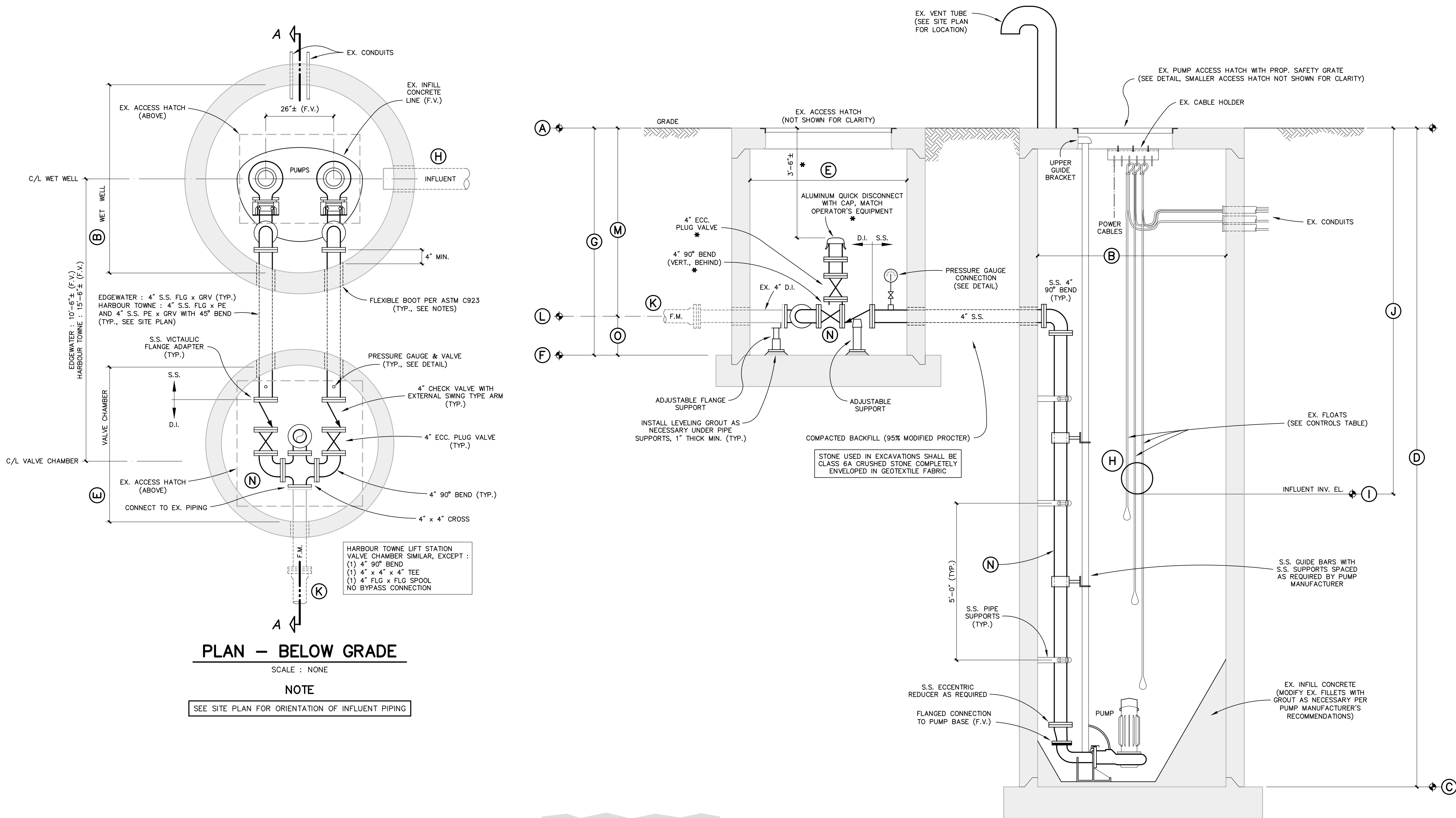


T:\CADD\PROJECTS\2023\2221072_MUSKEGON_2023\DWG\STREET IMP\4_PROD\EDGEWATER - WSWTH - Apr. 25, 2023 - 10:59am - PuckMuhad

