

LYNN WATER AND SEWER COMMISSION
400 PARKLAND AVE
LYNN, MASSACHUSETTS

TO: All Bidders of Record

Date Issued: February 4, 2022

FROM: April Lozzi, Purchasing Agent

BID OPENING FOR FILED-SUB-BIDDERS DUE DATE EXTENDED AND RESCHEDULED TO : Wednesday, January 26, 2022 AT 2:00 P.M. E.S.T.

BID OPENING FOR GENERAL CONTRACTORS DUE DATE EXTENDED AND RESCHEDULED TO : Wednesday, February 9, 2022 AT 2:00 P.M. E.S.T.

LOCATION OF BID OPENING: LYNN WATER AND SEWER COMMISSION
400 PARKLAND AVE.
LYNN, MA 01905
(781-596-2400)

BID #22-002
PHASE 3 WEST LYNN SEWER SEPARATION PROJECT NO. CWSRF-4488

CONTRACT DOCUMENTS
PART 2 - ADDENDUM NO. 6

TO ALL PLAN HOLDERS OF RECORD:

THE FOLLOWING INFORMATION AND ATTACHMENT IS NECESSARY TO PROPERLY PREPARE BIDS:

This document comprises **Addendum No. 6** to the above referenced project and shall be part of the Contract Documents and must be acknowledged on the proper attached Addendum form and submitted with bid. Instructions below shall supersede any contradictory instructions in the Contract Bid Document. Firms submitting bids for the above bid shall take note of the following changes, additions, deletions, clarifications, etc. in the Bid Documents, which shall become part of and have precedence over anything contrarily shown or described in the Bid Documents, all such shall be taken into consideration and be included in the bidder's bid. Questions and Answers provided within this document are not part of the Contract Documents and are provided for convenience of the bidding contractors and the Lynn Water and Sewer Commission (LWSC).

1. Specification Section 00 00 00 Table of Contents

INSERT Section 43 30 58 SST Flap Gates

Division 0 – Bidding and Contract Documents DELETE “Attachment N ---LWSC Release and Indemnity Agreement...2”.

2. Specification Section 00 73 00 Supplementary Conditions

Table of Contents, Part III – Other Special Provision DELETE “RELEASE AND INDEMNITY AGREEMENT – 40 FEDERAL STREET, LYNN, MA (ATTACHMENT N, 1 PAGE)”.

Page 00 73 00-30 Part III – Other Special Provisions DELETE Paragraph 1.0 RELEASE AND INDEMNITY AGREEMENT – 40 FEDERAL STREET, LYNN, MA in its entirety.

Page 00 73 00-291 DELETE Attachment N RELEASE AND INDEMNITY AGREEMENT – 40 FEDERAL STREET, LYNN, MA in its entirety.

3. Specification Section 01 22 00 Measurement and Payment

Paragraph 3.02.J.6.a After “incidentals necessary to” DELETE “excavate,”.

4. Specification Section 01 41 00 Permits and Regulatory Requirements

Paragraph 1.03.F INSERT the following after “requirements”: “, including the purchase of all insurance requirements listed under paragraphs 1.02 and 1.03,”.

5. Specification Section 01 74 50 Television Inspection of Gravity Pipe

INSERT 01 74 50 Attachment A – Neptune Blvd Park GIS

6. Specification Section 02 61 00 Soil Management and Disposal

DELETE Paragraphs 1.01.A.1/2 in their entirety and REPLACE with the following:

“1. The total estimated weight of surplus soil displaced by the Project within the trench width pay limits is 32,130 tons.”

7. Specification Section 08 71 11 Door Hardware

Paragraph 2.04.D.3 DELETE “(Roses)”.

Paragraph 3.09.E ADD the following: “8. 1 Strike”.

Paragraph 3.09.E DELETE the following: “3. 1 Cylinder”.

8. Specification Section 31 71 30 Microtunneling

Paragraph 3.07 Casing and MTBM Size

DELETE Paragraph 3.07.A in its entirety and REPLACE with the following ““The Contractor may at the Contractor’s option oversize the Casing Pipe for the Commercial St. Tunnel. If the Casing Pipe is oversized, the Casing Pipe springline shall match the springline elevation of the Casing Pipe based on elevations shown on the Contract Drawings. If the Casing Pipe is oversized the Contractor shall bear all costs for the larger pipe and completing the project with the larger pipe. If the Carrier Pipe is oversized, the Contractor shall be responsible and shall bear all costs for design and construction of affected project components including but not limited to manholes and connections. Submit changes to the Engineer for approval.”.

9. Specification Section 43 20 00 Pumps, General

Paragraph 2.05.A.1 DELETE “1U” and REPLACE with “1B”.

10. Specification Section 43 25 06 Submersible Solids Handling Pumps

Paragraph 2.03.B.5 DELETE “or AISI 329 formulated for wrought iron. Alternatively, ASTM A-532, 25% Cr Cast Iron can be used.”.

Paragraph 2.03.B.6 DELETE “or a duplex stainless steel case wear ring”.

11. Specification Section 32 12 17 Porous Asphalt Paving

Paragraph 3.01.B.1 DELETE in its entirety and replace with the following:

“1. Material for the choker course shall meet the following:

Maximum Wash Loss of 0.5% (ASTM C117)

Minimum Durability Index of 35 (ASTM D3744)

Maximum Abrasion Loss of 10% for 100 revs. and max. of 50% for 500 revs. (ASTM C131 OR C535, AASHTO T-96)

Material for the choker course shall have the AASHTO No. 57 and AASHTO No. 5 gradations, respectively.”

12. Specification Section 43 20 00 Pumps, General

Paragraph 2.03.C.2 DELETE paragraph 2.03.C.1 in its entirety.

Paragraph 2.03.C.2 DELETE paragraph 2.03.C.2 in its entirety.

13. Specification Section 43 25 06 Submersible Solids Handling Pumps

Paragraph 2.02.B.12 DELETE “4” and REPLACE with “2”.

Paragraph 2.05 DELETE Paragraph 2.05.B in its entirety and REPLACE with the following:

B. Furnish each wet-pit submersible pump with a pump protection unit for leak detection and over temperature protection. The Contract’s pump control designs are based on the MAS801 pump/motor protection unit furnished by the Manufacturer. If the Contractor selects to use an alternative protective device, the Contractor shall be responsible at no additional cost to the Owner for any design modifications required to incorporate the unit(s) into the Contract design. The Contractor shall coordinate pump protection unit information between the pump manufacturer and PCIS supplier. The service representative of the pump manufacturer shall provide configuration parameters, startup information and support to the PCIS supplier to enable field testing and integration of the monitoring system.

INSERT the following after paragraph 2.04.H:

“1. Power Factor Correction: Each motor 20HP and larger shall be furnished with a suitably rated set of power factor correction capacitors. The capacitors shall be fused, with internal resistors, suitably enclosed for mounting

adjacent to the starter, and sized to improve power factor to not less than 0.95 percent lagging at full load. Size shall be as recommended by the motor manufacturer. The capacitors wiring shall be coordinated with Division 26 drawings, the power factor correction device breaker shall be installed on the line side of the motor starter and shall be interlocked with the motor starter to disconnect the power factor correction during motor starting to ensure no damage is caused to any equipment. Dielectric fluid shall be non-PCB, biodegradable and non-flammable. The capacitors shall be installed by the electrical subcontractor per 26 29 13 2.03A. A spare capacitor for each type used shall be provided.”

14. Specification Section 40 63 00 Control System Equipment

Paragraph 2.06 Licensed Radio Modems: DELETE paragraph 2.06.A in its entirety and REPLACE with the following:

