

# CONVENIENCE STORE PARKER WATER AND SANITARY CONSTRUCTION PLANS

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 29,  
TOWNSHIP 6 SOUTH, RANGE 66 WEST 6TH P.M.  
LOT 1 OF DOUGLAS 234 FILING NO. 6  
TOWN OF PARKER, COUNTY OF DOUGLAS, STATE OF COLORADO

## APPLICANT/OWNER

TWIN STAR ENERGY, LLC  
7671 SHAFFER PARKWAY  
LITTLETON, CO 80127  
C/O: MARK PERRINO  
P: (303) 898-2603

## OWNERS'S REP

MAPCM  
6415 CHEROKEE DRIVE  
SEDALIA, CO 80135  
ATTN: MARK A PERRINO  
P: (303) 537-2603

## ARCHITECT

101, ARCHITECTURE LLC  
8400 E. CRESCENT PARKWAY, SUITE 160  
GREENWOOD VILLAGE, CO 80111  
ATTN: BUDDY POPPITT, LEED AP  
P: (720) 881-1600

## GAS SERVICE

XCEL ENERGY  
1123 WEST 3RD AVENUE  
DENVER, CO 80223  
ATTN: DONNA GEORGE  
P: (303) 571-3306

## ELECTRICAL SERVICE

IREA  
5496 US HWY 85  
SEDALIA, CO 80135  
ATTN: BROOKS KAUFMAN  
P: (720) 805 3331

## TELEPHONE

CENTURYLINK  
1801 CALIFORNIA STREET, SUITE 240  
DENVER, CO 80202  
ATTN: WILLIAM BENSON  
WILLIAM.BENSON2@LUMEN.COM

## TRAFFIC ENGINEER

RICK ENGINEERING COMPANY  
9801 EAST EASTER AVE.  
CENTENNIAL, CO 80112  
ATTN: JACK SCANLON, PE  
P: (303) 537-8020

## ENGINEERING CONSULTANT

ENTITLEMENT AND ENGINEERING SOLUTIONS, INC.  
501 S CHERRY STREET, SUITE 300  
GLENDALE, CO 80246  
ATTN: LANDIS GORDON, PE  
P: (618) 670-1512

## LANDSCAPE ARCHITECT

VALERIAN  
970 YUMA STREET SUITE 130  
DENVER, CO 80204  
ATTN: BRENT KASLON  
P: (303) 347-1200

## SURVEYOR

RICK ENGINEERING COMPANY  
9801 EAST EASTER AVE.  
CENTENNIAL, CO 80112  
ATTN: ROBERT HENNESSY, PLS  
P: (303) 537-8020

## WATER/SANITARY SEWER

PARKER WATER AND SANITATION DISTRICT  
18100 E. WOODMAN DRIVE  
PARKER, CO 80134  
ATTN: ROBERT RAMSEY  
P: (720) 842-4260

## FIRE DEPARTMENT

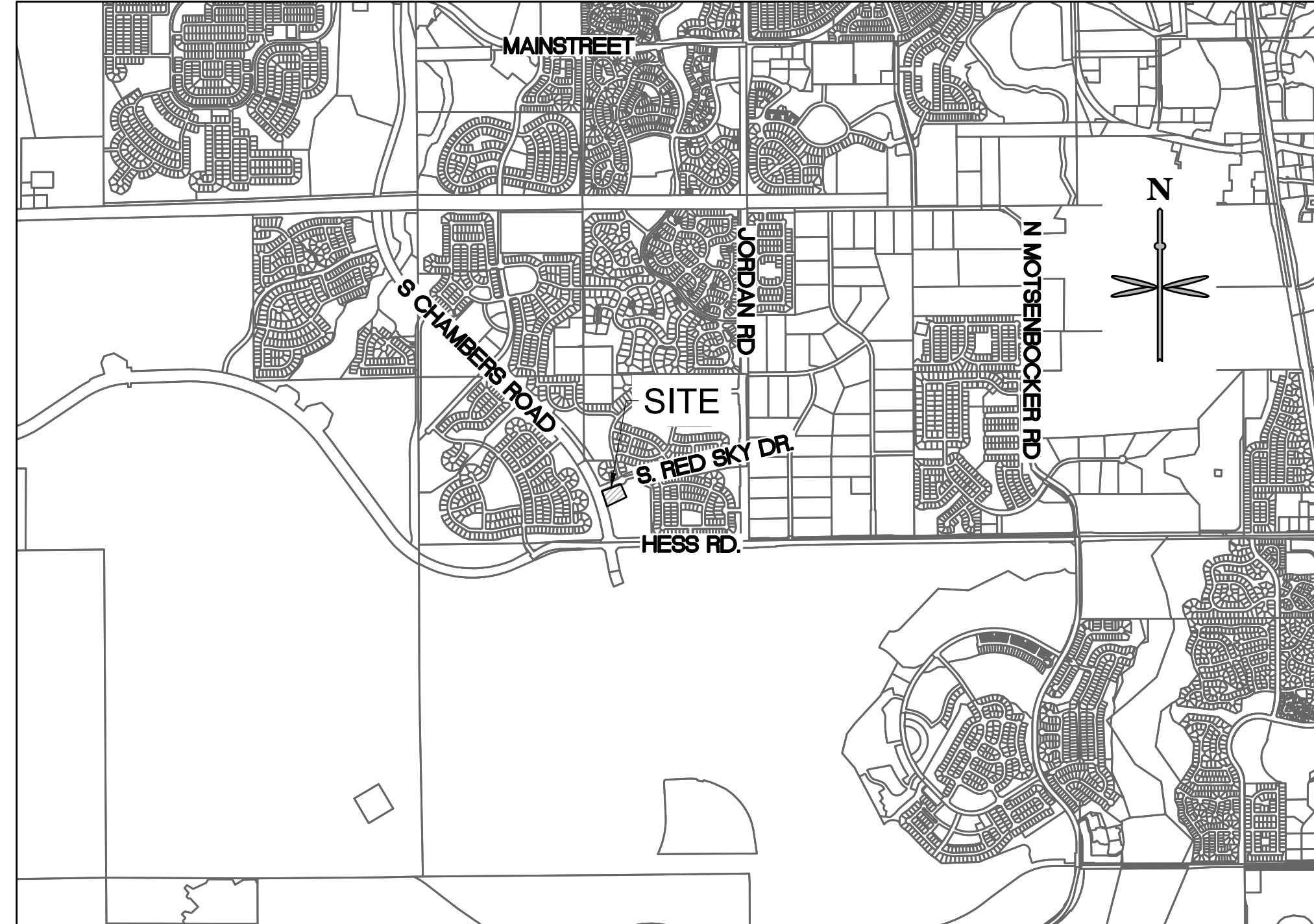
SOUTH METRO FIRE RESCUE AUTHORITY  
9195 E. MINERAL AVE.  
CENTENNIAL, CO 80112  
ATTN: RANDY CAPRA  
P: (303) 805-3169

## TOWN OF PARKER PLAN REVIEW

20120 E. MAINSTREET  
PARKER, CO 80138  
ATTN: BRIANNA SIMON  
P: (303) 805-3338

## GEOTECHNICAL ENGINEER

TERRACON  
10625 W. 1-70 FRONTAGE ROAD N, SUITE 3  
WHEAT RIDGE, CO 80033  
ATTN: JOHN HAAS  
P: (303) 454 5290



VICINITY MAP  
SCALE: 1" = 2000'

## PWSO MATERIALS LIST\*

### HYDRANT:

1. 1 EA - HYDRANT
2. 1 EA - GATE VALVE
3. 1 EA - 6X8 REDUCER
4. 217 LF - 8" PVC
5. 13 LF - 6" DIP
6. 1 EA - 8" X 8" TEE

### BUILDING FIRE PROTECTION:

7. 267 LF - 4" DIP
8. 4" TAPPING SLEEVE + VALVE, 4" PLUG.

### DOMESTIC WATER:

9. 73 LF - 1.5" TYPE K COPPER PIPE
10. 1.5" CURB STOP
11. 1.5" TAPPING SLEEVE + VALVE

### SANITARY SERVICE:

12. 274 LF - 4" PVC
13. 1 EA - 1,200 GAL. GREASE INTERCEPTOR.
14. 1 EA - SAMPLING MH
15. 2 EA - HS-20 TRAFFIC RATED CLEANOUT

\*QUANTITIES ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO ORDERING AND INSTALL.

## SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
U0.0	PARKER WATER AND SANITARY COVER
U0.1	PWSO STANDARD NOTES
U1.0	UTILITY PLAN
U2.0	WATER & SANITARY SEWER DETAILS
U2.1	WATER & SANITARY SEWER DETAILS
U2.2	WATER & SANITARY SEWER DETAILS
L-3	IRRIGATION PLAN
L-4	IRRIGATION DETAILS AND SPECIFICATIONS
L-5	IRRIGATION DETAILS

## BENCHMARK:

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THE MAP IS BY GPS OBSERVATION NAVD88. A SITE BENCH MARCH HAS BEEN SET AT THE NORTHWEST CORNER OF A DRAIN INLET ON CHAMBERS ROAD, APPROXIMATELY 200' NORTH OF HESS ROAD. ELEVATION = 6075.31

## BASIS OF BEARING:

THE BASIS OF BEARING IS THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 29 TOWNSHIP 6 SOUTH, RANGE 66 WEST, 6TH PRINCIPAL MERIDIAN, BEARING SOUTH 89°15'13" WEST AS SHOWN ON FINAL PLAT DOUGLAS 234 FILING NO. 1.

## 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 T6SR66WS29 AND DATED MARCH 16, 2016 - SUBJECT PROPERTY IS NOT IN A SPECIAL FLOOD HAZARD AREA.

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

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.

*Jeffrey M. Kill*  
DATE: 06/02/2022  
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.

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: \_\_\_\_\_

DATE: \_\_\_\_\_

No.	REVISION	DATE

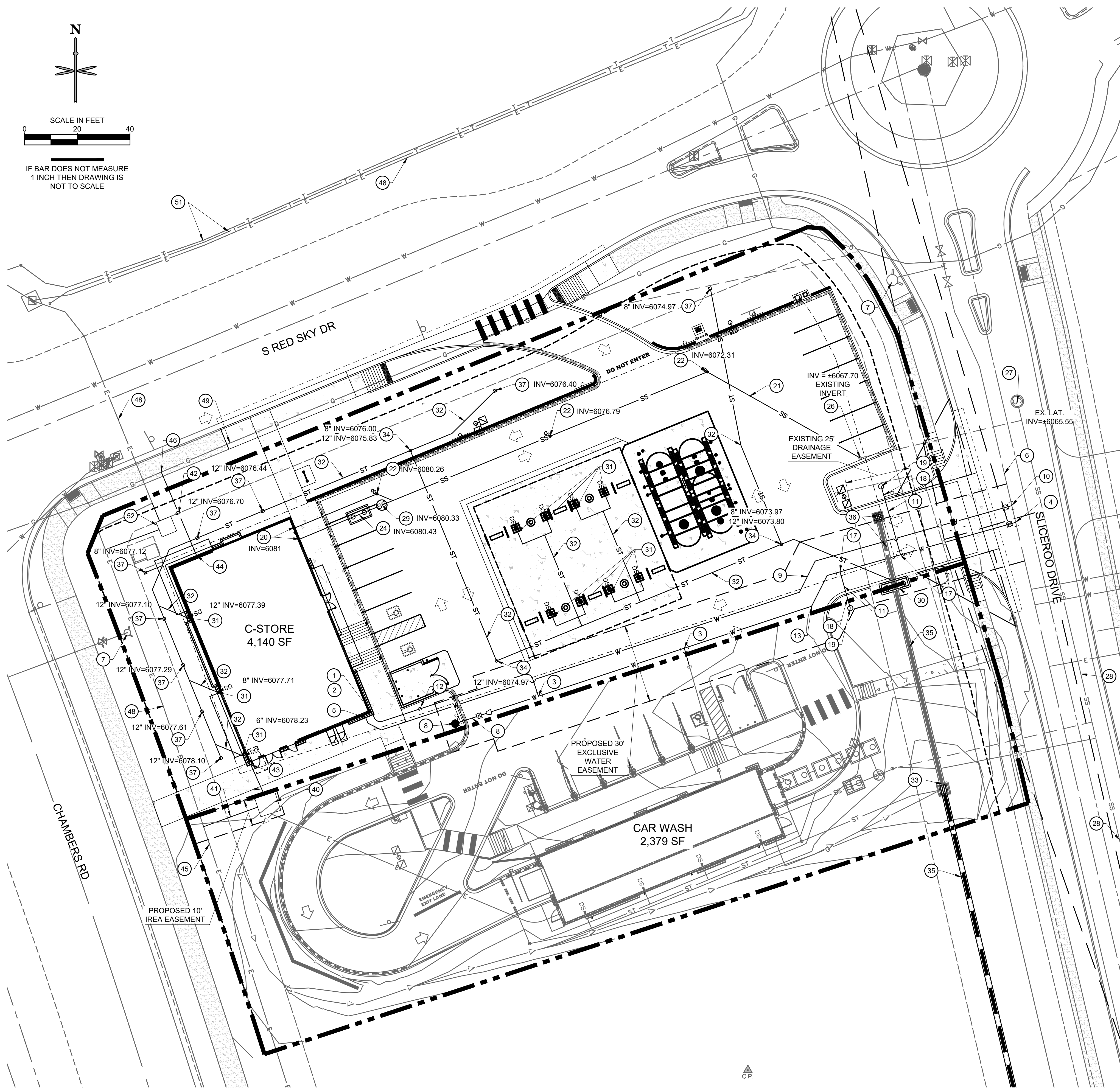
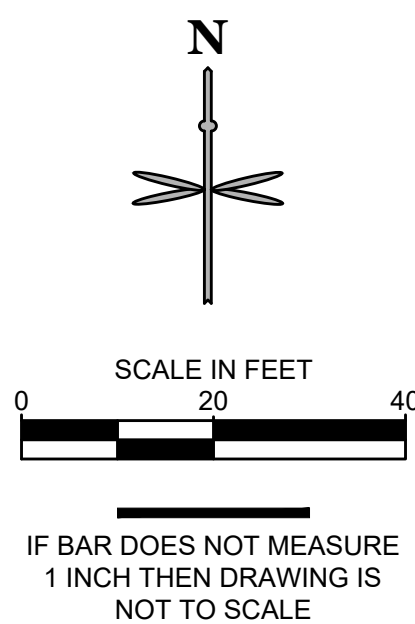


