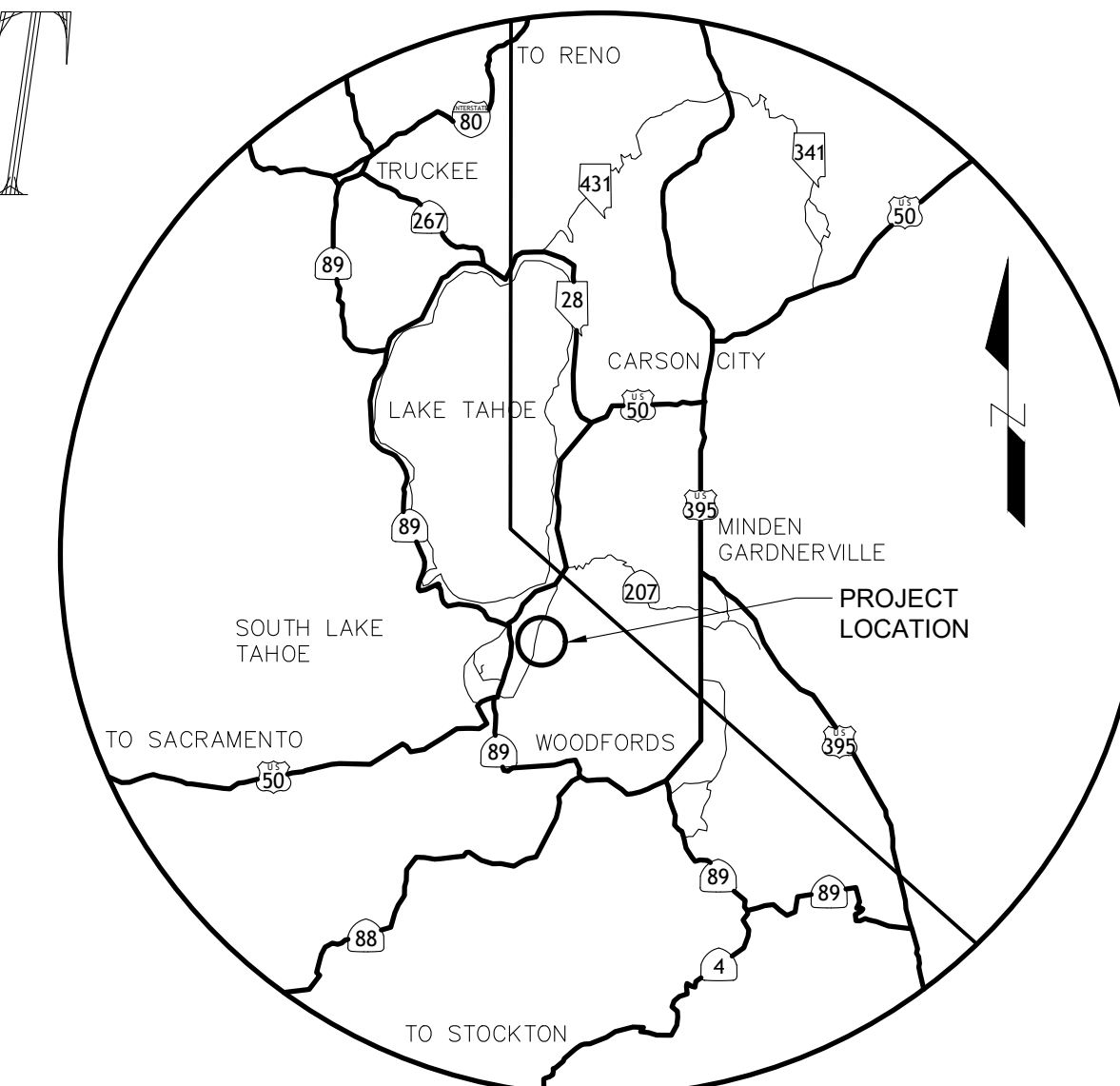
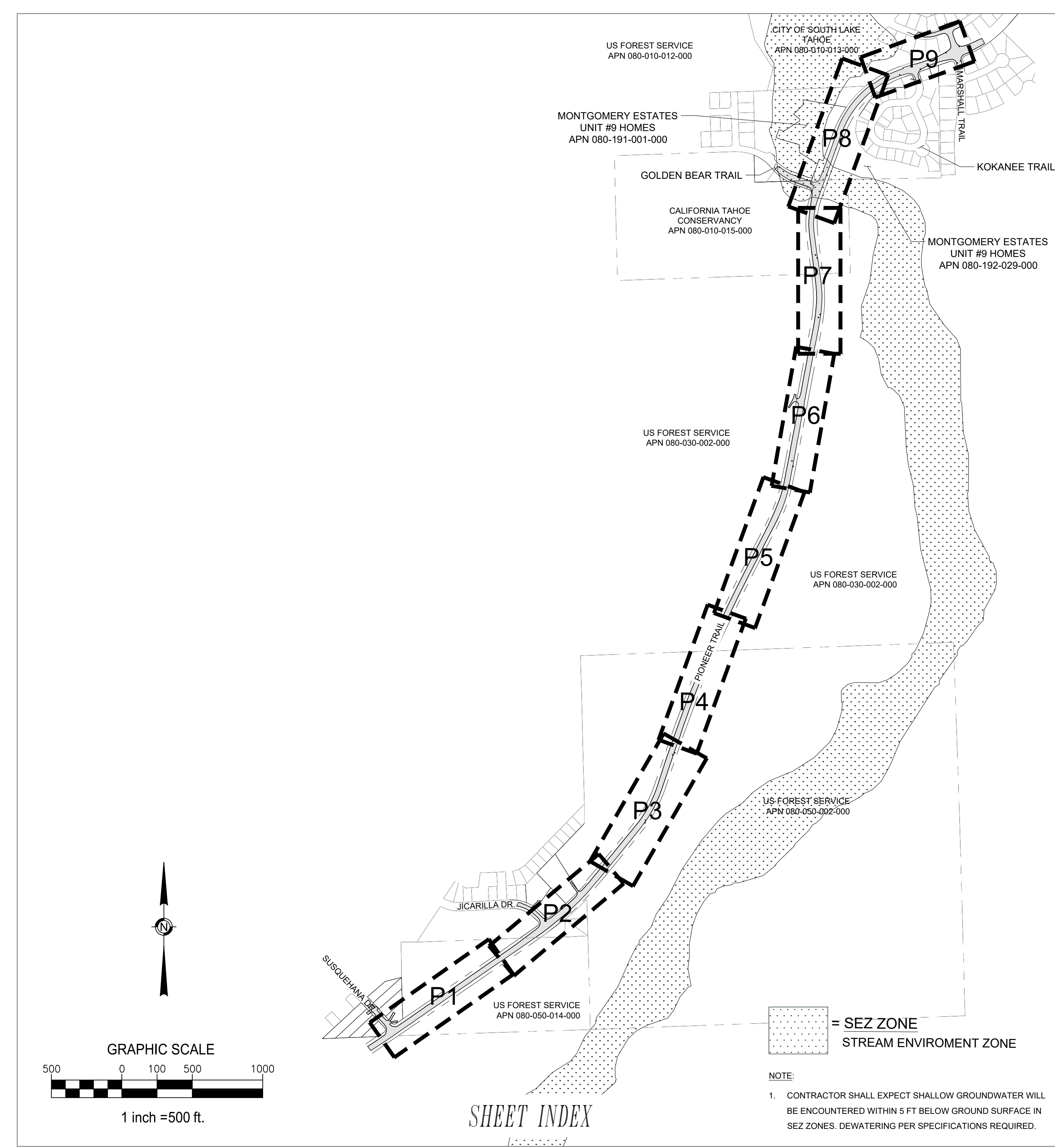


2026 PIONEER TRAIL WATERLINE PROJECT (REBID)

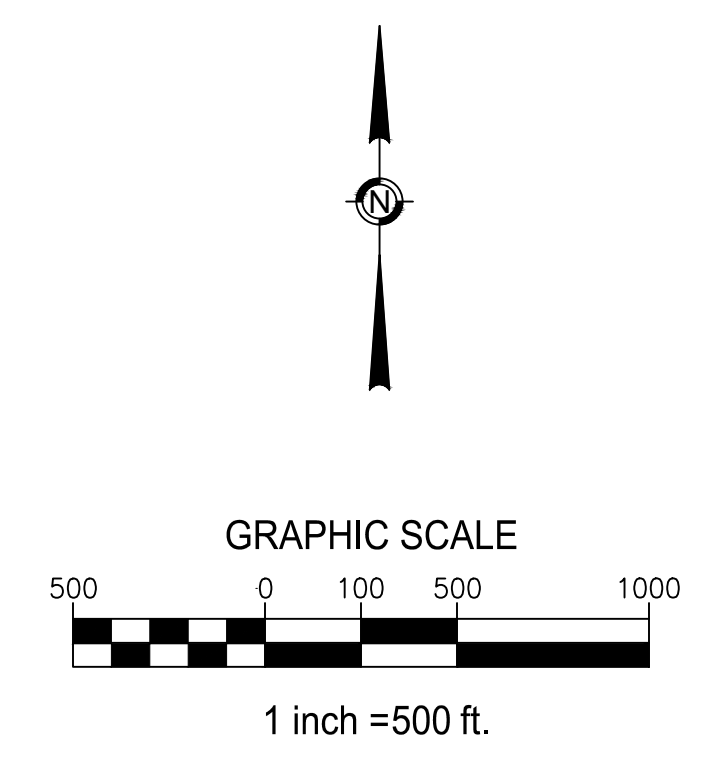
SOUTH TAHOE PUBLIC UTILITY DISTRICT



VICINITY MAP



SHEET INDEX



BOARD OF DIRECTORS
SOUTH TAHOE PUBLIC UTILITY DISTRICT

DIRECTORS
NICK HAVEN
JOEL HENDERSON
KELLY SHEEHAN
SHANE ROMSOS
NICK EXLINE

GENERAL MANAGER
PAUL HUGHES

| SHEET | TITLE |
|-------|--|
| G1 | COVER |
| G2 | GENERAL NOTES |
| G3 | STAGING AREAS |
| P1 | PLAN SHEET - STA 10+00 TO 20+00 |
| P2 | PLAN SHEET - STA 20+00 TO 30+00 |
| P3 | PLAN SHEET - STA 30+00 TO 40+00 |
| P4 | PLAN SHEET - STA 40+00 TO 50+00 |
| P5 | PLAN SHEET - STA 50+00 TO 60+00 |
| P6 | PLAN SHEET - STA 60+00 TO 70+00 |
| P7 | PLAN SHEET - STA 70+00 TO 80+00 |
| P8 | PLAN SHEET - STA 80+00 TO 90+00 |
| P9 | PLAN SHEET - STA 90+00 TO 97+25 |
| D1 | DETAILS |
| D2 | DETAILS |
| D3 | DETAILS |
| D4 | DETAILS |
| D5 | DETAILS |
| PRV1 | SUSQUEHANA PRV |
| PRV2 | JICARILLA PRV |
| PRV3 | GOLDEN BEAR PRV |
| E1 | ELECTRICAL |
| E2 | ELECTRICAL |
| E3 | ELECTRICAL |
| E4 | ELECTRICAL |
| I1 | INSTRUMENTATION |
| I2 | INSTRUMENTATION |
| I3 | INSTRUMENTATION |
| I4 | INSTRUMENTATION |
| TC1 | CALTRANS STANDARD PLANS - T9 |
| TC2 | CALTRANS STANDARD PLANS - T13 |
| TC3 | CALTRANS STANDARD PLANS - T13B |
| B1 | EROSION CONTROL PLAN - BLACK BART STAGING AREA |
| B2 | EROSION CONTROL PLAN - BONE YARD STAGING AREA |
| B3 | EROSION CONTROL PLAN - STA 10+00 TO 30+00 |
| B4 | EROSION CONTROL PLAN - STA 30+00 TO 50+00 |
| B5 | EROSION CONTROL PLAN - STA 50+00 TO 70+00 |
| B6 | EROSION CONTROL PLAN - STA 70+00 TO 90+00 |
| B7 | EROSION CONTROL PLAN - STA 90+00 TO 96+25 |

2026 PIONEER TRAIL WATERLINE PROJECT (REBID) COVER SHEET



DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

G1
1 OF 38
SHEETS

SOUTH TAHOE PUBLIC UTILITY DISTRICT
A PUBLIC AGENCY
1275 Meadow Crest Drive, South Lake Tahoe, California 96150
Phone (530) 544-6474 Fax (530) 544-4379
WWW.STPUD.US

ABBREVIATIONS

| | | | |
|----------|-------------------------------------|-------|---------------------------|
| AB | AGGREGATE BASE | V, VO | VERTICAL, VERTICAL OFFSET |
| AC | ASPHALT CONCRETE | VAR | VARIES |
| AC | ASBESTOS CEMENT | W | WATER |
| APPX | APPROXIMATELY | W/ | WITH |
| AVE | AVENUE | W/CL | WEST OF CENTERLINE |
| BGS | BELOW GROUND SURFACE | WL | WATERLINE |
| BF | BUTTERFLY | WM | WATER METER |
| C&G | CURB AND GUTTER | WS | WATER SERVICE |
| CF | CUBIC FEET | WV | WATER VALVE |
| CL | CENTERLINE | XING | CROSSING |
| CPLG | COUPLING | YD | YARD |
| CTC | CALIFORNIA TAHOE CONSERVANCY | | |
| CTS | COPPER TUBING SIZE | | |
| CSLT | CITY OF SOUTH LAKE TAHOE | | |
| DI | DROP INLET | | |
| DIA | DIAMETER | | |
| DIP | DUCTILE IRON PIPE | | |
| DW | DRIVE WAY | | |
| E | EXISTING | | |
| E/CL | EAST OF CENTERLINE | | |
| EA | EACH | | |
| ELEC | ELECTRIC | | |
| ELEV | ELEVATION | | |
| ELL | ELBOW | | |
| EOP | EDGE OF PAVEMENT | | |
| FG | FINISHED GRADE | | |
| FH | FIRE HYDRANT | | |
| FI | FLUSH INLET | | |
| FL | FLOW LINE | | |
| FL | FLANGE | | |
| FM | FORCE MAIN | | |
| G | GAS | | |
| GA | GAUGE | | |
| GALV | GALVANIZED | | |
| GB | GRADE BREAK | | |
| GPM | GALLONS PER MINUTE | | |
| GS | GAS SERVICE, GROUND SHOT | | |
| H | HEIGHT | | |
| HORZ, HO | HORIZONTAL, HORIZONTAL OFFSET | | |
| HWY | HIGHWAY | | |
| ID | INSIDE DIAMETER | | |
| IE | INVERT ELEVATION | | |
| INV | INVERT | | |
| IPS | IRON PIPE SIZE | | |
| JT | JOINT | | |
| L | LENGTH | | |
| LF | LINEAR FEET | | |
| LN | LANE | | |
| LOC | LOCATION | | |
| LT | LEFT | | |
| MAX | MAXIMUM | | |
| MECH | MECHANICAL | | |
| MFR | MANUFACTURER | | |
| MH | MANHOLE | | |
| MJ | MECHANICAL JOINT | | |
| MIN | MINIMUM | | |
| N/CL | NORTH OF CENTERLINE | | |
| N | NORTH/NEW | | |
| NA | NOT APPLICABLE | | |
| NIC | NOT IN CONTRACT | | |
| NO | NORMALLY OPEN | | |
| NTS | NOT TO SCALE | | |
| OC | ON CENTER | | |
| OD | OUTSIDE DIAMETER | | |
| OS | OFFSET | | |
| PCC | PORTLAND CEMENT CONCRETE | | |
| PE, POLY | POLYETHYLENE | | |
| P | PROPOSED, PROVIDE | | |
| PL | PROPERTY LINE | | |
| PP | POWER POLE | | |
| PSF | POUNDS PER SQUARE FOOT | | |
| PSI | POUNDS PER SQUARE INCH | | |
| PTW | PIPE TRACER WIRE | | |
| PVC | POLYVINYL CHLORIDE | | |
| QTY | QUANTITY | | |
| R | RADIUS | | |
| RCP | REINFORCED CONCRETE PIPE | | |
| REF | REFERENCE | | |
| REQ'D | REQUIRED | | |
| REVEG | REVEGETATION | | |
| RJ | RESTRAINED JOINT | | |
| RT | RIGHT | | |
| ROW | RIGHT-OF-WAY | | |
| S/CL | SOUTH OF CENTERLINE | | |
| SCH | SCHEDULE | | |
| SD | STORM DRAIN | | |
| SDMH | STORM DRAIN MANHOLE | | |
| SEZ | STREAM ENVIRONMENT ZONE | | |
| SQ FT | SQUARE FOOT | | |
| SHT | SHEET | | |
| SPEC | SPECIFICATIONS | | |
| SQ | SQUARE | | |
| SS | SANITARY SEWER, STAINLESS STEEL | | |
| SSL | SANITARY SEWER LATERAL | | |
| SSMH | SANITARY SEWER MANHOLE | | |
| ST | STREET | | |
| STA | STATION | | |
| STD | STANDARD | | |
| STL | STEEL | | |
| STPJUD | SOUTH TAHOE PUBLIC UTILITY DISTRICT | | |
| STR | STRUCTURE | | |
| SVC | SERVICE | | |
| TEL | TELEPHONE | | |
| TAN | TANGENT | | |
| TBC | TOP BACK CURB | | |
| TBD | TO BE DETERMINED | | |
| TEMP | TEMPORARY | | |
| TG | TOP OF GRATE | | |
| TOP | TOP OF PIPE | | |
| TR | TOP OF RIM | | |
| TRPA | TAHOE REGIONAL PLANNING AGENCY | | |
| TYP | TYPICAL | | |
| UG | UNDERGROUND | | |
| UNK | UNKNOWN | | |
| USFS | U.S. FOREST SERVICE | | |
| UTIL | UTILITY | | |

LEGEND

EXISTING:

| | |
|--------------------|--|
| EDGE OF PAVEMENT: | |
| SEWER FORCE MAIN: | |
| SEWER: | |
| WATER: | |
| GAS: | |
| OVERHEAD UTILITY: | |
| TELEPHONE: | |
| CABLE TV: | |
| STORM DRAIN: | |
| PROPERTY LINE: | |
| RIGHT-OF-WAY: | |
| WATER & GAS VALVE: | |
| WATER METER PIT: | |
| FIRE HYDRANT: | |
| MANHOLE: | |
| UTILITY VAULT: | |
| DROP INLET: | |
| SIGN: | |
| LIGHT: | |
| TREE: | |
| BOULDER: | |
| TELEPHONE POLE: | |
| GUY WIRE: | |

PROPOSED:

| | |
|--------------------------------------|--|
| WATER MAIN LINE: | |
| SVC & FH LINES: | |
| 90° ELBOW: | |
| 45° ELBOW: | |
| 11° ELBOW: | |
| TEE: | |
| CROSS: | |
| REDUCER: | |
| WATER VALVE: | |
| FIRE HYDRANT: | |
| THRUST BLOCK: | |
| BLOW OFF: | |
| FLEX COUPLING: | |
| CUT AND CAP: | |
| BEGIN/END VERTICAL OFFSET: | |
| WATER SERVICE & METER PIT: | |
| DOUBLE WATER SERVICE & 2 METER PITS: | |
| LIMITS OF (E) PAVEMENT | |

GENERAL NOTES

- THE FOLLOWING GENERAL NOTES ARE GENERAL AND APPLY TO ALL SHEETS OF THESE CONTRACT DOCUMENTS AS IF THEY WERE WRITTEN IN THEIR ENTIRETY ON EACH SHEET.
- CONTRACTOR SHALL HAVE SIGNED PLANS, SPECIFICATION AND PERMITS IN THEIR POSSESSION PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES, LOCAL AGENCIES AND/OR UTILITY DISTRICTS AS TO THE LOCATION OF ALL UNDERGROUND FACILITIES, LOCATION AND DEPTH OF EXISTING UTILITIES WHERE SHOWN ON PLANS ARE BASED ON AVAILABLE RECORDS OR ELECTRONIC FILES INFORMATION. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR FACILITIES AND UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. NO GUARANTEE IS MADE AS TO THE ACCURACY OF THIS INFORMATION OR THAT ALL UTILITIES ARE SHOWN. THE CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, SIZES, MATERIAL TYPES, AND ELEVATIONS SHOWN AROUND OR NEAR AREAS OF NEW CONSTRUCTION PRIOR TO START OF CONSTRUCTION. IT SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO LOCATE, PROTECT, AND MAINTAIN ALL EXISTING UTILITIES. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACTOR SHALL NOTIFY MEMBERS OF UNDERGROUND SERVICE ALERT 48 HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK BY CALLING UNDERGROUND SERVICE ALERT 811. EXCAVATION IS DEFINED AS BEING 18 OR MORE INCHES OF DEPTH BELOW THE EXISTING SURFACE.
- CONTRACTOR TO BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND ANY OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A CALIFORNIA LICENSED SURVEYOR AT CONTRACTOR'S EXPENSE.
- PRIOR TO CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL SUBMIT TO THE DISTRICT, FOR ACCEPTANCE BY THE GOVERNING AGENCY, A PROJECT SPECIFIC TRAFFIC CONTROL PLAN FOR HANDLING TRAFFIC THROUGH THE PROJECT SITE. ALL TRAFFIC CONTROL MEASURES SHALL MEET OR EXCEED THE REQUIREMENTS OUTLINED IN THE STATE OF CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2014). ALL ADVANCE WARNING SIGNS SHALL BE A 48" BY 48" MINIMUM. A FLAGGER SHALL BE LOCATED FAR ENOUGH IN ADVANCE OF THE WORK AREA AS TO SLOW OR STOP TRAFFIC THROUGH THE WORK AREA. ALL PORTABLE DELINEATORS SHALL BE PLACED A MAXIMUM OF 20 FEET APART.
- UNLESS OTHERWISE INDICATED IN THE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL ABIDE BY THE FOLLOWING TRAFFIC CONDITIONS. CONTRACTOR SHALL MAINTAIN THE CONTINUOUS FLOW OF TRAFFIC AT ALL TIMES DURING CONSTRUCTION ACTIVITY. AFTER WORKING HOURS ALL TRAFFIC BARRIERS SHALL BE REMOVED AND TRAFFIC RETURNED TO NORMAL.
- UNLESS DETAILED, SPECIFIED, OR OTHERWISE INDICATED ON THE DRAWINGS, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS SHALL APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS ON THE DRAWINGS.
- WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF WORK, DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGING EXISTING FACILITIES AND UTILITIES SHOWN OR NOT SHOWN THAT ARE TO REMAIN IN PLACE. ALL FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE ORIGINAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL REMOVE ALL MATERIAL GENERATED BY ANY ASPHALT SAW CUTTING OPERATION DURING OR IMMEDIATELY AFTER SAWCUTTING BY USING ADEQUATELY SIZED VACUUMING EQUIPMENT TO ACCOMMODATE THE REMOVAL PROCESS.
- CONTRACTORS EQUIPMENT AND EMPLOYEE VEHICLES SHALL PARK ON EXISTING PAVED SURFACES OR EXISTING COMPACTED ROAD SHOULDERS. NO PARKING OFF PAVED SURFACES WHEN COVERED WITH SNOW OR MUDDY CONDITIONS EXIST. NO EQUIPMENT OR VEHICLES SHALL BE PLACED OUTSIDE THE STATE, CITY, OR COUNTY RIGHT OF WAY. ANY DISTURBANCE OF PRIVATE PROPERTY SHALL BE RESTORED BY THE CONTRACTOR AT THEIR EXPENSE.
- ALL SEWER PIPES DAMAGED DURING THE EXECUTION OF THE PROJECT SHALL BE REPAIRED PER DETAILS.
- CONTRACTOR SHALL EXPECT SHALLOW GROUNDWATER TO BE ENCOUNTERED WITHIN 5 FEET BELOW GROUND SURFACE IN SEZ AREAS, AS DEPICTED ON SHEET INDEX MAP (SHT G1). DEWATERING PER SPECIFICATIONS REQUIRED.
- WORK SHALL BE IN CONFORMANCE WITH THE ENCROACHMENT PERMIT ISSUED BY THE CITY OF SOUTH LAKE TAHOE. NO WORK SHALL OCCUR ON SATURDAYS OR SUNDAYS OR HOLIDAYS WITHOUT WRITTEN PERMISSION FROM THE DISTRICT AND THE CITY OF SOUTH LAKE TAHOE.
- ALL EXCAVATIONS SHALL BE BACKFILLED OR TRENCH PLATED AT THE END OF EACH DAY'S WORK PER THE SPECIFICATIONS. EXCAVATIONS WITHIN EXISTING PAVED AREAS SHALL BE HOT PATCHED AS REQUIRED PER SPECIFICATIONS TO MATCH THE EXISTING PAVEMENT AT THE END OF EACH DAY'S WORK. ALL TRENCH PLATES SHALL BE NON-SKID TYPE AND HAVE COLD PATCH APPLIED TO THE EDGE FOR TRAFFIC APPROACH AND DEPARTURE.
- ALL SIGNAGE REMOVED OR DAMAGED SHALL BE REPLACED TO CURRENT STANDARDS.
- THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS IN THE VICINITY OF ANY OVERHEAD ELECTRICAL LINES. CONTRACTOR SHALL ABIDE BY THE NATIONAL ELECTRIC CODE AND ANY REQUIREMENT BY THE OWNER OF THE ELECTRIC LINES.
- THE CONTRACTOR SHALL PROVIDE ALL SHEETING AND SHORING REQUIRED TO PROTECT EXISTING STRUCTURES, PIPES, AND FACILITIES.
- A MINIMUM HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER. WHERE WATER MAINS MUST CROSS SANITARY SEWER, NO PIPE JOINTS SHALL BE PLACED WITHIN 10 FEET OF THAT CROSSING WHERE IT IS IMPRACTICAL TO MAINTAIN THE MINIMUM CLEARANCE. WRITTEN DIRECTION WILL BE PROVIDED BY THE DISTRICT ENGINEER.
- MAINTAIN 1' VERTICAL CLEARANCE FROM ALL GAS MAINS.

BMP GENERAL NOTES

- ON-SITE WORK SHALL BE PERFORMED FROM 8 AM TO 6 PM, MONDAY THROUGH FRIDAY. WORK OUTSIDE THESE HOURS MUST BE APPROVED BY THE DISTRICT AND COUNTY A MINIMUM OF 48-HOURS BEFORE THE ABNORMAL WORKING HOURS ARE SCHEDULED TO BEGIN.
- THE CONTRACTOR SHALL COMPLY WITH THE TAHOE REGIONAL PLANNING AGENCY (TRPA) STANDARD CONDITIONS OF APPROVAL (ATTACHMENT Q). A PRE-GRADE INSPECTION SHALL BE COMPLETED PRIOR TO ANY SAWCUTTING OR EXCAVATION ACTIVITIES.
- THE CONTRACTOR SHALL COMPLY WITH THE STATE WATER QUALITY CONTROL BOARD WASTE DISCHARGE REQUIREMENTS FOR THIS PROJECT AND THE CITY OF SOUTH LAKE TAHOE'S OR THE ELDO RADO COUNTY'S ENCROACHMENT PERMIT.
- NOISE SHALL BE REDUCED BY MANDATORY USE OF MUFFLERS ON ALL CONSTRUCTION VEHICLES AND EQUIPMENT. WHERE FEASIBLE, SOLENOID PAVEMENT BREAKERS WILL BE USED IN LIEU OF AIR POWERED JACK HAMMERS.
- NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
- THE CONTRACTOR SHALL APPLY EITHER WATER OR DUST PALLIATIVE OR BOTH, AS REQUIRED AT THE OPTION OF THE OWNER OR HIS REPRESENTATIVE, FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE.
- CONTRACTOR SHALL PROVIDE A VACUUM SWEEPER TRUCK FOR CLEANING OF THE SITE DURING AND AFTER CONSTRUCTION EACH DAY AS REQUIRED TO PREVENT SEDIMENT RUN OFF AND TO AID IN DUST CONTROL.
- CONTRACTOR SHALL PROVIDE CRUSHED ROCK IN AREAS OF TEMPORARY CONSTRUCTION ACCESS TO MINIMIZE MIGRATION OF SEDIMENT.
- ALL DISTURBED AREAS SHALL BE RESTORED TO MATCH PRE-EXISTING CONDITIONS. UNIMPROVED AREAS AND AREAS NOT LANDSCAPED SHALL BE REVEGETATED WITH NATIVE SPECIES PER TRPA BEST MANAGEMENT PRACTICES (BMP). EXISTING VEGETATION REMOVED DURING CONSTRUCTION SHALL BE CHIPPED AND MULCHED ON SITE AND STORED FOR USE DURING REVEGETATION.
- ALL TREES IN JEOPARDY OF DAMAGE BY CONSTRUCTION ACTIVITIES AS DETERMINED BY THE DISTRICT SHALL BE PROTECTED PER DETAIL 4 ON PAGE D4.
- SOIL AND CONSTRUCTION MATERIAL SHALL NOT BE TRACKED OFF THE CONSTRUCTION SITE. GRADING OPERATIONS SHALL CEASE IN THE EVENT THAT DANGER OF VIOLATING THIS CONDITION EXISTS.
- DURING CONSTRUCTION, ENVIRONMENTAL PROTECTION DEVICES, SUCH AS EROSION CONTROL, DUST CONTROL AND VEGETATION PROTECTION DEVICES SHALL BE MAINTAINED AT ALL TIMES.
- LOOSE SOIL MOUNDS OR SURFACES SHALL BE PROTECTED FROM WIND OR WATER EROSION BY BEING APPROPRIATELY COVERED AT THE END OF EACH WORK DAY OR WHEN REQUIRED BY TRPA.
- ALL EXCESS MATERIAL FROM THE PROJECT IS TO BE REMOVED FROM THE SITE AND DISPOSED OF AT A SITE APPROVED BY THE TAHOE REGIONAL PLANNING AGENCY. NO EXCESS MATERIAL SHALL BE STORED ON SITE AFTER HOURS.
- EXCAVATED MATERIAL SHALL BE STORED UPGRADE FROM THE EXCAVATED AREA WHENEVER POSSIBLE. NO MATERIAL SHALL BE STORED IN ANY STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA.
- ONLY EQUIPMENT OF A SIZE AND TYPE THAT WILL DO THE LEAST AMOUNT OF DAMAGE, UNDER PREVAILING SITE CONDITIONS AND CONSIDERING THE NATURE OF THE WORK TO BE PERFORMED, WILL BE USED.
- NO WASHING OF VEHICLES OR HEAVY EQUIPMENT, INCLUDING CEMENT MIXERS, SHALL BE PERMITTED ANYWHERE ON THE SUBJECT PROPERTY UNLESS AUTHORIZED BY TRPA IN WRITING.
- NO VEHICLE OR HEAVY EQUIPMENT SHALL BE ALLOWED IN A STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA EXCEPT AS AUTHORIZED BY TRPA.
- THE CONTRACTOR SHALL PROTECT AND BE RESPONSIBLE FOR ANY DISTURBANCE OR CONTAMINATION TO ANY DRY WELLS, STORM WATER COLLECTION OR RETAINAGE SYSTEMS INCLUDING STORM DRAIN PIPE, CURB & GUTTER, VALLEY GUTTERS AND HORIZONTAL DRAINS THROUGH OUT THE PROJECT AREA. ANY DAMAGE SHALL BE REPAIRED AT NO ADDITIONAL COST TO DISTRICT. THE CONTRACTOR SHALL NOT STOCK PILE ANY MATERIAL UPON ANY DRAINAGE FACILITIES.
- ALL CONSTRUCTION SHALL BE WINTERIZED BY OCTOBER 15 TO REDUCE THE WATER QUALITY IMPACTS ASSOCIATED WITH WINTER WEATHER AS FOLLOWS:
 - FOR THE SITES THAT WILL BE INACTIVE BETWEEN OCTOBER 15 AND MAY 1:
 - TEMPORARY EROSION CONTROLS SHALL BE INSTALLED
 - TEMPORARY VEGETATION PROTECTION FENCING SHALL BE INSTALLED
 - DISTURBED AREAS SHALL BE STABILIZED
 - ONSITE CONSTRUCTION SLASH AND DEBRIS SHALL BE CLEANED UP AND REMOVED
 - WHERE FEASIBLE, MECHANICAL STABILIZATION AND DRAINAGE IMPROVEMENTS SHALL BE INSTALLED
 - SPOIL PILES SHALL BE REMOVED FROM THE SITE
 - FOR THE SITES THAT WILL BE ACTIVE BETWEEN OCTOBER 15 AND MAY 1, IN ADDITION TO THE ABOVE REQUIREMENTS:
 - PERMANENT MECHANICAL EROSION CONTROL DEVICES SHALL BE INSTALLED, INCLUDING PAVING OF THE DRIVEWAYS AND PARKING AREAS.
 - PARKING OF VEHICLES AND STORAGE OF BUILDING MATERIALS SHALL BE RESTRICTED TO PAVED AREAS.
 - ALL WORK PERFORMED DURING THIS PERIOD MUST BE PERFORMED SO THAT THE PROJECT CAN BE WINTERIZED WITHIN 12 HOURS OF DIRECTION TO DO SO.

WATERLINE GENERAL NOTES

- THE CONTRACTOR SHALL POTHOLE ALL UTILITY AND STORM DRAIN CROSSINGS ALONG THE PIPELINE ALIGNMENT IN ADVANCE OF INSTALLATION. THE CONTRACTOR SHALL REPORT THE RESULTS OF THE POTHOLE IN WRITING TO THE ENGINEER 48 HOURS (NOT TO INCLUDE WEEKENDS OR HOLIDAYS) PRIOR TO UNDERTAKING ANY CORRECTIVE ACTION REGARDING FACILITY LOCATION OR ALIGNMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SHOULD ANY CORRECTIVE WORK BE REQUIRED. THE DISTRICT ASSUMES NO LIABILITY FOR THE COSTS INCURRED FOR THIS WORK.
- ALL INTERTIES BETWEEN NEW WATER MAINS AND THE EXISTING WATER SYSTEM, INCLUDING NEW WATER SERVICE CONNECTIONS, AND FIRE HYDRANT INSTALLATIONS AND TRANSFERS, SHALL ONLY BE MADE AFTER ALL PRESSURE TESTING AND DISINFECTION REQUIREMENTS ARE SATISFACTORILY MET. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL BLOW OFFS NECESSARY FOR FLUSHING AND SAMPLING OF ALL NEW WATER MAINS ACCORDING TO DETAIL 2 ON SHEET D3 AND AS REQUIRED BY THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND PROJECT SPECIFICATIONS.
- WHERE NEW WATER MAINS ARE BEING INSTALLED IN PAVED SECTIONS, THE MAXIMUM WIDTH FOR ASPHALT REPLACEMENT THAT THE CONTRACTOR SHALL BE COMPENSATED FOR IS THE MAXIMUM CLEAR TRENCH WIDTH FOR THE PIPELINE SIZE BEING INSTALLED PLUS TWENTY FOUR INCHES (24"), AS PROVIDED IN THE CONTRACT SPECIFICATIONS. THE CONTRACTOR SHALL REPLACE ALL TRAFFIC STRIPING THAT IS DISTURBED DURING CONSTRUCTION.
- ALL EXCAVATIONS SHALL BE BACKFILLED OR TRENCH PLATED AT THE END OF EACH DAY'S WORK PER THE SPECIFICATIONS. EXCAVATIONS WITHIN EXISTING PAVED AREAS SHALL BE COLD PATCHED AS REQUIRED PER SPECIFICATIONS TO MATCH THE EXISTING PAVEMENT AT THE END OF EACH DAY'S WORK. ALL TRENCH PLATES SHALL BE NON-SKID TYPE AND HAVE COLD PATCH APPLIED TO THE EDGE FOR TRAFFIC APPROACH AND DEPARTURE.
- THE CONTRACTOR SHALL PROVIDE, ON ALL NON-CONDUCTIVE PIPING, CONTINUOUS INSULATED TRACER WIRE RATED FOR DIRECT BURY (#10 SOLID COPPER OR #12 COPPER CLAD STEEL) WIRE ALONG THE PIPELINE AND PROVIDE ACCESS TO TRACER WIRE AT ALL VALVE BOX INSTALLATIONS WITH A MINIMUM OF 1 FT EXCESS TRACER WIRE FOR FUTURE SERVICE CONNECTIONS. THIS SHALL ALSO APPLY TO ALL CONDUCTIVE PIPING UNLESS PERMANENTLY BONDED AT EACH JOINT. ALL TRACER WIRE CONNECTIONS SHALL BE MADE USING 3M DBR-6 SPLICE KIT OR APPROVED EQUAL.
- WHEN HOT TAPPING A WATER MAIN, CONTRACTOR SHALL EXCAVATE, SHORE AND SHIELD EXISTING WATER MAIN. CONTRACTOR SHALL PRESSURE TEST SADDLE AND GATE VALVE PRIOR TO HOT TAP. CONTRACTOR SHALL PROVIDE ACCESS AND TRAFFIC CONTROL FOR DISTRICT CREWS TO HOT TAP WATER MAIN. ALL HOT TAPS SHALL BE DONE TUESDAYS THRU THURSDAYS. CONTRACTOR SHALL REQUEST IN WRITING FORTY EIGHT (48) HOURS IN ADVANCED FOR DISTRICT CREWS TO PERFORM HOT TAP.
- AFTER THE NEW WATER MAIN IS PLACED INTO SERVICE, THE EXISTING WATER MAINS, WHERE SHOWN ON THE PROJECT DRAWINGS, ARE TO BE ABANDONED IN PLACE BY CUTTING OUT A SECTION OF PIPE AND WELDING A CAP ON THE END OF THE PIPELINE TO BE ABANDONED. A MECHANICAL JOINT CAP OR OTHER METHOD OF CAPPING APPROVED BY THE DISTRICT ENGINEER MAY BE USED IN LIEU OF WELDED CAP. AFTER THE PIPE TO BE ABANDONED HAS BEEN FILLED WITH SLURRY BACKFILL, AS DESCRIBED IN THE SPECIFICATIONS, BLIND-FLANGE CAPPING SHALL BE UTILIZED WHERE POSSIBLE. ALL EXPOSED CORPORATION STOPS ON THE EXISTING WATER MAINS ARE TO BE LEFT IN PLACE IN THE CLOSED POSITION. FOR CORPORATION STOPS THAT HAVE NOT BEEN EXPOSED, THE CAPPING OF THE END OF THE SERVICE LINE USING AN APPROVED COMPRESSION FITTING SHALL BE ACCEPTABLE. EXISTING FIRE HYDRANTS ARE TO BE ABANDONED AT THE ISOLATION VALVE AND REMOVED FROM THE PROJECT AREA AND RETURNED TO THE DISTRICT BY THE CONTRACTOR. THE ISOLATION VALVE IS TO BE BLIND FLANGED OR CAPPED BY OTHER APPROVED METHOD.
- ALL EXISTING WATER SERVICES FOR THIS PROJECT SHALL BE ABANDONED PER NOTE #7 AND DETAIL WS06 ON SHEET D2. ONLY NEW WATER SERVICE CONNECTIONS WHERE SHOWN ON THE PROJECT PLANS SHALL BE INSTALLED PER THE DISTRICTS STANDARD DETAILS AND PROJECT DRAWINGS. THE LOCATIONS OF ALL EXISTING WATER SERVICES SHALL BE VERIFIED AND MARKED IN THE FIELD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING AND PROPER DISPOSAL OF DISTRIBUTION SYSTEM WATER ENCOUNTERED DURING SYSTEM TIE-INS IN ACCORDANCE WITH THE SPECIFICATIONS. FOR THIS PROJECT, THE CONTRACTOR SHALL ASSUME THAT UP TO 3,000 GALLONS OF WATER WILL BE ENCOUNTERED AT EACH TIE-IN.

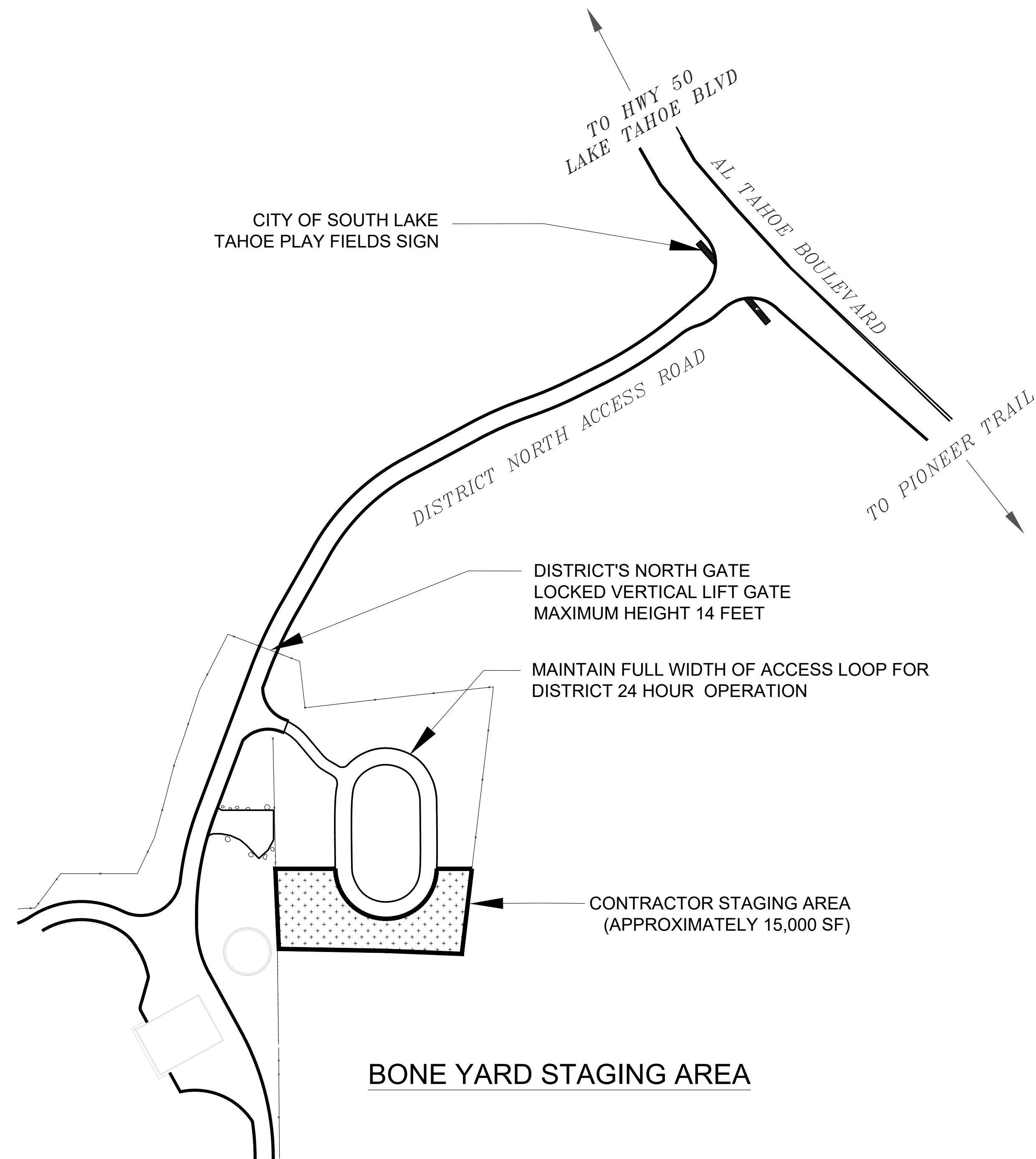
2026 PIONEER TRAIL WATERLINE PROJECT (REBID) GENERAL NOTES



| | |
|-----------|----------|
| DATE: | MAY 2026 |
| SCALE: | AS SHOWN |
| DRAWN: | AZ/TJ |
| DESIGN: | TC/TJ |
| AS BUILT: | |



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LOCATION DIRECTIONS:
FROM HIGHWAY 50/LAKE TAHOE BLVD OR PIONEER TRAIL, TAKE AL TAHOE BLVD TO THE NORTH GATE ACCESS ROAD

BONEYARD STAGING AREA NOTES:

- BONEYARD STAGING AREA MAY BE USED FOR STAGING MATERIALS AND EQUIPMENT PRIOR TO MOBILIZATION TO THE PROJECT SITE. STAGING MAY BEGIN ONCE SNOW HAS MELTED FROM THE STAGING AREA AND SATURATED CONDITIONS NO LONGER EXIST.
- ONCE CONTRACTOR HAS MOBILIZED TO THE PROJECT AREA, BONEYARD STAGING AREA TO ONLY BE USED FOR STAGING NEW AGGREGATE AND SOIL MATERIALS (NO PIPELINE MATERIALS OR EQUIPMENT TO BE STAGED IN THIS AREA, EQUIPMENT USED FOR LOADING AND PROCESSING MATERIALS IS OKAY). PROJECT EXCAVATED SOIL MATERIAL MAY BE STAGED IN THIS AREA IF IT IS BEING SCREENED TO BE REINSTALLED ON THE PROJECT.
- ALL EXCESS SPOILS ARE TO BE DISPOSED OF AT A TRPA APPROVED LOCATION, NO STORAGE OF SPOILS WHICH ARE NOT SCHEDULED TO BE REINSTALLED.
- NO DEBRIS, ASPHALT, ROOTS, TRASH, ETC WILL BE ALLOWED IN STAGING AREA.
- NO VEHICLE OR EQUIPMENT MAINTENANCE ALLOWED IN STAGING AREA. NO STORAGE OF FUEL, OIL, DEF, OR OTHER FLUIDS ALLOWED.
- USE OF BONEYARD STAGING AREA LIMITED TO BETWEEN MAY 1 AND OCTOBER 15. THIS STAGING AREA MUST BE COMPLETELY DEMOBILIZED AND CLEANED UP PRIOR TO OCTOBER 15.
- CONTRACTOR TO INSTALL BMPS CONSISTING OF FILTER FABRIC FENCE PER DETAIL 2 ON DS ON THE DOWNSLOPE SIDE OF STAGING AREA PRIOR TO STAGING OF ANY SOIL MATERIAL. BMPS ARE TO BE MAINTAINED THROUGHOUT THE USE OF THIS AREA.
- CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY CONVENIENCES AT ALL STAGING AREAS PER STPUD SPECS.



BLACK BART STAGING AREA

BLACK BART STAGING AREA NOTES:

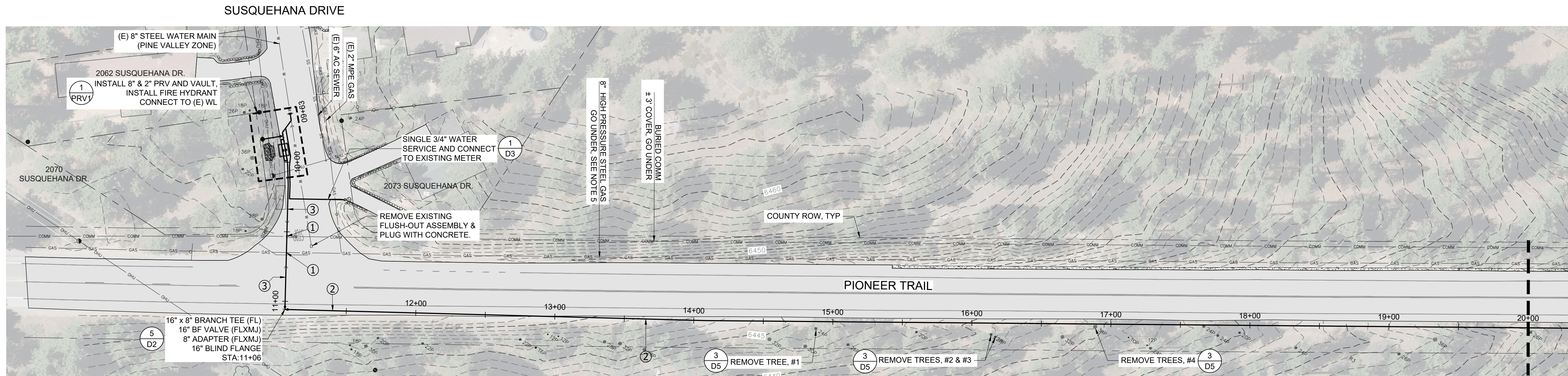
- NO MATERIAL HANDLING ALLOWED AT THIS LOCATION.

**2026 PIONEER TRAIL
 WATERLINE PROJECT (REBID)
 STAGING AREAS**



DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:

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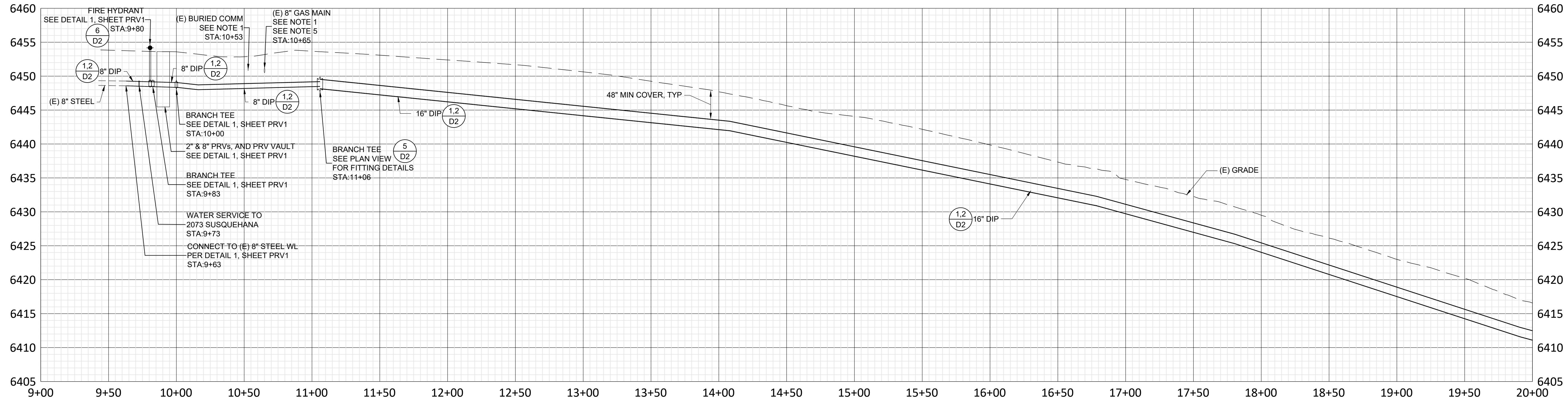
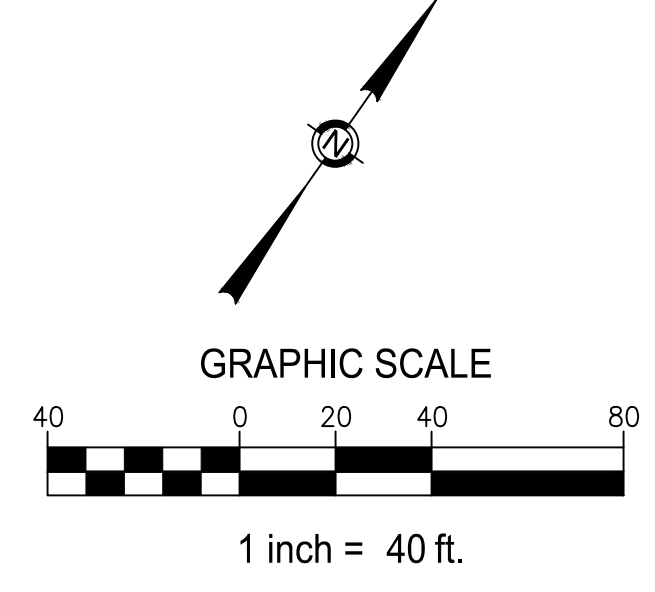
MATCHLINE 20+00 (SEE SHEET P2)

PLAN

SCALE: 1" = 40'

- NOTES:**
- LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR SHALL POTHOLE AND VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - CONTRACTOR SHALL PROVIDE TEST STATIONS (SAMPLE PORTS) PER DETAIL 2 OF SHEET D3 AT A MINIMUM OF EVERY 600' FOR PIPELINE DISINFECTION AND TESTING.
 - CONTRACTOR SHALL PROTECT EXISTING CURB AND GUTTER THROUGHOUT CONSTRUCTION. ANY CURB AND GUTTER THAT IS REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED PER EL DORADO COUNTY STANDARDS AS SHOWN BY DETAIL 3 OF SHEET D3.
 - CONTRACTOR SHALL COMPLY WITH CALIFORNIA DEPARTMENT OF DRINKING WATER STANDARDS FOR INSTALLATION OF NEW WATER MAINS. A FULL UNCUF STICK OF PIPE SHALL BE CENTERED ON ALL SEWER AND STORM DRAIN CROSSINGS WITH 1' MINIMUM CLEARANCE.
 - CONTRACTOR SHALL NOTIFY SOUTHWEST GAS A MINIMUM OF 72 HOURS IN ADVANCE DURING ALL WORK TO OCCUR WITHIN 5 FEET OF GAS UTILITIES. SOUTHWEST GAS IS REQUIRED TO BE ON STANDBY DURING EXCAVATIONS WITHIN 10 FEET OF HIGH-PRESSURE GAS UTILITIES AND/OR BORING ACTIVITIES WITHIN 10 FEET OF ALL GAS UTILITIES. CONTRACTOR SHALL HAND DIG WITHIN 2 FEET OF LOCATED GAS UTILITIES.
 - ALL MECHANICAL JOINT FITTINGS SHALL BE FULLY RESTRAINED PER DETAIL 3 ON SHEET D2.
 - DEFLECT PIPE AT JOINTS AS NECESSARY FOR INSTALLATION ON CURVES AND MINOR ALIGNMENT CHANGES. DEFLECTION AT EACH JOINT SHALL NOT EXCEED PIPE AND/OR FITTING MANUFACTURER'S RECOMMENDATION.

- KEYNOTES:**
- ① UTILITY CROSSING. PROVIDE VERTICAL OFFSET OF WATERLINE PER ④ D3 AS REQ'D. SEE NOTE 1 AND 4, THIS SHEET.
 - ② 16" DIP, PER ①.2 D2 ⑤ D1
 - ③ 8" DIP, PER ①.2 D2 ⑤ D1
 - ④ ④ D3 AS REQ'D.



