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PARKER AND PINE MULTI-FAMILY PARKER WATER AND SANITATION DISTRICT UTILITY PLANS

PARKER AND PINE FILING 2
A REPLAT OF TRACT A, PARKER AND PINE FILING 1
AND TRACT C, PARKER AUTO PLAZA FILING NO. 1
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

CONTACTS:

DEVELOPER:
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1051 GREENWOOD SPRINGS BLVD. SUITE 101
GREENWOOD, IN 46143
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CONTACT: KARL STOUT

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AVON, IN 46123
TEL: 317-272-7800 EXT. 224
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SURVEYOR:
ENGINEERING SERVICE COMPANY
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AURORA, CO 80012
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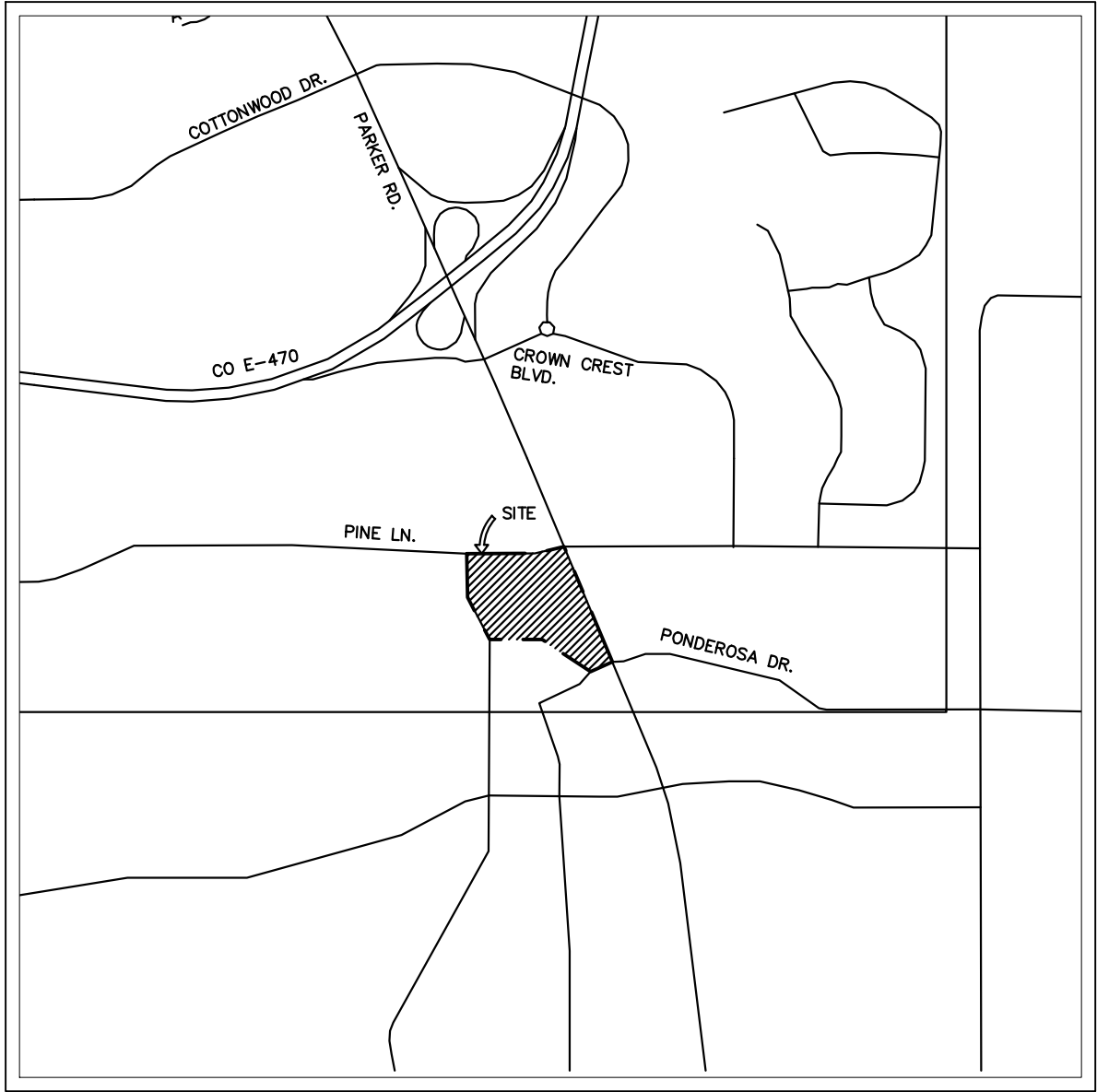
WATER/SANITARY SEWER:
PARKER WATER AND SANITATION DISTRICT
18100 E. WOODMAN ROAD
PARKER, CO 80138
TEL: 303-841-4627
CONTACT: ABBY HILDEBRANDT

ELECTRICAL SERVICE:
IREA
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
TEL: (303) 805-3199
CONTACT: STACEY NERGER

FIRE DEPARTMENT:
SOUTH METRO FIRE RESCUE AUTHORITY
9195 E. MINERAL AVE.
CENTENNIAL, CO 80112
TEL: (720) 989-2244
CONTACT: CHIP KERKHOVE

TOWN OF PARKER PLANNING REVIEW:
20120 E. MAINSTREET
PARKER, CO 80138
TEL: (303) 805-3174
CONTACT: BRYCE MATTHEWS



VICINITY MAP
1"=2,000'

Sheet List Table	
Sheet Number	Sheet Title
CONSTRUCTION DOCUMENTS: PARKER WATER AND SANITATION DISTRICT	
C7.0	COVER SHEET
C7.1	WATER AND SANITARY SEWER NOTES
C7.2	OVERALL UTILITY PLAN
C7.3	UTILITY DETAILS
C7.4	UTILITY DETAILS
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C7.6	UTILITY DETAILS

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

TRACT C, PARKER AUTO PLAZA FILING NO. 1 AND TRACT A, PARKER AND PINE FILING 1, 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	327	LF
2" TYPE K COPPER SERVICE	23	LF
3" TYPE K COPPER SERVICE	17	LF
8" GATE VALVE	5	EA
6" GATE VALVE	8	EA
8"x6" REDUCER	1	EA
8"x6" TEE	7	EA
FIRE HYDRANT	4	EA
8" PVC WATER MAIN	116	LF
6" PVC FIRE LINE	321	LF

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

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 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.



Know what's below.
Call before you dig.

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: 08/25/20

PARKER AND PINE MULTI-FAMILY
PARKER, CO
CONSTRUCTION DOCUMENTS
COVER SHEET

PRELIMINARY

FOR REVIEW ONLY
NOT FOR
CONSTRUCTION

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Kimley-Horn and Associates, Inc.

PROJECT NO.
096481002

DRAWING NAME
096481002CV_UT

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3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSO ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
2. 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.
3. 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.
4. PWSO ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
6. ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000-POUND COMPRESSION STRENGTH.
7. 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.
8. 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.
9. TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
10. 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.
11. 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.
12. ALL SERVICES SHALL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"X" FOR SANITARY SERVICE SEWERS
"V" FOR WATER SERVICES
13. NO TREES ALLOWED IN EASEMENTS OR WITHIN 8' OF WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
14. 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.

1. 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.
2. TOWN OF PARKER REQUIRES 25' STORM SEWER EASEMENT.
3. PARKER WATER AND SANITATION DISTRICT REQUIRES 30' EXCLUSIVE EASEMENT OR 50' NON-EXCLUSIVE EASEMENT.

3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
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 LINES SHALL BE INSTALLED 5.0 FEET SOUTH OR WEST OF STREET CENTERLINE, UNLESS OTHERWISE SHOWN ON PLANS. SEWER LINES SHALL BE 10.00 FEET FROM WATER LINES EXCEPT WHEN CROSSING EACH OTHER. SEWER LINES WHICH CROSS LESS THAN 1.50 FEET VERTICALLY FROM THE WATER MAIN SHALL BE ENCASED IN CONCRETE AS PER PWSD SPECIFICATIONS. USE RUBBER GASKETS FOR PVC ENCASEMENT.
4. 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.
5. 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.
6. NO UNDERDRAIN SYSTEM WILL BE ALLOWED TO BE PLACED IN MAINLINE OR SEWER SERVICE TRENCHES.
7. 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.
8. 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.
9. PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
10. 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.
11. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSD AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSD SPECIFICATION MANUAL.
12. ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PWSD STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
13. PRIOR TO STARTING WORK WHERE SEWER MAIN IS TO BE CONNECTED TO EXISTING PWSD SEWER SYSTEMS, THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL PROBATIONARY ACCEPTANCE BY PWSD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN INSTRUCTED BY THE DISTRICT.
14. PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CONTRACTOR SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.

3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PSDS ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISION.
2. ALL WATER MAINS SHALL BE PER PSDS MATERIALS SPECIFICATIONS. ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL BE SUITABLE FOR CHLORINATED AND CHLORAMINATED WATER.
3. ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED PER PSDS MATERIALS SPECIFICATIONS.
4. THERE SHALL BE A MINIMUM COVER OF 4.5 FEET OVER ALL WATER MAINS.
5. FIRE HYDRANTS SHALL CONFORM TO AWWA C-502 "DRY BARREL FIRE HYDRANTS" PIPE HYDRANT ASSEMBLIES PER PSDS SPECIFICATIONS.
6. ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST WITH CONCRETE THRUST BLOCKS.
7. 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.
8. 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.
9. 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.
10. THE CONTRACTOR SHALL NOTIFY THE PSDS 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.
11. PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH PSDS STANDARDS AND SPECIFICATIONS, LATEST REVISION.
12. 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.
13. 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.
14. 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.
15. CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PSDS SPECIFICATIONS. CHLORINATION OF FINISHED PIPELINE COMPLETED BEFORE HYDROSTATIC TESTING.
16. HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PSDS SPECIFICATIONS UP TO MINIMUM OF 150 PSI IN THE PRESENCE OF A PSDS INSPECTOR/ENGINEER.

