

CONTACT LIST

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PARKER, CO. 80138
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STORM WATER - JACOB JAMES

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PHONE: 303.841.9800

PARKER WATER AND SANITATION DISTRICT

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PARKER, CO. 80134
PHONE: 303.841.4627

FIRE & LIFE SAFETY

20120 E. MAINSTREET
PARKER, CO 80138
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CONTACT: RANDALL CAPRA

UTILITY NOTIFICATION COMPANY OF COLORADO

2801 SOUTH YOUNGFIELD ST, SUITE 301
GOLDEN, CO 80401
PHONE: 800.922.1987
LOCAL CALLS: (811)

XCEL ENERGY

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6850 S. TUCSON WAY
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CENTURY LINK

9750 E. COSTILLA AVE.
ENGLEWOOD, CO 80220
PHONE: 303.792.6069
CONTACT: WILLIAM BENSON

COLORADO DEPARTMENT OF HEALTH

4210 E. 11TH AVE.
DENVER, CO
PHONE: 303.320.8333

INTERMOUNTAIN RURAL ELECTRIC ASSOCIATION

5496 NORTH US HWY 85
P.O. BOX DRAWER A
SEDALIA, CO 80135
PHONE: 303.688.3100
CONTACT: JASON JENKS

URBAN DRAINAGE FLOOD CONTROL DISTRICT (UDFCD)

2480 W. 26TH AVE.
SUITE 156-B
DENVER, CO 80211
PHONE: 303.455.6277
CONTACT: MIKE SARMENTO

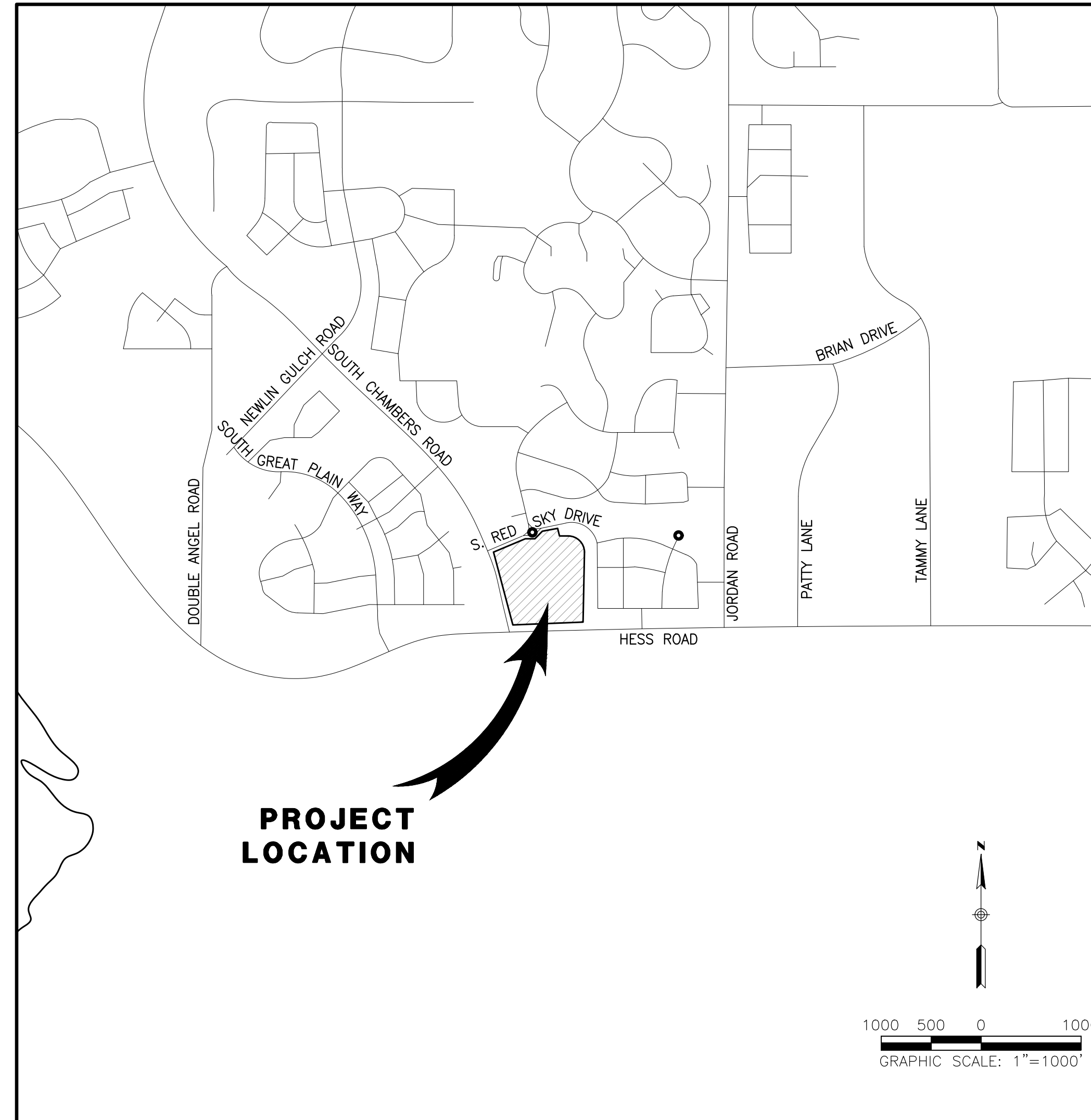
SITE BENCHMARK & BASIS OF BEARINGS:

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

THE BASIS OF BEARINGS IS THE SOUTH LINE OF THE SOUTHWEST 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.

