



**GENERAL NOTES:**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
- THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE TOWN OF PARKER, DOUGLAS COUNTY AND OTHER NEIGHBORING CITIES AND TOWNS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER THE CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS CONTACT THE PWSD IMMEDIATELY.
- PWSD ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
- ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000-POUND COMPRESSION STRENGTH.
- THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF "AS-BUILT" DRAWINGS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL BY DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE PRINTS SHALL BE TRANSMITTED TO THE PWSD OFFICE.
- NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. COMPACTION TESTS MUST BE SUBMITTED TO DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND SEWER) FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
- SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS ONE FOOT OF FINISHED GRADE AND VERIFICATION OF PARKER WATER AND SANITATION DISTRICT PAGE 1.7 DISTRICT PLAN APPROVAL PROCEDURES 2017 REVISION COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES. RESULTS MUST BE SUBMITTED TO THE DISTRICT ENGINEER.
- ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS: "X" FOR SANITARY SERVICE SEWERS, "V" FOR WATER SERVICES.
- NO TREES ALLOWED IN EASEMENTS OR WITHIN 8' OF WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSD AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSD SPECIFICATION MANUAL.

**WATER SYSTEM NOTES:**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- ALL WATER MAINS SHALL BE PER PWSD MATERIALS SPECIFICATIONS. ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL BE SUITABLE FOR CHLORINATED AND CHLORAMINATED WATER.
- ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED PER PWSD MATERIALS SPECIFICATIONS.
- THERE SHALL BE A MINIMUM COVER OF 4.5 FEET OVER ALL WATER MAINS.
- FIRE HYDRANTS SHALL CONFORM TO AWWA C-502 "DRY BARREL FIRE HYDRANTS" PIPE HYDRANT ASSEMBLIES PER PWSD SPECIFICATIONS.
- ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST WITH CONCRETE THRUST BLOCKS.
- PRECAUTIONS SHALL BE TAKEN TO PROTECT THE INTERIOR OF PIPES, FITTINGS, AND VALVES AGAINST CONTAMINATION. ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH WATERTIGHT PLUGS WHEN PIPE LAYING IS STOPPED AT THE CLOSE OF THE DAY'S WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MEAL PERIODS.
- VALVES IN STREETS ARE TO BE LOCATED AT PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES; WHERE AN ADDITIONAL VALVE SHALL BE PLACED ON THE TAPPING TEE. OTHER LOCATIONS SHOWN ON THE PLANS.
- WHEN NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSING, A MINIMUM CLEARANCE OF 1.5 FEET SHALL BE MAINTAINED BETWEEN OUTSIDE OF PIPES.
- THE CONTRACTOR SHALL NOTIFY THE PWSD AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION. IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP, THE CONTRACTOR MUST NOTIFY THE DISTRICT ENGINEER 48 HOURS PRIOR TO RE-START.
- PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH PWSD STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITY COMPANIES AND DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO PROCEEDING WITH THE EXCAVATION. ALL WORK PERFORMED IN PARKER WATER AND SANITATION DISTRICT PAGE 1.8 DISTRICT PLAN APPROVAL PROCEDURES 2017 REVISION. THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
- COMPACTION OF ALL TRENCHES MUST BE ATTAINED IN ACCORDANCE WITH THE SOILS REPORTS AND COMPACTION TEST RESULTS SUBMITTED TO THE DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR, DESIGN ENGINEER, AND REPRESENTATIVE OF OTHER APPROVING AGENCIES.
- CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PWSD SPECIFICATIONS. CHLORINATION OF FINISHED PIPELINE COMPLETED BEFORE HYDROSTATIC TESTING.
- HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PWSD SPECIFICATIONS UP TO MINIMUM OF 150 PSI IN THE PRESENCE OF A PWSD INSPECTOR/ENGINEER.

**SANITARY SEWER SYSTEM NOTES:**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
- ALL SEWER MAINS SHALL BE PVC, ASTM D-3034, SDR 35 OR APPROVED EQUAL. ALL SEWER MAIN SIZE IS 8" IN DIAMETER UNLESS OTHERWISE NOTED.
- SEWER LINES SHALL BE INSTALLED 5.0 FEET SOUTH OR WEST OF STREET CENTERLINE, UNLESS OTHERWISE SHOWN ON PLANS. SEWER LINES SHALL BE 10.00 FEET FROM WATER LINES EXCEPT WHEN CROSSING EACH OTHER SEWER LINES WHICH CROSS LESS THAN 1.50 FEET VERTICALLY FROM THE WATER MAIN SHALL BE ENCASED IN CONCRETE AS PER PWSD SPECIFICATIONS. USE RUBBER GASKETS FOR PVC ENCASMENT.
- SEWER RIM ELEVATIONS SHOWN ARE APPROPRIATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. RING AND COVER SHALL BE SET IN CENTERED CONCRETE RINGS WITH RAM-NECK FOR ADJUSTMENT TO MATCH FINAL PAVEMENT ELEVATIONS.
- THE CONTRACTOR AND SURVEY CREW SHALL VERIFY ELEVATIONS OF EXISTING SEWER LINES AND MANHOLES TO BE TIED TO PRIOR TO CONSTRUCTION OR STAKING OF SANITARY SEWER.
- NO UNDERDRAIN SYSTEM WILL BE ALLOWED TO BE PLACED IN MAINLINE OR SEWER SERVICE TRENCHES.
- SEWER SERVICE TEES FOR EACH UNIT SHALL BE STAKED BY A SURVEY CREW AND FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS CONSTRUCTED" LOCATION OF TEES. SEWER WYES SHALL BE USED RATHER THAN TEES.
- ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE UNLESS OTHERWISE SPECIFIED. ALL MANHOLES SHALL HAVE SHAPED INVERTS.
- PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVES OF THE OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER TO SCHEDULE THIS MEETING. PARKER WATER AND SANITATION DISTRICT PAGE 1.9 DISTRICT PLAN APPROVAL PROCEDURES 2017 REVISION
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSD AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSD SPECIFICATION MANUAL.
- ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PWSD STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
- PRIOR TO STARTING WORK WHERE SEWER MAIN IS TO BE CONNECTED TO EXISTING PWSD SEWER SYSTEMS, THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL PROBATIONARY ACCEPTANCE BY PWSD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN INSTRUCTED BY THE DISTRICT.
- PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CONTRACTOR SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.

**EES UTILITY NOTES:**

- UTILITY SERVICE INSTALLATION AND MATERIALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PWSD SPECIFICATIONS.
- ALL SEWER SERVICE PIPE SHALL BE POLYVINYL CHLORIDE GRAVITY PIPE (PVC) SDR 35, MINIMUM BURY DEPTH PWSD WATER REQUIREMENTS.
- CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, WHETHER SHOWN ON THE PLANS OR NOT. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- AT PROPOSED UTILITY CROSSINGS, CONTRACTOR IS TO VERIFY THE REQUIRED GRADES AND CLEARANCES PRIOR TO COMMENCING CONSTRUCTION. ANY REQUIRED CHANGES ARE TO BE COORDINATED DIRECTLY WITH ENGINEER.
- PIPE LENGTHS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR.
- UTILITY BURY DEPTH SHALL CONFORM TO PWSD UTILITY STANDARDS.
- REFER TO PWSD UTILITY STANDARDS AND FOR SANITARY SEWER TRENCHING BACKFILL REQUIREMENTS.
- ALL EXISTING UTILITIES TO REMAIN UNLESS OTHERWISE NOTED. PROTECT IN PLACE FROM DAMAGE.
- SANITARY SEWER PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION AND INSTALLATION OF ALL UTILITY WORK.
- SEE STORM AND SANITARY PLAN AND PROFILE SHEETS FOR DETAILED INFORMATION.
- PWSD IS NOT RESPONSIBLE FOR THE MAINTENANCE OF PRIVATE STORM PIPE OR INFRASTRUCTURE.
- CONSTRUCTION AND/OR EASEMENT TO BE COMPLETED AS A PORTION OF PARKER AND PINE FILING NO. 1. REFER TO INFRASTRUCTURE SITE PLAN & CIVIL CONSTRUCTION DOCUMENTS PRIOR TO OR CONCURRENT WITH THE DEVELOPMENT OF LOT 1, 2 & 3 BY KIMLEY-HORN.



PRELIMINARY  
NOT FOR  
CONSTRUCTION



1459 Grand Ave  
Des Moines, IA 50309  
P: 888-458-6646

PARKER WATER AND SANITATION DISTRICT  
**2293 - KUM AND GO - PARKER, CO**  
SEC OF BAYOU GULCH RD AND PINERY PKWY  
GENERAL NOTES - PWSD

KG PROJECT TEAM: EES  
RDM: RF  
SDM: DG  
CPM: BS

REVISION DESCRIPTION	DATE

DATE: 03-10-2023

SHEET NUMBER:  
**U0.1**  
**2 OF 9**

P:\KUM & GO\CO - PARKER, 2293 - PINERY AND BAYOU GULCH\08 CAD\DWG\2293-02-PWSD NOTES.DWG



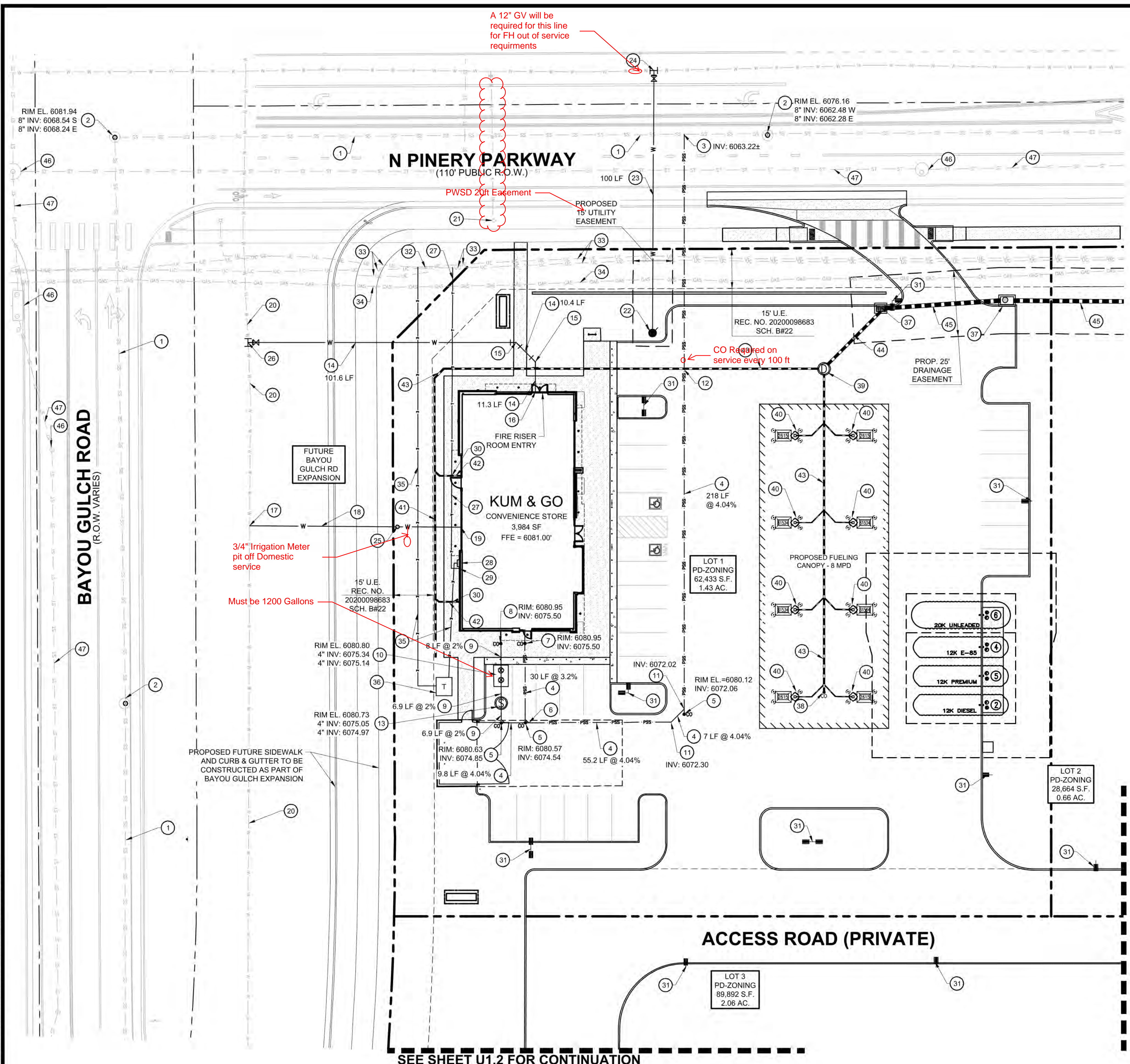
CALL UTILITY NOTIFICATION  
CENTER OF COLORADO  
**1-800-922-1987 or 811**

CALL 3-BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTACT) IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

Know what's below.  
Call before you dig.

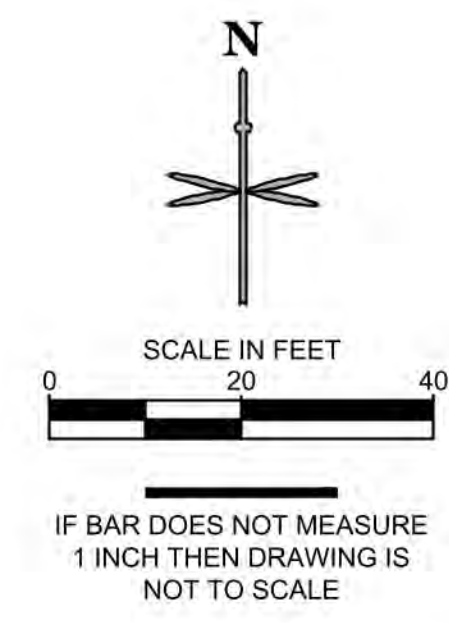


REVISION DESCRIPTION	DATE



**UTILITY LEGEND**

- PROPERTY BOUNDARY
- - - EXISTING EASEMENT
- EXISTING SANITARY SEWER
- EXISTING WATER
- EXISTING STORM SEWER
- EXISTING UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND COMMUNICATION
- EXISTING GAS
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- PROPOSED STORM SEWER
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED COMMUNICATION LINE
- PROPOSED STORM INLET AND MANHOLE
- PROPOSED DRAINAGE FLOW ARROWS
- EXISTING STREET LIGHT
- EXISTING FIRE HYDRANT
- PROPOSED SITE LIGHT



**SANITARY SEWER**

- 1 EXISTING 8" SANITARY SEWER MAIN TO REMAIN.
- 2 EXISTING SANITARY SEWER MANHOLE TO REMAIN.
- 3 PROPOSED WYE CONNECTION AT EXISTING 8" SANITARY SEWER MAIN.
- 4 PROPOSED 4" PVC SANITARY SERVICE. SEE PLAN FOR PIPE SLOPE AND LENGTH.
- 5 PROPOSED 4" SANITARY SEWER CLEANOUT. SEE PLAN FOR INVERT ELEVATION.
- 6 PROPOSED WYE CONNECTION. SEE PLAN FOR INVERT ELEVATION.
- 7 PROPOSED 4" SANITARY SEWER SERVICE CONNECTION 5' FROM BUILDING.
- 8 PROPOSED 4" GREASE INTERCEPTOR SERVICE CONNECTION 5' FROM BUILDING.
- 9 PROPOSED 4" PVC GREASE INTERCEPTOR SERVICE LINE. SEE PLAN FOR PIPE SLOPE AND LENGTH.
- 10 PROPOSED 1,000 GALLON GREASE INTERCEPTOR WITH SAMPLE PORT. SEE PLAN FOR PIPE CONNECTION INVERT ELEVATIONS AND RIM ELEVATIONS.
- 11 PROPOSED 4" 45° BEND. SEE PLAN FOR INVERT ELEVATION.
- 12 PROPOSED 4" SEWER SERVICE LINE CROSSING WITH PROPOSED 8" STORM SEWER. 4" SS INV: 6066.81 8"SD INV: 6075.45
- 13 PROPOSED SANITARY SAMPLING MANHOLE.

**WATER**

- 14 PROPOSED 6" DIP FIRE LINE (PRIVATE).
- 15 PROPOSED 45° - 6" DIP BENDS WITH THRUST BLOCKS.
- 16 PROPOSED 6" DIP FIRE SERVICE LINE (PRIVATE) CONNECTION TO BUILDING. PROVIDE 5.5-FT OF COVER.
- 17 PROPOSED 2" DOMESTIC WATER SERVICE TAP.
- 18 PROPOSED 81 LF OF 2" TYPE K COPPER DOMESTIC WATER SERVICE LINE.
- 19 PROPOSED 2" TYPE K COPPER DOMESTIC WATER CONNECTION TO BUILDING AND WATER METER INSET BUILDING. PROVIDE 5.5-FT OF COVER. STUB 5' OFF OF BUILDING.
- 20 EXISTING WATER MAIN TO REMAIN.
- 21 EXISTING FIRE HYDRANT TO REMAIN.
- 22 PROPOSED FIRE HYDRANT.
- 23 PROPOSED 6" DIP FIRE HYDRANT LINE (PUBLIC).
- 24 PROPOSED 6" DIP FIRE HYDRANT SERVICE CONNECTION TO WATER MAIN. INSTALL 12"x6" TAPPING SLEEVE WITH 6" TAPPING VALVE.
- 25 PROPOSED 2" CURB STOP.
- 26 PROPOSED 6" DIP FIRE LINE SERVICE CONNECTION TO WATER MAIN. INSTALL 12"x6" TAPPING SLEEVE WITH 6" TAPPING VALVE.

**DRY UTILITIES**

- 27 APPROXIMATE LOCATION OF PROPOSED TELECOMMUNICATION SERVICE LINE.
- 28 PROPOSED ELECTRICAL BUILDING CONNECTION. CORE EUSREC CABINET (30"W x 30"H x 11"D)
- 29 PROPOSED TELECOMMUNICATION BUILDING CONNECTION.
- 30 ELECTRICAL AND TELECOMMUNICATION LINES UNDER PROPOSED ROOF DRAIN AT CROSSING.
- 31 APPROXIMATE LOCATION OF PROPOSED SITE LIGHT.
- 32 EXISTING TEL-PED TO REMAIN.
- 33 EXISTING UNDERGROUND TELECOMMUNICATIONS AND ELECTRIC TO REMAIN.
- 34 EXISTING GAS MAIN TO REMAIN.
- 35 APPROXIMATE LOCATION OF PROPOSED UNDERGROUND ELECTRICAL SERVICE LINE.
- 36 PROPOSED ELECTRIC TRANSFORMER PAD.

**STORM SEWER**

- NOTE: REFERENCE KUM & GO GAS AND C-STORE CONSTRUCTION DOCUMENTS FOR STORM SEWER DESIGN INFORMATION.
- 37 PROPOSED STORM SEWER INLET.
  - 38 PROPOSED STORM SEWER CLEANOUT.
  - 39 PROPOSED STORM SEWER MANHOLE.
  - 40 PROPOSED 4" PVC CANOPY DRAIN PIPE CONNECTION.
  - 41 PROPOSED 8" STORM ADS SLOTTED DRAIN.
  - 42 PROPOSED 6" ROOF DOWNSPOT WITH DRAIN LINE CONNECTION TO 8" ADS SLOTTED DRAIN.
  - 43 PROPOSED 8" STORM SEWER, SDR 35 PVC SOLID OR DUEL WALL HDPE W/ WATER TIGHT FITTINGS.
  - 44 PROPOSED 12" STORM SEWER, SDR 35 PVC SOLID OR DUEL WALL HDPE W/ WATER TIGHT FITTINGS.
  - 45 PROPOSED 18" RCP STORM SEWER.
  - 46 EXISTING STORM STRUCTURE TO REMAIN.
  - 47 EXISTING STORM SEWER TO REMAIN.

**811**  
 CALL UTILITY NOTIFICATION CENTER OF COLORADO  
 1-800-922-1987 or 811  
 CALL 3-BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTACT) IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

P:\KUM & GO\CO - PARKER, 2293 - PINERY AND BAYOU GULCH\08\CAD\DWG\2293-03-PWSD UTILITY PLAN.DWG

SEE SHEET U1.2 FOR CONTINUATION

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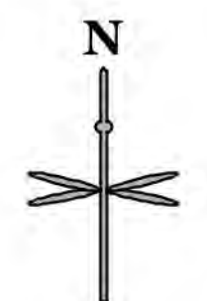
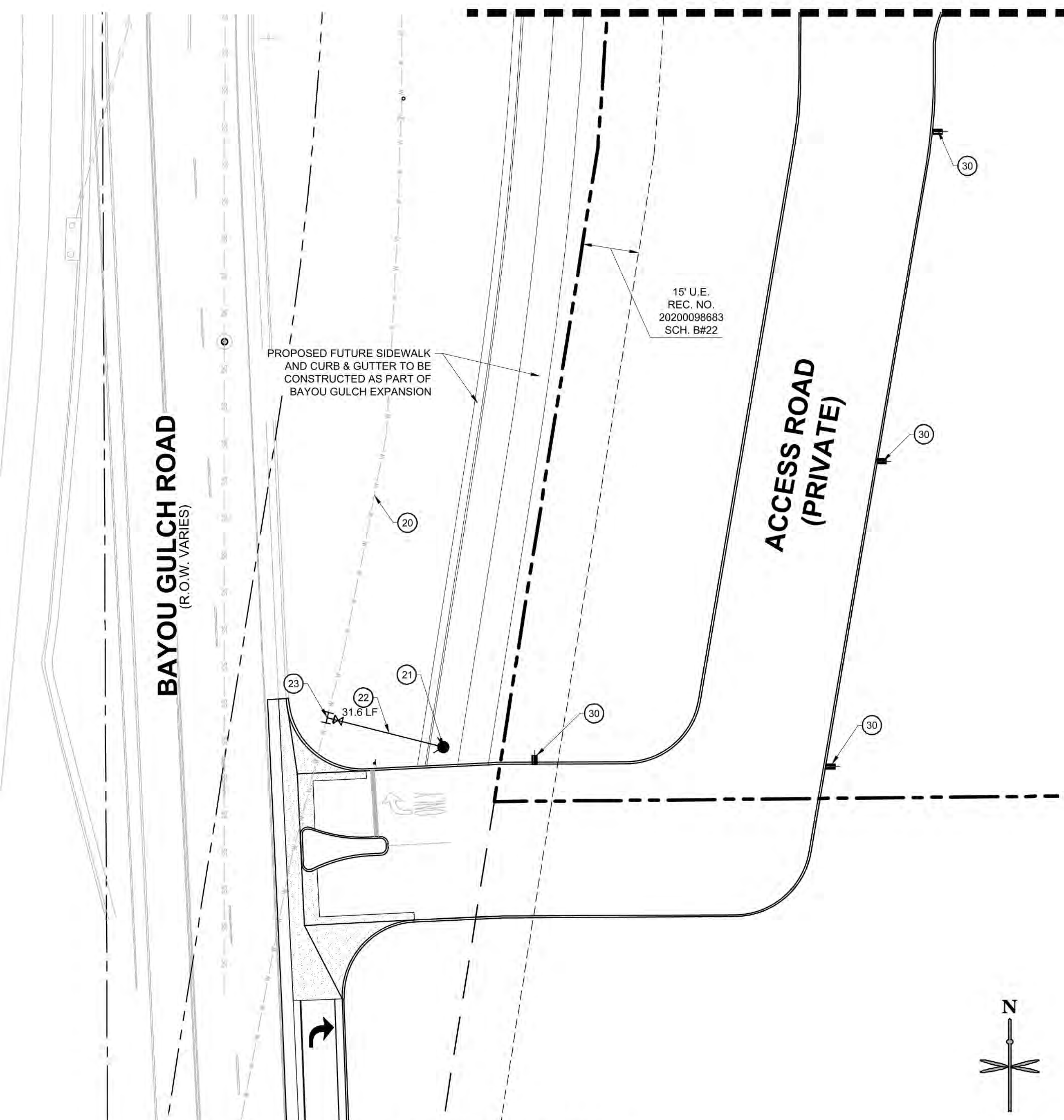


REVISION DESCRIPTION	DATE

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SHEET NUMBER:  
**U1.2**  
 4 OF 9

SEE SHEET U1.1 FOR CONTINUATION



**UTILITY LEGEND**

	PROPERTY BOUNDARY
	EXISTING EASEMENT
	EXISTING SANITARY SEWER
	EXISTING WATER
	EXISTING STORM SEWER
	EXISTING UNDERGROUND ELECTRIC
	EXISTING UNDERGROUND COMMUNICATION
	EXISTING GAS
	PROPOSED SANITARY SEWER
	PROPOSED WATER
	PROPOSED STORM SEWER
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED COMMUNICATION LINE
	PROPOSED STORM INLET AND MANHOLE
	PROPOSED DRAINAGE FLOW ARROWS
	EXISTING STREET LIGHT
	EXISTING FIRE HYDRANT
	PROPOSED SITE LIGHT

**WATER**

- (20) EXISTING WATER MAIN TO REMAIN.
- (21) PROPOSED FIRE HYDRANT.
- (22) PROPOSED 6" DIP FIRE HYDRANT LINE (PUBLIC).
- (23) PROPOSED 6" DIP FIRE HYDRANT SERVICE CONNECTION TO WATER MAIN. INSTALL 12"x6" TAPPING SLEEVE WITH 6" TAPPING VALVE.
- (24) EXISTING FIRE HYDRANT TO REMAIN

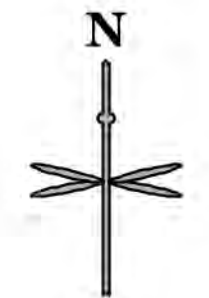
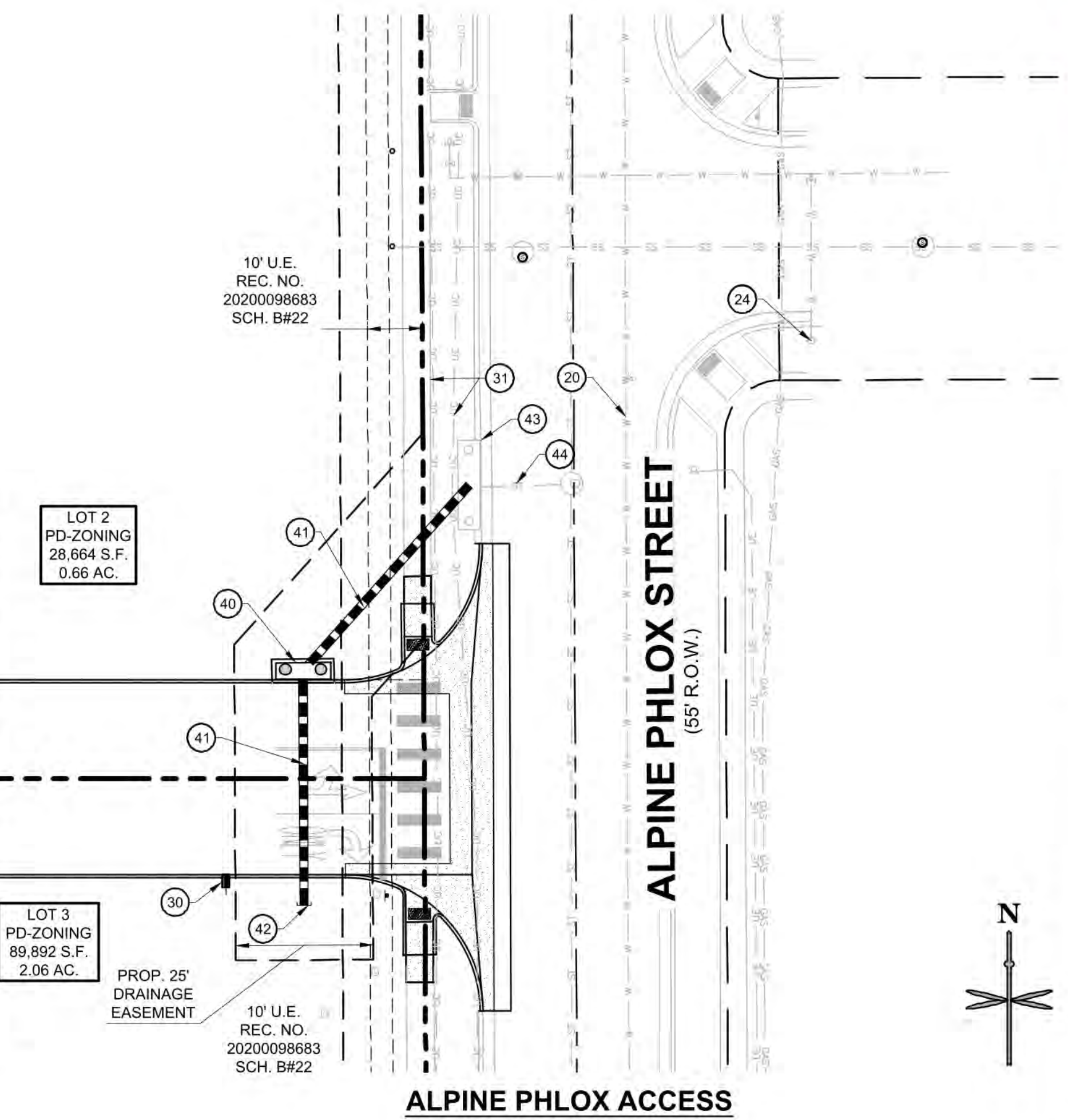
**DRY UTILITIES**

- (30) APPROXIMATE LOCATION OF PROPOSED SITE LIGHT.
- (31) EXISTING UNDERGROUND TELECOMMUNICATIONS AND ELECTRIC TO REMAIN.

**STORM SEWER**

- NOTE: REFERENCE KUM & GO GAS AND C-STORE CONSTRUCTION DOCUMENTS FOR STORM SEWER DESIGN INFORMATION.
- (40) PROPOSED STORM SEWER INLET.
  - (41) PROPOSED 18" RCP STORM SEWER.
  - (42) PROPOSED 18" RCP STUB TO BE CAPPED FOR FUTURE CONNECTION.
  - (43) EXISTING STORM STRUCTURE TO REMAIN.
  - (44) EXISTING STORM SEWER TO REMAIN.

SEE SHEET U1.1 FOR CONTINUATION



**811**  
 CALL UTILITY NOTIFICATION CENTER OF COLORADO  
 1-800-922-1987 or 811

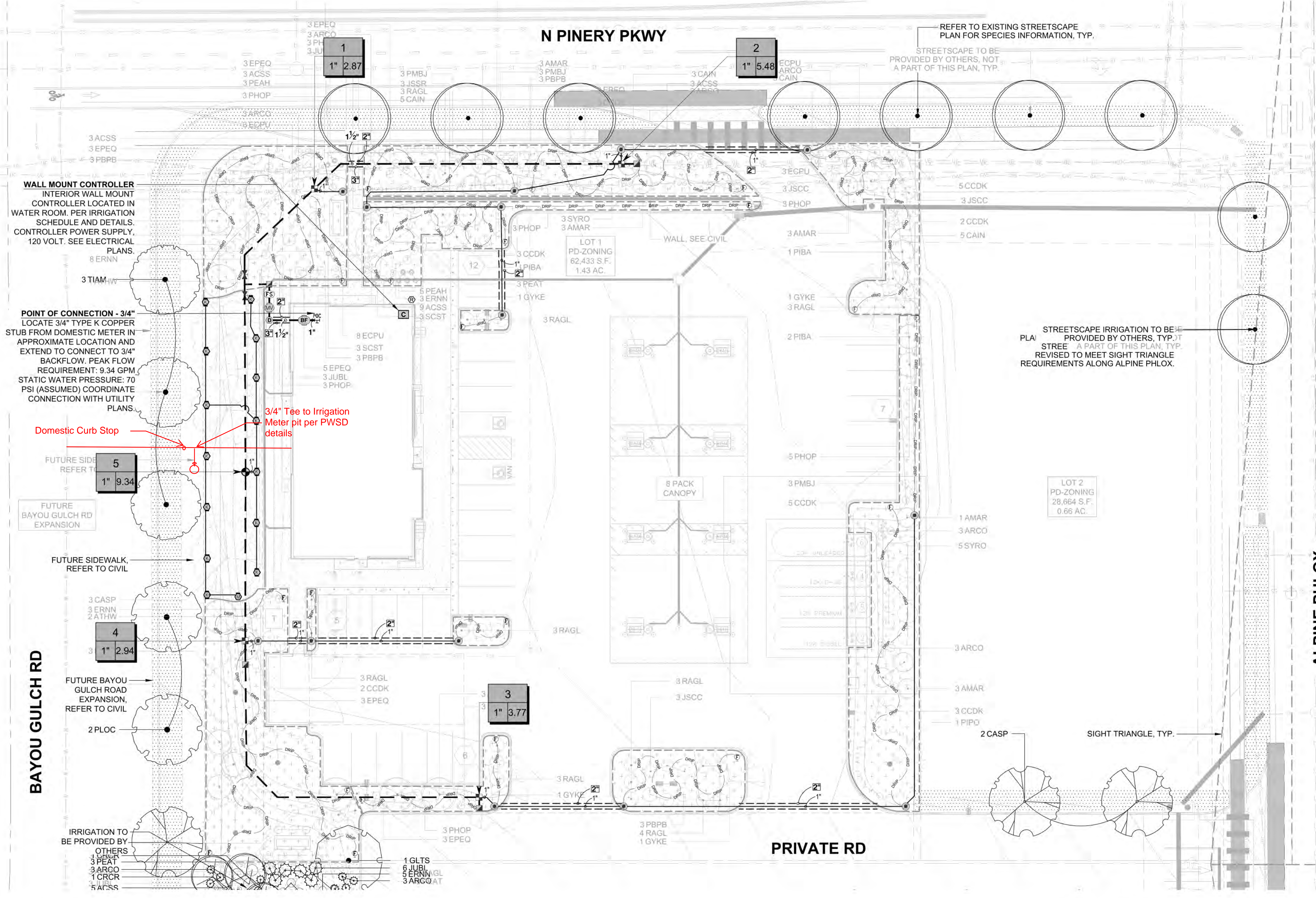
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# TRAILS AT CROWFOOT FILING NO. 9, 1ST AMENDMENT LOT 1 KUM & GO #2293 GAS & C-STORE SITE PLAN

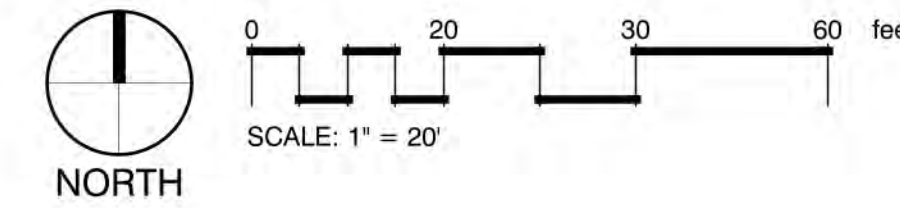


### IRRIGATION SCHEDULE:

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	DETAIL
	TURF ROTARY - 1000 HUNTER MP1000 PROS-06-PRS40-CV 6" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.	1	40	5/U4.2
	TURF ROTARY - 2000 HUNTER MP2000 PROS-06-PRS40-CV 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	14	40	5/U4.2
	DRIP CONTROL VALVE ASSEMBLY RAIN BIRD XCZ-100-PRB-COM - WIDE FLOW DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1" BALL VALVE WITH 1" PRESS VALVE AND 1" PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. 0.3 GPM-20 GPM	4		
	PIPE TRANSITION POINT PIPE TRANSITION FROM PVC LATERAL TO DRIP TUBING WITH RISER IN 6" DRIP BOX.	14		1/U4.2
	FLUSH VALVE 3/4" PVC BALL VALVE IN 10" VALVE BOX.	20		2/U4.2
	AREA TO RECEIVE DRIP EMITTERS AREA FOR DRIP EMITTERS RAIN BIRD XB-PC SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS. FLOW RATES OF 0.5GPH=BLUE, 1.0GPH=BLACK, AND 2.0GPH=RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET. Emitter Notes: 0.5 GPH emitters (2 assigned to each #1 plant) 1.0 GPH emitters (2 assigned to each #5 plant) 2.0 GPH emitters (6 assigned to each B & B, 2" Cal plant) 2.0 GPH emitters (6 assigned to each B & B, 6' HT plant) 2.0 GPH emitters (6 assigned to each B & B, 2.5" Cal plant)	15,802 S.F.		3/U4.2
	DRIP TUBING: 3/4" POLYETHYLENE TUBING.	1,535 LF		
	CONTROL VALVE HUNTER ICV-G PLASTIC ELECTRIC REMOTE CONTROL VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET.	1		
	QUICK COUPLER VALVE RAIN BIRD 44-RC 1" BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.	4		
	GATE VALVE - 2-1/2" AND SMALLER MATCO-NORCA 514T BRASS GATE VALVE, FULL PORT, WITH SOLID WEDGE. IPS. WHEEL HANDLE. SAME SIZE AS MAINLINE PIPE.	2		
	MASTER VALVE - NORMALLY CLOSED 1" RAIN BIRD EFB-CP BRASS MASTER VALVE, THAT IS CONTAMINATION PROOF W/SELF-FLUSHING FILTER SCREEN AND FD-10 TURF DECODER. GLOBE CONFIGURATION, RECLAIMED WATER COMPATIBLE.	1		
	MANUAL DRAIN VALVE MUELLER ORISEAL #H-10283, WITH BRASS SWING JOINT ASSEMBLY. INSTALL PER INSTALLATION DETAIL.	1		
	BACKFLOW PREVENTER - INDOOR 3/4" FEBCO 860 REDUCED PRESSURE BACKFLOW PREVENTER	1		
	CONTROLLER RAIN BIRD ESP4ME3 WITH (2) ESP-SM3 - 10 STATION, HYBRID MODULAR CONTROLLER.	1		
	RAIN/FREEZE SENSOR RAIN BIRD WR2-RFC - WIRELESS RAIN AND FREEZE SENSOR COMBO, INCLUDES 1 RECEIVER AND 1 RAIN/FREEZE SENSOR TRANSMITTER.	1		
	FLOW SENSOR - 1" RAINBIRD MJ100B - 1" FLOW SENSOR FOR USE WITH RAIN BIRD ESP-ME.	1		
	POINT OF CONNECTION 3/4"	1		
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	847.1 L.F.		
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21	459.4 L.F.		
	IRRIGATION MAINLINE: TYPE K COPPER PIPE	4.6 L.F.		
	PIPE SLEEVE: PVC CLASS 160 SDR 26	209.9 L.F.		



1 IRRIGATION PLAN



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P: 888-458-6646

PARKER WATER AND SANITATION DISTRICT  
**2293 - KUM AND GO - PARKER, CO**  
NEC OF BAYOU GULCH RD AND PINERY PKWY  
IRRIGATION PLAN

KG PROJECT TEAM: EES  
RDM:  
SDM:  
CPM:

REVISION DESCRIPTION	PER COMMENTS
DATE: 3/16/23	
1	

DATE: 09-15-2022

SHEET NUMBER:  
U3.1  
7 OF 9

X:\DRIPBOX\VALERIAN\TEAM FOLDER\PROJECTS\2022\04 EES PINERY PKWY #2293\WORKING\2022-09-15 SUBMITTAL\_2ND\22-044\_U4.L1 IRRIGATION PLAN.DWG

# TRAILS AT CROWFOOT FILING NO. 9, 1ST AMENDMENT LOT 1 KUM & GO #2293 GAS & C-STORE SITE PLAN



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PARKER WATER AND SANITATION DISTRICT  
**2293 - KUM AND GO - PARKER, CO**  
 NEC OF BAYOU GULCH RD AND PINERY PKWY  
 IRRIGATION DETAILS

KG PROJECT TEAM: EES  
 RDM:  
 SDM:  
 CPM:

REVISION	DATE	DESCRIPTION
1	3/16/23	PER COMMENTS

DATE: 09-15-2022

SHEET NUMBER:  
**U3.2**  
**8 OF 9**

### GENERAL NOTES:

- PRIOR TO BEGINNING WORK VERIFY THE CONTRACT DRAWINGS AGAINST ALL APPLICABLE EXISTING CONDITIONS, NOTIFY THE DESIGNER IMMEDIATELY UPON DISCOVERY OF UNFORESEEN SITE CONDITIONS OR PLAN DISCREPANCIES.
- PRE-CONSTRUCTION CONFERENCE IS REQUIRED WITH PUBLIC WORKS PRIOR TO CONSTRUCTION.
- BACKFLOW PREVENTION TESTING IS REQUIRED BY BUILDING DEPARTMENT.
- CONTRACTOR IS RESPONSIBLE TO INSPECT AND CONFIRM SITE CONDITIONS PRIOR TO BEGINNING WORK.
- VERIFY LOCATION OF ALL ABOVE AND BELOW GRADE MECHANICAL, PLUMBING, ELECTRICAL/UTILITY LINES AND EQUIPMENT AND ADHERE TO ALL FEDERAL, MUNICIPAL, UTILITY PURVEYOR REQUIRED EASEMENTS, MINIMUM OFFSETS AND SETBACKS.
- ALL ACCESS TO SITE, USE OF UTILITIES, STORAGE, AND OTHER REQUIREMENTS SHALL BE COORDINATED PRIOR TO BEGINNING WORK.

