

PARKER AND PINE RETAIL PARKER WATER AND SANITATION DISTRICT UTILITY PLANS

PARKER AND PINE MINOR DEVELOPMENT FILING NO. 1
A PART OF THE SOUTHEAST QUARTER OF SECTION 9 AND A PART OF THE
NORTHEAST QUARTER OF SECTION 16 TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE
6TH P.M. TOWN OF PARKER, COUNTY OF DOUGLAS, STATE OF COLORADO

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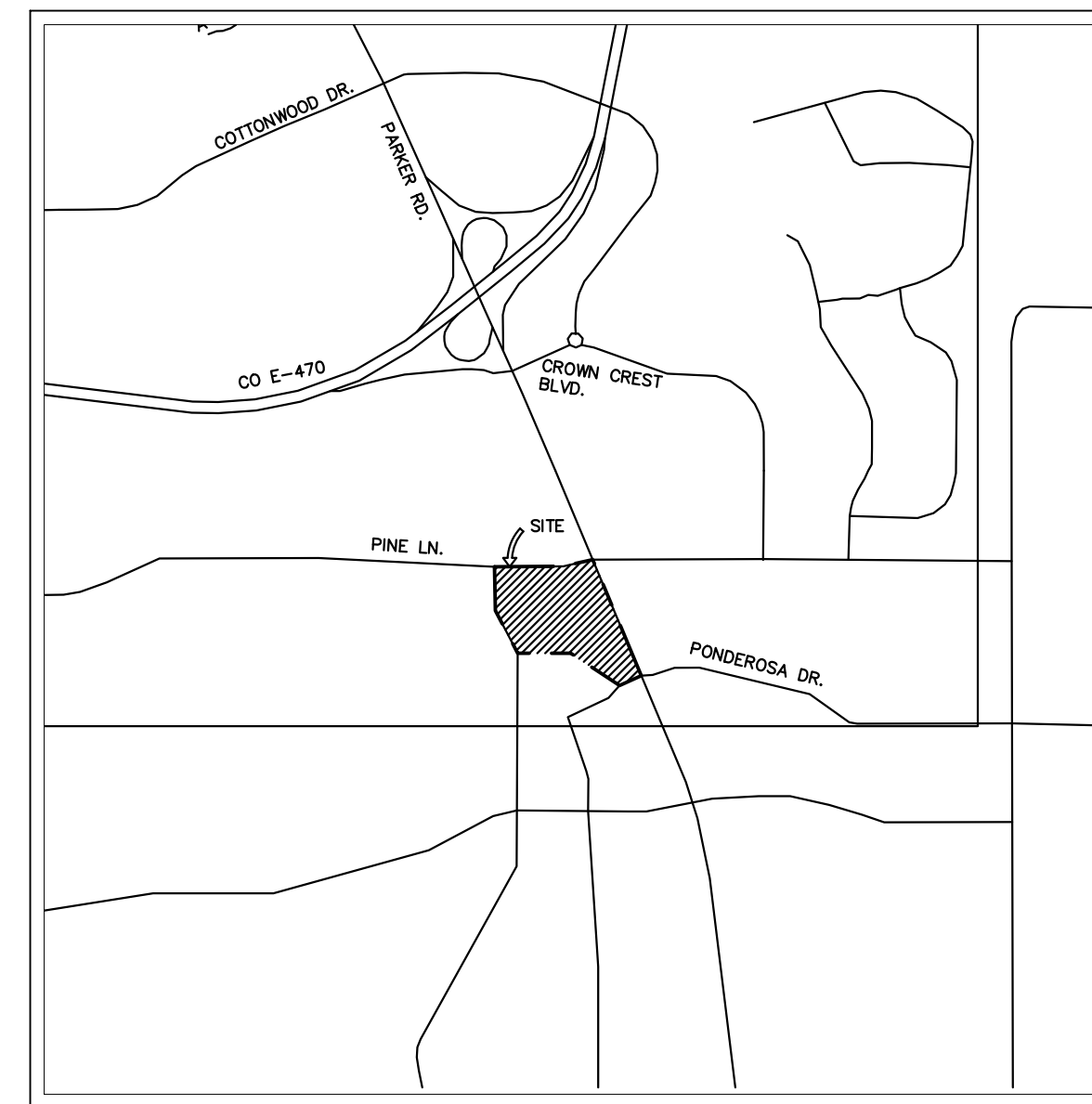
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PARKER, CO 80134
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CONTACT: DRAYTON SANDERSON

FIRE DEPARTMENT:
SOUTH METRO FIRE RESCUE AUTHORITY
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TEL: (720) 989-2244
CONTACT: CHIP KERKHOVE

TOWN OF PARKER PLAN REVIEW:
20120 E. MAINSTREET
PARKER, CO 80138
TEL: (303) 805-3169
CONTACT: RANDY CAPRA



VICINITY MAP
1"=2,000'

PARKER WATER AND SANITATION DISTRICT CONSTRUCTION PLANS	
SHEET NUMBER	SHEET TITLE
C7.0	COVER SHEET
C7.1	WATER AND SANITARY SEWER NOTES
C7.2	OVERALL UTILITY PLAN
C7.3	SANITARY SEWER PLAN AND PROFILE
C7.4	SANITARY SEWER PLAN AND PROFILE
C7.5	WATER PLAN AND PROFILE - A
C7.6	WATER PLAN AND PROFILE - B
C7.7	WATER PLAN AND PROFILE - C
C7.8	WATER PLAN AND PROFILE - D
C7.9	UTILITY DETAILS
C7.10	UTILITY DETAILS
C7.11	UTILITY DETAILS
C7.12	UTILITY DETAILS
C7.13	UTILITY DETAILS

LEGAL DESCRIPTION

PARKER AUTO PLAZA FILING NO. 1 - LOT 1, BLOCK 3 COUNTY OF DOUGLAS, STATE OF COLORADO.

BENCHMARK

DOUGLAS CONTROL MONUMENT #1.095035, A 3 1/4" ALUMINUM CAP.

ELEVATION = 5906.34 FEET (NAVD 1988), AS PUBLISHED BY DOUGLAS COUNTY.

BASIS OF BEARINGS

BEARINGS SHOWN HEREON ARE BASED UPON THE WEST LINE OF THE SW 1/4 OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST, OF THE 6TH PRINCIPAL MERIDIAN BEARING S00°17'51"W AS REFERENCED ON THE PLAT OF PARKER AUTO PLAZA FILING NO.1 AND BOUND BY THE MONUMENTS SHOWN HEREON.

FLOODPLAIN NOTE

BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES IN ZONE X OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 08035C0067F AND DATED SEPTEMBER 30, 2005 - SUBJECT PROPERTY IS NOT IN A SPECIAL FLOOD HAZARD AREA.

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO WATER UTILITY STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE _____ DATE _____
(NOTE - UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW.)

THE DISTRICT INSPECTOR MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. CALL PARKER WATER AND SANITATION DISTRICT AT 303-841-4627. THE DISTRICT WILL PROVIDE PERIODIC INSPECTIONS OF THE WORK. 24 HOUR NOTICE TO THE INSPECTOR IS REQUIRED FOR SCHEDULING INSPECTIONS. ANY WORK ACCOMPLISHED WITHOUT THE APPROVAL OF THE INSPECTOR WILL BE SUBJECT TO REJECTION.

REVIEWED FOR CONFORMANCE TO PARKER WATER AND SANITATION DISTRICT STANDARDS.

BY: _____ (DISTRICT REPRESENTATIVE)

DATE: _____

APPROVED FOR CONSTRUCTION:
PARKER WATER AND SANITATION DISTRICT

BY: _____ (DISTRICT ENGINEER)

DATE: _____

DISTRICT ACCEPTANCE NOTE

- UPON COMPLETION OF SANITARY AND WATER CONSTRUCTION AND TESTING, THE DEVELOPER OR CONTRACTOR SHALL CONTACT THE DISTRICT FOR PROBATIONARY ACCEPTANCE INSPECTION. A PUNCHLIST WILL BE PROVIDED FOR THE DEVELOPER AND CONTRACTOR UPON COMPLETION OF THE INITIAL WALK-THRU AND PROBATIONARY ACCEPTANCE WILL BE ISSUED FOLLOWING COMPLETION AND ACCEPTANCE OF THE WORK OUTLINED IN THE PUNCHLIST.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF THE LINES FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIATED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
- THE DATE OF FINAL ACCEPTANCE WILL BE INDICATED IN THE CONDITION OF THE PROBATIONARY ACCEPTANCE LETTER. THE DEVELOPER SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT FOR FINAL INSPECTION AND FINAL ACCEPTANCE.



NO.	REVISION	BY	DATE

Kimley»Horn
2020 KIMLEY-HORN AND ASSOCIATES, INC.
4582 South Ulster Street, Suite 1500
Denver, Colorado 80237 (303) 228-2300

DESIGNED BY: DLS
DRAWN BY: ECZ
CHECKED BY: DLS
DATE: 03/11/20

PARKER & PINE MINOR DEVELOPMENT FILING NO.1
PARKER, CO
CONSTRUCTION DOCUMENTS
COVER SHEET

PRELIMINARY
FOR REVIEW ONLY
NOT FOR
CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

PROJECT NO.
096502001

DRAWING NAME
096502001CV_UT

C7.0

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PARKER WATER AND SANITATION GENERAL NOTES

- ALL CONSTRUCTION SHALL COMPLY WITH PARKER WATER AND SANITATION DISTRICT SPECIFICATIONS.
- THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE TOWN OF PARKER PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS, HE SHALL CONTACT THE ENGINEER IMMEDIATELY.
- THE DISTRICT ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS THAT ARE NECESSARY TO PERFORM THE PROPOSED WORK.
- ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000-POUND COMPRESSION STRENGTH.
- THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF ROLLED "AS-BUILT" BLUELINE PRINTS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL PRIOR TO PRINTING MYLAR SEPIAS FOR THE DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE MYLAR SEPIA PRINTS SHALL BE TRANSMITTED TO THE PARKER WATER AND SANITATION DISTRICT OFFICE.
- ALL BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. COMPACTION TESTS MUST BE SUBMITTED TO DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND SEWER) FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIATED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.**
- SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS ONE FOOT OF FINISHED GRADE AND VERIFICATION OF COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES. RESULTS MUST BE SUBMITTED TO THE DISTRICT ENGINEER.
- NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER.
- ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
 PARKER WATER AND SANITATION DISTRICT P--7
 DISTRICT PLAN APPROVAL PROCEDURES
 2008 REVISION
 "X" FOR SANITARY SERVICE SEWERS
 "V" FOR WATER SERVICES
- NO TREES SHALL BE ALLOWED IN EASEMENTS OR WITHIN 8' OF ANY WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PARKER WATER AND SANITATION DISTRICT AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PARKER WATER AND SANITATION DISTRICT SPECIFICATION MANUAL.

ADDITIONAL NOTES

- ALL SANITARY SEWER AND STORM SEWER IMPROVEMENTS SHOWN HEREON SHALL BE PRIVATE. ALL WATER MAIN IMPROVEMENTS SHALL BE PUBLIC. REFER TO SPECIFIC PLAN SHEETS FOR MATERIALS AND ADDITIONAL DETAILS.
- TOWN OF PARKER REQUIRES 25' STORM SEWER EASEMENT.
- PARKER WATER AND SANITATION DISTRICT REQUIRES 30' EXCLUSIVE EASEMENT OR 50' NON-EXCLUSIVE EASEMENT.

SANITARY SEWER NOTES

- ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE PARKER WATER AND SANITATION DISTRICT SPECIFICATION.
- ALL SEWER MAINS SHALL BE PVC, ASTM D-3034, SDR 35 OR APPROVED EQUAL. ALL SEWER MAIN SIZE IS 8" IN DIAMETER UNLESS OTHERWISE NOTED.
- SEWER LINES SHALL BE INSTALLED 5.0 FEET SOUTH OR WEST OF STREET CENTERLINE, UNLESS OTHERWISE SHOWN ON PLANS. SEWER LINES SHALL BE 10.00 FEET FROM WATER LINES EXCEPT WHEN CROSSING EACH OTHER SEWER LINES WHICH CROSS LESS THAN 1.50 FEET VERTICALLY FROM THE WATER MAIN SHALL BE ENCASED IN CONCRETE AS PER PARKER WATER AND SANITATION DISTRICT STANDARD AND SPECIFICATIONS. USE RUBBER GASKETS FOR PVC ENCASEMENT.
- SEWER RIM ELEVATIONS SHOWN ARE APPROPRIATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. RING AND COVER SHALL BE SET IN CENTERED CONCRETE RINGS WITH RAM-NECK FOR ADJUSTMENT TO MATCH FINAL PAVEMENT ELEVATIONS.
- THE CONTRACTOR AND SURVEY CREW SHALL VERIFY ELEVATIONS OF EXISTING SEWER LINES AND MANHOLES TO BE TIED TO PRIOR TO CONSTRUCTION OR STAKING OF SANITARY SEWER.
- NO UNDERDRAIN SYSTEM WILL BE ALLOWED TO BE PLACED IN MAINLINE OR SEWER SERVICE TRENCHES.
- SEWER SERVICE TEES FOR EACH UNIT SHALL BE STAKED BY A SURVEY CREW AND FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS CONSTRUCTED" LOCATION OF SEWER WYES SHALL BE USED RATHER THAN TEES.
- ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE UNLESS OTHERWISE SPECIFIED.
- PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVES OF THE OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER TO SCHEDULE THIS MEETING.
- ALL PIPE LENGTHS ARE APPROXIMATE.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PARKER WATER AND SANITATION DISTRICT AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PARKER WATER AND SANITATION DISTRICT SPECIFICATION MANUAL.
- ALL MANHOLES SHALL HAVE SHAPED INVERTS. PARKER WATER AND SANITATION DISTRICT P-9
- ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
- PRIOR TO START WORK WHERE SEWER MAIN TO BE INSTALLED INTO EXISTING DISTRICT SEWER SYSTEMS. THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL ACCEPTANCE BY THE DISTRICT. ITS PURPOSE SHALL BE TO PREVENT ANY MUD, WATER OR OTHER MATERIALS FROM ENTERING THE LINE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN SO INSTRUCTED BY THE DISTRICT.
- PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CLIENT SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.
- DOUBLE CLEANOUTS SHALL BE PROVIDED WITHIN 5 FEET OF EACH BUILDING CONNECTION. REFER TO MEP PLANS FOR CONTINUATION INSIDE BUILDING.
- ALL SANITARY SERVICES TO CONNECT TO MAIN VIA WYE CONNECTION.
- AT ALL POTABLE WATER MAIN AND SANITARY SEWER CROSSINGS WHERE THE PROPOSED SANITARY SEWER LINE LIES ABOVE THE PROPOSED WATER MAIN OR WITHIN 18" BELOW THE WATER MAIN, A CONCRETE ENCASEMENT IS TO BE PROVIDED ALONG THE SANITARY SEWER PIPE FOR 10 FT ON EITHER SIDE OF THE CROSSING. CONCRETE ENCASEMENT TO BE PROVIDED PER THE PWSO SECTION 9.3.2.
- AT ALL STORM SEWER AND SANITARY SEWER CROSSINGS WHERE THE PROPOSED SANITARY SEWER LINE LIES ABOVE THE PROPOSED STORM SEWER OR WITHIN 18" BELOW THE STORM SEWER, A CONCRETE ENCASEMENT IS TO BE PROVIDED ALONG THE SANITARY SEWER PIPE FOR 10 FT ON EITHER SIDE OF THE CROSSING. CONCRETE ENCASEMENT TO BE PROVIDED PER THE PWSO SECTION 9.3.2.
- PROVIDE WATER LOWERING PER PWSO WATER DETAIL #27 WHERE CONFLICTS WITH STORM SEWER AND WATER SERVICES MAY EXIST.

WATER MAIN NOTES

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PARKER WATER AND SANITATION DISTRICT ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISIONS. ALL WORK SHALL BE INSPECTED AND APPROVED BY PERSONNEL OF THE PARKER WATER SANITATION DISTRICT AND THE DISTRICT ENGINEER.
- ALL WATER MAINS SHALL BE PER PWSO MATERIALS SPECIFICATIONS.
- ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED WITH 8-MIL MINIMUM THICKNESS POLYETHYLENE MATERIAL PER PWSO MATERIALS SPECIFICATIONS.
- THERE SHALL BE A MINIMUM COVER OF 4.5 FEET OVER ALL WATER MAINS.
- FIRE HYDRANTS SHALL CONFORM TO AWWA C-502 "DRY BARREL FIRE HYDRANTS". PIPE HYDRANT ASSEMBLIES SHALL INCLUDE ALL PIPE, FITTINGS, VALVES, MATERIALS, AND LABOR WHICH ARE NECESSARY TO INSTALL THE HYDRANT COMPLETE IN PLACE. SEE MATERIALS SPECIFICATIONS FOR APPROVED MODELS.
- ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS AND PLUGS AT DEAD END MAINS SHALL BE PROTECTED FROM THRUST BY USING CONCRETE THRUST BLOCKS.
- PRECAUTIONS SHALL BE TAKEN TO PROTECT THE INTERIOR OF PIPES, FITTINGS, AND VALVES AGAINST CONTAMINATION. ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH WATERTIGHT PLUGS WHEN PIPE LAYING IS STOPPED AT THE CLOSE OF THE DAY'S WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MEAL PERIODS. THE MORE CLOSELY THE RATE OF DELIVERY IS CORRELATED TO THE RATE OF PIPE LAYING, THE LOWER THE RISK OF CONTAMINATION.
- CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PARKER WATER AND SANITATION STANDARDS AND SPECIFICATIONS. THE LINES SHALL BE CHLORINATED IN ACCORDANCE WITH ANSI/AWWA C-651-92. "DISINFECTING WATER MAINS." PARKER WATER AND SANITATION DISTRICT REQUIRES THE INITIAL DOSAGE RATE OF DISINFECTION BE AT LEAST 50 MG PER LITER. CHLORINE TABLETS SHOULD BE ADHERED TO THE TOP OF THE PIPE SECTION WITH PERMATAX NO.1 (RED). THE CHLORINATION OF ANY FINISHED PIPELINE SHALL BE DONE PRIOR TO THE HYDROSTATIC TESTING.
- HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS. ALL PIPE SHALL BE FIELD PRESSURE TESTED TO A MINIMUM OF 150 PSI. ALL TESTING SHALL BE DONE IN THE PRESENCE OF A PARKER WATER AND SANITATION DISTRICT INSPECTOR. LEAKAGE FOR EACH SECTION OF PIPE BETWEEN LINES VALVES SHALL NOT EXCEED THE LIMITS SET FORTH IN THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS.
- VALVES IN STREETS ARE TO BE LOCATED AT PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES WHERE AN ADDITIONAL VALVE SHALL BE PLACED ON THE TAPPING TEE. OTHER VALVE LOCATIONS, SUCH AS WHERE CROSS PANS EXIST, ARE SHOWN ON THE PLANS.
- WHEN NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSING, A MINIMUM CLEARANCE OF 1.50 FEET SHALL BE MAINTAINED BETWEEN OUTSIDE OF PIPES.
- THE CONTRACTOR SHALL NOTIFY THE PARKER WATER AND SANITATION DISTRICT AND THE DISTRICT ENGINEER AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION. IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP, THE CONTRACTOR MUST NOTIFY THE DISTRICT ENGINEER 48 HOURS PRIOR TO RE-START.
- PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITY COMPANIES AND DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO PROCEEDING WITH THE EXCAVATION. ALL WORK PERFORMED IN THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
- COMPACTION OF ALL TRENCHES MUST BE ATTAINED IN ACCORDANCE WITH THE SOILS REPORTS AND COMPACTION TEST RESULTS SUBMITTED TO THE DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- VALVE BOXES: TYLER SCREW-TYPE 6 INCHES CAST IRON VALVE BOX ASSEMBLY SERIES 6860 WITH NO. 160 OVAL BASE. CLAY AND BAILEY SCREW-TYPE 6 INCH CAST IRON VALVE BOX ASSEMBLY NO. P-108 WITH NO. 106 LARGE OVAL BASE.
- ALL PIPE LENGTHS ARE APPROXIMATE.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVE OF OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER.

NO.	REVISION	BY	DATE

Kimley»Horn
 2020 KIMLEY-HORN AND ASSOCIATES, INC.
 4582 South Uteer Street, Suite 1500
 Denver, Colorado 80237 (303) 228-2300

DESIGNED BY: DLS
 DRAWN BY: ECZ
 CHECKED BY: DLS
 DATE: 03/11/20

PARKER & PINE MINOR DEVELOPMENT FILING NO. 1
 PARKER, CO
 CONSTRUCTION DOCUMENTS
WATER AND SANITARY SEWER NOTES

PRELIMINARY
 FOR REVIEW ONLY
 NOT FOR
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Kimley»Horn
 Kimley-Horn and Associates, Inc.

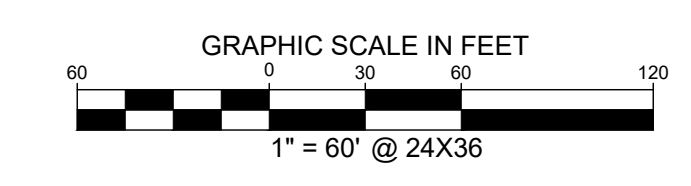
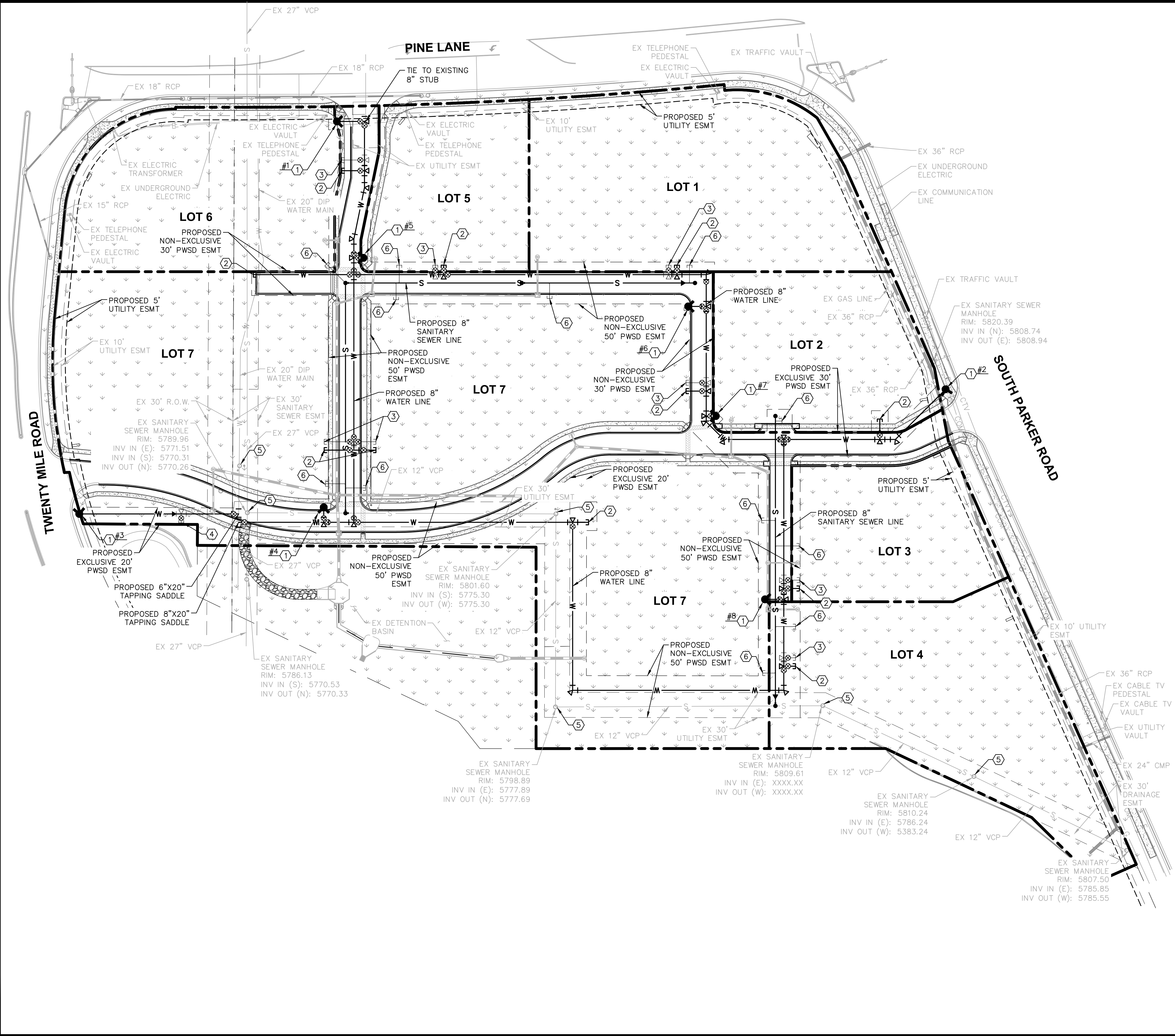
PROJECT NO.
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DRAWING NAME
 096502001CV_1UT

C7.1



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UTILITY LEGEND

	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	PROPOSED SANITARY SEWER LINE
	PROPOSED WATER LINE
	PROPOSED STORM DRAINAGE LINE
	EXISTING STORM DRAINAGE LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING SANITARY SEWER LINE
	PROPOSED FIRE HYDRANT W/ BOLLARDS
	PROPOSED WATER VALVE
	PROPOSED TEE / BEND
	EXISTING SANITARY SEWER MANHOLE
	PROPOSED SANITARY SEWER MANHOLE W/ FLOW ARROWS

- SITE KEYNOTES**
- ① PROPOSED FH W/ 6" GATE VALVE
 - ② PROPOSED 8" WATER STUB W/TEMP BLOW-OFF
 - ③ PROPOSED 6" WATER STUB W/TEMP BLOW-OFF
 - ④ PROPOSED 1 1/2" IRRIGATION STUB
 - ⑤ ADJUST EXISTING STRUCTURE TO PROPOSED GRADE
 - ⑥ PROPOSED 6" SANITARY SEWER STUB W/ CLEANOUT

NOTES

1. THE PROPOSED UTILITY CONNECTION WILL REQUIRE A TOWN RIGHT-OF-WAY PERMIT PRIOR TO COMMENCING WORK. THE TOWN PREFERS CONNECTIONS TO BE BORED TO THE EXTENT POSSIBLE, AND ANY STREET CUT ALLOWED BY THE TOWN WILL BE REQUIRED TO BE PATCHED ACCORDING TO THE TOWN'S CONSTRUCTION STANDARDS AND DETAILS. THE LIMITS OF PATCHING WILL BE DETERMINED BY THE TOWN AT THE TIME OF CONSTRUCTION. THE OF PARKER DOES NOT ALLOW ROADWAY CLOSURES FOR UTILITY WORK.

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO WATER UTILITY STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE _____ DATE _____
 (NOTE - UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW.)

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TOWN OF PARKER, DIRECTOR OF ENGINEERING _____ DATE _____

DATE: 03/11/20

BY: DLS

REVISION: _____

NO. _____

2020 KIMLEY-HORN AND ASSOCIATES, INC.
 4582 South Ulster Street, Suite 1500
 Denver, Colorado 80237 (303) 228-2300

DESIGNED BY: DLS
 DRAWN BY: ECZ
 CHECKED BY: DLS
 DATE: 03/11/20

PARKER & PINE MINOR DEVELOPMENT FILING NO. 1
 PARKER, CO
 CONSTRUCTION DOCUMENTS
OVERALL UTILITY PLAN

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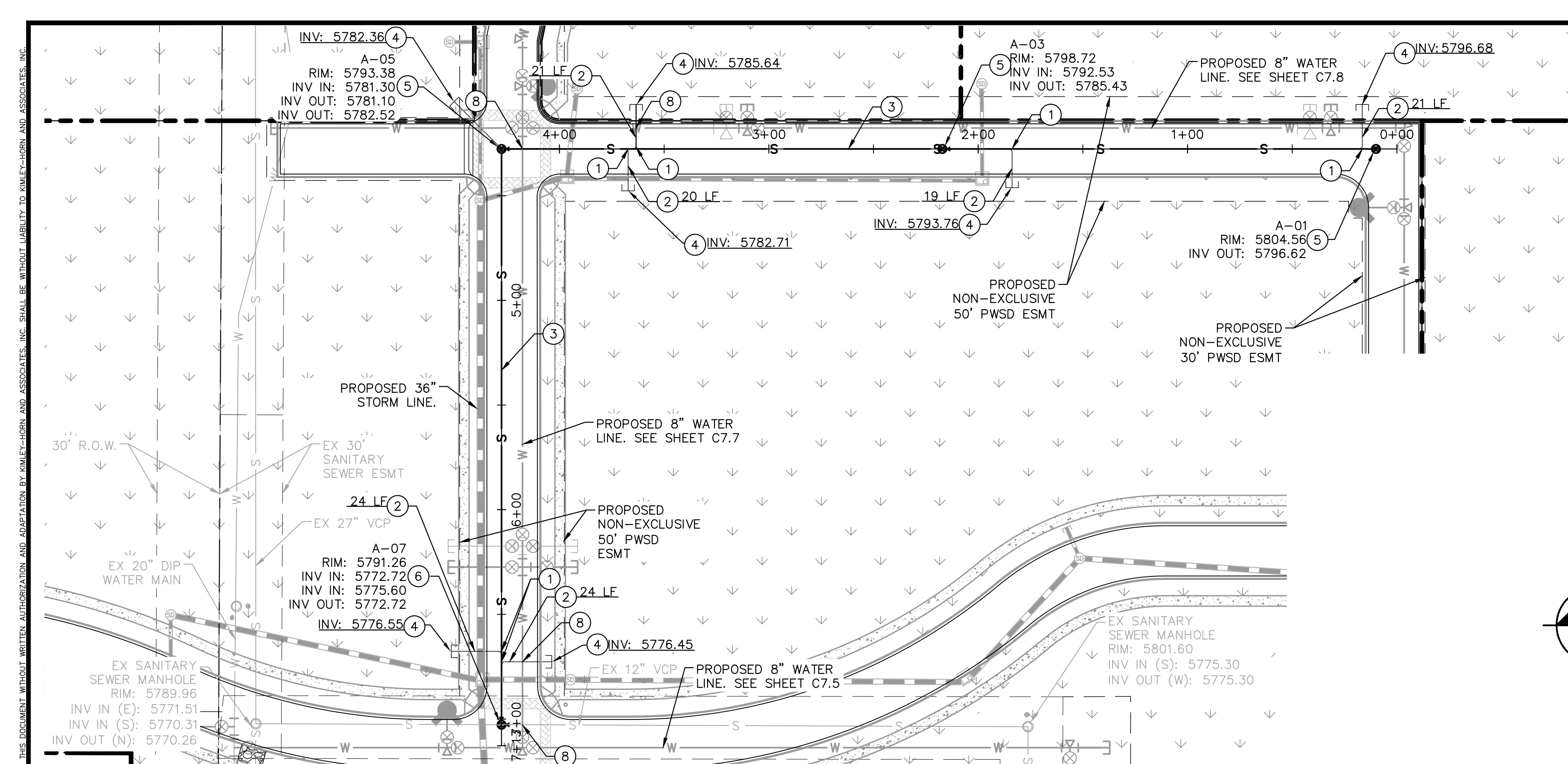
Kimley-Horn and Associates, Inc.

PROJECT NO.
096502001

DRAWING NAME
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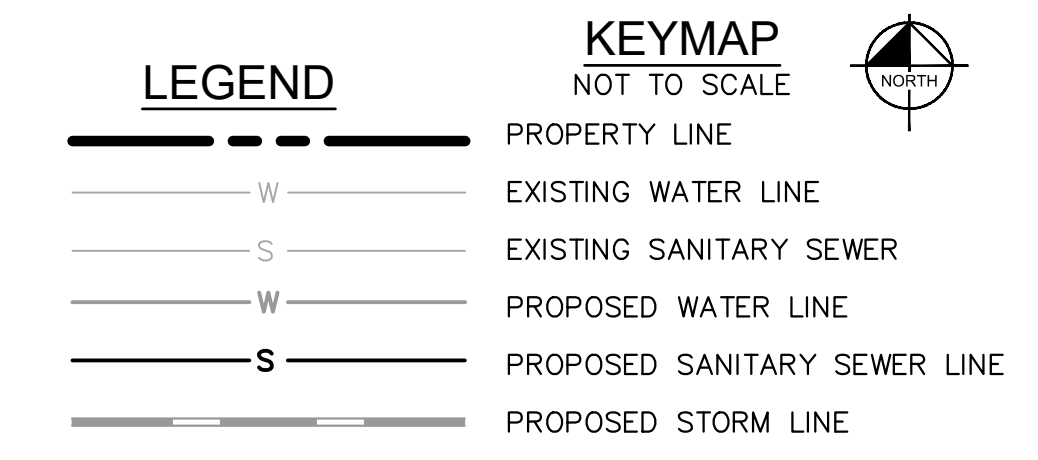
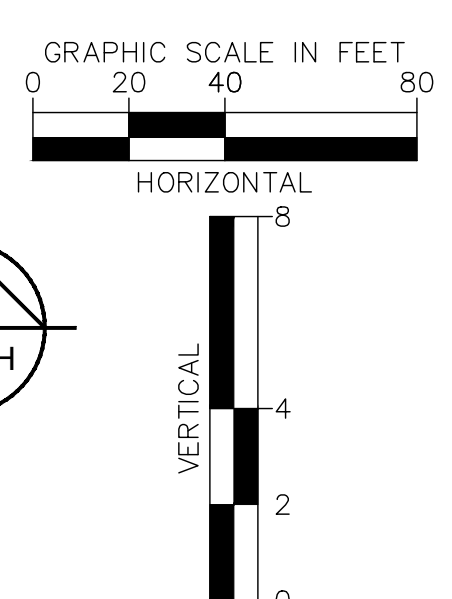
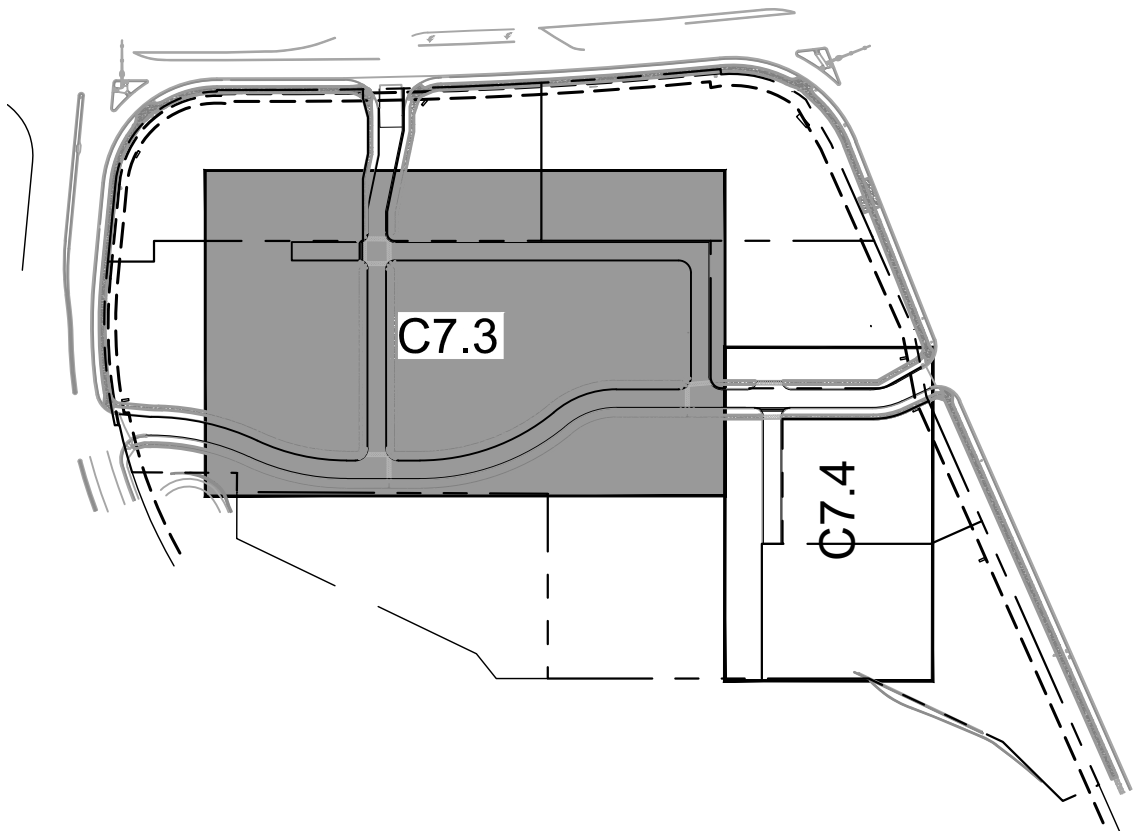
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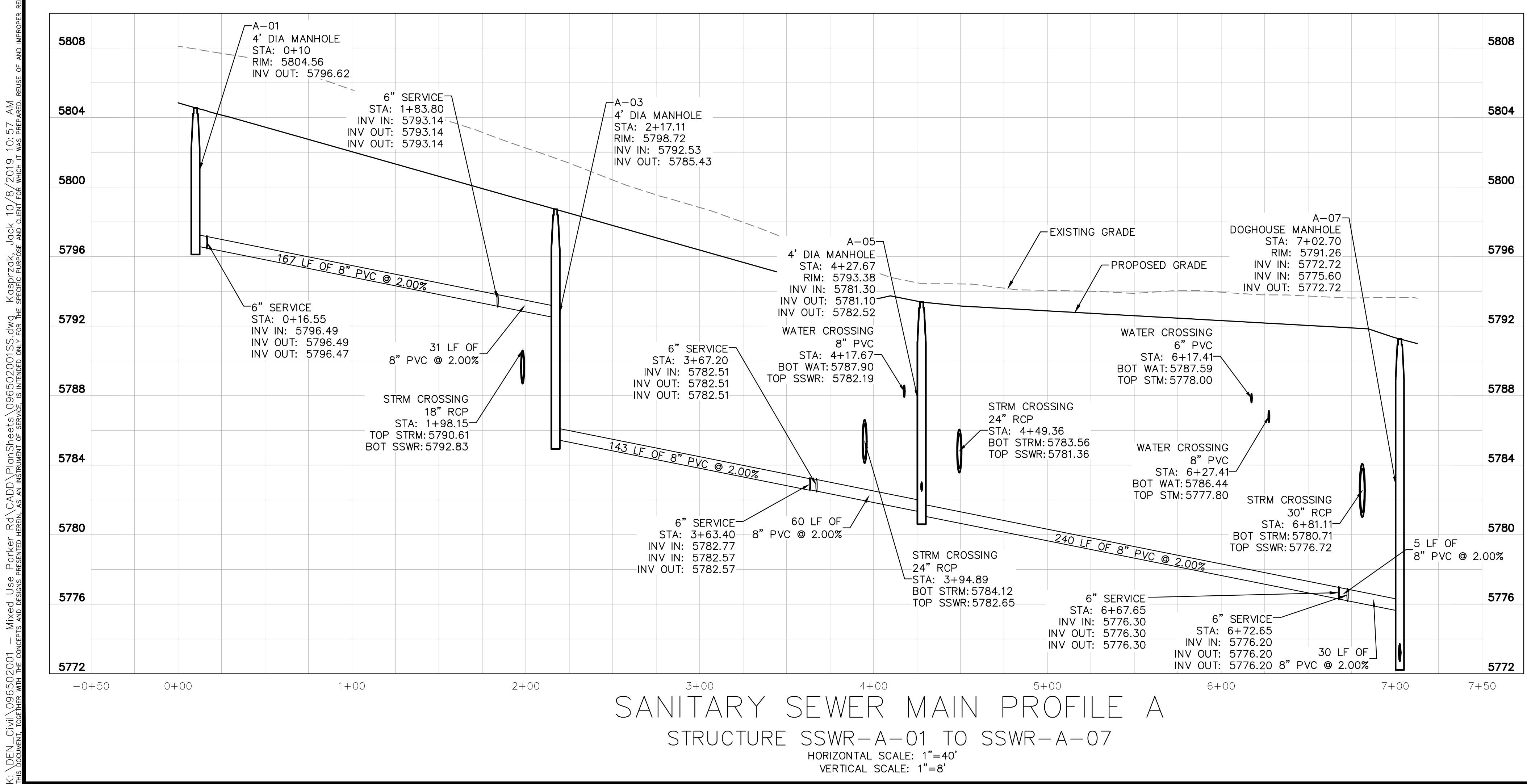
KEY NOTES

- ① WYE CONNECTION INTO PROPOSED 8" PVC SANITARY SEWER MAIN
- ② 6" SDR 35 PVC SANITARY SEWER LINE LATERAL, LENGTH PER PLAN, SLOPE 1% MINIMUM
- ③ 8" SDR 35 PVC PUBLIC SANITARY SEWER LINE, LENGTH AND SLOPE PER PROFILE.
- ④ PROPOSED CLEANOUT. SEE DETAILS.
- ⑤ PROPOSED SANITARY SEWER MANHOLE. SEE DETAILS.
- ⑥ PROPOSED DOGHOUSE MANHOLE. SEE DETAILS.
- ⑦ NOT USED
- ⑧ PROPOSED WATER/SEWER CROSSING TO MAINTAIN 18" VERTICAL SEPARATION



SANITARY SEWER NOTES

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE PARKER WATER AND SANITATION DISTRICT SPECIFICATION.
2. ALL SEWER MAINS SHALL BE PVC, ASTM D-3034, SDR 35 OR APPROVED EQUAL. ALL SEWER MAIN SIZE IS 8" IN DIAMETER UNLESS OTHERWISE NOTED.
3. SEWER RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. RING AND COVER SHALL BE SET IN CENTERED CONCRETE RINGS WITH RAM-NECK FOR ADJUSTMENT TO MATCH FINAL PAVEMENT ELEVATIONS.
4. THE CONTRACTOR AND SURVEY CREW SHALL VERIFY ELEVATIONS OF EXISTING SEWER LINES AND MANHOLES TO BE TIED TO PRIOR TO CONSTRUCTION OR STAKING OF SANITARY SEWER.
5. NO UNDERDRAIN SYSTEM WILL BE ALLOWED TO BE PLACED IN MAINLINE OR SEWER SERVICE TRENCHES.
6. SEWER SERVICE TEES FOR EACH UNIT SHALL BE STAKED BY A SURVEY CREW AND FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS CONSTRUCTED" LOCATION OF TEES. SEWER WYES SHALL BE USED RATHER THAN TEES.
7. ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE UNLESS OTHERWISE SPECIFIED.
8. PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
9. AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVES OF THE OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER TO SCHEDULE THIS MEETING.
10. ALL PIPE LENGTHS ARE APPROXIMATE.
11. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PARKER WATER AND SANITATION DISTRICT AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PARKER WATER AND SANITATION DISTRICT SPECIFICATION MANUAL.
12. ALL MANHOLES SHALL HAVE SHAPED INVERTS.
13. ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
14. PRIOR TO START WORK WHERE SEWER MAIN TO BE INSTALLED INTO EXISTING DISTRICT SEWER SYSTEMS, THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL ACCEPTANCE BY THE DISTRICT. ITS PURPOSE SHALL BE TO PREVENT ANY MUD, WATER OR OTHER MATERIALS FROM ENTERING THE LINE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN SO INSTRUCTED BY THE DISTRICT.
15. PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CLIENT SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.
16. DOUBLE CLEANOUTS SHALL BE PROVIDED WITHIN 5 FEET OF EACH BUILDING CONNECTION. REFER TO MEP PLANS FOR CONTINUATION INSIDE BUILDING.
17. ALL SANITARY SERVICES TO CONNECT TO MAIN VIA WYE CONNECTION.
18. AT ALL POTABLE WATER MAIN AND SANITARY SEWER CROSSINGS WHERE THE PROPOSED SANITARY SEWER LINE LIES ABOVE THE PROPOSED WATER MAIN OR WITHIN 18" BELOW THE WATER MAIN, A CONCRETE ENCASUREMENT IS TO BE PROVIDED ALONG THE SANITARY SEWER PIPE FOR 10 FT ON EITHER SIDE OF THE CROSSING. CONCRETE ENCASUREMENT TO BE PROVIDED PER THE PWSD SECTION 9.3.2.
19. AT ALL STORM SEWER AND SANITARY SEWER CROSSINGS WHERE THE PROPOSED SANITARY SEWER LINE LIES ABOVE THE PROPOSED STORM SEWER OR WITHIN 18" BELOW THE STORM SEWER, A CONCRETE ENCASUREMENT IS TO BE PROVIDED ALONG THE SANITARY SEWER PIPE FOR 10 FT ON EITHER SIDE OF THE CROSSING. CONCRETE ENCASUREMENT TO BE PROVIDED PER THE PWSD SECTION 9.3.2.
20. PROVIDE WATER LOWERING PER PWSD WATER DETAIL #27 WHERE CONFLICTS WITH STORM SEWER AND WATER SERVICES MAY EXIST.



SANITARY SEWER MAIN PROFILE A
 STRUCTURE SSWR-A-01 TO SSWR-A-07
 HORIZONTAL SCALE: 1"=40'
 VERTICAL SCALE: 1"=8'

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NO.	REVISION	BY	DATE

Kimley»Horn
 2020 KIMLEY-HORN AND ASSOCIATES, INC.
 4582 South Ulster Street, Suite 1500
 Denver, Colorado 80237 (303) 228-2300

DESIGNED BY: DLS
 DRAWN BY: ECZ
 CHECKED BY: DLS
 DATE: 03/11/20

PARKER & PINE MINOR DEVELOPMENT FILING NO. 1
 PARKER, CO
 CONSTRUCTION DOCUMENTS
 SANITARY SEWER PLAN AND PROFILE

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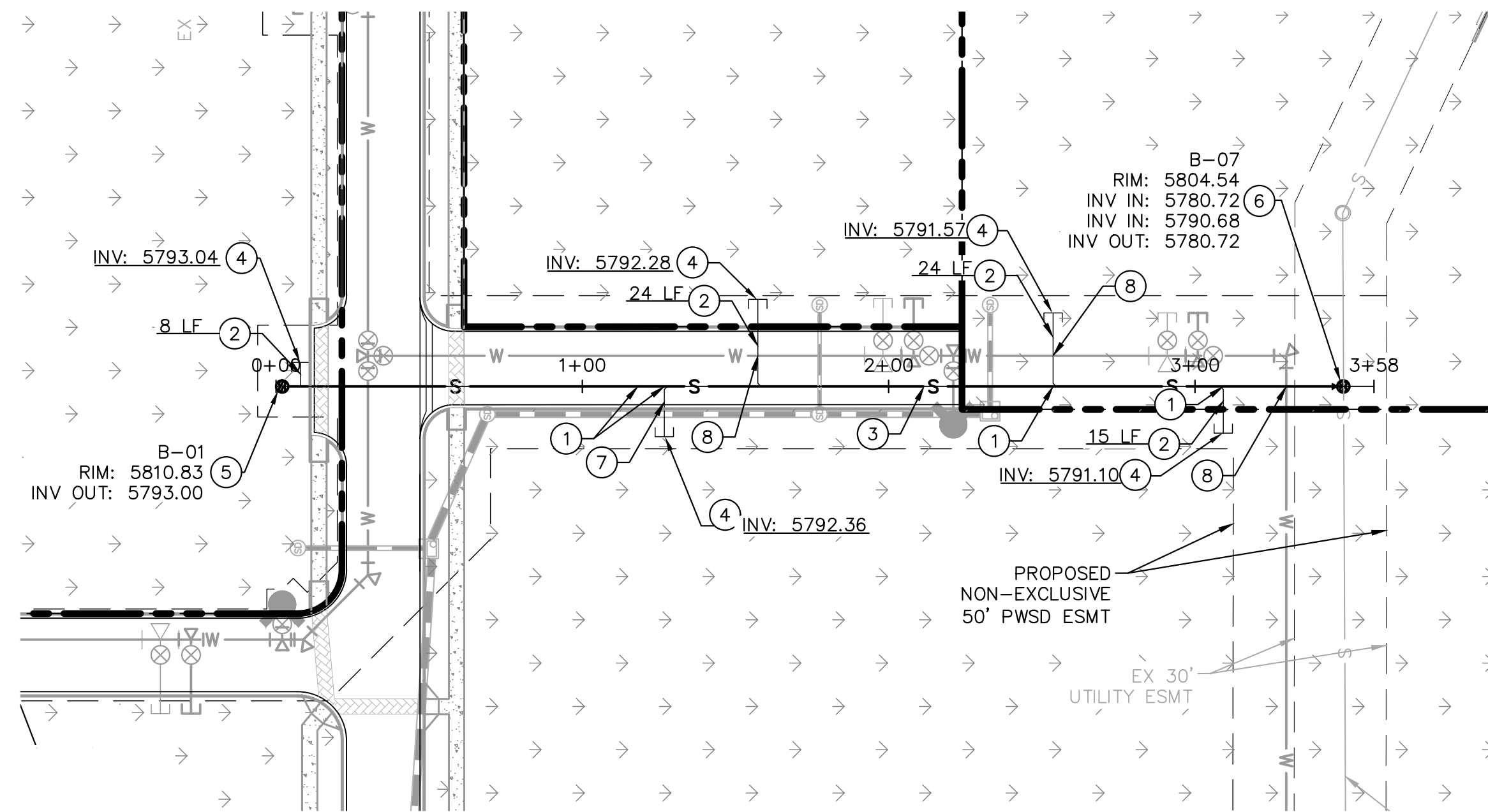
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C7.3

CAUTION
 CONTRACTOR IS TO VERIFY PRESENCE AND EXACT UTILITIES PRIOR TO CONSTRUCTION.

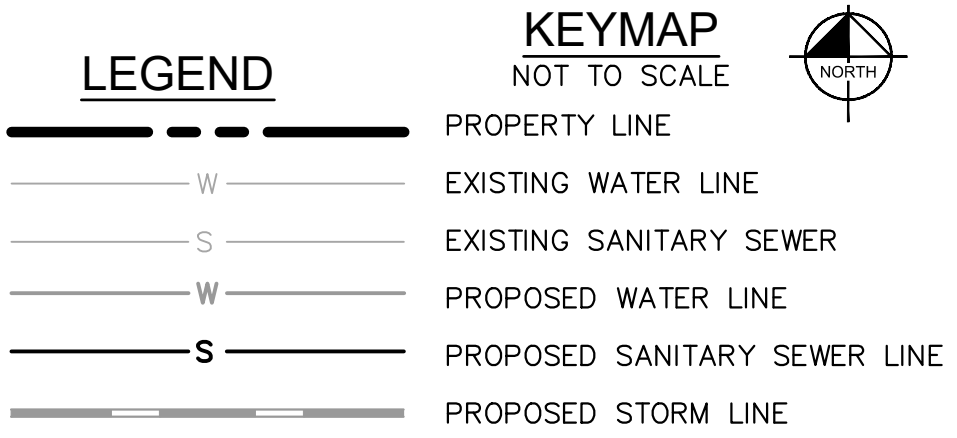
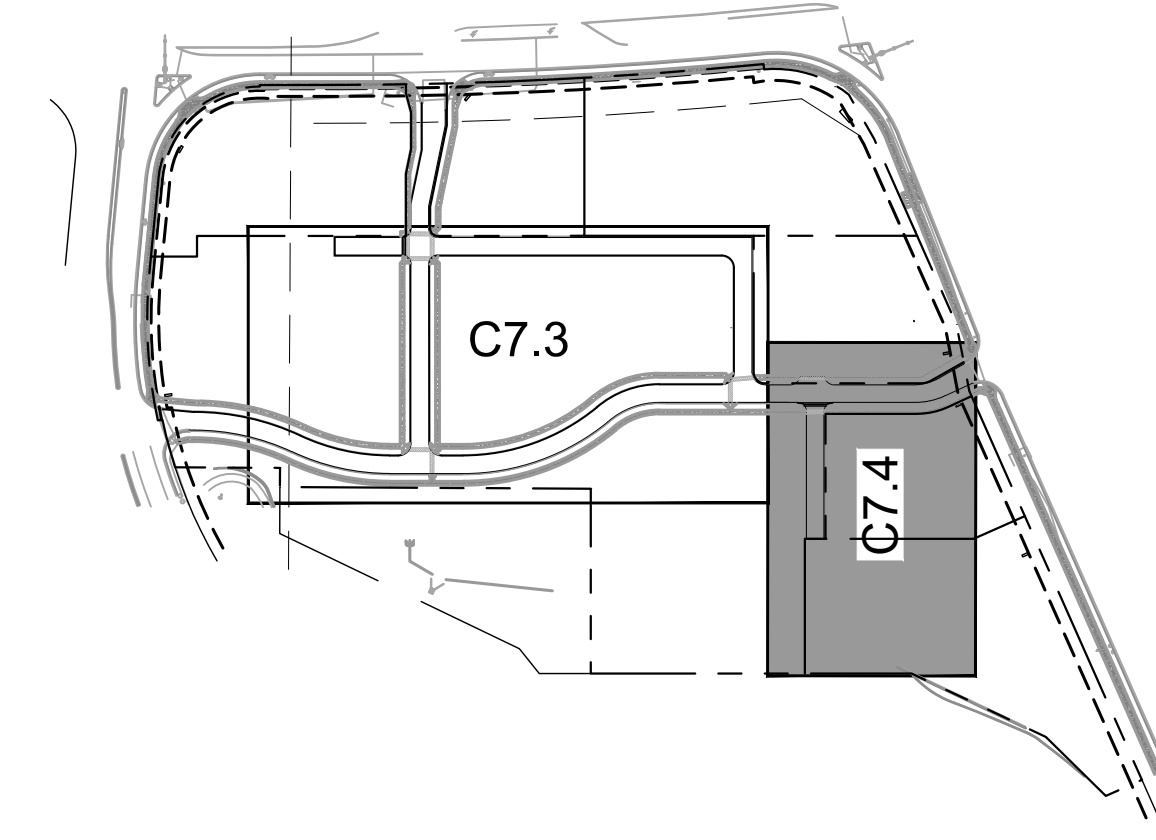


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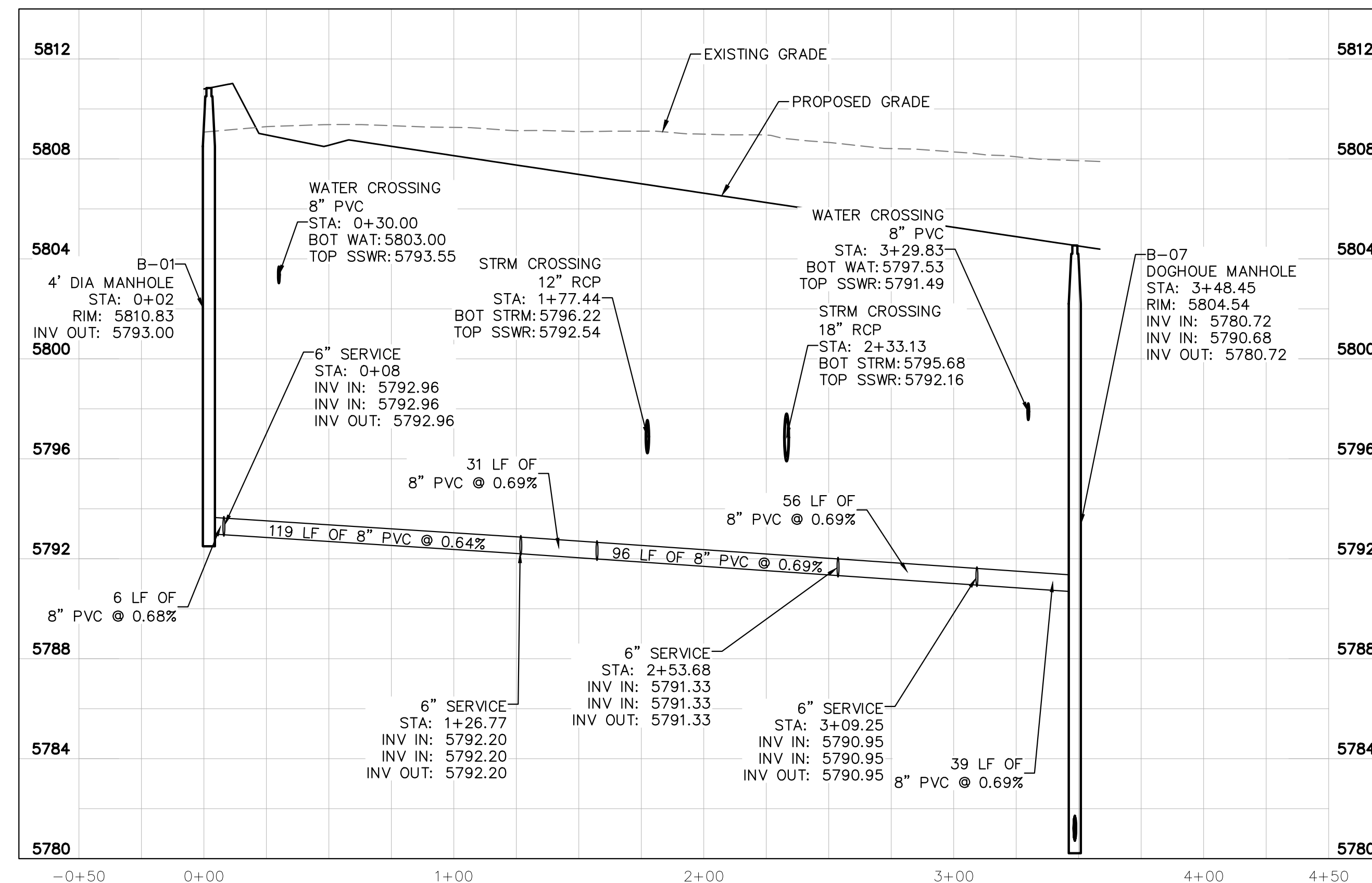
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19. AT ALL STORM SEWER AND SANITARY SEWER CROSSINGS WHERE THE PROPOSED SANITARY SEWER LINE LIES ABOVE THE PROPOSED STORM SEWER OR WITHIN 18" BELOW THE STORM SEWER, A CONCRETE ENCASUREMENT IS TO BE PROVIDED ALONG THE SANITARY SEWER PIPE FOR 10 FT ON EITHER SIDE OF THE CROSSING. CONCRETE ENCASUREMENT TO BE PROVIDED PER THE PWS DISTRICT SECTION 9.3.2.
20. PROVIDE WATER LOWERING PER PWS DISTRICT #27 WHERE CONFLICTS WITH STORM SEWER AND WATER SERVICES MAY EXIST.



SANITARY SEWER MAIN PROFILE
 STRUCTURE SSW-B-01 TO SSW-B-07

HORIZONTAL SCALE: 1"=40'
 VERTICAL SCALE: 1"=8'

CAUTION
 CONTRACTOR IS TO VERIFY PRESENCE AND EXACT UTILITIES PRIOR TO CONSTRUCTION.



NO.	REVISION	BY	DATE

Kimley-Horn
 2020 KIMLEY-HORN AND ASSOCIATES, INC.
 4582 South Ulster Street, Suite 1500
 Denver, Colorado 80237 (303) 228-2300

DESIGNED BY: DLS
 DRAWN BY: ECZ
 CHECKED BY: DLS
 DATE: 03/11/20

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SANITARY SEWER PLAN AND PROFILE

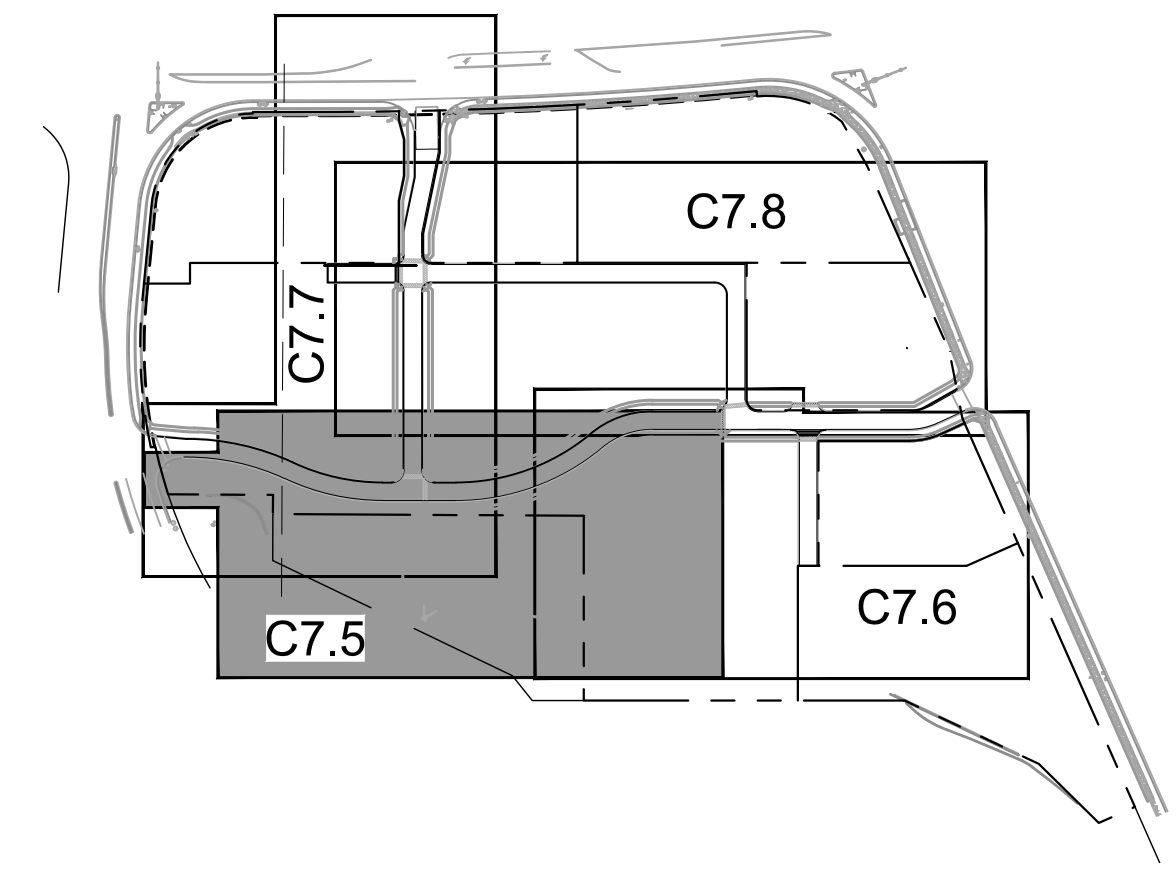
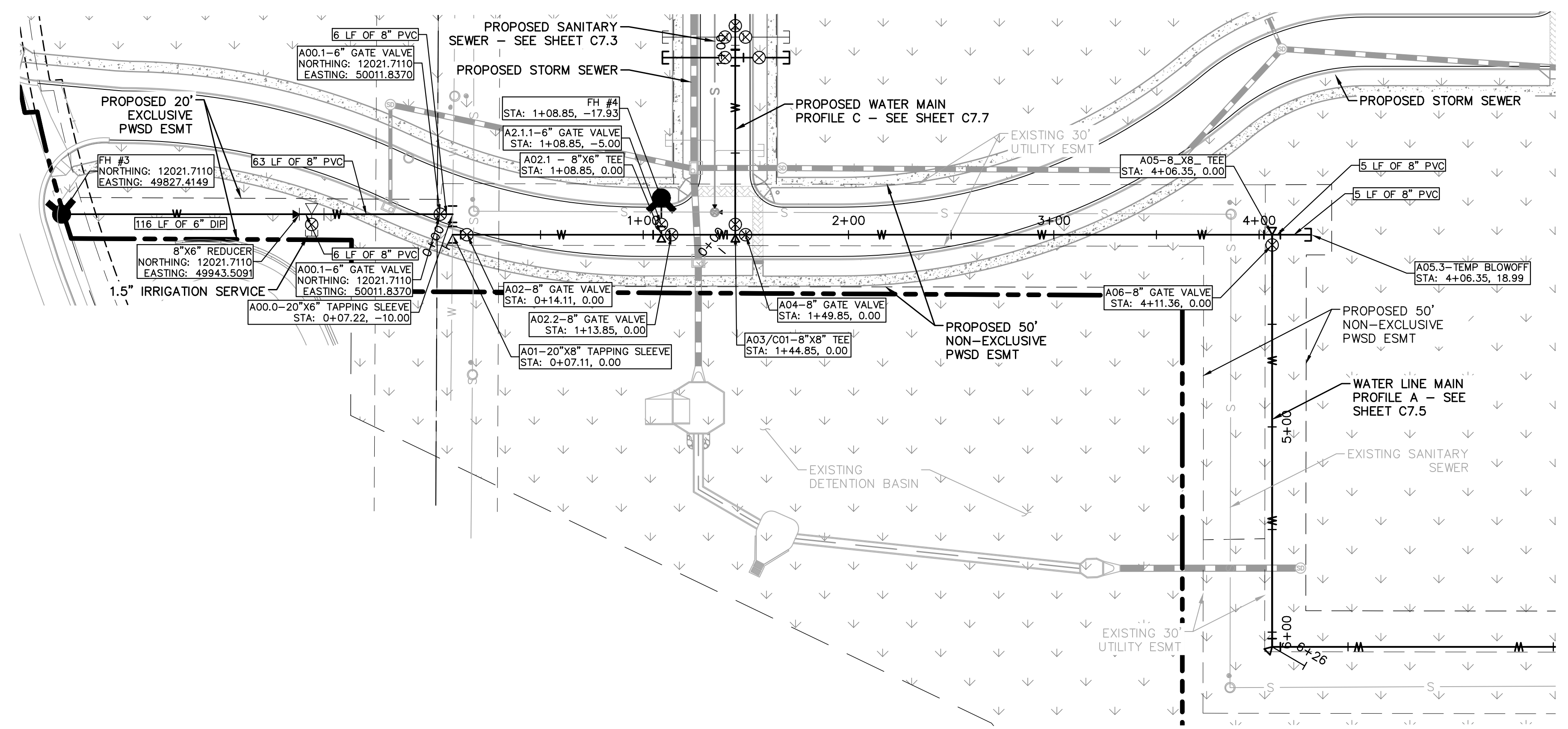
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PROJECT NO.
 096502001

DRAWING NAME
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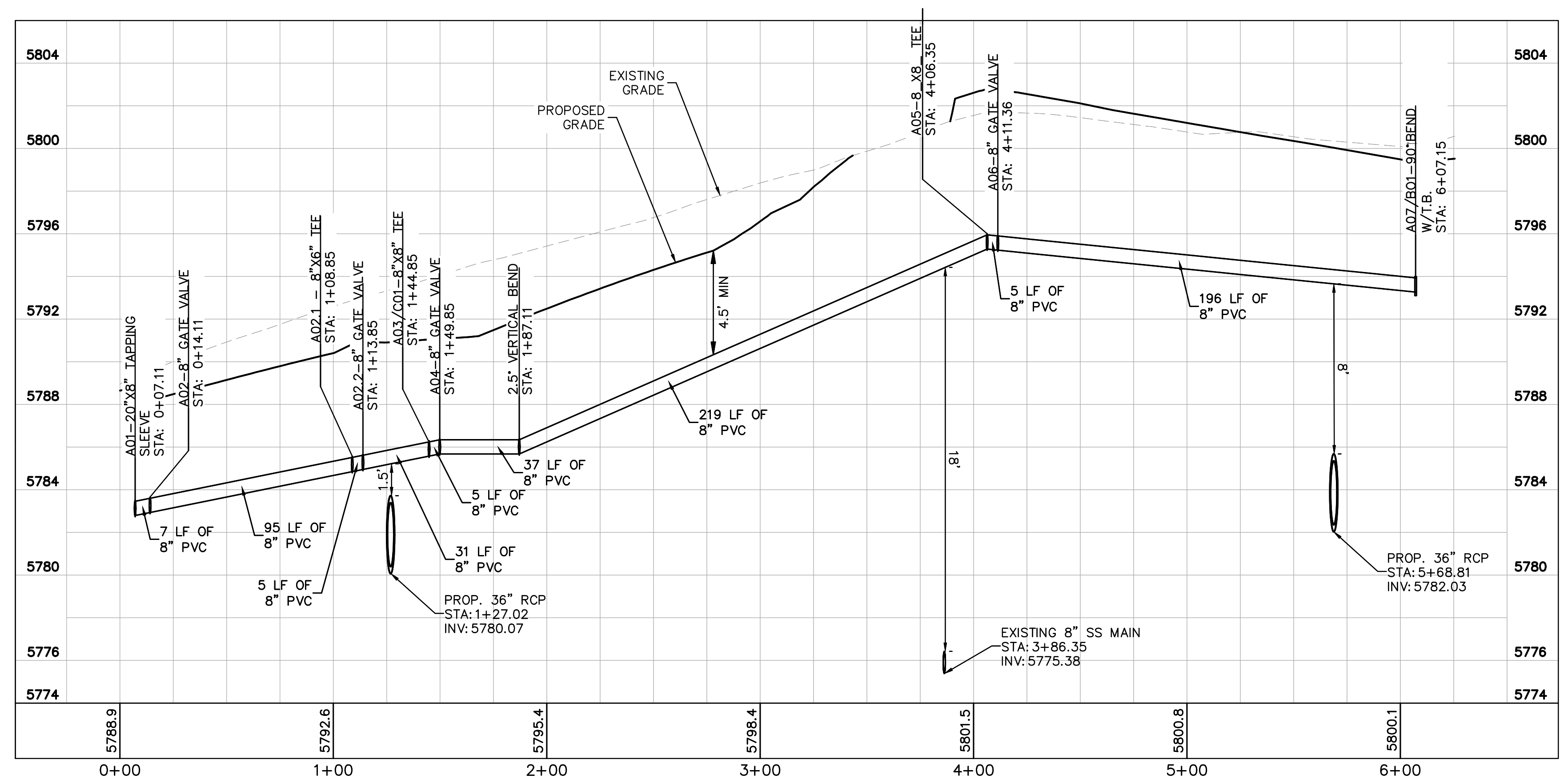
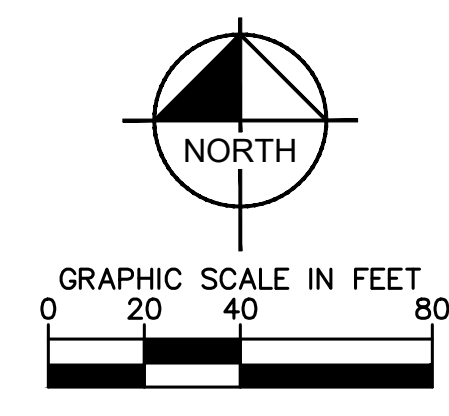


LEGEND

---	PROPERTY LINE
---	EXISTING WATER LINE
---	EXISTING SANITARY SEWER
---	PROPOSED WATER LINE
---	PROPOSED SANITARY SEWER LINE
---	PROPOSED STORM LINE

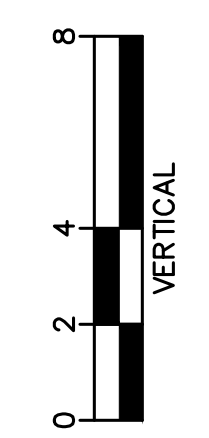
KEYMAP
NOT TO SCALE

NORTH



WATER MAIN PROFILE A
STRUCTURE A01 TO A07

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=4'



WATER NOTES

- CONTRACTOR TO POTHOLE EXISTING UTILITY LINES AT WATER LINE CROSSING AREAS PRIOR TO CONSTRUCTION.
- WATER LINE CONNECTION ELEVATION TO EXISTING WATER MAINS IS APPROXIMATE. CONTRACTOR TO POTHOLE AND VERIFY TIE IN ELEVATION PRIOR TO CONSTRUCTION OF WATER MAIN.
- CONTRACTOR TO MEET THE INSTALLATION REQUIREMENTS BY THE PARKER WATER AND SANITATION DISTRICT DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS.
- 24 UNIT BUILDINGS (BUILDINGS 1-7) SHALL PROVIDE INTERNAL BACKFLOW PREVENTER AND EXTERNAL 2" DOMESTIC METER.
- 36 UNIT (BUILDING 8) SHALL PROVIDE INTERNAL BACK FLOW PREVENTERS AND 1-1/2" DOMESTIC METER.
- VERTICAL BENDS AND DEFLECTIONS MAYBE UTILIZED TO PROVIDE VERTICAL CHANGES IN ACCORDANCE WITH PWSD STANDARDS AS NEEDED.
- AT ALL POTABLE WATER MAIN AND SANITARY SEWER CROSSINGS WHERE THE PROPOSED SANITARY SEWER LINE LIES ABOVE THE PROPOSED WATER MAIN OR WITHIN 18" BELOW THE WATER MAIN, A CONCRETE ENCASUREMENT IS TO BE PROVIDED ALONG THE SANITARY SEWER PIPE FOR 10 FT ON EITHER SIDE OF THE CROSSING. CONCRETE ENCASUREMENT TO BE PROVIDED PER THE PWSD SECTION 9.3.2.
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- ALL WATER LINES SHALL BE INSTALLED AT LEAST 4.5 FEET BELOW THE OFFICIAL STREET GRADE AND IN ALL OTHER PLACES AT LEAST 4.5 FEET BELOW THE SURFACE OF THE GROUND.

NO.	REVISION	BY	DATE	APPR

Kimley»Horn
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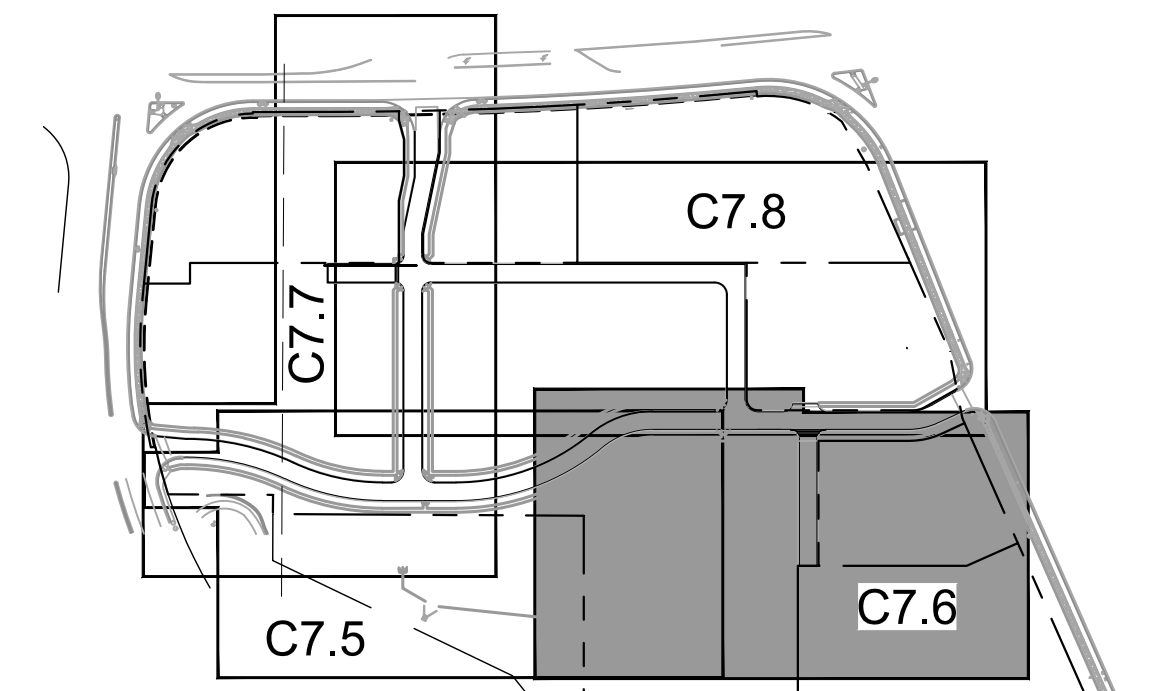
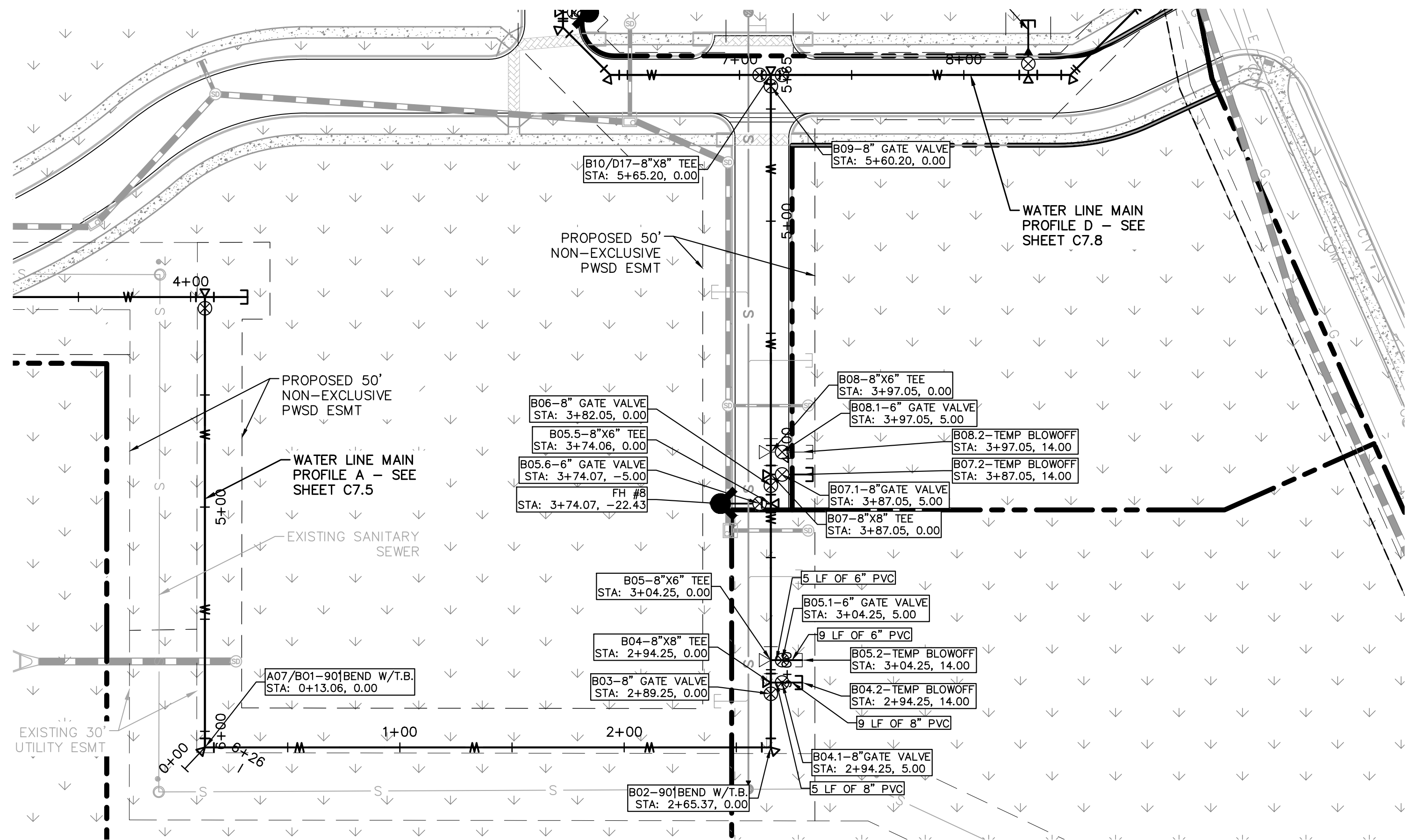
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 CONSTRUCTION DOCUMENTS
WATER PLAN AND PROFILE - A

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PROJECT NO.
096502001
 DRAWING NAME
096502001WT-PP
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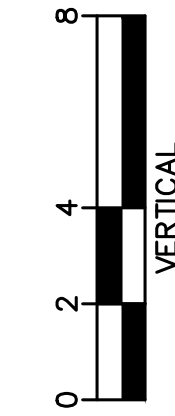
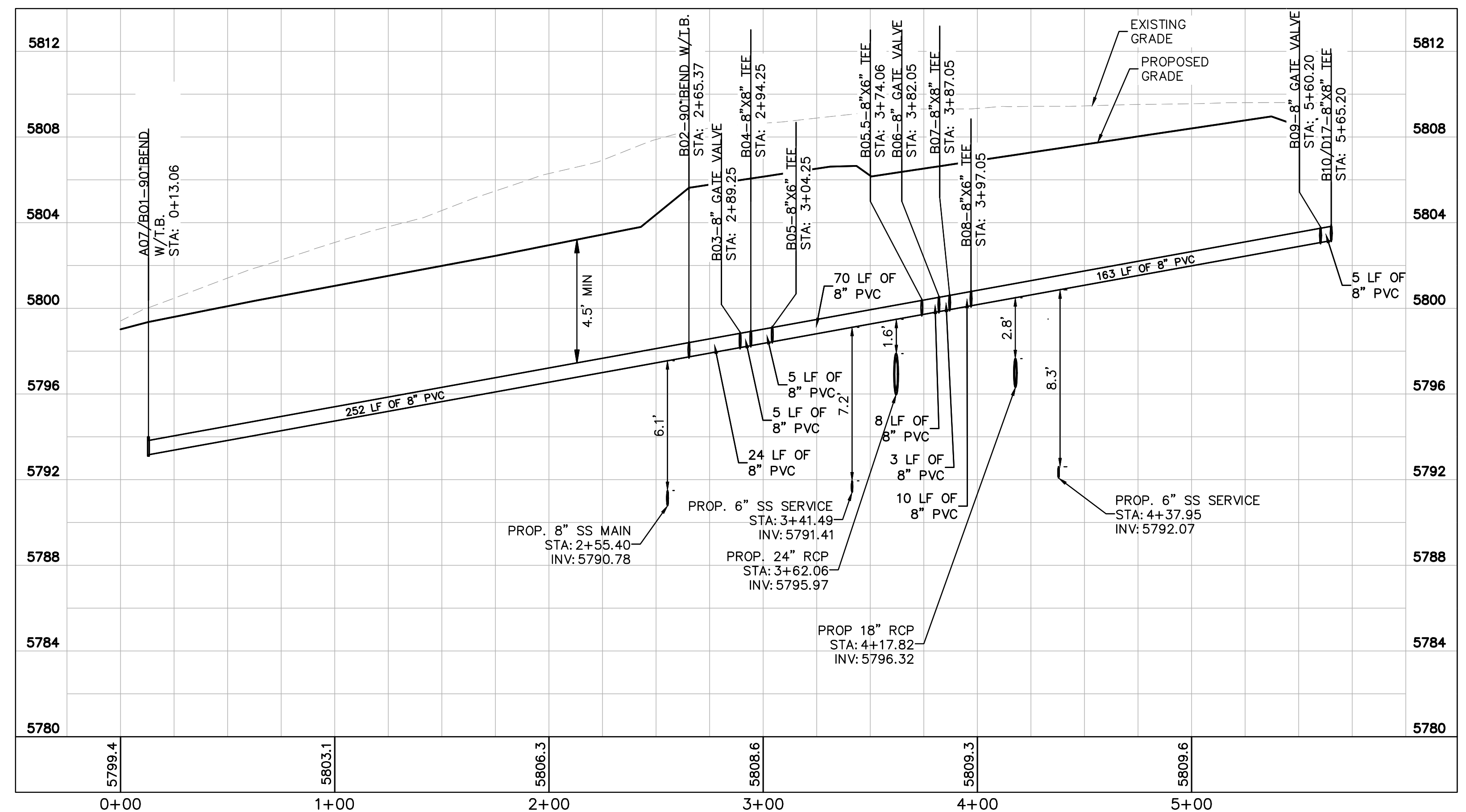
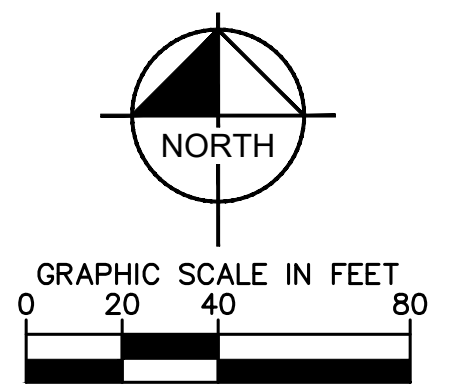
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LEGEND

	PROPERTY LINE
	EXISTING WATER LINE
	EXISTING SANITARY SEWER
	PROPOSED WATER LINE
	PROPOSED SANITARY SEWER LINE
	PROPOSED STORM LINE

KEYMAP
NOT TO SCALE



WATER MAIN PROFILE B
STRUCTURE B01 TO B10

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=4'

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Kimley»Horn
 2020 KIMLEY-HORN AND ASSOCIATES, INC.
 4582 South Ulster Street, Suite 1500
 Denver, Colorado 80237 (303) 228-2300

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 CHECKED BY: DLS
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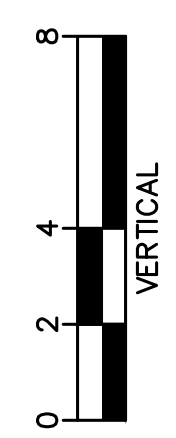
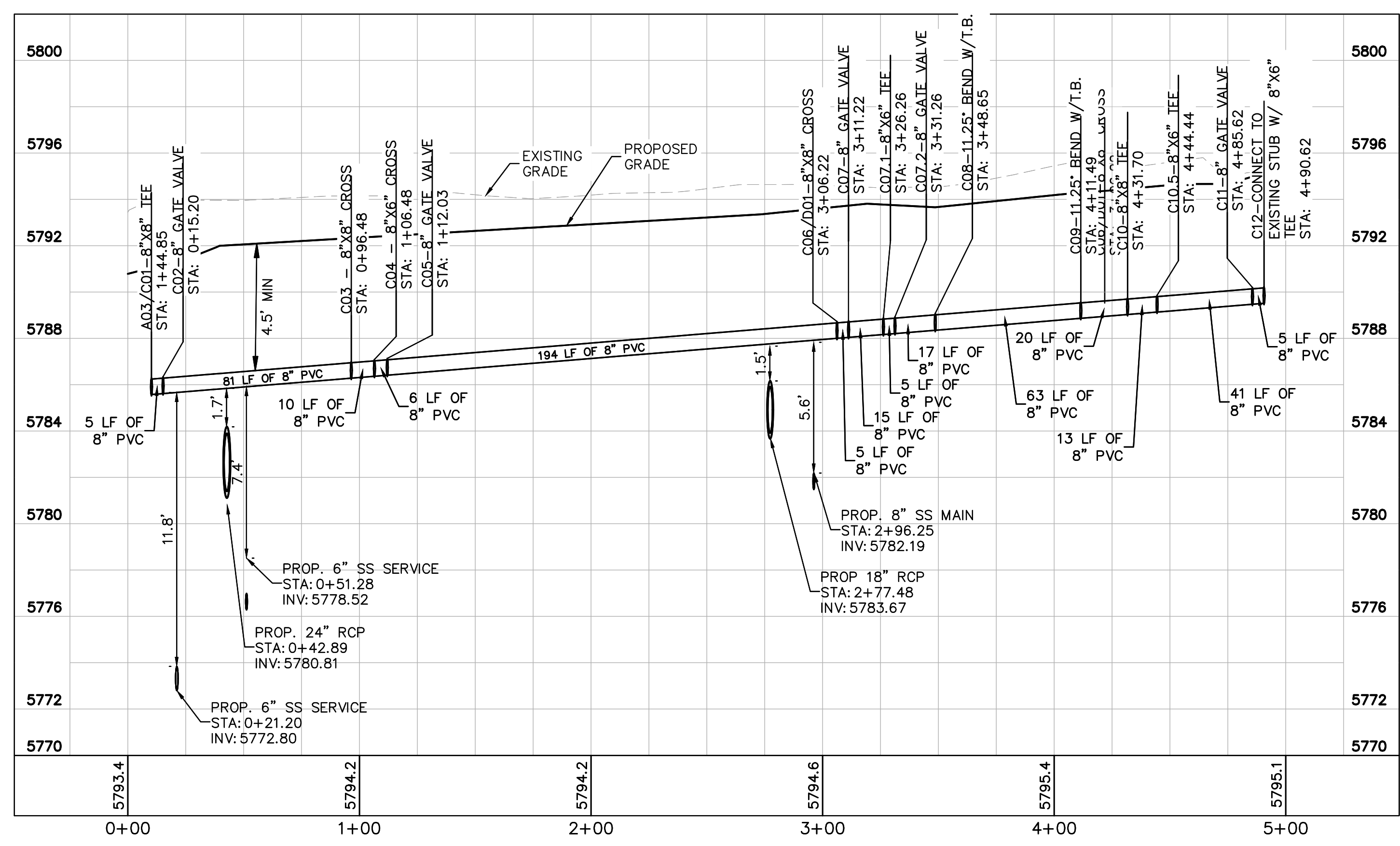
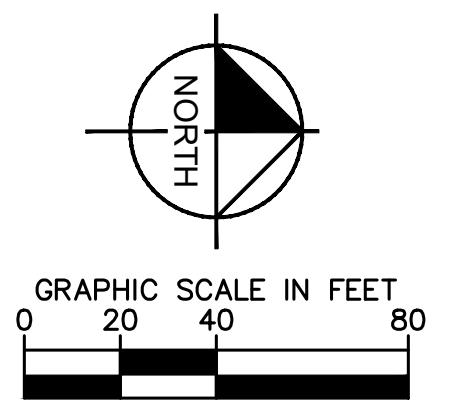
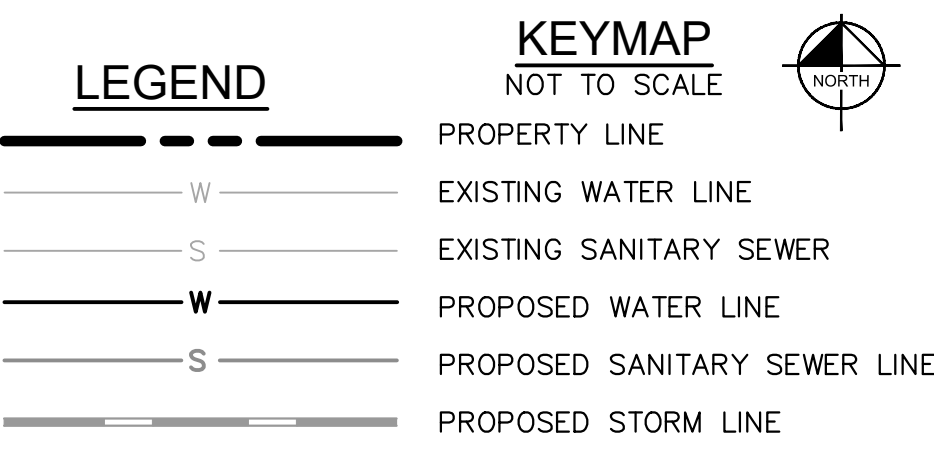
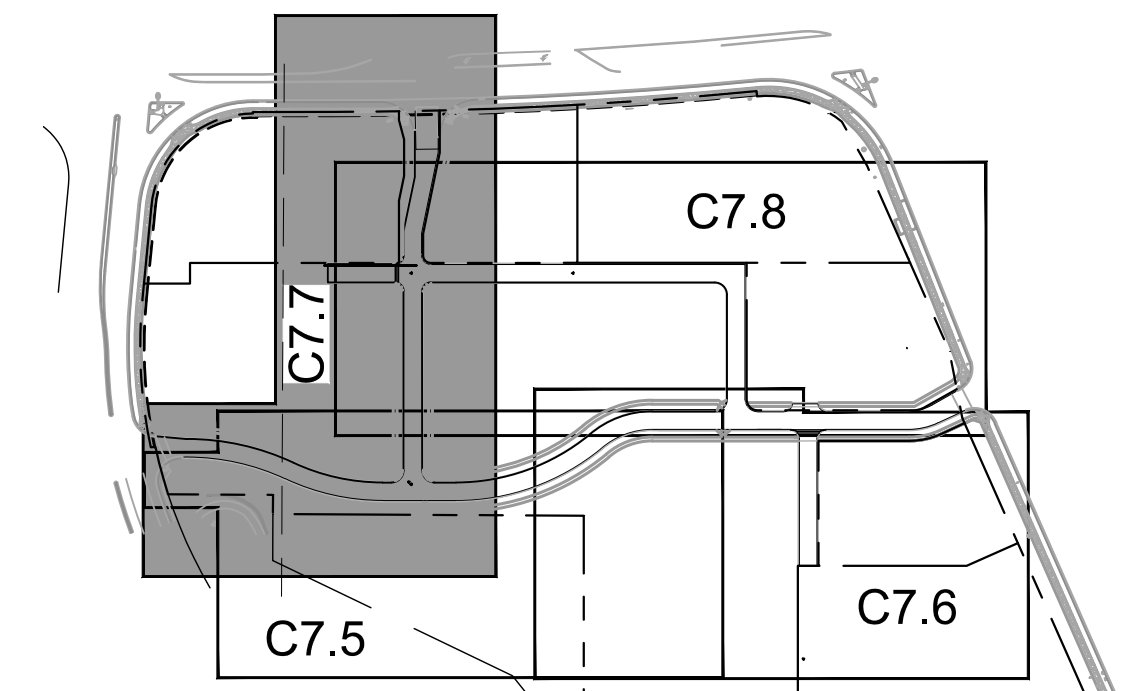
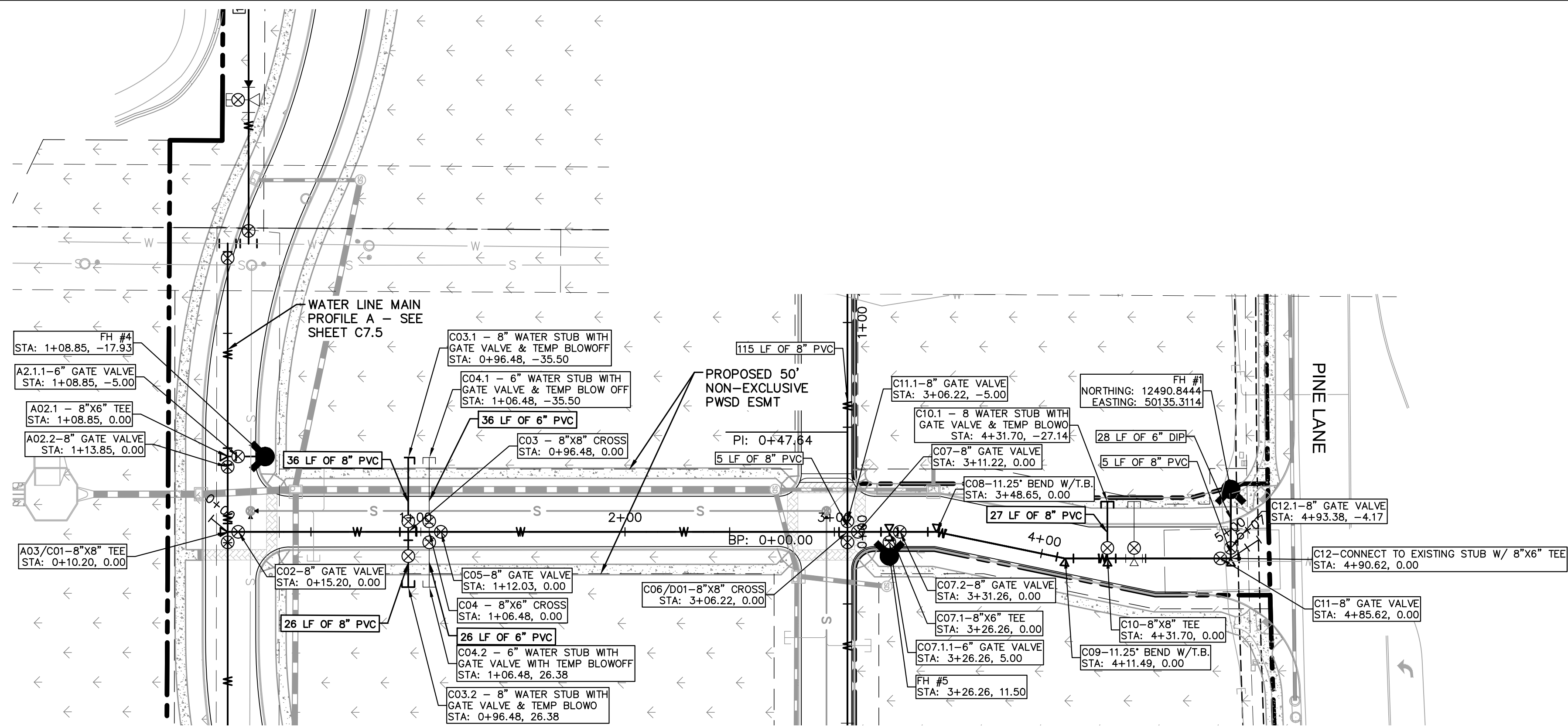
PARKER & PINE MINOR DEVELOPMENT FILING NO. 1
 PARKER, CO
 CONSTRUCTION DOCUMENTS
WATER PLAN AND PROFILE - B

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PROJECT NO.
096502001
 DRAWING NAME
096502001WT-PP
C7.6



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WATER MAIN PROFILE C
STRUCTURE C01 TO C12

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=4'

WATER NOTES

1. CONTRACTOR TO POTHOLE EXISTING UTILITY LINES AT WATER LINE CROSSING AREAS PRIOR TO CONSTRUCTION.
2. WATER LINE CONNECTION ELEVATION TO EXISTING WATER MAINS IS APPROXIMATE. CONTRACTOR TO POTHOLE AND VERIFY TIE IN ELEVATION PRIOR TO CONSTRUCTION OF WATER MAIN.
3. CONTRACTOR TO MEET THE INSTALLATION REQUIREMENTS BY THE PARKER WATER AND SANITATION DISTRICT DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS.
4. 24 UNIT BUILDINGS (BUILDINGS 1-7) SHALL PROVIDE INTERNAL BACKFLOW PREVENTER AND EXTERNAL 2" DOMESTIC METER.
5. 36 UNIT (BUILDING 8) SHALL PROVIDE INTERNAL BACK FLOW PREVENTERS AND 1-1/2" DOMESTIC METER.
6. VERTICAL BENDS AND DEFLECTIONS MAYBE UTILIZED TO PROVIDE VERTICAL CHANGES IN ACCORDANCE WITH PWSD STANDARDS AS NEEDED.
7. AT ALL POTABLE WATER MAIN AND SANITARY SEWER CROSSINGS WHERE THE PROPOSED SANITARY SEWER LINE LIES ABOVE THE PROPOSED WATER MAIN OR WITHIN 18" BELOW THE WATER MAIN, A CONCRETE ENCASEMENT IS TO BE PROVIDED ALONG THE SANITARY SEWER PIPE FOR 10 FT ON EITHER SIDE OF THE CROSSING. CONCRETE ENCASEMENT TO BE PROVIDED PER THE PWSD SECTION 9.3.2.
8. AT ALL STORM SEWER AND SANITARY SEWER CROSSINGS WHERE THE PROPOSED SANITARY SEWER LINE LIES ABOVE THE PROPOSED STORM SEWER OR WITHIN 18" BELOW THE STORM SEWER, A CONCRETE ENCASEMENT IS TO BE PROVIDED ALONG THE SANITARY SEWER PIPE FOR 10 FT ON EITHER SIDE OF THE CROSSING. CONCRETE ENCASEMENT TO BE PROVIDED PER THE PWSD SECTION 9.3.2.
9. ALL WATER LINES SHALL BE INSTALLED AT LEAST 4.5 FEET BELOW THE OFFICIAL STREET GRADE AND IN ALL OTHER PLACES AT LEAST 4.5 FEET BELOW THE SURFACE OF THE GROUND.

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096502001
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INSPECTION POLICY:

1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED WITH THE DISTRICT OFFICE AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
2. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTE 1 ABOVE AND A RE-INSPECTION FEE CHARGED.
3. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
4. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
5. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
6. LOTS WITHOUT BUILDING ADDRESSES OR LOT AND BLOCK NUMBERS BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
7. CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION UNLESS COORDINATED WITH DISTRICT INSPECTOR.

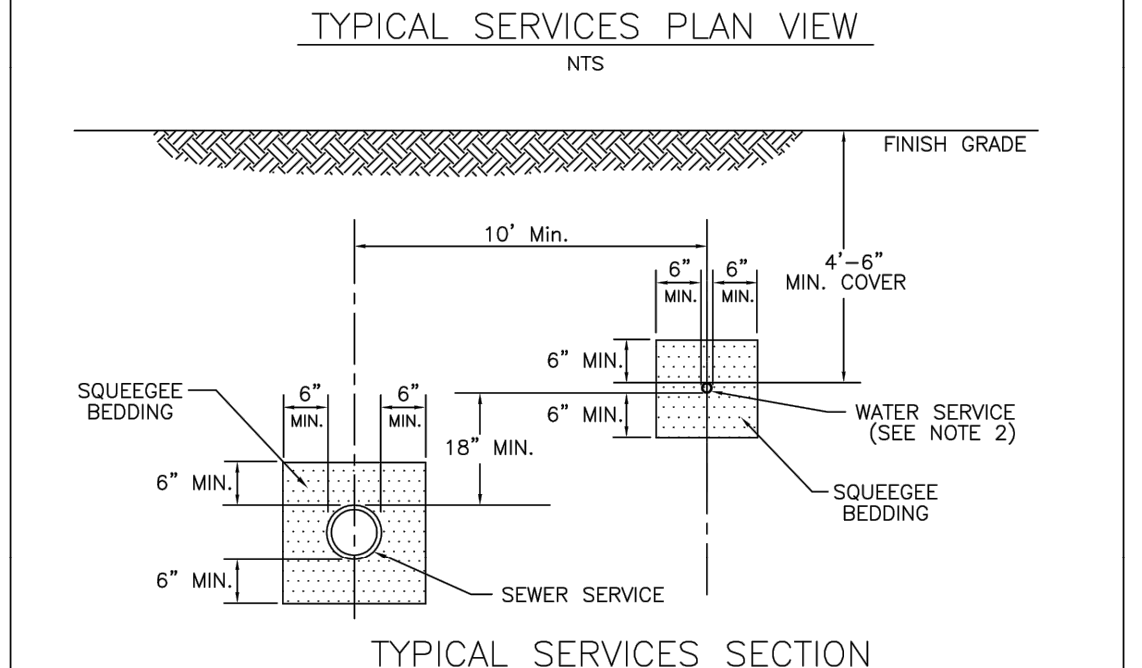
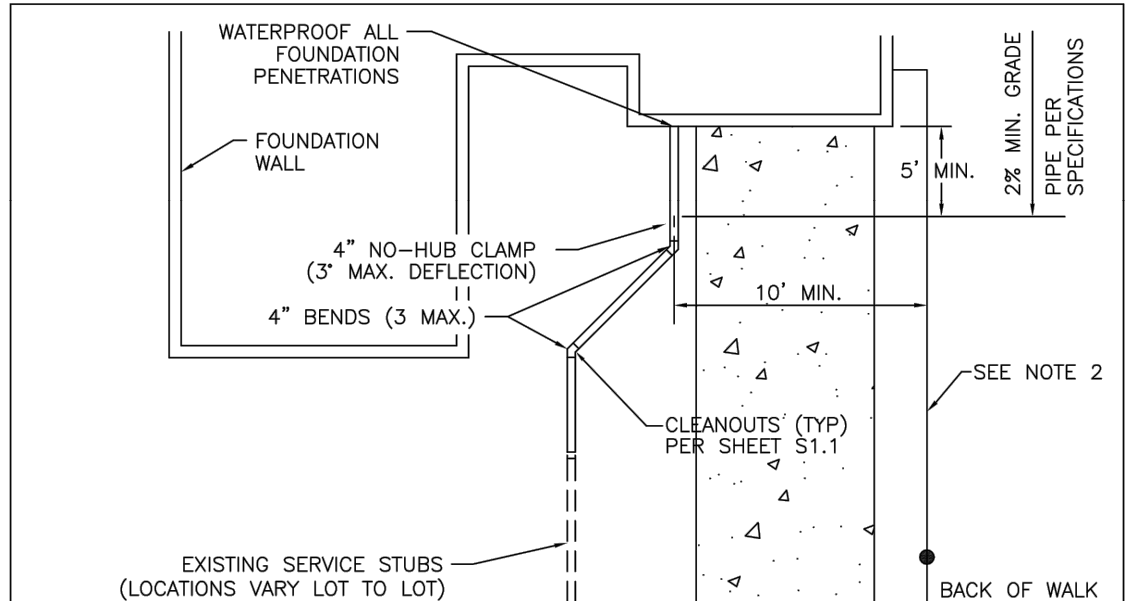
INSTALLATION NOTES:

- SEWER**
1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND PVC SCHD 40 PIPE. APPROVED BEDDING IS TO BE SQUEEGEE.
 2. NO-HUB CLAMPS SHALL BE USED TO JOIN 2 MALE PIPE ENDS WITH A MAXIMUM DEFLECTION OF 3'.
 3. MINIMUM GRADE SHALL BE 2X.
 4. INSTALLATION SHALL INCLUDE NO MORE THAN 3 BENDS. 90° BENDS ARE NOT ALLOWED. SOLVENT WELDED PIPE WILL NOT BE ALLOWED.
 5. CLEAN-OUTS SHALL BE INSTALLED AT 100' INTERVALS AND EVERY CHANGE IN DIRECTION. CLEAN-OUTS ARE NOT REQUIRED FOR SERVICES LESS THAN 100' UNLESS THERE ARE CHANGES IN DIRECTION. PROVIDE DUAL CLEAN-OUT WITHIN 5 FEET OF FOUNDATION.
 6. STRESSING OF THE PIPE BETWEEN FITTINGS WILL NOT BE ALLOWED.
 7. SEWER SERVICE LINE SHALL NOT BE LOCATED UNDER CONCRETE SURFACE.
 8. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
 "X" FOR SANITARY SEWER SERVICE
 "W" FOR WATER SERVICES

PARKER WATER & SANITATION DISTRICT
DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES

SCALE: NONE	DATE: 2/98
APPROVED: PVR	01/02 10/16
DIRECTOR OF ENGINEERING	1/08 1/16

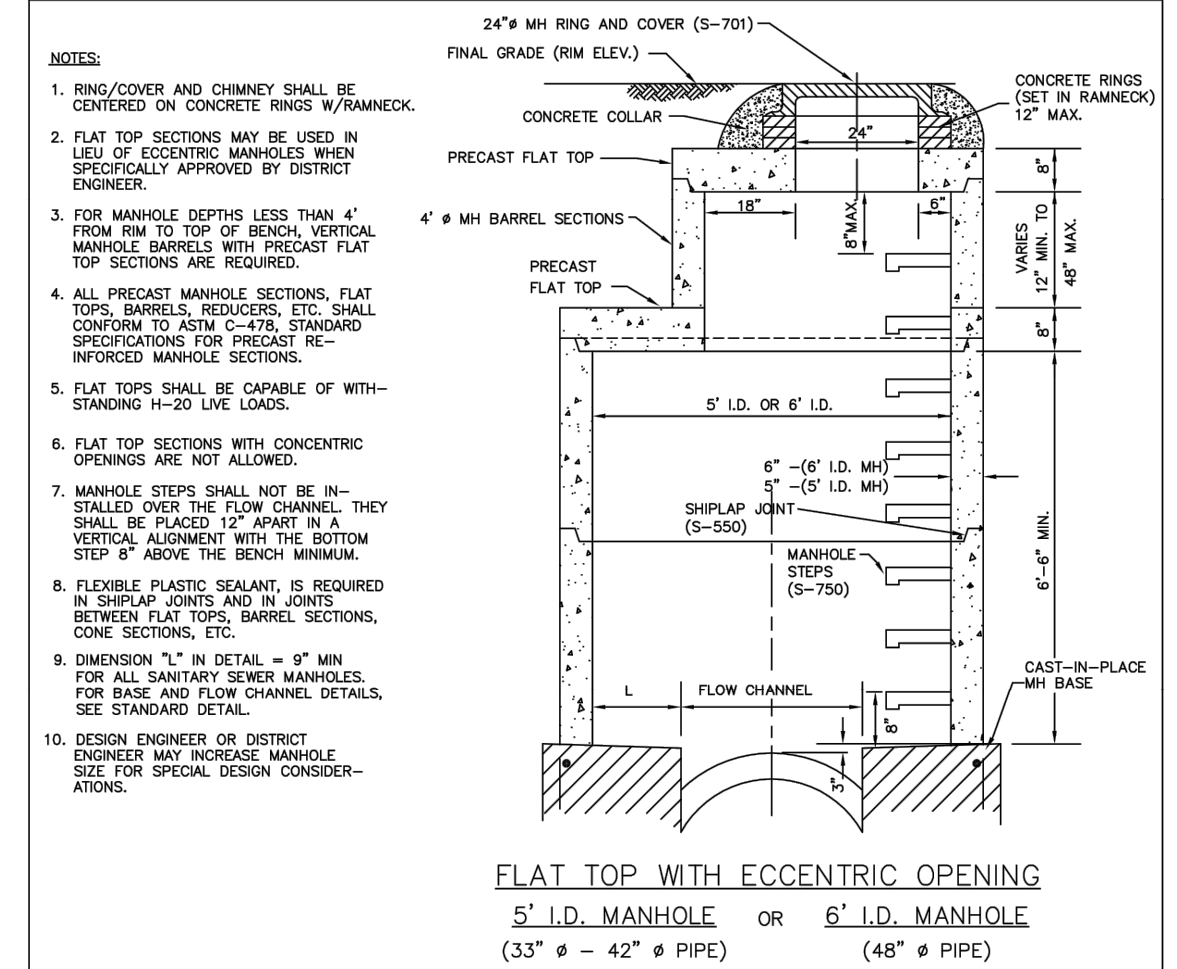
2016 REVISION SHEET S1.1



PARKER WATER & SANITATION DISTRICT
TYPICAL SEWER SERVICES

SCALE: NONE	DATE: 2/98
APPROVED: PVR	2/00 01/02 01/16 10/16
DIRECTOR OF ENGINEERING	

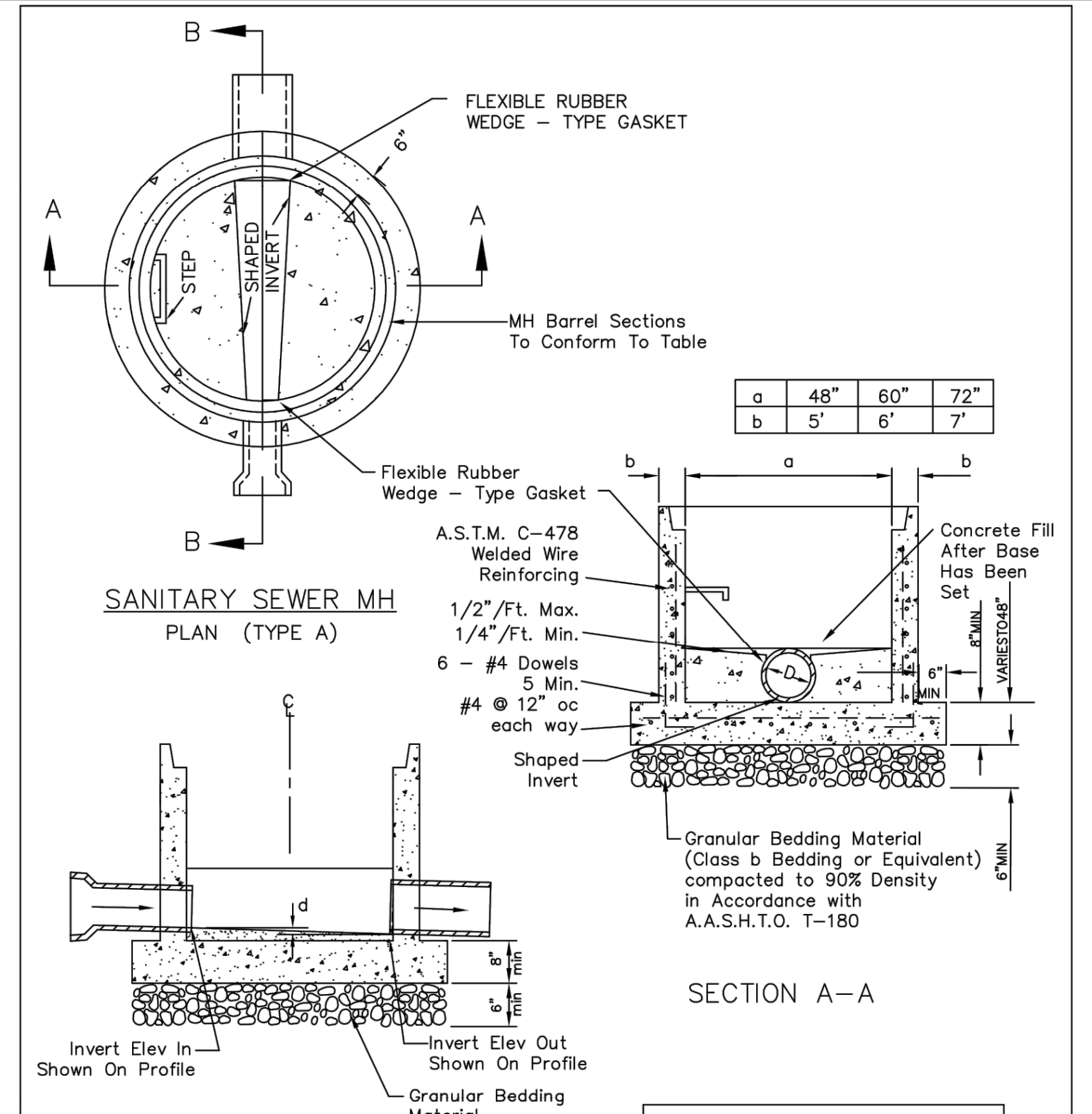
2016 REVISION SHEET S1.2



PARKER WATER & SANITATION DISTRICT
PRECAST MANHOLE FLAT TOP W/ ECCENTRIC OPENING

SCALE: NONE	DATE: 2/98
APPROVED: PVR	4/01 1/16 10/16
DIRECTOR OF ENGINEERING	

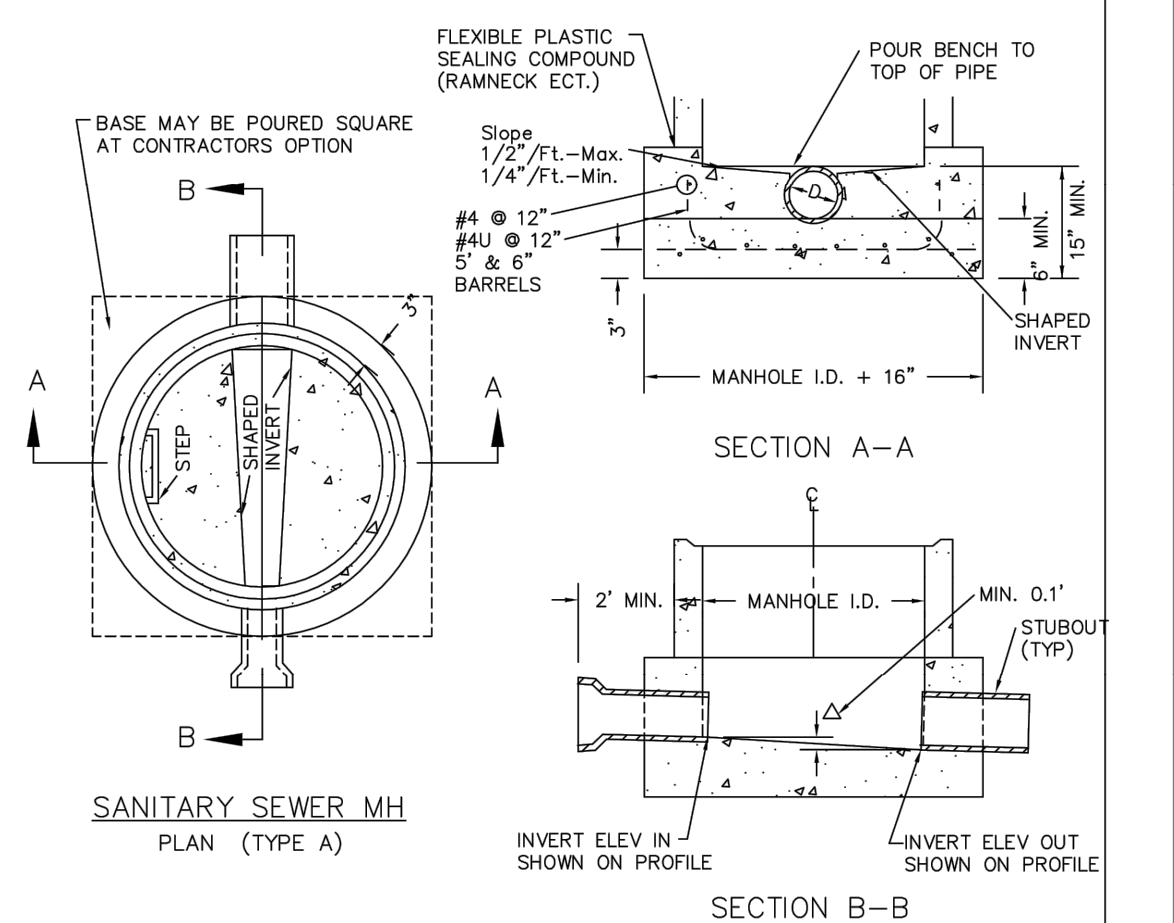
2016 REVISION SHEET S3.2



PARKER WATER & SANITATION DISTRICT
PRECAST MANHOLE BASE DETAIL

SCALE: NONE	DATE: 2/98
APPROVED: PVR	01/02 10/16
DIRECTOR OF ENGINEERING	

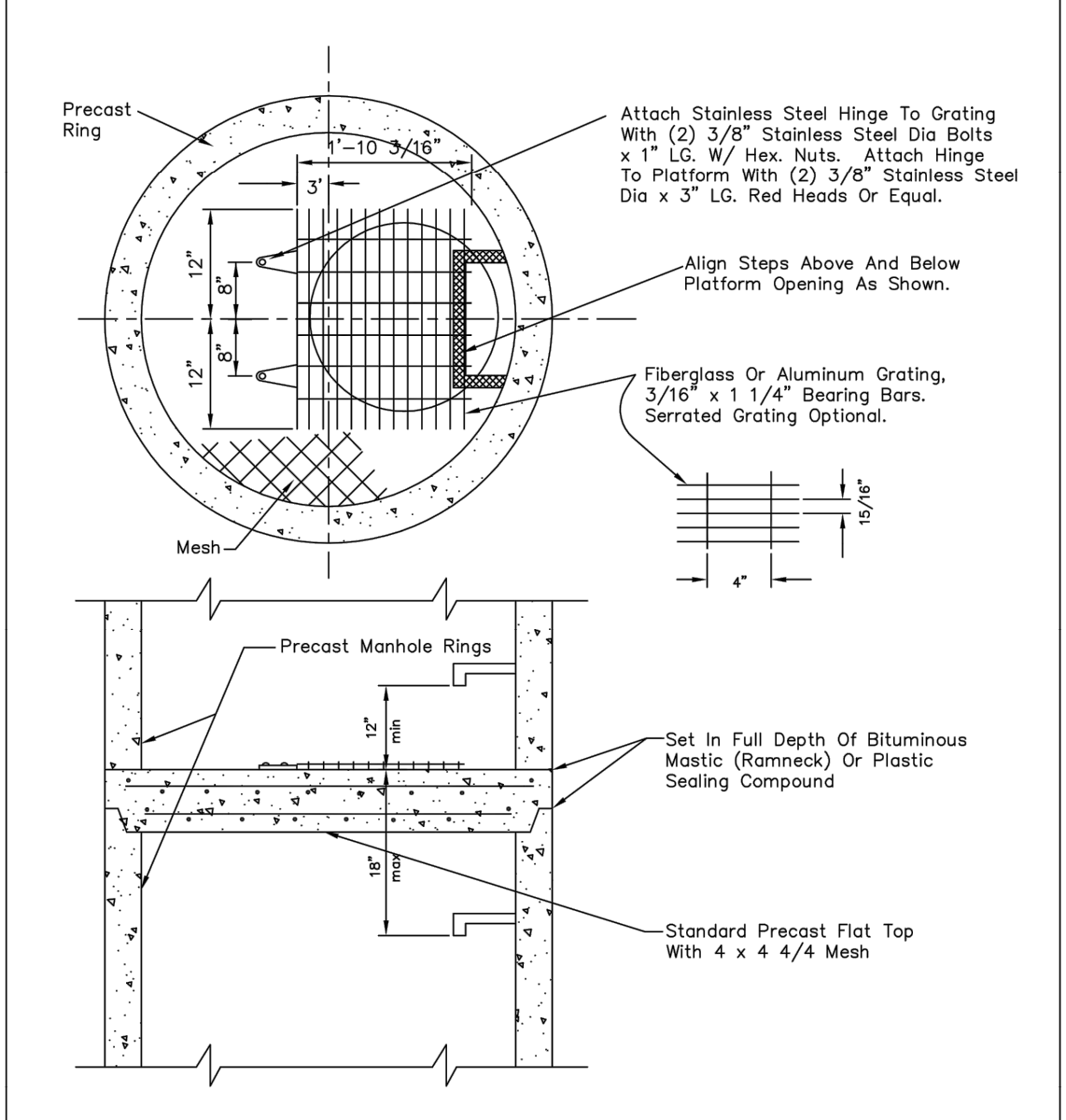
2016 REVISION SHEET S3.4



PARKER WATER & SANITATION DISTRICT
CAST-IN-PLACE MANHOLE BASE DETAIL

SCALE: NONE	DATE: 2/98
APPROVED: PVR	01/02 01/16 10/16
DIRECTOR OF ENGINEERING	

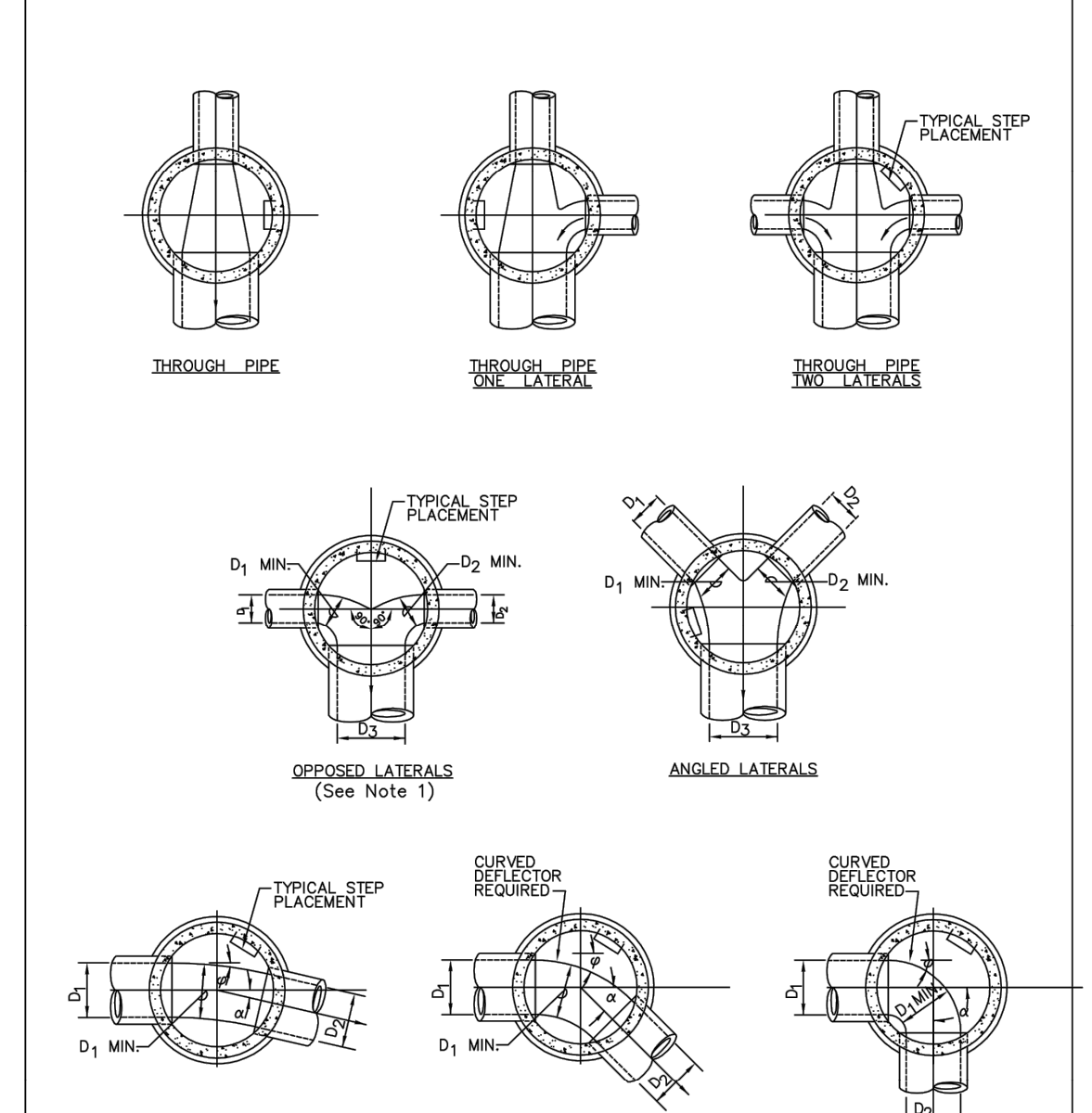
2016 REVISION SHEET S3.5



PARKER WATER & SANITATION DISTRICT
INTERMEDIATE PLATFORM FOR MANHOLES OVER 20' DEPTH

SCALE: NONE	DATE: 2/98
APPROVED: PVR	2/00 1/16 10/16
DIRECTOR OF ENGINEERING	

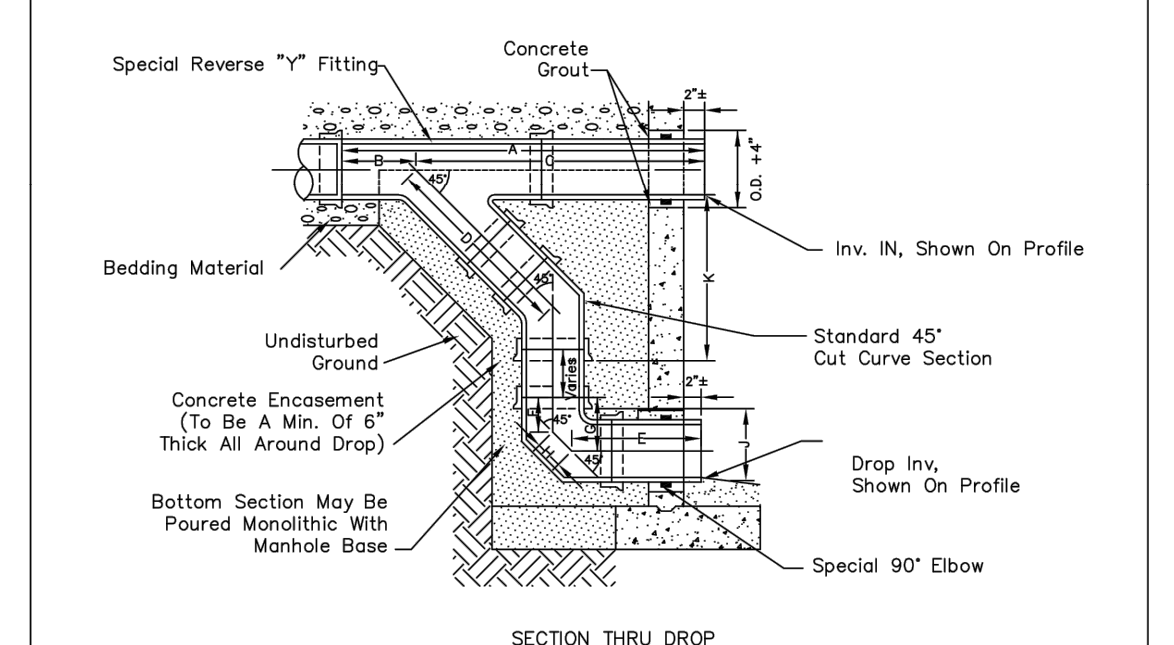
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PARKER WATER & SANITATION DISTRICT
TYPICAL BASE CHANNELIZATION DETAILS

SCALE: NONE	DATE: 2/98
APPROVED: PVR	01/16 10/16
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PARKER WATER & SANITATION DISTRICT
OUTSIDE DROP MANHOLE CONSTRUCTION

SCALE: NONE	DATE: 2/98
APPROVED: PVR	01/16 10/16
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NO.	REVISION	BY	DATE

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2020 KIMLEY-HORN AND ASSOCIATES, INC.
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Denver, Colorado 80237 (303) 228-2300

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K:\DENV_CADD\096502001 - MWD - Use Parker SANITATION DISTRICT - 24" DIAMETER ALUMINUM MANHOLE AND COVER - 10/11/16 10:57 AM
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CONCRETE ARCH

CONCRETE CRADLE
CLASS "A" BEDDING

NOTE:
The Design Engineer shall be responsible for structural design of the concrete cradle and/or concrete arch.

NOMINAL DIAMETER (D)	MINIMUM THICKNESS (t)	MIN. WIDTH OF CRADLE (B _{cr})
18" & smaller	6"	B _{cr} + 8"
21" to 24"	6"	B _{cr} + 8"
27" to 33"	8"	B _{cr} + 8"
36" to 42"	10"	1.25 B _{cr}
48" & larger	1/4 D	1.25 B _{cr}

PARKER WATER & SANITATION DISTRICT
TRENCHING AND BEDDING DETAIL - CLASS "A"

SCALE: NONE DATE: 2/96
APPROVED: PVR 1/16 10/16
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2016 REVISION SHEET 54.2

MANHOLE INVERT TIE-IN

NOTE:
1 - NEW BENCH SHALL INCLUDE REINFORCEMENT TO CONTROL CONCRETE CRACKING.

PARKER WATER & SANITATION DISTRICT
MANHOLE INVERT TIE-IN DETAIL

SCALE: NONE DATE: 2/96
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2016 REVISION SHEET 54.9

IN-LINE CLEANOUT SECTIONS

NOTE:
THE WORD "SEWER" TO BE RAISED 3/16"

PARKER WATER & SANITATION DISTRICT
IN-LINE CLEANOUT SECTIONS

SCALE: NONE DATE: 2/96
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DOMESTIC SEWER TAPPING DETAIL

NOTE:
TAPS IN STAGGERED CONFIGURATION AT 10 O'CLOCK AND 2 O'CLOCK

PARKER WATER & SANITATION DISTRICT
DOMESTIC SEWER TAPPING DETAIL

SCALE: NONE DATE: 2/96
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24" DIAMETER RING AND COVER

NOTE:
1. Casting Specifications: ASTM A-48 With A Minimum Tensile Strength of 25 KSI (Class 25)
2. All Casting To Be Dipped In Asphalt Base Coat (Or Approved Equal).
3. No other manhole lids will be accepted without prior approval from the District Engineer.

PARKER WATER & SANITATION DISTRICT
24" DIAMETER RING AND COVER

SCALE: NONE DATE: 2/96
APPROVED: PVR 1/16 10/16
DIRECTOR OF ENGINEERING

2016 REVISION SHEET 53.9

STANDARD EXTRUDED ALUMINUM MANHOLE STEP

NOTE:
1.1 ALUMINUM ALLOY SPECIFICATIONS
a. FED. SPEC. QQ-A-200/8 (ALUMINUM-MAGNESIUM-SILICATE ALLOY)
b. MINIMUM TENSILE STRENGTH=38,000 p.s.i.
c. MINIMUM YIELD STRENGTH=33,000 p.s.i.
d. MINIMUM ELONGATION=10% IN 2"
1.2 MINIMUM LOAD CAPACITY (APPLIED AT CENTER OF STEP)
a. 1000 LB. WITH 4" PROJECTION FROM WALL
b. 1500 LB. WITH 4" PROJECTION FROM WALL
1.3 WEIGHT PER STEP=2.23 POUNDS
1.4 STEPS TO BE CAST, UNALTERED, IN MANHOLE WALL IN STRAIGHT LINE, VERTICALLY, AT THE SAME TIME THE BARREL OR CONE SECTIONS ARE CAST.
1.5 VERTICAL SPACING BETWEEN STEPS SHALL BE CONSISTENT IN EACH INDIVIDUAL MANHOLE.
1.6 TOE POCKETS ARE REQUIRED IN STORM SEWER MANHOLES IF TOP OF BENCH IS MORE THAN 18" ABOVE INVERT. TOE POCKETS ARE NOT REQUIRED IN SANITARY SEWER MANHOLES UNLESS OTHERWISE SPECIFIED.

PARKER WATER & SANITATION DISTRICT
STANDARD EXTRUDED ALUMINUM MANHOLE STEP

SCALE: NONE DATE: 2/96
APPROVED: PVR 1/16 10/16
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2016 REVISION SHEET 53.10

TYPICAL TRENCH DETAIL

NOTE:
1. Sloping or benching of trench side walls, where permitted shall be in accordance with applicable Federal, State and local safety regulations.
2. Trench shall be braced and shored as necessary to afford safe working conditions or to protect adjacent existing structures, etc. Unless otherwise specified on the plans, no payment will be made for removal, replacement or relocation of curb and gutters, utilities, electric, structures, etc. outside the maximum limits of excavation or shoring and the contractor shall be responsible for protection.
3. If dimension "H" is less than 2', then existing asphalt pavement shall be removed and replaced up to the surface. Minimum depth pay width, B₁ & B₂ shall then be based upon this actual width.

STREET WIDTH	ASPHALT BASE COURSE (A)	ASPHALTIC WEARING SURFACE (C)	TOTAL THICKNESS (C)
UP TO 36'	4"	2"	6"
36' TO 44'	4"	3"	7"
44' TO 48'	5"	3"	8"
WIDER THAN 48'	6"	3"	9"

PARKER WATER & SANITATION DISTRICT
SEWER TRENCHING AND BEDDING DETAIL

SCALE: NONE DATE: 2/96
APPROVED: PVR 1/16 10/16
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2016 REVISION SHEET 54.1

SADDLE CONNECTION

NOTE:
1. SADDLE FITTINGS TO BE PER ASTM D3034.
2. CONNECTION SHALL BE Y - SADDLE WITH TWO BONDS

PARKER WATER & SANITATION DISTRICT
P.V.C. SADDLE CONNECTION DETAIL

SCALE: NONE DATE: 2/96
APPROVED: PVR 1/16 10/16
DIRECTOR OF ENGINEERING

2016 REVISION SHEET 54.14

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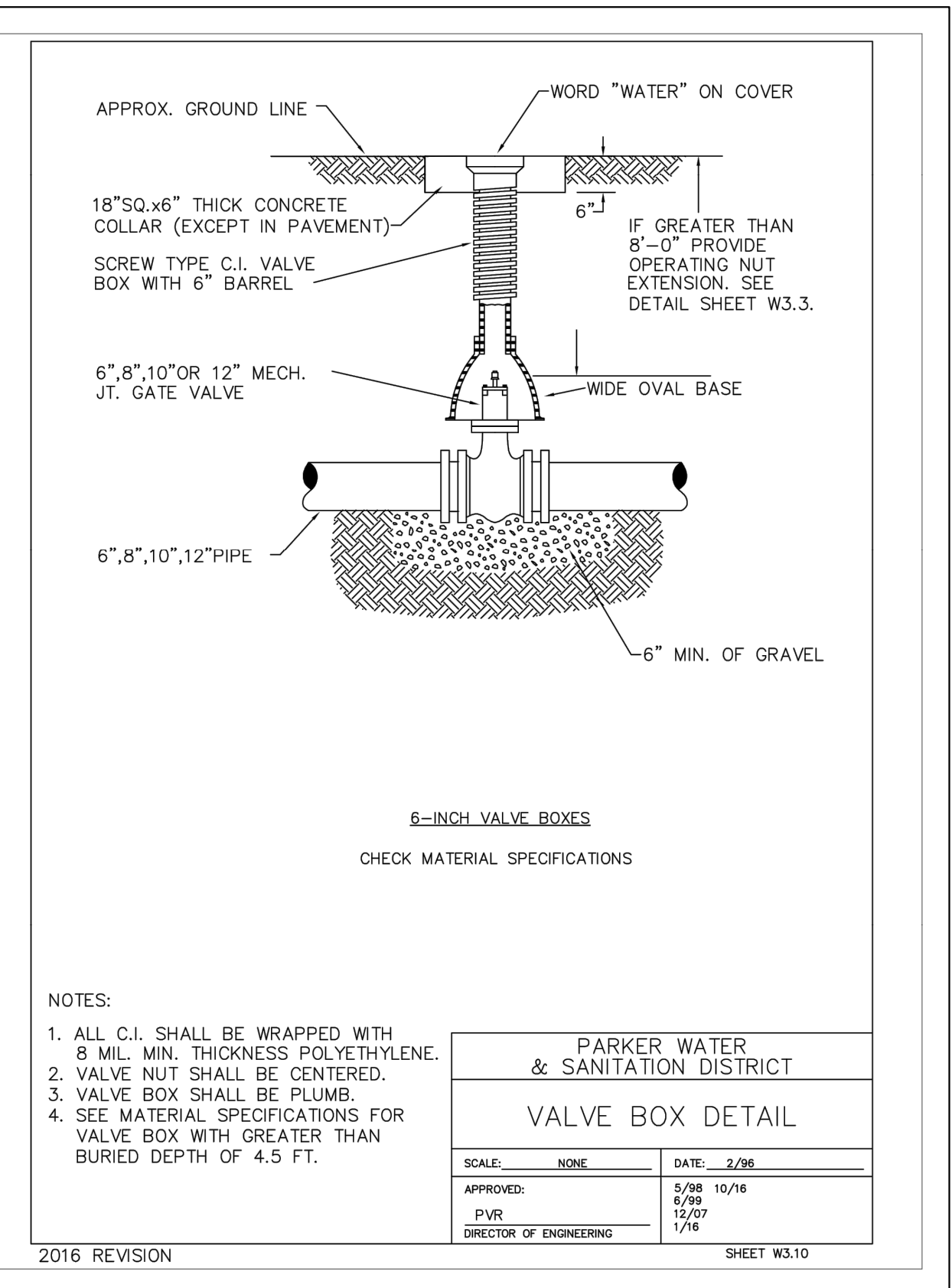
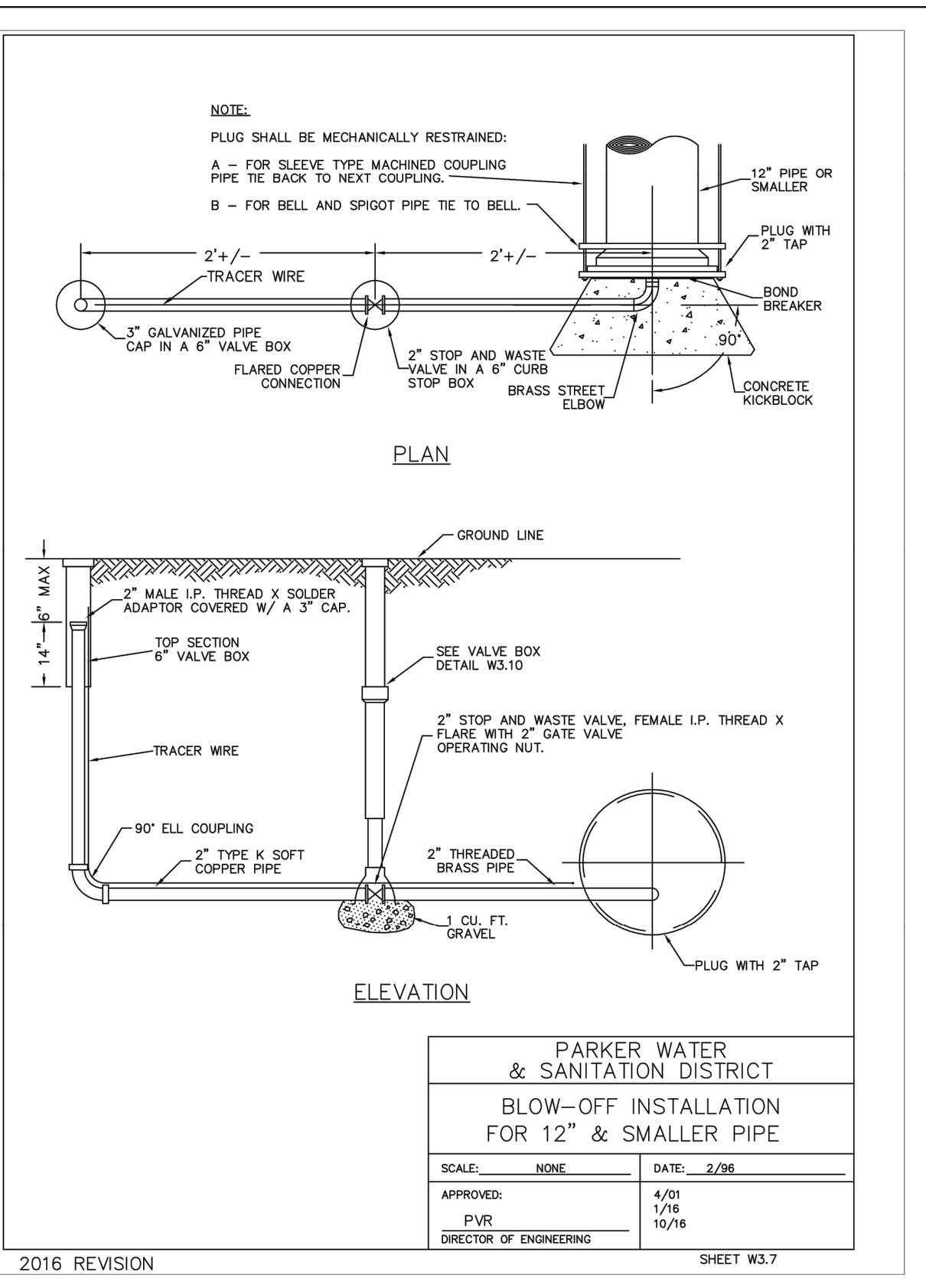
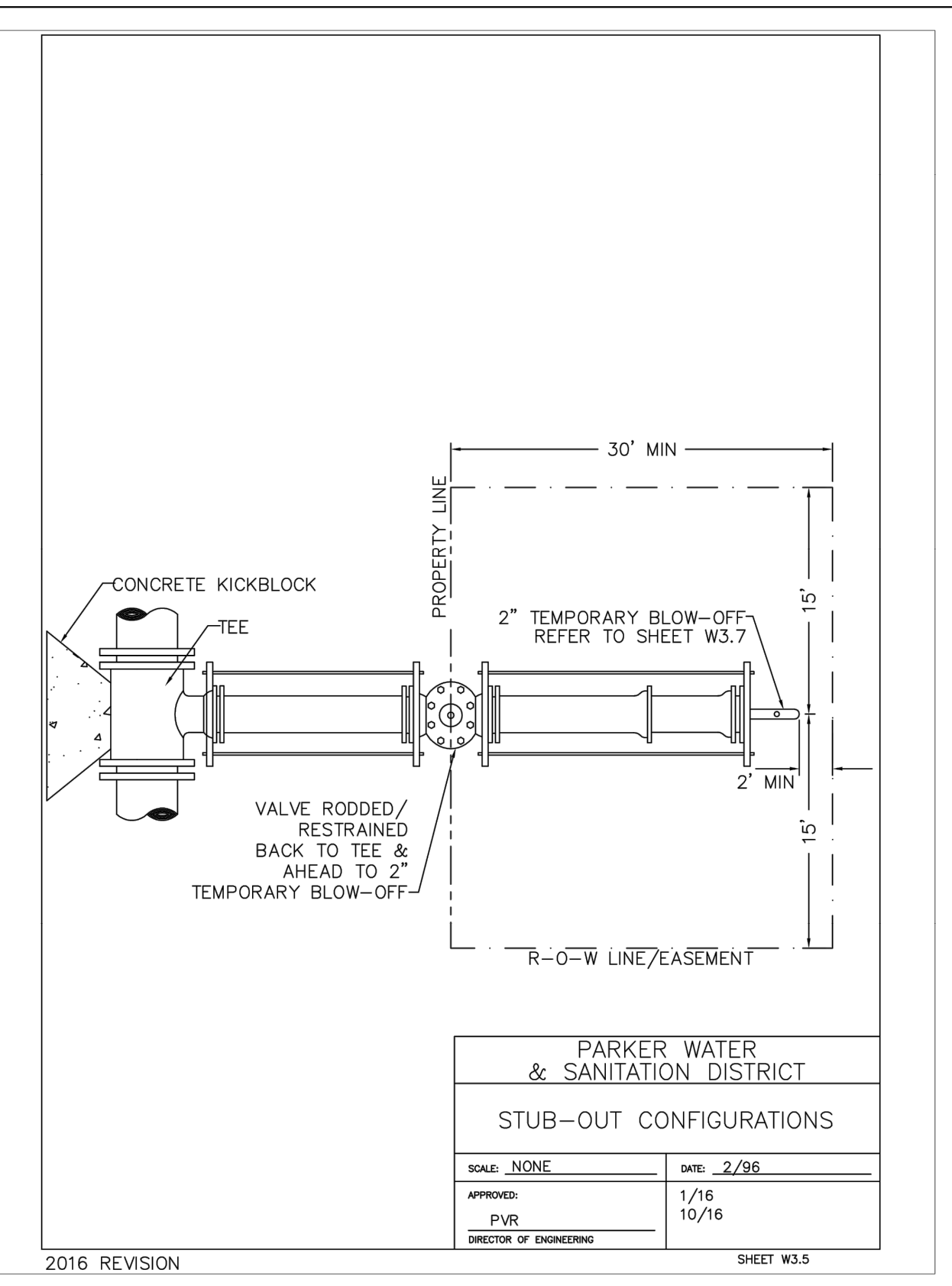
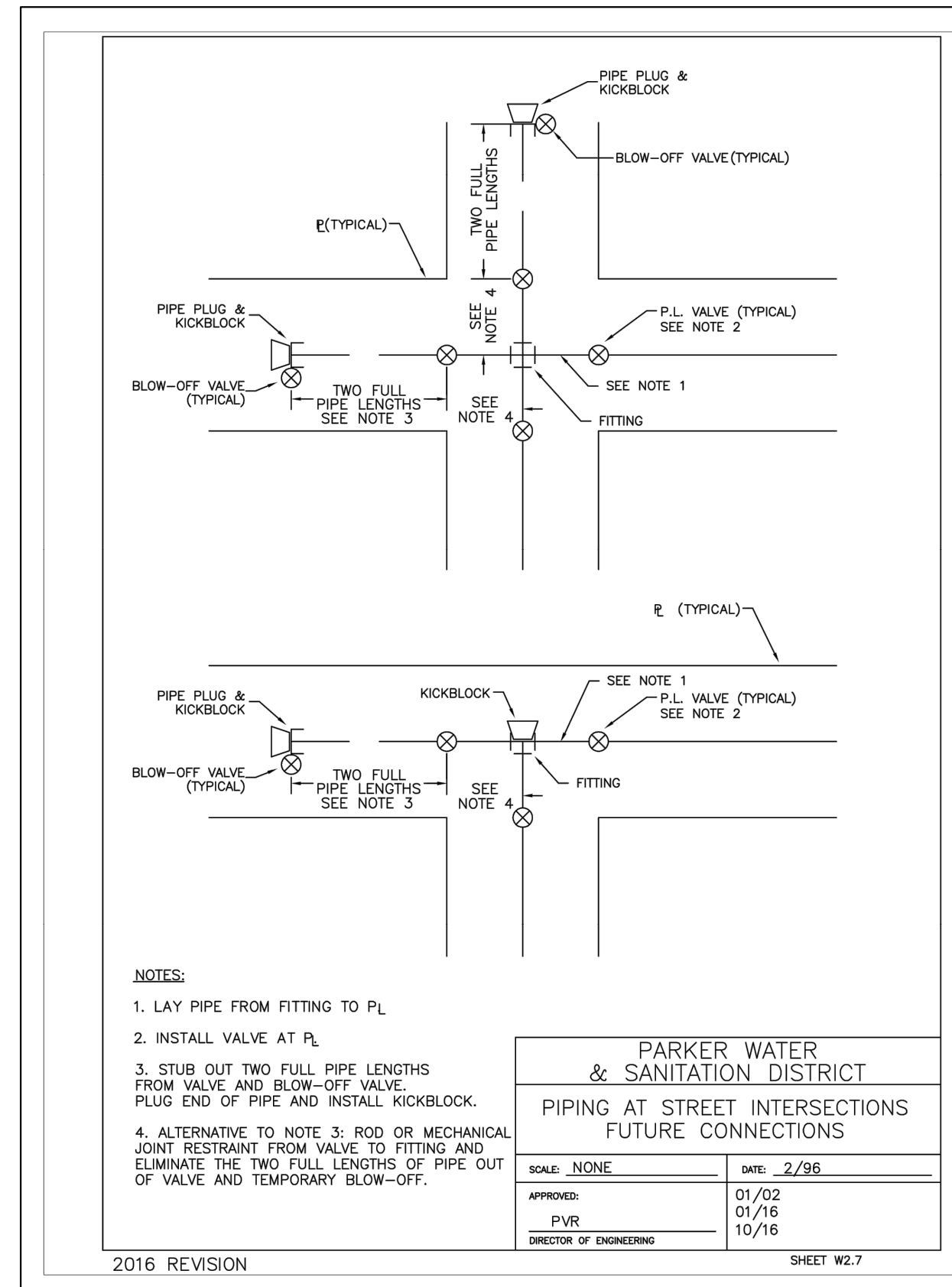
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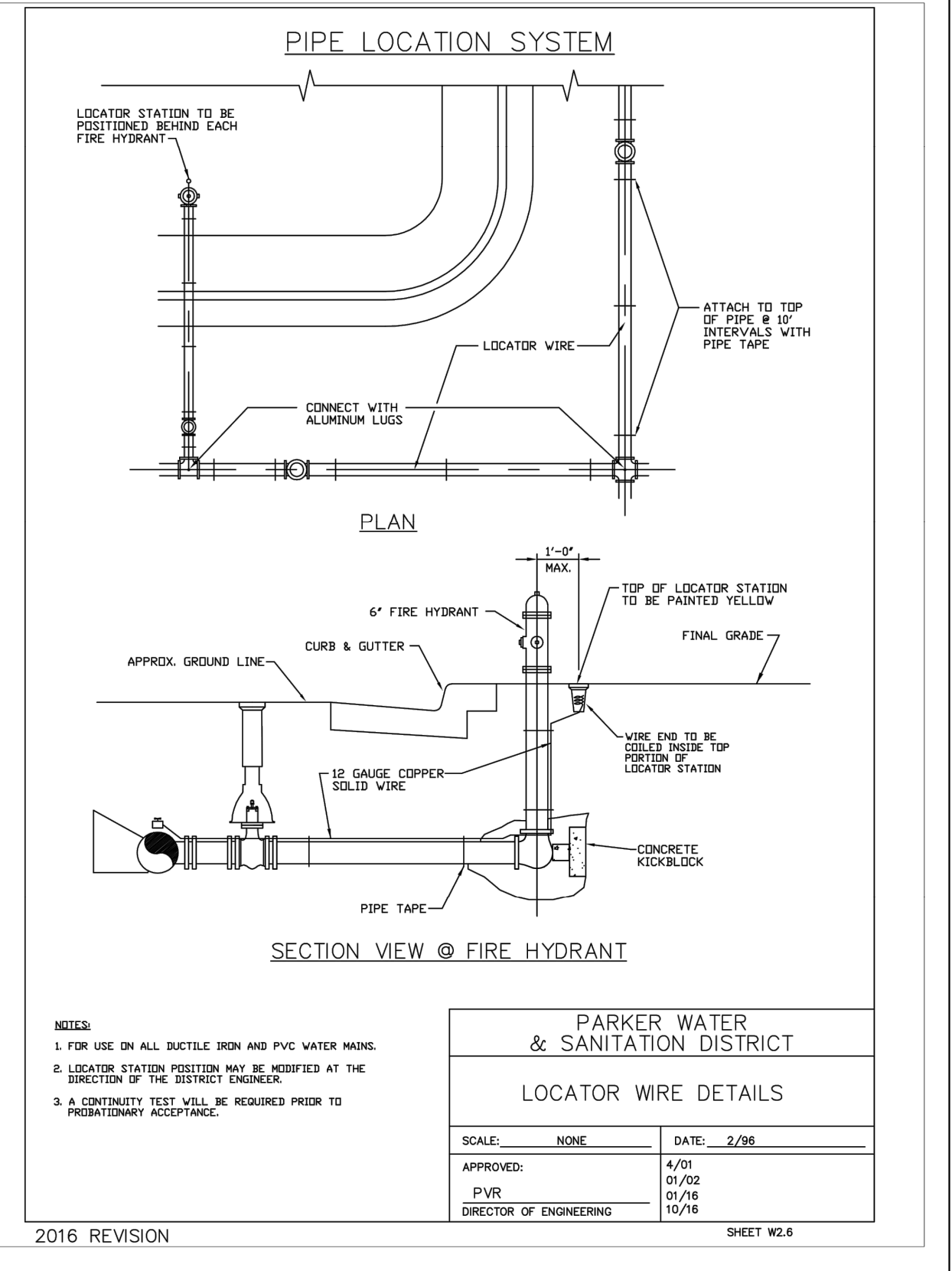
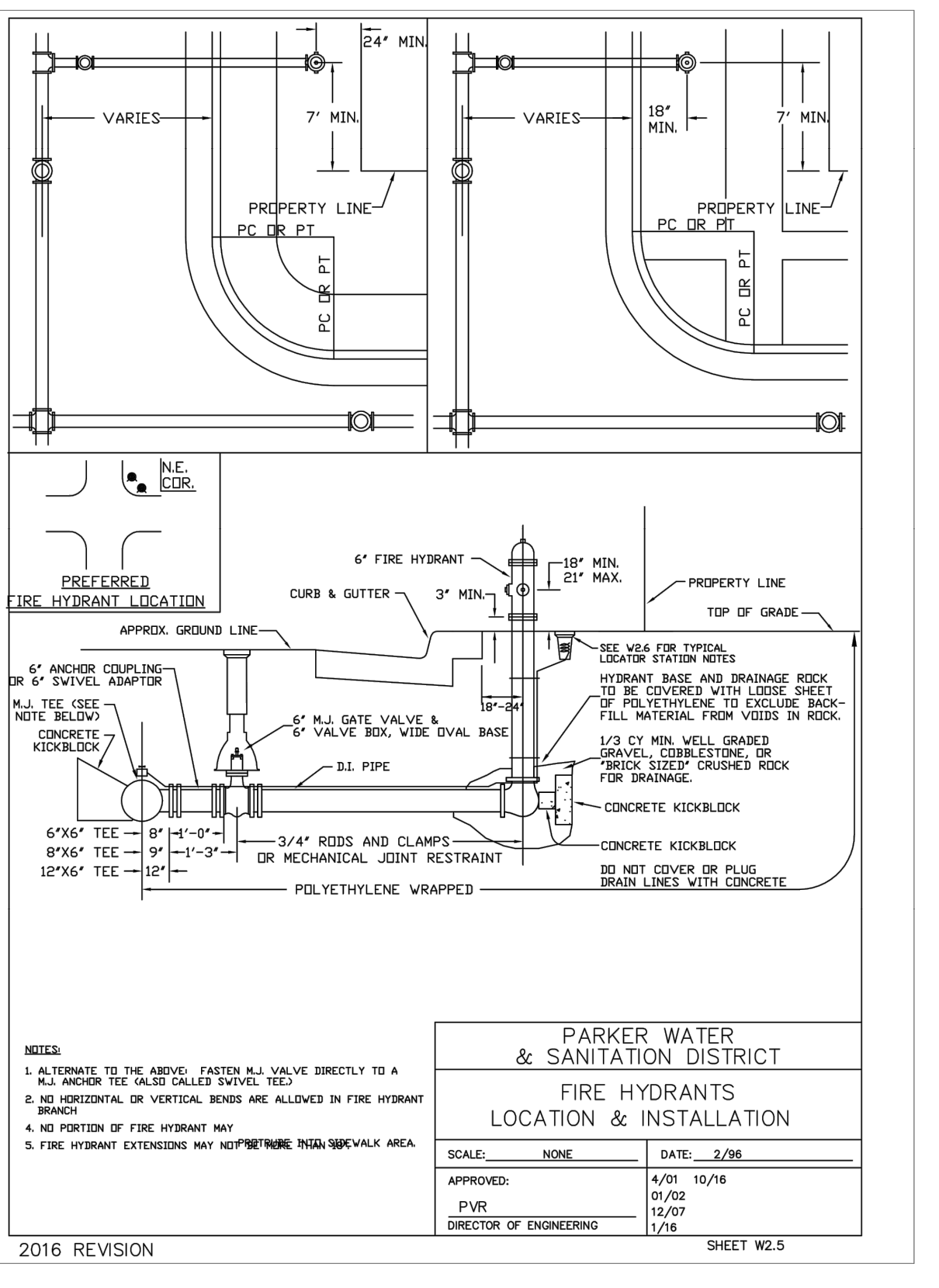
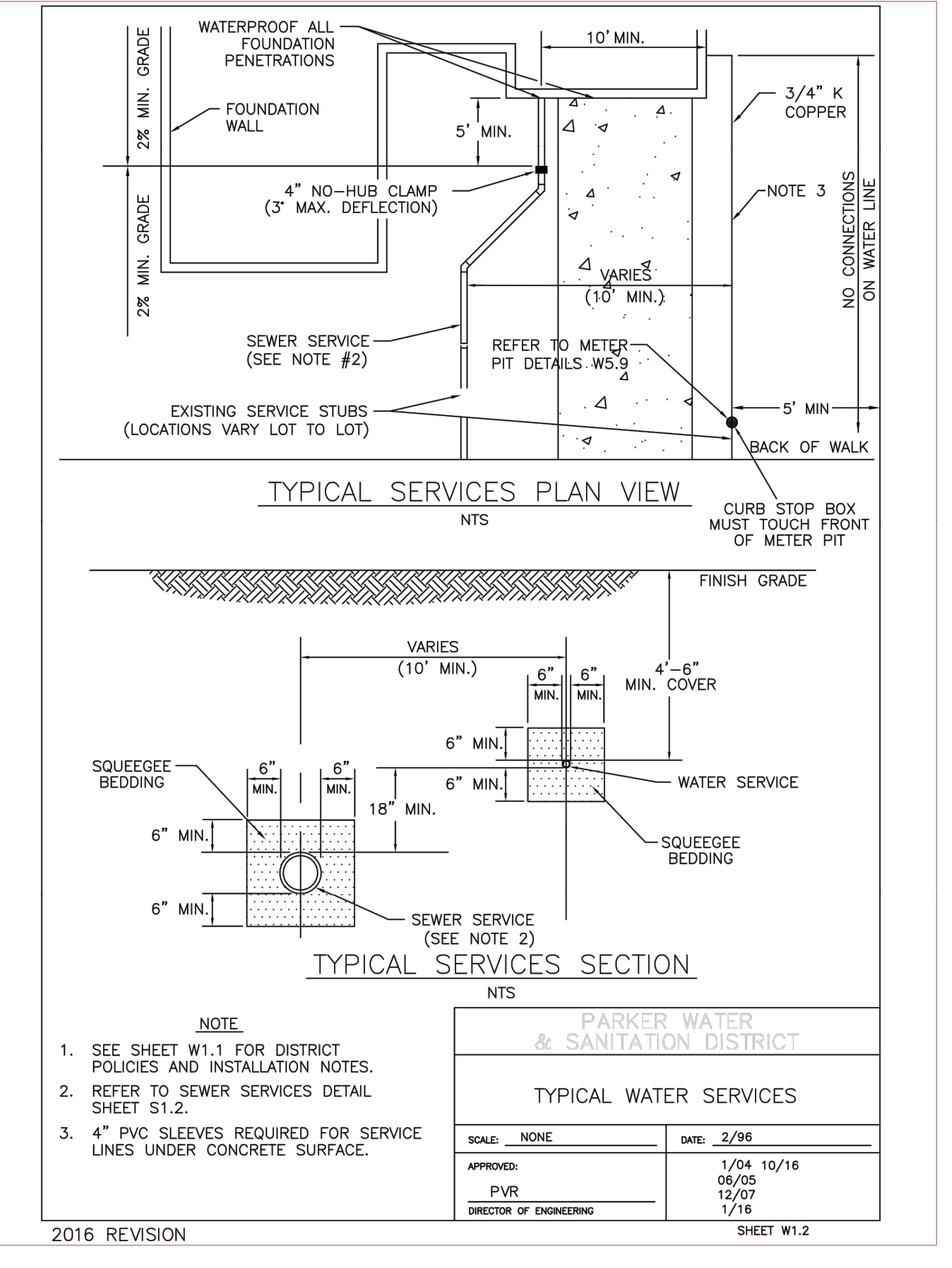


INSPECTION POLICY:
 1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
 2. SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
 3. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE OR SERVICE FAILS, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE AND A RE-INSPECTION FEE CHARGED.
 4. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
 5. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
 6. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
 7. LOTS WITHOUT BUILDING ADDRESSES BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
 8. CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION, UNLESS COORDINATED WITH DISTRICT INSPECTOR.

INSTALLATION NOTES:
WATER
 1. ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING, (3/4" MIN.)
 2. APPROVED BEDDING TO BE SQUEEGEE.
 3. ONLY ONE COUPLING WILL BE ALLOWED BETWEEN THE STUB-IN AND BUILDING. COMPRESSION COUPLINGS WILL NOT BE ALLOWED ON NEW CONSTRUCTION. SILVER SOLDERED JOINTS MUST BE USED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWSO PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.
 4. A WATER SERVICE WHICH CROSSES A SEWER SERVICE CAN DO SO ONLY AT A 45-90° ANGLE. WATER SERVICES SHALL BE LOCATED A MINIMUM OF 18" ABOVE SEWER SERVICE.
 5. WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD. CRAWL SPACE REQUIRES CONTINUOUS COVER WITH A 1" BURY.
 6. CURB STOP MUST BE PLUMB AND CENTERED OVER THE NUT. IT SHOULD BE STRAPPED TO THE METER PIT (RESIDENTIAL INSTALLATIONS) OR CENTERED OVER THE EASEMENT LINE (COMMERCIAL INSTALLATIONS). THE ASSEMBLY MUST BE AT OR SLIGHTLY ABOVE FINISHED GRADE.
 7. MOVED CURB BOXES MUST BE INSPECTED BY PWSO PRIOR TO BURIAL.
 8. WATERLINE MUST BE ATTACHED TO A SUPPORT BOARD THAT IS MOUNTED TO THE WALL.
 9. NO VOIDS ALLOWED UNDER WATERLINES FROM STOP BOX TO FOUNDATION.
 10. CURBSTOP BOXES AND METER PITS CANNOT BE IN DRIVEWAYS.
 11. ONLY 3/4" (JUMPER) PIPES (RESIDENCES) ARE ALLOWED. (JUMPER) PIPES WILL BE REMOVED PRIOR TO METER SET DATE.
 12. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
 "X" FOR SANITARY SEWER SERVICE
 "W" FOR WATER SERVICES
 13. NO SPLICES OR FLARED COUPLINGS ALLOWED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE USED IN MOVING STOPBOXES ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWSO PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.

**PARKER WATER & SANITATION DISTRICT
 DISTRICT POLICIES & INSTALLATION
 NOTES FOR WATER SERVICES**
 SCALE: NONE DATE: 2/96
 APPROVED: 1/04 1/16
 PVR 12/07
 DIRECTOR OF ENGINEERING

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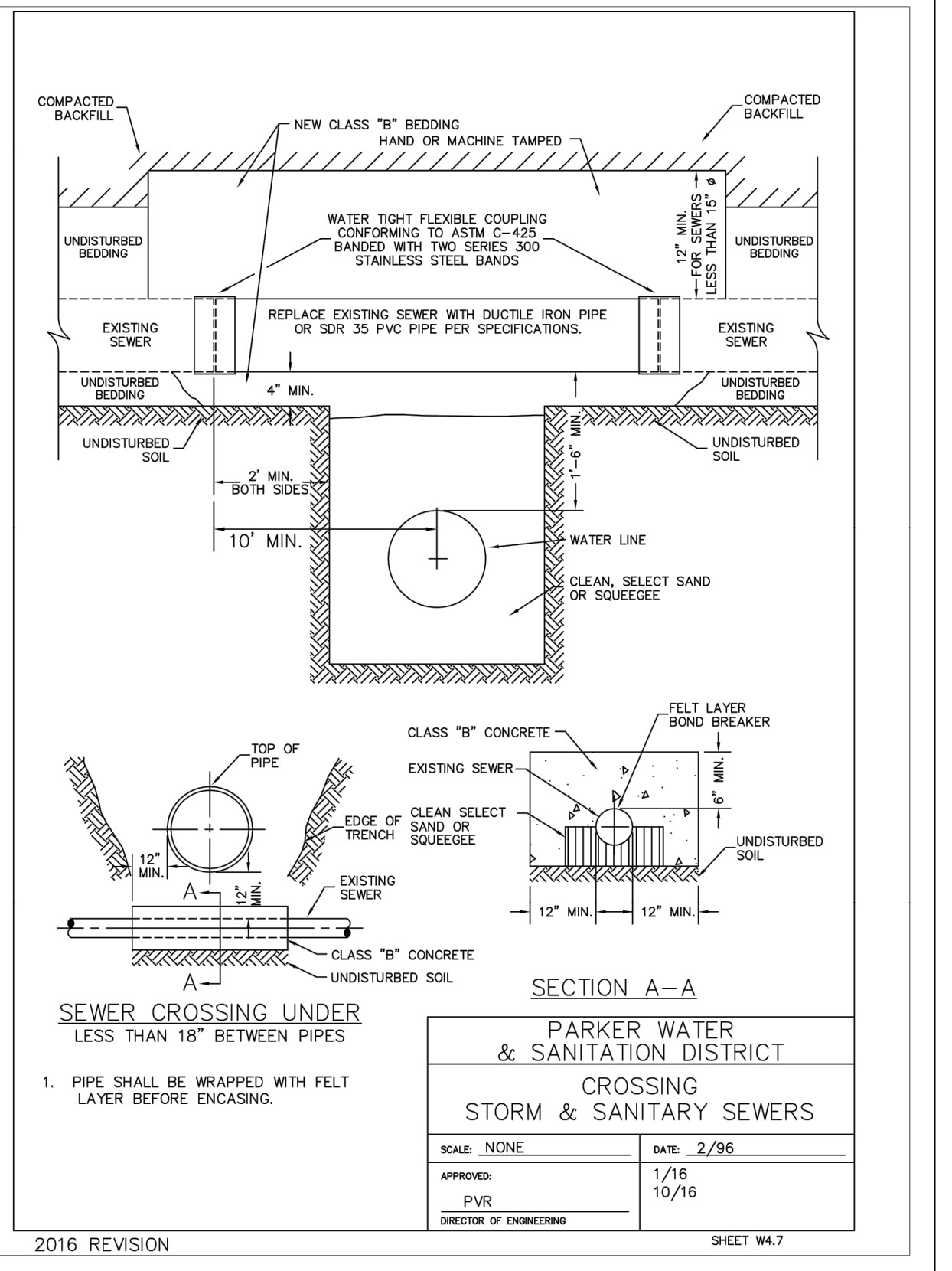
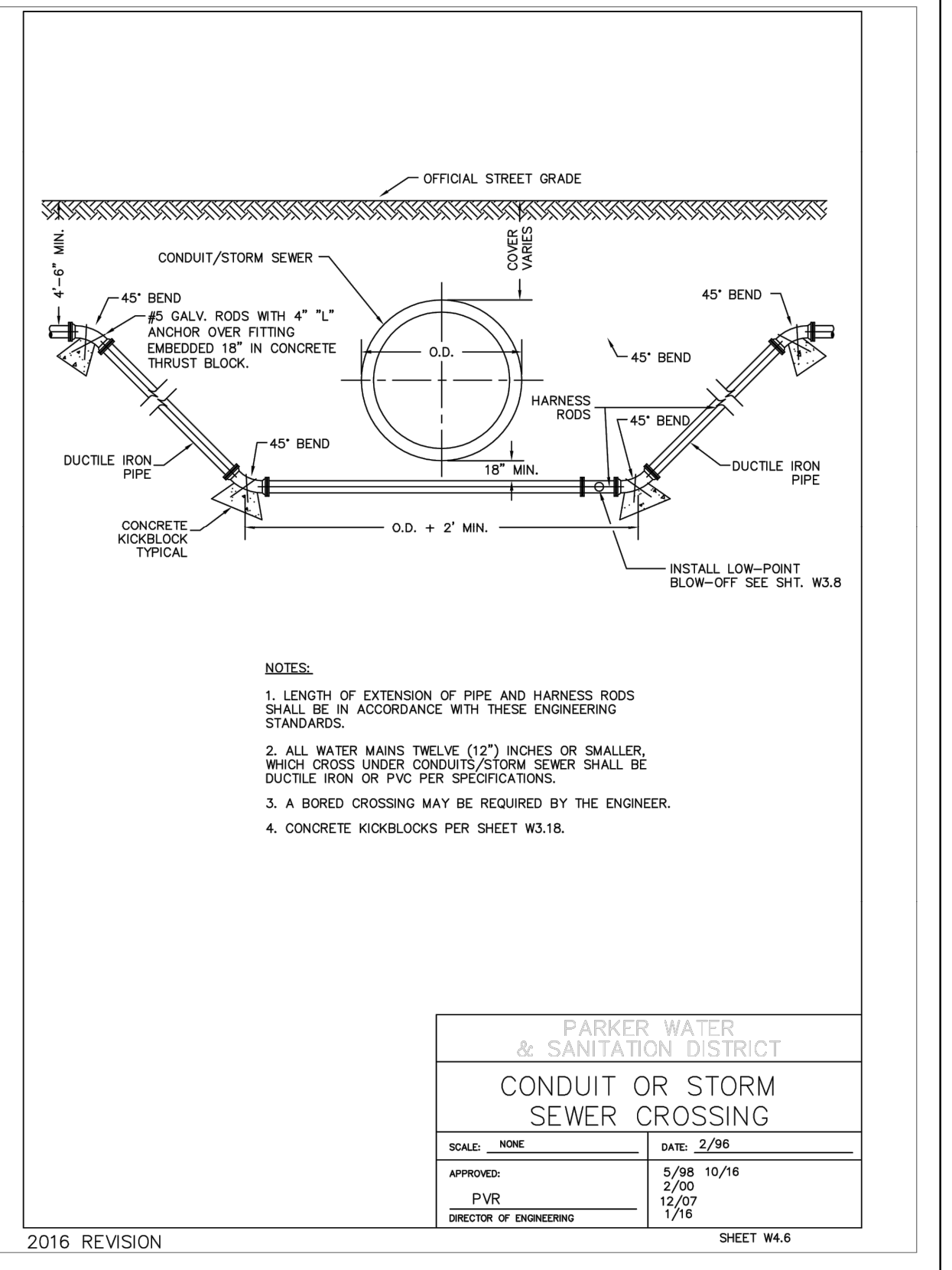
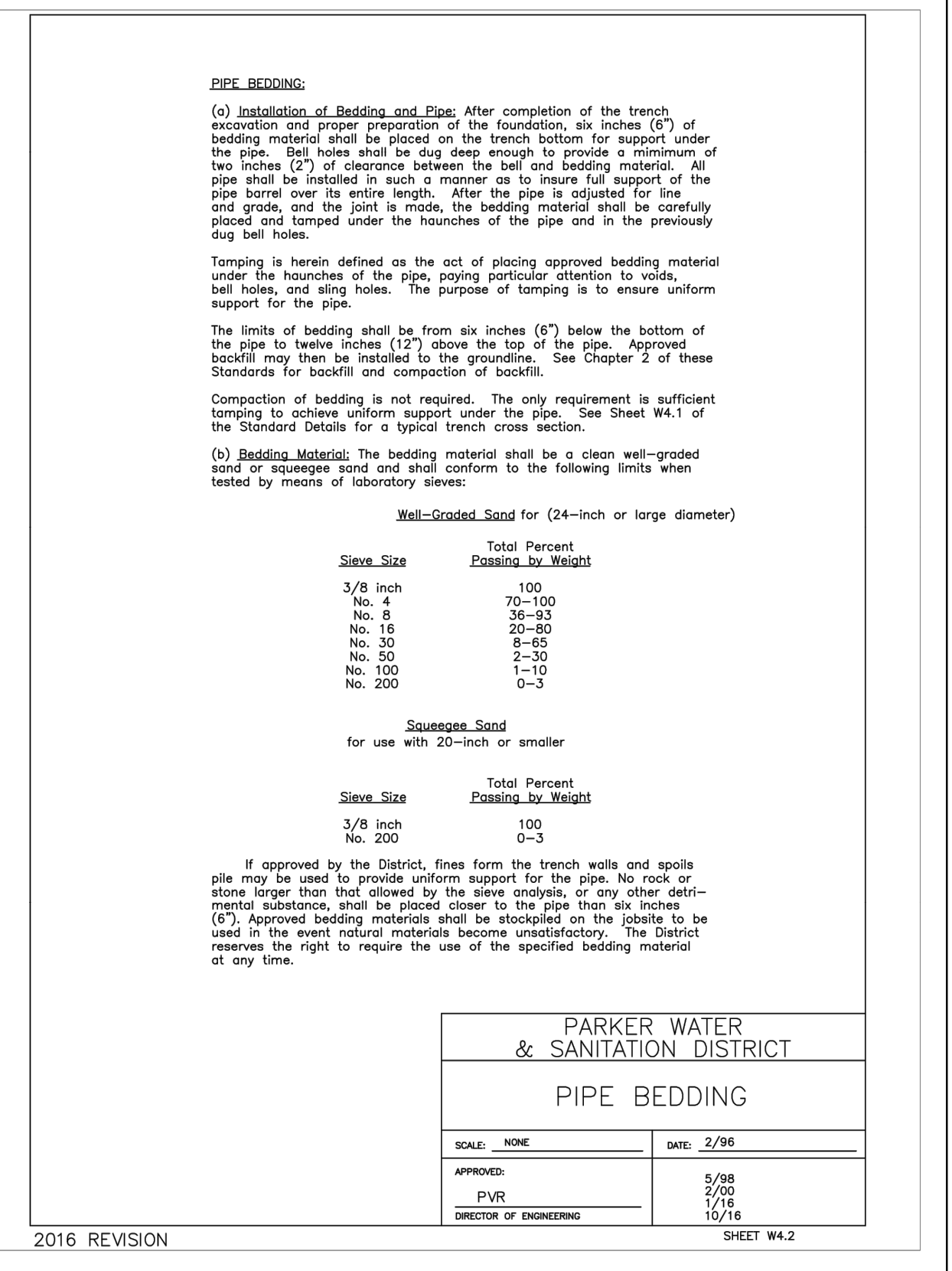
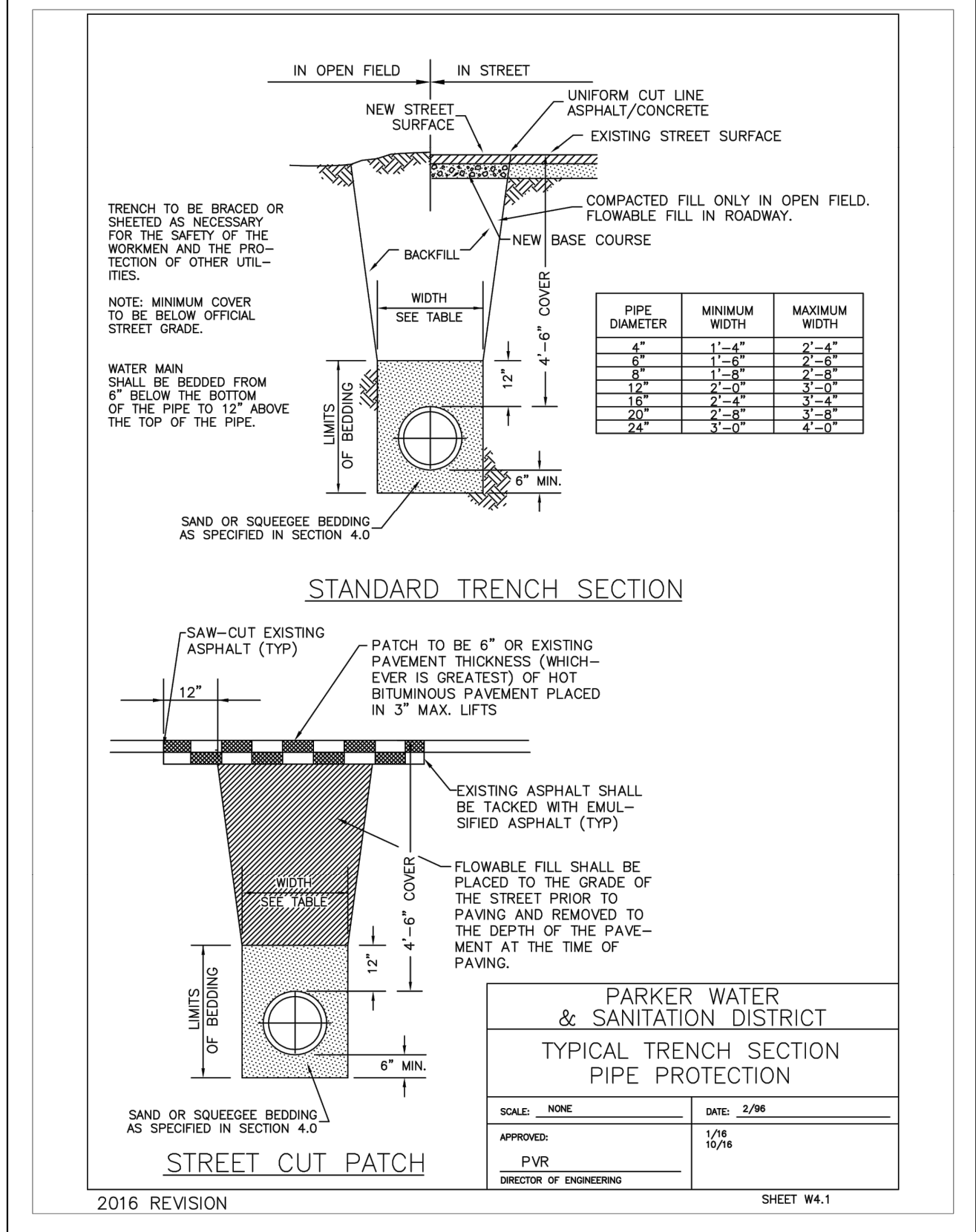
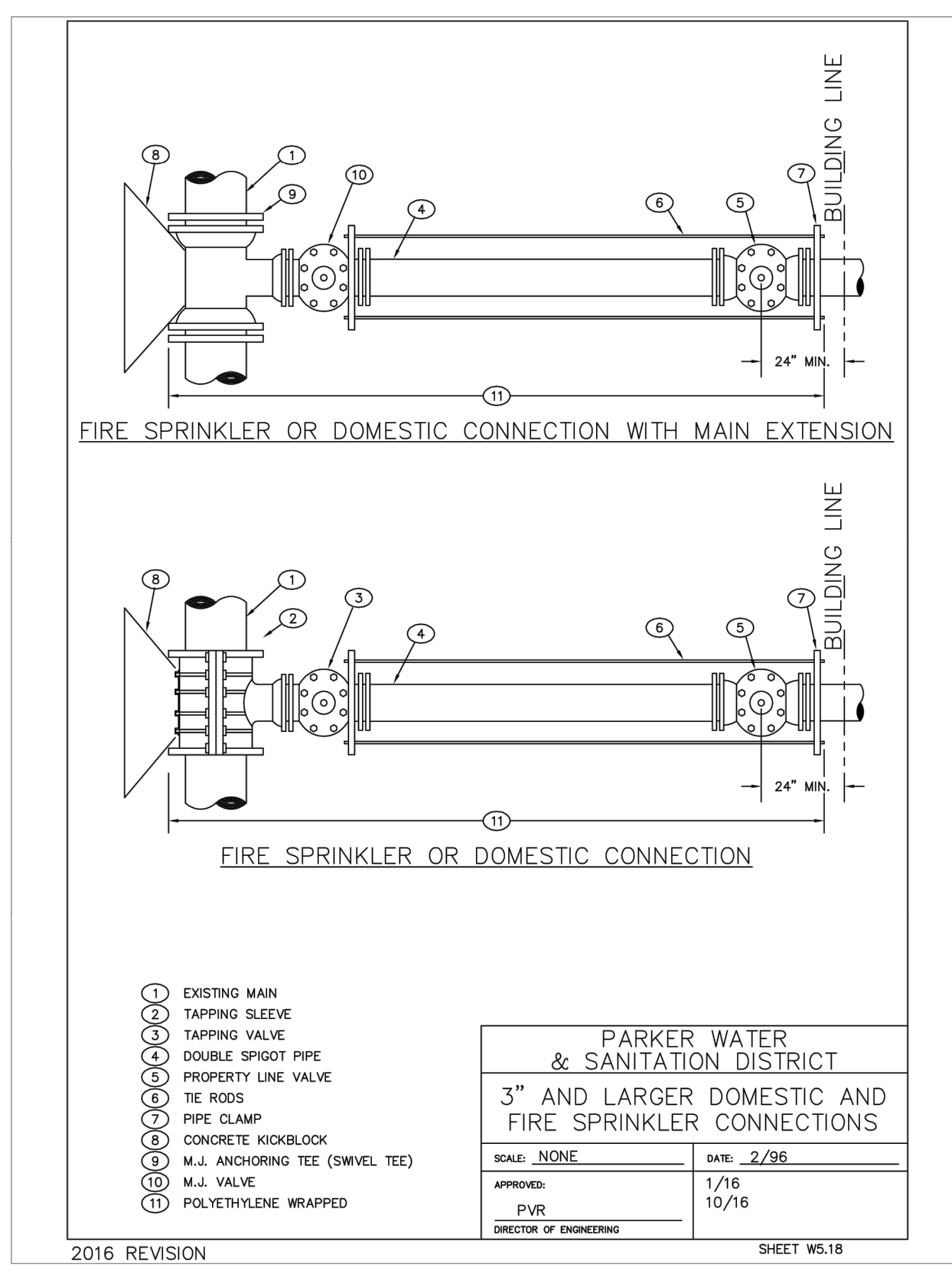
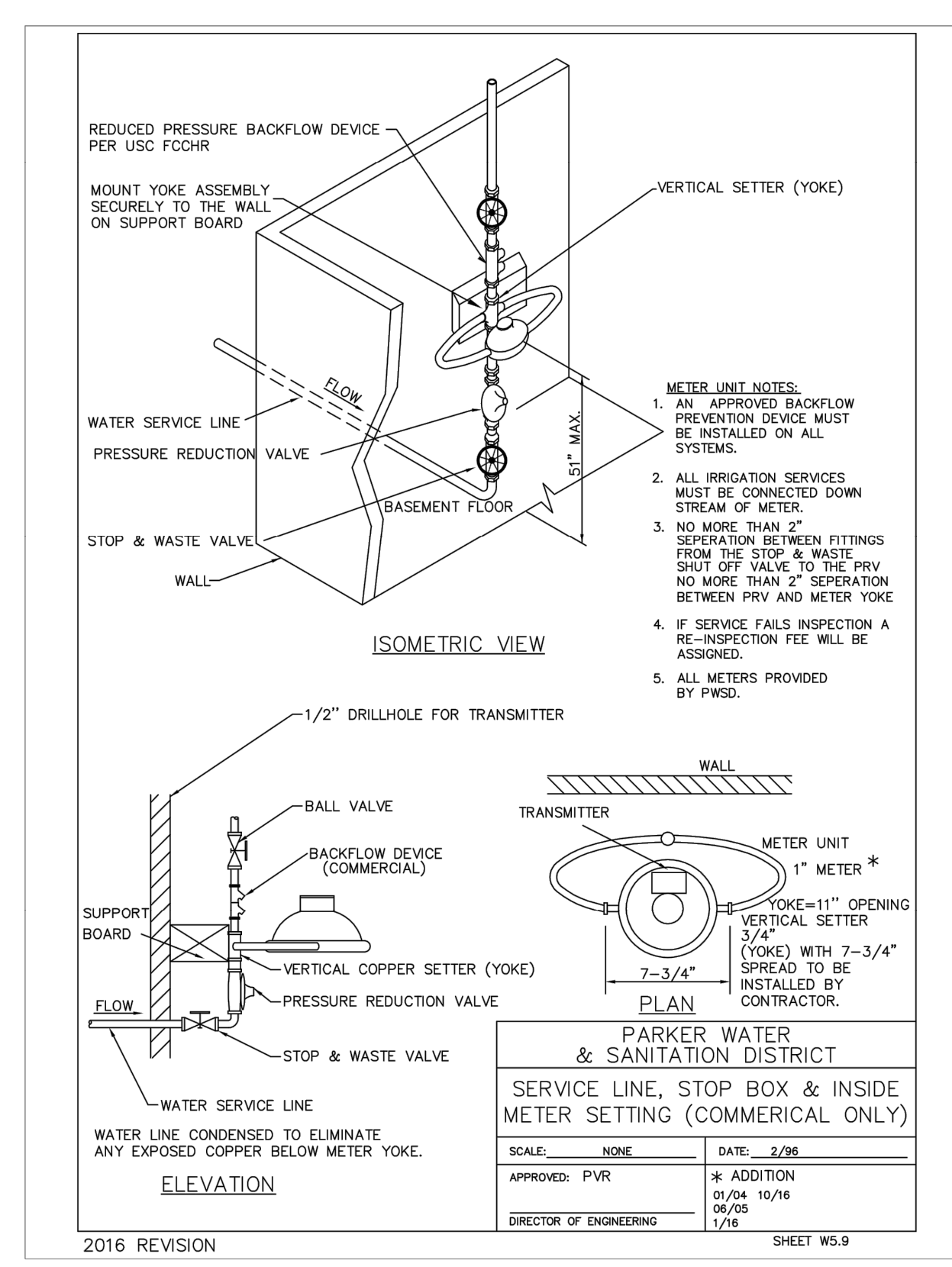
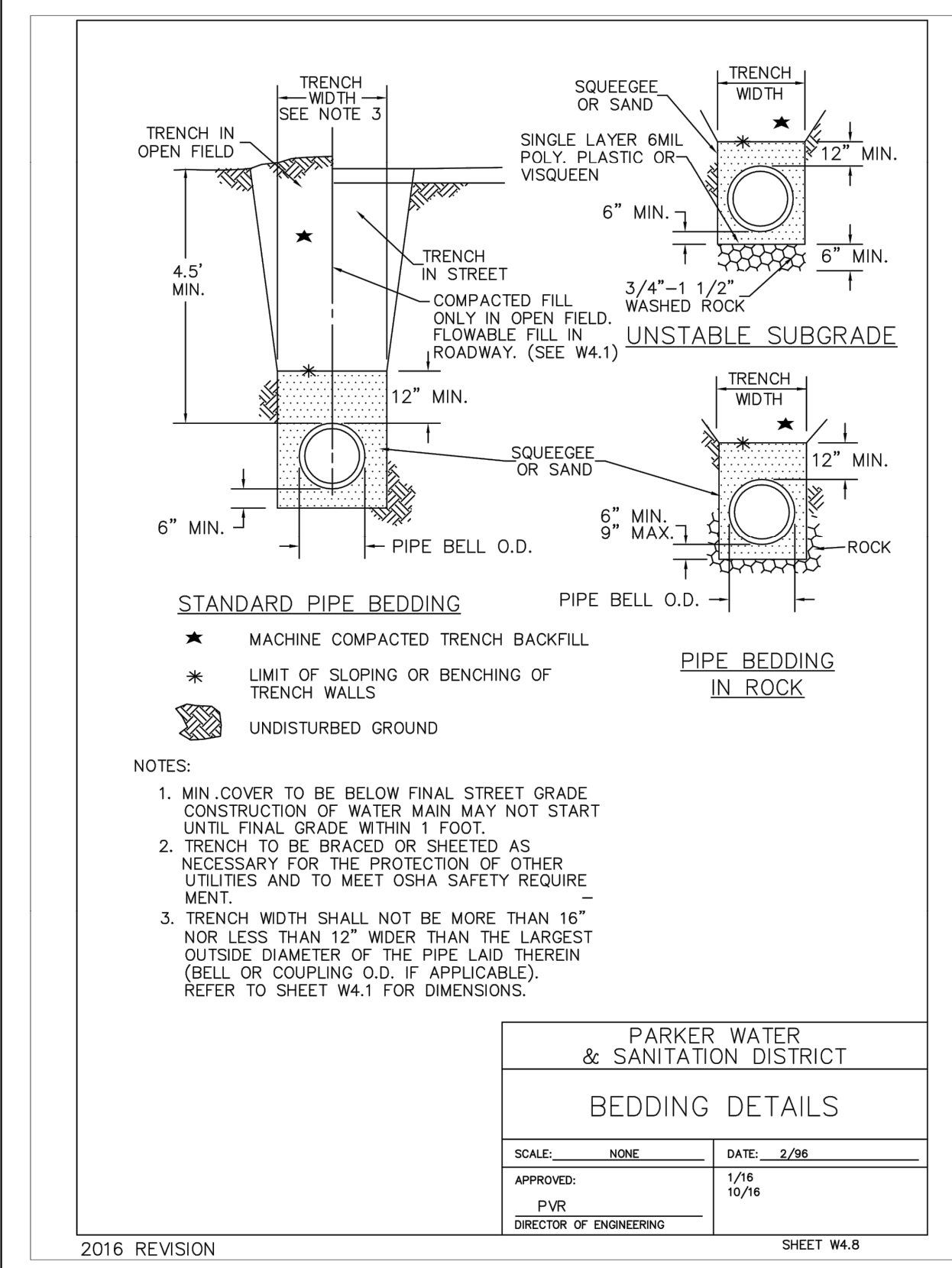
DESIGNED BY: DLS
 DRAWN BY: ECZ
 CHECKED BY: DLS
 DATE: 03/11/20

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