PROFILE

SCALE: 1" = 40' (H)
1" = 8' (V)

**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
STA 10+00 TO 20+00**



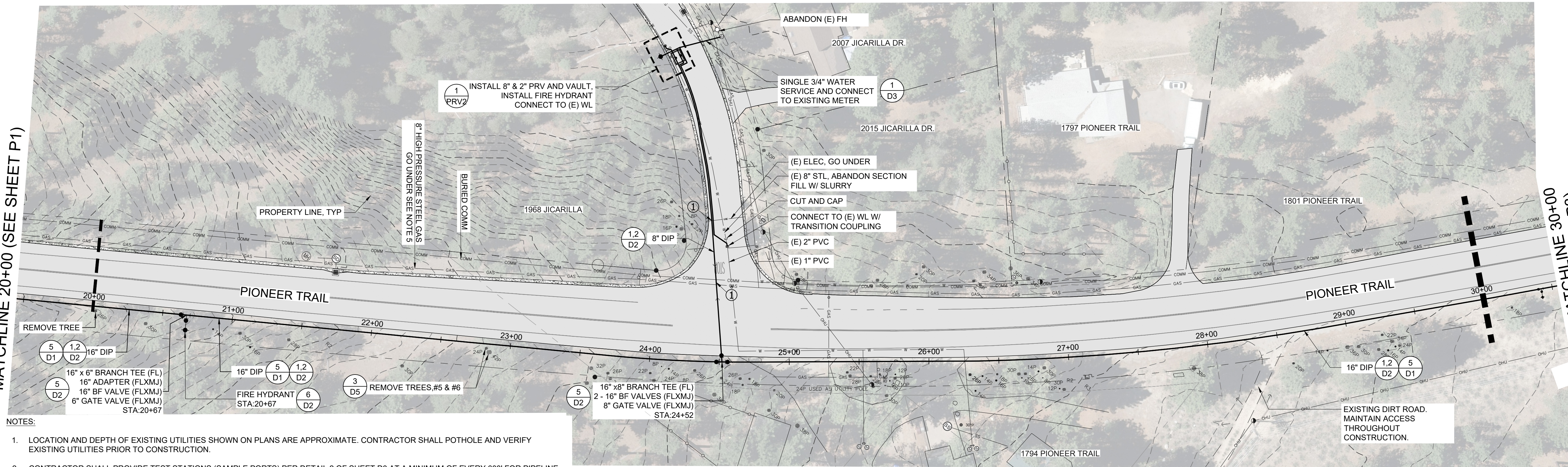
DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

P1
4 OF 38
SHEETS

SOUTH TAHOE PUBLIC UTILITY DISTRICT
 A PUBLIC AGENCY
 1275 Meadow Crest Drive South Lake Tahoe, California 96150
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 WWW.STPUD.US

MATCHLINE 20+00 (SEE SHEET P1)

MATCHLINE 30+00 (SEE SHEET P3)



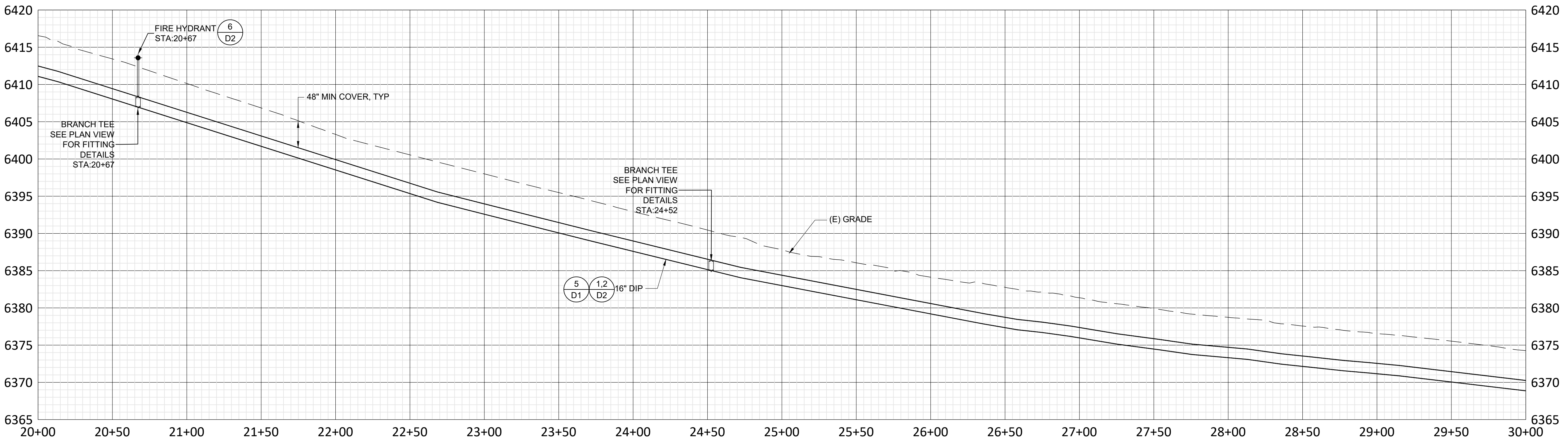
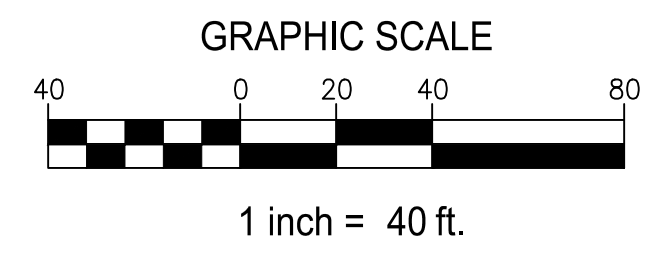
- NOTES:**
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 5. CONTRACTOR SHALL CONTACT SOUTHWEST GAS TO STANDBY DURING EXCAVATIONS THAT CROSS HIGH PRESSURE GAS UTILITIES AND/OR BORING ACTIVITIES WITHIN 10' OF ALL GAS UTILITIES. CONTRACTOR SHALL HAND DIG WITHIN 2' OF LOCATED GAS UTILITIES.
 6. ALL MECHANICAL JOINT FITTINGS SHALL BE RESTRAINED PER DETAIL 3 ON SHEET D2.
 7. DEFLECT PIPE AT JOINTS AS NECESSARY FOR INSTALLATION ON CURVES AND MINOR ALIGNMENT CHANGES. DEFLECTION AT EACH JOINT SHALL NOT EXCEED MANUFACTURERS RECOMMENDATION.

PLAN

SCALE: 1" = 40'

KEYNOTES:

- ① UTILITY CROSSING. PROVIDE VERTICAL OFFSET OF WATERLINE PER (4/D3) AS REQ'D. SEE NOTE 1 AND 4, THIS SHEET.



PROFILE

SCALE: 1" = 40' (H)
1" = 8' (V)

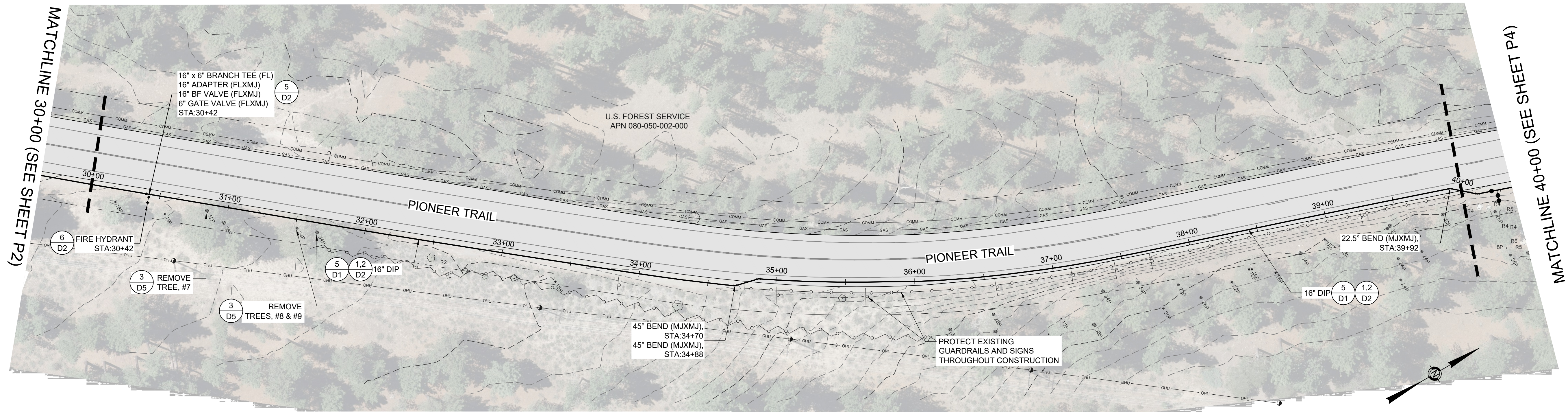
SOUTH TAHOE PUBLIC UTILITY DISTRICT
 A PUBLIC AGENCY
 1275 Meadows Crest Drive, South Lake Tahoe, California 96150
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2026 PIONEER TRAIL WATERLINE PROJECT (REBID) STA 20+00 TO 30+00



DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:

P2
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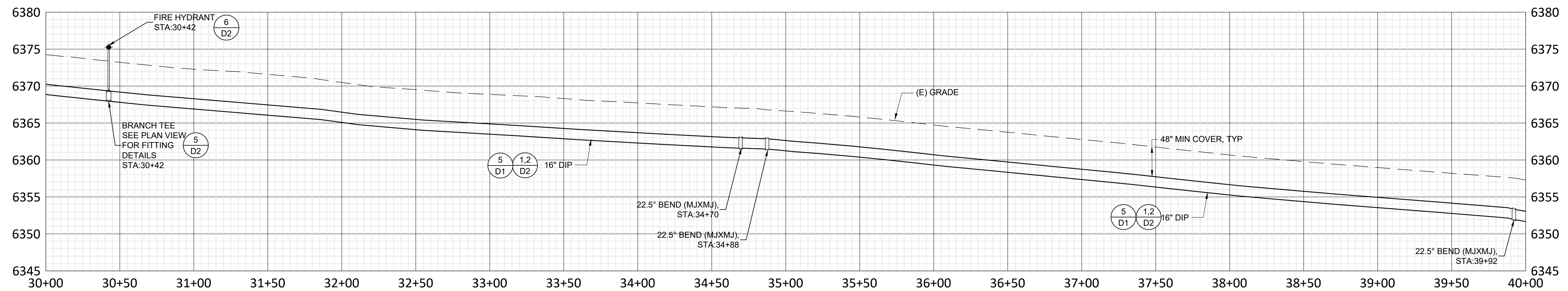
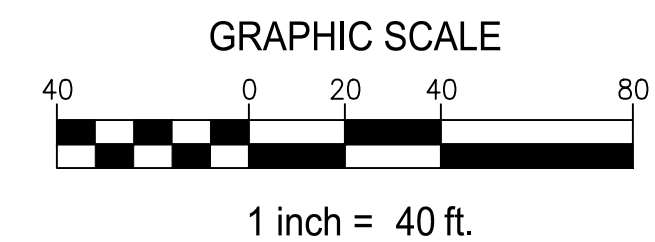


NOTES:

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7. DEFLECT PIPE AT JOINTS AS NECESSARY FOR INSTALLATION ON CURVES AND MINOR ALIGNMENT CHANGES. DEFLECTION AT EACH JOINT SHALL NOT EXCEED MANUFACTURERS RECOMMENDATION.

PLAN

SCALE: 1" = 40'



PROFILE

SCALE: 1" = 40' (H)
1" = 8' (V)

2026 PIONEER TRAIL WATERLINE PROJECT (REBID) STA 30+00 TO 40+00



DATE: MAY 2026

SCALE: AS SHOWN

DRAWN: AZ/TJ

DESIGN: TC/TJ

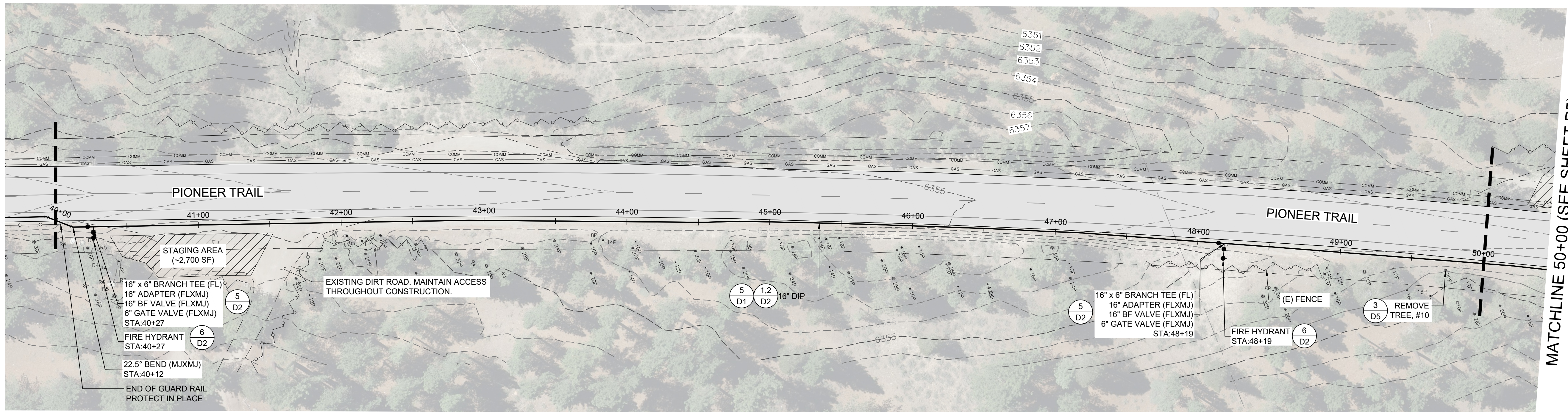
AS BUILT:

P3
6 OF 38
SHEETS

SOUTH TAHOE PUBLIC UTILITY DISTRICT

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MATCHLINE 40+00 (SEE SHEET P3)

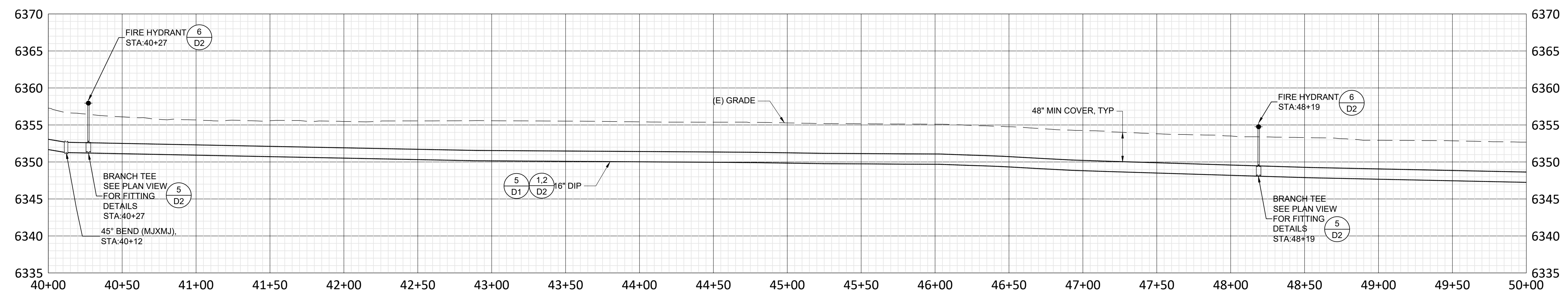
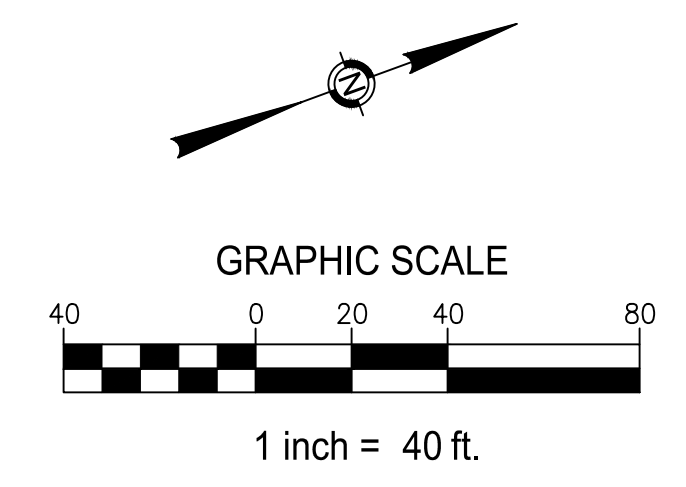


MATCHLINE 50+00 (SEE SHEET P5)

- NOTES:**
1. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR SHALL POTHOLE AND VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
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 7. DEFLECT PIPE AT JOINTS AS NECESSARY FOR INSTALLATION ON CURVES AND MINOR ALIGNMENT CHANGES. DEFLECTION AT EACH JOINT SHALL NOT EXCEED MANUFACTURERS RECOMMENDATION.

PLAN

SCALE: 1" = 40'



PROFILE

SCALE: 1" = 40' (H)
1" = 8' (V)

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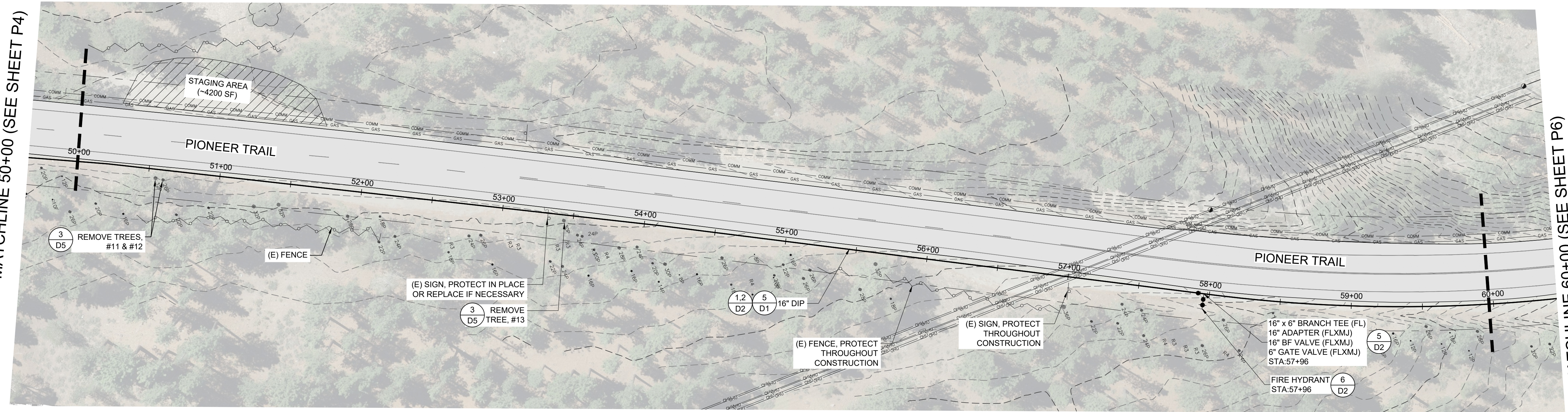
2026 PIONEER TRAIL WATERLINE PROJECT (REBID) STA 40+00 TO 50+00



DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:

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MATCHLINE 50+00 (SEE SHEET P4)

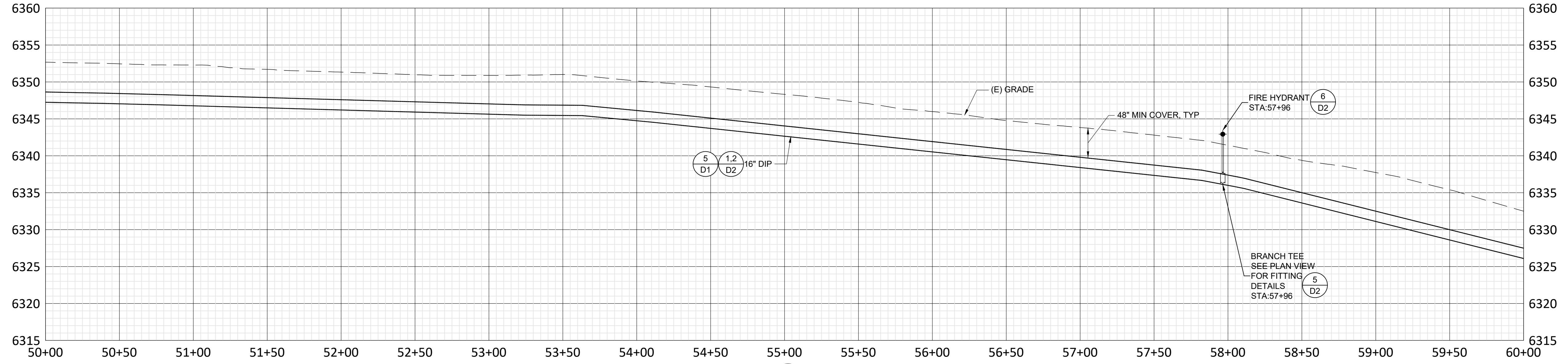
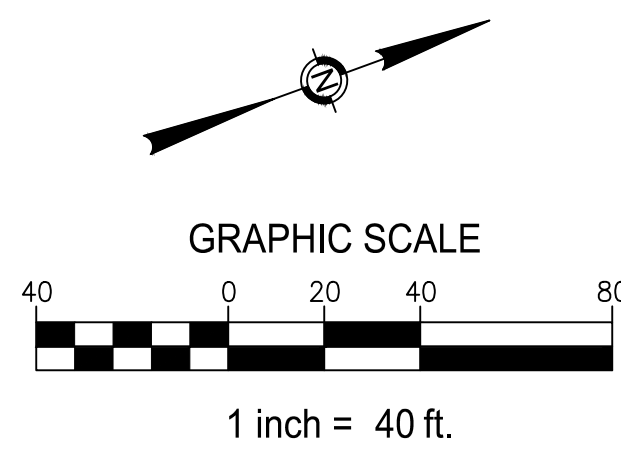


MATCHLINE 60+00 (SEE SHEET P6)

- NOTES:**
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PLAN

SCALE: 1" = 40'



PROFILE

SCALE: 1" = 40' (H)
1" = 8' (V)

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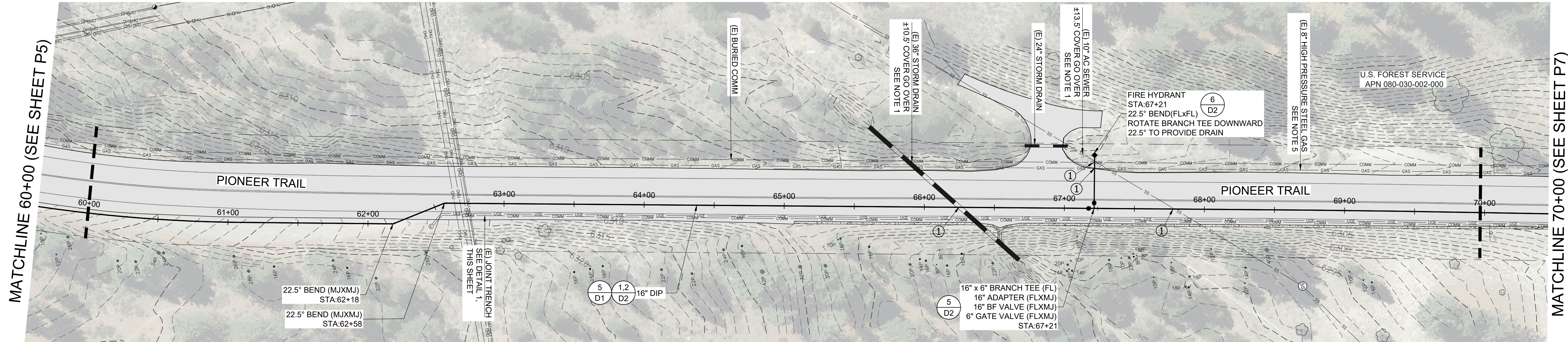
2026 PIONEER TRAIL WATERLINE PROJECT (REBID) STA 50+00 TO 60+00



DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:

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 SHEETS

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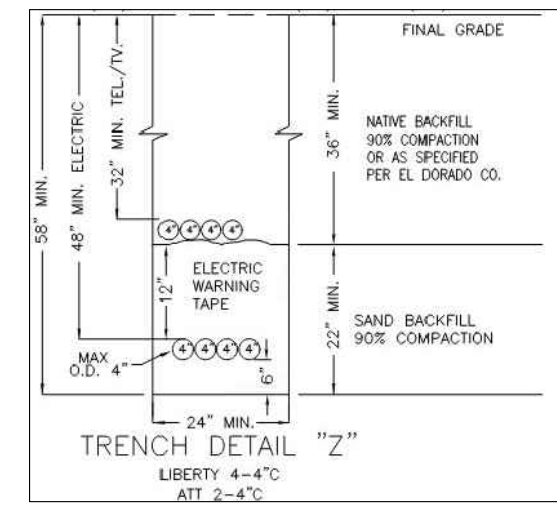


- NOTES:**
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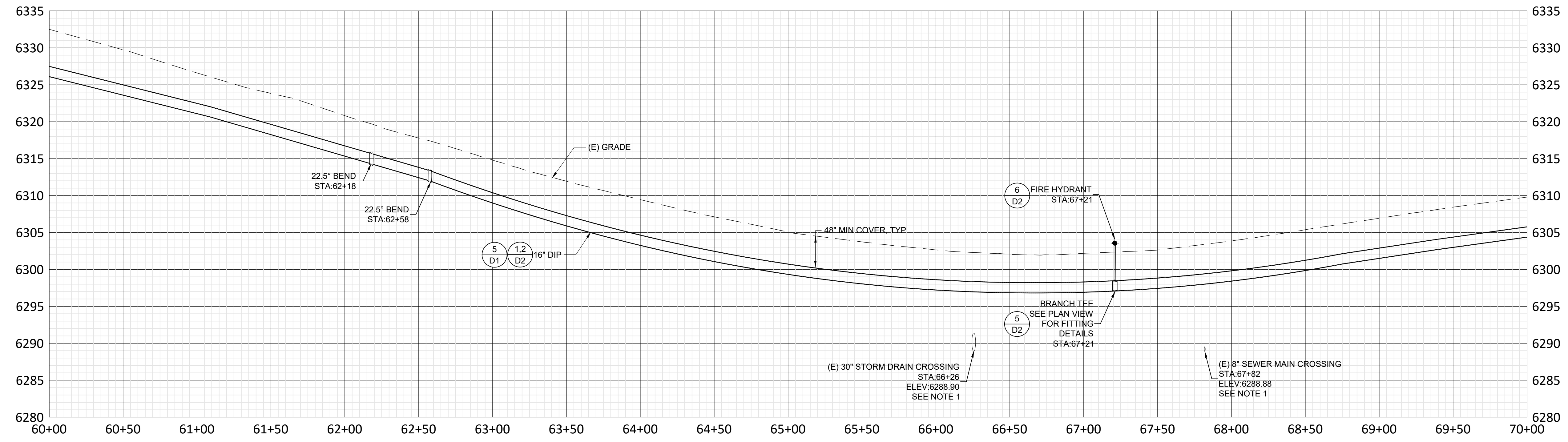
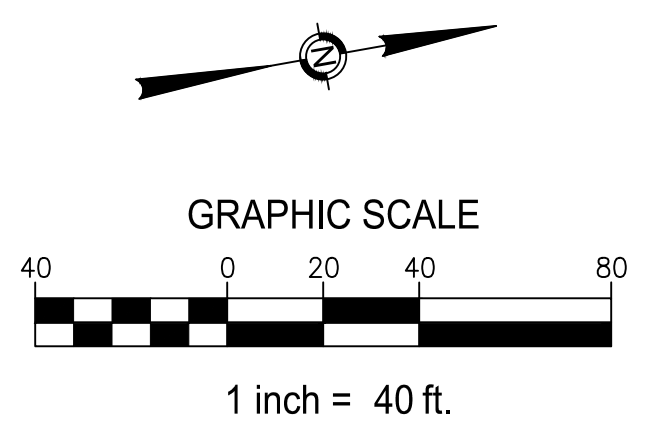
PLAN

SCALE: 1" = 40'

- KEYNOTES:**
- 1 UTILITY CROSSING. PROVIDE VERTICAL OFFSET OF WATERLINE PER (4) D3 AS REQ'D. SEE NOTE 1 AND 4.



DETAIL 1
PROVIDED BY EDC



PROFILE

SCALE: 1" = 40' (H)
1" = 8' (V)

2026 PIONEER TRAIL WATERLINE PROJECT (REBID) STA 60+00 TO 70+00

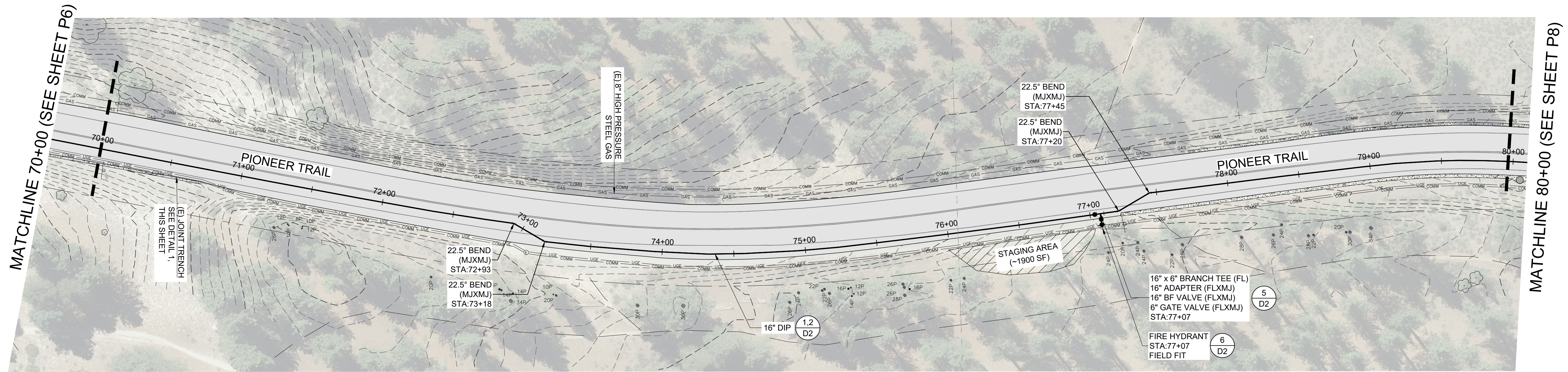


DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

P6
9 OF 38
SHEETS

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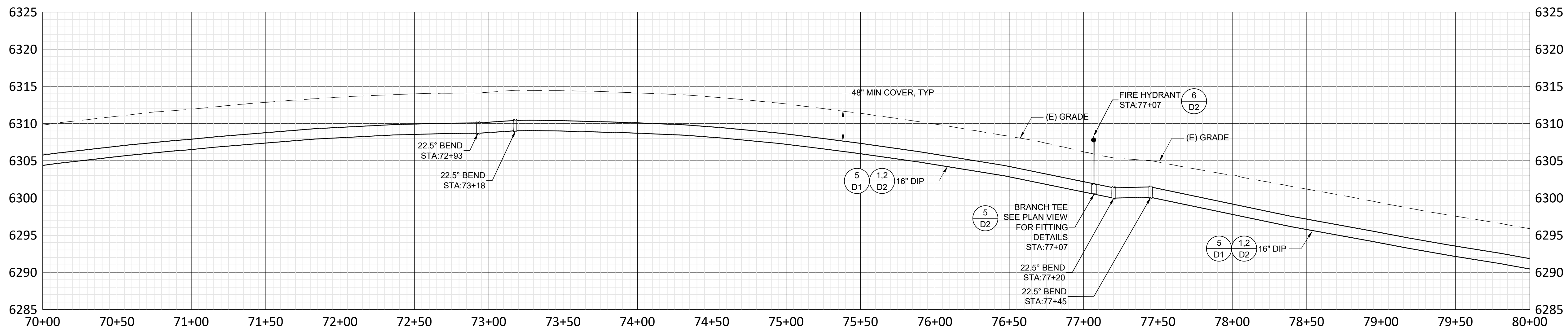
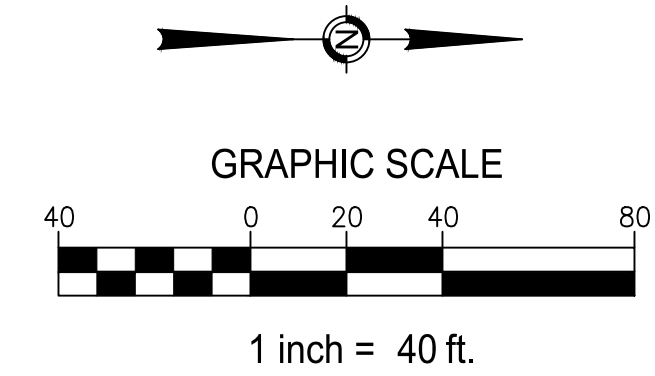
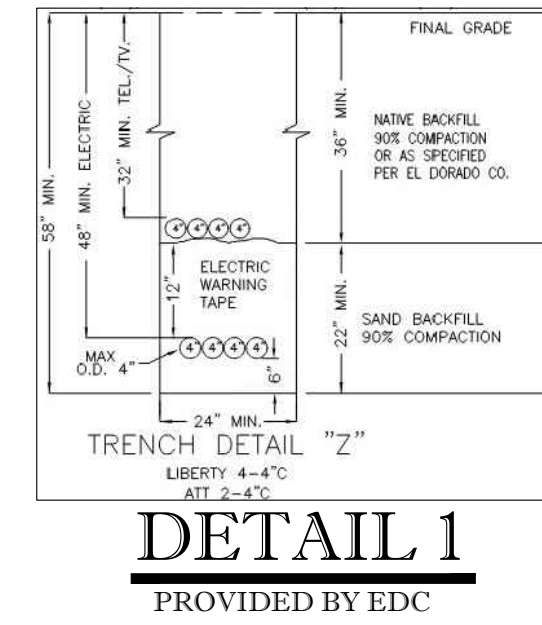
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- NOTES:**
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PLAN

SCALE: 1" = 40'



PROFILE

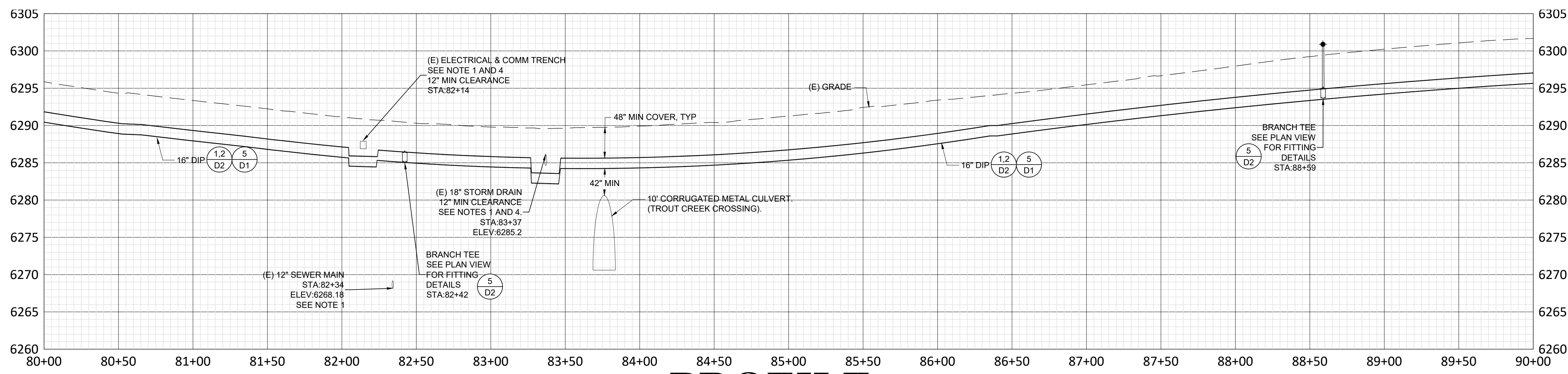
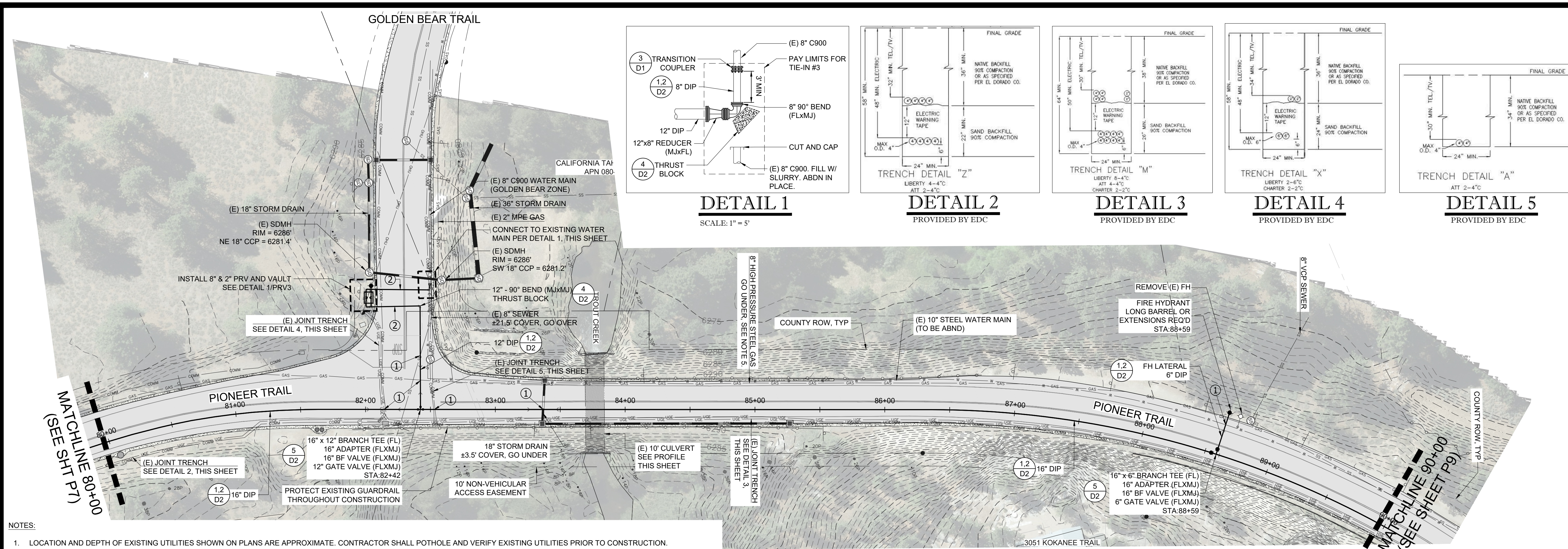
SCALE: 1" = 40' (H)
1" = 8' (V)

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 A PUBLIC AGENCY
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2026 PIONEER TRAIL WATERLINE PROJECT (REBID) STA 70+00 TO 80+00



DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:



SOUTH TAHOE PUBLIC UTILITY DISTRICT

4 PUBLIC AGENCY
Sever, 1950 Water
1275 Meadows Crest Drive South Lake Tahoe, California 96150
Phone (530) 544-6474 Fax (530) 541-4379
WWW.STPUD.US

**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
STA 80+00 TO 90+00**

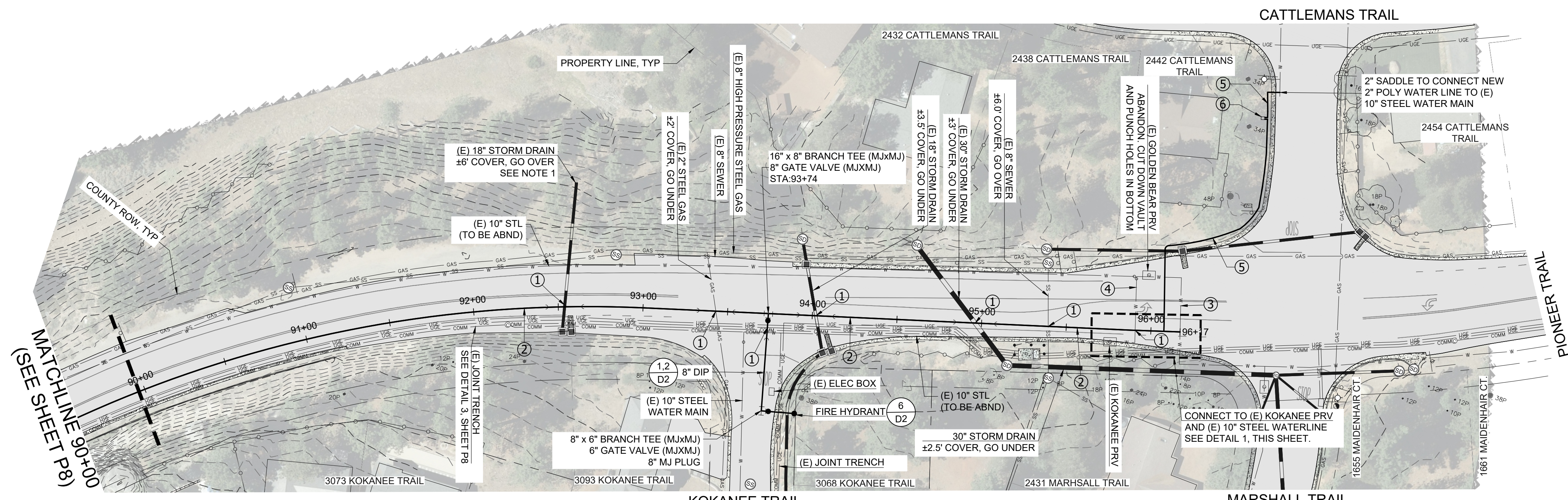


DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

X:\Projects\Water\2026 Pioneer Trail Waterline (P) - Engineering\B1 - CAD\B1.13 - Plan Sheets\PROPOSED PT WATERLINE (REBID_4.28.2025_TJ.dwg

NOTES:

1. ACTUAL LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR SHALL POTHOLE AND VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL PROVIDE TEST STATIONS (SAMPLE PORTS) PER DETAIL 2 OF SHEET D3 AT A MINIMUM OF EVERY 600' FOR PIPELINE DISINFECTION AND TESTING.
3. CONTRACTOR SHALL PROTECT EXISTING CURB AND GUTTER THROUGHOUT CONSTRUCTION. ANY CURB AND GUTTER THAT IS REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED PER EL DORADO COUNTY STANDARDS AS SHOWN BY DETAIL 3 OF SHEET D3.
4. CONTRACTOR SHALL COMPLY WITH CALIFORNIA DEPARTMENT OF DRINKING WATER STANDARDS FOR INSTALLATION OF NEW WATER MAINS. A FULL UN-CUT STICK OF PIPE SHALL BE CENTERED ON ALL SEWER AND STORM DRAIN CROSSINGS WITH 1' MINIMUM CLEARANCE.
5. CONTRACTOR SHALL CONTACT SOUTHWEST GAS TO STANDBY DURING EXCAVATIONS THAT CROSS HIGH PRESSURE GAS UTILITIES AND/OR BORING ACTIVITIES WITHIN 10' OF ALL GAS UTILITIES. CONTRACTOR SHALL HAND DIG WITHIN 2' OF LOCATED GAS UTILITIES.
6. ALL MECHANICAL JOINT FITTINGS SHALL BE RESTRAINED PER DETAIL 3 ON SHEET D2.
7. DEFLECT PIPE AT JOINTS AS NECESSARY FOR INSTALLATION ON CURVES AND MINOR ALIGNMENT CHANGES. DEFLECTION AT EACH JOINT SHALL NOT EXCEED MANUFACTURERS RECOMMENDATION.
8. POTENTIAL VERTICAL OFFSETS AT LOCATIONS IDENTIFIED ON PLANS WITH EITHER A CALLOUT OR THE ASSOCIATED VERTICAL OFFSET SYMBOL SHOWN ON LEGEND OF SHEET C2. POT-HOLE (E) UTILITIES TO VERIFY DEPTH PRIOR TO CONSTRUCTION OF WATERLINE. INSTALL VERTICAL OFFSET IF NEEDED ACCORDING TO DETAIL 4 ON SHEET D3.

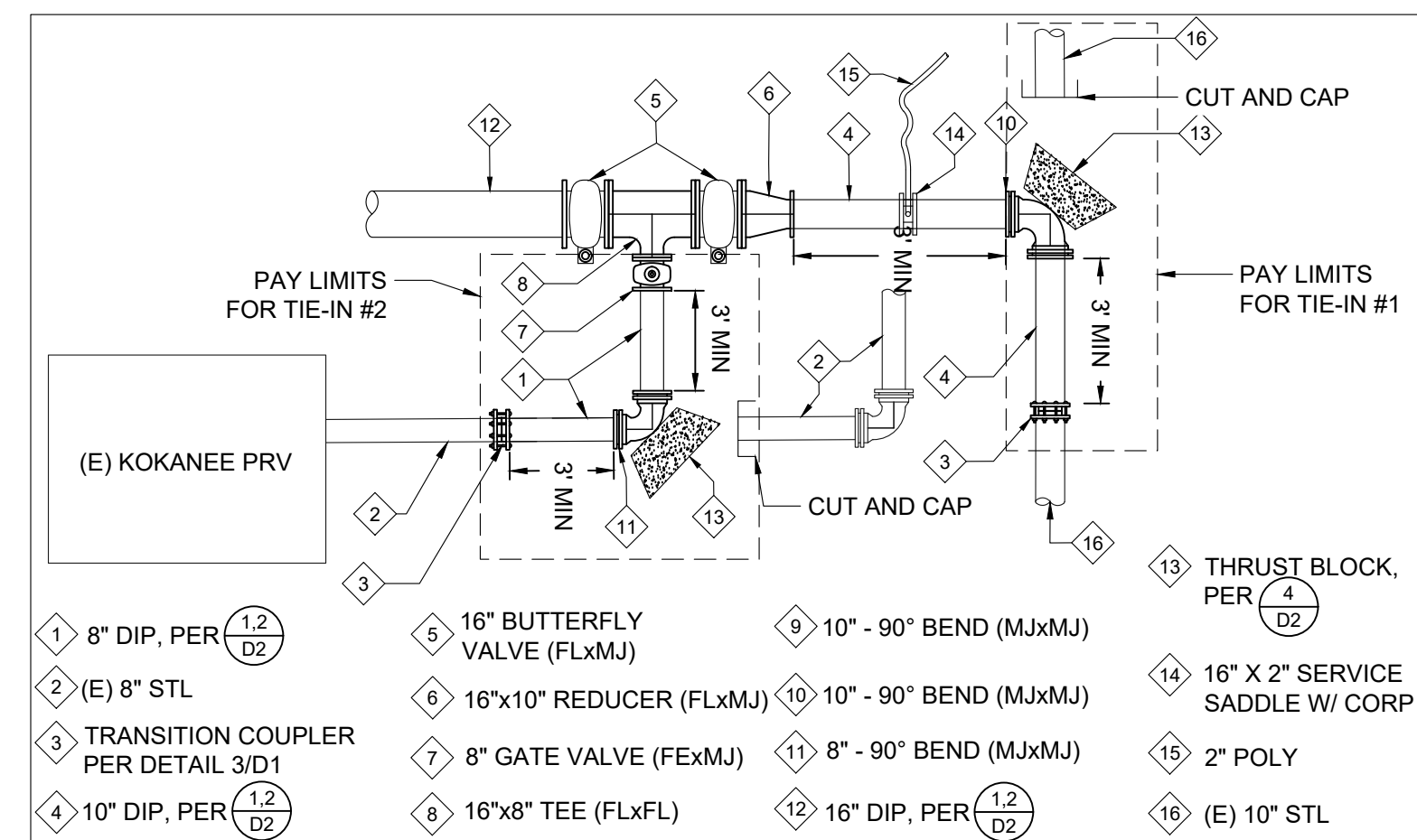


PLAN

SCALE: 1" = 40'

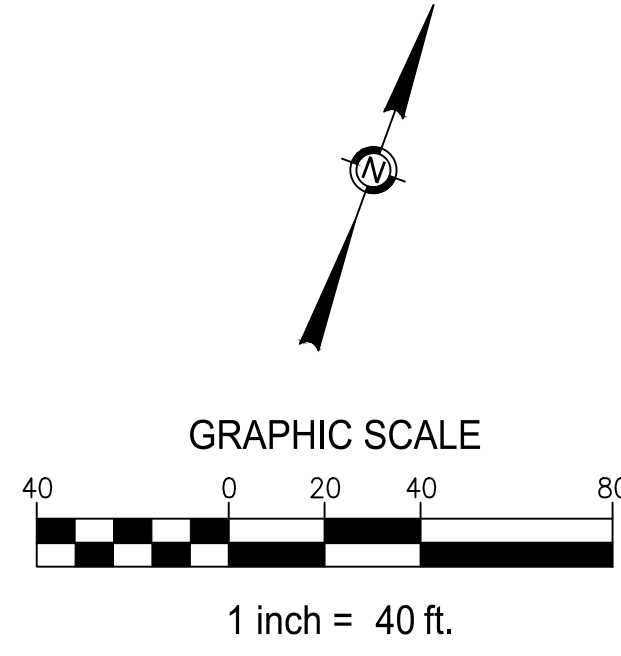
KEYNOTES:

- ① UTILITY CROSSING. PROVIDE VERTICAL OFFSET OF WATERLINE PER $\frac{4}{D3}$ AS REQUIRED. SEE NOTE 1 AND 4.
- ② 16" DIP WATER MAIN, PER $\frac{5}{D1}$ $\frac{1.2}{D2}$
- ③ (E) 10" STEEL WATER MAIN (MONTGOMERY ESTATES ZONE)
- ④ (E) 8" STEEL WATER MAIN (GOLDEN BEAR ZONE), TO BE ABANDONED. GO UNDER.
- ⑤ 2" POLYETHYLENE WATER LINE
- ⑥ 2 INCH WATER SETTER BOX AND METER PIT WITH 2-INCH PRV, AS DESCRIBED IN BID ITEM #20 DESCRIPTION IN SPECIFICATION SECTION 00 41 00. $\frac{4}{D5}$

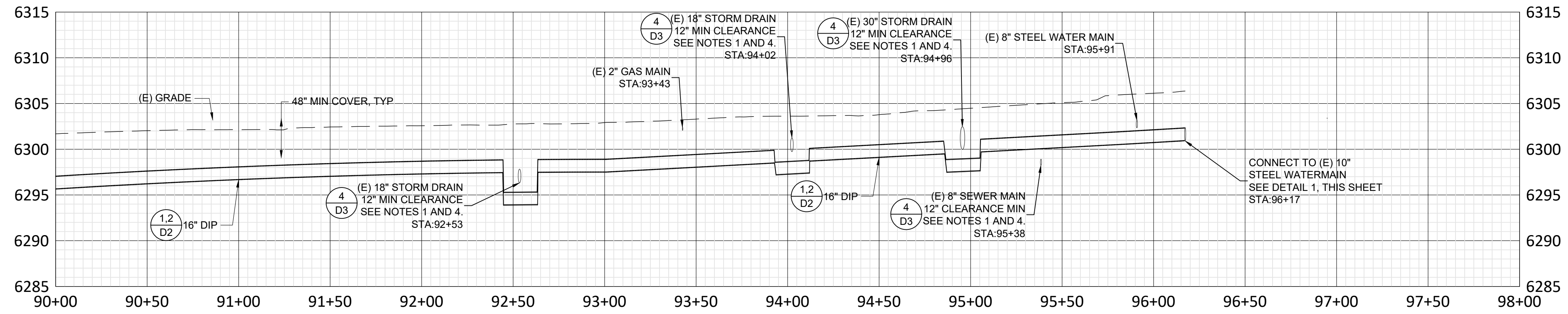


DETAIL 1

SCALE: 1" = 5'



PROFILE PT Waterline 90+00 to 96+85



PROFILE

SCALE: 1" = 40' (H)
1" = 8' (V)

**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
STA 90+00 TO 98+00**

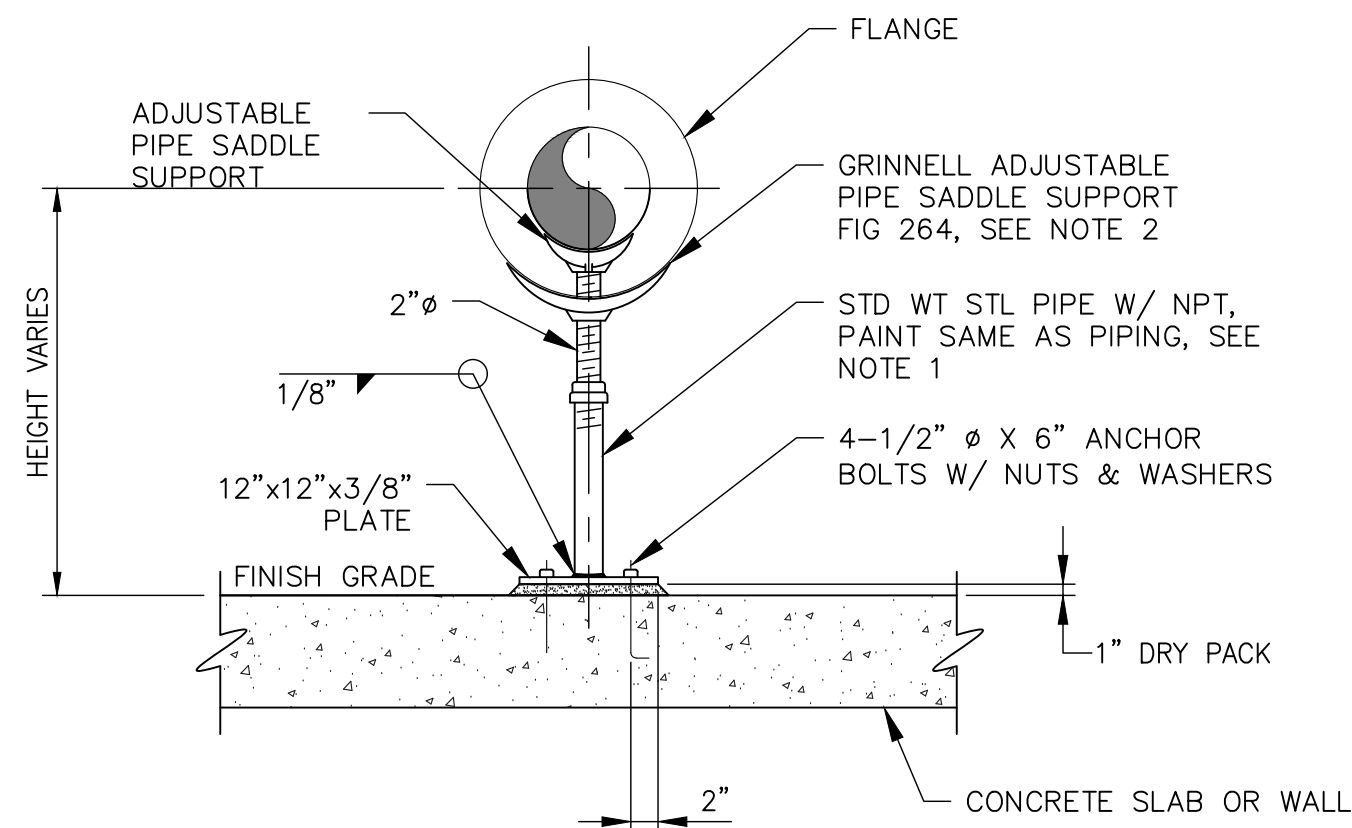
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12 OF 38 SHEETS

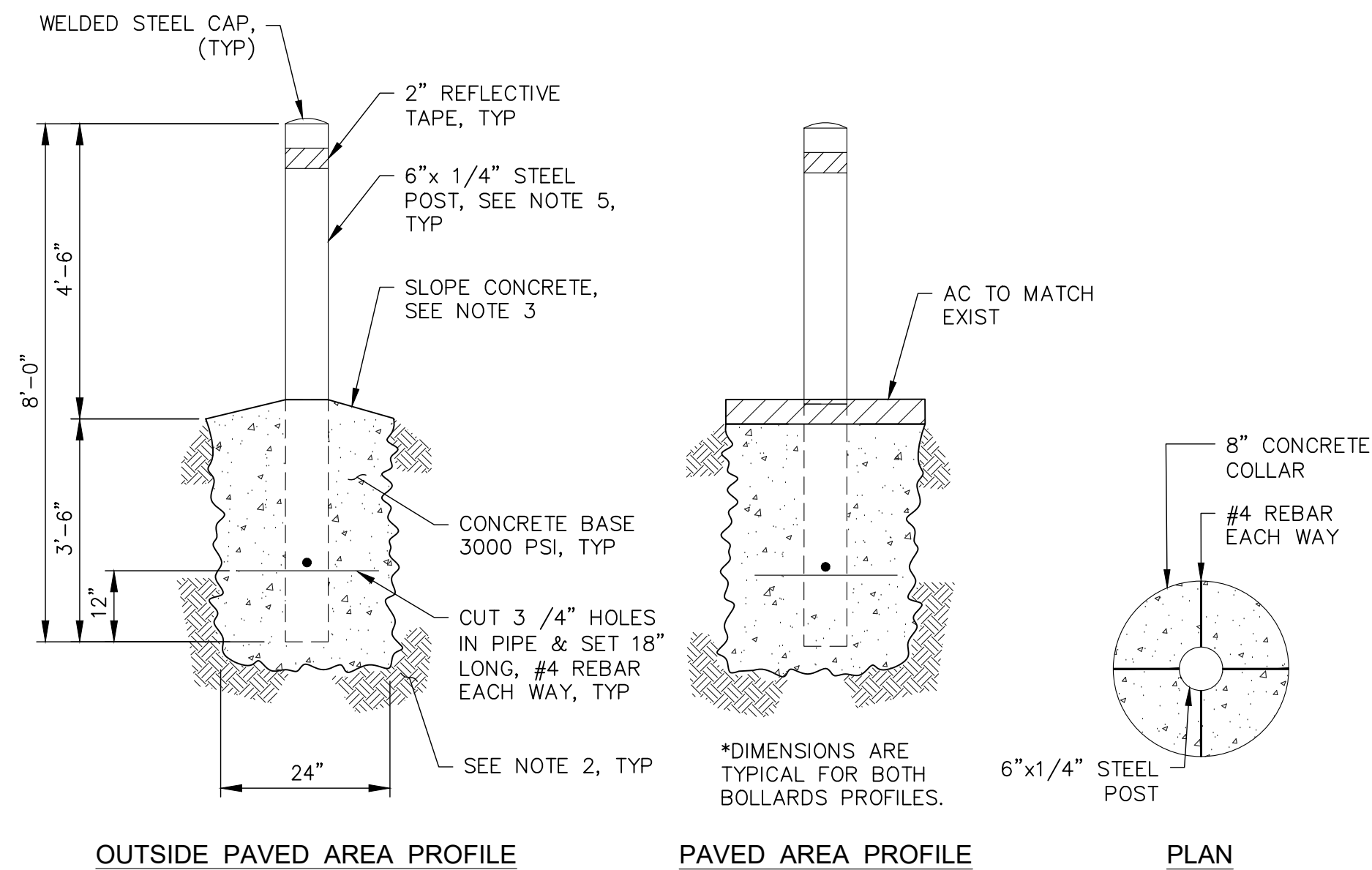
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NOTES

1. NOT ALL REQUIRED PIPE SUPPORTS ARE SHOWN ON THE PLANS. REFER TO THE SPECS FOR ADDITIONAL PIPE SUPPORT REQUIREMENTS.
2. SEE PLANS FOR LOCATION OF SUPPORT (FLANGE OR PIPE).

