

DEDHAM-WESTWOOD WATER DISTRICT
BURGESS AVENUE BOOSTER PUMP STATION REPLACEMENT

ADDENDUM NO. 2

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To be considered as part of the contract drawings and specifications for the Burgess Avenue Booster Pump Station Replacement project.

NOTIFICATIONS

1. Bids from General Contractors will be received until 2:00 pm prevailing time, on **Wednesday, March 25, 2026.**
2. The sign in sheet from the pre-bid site walk held on Monday, March 10, 2026 is attached.

QUESTIONS AND ANSWERS

1. **Q:** Drawing E300 utility one line call out to leave 10-foot coiled slack (4) 500kcmil for utility terminations at the top of 4-inch riser conduit and also states that there are four 4/0 conductors in the same 4-inch ductbank back to meter socket. Please advise on the correct wire size that is to be used in Ductbank A-A.
A: Ductbank A-A wire size is 4#4/0 from the top of the pole to the meter.
2. **Q:** E300 shows four (4) water pump drives on the schedule of mechanical equipment. Where are they shown on a one-line, and where are (is) the schematic diagram for these drives so that they can be designed accurately?
A: The pumps are circuited, wire and conduit size, via the "SCHEDULE OF MECHANICAL, PROCESS, & PLUMBING EQUIPMENT" in lieu of being shown on the one-line diagram. A VFD diagram is not provided as the VFDs should be wired per the approved manufacturer's requirements.
3. **Q:** Eversource utility handbook section 705 states that there shall be a cold sequence service disconnect on all ampere 277/480v 3 and 4 wire installations. E300 one line does not show a service disconnect. Please advise.
A: Confirmed, the metering must be cold sequenced, see revised drawings E100 and E300.
4. **Q:** Is VFD Cable required?
A: VFDs will require wiring from the VFD to the pump and shall be wired per the manufacturer's recommendation.
5. **Q:** Are the two (2) spare conduits in the ductbank going into the pullbox expected to be installed up the pole or will they stop at the pullbox?
A: The two (2) spare 4-inch C should be stubbed at the pole for future use.
6. **Q:** Do the ductile iron (DI) flanged pipe, mechanical joint (MH) fittings, and flanged fittings need to be made in the USA?
A: No, this project is not subject to BABA or AIS requirements.

7. **Q:** Does the underground CL 52 push on pipe need to be restrained?
A: Yes, the new water main needs to be restrained in accordance with Specification Section 33 11 13.13.
8. **Q:** Does all flanged pipe need to be insulated or just 8-inch pump suction and pump discharge headers?
A: All flanged pipe inside of the pump station building must be insulated in accordance with Specification Section 33 11 13.43.
9. **Q:** Please confirm the specification section 23 00 50 Basic HVAC Requirements are to be provided, installed and tested by the Precast Concrete Utility Manufacturer off site. Because if it is performed on-site there needs to be a pre-filed sub bid for HVAC.
A: This project is bid under Chapter 30, filed sub bids are not required.
10. **Q:** Please confirm that all the electrical work in the Precast Concrete Utility Building is to be provided, installed and tested by the manufacturer offsite. Because if it is not installed offsite a pre-filed electrical sub bid should be advertised.
A: This project is bid under Chapter 30, filed sub bids are not required.
11. **Q:** The communication lines at the entrance to the new pump station site will make it difficult to get the precast concrete pump station unloaded and set on the foundation. Has anyone at the communication companies been contacted and if so, can we have the contact information?
A: Utilities have been contacted for preliminary service coordination. The Contractor is required to coordinate with utilities as needed for construction. Known communications contact information is included below:

Comcast:

Jarrod Askin – Jarrod_Askin@comcast.com
Edward Arraiol – Edward_Arraiol@comcast.com
Manny Furtado – Manuel_Furtado@comcast.com

Verizon:

Lynn Stickney - nys-ne.osp.center@one.verizon.com

12. **Q:** Sheet CD101, Temporary Bypass shows the 6-inch HDPE pipe being run above ground but must cross Burgess and High Street. Please confirm that the road crossings must be below grade.
A: Road crossings for temporary water main must be below grade in accordance with new Specification Section 01 51 36, Temporary Water Services.
13. **Q:** Does the “Stamped Pavement Crosswalks” need to be replaced in kind when the roadway is repaved?
A: Refer to specification Section 32 12 00 and Section 32 12 00, Attachment A for information on replacing the polymer modified cement cross-walk.
14. **Q:** Sheet A201 shows a pitched roof with gable ends that have siding, gutters, downspouts, and cupola to name a few things, does all of this have to be done by the Precast Concrete Building supplier?
A: The scope of work for the precast building manufacturer is to be coordinated by the contractor.

15. **Q:** Due to the size and weight of the precast building and the size of the crane to unload and set the building can more of the land on the side of the lot west and north of the powerlines be cleared and stabilized for a crane pad?
A: Additional land clearing above and beyond what is shown on the plans may not occur.
16. **Q:** Can you please confirm that there are no requirements for DBE, David Bacon Wages, AIS, BABA, or Diesel Retrofit Program?
A: Confirmed.
17. **Q:** Are utility fees waived?
A: SCADA and security fees shall be paid for in accordance with Specification Section 01 22 00. The Owner will pay for electric service extension fees and detail officer fees directly in accordance with Specification Sections 01 11 00 and 01 22 00. All other fees encountered are the responsibility of the Contractor.
18. **Q:** Are the pavement markings epoxy or thermoplastic?
A: See Specification Section 32 12 00.
19. **Q:** Is a separate pole needed for the SCADA antenna?
A: Furnishing and installing a SCADA antenna is not included in the contract.
20. **Q:** Plan sheet CD100, Note #5 calls for the top slab to be removed and walls cut down to 2 ft. below grade. The existing structure is steel; does the top slab need to be removed?
A: Yes, the top slab needs to be removed, refer to sheet MD100.
21. **Q:** What type of pipe is the sewer main? Would an inserta-tee be allowed in lieu of cutting in a wye?
A: The sewer main material is unknown, a wye must be used as shown in the contract drawings.
22. **Q:** Do the brick crosswalks need to be removed and replaced in their entirety or just repair what was disturbed?
A: Crosswalks need to be removed and replaced in their entirety in accordance with specification 32 12 00 and as shown on Sheet C102.
23. **Q:** Where do they anticipate encountering impacted soils?
A: Surplus soils will be managed in accordance with Section 02 61 00.16, HANDLING, TRANSPORTATION, REUSE AND/OR OFF-SITE DISPOSAL OF EXCAVATED MATERIAL. Construction phase testing, as described in Item 3.03 CHARACTERIZATION SAMPLING of this specification section, will be used to determine the location of non-impacted or impacted materials.
24. **Q:** Where is the 125 l.f. of Infrared Pavement to be used?
A: The 125 l.f. of infrared pavement is used to fuse the existing and proposed pavements together for the curb-to-curb overlay. Refer to Specification Section 32 12 00.
25. **Q:** Projectdog.com doesn't provide a location to upload confidential documents, i.e. DCAMM Update statement. Can you please modify and add?
A: This project does not require DCAMM certification.

SPECIFICATIONS

Edit the following specification sections as indicated below in this addendum:

SECTION 00 11 13 – ADVERTISEMENT FOR BIDS

1. REPLACE “Wednesday, March 18, 2026” with “Wednesday, March 25, 2026” on page 00 11 13-1.

SECTION 00 21 13 – INSTRUCTIONS TO BIDDERS

1. REPLACE “Wednesday, March 18, 2026” with “Wednesday, March 25, 2026” on page 00 21 13-1.

ADD **SECTION 01 51 36 – TEMPORARY WATER SERVICES** in its entirety.

SECTION 32 12 00 – HOT MIX ASPHALT PAVING

1. DELETE “All pavement joints shall be infrared.” from paragraph 1.03.C.

SECTION 40 95 63 – WIRELESS TELEMETRY SYSTEM

1. DELETE paragraph 2.02.B in its entirety and REPLACE with the following:

“B. The antenna mast and mounting kits shall be furnished by the Contractor as required.”

SECTION 43 21 13.17 – VERTICAL MULTI-STAGE PUMPS

1. DELETE paragraph 1.04.B in its entirety and REPLACE with the following:

“B. Manufacturers

1. Pump manufacturers shall certify proof of successful operating experience during the last 10 years of five installations of equipment comparable to that specified herein.
2. The electrical drive equipment specified herein (including a/c drive controller and a/c drive induction motor) shall be designed and sized by the supplier, who shall assume responsibility for the correct operation of the system.
3. The manufacturer of the pump system shall have a factory trained service engineer in residence for at least 50 major cities within the United States.
- 4. Motors shall be manufactured by WEG or approved equal.**
- 5. Pumps shall be manufactured by Grundfos or approved equal.”**

DRAWINGS

Edit the following drawings as indicated below in this addendum:

SHEET M101 – PROCESS PIPING PLAN

1. REPLACE Note #1 with the following Note:

“Process Pipe Insulation shall only be installed after the pump station has been approved for use by MassDEP and has been successfully operated for a minimum of 30 days.”

