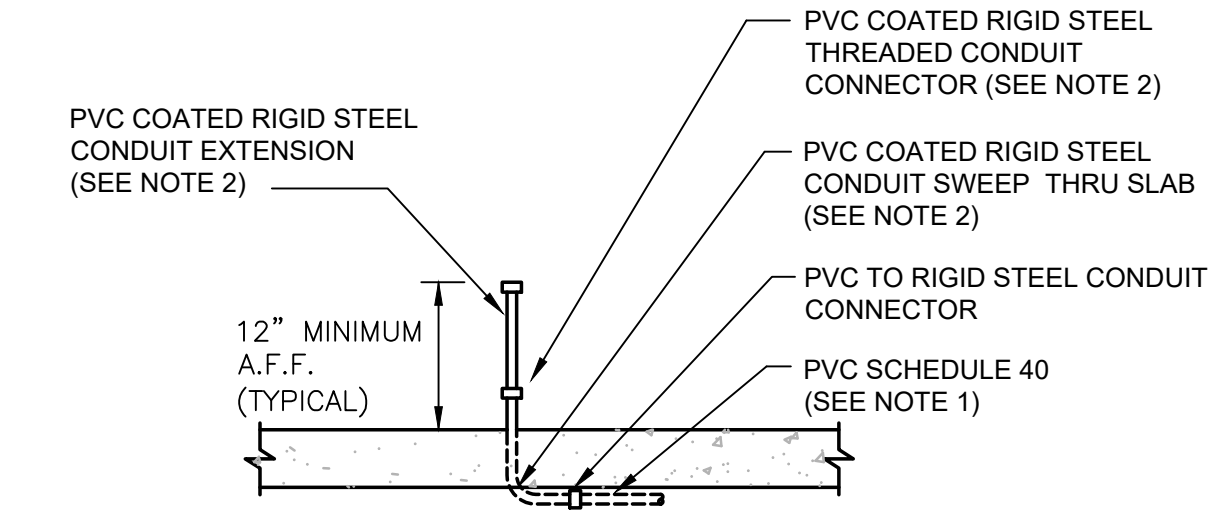


1/4" STEEL BASE  
PLATE DETAIL  
NOT TO SCALE

DISCONNECT SWITCH  
STANCHION MOUNTING DETAIL  
NOT TO SCALE

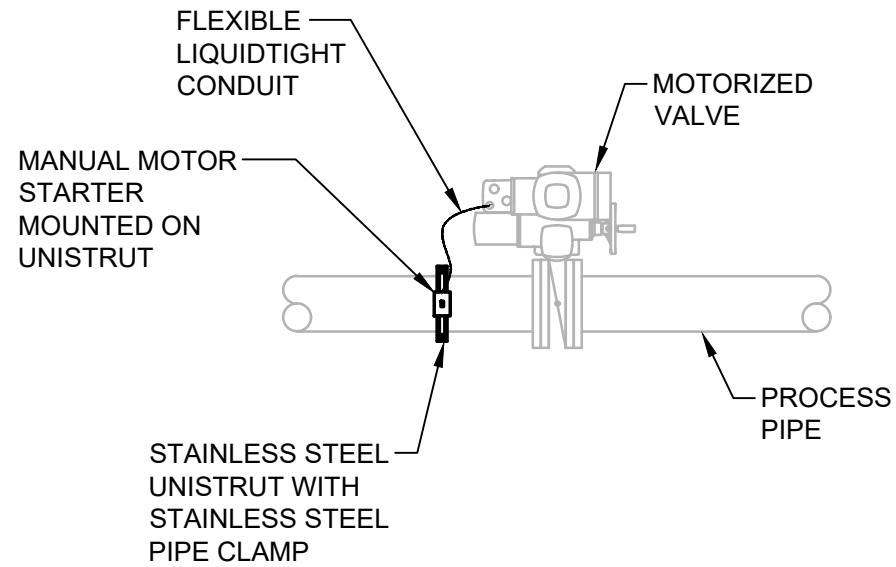


CONTROL PANEL AND JUNCTION BOX  
STANCHION MOUNTING DETAIL  
NOT TO SCALE

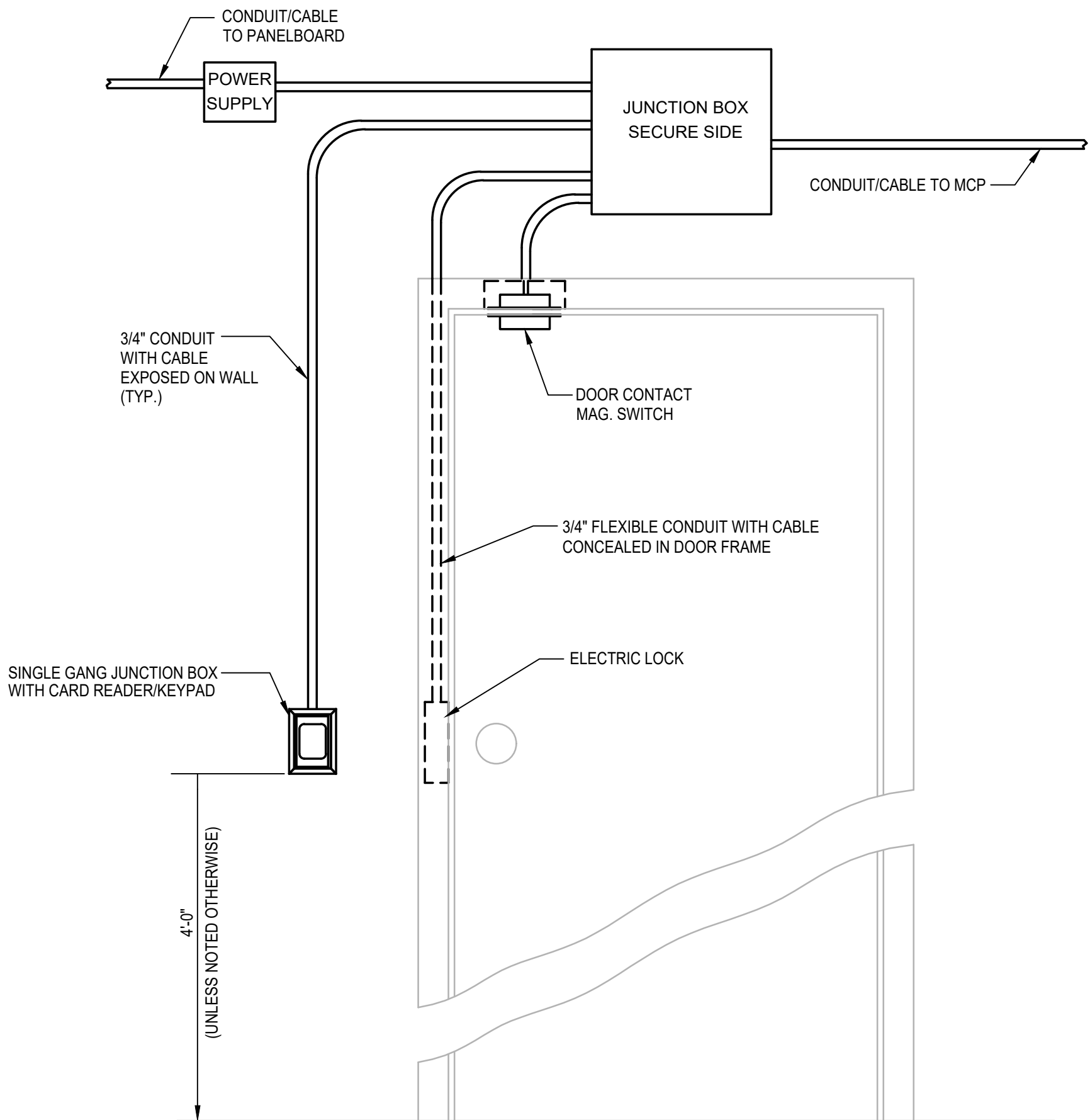


CONDUIT STUB-UP  
NOT TO SCALE

- NOTES:
- ALL CONDUIT INSTALLED BELOW SLAB SHALL BE PVC SCHEDULE 40.
  - ALL PVC COATED RIGID STEEL CONDUIT WHICH HAS BEEN FIELD CUT OR DAMAGED SHALL BE SPRAYED OR PAINTED WITH A PVC COATING ACCEPTABLE FOR USE TO REPAIR OR SEAL PVC COATED RIGID STEEL CONDUIT. ONLY MANUFACTURER APPROVED PVC COATING SEALANT SHALL BE ACCEPTABLE.