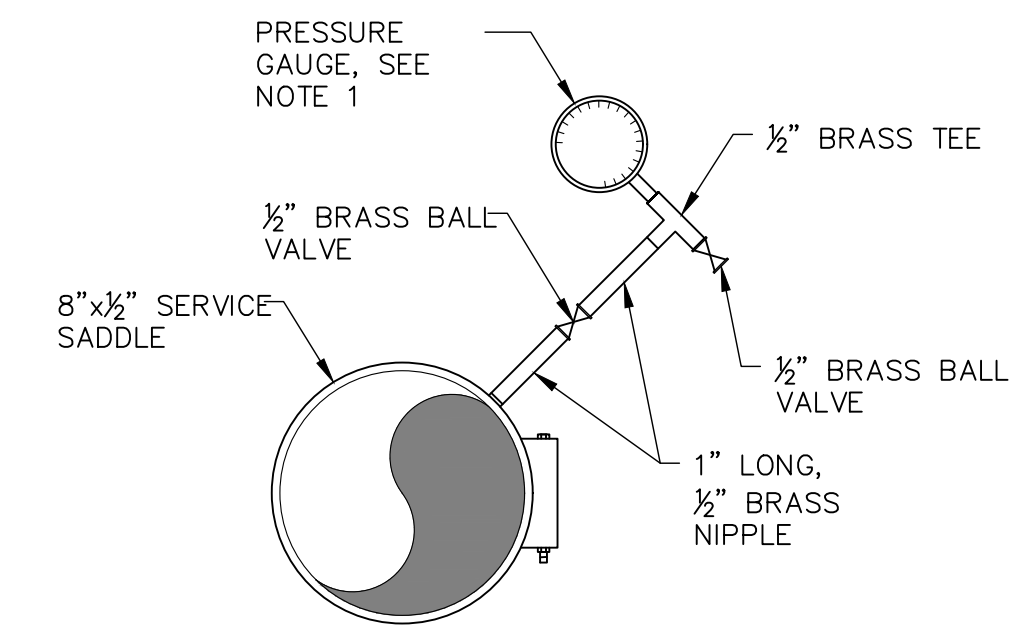
1 ADJUSTABLE PIPE SUPPORT



NOTES

1. BOLLARDS WITHIN EL DORADO COUNTY USED AS EQUIPMENT PROTECTION SHALL BE PAINTED WITH A MINIMUM OF THREE (3) COATS OF SPRAY MATE "ALUMINUM METALLIC", COLOR CODE 0180, OR APPROVED EQUAL. BOLLARDS WITHIN EL DORADO COUNTY SHALL BE PAINTED WITH A MINIMUM OF THREE (3) COATS OF "TRAFFIC YELLOW" SHERWIN-WILLIAMS SHER-CRYL B66-300, OR APPROVED EQUAL.
2. ALL CONCRETE SHALL BE PLACED ON UNDISTURBED SOIL OR A MINIMUM OF SIX INCHES (6") OF COMPACTED CLASS TWO AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION.
3. CONCRETE COLLAR SHALL BE A MINIMUM OF EIGHT INCHES (8") AROUND BOLLARD. BOLLARDS PLACED OUTSIDE THE PAVED AREA SHALL HAVE THE CONCRETE MOUNDED AND SLOPED TO DRAIN WATER AWAY FROM THE POST.
4. ALL CONCRETE SHALL BE A MINIMUM OF 3000 PSI CONCRETE. BOLLARDS SHALL BE FILLED AND HAVE A WELDED STEEL CAP.
5. BOLLARDS SHALL BE SIX INCHES (6") IN DIAMETER AND SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE OR QUARTER INCH (1/4") STRUCTURAL STEEL TUBE.
6. THE BOLLARD SHALL BE PLACED A MINIMUM OF TWO AND HALF FEET (2.5') FROM THE CENTER OF THE ELECTRICAL CABINET.
7. CONFIRM FINAL PLACEMENT IN THE FIELD WITH ENGINEER.

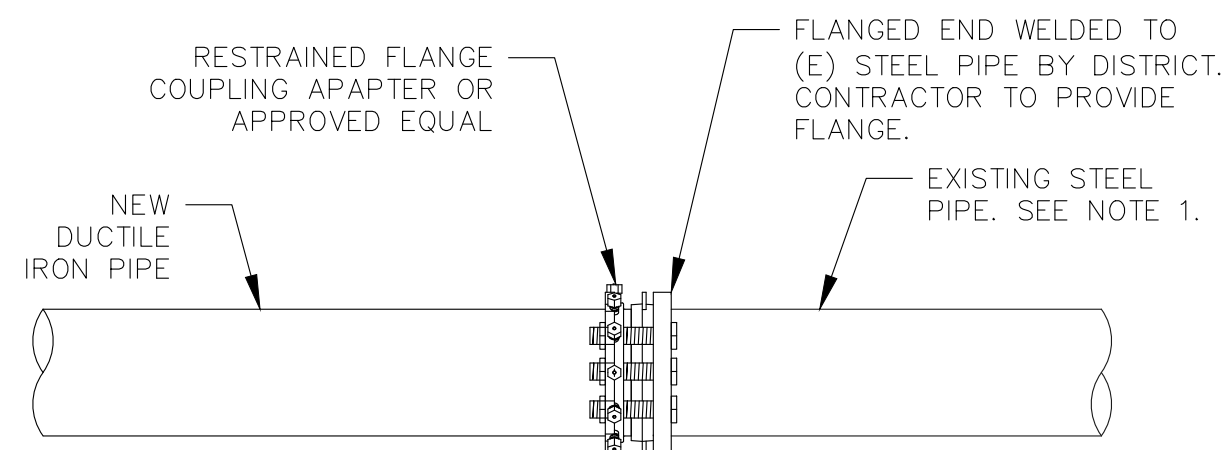
2 SAFETY BOLLARDS



NOTES

1. ASHCROFT 1279 DURAGAUGE OR APPROVED EQUAL, PRESSURE RANGE 0 TO 150 PSI.
2. INSTALL AT A 45° ANGLE FROM VERTICAL.
3. CONFIRM FINAL LOCATION FOR PRESSURE GAUGE AND SAMPLING PORT IN THE FIELD WITH ENGINEER.

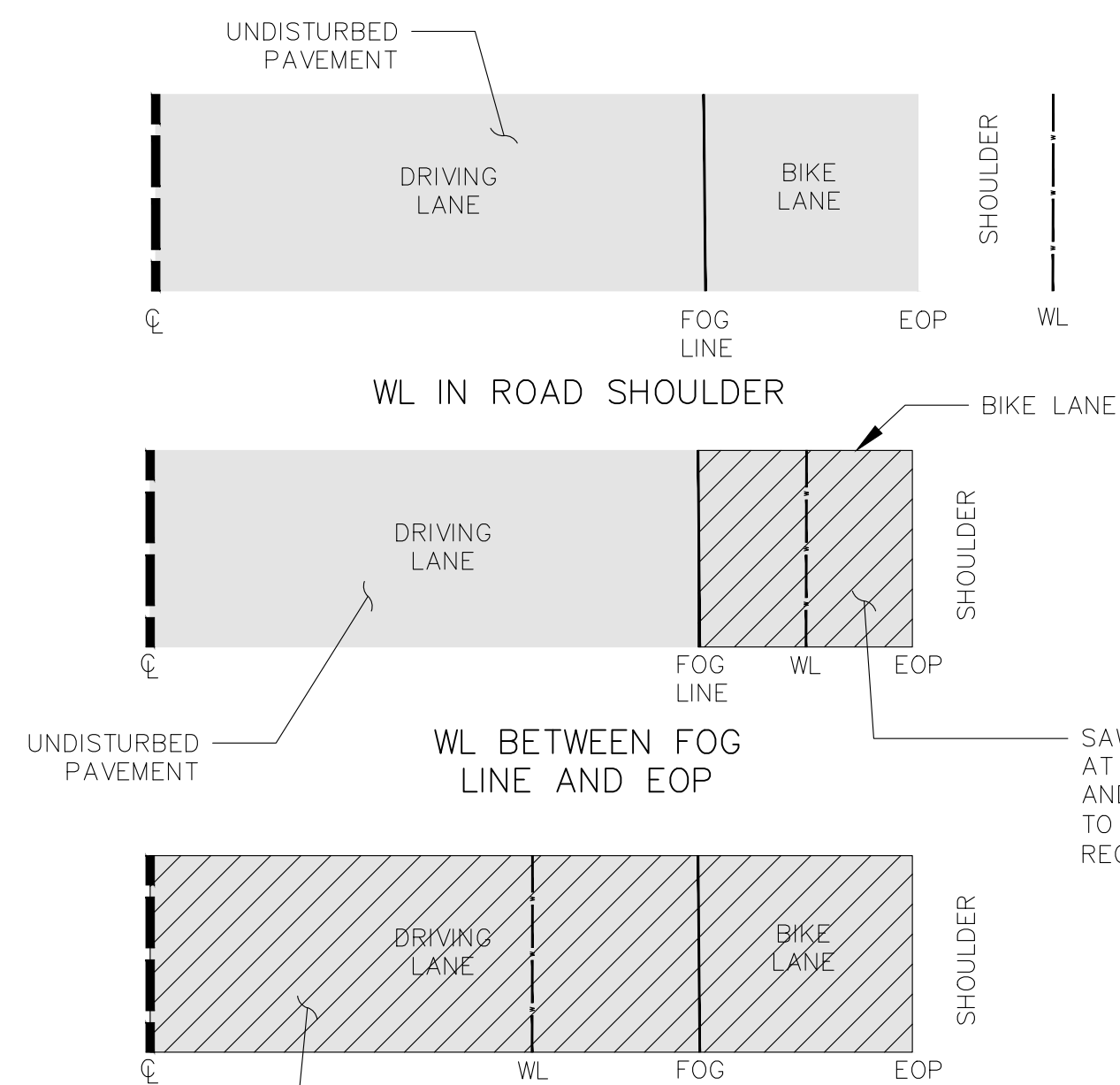
3 PRESSURE GAUGE & SAMPLING PORT



NOTES:

- 1) CONTRACTOR SHALL VERIFY SIZE OF EXISTING STEEL PIPE PRIOR TO PROCURING TRANSITION COUPLER.
- 2) FLANGE TO BE WELDED TO EXISTING STEEL PIPE BY DISTRICT STAFF. COORDINATE WORK WITH DISTRICT HEAVY MAINTENANCE DEPARTMENT. PROVIDE 72 HOURS NOTICE IN WRITING. WELDING WORK PERFORMED BY DISTRICT STAFF TO ONLY OCCUR TUESDAY THRU THURSDAY.
- 3) CONTRACTOR TO PROVIDE TRENCH ACCESS FOR A TWO MAN WELD TEAM COMPLETE WITH ADEQUATE SHORING.
- 4) CHASE (E) STEEL PIPE TO WELDABLE PIPE.

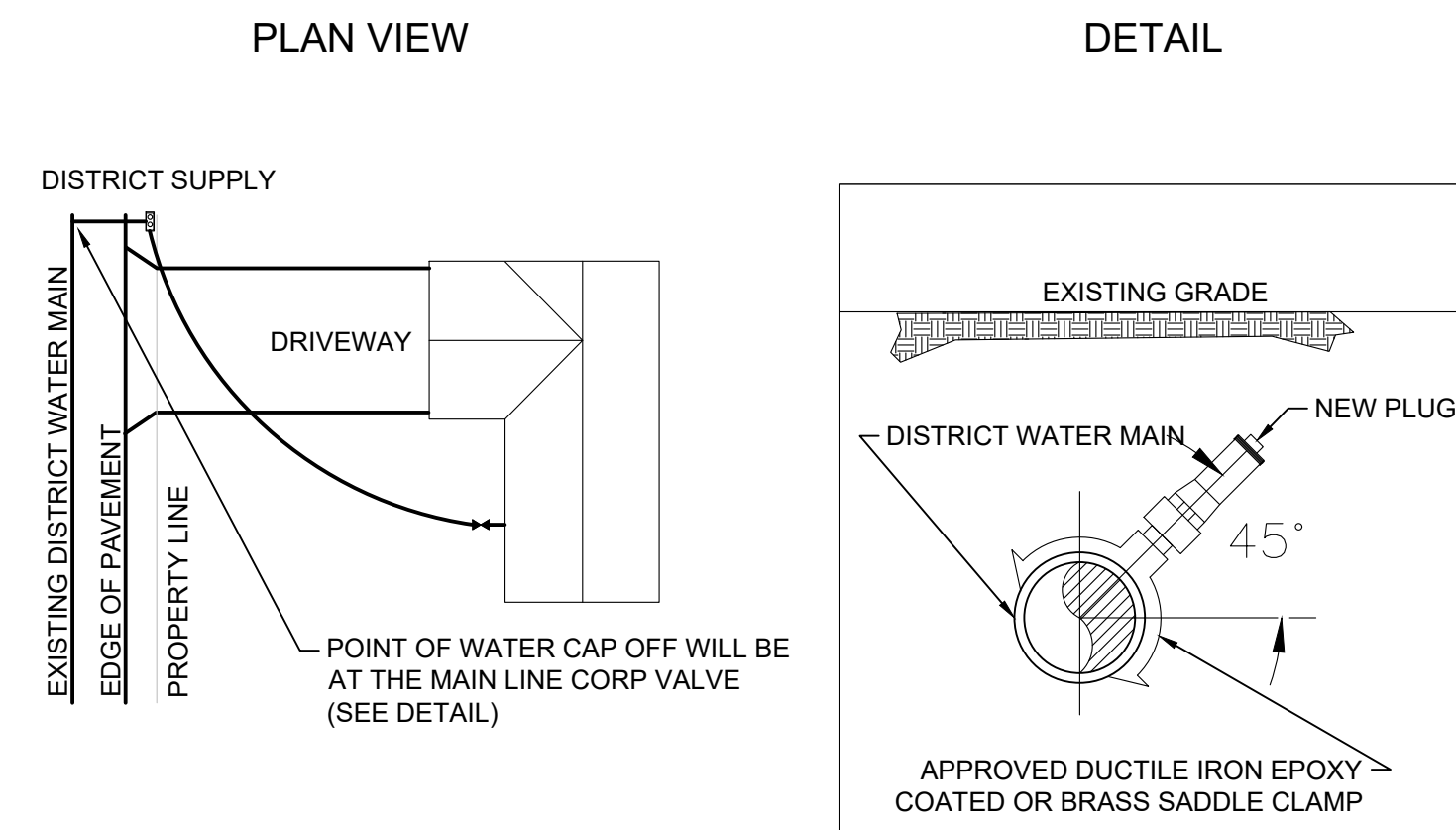
4 WELDED RESTRAINT TRANSITION COUPLER DETAIL



NOTES:

1. CONTRACTOR TO PROTECT AND REPAIR UNDISTURBED PAVEMENT AT NO COST TO THE DISTRICT.

5 TYPICAL WATERLINE ALIGNMENT



NOTES:

- 1) UNDERGROUND SERVICE ALERT (USA) 811 TO BE NOTIFIED A MINIMUM OF FORTY EIGHT (48) HOURS BEFORE ANY EXCAVATION.
- 2) ALL WATER SERVICE(S) TO BE CAPPED SHALL BE FIELD LOCATED BY DISTRICT INSPECTORS.
- 3) DO NOT DEMOLISH ANY BUILDING UNTIL WATER SERVICE CAP OFF LOCATION FOR THAT BUILDING IS EXCAVATED AND CONFIRMED.
- 4) WATER SERVICE(S) WILL BE CAPPED AT THE MAIN LINE CORP VALVE WHEN THE MAINLINE IS TO REMAIN IN SERVICE. FINAL CAP OFF LOCATION SHALL BE FIELD VERIFIED AND APPROVED BY THE DISTRICT.
- 5) WATER SERVICE(S) MUST BE SEVERED AT THE CAP OFF POINT IN A WORKMANSHIP LIKE MANNER APPROPRIATE FOR THE TYPE OF PIPE TO BE CAPPED. A MINIMUM OF SIX FEET (6') OF PIPING DOWNSTREAM OF THE CAP OFF POINT SHALL BE REMOVED.
- 6) THE PLUGGING OF THE SEVERED WATER SERVICE(S) MUST BE MADE WITH A NEW IRON OR BRASS PLUG APPROPRIATE FOR THAT SIZE WATER SERVICE.
- 7) AFTER SEVERING AND CAPPING OF WATER SERVICE TO BE ABANDONED, REMOVE ASSOCIATED VALVE BOX AND RISER PIPE.
- 8) NO WORK SHALL BE COVERED UNTIL INSPECTED AND APPROVED BY THE DISTRICT.
- 9) THE DISTRICT SHALL BE GIVEN A MINIMUM OF TWENTY FOUR (24) HOURS NOTICE TO INSPECT ALL WORK ASSOCIATED WITH CAPPING OF LATERAL(S).

6 ABANDON WATER SERVICE 3/4" TO 2"

2026 PIONEER TRAIL WATERLINE PROJECT (REBID) DETAILS



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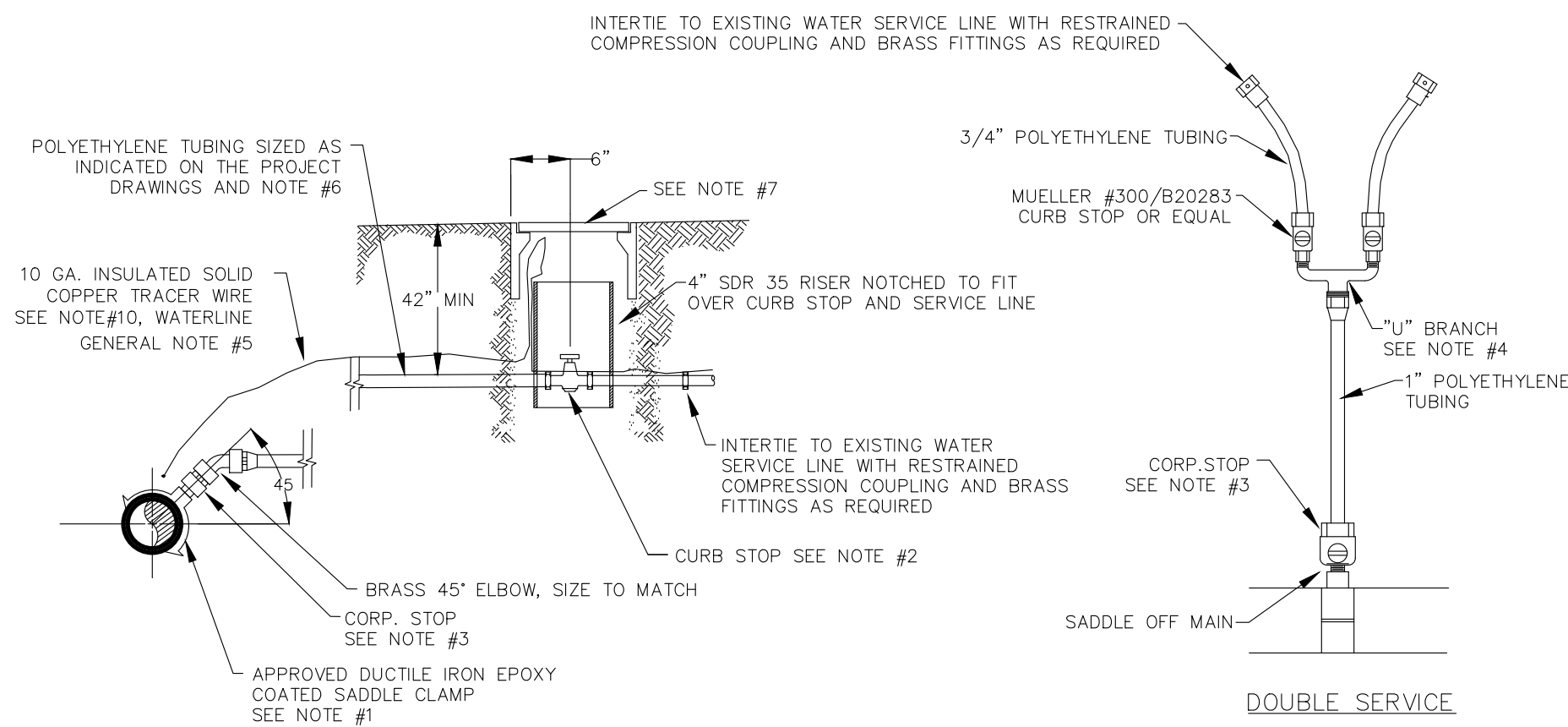
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DESIGN: TC/TJ

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13 OF 38 SHEETS

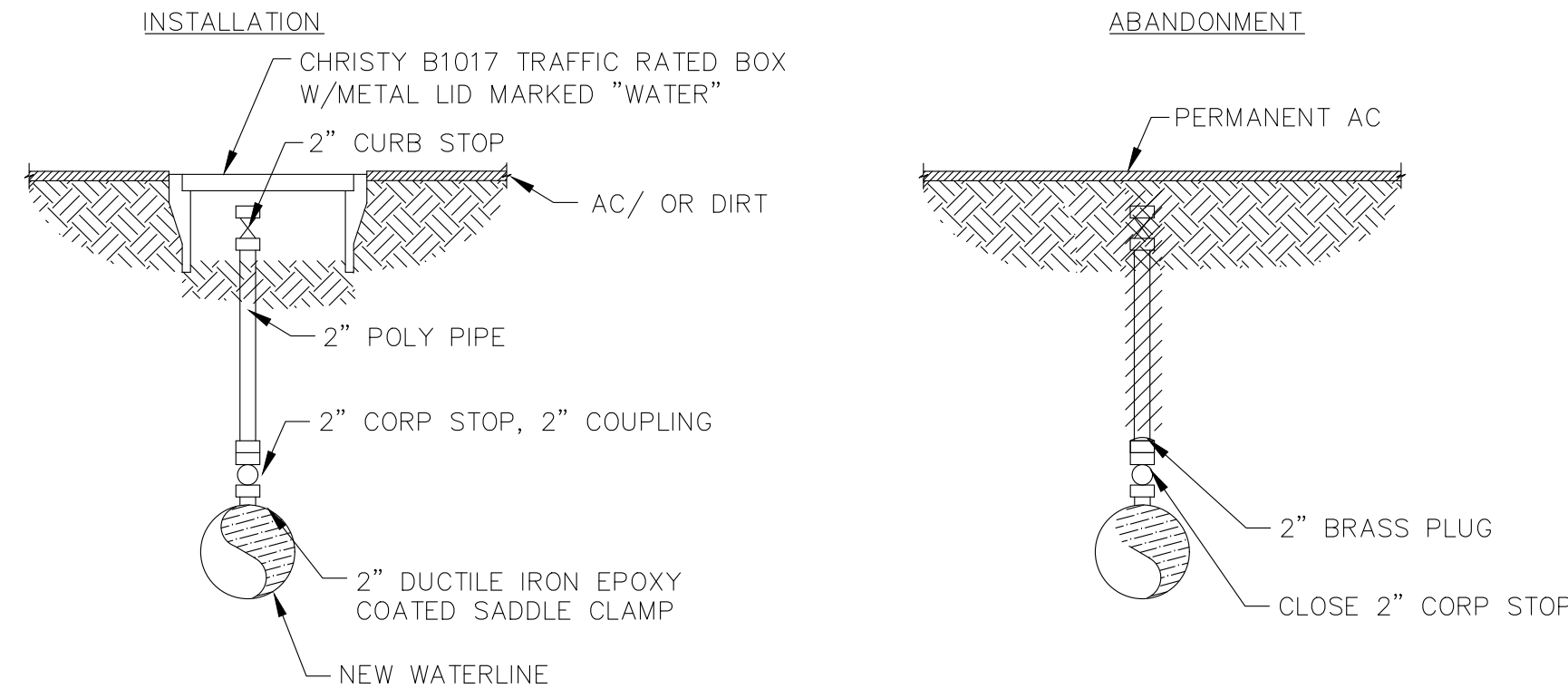
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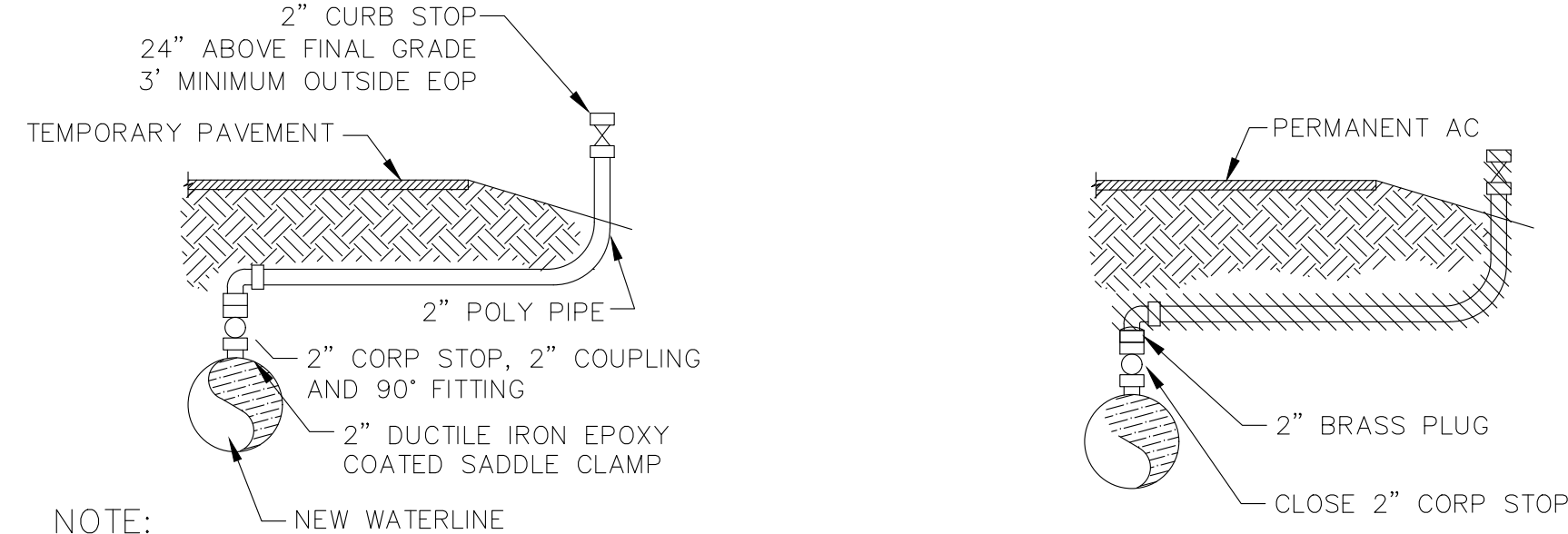
- NOTES:
- 1) ALL SERVICE CONNECTIONS SHALL CONFORM TO AWWA C-800-84 AND BE INSTALLED FROM THE NEW MAIN TO EACH EXISTING SERVICE LINE. SERVICE SADDLE SHALL BE DOUBLE STAINLESS STEEL STRAP, FUSION BONDED EPOXY COATED SMITH BLAIR #317 OR APPROVED EQUAL.
 - 2) NEW CURB-STOP SHALL BE SIZED AS INDICATED ON PLANS AND BE MUELLER #300/B20283 OR APPROVED EQUAL.
 - 3) CORPORATION STOP SHALL BE SIZED AS INDICATED ON PLANS AND BE MUELLER #300/B20013 OR APPROVED EQUAL FOR 3/4" TO 1" USE MUELLER #300/2969 OR APPROVED EQUAL FOR 1 1/2" TO 2".
 - 4) SINGLE HOUSE SERVICE SHALL BE 3/4" POLYETHYLENE WITH 3/4" FITTINGS. DOUBLE HOUSE SERVICE SHALL BE 1" POLYETHYLENE TO FORD #U68-43 SPACING "U" BRANCH OR EQUAL WITH TWO 3/4" CURB-STOPS AND SERVICE CONNECTIONS.
 - 5) ALL WATER SERVICES SHALL HAVE A HAND-TAMPED SAND BEDDING NINE INCHES (9") ABOVE AND BENEATH THE TUBING AND SHALL HAVE SIX INCHES (6") MINIMUM CLEARANCE ON EACH SIDE.
 - 6) ALL WATER SERVICE SHALL BE POLYETHYLENE 200 PSI CLASS IRON PIPE SIZE FOR 3/4" TO 1", COPPER TUBE SIZE FOR 1 1/2" TO 2". PIPE STIFFENER INSERTS TO BE USED AT ALL CONNECTIONS.
 - 7) WATER VALVE BOX SHALL BE CHRISTY G5 FOR SINGLE SERVICE, AND CHRISTY B1017 FOR DOUBLE SERVICE OR APPROVED EQUAL WITH A METAL LID MARKED "WATER". WATER VALVE BOX INSTALLED IN ASPHALT SHALL BE 1/4" TO 1/2" BELOW FINISH GRADE.
 - 8) ALL CORP-STOPS, CURB-STOPS AND POLYETHYLENE SERVICE LINES SHALL BE DISINFECTED AND HYDROSTATIC TESTED ALONG WITH THE NEW MAIN PRIOR TO BEING PLACED INTO SERVICE.
 - 9) ALL TUBING CONNECTIONS SHALL BE THE COMPRESSION TYPE; MUELLER OR APPROVED EQUAL.
 - 10) 10 GA. SOLID COPPER OR COPPER CLAD STEEL TRACER WIRE SHALL BE INSTALLED FROM THE NEW MAIN ALONG NEW SERVICE LINE TO THE EXISTING WATER SERVICE LINE WITH A SIX INCH (6") MINIMUM LOOP AT THE TOP OF THE RISER PIPE. SEE WATERLINE GENERAL NOTE #5.
 - 11) WATER SERVICE CONNECTIONS INSTALLED ON THE OPPOSITE SIDE OF THE STREET FROM WATER MAIN SHALL UTILIZE TRENCHLESS TECHNOLOGY (I.E. PNEUMATIC RAM OR MOLE) OR OTHER METHOD APPROVED BY DISTRICT ENGINEER.

1 WATER SERVICE

TEST STATION IN ASPHALT

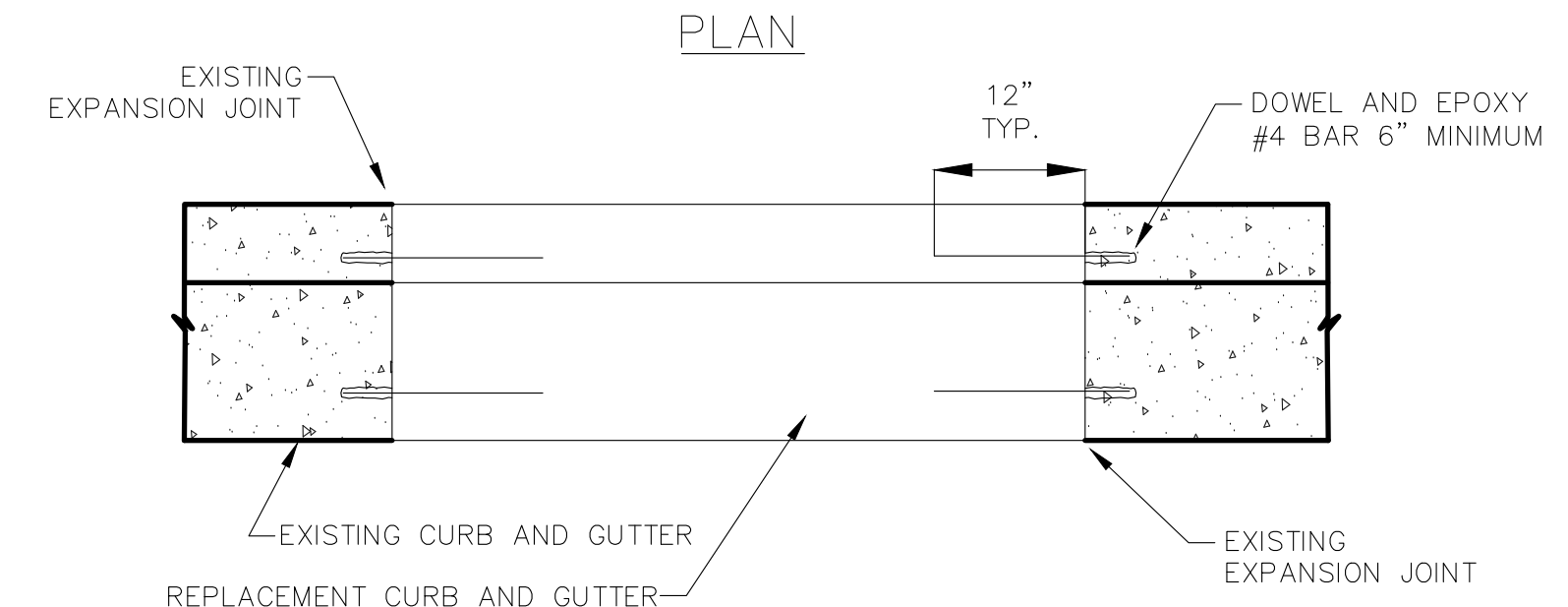


TEST STATION IN SHOULDER

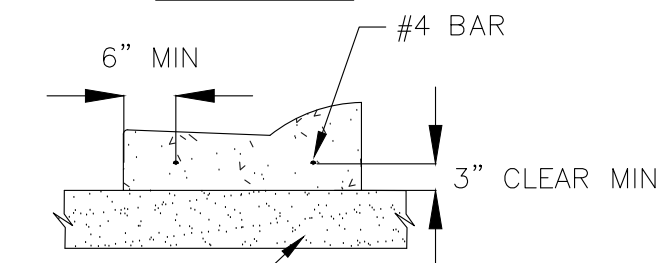


- NOTE:
- 1) CORPORATION STOP SHALL BE MUELLER #300/2969 OR APPROVED EQUAL.
 - 2) CONTRACTOR TO REMOVE PIPING AFTER ALL DISINFECTION TESTING IS COMPLETE.
 - 3) ALL PARTS MUST BE NSF 61 COMPLIANT.

2 TEMPORARY TEST STATION



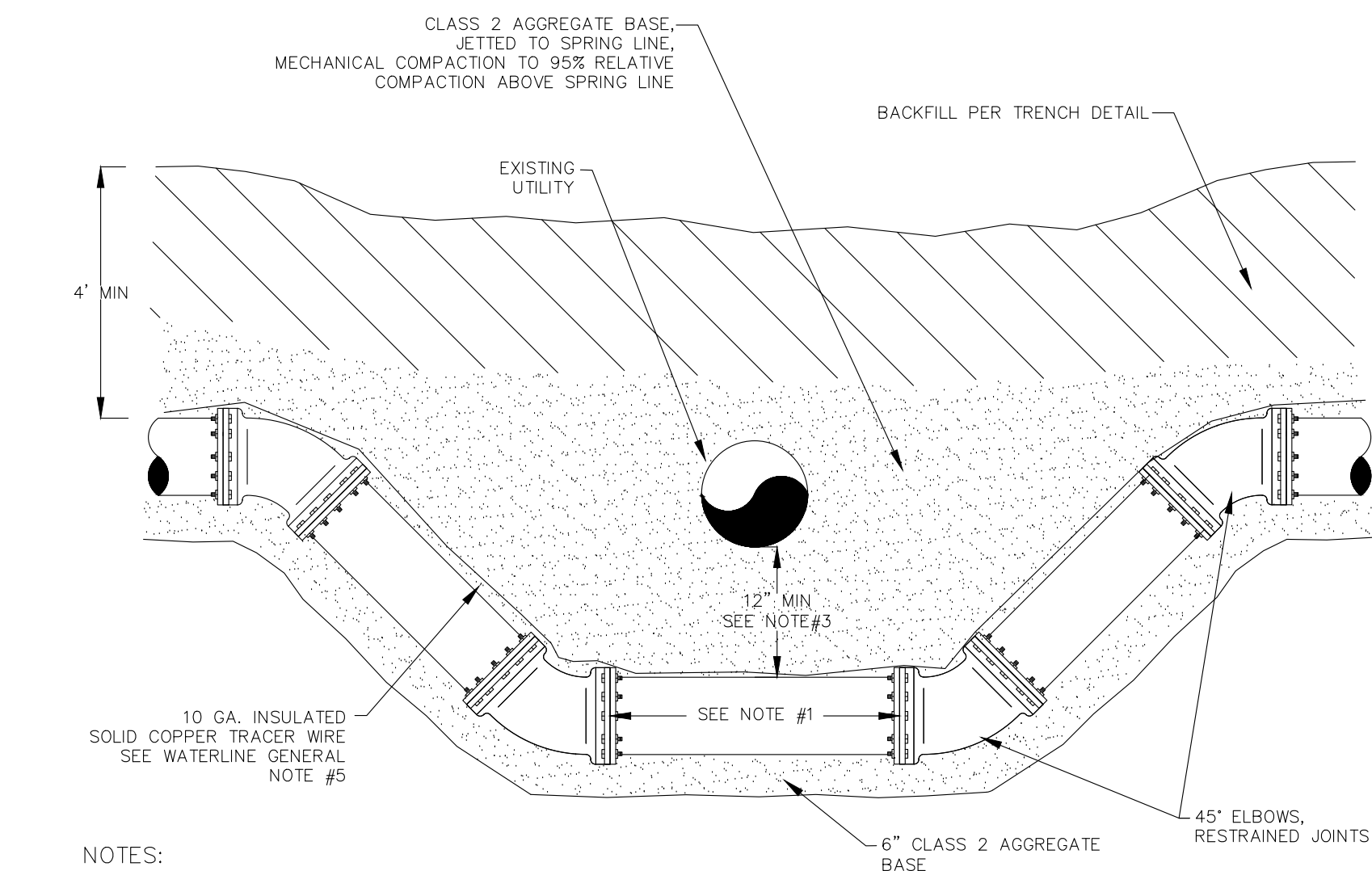
SECTION



6" THICK MINIMUM CLASS 2 AGGREGATE-BASE, MECHANICAL COMPACTION TO 95% RELATIVE COMPACTION.

- NOTES:
- 1) WHERE REQUIRED FOR WATERLINE AND SERVICE INSTALLATIONS, CURB AND GUTTER REPLACEMENT SHALL BE COMPLETELY REPLACED BETWEEN EXISTING EXPANSION JOINTS. CURB AND GUTTER REPLACEMENT EXCEEDING MAXIMUM AS DESCRIBED HERE IN AND IN THE SPECIFICATIONS SHALL BE COMPLETED AT NO ADDITIONAL EXPENSE TO THE DISTRICT.
 - 2) CONCRETE FOR CURB AND GUTTER SHALL BE CLASS A (4,000 PSI) PER THE SPECIFICATIONS.

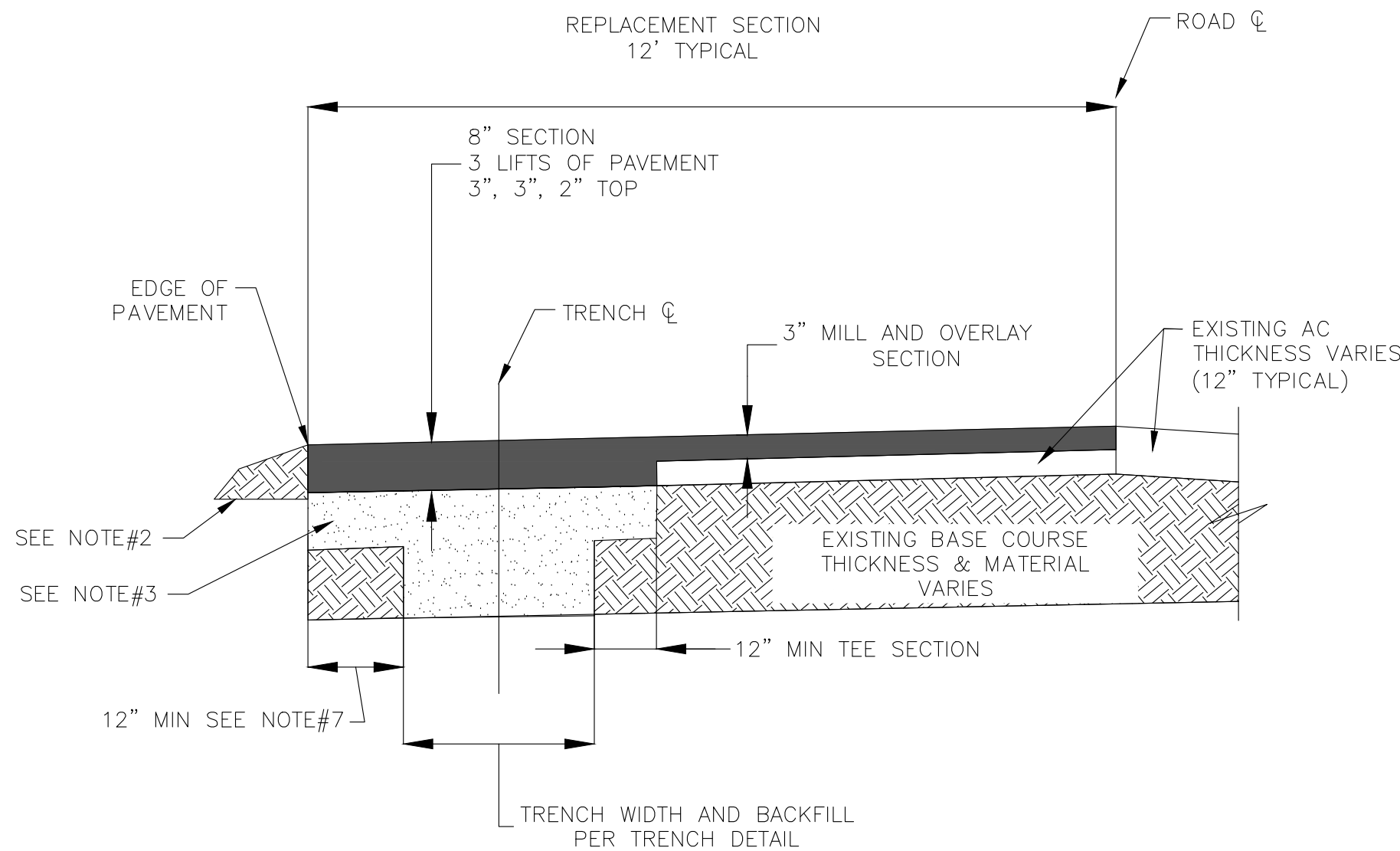
3 CURB AND GUTTER REPLACEMENT



- NOTES:
- 1) CONSTRUCT WATERLINE USING ONE OF THE FOLLOWING METHODS:
 - A) THE WATER MAIN SHALL BE CONSTRUCTED PLACING A FULL STICK OF PIPE CENTER ON THE CROSSING, WITH NO PIPE JOINTS IN THAT SECTION; OR;
 - B) THE WATER MAIN IS TOTALLY ENCASED IN AT LEAST FOUR INCHES (4") OF TWO (2) SACK DRY SAND CEMENT SLURRY FOR A DISTANCE OF AT LEAST TEN FEET (10') ON EACH SIDE OF THE POINT OF CROSSING; OR;
 - C) THE WATER MAIN IS INSTALLED IN A PIPE SLEEVE THAT EXTENDS, WITHOUT JOINTS, AT LEAST TEN FEET (10') ON EACH SIDE OF THE POINT OF CROSSING.
 - 2) ALL JOINTS SHALL BE RESTRAINED.
 - 3) THE PIPE SHALL BE UPGRADED TO CLASS 305 DR14 C900 OR 350 DUCTILE IRON PIPE.
 - 4) IF COMPACTION UNDER EXISTING UTILITY CAN NOT BE ACCOMPLISHED, USE TWO (2) SACK SAND SLURRY TO FILL THE VOID UNDER THE UTILITY.
 - 4) NO RECYCLED BASE IN PIPE ZONE BACKFILL OF NEW WATER MAIN OR EXISTING UTILITY.
 - 5) DUE TO FIELD CONDITIONS ONE OR MORE 45° ELBOWS MAY BE EXCHANGED FOR 90° ELBOWS AS REQUIRED TO MAKE OFFSET.
 - 6) IF EXISTING UTILITY IS BACKFILLED IN SLURRY OR SAND, REPLACE BACKFILL TO MATCH.
 - 7) DUE TO FIELD CONDITIONS, ONE OR MORE 45° BENDS MAY BE EXCHANGED FOR 90° BENDS AS REQUIRED TO MAKE THE OFFSET.

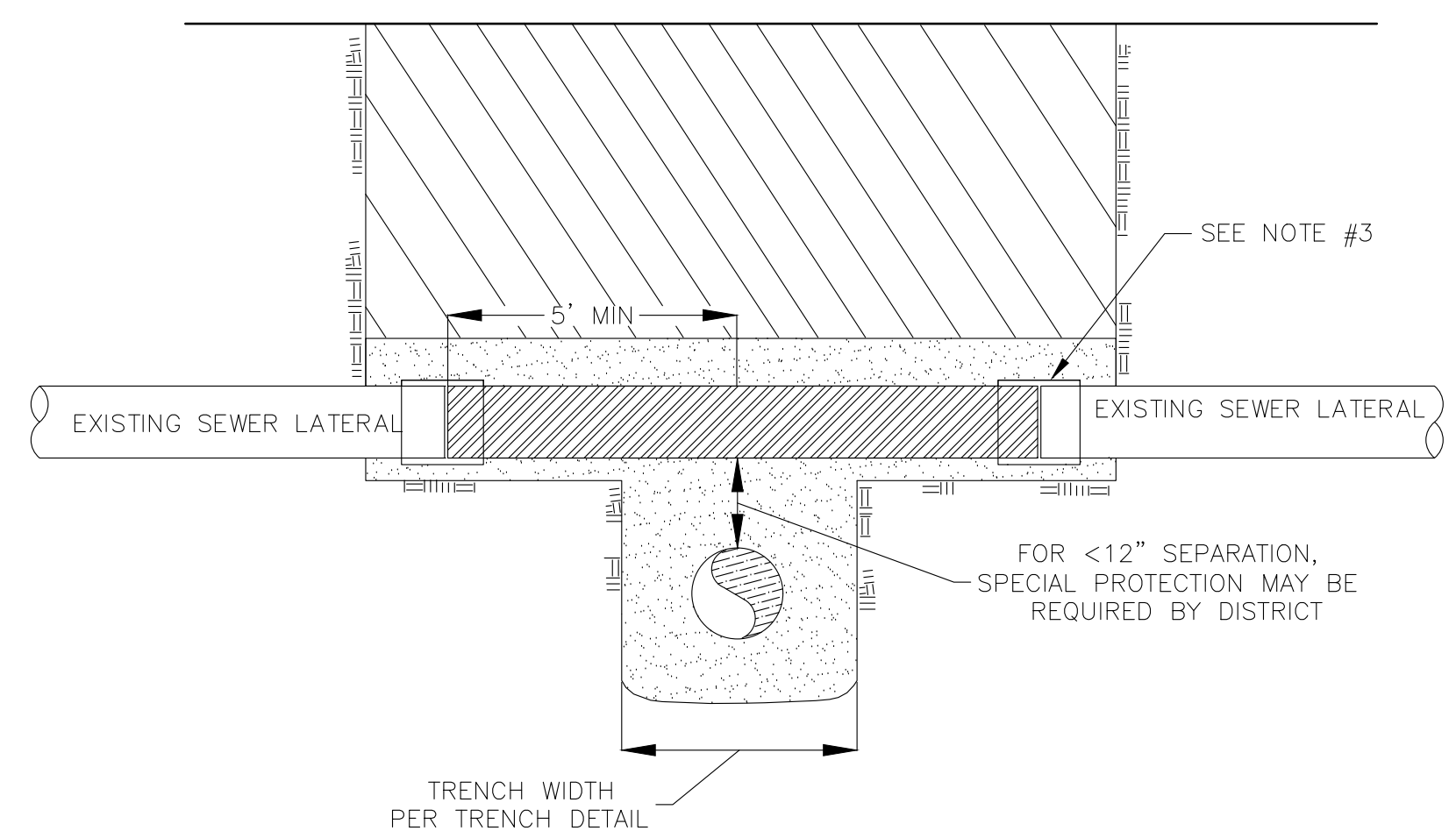
4 WATER MAIN VERTICAL OFFSET

REPLACEMENT SECTION 12' TYPICAL



- NOTE:
- 1) APPLY TACK COAT ON ALL EDGES SAWCUT OR GROUND OUT
 - 2) CONTRACTOR TO BACK FINISHED PAVING WITH 12" MINIMUM GRANULAR MATERIAL (NATIVE/VIRGIN/TYP II) AND WHEEL ROLL TO STABILIZE
 - 3) TYPE II AGG BASE 8" MINIMUM THICKNESS COMPACTION TO 95% RELATIVE COMPACTION
 - 4) CONTRACTOR TO REPLACE ALL STRIPPING DAMAGED OR REMOVED DURING CONSTRUCTION
 - 5) CONTRACTOR TO REMOVE ANY LOOSE ASPHALT IN GRIND OUT SECTION PRIOR TO INSTALL OF NEW ASPHALT
 - 6) ALL PAVING REPLACEMENT LIMITS TO FIELD VERIFIED WITH ENGINEER
 - 7) IF TRENCH EDGE IS WITHIN 36" OF EDGE OF PAVING CONTINUE TEE TO EDGE, IF THE DISTANCE IS GREATER THAN 36" STOP TEE AT 12"
 - 8) REPLACE STRIPING IN KIND.

5 SINGLE LANE PAVEMENT REPLACEMENT



- NOTES:
- 1) WHERE SEWER LATERAL IS DAMAGED DURING CONSTRUCTION, THE LATERAL SHALL BE CUT AND REPLACED FOR A DISTANCE OF AT LEAST FIVE FEET (5') ON EACH SIDE OF THE POINT OF CROSSING.
 - 2) ALL SEWER LATERAL REPLACEMENT PIPING SHALL BE PVC SDR 26 UNLESS NOTED OR APPROVED BY THE DISTRICT.
 - 3) ALL COUPLING, ADAPTERS AND MATERIALS USED TO CONNECT PVC SDR 26 PIPING TO OTHER PIPE MATERIALS SHALL BE APPROVED BY THE DISTRICT. USE SHIELDED MAXADAPTOR COUPLINGS; OR EQUAL.
 - 4) ALL SEWER LATERAL REPAIRS SHALL BE BACKFILLED WITH COMPACTIONED OR JETTED CLASS 2 AGGREGATE BASE MATERIAL AS REQUIRED BY THE DISTRICT PER TRENCH DETAIL.