### IRRIGATION NOTES:

- THE CONTRACTOR IS TO INSTALL AN AUTOMATIC IRRIGATION SYSTEM THAT WILL PROVIDE COVERAGE FOR ALL LANDSCAPED AREAS AS SHOWN ON CONTRACT DRAWINGS.
- REFER TO DETAILS FOR INSTALLATION INSTRUCTIONS.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND MUNICIPAL CODES FOR WORK NECESSARY IN IRRIGATION SYSTEM INSTALLATION.
- POINT OF CONNECTION SHOWN ON THE IRRIGATION PLANS ARE PER THE CIVIL DOCUMENTS. REPORT ANY DISCREPANCIES IN THE LOCATION TO THE DESIGNER FOR CLARIFICATION OR REVISION.
- CONTRACTOR IS TO PROVIDE ALL NECESSARY PIPE, VALVES, ETC. DOWNSTREAM FROM POINT OF CONNECTION NOT INSTALLED BY OTHER DISCIPLINES.
- WORK SHALL BE DONE IN FULL ACCORDANCE WITH THE RULES AND REGULATIONS OF THE 2009 INTERNATIONAL PLUMBING CODE (IPC) AND ALL OTHER STATE OR LOCAL MUNICIPAL REGULATIONS CURRENT UPON THE SIGNING OF THIS CONTRACT.
- CONTRACT DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED IN LANDSCAPED AREAS WHEREVER POSSIBLE AND WITHIN THE PROPERTY LIMITS. ANY EQUIPMENT SHOWN OUTSIDE OF THESE LIMITS IS SHOWN IN THAT LOCATION FOR GRAPHICAL CLARITY ONLY.
- LATERAL AND MAINLINE PIPE, CONTROL WIRES AND SLEEVES ARE SHOWN ON CONTRACT DRAWINGS SPACED HORIZONTALLY ON PLAN FOR GRAPHIC CLARITY ONLY. CONTRACTOR SHALL CONSOLIDATE IRRIGATION LATERALS, MAINLINES AND COMPONENTS WHEREVER POSSIBLE. IRRIGATION PIPING SHALL BE INSTALLED WITH A MINIMUM OF 4 INCHES CLEAR ON ALL SIDES.
- CONTRACTOR SHALL MAINTAIN THE MINIMUM DEPTHS DETAILED AND SPECIFIED FOR ALL IRRIGATION EQUIPMENT.
- CONTRACTOR IS TO VERIFY AVAILABLE PRESSURE AND FLOW AT POINT OF CONNECTION PRIOR TO INSTALLATION OF IRRIGATION SYSTEM EQUIPMENT.
- CONTRACTOR TO COORDINATE INSTALLATION OF SLEEVING WITH OVERALL SITE CONSTRUCTION AND INSTALLATION OF PAVING AND SIDEWALKS. ALL SLEEVING UNDER PAVED SURFACES SHOWN ON CONTRACT DRAWINGS IS BY CONTRACTOR UNLESS OTHERWISE NOTED. ALL MAINLINES, LATERAL LINES, DRIP LINES AND CONTROL WIRES UNDER PAVED SURFACES ARE TO BE INSTALLED IN SLEEVING. INSTALL SLEEVING AS PER DETAIL, NOTES, SCHEDULES AND SPECIFICATIONS.
- ALL PIPING, PVC ELECTRICAL SLEEVES, ETC. UNDER PAVING SHALL BE INSTALLED PRIOR TO PAVING WORK. NO TEES, ELLS OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER PAVING. CAP ALL ENDS HAND TIGHT PRIOR TO BACKFILL.
- EACH MAINLINE SLEEVE REPRESENTED IN THE DRAWINGS SHALL CONSIST OF TWO SLEEVES: ONE FOR MAINLINE PIPING AND ONE FOR FIELD WIRING.
- CONTRACTOR IS TO PROVIDE ELECTRICAL POWER TO THE AUTOMATIC CONTROLLER, SEE ELECTRICAL DRAWINGS.
- INSTALL ALL MATERIALS AND EQUIPMENT AS SHOWN IN DETAILS. USE TEFLON TAPE OR TEFLON PIPE DOPE ON ALL MALE PIPE THREADS ON ALL IRRIGATION SWING JOINT AND VALVE ASSEMBLIES.
- BACKFILLING SHALL BE DONE IN LIFTS AND COMPACTED.
- MAINTENANCE AND OPERATION REQUIREMENTS: A SEASONAL MAINTENANCE SCHEDULE BEGINNING ON APRIL 1 THROUGH OCTOBER 1 SHALL ESTABLISH PROCEDURES FOR OPTIMUM IRRIGATION EFFICIENCY AND PREVENTIVE MAINTENANCE PRACTICES THAT WILL CONSERVE WATER RESOURCES. THE MAINTENANCE SCHEDULE SHOULD INCLUDE THE FOLLOWING ITEMS:
  - VERIFY COVERAGE OF HEADS (BI-MONTHLY)\*
  - CHECK FOR BROKEN HEADS OR LEAKAGE (BI-MONTHLY)\*
  - REPROGRAM CONTROLLERS ACCORDING TO THE SEASONAL NEEDS (MONTHLY)\*
  - VERIFY WATER SUPPLY AND PRESSURE UPON SYSTEM STARTUP, THEN TWO ADDITIONAL TIMES
  - INSPECT THE BACKFLOW PREVENTER DEVICE (UPON SYSTEM STARTUP)
  - VERIFY SENSOR FUNCTIONALITY (BI-MONTHLY)\*

\*ALL ITEMS SHALL BE PERFORMED UPON SYSTEM START UP AND THEN AT A MINIMUM OF THE PERIOD STATED, INSPECTIONS SHALL BE PERFORMED MORE FREQUENTLY AS REQUIRED.

### POINT OF CONNECTION (POC) NOTES:

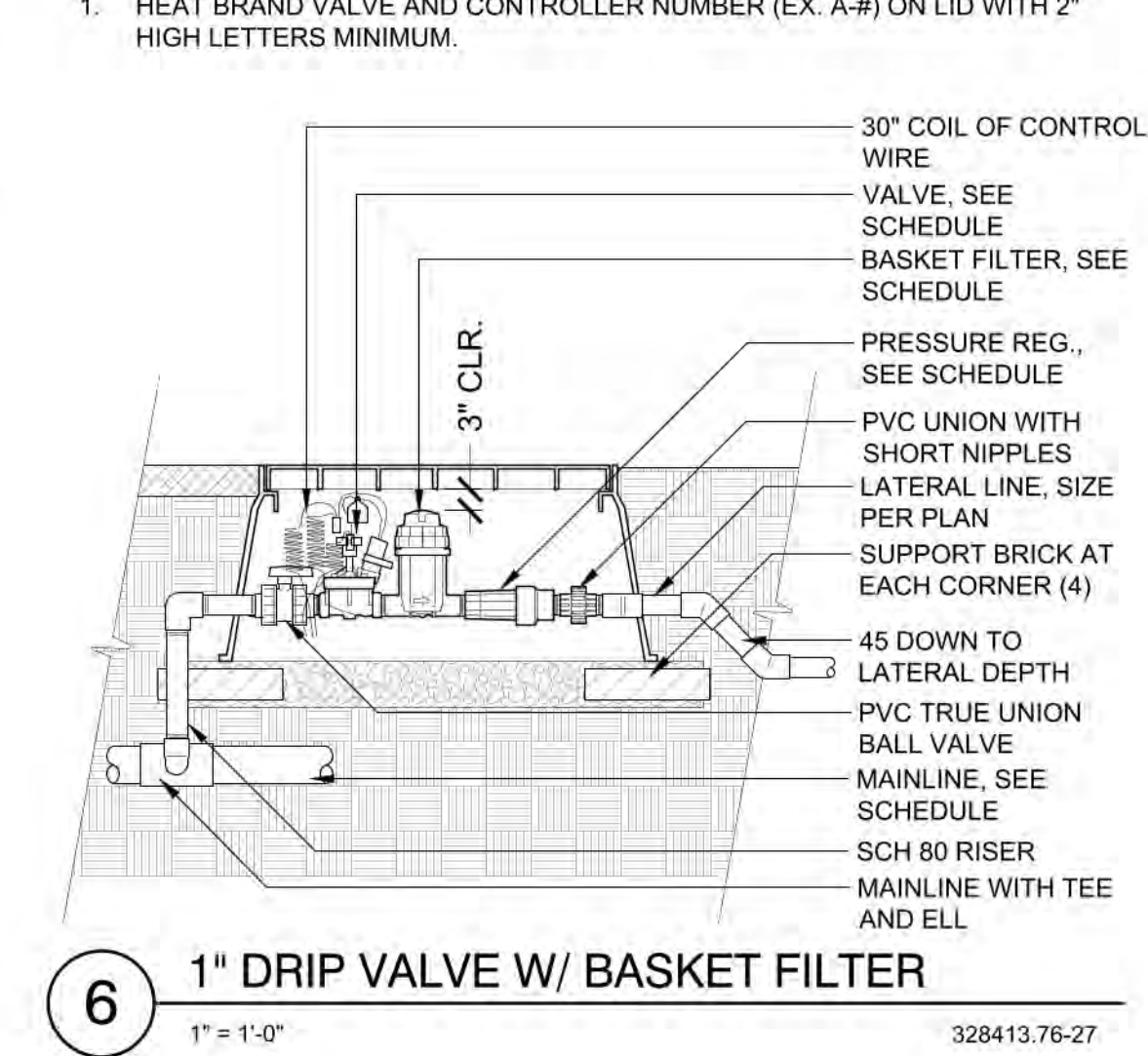
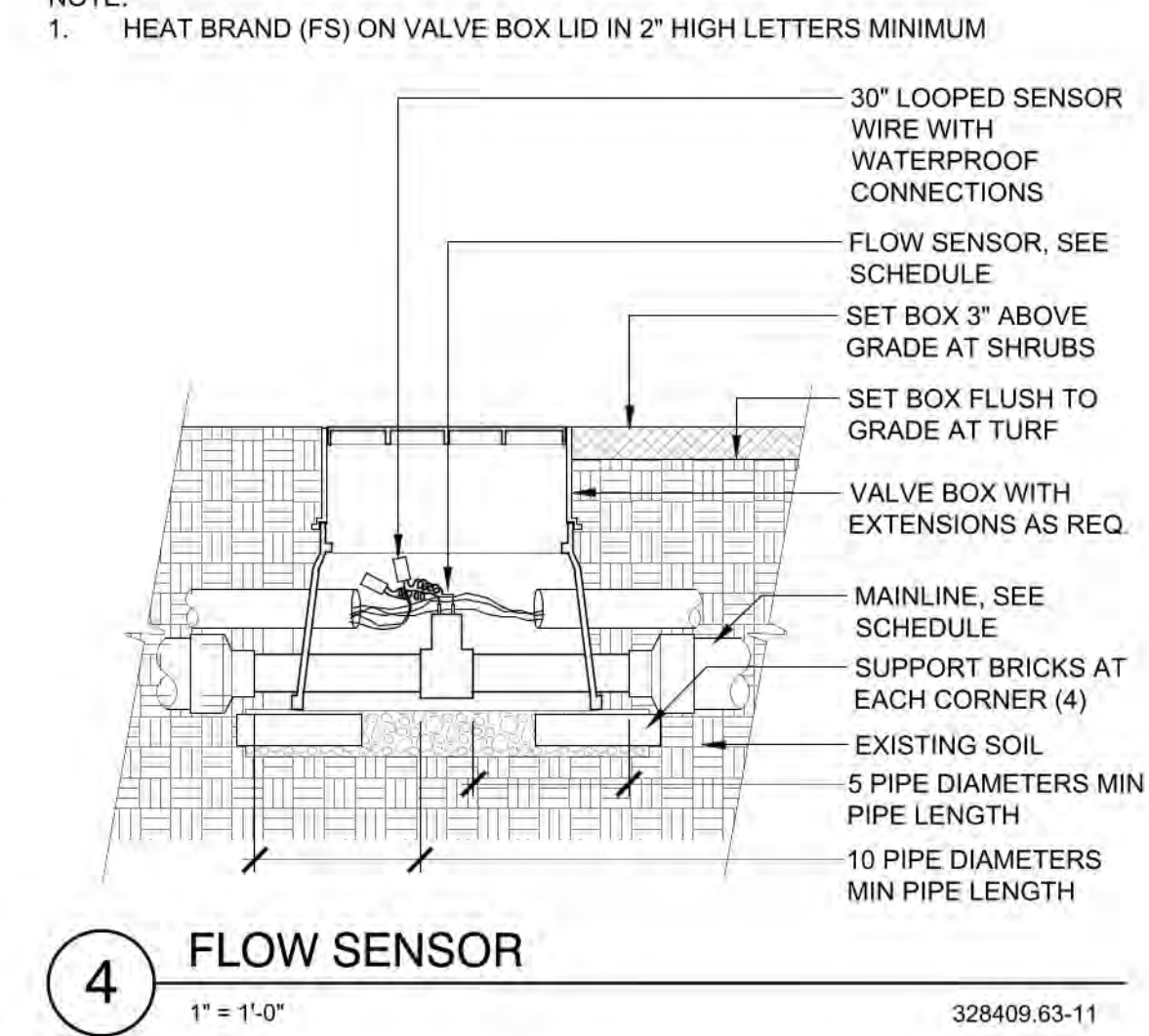
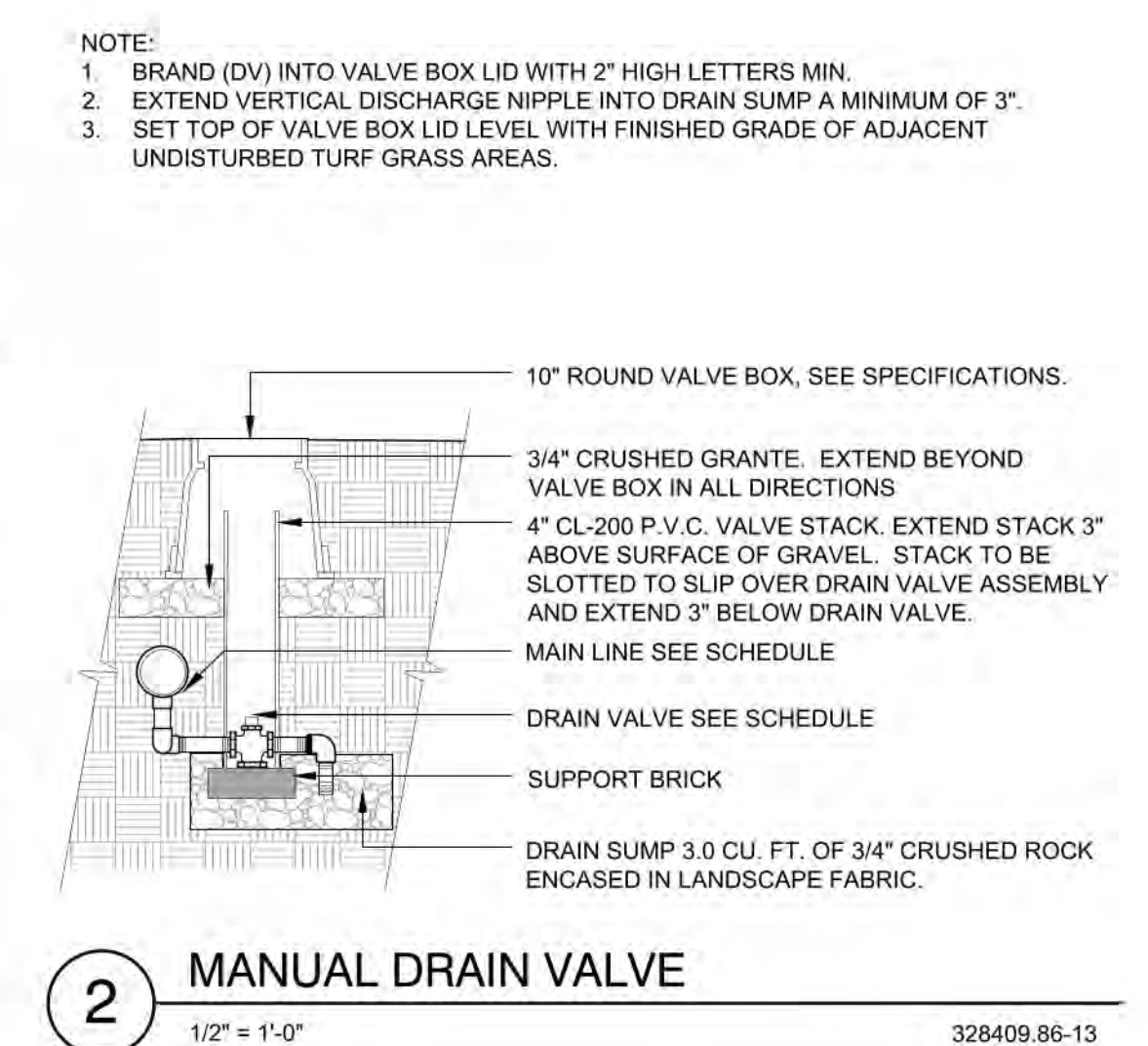
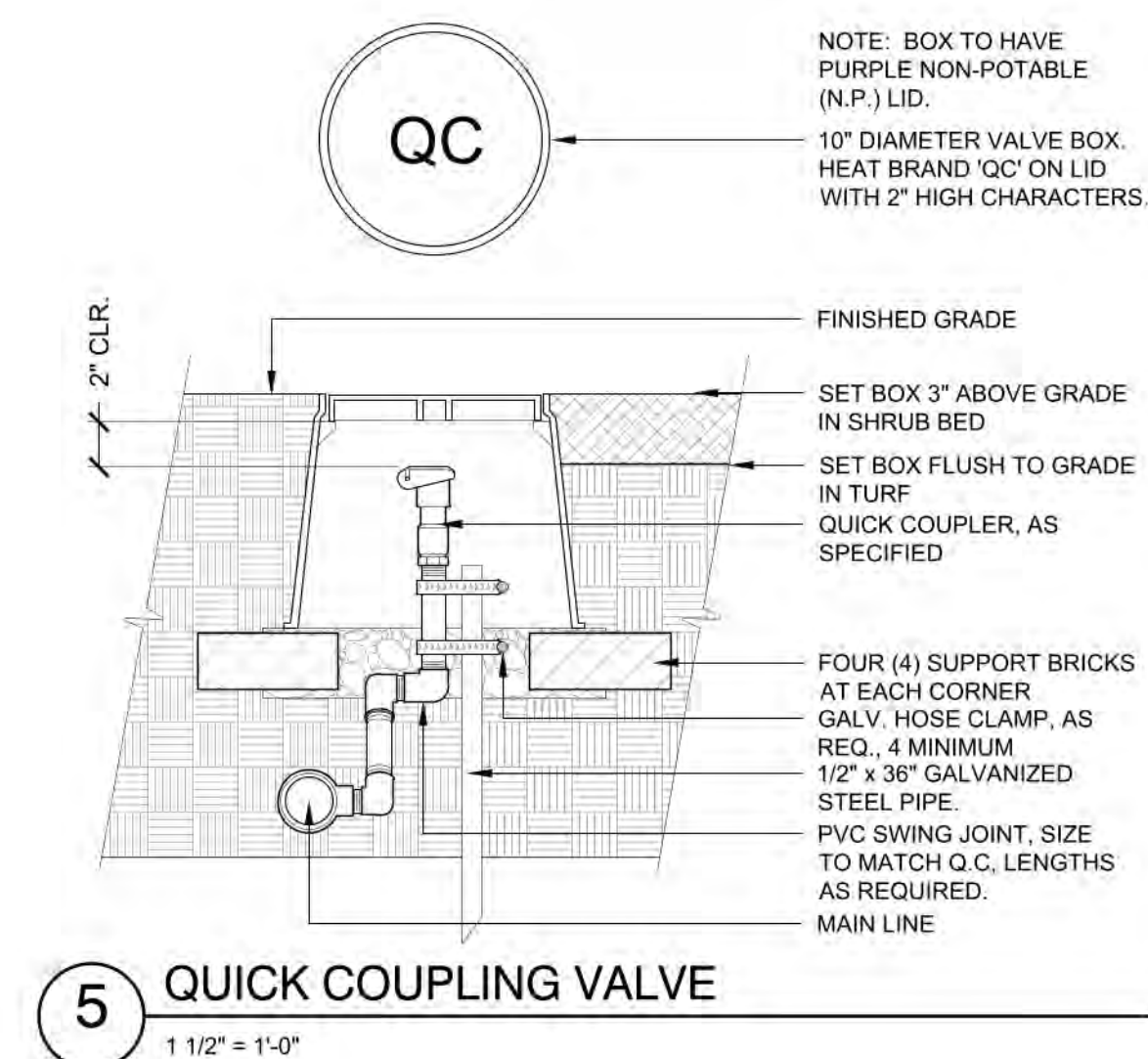
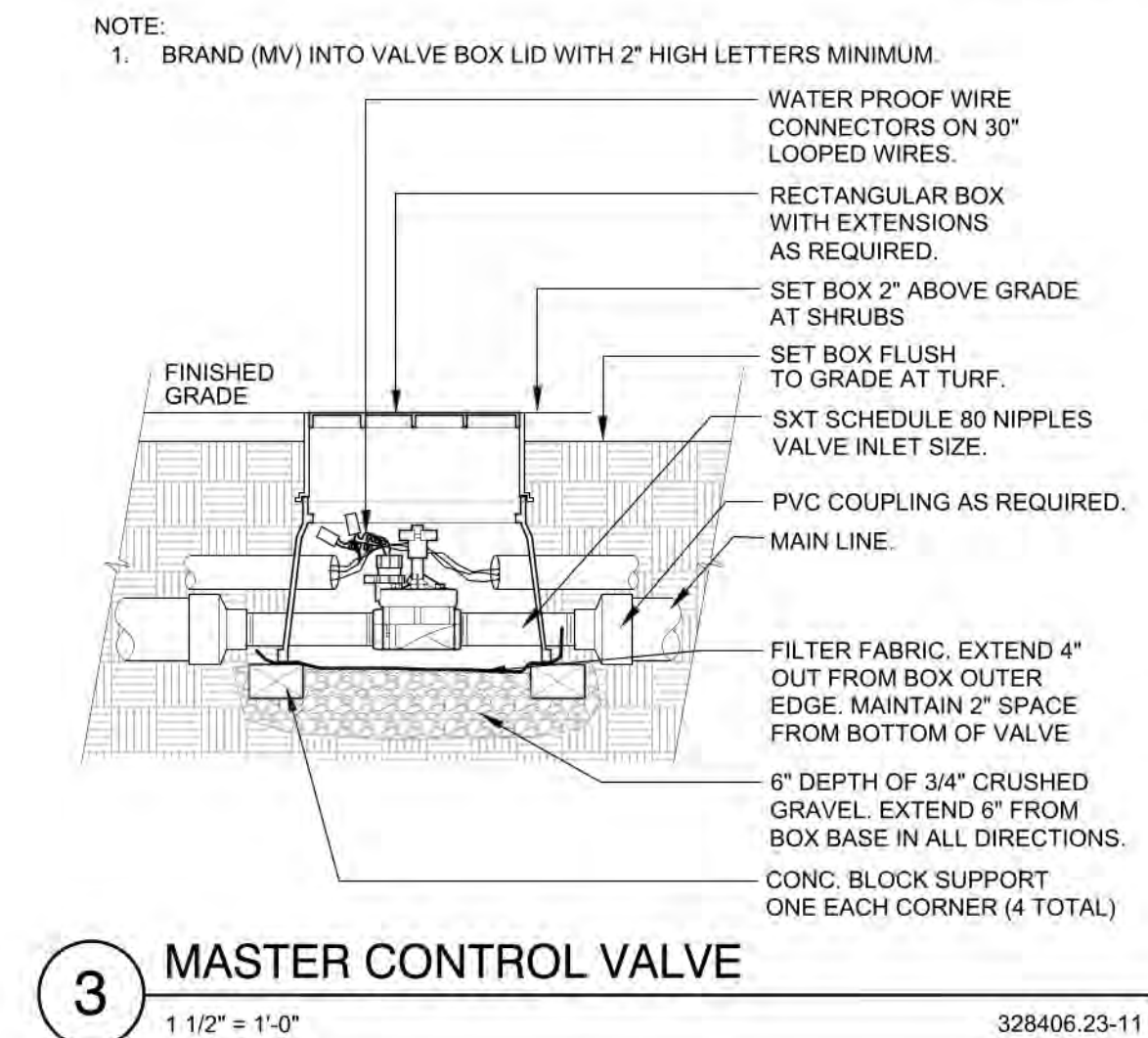
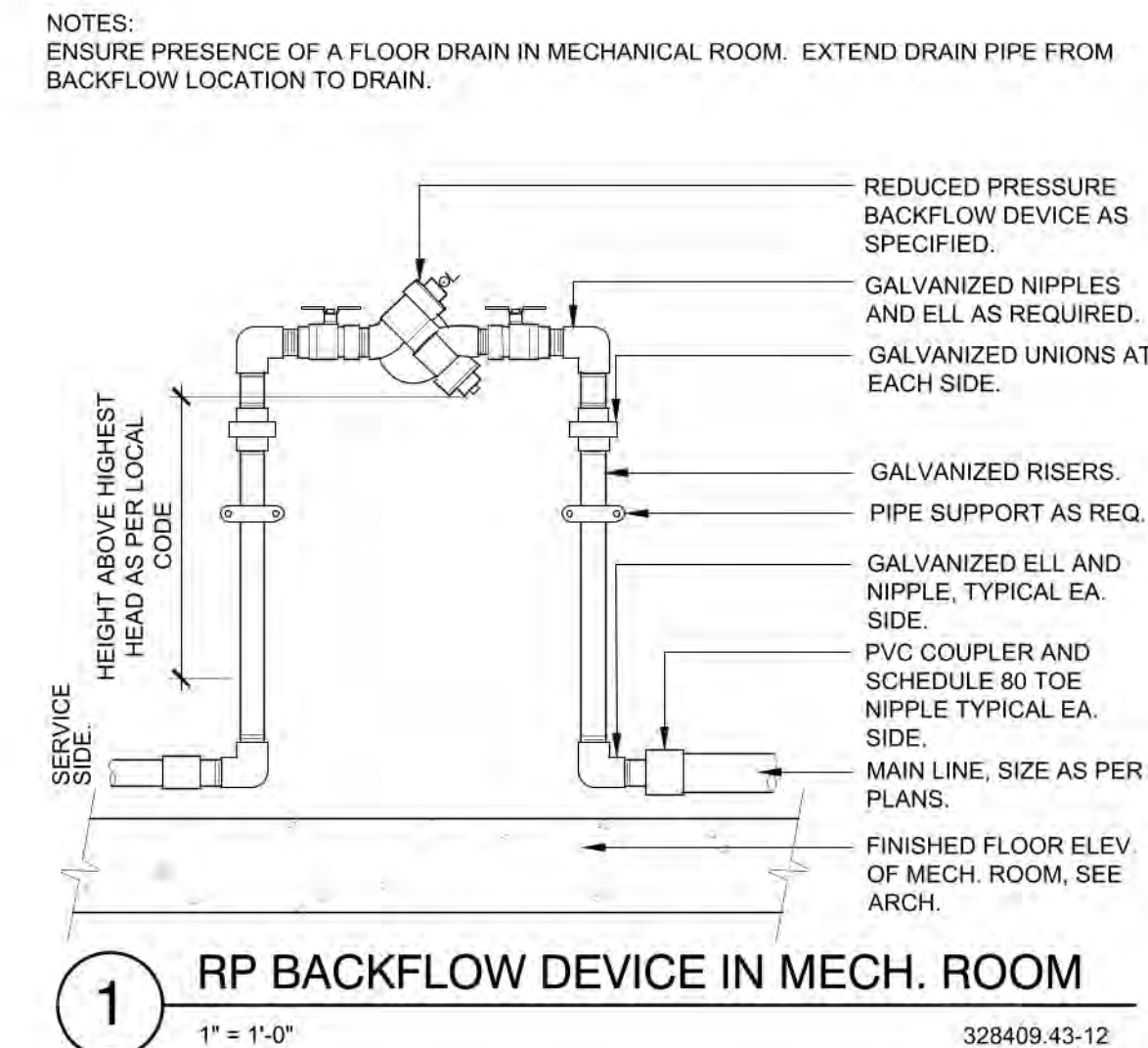
**POC - 1/34" -** CONNECT TO 3/4" STUB LOCATED IN THE MECHANICAL ROOM. EXTEND AND CONNECT 3/4" TYPE-K COPPER LINE TO 3/4" BACKFLOW DEVICE. REFER TO CIVIL PLANS FOR CONNECTION LOCATION.

**AVAILABLE WATER PRESSURE:** THE ASSUMED AVAILABLE PSI AT THE POINT OF CONNECTION IS - **70 PSI**. CONTRACTOR SHALL TEST PRIOR TO INSTALLATION.

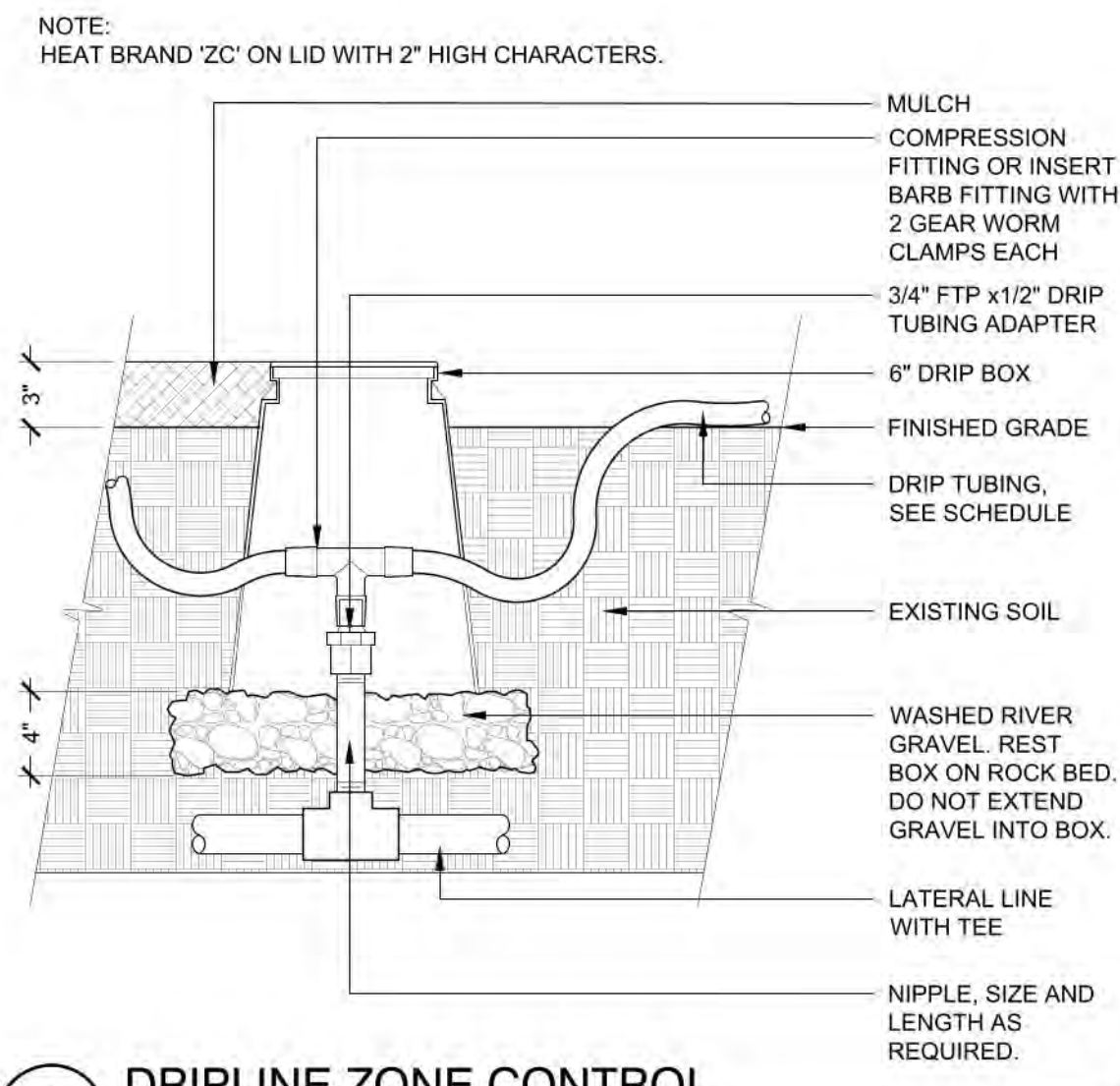
**DESIGN PRESSURE:** **70 PSI** (ASSUMED)

**DESIGN FLOW:** **9.34 GPM MAX.** (SINGLE VALVE OPERATION)

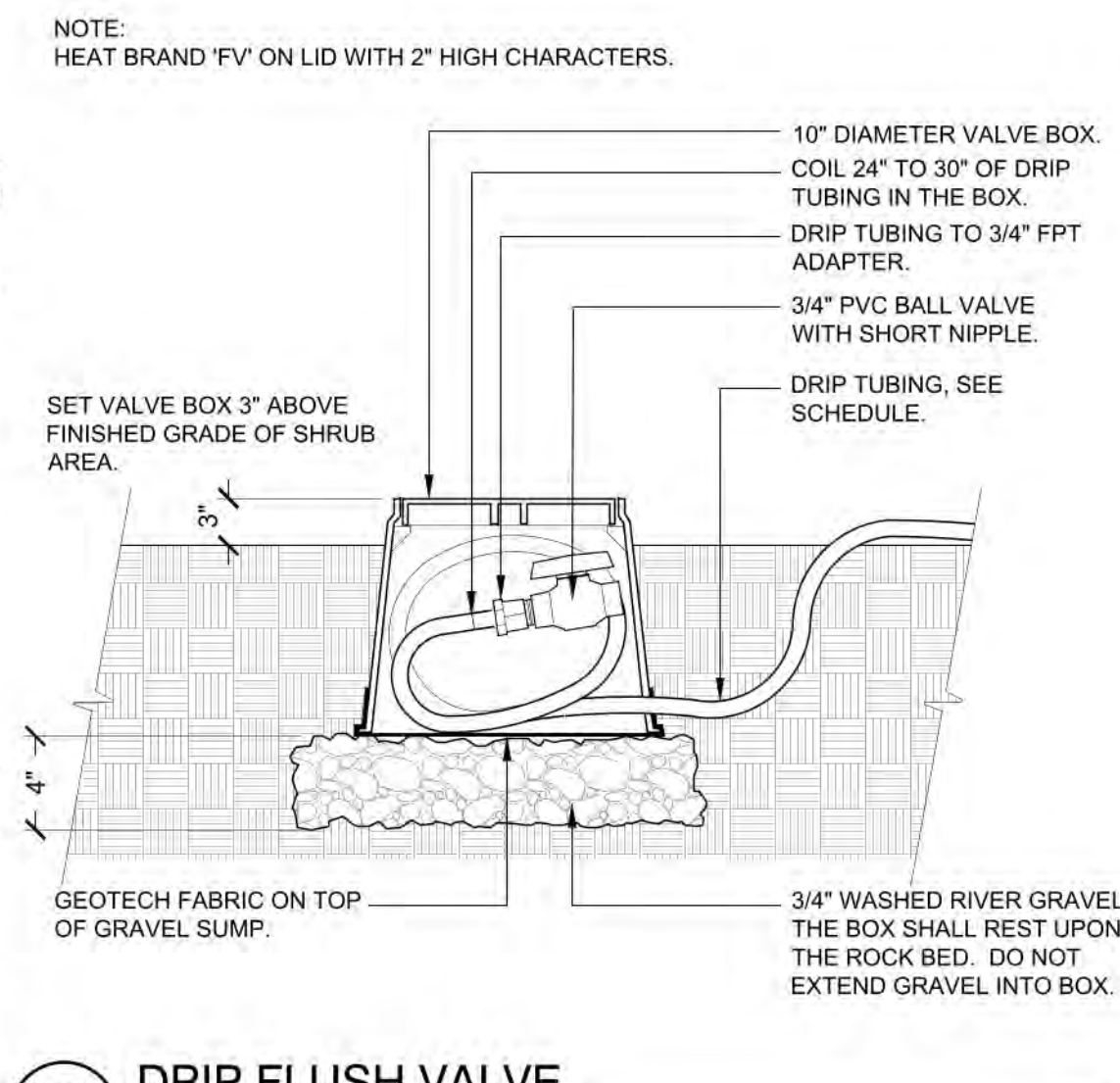
- THE IRRIGATION SYSTEMS ARE DESIGNED WITHIN A WATER WINDOW AND SIZED TO ACCOMMODATE SINGLE VALVE STARTS NOT TO EXCEED DESIGN FLOW LISTED. CONTRACTOR TO PROGRAM CONTROLLER ACCORDINGLY.
- CONTRACTOR TO INSTALL ALL REQUIRED EQUIPMENT IN ACCORDANCE WITH ALL LOCAL WATER PURVEYORS REQUIREMENTS.
- CONTRACTOR TO FIELD LOCATE REQUIRED IRRIGATION EQUIPMENT DOWNSTREAM FROM METER FOR APPROVAL PRIOR TO INSTALLATION. ALL ATTEMPTS SHALL BE MADE TO INSTALL EQUIPMENT IN LANDSCAPE BEDS.
- ALL ENCLOSURES SHALL BE SECURELY MOUNTED AND LOCKABLE TO PREVENT VANDALISM, DAMAGE AND/OR THEFT. TURN KEYS OVER TO OWNERS REPRESENTATIVE AT COMPLETION OF WORK AS PER SPECIFICATIONS.
- CONTRACTOR TO COORDINATE CONTROLLER LOCATIONS WITH OWNERS REPRESENTATIVE PRIOR TO INSTALLATION. INSTALL CONTROLLERS IN COMMON AREA IN LANDSCAPE BED.
- RAIN SENSOR, MOUNT WIRELESS RAIN SENSOR WITHIN OPTIMAL RANGE FROM CONTROLLER, PER MANUFACTURERS RECOMMENDATIONS. INSTALL SENSOR ON LIGHT/UTILITY POLE A MINIMUM OF 10' ABOVE GRADE TO MINIMIZE DAMAGE/VANDALISM. CLEARLY NOTE LOCATION AND PROVIDE INFORMATION TO OWNERS REPRESENTATIVE.
- IRRIGATION ZONES HAVE BEEN CREATED TO PROPERLY HYDROZONE THE SITE BASED ON SITE CONDITIONS AND MICROCLIMATES. IF FIELD ADJUSTMENTS ARE TO BE MADE IRRIGATION EQUIPMENT IRRIGATING A NORTH AND EAST EXPOSURE SHOULD NOT BE INSTALLED ON THE SAME ZONE AS IRRIGATION EQUIPMENT ON THE SOUTH AND WEST EXPOSURES TO ALLOW FOR MICROCLIMATE ADJUSTMENTS IN THE CONTROLLER PROGRAMMING.