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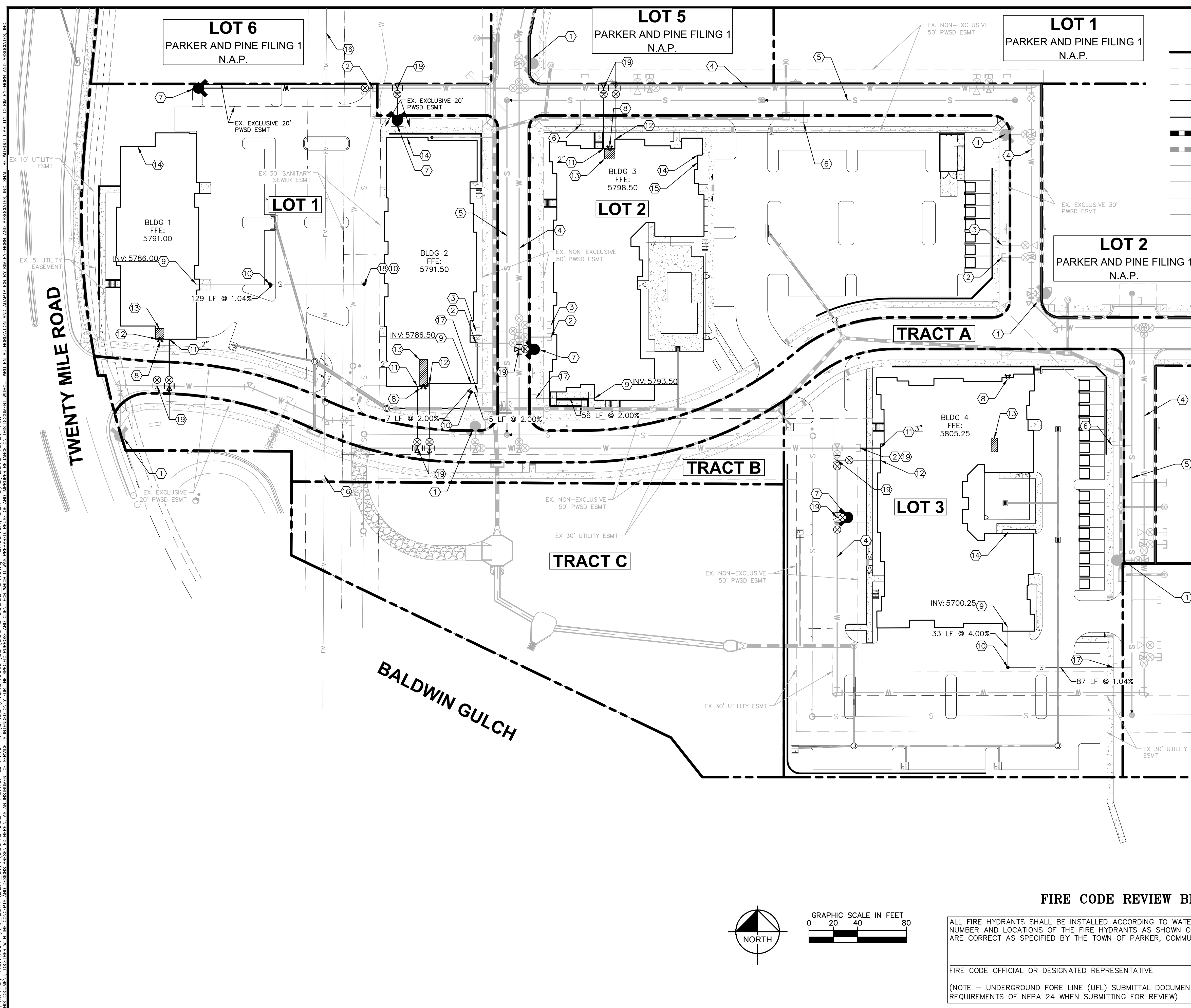
PARKER AND PINE MULTI-FAMILY
PARKER, CO
CONSTRUCTION DOCUMENTS
WATER AND SANITARY SEWER NOTES

PROJECT NO. 096481002
DRAWING NAME 096481002CV_UT

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- ### UTILITY LEGEND
- EXISTING PROPERTY LINE
 - - - EXISTING EASEMENT
 - - - PROPOSED EASEMENT
 - S --- PROPOSED SANITARY SEWER LINE
 - W --- PROPOSED WATER LINE
 - PROPOSED STORM DRAINAGE LINE
 - EXISTING STORM DRAINAGE LINE
 - G --- EXISTING GAS LINE
 - W --- EXISTING WATER LINE
 - S --- EXISTING SANITARY SEWER LINE
 - E --- 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 6" SEWER STUB
 - ⑦ PROPOSED FIRE HYDRANT WITH 6" GATE VALVE
 - 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. SIZE PER PLAN
 - ⑫ PROPOSED 6" FIRE SERVICE BUILDING P.O.C.
 - ⑬ PROPOSED FIRE RISER ROOM
 - ⑭ PROPOSED BUILDING ELECTRIC METER LOCATION
 - ⑮ PROPOSED BUILDING GAS METER LOCATION
 - ⑯ EXISTING PWSD 8" FORCE MAIN
 - ⑰ CONNECT TO EXISTING SANITARY SEWER STUB
 - ⑱ CONNECT TO EXISTING SANITARY SEWER MAIN PER PWSD STANDARDS.
 - ⑲ CONNECT TO EXISTING WATER MAIN PER PWSD STANDARDS

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.

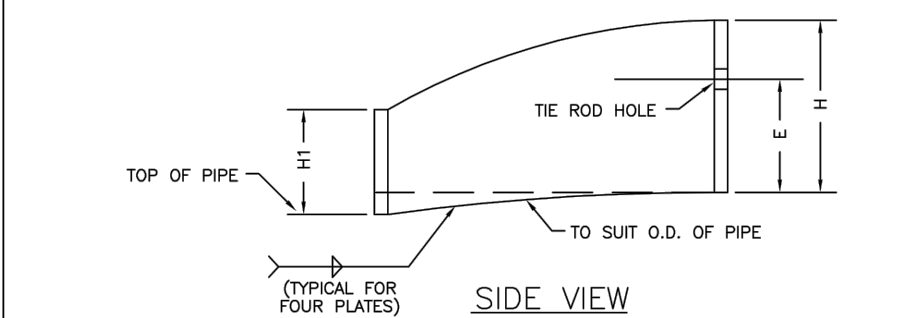
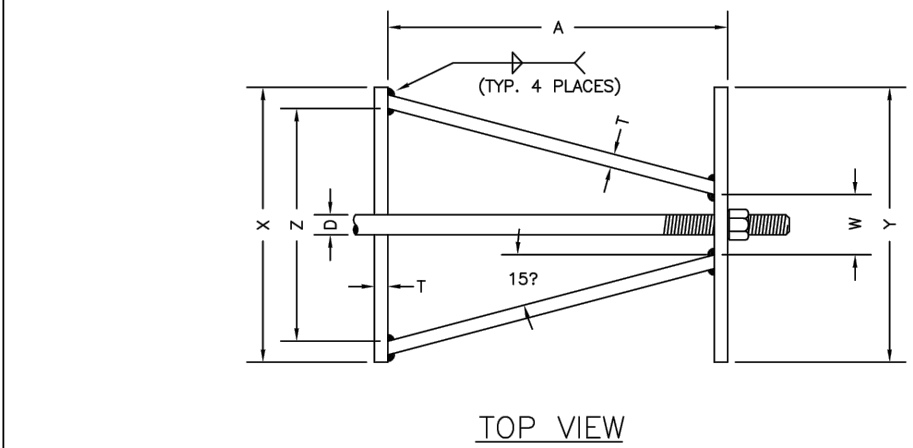
FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE _____ DATE _____

(NOTE - UNDERGROUND FORE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW)



REVISION		BY	DATE
NO.			
Kimley»Horn 2020 KIMLEY-HORN AND ASSOCIATES, INC. 4582 South Ute Street, Suite 1500 Denver, Colorado 80237 (303) 228-2300			
DESIGNED BY: DLS DRAWN BY: JRK CHECKED BY: DLS DATE: 08/25/20			
PARKER AND PINE MULTI-FAMILY PARKER, CO CONSTRUCTION DOCUMENTS OVERALL UTILITY PLAN			
PRELIMINARY FOR REVIEW ONLY NOT FOR CONSTRUCTION Kimley»Horn Kimley-Horn and Associates, Inc.			
PROJECT NO. 096481002			
DRAWING NAME 096481002CD_UT			
C7.2			

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HARNES LUG DIMENSIONS

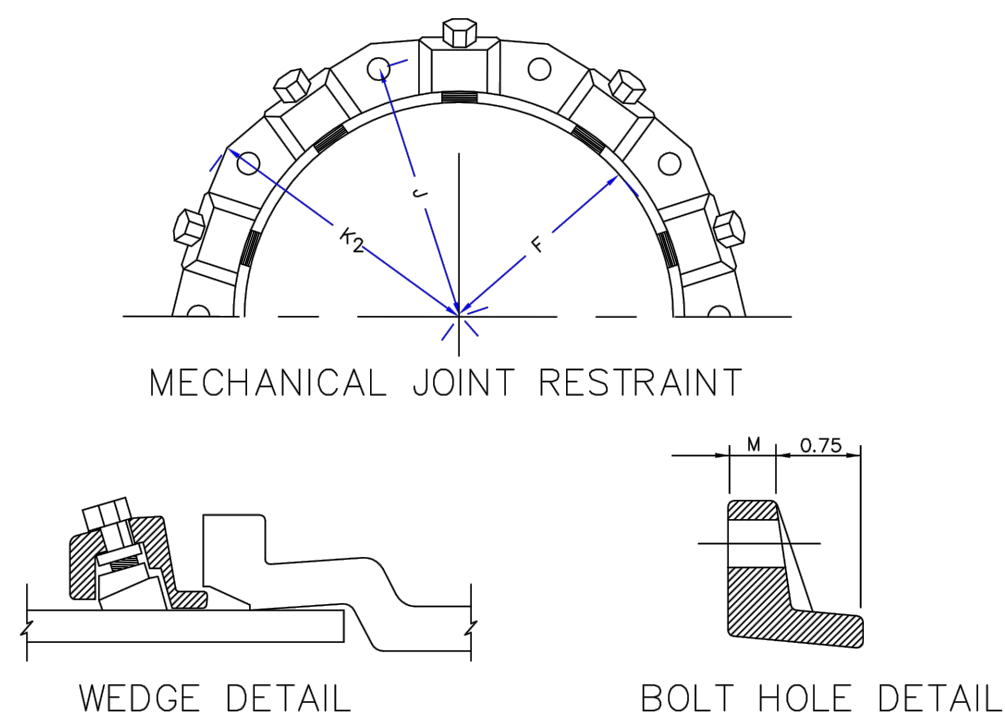
CARRIER PIPE NOMINAL DIA. D	STUD DIA.	A	W	Z	T	H	E	H1	Y	X
4" TO 16"	3/4"	5"	1-1/2"	3-3/4"	3/8"	4-1/8"	3-1/8"	2"	4-1/2"	5"
20"	1"	5-3/4"	1-3/4"	4-7/16"	3/8"	4-1/2"	3-1/4"	2"	5-1/4"	5-11/16"