6 SEWER LATERAL REPLACEMENT AT PIPE TRENCH

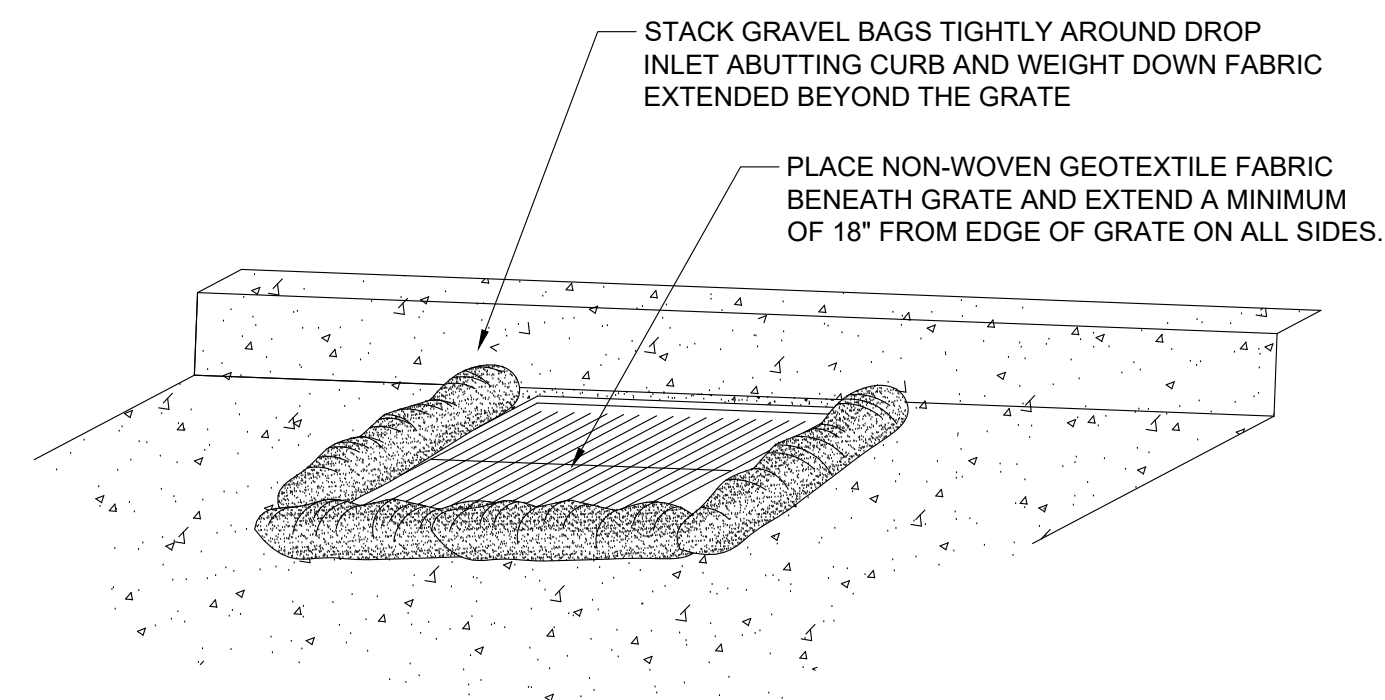
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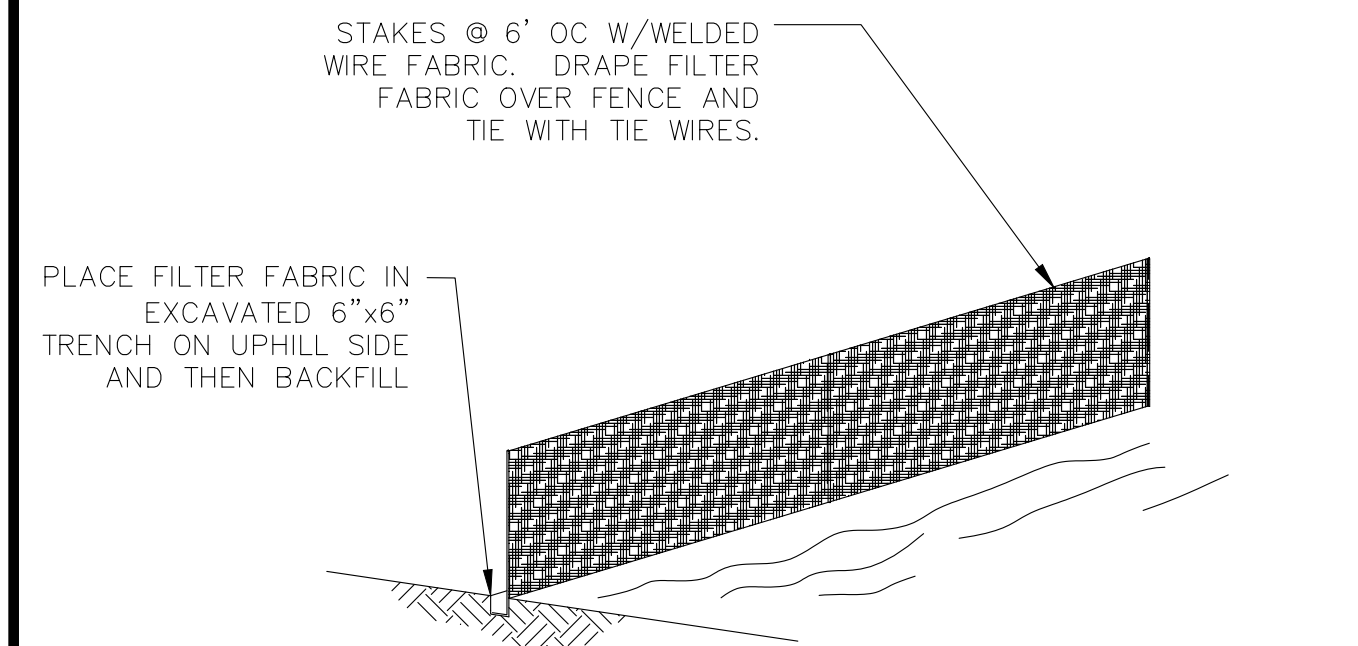
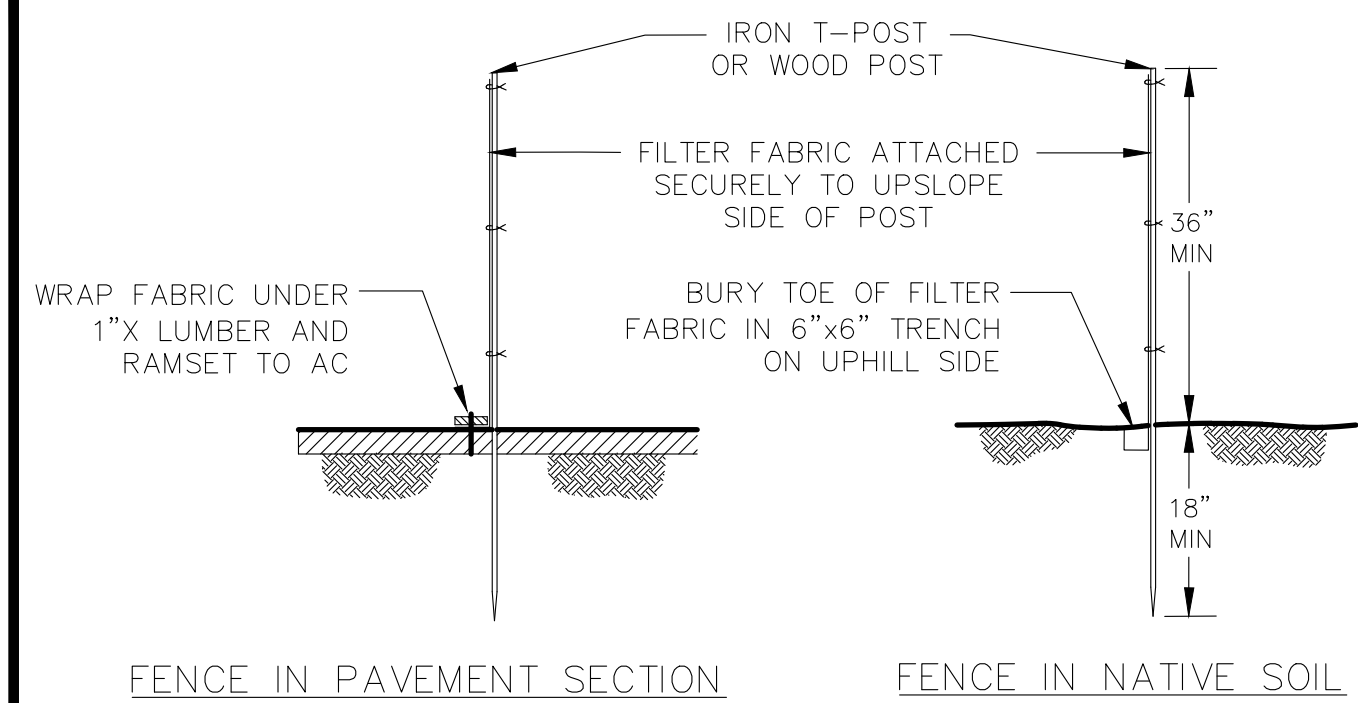


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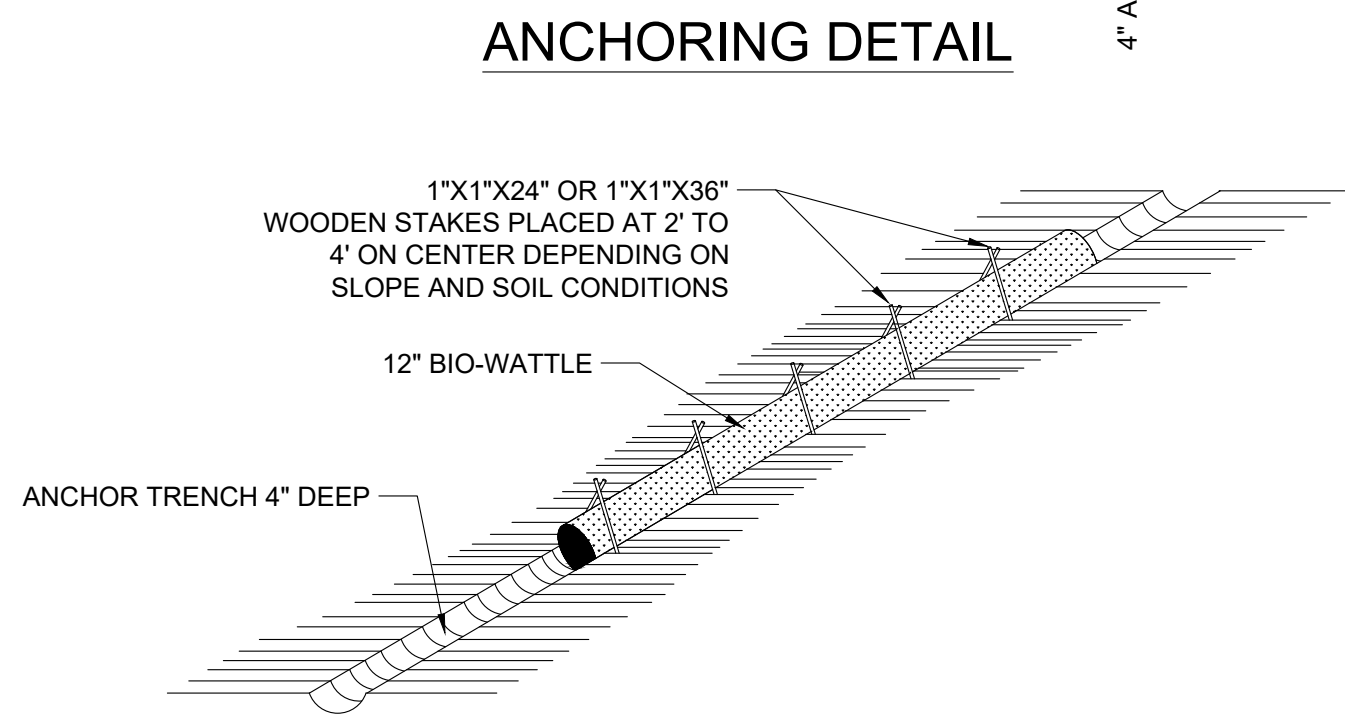
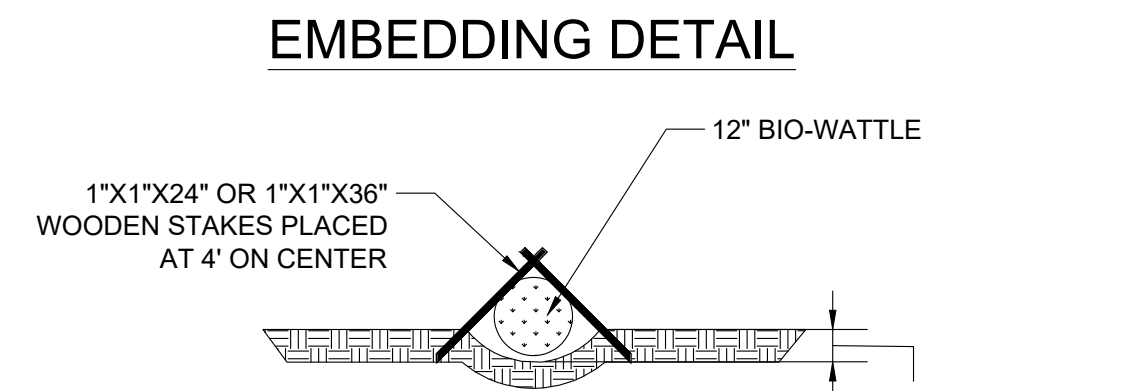


1 DRAINAGE INLET SEDIMENT PROTECTION



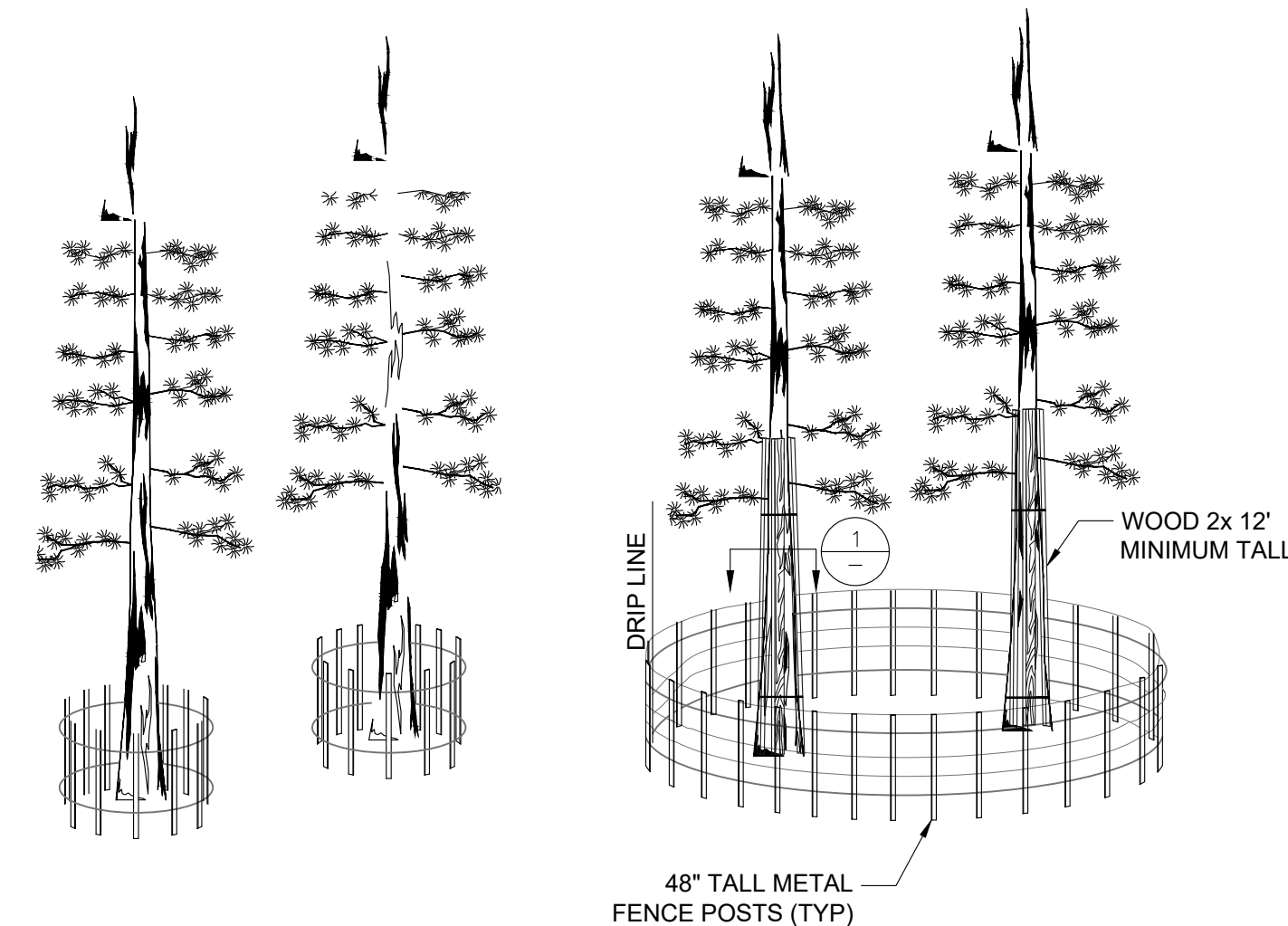
NOTE:
1) PLACE FENCING SUCH THAT STORM RUNOFF CANNOT PASS UNDER OR AROUND.

2 FILTER FABRIC FENCING



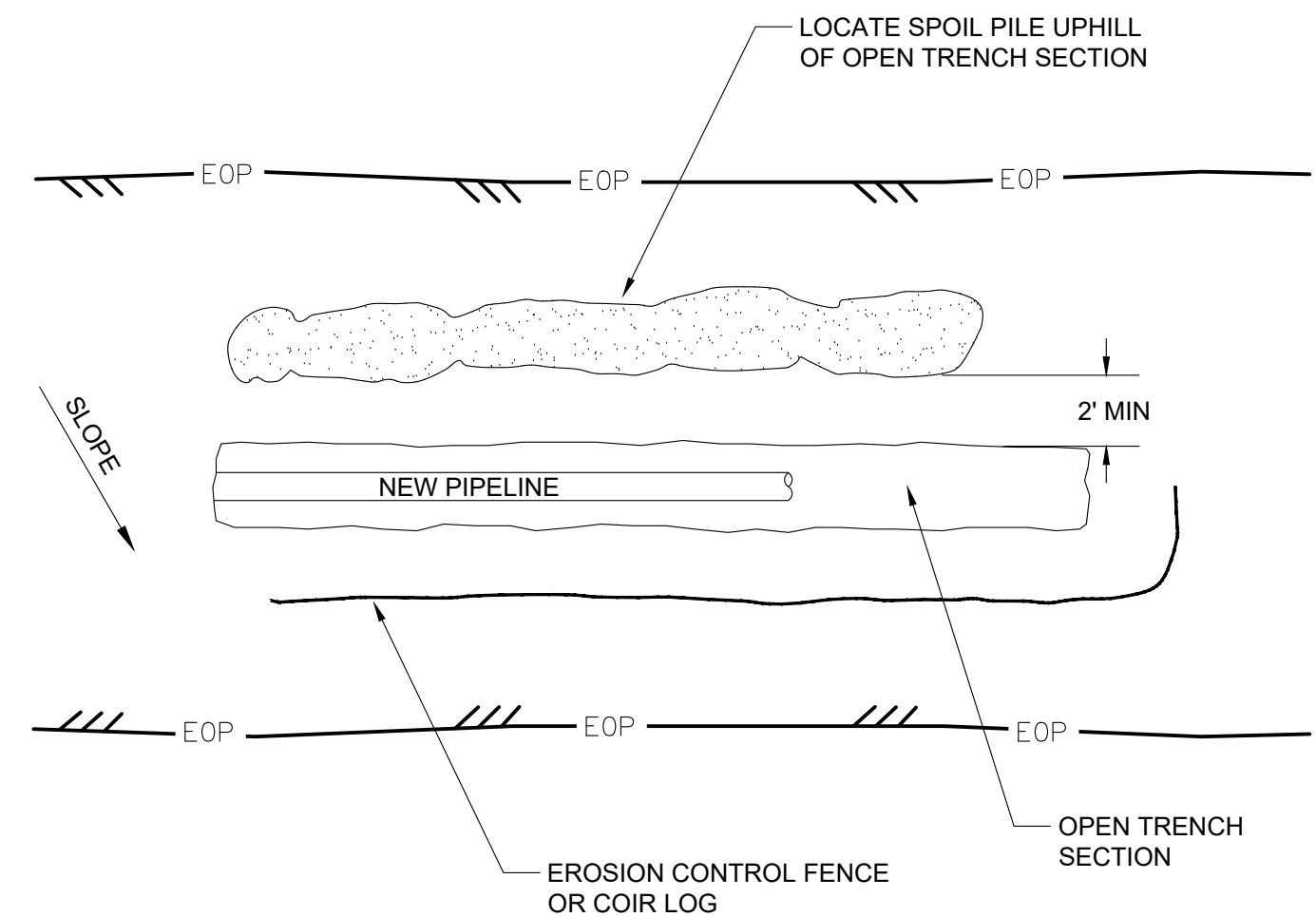
NOTE:
1) SEDIMENT CONTROL BARRIERS USED ON SLOPES, AS CHECK DAMS OR AS SEDIMENT TRAPS SHALL BE BIO-WATTLES AS DISTRIBUTED BY BON-TERRA AMERICA INC. OR APPROVED EQUAL AND INSTALLED AS RECOMMENDED BY THE MANUFACTURE.

3 COIR LOG PLACEMENT



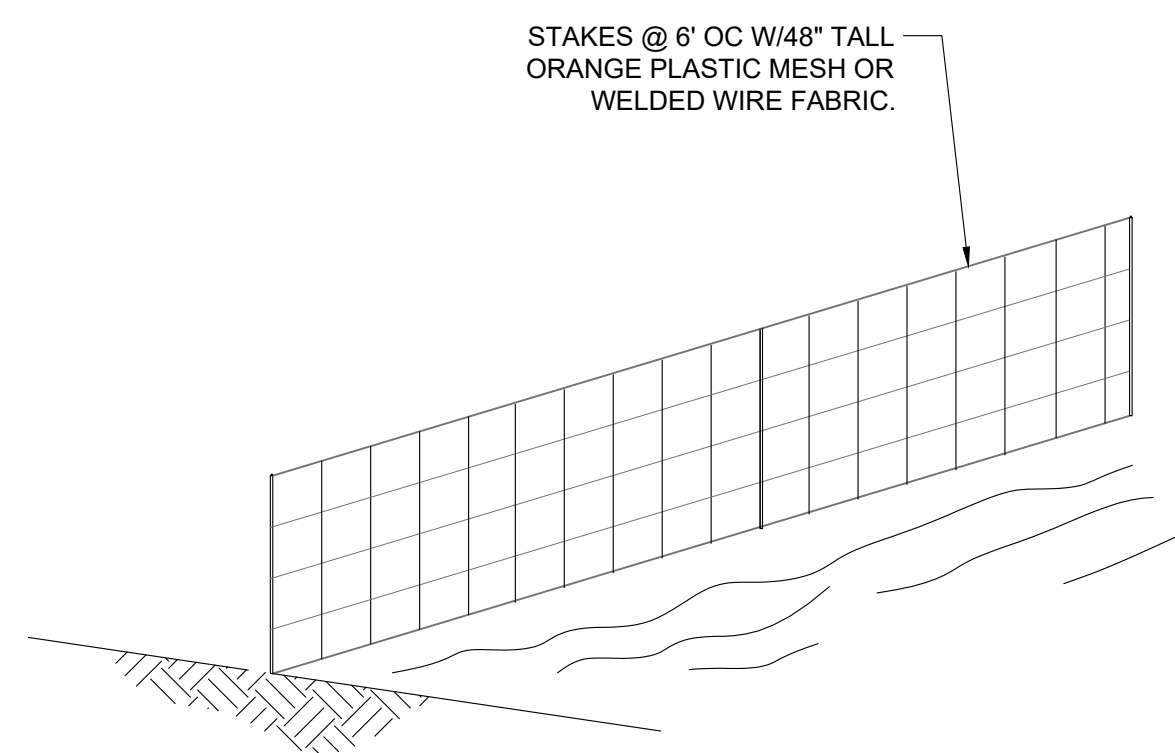
NOTES:
1) PLACING ANY MATERIAL -TEMPORARY OR OTHERWISE- WITHIN PROTECTIVE FENCING OR ENTERING PROTECTION AREAS MAY RESULT IN A FINE. (TRPA SEC. 65.2.1.1 AND J)
2) FORTY EIGHT INCH (48") ORANGE PLASTIC FENCING TYPICAL, METAL OR WIRE MESH FENCING MAY BE REQUIRED PER TRPA.
3) ACTIVITY WITHIN THE DRIP LINE OF A TREE MUST BE AUTHORIZED BY AND DISCUSSED WITH TRPA IN THE FIELD BEFORE IT MAY OCCUR. IF WORK OR TRAFFIC HAS BEEN APPROVED WITHIN THE DRIP LINE AREA, THE PLACEMENT OF WOOD 2X MATERIAL IS REQUIRED

4 VEGETATION PROTECTION FENCING



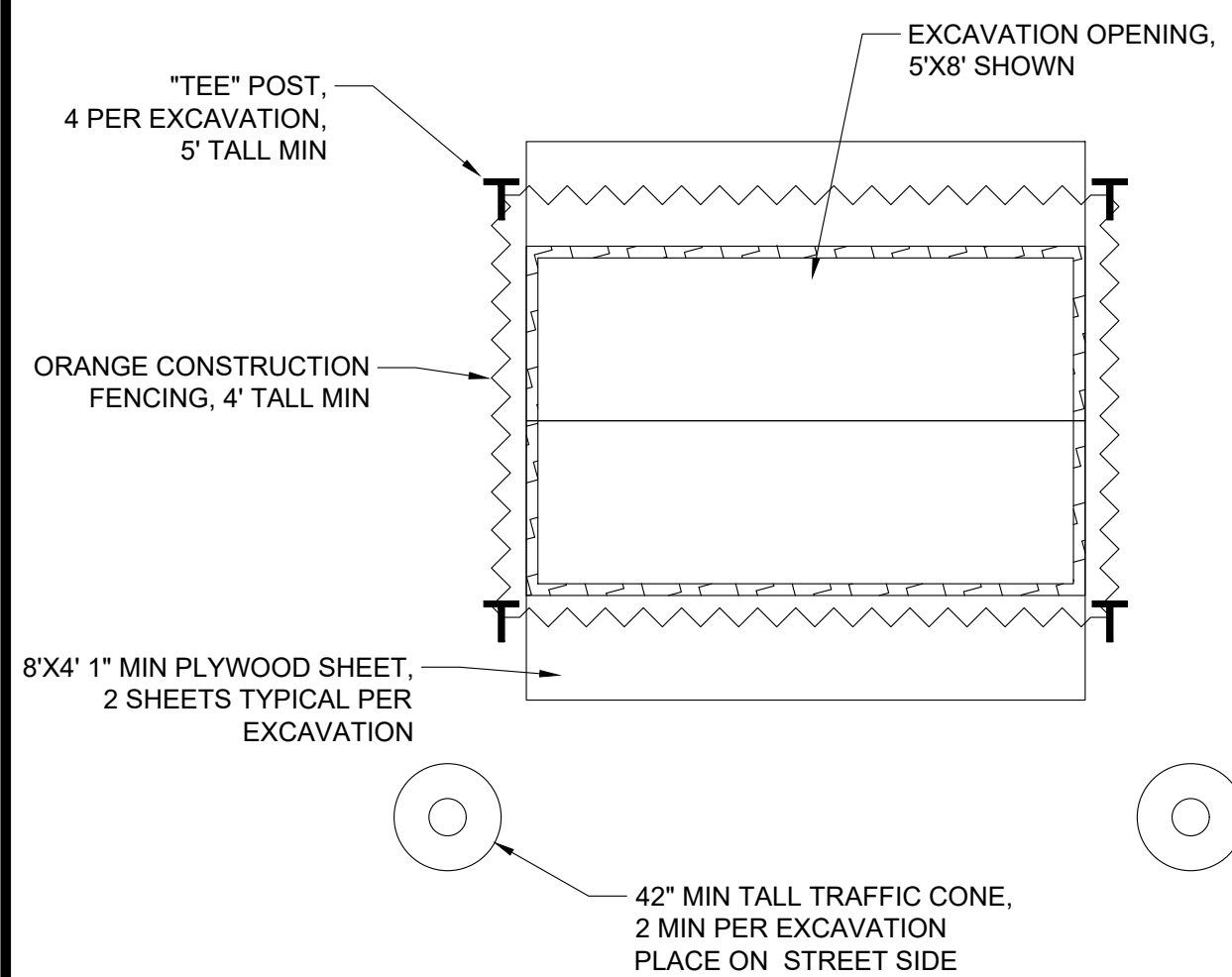
NOTE:
1) RELOCATE EROSION CONTROL FENCE/COIR LOG AS CONSTRUCTION PROGRESSES
2) WHEN NOT ACTIVELY WORKING WITH STOCKPILED MATERIAL, ALL STOCKPILED MATERIAL SHALL BE COVERED AND PROTECTED TO PREVENT WIND TRANSPORT OR DISCHARGE FROM RAIN EVENTS PER STOCKPILE MANAGEMENT DETAIL.

5 TYPICAL OPEN TRENCH SECTION



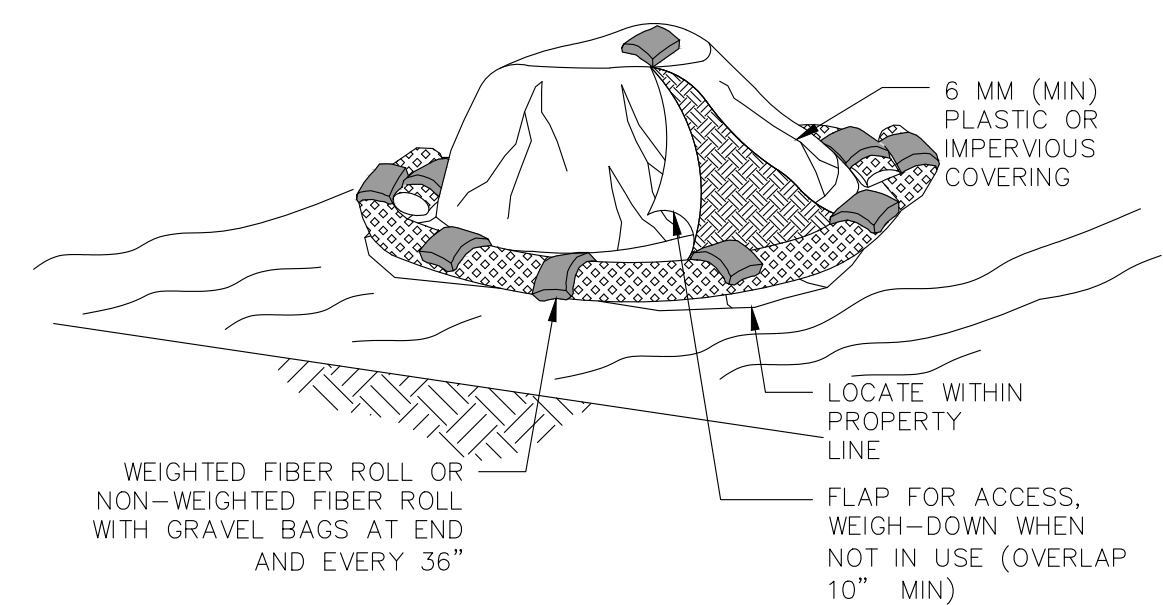
NOTE:
1) IF FILTER FABRIC FENCING IS USED IN LIEU OF SITE PROTECTION FENCING (ORANGE FENCING), INSTALL PER FILTER FABRIC FENCING DETAIL.

6 SITE PROTECTION FENCING



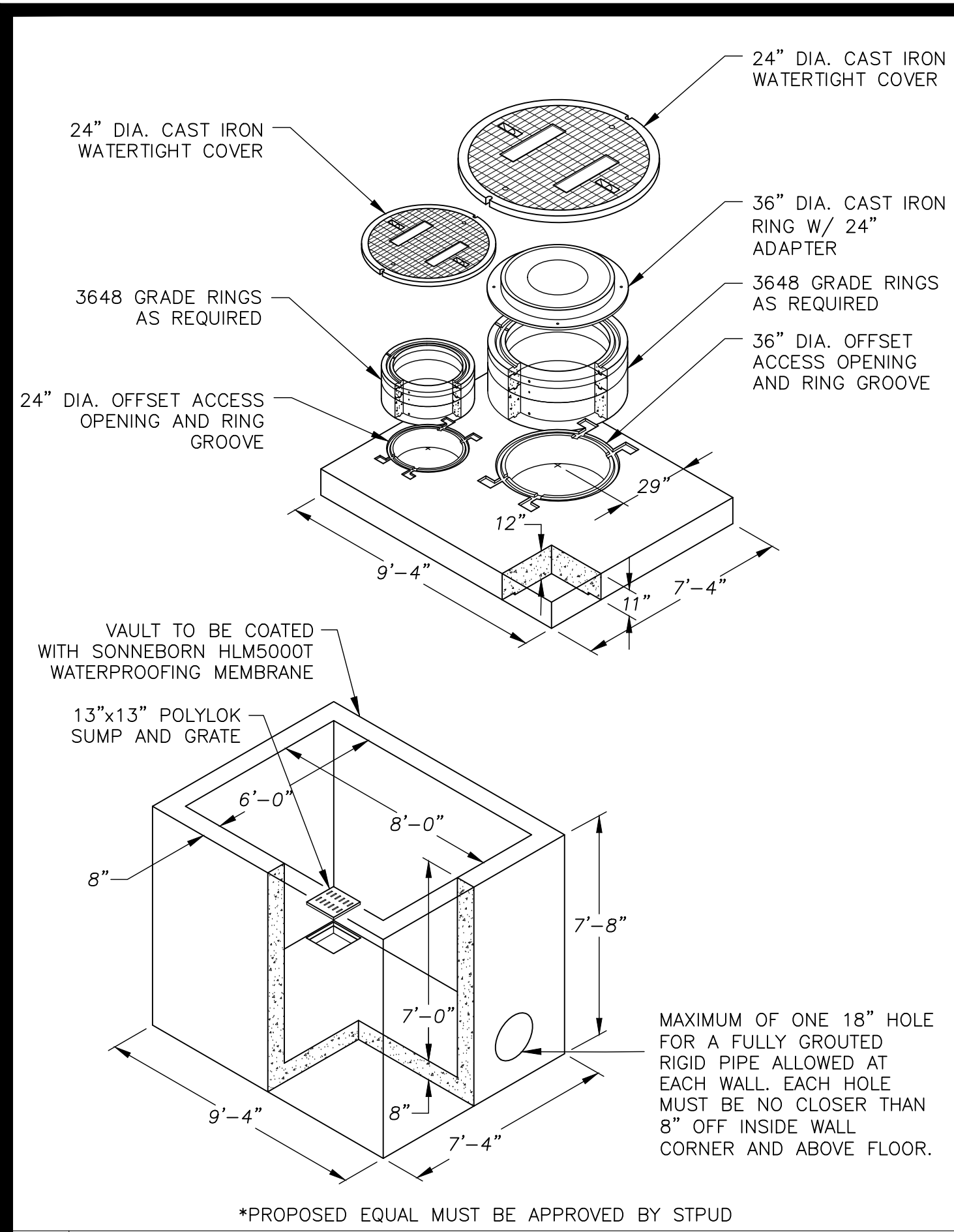
NOTES:
1) ALL EXCAVATIONS SHALL BE COVERED AND PROTECTED AT THE END OF EACH WORK DAY.
2) EXCAVATIONS IN PAVEMENT OR PARTIALLY IN PAVEMENT SHALL BE COVERED WITH A STEEL TRENCH PLATE WITH A MINIMUM OF TWO TRAFFIC CONES 42" TALL. EXCAVATION IN THE ROADWAY SHALL BE COVERED WITH A TRENCH PLATE AND THE EDGES SHALL BE COLD MIXED. SEE GENERAL NOTE #12.

7 SECURE OPEN EXCAVATIONS



NOTES:
1. LOCATE STOCK AND/OR SPOIL PILES AWAY FROM DRAINAGE COURSES, DRAIN INLETS OR CONCENTRATED FLOWS OF STORMWATER.
2. ALL STOCK AND/OR SPOIL PILE PERIMETERS SHALL BE PROTECTED WITH TEMPORARY LINEAR SEDIMENT BARRIERS.
3. COVER ALL STOCK AND/OR SPOIL PILES WITH 6 MM PLASTIC, CANVAS TARP OR IMPERVIOUS COVER TO PREVENT WIND AND RAIN EROSION. EVENLY SPACE WEIGHTS (GRAVEL BAGS) ON COVER TO KEEP IN PLACE DURING WIND.
4. CONDUCT REGULAR INSPECTIONS OF STOCK AND/OR SPOIL PILES DURING AND AFTER RAIN EVENTS
5. VERY LARGE STOCK AND/OR SPOIL PILES MAY REQUIRE SILT FENCE IN LIEU OF FIBER ROLLS.
6. REMOVE SPOIL PILES FROM CONSTRUCTION SITE AS SOON AS POSSIBLE.
7. STOCK/SPOIL PILES MUST BE STORED WITHIN THE APPROVED STAGING AREA.

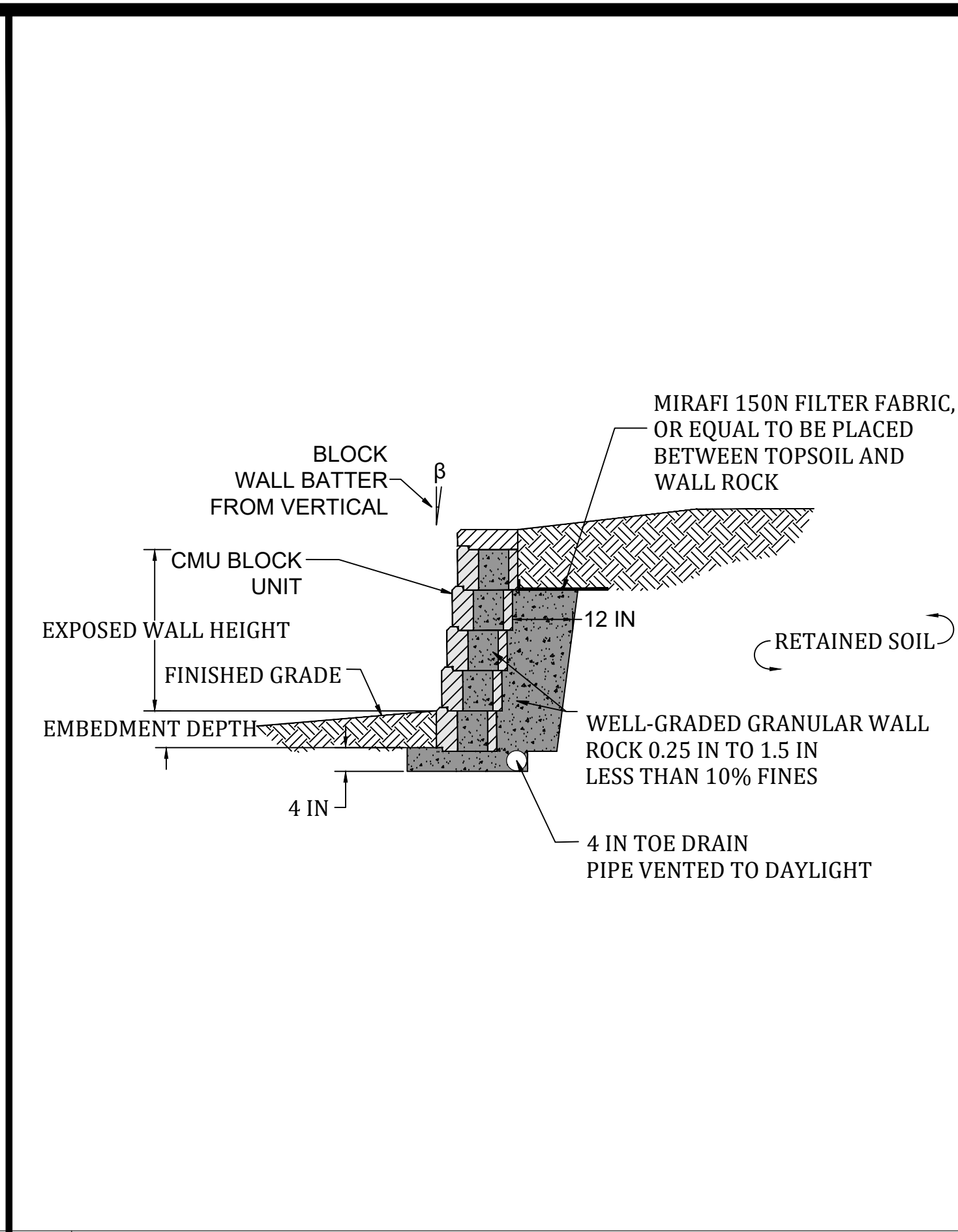
8 STOCKPILE MANAGEMENT



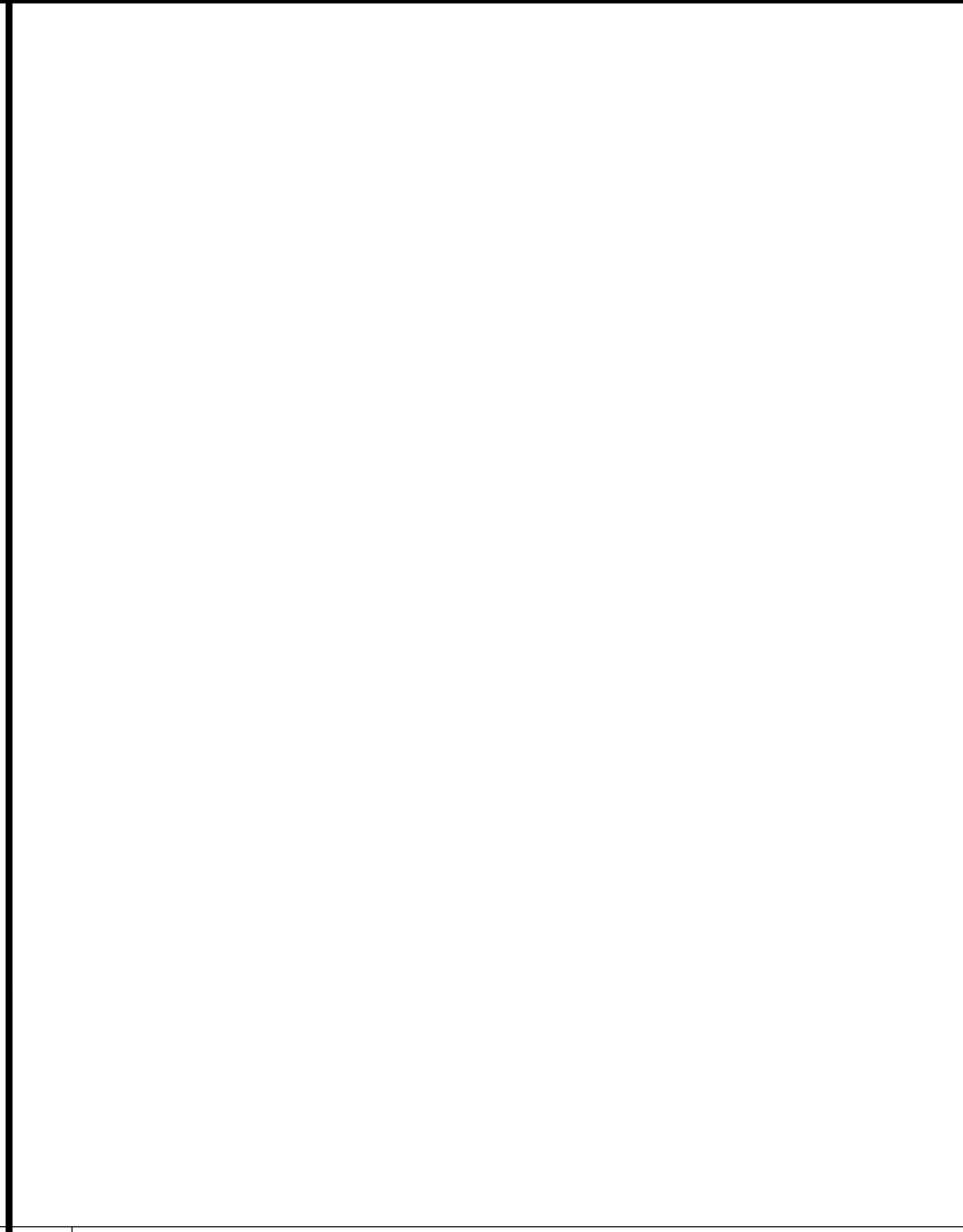
1 JENSEN #687 PRV CONCRETE VAULT, OR EQUAL *



5 NOT USED



2 TYPICAL GRAVITY WALL



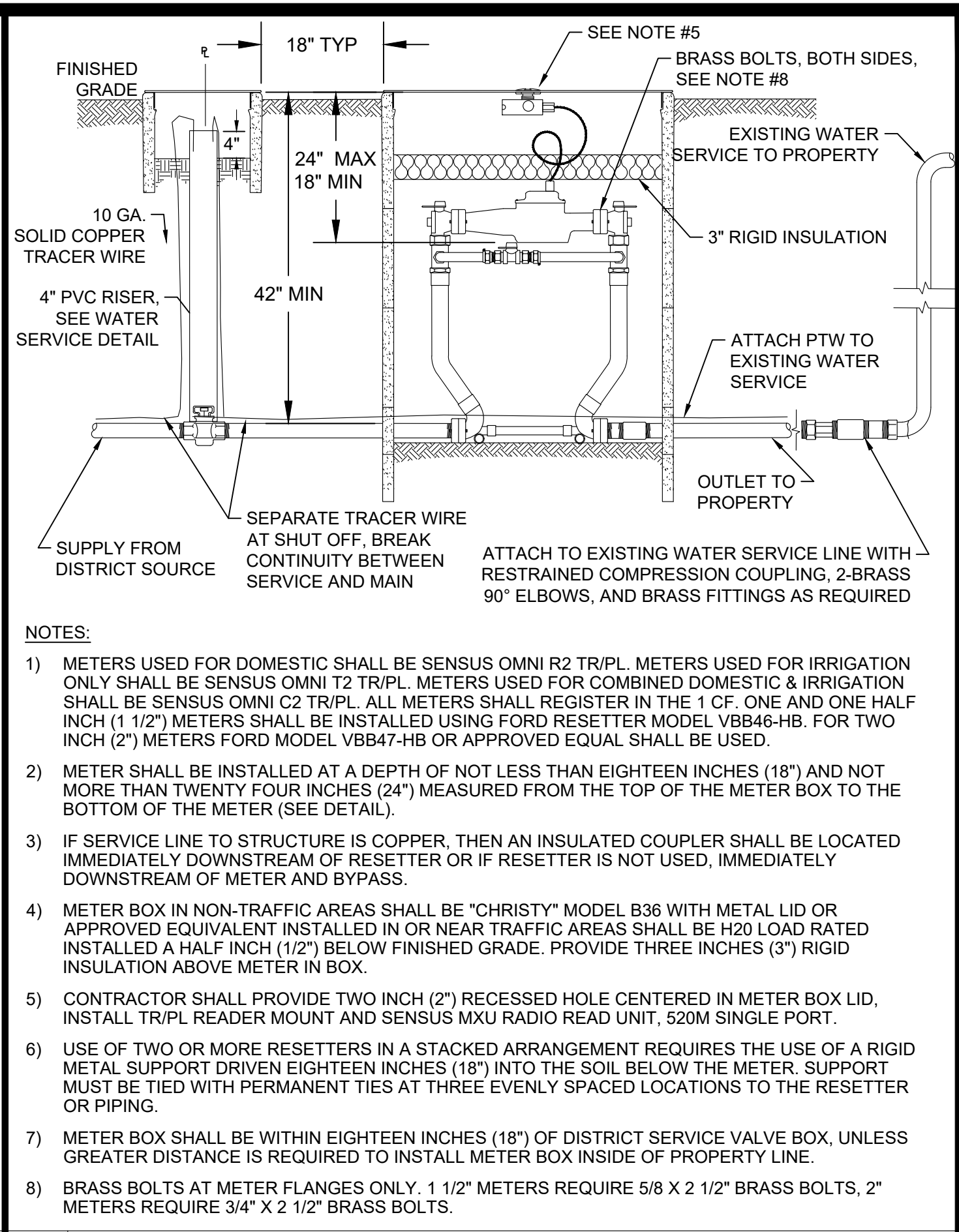
6 NOT USED

| ID | SHEET # | DIAMETER (IN) | TYPE |
|----|---------|---------------|------|
| 1 | P1 | 24 | PINE |
| 2 | P1 | 22 | PINE |
| 3 | P1 | 18 | PINE |
| 4 | P1 | 24 | PINE |
| 5 | P2 | 24 | PINE |
| 6 | P2 | 42 | PINE |
| 7 | P3 | 32 | PINE |
| 8 | P3 | 24 | PINE |
| 9 | P3 | 34 | PINE |
| 10 | P4 | 20 | PINE |
| 11 | P5 | 32 | PINE |
| 12 | P5 | 26 | PINE |
| 13 | P5 | 30 | PINE |

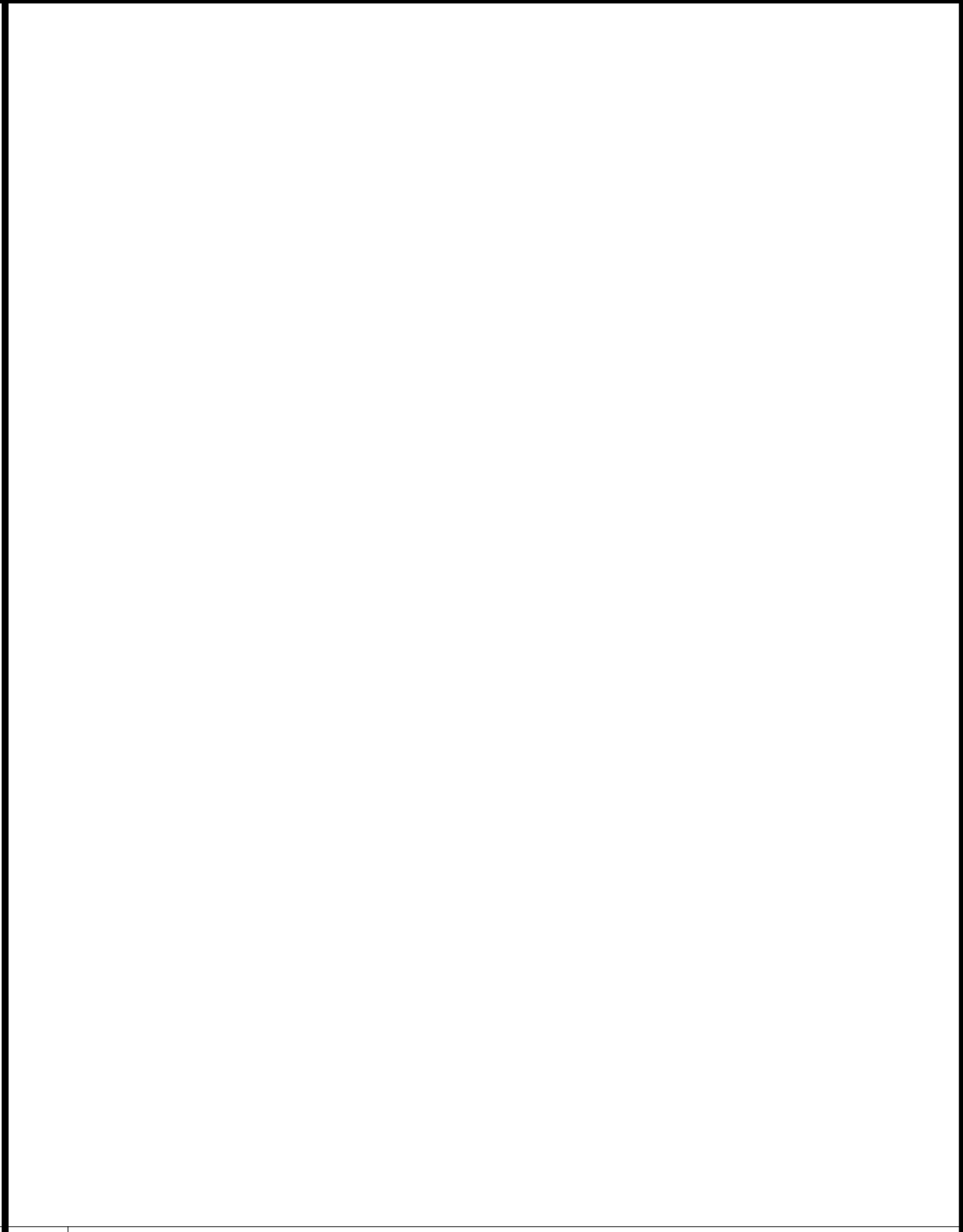
3 TREE REMOVAL TABLE



7 NOT USED



4 WATER METER 1-1/2" AND 2"



8 NOT USED

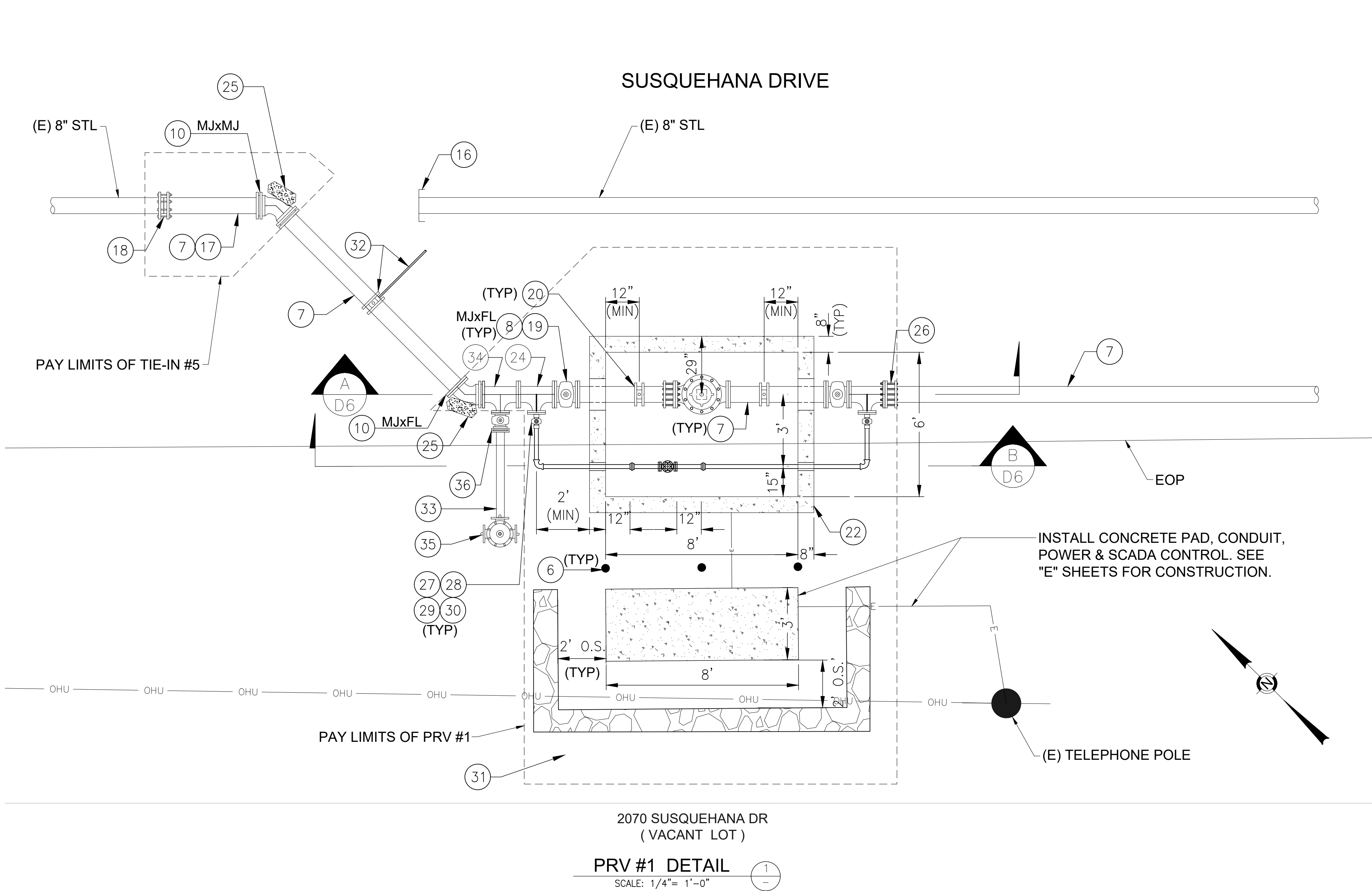
SOUTH TAHOE PUBLIC UTILITY DISTRICT

A PUBLIC AGENCY
 1275 Meadows Crest Drive South Lake Tahoe, California 96150
 Phone (530) 544-6474 Fax (530) 544-4379
 WWW.STPUD.US