The following drawings are to be replaced in their entirety:

S001 – GENERAL NOTES
S102 – ROOF PLAN & DETAILS
A101 – OVERALL FLOOR PLANS
A301 – BUILDING SECTIONS
DI701 – NETWORK DIAGRAM
E100 – FLOOR PLANS
E300 – ELECTRICAL ONE-LINE RISER AND PANEL SCHEDULES

ATTACHMENTS

1. Pre-bid Site Visit Sign-in Sheet (1 page)
2. SECTION 01 51 36 – TEMPORARY WATER SERVICES (3 pages)
3. S001 – GENERAL NOTES
4. S102 – ROOF PLAN & DETAILS
5. A101 – OVERALL FLOOR PLANS
6. A301 – BUILDING SECTIONS
7. DI701 – NETWORK DIAGRAM
8. E100 – FLOOR PLANS
9. E300 – ELECTRICAL ONE-LINE RISER AND PANEL SCHEDULES

Dedham-Westwood Water District
 Burgess Ave Booster Pump Station Replacement
 Pre-Bld Meeting, Monday, March 9, 2026 @ 10:00am
 Sign-In Sheet

No.	Name	Company	Telephone Number	Email Address
1	Kew Brennan	B.C.C.	508-946-9414	Kew@BrennanContractors.com
2	Jake Tompkins	Elm Electrical	(413) 579-2189	jtompkins@elmelec.com
3	Russ Guilmette	Water Line Inc	603 235 2787	Rsguilmette@waterline.com
4	Andrew Patros	RTV Construction	781-292-0500	andrew.patros@rtvconstruction.com
5	Paul Regan	Danvers Builders	508-695-4066	PRegan@danvers.com
6	Jason Dorsett	Ardent Group Inc.	781-424-7113	jason.dorsett@ardentgroupinc.com
7	Bill Mosca	DWWD		
8	Mark N.	DWWD		
9	Dave M.	DWWD		
10	Mike Warner	W&S		

SECTION 01 51 36

TEMPORARY WATER SERVICE

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. The Contractor shall furnish, install, maintain, and remove temporary water service pipe of the size required from which connections shall be made to all water customers. The temporary water system shall consist of mains, services and fire department outlets adequately sized to provide uninterrupted water and fire service to all water customers. Temporary service pipe shall not be installed without prior approval of the Engineer.
- B. The Contractor shall do all excavating for connections of temporary service pipes to existing live water mains and services, make and maintain all such connections and reinstate them to the new water main upon completion of the required disinfection and testing. The Contractor shall also furnish, install, maintain, connect, disconnect, and remove individual temporary service lines to all water customers.

1.02 REFERENCES:

The following standard forms a part of this specification, as referenced:

American Water Works Association (AWWA)

AWWA C651 Disinfecting Water Mains

1.03 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF THE GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

Shop drawings shall consist of manufacturer's scale drawings, cuts, or catalogs including descriptive literature. Shop drawings shall be submitted for the pipe, type of joint, fittings, couplings, and valves. A plan of the temporary bypass system, showing location and size of all pipelines, services and fire department outlets, shall be submitted to the Engineer for review prior to installation of the bypass system.

PART 2 - PRODUCTS

- 2.01 The temporary service pipe, connections, and branches shall be of the highest quality and shall be fully adequate to withstand the pressures and all conditions of use. The temporary service shall be made of fused-joint HDPE, steel or PVC suitable for above-ground use. The installation shall be watertight.

PART 3 - EXECUTION

3.01 RESPONSIBILITIES:

- A. Before starting any work that will affect service to customers, the Contractor shall notify the Owner at least 48 hours in advance to allow the time to notify the customers accordingly.
- B. The Owner shall shut off curb stops or pull water meters on individual services after the Contractor has installed temporary services to the satisfaction of the Engineer and prior to the Contractor starting work which will affect service to customers.
- C. The Contractor shall be responsible for all repairs and maintenance required to the temporary services. The Contractor shall immediately repair and/or replace any leaking or faulty temporary service pipe as ordered by the Engineer.
- D. The work of providing suitable safety precautions to prevent any interruptions of water service during the temporary service period, including taking any steps necessary to prevent freezing, shall be the responsibility of the Contractor. If freezing does occur, the Contractor shall thaw the lines, make any necessary repairs, and promptly restore temporary service.
- E. Before placing the temporary water pipe into service, a representative from the local Fire Department shall inspect any connections to existing fire hydrants, the placement of emergency fire connections, and shall be familiar with the operation of the emergency fire connections. The Contractor shall make any adjustments to the layout of the temporary water piping and hydrants requested by the local Fire Department. The Contractor shall provide any tools required to operate the emergency fire connections to the Fire Department. The Fire Department shall be contacted at least 48 hours in advance of placing the temporary water pipe into service.

3.02 INSTALLATION:

- A. Generally, temporary service pipe shall be laid in gutters or several feet back from the edge of pavement. At driveways, crossings over the pipe shall be made by hot-mix pavement berm, wood or rubber mat ramp or other approved method. At street intersections and road crossings, pipe shall be laid in a shallow trench covered with temporary surfacing.
- B. All service pipe shall be suitably valved to meet the approval of the Engineer. Line valves shall be located at all intersecting streets but no further than 1,000 feet apart.
- C. Suitably threaded 2-1/2-inch valved emergency fire connections shall be installed and maintained adjacent to each fire hydrant which is scheduled to be out of service. Hydrant nozzle caps shall be placed on all emergency fire connections.

- D. Temporary connections to live hydrants or water mains shall be of the same size as the temporary pipe that they feed. No restrictions or reduction in size will be allowed.
 - E. All hydrants that are out of service shall be covered with burlap bags, securely held in place.
 - F. The Contractor shall be responsible for all consumer connections. The connection shall be made via a temporary hose from the temporary main to a suitable location in the house; via a temporary pipe or hose from the temporary main to the meter pit if one exists; or by making a below-ground connection at the street edge to the existing service **(for services greater than 2-inch in size)**.
 - G. The Owner shall enter all private property and assist the Contractor in making or removing temporary service connections. The Contractor shall notify the Owner at least 48 hours in advance so that personnel may be available when required.
 - H. All service connections shall be valved at the temporary service pipe.
 - I. See Section 32 12 00 - PAVING, for both temporary and permanent paving over the temporary service pipe trench.
 - J. The temporary water main driveway crossings shall have compacted gravel placed on top for a smooth transition which will be maintained during the entire duration of the temporary water main.
 - K. The temporary water main roadway crossings shall be set below grade and covered with temporary hot asphalt which will be maintained during the entire duration of the temporary water main.
- 3.03 DISINFECTING AND FLUSHING:
- A. All disinfecting and flushing of temporary water main shall be completed in accordance with Section 3.06 of 33 11 13.13 DUCTILE IRON PIPE AND FITTINGS FOR WATER MAINS.

END OF SECTION

1.0 - GENERAL

- 1.01 THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS. REFER TO CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR LOCATION, DIMENSIONS, AND DETAILS OF OPENINGS, SLEEVES, EMBEDMENTS, INSERTS, PADS, CURBS, DEPRESSIONS, ANCHOR BOLTS, AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
1.02 THE CONTRACTOR IS RESPONSIBLE FOR CHECKING, COORDINATING AND VERIFYING ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCY TO THE ARCHITECT AND ENGINEER AS A REQUEST FOR INFORMATION (RFI) BEFORE PROCEEDING WITH WORK.
1.03 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING IN THE FIELD THE EXISTENCE AND LOCATION OF OVERHEAD, BURIED AND/OR EMBEDDED UTILITIES, AND DETERMINING LOCATIONS OF ALL EMBEDDED MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS AFFECTED BY THE WORK OF THIS CONTRACT.
1.04 ALL WORK IS TO CONFORM WITH THE FOLLOWING CODES AND STANDARDS:
(A) "780 CMR: MASSACHUSETTS AMENDMENTS MASSACHUSETTS STATE BUILDING CODE" - 10TH EDITION (MSBC)
(B) INTERNATIONAL BUILDING CODE, (IBC 2021)
(C) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" - AMERICAN CONCRETE INSTITUTE (ACI 318)
(D) "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" - AMERICAN SOCIETY OF CIVIL ENGINEERS, (ASCE 7-16)
FOR ADDITIONAL CODES AND STANDARDS REFER TO SPECIFICATIONS.
1.05 THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF UNFORESEEN CONDITIONS THAT MAY BE UNCOVERED DURING DEMOLITION AND CONSTRUCTION AS A REQUEST FOR INFORMATION (RFI) BEFORE PROCEEDING WITH WORK.
1.06 PERMANENT STRUCTURAL ELEMENTS TO BE DESIGNED IN ACCORDANCE WITH PERFORMANCE SPECIFICATIONS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
(A) PRE-FABRICATED MODULAR BUILDING
(B) PREFAB. BUILDING CONNECTIONS TO FOUNDATION SYSTEM
(C) MISC. ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENTS
FOR PERFORMANCE DESIGN REQUIREMENTS OF ELEMENTS LISTED ABOVE, REFER TO ADDITIONAL NOTES ON THESE SHEETS AND IN THE TECHNICAL SPECIFICATIONS. ALL DESIGN SUBMITTAL DRAWINGS AND CALCULATIONS SHALL BE CERTIFIED, SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF MASSACHUSETTS.
1.07 STRUCTURAL REQUIREMENTS TO ACCOMMODATE FIXED EQUIPMENT, INCLUDING BUT NOT LIMITED TO ROOF TOP UNITS ARE INCIDENTAL TO THE REQUIREMENTS OF A SPECIFIC EQUIPMENT MANUFACTURER. ALL WORK SHALL CONFORM TO APPROVED EQUIPMENT MANUFACTURER'S SHOP DRAWINGS AND INSTALLATION INSTRUCTIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL ANY REQUIRED MODIFICATIONS TO ACCOMMODATE APPROVED EQUIPMENT DRAWINGS. SUCH MODIFICATIONS SHALL BE MADE AT NO COST TO THE OWNER.
1.08 DETAILS AND NOTES SHOWN ON STRUCTURAL DRAWINGS SHALL BE APPLICABLE TO ALL PARTS OF THE STRUCTURAL WORK EXCEPT WHERE SPECIFICALLY REQUIRED OTHERWISE BY CONTRACT DOCUMENTS. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO THOSE SHOWN FOR LIKE CONDITIONS AS DETERMINED BY THE ENGINEER.
1.09 IN ACCORDANCE WITH SPECIFICATION SECTION 01 45 23, COORDINATION OF TESTING AND INSPECTION OF STRUCTURAL WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COSTS FOR TESTING AND INSPECTIONS WILL BE PAID AS NOTED IN THIS SECTION. PROVIDE TEST RESULTS TO THE ENGINEER WITHIN 4 HOURS OF RECEIPT.
1.10 THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL REQUIRED SHORING AND TEMPORARY BRACING TO RESIST FORCES ON THE STRUCTURE THROUGHOUT THE CONSTRUCTION PERIOD.