- NOTES:
- USE TWO HIGH STRENGTH STEEL TIE RODS AT END OF CASKING
 - TIE ROD HOLE DIAMETER 1/8" LARGER THAN STUD DIAMETER.
 - BOTTOM EDGE OF ALL PLATES SHAPED TO FIT O.D. OF PIPE.

PARKER WATER & SANITATION DISTRICT	
HARNES LUG DETAILS	
SCALE: NONE	DATE: 2/98
APPROVED: 1/16	10/16
PVR	
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W3.16



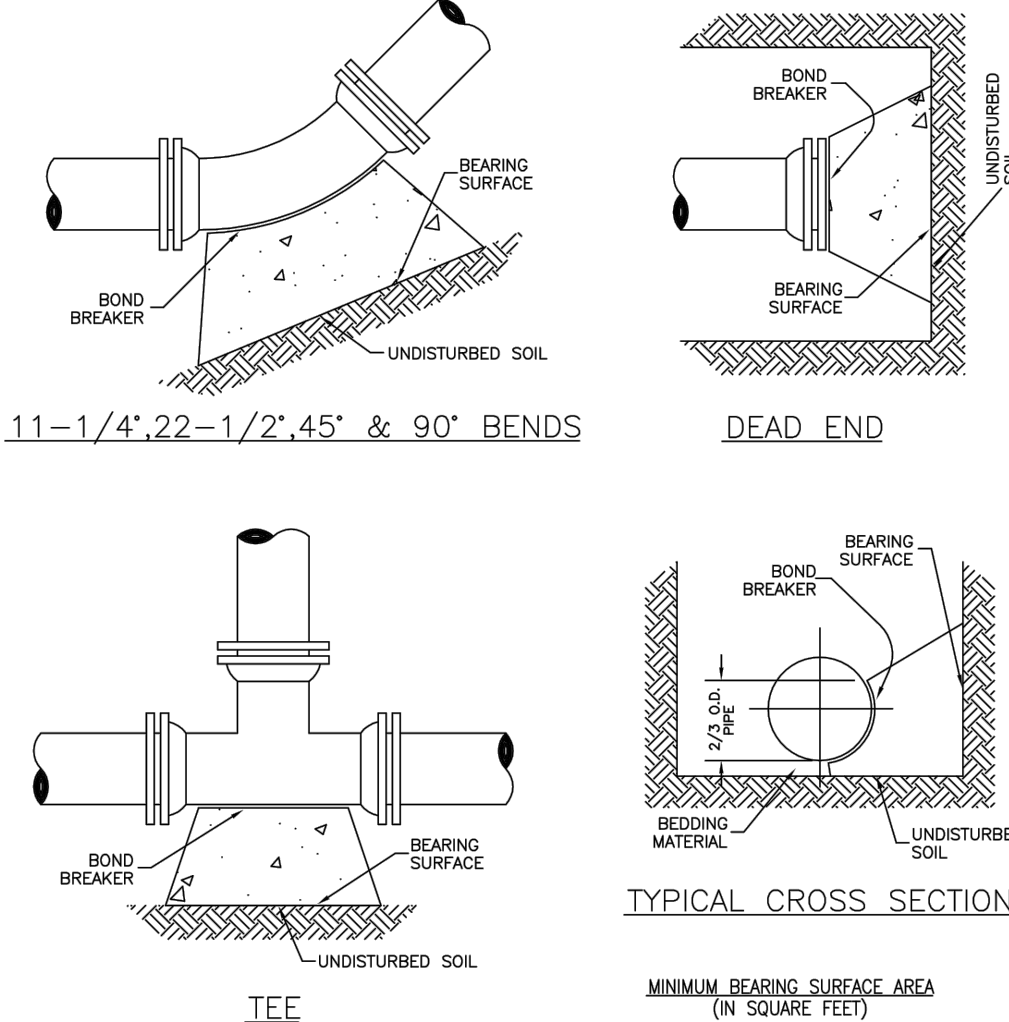
	NOMINAL PIPE SIZE	NO. OF BOLTS	NO. OF WEDGES	K2 INCHES	INCHES	INCHES	M INCHES
P	4"	2	2				
V	6"	6	3	11.12	9.5	7.00	0.88
C	8"	6	4	13.37	11.75	9.15	1.00
D	10"	8	6	15.62	14.00	11.20	1.00
I	12"	8	8	17.88	16.25	13.30	1.25
	4"	4	2				
	6"	6	3	11.12	9.5	7.00	0.88
	8"	6	4	13.37	11.75	9.15	1.00
	10"	8	6	15.62	14.00	11.20	1.00
	12"	8	8	17.88	16.25	13.30	1.25

- NOTES:
- DIMENSIONS FOR 16" AND 20" D.I. PIPE NOT SHOWN.

PARKER WATER & SANITATION DISTRICT	
MECHANICAL JOINT RESTRAINT DETAILS	
SCALE: NONE	DATE: 2/98
APPROVED: 2/00	12/07
PVR	
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W3.17



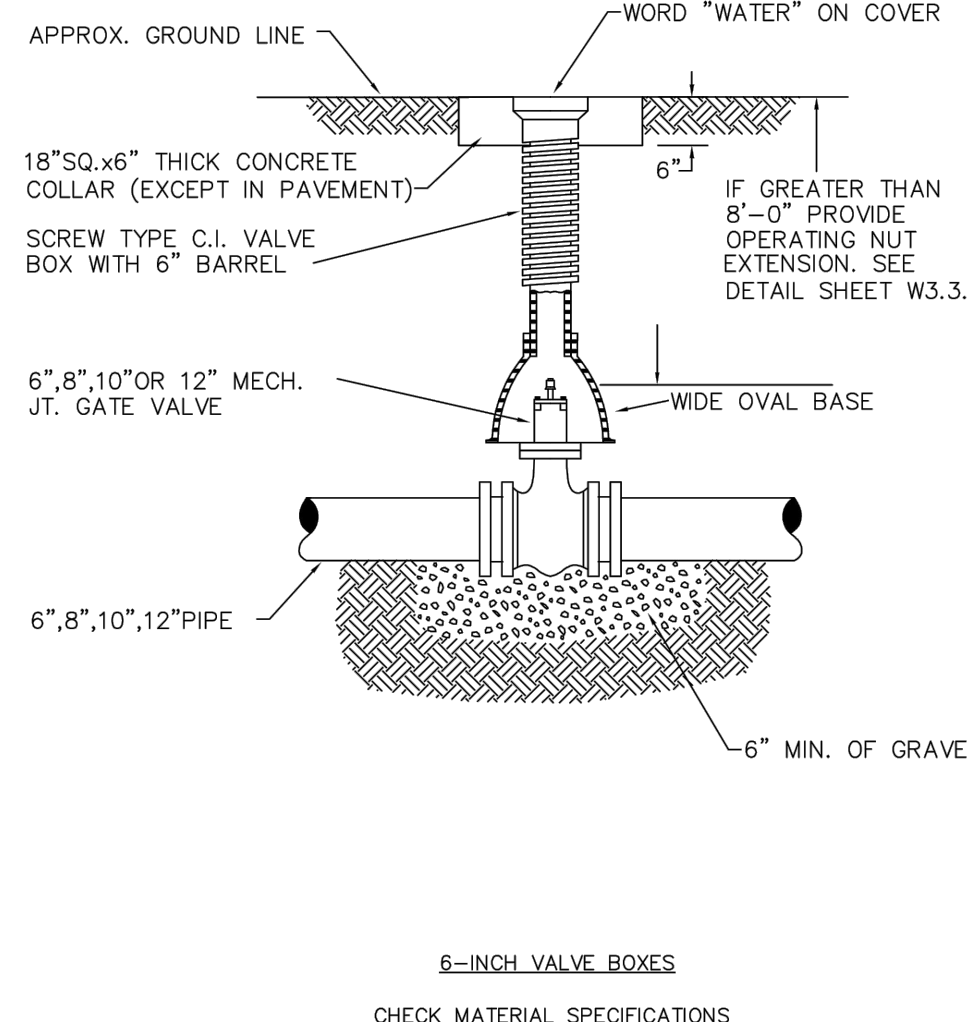
- NOTES:
- ALL VALVES, TEES, BENDS AND PLUGS SHALL BE RESTRAINED AND KICKBLOCKED.
 - BEARING SURFACES SHOWN IN CHART ARE MINIMUM.
 - BASED ON 150 PSI PIPE PRESSURE PLUS WATER HAMMER = 120 PSI.
 - 4" 6" AND 8" WATER HAMMER = 110 PSI.
 - 16", 20" AND 24" WATER HAMMER = 70 PSI.
 - SOIL BEARING CAPACITY = 3,000 LBS./SQ. FT.

SIZE OF PIPE	11-1/4'	22-1/2'	45'	90'	TEE OR DEAD END
4"	1.00	1.50	1.00	1.50	1.50
6"	1.00	1.75	1.25	1.75	1.75
8"	1.00	2.00	1.50	2.00	2.00
10"	1.00	2.25	1.75	2.25	2.25
12"	1.00	2.50	2.00	2.50	2.50
16"	1.00	3.00	2.50	3.00	3.00
20"	1.00	3.50	3.00	3.50	3.50
24"	1.00	4.00	3.50	4.00	4.00

PARKER WATER & SANITATION DISTRICT	
CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION	
SCALE: NONE	DATE: 2/98
APPROVED: 4/01	1/16
PVR	
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W3.18



- NOTES:
- ALL VALVES, TEES, BENDS AND PLUGS SHALL BE RESTRAINED AND KICKBLOCKED.
 - VALVE NUT SHALL BE CENTERED.
 - VALVE BOX SHALL BE PLUMB.
 - SEE MATERIAL SPECIFICATIONS FOR VALVE BOX WITH GREATER THAN BURIED DEPTH OF 4.5 FT.

PARKER WATER & SANITATION DISTRICT	
VALVE BOX DETAIL	
SCALE: NONE	DATE: 2/98
APPROVED: 5/98	10/16
PVR	
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W3.10

INSPECTION POLICY:

- ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
- SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
- 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.
- 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.
- 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.
- ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
- LOTS WITHOUT BUILDING ADDRESSES BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
- CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION, UNLESS COORDINATED WITH DISTRICT INSPECTOR.

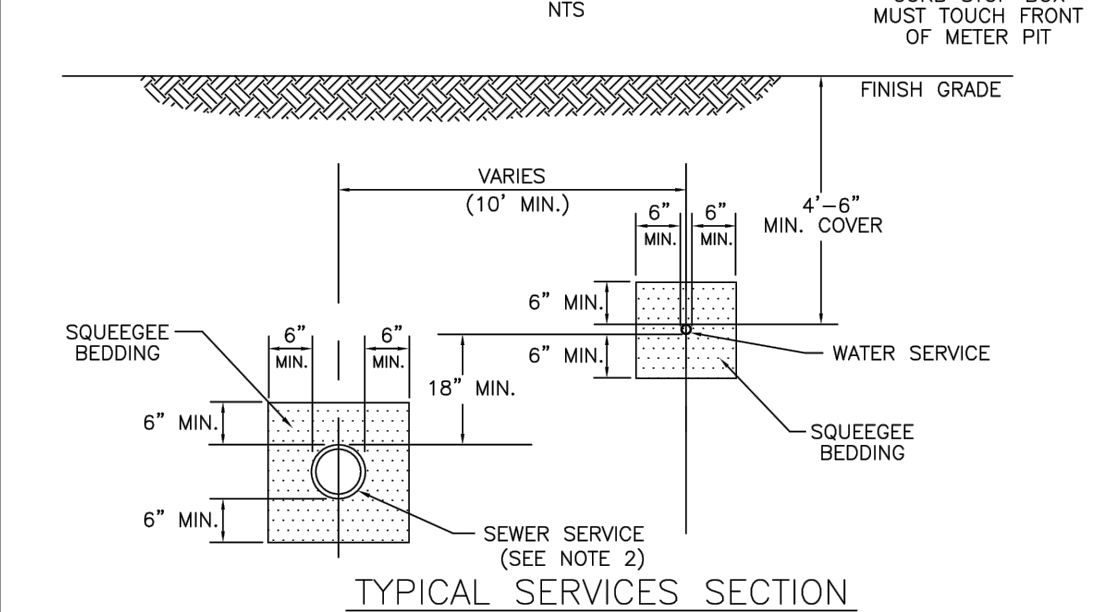
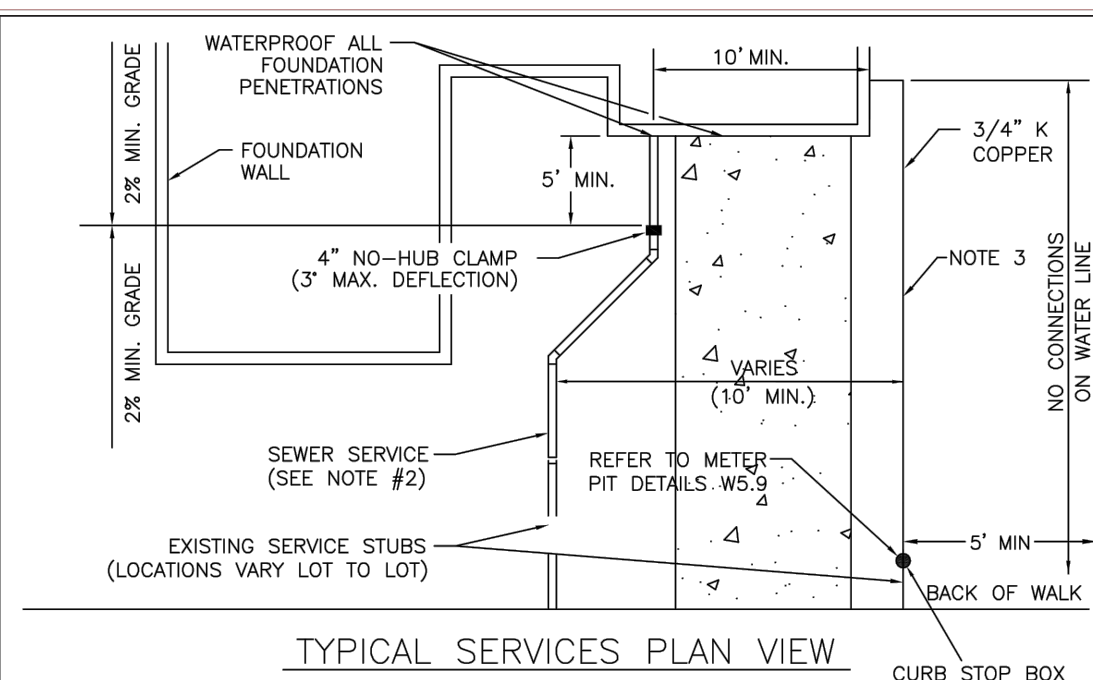
INSTALLATION NOTES:

- WATER
- ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING. (3/4" MIN.)
 - APPROVED BEDDING TO BE SQUEEGEE.
 - 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 PWSD PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.
 - 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, OR OTHER APPROVED METHOD, CRAWL SPACE REQUIRES CONTINUOUS COPPER WITH A 1" BURY.
 - WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD, CRAWL SPACE REQUIRES CONTINUOUS COPPER WITH A 1" BURY.
 - 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.
 - MOVED CURB BOXES MUST BE INSPECTED BY PWSD PRIOR TO BURIAL.
 - WATERLINE MUST BE ATTACHED TO A SUPPORT BOARD THAT IS MOUNTED TO THE WALL.
 - NO VOIDS ALLOWED UNDER WATERLINES FROM STOP BOX TO FOUNDATION.
 - CURBSTOP BOXES AND METER PITS CANNOT BE IN DRIVEWAYS.
 - ONLY 3/4" (JUMPER) PIPES (RESIDENCES) ARE ALLOWED. (JUMPER) PIPES WILL BE REMOVED PRIOR TO METER SET DATE.
 - ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"X" FOR SANITARY SEWER SERVICE
"V" FOR WATER SERVICES
 - 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 PWSD 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: 2/98
APPROVED: 1/04	1/16
PVR	
DIRECTOR OF ENGINEERING	

2016 REVISION

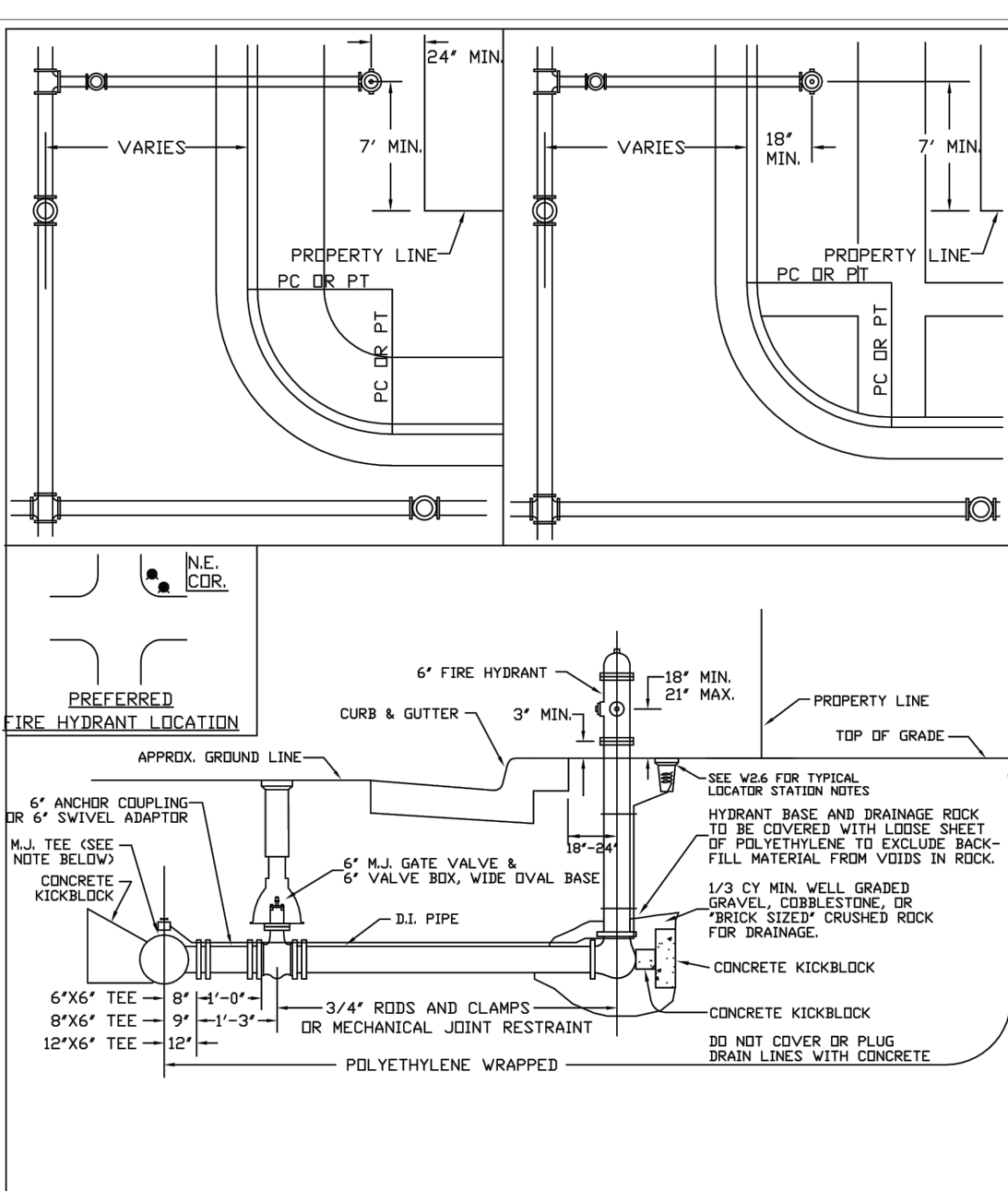
SHEET W1.1



PARKER WATER & SANITATION DISTRICT	
TYPICAL WATER SERVICES	
SCALE: NONE	DATE: 2/98
APPROVED: 1/04	10/16
PVR	
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W1.2

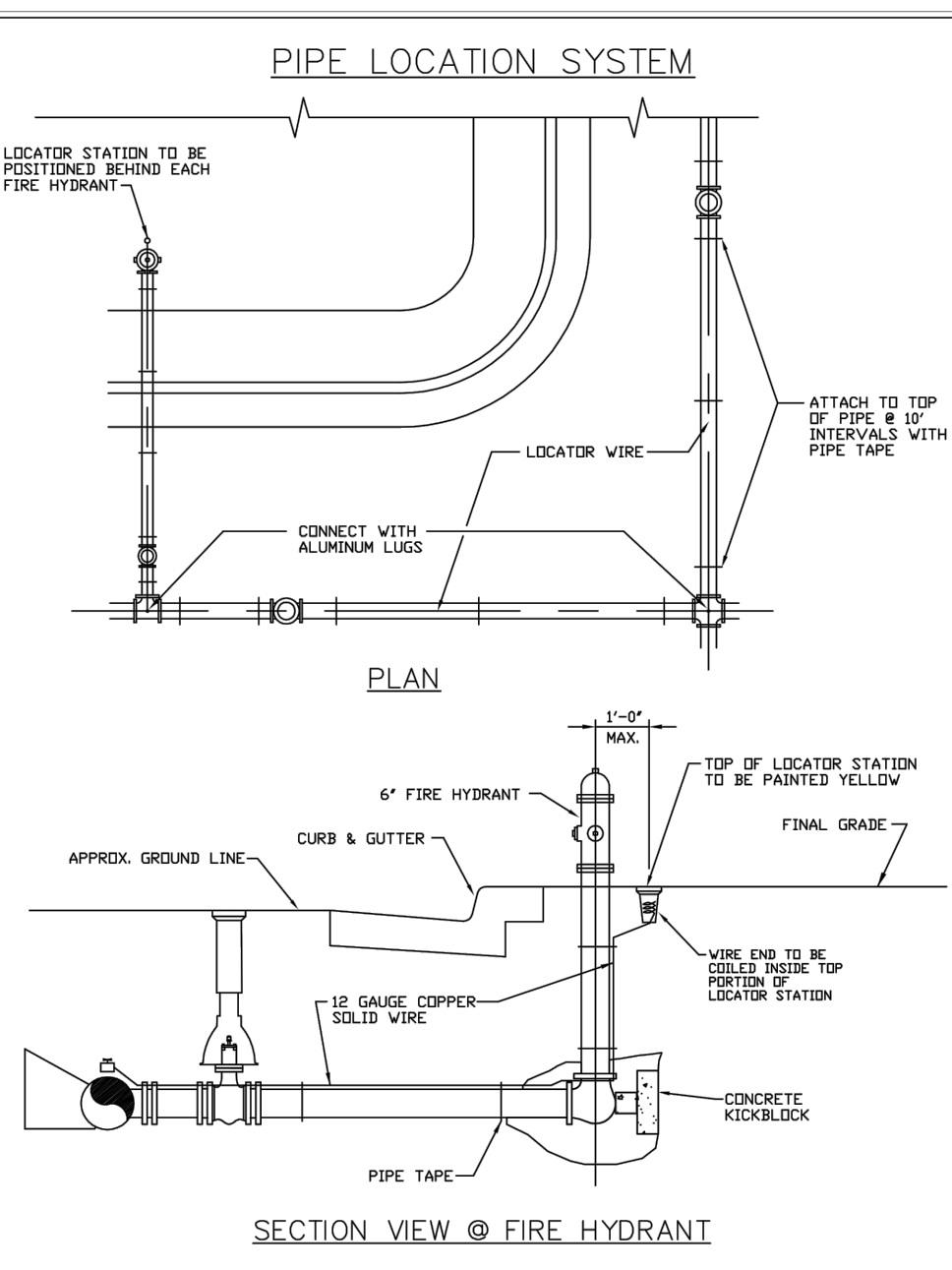


- NOTES:
- ALL LOCATIONS TO THE ABOVE, FASTEN ALL VALVE DIRECTLY TO A 6" ANCHOR TEE OR 6" SWIVEL ADAPTOR.
 - NO HORIZONTAL OR VERTICAL BENDS ARE ALLOWED IN FIRE HYDRANT BRANCH.
 - NO PORTION OF FIRE HYDRANT MAY
 - FIRE HYDRANT EXTENDING MAY NOT BE IN THE ROAD OR SIDEWALK AREA.

PARKER WATER & SANITATION DISTRICT	
FIRE HYDRANTS LOCATION & INSTALLATION	
SCALE: NONE	DATE: 2/98
APPROVED: 4/01	10/16
PVR	
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W2.5



- NOTES:
- FOR USE ON ALL DUCTILE IRON AND PVC WATER MAINS.
 - LOCATOR STATION POSITION MAY BE MODIFIED AT THE DISCRETION OF THE DISTRICT ENGINEER.
 - A CONTINUITY TEST WILL BE REQUIRED PRIOR TO PROVISIONARY ACCEPTANCE.

PARKER WATER & SANITATION DISTRICT	
LOCATOR WIRE DETAILS	
SCALE: NONE	DATE: 2/98
APPROVED: 4/01	10/16
PVR	
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W2.6

Kimley»Horn

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

PARKER AND PINE MULTI-FAMILY
PARKER, CO
CONSTRUCTION DOCUMENTS
UTILITY DETAILS

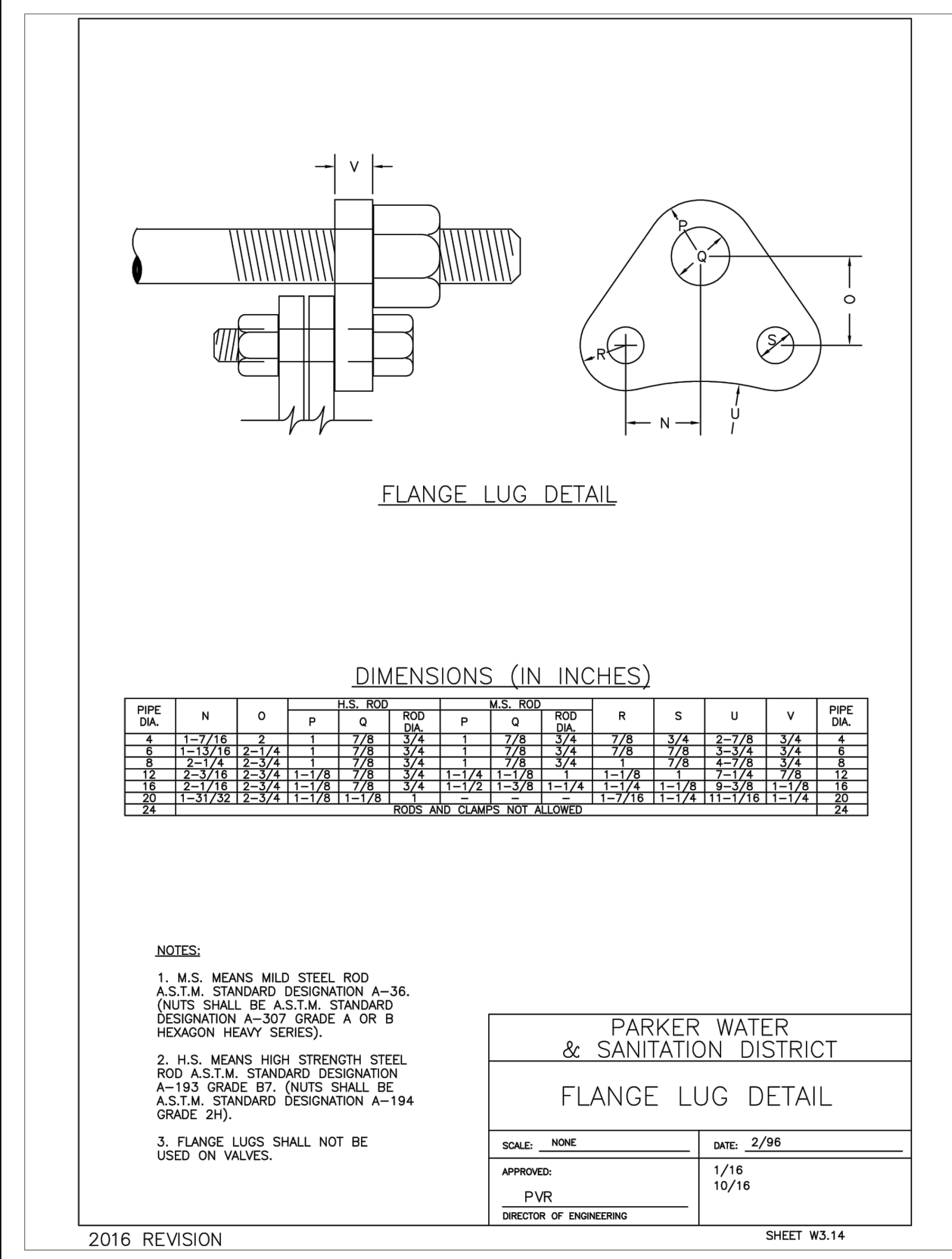
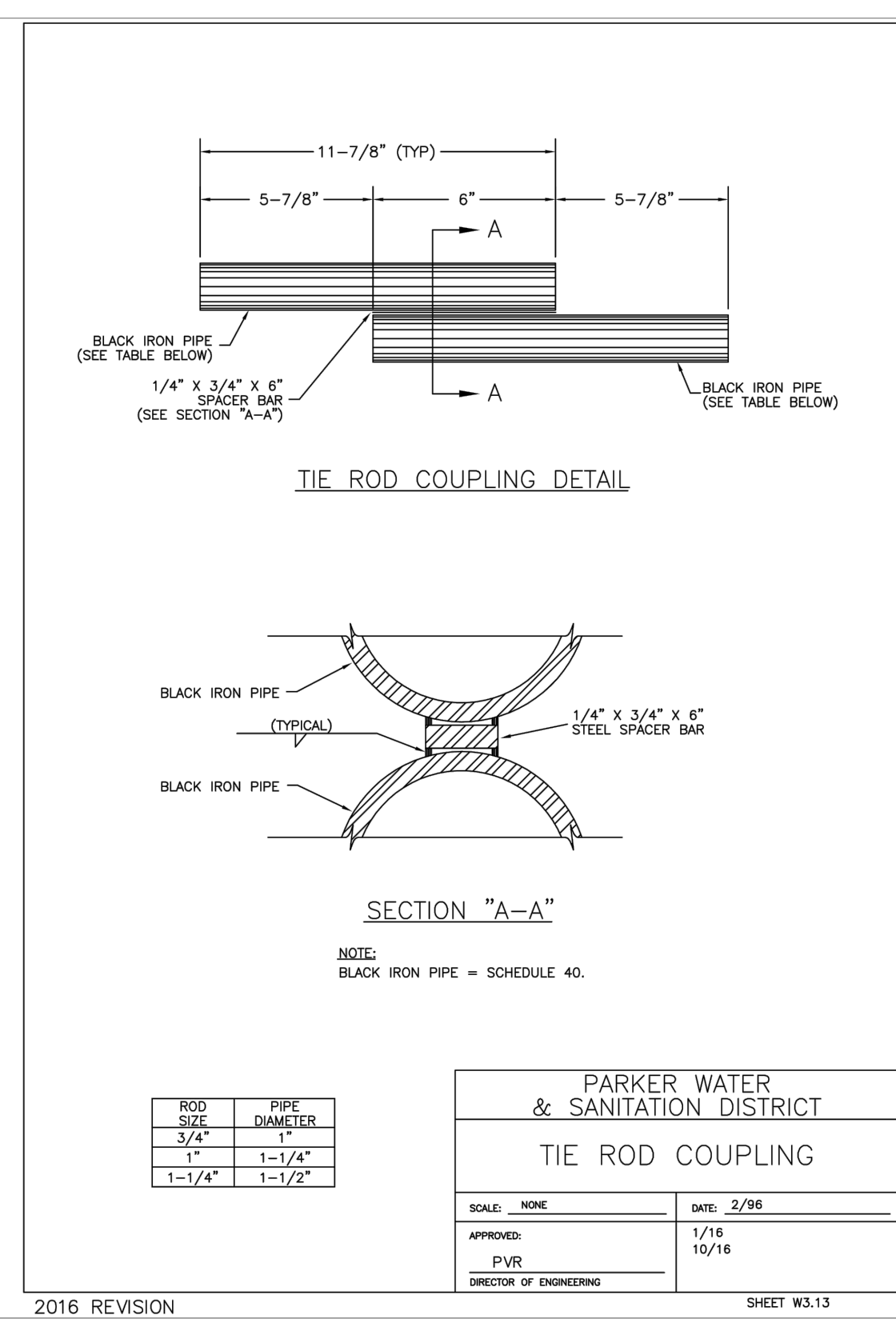
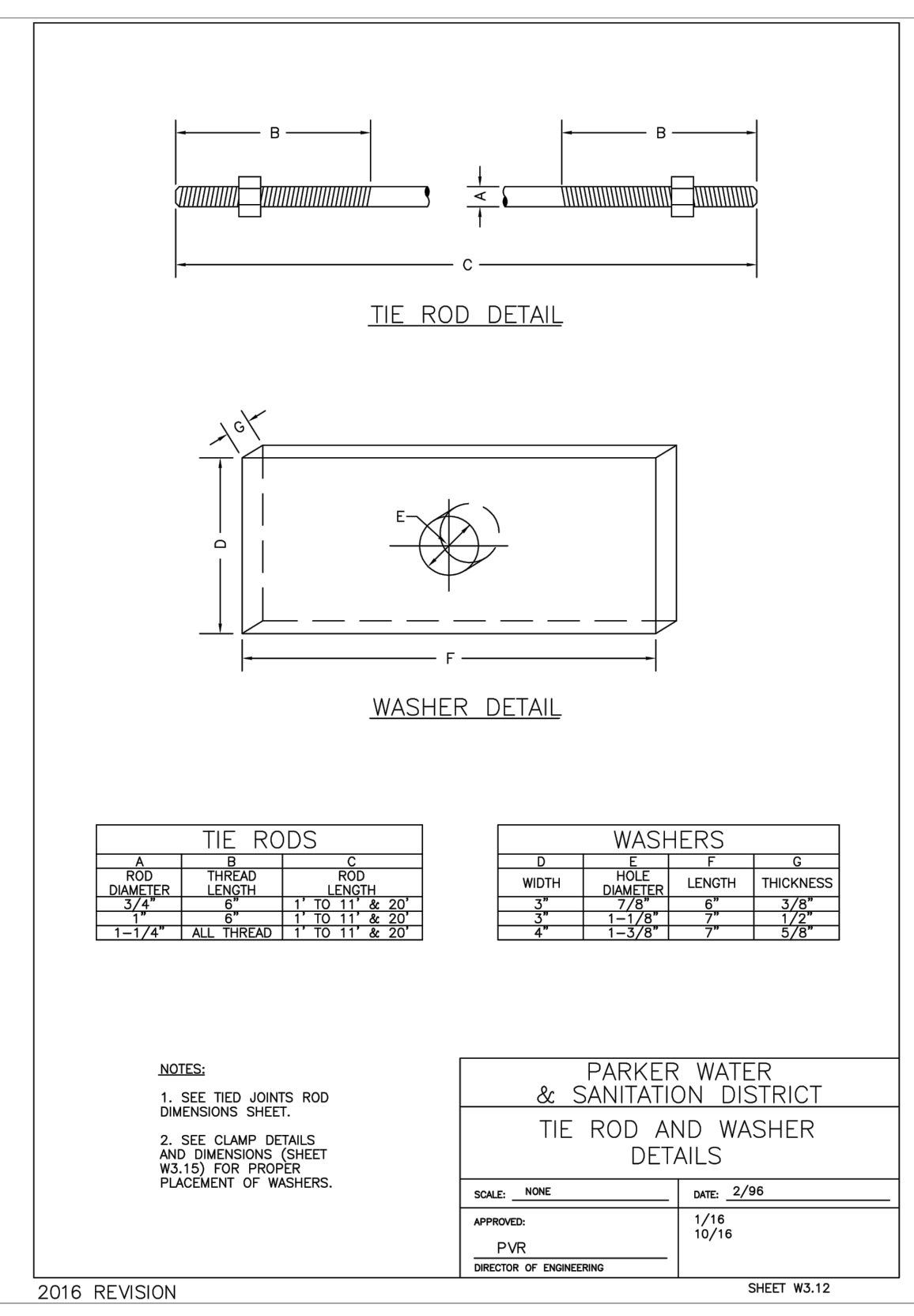
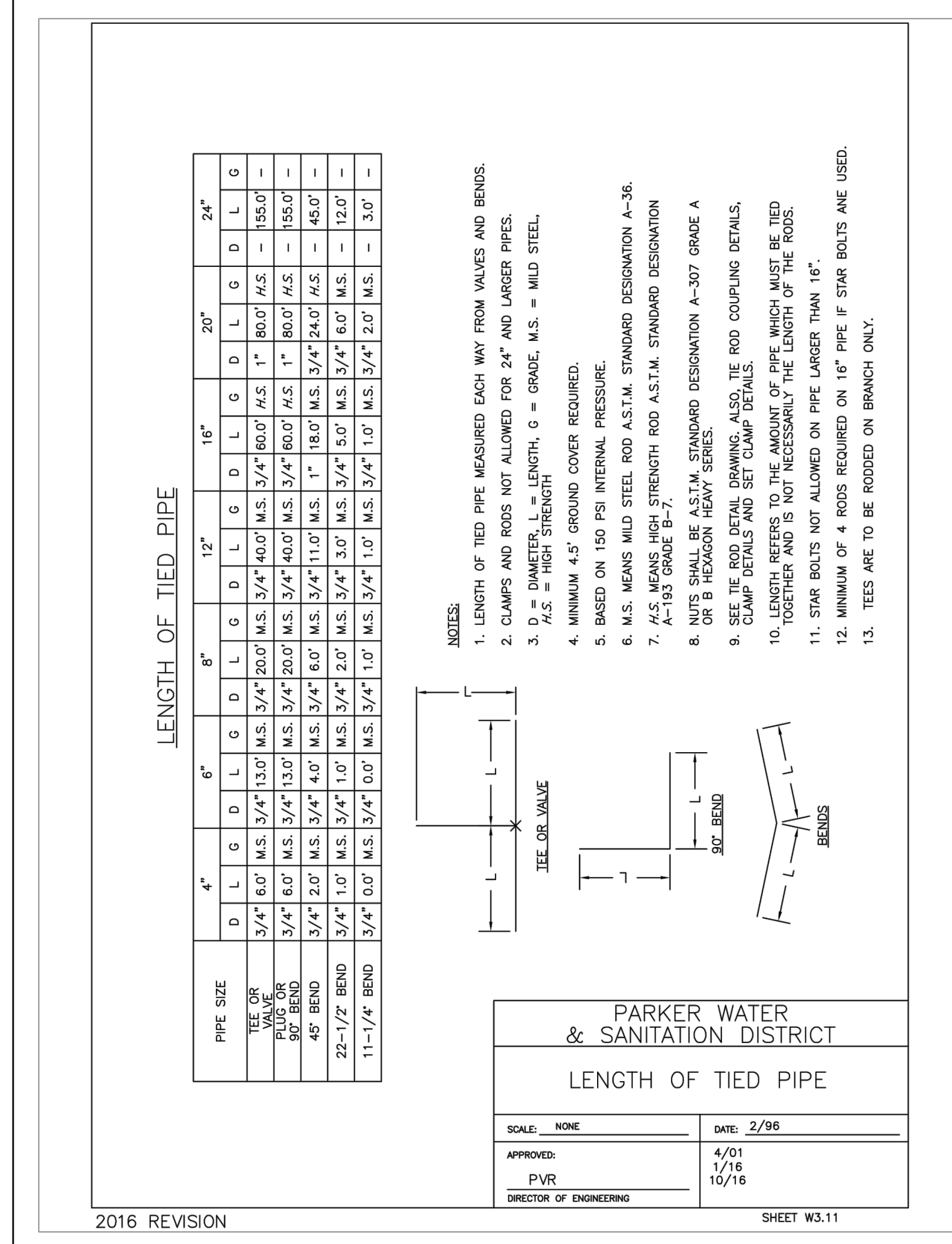
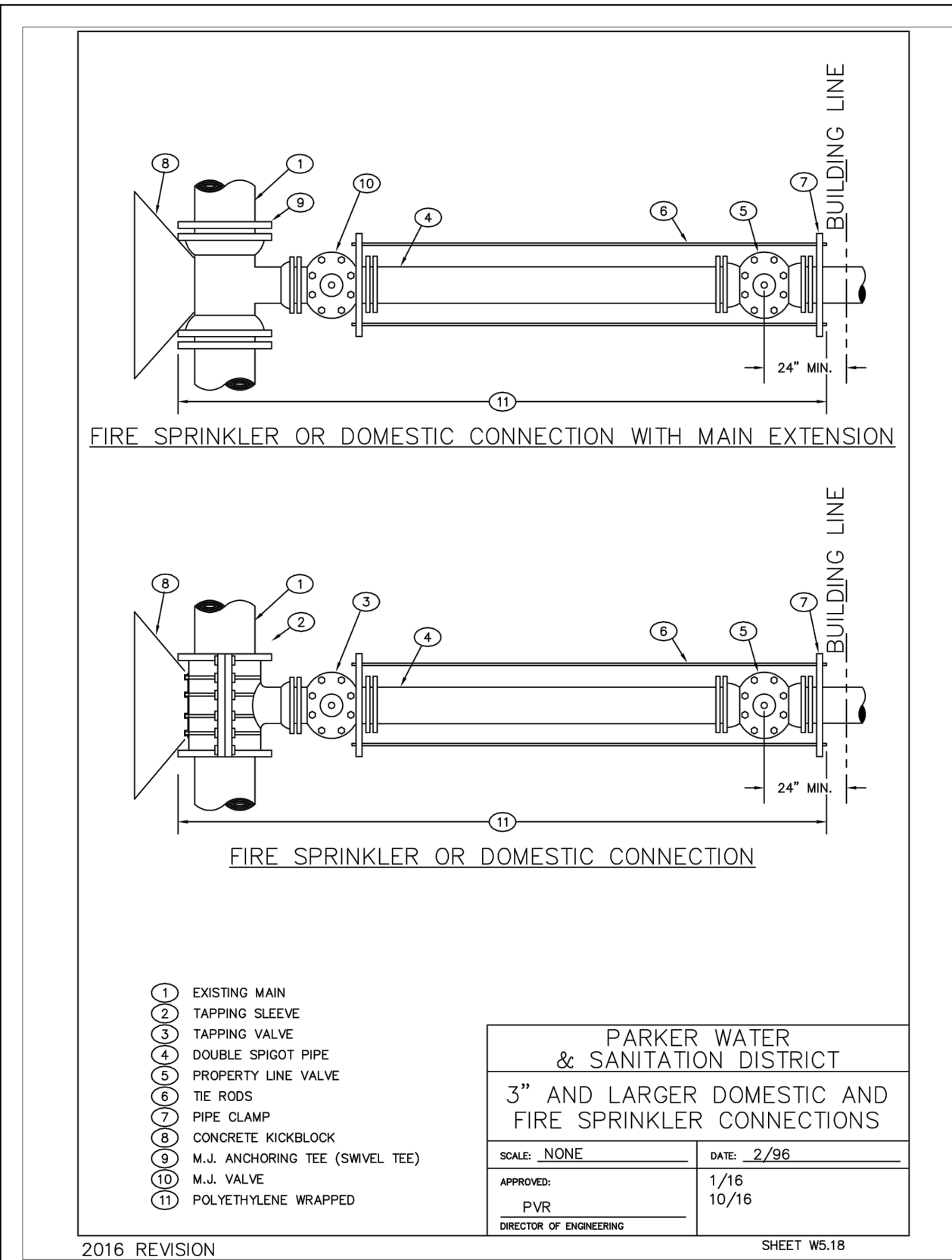
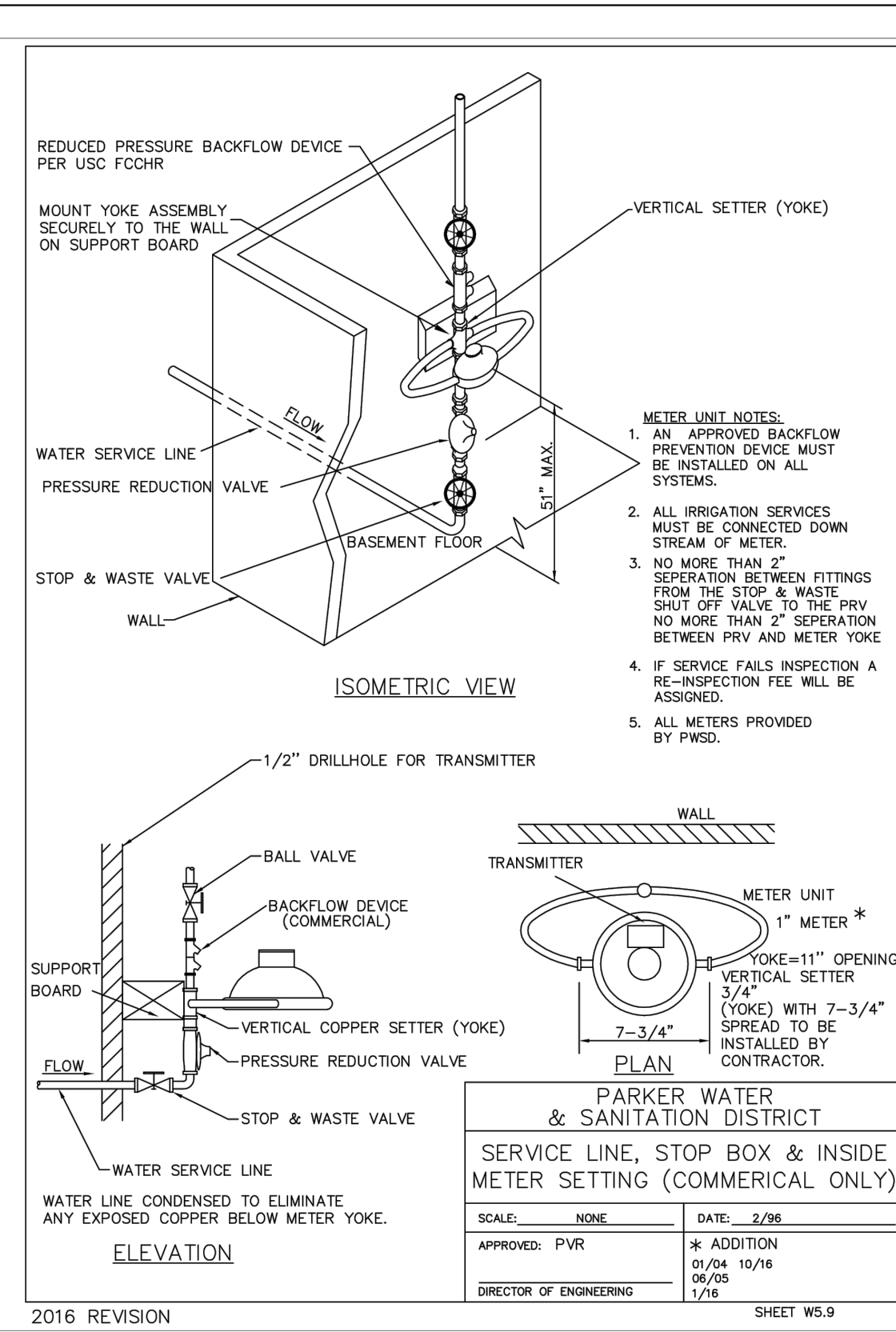
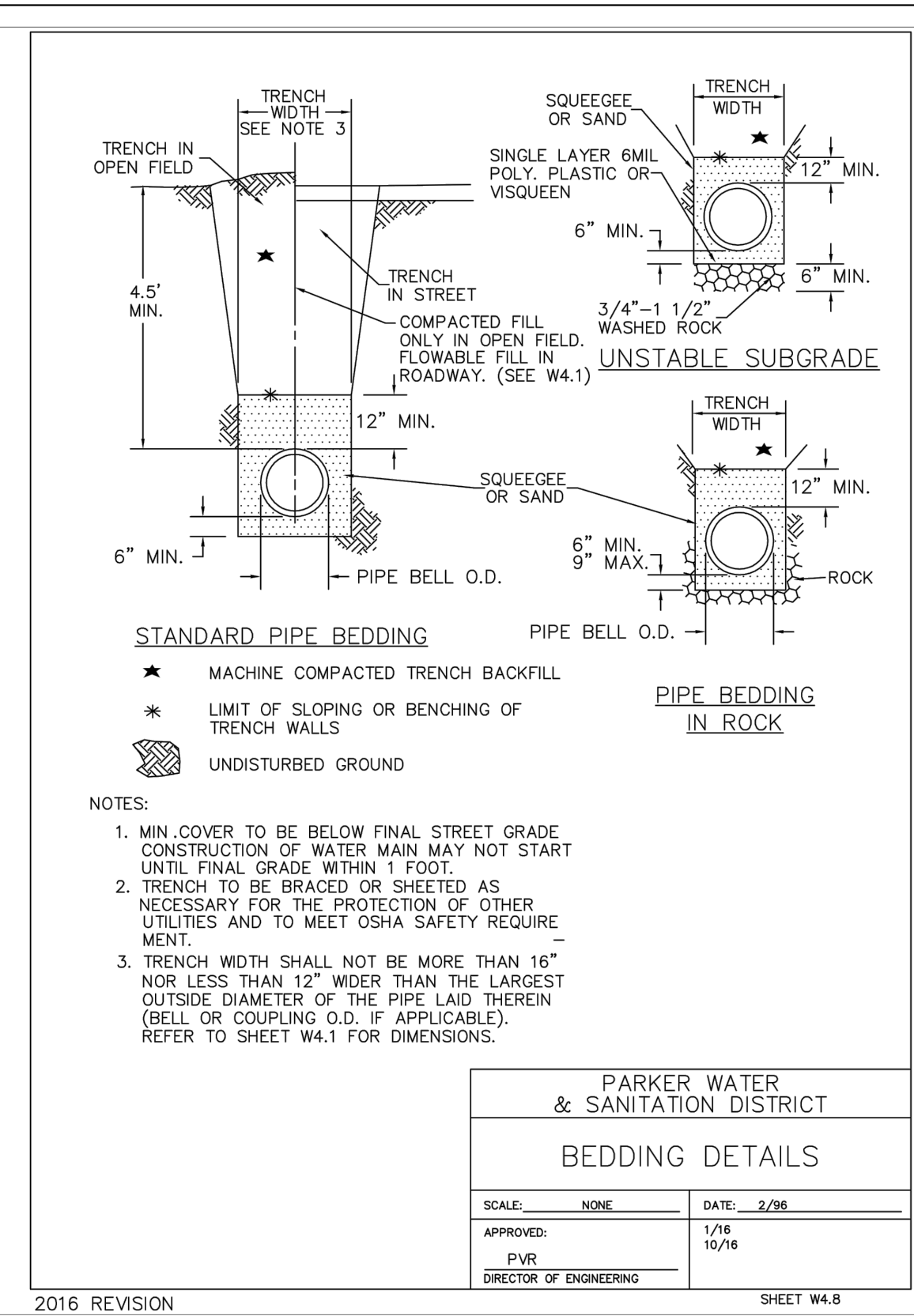
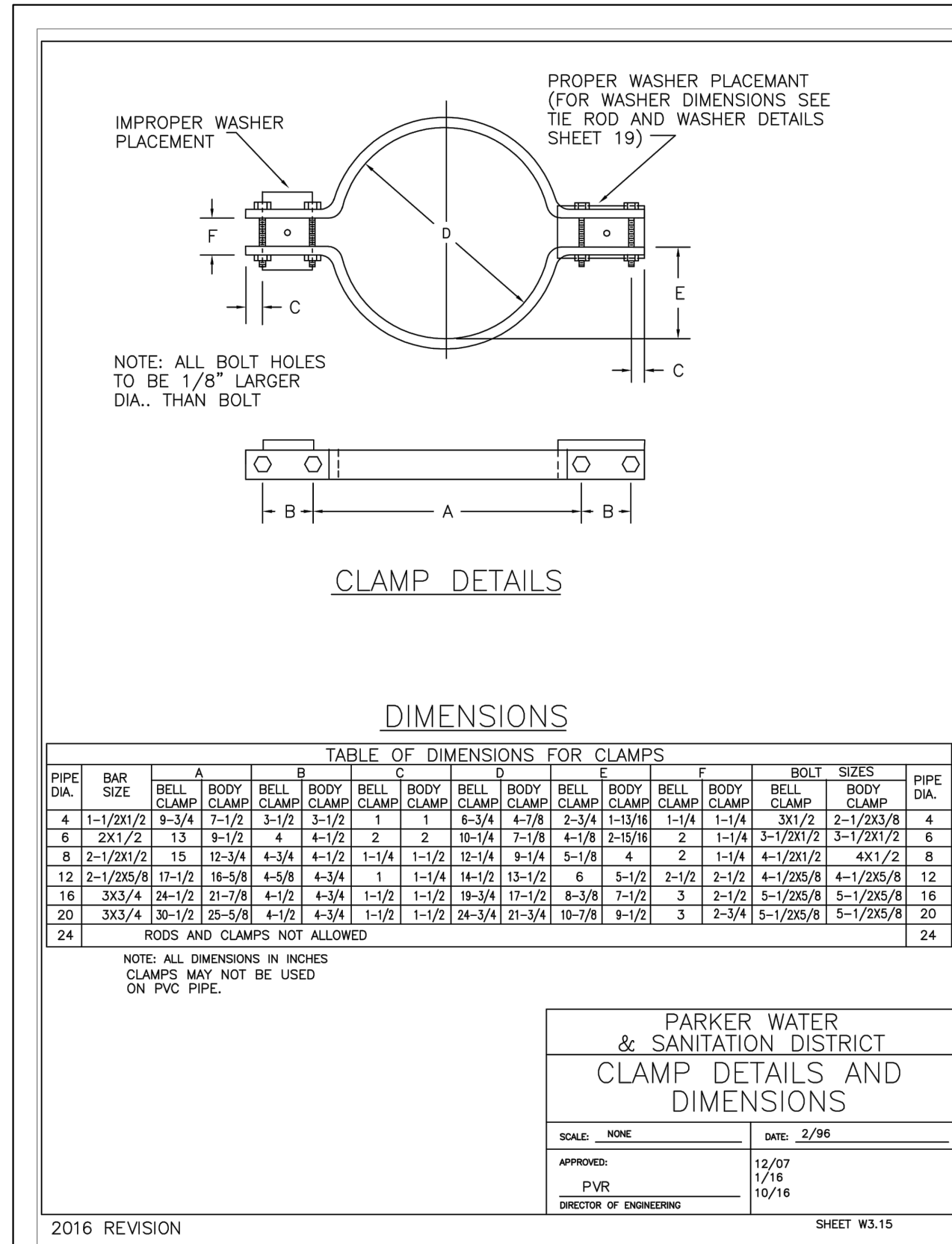
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Kimley»Horn
Kimley-Horn and Associates, Inc.

PROJECT NO.
096481002

DRAWING NAME
096481002UT_DT

C7.4

NO. REVISION BY DATE APPR



Kasprzak, Jack 10/8/2019 10:57 AM



PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-4"	2'-4"
6"	1'-6"	2'-6"
8"	1'-8"	2'-8"
12"	2'-0"	3'-0"
16"	2'-4"	3'-4"
20"	2'-8"	3'-8"
24"	3'-0"	4'-0"

PIPE BEDDING:

(c) 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. Bell holes shall be dug deep enough to provide a minimum of two inches (2") of clearance between the bell 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 bell holes.

Tamping is herein defined as the act of placing approved bedding material under the haunches of the pipe, paying particular attention to voids, bell holes, and sling 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:

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

<u>Sieve Size</u>	<u>Total Percent Passing by Weight</u>
3/8 inch	100
No. 4	70-100
No. 8	36-93
No. 16	20-80
No. 30	8-65
No. 50	2-30
No. 100	1-10
No. 200	0-3

Squeezee Sand
Use with 20-inch or smaller

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

If approved by the District, fines form 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.

PARKER WATER & SANITATION DISTRICT

PIPE BEDDING

SCALE: NONE	DATE: 2/9/88
APPROVED: PVR _____ DIRECTOR OF ENGINEERING	5/88 2/00 1/18 10/1

2016 REVISION

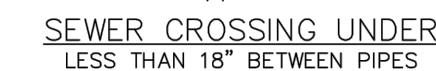


1. LENGTH OF EXTENSION OF PIPE AND HARNESS RODS SHALL BE IN ACCORDANCE WITH THESE ENGINEERING STANDARDS.
2. ALL WATER MAINS TWELVE (12") INCHES OR SMALLER, WHICH CROSS UNDER CONDUITS/STORM SEWER SHALL BE DUCTILE IRON OR PVC PER SPECIFICATIONS.
3. A BORED CROSSING MAY BE REQUIRED BY THE ENGINEER
4. CONCRETE KICKBLOCKS PER SHEET W3.18.

PARKER WATER
& SANITATION DISTRICT
CONDUIT OR STORM
SEWER CROSSING

SCALE: <u>NONE</u>	DATE: <u>2/98</u>
APPROVED: <u>PVR</u> DIRECTOR OF ENGINEERING	5/98 10/1 2/00 12/07 1/16

2016 REVISION



1. PIPE SHALL BE WRAPPED WITH FELT LAYER BEFORE ENCASING.

SECTION A-A

PARKER WATER
& SANITATION DISTRICT

CROSSING
STORM & SANITARY SEWERS

SCALE: <u>NONE</u>	DATE: <u>2/9/16</u>
APPROVED: PVR	1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W4.7

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: 08/25/20

PARKER AND PINE MULTI-FAMILY
PARKER, CO
CONSTRUCTION DOCUMENTS
UTILITY DETAILS

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PROJECT NO
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