A. RADIO COMMUNICATION

1. The telemetry SUBCONTRACTOR shall furnish and install the new Radio Communication Network (RCN) equipment as specified herein. It is the intent of these specifications to have a single Telemetry SUBCONTRACTOR be responsible for furnishing all equipment, tools, labor, essential communication, transportation, fuel, water, power, hardware, software, radio interfaces, system integration, testing, and startup services to provide a complete turn-key system. It is the responsibility of the subcontractor to provide a fully functional radio communication network.
2. The RCN shall include all work as defined in the CONTRACT DRAWINGS, and as specified herein. The RCN shall provide for PLC communications radio network between the following sites:
 - Lynn Wastewater Treatment Facility (WWTF)
 - Lynn Pumping Station
3. SUB-CONTRACTOR shall coordinate with OWNER to procure additional licenses, where required, for each new radio as part of this WORK.
4. The Telemetry SUBCONTRACTOR shall be responsible for coordinating the installation of the RCN with the installation of the PLC by others under this contract.
5. The RCN installation shall meet the following standard:
 - 1) FCC part 15 Radio Frequency Devices
6. The delivered equipment shall include all tools, diagnostic equipment, and documentation to install and maintain all future expansion capabilities. Each radio system shall be completely functional and interchangeable with any other telemetry equipment that is SUBCONTRACTOR-furnished or Telemetry-SUBCONTRACTOR-modified without hardware modification.
7. Reference P&ID drawing notes for additional requirements.
8. Reference NFPA 780 for lightning arrestor equipment requirements.
9. Licensed Radio System (LRS)
 - a. The radio system shall be, licensed frequency type. And provided for each location noted in 40 61 13 2.06 A 2.
 - b. The radio shall support 128-bit data encryption and two-way authentication security features
 - c. Power: 10-30 VDC input
 - d. Humidity: 95% at 40 deg c
 - e. Where indicated on the contract drawings PLC/RTU communications shall be via direct ethernet connection between the ethernet-ready radio and the plc ethernet port. It shall be possible to re-assign a unique IP address to each PLC/RTU via the wireless communication network. The addressing scheme shall allow a minimum of 255 devices for each network id. Each radio shall be equipped with an integral RJ-45 ethernet port. The communication protocol for the radios shall be TCP/IP. The subcontractor shall use a licensed frequencies as defined by the Radio Path Field Survey as identified in 40 61 13 1.05 k to facilitate wireless communications.
 - f. Shall be capable of communicating with Allen Bradley Ethernet/IP Protocol
10. The complete communications subsystem including all interconnecting cables shall contain lightning, surge and transient protection. Telemetry SUBCONTRACTOR shall provide line-loss calculations.
11. Frequency application: using the identified FCC frequency coordinator, the sub-contractor shall procure the agreed upon frequency from the FCC with the City registered with the FCC as the licensee. The SUBCONTRACTOR will be responsible for populating and submitting form 601 (with any required waivers) to the FCC on behalf of the OWNER. All application, frequency usage or waiver language issues that precipitate from the FCC filing process shall be the responsibility of the SUBCONTRACTOR. FCC rules for frequency usage and application filing shall be strictly adhered to. The tracking number issued during the submittal process shall be forwarded to the CITY and the ENGINEER.
12. Electrical transient protection
 - a. All electrical and electronic elements shall be protected against damage due to electrical transient induced in interconnecting lines from lightning discharges and nearby electrical systems. Installation shall meet or exceed NFPA 70 standards.
 - b. Manufacturer's requirements: all surge suppressor devices shall be manufactured by a company that has been engaged in the design, development, and manufacture of such devices for at least

5 years. Supplied TVSS units shall meet or exceed UL 1449 requirements for transient voltage surge suppression.

13. Antennas
 - a. The telemetry SUBCONTRACTOR shall supply a directional YAGI antenna for the Pumping station and omni antenna for The Lynn Wastewater Treatment Facility (WWTF).
 - b. The telemetry subcontractor shall verify the number of elements and the overall gain required to maintain a -20 db fade margin.
 - c. The telemetry subcontractor shall supply directional (YAGI-style) or OMNI-directional antennas, as defined elsewhere in this specification in line with the recommendations of the Radio Path Field Survey.
 - d. The RTU directional antennas shall be a YAGI type designed for 10 db gain for the designated frequency range and fabricated of solid aluminum elements, 360 degree welds and protective coating. All antennas shall be LCom model HG410P series or approved equal.
 - e. The omni-directional antennas shall be designed for 9db gain (or as required to maintain -20dbm fade margin) rated for the designated frequency range use and fabricated from fiberglass and stainless steel. All antennas shall be LCom HG439U series or approved equal.
 - f. Lightning arrester shall be for 50 ohm transmission cables, have type n connectors, and shall limit surge voltage to less than 50volts within 8 microseconds from current surges up to 50000 amperes. Arrester shall be suitable for frequencies between 125 MHz and 1 GHz. Arrester shall be Polyphasor Model IS-50NX-C2 or approved equal.
14. Coax cable
 - a. Coax cable and connectors: The coax cable shall be a 1/2-inch, low loss foam cable with corrugated copper or aluminum shield suitable for use in the designated frequency range. Inner conductor shall be copper-clad aluminum. Attenuation shall be no greater than 1.45db/100-ft. Operating temperature shall be from -67 degrees f to 185 degrees f. The PVC jacket shall be UV rated for outdoor use. The cable shall not be spliced at any point. The cable shall be Commscope/Andrews LDF4-50A or approved equal. The connectors shall be designed for low loss foam cable and shall be as manufactured by Andrews. Provide weatherproofing kits as manufactured by Andrews.
15. Antenna poles
 - a. RTU antenna poles: The SUBCONTRACTOR shall mount antenna pole with new schedule 80 anodized aluminum pole of height defined in the Radio Path Field Survey. The pole shall be secured to a structure or in cement such as to ensure a 150mph wind-load rating with YAGI antenna mounted. YAGI antenna mounting hardware shall be constructed of 316SS with weatherproof material separators. Final installation or pole and antenna shall be rated for 150mph sustained winds (or as required by the permit date local building code). Round tapered aluminum poles shall be as designed and manufactured by Holophane or approved equal.
16. The Telemetry SUBCONTRACTOR shall configure and program the radios at each location and the radio management software at the plant location.
17. The Telemetry SUBCONTRACTOR shall install and program any managed ethernet switches necessary to integrate the radio system to the ethernet network.
18. The Telemetry SUBCONTRACTOR be responsible for furnishing all equipment, tools, labor, essential communication, transportation, fuel, water, power, etc. As needed furnish, install and test the RCN.
19. The Telemetry SUBCONTRACTOR shall be responsible for obtaining all required licenses and permits as required to execute the work.
20. The Telemetry SUBCONTRACTOR shall be responsible for furnishing, installing and terminating all antenna coaxial cable, ethernet network cable, and serial communications cable between the antennas, radio panels, and PLC enclosures. The telemetry subcontractor shall be responsible for furnishing the radio enclosures and radio panels to the Electrical SUBCONTRACTOR. The Electrical SUBCONTRACTOR shall install enclosures on site.
21. The Electrical SUBCONTRACTOR shall be responsible for furnishing and installing all conduit between the antennas, radio enclosures, and plc enclosures. The Electrical SUBCONTRACTOR shall be responsible for furnishing, installing and terminating all 120 VAC power wiring, electrical transient equipment, equipment grounding conductors and grounding electrode conductors between the radio enclosures, PLC enclosures, power panels and grounding systems.
22. The Telemetry SUBCONTRACTOR shall use a signal strength meter to position/align each antenna for maximum signal strength. Final readings and antenna bearings shall be recorded and included in the O&M documents. Installation test equipment shall be the supply responsibility of the telemetry subcontractor.
23. Testing and Installation
 - a. Start-up test: The INTEGRATOR will perform programming for the PLC and HMI programming associated information conveyed over the RCN. The telemetry SUBCONTRACTOR shall provide start-up support to INTEGRATOR as required during the testing period to produce a fully operational facility. This support shall be provided at no additional cost to the owner.

- b. 7-Day Radio Bandwidth Test:
 - 1) The telemetry SUBCONTRACTOR shall conduct a successful 7-day bandwidth test for the RCN system furnished under this contract. In the test, the entire RCN shall be continuously operated and maintained (i.e., 24 hours per day) during the test period with zero downtime resulting from system failures. If a system failure occurs due to hardware or configuration provided under this contract, the 7-day test shall be considered a failure and not acceptable. The telemetry SUBCONTRACTOR shall repeat the 7-day test. The RCN system shall be acceptable only after all equipment and software has satisfied the bandwidth test requirements. This test shall require a single message transmitter device and receiver device operational with 90% of the radio's maximum bandwidth being used. For example, if the radio specifications rate the radio as being able to transmit 50 Kbps the test shall transmit 45 Kbps continuously for 7 days.
- c. Downtime resulting from the following shall be considered system failures:
 - 1) If a failed component cannot be repaired/replaced within 2 hours.
 - 2) Downtime of any component whose failure results in the inability of the operator to monitor and manipulate control loops from the associated workstations using standard workstation interface procedures.
 - 3) Rework and retest: if the RCN does not operate as required, the telemetry SUBCONTRACTOR shall make whatever corrections are necessary, and the failed portion of the test shall be repeated.
- d. The telemetry SUBCONTRACTOR shall submit a bandwidth performance test completion report which shall state that all contract requirements have been met and which shall include the following.
 - 1) A listing of all RCN equipment maintenance/repair activities conducted during testing.
 - 2) A listing of all components which were unable to operate successfully.
 - 3) Bandwidth usage real time calculations during the testing.
 - 4) Error logs from the radio systems for each device on the rcn.
 - 5) Error logs from the transmitter device.
 - 6) Proof that the RCN successfully managed the throughput required during the test. Proof shall be in the form of a report from a capturing software that measures traffic flow rate of the required protocol. (example: Wireshark testing software may be used on an ethernet protocol radio system.)
- e. Final acceptance, in writing, of the RCN system shall be provided by the INTEGRATOR if the results of all of the performance tests are acceptable. If the results are not acceptable the telemetry SUBCONTRACTOR shall correct the defects or replace designed components to manage the specified bandwidth at no cost to the owner.