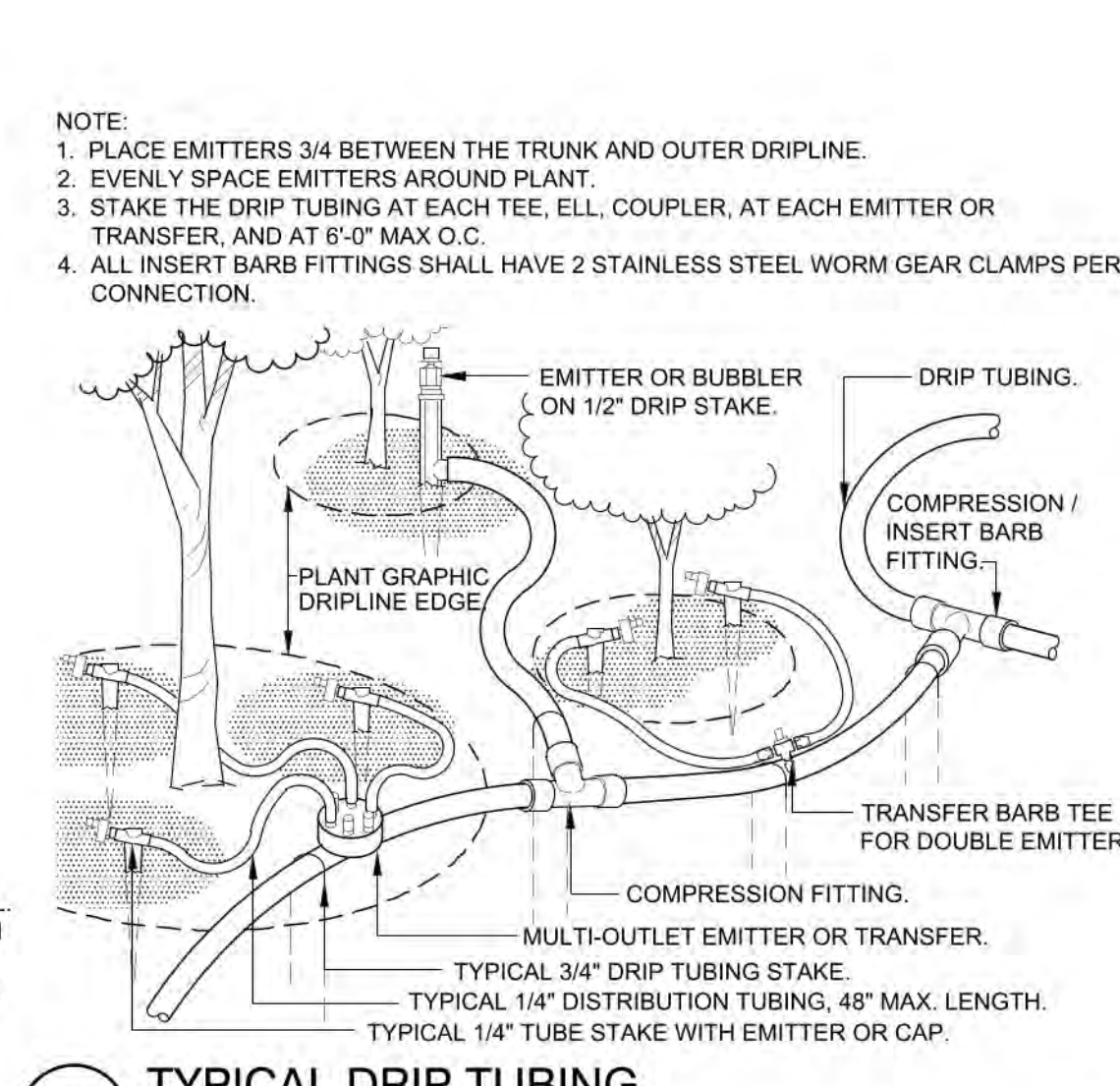
**TRAILS AT CROWFOOT FILING NO. 9, 1ST AMENDMENT LOT 1  
KUM & GO #2293 GAS & C-STORE SITE PLAN**



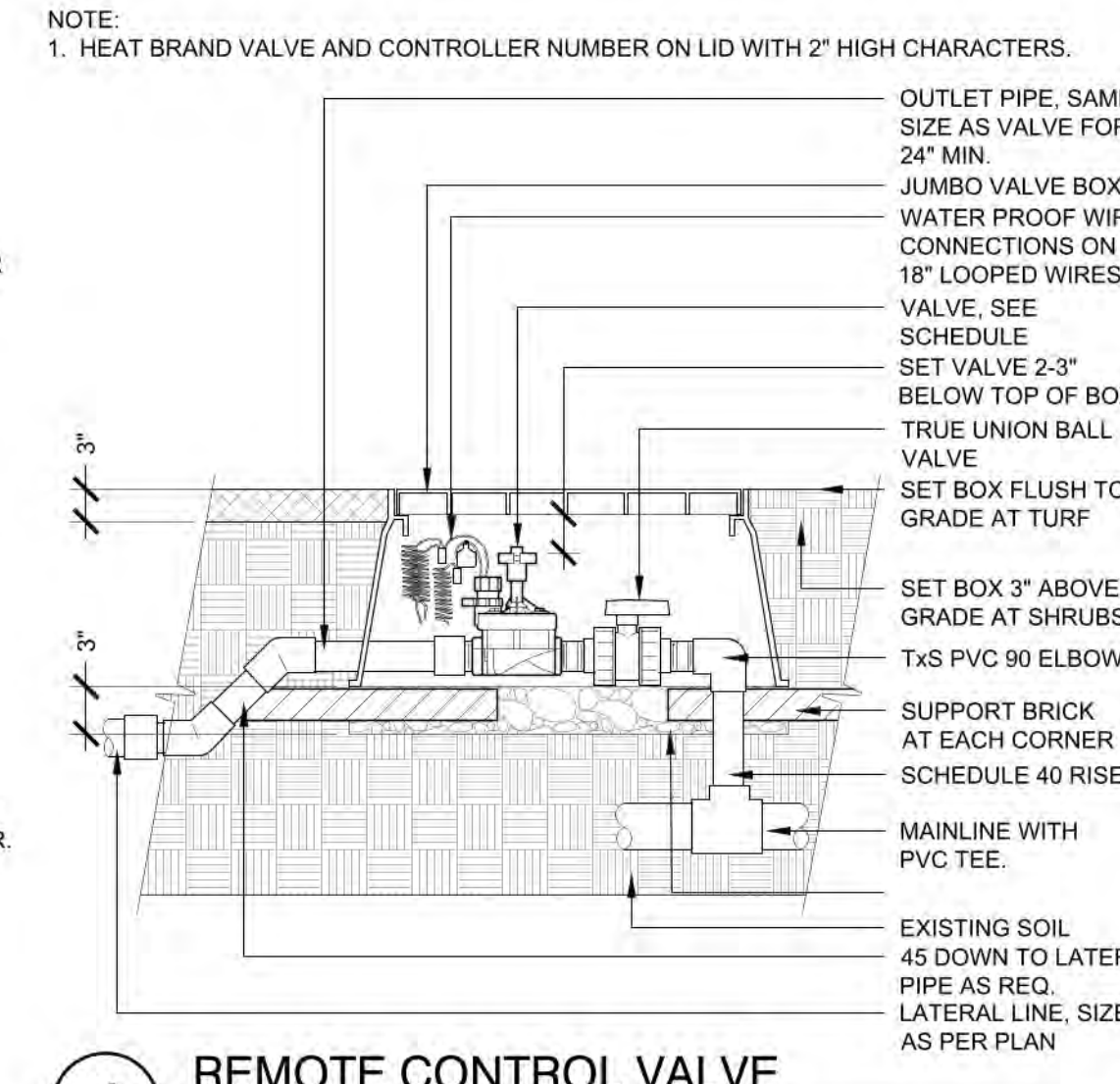
**1 DRIPLINE ZONE CONTROL**  
1 1/2" = 1'-0"  
328413.46-13



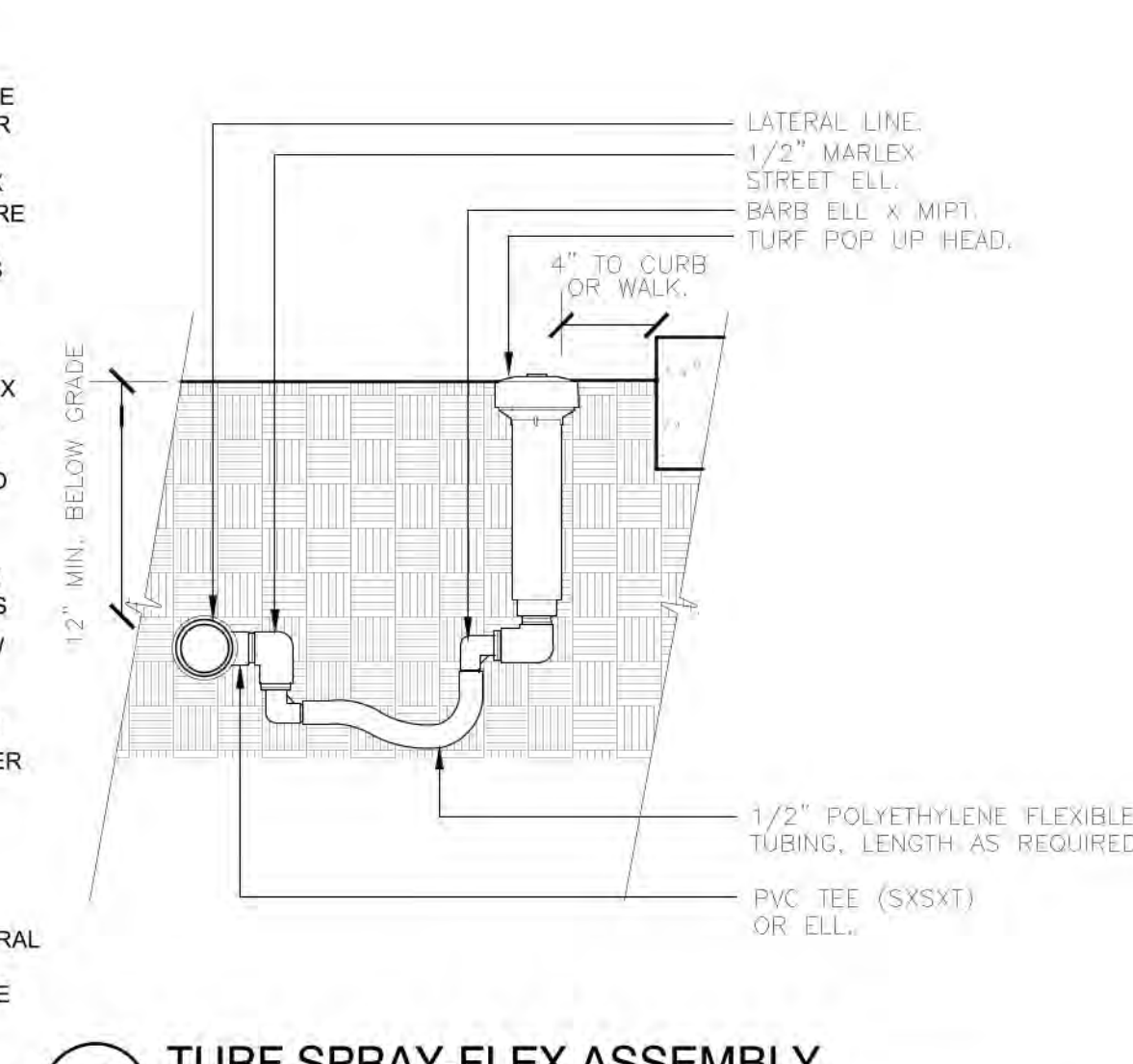
**2 DRIP FLUSH VALVE**  
1 1/2" = 1'-0"  
328413.49-98



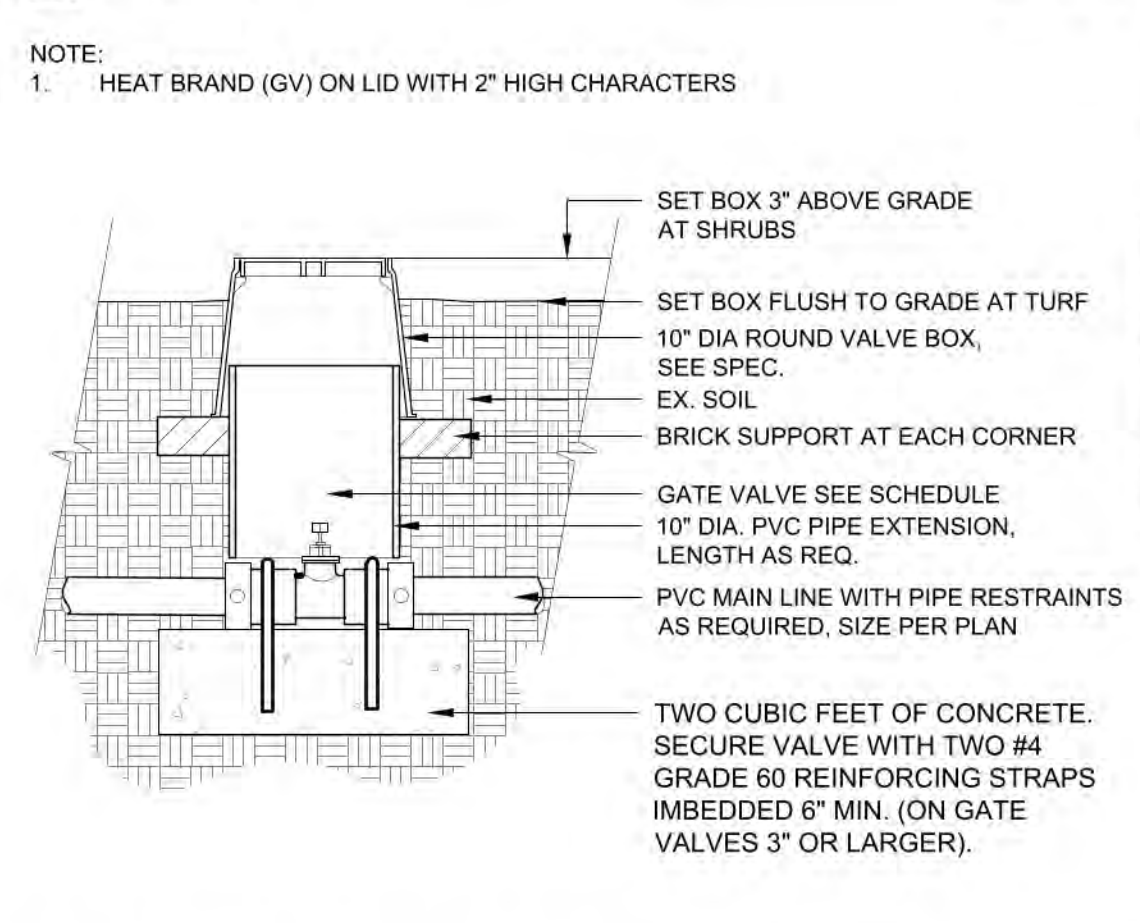
**3 TYPICAL DRIP TUBING**  
1 1/2" = 1'-0"  
328413.43-02