PWSO CONSTRUCTION PLANS LOT 1  
**CONVENIENCE STORE**  
12181 SLICEROO DRIVE, PARKER, CO 80134  
**PARKER WATER AND SANITARY COVER**

PROJECT NO: TWS015.01  
DESIGNED BY: LCG  
DRAWN BY: JLG  
DATE: 4/12/2022  
**U0.0**

P:\TWINSTAR\ENERGY\CO - PARKER - CHAMBERS & HESS\06 CAD\SITE PLAN\LOT 1 COVER SHEET.DWG





**WATER**

- 1 PROPOSED 1.5" TYPE K COPPER LINE (C-STORE), 2" (CAR WASH) DOMESTIC WATER CONNECTION TO BUILDING. STUB 5' OFF OF BUILDING. REFER TO PLUMBING PLANS UNDER SEPARATE COVER FOR CONTINUATION.
- 2 PROPOSED 1.5" DOMESTIC INTERIOR WATER METER (C-STORE), 2" INTERIOR WATER METER (CARWASH).
- 3 PR. 73 LF - 1.5" TYPE K COPPER LINE (C-STORE), 45 LF - 2" (CAR WASH) DOMESTIC WATER TAP.
- 4 PR. 8" X 8" TEE.
- 5 PROPOSED FDC WITH KNOX BOX.
- 6 8" PVC WATER MAIN BY MASTER DEVELOPER.
- 7 F.H. (EXISTING OR BY MASTER DEVELOPER).
- 8 PR. FIRE HYDRANT, 6" VALVE, 6"X8" REDUCER.
- 9 PR. ±267 LF 4" DIP FIRE LINE (PRIVATE). (VERIFY W/ MEP).
- 10 PR. 8" X 4" TS&V, 4" UFL DIP, 4" PLUG (BY OTHERS).
- 11 PR. 3/4" IRRIGATION LINE, VALVE, METER.
- 12 PR. 1.5" DOMESTIC CURB STOP (C-STORE), 2" DOMESTIC CURB STOP (CARWASH).
- 13 PR. ±217 LF 8" PVC FIRE LINE.
- 14 PR. ±13 LF 6" DIP LINE.
- 15 PR. 8"X1.5" TAPPING SLEEVE W/ SADDLE.
- 16 PR. 8"X2" TAPPING SLEEVE W/ SADDLE.
- 17 PR. 8"X3" TAPPING SLEEVE W/ SADDLE.
- 18 3/4" IRRIGATION CURB STOP VALVE + TRAFFIC-RATED COVER.
- 19 3/4" IRRIGATION METER PIT.

**SANITARY SEWER**

- 20 PROPOSED 4" SANITARY SEWER STUB 5 FEET OFF BUILDING. REFER TO PLUMBING PLANS UNDER SEPARATE COVER FOR CONTINUATION.
- 21 PROPOSED 4" PVC SDR 35 SANITARY SEWER SERVICE @ 2.1% SLOPE.
- 22 PROPOSED HS-20 TRAFFIC RATED SANITARY SEWER CLEANOUT.
- 23 PROPOSED 45" BEND W/ HS-20 TRAFFIC RATED SANITARY SEWER CLEANOUT.
- 24 PR. 1,200 GAL. GREASE INTERCEPTOR. (VERIFY W/ MEP).
- 25 PR. PRIVATE RECLAIM SYSTEM WITH SAND OIL INTERCEPTOR. (VERIFY W/ MEP).
- 26 PR. 4"X6" RED. CONN. TO EX. 6" SAN. STUB. C.O. ATG.
- 27 EXISTING SANITARY MANHOLE BY MASTER DEVELOPER.
- 28 EX. 8" PVC MAIN.
- 29 PROPOSED SAMPLING MANHOLE.

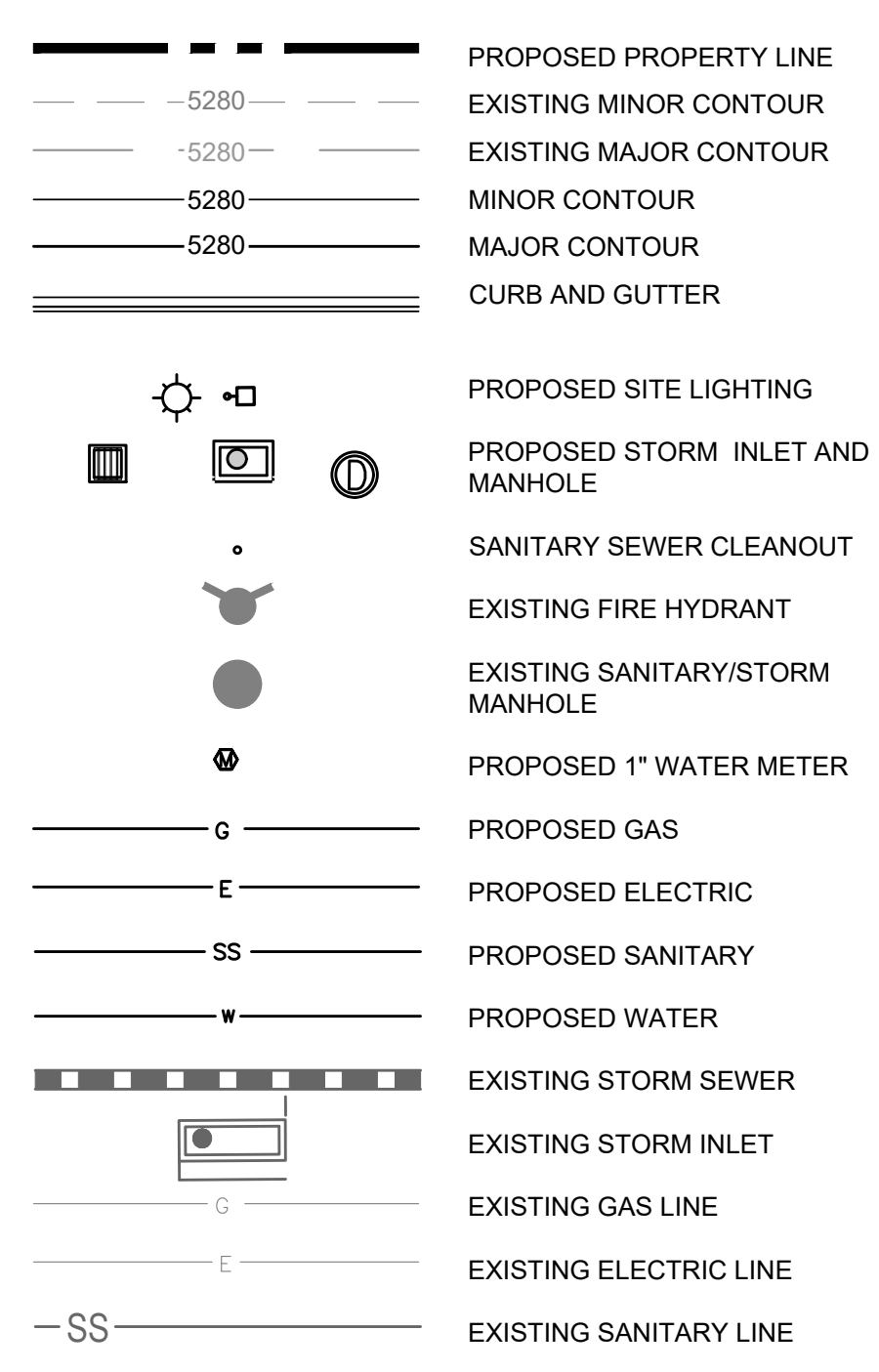
**STORM SEWER**

- 30 PROPOSED PRIVATE CDOT 10' TYPE R INLET. CONNECTION TO EXISTING PRIVATE STORM SEWER PROVIDED BY BY MASTER DEVELOPER. CONTRACTOR TO VERIFY INVERTS AND NOTIFY ENGINEER OF ANY DISCREPANCY. SEE SHEET C3.0 FOR INVERTS.
- 31 PROPOSED DOWNSPOUT LOCATION.
- 32 PROPOSED BURIED DOWNSPOUT. SEE SHEET C3.1.
- 33 EXISTING PRIVATE STORM SEWER, INLET OR MANHOLE BY MASTER DEVELOPER. PROTECT IN PLACE.
- 34 PROPOSED STORM CLEANOUT.
- 35 PRIVATE 18" STORM SEWER PIPE BY MASTER DEVELOPER. PROTECT IN PLACE.
- 36 PRIVATE STORM SEWER OR INLET BY MASTER DEVELOPER TO BE REMOVED.
- 37 PROPOSED PRIVATE LANDSCAPE DRAIN.

**DRY UTILITIES**

- 40 PROPOSED 8" X 8" ELECTRICAL TRANSFORMER PAD. REFER TO MEP PLANS FOR TRANSFORMER DESIGN UNDER SEPARATE COVER.
- 41 PROPOSED ELECTRIC LINE. (APPROXIMATE LOCATION, CONTRACTOR TO COORDINATE WITH PROJECT MEP AND UTILITY COMPANY PRIOR TO ANY CONSTRUCTION).
- 42 PROPOSED GAS LINE. (APPROXIMATE LOCATION, CONTRACTOR TO COORDINATE WITH PROJECT MEP AND UTILITY COMPANY PRIOR TO ANY CONSTRUCTION).
- 43 PROPOSED ELECTRICAL METER. (LOCATION FOR REFERENCE ONLY).
- 44 PROPOSED GAS METER. (LOCATION FOR REFERENCE ONLY).
- 45 PROPOSED ELECTRIC LINE CONNECTION TO EXISTING LINE. (LOCATION FOR REFERENCE ONLY).
- 46 PROPOSED GAS LINE CONNECTION TO EXISTING LINE. (LOCATION FOR REFERENCE ONLY).

**UTILITY LEGEND**



**UTILITY NOTES:**

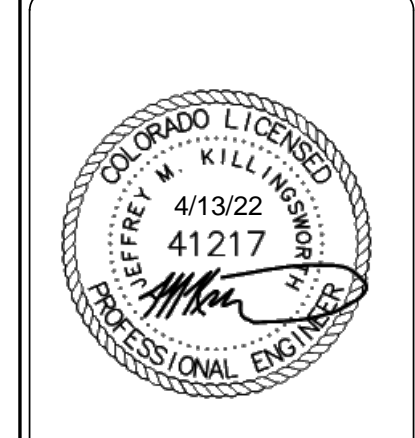
1. CONSTRUCT ALL WET UTILITIES IN ACCORDANCE WITH THE TOWN OF PARKER STANDARDS AND DETAILS.
2. ALL PROPOSED EASEMENTS MUST BE RECORDED PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.
3. THE MINIMUM SEPARATION BETWEEN WATERLINES, SANITARY SEWER AND STORM SEWER LINES IS 10 FEET.
4. THE MINIMUM SEPARATION BETWEEN WATER SERVICE LINES IS 3 FEET.
5. THE SITE IS LOCATED WITHIN THE TOWN OF PARKER WATER PRESSURE ZONE.
6. THE CONTRACTOR SHALL NOTIFY ENGINEER AND FIELD VERIFY TYPE, SIZE, AND LOCATION OF EXISTING UTILITIES PRIOR TO UTILITY CONSTRUCTION.
7. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PARKER OF ANY WORK THAT IS REQUIRED SHUTDOWN OR INTERRUPTION OF SERVICE OF EXISTING WATER MAINS TWO WEEKS PRIOR TO THE PROPOSED SHUTDOWN OR INTERRUPTION UNLESS OTHERWISE APPROVED BY THE UTILITIES DEPARTMENT.