WATER & SEWER IMPROVEMENT PLANS FOR DOUGLAS 234, FILING NO. 6

A PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 29, TOWNSHIP 6 SOUTH, RANGE 66 WEST, 6TH PRINCIPAL MERIDIAN, TOWN OF PARKER, COUNTY OF DOUGLAS, STATE OF COLORADO 13.80 ACRES, 11 COMMERCIAL LOTS



VICINITY MAP

SCALE 1"= 1000'

SHEET INDEX	
NO.	TITLE
1	COVER SHEET
2	NOTES
3	OVERALL UTILITY PLAN
4	WATER PLAN
5	WATER PLAN AND PROFILE
6	SLICEROO DR SEWER PLAN AND PROFILE
7	SEWER PLAN AND PROFILE
8-10	WATER DETAILS
11-12	SEWER DETAILS

MATERIALS LIST

ITEM	QTY.
48" SSMH	8
8" SS PVC PIPE	1183 LF
SEWER CONNECTION	1
FIRE HYDRANT	4
8" GATE VALVE	2
LOW PT BLOW OFF	2
8"x6" TEE	4
16"x8" TEE	1
24"x8" TEE	1
8" 45° BEND	2
8" 22.5° BEND	3
8" 11.25° BEND	3
8" W PVC PIPE	1232 LF
WATER CONNECTION	2

NOTE:

THE BOUNDARY LINES AND TOPOGRAPHY FOR THIS PROJECT ARE BASED ON A FIELD SURVEY COMPLETED BY RICK ENGINEERING COMPANY. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY RICK ENGINEERING COMPANY AND THE CLIENT IN WRITING OF ANY DIFFERING CONDITIONS.

STATEMENT:

IT IS UNDERSTOOD AND AGREED THAT A REVIEW OF THESE PLANS AND SPECIFICATIONS BY OR ON BEHALF OF THE PARKER WATER AND SANITATION DISTRICT IS ONLY FOR PURPOSES OF THE DISTRICT AND IN NO WAY RELATES TO AN APPROVAL OF MATERIALS USED OR THE END PRODUCT OF THE DEVELOPER'S WORK. THE DEVELOPER CERTIFIES THAT IT HAS THOROUGHLY REVIEWED ALL PLANS, NOTES AND SPECIFICATIONS, EXAMINED THE PROJECT SITE AND ASCERTAINED ALL SOIL, GEOLOGICAL, GROUNDWATER AND OTHER CONDITIONS TO BE ENCOUNTERED THAT MIGHT AFFECT THE CONSTRUCTION AND FUTURE MAINTENANCE OF THE PROJECT. THE DEVELOPER FURTHER CERTIFIES THAT WORK CONTEMPLATED UNDER SUCH PLANS AND SPECIFICATIONS HAS BEEN PREPARED BY OR ON BEHALF OF THE DEVELOPER, THAT THE PROJECT IS THE RESPONSIBILITY OF THE DEVELOPER, AND THAT WORK IS UNDERTAKEN THEREON ONLY IN RELIANCE ON ITS OWN INVESTIGATION AND INFORMATION AND NOT ON ANY STATEMENTS, REPRESENTATIONS OR REPORTS IF ANY, THAT MAY HAVE BEEN MADE OR FURNISHED BY THE DISTRICT, ITS OFFICERS, AGENTS OR EMPLOYEES.

LEGEND

	EXISTING	PROPOSED
PROPERTY BOUNDARY	---	---
PROPERTY LINE	---	---
RIGHT-OF-WAY	---	---
CENTERLINE	---	---
CURB	---	---
CURB & GUTTER	---	---
DAYLIGHT LINE	---	---
EASEMENT	---	---
FLOWLINE	---	---
SLOPE	---	---
CONTOURS	---	---
WATER LINE	W	W
SANITARY SEWER LINE	S	S
STORM DRAIN LINE	SD	SD
GAS LINE	G	G
ELECTRIC LINE	E	E
FENCE-GENERAL USE	X	X
OVERHEAD WIRES	OHE	OHE
TYPICAL LATERALS	---	---
SANITARY SEWER MANHOLE	SS	SS
STORM DRAIN MANHOLE	SD	SD
STORM DRAIN INLET	---	---
FIRE HYDRANT	---	---
WATER VALVE	---	---
STREET LAMP	---	---
AC PAVING	---	---
CONCRETE	---	---
DG TRAIL/CRUSHER FINES	---	---

ABBREVIATION

AIR RELEASE VALVE	ARV
ASPHALT CONCRETE	AC
BEGIN CURB RETURN	BCR
BEGIN CURVE	BC
BEGIN VERTICAL CURVE	BVC
CENTERLINE	CL
END CURVE	EC
END VERTICAL CURVE	EVC
EXISTING GRADE	EG
FINISHED GRADE	FG
FINISHED SURFACE	FS
FLOW LINE	FL
GRADE BREAK	GB
HIGH POINT	HP
INVERT	INV
POINT OF CONNECTION	POC
PROPERTY LINE	PL
PUBLIC UTILITY EASEMENT	PUE
RIGHT-OF-WAY	ROW
TOP OF CURB	TC

FIRE DEPARTMENT APPROVAL

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 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

WATER/SANITARY SEWER APPROVAL

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 SIGNED _____

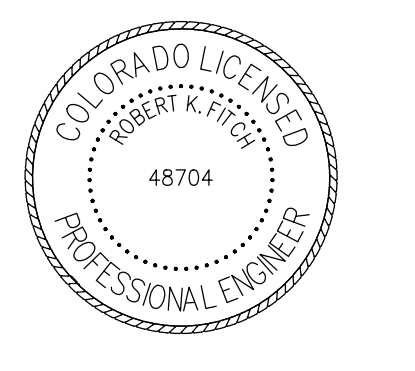
APPROVED FOR CONSTRUCTION:
PARKER WATER AND SANITATION DISTRICT

BY: _____ (DISTRICT ENGINEER)

DATE SIGNED _____

WATER & SEWER IMPROVEMENT PLANS FOR DOUGLAS 234 FILING NO. 6
 DOUGLAS COUNTY, COLORADO

RICK ENGINEERING COMPANY
9801 EAST EASTER AVE
CENTENNIAL, CO 80112
303.537.8020
Tucson - San Diego - Riverside - Orange
Sacramento - San Luis Obispo - Phoenix
rickengineering.com