15. Specification Section 43 30 58 SST Flap Gates

INSERT Specification Section 43 30 58 SST Flap Gates.

16. Drawing CG-06 Standard Details – Sheet 4 of 11

INSERT Detail C-909B Double Grate Circular Catch Basin – Type 3

17. Drawing CG-11 Standard Details – Sheet 9 of 11

DELETE Vent Detail C-913B in its entirety.

18. Drawing CG-17 Tunneling Shaft Details

General Sheet Notes: ADD "3. All buried exterior ductile iron piping for pressure service shall be restrained joint in accordance with Specification 33 05 19.2.03.D.5/7, unless otherwise indicated.

19. Drawing C-12 Pump Station Site Plan

Flow Meter Vault FM DELETE "4" diameter DI" and Replace with "2" diameter PVC".

DELETE reference to Vent Detail C-931B and REPLACE with Vent Detail C-931A.

20. Drawing D-06 Pump Station Bypass Flow Meter Vault Plan and Section

Flow Meter Vault Plan DELETE "4"DI" and REPLACE with "2" PVC".

Section DELETE "4" before restrained and REPLACE with "2".

Notes: ADD "7. All buried exterior ductile iron piping for pressure service shall be restrained joint in accordance with Specification 33 05 19.2.03.D.5/7, unless otherwise indicated.

21. Drawing A-11 Electrical Building Door and Access Panel Schedules and Door Details

Door Schedule: Doors 01-01, 01-02, 01-03, DELETE all Head, Jamb and Sill Detail references and REPLACE with the following: Head Detail shall reference 3/A-11, Jamb Detail shall reference 2/A-11, and Sill Detail shall reference 1/A-11. At doors 01-04 through 01-08, Head Detail shall reference 5/A-11 and Jamb Detail shall reference 4/A-11.

22. Attachments

The following documents referenced above are ATTACHED and marked as "Bid Addendum No. 6".

- a. Specification Section 43 30 58 Flap Gates
- b. Specification 01 74 50 Attachment A – Neptune Blvd Park GIS
- c. Detail C-909B Double Grate Circular Catch Basin – Type 3
- d. Drawing I-04 Pump Station Control Panel Layout - Rev1

23. Response to Questions

Question 1:

Please confirm, that if the watermain shown on Dwg C-12 Note 2, cannot be abandoned, it shall be paid as a change order to the contract.

Response 1:

Confirmed.

Question 2:

Who will determine if the watermain shall be abandoned on Dwg C-12 Note 2?

Response 2:

Determination to be made by LWSC per C-02 Note 5.

Question 3:

Plan Sheet C-08, C-12 and D-06: Please confirm the sewer force main from the flow meter vault to SMH 116+18 is 4" DI not 2" PVC indicated on C-08?

Response 3:

Force main from flow meter vault is 2" PVC. See addendum 6 Items 19 and 20.

Question 4:

Specification Section 02 61 00 para 1.05.W. defines "Surplus Material" as soil with contamination concentrations below MCP-Reportable Concentration (<RCS-1). However, there is not a unit price pay item, nor an estimated quantity, for the removal and disposal of Surplus Material. Please provide an estimated quantity of Surplus Materials to carry in the bid, as well as a pay item for its removal and disposal, as we cannot quantify <RCS-1 materials (whether re-used onsite or disposed off-site) without having proper soil analytics or a geotechnical report which provides this information as a basis for pricing the work.

Response 4:

Per Specification Section 01 50 00.1.05.A "The Contractor shall remove any of his surplus materials at the completion of the work."

Question 5:

Plan sheet S-14, detail K: Please confirm elevation 11.11 to elevation 15.11 is to be backfilled with structural fill under the raised transformer pad, similar to the requirements under the electrical building.

Response 5:

Confirmed as written.

Question 6:

Plan sheet S-14, detail K: Please confirm reference to cut detail L is found on S-15.

Response 6:

Confirmed as written.

Question 7:

Plan Sheet C-04 & C-05: Please provide approximate depth to the top of existing utilities at all utility monitoring point locations shown or provide an allowance on the bid form for their installation.

Response 7:

Depth to gravity utilities shall be assumed based on the provided invert elevations and profiles. Pressure utilities shall be assumed to be standard industry depths of 4-8 feet. If pressure utilities are deeper, the Contractor shall submit a change through the process outlined in the Contract.

Question 8:

43 20 00.2.03.C.2/3 - Flygt produces our own, non-split mechanical seals. These seals listed are generally used with non-submersible pumps. Are Flygt produced mechanical seals acceptable?

Response 8:

See Addendum 6 Item 12.

Question 9:

43 20 00.2.05.A.1 - What duty point should be guaranteed to HI Level 1U during testing given that the selection was made based on parallel performance? We asked this in spec review a year ago and never received an answer. If we use a duty condition of 16875gpm @ 60ft TDH, we can only guarantee to HI Level 1B. Is this acceptable?

Response 9:

Testing to HI level 1B is acceptable. See Addendum 6 Item 9.

Question 10:

2.03.B.5; Pump Construction – Impeller - The noted spec paragraph notes the impeller material shall be Duplex stainless steel or Alternatively Cr Cast Iron can be used. It is highly recommended that the specification require Duplex stainless steel so all manufacturers are supplying the same impeller material. It is also recommended that you define the requirement to supply and the material (Duplex stainless) and hardness of the impeller wear ring.

Response 10:

See Addendum 6 Item 10.

Question 11:

2.03.B.6; Pump Construction – Insert Ring - The noted paragraph states that the volute shall be furnished with a replaceable grooved insert ring from Bronze or duplex stainless steel case wear ring. It is highly recommended that the specification require Duplex stainless steel so all manufacturers are supplying the same wear ring material. It is also recommended that you define the hardness of the volute wear ring. Bronze is a soft material (compared to Duplex stainless) and not designed for wear resistance. Note, impeller and volute wear rings should have a hardness difference of a minimum of 50 BHN.

Response 11:

See Addendum 6 Item 10.

Question 12:

Based on the Filed Sub bid results and specialty nature of the project, Walsh Construction Company II, LLC respectfully requests a significant reduction of the 4.2% D/MBE and 4.5% D/WBE participation goals. The Filed Sub bids provide no opportunity for D/MBE and little opportunity for D/WBE participation. Additionally, there is limited opportunity to achieve the goal from the remaining scopes of work, of which there are specialty scopes of work that make up a large percentage of the total contract value and have no certified D/MBE or D/WBE firms to perform them.

Response 12:

The DBE participation goal percentages are required as part of the SRF funding. A *REQUEST FOR WAIVER FOR SRF CONSTRUCTION* is included in Specification Section 00 73 00 Supplemental Conditions ATTACHMENT C (page 83).

Question 13:

Item G on the Invitation to bid calls for the removal and disposal of the top eight feet of soil from the site. No further details of this scope of work has been provided.

- a. What is the limits of this work – just the footprint of the pump station; the footprint of the pump station and electrical building; the entire area to be developed into the pump station or the entire limit of work?
- b. Are you required to import 8' of material to bring the site back to grade? If so, to what limits?

Response 13:

The limit of removal and disposal of the top eight feet of soil is within the boundaries of the proposed pump station fence line indicated on Drawing C-06. Reuse of materials excavated below the top 8-feet

Question 14:

Spec 01 75 00 section 3.03.A.2.a. lists that the Owner is responsible to provide the water for pump station equipment testing and plant start-up. Please confirm the Owner is responsible for the cost of water for hydrostatic pipe testing, tank leakage test, pump startup and test water, and construction use water.

Response 14:

General Contractor is allowed to purchase water from LWSC for startup and testing purposes. See Spec Section 01 50 00.1.08.

Question 15:

Submitted on behalf of NORWALK MARINE RFI - Steel Pipe Piles (316223): If the piles achieve their respective capacities at a tip elevation above -167' can the piles be terminated, or will they need to be driven to the required tip elevation?

Response 15:

Boring TT-064D-G encountered the top of glacial till at a depth of 176.5' (EI-162). The design intent was to embed the piles 5' into the till (EI-167). Above the till is 110' of very soft Boston Blue Clay. The piles will be required to be driven either to the specified tip elevation or if not encountered at that depth then 5 feet into glacial till.