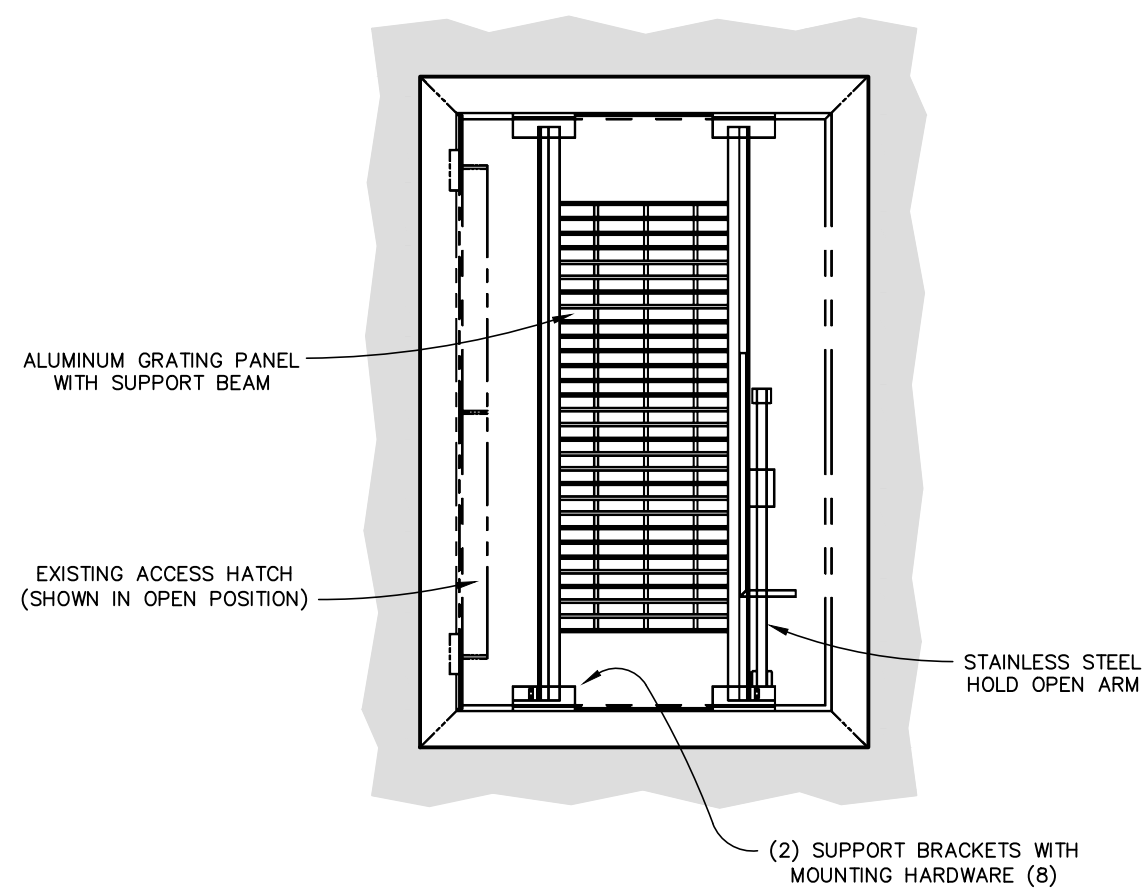


PLAN - BELOW GRADE

SCALE : NONE

NOTE

SEE SITE PLAN FOR ORIENTATION OF INFLUENT PIPING



SAFETY GATE INSTALLATION DETAIL

SCALE : NONE

NOTES

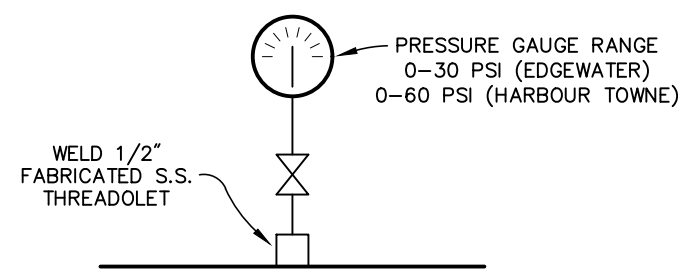
1. PROPOSED SAFETY GRATES REQUIRED IN LARGER (PUMP) WET WELL ACCESS HATCH ONLY.
2. COORDINATE SAFETY GRATE SIZE WITH MANUFACTURER BASED ON EXISTING ACCESS HATCH DIMENSIONS. SAFETY GRATES SHALL BE INSTALLED SO AS TO AVOID EXISTING GUIDERAILS AND OTHER EQUIPMENT.
3. ALL PROPOSED SAFETY GRATE HARDWARE SHALL BE TYPE 316 STAINLESS STEEL. PROVIDE BOLT ISOLATION KITS IF MOUNTING TO EXISTING ALUMINUM ACCESS HATCH FRAME OR OTHER DISSIMILAR METALS.

SECTION A-A

SCALE : NONE

NOTE

* EDGEWATER LIFT STATION ONLY



PRESSURE GAUGE CONNECTION DETAIL

SCALE : NONE

NOTE

ALL PIPING AND BALL VALVES, 1/2", STAINLESS STEEL.

DIMENSION INFORMATION

ITEM	DESCRIPTION	EDGEWATER	HARBOUR TOWNE
A	EX. WET WELL LID ELEVATION (FT)	583.30±	590.60±
B	EX. WET WELL DIAMETER (FT)	8	8
C	BOTTOM OF EX. WET WELL ELEVATION (FT)	569.30±	566.20±
D	DEPTH TO BOTTOM OF EX. WET WELL (FT)	14.00±	24.40±
E	EX. VALVE CHAMBER DIAMETER (FT)	5	8
F	BOTTOM OF EX. VALVE CHAMBER ELEVATION (FT)	575.80±	583.93±
G	DEPTH TO BOTTOM OF EX. VALVE CHAMBER (FT)	7.50	6.67
H	EX. INFLUENT SANITARY SEWER DIAMETER (IN)	12	10
I	EX. INFLUENT INVERT ELEVATION (FT)	574.00	571.20±
J	DEPTH TO EX. INFLUENT INVERT (FT)	9.30±	19.40±
K	EX. FORCE MAIN (F.M.) DIAMETER (IN) (DI)	4	4/6
L	EX. F.M. CENTERLINE ELEVATION (FT)	576.88±	584.85±
M	DEPTH TO EX. F.M. CENTERLINE (FT)	6.42	5.75
N	STATION PIPING DIAMETER (IN)	4	4
O	HEIGHT OF EX. F.M. ABOVE EX. VALVE CHAMBER FLOOR (FT)	1.08	0.92
P	APPROXIMATE WATER TABLE ELEVATION (FT)	580.00	585.90
Q	APPROXIMATE DEPTH TO WATER TABLE (FT)	3.30	4.70

NOTES :
1. ALL DEPTHS ARE RELATIVE TO THE EXISTING WET WELL LID ELEVATION.
2. FIELD VERIFY ALL EXISTING ELEVATIONS PRIOR TO CONSTRUCTION.

PROPOSED LIFT STATION CONTROLS TABLE

PUMP CONTROL DESCRIPTION	EDGEWATER		HARBOUR TOWNE	
	ELEVATION (FT)	DEPTH TO BOT/WW (FT)	ELEVATION (FT)	DEPTH TO BOT/WW (FT)
INFLUENT INVERT	574.00	4.70	571.20±	5.00
HIGH WATER ALARM/BACKUP LEAD PUMP ON	573.75	4.45	570.95	4.75
LAG PUMP ON	573.50	4.20	570.70	4.50
LEAD PUMP ON	573.00	3.70	570.20	4.00
PUMPS OFF (TOP OF PUMPS)	571.50	2.20	568.70	2.50
LOW WATER ALARM/BACKUP PUMPS OFF	571.00	1.70	568.20	2.00
BOTTOM OF WET WELL	569.30±	-	566.20±	-
FIRM CAPACITY (GPM)	240		280	
DESIGN TOTAL DYNAMIC HEAD (FT)	23		37	
MINIMUM FLOW FOR 2 FT/S IN FORCE MAIN (GPM)	80		180	

NOTE :
CONFIRM CONTROL ELEVATIONS WITH THE OWNER AT LIFT STATION STARTUP.

GENERAL NOTES (BOTH STATIONS)

1. LIFT STATION PLANS ARE ADAPTED FROM AVAILABLE RECORD PLANS AND FIELD OBSERVATIONS, AND ARE A REPRESENTATION OF ACTUAL CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE CURRENT CONDITIONS. SOME FITTINGS AND OTHER ITEMS ARE NOT SHOWN FOR CLARITY.
2. EDGEWATER LIFT STATION PIPE AND FITTING LAYOUT SHOWN IN PLAN AND SECTION. HARBOUR TOWNE LIFT STATION LAYOUT IS SIMILAR, WITH THE FORCE MAIN EXITING THE VALVE CHAMBER IN LINE WITH THE EAST DISCHARGE PIPE.
3. REMOVE AND REINSTALL EXISTING INSTRUMENTATION AS NECESSARY FOR CONSTRUCTION. FLOAT ELEVATIONS SHALL BE ADJUSTED AS INDICATED IN THE CONTROLS TABLE.
4. CORE STRUCTURES AS NECESSARY TO INSTALL FLEXIBLE BOOTS. IF CONDITION OF STRUCTURE AND/OR EXISTING GROUT PREVENTS INSTALLATION OF BOOT, SEAL PIPE PENETRATIONS WITH NON-SHRINK GROUT THE FULL DEPTH OF THE PENETRATION.
5. WHERE REPLACING PUMPS, DISCONNECT PUMP CABLES FROM EXISTING COMBINATION STARTERS IN CONTROL PANEL. REMOVE SEALING MATERIAL IN CONDUIT SEAL AS NECESSARY TO INSTALL PROPOSED PUMP CABLES. AFTER PROPOSED PUMP CABLES ARE INSTALLED, PROVIDE NEW SEALING MATERIAL IN EXISTING CONDUIT SEAL.
6. CONTACT CHUCK GALARNEAU, CNC ELECTRIC, (231) 329-0404, TO COORDINATE ANY ELECTRICAL OR CONTROLS WORK IN CONTROL PANELS.

DEMOLITION NOTES (BOTH STATIONS)

1. THE OWNER HAS THE FIRST RIGHT TO REFUSAL ON ALL ITEMS TO BE REMOVED. THE CONTRACTOR SHALL COORDINATE ITEMS TO BE SALVAGED. REFER TO SECTION 02 41 00 OF THE SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING EQUIPMENT TO BE SALVAGED FOR REUSE OR TURNED OVER TO THE OWNER.
2. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL DEBRIS IN THE WET WELL.
3. REMOVE PUMPS, PUMP BASES, GUIDE RAILS, PIPING, VALVES, AND ANY PIPE SUPPORTS IN AND BETWEEN THE VALVE CHAMBER AND WET WELL. SALVAGE EDGEWATER LIFT STATION PUMP NO. 1 FOR REINSTALLATION.

EDGEWATER LIFT STATION NOTE

EXISTING TWO (2) INCH VALVE CHAMBER DRAIN TO WET WELL AND ASSOCIATED CHECK VALVE NOT SHOWN FOR CLARITY

HARBOUR TOWNE LIFT STATION NOTES

1. SEE SITE PLAN FOR ORIENTATION OF PIPE AND ADDITIONAL FITTINGS BETWEEN STRUCTURES.
2. EXISTING SUMP IN VALVE CHAMBER NOT SHOWN FOR CLARITY.
3. REPLACE THE EXISTING BIMETAL OVERLOADS ON EACH PUMP STARTER CONTACTOR BASED ON THE NEW FULL LOAD AMP (FLA) RATING OF THE PROPOSED PUMPS TO MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.

NO.	REVISIONS	BY	DATE	DRAWN
				SMYTH
				DATE MAY '23
				CHECKED W.C.T.
				DATE MAY '23

Prein&Newhof
Engineers•Surveyors•Environmental•Laboratory

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
WASTEWATER SYSTEM IMPROVEMENTS
EDGEWATER & HARBOUR TOWNE LIFT STATIONS

LIFT STATION DETAILS

PROJECT NO.
2221072

SHEET NO.

3 OF 3