2.0 - FOUNDATIONS

- 2.01 THE SUBSURFACE CONDITIONS DESCRIBED IN THE DRAWINGS, SPECIFICATIONS, TEST BORINGS AND TEST PITS ARE INCLUDED ONLY TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION AND REPRESENT CONDITIONS ONLY AT THESE SPECIFIC LOCATIONS AT THE TIME THEY ARE MADE.
2.02 THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL TEMPORARY EARTH SUPPORT, SHORING AND BRACING REQUIRED TO PERFORM THE WORK IN ACCORDANCE WITH OSHA, STATE AND LOCAL REQUIREMENTS.
2.03 THE CONTRACTOR SHALL DESIGN AND PROVIDE SHEETING, SHORING, BRACING, AND/OR UNDERPINNING IN ORDER TO PROTECT EXISTING UTILITIES FROM EXCESSIVE MOVEMENTS DURING THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH OSHA, STATE & LOCAL REQUIREMENTS.
2.04 THE CONTRACTOR SHALL CARRY OUT CONTINUOUS CONTROL OF SURFACE AND SUBSURFACE WATER. DEWATER ANY AREAS REQUIRING EXCAVATION IN ADVANCE OF PERFORMING EXCAVATION. MAINTAIN GROUNDWATER LEVELS AT LEAST 2 FEET BELOW PLANNED SUBGRADES.
2.05 ALL SUBGRADES TO RECEIVE FILL MATERIALS, FOUNDATIONS, SLABS OR OTHER CONSTRUCTION SHALL BE FREE OF RUNNING OR STANDING WATER PRIOR TO PLACEMENT.
2.06 FOUNDATIONS SHALL BE INSTALLED IN THE GEOMETRY SHOWN IN THE PLANS, ANY ROCK ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED TO CLEAR THE REQUIRED FOUNDATION GEOMETRY.
2.07 SPREAD FOOTING BEARING SURFACES SHALL BE EXCAVATED BY EQUIPMENT WITH A SMOOTH, TOOTHLESS CUTTING EDGE.
2.08 REFER TO GEOTECHNICAL REPORT PREPARED BY WESTON & SAMPSON DATED FEBRUARY 5, 2025 FOR ADDITIONAL INFORMATION. THE ALLOWABLE BEARING CAPACITY IS 5000 PSF.

3.0 - CAST IN PLACE CONCRETE

- 3.01 CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301).
3.02 CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED AND PLACED IN THE PRESENCE OF A REPRESENTATIVE OF AN APPROVED TESTING AGENCY.
3.03 UNLESS NOTED OTHERWISE, CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH AS FOLLOWS:
(A) FOUNDATIONS, WALLS, SLAB-ON-GRADE: 4500 PSI
(B) WALKWAYS, EQUIPMENT PADS, EXTERIOR SLAB: 5000 PSI
3.04 ALL PERMANENTLY EXPOSED VERTICAL AND HORIZONTAL CONCRETE SURFACES SHALL BE TREATED OR SEALED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
3.05 CONCRETE WORK SHALL BE COORDINATED WITH ALL METAL BUILDINGS, ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL WORK, AND ALL EQUIPMENT. THE CONTRACTOR SHALL VERIFY INSTALLATION AND LOCATIONS OF ALL EMBEDDED ITEMS INCLUDING BUT NOT LIMITED TO INSERTS, ANCHOR BOLTS, DOWELS, BLOCKOUTS, SLEEVES, EMBEDDED PIPING, AND EMBEDDED CONDUIT PRIOR TO CONCRETE PLACEMENT.
3.06 FOR STRUCTURAL ELEMENTS, THE LOCATIONS AND MAXIMUM SPACING OF VERTICAL JOINTS SHALL BE AS FOLLOWS:
ELEMENT JOINT TYPE SPACING, FT. LOCATIONS
FOUNDATION WALL CONSTRUCTION 30 FACE OF PLASTER
FOUNDATION WALL CONSTRUCTION 60 PLASTER
3.07 FOR SLABS-ON-GRADE, LOCATE CONSTRUCTION OR CONTROL JOINTS ALONG COLUMN LINES OR AS SHOWN. PROVIDE JOINTS AT 20FT. MAX. SPACING. SUBMIT JOINT LOCATIONS AND DETAILS FOR APPROVAL.
3.08 SEALANT FOR CONTROL/CONTRACTION JOINTS AND SAW CUT JOINTS SHALL BE SIKADUR 51 MANUFACTURED BY SIKA OR AN APPROVED EQUAL.
3.09 CONCRETE EXPOSED TO WEATHER (FREEZE-THAW CONDITIONS) IN THE FINISHED PROJECT SHALL BE AIR ENTRAINED PER SPECIFICATIONS REQUIREMENTS.
3.10 A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.
3.11 CONCRETE SLABS SHALL BE PLACED SO THAT THE SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS.
3.12 PROVIDE A 3/4" CHAMFER ON ALL VERTICAL AND HORIZONTAL CORNERS EXPOSED TO VIEW UNLESS NOTED OTHERWISE.
3.13 ALL CONCRETE SHALL BE WATER CURED UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
3.14 NON-SHRINK, NON-METALLIC, GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 7,500 PSI (ASTM C942) AND A MINIMUM BOND STRENGTH OF 2,000 PSI AT 28-DAYS (ASTM C882). GROUT MAY BE EXTENDED WITH COARSE AGGREGATE PER THE MANUFACTURER'S RECOMMENDATIONS.
3.15 WHEN NEW CONCRETE IS CAST AGAINST EXISTING CONCRETE SURFACES, UNLESS NOTED OTHERWISE, THE EXISTING CONCRETE SHALL BE ROUGHENED TO 1/4" AMPLITUDE, THOROUGHLY CLEANED BY POWER WASHING OR OTHER MEANS, AND BE A SATURATED SURFACE DRY CONDITION IMMEDIATELY PRIOR TO PLACING CONCRETE.

4.0 - CAST IN PLACE CONCRETE REINFORCEMENT

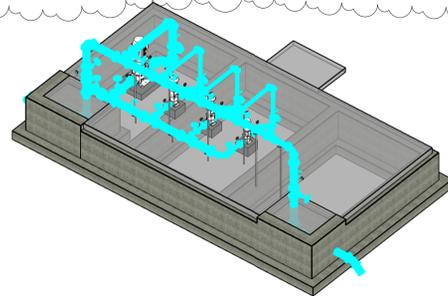
- 4.01 REINFORCEMENT DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO "ACI DETAILING MANUAL" - SP-66, "CRSI MANUAL OF STANDARD PRACTICE".
4.02 STEEL REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL CONFORM TO THE FOLLOWING:
(A) BARS, TIES, AND STIRRUPS: ASTM A615 GRADE 60
(B) WELDED WIRE FABRIC: ASTM A185, FLAT SHEETS
4.03 REINFORCING STEEL SHALL BE UNCOATED AND DEFORMED.
4.04 MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS REQUIRED FOR FIRE PROTECTION OR NOTED OTHERWISE, SHALL BE AS FOLLOWS:
(A) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
(B) CONCRETE EXPOSED TO EARTH OR WEATHER:
(1) NO. 6 THRU NO. 18 BARS: 2"
(2) NO. 5 BAR, W31 OR D31 WIRE AND SMALLER: 2"
(C) SURFACES NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
(1) SLABS, WALLS, JOISTS:
(a) NO. 14 AND NO 18 BARS: 2"
(b) NO. 11 BARS AND SMALLER: 2"
(2) BEAMS, COLUMNS:
(a) PRIMARY REINFORCEMENT: 2-1/2"
(b) TIES, STIRRUPS, SPIRALS: 2"
4.05 REINFORCING STEEL SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS, CORNERS, AND INTERSECTIONS UNLESS OTHERWISE NOTED. REINFORCING SHALL BE LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS, UNLESS OTHERWISE NOTED.
4.06 FOR REINFORCING STEEL SPLICE LAP LENGTHS REFER TO THE TABLE PROVIDED UNLESS OTHERWISE INDICATED.
4.07 MECHANICAL SPLICES SHALL BE PERMITTED SUBJECT TO APPROVAL BY THE ENGINEER. MECHANICAL SPLICES SHALL DEVELOP AT LEAST 125% PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE BAR. NO WELDED CONNECTIONS ARE PERMITTED.
4.08 WELDED WIRE FABRIC SHALL BE LAPPED (1) SQUARE PLUS (2) INCHES WHERE REQUIRED AND SHALL BE WIRED TOGETHER AT ALL LAPS. WWF SHALL BE SUPPORTED BY CHAIRS AND/OR CARRYING BARS PRIOR TO CONCRETE PLACEMENT.
4.09 REINFORCEMENT SHALL NOT BE TACK WELDED.
4.10 NOTIFY THE TESTING LAB AND ENGINEER A MINIMUM OF 48 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT IN ORDER TO ACCOMMODATE INSPECTION OF REINFORCEMENT AND CONCRETE TESTING. NO CONCRETE SHALL BE PLACED WITHIN 48 HOURS OF SUCH NOTIFICATION.
4.11 WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE DETAILS AS DETERMINED BY THE ARCHITECT AND ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN THE MINIMUM REINFORCEMENT PERMITTED BY THE CODES, NOR LESS THAN THE FOLLOWING:
(A) BEAM STIRRUPS: #3 @ 12"
(B) BEAM STIRRUP SUPPORTS: 1-#5 AT EACH STIRRUP BEND
(C) FACE REINFORCEMENT IN BEAMS OR PORTIONS OF BEAMS #4 @ 12" E.F.
(D) STRUCTURAL SLABS: 0.0020 X GROSS CONCRETE AREA IN EACH DIRECTION
(E) CONCRETE WALLS: 0.0025 X GROSS CONCRETE AREA IN EACH DIRECTION
4.12 WHERE REINFORCEMENT IS REQUIRED IN SECTION, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTIONS APPLIES.
4.13 WHERE THERE IS CONFLICT BETWEEN LOCATIONS OF COLUMN VERTICAL BARS AND BEAM HORIZONTAL BARS, THE COLUMN BARS SHALL REMAIN IN THEIR DESIGNATED POSITIONS AND BEAM BAR LOCATIONS SHALL BE ADJUSTED.
4.14 DOWELS SHALL MATCH BAR SIZE, NUMBER AND SPACING, UNLESS NOTED OTHERWISE.