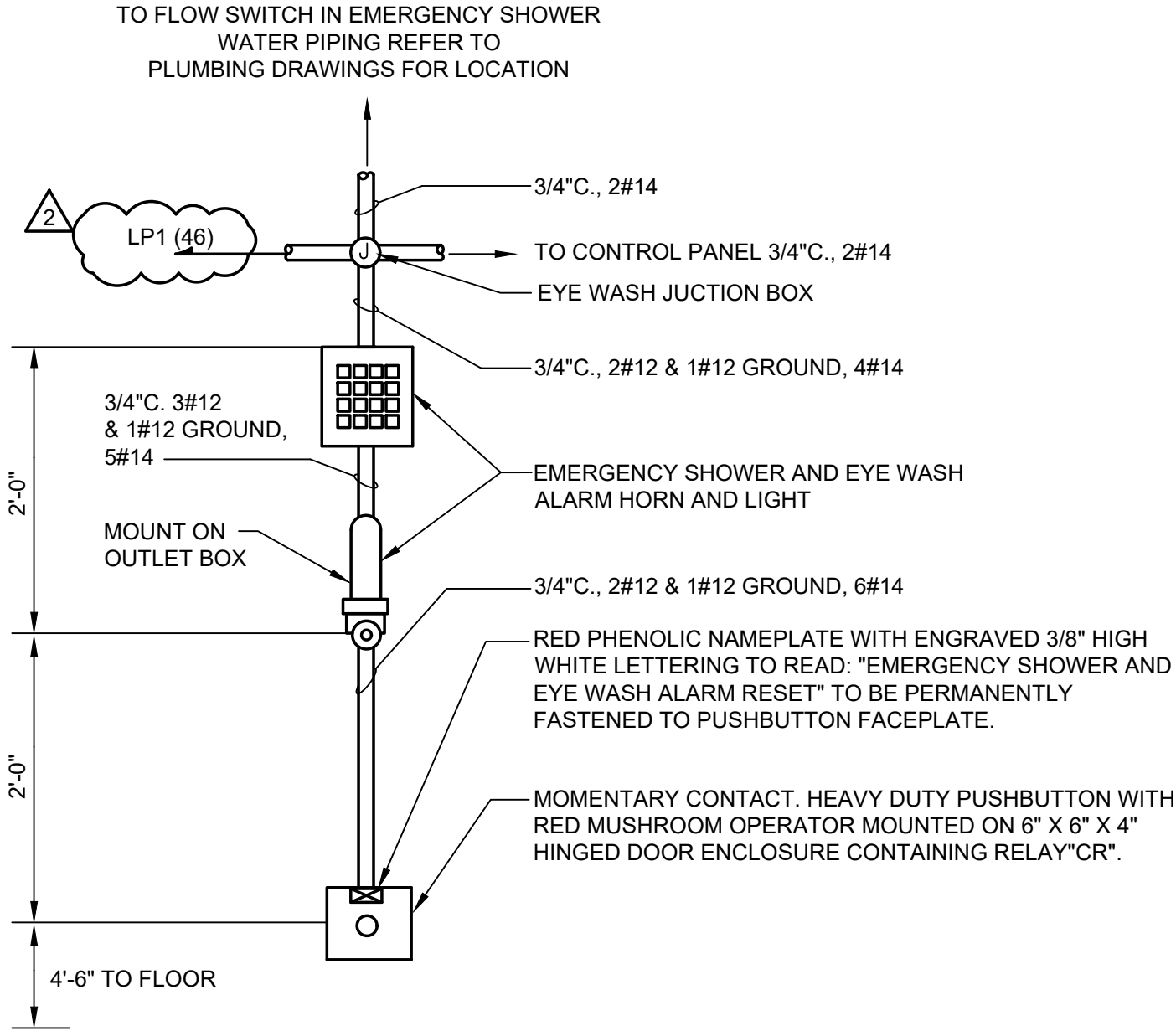


MOTORIZED VALVE  
MANUAL MOTOR STARTER MOUNTING  
NOT TO SCALE

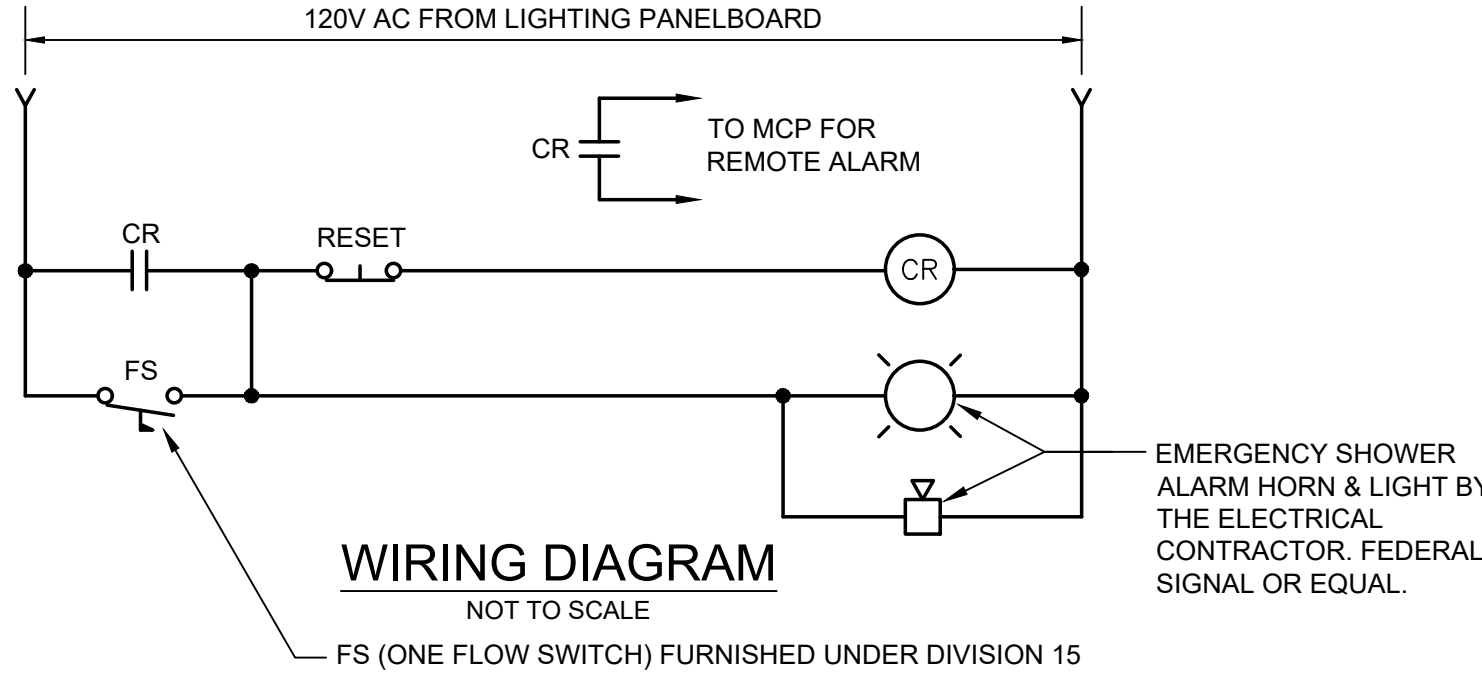


TYPICAL DOOR WITH ACCESS CONTROL  
NOT TO SCALE

- NOTES:
- REFER TO PLAN DRAWINGS FOR DEVICES REQUIRED AND