#### 00 91 13.05

#### ADDENDUM NO. 5

DATE: April 21, 2020

FROM: Baxter & Woodman, Inc., Consulting Engineers

TO: Planholders of record for the Work titled:

VILLAGE OF HOFFMAN ESTATES, ILLINOIS GOLF ROAD LIFT STATION REPLACEMENT

#### Note from the Village on Bid Opening:

If your firm attends the bid opening, we ask only one individual from each firm attends the bid opening. The process will be held in a large room with seating set up to keep individuals spread far apart (over 8 feet) from each other. We ask your representative to wear a facial mask and follow CDC and IDPH guidelines, as we will be doing, to prevent the spread of COVID-19.

The Bidding Documents are amended as follows:

#### DRAWINGS

- A. Delete Sheet C-1 in its entirety, and insert attached Sheet M-1, revision dated April 21, 2020 in lieu thereof.
- B. Delete Sheet C-5 in its entirety, and insert attached Sheet M-1, revision dated April 21, 2020 in lieu thereof.
- C. Delete Sheet M-1 in its entirety, and insert attached Sheet M-1, revision dated April 21, 2020 in lieu thereof.
- D. Delete Sheet M-3 in its entirety, and insert attached Sheet M-1, revision dated April 21, 2020 in lieu thereof.
- E. Delete Sheet E-3 in its entirety, and insert attached Sheet M-1, revision dated April 21, 2020 in lieu thereof.
- F. Delete Sheet E-4 in its entirety, and insert attached Sheet M-1, revision dated April 21, 2020 in lieu thereof.

#### 2. SPECIFICATIONS

- A. Section 00 01 10 TABLE OF CONTENTS revise accordingly for the following:
- B. Section 00 41 00.61, BID FORM:

Delete Section 0 41 00.61, BID FORM in its entirety and insert attached new Section 00 41 00.61, BID FORM (Revised April 21, 2020) into the project manual.

C. Section 06 10 00, ROUGH CARPENTRY:

Insert attached new Section 06 10 00, ROUGH CARPENTRY into the project manual.

D. Section 07 21 00, THERMAL INSULATION:

Insert attached new Section 07 21 00, THERMAL INSULATION into the project manual.

E. Section 08 11 13, HOLLOW METAL DOORS AND FRAMES:

Delete Section 08 11 13, HOLLOW METAL DOORS AND FRAMES in its entirety.

F. Section 08 71 00, DOOR HARDWARE:

Delete Section 08 71 00, DOOR HARDWARE in its entirety.

G. Section 13 34 23, PRECAST CONCRETE BUILDING:

Section 13 34 23-5, PRECAST CONCRETE BUILDING, add the following paragraphs 2.5, C and D:

- "C. Interior Walls and Ceiling:
  - 1. Provide 0.090: thick fiberglass reinforced plastic sheeting for covering of all interior walls and ceiling.
    - a. Pebble grain, gloss white finish.
    - b. Glue sheets to rigid insulation requiring no fasteners.
    - c. One continuous sheet for individual wall faces
    - d. Provide moldings to cover seams and joints."
- D. Paint exterior walls and roof with colors selected by Owner."

Section 13 34 23-6, PRECAST CONCRETE BUILDING, add the following paragraph 2.6:

#### "2.6 ROUGH CARPENTRY

A. Provide framing for wall mounted equipment per Section 06 10 00, ROUGH CARPENTRY."

Section 13 34 23-6, PRECAST CONCRETE BUILDING, add the following paragraph 2.7:

#### "2.7 INSULATION

A. Provide insulation per Section 07 21 00, THERMAL INSULATION."

#### H. Section 22 19 23, VALVES:

Section 22 19 23-7, VALVES, add the following paragraph 2.10:

#### "2.10 GATE VALVES

- A. Gate valves 3-inch to 20-inch size:
  - 1. Design in accordance with AWWA C509 (cast iron body), or AWWA C515 (ductile iron body), bronze fitted, resilient wedge disc and seat type with non-rising stem and O-ring seals.
  - 2. Provide mechanical join or push-on joint ends for valves to be installed in underground piping.
  - 3. Open all gate valves by turning in counterclockwise direction."
- I. Section 26 05 33, RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS:

Section 26 05 33-8, RACEWAY AND BOXES FOR ELECTRICAL SYSEMS, delete paragraph 3.6, A. and replace it with the following:

- "A. Install PVC coated GRC for any underground conduit and any conduit exposed to a wastewater or other corrosive atmosphere."
- J. Section 26 32 13.33, DIESEL FUELED ENGINE-GENRATORS:

Section 26 32 13.33-7, DIESEL FUELED ENGINE-GENERATORS, delete paragraph 2.11, A, 6. and replace with the following:

"6. All metal parts painted with prime coat and factory applied, baked enamel finish coat of color selected by Owner."

Section 26 32 13.33-7, DIESEL FUELED ENGINE-GENERATORS, delete paragraph 2.12.

K. Section 33 32 32.31, SUBMERSIBLE SEWAGE PUMPING EQUIPMENT

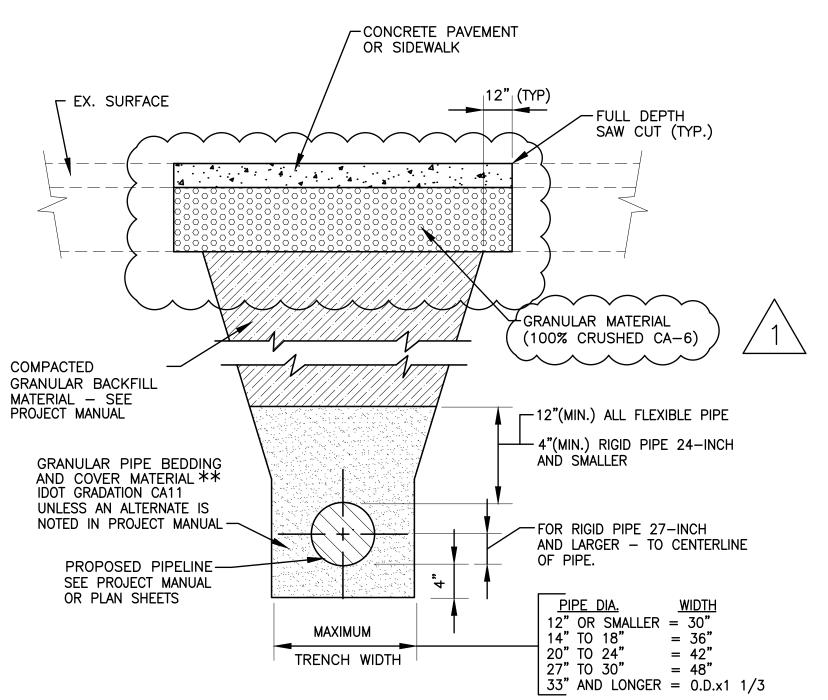
Section 33 32 32.31-4, SUBMERSIBLE SEWAGE PUMPING EQUIPMENT, delete paragraph 2.7.

L. Section 40 61 23.33, FLOW PROCESS MEASUREMENT DEVICES:

Insert attached new Section 40 91 23.33, FLOW PROCESS MEASUREMENT DEVICES into the project manual.

Nothing in this Addendum shall be construed as changing other requirements of the Bidding Documents. Each Bidder shall acknowledge receipt of this Addendum where indicated in the Bid Form.

END OF ADDENDUM NO. 5



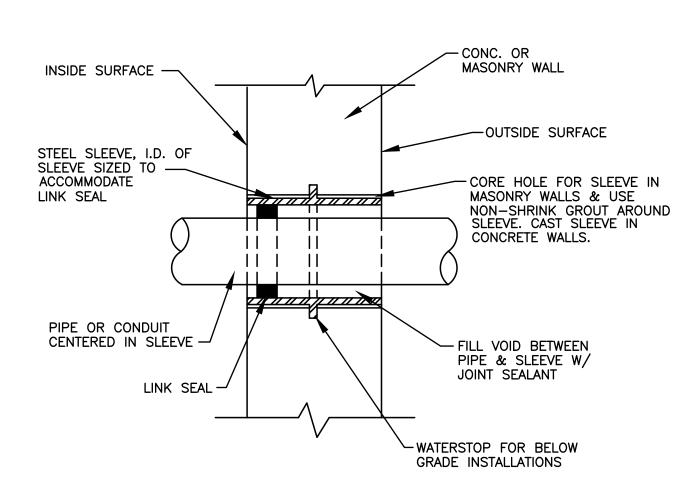
## TYPICAL TRENCH DETAIL

NO SCALE

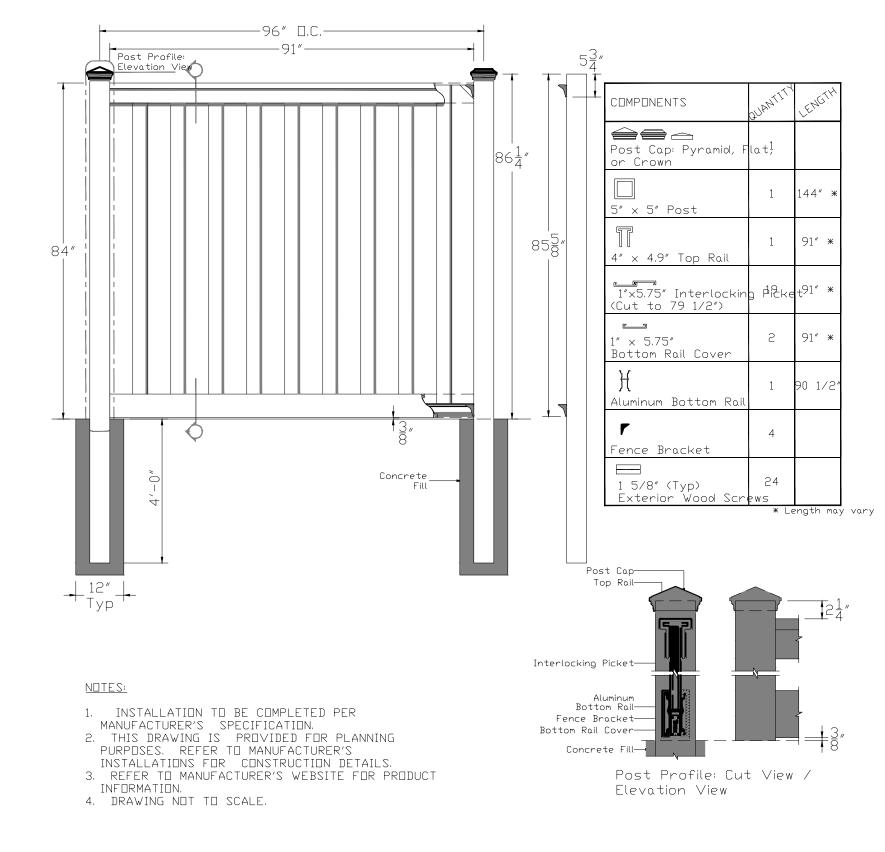
FOR PAVEMENT WITH AGGREGATE BASE AND COMPACTED GRANULAR BACKFILL MATERIAL

\*\* FOR FLEXIBLE THERMOPLASTIC PIPE COMPLY WITH ASTM D2321, CLASS IA, IB, OR II., (IDOT GRADATION CA15)

FOR RIGID PIPE COMPLY WITH ASTM C12, BEDDING CLASS B.

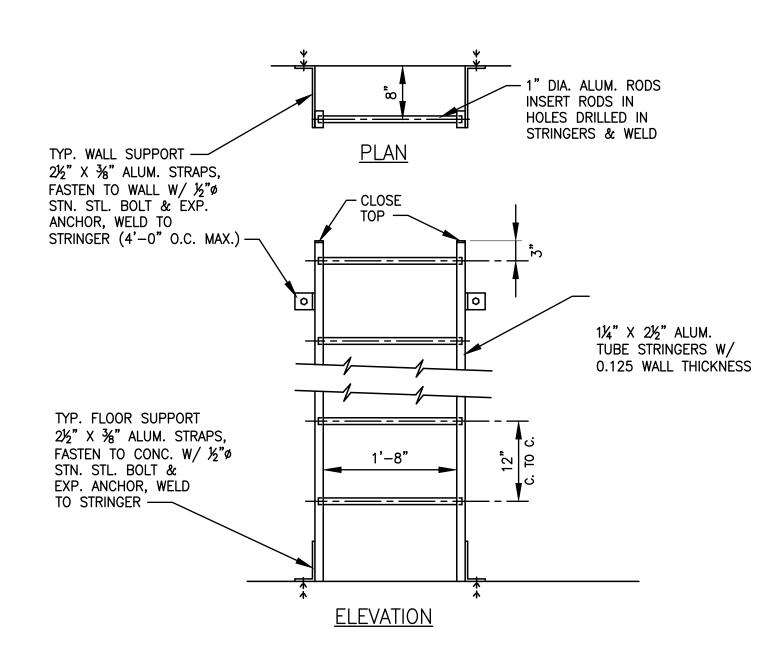


### TYPICAL WALL SLEEVE DETAIL FOR PIPES & CONDUITS NO SCALE

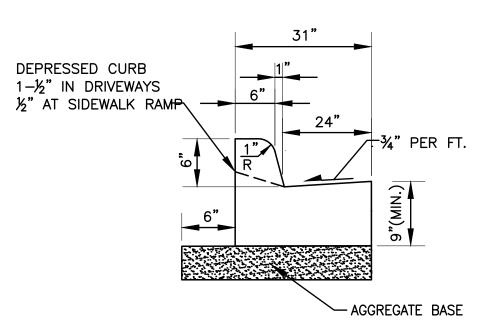


# COMPOSITE FENCE DETAIL

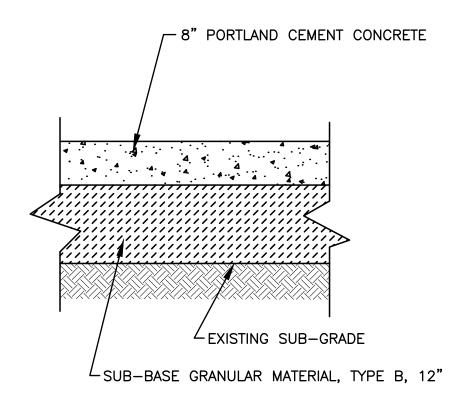
NO SCALE



### ALUMINUM LADDER DETAIL NO SCALE

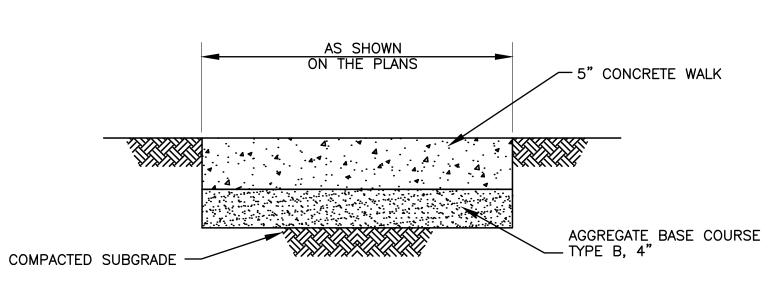


COMBINATION CONCRETE CURB & GUTTER TYPE B-6.24 NO SCALE



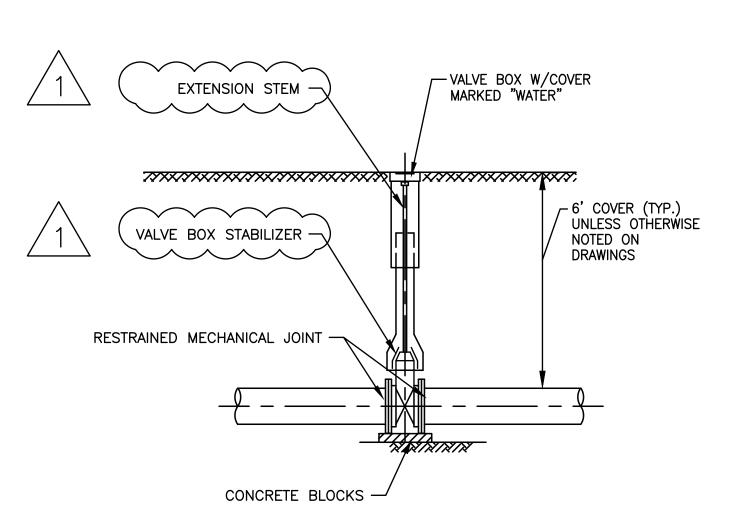
# TYPICAL PAVEMENT SECTION

NO SCALE

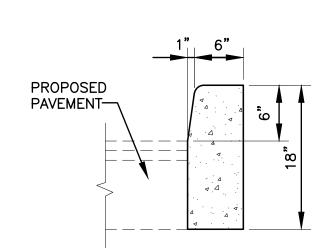


NOTE: PROVIDE FIBER 3/4" EXPANSION JOINTS WHERE NEW SIDEWALK MEETS EXISTING AND AT 50' O.C. MAX. AND PROVIDE CONTROL JOINTS AT 5' O.C.