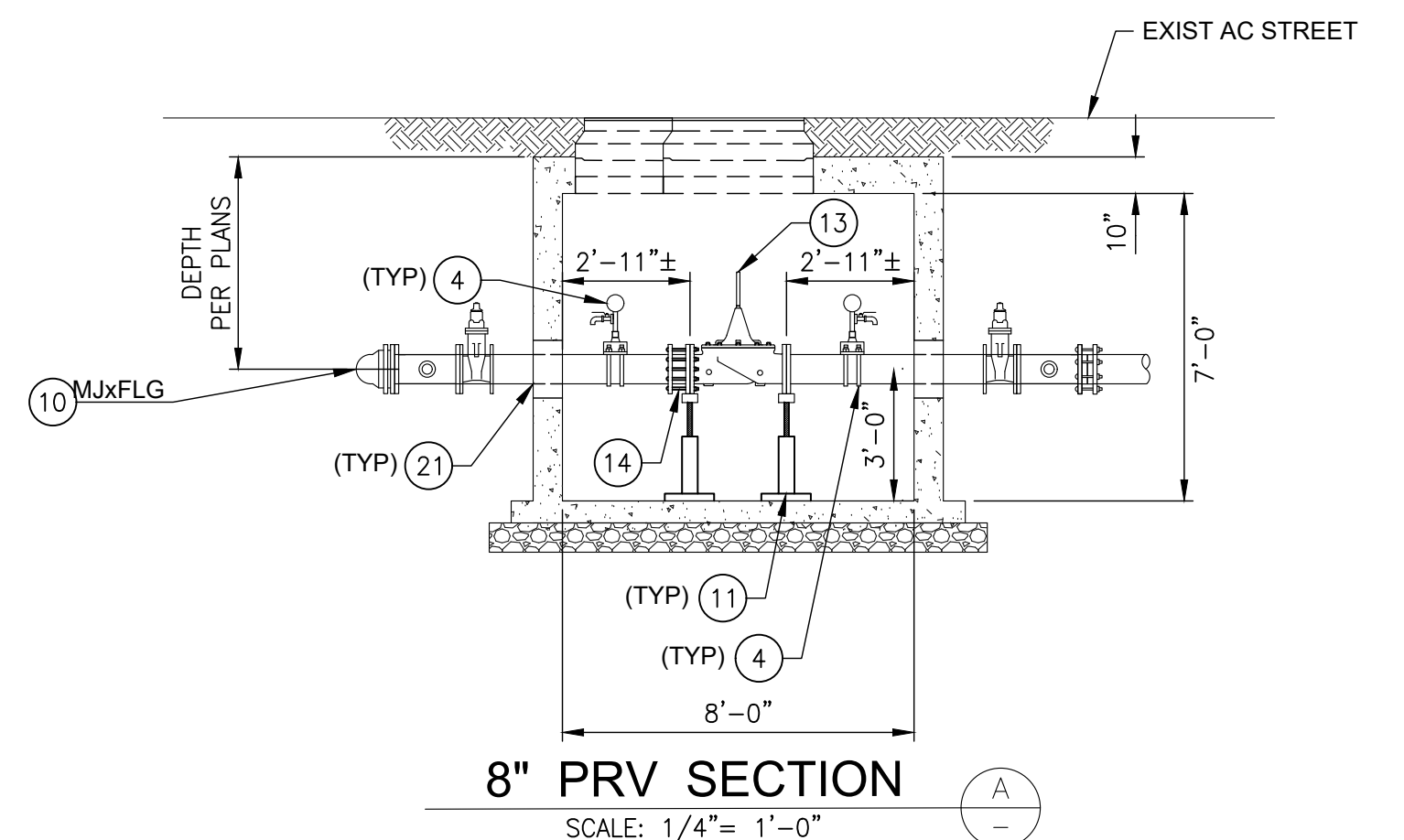
2026 PIONEER TRAIL WATERLINE PROJECT (REBID) DETAILS



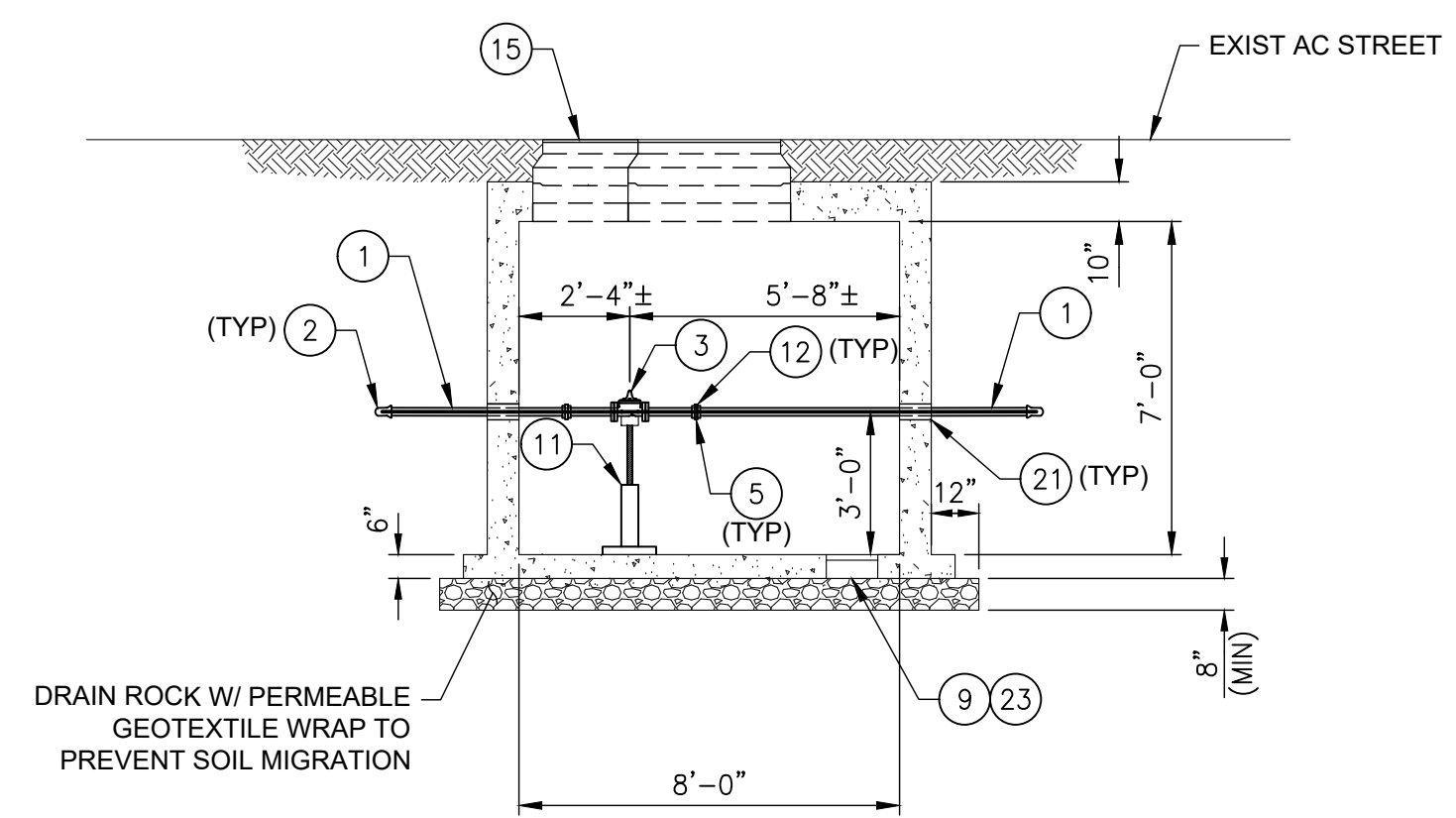
DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:
D5
 17 OF 38 SHEETS



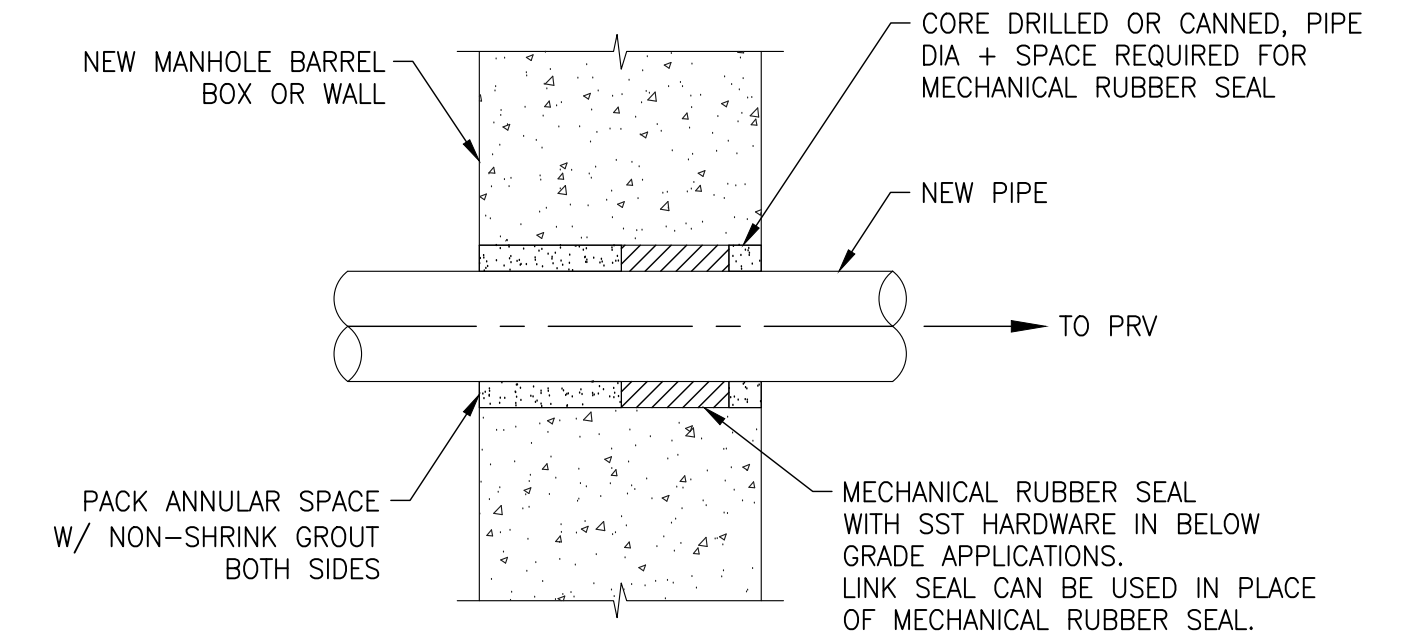
2070 SUSQUEHANA DR
(VACANT LOT)
PRV #1 DETAIL
SCALE: 1/4" = 1'-0"



8" PRV SECTION
SCALE: 1/4" = 1'-0"



2" PRV SECTION
SCALE: 1/4" = 1'-0"



PIPE PENETRATION THROUGH VAULT
N.T.S.

KEY NOTES

- | | | |
|--|---|---|
| <p>1. INSTALL 2" BRASS PIPE.</p> <p>2. INSTALL 2"x90" BRASS ELBOW, PACK JOINT.</p> <p>3. INSTALL 2" PRESSURE REDUCING VALVE, CLA-VAL MODEL 690-01BCDMPYKXC (FLANGED), OR APPROVED EQUAL, W/PRESSURE RANGE OF 30-300 PSI.</p> <p>4. INSTALL 4" PRESSURE GAUGE, ASHCROFT 1279 OR APPROVED EQUAL. PER DETAIL 3, ON SHEET D1. INSTALL GAUGES WITH 45° BRASS ELBOW FACING UPWARDS TO SEE FROM ABOVE.</p> <p>5. INSTALL 2" THREADED BRASS UNION.</p> <p>6. INSTALL SAFETY BOLLARD PER DETAIL 2, ON SHEET D1.</p> <p>7. INSTALL 8" DIP PER DETAILS 1 & 2 ON SHEET D2 AND DETAIL 5 ON SHEET D1.</p> <p>8. INSTALL 8" GATE VALVE, RESTRAINED, PER DETAIL 5, ON SHEET D2.</p> <p>9. VAULT DRAIN WITH CLEAN 1/2" - 3/4" DRAIN ROCK UNDER VAULT.</p> <p>10. INSTALL 8"x45" DI BEND WITH THRUST BLOCK PER DETAIL 4, ON SHEET D2.</p> <p>11. INSTALL ADJUSTABLE PIPE SUPPORT PER DETAIL 1, ON SHEET D1.</p> <p>12. INSTALL 2" COMPANION FLANGE.</p> <p>13. INSTALL 8" PRESSURE REDUCING VALVE, CLA-VAL MODEL 90-01BCDMPYSYC (FLANGED), OR APPROVED EQUAL, W/ PRESSURE RANGE OF 30-300 PSI.</p> | <p>14. INSTALL 8" DISMANTLING JOINT, ROMAC DJ400 OR APPROVED EQUAL.</p> <p>15. INSTALL 24" MANHOLE COVER, WATERTIGHT SHALL BE "D&L FOUNDRY" AND MARKED, "S.T.P.U.D. WATER".</p> <p>16. CUT AND CAP EXISTING 8" WATER MAIN. ABANDON (E) WATERMAIN. FILL WITH SLURRY.</p> <p>17. REMOVE INTERFERING PORTION OF EXISTING PIPE, FITTINGS, AND APPURTENANCES.</p> <p>18. CONNECT TO (E) 8" STEEL WATER MAIN. INSTALL 8" TRANSITION COUPLER, PER DETAIL 4 ON SHEET D1.</p> <p>19. INSTALL VALVE CAN PER DETAIL 5, ON SHEET D2.</p> <p>20. INSTALL 8" SERVICE SADDLE WITH 1" BALL VALVE FOR PRESSURE GAGE.</p> <p>21. PIPE PENETRATION THROUGH WALL PER DETAIL C, THIS SHEET.</p> <p>22. INSTALL 8'x6'x7' DEEP CONCRETE VAULT WITH CONCRETE BOTTOM PER JENSEN #687 PRV CONCRETE VAULT OR APPROVED EQUAL PER DETAIL 4, ON SHEET D-2.</p> <p>23. INSTALL 13"x13" POLYLOK SUMP & GRATE.</p> <p>24. INSTALL 8" TEE (FLxFL)</p> <p>25. INSTALL THRUST BLOCK, PER DETAIL 4, SHEET D2.</p> <p>26. INSTALL 8" FLxMJ ADAPTER.</p> | <p>27. INSTALL 8"x2" REDUCING COMPANION FLANGE.</p> <p>28. INSTALL 2" BRASS MALE NIPPLE</p> <p>29. INSTALL 2" THREADED GATE VALVE WITH STANDARD 2" OPERATING NUT.</p> <p>30. INSTALL 2" BRASS MALE CONNECTION.</p> <p>31. INSTALL ROCK BLOCK WALL, PER DETAIL 2 ON SHEET D5. APPROX. 25 LF. OFFSET 2 FT ON SIDES AND BACK OF PRV PAD.</p> <p>32. INSTALL SERVICE SADDLE AND RUN SERVICE PER DETAIL 1, ON SHEET D3.</p> <p>33. INSTALL 6" DIP PER DETAILS 1 & 2 ON SHEET D2 AND DETAIL 5 ON SHEET D1.</p> <p>34. INSTALL 8"x6" BRANCH TEE (FLxMJ)</p> <p>35. INSTALL FIRE HYDRANT PER DETAIL 6, ON SHEET D2</p> <p>36. INSTALL 6" GATE VALVE, RESTRAINED, PER DETAIL 5, ON SHEET D2.</p> |
|--|---|---|

NOTES

- CONTRACTOR TO INSTALL TEMPORARY BLOW OFFS AT ALL ABANDONMENT LOCATIONS FOR USE DURING SLURRY FILL. BLOW OFFS TO BE CUT OFF AT MAINLINE DEPTH AFTER SLURRY FILL.
- ALL EASEMENTS ARE FOR OVERHEAD PURPOSES, UNLESS OTHERWISE NOTED ON PLAN SET.
- ALL NEW WATER PIPING TO BE MECHANICALLY RESTRAINED AT EVERY JOINT AND FITTING.
- AT ALL PROPOSED FITTINGS AND LOCATIONS WHERE UNBALANCED THRUST FORCES EXIST, THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF STPUD STANDARD DETAILS WM08, WM09, OR A COMBINATION OF BOTH.
- AT LOCATIONS WHERE PROPOSED CONNECTIONS ARE MADE TO EXISTING FACILITIES, THE EXISTING THRUST BLOCKS AND ASSOCIATED ADDITIONAL RESTRAINT SYSTEMS SHALL BE PROTECTED IN PLACE. WHERE THE EXISTING RESTRAINT SYSTEMS MUST BE DISTURBED TO COMPLETE THE PROPOSED CONNECTION(S), THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF FORTY EIGHT (48) HOURS IN ADVANCE PRIOR TO ANY ADDITIONAL WORK AT THE IMPACTED LOCATION.
- ALL MONUMENTS TO BE PROTECTED IN PLACE. ALL SURVEY MONUMENTS DESTROYED AND/OR DISTURBED DURING CONSTRUCTION SHALL BE RESURVEYED AND REPLACED BY A REGISTERED SURVEYOR AT THE CONTRACTOR'S EXPENSE. THE SURVEYOR SHALL RECORD THE PLACEMENT OF NEW MONUMENT.

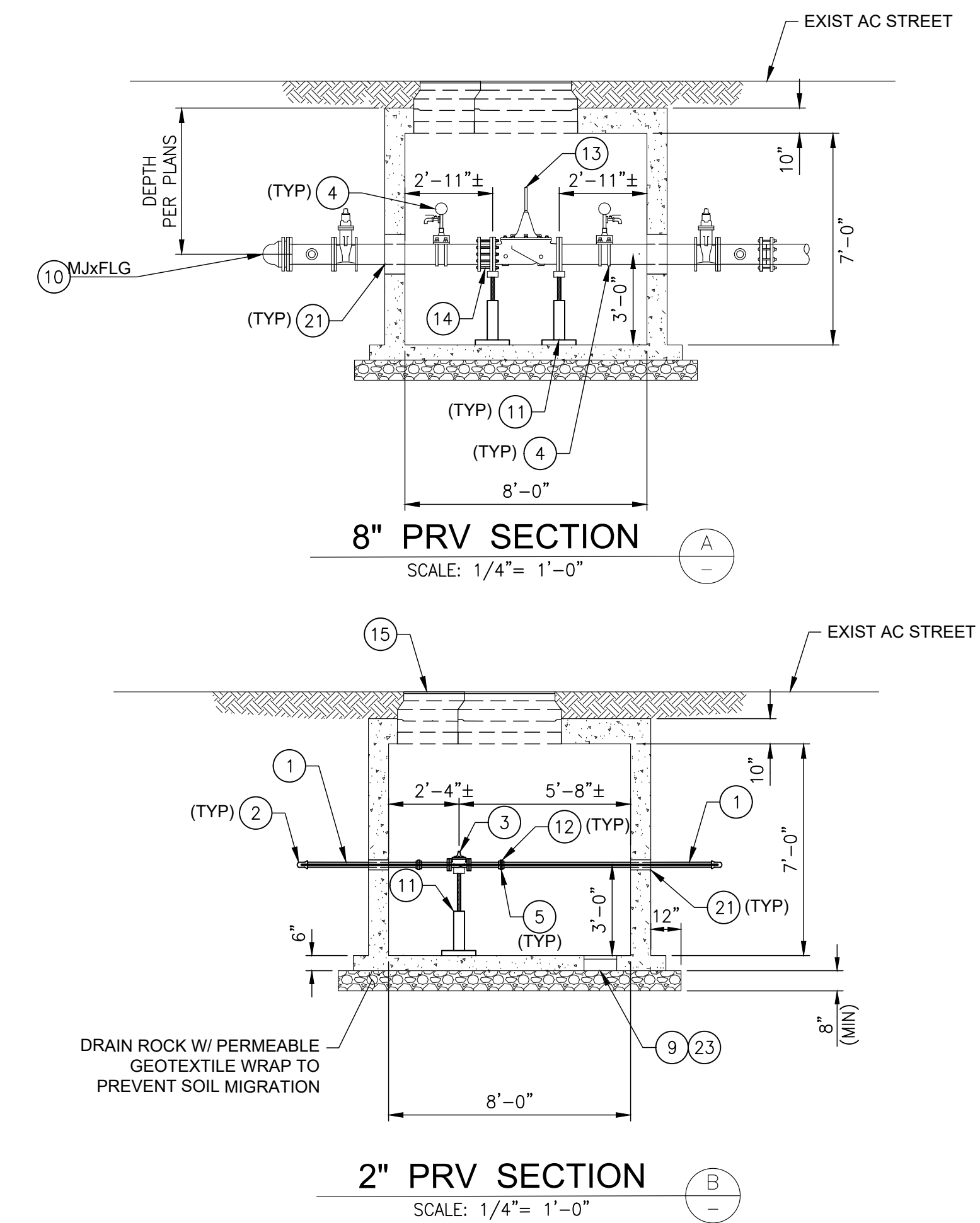
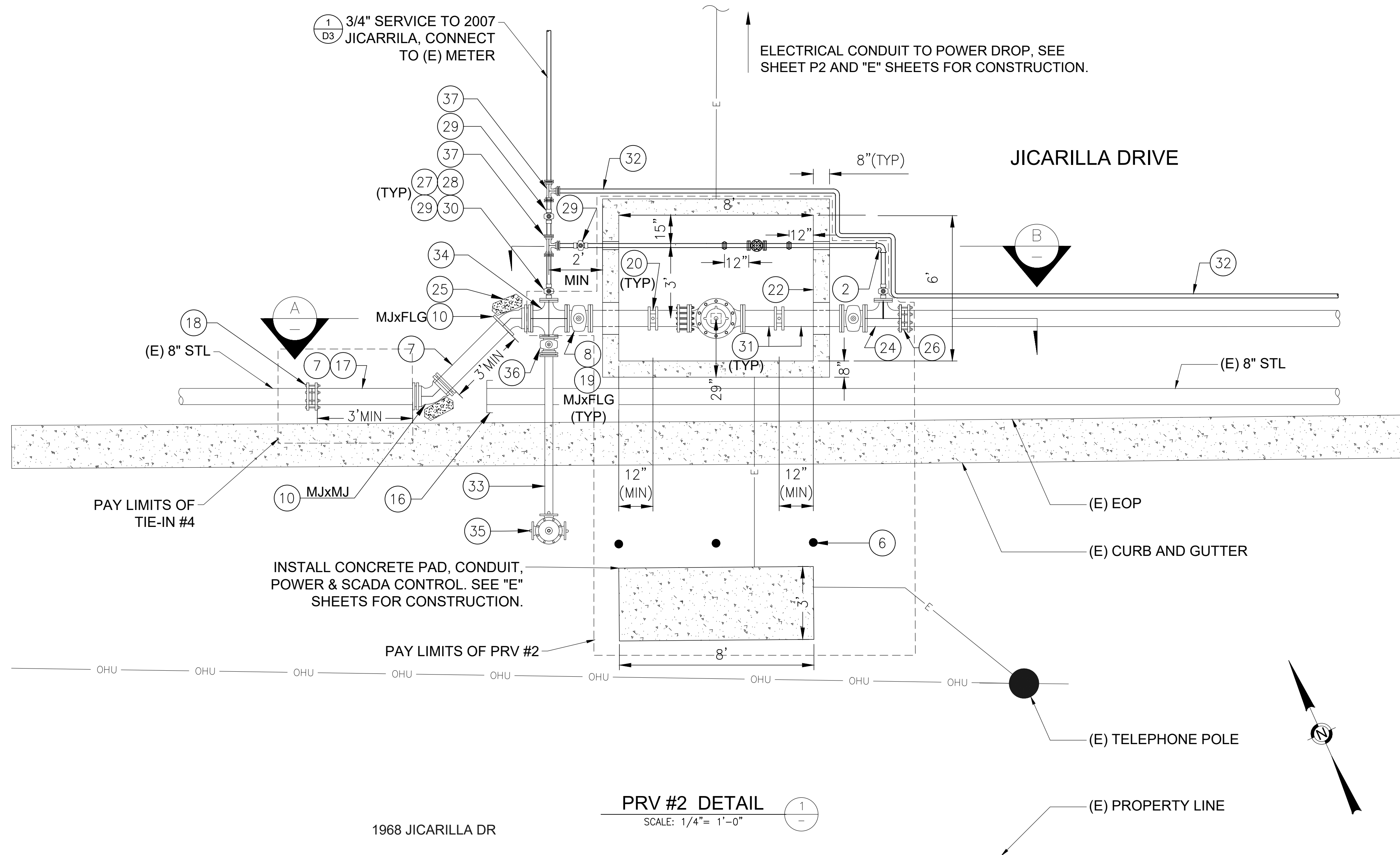
**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
PRV #1 & INTERTIE DETAILS**

SOUTH TAHOE PUBLIC UTILITY DISTRICT
A PUBLIC AGENCY
Sever, 1950 Water
1275 Meadow Crest Drive South Lake Tahoe, California 96150
Phone (530) 544-6474 Fax (530) 541-4379
WWW.STPUD.US



DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

X:\Projects\Water\2026 Pioneer Trail Waterline\B - Engineering\B.1 - CAD\B.1.3 - Plan Sheets\PROPOSED PT WATERLINE_REBID_4.28.2025_TJ.dwg 5/4/2026 12:37 PM Taylor Jaime



NOTES

- CONTRACTOR TO INSTALL TEMPORARY BLOW OFFS AT ALL ABANDONMENT LOCATIONS FOR USE DURING SLURRY FILL. BLOW OFFS TO BE CUT OFF AT MAINLINE DEPTH AFTER SLURRY FILL.
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KEY NOTES

- | | | |
|---|--|--|
| <ol style="list-style-type: none"> INSTALL 2" BRASS PIPE. INSTALL 2"x90" BRASS ELBOW, PACK JOINT. INSTALL 2" PRESSURE REDUCING VALVE, CLA-VAL MODEL 690-01BCDMPYKX (FLANGED), OR APPROVED EQUAL, W/PRESSURE RANGE OF 30-300 PSI. INSTALL 4" PRESSURE GAUGE, ASHCROFT 1279 OR APPROVED EQUAL PER DETAIL 3, ON SHEET D1. INSTALL GAUGES WITH 45° BRASS ELBOW FACING UPWARDS TO SEE FROM ABOVE. INSTALL 2" THREADED BRASS UNION. INSTALL SAFETY BOLLARD PER DETAIL 2, ON SHEET D1. INSTALL 8" DIP OR C900, 3 FT MIN, PER DETAILS 1 & 2 ON SHEET D2 AND DETAIL 5 ON SHEET D1. INSTALL 8" GATE VALVE, RESTRAINED, PER DETAIL 5, ON SHEET D2. VAULT DRAIN WITH CLEAN 1/2" - 3/4" DRAIN ROCK UNDER VAULT. INSTALL 8"x45" DI BEND WITH THRUST BLOCK PER DETAIL 4, ON SHEET D2. INSTALL ADJUSTABLE PIPE SUPPORT PER DETAIL 1, ON SHEET D1. INSTALL 2" COMPANION FLANGE. INSTALL 8" PRESSURE REDUCING VALVE, CLA-VAL MODEL 90-01BCDMPYSYK (FLANGED), OR APPROVED EQUAL, W/ PRESSURE RANGE OF 30-300 PSI. INSTALL 8" DISMANTLING JOINT, ROMAC DJ400 OR APPROVED EQUAL. | <ol style="list-style-type: none"> INSTALL MANHOLE COVERS, WATERTIGHT SHALL BE "D&L FOUNDRY" AND MARKED, "S.T.P.U.D. WATER", PER DETAIL 1 ON SHEET D5. CUT AND CAP EXISTING 8" WATER MAIN. ABANDON (E) WATERMAIN. FILL WITH SLURRY. REMOVE INTERFERING PORTION OF EXISTING PIPE, FITTINGS, AND APPURTENANCES. CONNECT TO (E) 8" STEEL WATER MAIN, INSTALL 8" TRANSITION COUPLER, PER DETAIL 4 ON SHEET D1. INSTALL VALVE CAN PER DETAIL 5, ON SHEET D2. INSTALL 8" SERVICE SADDLE WITH 1" BALL VALVE FOR PRESSURE GAGE. PIPE PENETRATION THROUGH WALL PER DETAIL C, ON SHEET D6. INSTALL 8'x6'x7' DEEP CONCRETE VAULT WITH CONCRETE BOTTOM PER JENSEN #687 PRV CONCRETE VAULT OR APPROVED EQUAL PER DETAIL 1, ON SHEET D5. INSTALL 13"x13" POLYLOK SUMP & GRATE. INSTALL 8" TEE (FLxFL) INSTALL THRUST BLOCK, PER DETAIL 4, SHEET D2. INSTALL 8" FLxMJ ADAPTER. INSTALL 6"x2" REDUCING COMPANION FLANGE. INSTALL 2" BRASS MALE NIPPLE. | <ol style="list-style-type: none"> INSTALL 2" THREADED GATE VALVE WITH STANDARD 2" OPERATING NUT, FIP. INSTALL 2" BRASS MALE CONNECTION. INSTALL 8" DIP PER DETAILS 1 & 2 ON SHEET D2 AND DETAIL 5 ON SHEET D1. INSTALL 2" POLY WATERLINE IN SHARED 8" WATERLINE TRENCH TO CONNECT WITH (E) 2" WATERLINE @ INTERSECTION OF PIONEER TRAIL AND JICARILLA DRIVE. SEE SHEET P2. INSTALL 6" DIP PER DETAILS 1 & 2 ON SHEET D2 AND DETAIL 5 ON SHEET D1. INSTALL 8"x8"x6"x6" CROSS (FL) INSTALL FIRE HYDRANT PER DETAIL 6, ON SHEET D2 INSTALL 6" GATE VALVE, RESTRAINED, PER DETAIL 5, ON SHEET D2. 2" BRASS TEE |
|---|--|--|

**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
PRV #2 & INTERTIE DETAIL**

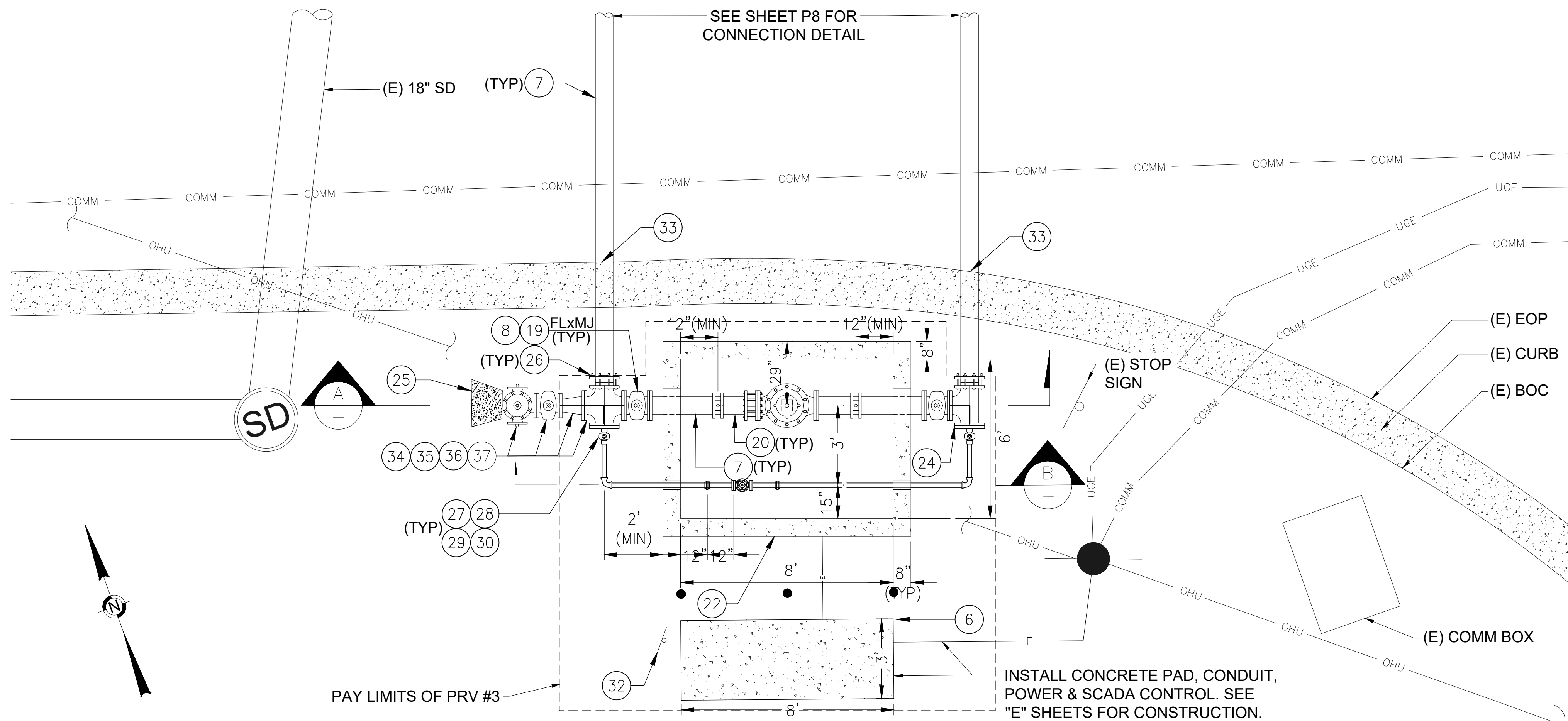


DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

SOUTH TAHOE PUBLIC UTILITY DISTRICT
A PUBLIC AGENCY
Sewer: 1950 Water
1275 Meadow Crest Drive South Lake Tahoe, California 96150
Phone (530) 544-6474 Fax (530) 541-4379
WWW.STPUD.US

X:\Projects\Water\2026 Pioneer Trail Waterline\B - Engineering\B.1 - CAD\B.1.3 - Plan Sheets\PROPOSED PT WATERLINE_REBID_4.28.2025_TJ.dwg 5/4/2026 12:37 PM Taylor Jaime

GOLDEN BEAR DRIVE

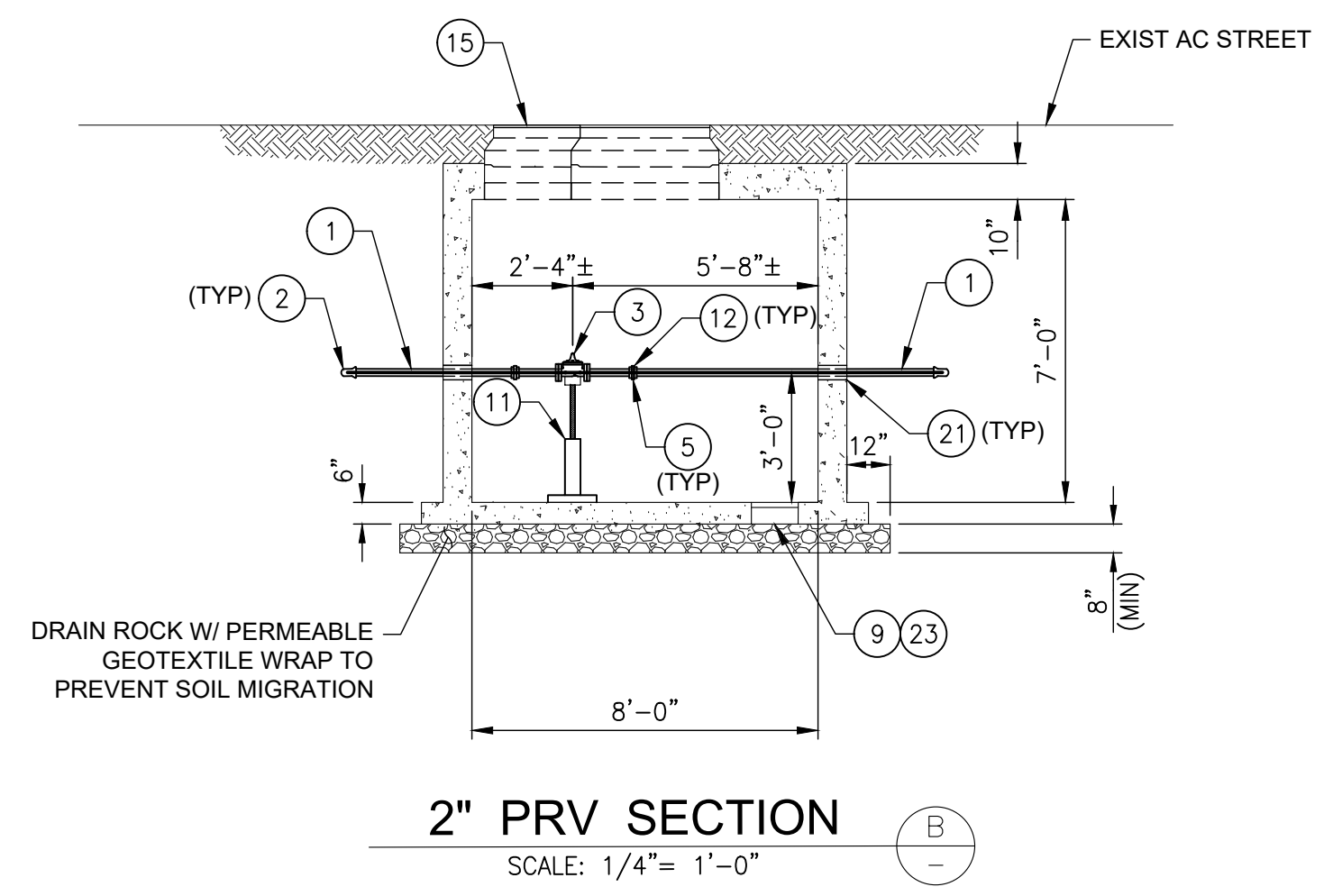
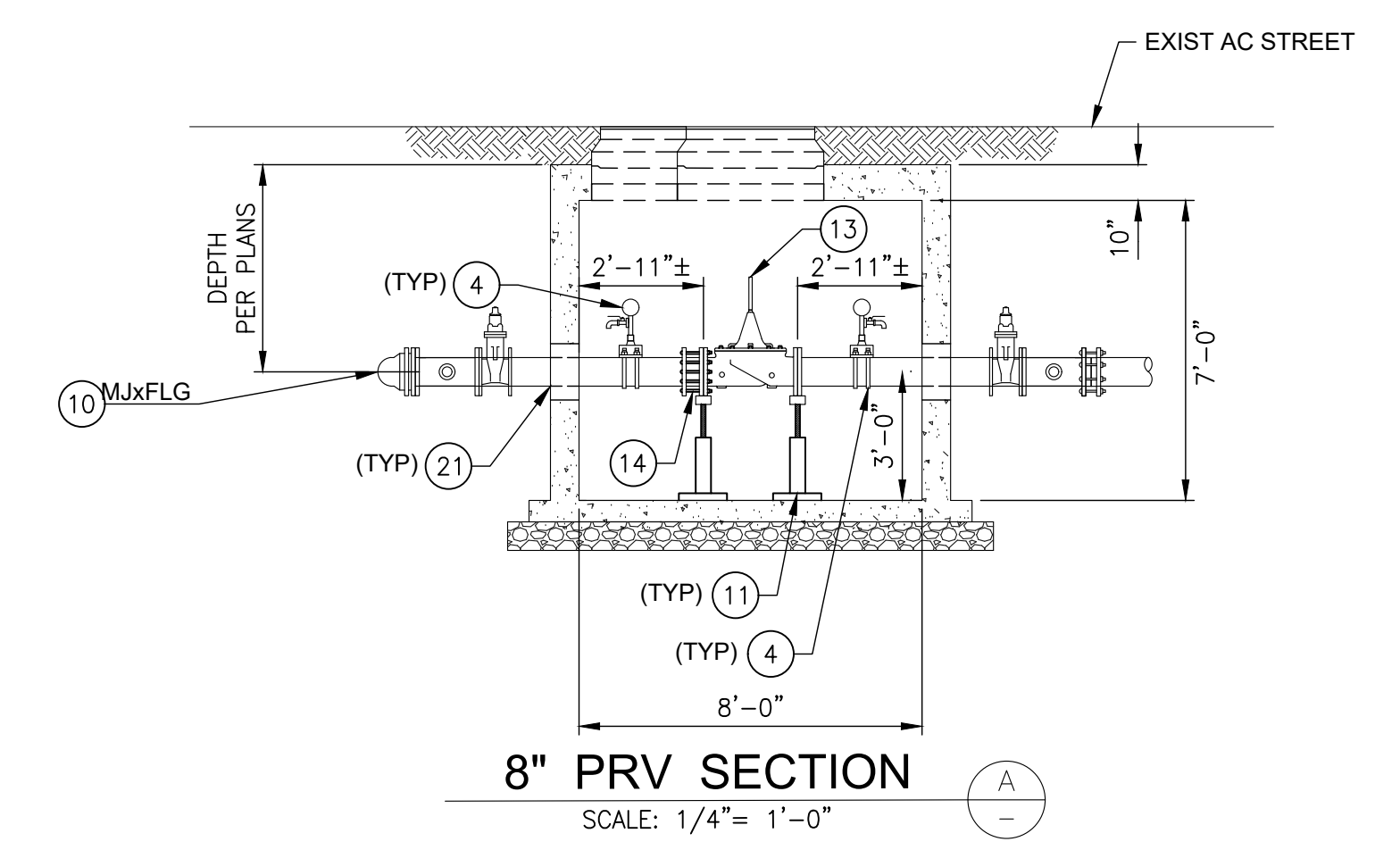


APN: 080-010-015
(CALIFORNIA TAHOE CONSERVANCY)

PRV #3 DETAIL
SCALE: 1/4" = 1'-0"

KEY NOTES

- | | | |
|---|---|---|
| <p>1 INSTALL 2" BRASS PIPE.</p> <p>2 INSTALL 2"x90" BRASS ELBOW, PACK JOINT.</p> <p>3 INSTALL 2" PRESSURE REDUCING VALVE, CLA-VAL MODEL 690-01BCDMPYKX (FLANGED), OR APPROVED EQUAL, W/PRESSURE RANGE OF 30-300 PSI.</p> <p>4 INSTALL 4" PRESSURE GAUGE, ASHCROFT 1279 OR APPROVED EQUAL. PER DETAIL 3, ON SHEET D1. INSTALL GAUGES WITH 45° BRASS ELBOW FACING UPWARDS TO SEE FROM ABOVE.</p> <p>5 INSTALL 2" THREADED BRASS UNION.</p> <p>6 INSTALL SAFETY BOLLARD PER DETAIL 2, ON SHEET D1.</p> <p>7 INSTALL 12" DIP PER DETAILS 1 & 2 ON SHEET D2 AND DETAIL 5 ON SHEET D1.</p> <p>8 INSTALL 8" GATE VALVE, RESTRAINED, PER DETAIL 5, ON SHEET D2.</p> <p>9 VAULT DRAIN WITH CLEAN 1/2" - 3/4" DRAIN ROCK UNDER VAULT.</p> <p>10 INSTALL 8"x45" DI BEND WITH THRUST BLOCK PER DETAIL 4, ON SHEET D2.</p> <p>11 INSTALL ADJUSTABLE PIPE SUPPORT PER DETAIL 1, ON SHEET D1.</p> <p>12 INSTALL 2" COMPANION FLANGE.</p> <p>13 INSTALL 8" PRESSURE REDUCING VALVE, CLA-VAL MODEL 90-01BCDMPYKX (FLANGED), OR APPROVED EQUAL, W/ PRESSURE RANGE OF 30-300 PSI.</p> <p>14 INSTALL 8" DISMANTLING JOINT, ROMAC DJ400 OR APPROVED EQUAL.</p> | <p>15 INSTALL 24" MANHOLE COVER, WATERTIGHT SHALL BE "D&L FOUNDRY" AND MARKED, "S.T.P.U.D. WATER".</p> <p>16 CUT AND CAP EXISTING 8" WATER MAIN. ABANDON (E) WATERMAIN. FILL WITH SLURRY.</p> <p>17 REMOVE INTERFERING PORTION OF EXISTING PIPE, FITTINGS, AND APPURTENANCES.</p> <p>18 CONNECT TO (E) 8" STEEL WATER MAIN, INSTALL 8" TRANSITION COUPLER, PER DETAIL 4 ON SHEET D1.</p> <p>19 INSTALL VALVE CAN PER DETAIL 5, ON SHEET D2.</p> <p>20 INSTALL 8" SERVICE SADDLE WITH 1" BALL VALVE FOR PRESSURE GAGE.</p> <p>21 PIPE PENETRATION THROUGH WALL PER DETAIL C, ON SHEET D6.</p> <p>22 INSTALL 8'x6'x7' DEEP CONCRETE VAULT WITH CONCRETE BOTTOM PER JENSEN #687 PRV CONCRETE VAULT OR APPROVED EQUAL PER DETAIL 4, ON SHEET D-2.</p> <p>23 INSTALL 13"x13" POLYLOK SUMP & GRATE.</p> <p>24 INSTALL 8" TEE (FLxFL)</p> <p>25 INSTALL THRUST BLOCK, PER DETAIL 4, SHEET D2.</p> <p>26 INSTALL 8" FLxMJ ADAPTER.</p> <p>27 INSTALL 8"x2" REDUCING COMPANION FLANGE.</p> <p>28 INSTALL 2" BRASS MALE NIPPLE</p> <p>29 INSTALL 2" THREADED GATE VALVE WITH STANDARD 2" OPERATING NUT.</p> | <p>30 INSTALL 2" BRASS MALE CONNECTION.</p> <p>31 INSTALL ROCK WALL, PER DETAIL 2 ON SHEET D5</p> <p>32 (E) PONY EXPRESS HISTORICAL MARKER. RELOCATE TO APPROVED LOCATION.</p> <p>33 REPAIR DAMAGED OR DEMOLISHED CURB PER DETAIL 3 ON SHEET D3.</p> <p>34 INSTALL 6" GATE VALVE (FLxFL), PER DETAIL 5, ON SHEET D2.</p> <p>35 INSTALL FIRE HYDRANT PER DETAIL 6, ON SHEET D2</p> <p>36 INSTALL 8"x6" REDUCER (FLxFL)</p> <p>37 INSTALL 8"x8"x8" CROSS (FL)</p> |
|---|---|---|



NOTES

- CONTRACTOR TO INSTALL TEMPORARY BLOW OFFS AT ALL ABANDONMENT LOCATIONS FOR USE DURING SLURRY FILL. BLOW OFFS TO BE CUT OFF AT MAINLINE DEPTH AFTER SLURRY FILL.
- ALL EASEMENTS ARE FOR OVERHEAD PURPOSES, UNLESS OTHERWISE NOTED ON PLAN SET.
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- AT ALL PROPOSED FITTINGS AND LOCATIONS WHERE UNBALANCED THRUST FORCES EXIST, THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF STPUD STANDARD DETAILS WM08, WM09, OR A COMBINATION OF BOTH.
- AT LOCATIONS WHERE PROPOSED CONNECTIONS ARE MADE TO EXISTING FACILITIES, THE EXISTING THRUST BLOCKS AND ASSOCIATED ADDITIONAL RESTRAINT SYSTEMS SHALL BE PROTECTED IN PLACE. WHERE THE EXISTING RESTRAINT SYSTEMS MUST BE DISTURBED TO COMPLETE THE PROPOSED CONNECTION(S), THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF FORTY EIGHT (48) HOURS IN ADVANCE PRIOR TO ANY ADDITIONAL WORK AT THE IMPACTED LOCATION.
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2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
PRV #3 DETAIL



DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

SOUTH TAHOE PUBLIC UTILITY DISTRICT
1275 Meadows Crest Drive
Sever, 1950 Water
A PUBLIC AGENCY
South Lake Tahoe, California 96150
Phone (530) 544-6474 Fax (530) 541-4379
WWW.STPUD.US

ELECTRICAL GENERAL NOTES

1. IN GENERAL, ROUTING FOR EQUIPMENT AND DEVICES IS DIAGRAMMATIC. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CONDUIT WHICH SHALL INCLUDE CONDUITS SHOWN ON THE ONE-LINE, RISER DIAGRAMS, AND RUNS SHOWN ON PLAN DRAWINGS. REFER TO SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
2. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, ACCESSORIES, ETC. REQUIRED FOR A COMPLETE ELECTRICAL SYSTEM.
3. CONTRACTOR SHALL INSTALL ALL WORK IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2018, THE NATIONAL ELECTRICAL CODE 2017 EDITION, AND ALL CODES, APPLICABLE AMENDMENTS, ORDINANCES, RULES, AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION AT THIS SITE. WHERE CONFLICTS OCCUR BETWEEN CODES AND THE CONSTRUCTION DOCUMENTS, THE MOST RESTRICTIVE SHALL TAKE PRECEDENCE.
4. APPEARANCE AND WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY AND STANDARDS.
5. CONTRACTOR SHALL SUPPORT AND PROTECT ALL EXISTING UTILITY POLES (AS REQUIRED) AND EXISTING IMPROVEMENTS. CONTRACTOR IS RESPONSIBLE FOR REPAIRING/REPLACING ANY/ALL DAMAGE DURING CONSTRUCTION TO EQUAL OR BETTER CONDITION.
6. CONTRACTOR SHALL GUARANTEE THE OWNER ALL WORK PERFORMED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
7. CONTRACTOR SHALL COORDINATE ALL WORK WITH THAT OF OTHER CONTRACTORS ON THE JOB AND WITH THAT OF THE OWNER. ANY COST FOR EXTRA WORK OR MATERIALS FOR THE INSTALLATIONS OUTLINED WITHIN THESE SHEETS RESULTING FROM LACK OF COORDINATION SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR.
8. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING EQUIPMENT IN THE FIELD. ALL EXISTING UTILITY MAIN AND SERVICE LOCATIONS ARE APPROXIMATE AND DETERMINED FROM BEST INFORMATION AVAILABLE. ELECTRICAL CONTRACTOR TO FIELD VERIFY (POTHOLE) IN ADVANCE OF CONSTRUCTION AND NOTIFY ENGINEER OF CONFLICTS.
9. ELECTRICAL EQUIPMENT SHALL BE MANUFACTURED BY IEM, EATON, SIEMENS, GENERAL ELECTRIC, OR SQUARE-D, OR APPROVED EQUAL. PANELS SHALL BE OF THE BOLT-ON CIRCUIT BREAKER TYPE.
10. ALL EQUIPMENT AND MATERIALS FURNISHED TO COMPLETE INSTALLATIONS SHALL BE NEW AND TESTED, LABELED, OR OTHERWISE DETERMINED TO BE SUITABLE FOR THEIR INTENDED USE BY A RECOGNIZED INDEPENDENT TESTING LABORATORY SUCH AS UNDERWRITERS LABORATORIES INC., OR FACTORY MUTUAL (U.L. OR F.M.), AND SHALL CONFORM TO LIBERTY UTILITIES' STANDARDS.
11. CONTRACTOR TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER OF ALL SHOP DRAWINGS AND MANUFACTURERS DATA FOR PANELBOARDS, TRANSFORMERS, WIRING DEVICES, SWITCHBOARDS, MOTOR CONTROL CENTERS, ETC. BEFORE RELEASING ORDER FOR MATERIALS. SUBMITTAL DATA SHALL INDICATE THAT THE CONTRACTOR HAS REVIEWED THE INFORMATION THEREIN AND THAT THE PROPOSED EQUIPMENT WILL MEET THE PHYSICAL CONSTRAINTS AT THE JOB SITE.
12. PROVIDE NEW TYPED PANEL DIRECTORIES FOR ALL NEW AND MODIFIED 120/208/240V LOAD CENTERS AND PANELBOARDS. PROVIDE BLACK PHENOLIC NAMEPLATES FOR BREAKERS INSTALLED IN 277/480V PANELS OR ENCLOSURES.
13. POWER AND SIGNAL CONDUCTORS SHALL INCLUDE WHITE HEAT-SHRINK LABELING AT EACH END, WITH PRINTED 1/8" CHARACTERS, SHALL CORRESPOND WITH SUBMITTED WIRING DIAGRAMS, AND INDICATE DESIGNATION, ORIGIN, AND DESTINATION OF EACH CONDUCTOR RUN.
14. ALL CONDUCTOR CRIMPING ON CONDUCTORS #6 AWG OR GREATER TO BE HYDRAULICALLY CRIMPED, USING FULLY ANNULAR DIE-TYPE CRIMPER (MATCH COLOR TO EQUIPMENT RATING).
15. PROVIDE CORD GRIP CONNECTORS FOR INSTRUMENT CABLES WHICH DO NOT HAVE INTEGRAL CONDUIT THREADING/PORT.
16. INSTALL ALL EMPTY CONDUITS WITH PULL STRING. PULL STRING SHALL HAVE SEQUENTIAL FOOTAGE MARKINGS AND MINIMUM BREAKING STRENGTH OF 400 LBS.
17. INSTALL PERMANENT MATCHING LABELS SUITABLE FOR WITHSTANDING THE ENVIRONMENT ON EACH END OF CONDUIT RUNS THAT WILL DIFFERENTIATE THE RUN FROM OTHERS AND ASSIST IN IDENTIFYING THE BEGINNING AND ENDING OF EACH CONDUIT RUN FOR FUTURE PROJECTS; SEE SPECIFICATION 26 05 33.
18. POWER CONDUCTORS SHALL BE STRANDED COPPER #12 AWG MINIMUM. WIRE SIZES #12 AWG THROUGH #3 AWG SHALL BE THHN/THWN, AND XHHW FOR #2 AWG AND LARGER. ALL WIRING SHALL BE INSTALLED IN CONDUIT. CONTROL CONDUCTORS TO BE #14 XHHW-2 STRANDED. NO SOLID WIRE OF ANY SIZE TO BE USED.
19. ALL CONDUIT WITHIN 18" (ABOVE AND BELOW) OF GRADE OR FINISHED FLOOR TO BE RIGID METAL CONDUIT (RMC). ALL CONDUIT BELOW 18" OF GRADE TO BE PVC-TYPE SCHEDULE 40. ALL UNDERGROUND ELBOWS TO BE RMC. ALL METALLIC CONDUITS IN CONTACT WITH EARTH TO BE RMC-PVC. CONDUITS INSTALLED IN ROOMS SUBJECT TO CORROSIVE (CHEMICAL) ATMOSPHERES TO BE PVC SCHEDULE 80. FOR CONDUITS INSTALLED OUTDOORS, PROVIDE A WATER-TIGHT CONDUIT SYSTEM, (IMC OR RMC ONLY) INCLUDING BUT NOT LIMITED TO, THREADED HUBS AT EQUIPMENT PENETRATIONS, LIQUID-TIGHT CONNECTORS, AND SEALS.
20. NO MC CABLE ALLOWED, OR BX. NO EXPOSED METAL OR ALUMINUM FLEX ALLOWED.
21. STEEL COMPRESSION FITTINGS ONLY. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
22. ALL SURFACE OUTLET BOXES TO BE "FS" CAST STEEL WITH MATCHING COVERS.
23. ALL COVER CONTROLS SHALL BE 30.5MM NEMA 4 TYPE.
24. ALL CONCRETE WORK TO BE PER CIVIL AND/OR STRUCTURAL DRAWINGS, SPECIFICATIONS, REQUIREMENTS, AND DIAGRAMS.