THEIR APPROXIMATE LOCATIONS AT EACH DOOR



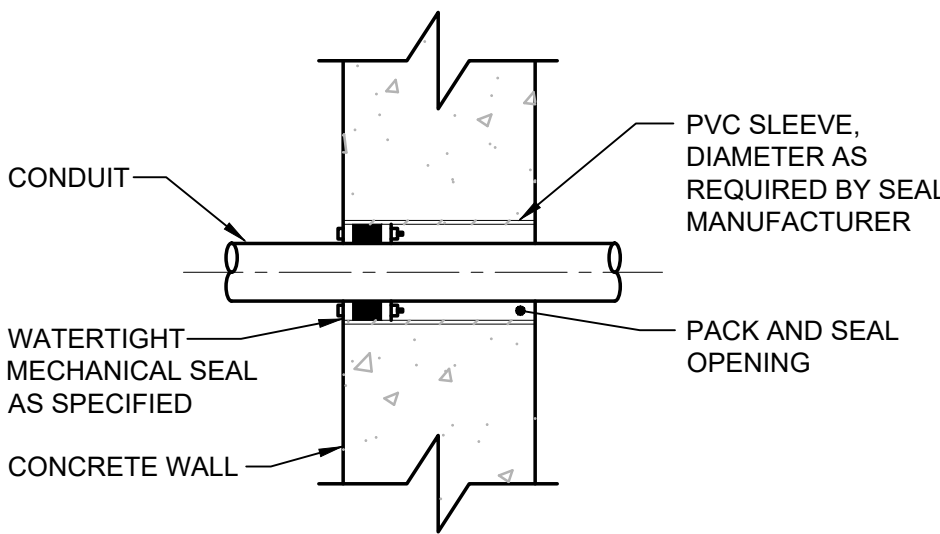
ELEVATION VIEW  
NOT TO SCALE



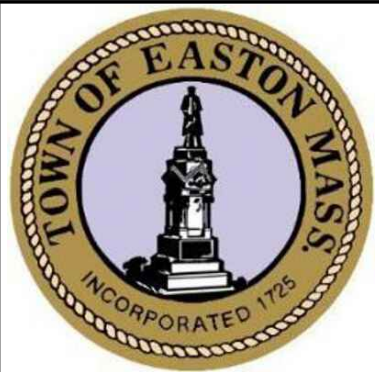
WIRING DIAGRAM  
NOT TO SCALE

- NOTE:
- ALL EXPOSED SURFACES OF COMPONENTS SHALL HAVE A YELLOW ENAMEL FINISH, INCLUDING CONDUIT (WITHIN 10'-0" RADIUS OF THE STATION, BOXES, ENCLOSURE AND HORN GRILLE).
  - ALARM STATION TO BE MOUNTED OUTSIDE OF EACH CHEMICAL ROOM CONTAINING A EMERGENCY SHOWER. REFER TO PLAN DRAWINGS FOR EYEWASH JUNCTION BOX LOCATIONS.