5.0 - POST INSTALLED CONCRETE ANCHORS AND REINFORCING DOWELS

- 5.01 ADHESIVE ANCHORS AND REINFORCING DOWELS SHALL BE HILTI HIT-RE 500 V3 ANCHORING SYSTEM OR APPROVED EQUAL.
5.02 EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT T22 EXPANSION ANCHORS OR APPROVED EQUAL.
5.03 INSTALL ANCHORS IN STRICT CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS.
5.04 HOLES SHALL BE THOROUGHLY CLEANED AND DRY PRIOR TO INSTALLING ANCHORS.
5.05 DO NOT DAMAGE EXISTING REINFORCING. LOCATE REINFORCING WITH PROFOMETER OR OTHER MEANS PRIOR TO DRILLING CONCRETE.
5.06 ANCHORS INSTALLED OVERHEAD SHALL BE PROOF TESTED BY THE MANUFACTURER'S FIELD ENGINEER OR OTHER APPROVED AGENCY. PROOF TEST A MINIMUM OF 25% OF THE ANCHORS OR (2) TOTAL, WHICHEVER IS GREATER.
5.07 POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SHOWN IN STRUCTURAL DRAWINGS.

6.0 - STRUCTURAL STEEL

- 6.01 STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC "MANUAL OF STEEL CONSTRUCTION", "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND BRIDGES" (ANSI/AISC 360-16), AND "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (ANSI/AISC 303-16).
6.02 STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO THE FOLLOWING:
(A) WIDE FLANGE SHAPES: ASTM A992, MINIMUM YIELD STRENGTH 50 KSI
(B) ANGLES, PLATES AND BRACES: ASTM A36, MINIMUM YIELD STRENGTH 36 KSI
(C) HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B, MINIMUM YIELD STRENGTH 46 KSI
6.03 ALL WELDED CONNECTIONS SHALL BE MADE BY APPROVED CERTIFIED WELDERS AND SHALL CONFORM TO A.W.S. SPECIFICATIONS AMENDED TO DATE. ELECTRODES SHALL BE E70XX.
6.04 BOLTS SHALL CONFORM TO ASTM A325 AND BE INSTALLED SNUG-TIGHT UNLESS NOTED OTHERWISE
6.05 STRUCTURAL STEEL FRAMING SHALL BE WITHIN TOLERANCE BEFORE CONNECTIONS ARE FINALLY BOLTED OR WELDED.
6.06 FIELD CUTTING OF STRUCTURAL STEEL OR ANY FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER FOR EACH SPECIFIC USE.
6.07 STRUCTURAL STEEL SHAPES AND PLATES EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123 U.N.O. FASTENERS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153 U.N.O. HOT-DIPPED GALVANIZING SHALL ALSO CONFORM TO ASTM A385. THE GALVANIZER SHALL SUBMIT A CERTIFICATE OF CONFORMANCE FOR RECORD.
6.08 PROVIDE FIELD TOUCH-UP AND REPAIR OF GALVANIZING AS REQUIRED PER ASTM A780 USING AN INORGANIC ZINC-RICH PRIMER.
6.09 WHEN DISSIMILAR METALS ARE IN CONTACT (E.G. STAINLESS STEEL IN CONTACT WITH GALVANIZED STEEL), COAT SURFACE WITH EPOXY OR PROVIDE OTHER APPROVED MEANS TO PROVIDE A BARRIER.
6.10 WELDS SHALL BE 1/4" FILLET WELDS MINIMUM UNLESS NOTED OTHERWISE ON THE DRAWINGS.
6.11 PROVIDE TEMPORARY ERECTION BRACING AND SUPPORTS TO HOLD STRUCTURAL STEEL FRAMING SECURELY IN POSITION. SUCH TEMPORARY BRACING AND SUPPORTS SHALL NOT BE REMOVED UNTIL PERMANENT BRACING HAS BEEN INSTALLED.
6.12 SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR APPROVAL PRIOR TO FABRICATION.



3D SCHEMATIC VIEW - FOR REFERENCE ONLY
SCALE:

6.0 - DESIGN LOADS:

- 6.01 GENERAL DESIGN REQUIREMENTS (IBC 2021, SECTION 1604)
(A) RISK CATEGORY: IV (ASCE 7-16, TABLE 1.5-1) WESTWOOD, MA (780 CMR, TABLE 1604.11)
(B) MUNICIPALITY:
6.02 DESIGN LOADS TO BE VERIFIED BY PRE-FABRICATED BUILDING DESIGNER.
6.03 FLOOR DESIGN LOADING CRITERIA LOADS (IBC 2021, SECTION 1606 & 1607)

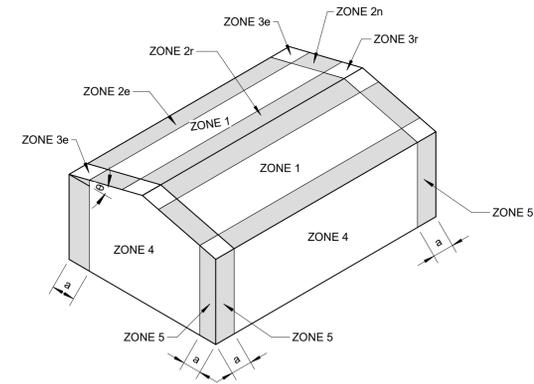
Table with columns: OCCUPANCY / USE, SUPERIMPOSED DEAD LOAD, LIVE LOADS (UNIFORM, CONCENTRATED). Rows include SLABS-ON-GRADE (MECHANICAL ROOM), ROOF, and HANDRAIL AND GUARDRAIL SYSTEMS.

NOTE(S):

- (a) SUPERIMPOSED DEAD LOADS ARE APPLIED IN ADDITION TO FRAMING AND SLAB SELF-WEIGHTS.
(b) 8PSF ALLOWANCE FOR FUTURE SOLAR PANEL SYSTEM.
(c) ROOF LIVE LOAD, ALSO REFER TO SNOW LOAD REQUIREMENTS IN 9.04.
(d) NOT CONCURRENT WITH THE UNIFORM LOAD. THE CONCENTRATED LOAD ON STAIR TREADS SHALL BE APPLIED ON AN AREA OF 2 INCHES BY 2 INCHES.
(e) APPLIED IN ANY DIRECTION ALONG THE HANDRAIL OR TOP RAIL TO PRODUCE THE MAXIMUM EFFECTS. UNIFORM AND CONCENTRATED LOADS ARE NOT APPLIED CONCURRENTLY.
(f) APPLIED NORMAL TO THE SURFACE ON AN AREA NOT TO EXCEED 12"x12" (NOT CONCURRENT WITH TOP RAIL LOADS).
(g) FLOOR LIVE LOAD IS NON-REDUCIBLE.
6.04 ROOF SNOW LOAD (IBC 2021, SECTION 1608)
(A) GROUND SNOW LOAD, Pg: 40 PSF (780 CMR, TABLE 1604.11)
(B) MINIMUM FLAT ROOF SNOW LOAD, Pf: 35 PSF (MA, STATE BUILDING CODE CHAPTER 16 (AMENDED))
(C) SNOW EXPOSURE FACTOR, Ce: 1.0 (ASCE 7-16, TABLE 7.3-1)
(D) THERMAL FACTOR, Ct: 1.1 (ASCE 7-16, TABLE 7.3-2)
(E) SNOW LOAD IMPORTANCE FACTOR, Is: 1.2 (ASCE 7-16, TABLE 1.5-2)
(F) ROOF SLOPE FACTOR, Cs: 1.0 (ASCE 7-16, FIGURE 7.4-1)
(G) * ADJUST FOR SNOW DRIFT AND UNBALANCED SNOW LOADING (MSBC 780 CMR)

- 6.05 WIND LOADS (IBC 2021, SECTION 1609)
(A) BASIC WIND SPEED, V (3-SECOND GUST WIND SPEED): 134 MPH (780 CMR, TABLE 1604.11)
(B) BUILDING ENCLOSURE CLASSIFICATION: ENCLOSED (ASCE 7-16, SEC. 26.2)
(C) WIND EXPOSURE CATEGORY: B (ASCE 7-16, SEC. 26.7.3)
(D) DESIGN BUILDING DIMENSIONS:
(E) COMPONENTS AND CLADDING (ASCE 7-16, CHAPTER 30)
(1) ANALYSIS PROCEDURE: LOW RISE BUILDINGS (ASCE 7-16, PART 1)
(a) WIND DIRECTIONALITY FACTOR, Kd: 0.85 (ASCE 7-16, TABLE 26.6-1)
(b) TOPOGRAPHIC FACTOR, Kzt: 1.0 (ASCE 7-16, FIGURE 26.6-1)
(c) VELOCITY PRESSURE COEFFICIENT, Kz: 0.57 (ASCE 7-16, TABLE 26.10-1)
(d) INTERNAL PRESSURE COEFFICIENT, GCpi: +/-0.18 (ASCE 7-16, TABLE 26.13-1)
(e) PERIMETER ZONE, a: VARIES

COMPONENTS AND CLADDING WIND PRESSURE LOADS ON BUILDING



COMPONENTS AND CLADDING WIND PRESSURE LOADS ON BUILDING

Table with columns: EFFECTIVE WIND AREA (SF), ROOF LOADS (psf), WALL LOADS (psf). Rows for wind directions 10, 50, and 100 degrees.

NOTES:

- 1. a = 10% OF LEAST HORIZONTAL DIMENSION OR 0.4h, WHICHEVER IS SMALLER, BUT NOT LESS THAN EITHER 4% OF LEAST HORIZONTAL DIMENSION OR 3 FT. IF OVERHANG EXISTS, THE EDGE DISTANCE SHALL BE MEASURED FROM THE OUTSIDE EDGE OF THE OVERHANG. THE HORIZONTAL DIMENSIONS USED TO COMPUTE THE EDGE DISTANCE SHALL NOT INCLUDE ANY OVERHANG DISTANCES.
2. TABLE PRESSURES ARE FOR SQUARE FOOT [SF] TRIBUTARY AREA, FOR OTHER AREAS LINEAR INTERPOLATION BETWEEN AREAS ABOVE.
3. h = MEAN ROOF HEIGHT, IN FT (M).
4. theta = ANGLE OF PLANE OF ROOF FROM HORIZONTAL, IN DEGREES.
5. DETAIL IS APPLICABLE FOR ROOF SLOPES 20' < theta < 27'

- 6.06 EARTHQUAKE LOADS (IBC 2021, SECTION 1613)
(A) SITE CLASS: C
(B) SPECTRAL RESPONSE ACCELERATIONS
(1) Ss: 0.233 (780 CMR, TABLE 1604.11)
(2) S1: 0.061 (780 CMR, TABLE 1604.11)
(C) SPECTRAL RESPONSE COEFFICIENTS
(1) Sds: 0.202 (ASCE 7-16, SEC. 11.4.5)
(2) Sd1: 0.061 (ASCE 7-16, SEC. 11.4.5)
(D) SEISMIC DESIGN CATEGORY: C (ASCE 7-16, SEC. 11.6)
(E) SEISMIC IMPORTANCE FACTOR, Ie: 1.5 (ASCE 7-16, TABLE 11.5-1)

Project: BURGESS AVENUE BOOSTER PUMP STATION REPLACEMENT
1446 HIGH STREET WESTWOOD, MA 02090
Dedham-Westwood Water District, 50 Elm Street, Dedham, MA 02026

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Consultants:

Table with columns: No., Date, Description. Row 1: 2, 3/16/26, ADDENDUM 2.

Revisions:

Table with columns: No., Date, Description. Row 1: 2, 3/16/26, ADDENDUM 2.

COA:

Seal:

Scale: As Indicated

Key Plan:

Issued For:

BIDDING

Date: MARCH 11, 2026

Drawn By: BAR

Reviewed By: HZB

Approved By: NMS

W&S Project No.: ENG24-1299

W&S File No.: XXX

Drawing Title:

GENERAL NOTES

Sheet Number:

S001

Revisions:

No.	Date	Description
2	3/16/26	ADDENDUM 2

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Seal:

Issued For:

BIDDING

Scale: As Indicated

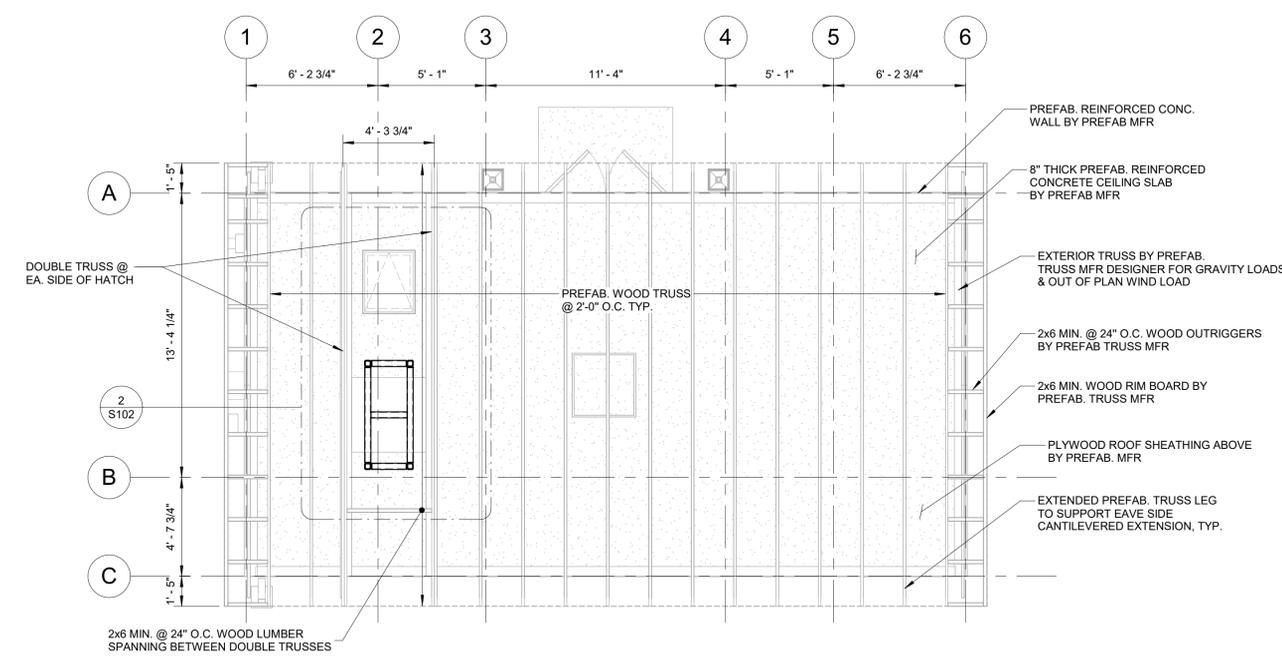
Key Plan:

Date: MARCH 11, 2026
 Drawn By: HZB
 Reviewed By: NMS
 Approved By: NMS
 W&S Project No.: ENG24-1299
 W&S File No.: XXX

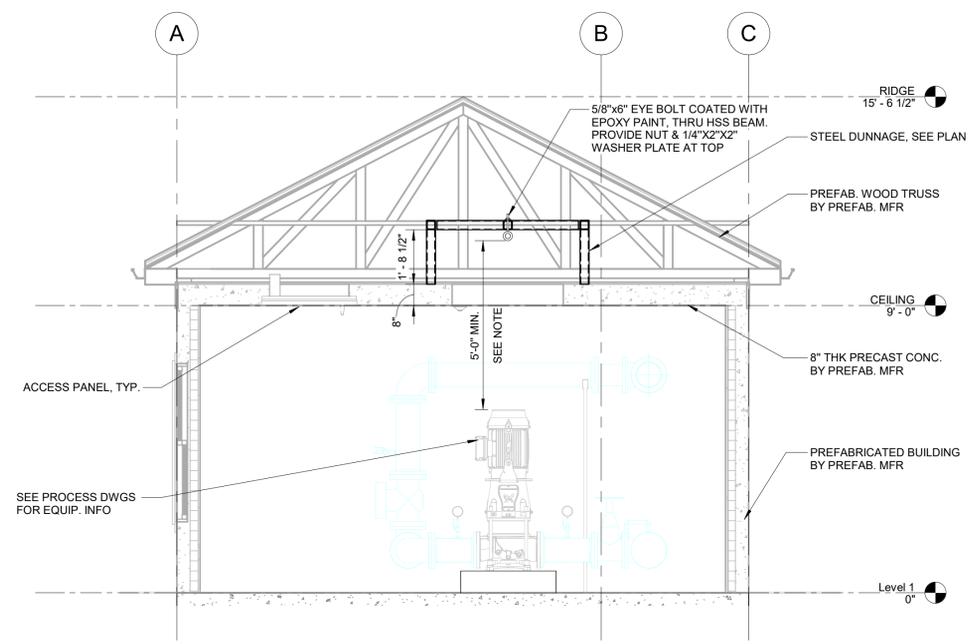
Draying Title:

ROOF PLAN & DETAILS

Sheet Number:
S102

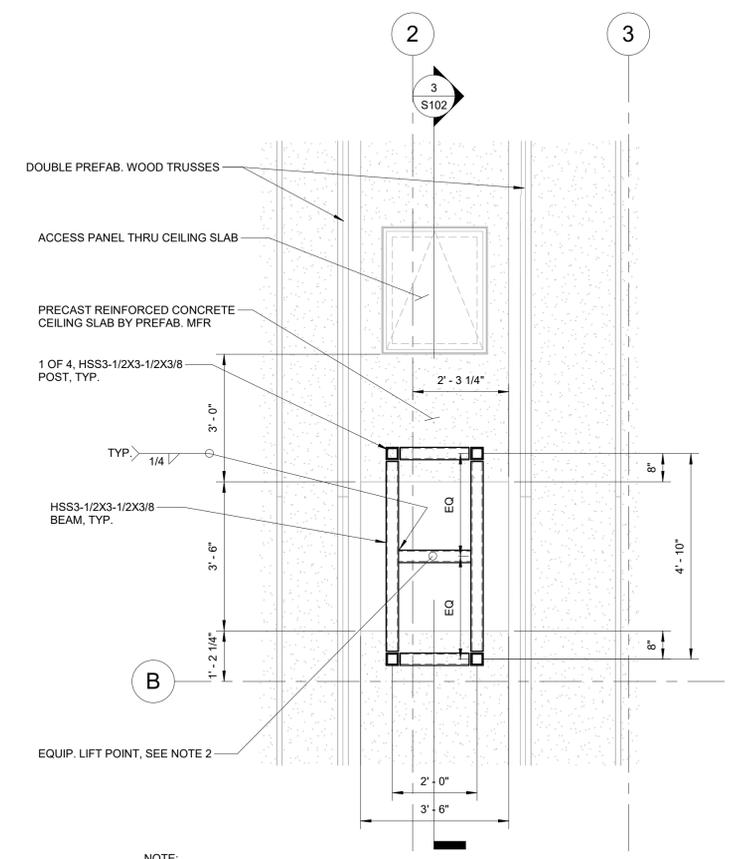


1 ROOF PLAN
 SCALE: 1/4" = 1'-0"



NOTE:
 1. VERIFY WITH APPROVED PUMP EQUIPMENT SUBMITTALS.