25. PROVIDE THE SERVICES OF A FULLY TRAINED AND EQUIPPED TESTING COMPANY (TEST PERFORMED BY CONTRACTOR WILL NOT BE ACCEPTED), TO TEST, CALIBRATE, AND WHERE NECESSARY, PLACE IN OPERATION THE ELECTRICAL SYSTEM. INCLUDING, BUT NOT LIMITED TO:

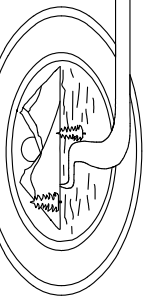
PHASE OVER-CURRENT DEVICES ON FEEDERS, 200A & ABOVE
GROUND FAULT PROTECTIVE DEVICES
GROUND RESISTANCE TEST FOR GROUNDING ELECTRODE SYSTEMS USING FALL-OF-POTENTIAL METHOD
CONDUCTOR INSULATION TESTING BY WAY OF 1000VDC MEGGER FOR FEEDERS 100A & ABOVE

TESTS SHALL BE PER INTERNATIONAL ELECTRICAL TESTING ASSOCIATION (NETA) ACCEPTANCE TESTING REQUIREMENTS; COMPLETE ENOUGH TO BE CONCLUSIVE AND TO ENSURE PROPER OPERATION. THIS SHALL BE CERTIFIED IN TEST REPORTS SUBMITTED TO THE ENGINEER. ALL FAULTY EQUIPMENT SHALL BE REPLACED AND TESTED UNTIL SATISFACTORY RESULTS ARE OBTAINED.

26. PERFORM ARC FLASH LABELING MEETING THE REQUIREMENTS OF NFPA 70E 2018 & NEC 2017.
27. CONTRACTORS SHALL ASSIST OWNER IN MAKING UTILITY SERVICE APPLICATIONS (CHANGE OF SERVICE UPGRADES). HOWEVER, OWNER WILL PAY ANY AND ALL FEES ASSOCIATED WITH THE ELECTRICAL POWER UTILITY.
28. CONTRACTOR SHALL COORDINATE WITH LIBERTY UTILITIES TO ESTABLISH TEMPORARY POWER FOR DURATION OF CONSTRUCTION, ACCORDING TO THE FOLLOWING LIBERTY UTILITIES STANDARDS:

CONTRACTOR TO PROVIDE LIBERTY UTILITIES WITH PLANS FOR TEMPORARY POWER INSTALLATION LOCATION. TEMPORARY INSTALLATIONS SHALL MEET SAME REQUIREMENTS AS PERMANENT INSTALLATIONS, INCLUDING INSPECTION AND APPROVAL, AND SHALL BE SAFE AND IN GOOD WORKING CONDITION AS JUDGED BY A LIBERTY UTILITIES FIELD REPRESENTATIVE. PRIOR TO PERMANENT SERVICE CONNECTION, CONTRACTOR SHALL REMOVE ALL TEMPORARY SERVICE DROPS, CONSTRUCTION WIRES, AND CABLES FROM THE PERMANENT DISTRIBUTION PANELS.

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2026 PIONEER TRAIL WATERLINE PROJECT (REBID) ELECTRICAL GENERAL NOTES



DATE: MAY 2026

SCALE: AS SHOWN

DRAWN: AZ/TJ

DESIGN: TC/TJ

AS BUILT:

E1

21 OF 38
SHEETS

ELECTRICAL LEGEND

| | |
|--|--|
| | UNDER GROUND CONDUIT AND CONDUCTOR RUN |
| | ABOVE GROUND CONDUIT AND CONDUCTOR RUN |
| | INDICATES CONDUIT COMING UP |
| | ES - EQUIPMENT SCHEDULE X - LIST ITEM NUMBER ON ES |
| | HOME RUN, SEE CONDUIT SCHEDULE ITEM C01 |
| | DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W * GFCI - GROUND FAULT CIRCUIT INTERRUPTER TYPE WP - WEATHERPROOF T - TRANSIENT VOLTAGE SURGE SUPPRESSOR IC - ISOLATED GROUND |
| | LIGHT FIXTURE - TYPE "A" (SEE LIGHTING SCHEDULE) - CONTROLLED BY "b" SWITCH(ES) - BRANCH CIRCUIT NUMBER |
| | SINGLE POLE SWITCH "a" INDICATES FIXTURES CONTROLLED. |
| | AUTOMATIC (ATS) OR MANUAL TRANSFER SWITCH (MTS) "N" INDICATES NORMAL OR PREFERRED SOURCE "S" INDICATES STANDBY OR ALTERNATE SOURCE "L" INDICATES LINE OR LOAD FED 100A INDICATES CONTINUOUS CURRENT RATING #P INDICATES NUMBER OF POLES |
| | GENERATOR TAP BOX W/ LOAD BANK CONNECTIONS |
| | VARIABLE SPEED DRIVE (VFD) SIZED TO PROVIDE MOTOR LOAD'S NAMEPLATE FLA MODIFIED BY NAMEPLATE SERVICE FACTOR (FLA _{sf}) AFTER BEING DERATED FOR ELEVATION OF INSTALLATION. ANTICIPATED MOTOR HP RATING SHOWN. |
| | SURGE PROTECTION DEVICE, RATING AS SHOWN ON ONE-LINE. |
| | MICROPROCESSOR METERING UNIT |
| | DENOTES A QUANTITY OF TWO (2) 3-INCH CONDUITS EACH CONTAINING THREE NO. 3/0 AWG CONDUCTORS AND 1 NO. 2 AWG GROUND CONDUCTOR. |
| | TRANSFORMER RATINGS AND CONNECTIONS AS SHOWN ON ONE-LINE. K RATING SHALL BE 4 FOR ALL LABORATORY SPACES AND 20 FOR ALL ISOLATION TRANSFORMERS. |
| | 40A 2-POLE MOLDED CASE CIRCUIT BREAKER WITH THERMAL MAGNETIC TRIP (TM) |
| | MOTOR, HP AND NEC FLA AS SHOWN ON ONE-LINE. |
| | ELECTRICAL ENCLOSURE BOUNDARY |
| | INDICATES EXTENT OF DEMOLITION |
| | GENERATOR |
| | VOLTMETER |
| | * M - UTILITY METER WHM - WATT-HOUR METER |
| | ELECTRICAL DISTRIBUTION PANEL LP - LIGHTING PANELBOARD KAIC - RATED INTERRUPTING CURRENT CIRCUITS - NUMBER OF CIRCUITS RATING - PANEL AMPERE RATING MCB - MAIN CIRCUIT BREAKER RATING |

P&ID INSTRUMENT IDENTIFICATION

| NUMBERING SEQUENCE | |
|--------------------|---------------------------|
| SEQUENCE NUMBER | DESCRIPTION |
| 00 | COMMON ALARM |
| 01-09 | INDIVIDUAL ITEMS |
| 10 | MECHANICAL |
| 20 | MECHANICAL |
| 30 | MECHANICAL |
| 40 | MECHANICAL |
| 50 | LEVEL DEVICES |
| 60 | PRESSURE DEVICES |
| 70 | FLOW DEVICES |
| 80 | ANALYTICAL DEVICES |
| 90 | SAFETY & SECURITY DEVICES |

| IDENTIFICATION LETTERS | |
|------------------------|--------------------------------|
| CODE LETTER | DESCRIPTION |
| A | ANALYSIS |
| B | BURNER, COMBUSTION |
| C | USER'S CHOICE |
| D | USER'S CHOICE |
| E | VOLTAGE |
| F | FLOW RATE |
| G | USER'S CHOICE |
| H | HAND |
| I | CURRENT |
| J | POWER |
| K | TIME, TIME SCHEDULE |
| L | LEVEL |
| M | USER'S CHOICE |
| N | USER'S CHOICE |
| O | USER'S CHOICE |
| P | PRESSURE, VACUUM |
| Q | QUANTITY |
| R | RADIATION |
| S | SPEED, FREQUENCY |
| T | TEMPERATURE |
| U | MULTIVARIABLE |
| V | VIBRATION, MECHANICAL ANALYSIS |
| W | WEIGHT, FORCE |
| X | UNCLASSIFIED |
| Y | EVENT, STATE OR PRESENCE |
| Z | POSITION, DIMENSION |

IDENTIFIER

LOOP NUMBER

FIRST LETTER
P - PRESSURE

SUCCEEDING LETTERS
I - INDICATING
T - TRANSMITTER

SEQUENCE DESCRIPTION
6X - PRESSURE DEVICES
X1 - INDIVIDUAL ITEMS

REPRESENTS AREA NUMBER

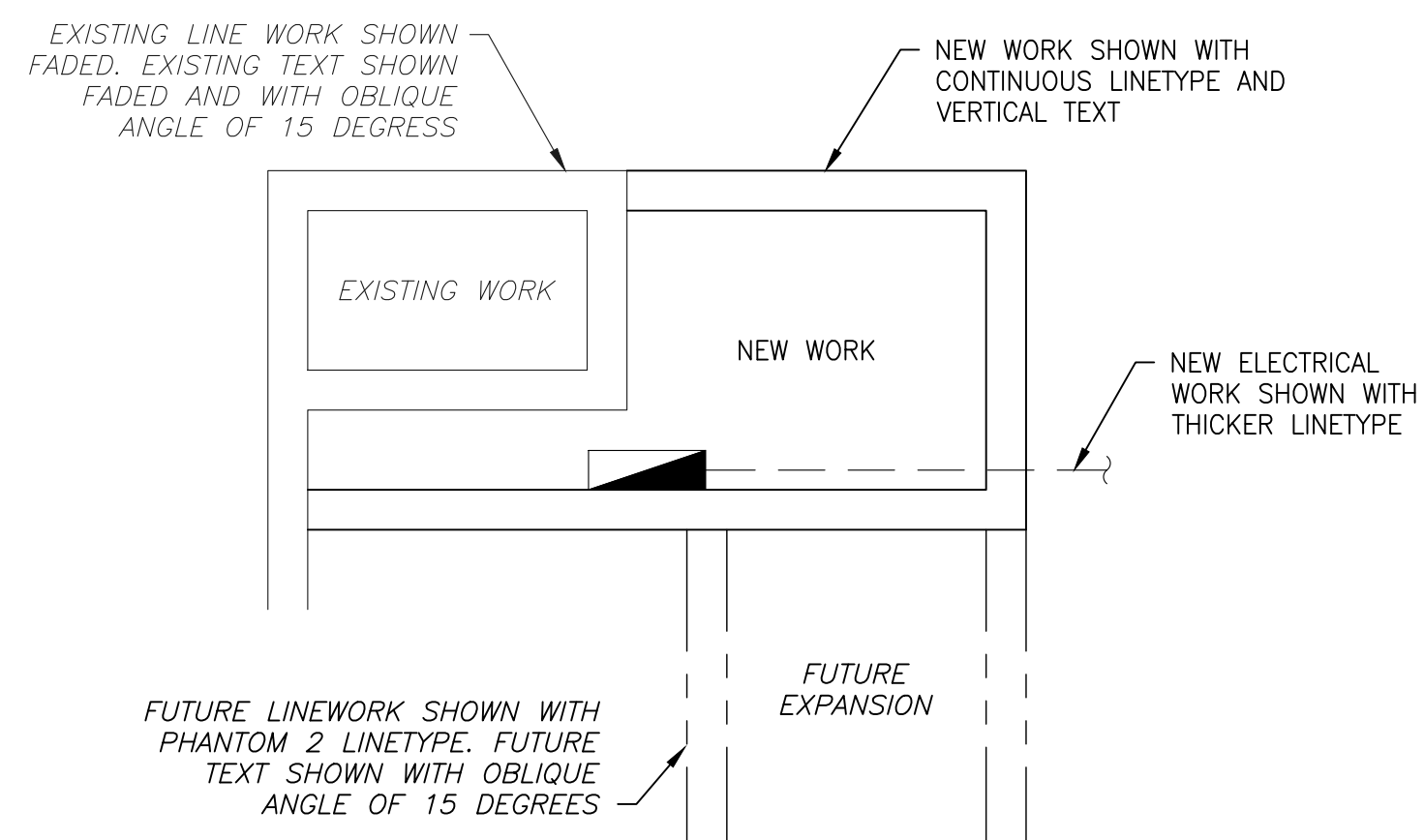
| CODE LETTER | FIRST LETTER(S) | | SUCCEEDING LETTER(S) | | |
|-------------|---------------------------------|---------------------|-----------------------------|-------------------------|----------------------|
| | MEASURED OR INITIATING VARIABLE | MODIFIER | READOUT OR PASSIVE FUNCTION | OUTPUT FUNCTION | MODIFIER |
| A | ANALYSIS | | ALARM | | |
| B | BURNER, COMBUSTION | | USER'S CHOICE | USER'S CHOICE | USER'S CHOICE |
| C | USER'S CHOICE | | | CONTROL | CLOSE |
| D | USER'S CHOICE | DIFFERENTIAL | | | |
| E | VOLTAGE | | SENSOR, PRIMARY ELEMENT | | |
| F | FLOW RATE | RATIO | | | |
| G | USER'S CHOICE | | GLASS, VIEWING DEVICE | | |
| H | HAND | | | | HIGH |
| I | CURRENT | | INDICATE | | |
| J | POWER | SCAN | | | |
| K | TIME, TIME SCHEDULE | TIME RATE OF CHANGE | | CONTROL STATION | |
| L | LEVEL | | LIGHT | | LOW/LOCAL |
| M | USER'S CHOICE | MOMENTARY | | | MIDDLE, INTERMEDIATE |
| N | USER'S CHOICE | | USER'S CHOICE | USER'S CHOICE | USER'S CHOICE |
| O | USER'S CHOICE | | ORIFICE, RESTRICTION | | |
| P | PRESSURE, VACUUM | | POINT (TEST) CONNECTION | | |
| Q | QUANTITY | INTEGRATE, TOTALIZE | | | |
| R | RADIATION | | RECORD | | |
| S | SPEED, FREQUENCY | SAFETY | | SWITCH | |
| T | TEMPERATURE | | | TRANSMIT | |
| U | MULTIVARIABLE | | MULTIFUNCTION | MULTIFUNCTION | MULTIFUNCTION |
| V | VIBRATION, MECHANICAL ANALYSIS | | | VALVE, DAMPER, LOUVER | |
| W | WEIGHT, FORCE | | WELL | | |
| X | UNCLASSIFIED | X AXIS | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED |
| Y | EVENT, STATE OR PRESENCE | Y AXIS | | RELAY, COMPUTE, CONVERT | |
| Z | POSITION, DIMENSION | Z AXIS | | DRIVER, ACTUATOR | |

DISCRETE ANALOG/DATA

ELECTRICAL ABBREVIATIONS

| | |
|-------|---|
| A | AMPERAGE/AMPS |
| AFG | ABOVE FINISHED GRADE |
| ATS | AUTOMATIC TRANSFER SWITCH |
| AWG | AMERICAN WIRE GAUGE |
| BFG | BELOW FINISHED GRADE |
| BKR | BREAKER |
| BLDG | BUILDING |
| CB | CIRCUIT BREAKER |
| CKT | CIRCUIT |
| CPT | CURRENT/POTENTIAL TRANSFORMER |
| CU | COPPER |
| DIV | DIVISION |
| DP | DISTRIBUTION PANEL (≥ 277V) |
| ES | EQUIPMENT SCHEDULE |
| EES | ELECTRICAL EQUIPMENT SCHEDULE |
| EX | EXISTING |
| (F) | FUTURE |
| FG | FINISHED GRADE |
| FLA | FULL LOAD AMPS |
| GALV | GALVANIZED |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER |
| HOA | HAND-OFF-AUTO |
| HP | HORSE POWER |
| HSS | HOLLOW STRUCTURAL SECTION |
| KAIC | KILO AMPERE INTERRUPTING CURRENT |
| KV | KILO VOLTS |
| KVA | KILO VOLT-AMPERES |
| KW | KILO WATTS |
| LP | DISTRIBUTION PANEL (< 277V) |
| LU | LIBERTY UTILITIES |
| MCB | MAIN CIRCUIT BREAKER |
| MCC | MOTOR CONTROL CENTER |
| MDD | MAXIMUM DRY DENSITY |
| MFG | MANUFACTURER CABLE |
| MLO | MAIN LUG ONLY |
| MM | MAGNETIC FLOW METER |
| MMU | MICROPROCESSOR METERING UNIT |
| MPC | MINI POWER CENTER |
| MTS | MANUAL TRANSFER SWITCH |
| N | NEUTRAL |
| NEC | NATIONAL ELECTRICAL CODE (NFPA 70) |
| NEMA | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION |
| NFPA | NATIONAL FIRE PROTECTION ASSOCIATION |
| NTS | NOT TO SCALE |
| OC | ON CENTER |
| OCPD | OVER-CURRENT PROTECTION DEVICE |
| P | POLE |
| PH | PHASE |
| PNL | PANEL |
| QTY | QUANTITY |
| RGS | RIGID GALVANIZED STEEL |
| RMC | RIGID METAL CONDUIT |
| RTV | ROOM TEMPERATURE VULCANIZING |
| RTU | REMOTE TELEMETRY UNIT |
| SCADA | SUPERVISORY CONTROL AND DATA ACQUISITION |
| SPD | SURGE PROTECTION DEVICE |
| SS | STAINLESS STEEL |
| ST | SHUNT TRIP |
| STD | STANDARD |
| SWBD | SWITCHBOARD |
| TELCO | TELECOMMUNICATIONS |
| TWSP | TWISTED SHIELDED PAIR |
| TYP | TYPICAL |
| UL | UNDERWRITERS LABORATORIES |
| V | VOLTAGE/VOLTS |
| VA | VOLT-AMPERES |
| VFD | VARIABLE FREQUENCY DRIVE |
| VM | VOLTMETER |
| W | WIRE |
| WHM | WATT-HOUR METER |
| XFMR | TRANSFORMER |

ELECTRICAL PLAN LEGEND

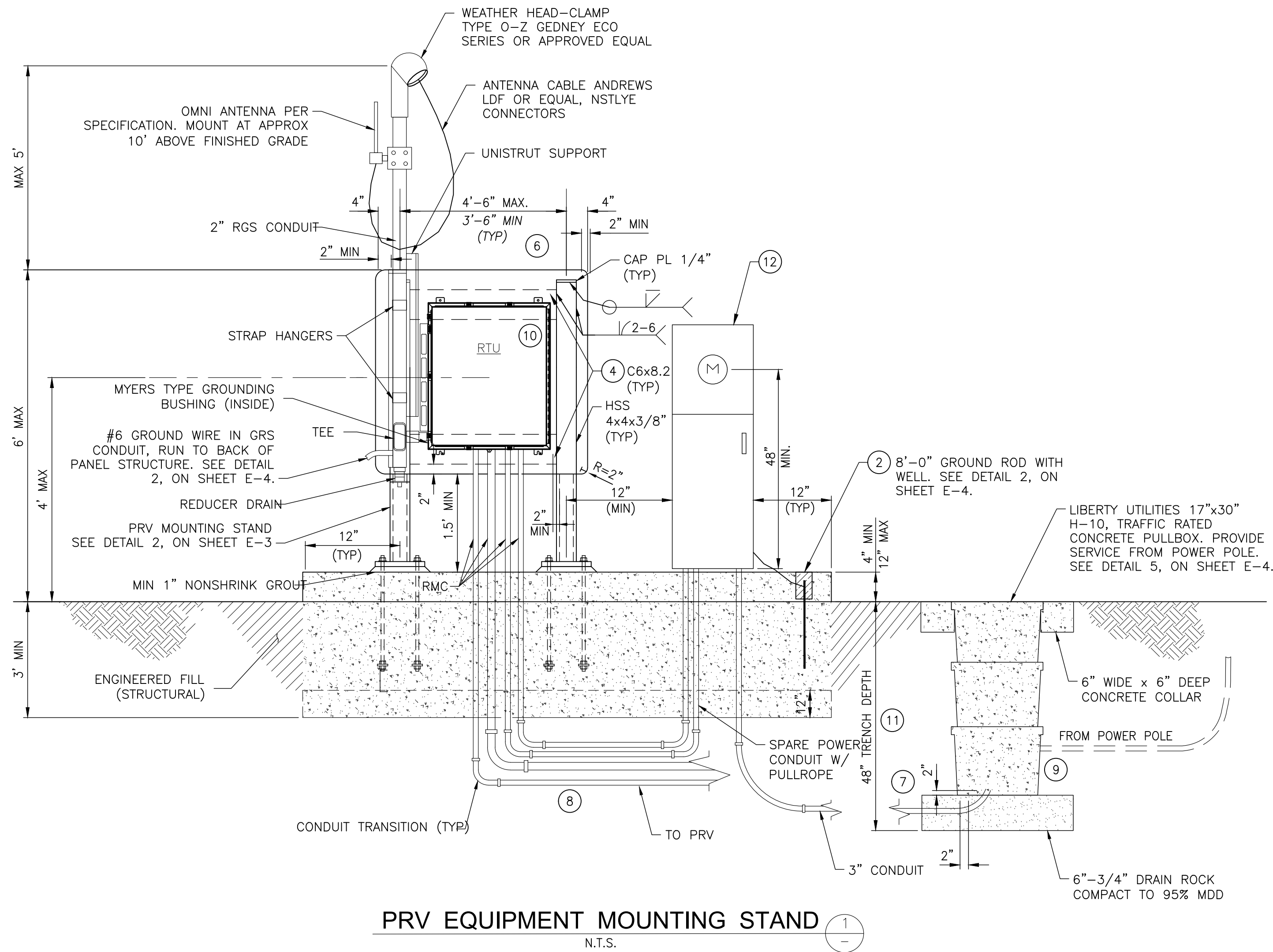


2026 PIONEER TRAIL WATERLINE PROJECT (REBID) ELECTRICAL NOTES & LEGEND

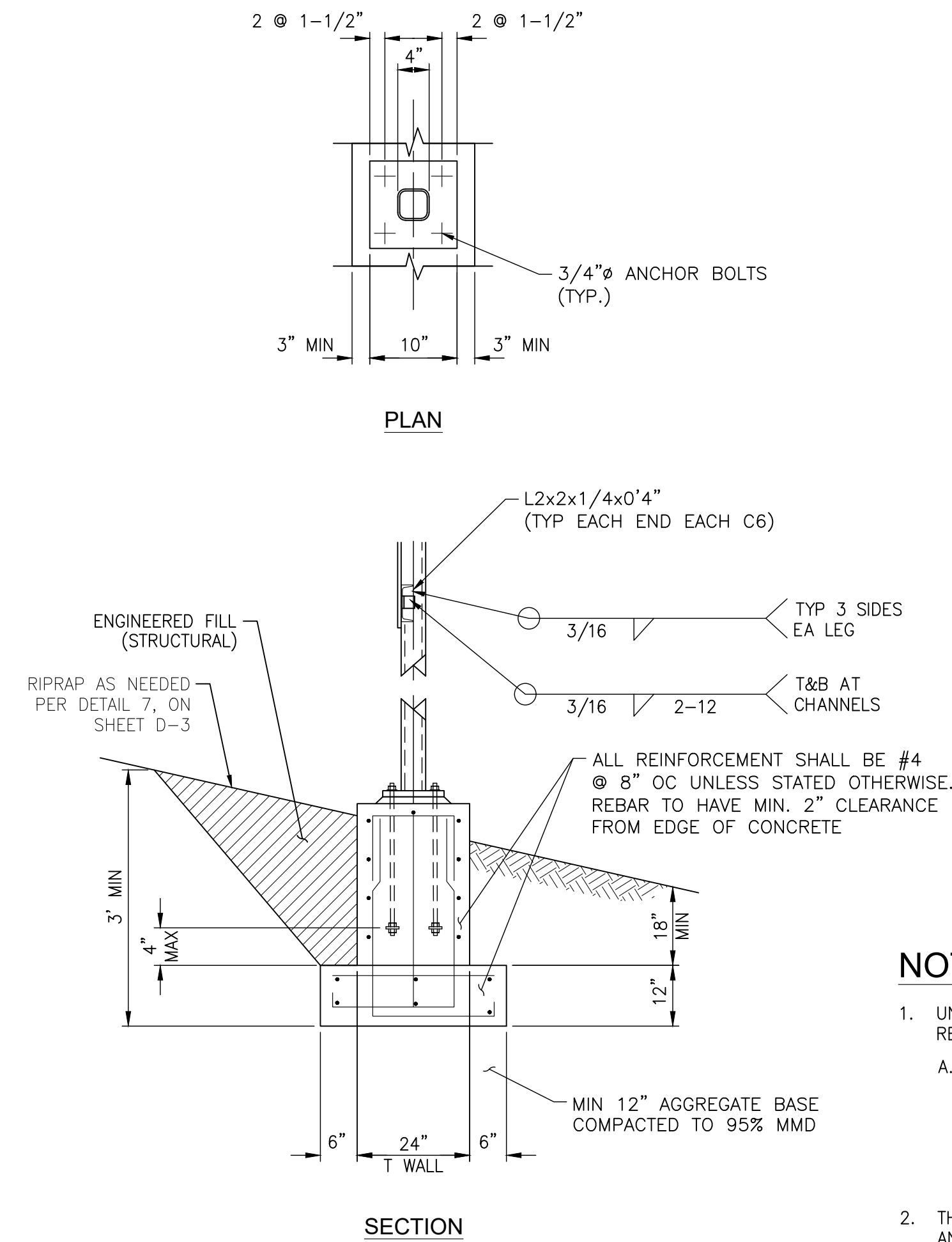


DATE: MAY 2026
SCALE: AS SHOWN
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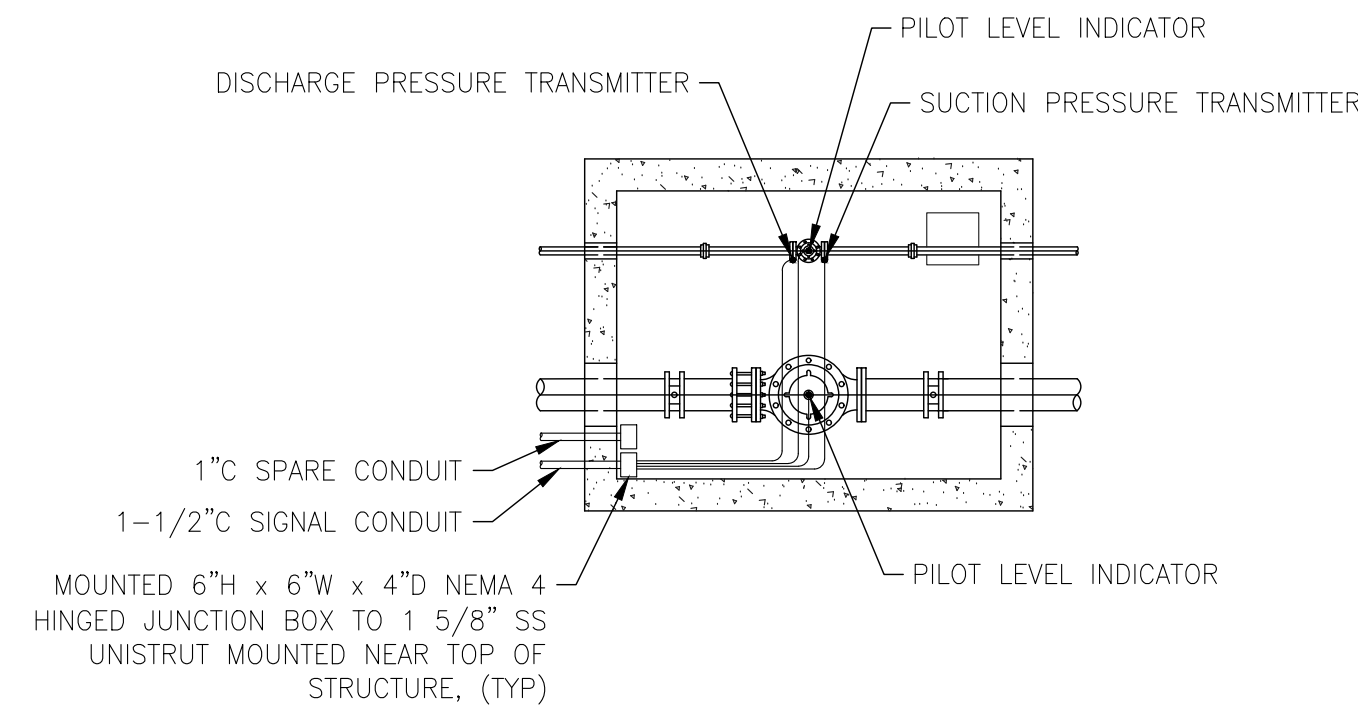
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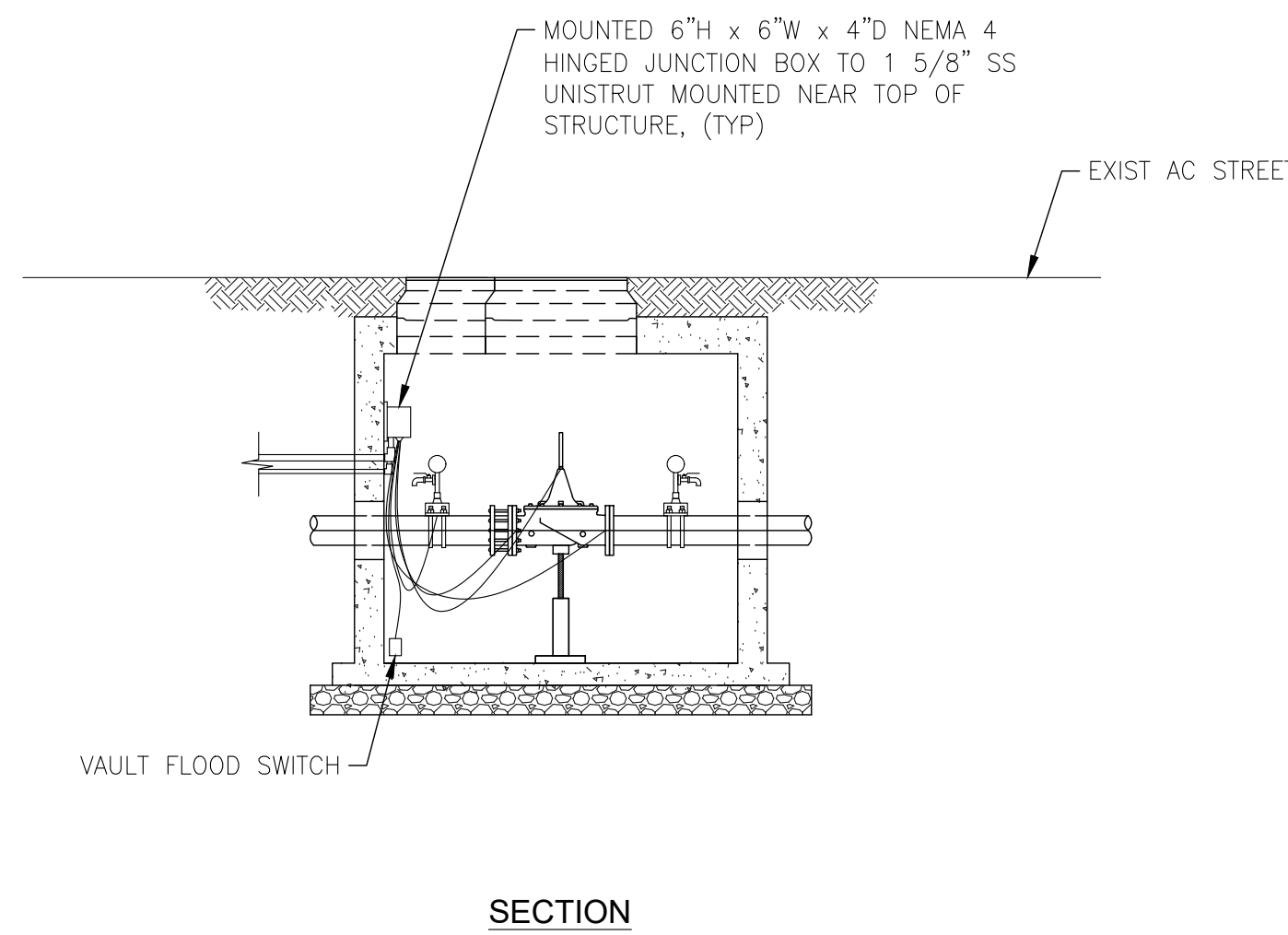
PRV EQUIPMENT MOUNTING STAND
N.T.S.



PANEL MOUNTING STAND
N.T.S.



PRV CONTROLS INSTALLATION
N.T.S.



SECTION

KEY NOTES

- ① INSTALL SUBMERGENCE RATED CABLE AND DRIP LOOPS TYPICAL OF ALL CONDUCTORS IN VAULT.
- ② 5/8" X 8' COPPER CLAD STEEL GROUND ROD AND CLAMP TO BE FURNISHED AND INSTALLED BY LIBERTY UTILITIES.
- ③ IF POWER CONDUCTORS ARE INSTALLED IN SPARE, RUN AN EQUIPMENT GROUNDING CONDUCTOR THROUGH CONDUIT AND BOND TO JUNCTION BOX, INSTRUMENT CASES, AND PIPING.
- ④ PROVIDE HORIZONTAL CHANNEL STIFFENER AT TOP AND BOTTOM AS SHOWN. ADD INTERMEDIATE CHANNELS AT MOUNTING LOCATIONS WHERE EQUIPMENT WEIGHT EXCEEDS 200LB.
- ⑤ CONDUIT PENETRATION SHALL BE A MINIMUM OF 24" BELOW GRADE AND A MINIMUM OF 6" ABOVE THE BOTTOM OF THE VAULT.
- ⑥ MOUNT CABINETS/EQUIPMENT TO PLATE. FOR EQUIPMENT WEIGHTS EXCEEDING 200 LBS, MOUNTING BOLTS TO EXTEND THROUGH PLATE AND HORIZONTAL CHANNELS ON BACK.
- ⑦ CAUTION: CONTACT LIBERTY UTILITY INSPECTOR BEFORE INSERTING CONDUIT INTO SPLICE BOX. CONDUIT WILL SWEEP INTO THE BOTTOM OF THE BOX. BOX WILL NOT REST (TOUCH) ON CONDUIT(S).
- ⑧ SUPPLY AND INSTALL CONDUIT WITH 1/4" PULL TAPE.
- ⑨ LIBERTY UTILITY SECONDARY SPLICE BOX NORMALLY LOCATED ADJACENT TO SIDEWALK. CONSULT LIBERTY UTILITIES FOR CORRECT LOCATION AND MAXIMUM DISTANCE.
- ⑩ SEE 'I' SHEETS FOR PRV RTU INSTRUMENTATION AND CONTROL.
- ⑪ ALL SERVICE TRENCH MUST BE APPROVED BY LIBERTY UTILITIES PRIOR TO CONSTRUCTION. REFER TO LU STANDARD TE0003U AND ELECTRIC SERVICE & METER INSTALLATION, COMMERCIAL & INDUSTRIAL, 2021 P.67, FIG. 38.
- ⑫ LIBERTY UTILITIES REQUIREMENTS FOR ELECTRIC SERVICE & METER INSTALLATIONS, COMMERCIAL & INDUSTRIAL, 2021 METER PEDESTAL P.81, FIG. 48.

NOTES

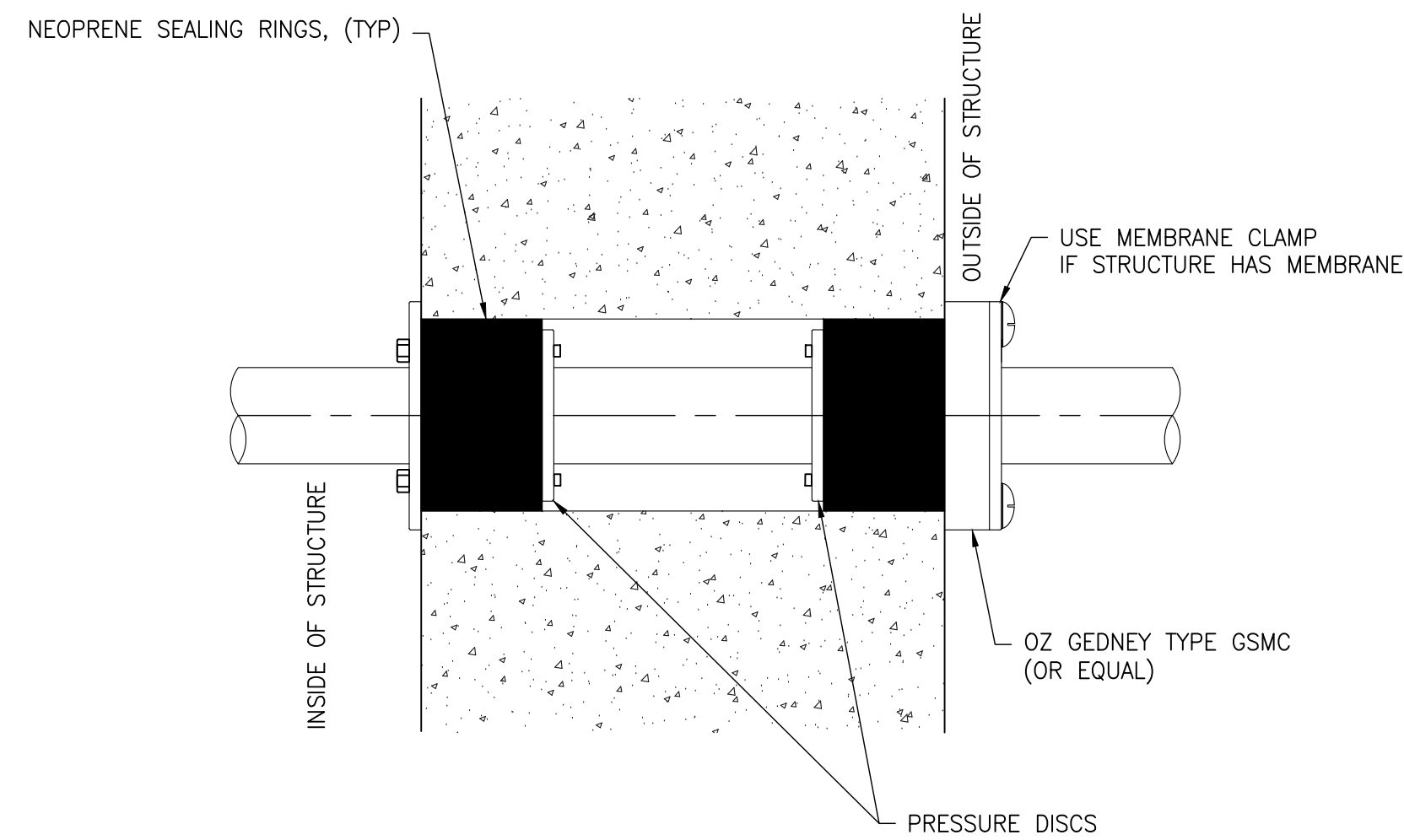
1. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, CONCRETE COVER OVER #11 AND SMALLER REINFORCING BARS SHALL BE AS FOLLOWS:
 - A. SLABS AND JOISTS:
 - FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES FOR DRY CONDITIONS
 - #7 BARS AND SMALLER..... 1"
 - #8 BARS AND LARGER..... 1 1/2"
 - FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR LOCATED OVER FLUIDS..... 2"
2. THE RTU CABINET, METER PEDESTAL, METAL POSTS, ANTENNA MAST ARM, PANEL SHIELD, AND MOUNTING BACKBOARD SHALL BE PRIMED WITH A RUST INHIBITOR AND COATED WITH AN APPROVED EXTERIOR OIL-BASED OR ACRYLIC PAINT. THE TOP COAT COLOR SHALL BE SHERWIN WILLIAMS MODULAR TAN (SW 4002) OR APPROVED EQUAL. SUBMIT PAINT MATERIAL PRODUCTS TO THE OWNER FOR APPROVAL PRIOR TO ORDERING MATERIALS.
3. ALL MEASUREMENTS SHOWN ARE APPROXIMATIONS.
4. ALL POWER CONDUCTOR TO BE #12 AWG AND ALL SIGNAL CONDUCTOR TO BE #14 AWG OR #18 TWSP.

**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
ELECTRICAL DETAILS**

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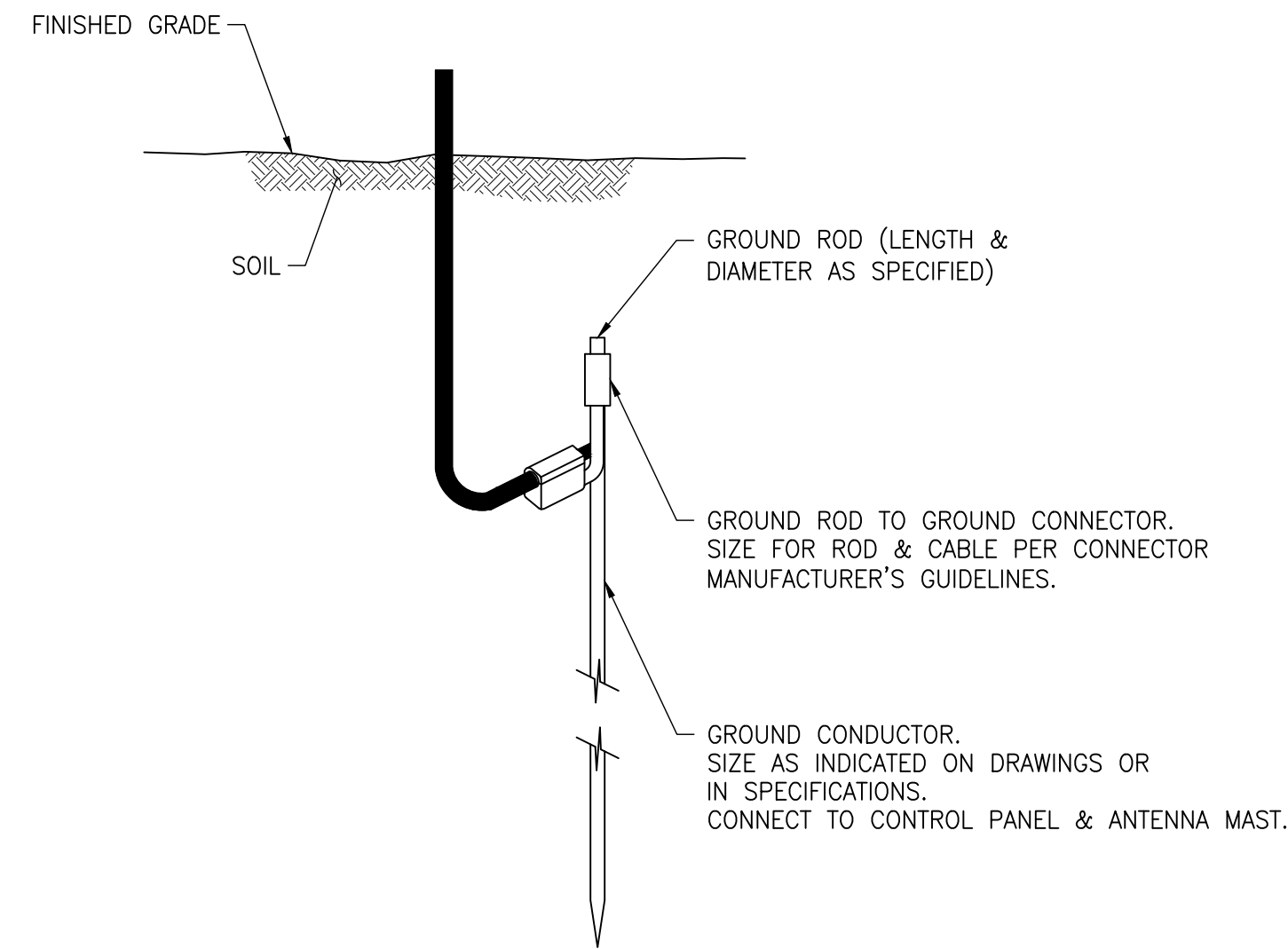
DATE: MAY 2026
SCALE: AS SHOWN
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DESIGN: TC/TJ
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**CONDUIT WALL PENETRATION
BELOW GRADE**

N.T.S.

1
-



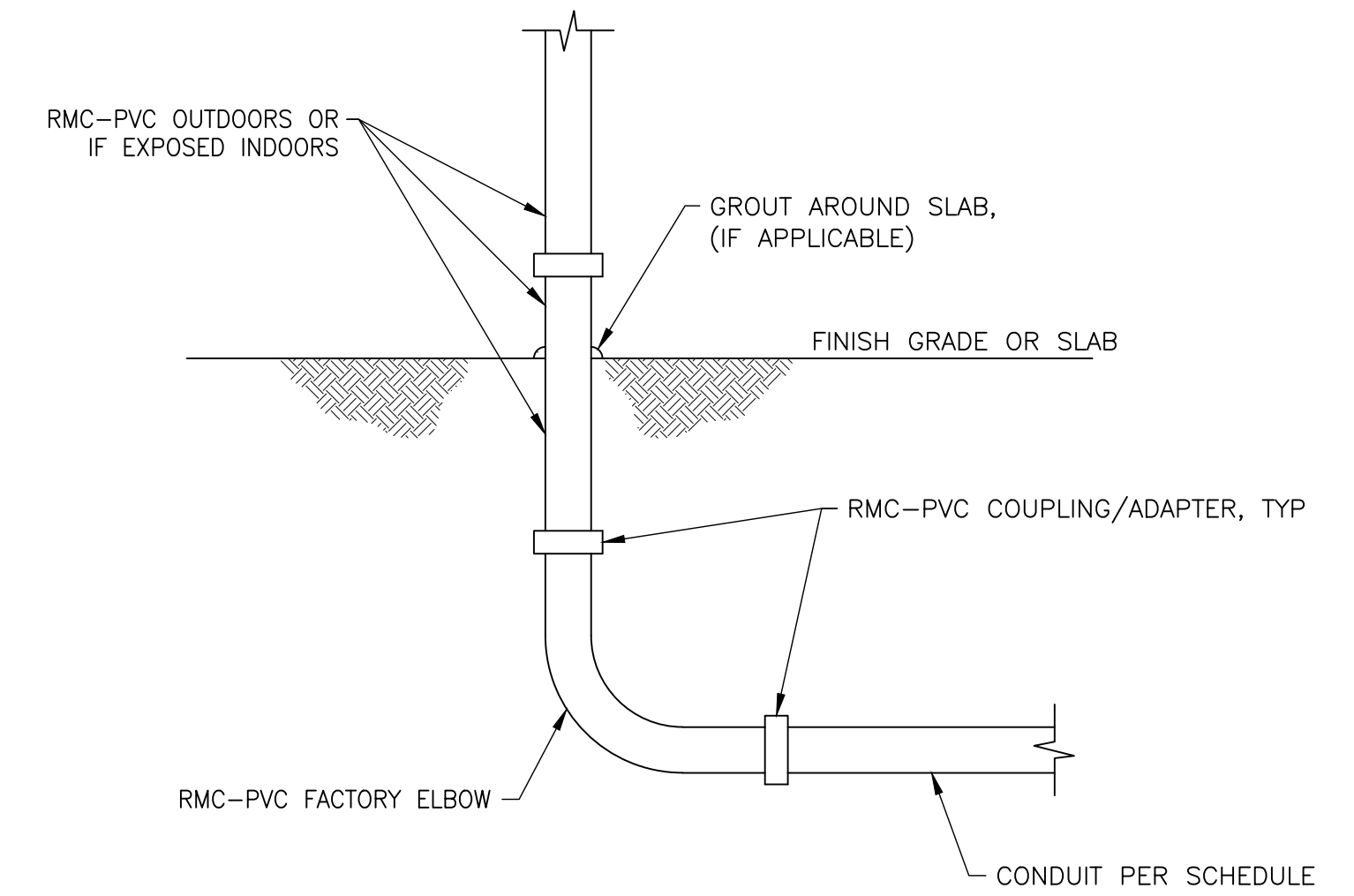
NOTES

1. GROUND ROD TO GROUND CONNECTOR, SIZE FOR ROD AND CABLE PER CONNECTOR MANUFACTURER'S GUIDELINES. CONNECT TO GROUNDING BAR IN THE CONTROL PANEL.

**GROUND ROD
COMPRESSION CONNECTION**

N.T.S.

2
-



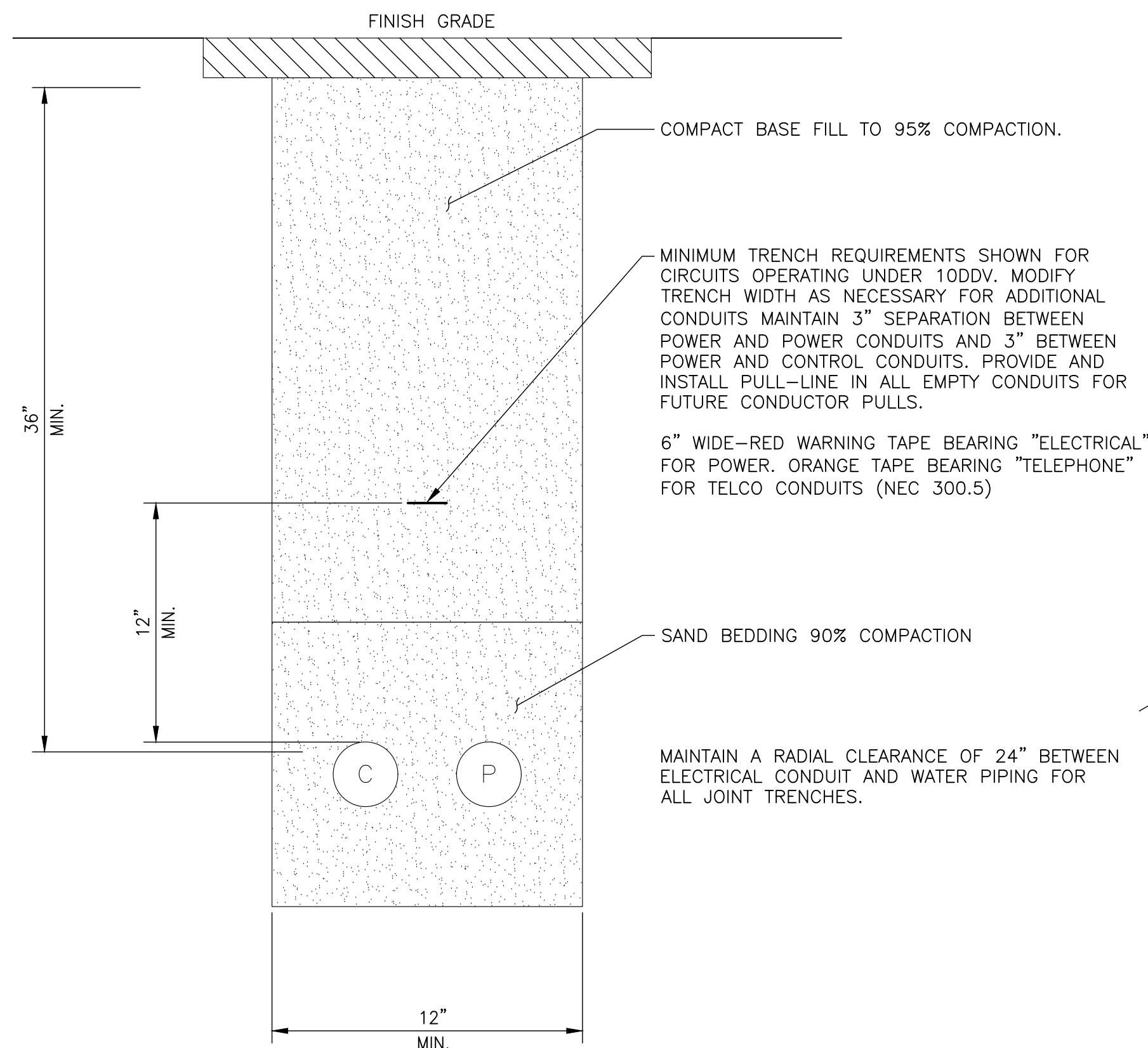
NOTES

1. RMC WITH PLASTIC TAPE IS NOT ALLOWED AS A SUBSTITUTE.
2. AREAS UNDER ELECTRICAL SWITCHBOARDS/MCC SHALL BE ENCASED IN MIN OF 2" GROUT OR CONCRETE TO STABILIZE CONDUIT BUNDLES.

EXPOSED CONDUIT TRANSITION

N.T.S.