**DRY UTILITIES CONT.:**

- 47 PROPOSED LIGHT POLE, BASE AND FIXTURE (SEE PHOTOMETRIC PLAN UNDER SEPARATE COVER).
- 48 EXISTING UNDERGROUND ELECTRIC.
- 49 EXISTING UNDERGROUND GAS LINE.
- 50 EXISTING UNDERGROUND COMMUNICATION LINE.
- 51 EXISTING TELECOMMUNICATION LINE.
- 52 PROPOSED SWITCH CABINET.

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.

DATE	
BY	
REVISION	
No.	



**PWS CONSTRUCTION PLANS LOT 1**  
**CONVENIENCE STORE**  
 12181 SLICEROO DRIVE, PARKER, CO 80134  
**UTILITY PLAN**

PROJECT NO.:	TWS015.01
DESIGNED BY:	LCG
DRAWN BY:	JLG
DATE:	4/12/2022
<b>U1.0</b>	

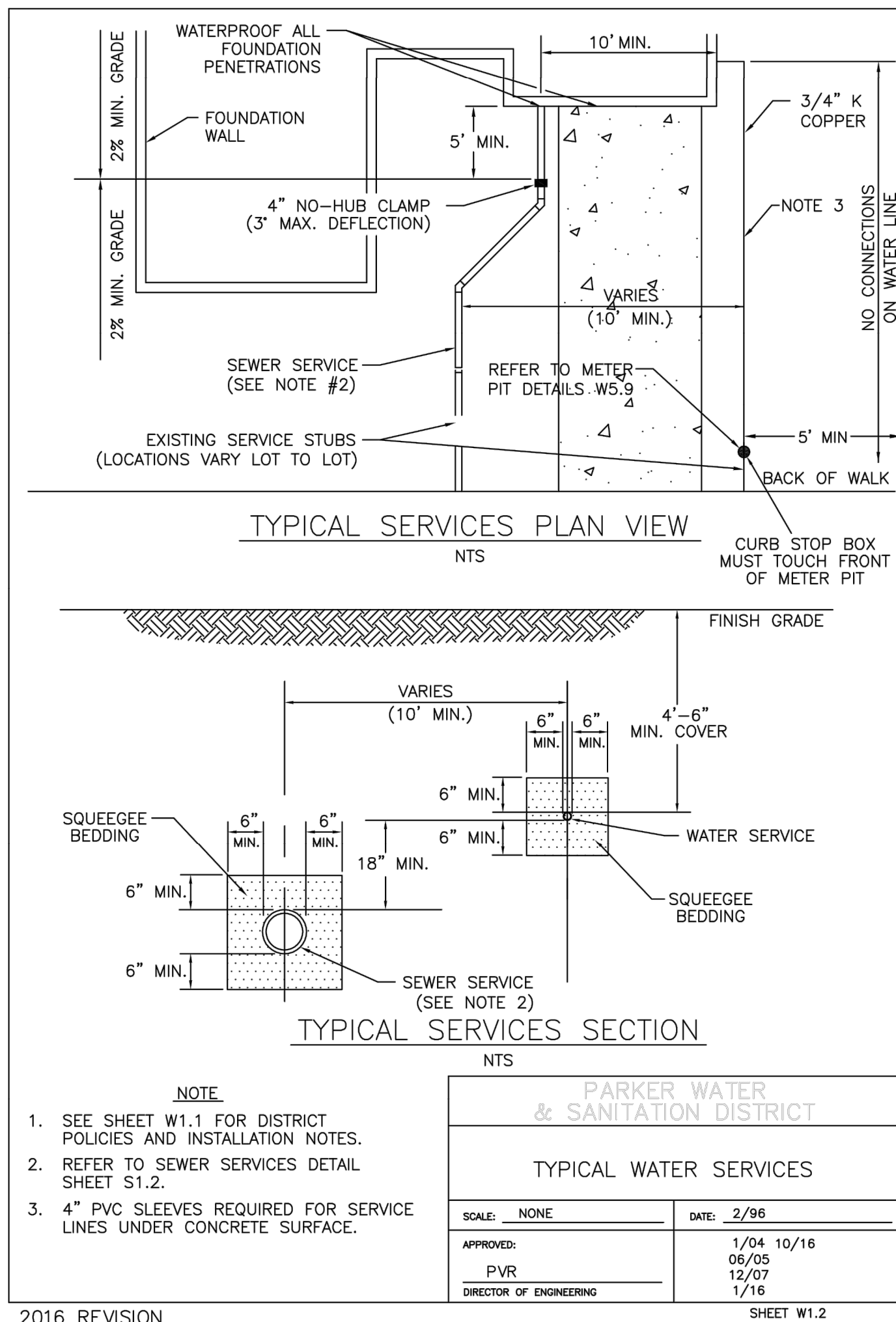
ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO WATER UTILITY STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

*Jeffrey A. Kill*  
 FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE  
 DATE: 06/02/2022

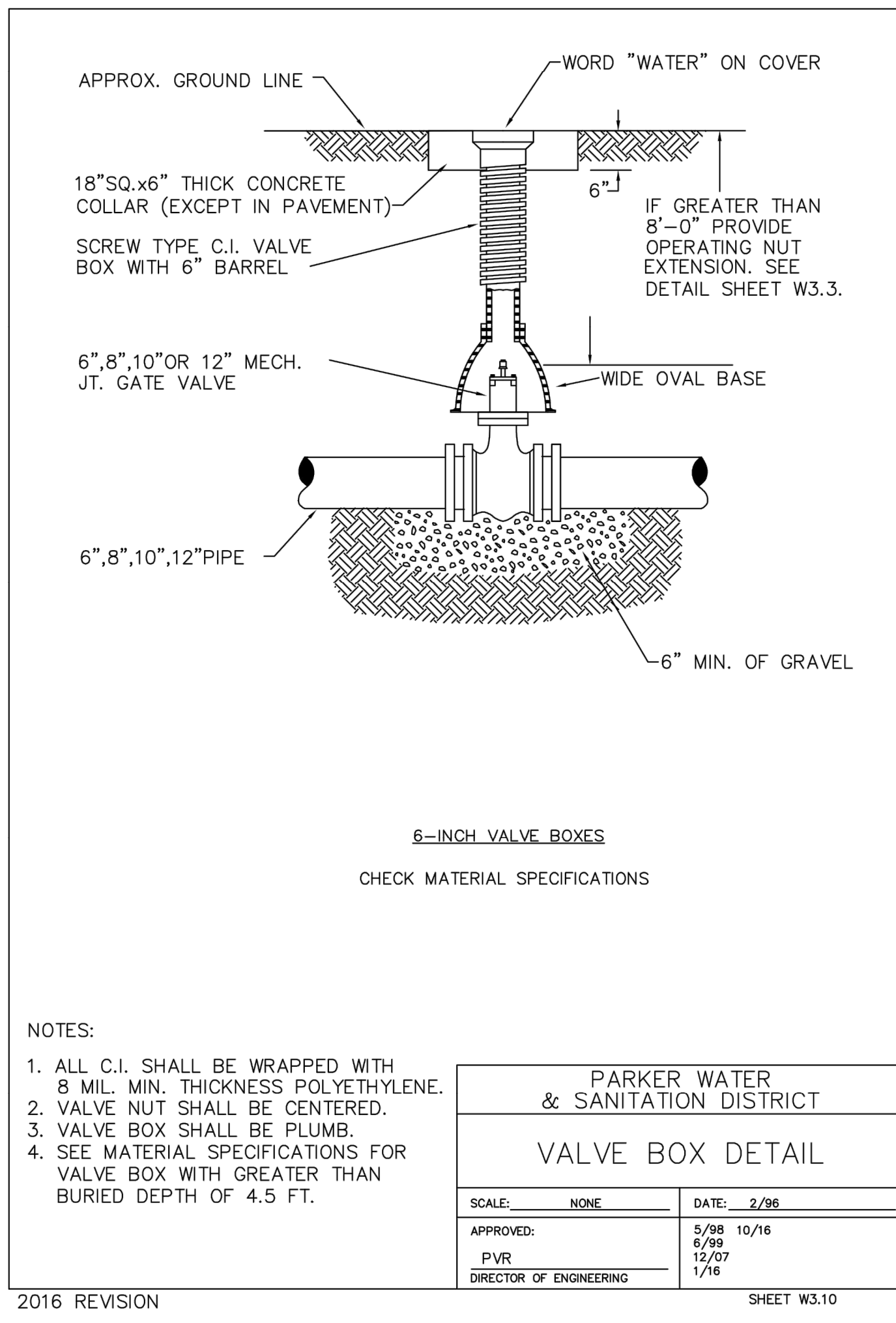
(NOTE - UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENT OF NFPA 24 WHEN SUBMITTING FOR REVIEW.)

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

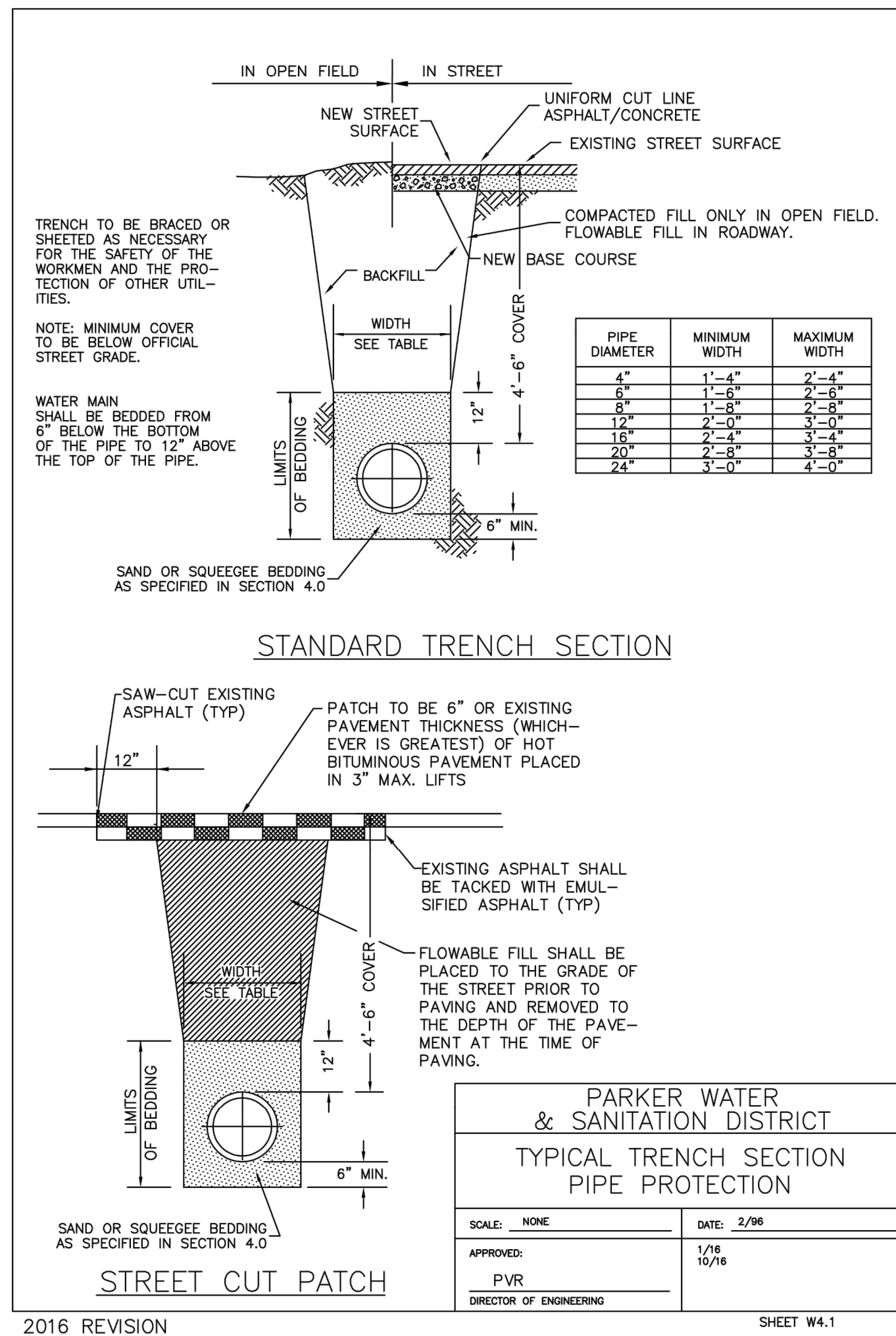
P:\TWINSTAR\ENERGY\COO, PARKER, CHAMBERS & HESS\06\CAD\SITE PLAN\LOT 1 UTILITY PLAN.DWG