EMERGENCY SHOWER AND EYE WASH  
ALARM STATION  
NOT TO SCALE



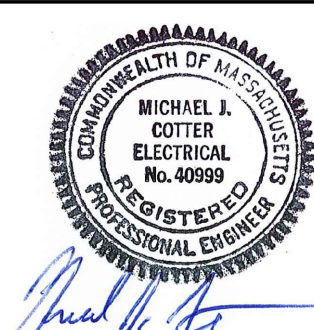
WATERTIGHT CONDUIT PENETRATION  
THROUGH NEW CONCRETE WALL  
NOT TO SCALE



ENVIRONMENTAL  
PARTNERS

SAR  
ENGINEERING, INC.

Mechanical Electrical Engineers  
159 Greenwood Drive, Suite 300  
Braintree, Massachusetts 02184  
617.338-0115  
web: www.sar.com



<div>2</div>	11/05/21	ADDENDUM NO. 3
MARK	DATE	DESCRIPTION

Scale	N.T.S.
Date	AUGUST 2021
Job No.	307-2002
Designed by	RLB
Drawn by	RLB
Checked by	MC
Approved by	MC

THIS LINE IS ONE INCH  
LONG WHEN PLOTTED AT  
FULL SCALE ON A 22" X  
34" DRAWING

RED MILL ROAD WATER TREATMENT PLANT  
TOWN OF EASTON, MA

ELECTRICAL  
DETAILS

FOR CONSTRUCTION  
Sheet No.