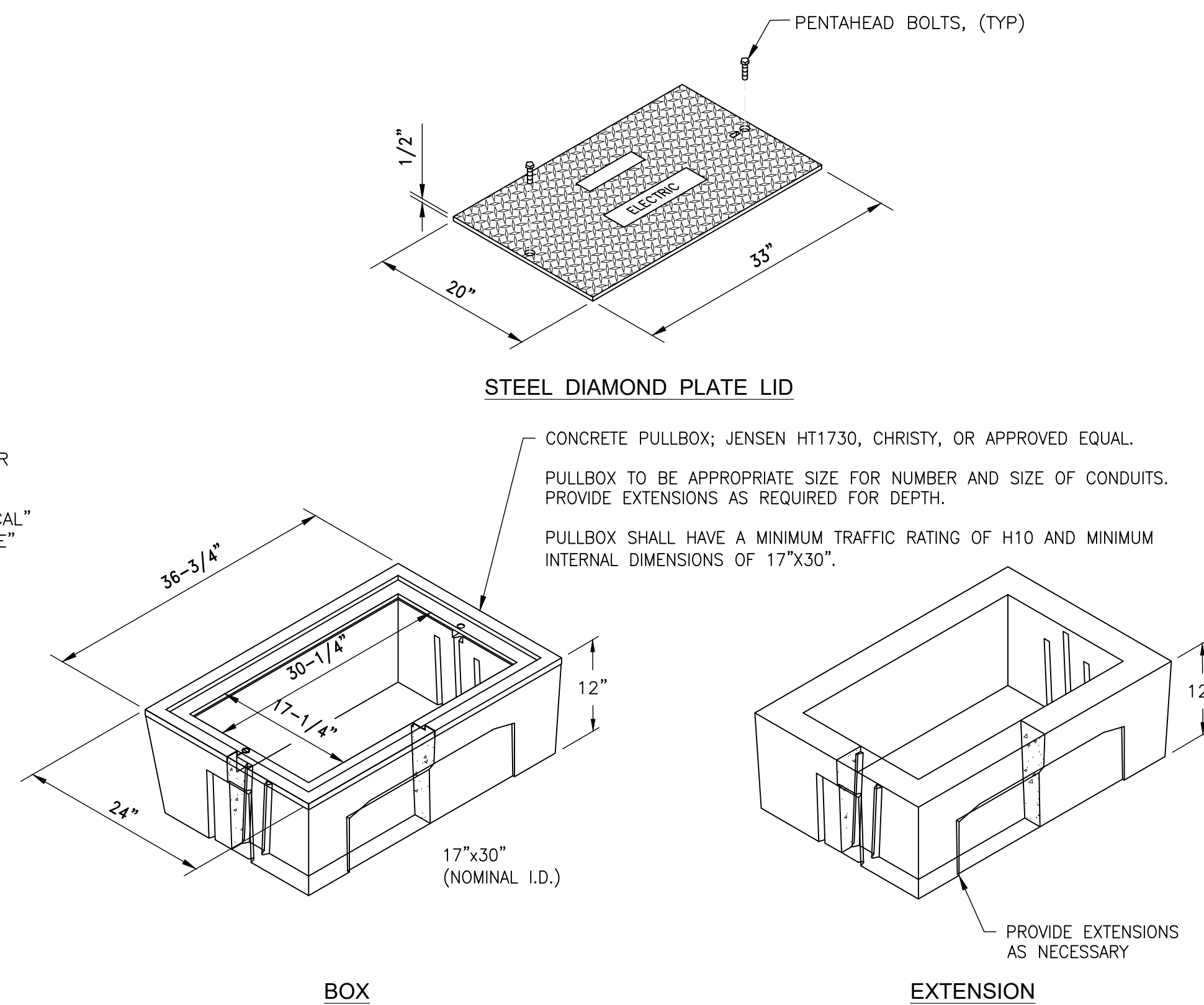
3
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TYPICAL TRENCH DETAIL

N.T.S.

4
-



NOTES

1. IN UNPAVED AREAS, PROVIDE CONCRETE COLLAR AROUND PULLBOX, 6" MIN. WIDE BY 6" MIN. DEEP.
2. ALL CONDUIT WITH-IN THE CONCRETE PULLBOX ARE TO BE SEALED WITH RTV DUCT SEAL TO PREVENT WATER ENTERING CONDUIT SYSTEM.
3. ALL CONDUCTORS AND CABLES ARE TO BE GROUPED AND WIRE TIED EVERY 6" WITHIN PULLBOX.
4. ALL SPLICES WITH-IN THE CONCRETE PULLBOX ARE TO BE SEALED WITH AN INSULATING AND ENCAPSULATING RESIN PACK, SCOTCHCAST 4 OR APPROVED EQUAL.

H10 1730 PULLBOX

N.T.S.

5
-

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**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
ELECTRICAL DETAILS**



DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

X:\Projects\Water\2026 Pioneer Trail Waterline (P - Engineering)\B.1 - CAD\B.1.3 - Plan Sheets\PROPOSED PT WATERLINE (REBID).4.28.2025.TJ.dwg

ABBREVIATIONS

| | |
|---------------|--|
| (D) | DEMOLISH |
| (E) | EXISTING AT TIME OF PROJECT |
| (F) | FUTURE (NOT PART OF PROJECT) |
| (N) | NEW (PART OF PROJECT) |
| (R) | REMOVE AND REPLACE |
| A | AMPERE |
| AC | ALTERNATING CURRENT |
| AI | ANALOG INPUT |
| AO | ANALOG OUTPUT |
| ARV | AIR RELEASE VALVE |
| ASV | ANTI-SIPHON VALVE |
| ATS | AUTOMATIC TRANSFER SWITCH |
| AVRV | AIR/VACUUM RELEASE VALVE |
| BAT | BATTERY |
| CP | CONTROL PANEL |
| CR | CONTROL RELAY |
| DC | DIRECT CURRENT |
| DI | DISCRETE INPUT OR DIGITAL INPUT |
| DO | DISCRETE OUTPUT OR DIGITAL OUTPUT |
| DPDT | SWITCH, DOUBLE POLE, DOUBLE THROW |
| DPST | SWITCH, DOUBLE POLE, SINGLE THROW |
| ETM | ELAPSED TIME METER |
| FC | FAIL CLOSED |
| FE | FINAL EFFLUENT |
| FLP | FAIL LAST POSITION |
| FO | FAIL OPEN |
| GND | GROUND |
| HMI | HUMAN MACHINE INTERFACE |
| HOA | HAND-OFF-AUTO |
| I/O | INPUT/OUTPUT |
| ISB | INTRINSICALLY SAFE BARRIER |
| ISR | INTRINSICALLY SAFE RELAY |
| JB | JUNCTION BOX |
| L/S | LIFT STATION |
| LOP | LOCAL CONTROL PANEL |
| LOR | LOCAL-OFF-REMOTE |
| LOS | LOCAL-OFF-START |
| LR | LOCAL-REMOTE |
| MA | MILLIAMPERES |
| MAX | MAXIMUM |
| MCC | MOTOR CONTROL CENTER |
| MIN | MINIMUM |
| MOV | MOTOR OPERATED VALVE |
| MRTU | MASTER RTU |
| NC | NORMALLY CLOSED |
| NIC | NOT IN CONTRACT |
| NO | NORMALLY OPEN |
| NPW | NON-POTABLE WATER |
| NTS | NOT TO SCALE |
| OIT | OPERATOR INTERFACE TERMINAL |
| OO | OFF-ON |
| PB | PUSHBUTTON |
| PC | PERSONAL COMPUTER |
| PCIS | PROCESS CONTROL & INSTRUMENTATION SYSTEM |
| PCP | PROCESS CONTROL PANEL |
| PCV | PRESSURE CONTROL VALVE |
| PID (CONTROL) | PROPORTIONAL/INTEGRAL/DERIVATIVE |
| PID (DIAGRAM) | PROCESS & INSTRUMENTATION DIAGRAM |
| PLC | PROGRAMMABLE LOGIC CONTROLLER |
| POT | POTENTIOMETER |
| PRV | PRESSURE RELIEF VALVE |
| PTT | PUSH TO TEST |
| PW | POTABLE WATER |
| RAS | RECYCLED ACTIVATED SLUDGE |
| RTD | RESISTANCE TEMPERATURE DETECTOR |
| RTU | REMOTE TERMINAL UNIT |
| RVSS | REDUCED VOLTAGE SOFT START |
| SCADA | SUPERVISORY CONTROL AND DATA ACQUISITION |
| SE | SECONDARY EFFLUENT |
| SPST | SWITCH, SINGLE POLE, DOUBLE THROW |
| SPST | SWITCH, SINGLE POLE, SINGLE THROW |
| SS | START-STOP |
| TB | TERMINAL BLOCK |
| TDR | TIME DELAY RELAY |
| TP | TWISTED PAIR |
| TS | TERMINAL STRIP |
| TSP | TWISTED SHIELDED PAIR |
| TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| TYP | TYPICAL |
| UG | UNDERGROUND |
| UPS | UNINTERRUPTIBLE POWER SUPPLY |
| UW | UTILITY WATER |
| V | VENT |
| VA | VOLT-AMPERE |
| VAC | VOLTS AC |
| VDC | VOLTS DC |
| VFD | VARIABLE FREQUENCY DRIVE |
| VIB | VIBRATION |
| VSD | VARIABLE SPEED DRIVE |
| WAS | WASTE ACTIVATED SLUDGE |
| WTP | WASTE TREATMENT PLANT |
| WTP | WASTE WATER TREATMENT PLANT |
| XDCR | TRANSUDER |
| XFMR | TRANSFORMER |

PROCESS VARIABLES

| | |
|-----|----------------------------|
| Cl | CHLORINE RESIDUAL |
| HC | HYDROCARBON |
| pH | HYDROGEN ION CONCENTRATION |
| Tu | TURBIDITY |
| LEL | LOWER EXPLOSIVE LIMIT |
| O2 | OXYGEN CONCENTRATION |
| O3 | OZONE |
| DO | DISSOLVED OXYGEN |
| SS | SUSPENDED SOLIDS |
| H2S | HYDROGEN SULFIDE |

MECHANICAL / PROCESS

| SYMBOL | DESCRIPTION |
|--------|---|
| | HARDWIRE CONNECTION |
| | EXISTING ELECTRIC SIGNAL |
| | ELECTRICAL SIGNAL |
| | ELECTRIC POWER/CONTROL |
| | PNEUMATIC SIGNAL |
| | CAPILLARY TUBING (FILLED SYSTEM) |
| | HYDRAULIC SIGNAL |
| | SONIC OR ELECTROMAGNETIC SIGNAL |
| | LOGIC OR DATA SIGNAL |
| | MAIN PROCESS LINE |
| | SECONDARY PROCESS LINE |
| | AUXILIARY PROCESS LINE |
| | DIRECTION OF FLOW |
| | MANUFACTURER'S PRE-WIRING |
| | ELECTRIC SUPPLY OR AIR SUPPLY |
| | GROUND |
| | SHEET NOTE TAG |
| | FIELD MOUNTED INSTRUMENT |
| | FACE MOUNTED INSTRUMENT ON LOCAL PANEL, OPERATOR ACCESSIBLE |
| | INSTRUMENT MOUNTED IN LOCAL PANEL, OPERATOR INACCESSIBLE |
| | PCIS OR PLC I/O POINT DISCRETE INPUT |
| | PCIS OR PLC I/O POINT DISCRETE OUTPUT |
| | PCIS OR PLC I/O POINT ANALOG INPUT |
| | PCIS OR PLC I/O POINT ANALOG OUTPUT |
| | PCIS OR PLC LOGIC OR PCIS OR PLC TAG |
| | OPERATION PERFORMED WITH LOGIC OR HARDWIRED DEVICES - REFERENCE ELEMENTARY DWG. # |
| | INSTRUMENT PANEL MOUNTED WITH COMPUTING, CONVERTING FUNCTION |
| | CONVERT |
| | E - VOLTAGE |
| | I - CURRENT |
| | P - PNEUMATIC |
| | A - ANALOG |
| | B - BINARY |
| | SUMMING |
| | SUBTRACTOR |
| | MULTIPLYING |
| | DIVIDING |
| | ROOT EXTRACTION |
| | PROPORTIONAL |
| | DERIVATIVE |
| | H - HYDRAULIC |
| | O - ELECTROMAGNETIC, SONIC |
| | R - RESISTANCE (ELECT.) |
| | D - DIGITAL |
| | AVERAGING |
| | RATIO |
| | DIFFERENCE |
| | HIGH SELECTING |
| | LOW SELECTING |
| | INTEGRAL |
| | INTERLOCK |
| | VALVE/GATE NUMBER |
| | EQUIPMENT NUMBER |

P&ID INSTRUMENT IDENTIFICATION

| NUMBERING SEQUENCE | |
|--------------------|---------------------------|
| SEQUENCE NUMBER | DESCRIPTION |
| 00 | COMMON ALARM |
| 01-09 | INDIVIDUAL ITEMS |
| 10 | MECHANICAL |
| 20 | MECHANICAL |
| 30 | MECHANICAL |
| 40 | MECHANICAL |
| 50 | LEVEL DEVICES |
| 60 | PRESSURE DEVICES |
| 70 | FLOW DEVICES |
| 80 | ANALYTICAL DEVICES |
| 90 | SAFETY & SECURITY DEVICES |

| IDENTIFICATION LETTERS | | | | | |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------------|----------------------|
| CODE LETTER | FIRST LETTER(S) | | SUCCEEDING LETTER(S) | | |
| | MEASURED OR INITIATING VARIABLE | MODIFIER | READOUT OR PASSIVE FUNCTION | OUTPUT FUNCTION | MODIFIER |
| A | ANALYSIS | | ALARM | | |
| B | BURNER, COMBUSTION | | USER'S CHOICE | USER'S CHOICE | USER'S CHOICE |
| C | USER'S CHOICE | | | CONTROL | CLOSE |
| D | USER'S CHOICE | DIFFERENTIAL | | | |
| E | VOLTAGE | | SENSOR, PRIMARY ELEMENT | | |
| F | FLOW RATE | RATIO | | | |
| G | USER'S CHOICE | | GLASS, VIEWING DEVICE | | |
| H | HAND | | | | HIGH |
| I | CURRENT | | INDICATE | | |
| J | POWER | SCAN | | | |
| K | TIME, TIME SCHEDULE | TIME RATE OF CHANGE | | CONTROL STATION | |
| L | LEVEL | | LIGHT | | LOW/LOCAL |
| M | USER'S CHOICE | MOMENTARY | | | MIDDLE, INTERMEDIATE |
| N | USER'S CHOICE | | USER'S CHOICE | USER'S CHOICE | USER'S CHOICE |
| O | USER'S CHOICE | | ORIFICE, RESTRICTION | | |
| P | PRESSURE, VACUUM | | POINT (TEST) CONNECTION | | |
| Q | QUANTITY | INTEGRATE, TOTALIZE | | | |
| R | RADIATION | | RECORD | | |
| S | SPEED, FREQUENCY | SAFETY | | SWITCH | |
| T | TEMPERATURE | | | TRANSMIT | |
| U | MULTIVARIABLE | | MULTIFUNCTION | MULTIFUNCTION | MULTIFUNCTION |
| V | VIBRATION, MECHANICAL ANALYSIS | | | VALVE, DAMPER, LOUVER | |
| W | WEIGHT, FORCE | | WELL | | |
| X | UNCLASSIFIED | X AXIS | UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED |
| Y | EVENT, STATE OR PRESENCE | Y AXIS | | RELAY, COMPUTE, CONVERT | |
| Z | POSITION, DIMENSION | Z AXIS | | DRIVER, ACTUATOR | |

| INSTRUMENTATION SCHEDULE | | |
|--------------------------|----------|--|
| ITEM | QUANTITY | DESCRIPTION |
| 1 | 2 | PRESSURE REDUCING VALVE: 90-01 AND 690-01 |
| 2 | 1 | SUCTION PRESSURE TRANSMITTER: X141-PT |
| 3 | 1 | DISCHARGE PRESSURE TRANSMITTER: X141-PT |
| 4 | 1 | VALVE CONTROLLER: CLA-VAL VC-22D |
| 5 | 1 | CELLULAR MODEM: BY DISTRICT |
| 6 | 1 | CELLULAR ANTENNA |
| 7 | 1 | CELLULAR ANTENNA CABLE |
| 8 | 1 | CELLULAR ANTENNA SURGE PROTECTOR |
| 9 | 1 | RTU ENCLOSURE:HOFFMAN A36H30BLP, NEMA TYPE 4, W HOOD |
| 10 | 2 | 12VDC BATTERY |
| 11 | 1 | VAULT FLOOD SWITCH: GEN LS-270 |
| 14 | 1 | 2" FLOW TRANSMITTER |
| 15 | 1 | 8" BYPASS FLOW TRANSMITTER |

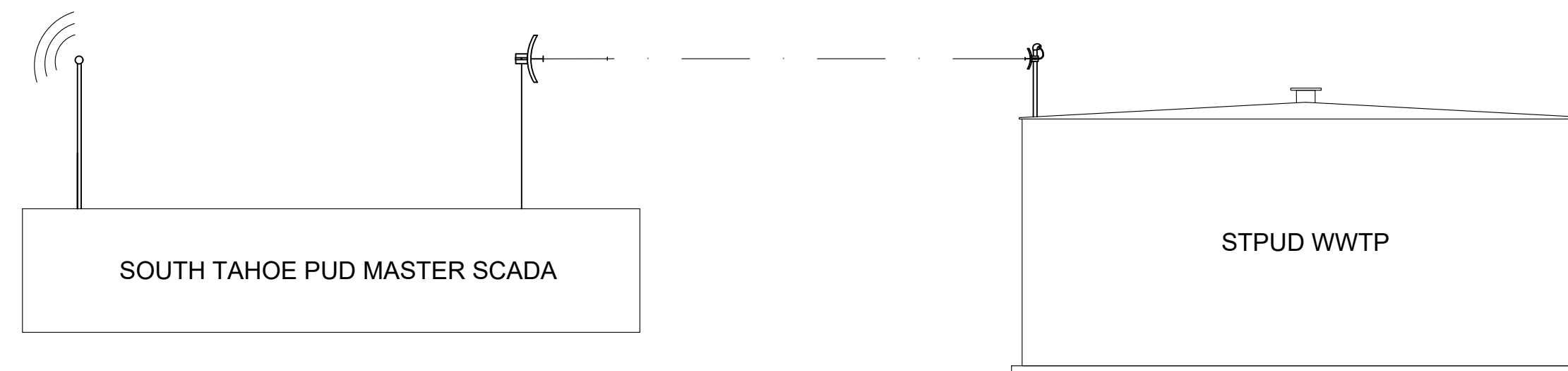
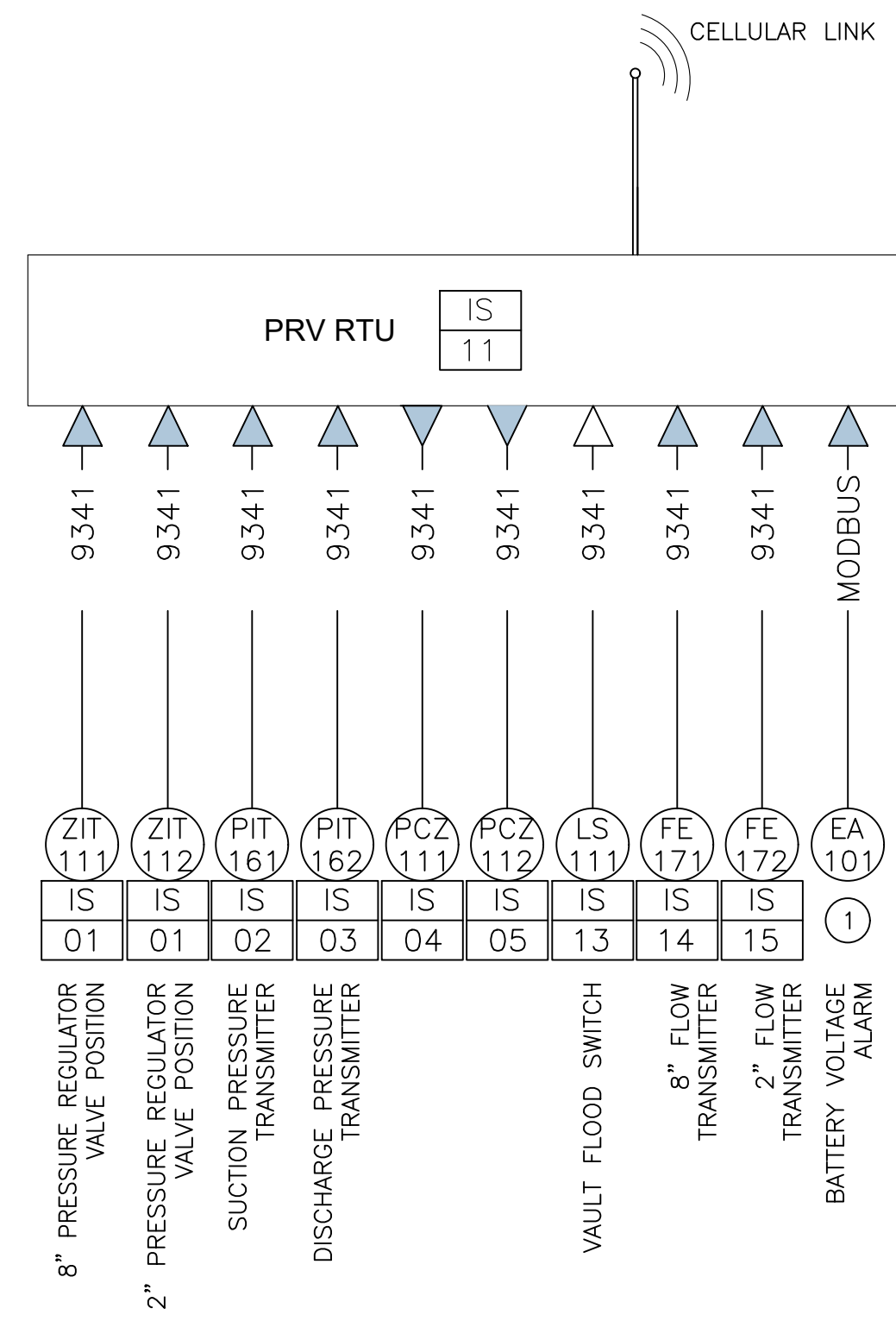
SOUTH TAHOE PUBLIC UTILITY DISTRICT

1275 Meadows Crest Drive
 Seaver, 1950 Water
 A PUBLIC AGENCY
 South Lake Tahoe, California 96150
 Phone (530) 544-6474 Fax (530) 544-4319
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2026 PIONEER TRAIL WATERLINE PROJECT (REBID) INSTRUMENTATION LEGEND

DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:

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KEY NOTES

- ① SCADA INTEGRATOR TO VERIFY INTERNAL REGISTER FOR BATTERY VOLTAGE.

SCADA / RTU EQUIPMENT DIAGRAM

N.T.S.

A. MONITORING

- 8" PRESSURE REGULATOR VALVE POSITION
- 2" PRESSURE REGULATOR VALVE POSITION
- SUCTION PRESSURE TRANSMITTER
- DISCHARGE PRESSURE TRANSMITTER
- VAULT FLOOD SWITCH
- 8" FLOW RATE TRANSMITTER
- 2" FLOW RATE TRANSMITTER

B. COMMUNICATION

- MASTER SCADA SYSTEM

C. ALARMS

- BATTERY VOLTAGE

**2026 PIONEER TRAIL
 WATERLINE PROJECT (REBID)
 INSTR. PRV OVERVIEW**



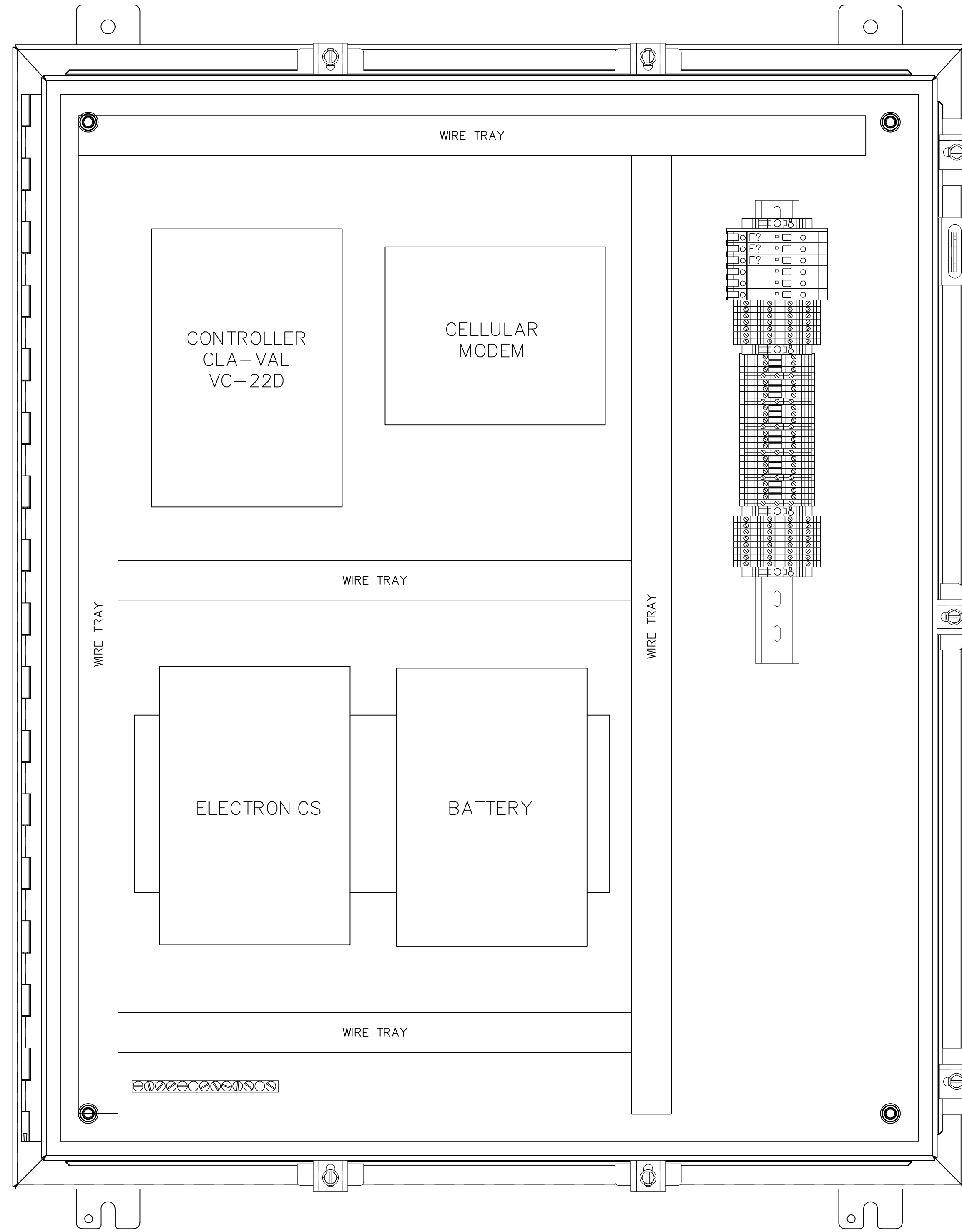
DATE: MAY 2026

SCALE: AS SHOWN

DRAWN: AZ/TJ

DESIGN: TC/TJ

AS BUILT:



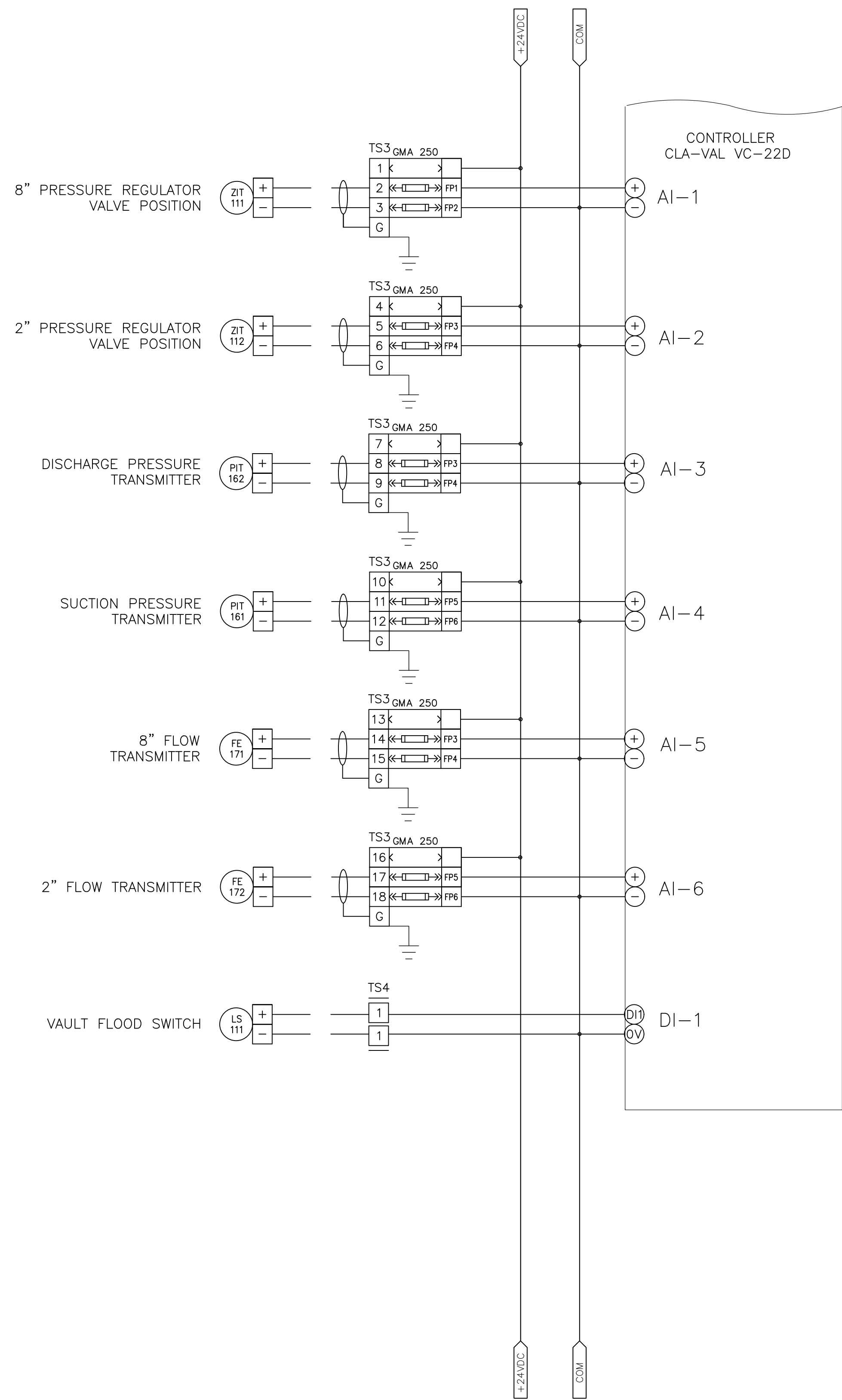
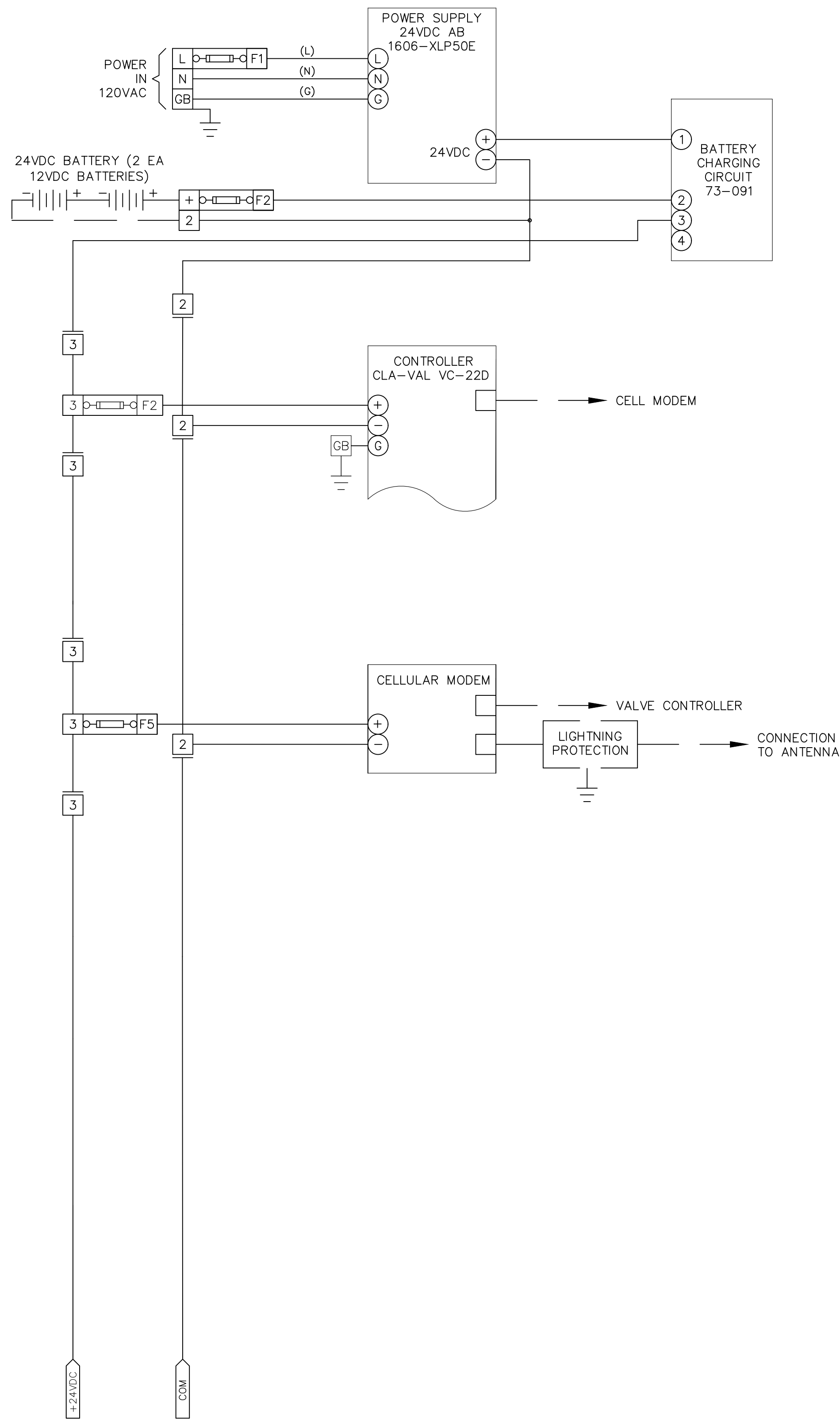
**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
INSTR. PRV MECHANICAL LAYOUT**

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 A PUBLIC AGENCY
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DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:

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SOUTH TAHOE PUBLIC UTILITY DISTRICT

A PUBLIC AGENCY
 1275 Meadows Crest Drive South Lake Tahoe, California 96150
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2026 PIONEER TRAIL WATERLINE PROJECT (REBID) INSTR. PRV POWER & I-O



DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:

X:\Projects\Water\2026 Pioneer Trail Waterline (P - Engineering)\B.I. - CAD\B.I.3 - Plan Sheets\PROPOSED PT WATERLINE (REBID).4.28.2025.TJ.dwg

TABLE 1

| TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING | | | | | | | |
|---|--|-----------|--------------|--------------|-------------------------------------|---------|----------|
| SPEED (S) | MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W) | | | | MAXIMUM CHANNELIZING DEVICE SPACING | | |
| | TANGENT 2L | MERGING L | SHIFTING L/2 | SHOULDER L/3 | X | Y | Z ** |
| | | | | | TAPER | TANGENT | CONFLICT |
| mph | ft | ft | ft | ft | ft | ft | ft |
| 20 | 160 | 80 | 40 | 27 | 20 | 40 | 10 |
| 25 | 250 | 125 | 63 | 42 | 25 | 50 | 12 |
| 30 | 360 | 180 | 90 | 60 | 30 | 60 | 15 |
| 35 | 490 | 245 | 123 | 82 | 35 | 70 | 17 |
| 40 | 640 | 320 | 160 | 107 | 40 | 80 | 20 |
| 45 | 1080 | 540 | 270 | 180 | 45 | 90 | 22 |
| 50 | 1200 | 600 | 300 | 200 | 50 | 100 | 25 |
| 55 | 1320 | 660 | 330 | 220 | 50 | 100 | 25 |
| 60 | 1440 | 720 | 360 | 240 | 50 | 100 | 25 |
| 65 | 1560 | 780 | 390 | 260 | 50 | 100 | 25 |
| 70 | 1680 | 840 | 420 | 280 | 50 | 100 | 25 |
| 75 | 1800 | 900 | 450 | 300 | 50 | 100 | 25 |

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2/60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet

W = Width of offset in feet

S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

| LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING | | | | |
|---|----------|---------------------|-----|------|
| SPEED * | Min D ** | DOWNGRADE Min D *** | | |
| | | -3% | -6% | -9% |
| mph | ft | ft | ft | ft |
| 20 | 115 | 116 | 120 | 126 |
| 25 | 155 | 158 | 165 | 173 |
| 30 | 200 | 205 | 215 | 227 |
| 35 | 250 | 257 | 271 | 287 |
| 40 | 305 | 315 | 333 | 354 |
| 45 | 360 | 378 | 400 | 427 |
| 50 | 425 | 446 | 474 | 507 |
| 55 | 495 | 520 | 553 | 593 |
| 60 | 570 | 598 | 638 | 686 |
| 65 | 645 | 682 | 728 | 785 |
| 70 | 730 | 771 | 825 | 891 |
| 75 | 820 | 866 | 927 | 1003 |

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

| ADVANCE WARNING SIGN SPACING | | | |
|------------------------------------|--------------------------|------|------|
| ROAD TYPE | DISTANCE BETWEEN SIGNS * | | |
| | A | B | C |
| | ft | ft | ft |
| URBAN - 25 mph OR LESS | 100 | 100 | 100 |
| URBAN - MORE THAN 25 mph TO 40 mph | 250 | 250 | 250 |
| URBAN - MORE THAN 40 mph | 350 | 350 | 350 |
| RURAL | 500 | 500 | 500 |
| EXPRESSWAY / FREEWAY | 1000 | 1500 | 2640 |

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES



DATE: MAY 2026
 SCALE: AS SHOWN
 DRAWN: AZ/TJ
 DESIGN: TC/TJ
 AS BUILT:

TC1
 29 OF 38
 SHEETS

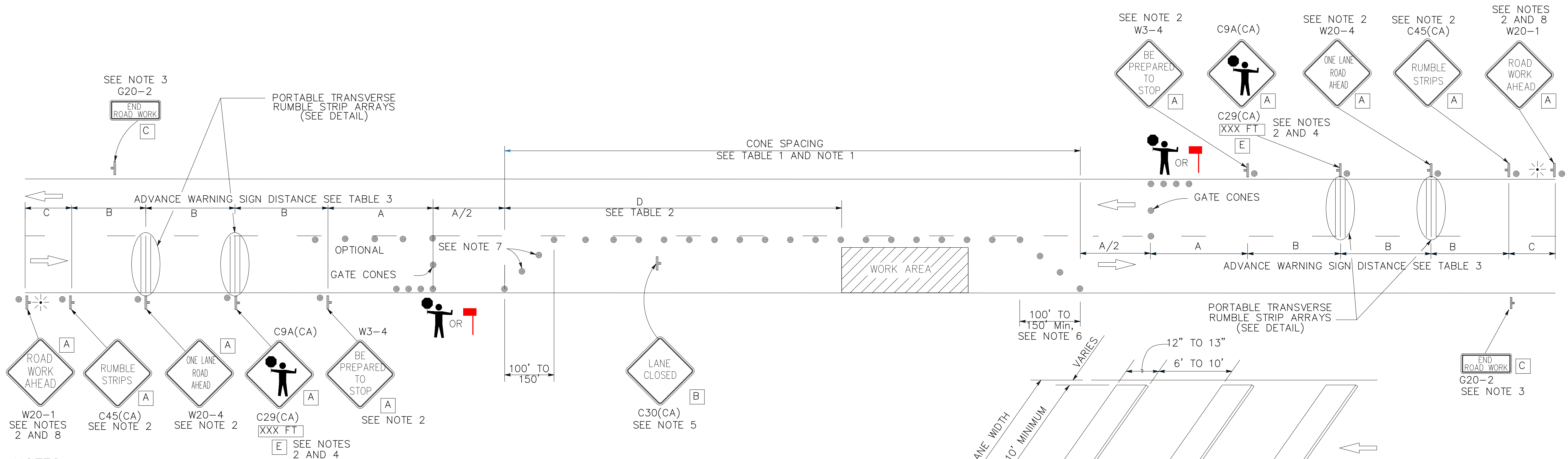
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NOTES:

See Standard Plan T9 for tables.

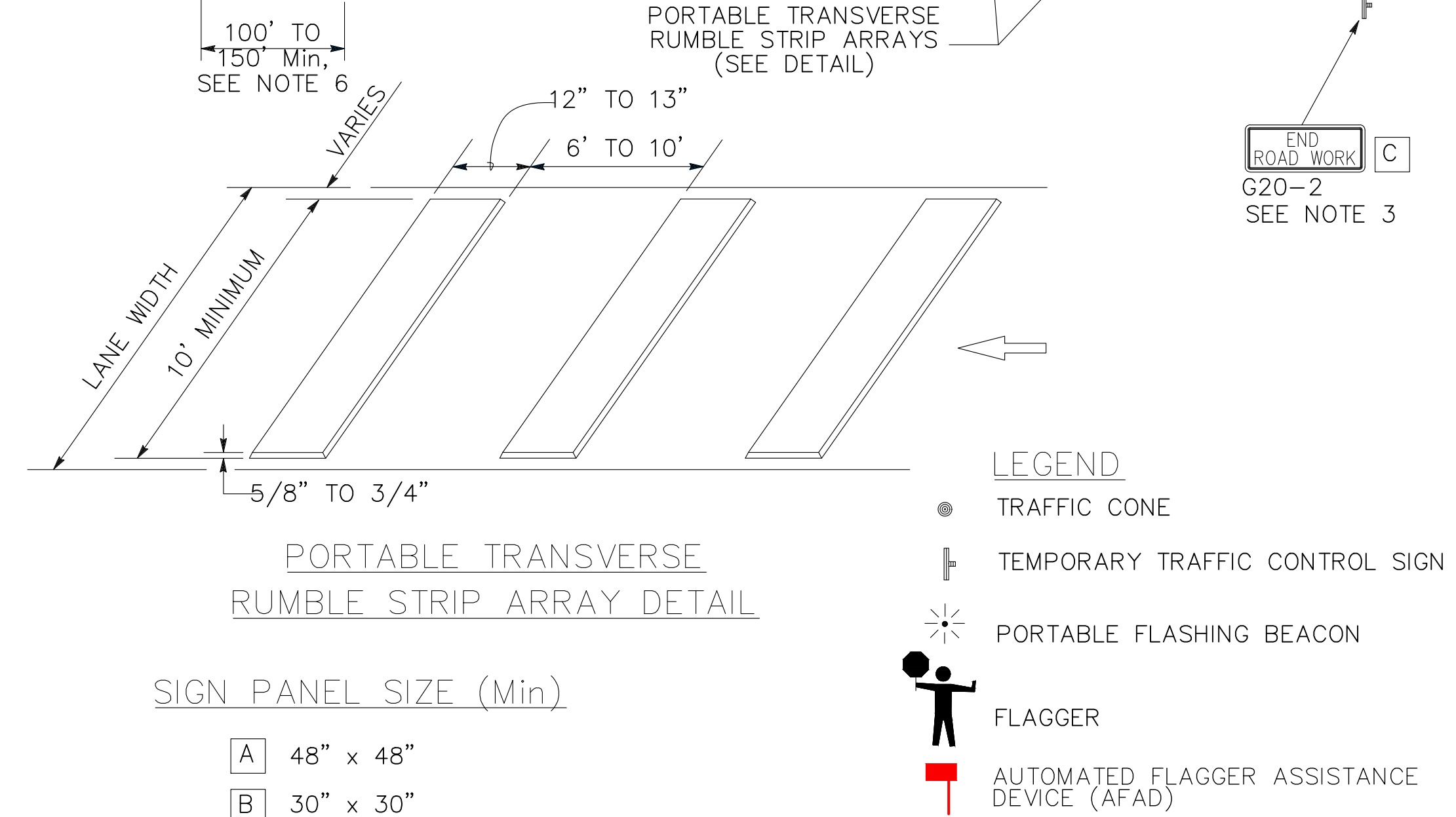
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.



NOTES:

1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
2. Sign must be equipped with at least two flags for daytime closures. Flags must be orange in color and at least 16 inches by 16 inches in size. Place flashing beacons as shown for closures during hours of darkness.
3. A G20-2 "END ROAD WORK" sign, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
4. An optional C29(CA) sign may be placed below the C9A(CA) sign.
5. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area. They are optional if the work area is visible from the flagger station.
6. Length may be reduced by the Engineer to address site conditions.
7. Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
8. If C45(CA) is not used, measure distance C from W20-4.



SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 20" x 7"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
WITH REVERSIBLE CONTROL ON
TWO LANE CONVENTIONAL
HIGHWAYS**

NO SCALE

T13

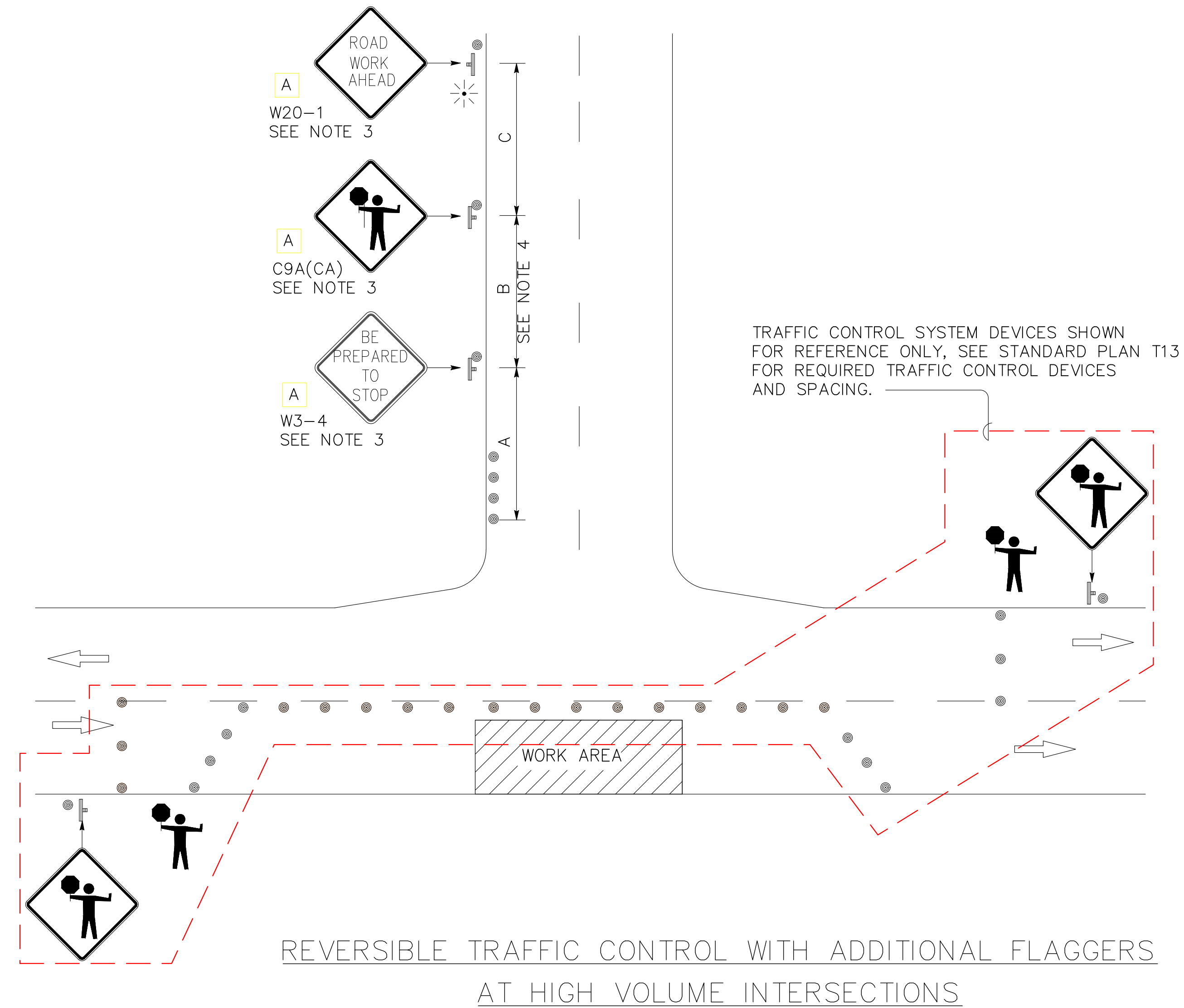
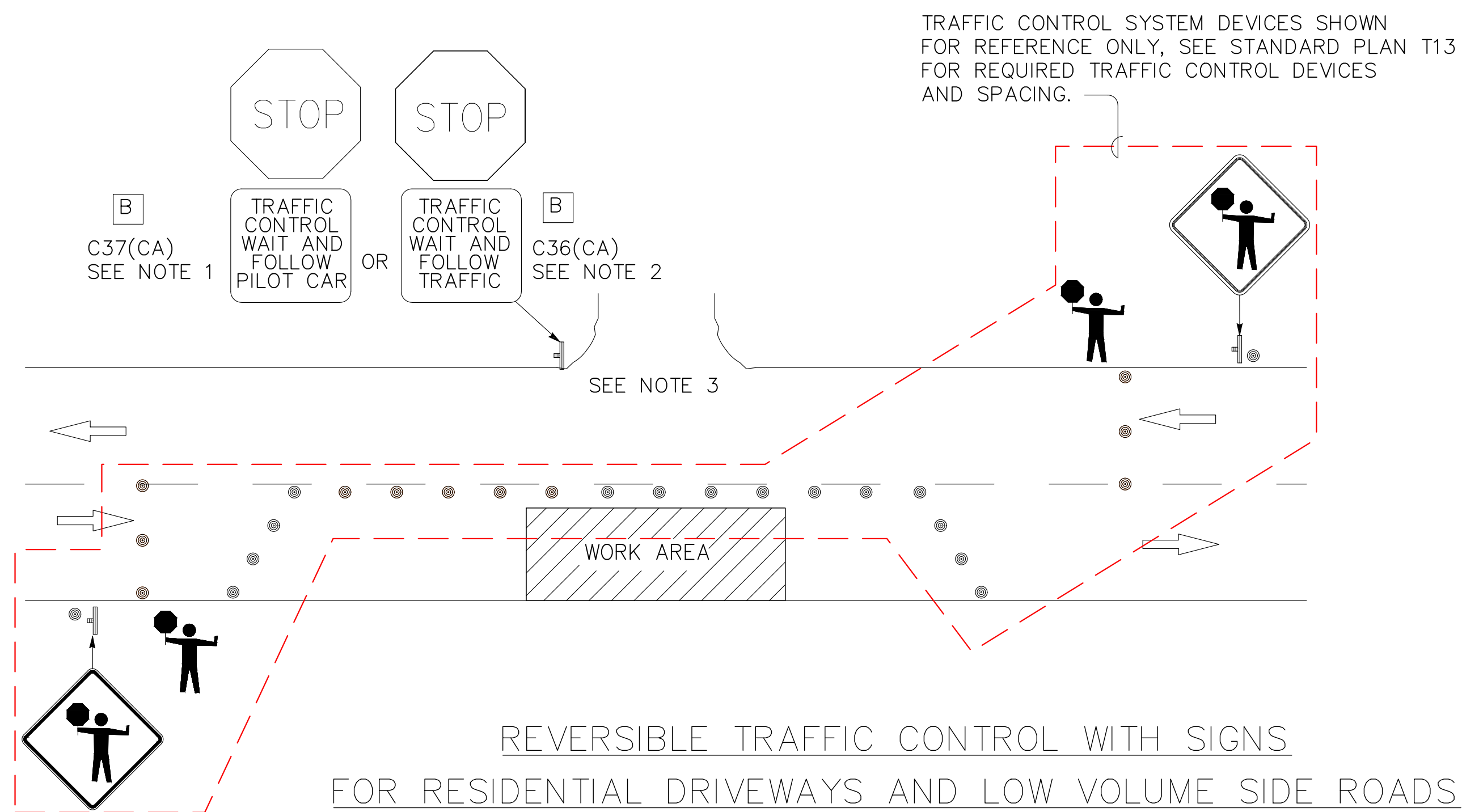
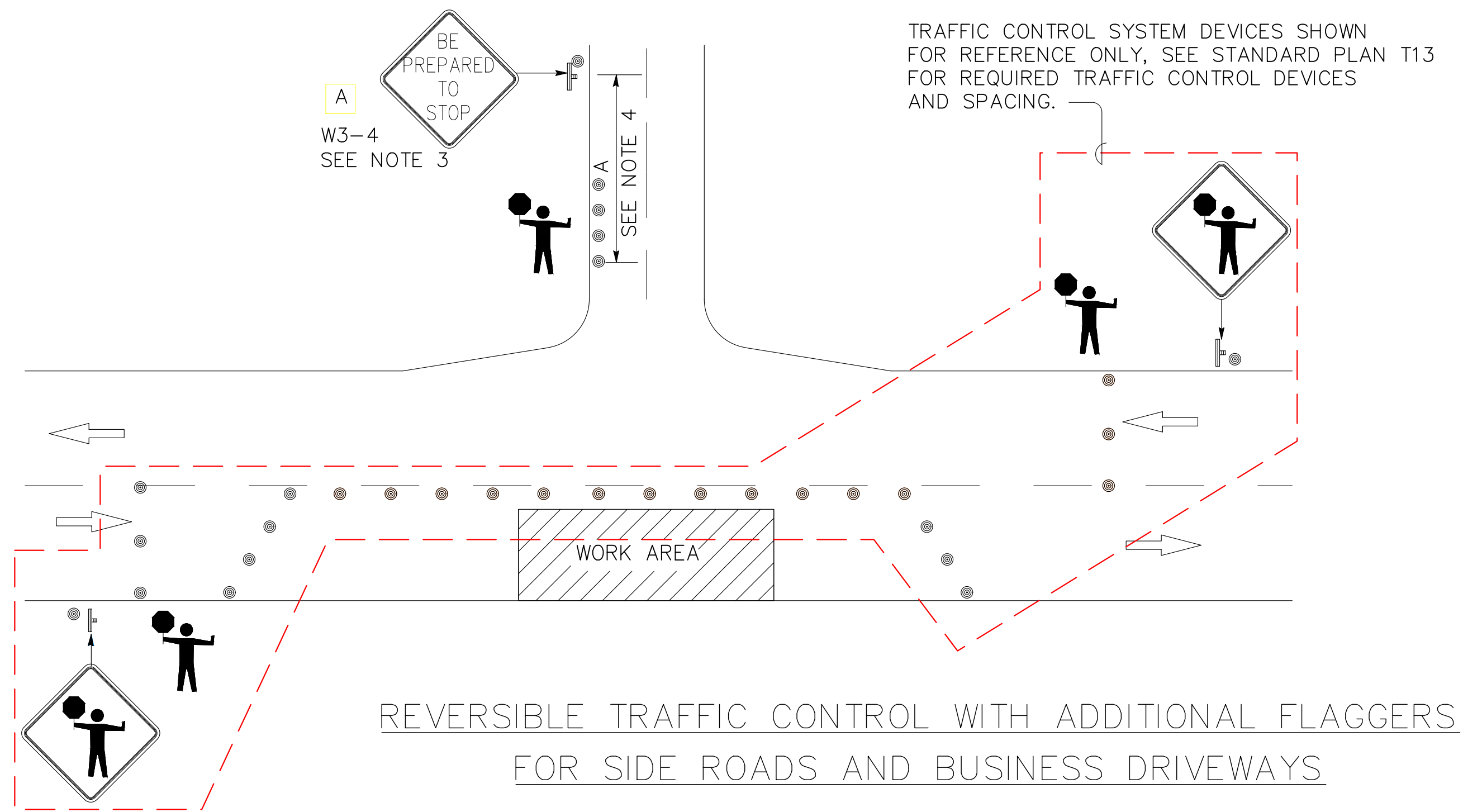
**2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
CALTRANS STANDARD PLANS - T13**



DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

TC2
30 OF 38
SHEETS

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- NOTES:
- Place C37(CA) sign when pilot car is used.
 - Place C36(CA) sign when pilot car is not used.
 - Sign must be equipped with at least two flags for daytime closures. Flags must be orange in color and at least 16 inches by 16 inches in size. Place flashing beacons as shown for closures during hours of darkness.
 - See Standard Plan T9, Table 3 for advance warning sign spacing.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL SYSTEM
TWO LANE CONVENTIONAL HIGHWAYS
NO SCALE

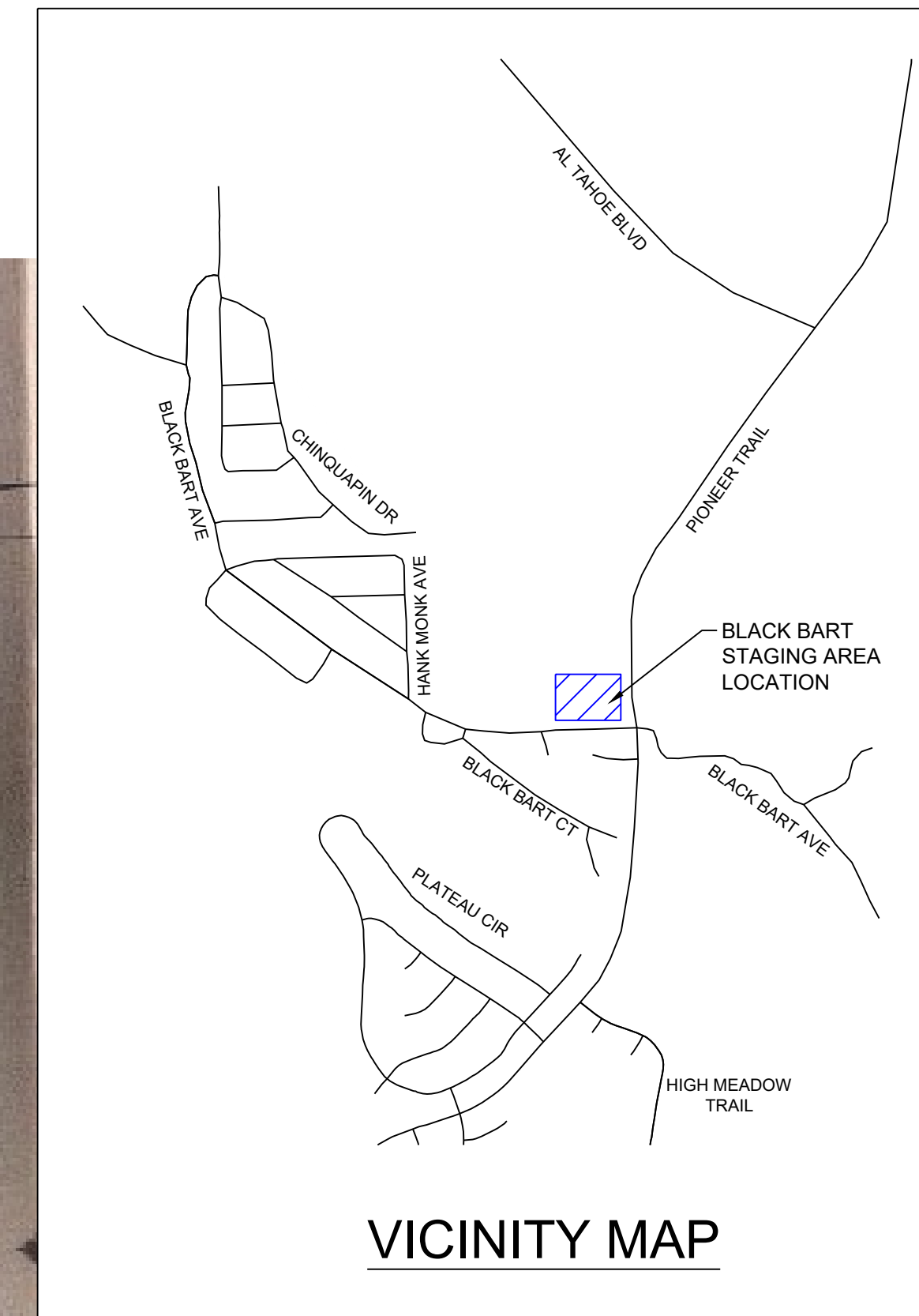
T13B

2026 PIONEER TRAIL
WATERLINE PROJECT (REBID)
CALTRANS STANDARD PLANS - T13B



DATE: MAY 2026
SCALE: AS SHOWN
DRAWN: AZ/TJ
DESIGN: TC/TJ
AS BUILT:

TC3
31 OF 38
SHEETS



VICINITY MAP

LEGEND:

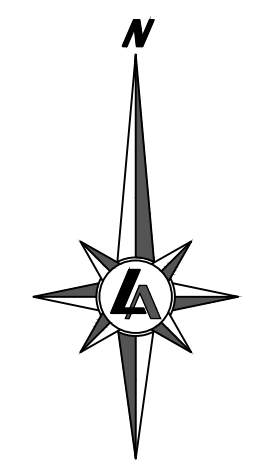
| | | |
|--|------------------------------------|---------|
| | STAGING AREA | |
| | COIR LOG (FIBER ROLLS) | 3 D4 |
| | FILTER FABRIC FENCING (SILT FENCE) | 2 D4 |
| | DRAIN INLET PROTECTION | 1 D4 |
| | REVEGETATION PER TRPA BMP HANDBOOK | |
| | TREE PROTECTIVE FENCING | 4 D4 |

LOCATION DIRECTIONS:
FROM PIONEER TRAIL, TAKE BLACK BART AVENUE TO THE STAGING AREA

BLACK BART STAGING AREA NOTES:

1. BLACK BART STAGING AREA MAY BE USED FOR STAGING MATERIALS AND EQUIPMENT PRIOR TO MOBILIZATION TO THE PROJECT SITE.
2. ALL EXCESS SPOILS ARE TO BE DISPOSED OF AT A TRPA APPROVED LOCATION, NO STORAGE OF SPOILS WHICH ARE NOT SCHEDULED TO BE REINSTALLED.
3. NO VEHICLE OR EQUIPMENT MAINTENANCE ALLOWED IN STAGING AREA. NO STORAGE OF FUEL, OIL, DEF, OR OTHER FLUIDS ALLOWED.
4. CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY CONVENIENCES AT ALL STAGING AREAS PER STPUD SPECS.
5. THIS PERMANENT STAGING AREA IS EXPECTED TO BE COMPLETELY CONTAINED. COIR LOGS (FIBER ROLLS) SHALL BE KEPT ON SITE TO PLACE IF NEEDED.