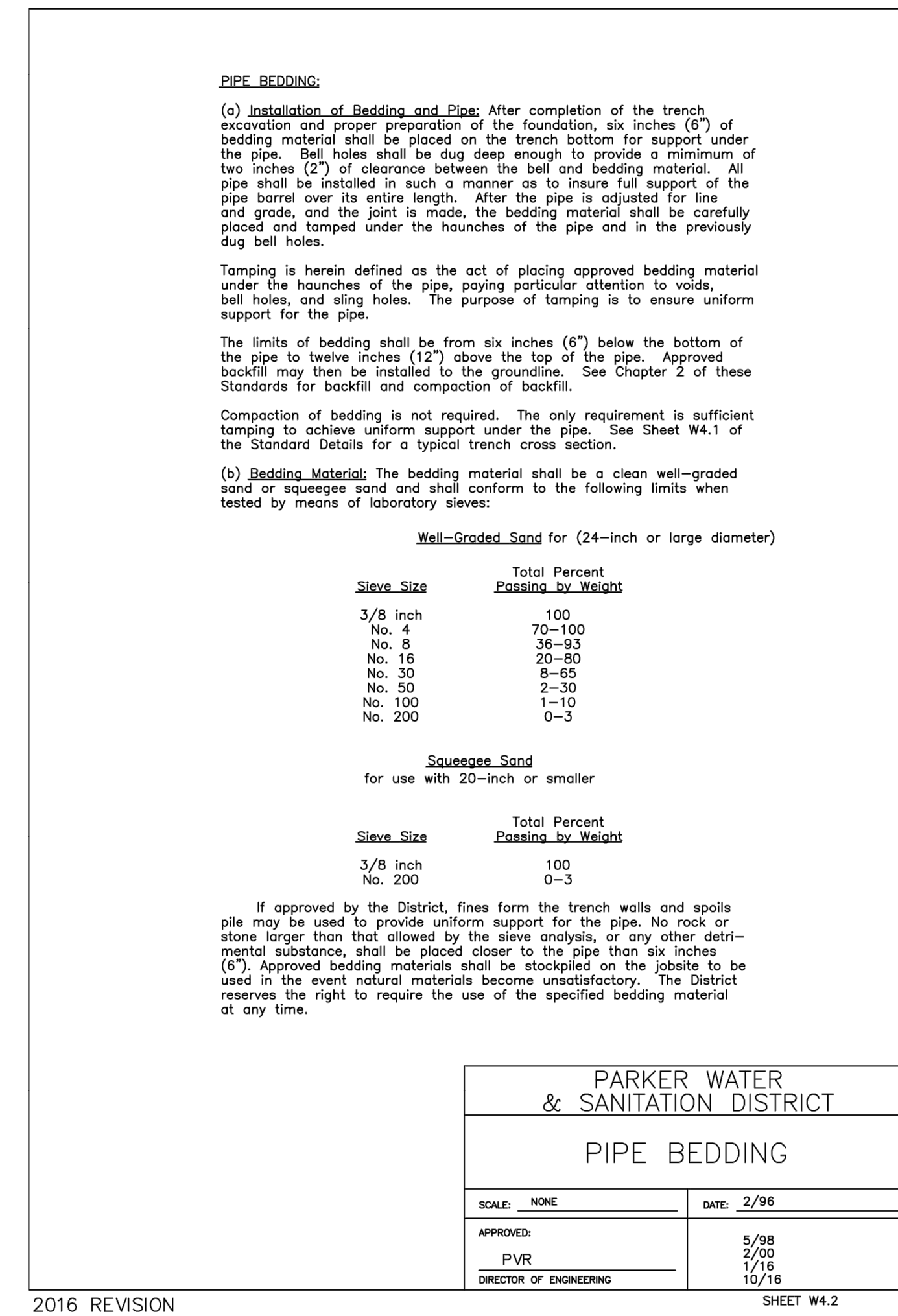
2016 REVISION



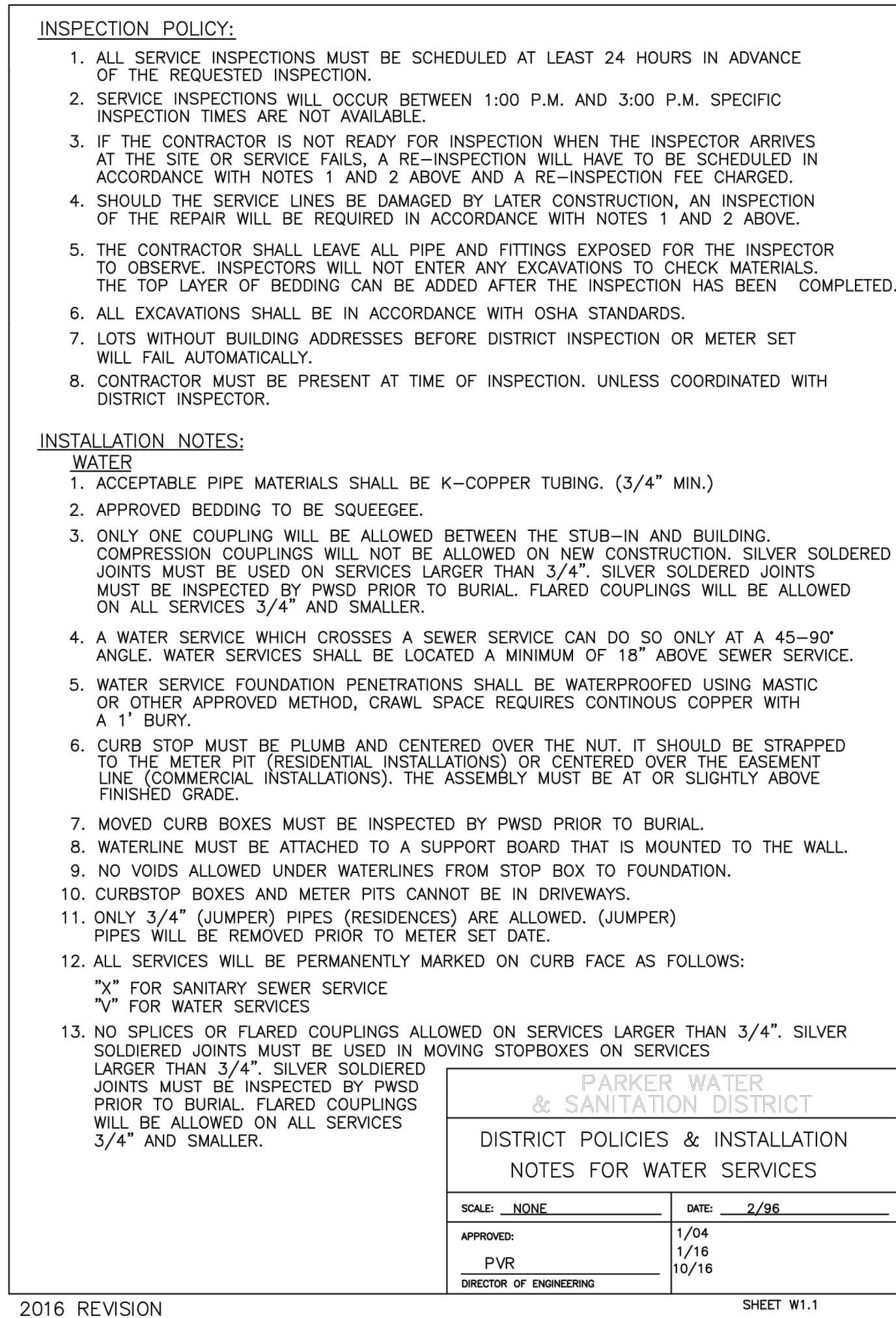
2016 REVISION



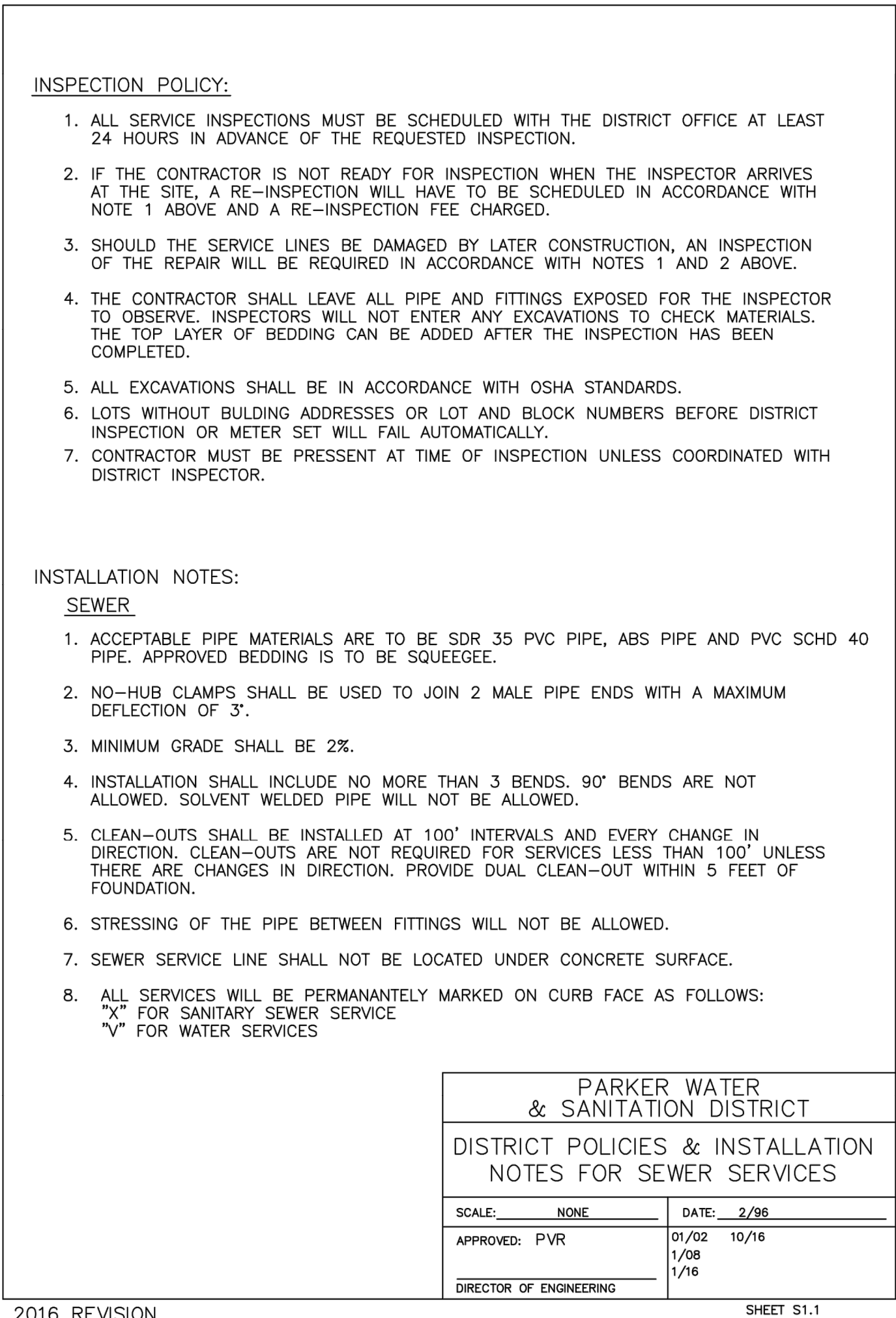
2016 REVISION



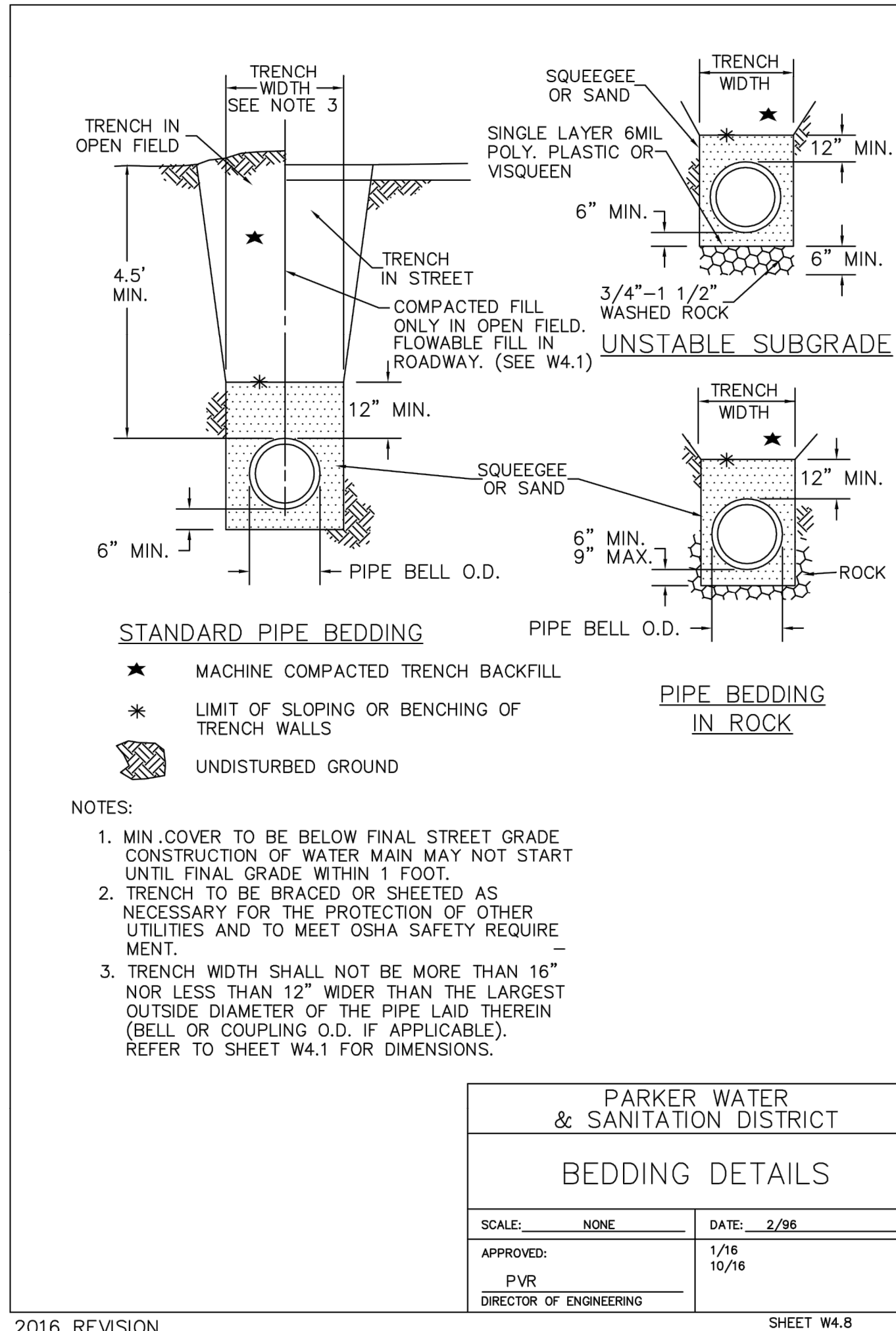
2016 REVISION



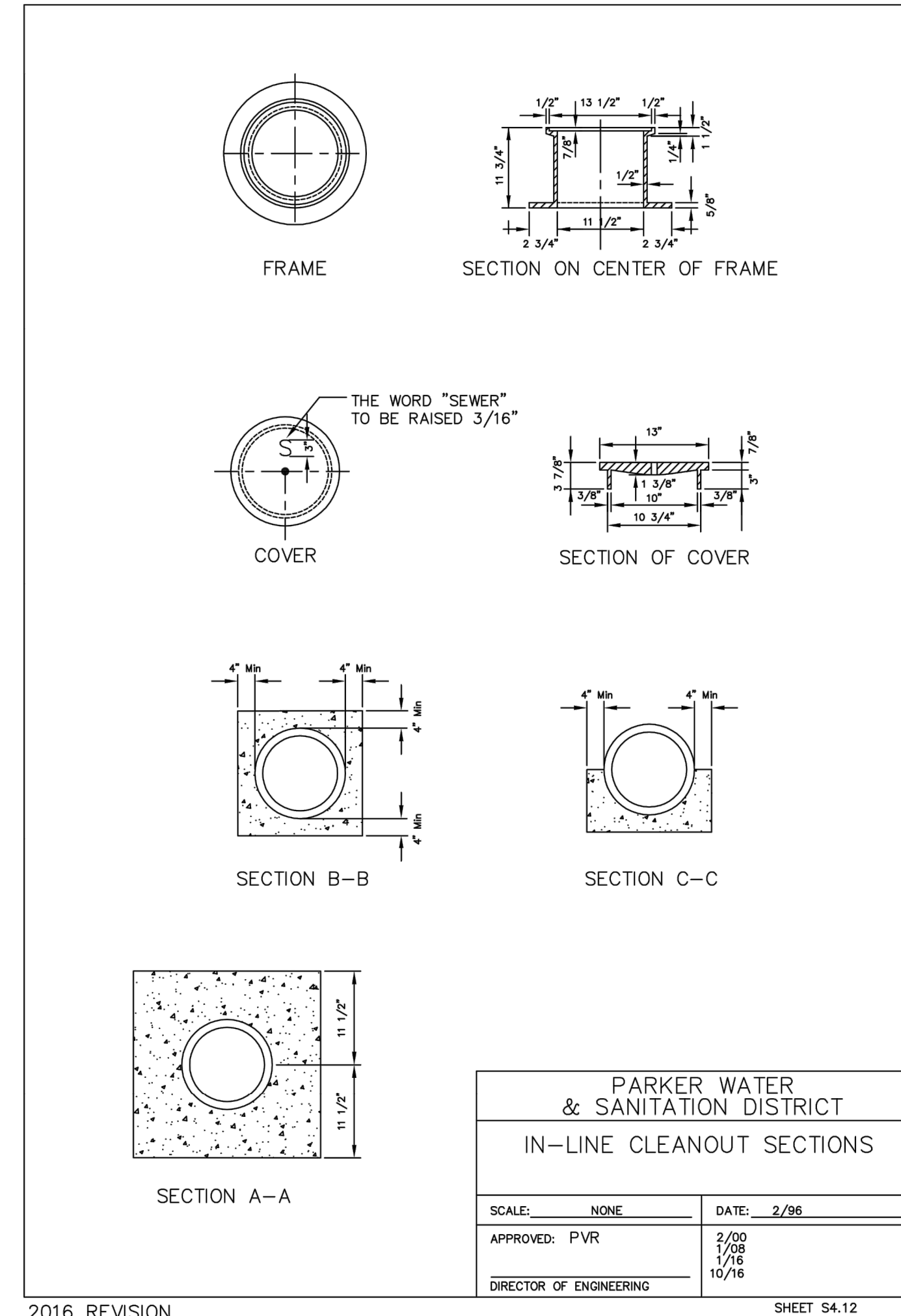
2016 REVISION



2016 REVISION



2016 REVISION



2016 REVISION

DATE	
BY	
REVISION	
No.	

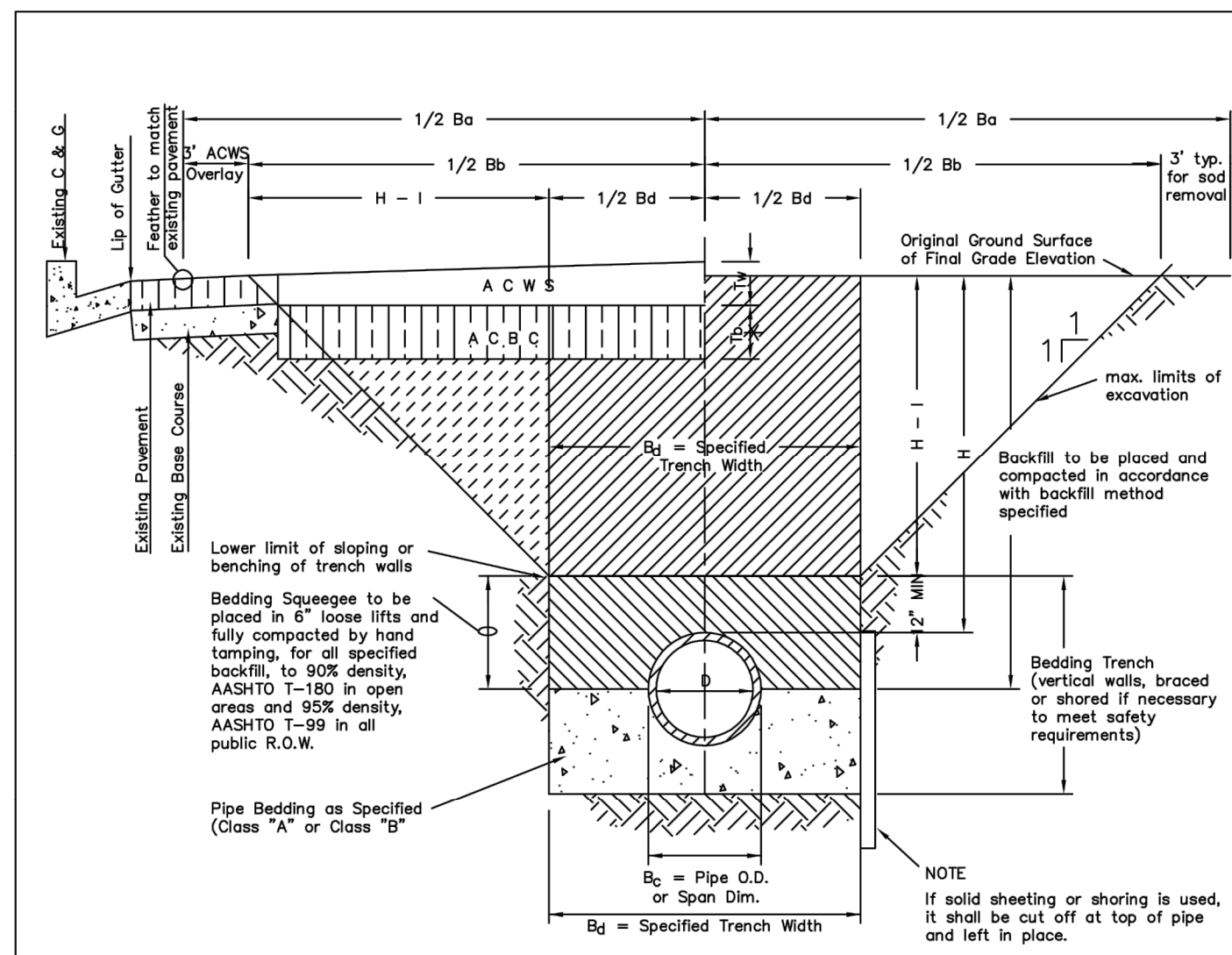
**EES**  
ENGINEERING AND SOLUTIONS, INC.  
501 S Cherry St, Suite 300  
Glenville, CO 80246  
303.572.7597 www.eesusa.com

**PROFESSIONAL ENGINEER**  
4/13/22  
41217

**PWSO CONSTRUCTION PLANS LOT 1**  
**CONVENIENCE STORE**  
12181 SLICEROOD DRIVE, PARKER, CO 80134  
**WATER & SANITARY SEWER DETAILS**

PROJECT NO.: TWS015.01  
DESIGNED BY: LCG  
DRAWN BY: JLG  
DATE: 4/12/2022

**U2.0**



TYPICAL TRENCH DETAIL

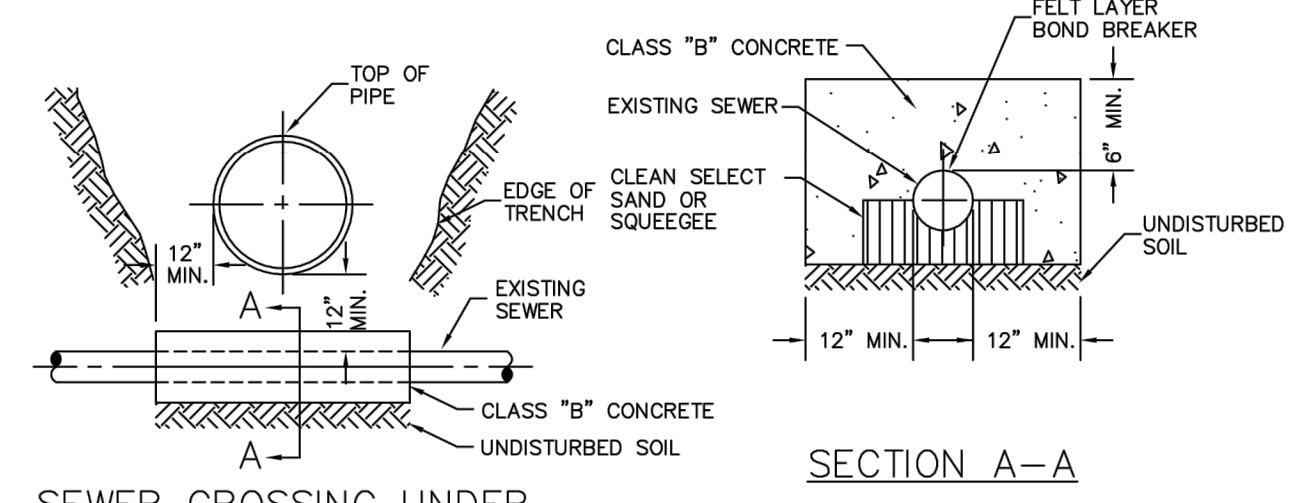
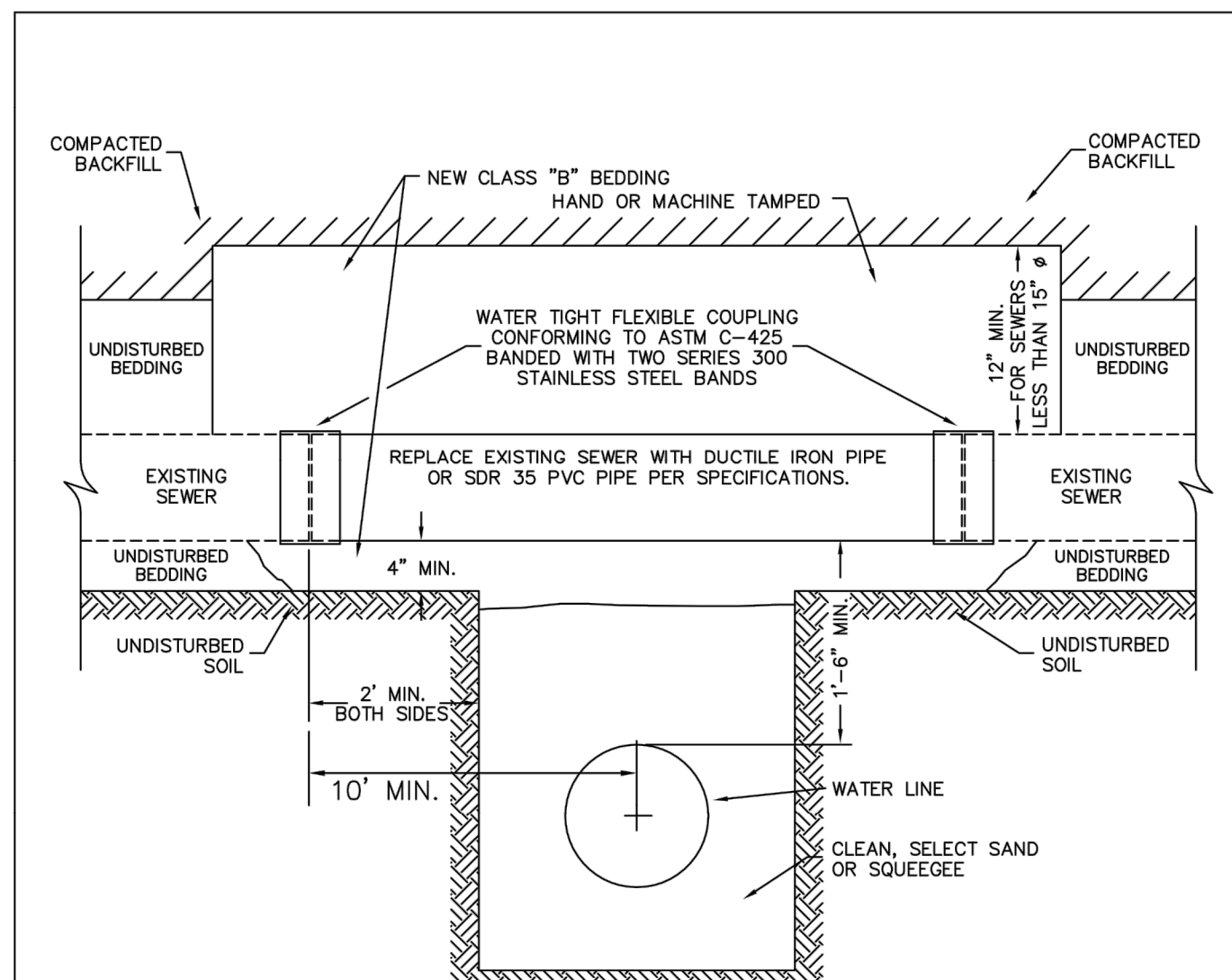
- NOTES**
1. Sloping or benching of trench side walls, where permitted shall be in accordance with applicable Federal, State and Local safety regulations.
  2. Trench shall be braced and shored as necessary to afford safe working conditions or to protect adjacent utilities, structures, etc. Unless otherwise specified on the plans, no pavement will be made for removal, replacement or relocation of curb and gutter, utilities, sidewalks, structures, etc. outside the maximum limits of excavation as shown and the contractor shall be responsible for protection of same.
  3. If dimension "B<sub>3</sub>" is <math>c \le 5'</math>, then existing asphalt pavement shall be removed and replaced up to the gutter. Maximum asphalt pay width, B<sub>3</sub> & B<sub>4</sub>, shall then be based upon this actual width.
- TABLE II**  
ASPHALT AND BASE COURSE REPLACEMENT SCHEDULE
- | STREET WIDTH   | ASPHALTIC BASE COURSE (T <sub>1</sub> ) | ASPHALTIC WEARING SURFACE (T <sub>2</sub> ) | TOTAL THICKNESS (T <sub>1</sub> + T <sub>2</sub> ) |
|----------------|---|---|--|
| 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 5/98 1/16 10/16  
DIRECTOR OF ENGINEERING

SHEET S4.1



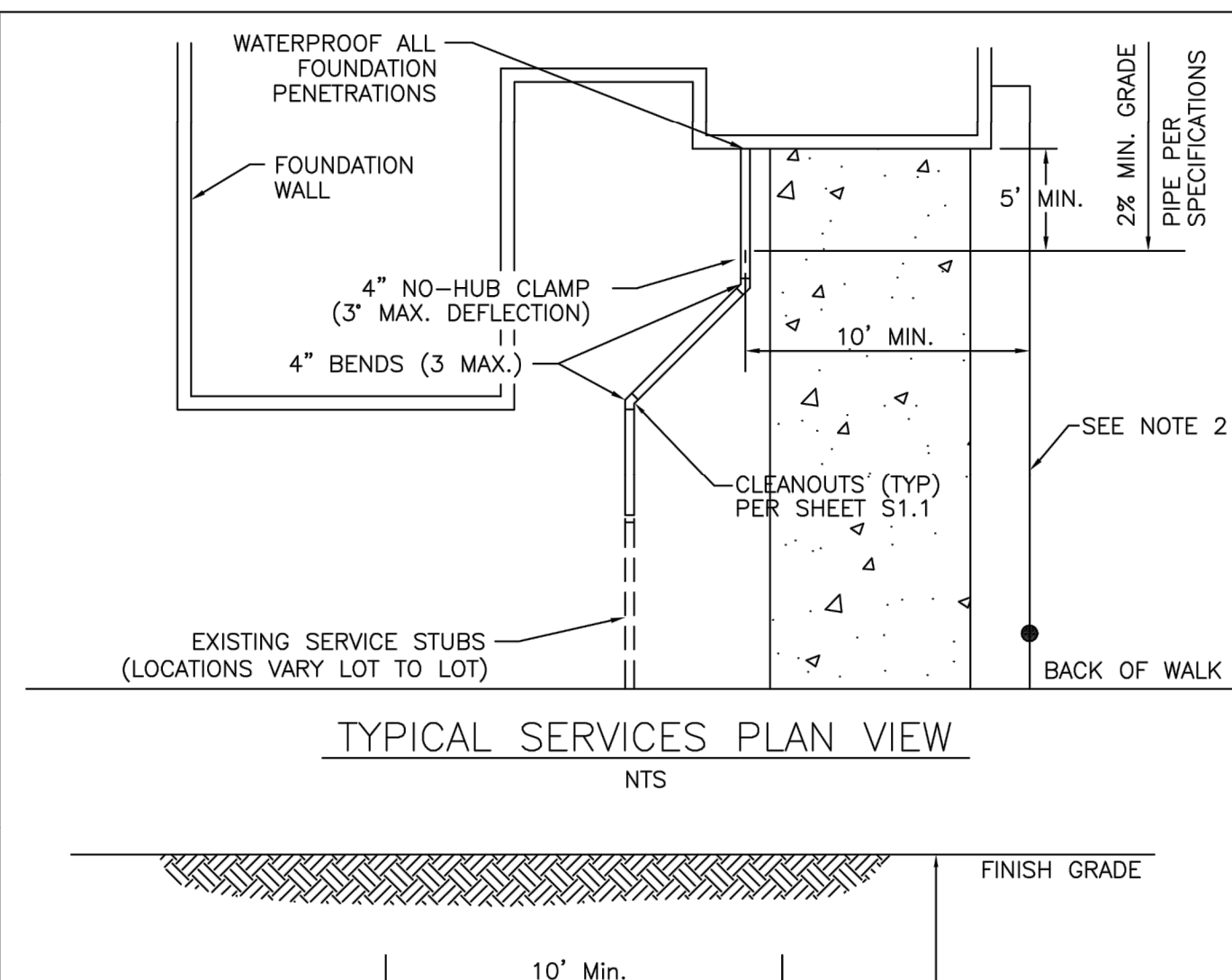
**PARKER WATER & SANITATION DISTRICT**  
SEWER CROSSING UNDER LESS THAN 18" BETWEEN PIPES

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

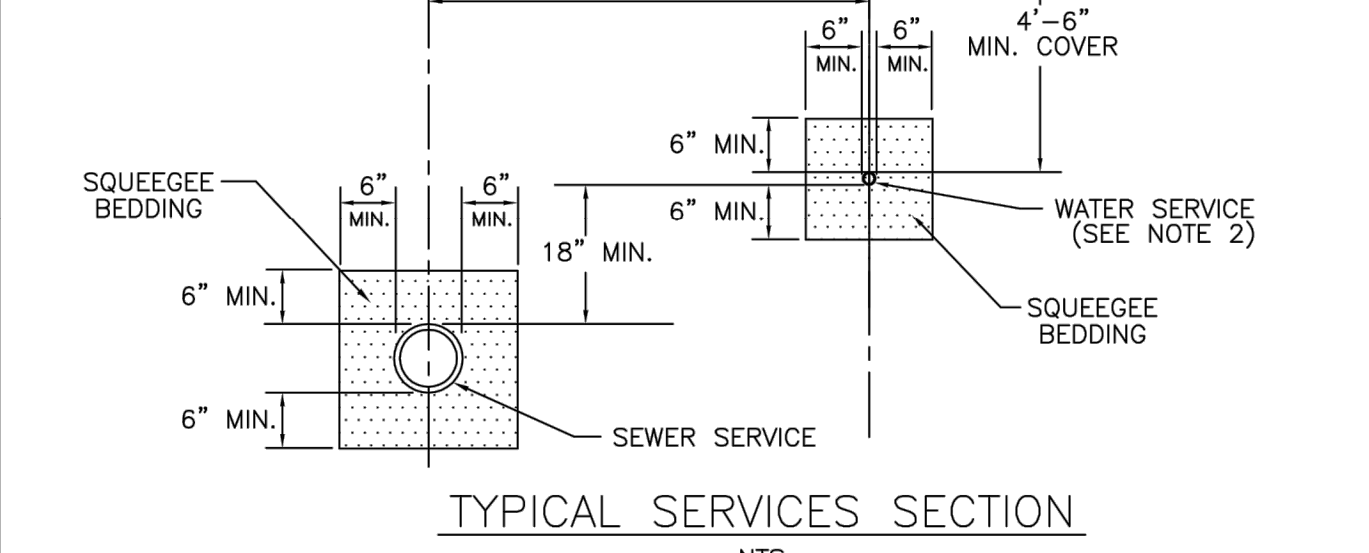
SCALE: NONE DATE: 2/96

APPROVED: PVR 1/16 10/16  
DIRECTOR OF ENGINEERING

SHEET W4.7



TYPICAL SERVICES PLAN VIEW



TYPICAL SERVICES SECTION

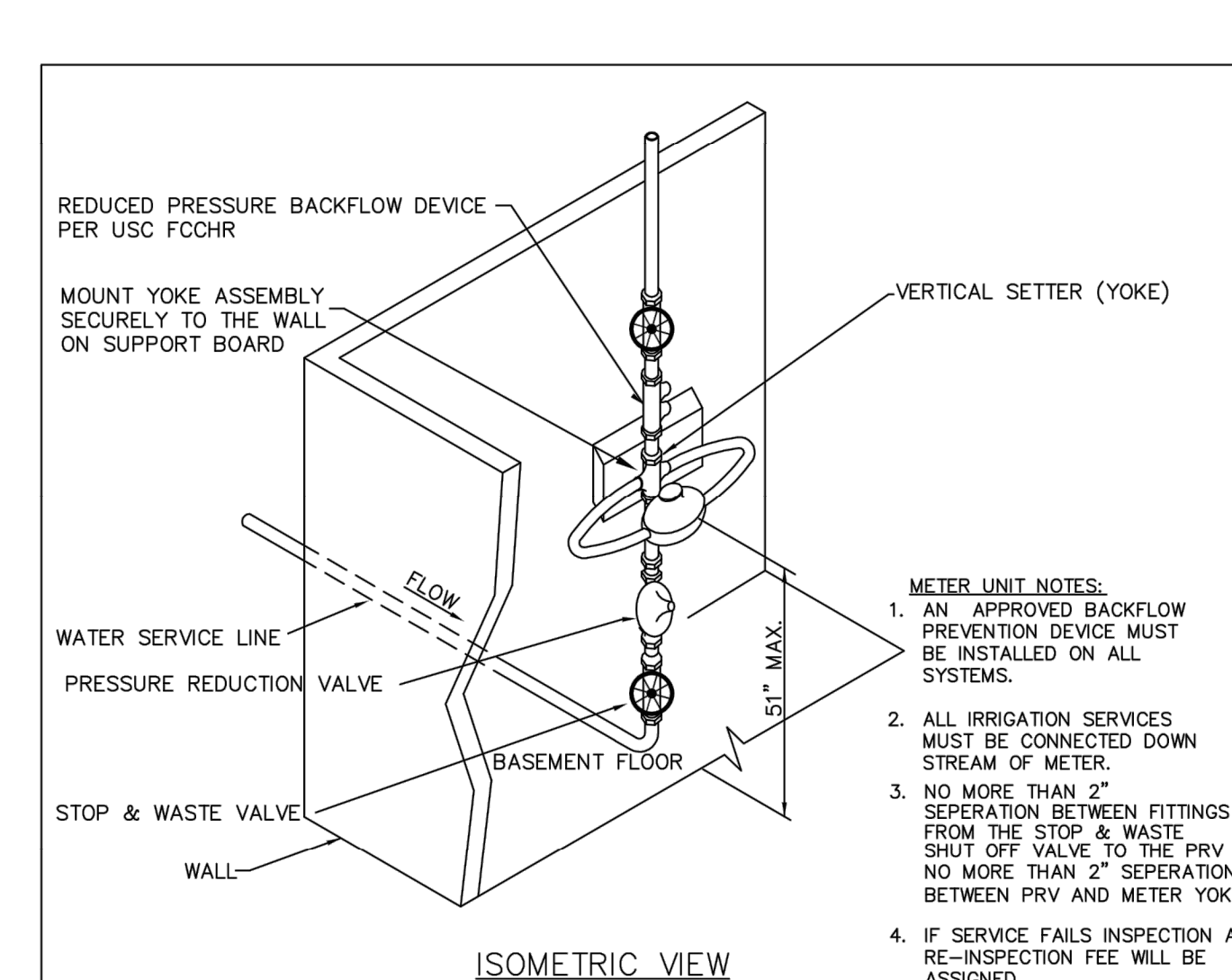
**PARKER WATER & SANITATION DISTRICT**  
TYPICAL SEWER SERVICES

NOTE:  
1. SEE SHEET S1.1 FOR DISTRICT POLICIES AND INSTALLATION NOTES.  
2. TYPICAL WATER SERVICES SHOWN ON SHEET W1.2 IN WATER DETAILS.

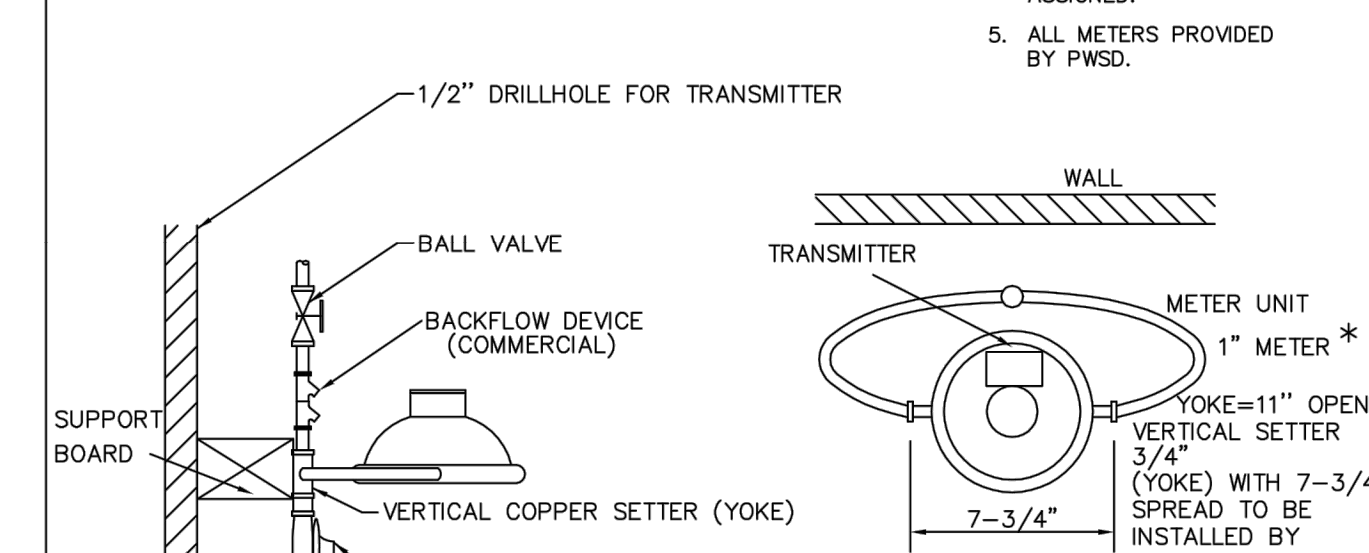
SCALE: NONE DATE: 2/96

APPROVED: PVR 2/00 01/02 01/16 10/16  
DIRECTOR OF ENGINEERING

SHEET S1.2



ISOMETRIC VIEW

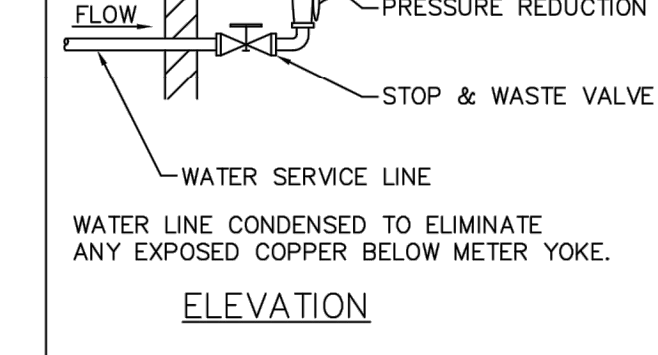


**PARKER WATER & SANITATION DISTRICT**  
SERVICE LINE, STOP BOX & INSIDE METER SETTING (COMMERCIAL ONLY)

SCALE: NONE DATE: 2/96

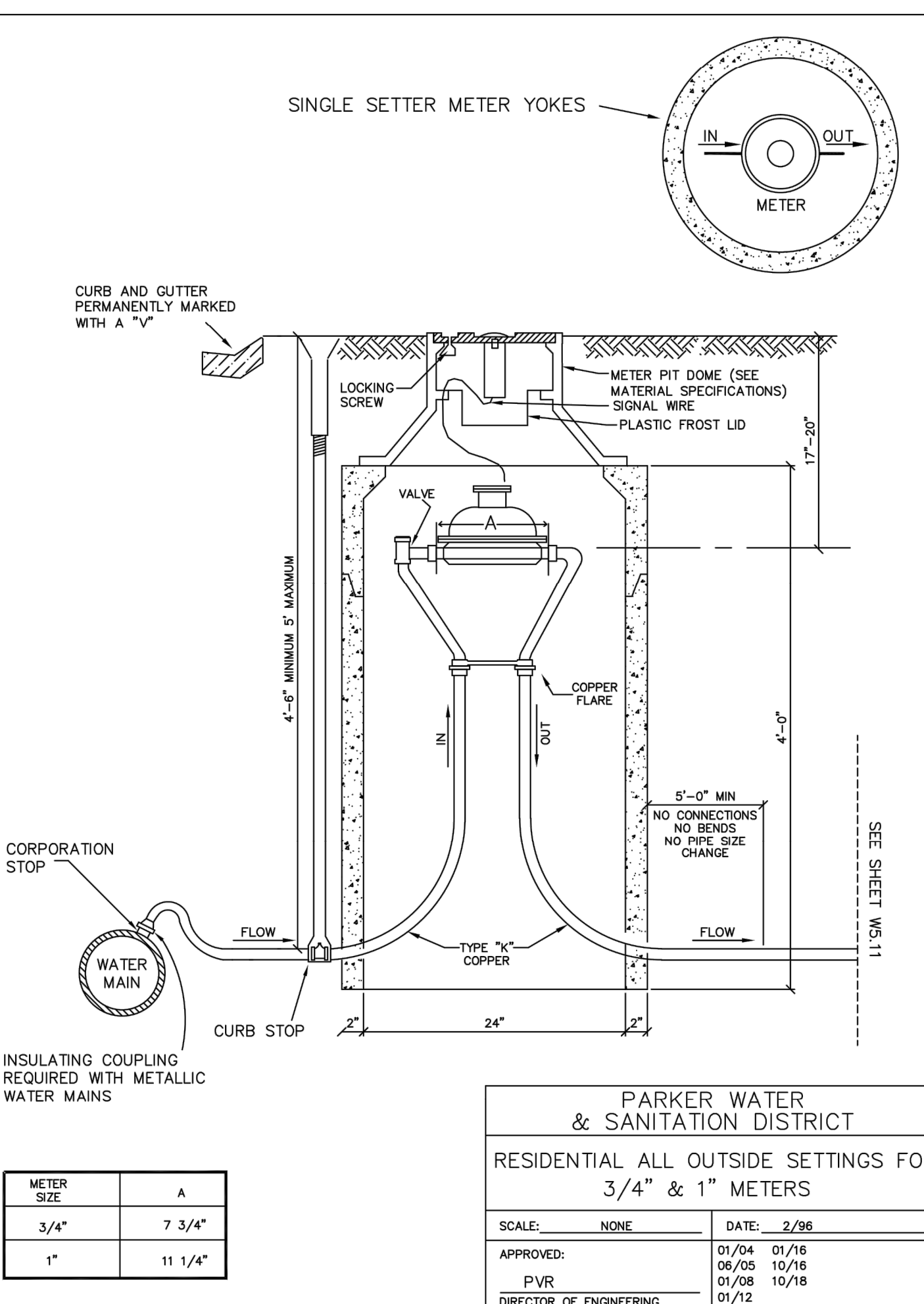
APPROVED: PVR \* ADDITION 01/04 10/16 06/05 1/16  
DIRECTOR OF ENGINEERING

SHEET W5.9



ELEVATION

2016 REVISION SHEET W5.9



SINGLE SETTER METER YOKES

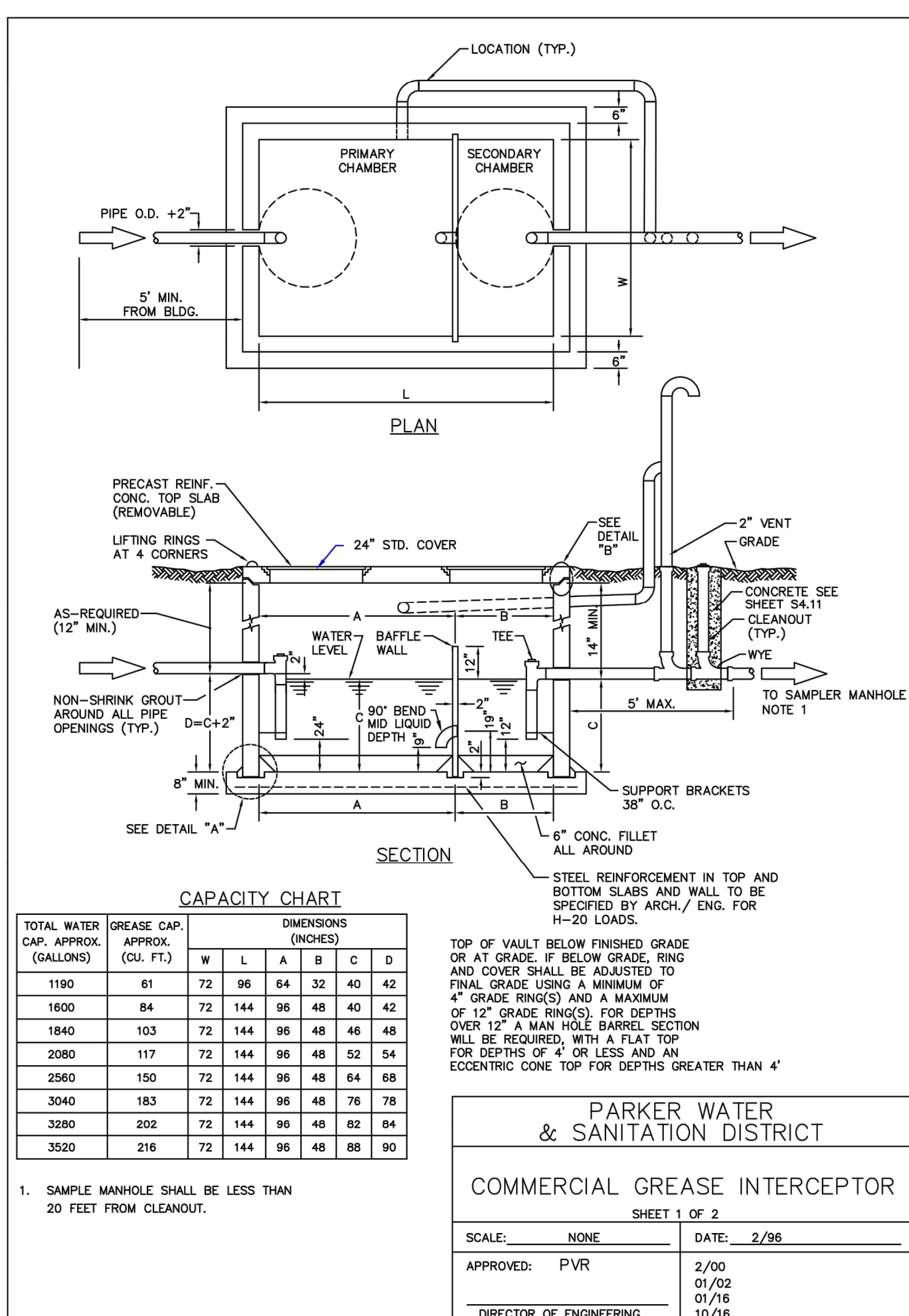
METER SIZE	A
3/4"	7 3/4"
1"	11 1/4"

**PARKER WATER & SANITATION DISTRICT**  
RESIDENTIAL ALL OUTSIDE SETTINGS FOR 3/4" & 1" METERS

SCALE: NONE DATE: 2/96

APPROVED: PVR 01/04 01/16 06/05 10/16 01/08 10/18 01/12  
DIRECTOR OF ENGINEERING

SHEET W5.10



**CAPACITY CHART**

TOTAL WATER CAP. APPROX. (GALLONS)	GREASE CAP. APPROX. (CU. FT.)	DIMENSIONS (INCHES)					
		W	L	A	B	C	D
1190	61	72	96	64	32	40	42
1600	84	72	144	96	48	40	42
1840	103	72	144	96	48	46	48
2080	117	72	144	96	48	52	54
2560	150	72	144	96	48	64	68
3040	183	72	144	96	48	76	78
3280	202	72	144	96	48	82	84
3520	216	72	144	96	48	88	90

**PARKER WATER & SANITATION DISTRICT**  
COMMERCIAL GREASE INTERCEPTOR

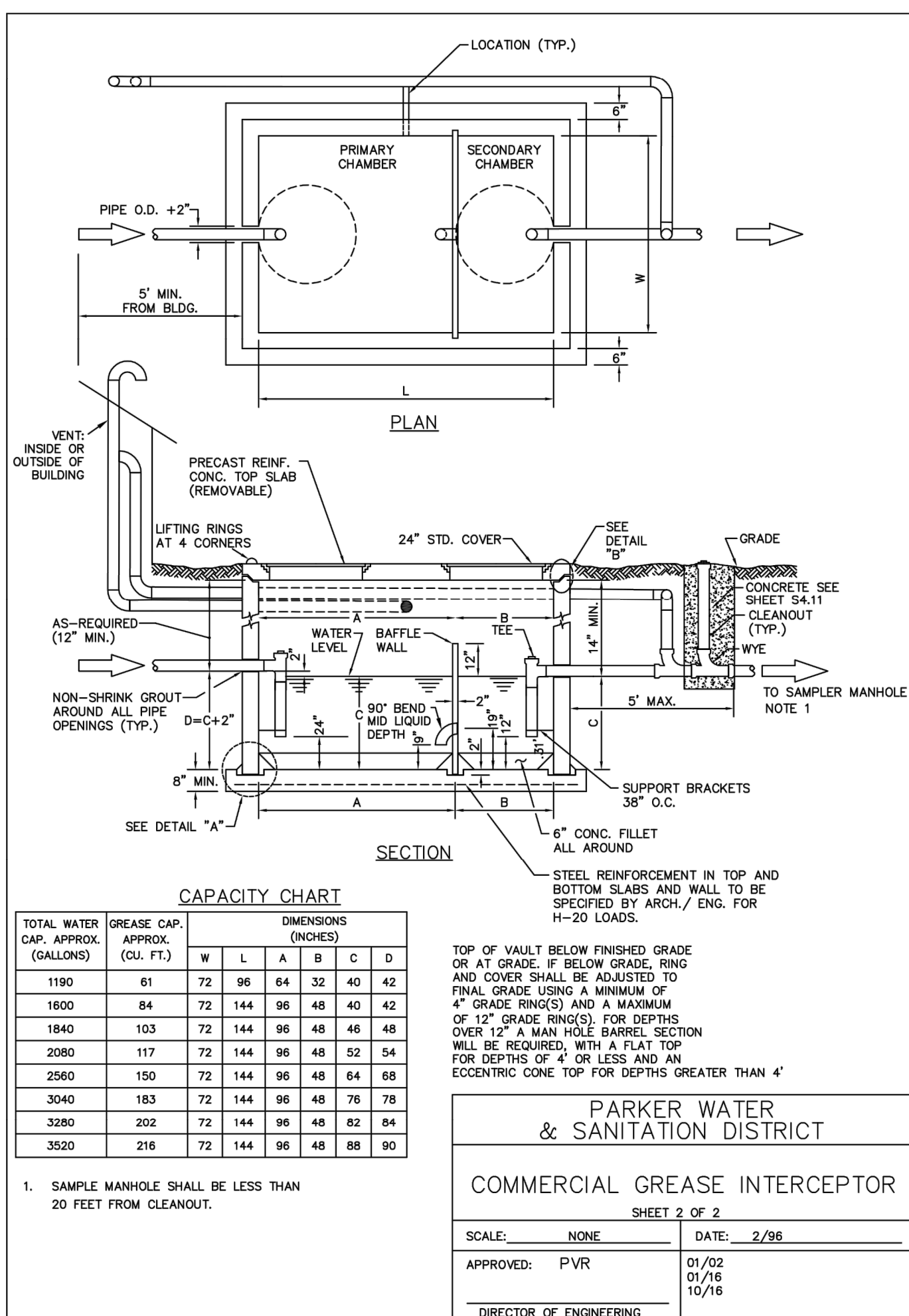
1. SAMPLE MANHOLE SHALL BE LESS THAN 20 FEET FROM CLEANOUT.

SCALE: NONE DATE: 2/96

APPROVED: PVR 2/00 01/02 01/16 10/16  
DIRECTOR OF ENGINEERING

SHEET 1 OF 2

SHEET S5.1



**CAPACITY CHART**

TOTAL WATER CAP. APPROX. (GALLONS)	GREASE CAP. APPROX. (CU. FT.)	DIMENSIONS (INCHES)					
		W	L	A	B	C	D
1190	61	72	96	64	32	40	42
1600	84	72	144	96	48	40	42
1840	103	72	144	96	48	46	48
2080	117	72	144	96	48	52	54
2560	150	72	144	96	48	64	68
3040	183	72	144	96	48	76	78
3280	202	72	144	96	48	82	84
3520	216	72	144	96	48	88	90

**PARKER WATER & SANITATION DISTRICT**  
COMMERCIAL GREASE INTERCEPTOR

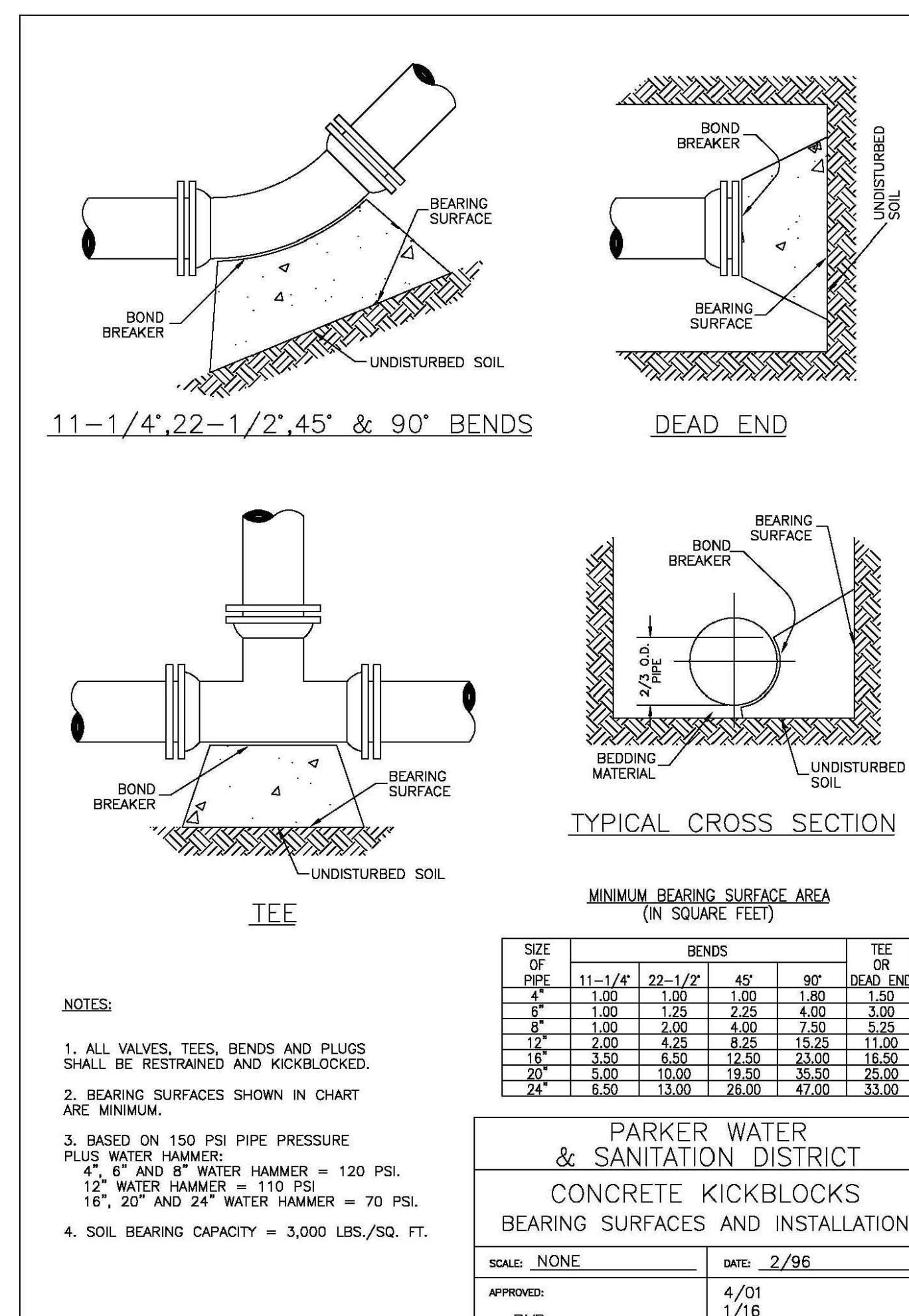
1. SAMPLE MANHOLE SHALL BE LESS THAN 20 FEET FROM CLEANOUT.

SCALE: NONE DATE: 2/96

APPROVED: PVR 2/00 01/02 01/16 10/16  
DIRECTOR OF ENGINEERING

SHEET 2 OF 2

SHEET S5.2



11-1/4", 22-1/2" & 90" BENDS

DEAD END

**MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)**

PIPE SIZE	BENDS				TEE OR DEAD END
	11-1/4"	22-1/2"	45"	90"	
4"	1.00	1.00	1.00	1.80	1.50
6"	1.00	1.25	2.25	4.00	3.00
8"	1.00	2.00	4.00	7.50	3.25
10"	2.00	4.25	8.25	15.25	11.00
12"	3.00	6.50	12.50	23.00	16.50
16"	5.00	10.00	19.50	35.50	26.00
24"	6.50	13.00	26.00	47.00	33.00

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

**PARKER WATER & SANITATION DISTRICT**  
CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION

SCALE: NONE DATE: 2/96

APPROVED: PVR 4/01 01/16 10/16  
DIRECTOR OF ENGINEERING

SHEET W3.18

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

REVISION: \_\_\_\_\_

No. \_\_\_\_\_

**EES**  
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501 S Cherry St, Suite 300  
Glenview, CO 80246  
303.972.7597 www.eesusa.com

PROFESSIONAL ENGINEER  
4/13/22  
41217

**PWSD CONSTRUCTION PLANS LOT 1**  
**CONVENIENCE STORE**  
12181 SLICEROOD DRIVE, PARKER, CO 80134

**WATER & SANITARY SEWER DETAILS**

PROJECT NO.: TWS015.01  
DESIGNED BY: LCG  
DRAWN BY: JLG  
DATE: 4/12/2022

**U2.1**