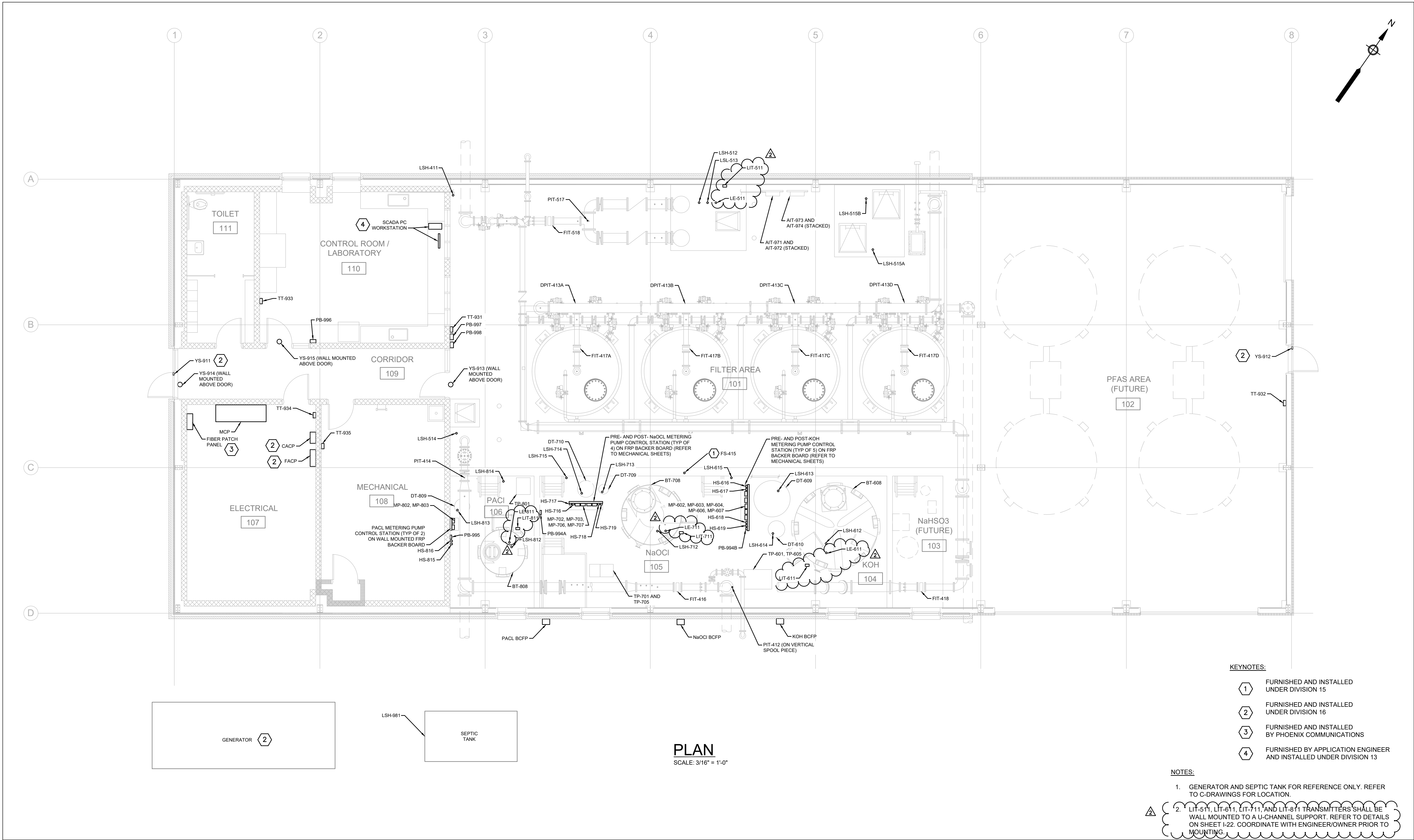
E-28

**EASTON DEPARTMENT OF PUBLIC WORKS  
EASTON, MASSACHUSETTS  
RED MILL ROAD WATER TREATMENT PLANT  
CONTRACT DPW-2022-05**

**ADDENDUM NO. 3**

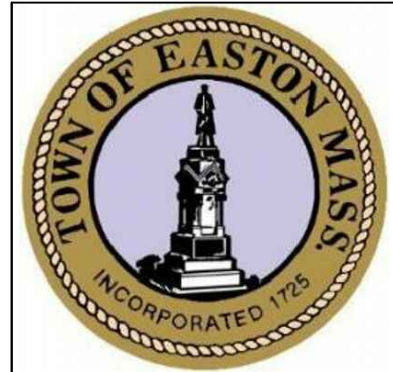

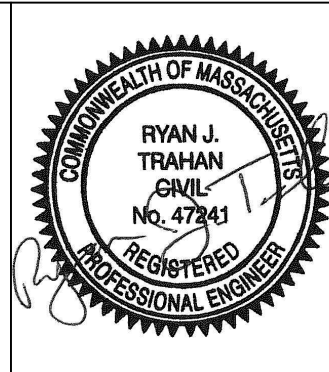


**ATTACHMENT 3**





- KEYNOTES:
- 1 FURNISHED AND INSTALLED UNDER DIVISION 15
  - 2 FURNISHED AND INSTALLED UNDER DIVISION 16
  - 3 FURNISHED AND INSTALLED BY PHOENIX COMMUNICATIONS
  - 4 FURNISHED BY APPLICATION ENGINEER AND INSTALLED UNDER DIVISION 13

- NOTES:
- 1. GENERATOR AND SEPTIC TANK FOR REFERENCE ONLY. REFER TO C-DRAWINGS FOR LOCATION.
  - 2. LIT-511, LIT-611, LIT-711, AND LIT-811 TRANSMITTERS SHALL BE WALL MOUNTED TO A U-CHANNEL SUPPORT. REFER TO DETAILS ON SHEET I-22. COORDINATE WITH ENGINEER/OWNER PRIOR TO MOUNTING.

			 11/5/21 ADDENDUM #3	Scale 3/16" = 1'-0"		RED MILL ROAD WATER TREATMENT PLANT TOWN OF EASTON, MA	FOR CONSTRUCTION	
			MARK DATE DESCRIPTION	Date AUGUST 2021			Job No. 307-2002	Designed by SFP
						THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING	PROCESS AND INSTRUMENTATION CONTROL WATER TREATMENT PLANT LAYOUT PLAN	1-9