BLACK BART STAGING AREA

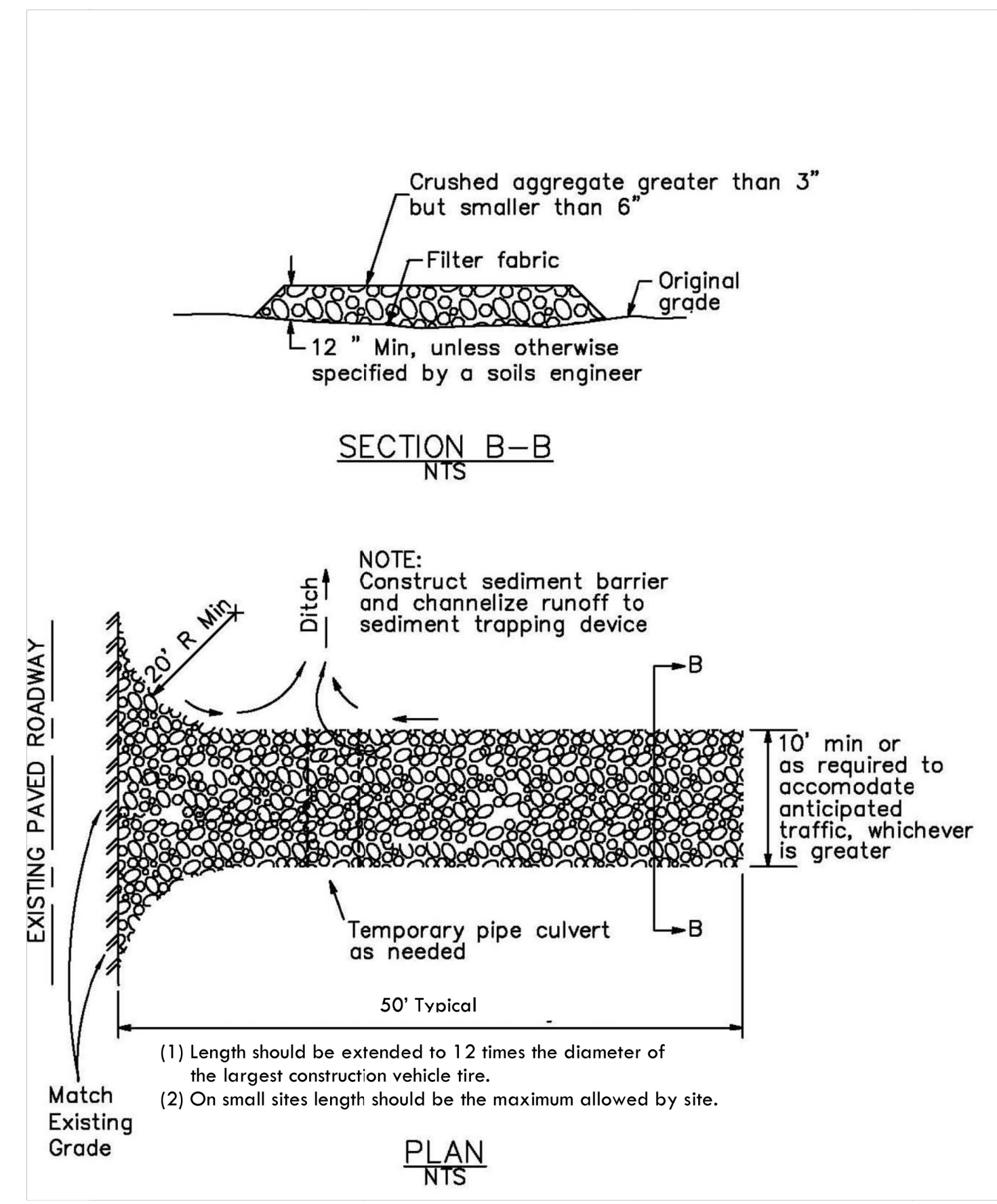


DISTRICT'S NORTH GATE
LOCKED VERTICAL LIFT GATE
MAXIMUM HEIGHT 14 FEET

MAINTAIN FULL WIDTH OF
ACCESS LOOP FOR DISTRICT 24
HOUR OPERATION

STREET SWEEPING/VACUUMING
SHALL OCCUR DAILY IF
SEDIMENT IS VISIBLE

CONSTRUCTION ENTRANCE
SEE DETAIL 1 ON THIS SHEET



1
B2
STABILIZED CONSTRUCTION ENTRANCE/EXIT
SCALE: N.T.S.

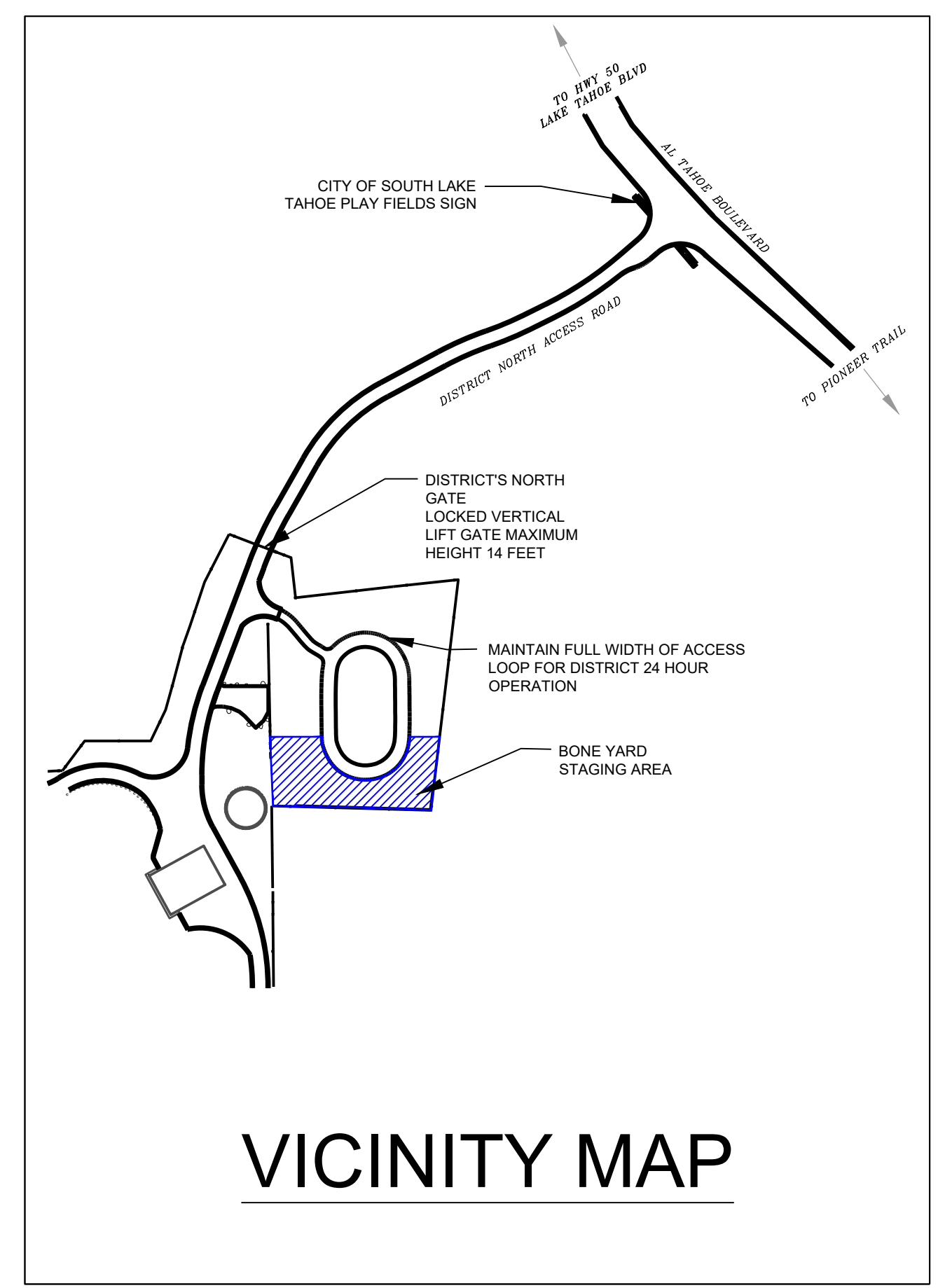
LOCATION DIRECTIONS:
FROM HIGHWAY 50/LAKE TAHOE BLVD OR PIONEER TRAIL, TAKE AL TAHOE BLVD TO THE NORTH GATE ACCESS ROAD

BONE YARD STAGING AREA NOTES:

- BONEYARD STAGING AREA MAY BE USED FOR STAGING MATERIALS AND EQUIPMENT PRIOR TO MOBILIZATION TO THE PROJECT SITE. STAGING MAY BEGIN ONCE SNOW HAS MELTED FROM THE STAGING AREA AND SATURATED CONDITIONS NO LONGER EXIST.
- ONCE CONTRACTOR HAS MOBILIZED TO THE PROJECT AREA, BONEYARD STAGING AREA TO ONLY BE USED FOR STAGING NEW AGGREGATE AND SOIL MATERIALS (NO PIPELINE MATERIALS OR EQUIPMENT TO BE STAGED IN THIS AREA, EQUIPMENT USED FOR LOADING AND PROCESSING MATERIALS IS OKAY). PROJECT EXCAVATED SOIL MATERIAL MAY BE STAGED IN THIS AREA IF IT IS BEING SCREENED TO BE REINSTALLED ON THE PROJECT.
- ALL EXCESS SPOILS ARE TO BE DISPOSED OF AT A TRPA APPROVED LOCATION, NO STORAGE OF SPOILS WHICH ARE NOT SCHEDULED TO BE REINSTALLED.
- NO DEBRIS, ASPHALT, ROOTS, TRASH, ETC WILL BE ALLOWED IN STAGING AREA.
- NO VEHICLE OR EQUIPMENT MAINTENACE ALLOWED IN STAGING AREA. NO STORAGE OF FUEL, OIL, DEF, OR OTHER FLUIDS ALLOWED.
- USE OF BONEYARD STAGING AREA LIMITED TO BETWEEN MAY 1 AND OCTOBER 15. THIS STAGING AREA MUST BE COMPLETELY DEMOBILIZED AND CLEANED UP PRIOR TO OCTOBER 15.
- CONTRACTOR TO INSTALL BMPs CONSISTING OF FILTER FABRIC FENCE PER DETAIL 2 ON SHEET D4 ON THE DOWNSLOPE SIDE OF STAGING AREA PRIOR TO STAGING OF ANY SOIL MATERIAL. BMPs ARE TO BE MAINTAINED THROUGHOUT THE USE OF THIS AREA.
- CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY CONVENIENCES AT ALL STAGING AREAS PER STPUD SPECS.

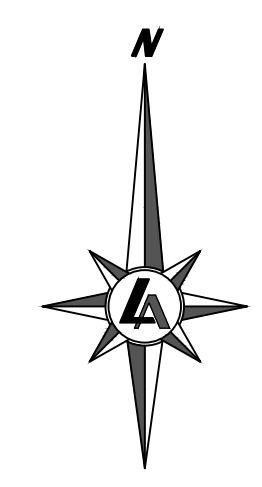
STAGING AREA
ALL STOCKPILES TO BE
PROTECTED PER DETAIL 8, D4

BONE YARD STAGING AREA



LEGEND:

| | | |
|--|------------------------------------|---------|
| | STAGING AREA | |
| | COIR LOG (FIBER ROLLS) | 3 D4 |
| | FILTER FABRIC FENCING (SILT FENCE) | 2 D4 |
| | DRAIN INLET PROTECTION | 1 D4 |
| | REVEGETATION PER TRPA BMP HANDBOOK | |
| | TREE PROTECTIVE FENCING | 4 D4 |



3200 DOUGLAS BOULEVARD, SUITE 320
ROSEVILLE, CALIFORNIA 95661
TEL: 279.230.8338
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

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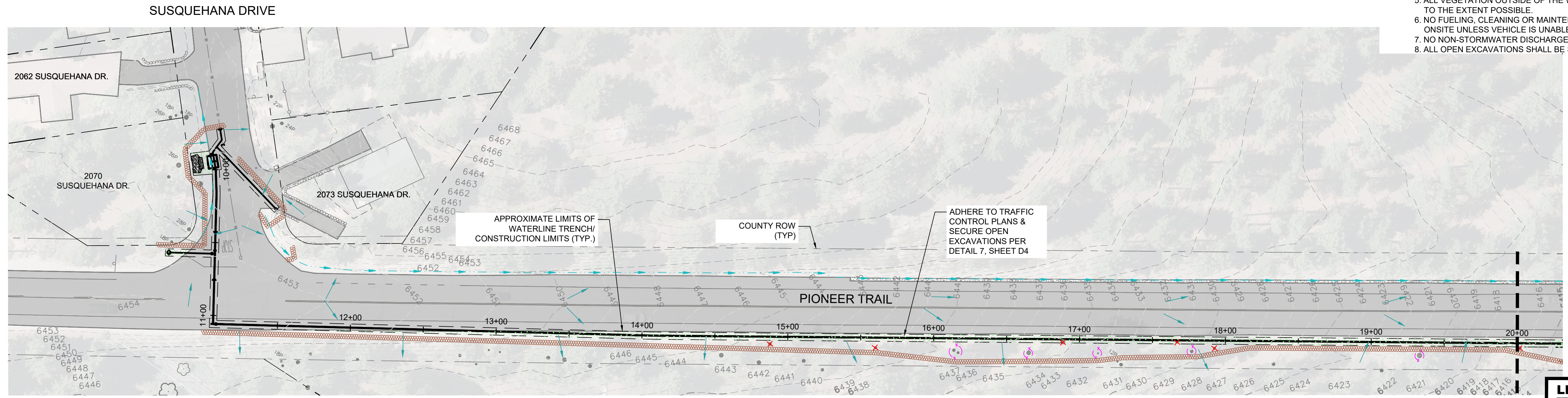
SOUTH TAHOE PUBLIC UTILITY DISTRICT
A PUBLIC AGENCY
1275 Meadow Creek Drive South Lake Tahoe, California 96150
Phone (530) 544-6672 WWW.STUD.US

PIONEER TRAIL WATERLINE PROJECT
FIGURE 3 - EROSION CONTROL PLAN
BONE YARD STAGING AREA

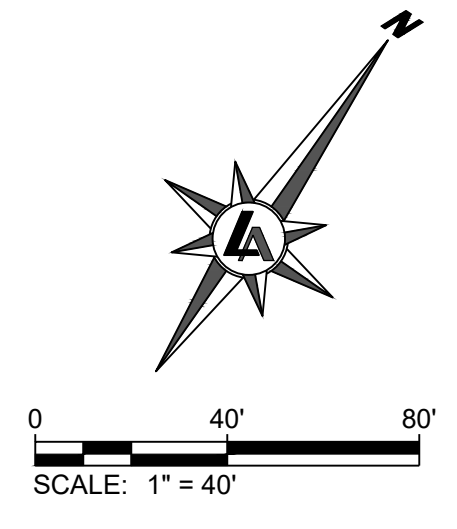
DATE: JAN 2026
SCALE: AS SHOWN
DRAWN: LTS
DESIGN: ALM/JA
AS BUILT:

B2
33 OF 38
SHEETS

- NOTE:
1. DUE TO THE LINEAR NATURE OF THIS PROJECT, ONLY BEST MANAGEMENT PRACTICES IN THE CURRENT AREA OF WORK WILL BE INSTALLED.
 2. COIR LOGS ALONG TRENCH ARE SHOWN CONCEPTUALLY AND SHALL BE INSTALLED PER DETAIL 5, D4. DOWNHILL OF TRENCH, WITH THE SPOIL PILE UPHILL FROM TRENCH IN THE AREA OF WORK.
 3. FOR ALL SOILS THAT WILL REMAIN INACTIVE FOR MORE THAT 14 DAYS, A WOOD FIBER MULCH AND TACKIFIER SHALL BE APPLIED. THE APPLICATION RATE SHALL BE SPECIFIED PER THE MANUFACTURER.
 4. VISIBLE SEDIMENT TRACKING SHALL BE SWEEPED OR VACUUMED ON A DAILY BASIS.
 5. ALL VEGETATION OUTSIDE OF THE WATERLINE TRENCH SHALL BE PRESERVED TO THE EXTENT POSSIBLE.
 6. NO FUELING, CLEANING OR MAINTENANCE OF VEHICLES SHALL BE PERFORMED ONSITE UNLESS VEHICLE IS UNABLE TO BE MOVED.
 7. NO NON-STORMWATER DISCHARGE IS AUTHORIZED
 8. ALL OPEN EXCAVATIONS SHALL BE SECURED PER DETAIL 7, SHEET D4

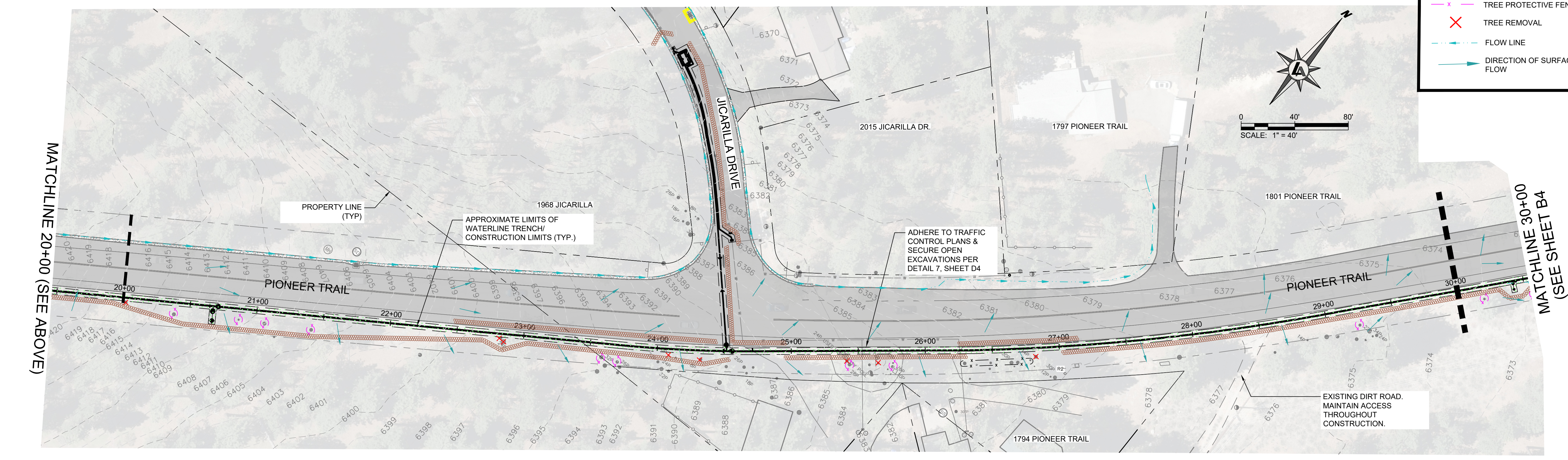


MATCHLINE 20+00 (SEE BELOW)



LEGEND:

| | |
|--|---|
| | STAGING AREA |
| | COIR LOG (FIBER ROLLS) (SEE NOTE 2) |
| | FILTER FABRIC FENCING (SILT FENCE) (3/4 D4) |
| | DRAIN INLET PROTECTION (2/4 D4) |
| | REVEGETATION PER TRPA BMP HANDBOOK (1/4 D4) |
| | TREE PROTECTIVE FENCING (4/4 D4) |
| | TREE REMOVAL |
| | FLOW LINE |
| | DIRECTION OF SURFACE FLOW |



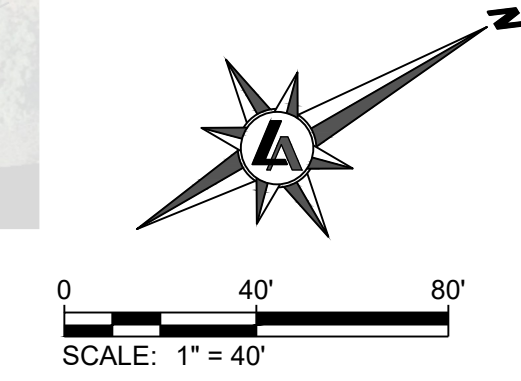
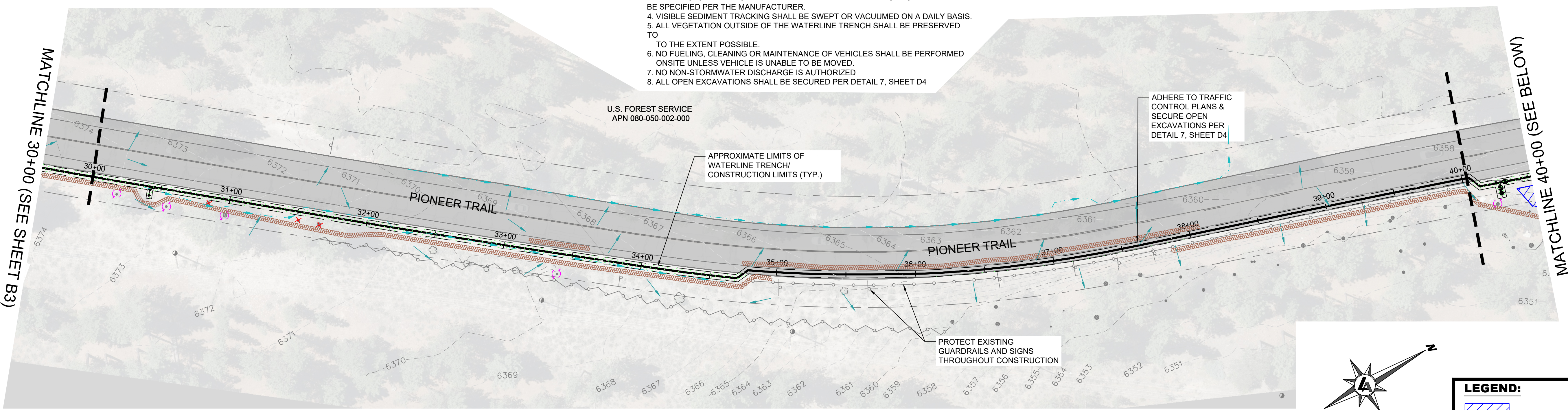
MATCHLINE 20+00 (SEE ABOVE)

MATCHLINE 30+00 (SEE SHEET B4)

**PIONEER TRAIL WATERLINE PROJECT
FIGURE 3 - EROSION CONTROL PLAN
STA10+00 TO 30+00**

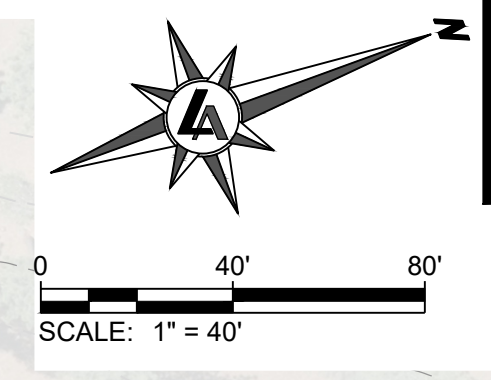
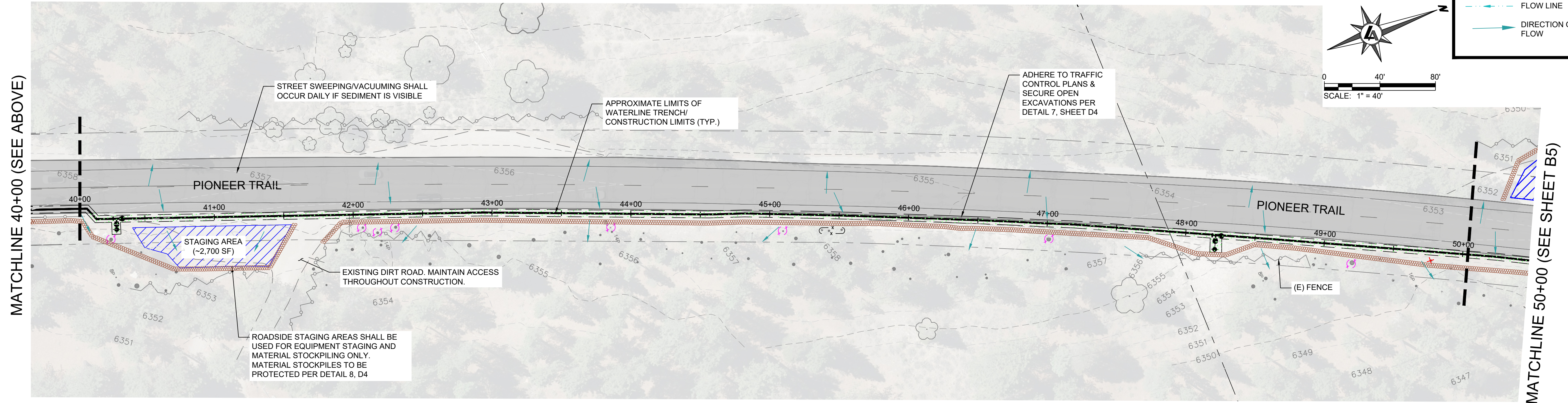
DATE: JAN 2026
SCALE: AS SHOWN
DRAWN: LTS
DESIGN: ALM/JA
AS BUILT:

- NOTE:
1. DUE TO THE LINEAR NATURE OF THIS PROJECT, ONLY BEST MANAGEMENT PRACTICES IN THE CURRENT AREA OF WORK WILL BE INSTALLED.
 2. COIR LOGS ALONG TRENCH ARE SHOWN CONCEPTUALLY AND SHALL BE INSTALLED PER DETAIL 5, D4, DOWNHILL OF TRENCH, WITH THE SPOIL PILE UPHILL FROM TRENCH IN THE AREA OF WORK.
 3. FOR ALL SOILS THAT WILL REMAIN INACTIVE FOR MORE THAT 14 DAYS, A WOOD FIBER MULCH AND TACKIFIER SHALL BE APPLIED. THE APPLICATION RATE SHALL BE SPECIFIED PER THE MANUFACTURER.
 4. VISIBLE SEDIMENT TRACKING SHALL BE SWEEPED OR VACUUMED ON A DAILY BASIS.
 5. ALL VEGETATION OUTSIDE OF THE WATERLINE TRENCH SHALL BE PRESERVED TO THE EXTENT POSSIBLE.
 6. NO FUELING, CLEANING OR MAINTENANCE OF VEHICLES SHALL BE PERFORMED ONSITE UNLESS VEHICLE IS UNABLE TO BE MOVED.
 7. NO NON-STORMWATER DISCHARGE IS AUTHORIZED.
 8. ALL OPEN EXCAVATIONS SHALL BE SECURED PER DETAIL 7, SHEET D4



LEGEND:

- STAGING AREA
- COIR LOG (FIBER ROLLS) (SEE NOTE 2)
- FILTER FABRIC FENCING (SILT FENCE)
- DRAIN INLET PROTECTION
- REVEGETATION PER TRPA BMP HANDBOOK
- TREE PROTECTIVE FENCING
- TREE REMOVAL
- FLOW LINE
- DIRECTION OF SURFACE FLOW

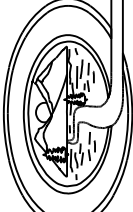


MATCHLINE 30+00 (SEE SHEET B3)

MATCHLINE 40+00 (SEE BELOW)

MATCHLINE 40+00 (SEE ABOVE)

MATCHLINE 50+00 (SEE SHEET B5)

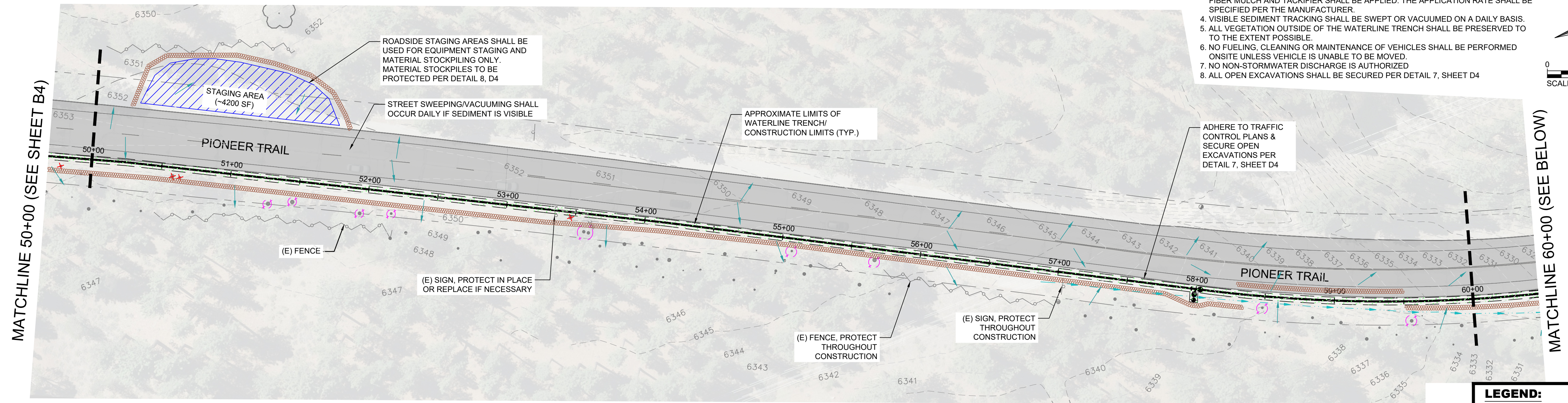
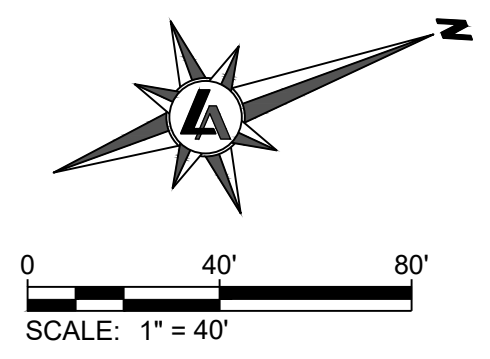


**PIONEER TRAIL WATERLINE PROJECT
FIGURE 3 - EROSION CONTROL PLAN
STA 50+00 TO 70+00**

DATE: JAN 2026
SCALE: AS SHOWN
DRAWN: LTS
DESIGN: ALM/JA
AS BUILT:

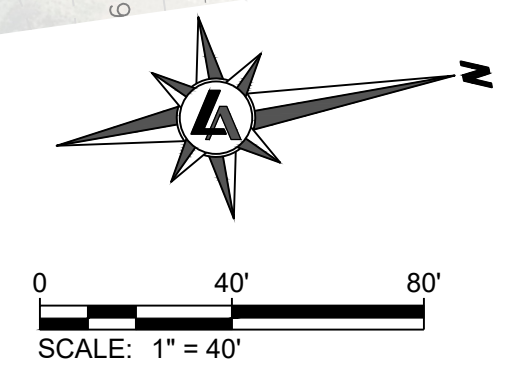
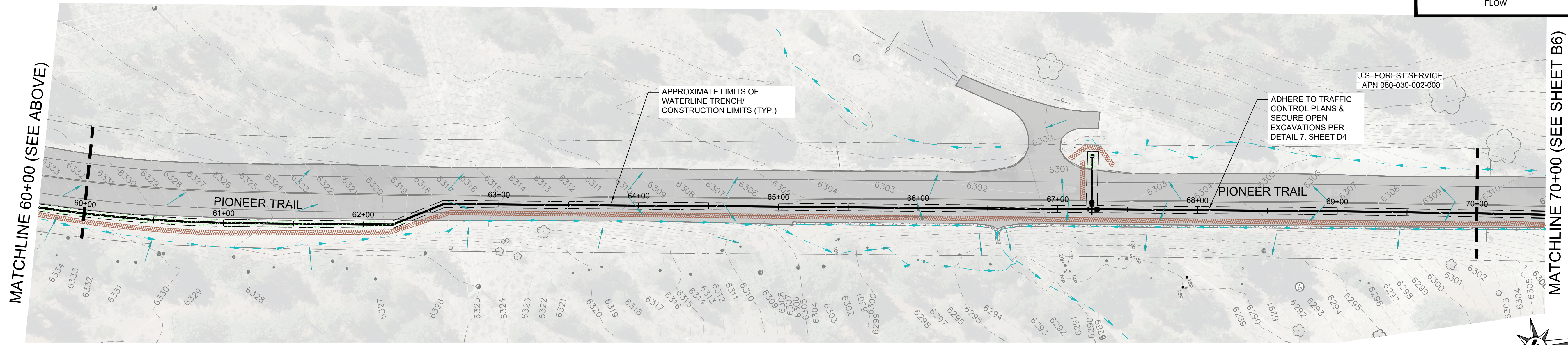
NOTE:

1. DUE TO THE LINEAR NATURE OF THIS PROJECT, ONLY BEST MANAGEMENT PRACTICES IN THE CURRENT AREA OF WORK WILL BE INSTALLED.
2. COIR LOGS ALONG TRENCH ARE SHOWN CONCEPTUALLY AND SHALL BE INSTALLED PER DETAIL 5, D4, DOWNHILL OF TRENCH, WITH THE SPOIL PILE UPHILL FROM TRENCH IN THE AREA OF WORK.
3. FOR ALL SOILS THAT WILL REMAIN INACTIVE FOR MORE THAN 14 DAYS, A WOOD FIBER MULCH AND TACKIFIER SHALL BE APPLIED. THE APPLICATION RATE SHALL BE SPECIFIED PER THE MANUFACTURER.
4. VISIBLE SEDIMENT TRACKING SHALL BE SWEEPED OR VACUUMED ON A DAILY BASIS.
5. ALL VEGETATION OUTSIDE OF THE WATERLINE TRENCH SHALL BE PRESERVED TO THE EXTENT POSSIBLE.
6. NO FUELING, CLEANING OR MAINTENANCE OF VEHICLES SHALL BE PERFORMED ONSITE UNLESS VEHICLE IS UNABLE TO BE MOVED.
7. NO NON-STORMWATER DISCHARGE IS AUTHORIZED.
8. ALL OPEN EXCAVATIONS SHALL BE SECURED PER DETAIL 7, SHEET D4



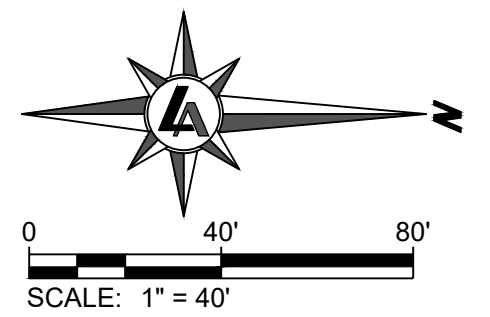
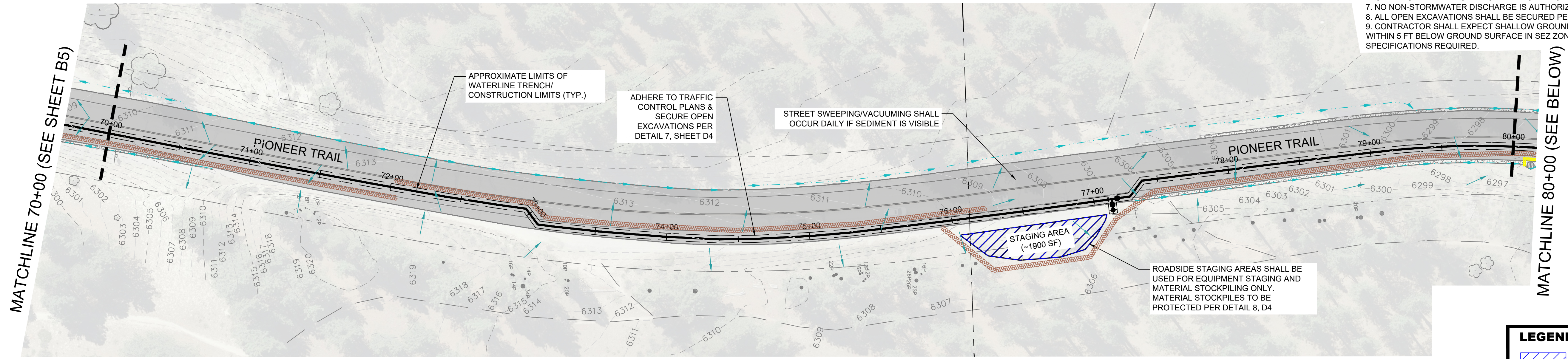
LEGEND:

- STAGING AREA
- COIR LOG (FIBER ROLLS) (SEE NOTE 2) 3
D4
- FILTER FABRIC FENCING (SILT FENCE) 2
D4
- DRAIN INLET PROTECTION 1
D4
- REVEGETATION PER TRPA BMP HANDBOOK
- TREE PROTECTIVE FENCING 4
D4
- TREE REMOVAL
- FLOW LINE
- DIRECTION OF SURFACE FLOW



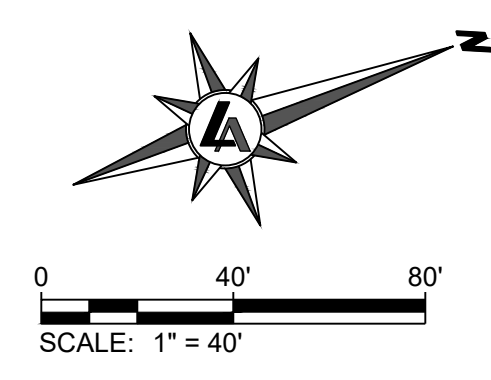
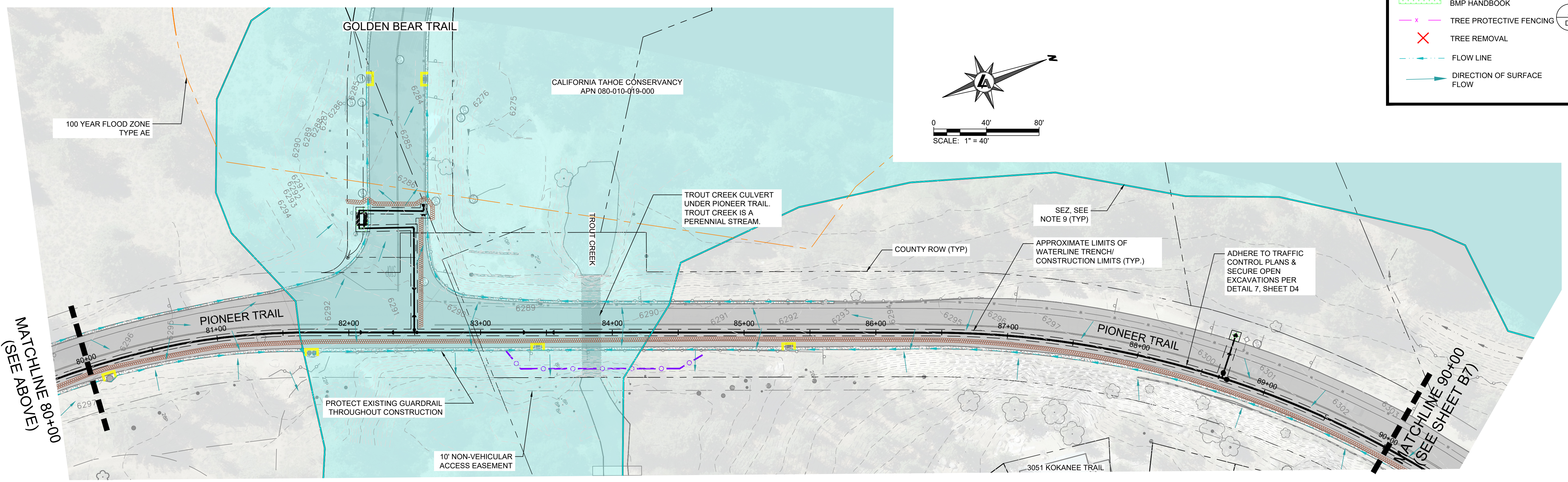
NOTE:

1. DUE TO THE LINEAR NATURE OF THIS PROJECT, ONLY BEST MANAGEMENT PRACTICES IN THE CURRENT AREA OF WORK WILL BE INSTALLED.
2. COIR LOGS ALONG TRENCH ARE SHOWN CONCEPTUALLY AND SHALL BE INSTALLED PER DETAIL 5, D4, DOWNHILL OF TRENCH, WITH THE SPOIL PILE UPHILL FROM TRENCH IN THE AREA OF WORK.
3. FOR ALL SOILS THAT WILL REMAIN INACTIVE FOR MORE THAN 14 DAYS, A WOOD FIBER MULCH AND TACKIFIER SHALL BE APPLIED. THE APPLICATION RATE SHALL BE SPECIFIED PER THE MANUFACTURER.
4. VISIBLE SEDIMENT TRACKING SHALL BE SWEEPED OR VACUUMED ON A DAILY BASIS.
5. ALL VEGETATION OUTSIDE OF THE WATERLINE TRENCH SHALL BE PRESERVED TO THE EXTENT POSSIBLE.
6. NO FUELING, CLEANING OR MAINTENANCE OF VEHICLES SHALL BE PERFORMED ONSITE UNLESS VEHICLE IS UNABLE TO BE MOVED.
7. NO NON-STORMWATER DISCHARGE IS AUTHORIZED.
8. ALL OPEN EXCAVATIONS SHALL BE SECURED PER DETAIL 7, SHEET D4
9. CONTRACTOR SHALL EXPECT SHALLOW GROUNDWATER WILL BE ENCOUNTERED WITHIN 5 FT BELOW GROUND SURFACE IN SEZ ZONES. DEWATERING PER SPECIFICATIONS REQUIRED.



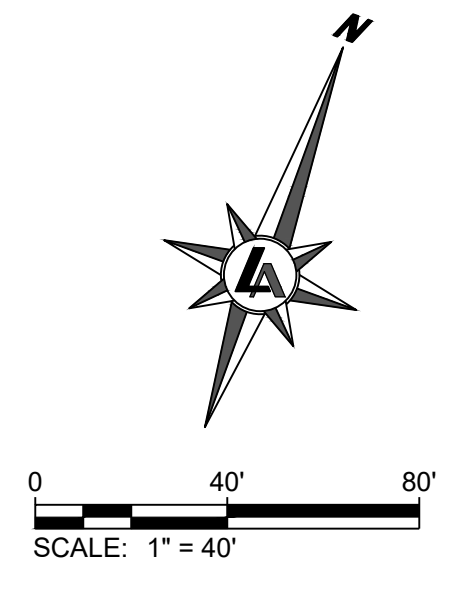
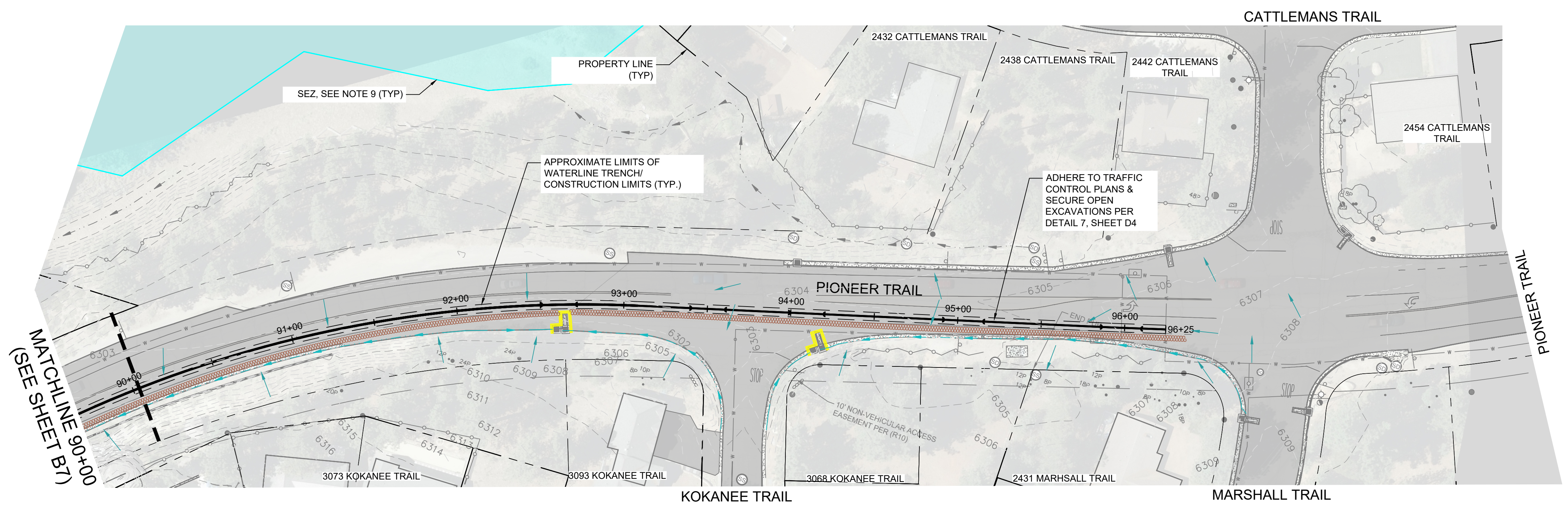
LEGEND:

| | | |
|--|-------------------------------------|----------|
| | STAGING AREA | |
| | COIR LOG (FIBER ROLLS) (SEE NOTE 2) | (3 / D4) |
| | FILTER FABRIC FENCING (SILT FENCE) | (2 / D4) |
| | DRAIN INLET PROTECTION | (1 / D4) |
| | REVEGETATION PER TRPA BMP HANDBOOK | |
| | TREE PROTECTIVE FENCING | (4 / D4) |
| | TREE REMOVAL | |
| | FLOW LINE | |
| | DIRECTION OF SURFACE FLOW | |



**PIONEER TRAIL WATERLINE PROJECT
FIGURE 3 - EROSION CONTROL PLAN
STA 70+00 TO 90+00**

DATE: JAN 2026
SCALE: AS SHOWN
DRAWN: LTS
DESIGN: ALM/JA
AS BUILT:



LEGEND:

- STAGING AREA
- COIR LOG (FIBER ROLLS) (SEE NOTE 2) (3)
D4
- FILTER FABRIC FENCING (SILT FENCE) (2)
D4
- DRAIN INLET PROTECTION (1)
D4
- REVEGETATION PER TRPA BMP HANDBOOK
- TREE PROTECTIVE FENCING (4)
D4
- TREE REMOVAL
- FLOW LINE
- DIRECTION OF SURFACE FLOW

NOTE:

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4. VISIBLE SEDIMENT TRACKING SHALL BE SWEEPED OR VACUUMED ON A DAILY BASIS.
5. ALL VEGETATION OUTSIDE OF THE WATERLINE TRENCH SHALL BE PRESERVED TO THE EXTENT POSSIBLE.
6. NO FUELING, CLEANING OR MAINTENANCE OF VEHICLES SHALL BE PERFORMED ONSITE UNLESS VEHICLE IS UNABLE TO BE MOVED.
7. NO NON-STORMWATER DISCHARGE IS AUTHORIZED
8. ALL OPEN EXCAVATIONS SHALL BE SECURED PER DETAIL 7, SHEET D4
9. CONTRACTOR SHALL EXPECT SHALLOW GROUNDWATER WILL BE ENCOUNTERED WITHIN 5 FT BELOW GROUND SURFACE IN SEZ ZONES. DEWATERING PER SPECIFICATIONS REQUIRED.

**PIONEER TRAIL WATERLINE PROJECT
FIGURE 3 - EROSION CONTROL PLAN
STA 90+00 TO 96+25**

DATE: JAN 2026
SCALE: AS SHOWN
DRAWN: LTS
DESIGN: ALM/JA
AS BUILT: