

PARKER AND PINE FILING NO. 2 LOTS 1-3 PARKER WATER AND SANITATION DISTRICT

MULTI-FAMILY UTILITY PLANS

LOTS 1-3 AND TRACTS A-C, PARKER AND PINE FILING NO. 2
SITUATED IN THE SE 1/4 OF SECTION 9 AND THE SW 1/4 OF
SECTION 10, T.6S., R.66W. OF THE 6TH P.M.
TOWN OF PARKER, COUNTY OF DOUGLAS,
STATE OF COLORADO

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ENGINEERING SERVICE COMPANY
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CONTACT: DRAYTON SANDERSON

ELECTRICAL SERVICE:
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5496 US HWY 85
SEDALIA, CO 80135
TEL: (303) 688-7431
CONTACT: AMANDA STEINER

TOWN OF PARKER:
TOWN OF PARKER
20120 EAST MAINSTREET
PARKER, CO 80138-7334
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FIRE DEPARTMENT:
SOUTH METRO FIRE RESCUE AUTHORITY
9195 E. MINERAL AVE.
CENTENNIAL, CO 80112
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CONTACT: CHIP KERKHOVE

TOWN OF PARKER PLAN REVIEW:
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PARKER, CO 80138
TEL: (303) 805-3174
CONTACT: BRYCE MATTHEWS



VICINITY MAP
1"=2,000'

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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 08035C0067G AND DATED MARCH 16, 2016 - SUBJECT PROPERTY IS NOT IN A SPECIAL FLOOD HAZARD AREA.

LEGAL DESCRIPTION

LOTS 1-3 AND TRACTS A-C, PARKER AND PINE FILING NO. 2, SITUATED IN THE SOUTHEAST 1/4 OF SECTION 9 AND THE SOUTHWEST 1/4 OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN, 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 N00°17'51"E AS REFERENCED ON THE PLAT OF PARKER AUTO PLAZA FILING NO. 1 AND BOUND BY THE MONUMENTS SHOWN HEREON.

SUMMARY OF QUANTITIES*

DESCRIPTION	QTY.	UNIT
6" PVC SANITARY SERVICE	388	LF
SANITARY SEWER CLEANOUT	6	EA
1.5" IRRIGATION SERVICE	10	LF
1.5" TYPE K COPPER SERVICE	52	LF
2" TYPE K COPPER SERVICE	119	LF
11.25" BEND	2	EA
90° BEND	1	EA
8" GATE VALVE	1	EA
6" GATE VALVE	3	EA
8"x6" REDUCER	1	EA
8"x6" TEE	2	EA
8"x8" TEE	2	EA
FIRE HYDRANT	2	EA
BLOW OFF VALVE	1	EA
8" PVC WATER MAIN	434	LF
6" DIP FIRE LINE	174	LF
1.5" IRRIGATION METER	1	EA
1.5" INTERIOR DOMESTIC METER	1	EA
2" INTERIOR DOMESTIC METER	3	EA

*QUANTITIES ARE FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO CONSTRUCTION

**4 SANITARY SEWER SERVICES, 4 DOMESTIC METERS, AND 1 IRRIGATION SERVICE PROPOSED.

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: Drayton Sanderson (DISTRICT REPRESENTATIVE)
DATE: 09/01/2021

APPROVED FOR CONSTRUCTION:
PARKER WATER AND SANITATION DISTRICT

BY: Robert Pappalardo (DISTRICT ENGINEER)
DATE: 09/01/2021

FIRE CODE REVIEW BLOCK

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.

BY: Scott L. Lippa 08/11/2021
FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE DATE

(NOTE - UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENT OF NFPA 24 WHEN SUBMITTING FOR REVIEW.)

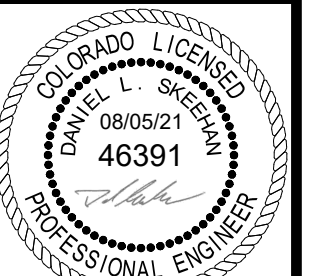
DISTRICT ACCEPTANCE NOTE

- 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 REMEDIED 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.

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: JRK
CHECKED BY: DLS
DATE: 08/05/21

PARKER AND PINE FILING NO. 2 LOTS 1-3
PARKER, CO
MULTI-FAMILY CONSTRUCTION DOCUMENTS
COVER SHEET



PROJECT NO.
096481002

DRAWING NAME
096481002CV-UT

C7.0



\\s:\projects\2021\09\096481002 - Parker & Pine ME\CD\Drawings\Sheet\096481002CV-UT.dwg, Sheet out: Date: 10/16/2021 10:57 AM
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PARKER WATER AND SANITATION GENERAL NOTES

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSO ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
- THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE TOWN OF PARKER, DOUGLAS COUNTY AND OTHER NEIGHBORING CITIES AND TOWNS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER THE CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS CONTACT THE PWSO IMMEDIATELY.
- PWSO ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
- ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000-POUND COMPRESSION STRENGTH.
- THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF "AS-BUILT" DRAWINGS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL BY DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE PRINTS SHALL BE TRANSMITTED TO THE PWSO OFFICE.
- NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. COMPACTION TESTS MUST BE SUBMITTED TO DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND DEPTHS) FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
- SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS ONE FOOT OF FINISHED GRADE AND VERIFICATION OF COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES. RESULTS MUST BE SUBMITTED TO THE DISTRICT ENGINEER.
- ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
 "X" FOR SANITARY SERVICE SEWERS
 "V" FOR WATER SERVICES
- NO TREES ALLOWED IN EASEMENTS OR WITHIN 8' OF WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSO AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSO 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 MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSO ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
- ALL SEWER MAINS SHALL BE PVC, ASTM D-3034, SDR 35 OR APPROVED EQUAL. ALL SEWER MAIN SIZE IS 8" IN DIAMETER UNLESS OTHERWISE NOTED.
- SEWER LINES SHALL BE INSTALLED 5.0 FEET SOUTH OR WEST OF STREET CENTERLINE, UNLESS OTHERWISE SHOWN ON PLANS. SEWER LINES SHALL BE 10.00 FEET FROM WATER LINES EXCEPT WHEN CROSSING EACH OTHER. SEWER LINES WHICH CROSS LESS THAN 1.50 FEET VERTICALLY FROM THE WATER MAIN SHALL BE ENCASED IN CONCRETE AS PER PWSO 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 TEES. SEWER WYES SHALL BE USED RATHER THAN TEES.
- ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE UNLESS OTHERWISE SPECIFIED. ALL MANHOLES SHALL HAVE SHAPED INVERTS.
- PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVES OF THE OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER TO SCHEDULE THIS MEETING.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSO AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSO SPECIFICATION MANUAL.
- ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PWSO STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
- PRIOR TO STARTING WORK WHERE SEWER MAIN IS TO BE CONNECTED TO EXISTING PWSO SEWER SYSTEMS, THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL PROBATIONARY ACCEPTANCE BY PWSO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN INSTRUCTED BY THE DISTRICT.
- PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CONTRACTOR SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.

WATER MAIN NOTES

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSO ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- ALL WATER MAINS SHALL BE PER PWSO MATERIALS SPECIFICATIONS. ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL BE SUITABLE FOR CHLORINATED AND CHLORAMINATED WATER.
- ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED PER 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 PER PWSO SPECIFICATIONS.
- ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST WITH CONCRETE THRUST BLOCKS.
- PRECAUTIONS SHALL BE TAKEN TO PROTECT THE INTERIOR OF PIPES, FITTINGS, AND VALVES AGAINST CONTAMINATION. ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH WATERTIGHT PLUGS WHEN PIPE LAYING IS STOPPED AT THE CLOSE OF THE DAY'S WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MEAL PERIODS.
- VALVES IN STREETS ARE TO BE LOCATED AT PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES; WHERE AN ADDITIONAL VALVE SHALL BE PLACED ON THE TAPPING TEE. OTHER LOCATIONS SHOWN ON THE PLANS.
- WHEN NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSING, A MINIMUM CLEARANCE OF 1.5 FEET SHALL BE MAINTAINED BETWEEN OUTSIDE OF PIPES.
- THE CONTRACTOR SHALL NOTIFY THE PWSO 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 PWSO 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.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR, DESIGN ENGINEER, AND REPRESENTATIVE OF OTHER APPROVING AGENCIES.
- CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PWSO SPECIFICATIONS. CHLORINATION OF FINISHED PIPELINE COMPLETED BEFORE HYDROSTATIC TESTING.
- HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PWSO SPECIFICATIONS UP TO MINIMUM OF 150 PSI IN THE PRESENCE OF A PWSO INSPECTOR/ENGINEER.

APPROVED
 Sep 01 2021
**PARKER WATER AND
 SANITATION DISTRICT**

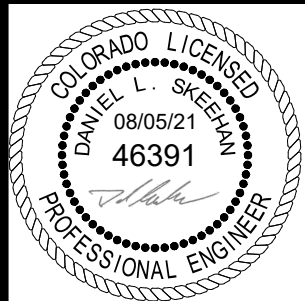


NO.	REVISION	BY	DATE

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

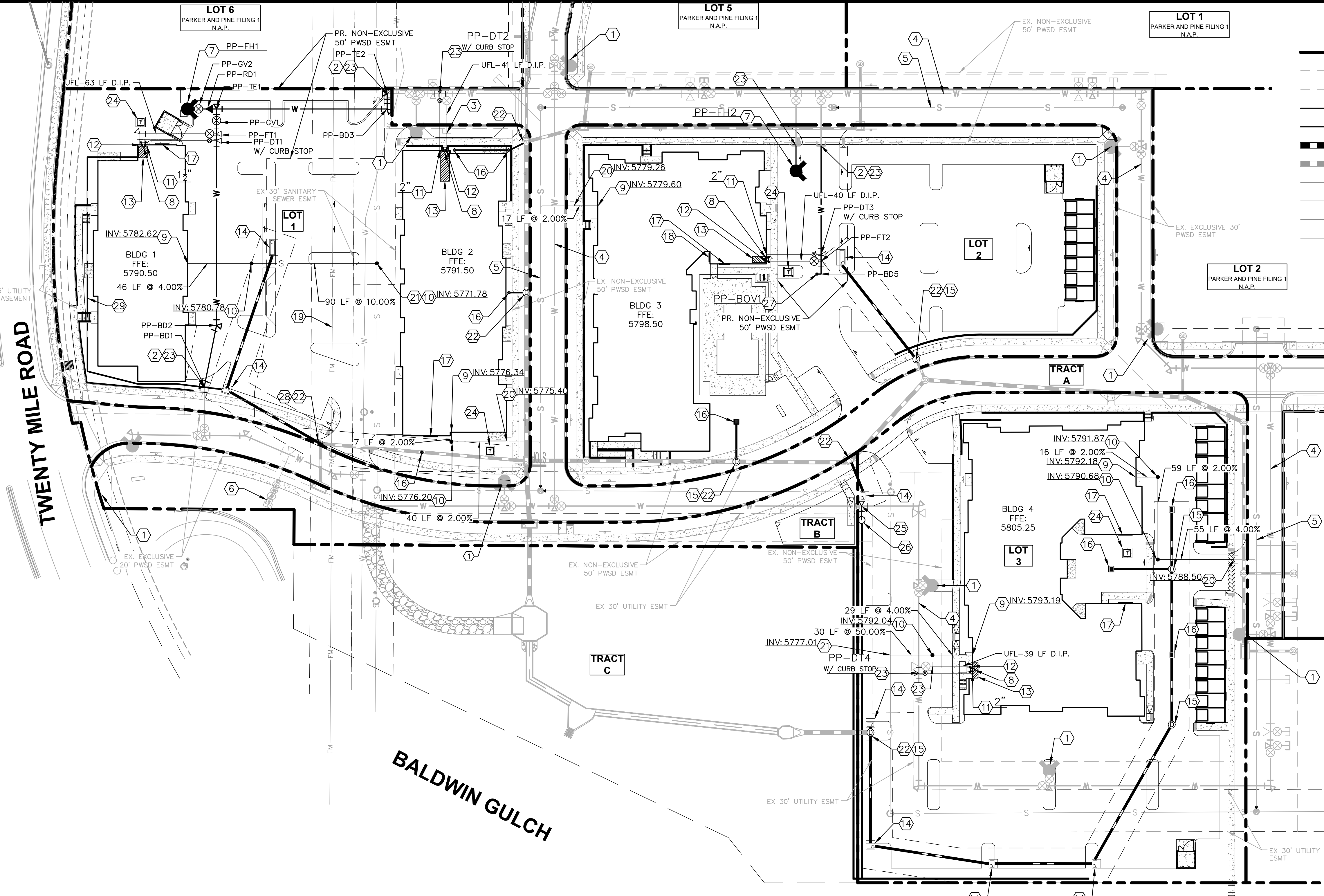
DESIGNED BY: DLS
 DRAWN BY: JRK
 CHECKED BY: DLS
 DATE: 08/05/21

PARKER AND PINE FILING NO. 2 LOTS 1-3
 PARKER, CO
 MULTI-FAMILY CONSTRUCTION DOCUMENTS
 WATER AND SANITARY SEWER NOTES



PROJECT NO.
 096481002
 DRAWING NAME
 096481002CV_LIT
C7.1

\\msk-horn\acct\m\dev\1\dev\CD\1\096481002 - Parker & Pine ME/CADD/Pls/Specs/1-3\LOT 1-3\Site Plan\Overall Utility Plan.dwg - Sheet 01 of 01 10/16/2019 10:57 AM
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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
	EXISTING ELECTRIC LINE
	PROPOSED FIRE HYDRANT W/ BOLLARDS
	PROPOSED WATER VALVE
	PROPOSED TEE / BEND
	EXISTING SANITARY SEWER MANHOLE

- ### SITE KEYNOTES
- 1 EXISTING FIRE HYDRANT
 - 2 EXISTING 8" STUB W/TEMP BLOW-OFF
 - 3 EXISTING 6" FIRE SERVICE W/TEMP BLOW-OFF
 - 4 EXISTING 8" WATER MAIN
 - 5 EXISTING 8" SEWER MAIN
 - 6 EXISTING 1.5" IRRIGATION METER
 - 7 PROPOSED FIRE HYDRANT WITH 6" GATE VALVE (D.I.P.)
 - 8 PROPOSED FIRE DEPARTMENT CONNECTION (FDC)
 - 9 PROPOSED 6" SANITARY SEWER BUILDING POINT OF CONNECTION (P.O.C.)
 - 10 PROPOSED SANITARY SEWER CLEANOUT
 - 11 PROPOSED DOMESTIC WATER SERVICE BUILDING P.O.C. WATER METER/TAP SIZE PER PLAN
 - 12 PROPOSED 6" FIRE SERVICE BUILDING P.O.C.
 - 13 PROPOSED FIRE RISER ROOM
 - 14 PROPOSED CURB INLET
 - 15 PROPOSED STORM MANHOLE
 - 16 PROPOSED AREA INLET
 - 17 PROPOSED BUILDING ELECTRIC METER LOCATION
 - 18 PROPOSED BUILDING GAS METER LOCATION
 - 19 EXISTING PWS 8" FORCE MAIN
 - 20 CONNECT TO EXISTING SANITARY SEWER STUB
 - 21 CONNECT TO EXISTING SANITARY SEWER MAIN PER PWS STANDARDS.
 - 22 TIE INTO EXISTING STORM SEWER SYSTEM
 - 23 CONNECT TO EXISTING WATER MAIN PER PWS STANDARDS
 - 24 PROPOSED TRANSFORMER LOCATION
 - 25 PROPOSED 1.5" IRRIGATION TAP
 - 26 PROPOSED IRRIGATION METER PIT
 - 27 PROPOSED WATER MAIN BLOW OFF VALVE PER PWS STANDARDS
 - 28 PROPOSED VALLEY GUTTER INLET
 - 29 PROPOSED ROOF DRAIN

NOTES

1. ALL FIRE HYDRANT AND UNDERGROUND FIRE LINES ARE TO BE DUCTILE IRON PIPE PER PWS SPECIFICATIONS AND DETAILS.

FIRE CODE REVIEW BLOCK

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.

[Signature] 08/11/2021
 FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE DATE

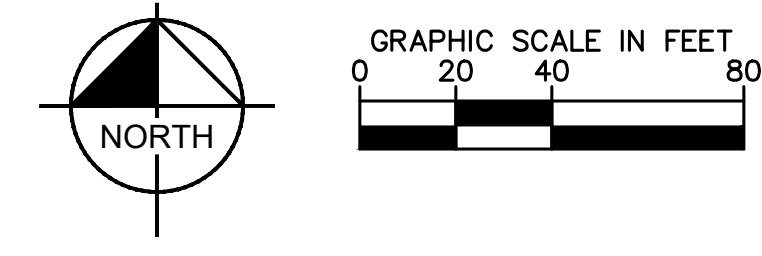
(NOTE - UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENT OF NFPA 24 WHEN SUBMITTING FOR REVIEW.)

APPROVED
 Sep 01 2021
PARKER WATER AND SANITATION DISTRICT

The Town of Parker review constitutes general compliance with the Town's Standards and approved variances, subject to these plans being stamped, signed, and dated by the professional engineer of record. Review by the Town does not constitute approval of the plan design or accuracy and correctness of engineering calculations. Errors in the design or calculations remain the responsibility of the registered professional engineer whose stamp and signature are affixed to this document.

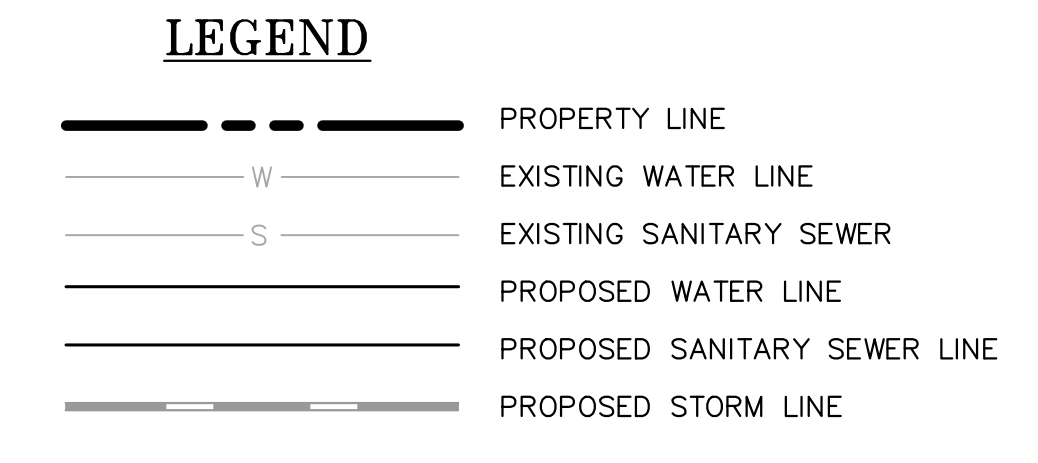
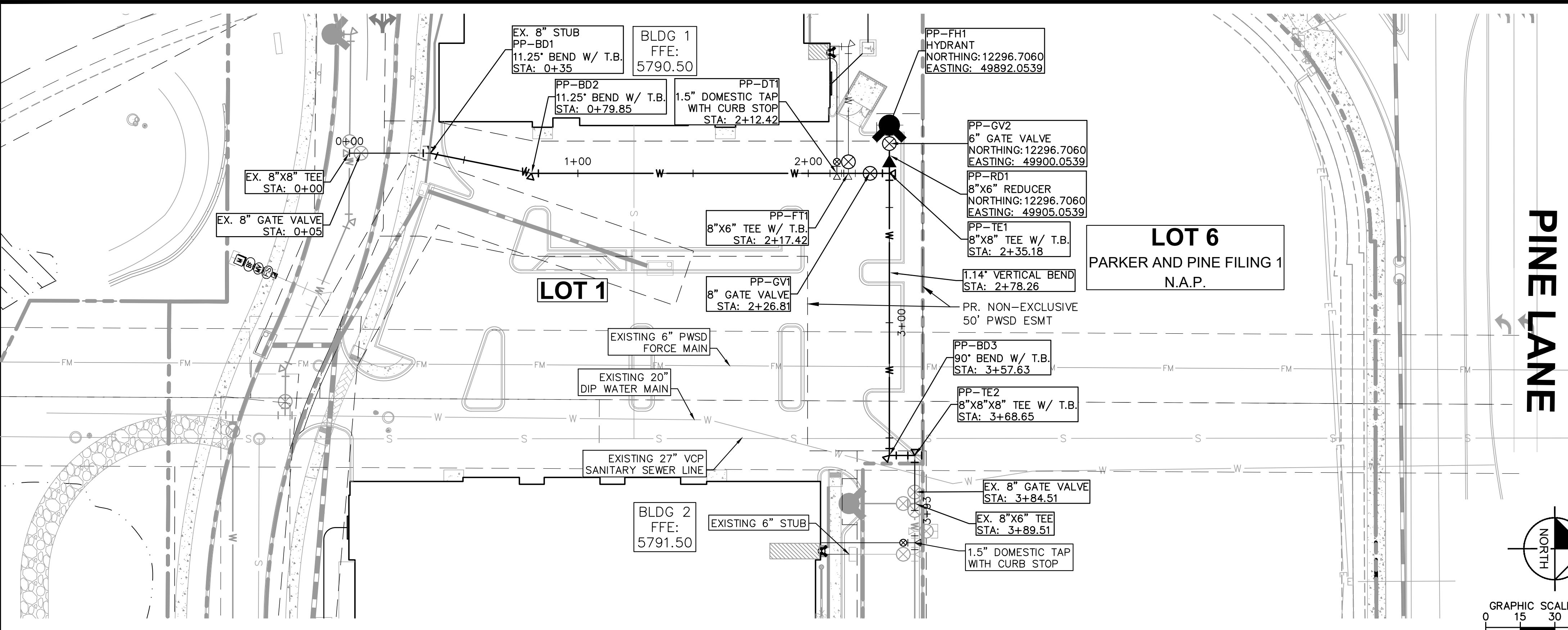
This review does not constitute approval of any private on-site improvements which may be shown. Construction cannot commence until all required drainage/traffic report(s), final development plan(s), special review(s), grading permit, and/or other permits are complete, approved and on file with the Town of Parker.

[Signature] 09/07/2021
 Town of Parker, Director of Engineering Date

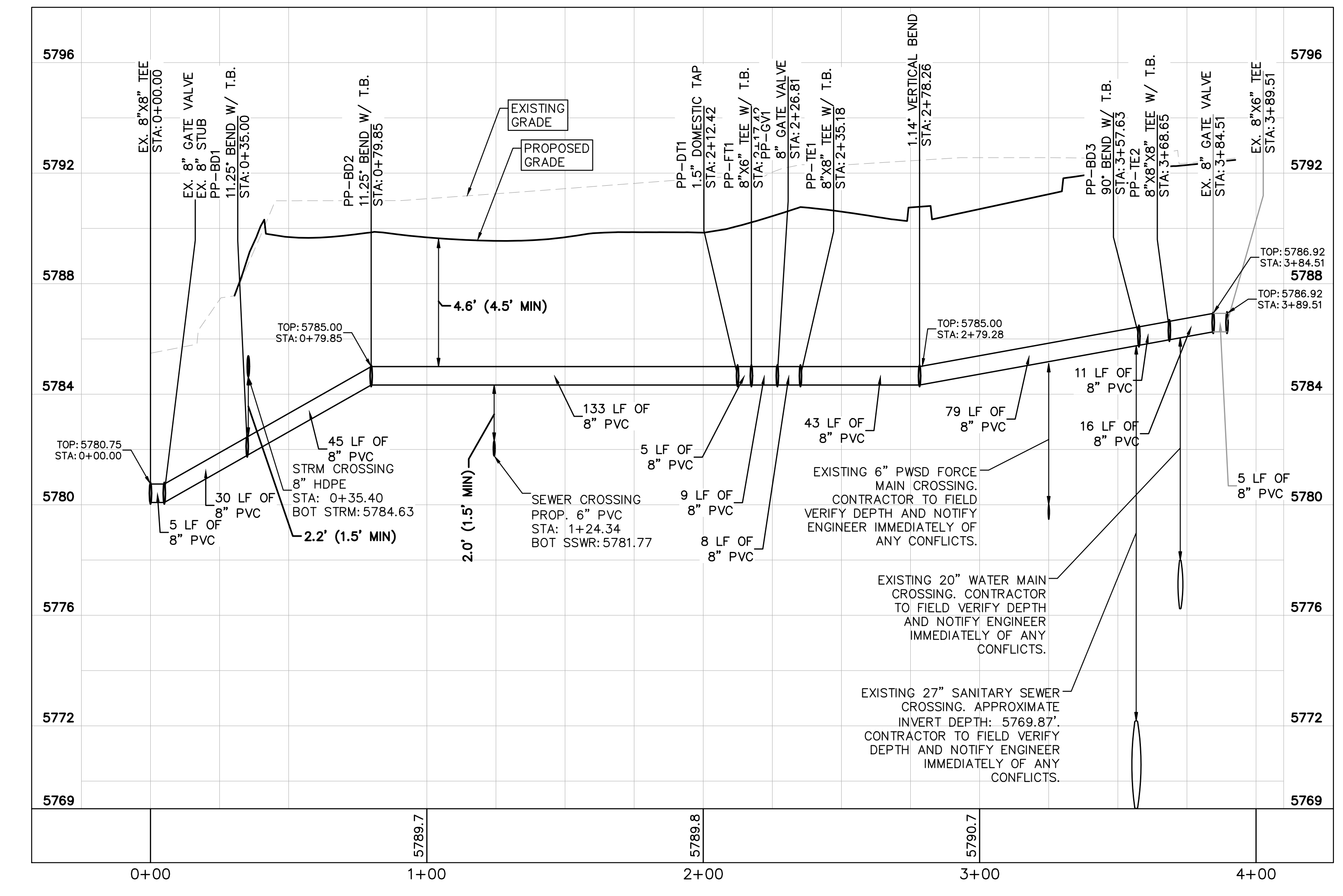


 2020 KIMLEY-HORN AND ASSOCIATES, INC. 4582 South Ulster Street, Suite 1500 Denver, Colorado 80237 (303) 228-2300	NO. _____ REVISION _____ BY _____ DATE _____ APPR _____
PARKER AND PINE FILING NO. 2 LOTS 1-3 PARKER, CO MULTI-FAMILY CONSTRUCTION DOCUMENTS OVERALL UTILITY PLAN	
PROJECT NO. 096481002 DRAWING NAME 096481002CD_UT C7.2	

\\horns-horn\scm\1\1-draft\DEL_C\1\096481002 - Parker & Pine\CD\1\096481002CD - Parker & Pine\CD\1\096481002CD - MT.dwg Sheet: 1 of 1 Date: 10/18/2019 10:57 AM
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- 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 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.
 - 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.
 - 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.
 - ALL FIRE HYDRANT AND UNDERGROUND FIRE LINES ARE TO BE DUCTILE IRON PIPE PER PWSD STANDARD SPECIFICATIONS AND DETAILS.



APPROVED
 Sep 01 2021
 PARKER WATER AND
 SANITATION DISTRICT



NO.	REVISION	BY	DATE	APP

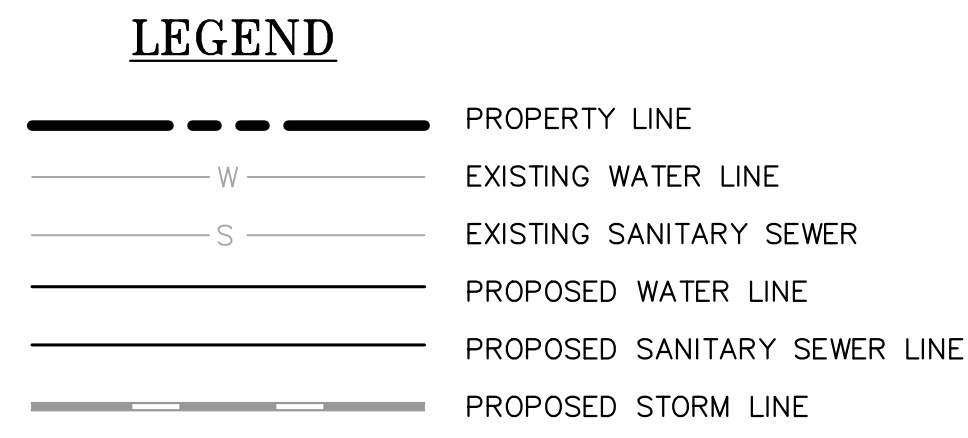
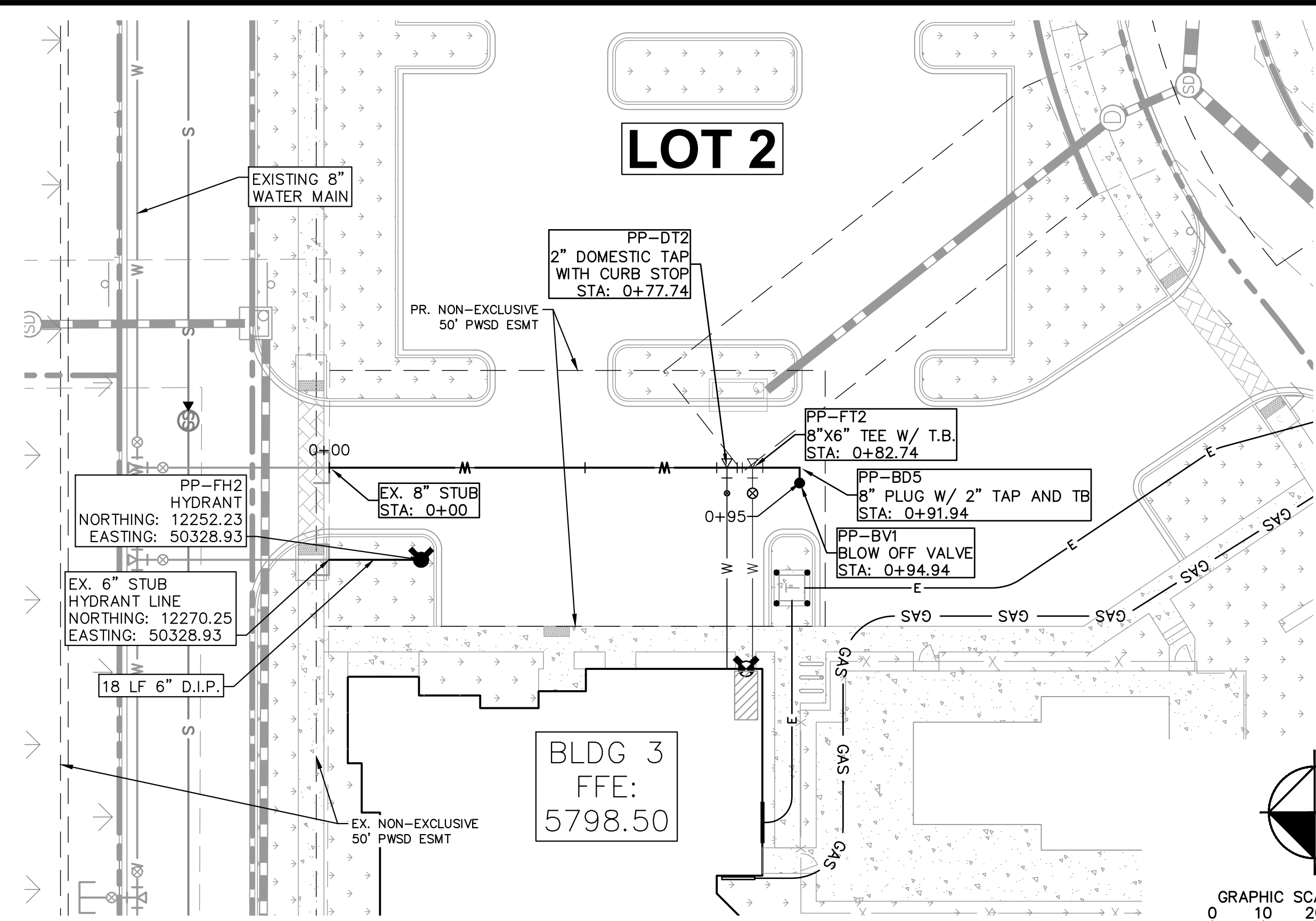
2020 KIMLEY-HORN AND ASSOCIATES, INC.
 4582 South Ulster Street, Suite 1500
 Denver, Colorado 80237 (303) 228-2300

DESIGNED BY: DLS
 DRAWN BY: JRK
 CHECKED BY: DLS
 DATE: 08/05/21

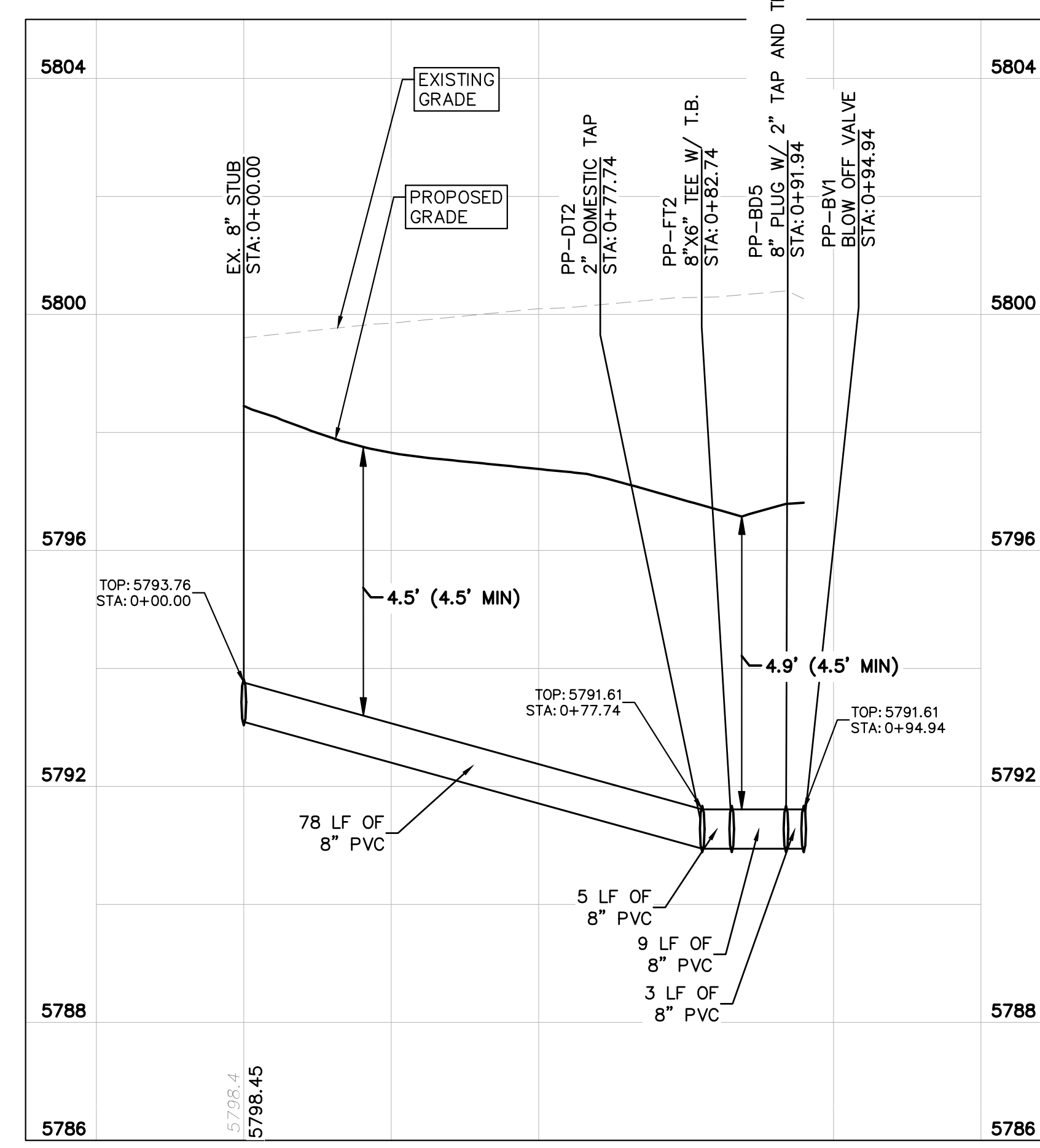
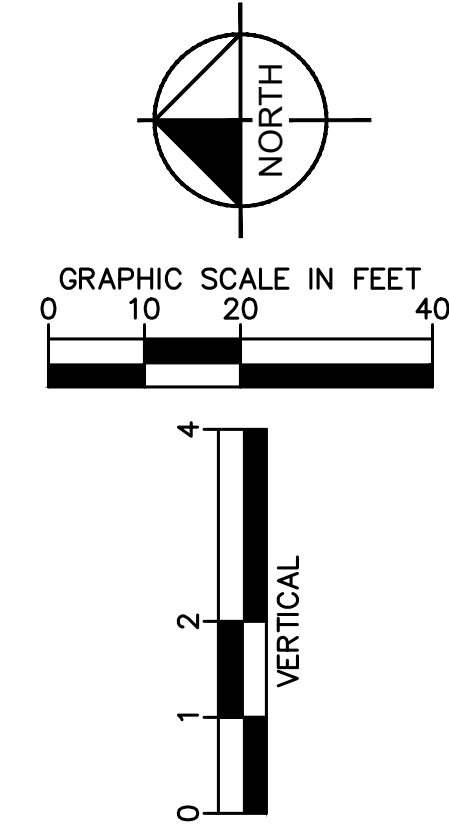
PARKER AND PINE FILING NO. 2 LOTS 1-3
 PARKER, CO
 MULTI-FAMILY CONSTRUCTION DOCUMENTS
WATER PLAN AND PROFILE

PROJECT NO. 096481002	DRAWING NAME 096481002CD_WT
C7.3	

\\kimley-horn\pcorn\mtd\dev\CD\1096481002 - Parker & Pine\ME\CADD\Plan\Site\1096481002CD_WT.dwg Sheet: 01 of 01 Date: 10/05/2021 10:57 AM
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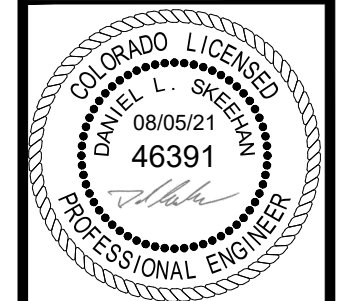
APPROVED
 Sep 01 2021
**PARKER WATER AND
 SANITATION DISTRICT**

NO.	REVISION	BY	DATE	APPR

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: JRK
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 DATE: 08/05/21

PARKER AND PINE FILING NO. 2 LOTS 1-3
 PARKER, CO
 MULTI-FAMILY CONSTRUCTION DOCUMENTS
WATER PLAN AND PROFILE



PROJECT NO.
 096481002
 DRAWING NAME
 096481002CD_WT
C7.4



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CLAMP DETAILS

NOTE: ALL BOLT HOLES TO BE 1/8" LARGER DIA. THAN BOLT

PROPER WASHER PLACEMENT
(FOR WASHER DIMENSIONS SEE TIE ROD AND WASHER DETAILS SHEET 19)

IMPROPER WASHER PLACEMENT

TABLE OF DIMENSIONS FOR CLAMPS

PIPE DIA.	BAR SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z																																																																									
4	1-1/2	2 1/2	3 1/2	4 1/2	5 1/2	6 1/2	7 1/2	8 1/2	9 1/2	10 1/2	11 1/2	12 1/2	13 1/2	14 1/2	15 1/2	16 1/2	17 1/2	18 1/2	19 1/2	20 1/2	21 1/2	22 1/2	23 1/2	24 1/2	25 1/2	26 1/2	27 1/2	28 1/2	29 1/2	30 1/2	31 1/2	32 1/2	33 1/2	34 1/2	35 1/2	36 1/2	37 1/2	38 1/2	39 1/2	40 1/2	41 1/2	42 1/2	43 1/2	44 1/2	45 1/2	46 1/2	47 1/2	48 1/2	49 1/2	50 1/2	51 1/2	52 1/2	53 1/2	54 1/2	55 1/2	56 1/2	57 1/2	58 1/2	59 1/2	60 1/2	61 1/2	62 1/2	63 1/2	64 1/2	65 1/2	66 1/2	67 1/2	68 1/2	69 1/2	70 1/2	71 1/2	72 1/2	73 1/2	74 1/2	75 1/2	76 1/2	77 1/2	78 1/2	79 1/2	80 1/2	81 1/2	82 1/2	83 1/2	84 1/2	85 1/2	86 1/2	87 1/2	88 1/2	89 1/2	90 1/2	91 1/2	92 1/2	93 1/2	94 1/2	95 1/2	96 1/2	97 1/2	98 1/2	99 1/2	100 1/2

NOTE: ALL DIMENSIONS IN INCHES. CLAMPS MAY NOT BE USED ON PVC PIPE.

**PARKER WATER & SANITATION DISTRICT
CLAMP DETAILS AND DIMENSIONS**

SCALE: NONE DATE: 2/96

APPROVED: 12/07 1/76 10/16

PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET WS.15

STANDARD PIPE BEDDING

- ★ MACHINE COMPACTED TRENCH BACKFILL
- * LIMIT OF SLOPING OR BENCHING OF TRENCH WALLS
- ⊞ UNDISTURBED GROUND

PIPE BEDDING IN ROCK

NOTE: 1. MIN. COVER TO BE BELOW FINAL STREET GRADE. CONSTRUCTION OF WATER MAIN MAY NOT START UNTIL FINAL GRADE WITHIN 1 FOOT.
2. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE PROTECTION OF OTHER UTILITIES AND TO MEET OSHA SAFETY REQUIREMENT.
3. TRENCH WIDTH SHALL NOT BE MORE THAN 16" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE LAID THEREIN (BELL OR COUPLING O.D. IF APPLICABLE). REFER TO SHEET W4.1 FOR DIMENSIONS.

**PARKER WATER & SANITATION DISTRICT
BEDDING DETAILS**

SCALE: NONE DATE: 2/96

APPROVED: 12/07 1/76 10/16

PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET WS.8

ISOMETRIC VIEW

PLAN

ELEVATION

**PARKER WATER & SANITATION DISTRICT
SERVICE LINE, STOP BOX & INSIDE METER SETTING (COMMERCIAL ONLY)**

SCALE: NONE DATE: 2/96

APPROVED: 09/04 10/16 06/05 1/76

PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET WS.9

FIRE SPRINKLER OR DOMESTIC CONNECTION WITH MAIN EXTENSION

FIRE SPRINKLER OR DOMESTIC CONNECTION

**PARKER WATER & SANITATION DISTRICT
3" AND LARGER DOMESTIC AND FIRE SPRINKLER CONNECTIONS**

SCALE: NONE DATE: 2/96

APPROVED: 12/07 1/76 10/16

PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET WS.18

LENGTH OF TIED PIPE

PIPE SIZE	4"	6"	8"	12"	16"	20"	24"
TIE ROD	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
WASHER	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
90° BEND	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
45° BEND	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
22-1/2° BEND	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
11-1/4° BEND	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"

NOTE: 1. LENGTH OF TIE PIPE MEASURED EACH WAY FROM WATER AND BENDS.
2. CLAMPS AND RODS NOT ALLOWED FOR 24" AND LARGER PIPES.
3. A, B, C = MINIMUM 4.5" GROUND COVER REQUIRED.
4. MINIMUM 4.5" GROUND COVER REQUIRED.
5. BASED ON 150 PSI INTERNAL PRESSURE.
6. M.S. MEANS MILD STEEL ROD A.S.T.M. STANDARD DESIGNATION A-36.
7. H.S. MEANS HIGH STRENGTH STEEL ROD A.S.T.M. STANDARD DESIGNATION A-193 GRADE B7.
8. H.S. MEANS HIGH STRENGTH STEEL ROD A.S.T.M. STANDARD DESIGNATION A-193 GRADE B7.
9. SEE THE ROD DETAIL DRAWING. ALSO, THE ROD COUPLING DETAILS, CLAMP DETAILS AND SET CLAMP DETAILS.
10. TIE RODS AND TIE ROD COUPLINGS SHALL BE TIED TOGETHER AND IS NOT NECESSARILY THE LENGTH OF THE RODS.
11. STAR BOLTS NOT ALLOWED ON PIPE LARGER THAN 16".
12. MINIMUM OF 4 RODS REQUIRED ON 16" PIPE IF STAR BOLTS ARE USED.
13. TIES ARE TO BE ROBBED ON BRANCH ONLY.

**PARKER WATER & SANITATION DISTRICT
LENGTH OF TIED PIPE**

SCALE: NONE DATE: 2/96

APPROVED: 4/01 1/76 10/16

PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET WS.11

TIE ROD DETAIL

WASHER DETAIL

TIE ROD COUPLING DETAIL

SECTION "A-A"

TIE RODS

ROD DIAMETER	THREAD	ROD LENGTH
3/4"	ALL THREAD	1-10 1/8 & 20
1-1/4"	ALL THREAD	1-10 1/8 & 20

WASHERS

WIDTH	HOLE DIAMETER	LENGTH	THICKNESS
3"	1-7/8"	6"	3/8"
4"	1-3/8"	7"	5/8"

NOTE: BLACK IRON PIPE = SCHEDULE 40.

**PARKER WATER & SANITATION DISTRICT
TIE ROD AND WASHER DETAILS**

SCALE: NONE DATE: 2/96

APPROVED: 12/07 1/76 10/16

PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET WS.12

TIE ROD COUPLING DETAIL

SECTION "A-A"

NOTE: BLACK IRON PIPE = SCHEDULE 40.

**PARKER WATER & SANITATION DISTRICT
TIE ROD COUPLING**

SCALE: NONE DATE: 2/96

APPROVED: 12/07 1/76 10/16

PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET WS.13

FLANGE LUG DETAIL

DIMENSIONS (IN INCHES)

PIPE DIA.	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
4	1-7/8	2	1	7/8	3/8	1	7/8	3/4	2-7/8	3/4	4	4	4
6	2-1/4	3	1	7/8	3/4	1	7/8	3/4	3-1/4	3/4	4	4	4
8	2-7/8	3	1	7/8	3/4	1	7/8	3/4	3-7/8	3/4	4	4	4
10	3-1/4	3	1	7/8	3/4	1	7/8	3/4	4-1/4	3/4	4	4	4
12	3-7/8	3	1	7/8	3/4	1	7/8	3/4	4-7/8	3/4	4	4	4
14	4-1/4	3	1	7/8	3/4	1	7/8	3/4	5-1/4	3/4	4	4	4
16	4-7/8	3	1	7/8	3/4	1	7/8	3/4	5-7/8	3/4	4	4	4
18	5-1/4	3	1	7/8	3/4	1	7/8	3/4	6-1/4	3/4	4	4	4
20	5-7/8	3	1	7/8	3/4	1	7/8	3/4	6-7/8	3/4	4	4	4
24	7-1/4	3	1	7/8	3/4	1	7/8	3/4	8-1/4	3/4	4	4	4

NOTE: 1. M.S. MEANS MILD STEEL ROD A.S.T.M. STANDARD DESIGNATION A-36. (NUTS SHALL BE A.S.T.M. STANDARD DESIGNATION A-193 GRADE A OR B HEXAGON HEAVY SERIES).
2. H.S. MEANS HIGH STRENGTH STEEL ROD A.S.T.M. STANDARD DESIGNATION A-193 GRADE B7. (NUTS SHALL BE A.S.T.M. STANDARD DESIGNATION A-194 GRADE 2H).
3. FLANGE LUGS SHALL NOT BE USED ON VALVES.

**PARKER WATER & SANITATION DISTRICT
FLANGE LUG DETAIL**

SCALE: NONE DATE: 2/96

APPROVED: 12/07 1/76 10/16

PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET WS.14

APPROVED
 Sep 01 2021
PARKER WATER AND SANITATION DISTRICT

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: JRK
 CHECKED BY: DLS
 DATE: 08/05/21

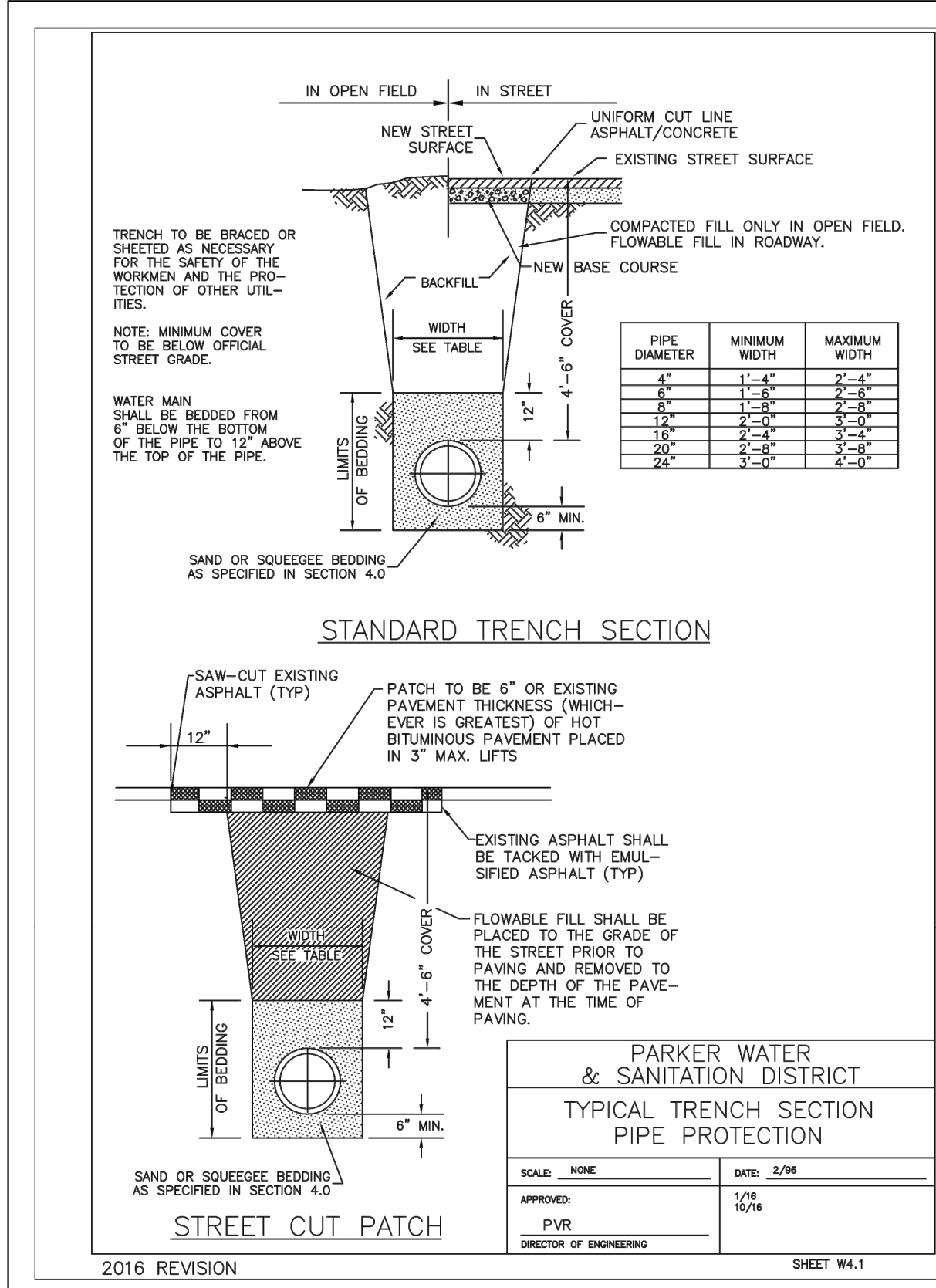
PARKER AND PINE FILING NO. 2 LOTS 1-3
 PARKER, CO
 MULTI-FAMILY CONSTRUCTION DOCUMENTS
 UTILITY DETAILS

COLORADO LICENSED PROFESSIONAL ENGINEER
 08/05/21
 46391

PROJECT NO. 096481002
 DRAWING NAME 096481002UT_DT
 C7.7

NO.	REVISION	BY	DATE	APPR.

\\parker-horn\csm\1066481002_DEL_Civil\096481002 - Parker & Pits, M.E. CAD\DWG\Streets\01_096481002.DWG - Sheet 01 of 10, 10.57 AM, 10/16/2016
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PARKER WATER & SANITATION DISTRICT
TYPICAL TRENCH SECTION PIPE PROTECTION
 SCALE: NONE DATE: 2/96
 APPROVED: PVR 1/16
 DIRECTOR OF ENGINEERING

PIPE BEDDING:

(a) Installation of Bedding and Pipe: After completion of the trench excavation and proper preparation of the foundation, six inches (6") of bedding material shall be placed on the trench bottom for support under the pipe. Bed holes shall be dug deep enough to provide a minimum of two inches (2") of clearance between the bed and bedding material. All pipe shall be installed in such a manner as to insure full support of the pipe barrel over its entire length. After the pipe is adjusted for line and grade, and the joint is made, the bedding material shall be carefully placed and tamped under the haunches of the pipe and in the previously dug bed holes.

Tamping is herein defined as the act of placing approved bedding material under the haunches of the pipe, paying particular attention to voids, bed holes, and silt holes. The purpose of tamping is to ensure uniform support for the pipe.

The limits of bedding shall be from six inches (6") below the bottom of the pipe to twelve inches (12") above the top of the pipe. Approved backfill may then be installed to the groundline. See Chapter 2 of these Standards for backfill and compaction of backfill.

Compaction of bedding is not required. The only requirement is sufficient tamping to achieve uniform support under the pipe. See Sheet W4.1 of the Standard Details for a typical trench cross section.

(b) Bedding Material: The bedding material shall be a clean well-graded sand or squeegee sand and shall conform to the following limits when tested by means of laboratory sieves:

Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 4	70-100
No. 8	35-85
No. 16	20-80
No. 30	8-65
No. 50	2-50
No. 100	1-10
No. 200	0-3

Squeegee Sand
for use with 24-inch or smaller

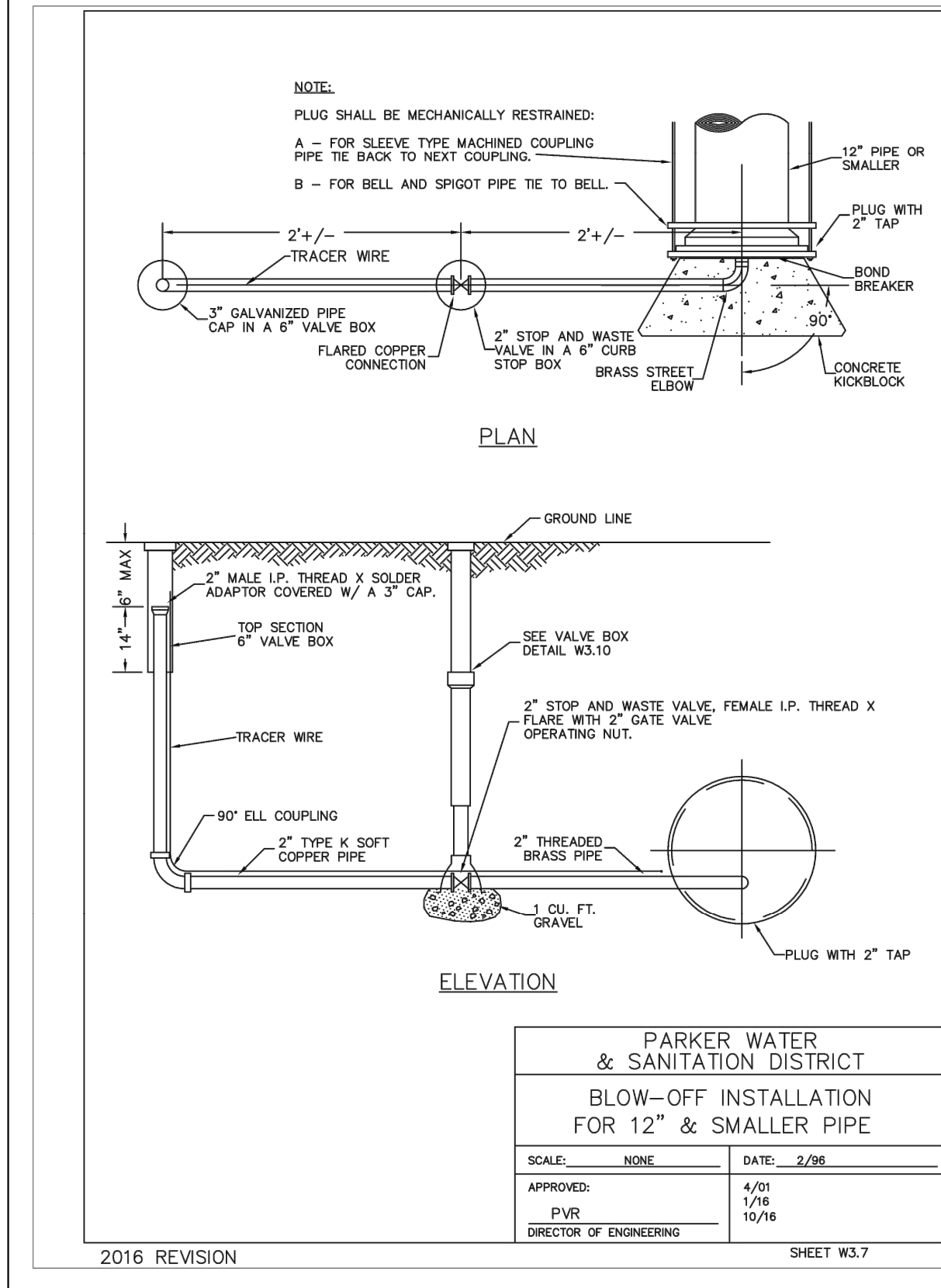
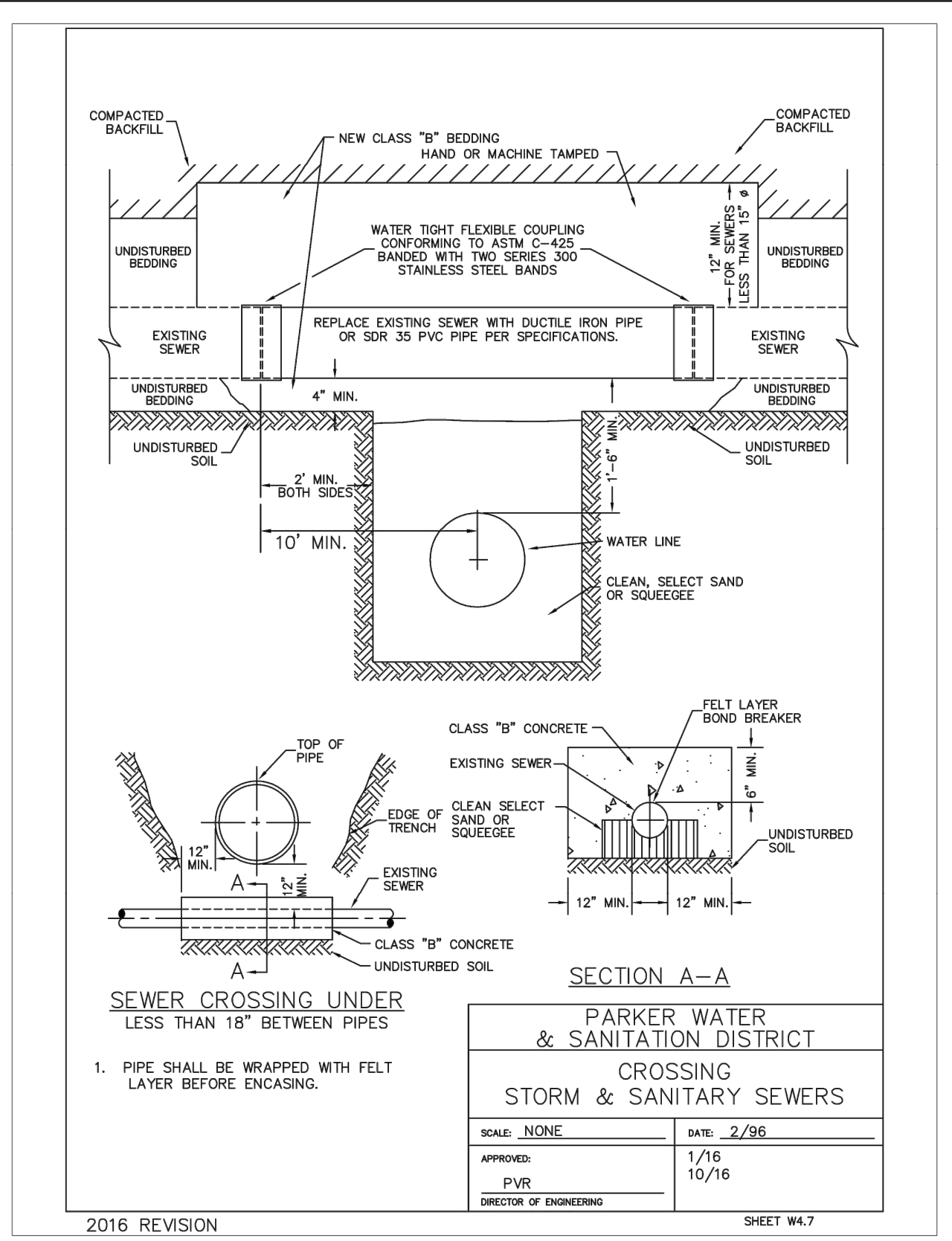
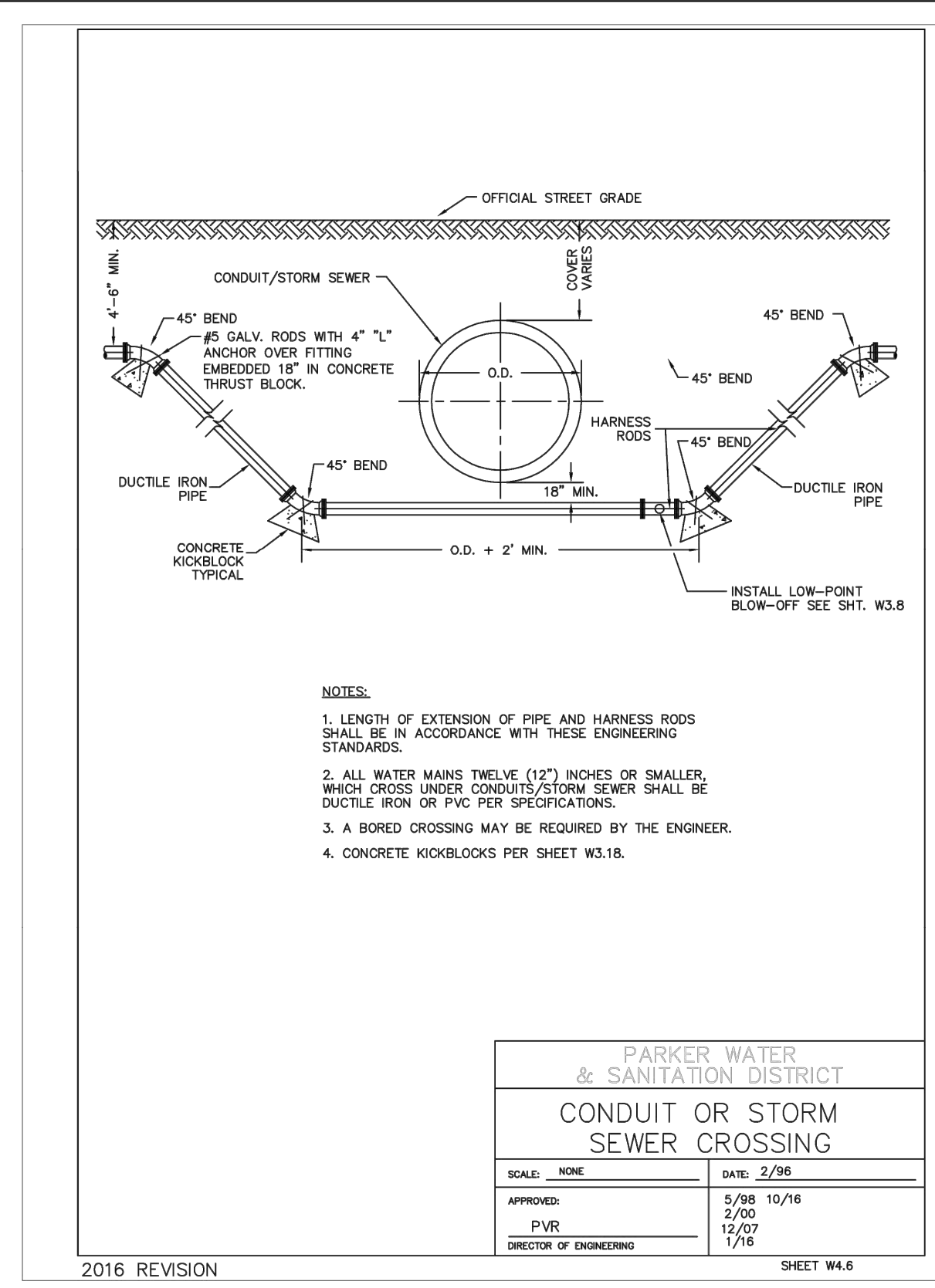
Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 200	0-3

If approved by the District, fines from the trench walls and spoils pile may be used to provide uniform support for the pipe. No rock or stone larger than that allowed by the sieve analysis, or any other detrimental substance, shall be placed closer to the pipe than six inches (6"). Approved bedding materials shall be stockpiled on the jobsite to be used in the event natural materials become unsatisfactory. The District reserves the right to require the use of the specified bedding material at any time.

Well-Graded Sand for (24-inch or large diameter)

Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 4	70-100
No. 8	35-85
No. 16	20-80
No. 30	8-65
No. 50	2-50
No. 100	1-10
No. 200	0-3

PARKER WATER & SANITATION DISTRICT
PIPE BEDDING
SCALE: NONE DATE: 2/96
APPROVED: PVR 1/16
DIRECTOR OF ENGINEERING



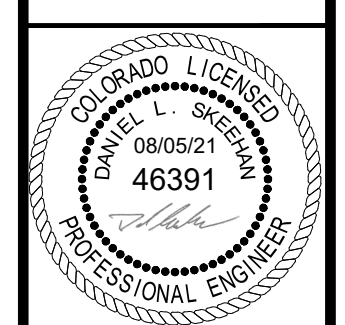
APPROVED
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NO.	REVISION	BY	DATE	APPR.

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