

# WARREN COUNTY WATER AND SEWER DEPARTMENT

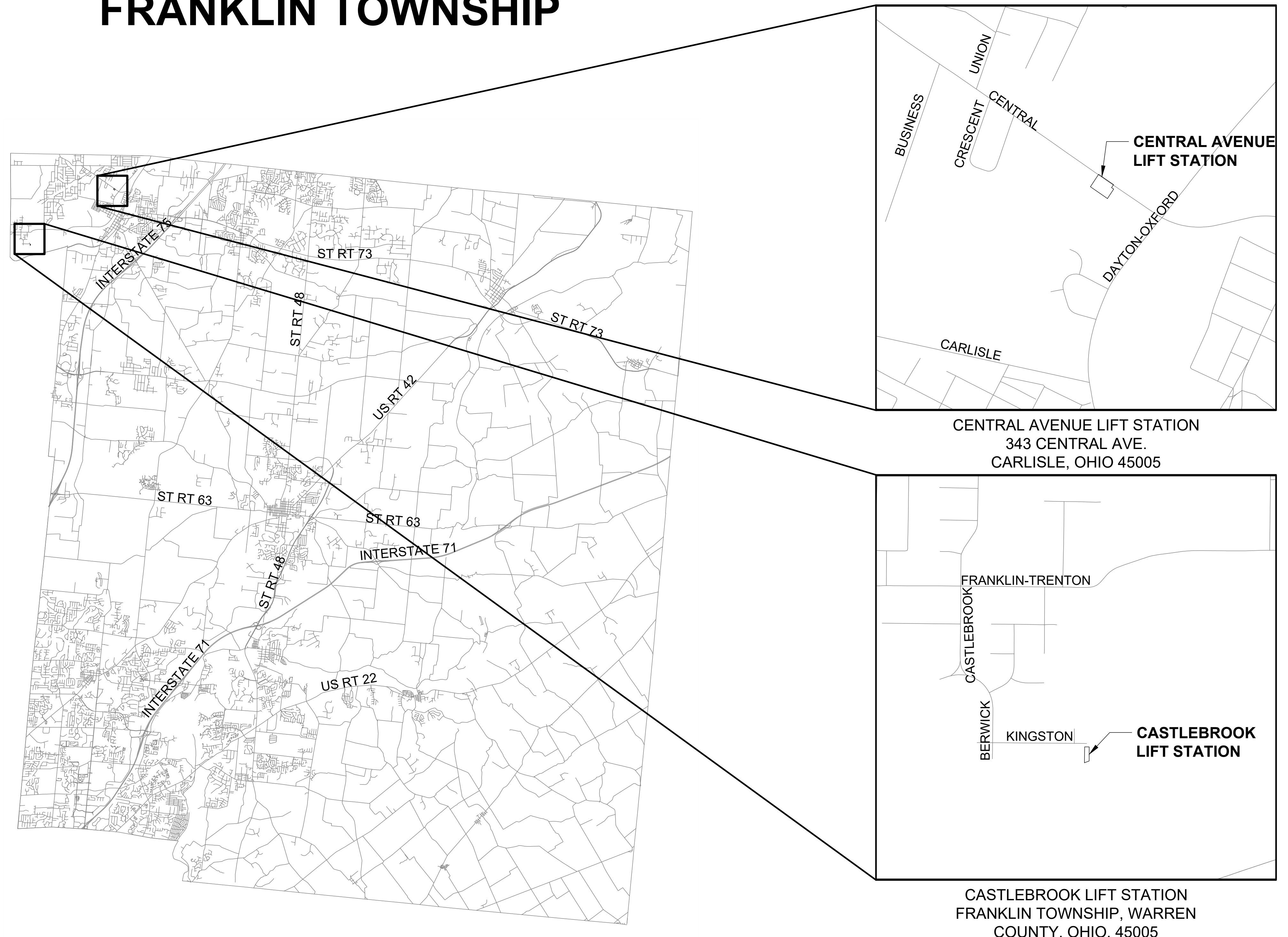


## CARLISLE AREA LIFT STATION UPGRADES - PHASE 3

WARREN COUNTY, OHIO  
FRANKLIN TOWNSHIP


### SHEET INDEX

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- 2 NOTES & DETAILS
- 3 SITE PLANS
- 4 PLAN & SECTIONS



PROJECT:  
CARLISLE LS - PHASE 3  
DATE:  
JANUARY 25, 2024  
DRAWN BY:  
K. GILBERT  
REVIEWED BY:  
C. BRAUSCH

WARREN COUNTY  
WATER & SEWER DEPARTMENT  
406 JUSTICE DRIVE  
LEBANON, OH 45036



SEAL  
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1/25/2024

NO.	REVISION/ISSUE	DATE

TITLE SHEET

CARLISLE AREA LIFT STATION  
IMPROVEMENTS - PHASE 3

PAGE  
**1**  
SCALE:  
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**GENERAL NOTES**

**SPECIFICATIONS:**  
 ANY MODIFICATION OR CHANGES TO THE WORK AS SHOWN ON THE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE PROJECT OWNER.  
 APPROVAL OF THIS PLAN IS CONTINGENT UPON ALL EASEMENTS AND RIGHTS-OF-ENTRY REQUIRED FOR CONSTRUCTION OF THE IMPROVEMENTS WORK BEING SECURED BY THE COUNTY. THE COUNTY WILL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION THAT ARE NOT SPECIFIED HEREIN.  
 THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, SERVICES, AND RELATED ACCESSORIES FOR A COMPLETE PROJECT AS DESCRIBED IN THE PLANS AND SPECIFICATIONS. THE PRICE FOR ITEMS OF WORK OR MATERIALS SHOWN ON THE PLANS OR PROVIDED FOR IN THE SPECIFICATIONS OR SPECIAL PROVISIONS FOR WHICH NO SEPARATE UNIT PRICE OR METHOD OF PAYMENT ARE GIVEN SHALL BE DISTRIBUTED AMONG THE VARIOUS BID ITEMS. SUBMISSION OF A BID SHALL BE CONSIDERED EVIDENCE THAT THE BIDDER IS SATISFIED WITH THE PLANS AND CONDITIONS AS SHOWN. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COMPLIANCE WITH THE PLANS, SPECIFICATIONS, OR SPECIAL PROVISIONS.

**SAFETY REQUIREMENTS:**  
 THE CONTRACTOR AND ANY AND ALL SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

**CONFINED SPACE ENTRY:**  
 THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FOLLOWING OSHA REQUIREMENTS FOR "CONFINED SPACE ENTRY" (CSE), TITLE #29 OF THE FEDERAL REGULATIONS CODE, PART 1910.145, WHILE PERFORMING WORK INSIDE AND MANHOLE OR OTHER CONFINED SPACE REQUIRING A PERMIT. COPY OF THE CSE PERMITS SHALL BE GIVEN TO THE COUNTY UPON PROJECT COMPLETION.

**PERMITS:**  
 THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND GOVERNMENT FEES, LICENSES, AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE IMPROVEMENTS SHOWN ON THE PLANS.

**INSPECTION:**  
 WARREN COUNTY WILL PROVIDE ALL CONSTRUCTION INSPECTION FOR THIS PROJECT. NO WORK SHALL BE COMMENCED UNTIL ARRANGEMENTS HAVE BEEN MADE WITH THE COUNTY FOR INSPECTION SERVICES AND A PRE-CONSTRUCTION MEETING HAS TAKEN PLACE.

**UTILITIES:**  
 THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICES (OUPS) AT (1-800-362-2764) AT LEAST 48 HOURS, AND NO MORE THAN 10 DAYS PRIOR TO EXCAVATING, WITH SUCH TIME PERIODS NOT INCLUDING WEEKENDS OR HOLIDAYS. CONTRACTORS SHALL SIMILARLY CONTACT ALL UTILITY OWNERS WHO ARE NOT SUBSCRIBERS TO OUPS.

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL PROCEED WITH THE WORK AND PROTECT ALL UNDERGROUND UTILITIES IN A MANNER AT LEAST AS CAUTIOUS AND PROTECTIVE OF SAFETY AND UNDERGROUND UTILITIES AS THOSE METHODS IDENTIFIED IN SECTION 3781.25 THROUGH 3781.30 OF THE OHIO REVISED CODE.  
 ALL PRIVATE UTILITY RELOCATION (GAS, ELECTRIC, PHONE, ETC.) WILL BE THE RESPONSIBILITY OF THE UTILITY OWNERS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR PROTECTION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY.

**RIGHTS-OF-WAY:**  
 IN ADDITION TO THE DIRECT REQUIREMENTS OF THE CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL OBSERVE AND CONFORM TO THE SPECIFIC REQUIREMENTS OF RIGHT-OF-WAYS, INCLUDING EASEMENTS, COURT ENTRIES, RIGHT-OF-ENTRY, OR ACTION FILED IN COURT IN ACCORDANCE WITH THE CODE OF THE APPLICABLE GOVERNING AGENCY. THE COST OF THE OPERATIONS NECESSARY TO FULFILL SUCH REQUIREMENTS SHALL BE INCLUDED IN THE BID PRICE FOR THE VARIOUS ITEMS OF THE CONTRACT UNLESS SPECIAL PROVISION IS MADE IN THE CONTRACT SPECIFICATIONS FOR SUCH COST UNDER SPECIFIC ITEMS OF THE CONTRACT.

**WORK LIMITS:**  
 THE CONTRACTOR IS RESPONSIBLE FOR CONTAINING ALL PERFORMED WORK AND ALL EQUIPMENT, MATERIALS, VEHICLES, ETC. USED TO COMPLETE THE WORK WITHIN THE THE RIGHT-OF-WAY OF THE STREETS, ROADWAYS, AND PERMANENT EASEMENTS.

**STORAGE OF EQUIPMENT AND MATERIALS:**  
 NO MATERIALS, INCLUDING PIPE, SHALL BE STORED WITHIN TWENTY (20) FEET OF ANY INTERSECTING STREET OR DRIVEWAY. DURING NON-WORKING HOURS, STORAGE OF EQUIPMENT SHALL COMPLY WITH THESE SAME REQUIREMENTS. COMPLIANCE WITH THESE REQUIREMENTS SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS LEGAL RESPONSIBILITIES OR LIABILITIES FOR THE SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL INDICATE HIS INTENT WITH REGARD TO STORAGE OF MATERIAL AT THE PRE-CONSTRUCTION MEETING.

**CONVENIENCE FACILITIES:**  
 THE CONTRACTOR SHALL FURNISH AND MAINTAIN SANITARY CONVENIENCE FACILITIES FOR THE WORKMEN AND INSPECTORS FOR THE DURATION OF THE WORK. COST SHALL NOT BE INCLUDED IN THE PRICE BID FOR VARIOUS ITEMS.

**PRE-CONSTRUCTION MEETING:**  
 NO WORK SHALL START PRIOR TO A PRE-CONSTRUCTION MEETING. THE COUNTY WILL NOTIFY THE CONTRACTOR TO ARRANGE A TIME AND DATE FOR THIS MEETING. THE COUNTY SHALL AUTHORIZE A START DATE.

**NON-RUBBER TIRED VEHICLES:**  
 NO NON-RUBBER TIRED VEHICLES SHALL BE MOVED ON PUBLIC STREETS.  
**SIGNS, MAILBOXES, FENCES, ETC.:**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL SIGNS, MAILBOXES, FENCES, GUARDRAIL, SHRUBS, PROPERTY, DRAINAGE STRUCTURES, OR OTHER PHYSICAL FEATURES DISTURBED OR DAMAGED DURING CONSTRUCTION WHETHER SHOWN ON THE PLANS OR NOT TO THEIR ORIGINAL LOCATION AND CONDITION AND TO THE SATISFACTION OF THE PROPERTY OWNER. COST TO BE INCLUDED IN THE PRICE OF BID FOR VARIOUS ITEMS.

**CONSTRUCTION DEBRIS:**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE CLEANUP OF ANY DEBRIS, MUD, OR DIRT TRACKED OR SPILLED ON PUBLIC STREETS OR PRIVATE DRIVES WHETHER INSIDE OR OUTSIDE THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF ANY SERVICES CONTRACTED AND/OR COMPLETED BY WARREN COUNTY IN THE CLEAN UP OF ANY TRACKING OR SPILLAGE ANYTIME DURING PROJECT CONSTRUCTION. THE ENGINEER MAY REQUIRE THE CONTRACTOR TO PERFORM WEEKLY STREET CLEANING IF EXCESSIVE AMOUNTS OF DIRT AND MUD ARE LEFT ALONG THE STREET. THIS MAY INCLUDE REMOVAL BY SWEEPING, POWER CLEANING, OR MANUAL METHODS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS, UNLESS OTHERWISE SPECIFIED.

**DEPTH OF EXISTING SEWER:**  
 THE INVERTS SHOWN FOR THE EXISTING SEWERS ARE BASED ON RECORD PLAN INFORMATION AND FIELD INVESTIGATION OF MANHOLES. ELEVATIONS ARE SHOWN TO GIVE AN INDICATION AS TO THE APPROXIMATE DEPTH OF THE WORK AND ANY INACCURACIES WILL NOT MATERIALLY AFFECT THE WORK OR PRICE. NO ADDITIONAL PAYMENT SHALL BE MADE.

**VALVE VAULT CLEANING:**  
 THE INSIDE OF THE VALVE VAULT SHALL BE CLEANED BY POWER WASHING THE INSIDE OF THE VAULT AND REMOVING ALL RESULTING LIQUID AND DEBRIS.

**MAINTENANCE OF SANITARY SERVICE:**  
 THE CONTRACTOR SHALL MAINTAIN EXISTING SANITARY SEWERS IN SERVICE DURING ALL WORK ON THE PROJECT USING BYPASS PUMPING OR OTHER METHOD WHICH DOES NOT RESULT IN SANITARY SEWER FLOWS BEING DISCHARGED TO THE GROUND, STREETS, SIDEWALKS, ETC.

IF BYPASS PUMPING IS PERFORMED, THE CONTRACTOR WILL BE REQUIRED TO MONITOR WITH PERSONNEL AND ENSURE POWER IS AVAILABLE DURING ALL TIMES THAT PUMPING IS REQUIRED. BYPASS PUMPS SHALL BE SIZED TO ACCOMMODATE ALL FLOWS AND SHALL NOT OVERWHELM DOWNSTREAM SEWERS, I.E. NO WATER-IN-BASEMENT COMPLAINTS EITHER UPSTREAM OR DOWNSTREAM OF THE BYPASS PUMPING LOCATION. CONTRACTOR SHALL BE RESPONSIBLE TO RESPOND AND MAKE REPAIRS AND CLEANUP FOR ALL WATER-IN-BASEMENT COMPLAINTS CAUSED BY THE BYPASS PUMPING. REFER TO SUPPLEMENTAL SPECIFICATION SECTION 01 51 43, TEMPORARY BYPASS PUMPING. ALL COSTS ASSOCIATED WITH MAINTAINING SANITARY SERVICE DURING CONSTRUCTION SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 3 "TEMPORARY BYPASS PUMPING".

**EROSION & SEDIMENTATION CONTROL:**  
 CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL SERVICES IF SIGNIFICANT EROSION OCCURS AT THE PROJECT SITES.

**WORK HOURS:**  
 WORK HOURS PERMITTED 8:00AM TO 5:00PM UNLESS OTHERWISE ADJUSTED BY OWNER.

**BOLTS AND NUTS:**  
 USE ONLY STAINLESS STEEL BOLTS AND NUTS.

**PUMP STATION OPERATION:**  
 THE CONTRACTOR SHALL BE IN CONTACT WITH JASON SORRELL, SEWER MAINTENANCE SUPERINTENDENT (CELL # 513-260-7768), DURING ANY PERIODS THAT VALVE VAULTS ARE BEING BYPASSED OR PERIODS WHEN FLOW THROUGH THE SEWER AND MANHOLES IS OBSTRUCTED, TO COORDINATE CONSTRUCTION OPERATIONS WITH THE PUMP STATION OPERATIONS.

**CONSTRUCTION LIMITS:**  
 CONSTRUCTION LIMITS SHALL BE WITHIN THE EXISTING PUBLIC UTILITY EASEMENT OR WITHIN COUNTY OWNED PROPERTY.

**RESTORATION AND CLEANUP:**  
 IT IS THE INTENT OF THE COUNTY TO KEEP INCONVENIENCE TO THE PROPERTY OWNERS TO AN ABSOLUTE MINIMUM. ALL WORK PRESCRIBED AND DESCRIBED IN THESE SPECIFICATIONS IS SITUATED IN IMPROVED AREAS. ALL WORK IS TO CONTINUE ON A UNIFORM BASIS AND ON SCHEDULE, PARTICULARLY THE RESTORATION AN CLEAN UP OF DISTURBED AREAS AFTER CONSTRUCTION.  
 AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED AND MULCHED WITHIN TWO (2) WEEKS OF THE SEWER INSTALLATION AND IMMEDIATE RE-GRADING. A COMMERCIAL FERTILIZER (12-12-12) SHALL BE APPLIED AT A RATE OF 20 LBS. PER 1000 S.F.  
 ALL DEBRIS, RUBBLE, UNUSABLE MATERIALS, AND ITEMS NOT SALVAGED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF PROPERLY.

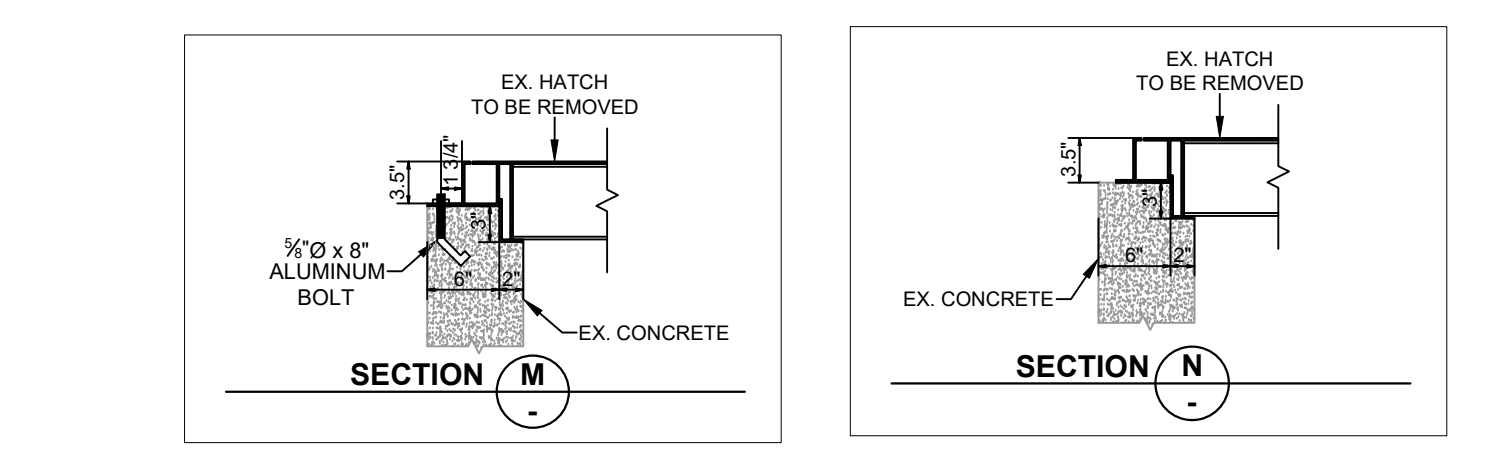
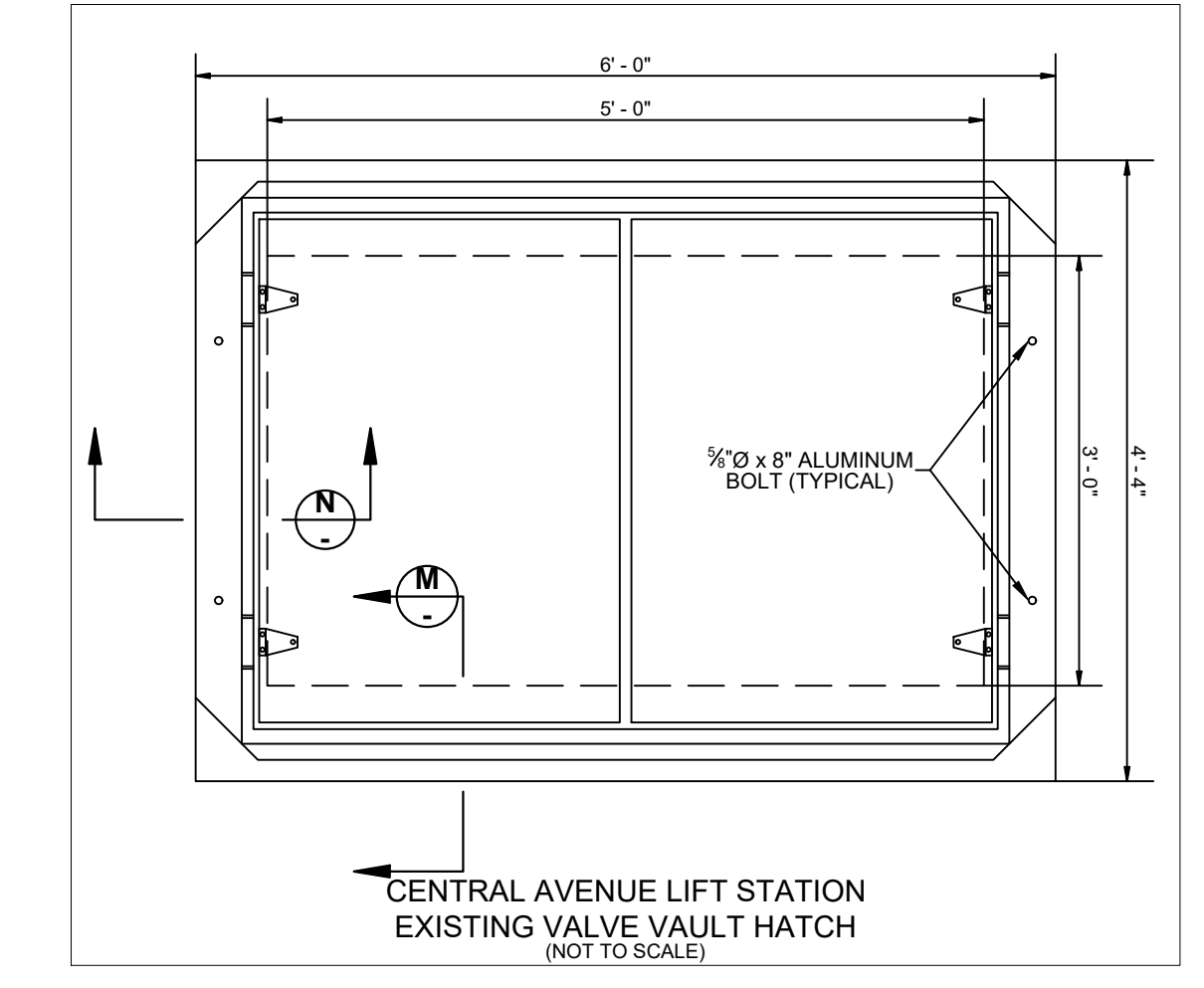
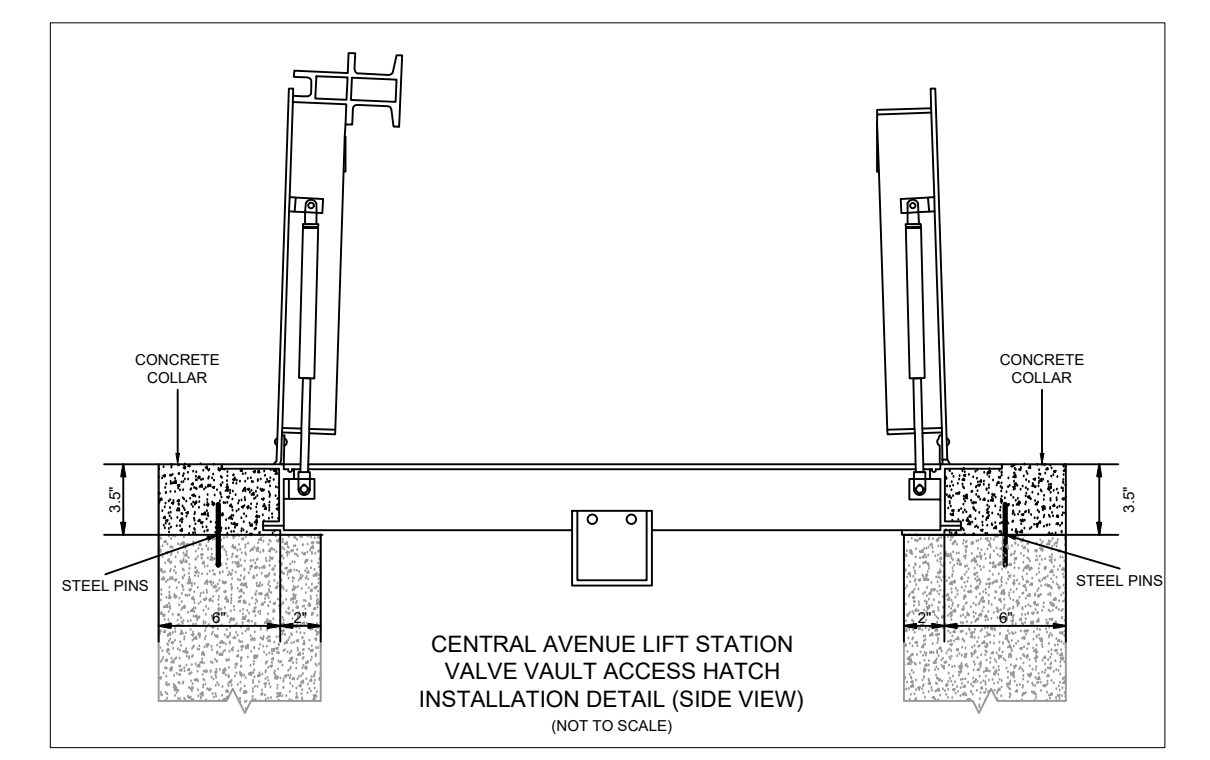
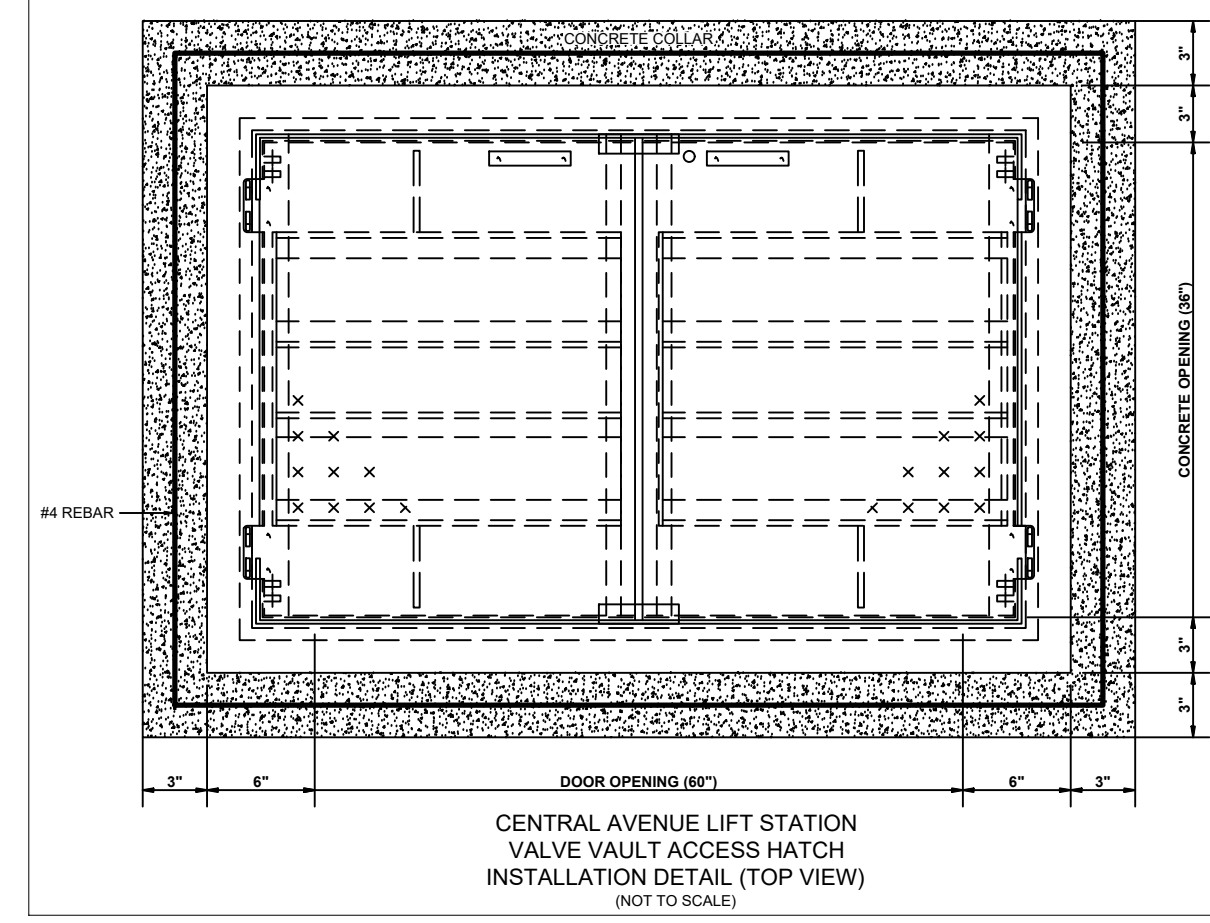
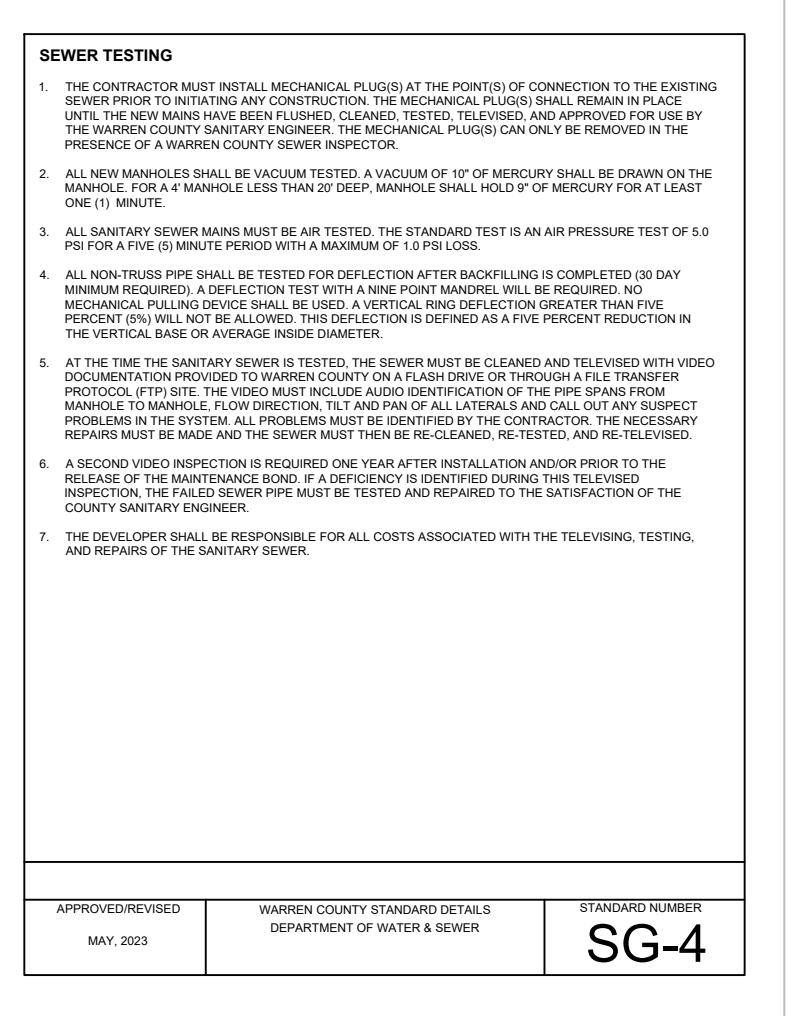
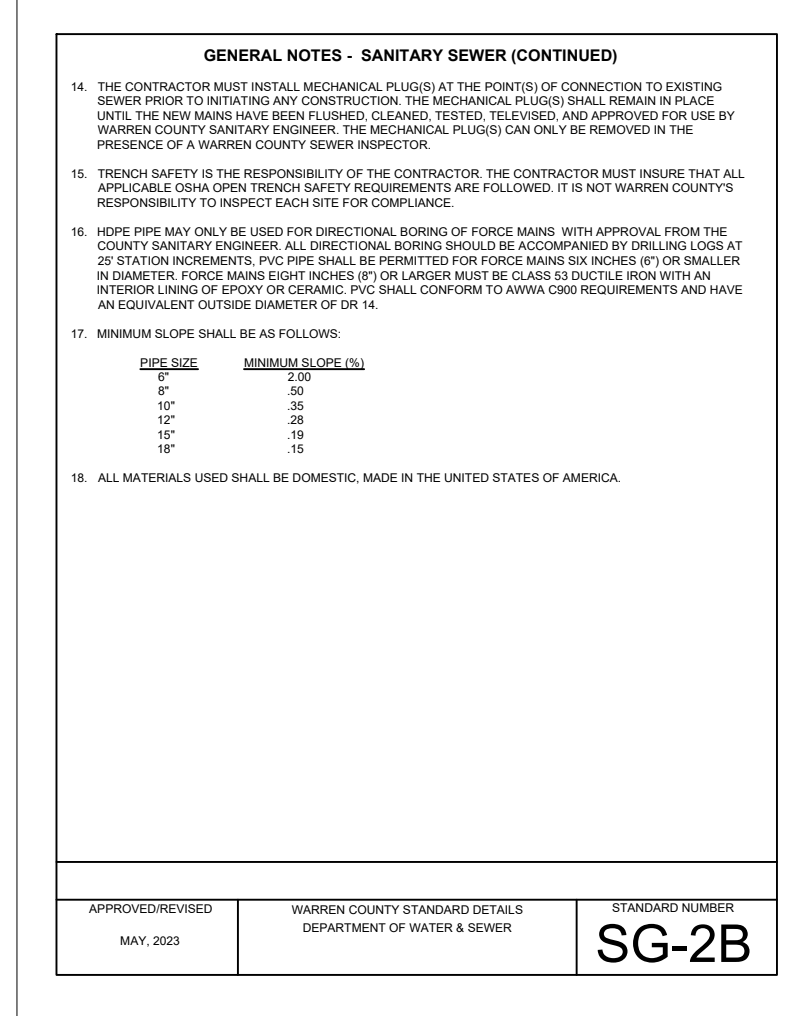
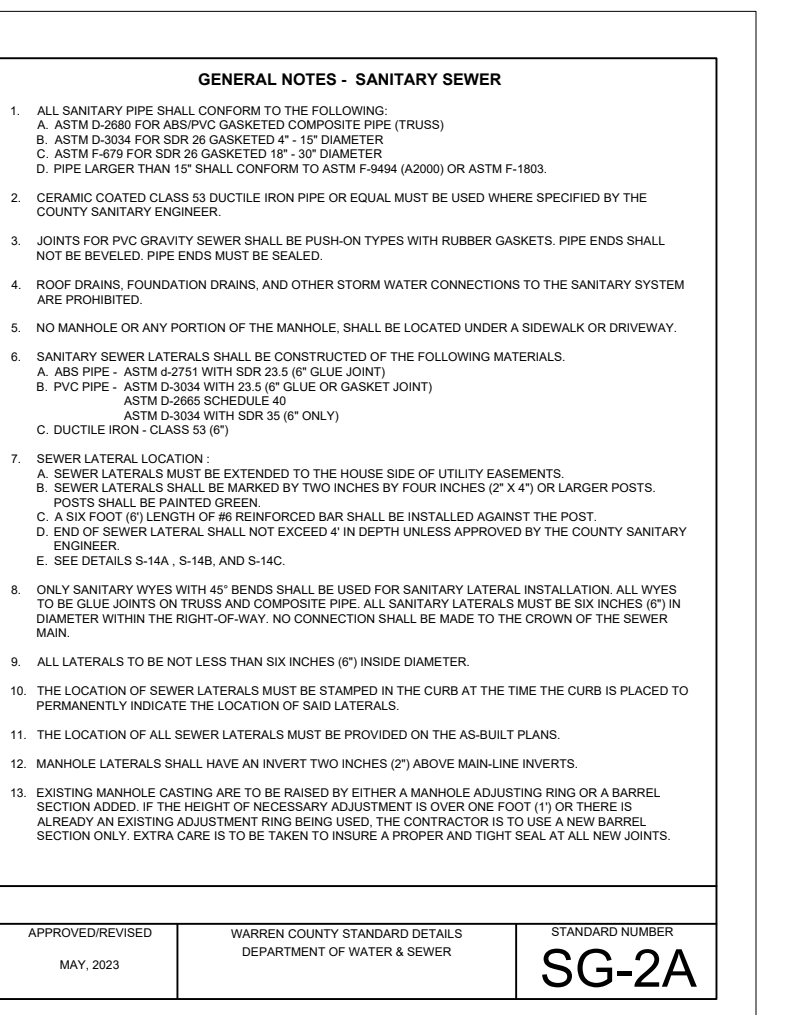
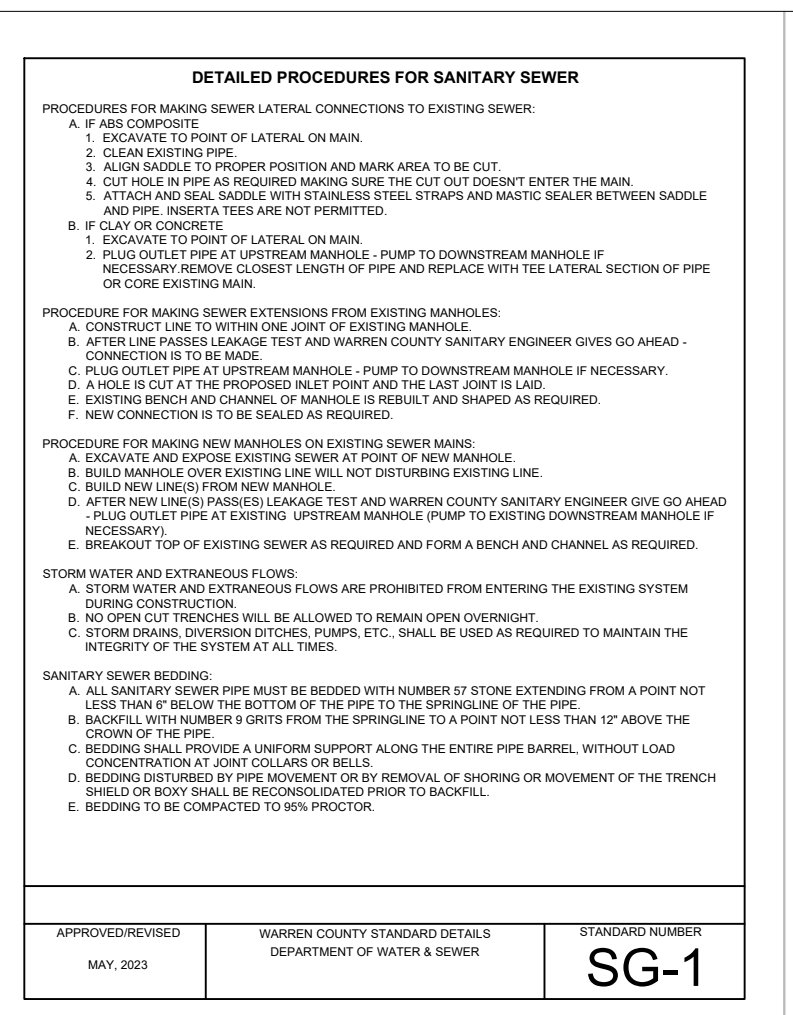
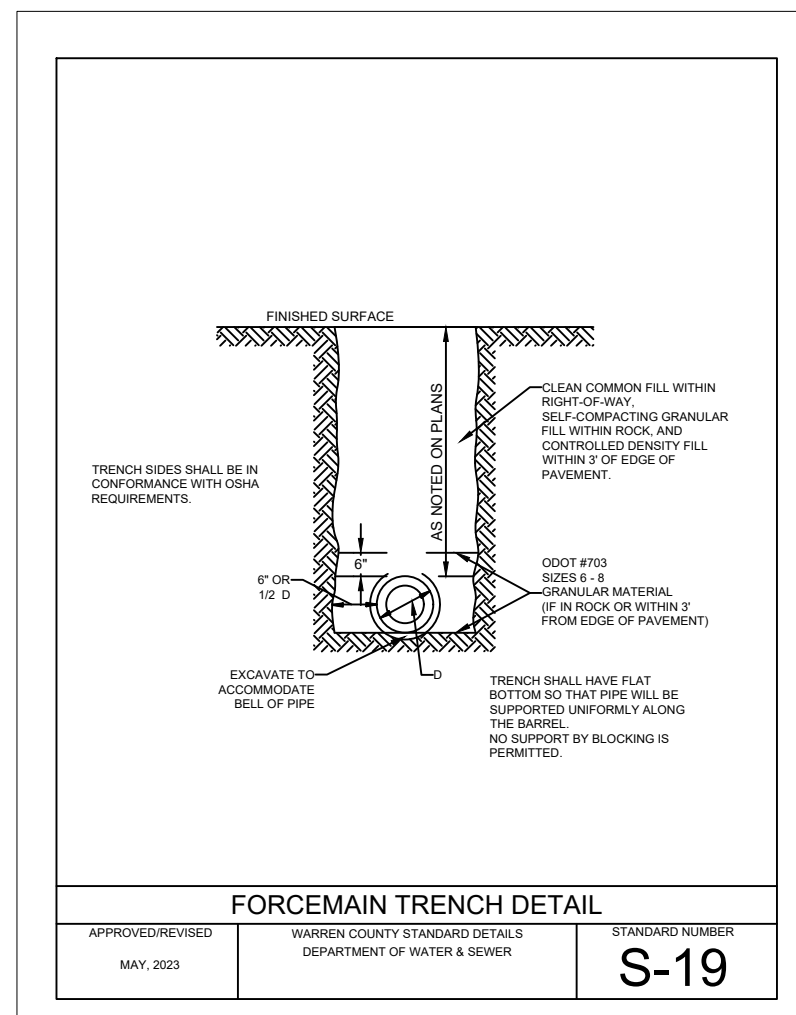
**PAINTING OF PIPING**  
 ALL PIPING WITHIN THE VALVE VAULTS SHALL BE PAINTED WITH TWO (2) COATS OF POLYAMIDE EPOXY PAINT.

**CENTRAL AVENUE LIFT STATION**  
 PEAK FLOW: 520,000 GPD  
 AVERAGE FLOW: 56,000 GPD  
 WET WELL DEPTH: 23'-8"  
 BOTTOM OF WET WELL ELEVATION: 656.50'  
 FORCEMAIN HIGH POINT ELEVATION: 684.00'

**CASTLEBROOK LIFT STATION**  
 PEAK FLOW: 389,000 GPD  
 AVERAGE FLOW: 116,000 GPD  
 WET WELL DEPTH: 18.69'  
 BOTTOM OF WET WELL ELEVATION: 643.31'  
 FORCEMAIN HIGH POINT ELEVATION: 665.00'

**FITTING AND EQUIPMENT SCHEDULE**

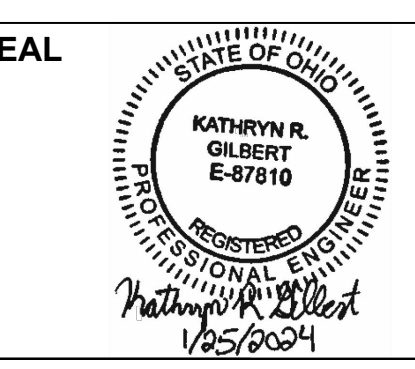
LABEL	ITEM	MANUFACTURER MAKE / MODEL
①	4" PLUG VALVE (FLxFL)	DEZURIK, 4" ECCENTRIC PLUG VALVE, FLANGED
②	4" PLUG VALVE (MxMJ)	DEZURIK, 4" ECCENTRIC PLUG VALVE, MECHANICAL JOINT
③	6" PLUG VALVE (FLxFL)	DEZURIK, 6" ECCENTRIC PLUG VALVE, FLANGED
④	6" PLUG VALVE (MxMJ)	DEZURIK, 6" ECCENTRIC PLUG VALVE, MECHANICAL JOINT
⑤	8" PLUG VALVE (MxMJ)	DEZURIK, 8" ECCENTRIC PLUG VALVE, MECHANICAL JOINT
⑥	4" CHECK VALVE (FLxFL)	AMERICAN AVK COMPANY SERIES 41 CHECK VALVE, FLANGED
⑦	6" CHECK VALVE (FLxFL)	AMERICAN AVK COMPANY SERIES 41 CHECK VALVE, FLANGED
⑧	4" CONNECTING PIECE (FLxPE)	4" CLASS 53 DUCTILE IRON PIPE (FLANGE BY PLAIN END)
⑨	4" CONNECTING PIECE (PExPE)	4" CLASS 53 DUCTILE IRON PIPE (PAIN END BY PLAIN END)
⑩	6" CONNECTING PIECE (FLxPE)	6" CLASS 53 DUCTILE IRON PIPE (FLANGE BY PLAIN END)
⑪	6" CONNECTING PIECE (PExPE)	6" CLASS 53 DUCTILE IRON PIPE (PAIN END BY PLAIN END)
⑫	6" CONNECTING PIECE (PExPE)	6" CLASS 53 DUCTILE IRON PIPE (PAIN END BY PLAIN END)
⑬	4" SPOOL PIECE (FLxFL)	4" CLASS 53 DUCTILE IRON PIPE (FLxFL; CONFORMING TO ANSII/AWWA C110)
⑭	6" SPOOL PIECE (FLxFL)	6" CLASS 53 DUCTILE IRON PIPE (FLxFL; CONFORMING TO ANSII/AWWA C110)
⑮	8" SPOOL PIECE (FLxFL)	8" CLASS 53 DUCTILE IRON PIPE (FLxFL; CONFORMING TO ANSII/AWWA C110)
⑯	4" MEGALUG	4" MEGALUG RESTRAINT AS MANUFACTURED BY EBBA.
⑰	6" UNI-FLANGE	6" UNI-FLANGE AS MANUFACTURED BY THE FORD METER BOX CO., INC.
⑱	8" UNI-FLANGE	8" UNI-FLANGE AS MANUFACTURED BY THE FORD METER BOX CO., INC.
⑲	4" 90° BEND (FLxFL)	4" DUCTILE IRON FLANGED 90 DEGREE COMPACT BEND (CONFORMING TO ANSII/AWWA C110)
⑳	4" 90° BEND (MxMJ)	4" DUCTILE IRON MECHANICAL JOINT 90 DEGREE FULL BODY BEND (CONFORMING TO ANSII/AWWA C110)
㉑	6" 90° BEND (FLxFL)	6" DUCTILE IRON FLANGED 90 DEGREE COMPACT BEND (CONFORMING TO ANSII/AWWA C110)
㉒	6" 90° BEND (MxMJ)	6" DUCTILE IRON MECHANICAL JOINT 90 DEGREE FULL BODY BEND (CONFORMING TO ANSII/AWWA C110)
㉓	4" TEE (FLxFLxFL)	4" DUCTILE IRON FLANGED TEE (CONFORMING TO ANSII/AWWA C110)
㉔	4" TEE (MxMJxMJ)	4" DUCTILE IRON MECHANICAL JOINT TEE (CONFORMING TO ANSII/AWWA C110)
㉕	6" TEE (FLxFLxFL)	6" DUCTILE IRON FLANGED TEE (CONFORMING TO ANSII/AWWA C110)
㉖	8"x6" TEE (MxMJxMJ)	8"x6" DUCTILE IRON MECHANICAL JOINT TEE (CONFORMING TO ANSII/AWWA C110)
㉗	8"x6" REDUCER (FLxFL)	8"x6" DUCTILE IRON FLANGED REDUCER (CONFORMING TO ANSII/AWWA C110)
㉘	4" BLIND FLANGE WITH 2" TAP	4" DUCTILE IRON BLIND FLANGE (CONFORMING TO ANSII/AWWA C110) WITH 2" TAP
㉙	2" SHUTOFF VALVE	2" BALL VALVE
㉚	2" AIR RELEASE VALVE	VENT-TECH MODEL 02SDG101 SERIES C (PROVIDE ONE REBUILD KIT FOR EACH VALVE)
㉛	4" COUPLING	4" STYLE 38 DRESSING COUPLING
㉜	6" COUPLING	6" STYLE 38 DRESSING COUPLING
㉝	4" BLIND FLANGE	4" DUCTILE IRON BLIND FLANGE CONFORMING TO ANSII/AWWA C115/A21.15
㉞	6" BLIND FLANGE	6" DUCTILE IRON BLIND FLANGE CONFORMING TO ANSII/AWWA C115/A21.15
⚠	PIPE SUPPORTS - WALL	285 ADJUSTABLE PIPE SADDLE SUPPORT WITH U-BOLT AS MANUFACTURED BY ANVIL INTERNATIONAL
⚠	PIPE SUPPORTS	285 ADJUSTABLE PIPE SADDLE SUPPORT WITH U-BOLT AS MANUFACTURED BY ANVIL INTERNATIONAL
⚠	VALVE BOX	VALVE BOX EQUIPMENT WITH VALVE RISER SET.
⚠	BYPASS BOX	24" x 24" x 24" DEEP (W/O BASE) "PG" STYLE QUARTZITE PULLBOX AS MANU. BY STRONGWELL.
⚠	CONCRETE COLLAR	18" x 9" x 4" CONCRETE COLLAR



**NOTES:**  
 1. DRAWINGS ARE BASED ON RECORD DRAWINGS, FIELD MEASUREMENTS AND BEST AVAILABLE INFORMATION. CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND LOCATE ALL UTILITIES BEFORE ORDERING MATERIALS AND BEGINNING CONSTRUCTION.

**PROJECT:**  
 CARLISLE LS - PHASE 3  
 DATE: JANUARY 25, 2024  
 DRAWN BY: K. GILBERT  
 REVIEWED BY: C. BRAUSCH

**WARREN COUNTY**  
**WATER & SEWER DEPARTMENT**  
 406 JUSTICE DRIVE  
 LEBANON, OH 45036



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**NOTES & DETAILS**

**CARLISLE AREA LIFT STATION IMPROVEMENTS - PHASE 3**

**PAGE 2**  
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- NOTES:**
1. THE CONTRACTOR IS RESPONSIBLE FOR CALLING OUPS (811) A MINIMUM OF 2 WORKING DAY BEFORE BEGINNING CONSTRUCTION TO DETERMINE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  2. BYPASS SETUP INSTALLATION:
    - A. THE BYPASS SETUP SHALL BE INSTALLED COMPLETE BEFORE ANY VALVE VAULT DEMOLITION WORK IS STARTED AT EACH RESPECTIVE LIFT STATION.
    - B. THE MAXIMUM DOWNTIME OF THE LIFT STATION DURING BYPASS SETUP INSTALLATION IS 4 HOURS.
    - C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAULING FLOWS OUT OF THE WET WELL DURING STATION DOWNTIME.
  3. EXISTING VALVE VAULT BYPASS PUMPING:
    - A. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BYPASS PUMPING WHILE THE VALVE VAULT IS BEING UPGRADED.
    - B. TEMPORARY BYPASS PUMPING SYSTEM SHALL BE ABLE TO HANDLE THE FOLLOWING FLOWS:
      - a. CENTRAL AVENUE LIFT STATION: 56,000 GPD (AVERAGE), 520,000 GPD (PEAK)
      - b. CASTLEBROOK LIFT STATION: 116,000 GPD (AVERAGE), 389,000 (PEAK)
  4. SEE SECTION 01 51 43 - TEMPORARY BYPASS PUMPING FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
  5. DRAWINGS ARE BASED ON RECORD DRAWINGS, FIELD MEASUREMENTS AND BEST AVAILABLE INFORMATION. CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND LOCATE ALL UTILITIES BEFORE ORDERING MATERIALS AND BEGINNING CONSTRUCTION.



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 REVIEWED BY:  
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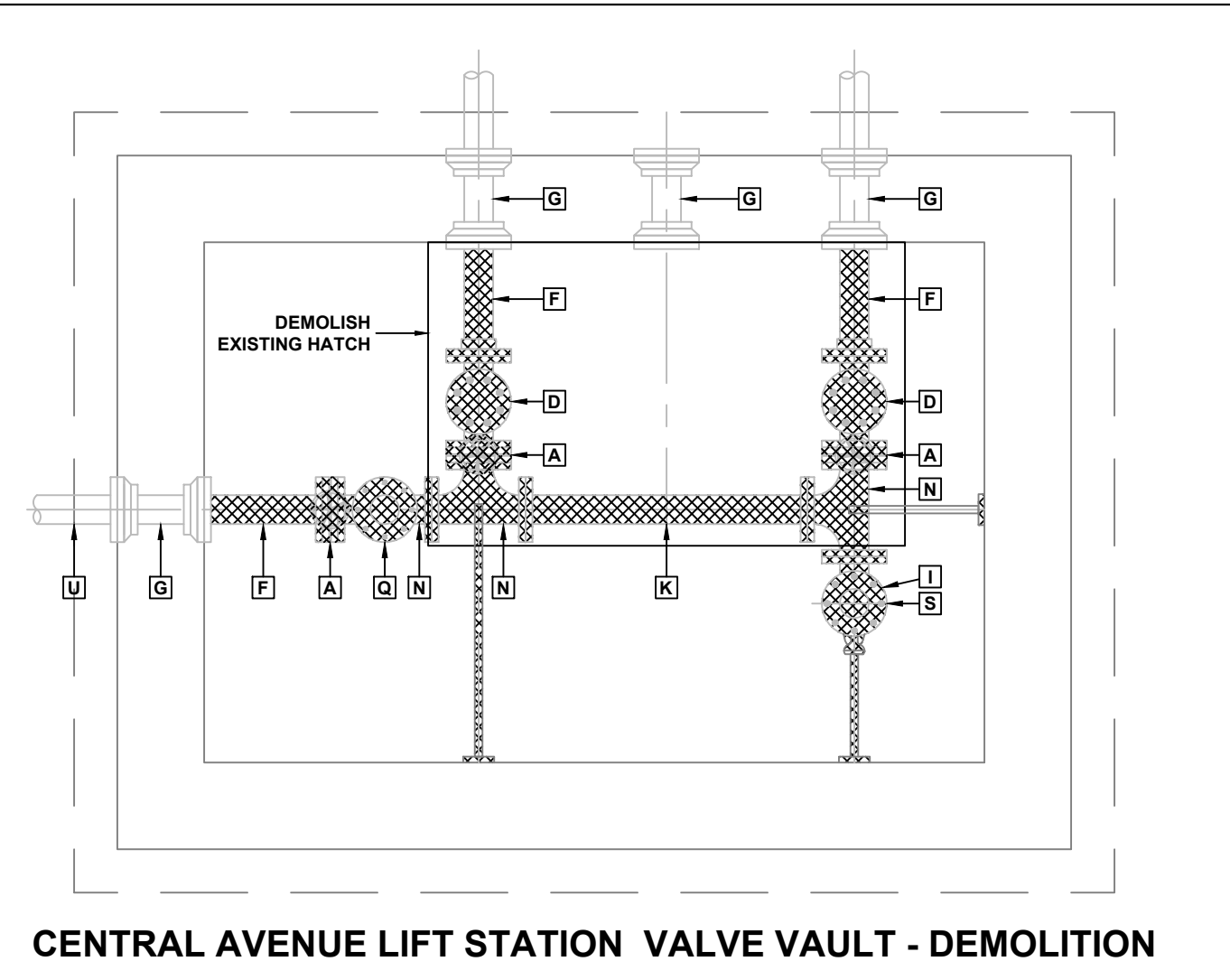
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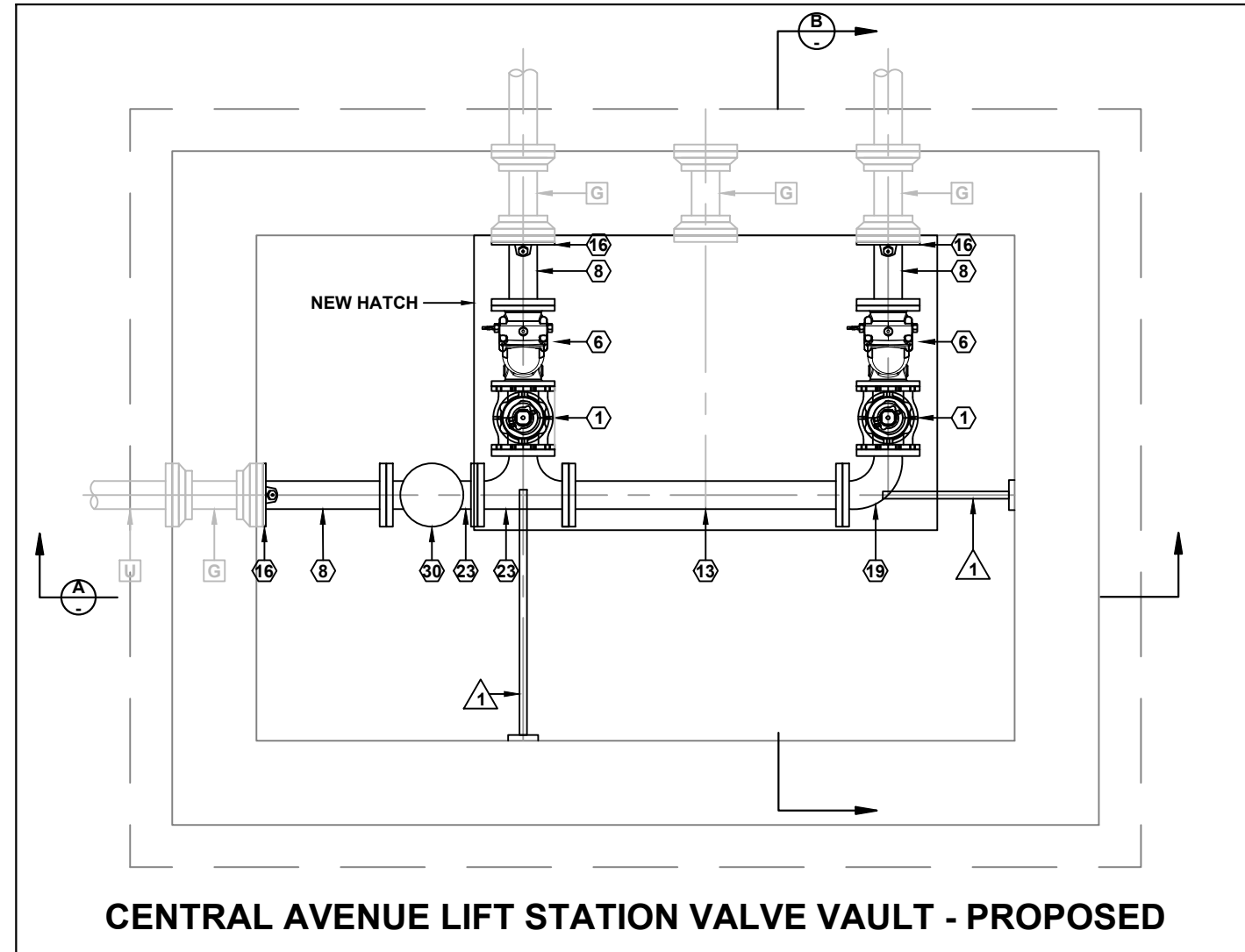
**SITE PLANS**

**CARLISLE AREA LIFT STATION IMPROVEMENTS - PHASE 3**

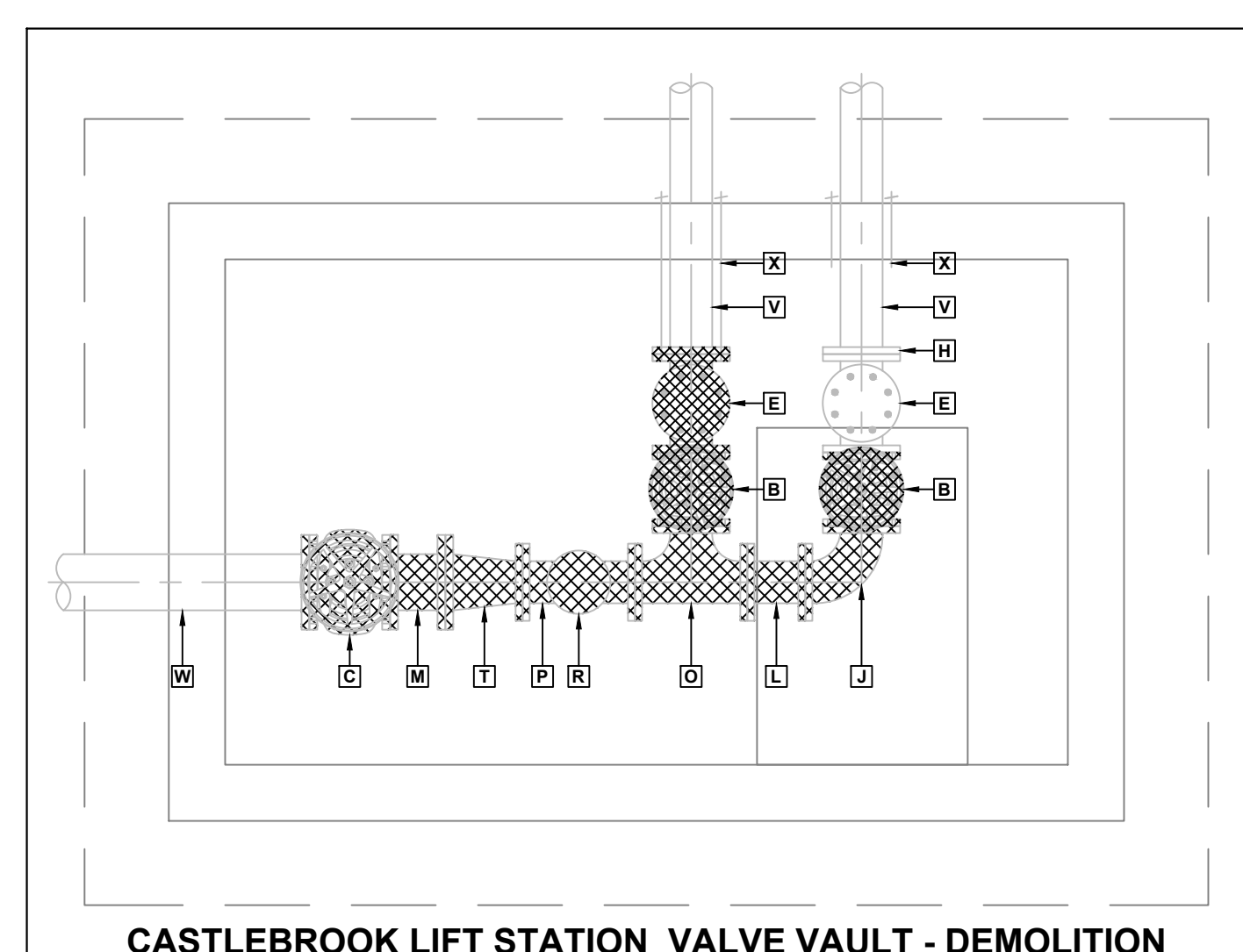
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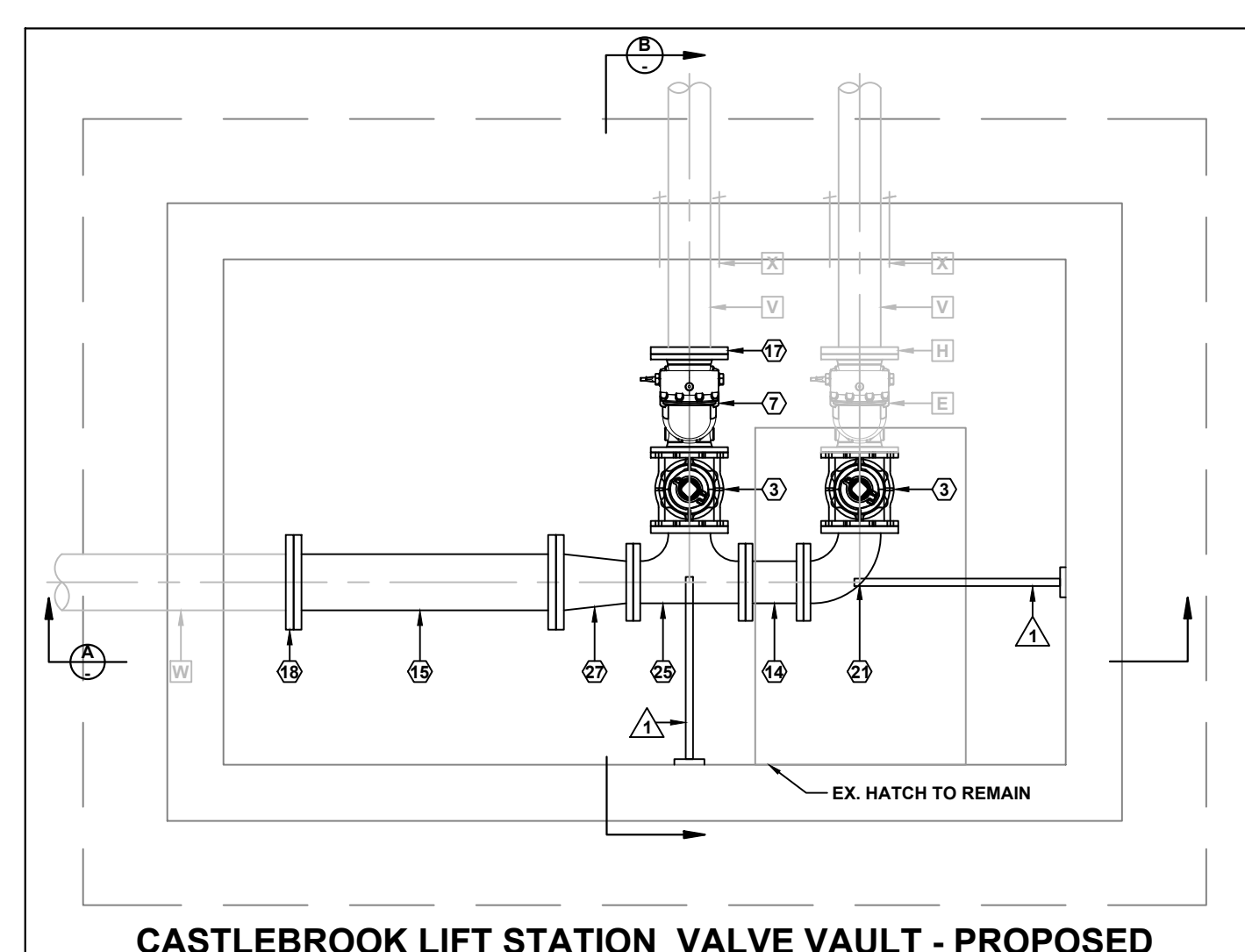
CENTRAL AVENUE LIFT STATION VALVE VAULT - DEMOLITION



CENTRAL AVENUE LIFT STATION VALVE VAULT - PROPOSED



CASTLEBROOK LIFT STATION VALVE VAULT - DEMOLITION



CASTLEBROOK LIFT STATION VALVE VAULT - PROPOSED

**EXISTING FITTINGS KEY**

- A] 4" KNIFE GATE VALVE
- B] 6" GATE VALVE
- C] 8" GATE VALVE
- D] 4" SWING CHECK VALVE
- E] 6" SWING CHECK VALVE
- F] 4" CONNECTING PIECE
- G] 4" MJ x MJ WALL PIPE
- H] 6" UNI-FLANGE
- I] 4" 90 DEG BEND
- J] 6" 90 DEG BEND
- K] 4" SPOOL PIECE
- L] 6" SPOOL PIECE
- M] 8" SPOOL PIECE
- N] 4" TEE
- O] 6" TEE
- P] 6"x4" TEE
- Q] AIR RELEASE VALVE
- R] 4" GATE VALVE, 4" CHECK VALVE, 4" QUICK DISCONNECT, 4" CAP
- S] 6"x4" PIPE NIPPLE WITH CAP
- T] 8"x6" REDUCER
- U] 4" DUCTILE IRON PIPE
- V] 6" DUCTILE IRON PIPE
- W] 8" DUCTILE IRON PIPE
- X] 3/4" SS THREADED ROD

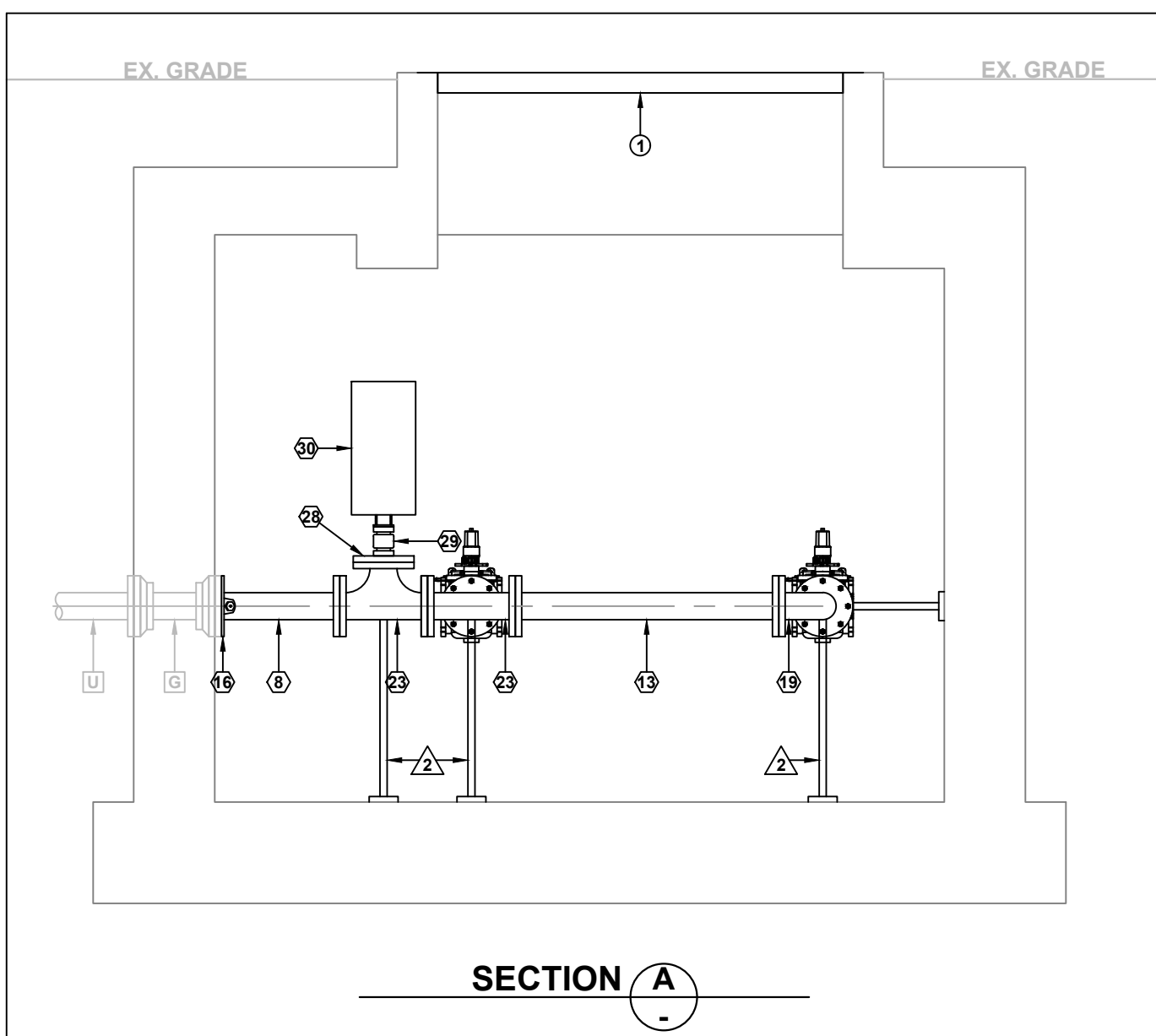
**PROPOSED FITTINGS KEY**

- 1] 4" PLUG VALVE (FLxFL)
- 2] 4" PLUG VALVE (MJxMJ)
- 3] 6" PLUG VALVE (FLxFL)
- 4] 6" PLUG VALVE (MJxMJ)
- 5] 8" PLUG VALVE (MJxMJ)
- 6] 4" CHECK VALVE (FLxFL)
- 7] 6" CHECK VALVE (FLxFL)
- 8] 4" CONNECTING PIECE (FLxPE)
- 9] 4" CONNECTING PIECE (PExPE)
- 10] 6" CONNECTING PIECE (FLxPE)
- 11] 6" CONNECTING PIECE (PExPE)
- 12] 8" CONNECTING PIECE (PExPE)
- 13] 4" SPOOL PIECE (FLxFL)
- 14] 6" SPOOL PIECE (FLxFL)
- 15] 8" SPOOL PIECE (FLxFL)
- 16] 4" MEGALUG
- 17] 6" UNI-FLANGE
- 18] 8" UNI-FLANGE
- 19] 4" 90° BEND (FLxFL)
- 20] 4" 90° BEND (MJxMJ)
- 21] 6" 90° BEND (FLxFL)
- 22] 6" 90° BEND (MJxMJ)
- 23] 4" TEE (FLxFLxFL)
- 24] 4" TEE (MJxMJxMJ)
- 25] 6" TEE (FLxFLxFL)
- 26] 8"x6" TEE (MJxMJxMJ)
- 27] 8"x6" REDUCER (FLxFL)
- 28] 4" BLIND FLANGE WITH 2" TAP
- 29] 2" SHUTOFF VALVE (BALL VALVE)
- 30] 2" AIR RELEASE VALVE
- 31] 4" COUPLING
- 32] 8" COUPLING
- 33] 4" BLIND FLANGE
- 34] 6" BLIND FLANGE

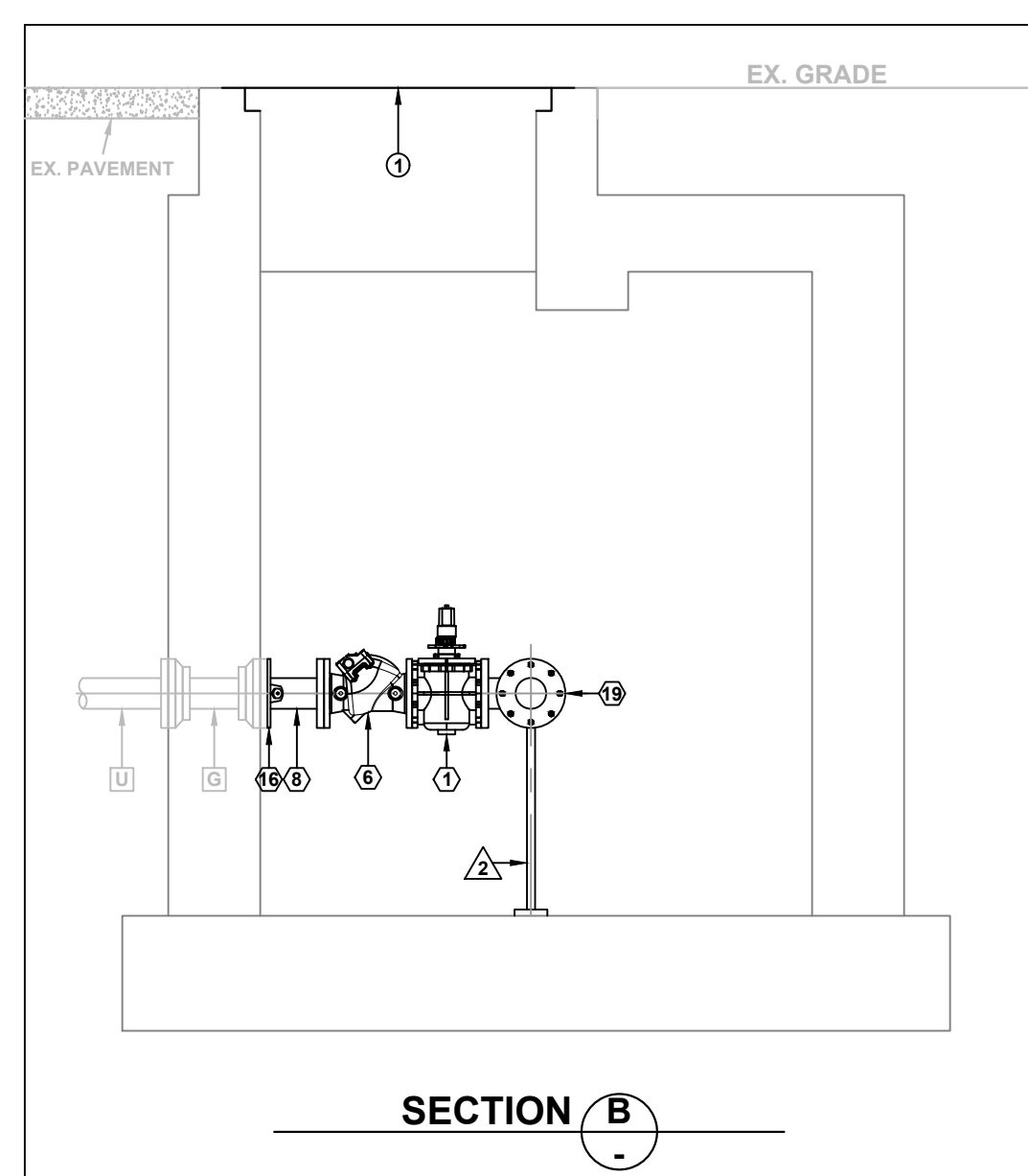
**KEY**

- ▲ PIPE SUPPORT - WALL
- ▲ PIPE SUPPORT
- ▲ VALVE BOX
- ▲ BYPASS BOX
- ▲ CONCRETE COLLAR
- ① REMOVE EXISTING ACCESS HATCH. INSTALL NEW 36"x90" H20 LOAD RATING ACCESS HATCH AND CONCRETE COLLAR (SEE DETAIL ON SHEET 2).

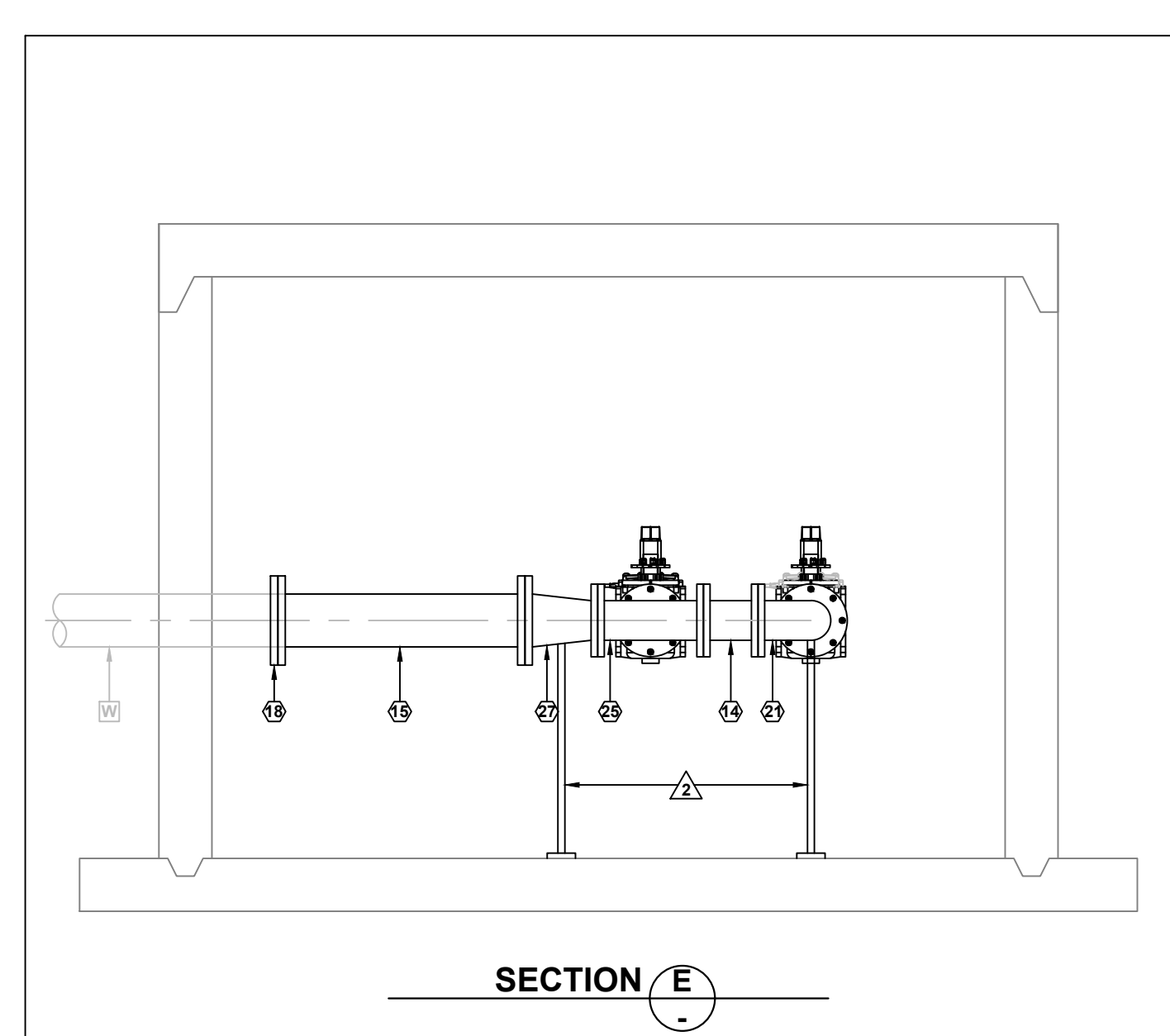
**NOTES:**  
 1. DRAWINGS ARE BASED ON RECORD DRAWINGS, FIELD MEASUREMENTS AND BEST AVAILABLE INFORMATION. CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND LOCATE ALL UTILITIES BEFORE ORDERING MATERIALS AND BEGINNING CONSTRUCTION.



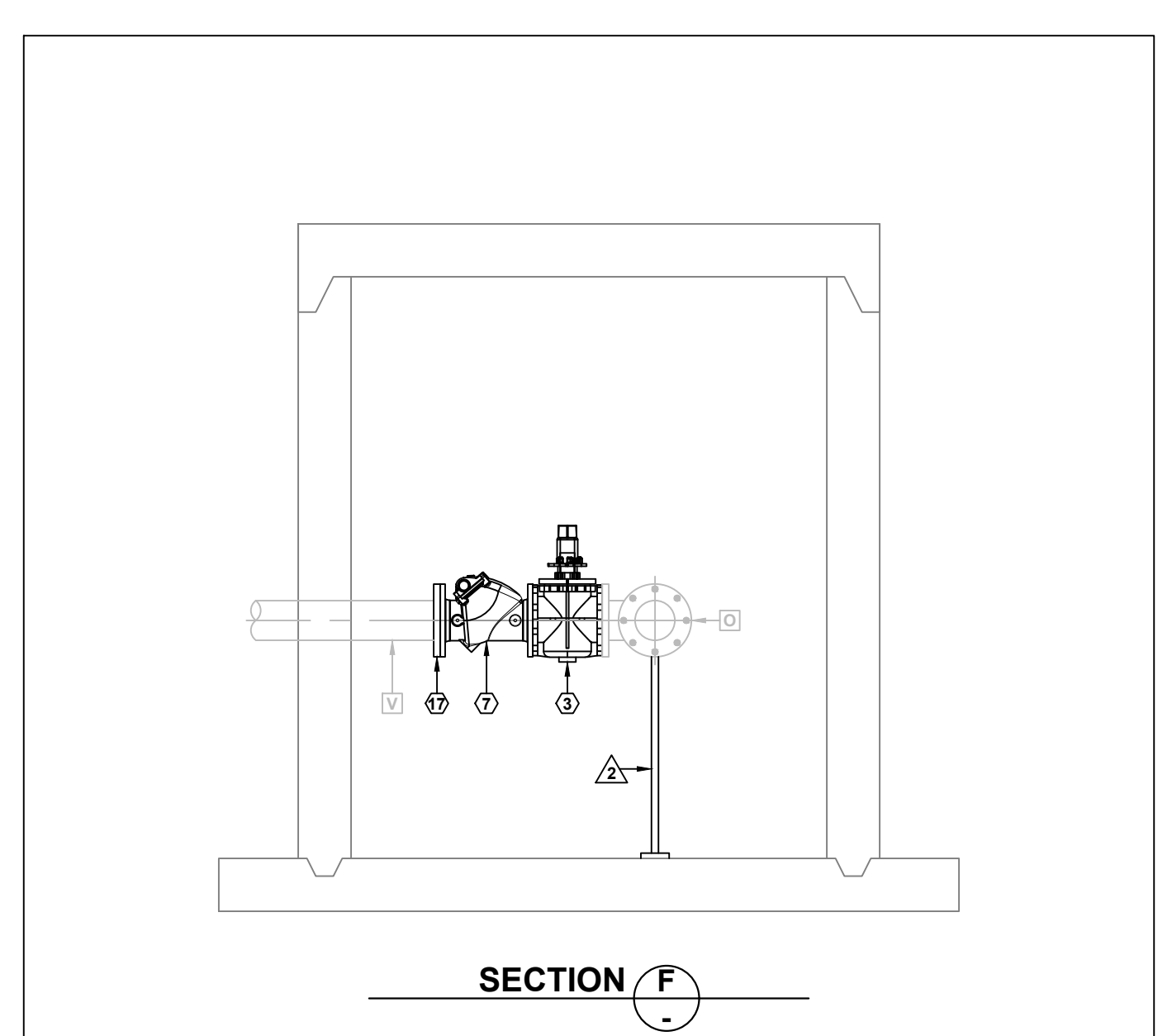
SECTION A



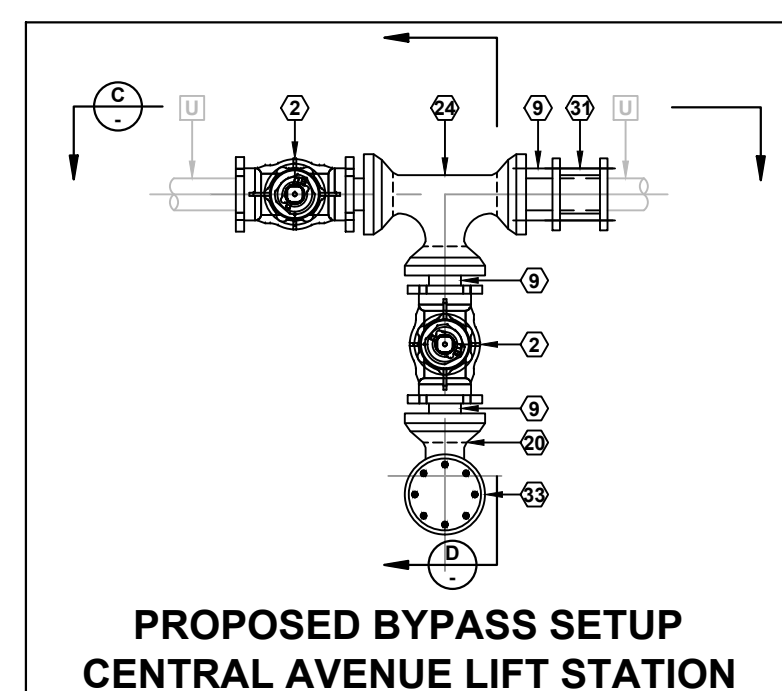
SECTION B



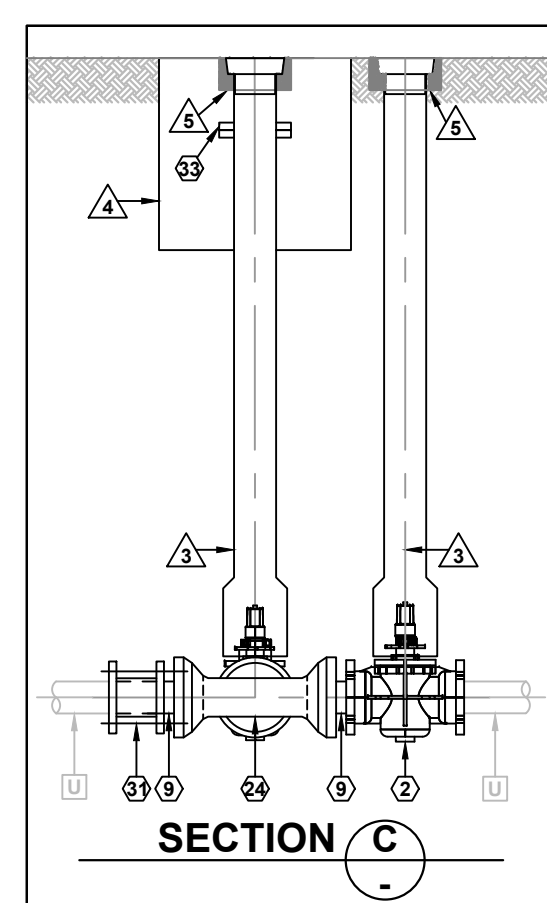
SECTION E



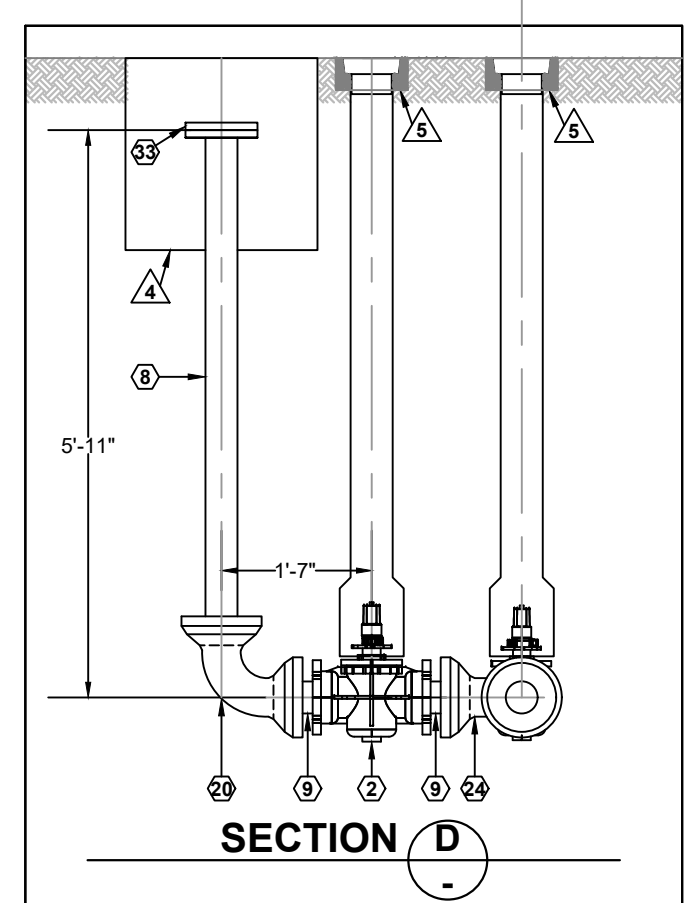
SECTION F



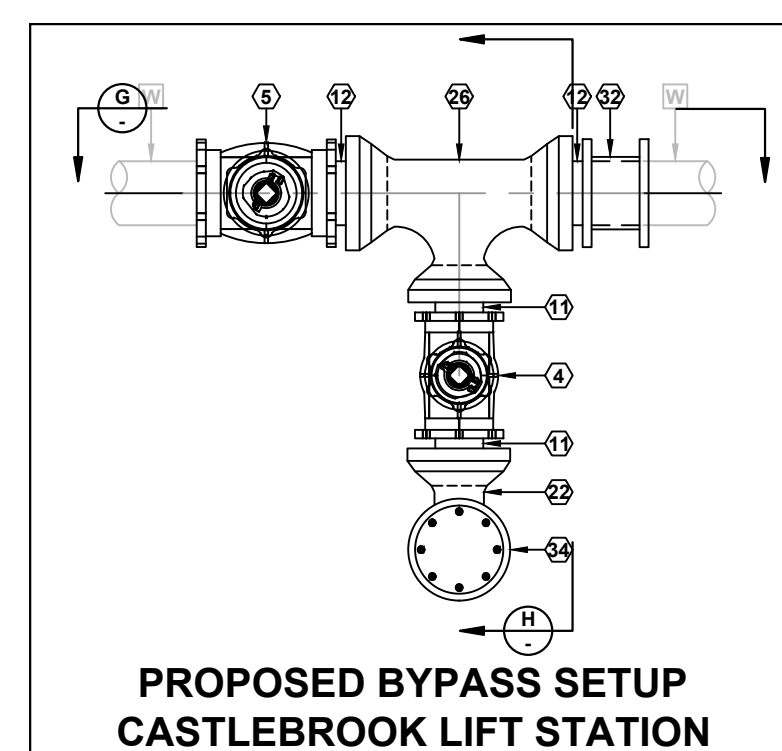
PROPOSED BYPASS SETUP  
CENTRAL AVENUE LIFT STATION



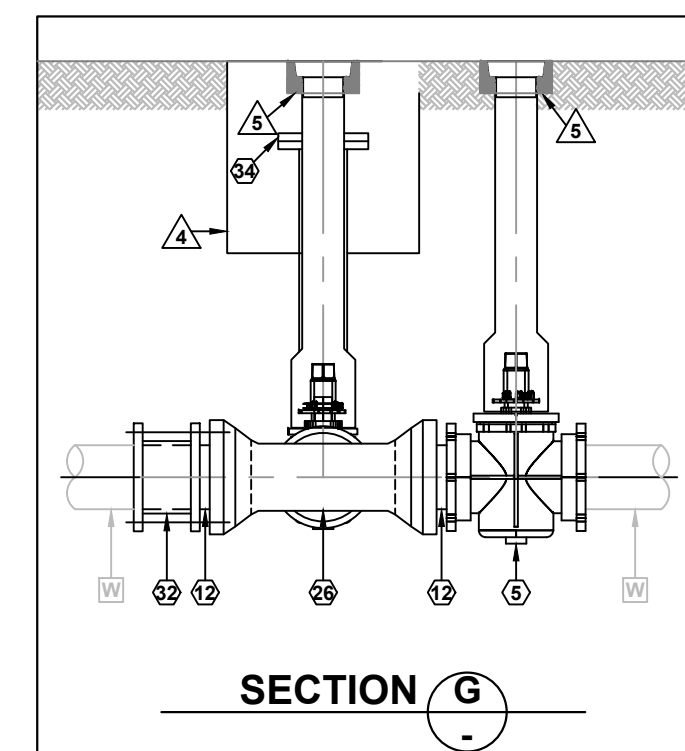
SECTION C



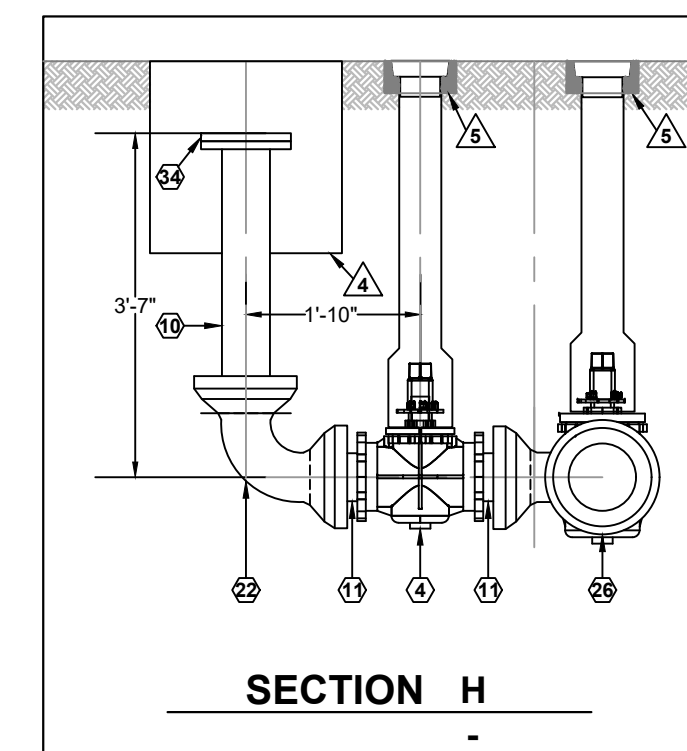
SECTION D



PROPOSED BYPASS SETUP  
CASTLEBROOK LIFT STATION



SECTION G



SECTION H

**CENTRAL AVENUE LIFT STATION**

343 CENTRAL AVE.  
CARLISLE, OH 45005

**CASTLEBROOK LIFT STATION**

KINGSTON DR.  
FRANKLIN, OH 45005

PROJECT:  
CARLISLE LS - PHASE 3  
DATE:  
JANUARY 25, 2024  
DRAWN BY:  
K. GILBERT  
REVIEWED BY:  
C. BRAUSCH

WARREN COUNTY  
WATER & SEWER DEPARTMENT  
406 JUSTICE DRIVE  
LEBANON, OH 45036

SEAL  
KATHRYN R. GILBERT  
E-97810  
PROFESSIONAL ENGINEER  
1/25/2024

NO.	REVISION/ISSUE	DATE

PLAN & SECTIONS  
CENTRAL AVENUE LIFT STATION &  
CASTLEBROOK LIFT STATION

CARLISLE AREA LIFT STATION  
IMPROVEMENTS - PHASE 3

PAGE  
4  
SCALE:  
AS NOTED