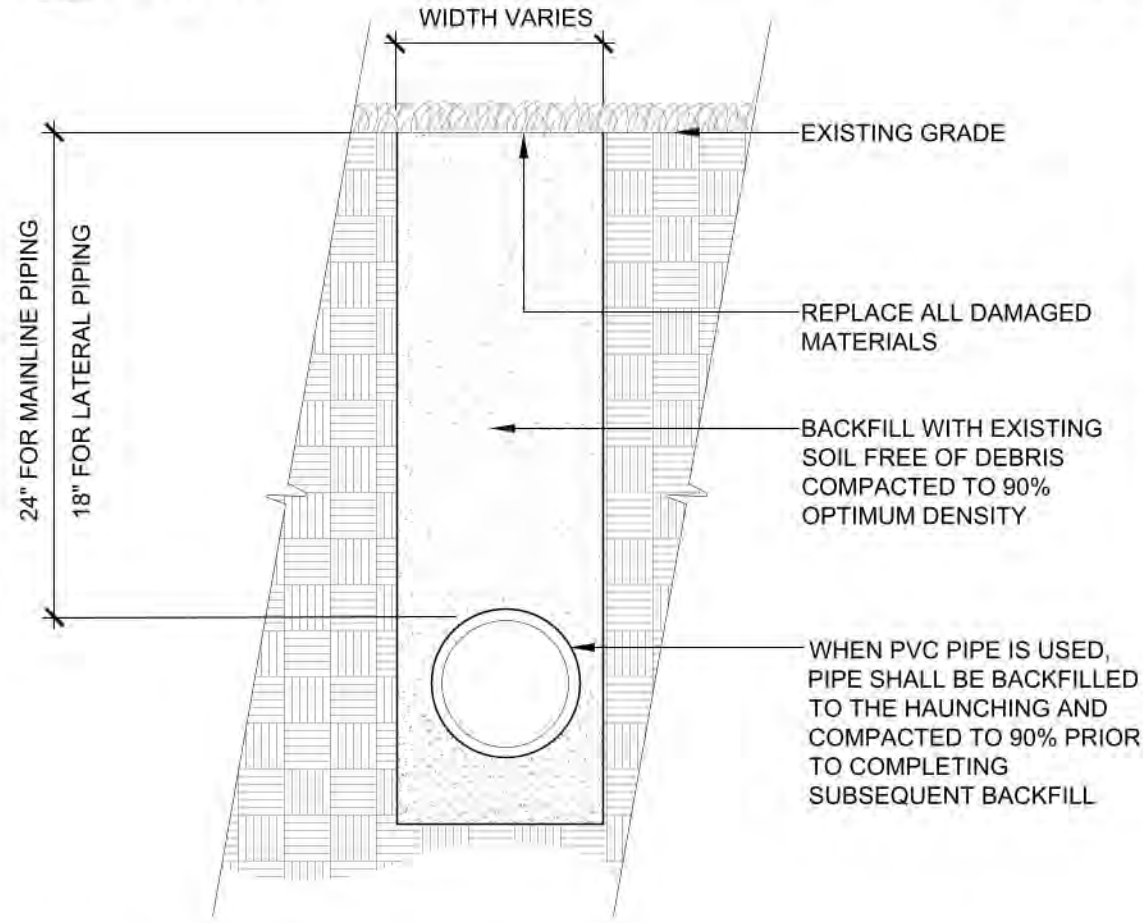
**4 REMOTE CONTROL VALVE**  
1" = 1'-0"  
328406.13-08



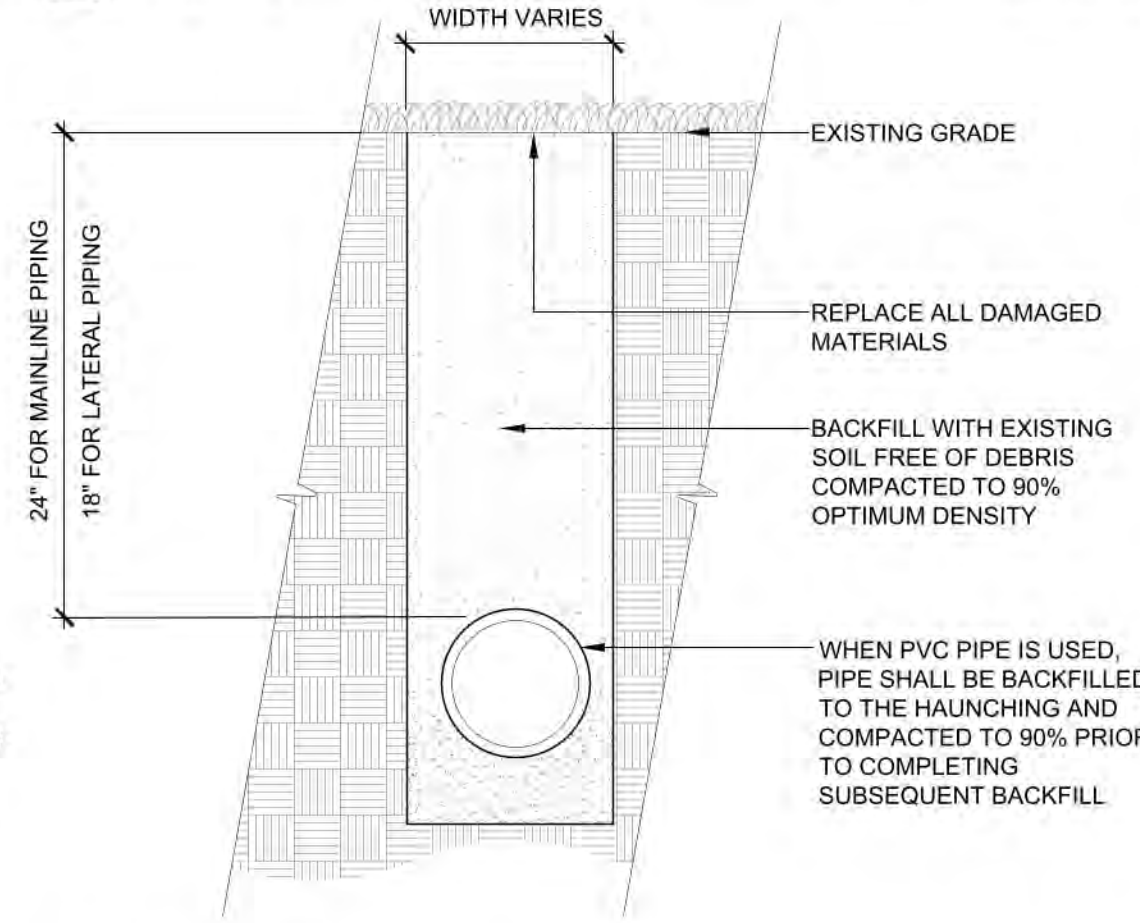
**5 TURF SPRAY-FLEX ASSEMBLY**  
3" = 1'-0"  
328403.13-03



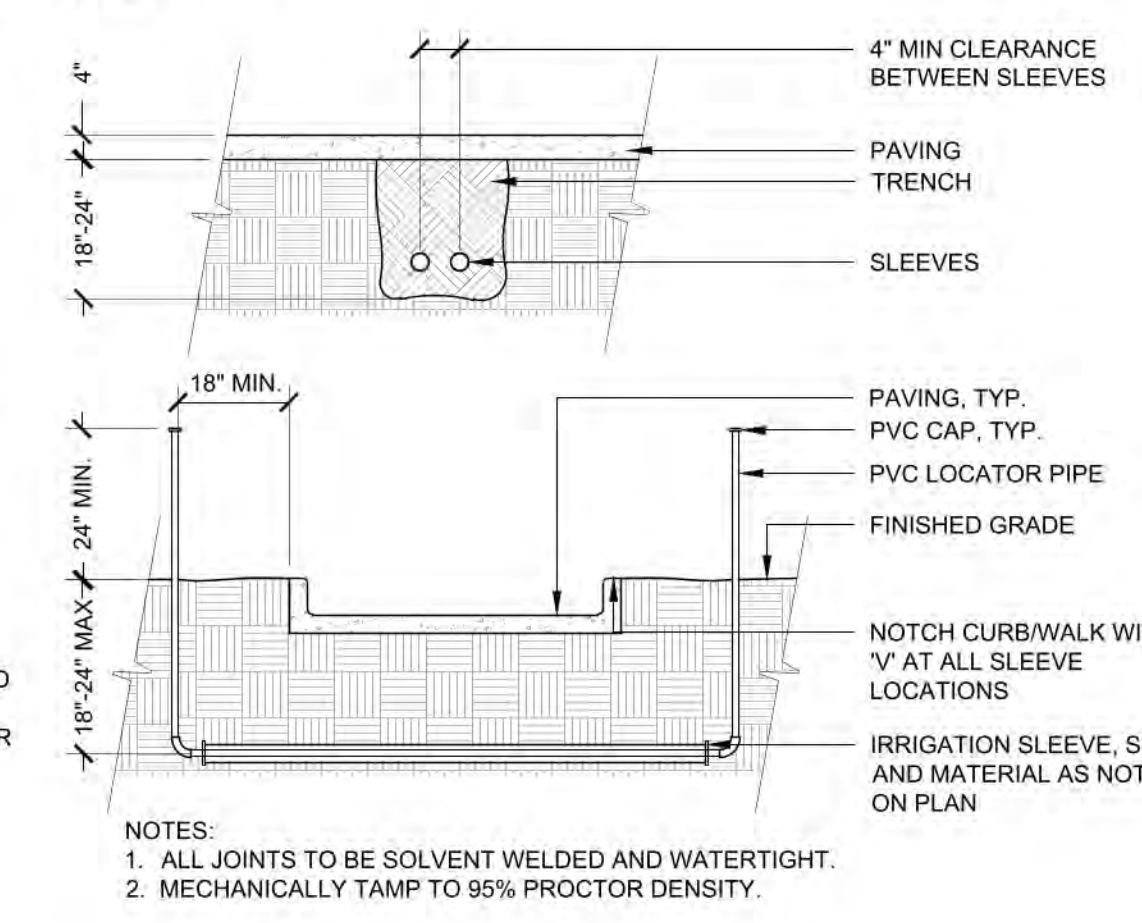
**6 GATE VALVE UNDER 3"**  
1" = 1'-0"  
328406.33-90



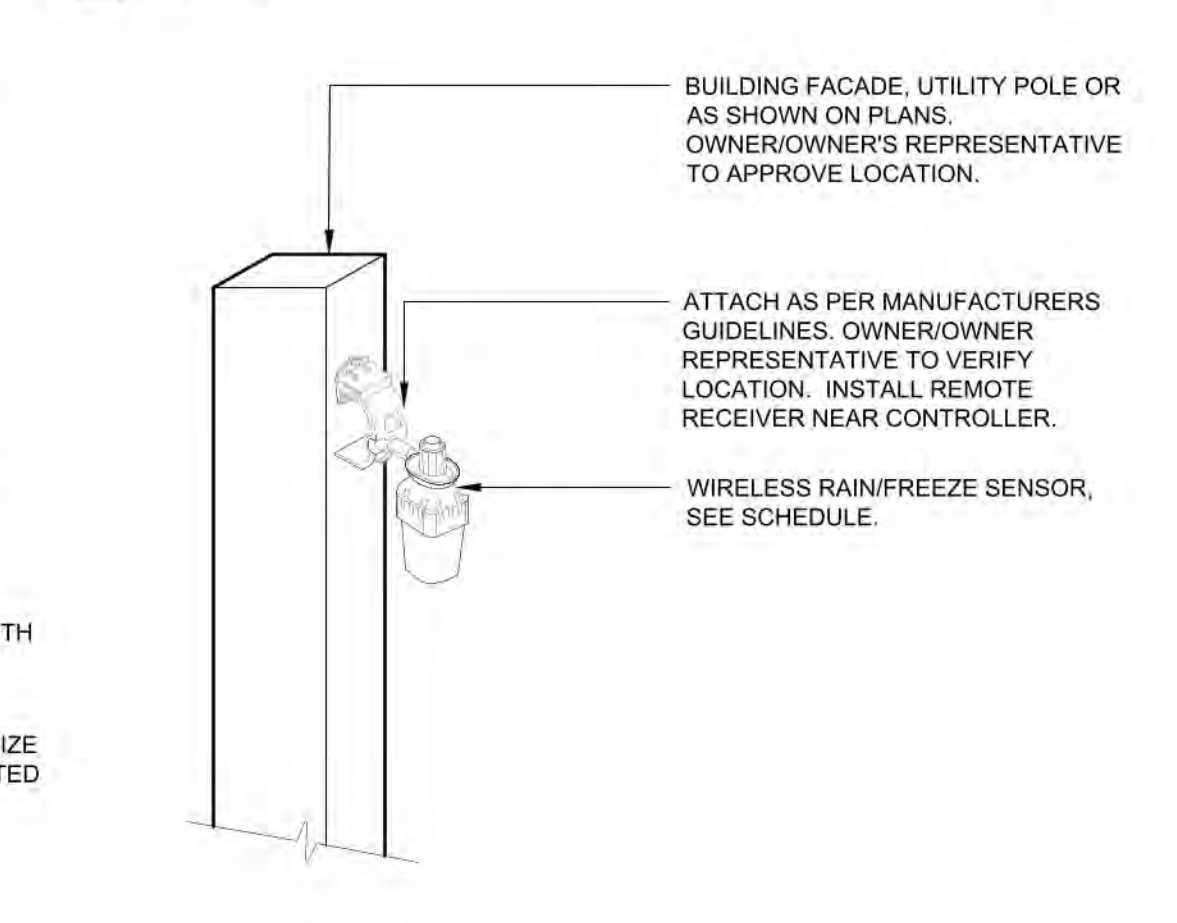
**7 TRENCH DETAIL**  
1 1/2" = 1'-0"  
328409.76-103



**8 TRENCH DETAIL**  
1 1/2" = 1'-0"  
328409.76-103



**9 SLEEVING**  
3/8" = 1'-0"  
328409.66-13



**11 WIRELESS RAIN/FREEZE SENSOR**  
3/4" = 1'-0"  
328409.66-13



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9 OF 9

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