3 SECTION THRU PREFAB. BUILDING
 SCALE: 3/8" = 1'-0"



4 HSS BASEPLATE DETAIL
 SCALE: 1 1/2" = 1'-0"

- NOTE:
- THE PREFABRICATED MANUFACTURER SHALL DESIGN THE 8" THICK CEILING SLAB FOR ALL APPLICABLE GRAVITY LOADS, INCLUDING SELF-WEIGHT, 10 PSF MINIMUM SUPERIMPOSED DEAD LOAD, AND 40 PSF MINIMUM LIVE LOAD. ADDITIONALLY, THE DESIGN OF THE CEILING SLAB SHALL INCLUDE A 600 LB UNFACTORED CONCENTRATED LOAD AT EACH LEG OF THE HSS DUNNAGE POSTS.
 - MAXIMUM ALLOWABLE LOAD FOR LIFT POINT IS 1,200 LB.
 - THE PREFABRICATED MANUFACTURER SHALL DESIGN THE WOOD TRUSSES TO SPAN BETWEEN THE END WALLS. THE TRUSSES SHALL NOT BEAR ON THE CEILING SLAB.
 - FOR ADDITIONAL INFORMATION REGARDING LOAD CRITERIA, SEE GENERAL NOTES ON SHEET S001.
 - ALL STEEL DUNNAGE MEMBERS SHALL BE SHOP PRIMED AND FIELD COATED WITH CORROSION-INHIBITING EPOXY PAINT.

2 CEILING PART PLAN - EQUIPMENT LIFT DUNNAGE FRAMING
 SCALE: 1/2" = 1'-0"



5 3D SCHEMATIC VIEW - STEEL DUNNAGE - FOR REFERENCE ONLY
 SCALE:

TYPICAL WALL SECTION NOTES

AVB SHALL BE SEALED TO ALL ROOF FABRIC AND ANY STRUCTURE OR SYSTEMS WHICH PASSES THRU THE PLANE OF THE AVB TO FORM A CONTINUOUS AIR VAPOR BARRIER BETWEEN SPACES. TYP.

Revisions:

No.	Date	Description
1	2/25/26	ADDENDUM 1
2	3/12/26	ADDENDUM 2

COA:

Seal:

Issued For:

BIDDING

Scale: As Indicated

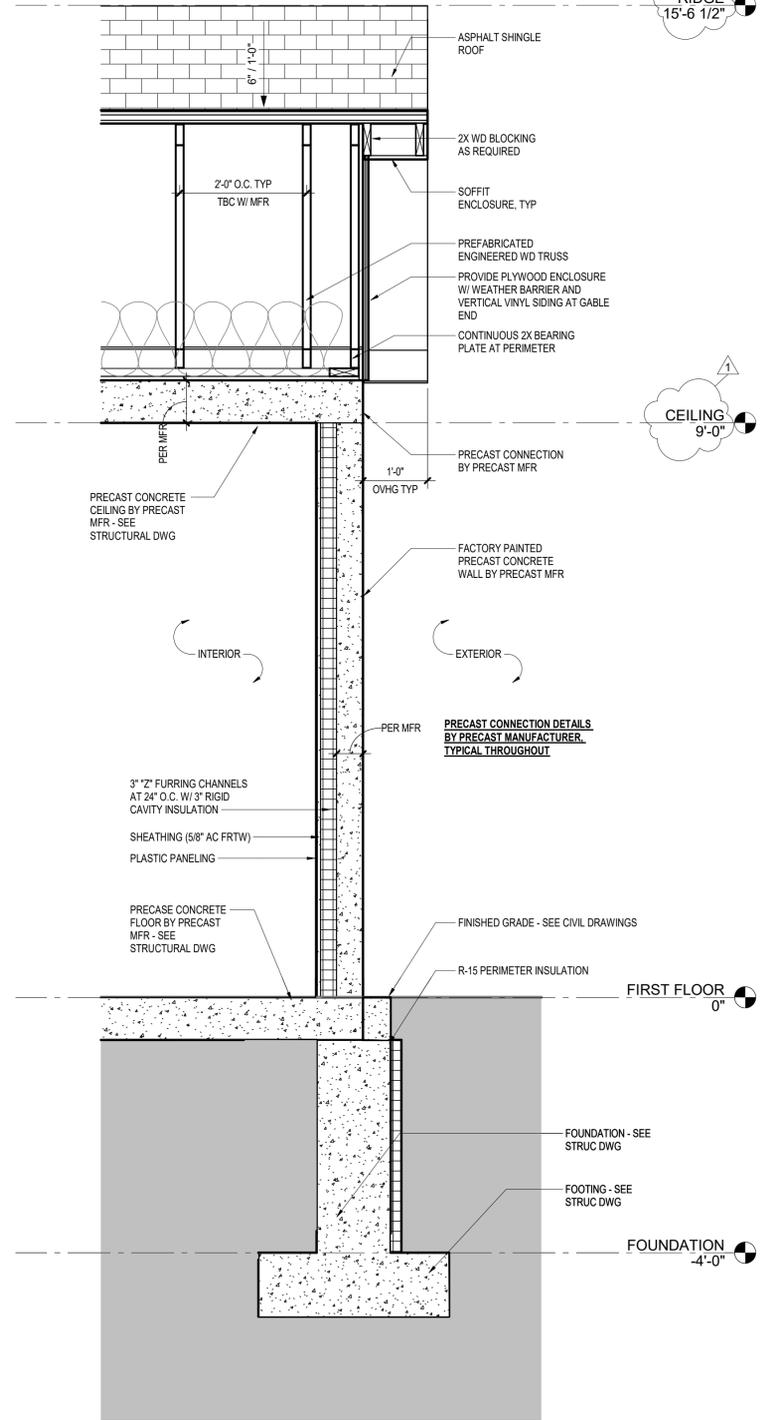
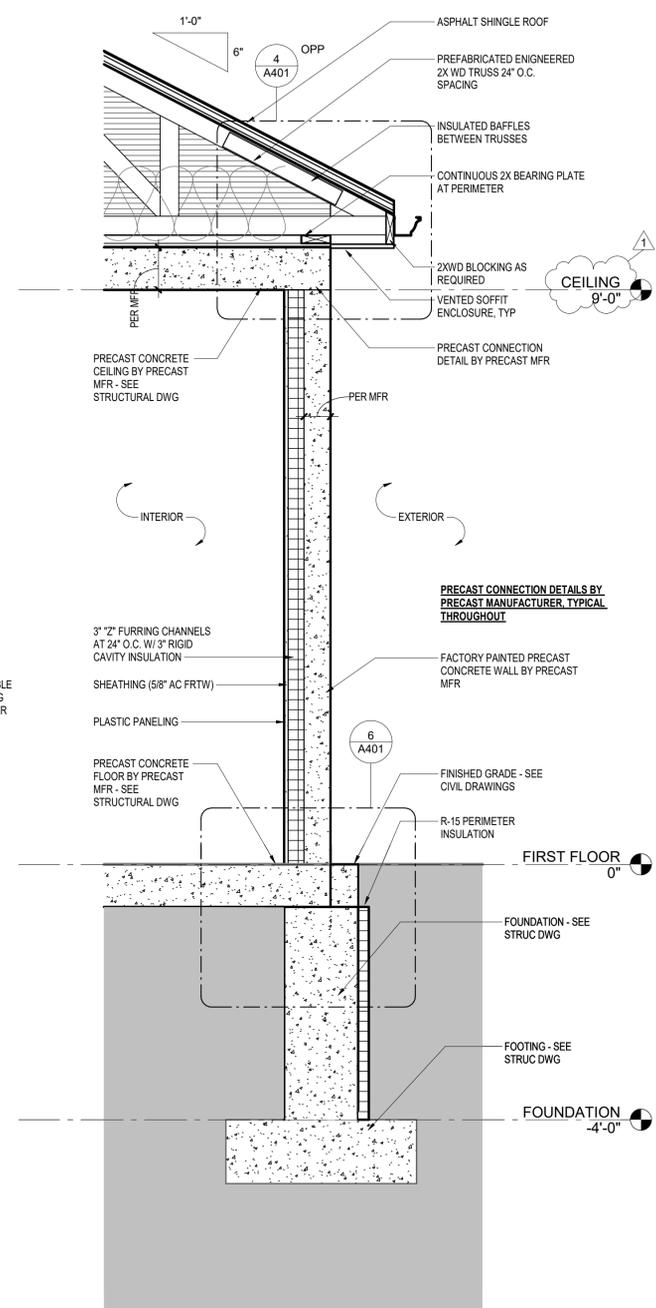
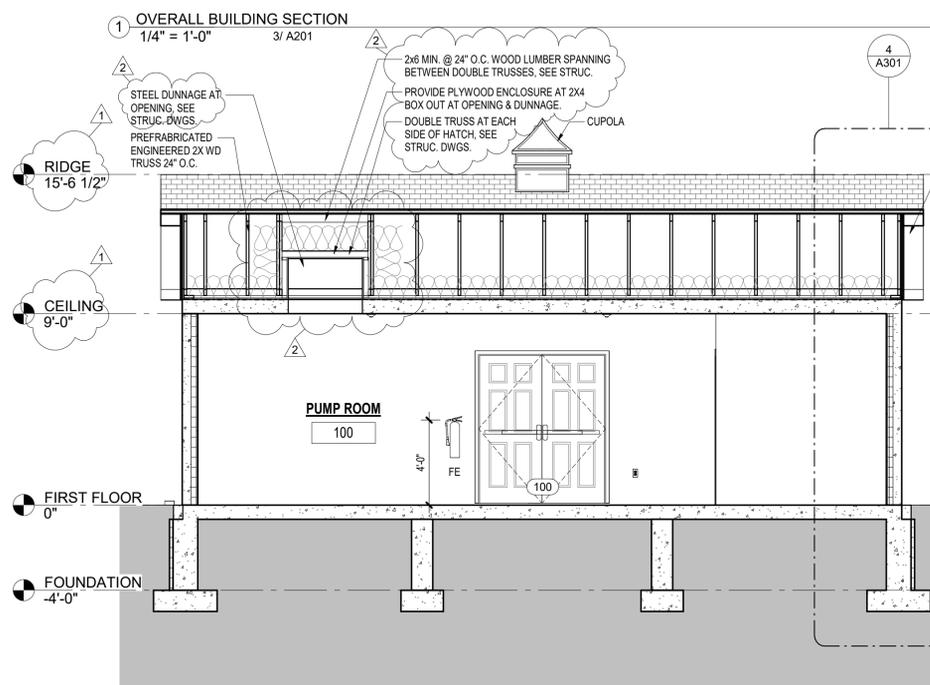
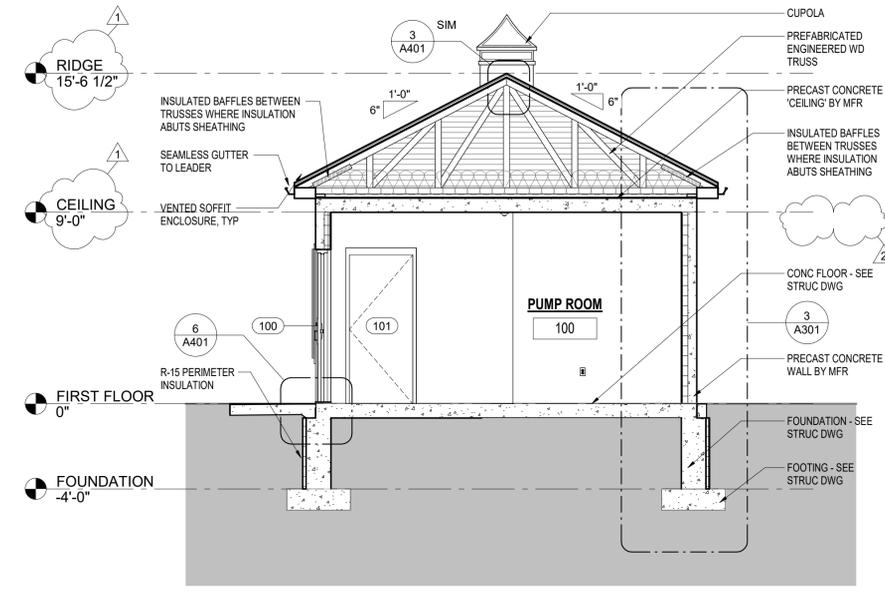
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 Reviewed By: BPM
 Approved By: BPM

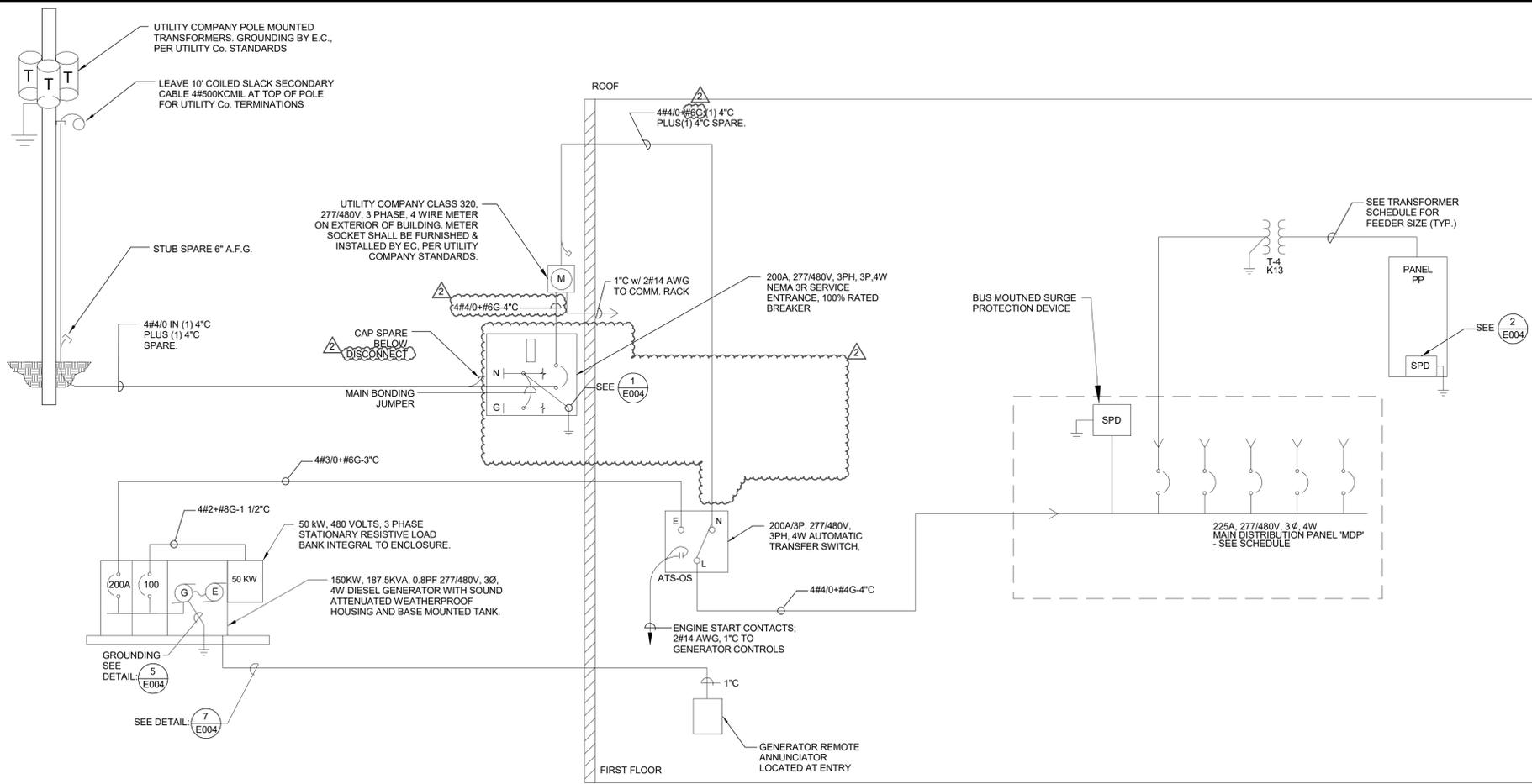
W&S Project No.: ENG24-1299
 W&S File No.: XXX

Drawing Title:
BUILDING SECTIONS

Sheet Number:
A301



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1 ONE-LINE RISER DIAGRAM
E300 SCALE: N.T.S.

225 AMP BUS, 277/480 V, 3 PHASE, 4W AIC: 65,000 ARMS						
MAIN DISTRIBUTION PANEL "MDP" SCHEDULE						
No.	OVER CURRENT DEVICES		CIRCUIT	FEEDER SIZE	COND. SIZE	REMARKS
	TRIP	FRAME				
-	-	-	SURGE PROTECTION DEVICE (SPD)	-	-	DIRECT BUS MOUNTED
1	60	100	PANEL PP VIA T-4	②	②	-
3	100	100	PUMP 4	4#1+8G	2°C	VIA VFD
4	40	100	PUMP 3	4#8+10G	3/4°C	VIA VFD
5	40	100	PUMP 2	4#8+10G	3/4°C	VIA VFD
6	20	100	PUMP 1	4#12+12G	3/4°C	VIA VFD
7	100	100	SPARE	-	-	-
8	-	100	SPACE PROVISIONS	-	-	-
9	-	100	SPACE PROVISIONS	-	-	FOR FUTURE PV SYSTEM AT END OF BUS

- ① FED FROM CURRENT LIMITING BREAKERS. UL LISTED SERIES RATED FOR 42,000A RMS@ RATED VOLTAGE WITH UPSTREAM BREAKERS IS ACCEPTABLE.
- ② SEE TRANSFORMER SCHEDULE FOR WIRE AND CONDUIT SIZE.
- ③ PROVIDE CURRENT LIMITING BREAKERS.