Question 16:

Addendum #3 Question 27. Please clarify the Question 27 Response – What are the limits of the Pump Station site that require removal of the top 8 ft of soil? Reference drawing C-06. Is it the top 8 feet of soil inside of the proposed new fence (blue) or is it the entire area inside of the existing limit of work dashed line (red)?

Response 16:

The limits of the removal of the top 8-feet of soil is the area within the bounds of the proposed fence line

Question 17:

Door Schedule Plan A-11: Frame Head & Sill Details 7 & 8/A-09 are noted but they do not exist. Wall Section 2/A-08 appears to have the correct details for these openings. Please clarify.

Response 17:

There are no thresholds at any interior doors. See Addendum 6 Item 21.

Question 18:

Finish Hardware Spec 087111, PP.2.04.D.3 calls for both escutcheon and rose lock trim. Which one is required?

Response 18:

Provide escutcheon lock trim. See Addendum 6 Item 7.

Question 19:

Finish Hardware Spec 087111, Hardware Sets HW2, HW3 & HW4 all list "Strikes." Are they typical lock and exit device strikes, or are they to be Electric Strikes?

Response 19:

Spec Section 08 71 11, 3.09.B, C and D - References to Strikes in HW-2, HW-3 and HW-4 are typical lock and exit device strikes. There are no electric strikes. See Addendum 6 Item 7.

Question 20:

Finish Hardware Spec 087111, Hardware Set HW5 calls for a Cylinder. Specified Privacy function F02 is non-keyed; an emergency release is provided. Please clarify.

Response 20:

See Addendum 6 Item 7.

Question 21:

Is it the intent for the transportation and disposal for all surplus soils to be compensated under the Item 1J unit prices? How will the contractor be compensated for the disposal of excess materials if they do not meet the criteria of a unit price?

Response 21:

Per Specification Section 01 50 00.1.05.A "The Contractor shall remove any of his surplus materials at the completion of the work."

Question 22:

Specification 01 22 00, Test Pits Item 1C, the payment section indicates the unit price shall be for full compensation for indeterminate items such as dewatering and surface restoration. Since the project scope occurs both on and off city streets and the depth of existing utilities could be very deep, a fixed unit cost of a test pit cannot be realistically determined without necessary prior investigation due to the variability of the existing conditions at each possible location. In order to fairly price this bid item for the Owner and to keep the bidding on a level playing field, we request this bid item be changed to an allowance so that all costs related to the requested test pitting can be adequately and fairly recovered.

Response 22:

No change to bid item.

Question 23:

Specification 01 22 00, Rock Excavation 1E, the payment section includes backfill with gravel borrow for removals outside of pay limits. This is an indeterminate quantity, not knowing the size or location of objects to be removed. We request this requirement be removed from this bid item and included in Item 1G Gravel Borrow?

Response 23:

No change to bid item.

Question 24:

Spec 01 74 40 section 3.02.B.1 requires leak testing concrete structures to the max operating water level. For the pump station concrete structure, please confirm the max operating water level can be assumed as the high-high water level alarm elevation 0.00' as listed in spec 40 61 96, attachment A, Item I – Level Setpoint Table.

Response 24:

The max water level for the wetwell/influent structure leak testing is El. 11.0.

Question 25:

Plan sheet C-04 & C-05: Please confirm there are 0ea Settlement monitoring points in soil required for this project. Please confirm there are 0ea Reflectorless Monitoring points required for this project. Please confirm there are 0ea crack gauges required for this project.

Response 25:

There are 0ea settlement monitoring points included in the bid. There are 0ea crack gauges included in the bid. Reflectorless monitoring points may replace the PK Nail detail at the contractor's option as noted in Detail C-948 of Drawing CG-14.

Question 26:

In Spec 02 61 00, Paragraph 1.01A.1 it states that the total surplus soil from piping, pipe zone fill material, buried structures and structure bedding within the trench pay limits is 32,130 ton. Paragraph 1.01.A.2 states the total surplus soil displaced by the roadway and sidewalk base course material within the trench width pay limits is 32,130 tons. Is the total expected surplus soils for the project 64,260 tons?

Response 26:

See Addendum 6 Item 6.

Question 27:

Submitted on behalf of GEO-TEK Engineering RFI Specification 31 09 16 and Plan CG-14 –

- a. According to the specification paragraph 2.02.A, "Settlement Monitoring Points installed in pavement shall be nails that are driven or drilled and grouted into the pavement". At the same time, the drawing CG-14 shows Settlement Monitoring Point in the pavement as a # 5 rebar grouted in place. Please clarify.
- b. According to the specification paragraph 2.02.A, for the Utility Monitoring Points, "The steel rod shall be embedded 6 inches in a stiff (utility) grout placed onto the existing utility". The drawing CG-14 shows the steel rod placed 2 inches above the utility, inside 4" PVC casing. Such installation may couple the casing and the rod together and may cause false readings. Please consider using the typical UMP installation where the bottom steel rod is covered with a bit of epoxy and set right on the top of the utility, independent of the 4" sleeve.

Response 27:

- a. The Detail on drawing CG-14 shall have priority for the installation.

b. The detail for the utility monitoring point shall be as shown on drawing CG-14

Question 28:

Spec 31 62 23 Section 1.05.K.1 calls for one pile test to be performed at the Pump Station and one at the Electrical Building however does not specify which test is to be performed, compression or tensile. Section 3.12.A. calls for one compression test and one tensile test. Please confirm there will be one compression test at one location and one tensile test at the other location.

Response 28:

One compression pile load tests shall be performed at the pump station. One tension pile load test shall be performed at the electrical building.

Question 29:

According to the specification section 31 09 16, paragraph 2.02.A, "Settlement Monitoring Points installed in pavement shall be nails that are driven or drilled and grouted into the pavement". At the same time, the drawing GC-14 shows Settlement Monitoring Point in the pavement as a # 5 rebar grouted in place. Please clarify.

Response 29:

See response (a) to Question 27.

Question 30:

According to the specification section 31 09 16, paragraph 2.02.C, for the Utility Monitoring Points, "The steel rod shall be embedded 6 inches in a stiff (utility) grout placed onto the existing utility". The drawing GC-14 shows the steel rod placed 2 inches above the utility, inside 4" PVC casing. In our opinion, such installation will couple the casing and the rod together and may cause false readings. We recommend to use the typical UMP installation where the bottom steel rod is covered with a bit of epoxy and set right on the top of the utility, independent of the 4" sleeve. Please clarify.

Response 30:

See response (b) to Question 27.

Question 31:

Please provide a specification for the below detail as shown on CG-11.

Response 31:

See Addendum 6 Items 17 and 19.

Question 32:

Specification 01 74 50-1.01-B – Please identify the extent of cleaning and inspection for the sanitary sewers, combined sewers, and storm drains required for this project. Plan sheet C-02 only identifies 2 lines that require CCTV investigation with no mention of cleaning.

Response 32:

Cleaning as defined in Specification Section 01 74 50.1.01.B. See Addendum 6 Item 5.

Question 33:

I'm not seeing any specified range(s) in Section 40 73 13 Pressure and Differential Gauges, could you please provide?

Response 33:

0-100 PSI shall be used, 40 61 00 Field Instrument List shall be updated to reflect.

Question 34:

Looking at Plan I-01 the Security System looks to be provided by the Security System Supplier, can you please confirm the Internet modem AND Firewall are provided by the IT Internet Connection Provider and that only the 24VDC Power Supply is to be provided by A- Division 40?

Response 34:

Per I-01 key notes A and C internet modem and Firewall are to be supplied by division 40. As identified I-01 keynote H everything within the boundary of the security system is provided by the security system supplier including the 24VDC power supply.

Question 35:

Please confirm the UPS is Security System is provided by the Security System Provided and not Division 40?

Response 35:

Confirmed.

Question 36:

Could you please confirm the Antenna specs for the Control Panel? The specs show Omni Directional and the plans show a Yagi Antenna?

Response 36:

The antenna required shall be direction Yagi type. Per 40 3 00 2.06 and 2.07 it shall be provided in accordance with the radio path field survey and manufacture recommendations.

Question 37:

Is the MAS unit specified in SECTION 43 25 06 - SUBMERSIBLE SOLID-HANDLING PUMPS, Flygt MAS-711? I cannot find specified coordination requirements for Flygt to supply configuration and startup support to the PCIS.

Response 37:

See Addendum 6 Item 13.

Question 38:

Plan sheet E-01, note E: Note says to coordinate termination point with Verizon. Please confirm how far away termination point is and what other work is associated with trenching to the termination point (ie surface demolitions, surface restorations, utility interferences, etc.). Please confirm if this conduit is to be concrete encased.

Response 38:

Pole indicated on western side of Commercial. See keynote 2.

Question 39:

Plan sheet E-10: Please confirm that only the horizontal portion of the duct bank conduit is to be concrete encased under the electrical building slab in the crawl space.

Response 39:

Confirmed only horizontal portion is to be concrete encased.

Question 40:

Plan Sheet C-02 requires GC to CCTV sewer pipe between MH's 38116 and 38126. Please provide location of both manholes and all information for all pipe and manholes in between?

Response 40:

See Addendum 6 Item 5.

Question 41:

Plan Sheet C-02 requires GC to CCTV existing 15" RCP drain before redirection or abandonment. Please provide limits required for the CCTV'ing?

Response 41:

Limits of CCTV for 15" RCP shall be from Commercial St manhole to catch basin shown on the eastern side of Neptune Blvd Park.

Question 42:

I-01 indicates Ethernet connection to the SSRV's. I cannot find where Allen-Bradley Ethernet communications is required in Section 26 29 13 - Solid State Reduced Voltage Starting. I cannot find specified coordination requirements for the SSRVs supplier to supply configuration and startup support to the PCIS.

Response 42:

Coordination between PCIS and Division 26 suppliers shall be by the general contractor as stated in 01 31 00 and by the coordination requirements set out in 26 29 13 1.01 c.

Question 43:

Drawing C-02 – Notes 5 & 6 and Drawing C-06. Please confirm that upon completion of site demolition the waterline that is bypassed in the park per C-02 Note 5 and 6 will be cut and capped permanently along with the sewer and gas lines as shown on drawing C-06.

Response 43:

The intent is to cut and cap as indicated on C-06. GC to carry bypass costs during demolition as indicated.

Question 44:

Specification Section 31 71 30 – Microtunneling indicates a tolerance of +/- 1" on line and grade. ASCE Standard 36-15 (section 12.2) indicates that a minimum tolerance of +/- 3% of tunnel diameter is standard, with additional tolerance needed for adverse conditions. In response to this RFI, please confirm if tolerance may be increased to +/- 2.625" for the 72" RCP (87.5" OD) and at least +/- 2" for the 66" steel casing on Commercial Street due to the following:

1. The mining conditions for the Commercial Street tunnel are significantly more difficult due the WOH Boston Blue Clay, which will make it difficult to prevent the MTBM from sinking in the extremely soft material, making steering more difficult in general.
2. The Commercial Street tunnel houses a force main line with significant vertical rises at each end of the tunnel. Therefore, increased tolerances on this tunnel will not significantly impact the final product.
3. Section 3.07 says that oversized casings must maintain the design elevation of the 66" crown. Please clarify that if the casing is oversized, the force main invert can be lowered to generally match the center of the carrier pipe with the center of the casing. Therefore, if the casing pipe diameter is increased, it allows for greater tolerance in installing the carrier pipe.
4. On Dwg D-02, the Process Piping and Valve Schedule shows a duckbill for the 54" HDPE at the SS Manhole. Please confirm this is not required since the 54" HDPE does not tie into any manholes.

Response 44:

+/- 2" tolerance is acceptable on Commercial Street. See Addendum 6 Item 8.

Question 45:

Specification 43-25-06 Submersible Solids-Handling Pump Manufacturer

We need to know at what load they want the power factor to be corrected: full load, 75% or 50% of the load. Do we know what is the power factor required?

Response 45:

See addendum 6 Item 13.

Question 46:

Submitted on behalf of Wayne J. Griffin Electrical - See attached letter from FSB Griffin Electric titled Phase 3 West Lynn Sewer Separation – Capacitors to be Furnished by Others. Who is responsible for furnishing the power factor correction capacitors described in sections 43 25 06 and 26 29 13?

Response 46:

See Addendum 6 Item 13.

Question 47:

Section 015069 Temporary Sewer Main and Storm Drain Bypass directs the contractor to assume that the (3) three identified utilities are "FULL" for By-passing requirements. Please provide what GPM we should base our bid upon.

- a. Bennett Street Combined Sewer 48"
- b. Commercial Street Sewer 18"
- c. Commercial Street Combined Sewer 48"

Response 47:

The following flow rates can be used for bidding purposes:

- 18" sewer - 5300gpm
- 48" sewer/drain - 31,400 gpm

Question 48:

Specification 01 50 69 – 2.02-B-3 – 48" Storm Drain at Commercial Street:

- a. What is the average daily flow?
- b. What is the 10 year Storm Peak Flow at the Commercial Street 48" Brick Storm Drain?

Response 48:

Meter data is not available. Assumed full pipe flows provided in Response 47.

Question 49:

As indicated in section 2.06 under "Licensed Radio Modems" there is a generalization and reference that the details will be based on the radio survey. It's our understanding that there was previously an installation for a Teledesign TS4000

radio network on 450 MHz. Can you clarify if they are still using this network to communicate with their existing remote stations?

Response 49:

See addendum 6 Item 14.

Question 50:

Is the intent on this station is to be combined with the existing network or as a stand-alone to communicate with the WWTP. Teledesign is now out of business?

Response 50:

See addendum 6 Item 14.

Question 51:

Division 40 – Instrumentation & Control:

Please provide more details on the required radio system. For example, does the new radio need to connect to the existing radio system?

There is reference to a "cellular" study in with the radio spec's, which is too vague to price it. Please provide more details.

Response 51:

See addendum 6 Item 14.

Question 52:

Spec 01 75 00 section 3.05.A. requires the Contractor to start-up and operate the pump station without malfunction for an 8-day period. Spec 43 25 06 section 3.04 has specific pump testing requirements under different conditions that include testing level controls. Is this 8-day period in addition to the time it takes to perform testing in 43 25 06, and is it the intent to run the pump station in recirculation for 8, 8-hour days?

Response 52:

The two referenced specifications constitute separate testing activities. The intent is that the station be run in recirculation for eight 8-hour days under 01 75 00.3.05.A.

Question 53:

I have some concerns on the 54" Force Main shown on drawings C-06 thru C-11. There are several instances where you show Flanged Pipe, Fittings and even a Dismantling Joint that are Buried Underground. Flanged Pipe & Fittings have zero allowable movement and will Break and leak in 99% of buried applications. The Dismantling joint is also not made for buried applications. All Flanged Pipe and Fittings are made for Interior applications. Please review and advised how we should proceed.

Response 53:

All exterior ductile iron piping for pressure service shall be restrained joint in accordance with Specification 33 05 19.2.03.D.5/7, unless otherwise indicated.

Question 54:

Drawing C-12 shows an existing 8" water line to be cut and capped, yet Note 2 states "if existing water main cannot be abandoned, reroute new piping to connect new 8" water to the existing at the limit of work. " Rerouting the water line as described is significantly more work than the cut and cap shown on the plans. Which scope is to be included in the project pricing?

Response 54:

See response to Question 1.

End

SECTION 43 30 58

FLAP GATES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Furnish and install flap gates in the locations shown, complete and operable, including frames, transition pieces, bracing, mountings, gaskets or sealant, coatings, as indicated and specified.

1.2 RELATED WORK

- A. Division 1 - General Requirements
- B. Section 05500 – Miscellaneous Metalwork

1.3 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Section 01300 – Submittals.
 - 1. Shop and erection drawings stamped and signed by a Massachusetts Registered Professional Engineer.
 - 2. Data regarding valve characteristics and performance.
 - 3. Shop drawing data for accessory items.
 - 4. Manufacturer's literature as needed to supplement data.
 - 5. Operating and maintenance manuals.
 - 6. Recommendations for short- and long-term storage.

1.4 SPECIAL REQUIREMENTS:

- A. Refer to applicable specification Sections with regard to providing the following:
 - 1. Lubricants.
 - 2. Special Tools.

3. Bolts, Anchor Bolts, and Nuts as specified in Section 05500 – Miscellaneous Metalwork.

1.5 QUALITY ASSURANCE

A. Equipment Field Testing

1. The CONTRACTOR shall coordinate and conduct a hydrostatic test for each flap gate in the presence of a manufacturer's factory service representative. Attendance by the manufacturer's factory service representative shall be furnished by the CONTRACTOR.
2. The hydrostatic test shall maintain a downstream head pressure equal to the maximum possible condition of service (i.e. flooded manhole) and an upstream head pressure of zero for a minimum of 60 minutes. Leaks exceeding 0.1 GPM per foot of wetted seal shall be corrected by adjusting and servicing the gate. The gate shall be retested until found to be satisfactory.

1.6 DELIVERY, STORAGE AND HANDLING:

- A. Provide in accordance with the General Conditions and Manufacturer's recommendations.
- B. Shipping:
 1. Ship equipment and material fully assembled except where partial disassembly is required by transportation regulations or for protection of components.

PART 2 - PRODUCTS

2.1 FLAP GATES

A. Type:

1. Hinged, single flap type design to close tight whenever downstream pressure exceeds upstream pressure with fully-adjustable top pivot points and bronze sealing surfaces.
2. Gate frames shall have flat backs for attachment to wall thimbles, unless otherwise shown.
3. Resilient Seals, the material shall be suitable for contact with wastewater.

4. Unless otherwise shown, flap gates shall be mounted against wall thimbles with Type 316 stainless steel bolts and sealant or gaskets.

B. Materials:

1. Body and Flap: 316L Stainless Steel construction,
2. Seat: Resilient seal; material selected to be compatible with wastewater.
3. Hinge Arms: 316L Stainless Steel
4. Hinge Pins: Designed in double shear, Type 316 stainless steel.

C. Fabrication:

1. Flap: Spherical dished design, size to withstand maximum operating loads.
2. Hinge Arm: Provide two pivot points. Provide an adjustable lower pivot with limited rotation and a threaded upper hinge post to adjust flap valve sensitivity.
3. Provide a lubrication fitting for each pivot.
4. Ends: 125lb. ANSI standard drilling.

D. Transition Piece

1. Material: 316L Stainless Steel
2. The thimbles shall be of the cast iron F-pattern type, to match the thickness of the walls in which they are installed, and they shall be supplied by the manufacturer of the flap gate, to match the bolt dimensions of the valves.
3. One-piece construction, of section to withstand all operational and installation stresses.
4. Provide a water stop cast around the periphery of the transition piece.
5. Provide a machined front flange and provide tapped holes for the flap valve attaching studs.
6. Provide a permanent gasket of uniform thickness or mastic between the flap valve and the wall thimble.

7. Transition pieces shall be fabricated to fit the curved inside of the existing manholes as shown on the drawings.
- E. Protective Coatings:
1. Provide all ferrous metals except stainless steel with a high solids epoxy coating for submerged service. Prep surfaces in accordance with SSPC-SP-10 and apply one primer coat and one top coat. Total dry film thickness shall be a minimum of 8 mils.
- F. Manufacturers:
1. Whipps model 450
 2. Hydro Gate Corp.
 3. Or equal.

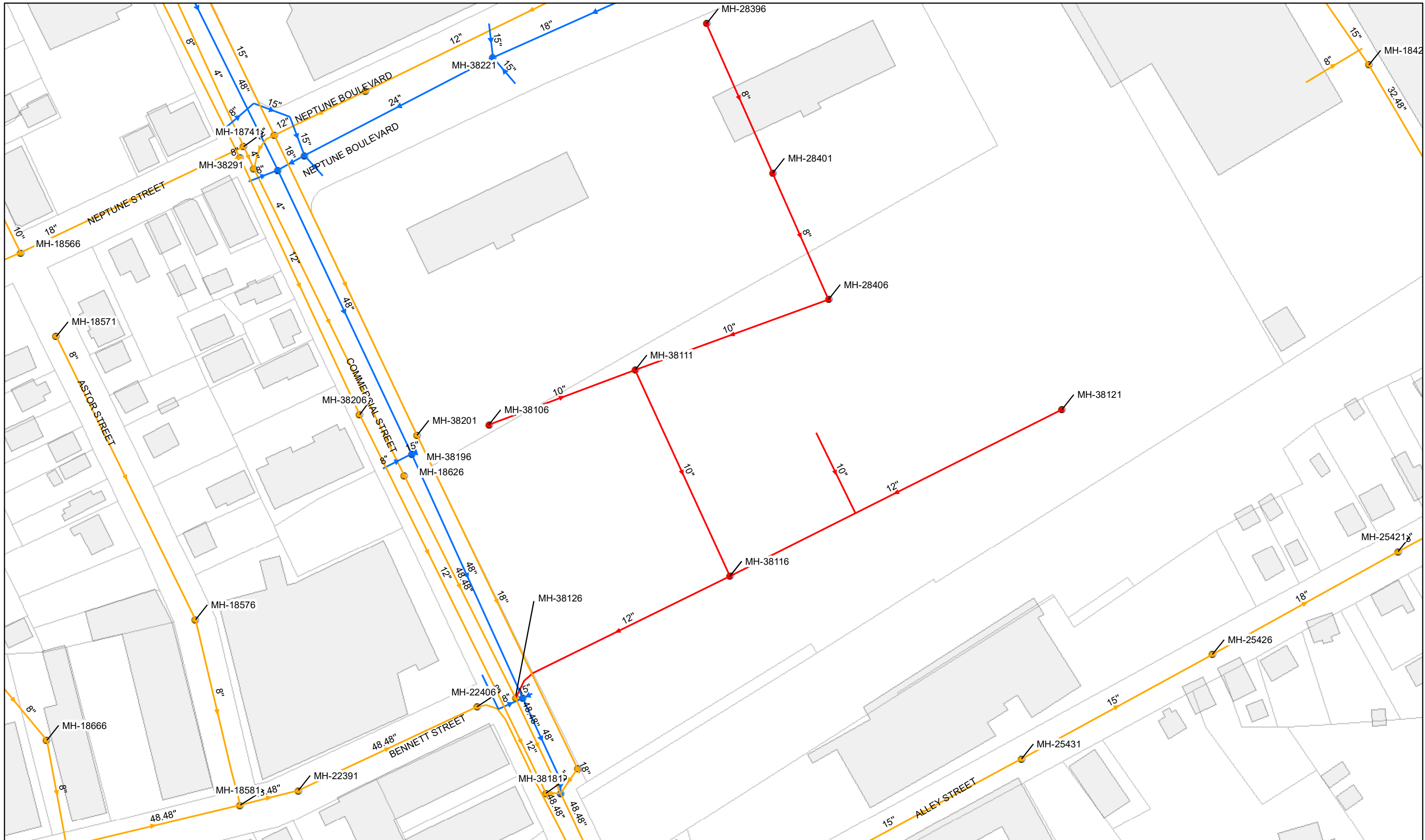
PART 3 - EXECUTION

3.1 INSTALLATION

- A. Flap gates shall be installed in strict accordance with the manufacturer's printed recommendations and the requirements herein.
- B. Contractor to verify dimensions required for fabrication and installation of transition piece flush mounted to inside of structure.
- C. Mounting of Gates
1. Apply grout as necessary to manhole to create a flat surface for mounting the flap gate.
 2. Shortly before setting each gate, apply a 1/8-inch-thick layer of mastic grade polysulfide elastomeric sealant to the back of the gate frame.
 3. After setting the gate, the nuts shall be turned down on the anchor bolts far enough only to make them snug and to cause the rubber sealant to begin to ooze out, but not far enough to produce any significant stress to the frame.
 4. Excess sealant at the edges shall be removed.
 5. The sealant shall be allowed to cure for at least 7 Days, after which the anchor bolt nuts shall be tightened to their final positions.

6. If gaskets are being used, they shall be installed over the studs in one piece, or dovetailed and cemented with a liquid-type gasket material.
- D. Damage to surface coatings incurred during shipment or installation shall be repaired.

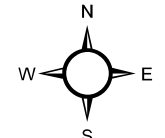
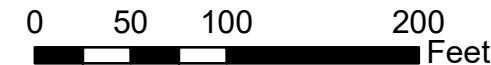
END OF SECTION

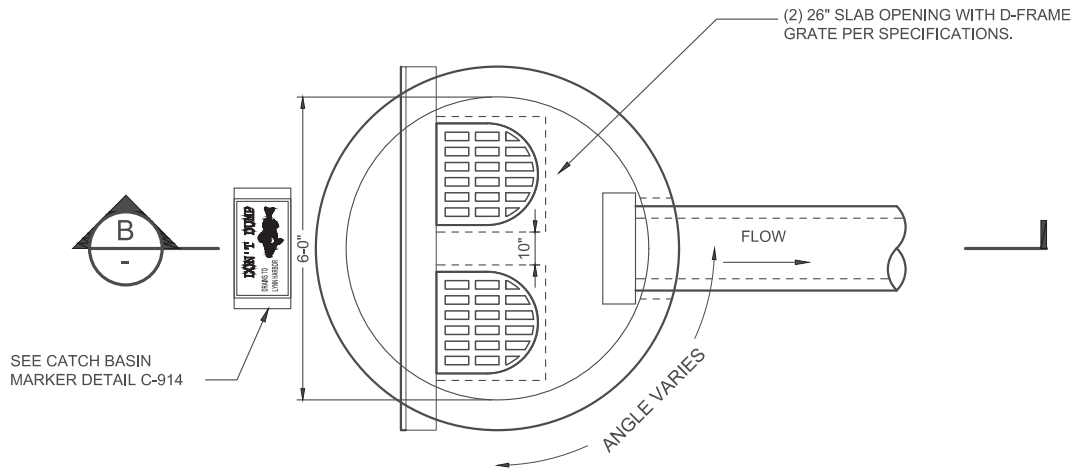


LYNN WATER AND SEWER COMMISSION
WEST LYNN SEWER SEPARATION

Legend

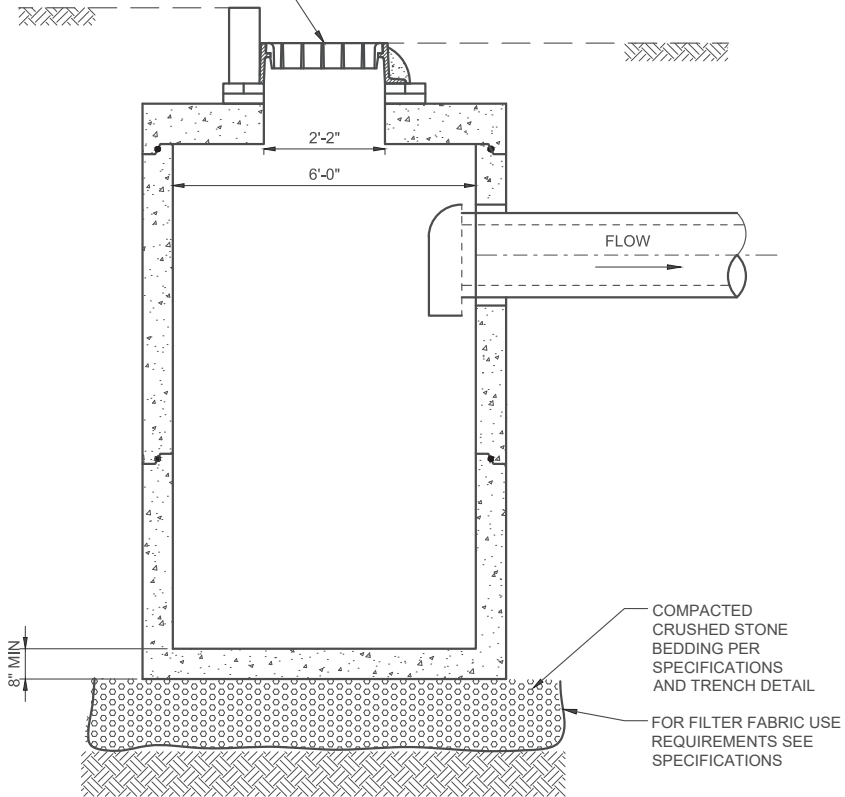
Sewer Type		Manholes	
	Combined Sewer		Combined Sewer
	Sanitary Sewer		Sanitary Sewer
	Storm Drain		Storm Drain





PLAN TYPE-3 (DOUBLE GRATE)

SQUARE OPENING GRATE, FOR RIM ELEVATION SEE CIVIL SHEETS



B SECTION

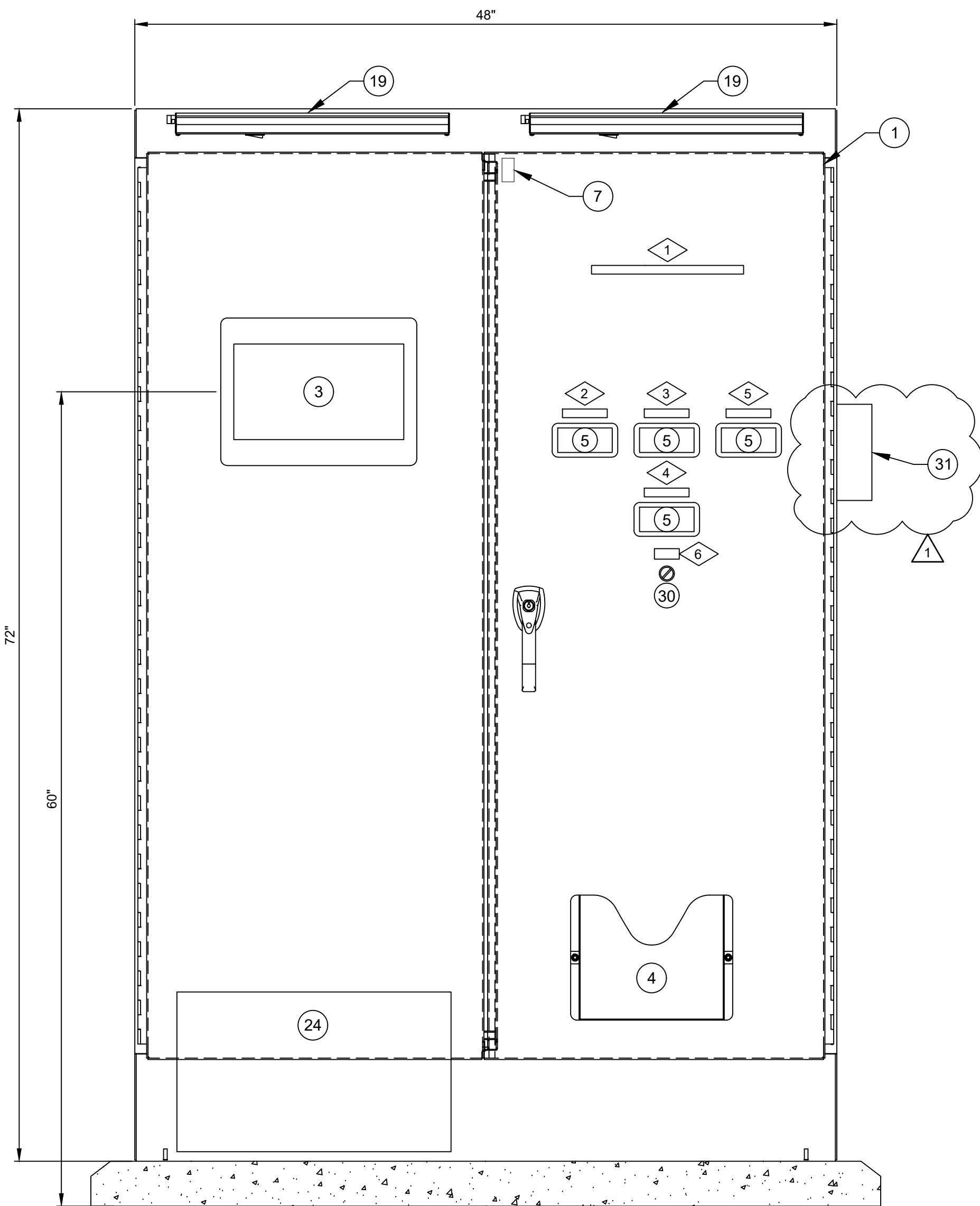
NOTE:

1. SEE DETAIL C-909A FOR TYPICAL CATCH BASIN REQUIREMENTS.

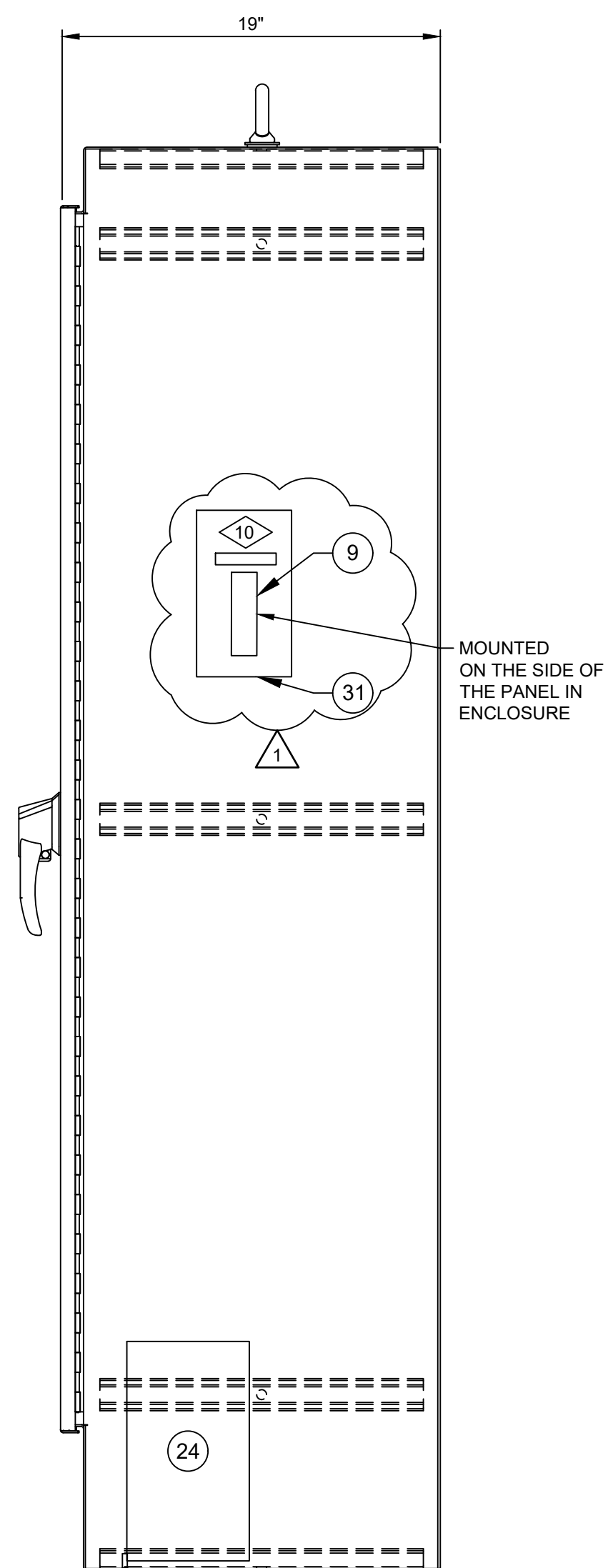
BY: RELF, PHILLIP

PLOT DATE: Thursday, February 3, 2022

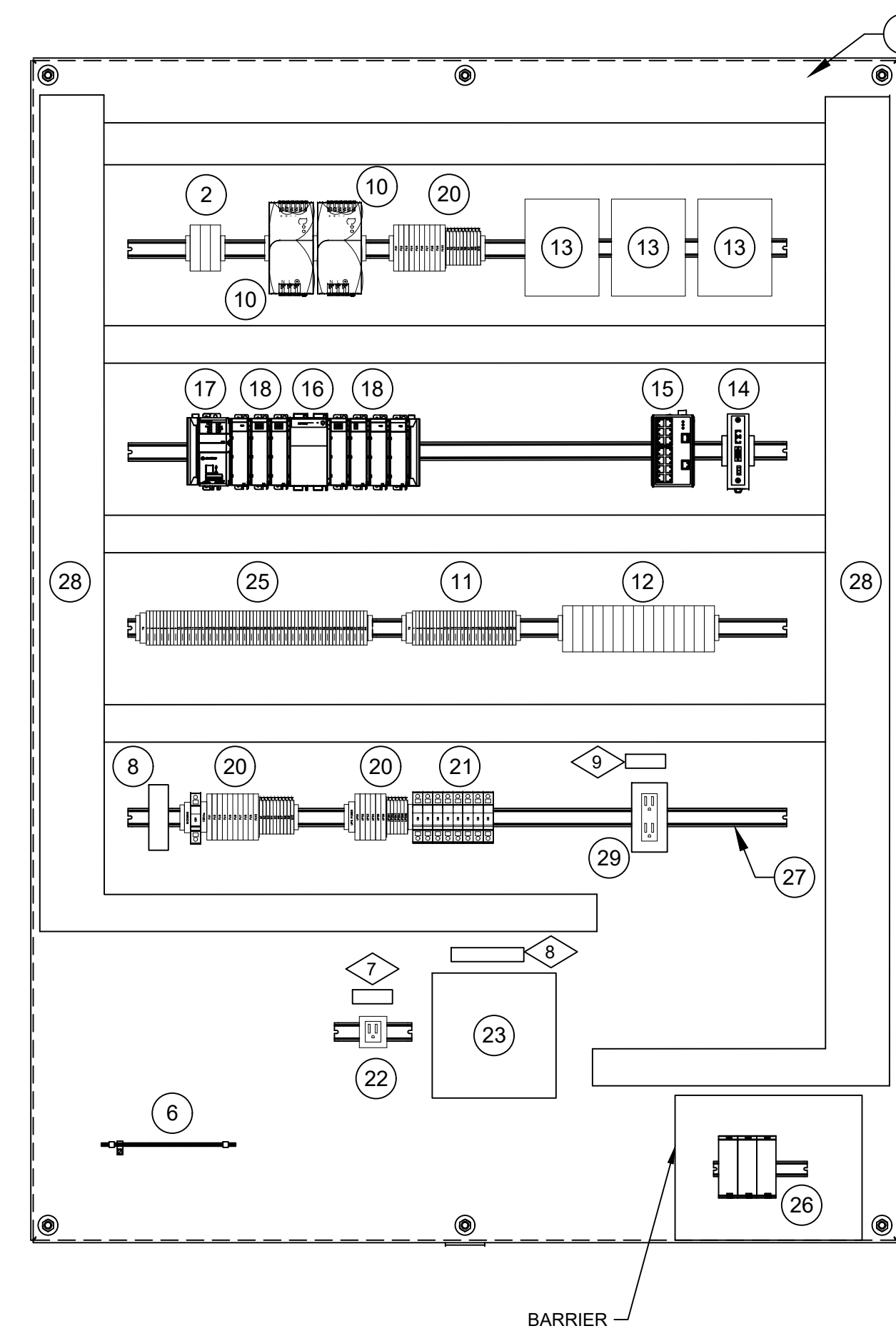
DWG FILE: C:\pwworkdir\05511941\04.dwg



FRONT ELEVATION EXTERIOR
SCALE: NTS



SIDE ELEVATION EXTERIOR
SCALE: NTS



INTERIOR ELEVATION
SCALE: NTS

GENERAL SHEET NOTES

1. THIS LAYOUT IS TYPICAL - PANEL SHALL BE SIZED TO ACCOMMODATE ALL I/O PLUS 20% SPARE CAPACITY
2. COMPONENT MANUFACTURERS AND MODEL NUMBERS SPECIFIED IN PLC HARDWARE SPECIFICATION 40 95 10 AND 40 95 13 CONTROL PANELS.
3. PROVIDE PER NEC AND MEC REQUIRED ARC FLASH AND HIGH VOLTAGE LABELS. PROVIDED NAMEPLATE PER UL508A STANDARDS INCLUDING PANEL SHORT CIRCUIT RATING.
4. OIT SHALL BE INSTALLED AT CENTERLINE AND AT A HIGH OF 5 FEET ABOVE GRADE.
5. PANEL SHALL BE BOLTED TO CONCRETE EQUIPMENT PAD.

BILL OF MATERIALS

ITEM NO	QTY	DESCRIPTION
1	1	ENCLOSURE, NEMA 12 TYPE
2	2	BACK PANEL
3	1	OIT
4	1	DOCUMENT HOLDER
5	4	DIGITAL PANEL METER
6	1	EARTH BAR
7	1	DOOR SWITCH
8	1	120VAC SURGE SUPPRESSOR
9	1	ANTENNA SURGE SUPPRESSOR
10	2	24VDC POWER SUPPLY
11	AR	FUSED TERMINAL BLOCKS
12	AR	RELAYS
13	3	PROCESS LEVEL TRANSMITTER
14	1	RADIO ROUTER
15	1	ETHERNET SWITCH
16	1	COMPACTLOGIX POWER SUPPLY
17	1	COMPACTLOGIX CONTROLLER
18	AR	COMPACTLOGIX I/O MODULES
19	2	LED LIGHT FIXTURES
20	AR	FUSE
21	AR	MINIATURE CIRCUIT BREAKER
22	1	UPS RECEPTACLE
23	1	UPS BYPASS SWITCH
24	1	UPS
25	AR	TERMINAL BLOCKS
26	3	INTRINSICALLY SAFE BARRIER / LIGHTING BARRIER
27	AR	DIN RAIL
28	AR	WIRE DUCT
29	1	GFCI RECEPTACLE
30	1	WELL LEVEL INDICATOR SELECTION SWITCH
31	1	ANTENNA SURGE SUPPRESSOR ENCLOSURE, NEMA 12 TYPE

#	NAMEPLATE SCHEDULE
1	WEST LYNN PUMP STATION CONTROL PANEL
2	SCREENING CHAMBER LEVEL LIT-001
3	WETWELL LEVEL LIT-002
4	WETWELL LEVEL LIT-003
5	STATION FLOW FIT-101
6	LIT-002 / LIT-003
7	UPS ONLY
8	UPS BYPASS SWITCH
9	LAPTOP RECEPTACLE ONLY
10	ANTENNA SURGE SUPPRESSOR

REV	DATE	BY	DESCRIPTION
1	2/3/22	PKR	ADDENDUM 6

SCALE	NONE
WARNING	IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DATE	OCTOBER 2021
DRAWN BY	P RELF
DESIGNED BY	P RELF
CHECKED BY	D STEFFES
APPROVED BY	C NICHOLS



LYNN WATER AND SEWER COMMISSION
 PHASE 3 WEST LYNN SEWER SEPARATION
 PUMP STATION CONTROL PANEL LAYOUT

DRAWING NO.
I-04
 SHEET
 131 OF 136