PORTLAND CEMENT CONCRETE (P.C.C.) SIDEWALK, 5-INCH NO SCALE



STANDARD VALVE W/ VALVE BOX NO SCALE

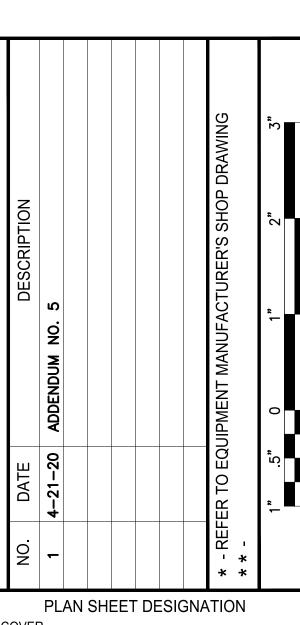


CONCRETE CURB, TYPE B NO SCALE

CONSULTANTS

MILESTONE

FOR BIDDING



COVER

G - GENERAL H - HAZARDOUS MATERIALS C - CIVIL

L - LANDSCAPE S - STRUCTURAL

A - ARCHITECTURAL
I - INSTRUMENTATION
Q - EQUIPMENT
F - FIRE PROTECTION

P - PLUMBING

M - MECHANICAL

E - ELECTRICAL T - TELECOMMUNICATIONS

R - RESOURCE PROJECT NO: 161150

AS NOTED 03-04-2020 SCALE: DATE: DESIGNED BY: SMF DRAWN BY: RGE

CLIENT

CHECKED BY:

VILLAGE OF **HOFFMAN ESTATES, ILLINOIS** 

SMV

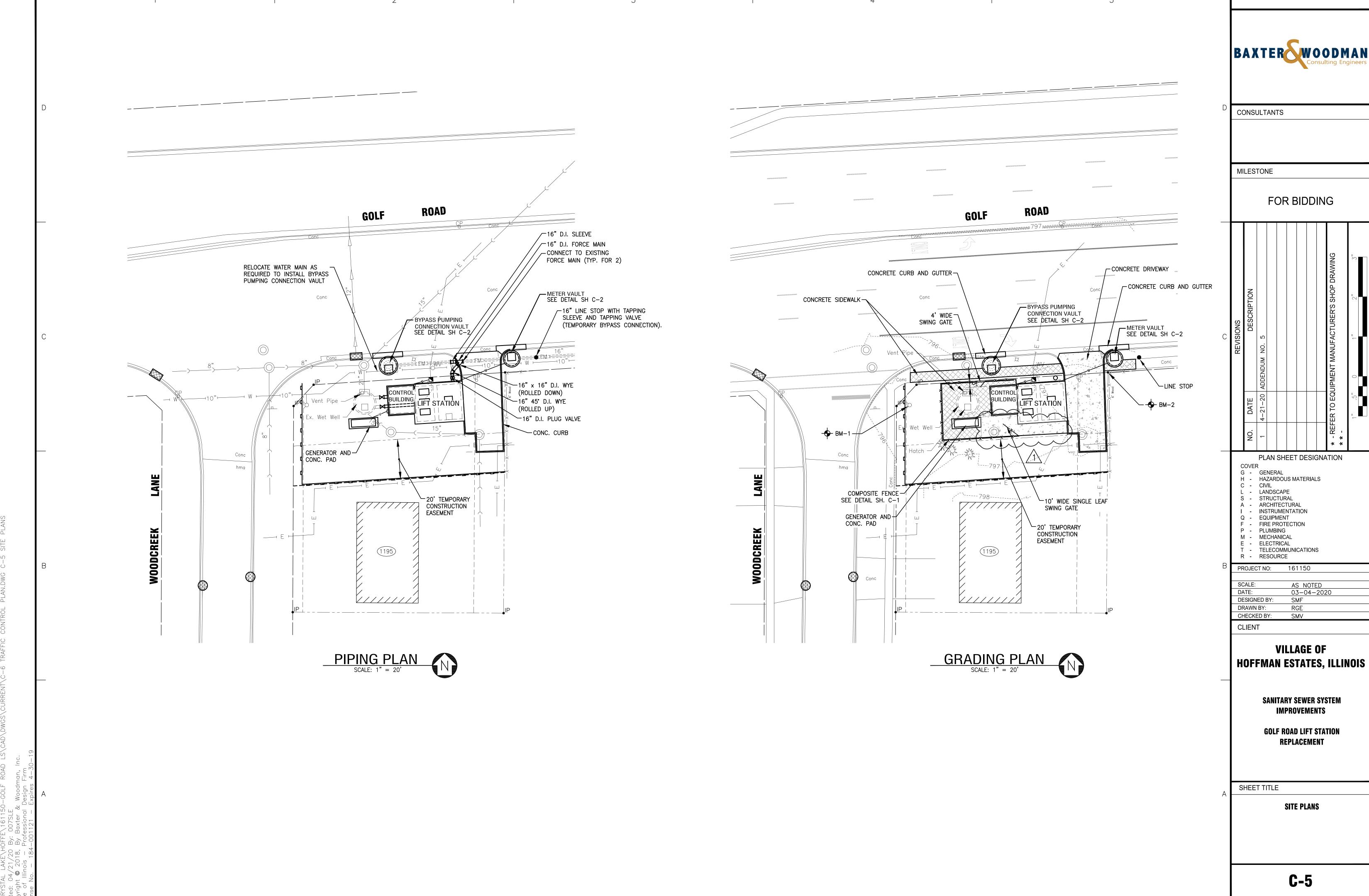
**SANITARY SEWER SYSTEM IMPROVEMENTS** 

**GOLF ROAD LIFT STATION REPLACEMENT** 

SHEET TITLE

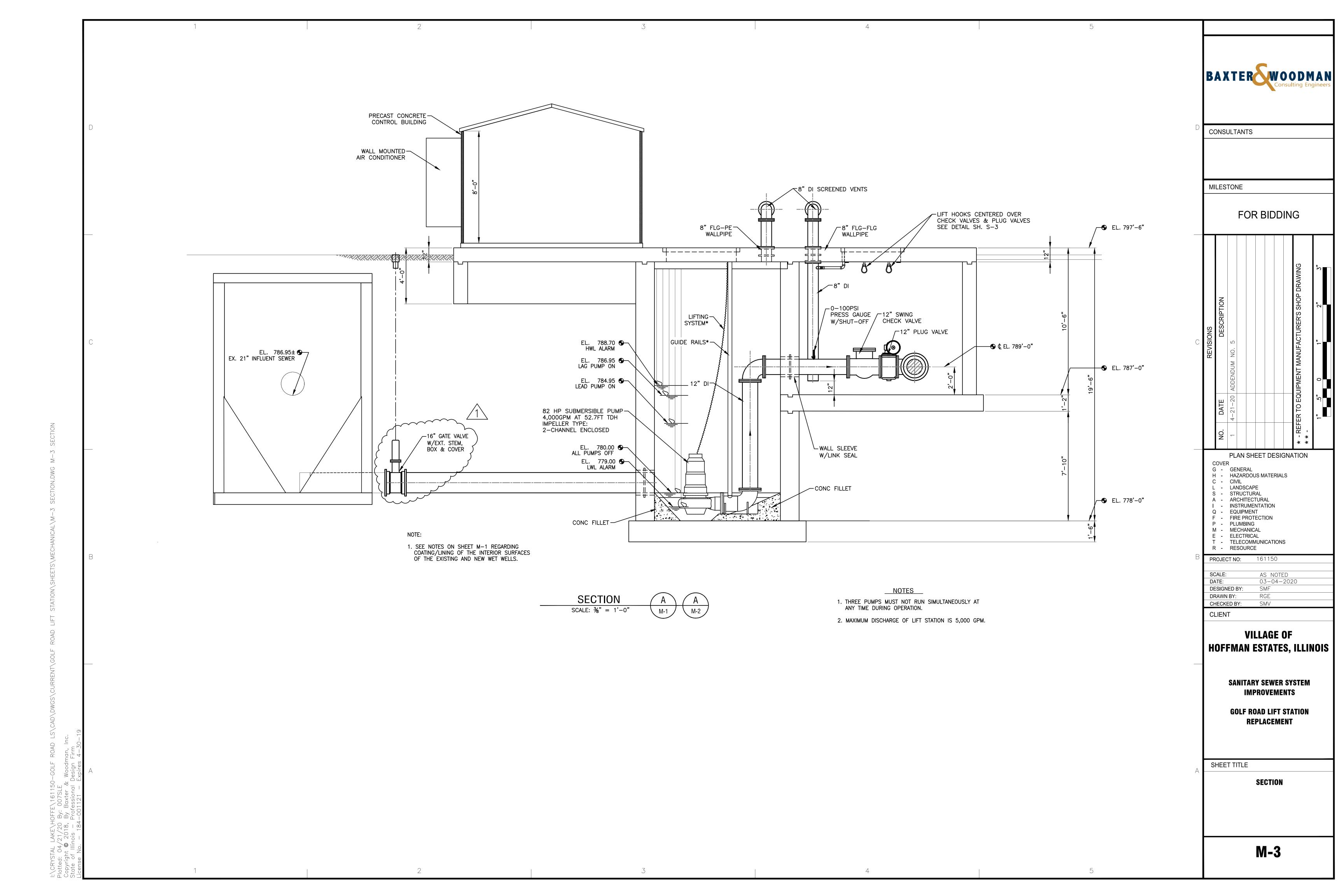
**CIVIL DETAILS** 

**C-1** 



CONSULTANTS 12" PLUG VALVE (TYP FOR 3) MILESTONE WALL SLEEVE — W/LINK SEAL (TYP) SUBMERSIBLE PUMP— (TYP FOR 3) -WALL SLEEVE 12" SWING CHECK VALVE (TYP FOR 3) W/LINK SEAL EX 21" INFLUENT SEWER FOR BIDDING CONNECT TO EX. 16" (TYP FOR 2) \_\_\_16" GATE VALVE W/EXT. STEM, VALVE BOX & COVER DI TEES WALL SLEEVE — W/LINK SEAL 16" X 12" DI TEE (TYP FOR 2) LEXISTING WET WELL A M-3 CONC FILLETS 16" X/12"— DI REDUCER 16" GATE VALVE
W/EXT STEM, VALVE BOX
& COVER EX 15" INFLUENT SEWER −1½" PVC FLOOR ACCESS DOOR FRAME DRAIN (TYP) 1. LINE INTERIOR OF EXISTING WET WELL WITH POLYURETHANE OR POLYUREA COATING/LINING. PLAN SHEET DESIGNATION COVER
G - GENERAL
H - HAZARDOUS MATERIALS
C - CIVIL
L - LANDSCAPE
S - STRUCTURAL
A - ARCHITECTURAL
I - INSTRUMENTATION
Q - EQUIPMENT
F - FIRE PROTECTION
P - PLUMBING
M - MECHANICAL
E - ELECTRICAL
T - TELECOMMUNICATIONS
R - RESOURCE CONC FILLETS (TYP) 2. LINE INTERIOR OF NEW WET WELL WITH POLYURETHANE OR POLYUREA COATING/LINING. ALUM LADDER SEE DETAIL SH. C-1 1½" PVC —/ SUMP PUMP DISCH 5'-3" 18" DIA × 18" DEEP
SUMP W/PUMP
11'-8" 24'-4" **PROJECT NO**: 161150 SCALE: DATE: AS NOTED 03-04-2020 LOWER PLAN

SCALE: 3/8" = 1'-0" DESIGNED BY: SMF DRAWN BY: CHECKED BY: CLIENT **VILLAGE OF** HOFFMAN ESTATES, ILLINOIS **SANITARY SEWER SYSTEM IMPROVEMENTS GOLF ROAD LIFT STATION** REPLACEMENT SHEET TITLE **LOWER PLAN** M-1

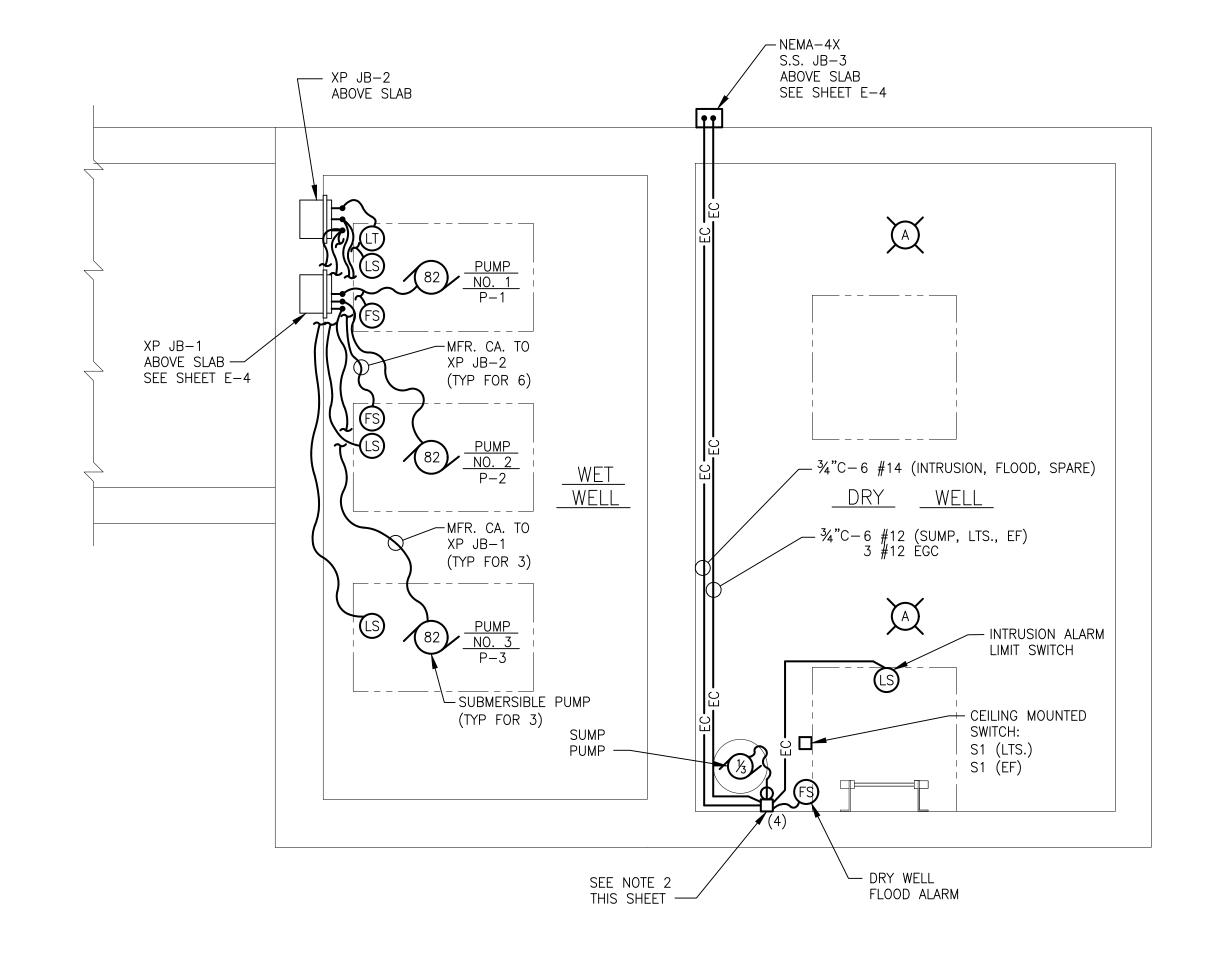


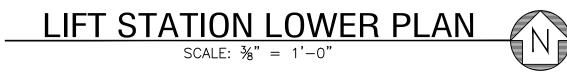
NOTE: INSTALL LIMIT SWITCH ON ACCESS HATCH AND MOUNT FLOAT SWITCH 1" ABOVE MAGNETIC FLOWMETER (6) -MOUNT 15A WP SIMPLEX RECEPTICAL FOR SUMP PUMP 8" FROM BOTTOM OF HATCH -12" RCP SUMP W/PUMP (8)

### METERING VAULT PLAN

NO SCALE NOTE: SEE SH. E-4 FOR CONDUITS, WIRING, AND CABLES TO METERING VAULT. 







### NOTES:

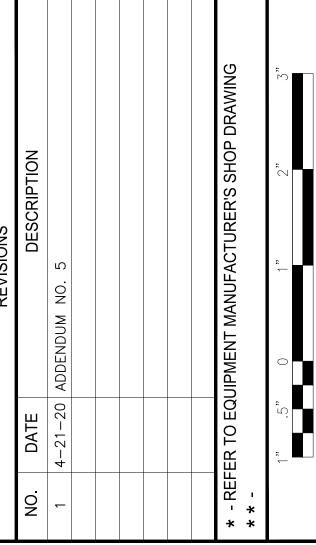
- 1. RECEPTACLES, LIGHTING FIXTURES, EXHAUST FANS, (NOT SHOWN) AND RELATED SWITCHES:
- a. INSTALL WHERE SHOWN AND CONNECT TO BRANCH CIRCUITS AND/OR SWITCH LEG INDICATED.
- b. PROVIDE WIRES, CONDUITS, ETC. (NOT SHOWN) AS REQUIRED FOR PROPER OPERATION OF EQUIPMENT. THNN WALLED CONDUIT NOT PERMITTED.
- c. INSTALL CONDUITS AND BOXES TO AVOID INTERFERENCE WITH INSTALLATION, OPERATION AND MAINTENANCE OF OTHER EQUIPMENT.
- 2. PROVIDE SINGLE (NOT DUPLEX) NON-GFCI RECEPT. @ 36" A.F.F. IN SURFACE MTD. WP BOX IN VALVE VAULT FOR SUMP PUMP. PROVIDE WP COVER OF TYPE THAT IS FULLY CLOSABLE WHEN SUMP PUMP PLUG AND PIGGY-BACK CONTROLLER ARE PLUGGED IN. HANG FLOOD ALARM FLOAT SWITCH BY ITS CABLE FROM SUMP PUMP RECEPTACLE BOX SO THAT BOTTOM OF FLOAT SWITCH IS  $\frac{1}{4}$ " A.F.F.
- 3. SHARED NEUTRALS ARE NO PERMITTED. PROVIDE SEPARATE NEUTRAL WIRE FOR EACH 120V BRANCH CIRCUIT.
- 4. INSTALL DRY WELL FLOOD ALARM SWITCH NO MOTE THAN 1" ABOVE LOWEST POINT OF WALL.
- 5. SUPPORT ALL PUMP CABLES IN WET WELL WITH STAINLESS STEEL OPEN-WEAVE GRIPS (KELLEMS, OR EQUAL) ATTACHED TO HOOKS FASTENED TO ACCESS HATCH FRAME.
- 6. PROVIDE STAINLESS STEEL SUPPORT CABLE ATTACHE TO HOOK FASTENED TO UNDERSIDE OF TOP SLAB FOR EACH LEVEL XDCR., LIMIT SWITCHES AND FLOAT SWITCHES.



CONSULTANTS

MILESTONE

FOR BIDDING



PLAN SHEET DESIGNATION

G - GENERAL H - HAZARDOUS MATERIALS C - CIVIL

L - LANDSCAPE S - STRUCTURAL

A - ARCHITECTURAL

I - INSTRUMENTATION
Q - EQUIPMENT
F - FIRE PROTECTION

P - PLUMBING

M - MECHANICAL

E - ELECTRICAL T - TELECOMMUNICATIONS R - RESOURCE

PROJECT NO: 161150 SCALE: AS NOTED 03-04-2020 DATE: DESIGNED BY: PVT

HDH

CLIENT

DRAWN BY:

CHECKED BY:

**VILLAGE OF** HOFFMAN ESTATES, ILLINOIS

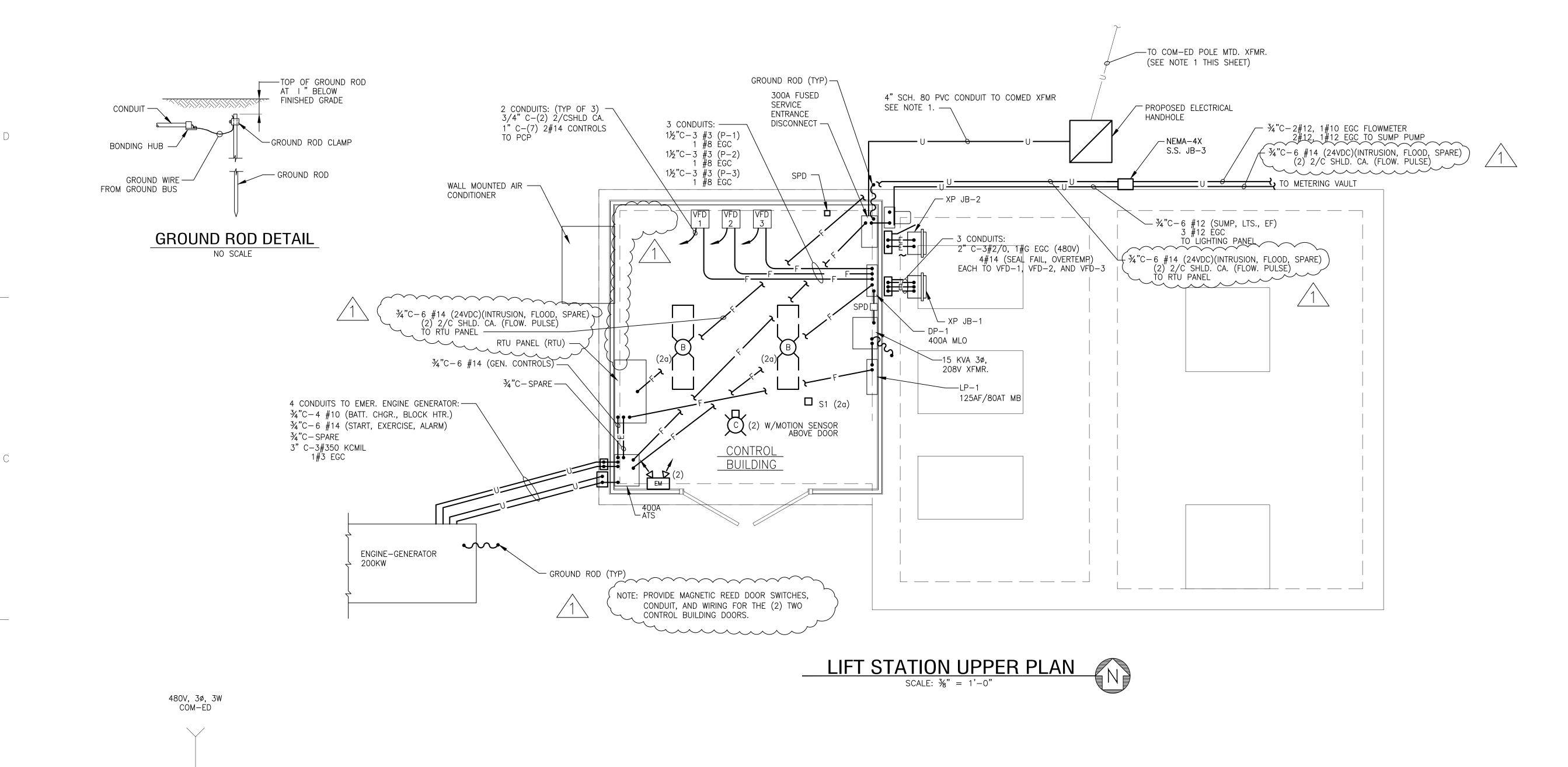
> **SANITARY SEWER SYSTEM IMPROVEMENTS**

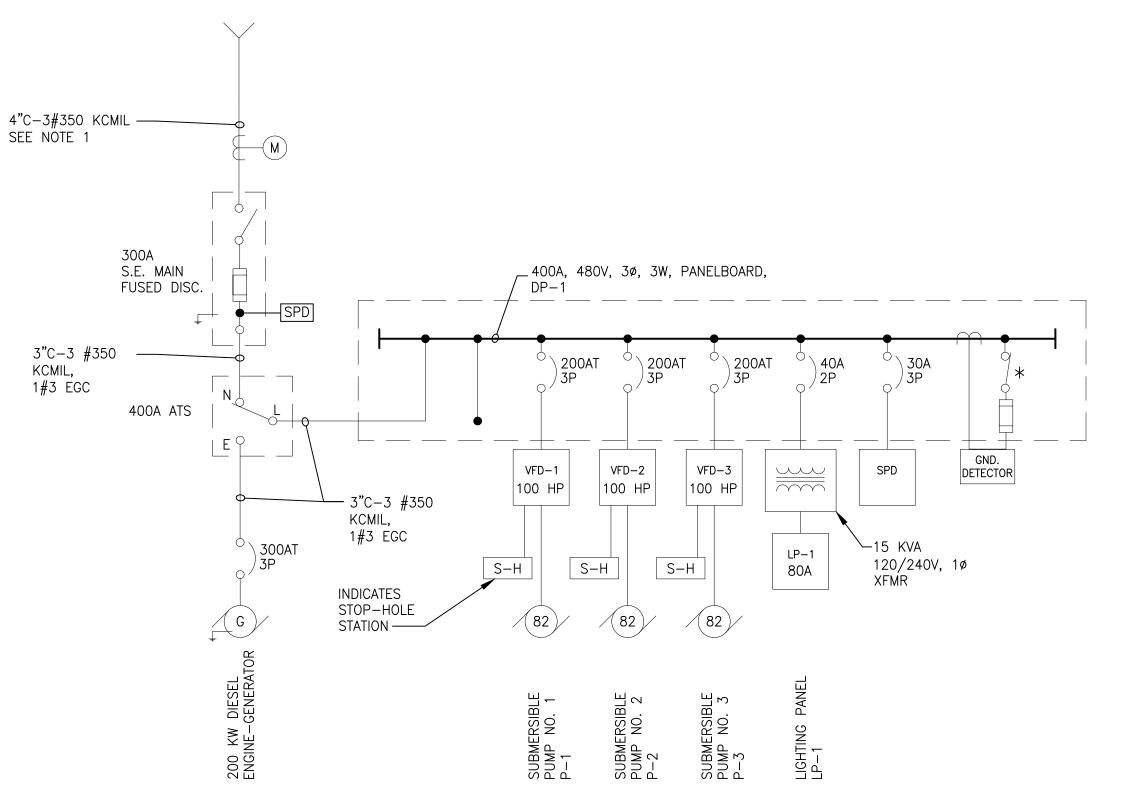
**GOLF ROAD LIFT STATION** REPLACEMENT

SHEET TITLE

**LIFT STATION** LOWER ELECTRICAL PLAN

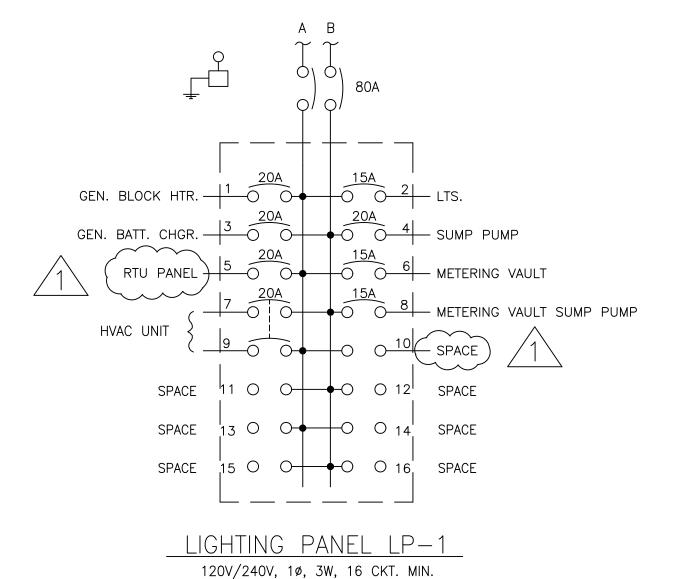
**E-3** 





DISTRIBUTION PANELBOARD DP-1 ONE LINE DIAGRAM

NO SCALE



# NOTES:

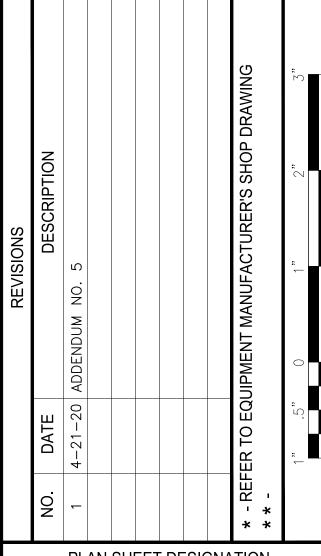
- 1. COORDINATE WITH COM-ED FOR NEW 300A, 480V, 3 PHASE, 3 WIRE UNDERGROUND SERVICE.
- 2. RECEPTACLES, LIGHTING FIXTURES, WALL MOUNTED AIR CONDITIONER, EXHAUST FANS (NOT SHOWN), AND RELATED SWITCHES:
- a. INSTALL WHERE SHOWN AND CONNECT TO BRANCH CIRCUITS AND/OR SWITCH LEG INDICATED. b. PROVIDE WIRES, CONDUITS, ETC. (NOT SHOWN) AS REQUIRED
- FOR PROPER OPERATION OF EQUIPMENT. THNN WALLED
- CONDUIT NOT PERMITTED.
- c. INSTALL CONDUITS AND BOXES TO AVOID INTERFERENCE WITH INSTALLATION, OPERATION AND MAINTENANCE OF OTHER EQUIPMENT.
- 3. SHARED NEUTRALS ARE NO PERMITTED. PROVIDE SEPARATE NEUTRAL WIRE
- 4. PROVIDE GROUNDING AND BONDING PER NEC.

FOR EACH 120V BRANCH CIRCUIT.

CONSULTANTS

MILESTONE

FOR BIDDING



PLAN SHEET DESIGNATION

G - GENERAL

H - HAZARDOUS MATERIALS C - CIVIL

L - LANDSCAPE S - STRUCTURAL

A - ARCHITECTURAL I - INSTRUMENTATION

Q - EQUIPMENT F - FIRE PROTECTION

P - PLUMBING

M - MECHANICAL

E - ELECTRICAL T - TELECOMMUNICATIONS

R - RESOURCE

161150 PROJECT NO: SCALE: AS NOTED DATE: 03-04-2020 DESIGNED BY: PVT

SLE

HDH

DRAWN BY: CHECKED BY:

CLIENT

VILLAGE OF HOFFMAN ESTATES, ILLINOIS

> **SANITARY SEWER SYSTEM IMPROVEMENTS**

**GOLF ROAD LIFT STATION** REPLACEMENT

SHEET TITLE

**LIFT STATION UPPER ELECTRICAL PLAN** 

E-4

00 41 00.61

#### BID FORM

#### ONE ORIGINAL BID SHALL BE SUBMITTED

To: President and Board of Trustees
Village of Hoffman Estates
1900 Hassell Road
Hoffman Estates, Illinois 60169
(hereinafter called Owner)

From:				
		Company		
		Address		
	City	State	Zip Code	
	()			
	\	Telephone		
	()			
	,	FAX		E-MAIL
	(hereinafter	called Bidder)		

- The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to furnish all labor, materials, tools, and services required for the construction of the Golf Road Lift Station Replacement for the Village of Hoffman Estates, Cook County, Illinois (Engineers' Job No. 161150.40), all in accordance with the Bidding Documents prepared by Baxter & Woodman, Inc., Consulting Engineers.
- 2. Bidder accepts all of the terms and conditions of the Advertisement for Bids and Bidder Instructions, including without limitation those dealing with the disposition of Bid Security. This Bid will remain open for **120** days after the date of Bid opening or for such longer period of time that Bidder may agree to in writing upon request of Owner. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Bidding Documents within 10 days after the date of Owner's Notice of Award.
- 3. In submitting this Bid, Bidder represents, as set forth in the Agreement, that:
  - a. Bidder has examined copies of all the Bidding Documents.

- b. Bidder is familiar with the nature and extent of the Bidding Documents, Work, site, locality, and all local conditions and legal and regulatory requirements that in any manner may affect cost, progress, performance, or furnishing of the Work, and has made such independent investigations as Bidder deems necessary.
- c. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- d. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- e. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- f. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigation, explorations, tests, studies, and data with the Bidding Documents.
- g. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- h. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the Work for which this Bid is submitted.
- i. This Bid is genuine and not made in the interest or on behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm, or a corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- j. Bidder is not barred from contracting with the Owner as a result of a violation 720 ILCS 5/33 et seq.

- k. Bidder agrees that no less than the prevailing rate of wages under the Davis-Bacon Wage Act (40 USC 276a through 276a-5) as determined by the U.S. Department of Labor shall be paid to all laborers, workmen and mechanics performing work under this contract.
- I. Bidder agrees to cooperate with all Davis-Bacon Wage Act compliance activities including employee interviews by Owner.
- m. Bidder complies with the provisions of the Employment of Illinois Workers on Public Works Act (30 ILCS 570/) as they may apply to this Project.
- n. Bidder will comply with the requirements of Sections 22.51(f)(2)(B) and 22.51a(d)(2)(B) of the Illinois Environmental Protection Act ([415 ILCS5/22.51(f)(2)(B)] and [415 ILCS5/22.51a(d)(2)(B)]) for the disposal of uncontaminated soils including uncontaminated soil mixed with other clean construction or demolition debris (CCDD) materials and has included any costs associated with compliance in the Bid.
- 4. Bidder submits the following Schedule of Unit Prices for the Work to be performed in accordance with the Bidding Documents and agrees that items of work not specifically mentioned in the Schedule which are necessary and required to complete the Work intended shall be done incidental to and as part of the items of work for which a unit price is given, and understands that no additional payment will be made for such incidental work.

Bidder agrees that the Owner may select any one or more Parts of this Bid, and if awarded the Contract for such Part or Parts of this Bid, the Bidder agrees to perform and complete the work at the Contract Unit Prices submitted herein.

#### SCHEDULE OF UNIT PRICES

No.	Pay Item	Approximate Quantity	Unit Price	Amount
1.2	PRECONSTRUCTION VIDEO RECORDING:	1 LSUM	Lump Sum	\$
1.3	EROSION AND SEDIMENTATION CONTROL: Inlet Filter Silt Fence	4 EACH 150 LIN FT	\$ \$	- \$ - \$
1.4	DEMOLITION:	1 LSUM	Lump Sum	\$
1.5	WET WELL REHABILITATION	1 LSUM	Lump Sum	\$
1.6	BYPASS CONNECTION MANHOLE:	1 LSUM	Lump Sum	\$

#### SCHEDULE OF UNIT PRICES

No.	Pay Item		oximate antity	Unit Price	Amount
1.7	METERING VAULT:	1	LSUM	Lump Sum	\$
1.8	LIFT STATION:	1	LSUM	Lump Sum	\$
1.9	PUMPING EQUIPMENT:	3	EACH	\$	\$
1.10	PIPING AND VALVES:	1	LSUM	Lump Sum	\$
1.11	CONTROL BUILDING:	1	LSUM	Lump Sum	\$
1.12	ELECTRICAL WORK:	1	LSUM	Lump Sum	\$
1.13	EMERGENCY GENERATOR:	1	LSUM	Lump Sum	\$
1.14	PAVEMENT RESTORATION: PCC Driveway, 8" PCC Curb & Gutter PCC Sidewalk	120 120 40	SQ YDS LIN FT SQ FT	\$ \$ \$	\$ \$ \$
1.15	GRASS RESTORATION:	450	SQ YDS	\$	\$
1.16	TEMPORARY BYPASS PUMPING:	1	LSUM	Lump Sum	\$
1.17	TRAFFIC CONTROL AND PROTECTION:	1	LSUM	Lump Sum	\$
1.18	PROCESS CONTROL INTEGRATION:	1	LSUM	Lump Sum	\$
1.19	FENCE:	1	LSUM	Lump Sum	\$
1.20	MOBILIZATION:	1	LSUM	Lump Sum	\$

#### TOTAL AMOUNT OF BID PROPOSAL: \$\_\_\_\_\_

- 5. Bidder agrees the Work will be substantially completed within 270 calendar days after the Contract Time commences to run as provided in paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 1.11 of the Supplementary Conditions within 310 calendar days after the Contract Time commences to run.
  - a. Bidder accepts the provisions of the Supplementary Conditions as to liquidated damages in the event of failure to complete the Work on time.

6.	Bidder submits the required Bid Security in the form of (Certified Check or Bid Bond) in the amount of or Percent of the Bid Amount.					
7.	Bidder will be obtaining Performance and Payment Bonds through the following local agent or broker:					
	Name:					
	Address:					
	Telephone: email:					
8.	Bidder submits all items listed in Section 00 43 93.61 – Bid Submittal Checklist.					
9.	Terms used in this Bid which are defined in the Standard General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions.					
10.	Bidder acknowledges receipt of the following Addenda:					
	Addendum Date Number Received					
11.	Bidder certifies that all iron and steel products used in the project for the construction, alteration, maintenance, or repair of a public water system are produced in the United					

- States in compliance with Section 608 of the Water Resources Reform and Development Act".
- 12. By submission of the Bid, Bidder certifies, and in the case of a Joint Bid each party thereto certifies as to his own organization, that in connection with the Bid:
  - The prices in the Bid have been arrived at independently, without consultation, a. communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor.
  - b. Unless otherwise required by law, the prices which have been quoted in the Bid have not knowingly been disclosed by the Bidder, prior to opening, directly, or indirectly to any other Bidder or to any competitor; and

		person or firm to submit or competition.	not to	submit a Bid for t	he purpose of restricting			
13.	The p	The person signing this Bid certifies that: (Check applicable box.)						
		He/She is the person in the organization for the decision participated, and will not participated.	as to	the prices being bid	I and that he/she has not			
		He/She is not the person in organization for the decision a authorized to act as agent certifying that such persons h action contrary to that above, certify that he/she has not person to that above.	as to for th ave n , and	the prices being bid be persons respons of participated, and as their agent shall	but that he/she has been ible for such decision in will not participate, in any so certify; and shall also			
14.	Bidde Yes	r is currently certified as an MBI	E or V	VBE under EPA's DE	BE Program?			
Respe	ectfully s	submitted, signed, and sealed th	his	day of	, 2020.			
	(SEAL)			В	idder			
			_	Nam	ne - Title			
ATTE	ST:							
		Name - Title						

No attempt has been made or will be made by the Bidder to induce any other

C.

END OF BID FORM

#### **SECTION 06 10 00**

#### ROUGH CARPENTRY

#### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Provide wood, nails, bolts, screws, framing anchors, miscellaneous hardware and other items needed to perform carpentry for construction shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

#### B. Related work:

- Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Division 01
   General Requirements of these Specifications.
- C. References:
  - (Reserved).

#### 1.2 SUBMITTALS

- A. Shop Drawing Submittals (Reserved).
- B. Operation and Maintenance Manuals (Reserved).
- C. Certificates and Guarantees (Reserved).
- D. Spare Parts (Reserved).

#### 1.3 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Comply with the pertinent codes and regulations of governmental agencies having jurisdiction.
- C. Comply with pertinent provisions of the following codes and standards:
  - 1. American Wood Council (AWC): National Design Specifications for Wood Construction, ANSI/AF&PA NDS-latest edition.
  - 2. National Institute of Standards and Technology:
    - a. American Softwood Lumber Standard, PS 20-latest edition.
    - b. Standard for Construction and Industrial Plywood, PS 1-latest edition.

ROUGH CARPENTRY 06 10 00-1 (161150.40)

- 3. American Lumber Standards Committee (ALSC): National Grading Rule.
- 4. American Plywood Association (APA): Grades and Specifications.
- 5. American Wood Preservers Association (AWPA):
  - Lumber, Timber, Bridge Ties and Mine Ties -- Pressure Treatment, AWPA C2-latest edition.
  - b. Plywood Pressure Treatment, AWPA C9-latest edition.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with pertinent provisions of Section 01 66 11.
- B. Deliver the materials to the job site and store, in a safe area, out of the way of traffic, and shored up off the ground surface.
- C. Identify framing lumber as to grades, and store each grade separately from other grades.
- D. Use extreme care in off loading of lumber to prevent damage, splitting and breaking of materials.
- E. Protect metals with adequate waterproof outer wrapping.
- 1.5 SITE CONDITIONS (Reserved).
- 1.6 MAINTENANCE- (Reserved).

#### PART 2 - PRODUCTS

#### 2.1 GRADE STAMPS

- A. Identify framing lumber by the grade stamp of the National Lumber Grades Authority (NLGA), or such other grade stamp as is approved in advance by the Engineer.
- B. Identify plywood as to species, grade, and glue type by the stamp of the American Plywood Association (APA).
- C. Identify other materials of this Section by the appropriate stamp of the agency approved in advance by the Engineer.

#### 2.2 MATERIALS

- A. Provide materials in the quantities needed for the Work shown on the Drawings, and meeting or exceeding the following standards of quality:
  - 1. Framing lumber for studs, plates, rafters, beams, and joists: Douglas Fir-Larch or Spruce-Pine-Fir, Grade No. 2 or better.
  - 2. Plywood: APA EXT Grade C-D or better.

- 3. Finish lumber for trim: Grade C Select White Pine, thoroughly seasoned or kiln dried, and uniform in color.
- 4. Rough hardware:
  - a. Steel items: Comply with ASTM A36.
  - b. Bolts: Comply with ASTM A307.
  - c. Lag screws: Comply with ASTM A307.
  - d. Nails: Use common except as otherwise noted.
  - e. Connectors: Simpson, Teco, or equal as approved by the Engineer.
  - f. Provide ASTM A653, G185 hot dip galvanized coating for rough hardware at exposed exterior locations or at locations in contact with treated wood.
    - (1) Steel items, bolts, lag screws and nails: Comply with ASTM A153.
    - (2) Connectors: Comply with ASTM A123.

#### B. Treated wood:

- 1. Provide pressure treated lumber and plywood where shown on the Drawings.
- Pressure treat above ground wood members in contact with concrete or masonry with waterborne alkaline copper quaternary (ACQ) preservative system containing no arsenic and no chromium to a minimum retention of 0.25 lb./cu.ft.
- 3. Pressure treat wood members in contact with ground or fresh water with waterborne alkaline copper quaternary (ACQ) preservative system containing no arsenic and no chromium to a minimum retention of 0.45 lb./cu.ft.
- 4. Kiln dry all wood to a 19 percent maximum moisture content before and after pressure treatment.

#### 2.3 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Engineer.

#### PART 3 - EXECUTION

#### 3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

#### 3.2 DELIVERIES

A. Stockpile materials sufficiently in advance of need to assure their availability in a timely manner for this Work.

B. Make as many trips to the job site as are needed to deliver materials of this Section in a timely manner to ensure orderly progress of the Work.

#### 3.3 COMPLIANCE

- A. Do not permit materials not complying with the provisions of this Section to be brought onto or to be stored at the job site.
- B. Promptly remove non-complying materials from the job site and replace with materials meeting the requirements of this Section.

#### 3.4 WORKMANSHIP

- A. Produce joints which are tight, true, and well nailed, with members assembled in accordance with the Drawings and with pertinent codes and regulations.
- B. Finish trim jointing:
  - 1. Make joints to conceal shrinkage; miter exterior joints; cope interior joints; miter or scarf end-to-end joints.
  - 2. Install trim in pieces as long as possible, jointing only where solid support is obtained.
- C. Selection of lumber pieces:
  - 1. Carefully select the members.
  - 2. Select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing, and will allow making of proper connections.
  - 3. Cut out and discard defects which render a piece unable to serve its intended function.
  - 4. Lumber may be rejected by the Engineer, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.
- D. Do not shim any framing component.

#### 3.5 GENERAL FRAMING

#### A. General:

- In addition to framing operations normal to the fabrication and erection indicated on the Drawings, install wood blocking and backing required for the work of other trades.
- 2. Set horizontal and sloped members with crown up.
- 3. Do not notch, cut, or bore members for pipes, ducts, or conduits, or for other reasons except as shown on the Drawings or as specifically approved in advance by the Engineer.

#### B. Bearings:

1. Make bearings full unless otherwise indicated on the Drawings.

ROUGH CARPENTRY 06 10 00-4 (161150.40)

- 2. Finish bearing surfaces on which structural members are to rest so as to give sure and even support.
- 3. Where framing members slope, cut or notch the ends as required to give uniform bearing surface.

#### 3.6 BLOCKING AND BRIDGING

A. Install blocking as required to support items of finish and to cut off concealed draft openings, both vertical and horizontal, between ceiling and floor areas.

#### B. Bridging:

- 1. Install wood cross bridging (not less than 2" x 3" nominal), metal cross bridging of equal strength, or solid blocking between joists where the span exceeds 8' 0".
- 2. Provide maximum distance of 8' 0" between a line of bridging and a bearing.
- 3. Cross bridging may be omitted for roof and ceiling joists where the omission is permitted by code, except where otherwise indicated on the Drawings.
- 4. Install solid blocking between joists at points of support and wherever sheathing is discontinuous. Blocking may be omitted where joists are supported on metal hangers.

#### 3.7 ALIGNMENT

A. On framing members to receive a finished surface, align the finish subsurface to vary not more than 1/8-inch from the plane of surfaces of adjacent furring and framing members.

#### 3.8 INSTALLATION OF PLYWOOD SHEATHING

#### A. Placement:

- 1. Place plywood with face grain perpendicular to supports and continuously over at least two supports, except where otherwise shown on the Drawings.
- 2. Center joints accurately over supports, unless otherwise shown on the Drawings.
- B. Protect plywood from moisture by use of waterproof coverings until the plywood in turn has been covered with the next succeeding component or finish.

#### 3.9 FASTENING OF FRAMING LUMBER

#### A. Nailing:

- 1. Provide penetration into the piece receiving the point of not less than 1/2 the length of the nail or spike, provided, however, that 16d nails may be used to connect two pieces of 2-inch (nominal) thickness.
- 2. Nail without splitting wood.
- 3. Prebore as required.

4. Remove split members and replace with members complying with the specified requirements.

#### B. Bolting:

- 1. Drill holes 1/16-inch larger in diameter than the bolts being used.
- 2. Drill straight and true from one side only.
- 3. Do not bear bolt heads on wood, but use washers under head and nut where both bear on wood, and use washers under all nuts.

#### C. Screws:

1. For lag screws and wood screws, prebore holes same diameter as root of threads, enlarging holes to shank diameter for length of shank.

#### 3.10 FASTENING OF TRIM

- A. Install items straight, true, level, plumb, and firmly anchored in place.
- B. Where blocking or backing is required, coordinate as necessary with other trades to ensure placement of required backing and blocking in a timely manner.
- C. Nail trim with finish nails of proper dimension to hold the member firmly in place without splitting the wood.
- D. Nail exterior trim with galvanized nails, making joints to exclude water and setting in waterproof glue or the sealant.
- E. On exposed work, set nails for putty.
- F. Screw, do not drive, wood screws; except that screws may be started by driving and then screwed home.

#### 3.11 FINISHING

- A. Sandpaper finished wood surfaces thoroughly as required to produce a uniformly smooth surface, always sanding in the direction of the grain; except do not sand wood which is designed to be left rough.
- B. No coarse grained sandpaper mark, hammer mark, or other imperfection will be accepted.

**END OF SECTION** 

#### **SECTION 07 21 00**

#### THERMAL INSULATION

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Provide building insulation as shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
  - 1. Documents affecting work under this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Division 01 General Requirements of these Specifications.
- C. References:
  - 1. (Reserved).

#### 1.2 SUBMITTALS

- A. Shop Drawing Submittals (Reserved).
- B. Operation and Maintenance Manuals (Reserved).
- C. Certificates and Guarantees (Reserved).
- D. Spare Parts (Reserved).
- 1.3 QUALITY ASSURANCE (Reserved).
- 1.4 DELIVERY, STORAGE, AND HANDLING
  - A. Comply with pertinent provisions of Section 01 66 11.
- 1.5 SITE CONDITIONS (Reserved).
- 1.6 MAINTENANCE (Reserved).

#### PART 2 - PRODUCTS

#### 2.1 PERIMETER INSULATION

- A. Provide rigid extruded polystyrene foam insulation in block form.
  - 1. Thickness: 2-inch minimum.
  - 2. Density: 2.2 lbs/cu.ft. minimum.

THERMAL INSULATION 07 21 00-1 (161150.40)

- 3. Provide the R values:
  - a. Roofs: 38 minimum.
  - b. Walls, above grade: 20 minimum.
  - c. Floors: 10 minimum.
- 4. Comply with ASTM E-84
  - a. Flame spread index: 20 minimum.
  - b. Smoke development: 450 minimum.
- 5. Acceptable products:
  - a. STYROFOAM™ Brand Square Edge Insulation by DOW Chemical Company.
  - b. Or equal.

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION

A. Building Insulation: Install in strict accordance with the building insulation manufacturer's recommended installation procedures, anchoring all components firmly into place.

**END OF SECTION** 

#### SECTION 40 91 23.33

#### FLOW PROCESS MEASUREMENT DEVICES

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Provide flow process measurement devices as shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
  - 1. Documents affecting work under this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Division 01 General Requirements of these Specifications.
- C. References:
  - 1. (Reserved).

#### 1.2 SUBMITTALS

- A. Shop Drawing Submittals:
  - Manufacturer's detailed specifications.
- B. Operation and Maintenance Manuals: Submit operation and maintenance manuals in compliance with pertinent provisions of Section 01 78 26.
- C. Certificates and Guarantees (Reserved).
- D. Spare Parts (Reserved).

#### 1.3 QUALITY ASSURANCE

- A. All flow process measurement device of the same type to be provided by one manufacturer.
- 1.4 DELIVERY, STORAGE, AND HANDLING
  - A. Comply with pertinent provisions of Section 01 66 11.
- 1.5 SITE CONDITIONS (Reserved).
- 1.6 MAINTENANCE (Reserved).

#### 2.1 ELECTROMAGNETIC FLOW METERS

- A. Design electromagnetic flow meters to measure the flow rate of conductive liquid in pipes using the principle of Faradays law.
- B. Provide electromagnetic, micro processor-based flow meters with the following requirements:
  - Transmitter:
    - a. Power supply: 24 VDC or 120 VAC as shown on the Drawings.
    - b. Output: Isolated 4-20 mAdc and pulse configurable for set volume per pulse.
    - c. Display: Alphanumeric LCD displaying flow rate and totalized flow.
    - d. Adjustment: Field programmable by keypad entry.
    - e. Operating temperature: -4 to 120 degrees F.
    - f. Enclosure: NEMA 4X.
    - g. Mounting: Integral or Remotely mounted as shown on the Drawings.
    - h. Utilizes high impedance circuitry.
    - i. Low flow cut-off of 1% of full-scale flow.

#### 2. Transducer:

- a. Design: Permanent submergence Pulsed DC Magnetic type, measures bi-directional flow, and automatic adjustment of sensitivity to match flow velocities.
- b. Submersible cable(s) factory-sealed at the transducer and routed continuously without splices to transmitter for remote-mounted transmitters.
- c. Flow range: 1 fps to 30 fps.
- d. Ambient temperature: -4 to 120 degrees F.
- e. Tube: Min. carbon steel, 150# ANSI steel flanges end connections.
- f. Liner: Per manufacturer's recommendations for application.
- g. Electrodes: 316 stainless steel.
  - (1) Provide removable or electrode cleaning system in applications where electrodes may be coated and require periodic cleaning.
- h. Submergence protection: NEMA6P or IP68.
- i. Sealed, welded housing with separate electrode compartment
- Provide the following accessories:
  - a. NEMA 4X Instrument Enclosure in compliance with Section 40 95 15 for transmitter mounting when mounted outside as shown on the Drawings.
  - b. AC power lines noise filter and voltage surge protector as required.
  - c. Two (2) 316 stainless steel lining protectors or grounding rings, or grounding electrode.
  - d. Cleaning unit as required if non-removable electrodes are provided.

- 4. Acceptable manufacturers:
  - a. Rosemount Model 8705 with 8712D (Remote mounted transmitter) or 8732C (Integral mounted transmitter).
  - b. Siemens Sitrans F M MAGFLO Series with MAG5000.
  - c. Endress + Hauser ProMag 53W.
  - d. Or equal.

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION

A. Install flow process measurement devices in accordance with manufacturer's recommendations.

#### 3.2 CALIBRATION

A. Calibrate and program equipment to meet system requirements.

#### 3.3 START-UP AND TESTING

A. Comply with the manufacturer's recommended testing procedures.

**END OF SECTION**