SERVICE: 120/208V, 3 PHASE, 4W AIC: 42,000 ARMS																			
PANEL SCHEDULE																			
PANEL NO.	LOCATION	MTG	MAIN BUS AMPS	MAIN CB	BRANCH CKT BREAKER (AMPS)														
					1 POLE			2 POLE			3 POLE				TOTAL POLES	OTHERS			
					15	20	25	30	15	20	30	40	50	60			70		
PP	BUILDING	S	100	-	-	17	1	1	1	3	1	-	-	-	-	-	-	42	-

THREE PHASE TRANSFORMER SCHEDULE (K13 RATED) COPPER CONDUCTORS												
ID NO	KVA	PRIMARY 480 VOLT					SECONDARY 208 VOLT					GROUNDING ELECTRODE CONDUCTOR (250-66)*
		AMPS	WIRE (THHN)	COND.	C.B.	FUSE	AMPS	WIRE (THHN)	COND.	C.B.	FUSE	
T-1	3	3.6	3#12+12EG	1/2"	15/3	10	8.3	4#12+12(EG)	1/2"	15/3	15	#8
T-2	9	10.8	3#12+12EG	1/2"	20/3	20	25	4#10+10(EG)	3/4"	30/3	30	#8
T-3	15	18	3#10+10EG	1/2"	30/3	30	41.6	3#6(φ)+1#2(N)+1#8(IG)+1#8(EG)	1 1/4"	50/3	50	#8
T-4	30	36	3#6+10EG	3/4"	60/3	45	83.3	3#2(φ)+3/0(N)+1#8(IG)+1#8(EG)	2"	100/3	100	#8
T-5	45	54.3	3#2+8EG	1 1/4"	90/3	80	125	3#1/0(φ)+2#1/0(N)+1#6(IG)+1#6(EG)	2"	150/3	150	#6
T-6	75	90.2	3#1/0+8EG	1 1/2"	150/3	150	208	3#250 KCMIL(φ)+2#250 KCMIL(N)+1#4(IG)+1#4(EG)	3"	250/3	250	#2
T-7	112.5	135.3	3#3/0+6EG	2"	200/3	200	311	3#500 KCMIL(φ)+2#500 KCMIL(N)+1#3(IG)+1#3(EG)	4"	400/3	400	#1/0
T-8	150	180.6	3#350+4EG	3"	300/3	300	416.8	2 SETS 3#250 KCMIL(φ)+2#250 KCMIL(N)+1#2(IG)+1#2(EG)	2 - 3"	500/3	500	#2/0
T-9	225	270.7	3#500+3EG	3"	400/3	400	625	2 SETS 3#500 KCMIL(φ)+2#500 KCMIL(N)+1#1/0(IG)+1#1/0(EG)	2 - 4"	800/3	800	#2/0
T-10	300	360.8	2 SETS 3#350+1#EG	2-3"	600/3	600	833	3 SETS 3#400 KCMIL(φ)+2#400 KCMIL(N)+1#2(IG)+1#2(EG)	3 - 3"	1000/3	1000	#3/0

* RUN IN CODE SIZE CONDUIT TO CODE APPROVED GROUNDING ELECTRODE, I.E., BUILDING STEEL, ETC. "EG" INDICATES EQUIPMENT GROUNDING CONDUCTOR, "IG" INDICATES ISOLATED GROUNDING CONDUCTOR, "N" INDICATES NEUTRAL CONDUCTOR AND "φ" INDICATES PHASE CONDUCTOR.
** PROVIDE "IG" GROUNDING CONDUCTORS FOR PANELBOARDS DESIGNATED WITH "IG" BUS WHERE SHOWN ON PANEL SCHEDULE.

② SCHEDULE OF MECHANICAL, PROCESS, & PLUMBING EQUIPMENT																				
UNIT NO.	DESCRIPTION	LOCATION	LOAD CHARACTERISTICS	VOLT	PH	PANEL	CIRCUIT BREAKER	EQUIPMENT AND CONNECTIONS										REMARKS		
								TS	W	W	W	W	W	W	W	W	W		W	VFD
AC-1	DUCTLESS COOLING UNIT (INDOOR)	PUMP ROOM	-	208	1	PP-17,19	15A/2P	2#12+1#12G-3/4"	X	-	-	X	-	-	-	-	-	-	-	PROVIDE 3#12#12G - 3/4" TO CU-1
CU-1	DUCTLESS COOLING UNIT (OUTDOOR)	EXTERIOR	12.4 MCA	208	1	PP-13,15	30A/2P	2#12+1#12G-3/4"	-	X	-	X	-	-	-	-	-	-	-	
EF-1	EXHAUST FAN	REST ROOM	29 WATTS	120	1	PP-6	20A-1P	2#12+1#12G-3/4"	X	-	-	X	-	-	-	-	-	-	-	
ECUH-1	ELECTRIC UNIT HEATER	REST ROOM	1.5 KW	120	1	PP-9	20A-1P	2#12+1#12G-3/4"	X	-	-	X	-	-	-	-	-	-	-	
EUH-1	ELECTRIC UNIT HEATER	PUMP ROOM	3.0 KW	208	1	PP-8,10	20A-2P	2#12+1#12G-3/4"	X	-	-	X	-	-	-	-	-	-	-	
EUH-2	ELECTRIC UNIT HEATER	PUMP ROOM	3.0 KW	208	1	PP-12,14	20A-2P	2#12+1#12G-3/4"	X	-	-	X	-	-	-	-	-	-	-	
EUH-2	ELECTRIC UNIT HEATER	PUMP ROOM	3.0 KW	208	1	PP-16,18	20A-2P	2#12+1#12G-3/4"	X	-	-	X	-	-	-	-	-	-	-	
PMP-4	WATER PUMP	PUMP ROOM	50HP	480	3	MDP-3	100A-3P	SEE MDP SCHEDULE	-	X	-	X	-	-	-	-	-	-	-	
PMP-3	WATER PUMP	PUMP ROOM	15HP	480	3	MDP-4	40A-3P	SEE MDP SCHEDULE	-	X	-	X	-	-	-	-	-	-	-	
PMP-2	WATER PUMP	PUMP ROOM	15HP	480	3	MDP-5	40A-3P	SEE MDP SCHEDULE	-	X	-	X	-	-	-	-	-	-	-	
PMP-1	WATER PUMP	PUMP ROOM	7.5HP	480	3	MDP-6	20A-3P	SEE MDP SCHEDULE	-	X	-	X	-	-	-	-	-	-	-	
EW-1	ELECTRIC WATER HEATER	RESTROOM	1.8 KW	120	1	PP-20	20A-2P	2#12+1#12G-3/4"	X	-	-	X	-	-	-	-	-	-	-	

MECHANICAL SCHEDULE GENERAL NOTES:

- PROVIDE FLEXIBLE CONNECTION TO EQUIPMENT REFER TO SPECIFICATIONS.
- CONTROLLERS AND DISCONNECT DEVICES SHALL BE NRTL RATED FOR USE WITH A DESIGN MOTOR WITH A HORSE POWER RATING NOT LESS THAN 1.4 TIMES THE MOTOR HORSE POWER. (REFER TO ELECTRICAL CODE ARTICLE 430).
- TWO SPEED MOTORS SHALL HAVE TWO MOTOR BRANCH CIRCUITS AND SIX POLE DISCONNECTS.
- WHERE INDICATED PROVIDE WEATHERPROOF DUPLEX RECEPTACLES AT MECHANICAL EQUIPMENT. PROVIDE 3/4" WITH 2#12+1#12G AWG TO NEAREST PANEL AND CONNECT TO 20A/1P CIRCUIT BREAKER UNLESS OTHERWISE INDICATED.
- ALL EXTERIOR MOUNTED DISCONNECT SWITCHES, JUNCTION/PULL BOXES, RACEWAYS, FLEXIBLE CONNECTION TO EQUIPMENT, ETC. SHALL BE NEMA "3R."
- THE E.C. SHALL PROVIDE NEMA 7 DISCONNECT SWITCHES AND SEAL FITTINGS AT EXPLOSION PROOF FANS.
- WHERE INDICATED PROVIDE 120 VOLT CIRCUIT FOR RECEPTACLE AND LIGHT FIXTURE TYPE "J" AT ROOF TOP UNIT AS NOTED. TYPICALLY CONNECT TO NEAREST 120 VOLT RECEPTACLE CIRCUIT UNLESS OTHERWISE INDICATED.
- PROVIDE WEATHERPROOF DUPLEX RECEPTACLES AT MECHANICAL EQUIPMENT. PROVIDE 3/4" WITH 2#12+1#12G AWG TO NEAREST PANEL AND CONNECT TO 20A/1P CIRCUIT BREAKER UNLESS OTHERWISE INDICATED.

MECHANICAL SCHEDULE KEY NOTES:

- PROVIDE 3/4" CONDUIT W/PULL WIRE BETWEEN INDOOR UNIT & OUTDOOR UNIT FOR EACH SPLIT SYSTEM.
- REFER TO APPROVED HVAC, PROCESSING, AND PLUMBING SHOP DRAWINGS FOR ELECTRICAL WIRING DIAGRAMS AND ROUGH-IN REQUIREMENTS.
- E.C. SHALL F&I UNI-STRUT, FOR MOUNTING OF WEATHERPROOF DISCONNECT SWITCH, GFI RECEPTACLE AND LIGHT FIXTURE TYPE "J". LOCATE ADJACENT TO HVAC UNIT BEING SERVED.
- PROVIDE 3/4" W/PULL WIRE BETWEEN UNIT AND DESIGNATED THERMOSTAT REFER TO H SERIES DRAWINGS FOR LOCATIONS. FIELD COORDINATE EXACT LOCATION.

Project:
BURGESS AVENUE BOOSTER PUMP STATION REPLACEMENT
1446 HIGH STREET
WESTWOOD, MA 02090

DEDHAM-WESTWOOD WATER DISTRICT
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Revisions:		
No.	Date	Description
1	2-25-26	ADDENDUM 1
2	3-11-26	ADDENDUM 2

COA:

Scale: NTS

Issued For:
BIDDING

Scale: NTS

Key Plan:

Date: February 6, 2026
Drawn By: JMB
Reviewed By: JMB
Approved By:

W&S Project No.: ENG24-1299
W&S File No.:

Drawing Title:
ELECTRICAL ONE-LINE RISER AND PANEL SCHEDULES

Sheet Number:
E300