REVISIONS:		
NO.	DESCRIPTION	DATE:
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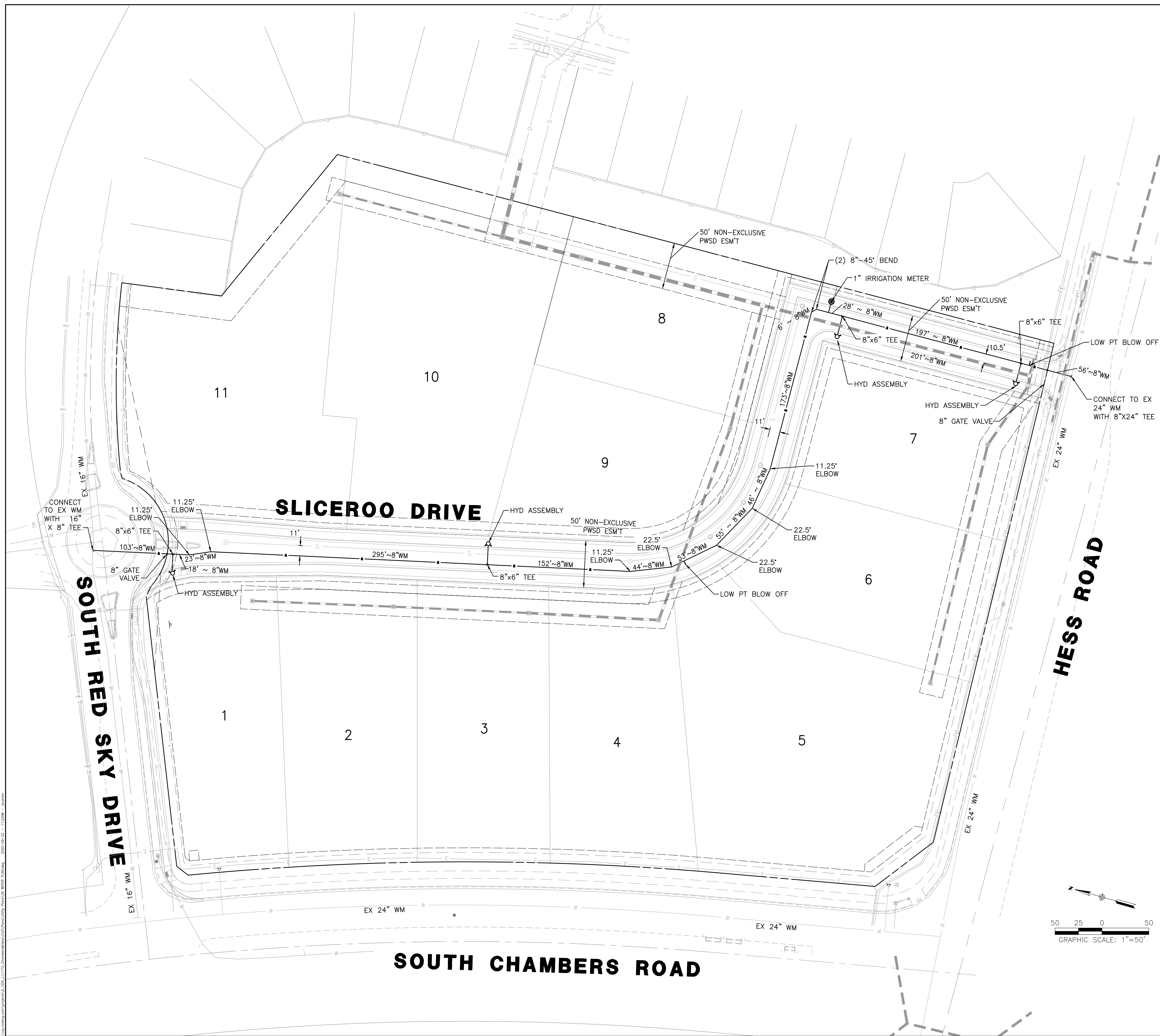
SCALE: NTS
DATE: 9/22/2020
DRAWN BY: WD
CHECKED BY: JS
JOB NO: D01173-A

COVER SHEET

PROJECT NO. D01173-A
DRAWING NO. 1
SHEET NO. 1 OF 12 SHEETS

PRELIMINARY NOT FOR CONSTRUCTION

2020-09-22 11:21 AM - 11/11/2020



DISTRICT POLICIES & INSTALLATION NOTES FOR WATER SERVICES:

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 AT A MINIMUM OF 18" ABOVE SEWER SERVICE.
- WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD, CRAWLSPACE 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.

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 PM AND 3:00 PM SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
- IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE OR THE 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.

NOTES

- THE PROPOSED UTILITY CONNECTION WILL REQUIRE A TOWN RIGHT-OF-WAY PERMIT PRIOR TO COMMENCING WORK. THE TOWN PREFERENCES 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 TOWN OF PARKER DOES NOT ALLOW ROADWAY CLOSURES FOR UTILITY WORK.

WATER & SEWER IMPROVEMENT PLANS FOR DOUGLAS 234 FILING NO. 6
 DOUGLAS COUNTY, COLORADO

RICK ENGINEERING COMPANY
 9801 EAST EASTER AVE
 CENTENNIAL, CO 80112
 303.537.8020
 Tucson - San Diego - Riverside - Orange
 Sacramento - San Luis Obispo - Phoenix
 rickengineering.com



REVISIONS:

NO.	DESCRIPTION	DATE:
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SCALE: 1" = 50'
 DATE: 9/22/2020
 DRAWN BY: WD
 CHECKED BY: JS
 JOB NO: D01173-A

WATER PLAN

PROJECT NO. D01173-A
 DRAWING NO. 4
 SHEET NO. 4 OF 12 SHEETS

PRELIMINARY NOT FOR CONSTRUCTION

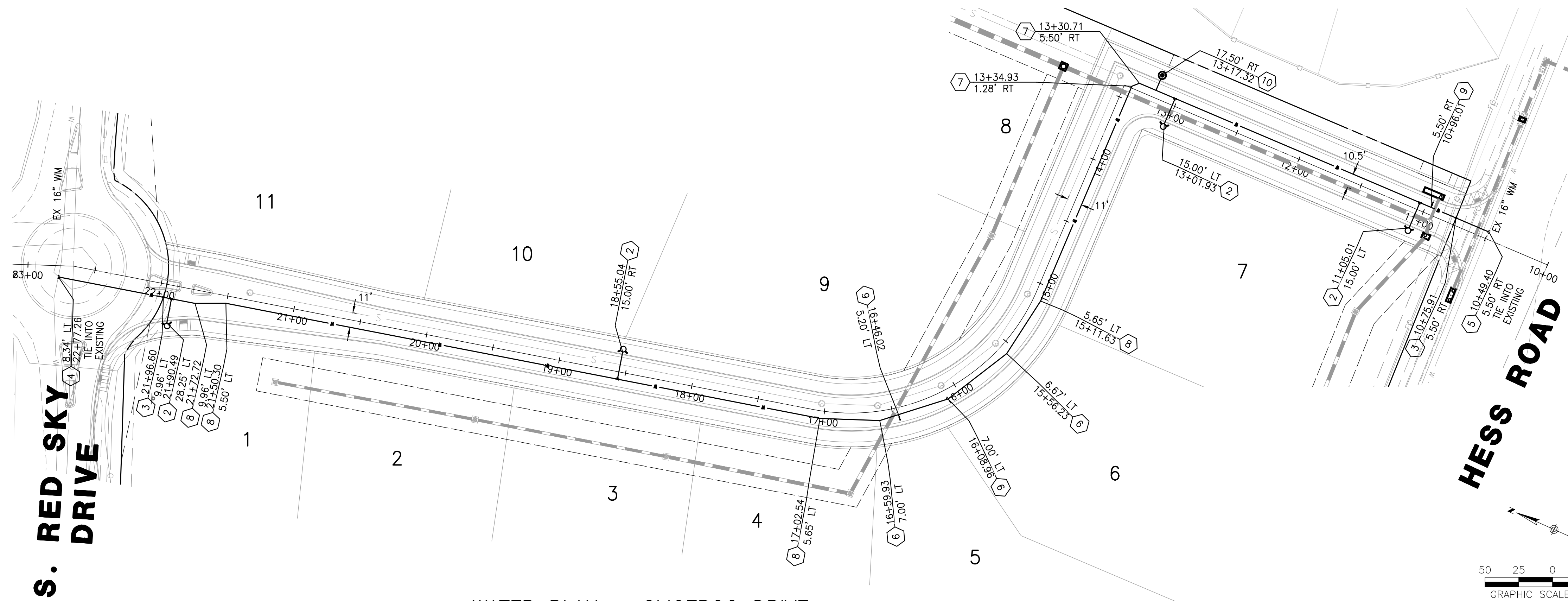
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CONSTRUCTION NOTES

- ① WATER SERVICE CONNECTION PER PWSD STD DTL W1.2
- ② FIRE HYDRANT ASSEMBLY PER PWSD STD DTL W2.5
- ③ 8" GATE GALVE
- ④ 16"x8" TEE
- ⑤ 24"x8" TEE
- ⑥ 22.5' BEND AND THRUST BLOCK
- ⑦ 45' BEND AND THRUST BLOCK
- ⑧ 11.25' BEND AND THRUST BLOCK
- ⑨ LOW POINT BLOW OFF PER PWSD STD DTL W3.8
- ⑩ 1" IRRIGATION METER PWSD STD DTL W5.10

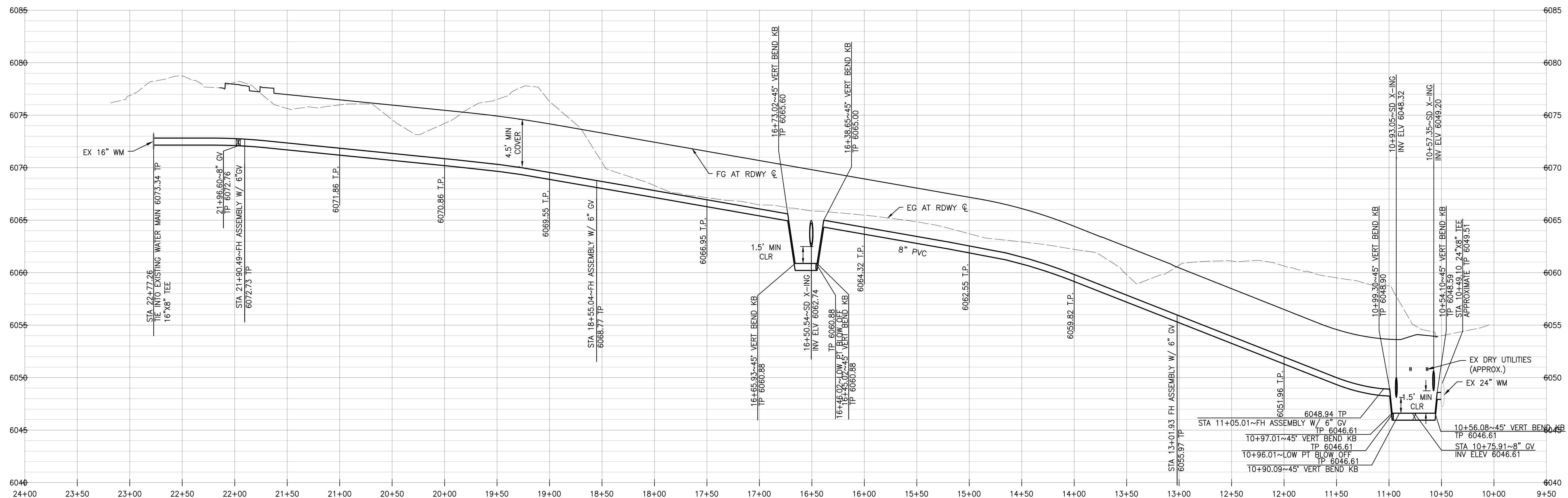
GENERAL NOTES

- EXISTING WATER MAIN DEPTH UNKNOWN. EXISTING ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL CONFIRM THE EXISTING WATER MAIN DEPTH BENEATH ALL PROPOSED STREET IMPROVEMENTS PRIOR TO CONSTRUCTION. ANY AREAS WHERE THE EXISTING WATER MAIN DEPTH WILL BE LESS THAN 4.5' AS A RESULT OF THE PROPOSED IMPROVEMENTS WILL REQUIRE A WATER MAIN LOWERING. THE CONTRACTOR SHALL HAVE A PARKER WATER & SANITATION DISTRICT INSPECTOR ON SITE FOR ANY POTHOLES FOR THE EXISTING WATER MAIN DEPTH.



WATER PLAN – SLICEROO DRIVE

SCALE: HORIZ. 1" = 50'



WATER PROFILE – SLICEROO DRIVE

SCALE: HORIZ. 1"=50', VERT. 1"=5'

**WATER & SEWER IMPROVEMENT PLANS FOR
DOUGLAS 234
FILING NO. 6**
DOUGLAS COUNTY, COLORADO

RICK
ENGINEERING COMPANY
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NO.	DESCRIPTION	DATE:
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SCALE: 1" = 50'
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JOB NO: D01173-A

**WATER
PLAN &
PROFILE**

PROJECT NO.
D01173-A
DRAWING NO.
5
SHEET NO. 5 OF 12 SHEETS

PRELIMINARY
NOT FOR CONSTRUCTION

DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES:

INSTALLATION NOTES:

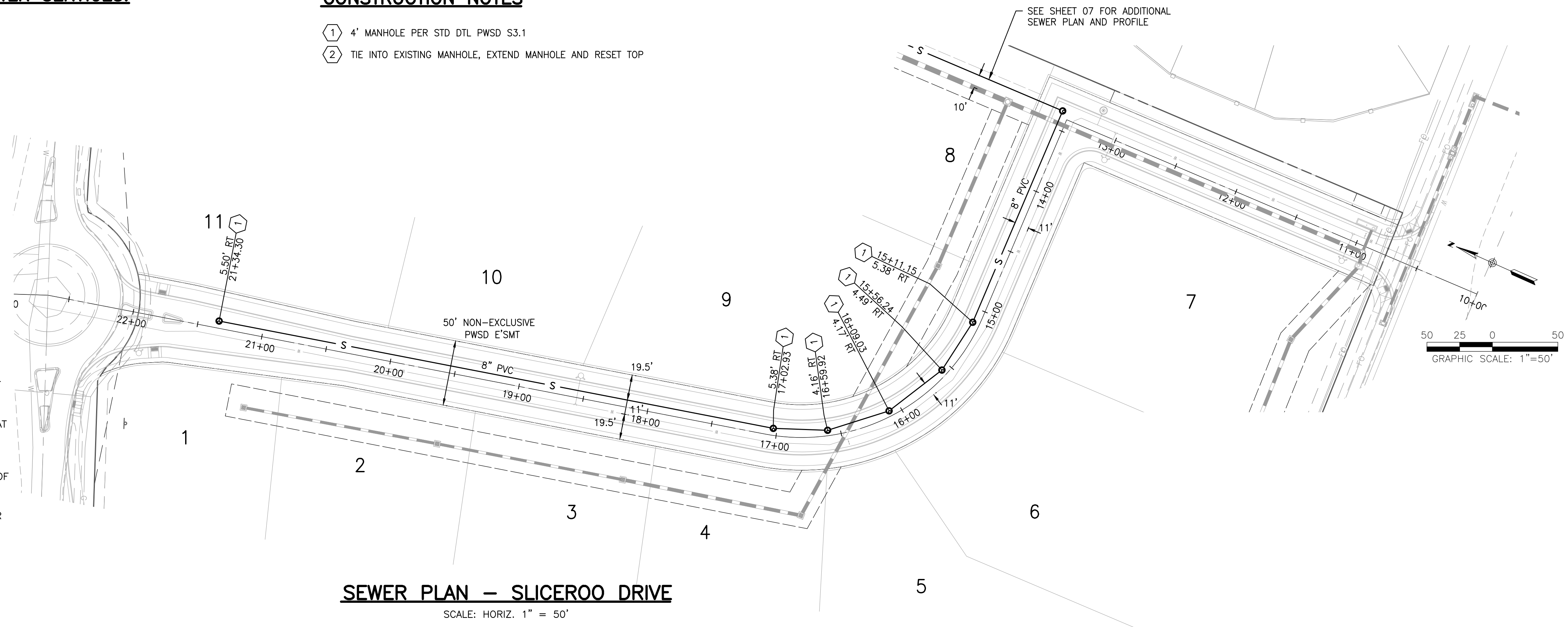
1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND PVC SCHEDULE 40 PIPE. APPROVED BEDDING IS TO BE SQUEEGEE.
2. NO-HUB CLAMPS SHALL BE USED TO JOIN 2 MALE PIPE ENDS WITH A MAXIMUM DEFLECTION OF 3'.
3. MINIMUM GRADE SHALL BE 2%.
4. INSTALLATION SHALL NOT INCLUDE MORE THAN 3 BENDS. 90° 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 THE PIPE BETWEEN FITTINGS WILL NOT BE ALLOWED.
7. SEWER SERVICE LINE SHALL NOT BE LOCATED UNDER CONCRETE SURFACE.
8. ALL SERVICES SHALL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"X" FOR SANITARY SEWER SERVICE
"Y" FOR WATER SERVICES

INSPECTION POLICY:

1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED 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.

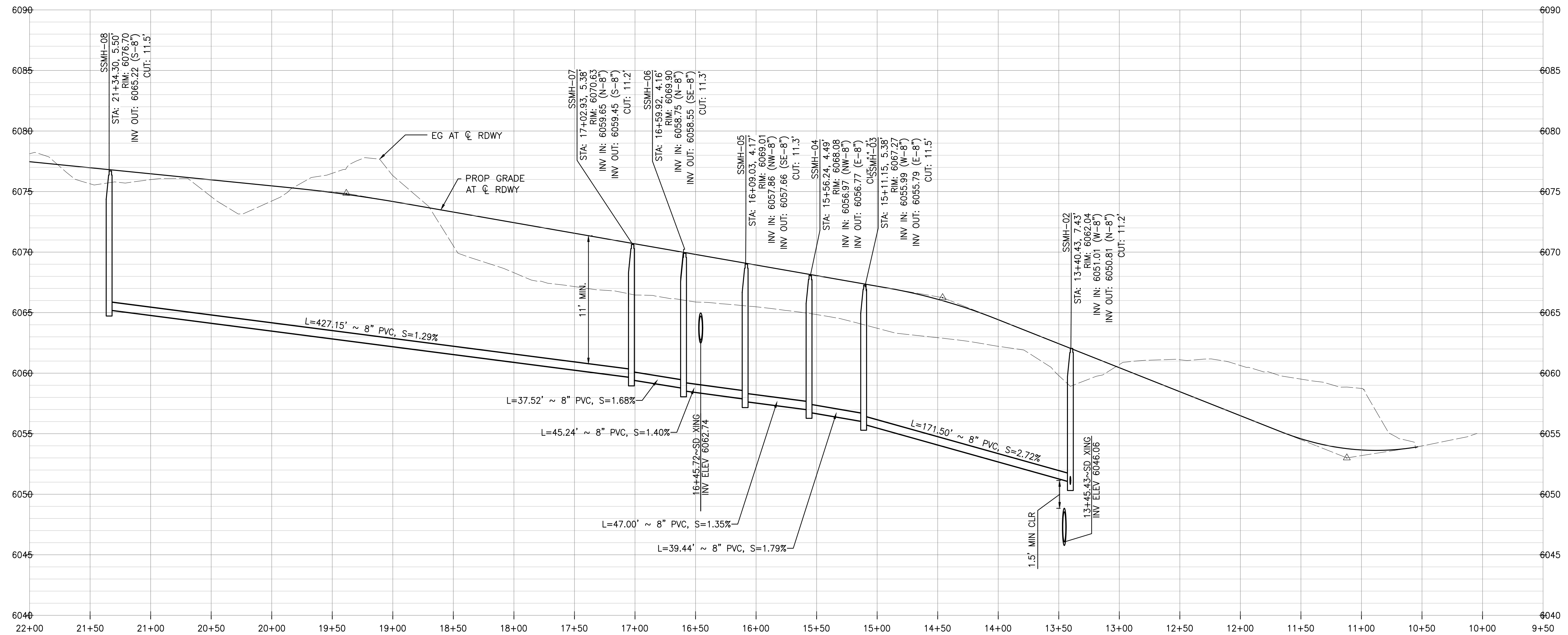
CONSTRUCTION NOTES

- 1 4' MANHOLE PER STD DTL PWS S3.1
- 2 TIE INTO EXISTING MANHOLE, EXTEND MANHOLE AND RESET TOP



SEWER PLAN - SLICEROO DRIVE

SCALE: HORIZ. 1" = 50'



SEWER PROFILE - SLICEROO DRIVE

SCALE: HORIZ. 1"=50', VERT. 1"=5'

**WATER & SEWER IMPROVEMENT PLANS FOR
DOUGLAS 234
FILING NO. 6**
DOUGLAS COUNTY, COLORADO

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CENTENNIAL, CO 80112
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NO.	DESCRIPTION	DATE:
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SCALE: 1" = 50'
DATE: 9/22/2020
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JOB NO: D01173-A

**SLICEROO DR
SEWER PLAN
& PROFILE**

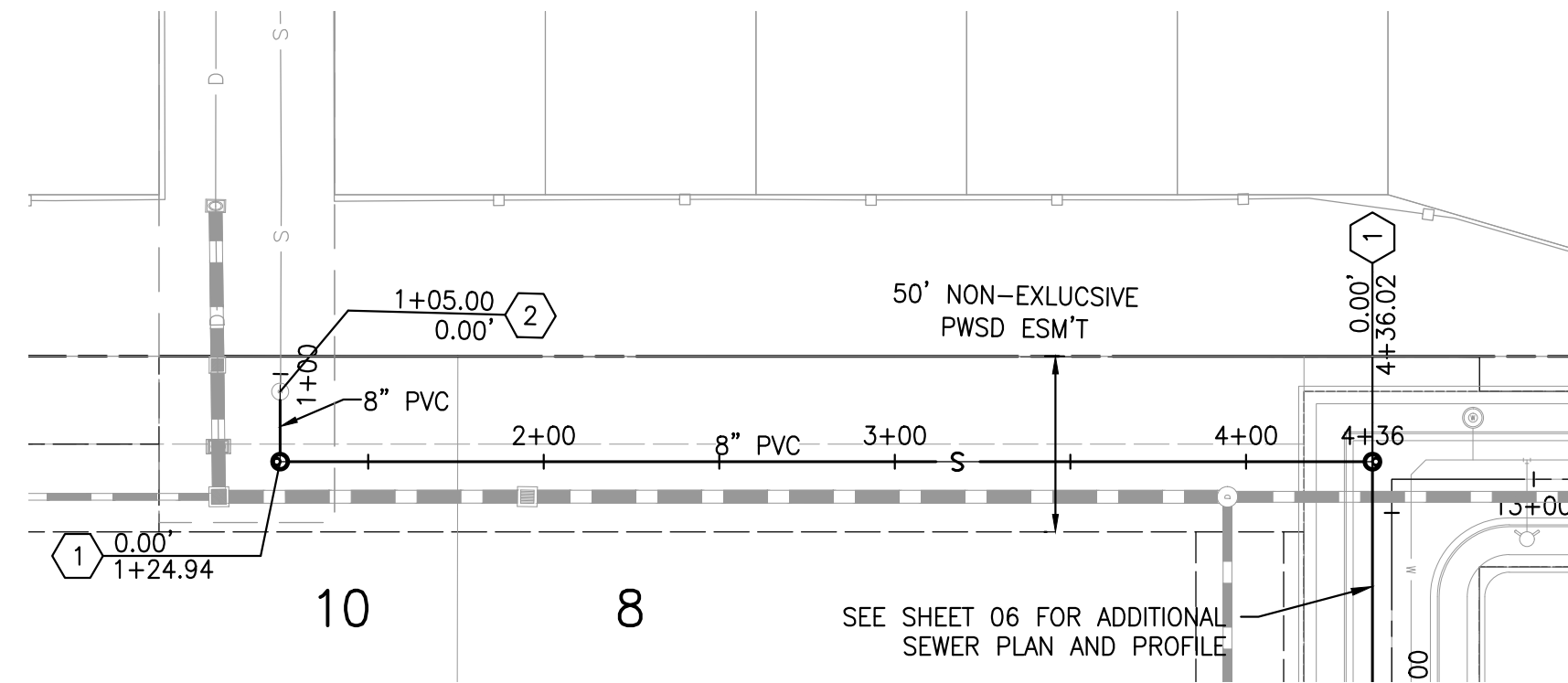
PROJECT NO.
D01173-A

DRAWING NO.

6

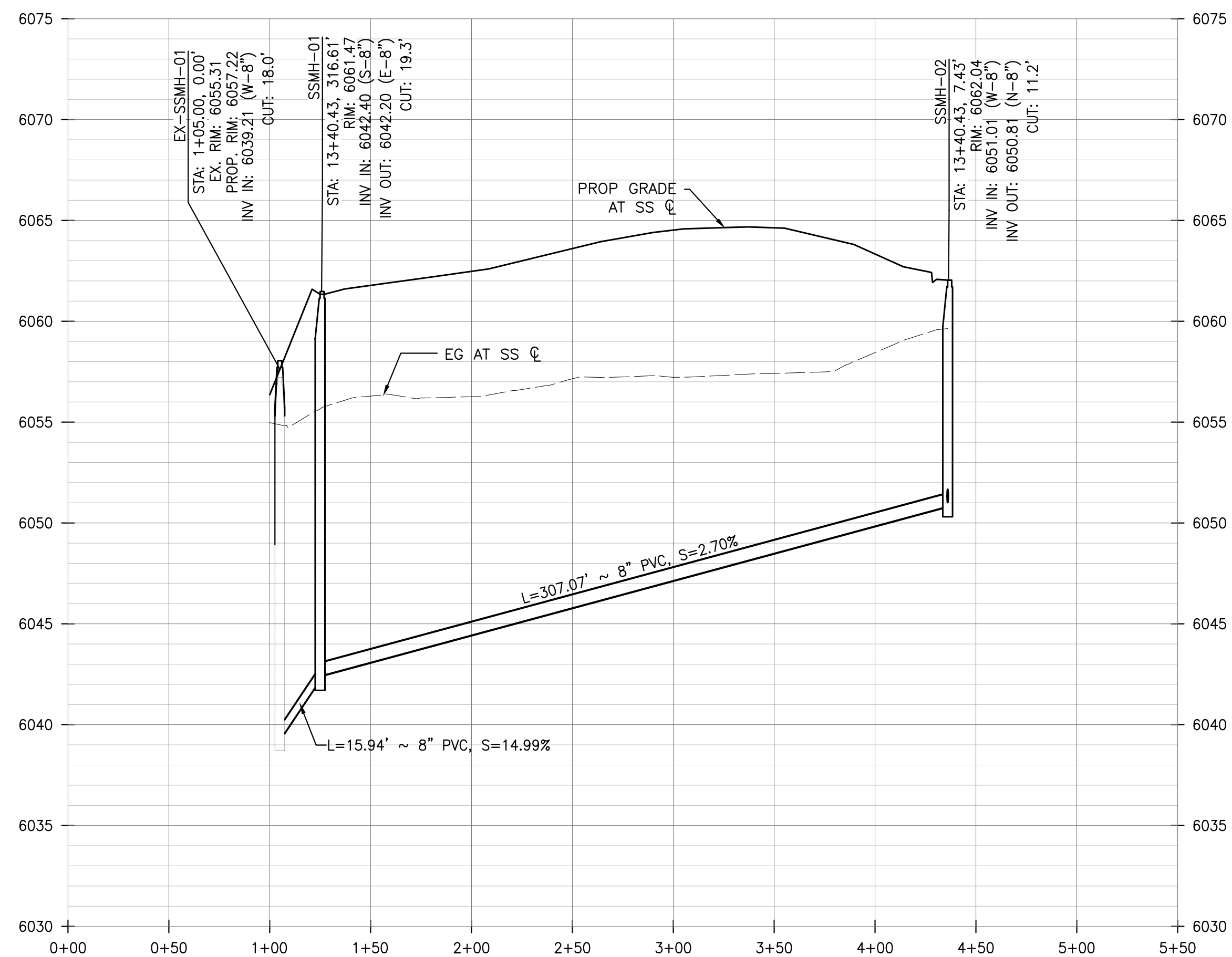
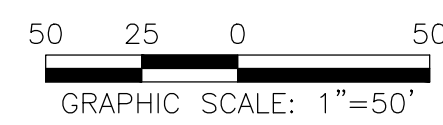
SHEET NO. 6 OF 12 SHEETS

PRELIMINARY
NOT FOR CONSTRUCTION



SEWER PLAN

SCALE: HORIZ. 1" = 50'



SEWER PROFILE

SCALE: HORIZ. 1"=50', VERT. 1"=5'

DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES:

INSTALLATION NOTES:

1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND PVC SCHEDULE 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 2%.
4. INSTALLATION SHALL NOT INCLUDE 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 THE PIPE BETWEEN FITTINGS WILL NOT BE ALLOWED.
7. SEWER SERVICE LINE SHALL NOT BE LOCATED UNDER CONCRETE SURFACE.
8. ALL SERVICES SHALL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"X" FOR SANITARY SEWER SERVICE
"Y" FOR WATER SERVICES

INSPECTION POLICY:

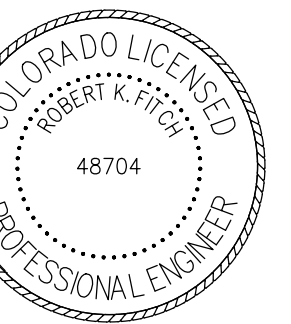
1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
2. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTE 1 ABOVE AND A RE-INSPECTION FEE CHARGED.
3. 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.

CONSTRUCTION NOTES

- 1 4' MANHOLE PER STD DTL PWS D S3.1
- 2 TIE INTO EXISTING MANHOLE, EXTEND MANHOLE & RESET MANHOLE TOP

WATER & SEWER IMPROVEMENT PLANS FOR
DOUGLAS 234
FILING NO. 6
 DOUGLAS COUNTY, COLORADO

RICK
ENGINEERING COMPANY
 9801 EAST EASTER AVE
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SCALE: 1" = 50'
 DATE: 9/22/2020
 DRAWN BY: WD
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 JOB NO: D01173-A

SEWER PLAN & PROFILE

PROJECT NO.
 D01173-A
 DRAWING NO.
 7
 SHEET NO. 7 OF 12 SHEETS

PRELIMINARY
NOT FOR CONSTRUCTION

- 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:

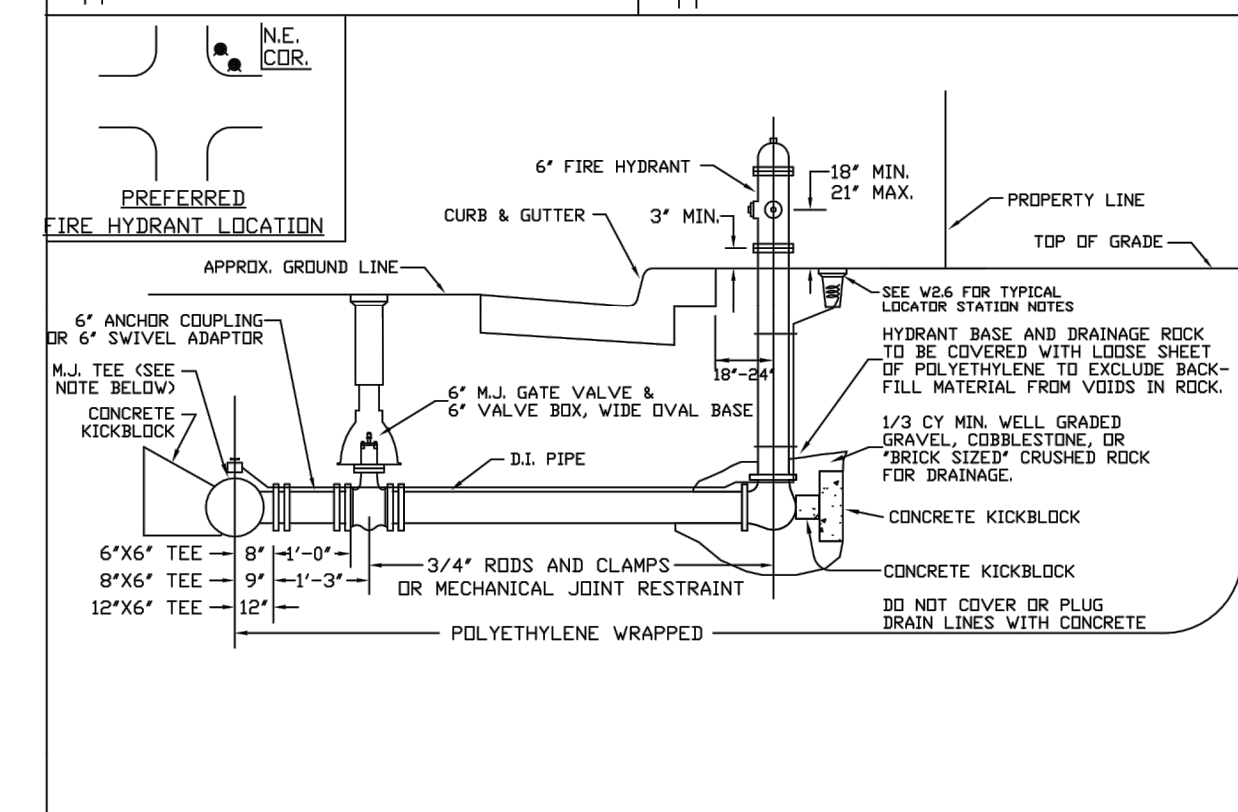
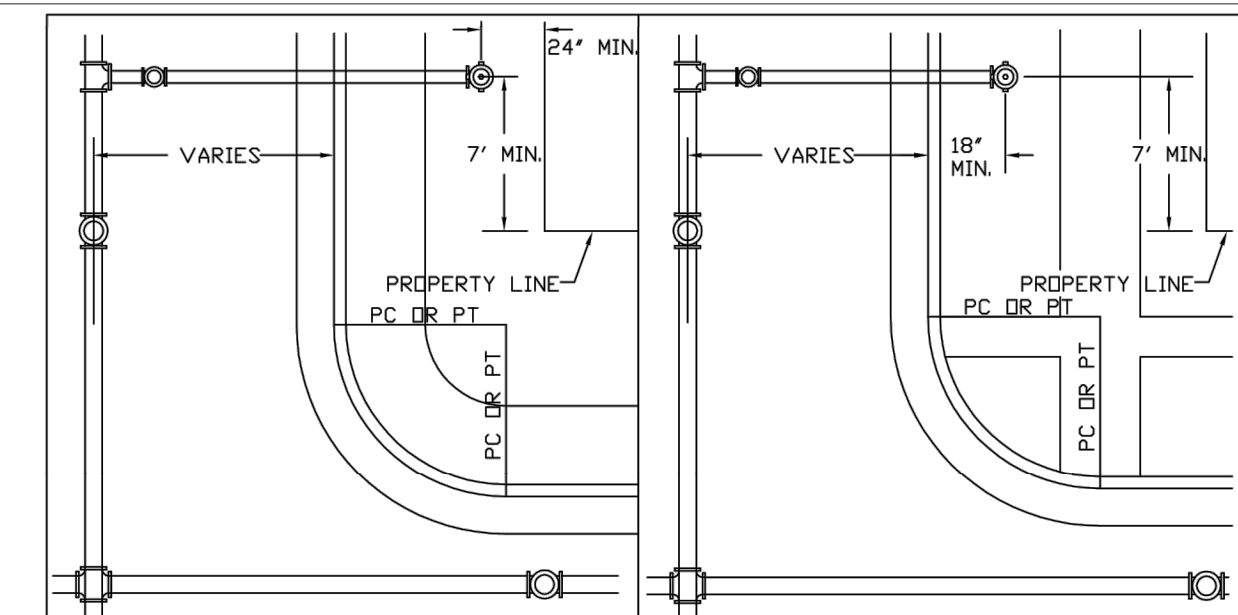
- WATER**
1. ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING. (3/4" MIN.)
 2. APPROVED BEDDING TO BE SQUEEGEE.
 3. ONLY ONE COUPLING WILL BE ALLOWED BETWEEN THE STUB-IN AND BUILDING. COMPRESSION COUPLINGS WILL NOT BE ALLOWED ON NEW CONSTRUCTION. SILVER SOLDERED JOINTS MUST BE USED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWSD 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 COPPER 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 PWSD 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:
 "W" FOR SANITARY SEWER SERVICE
 "V" 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 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: 2/96
APPROVED: PVR	1/04 1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W1.1

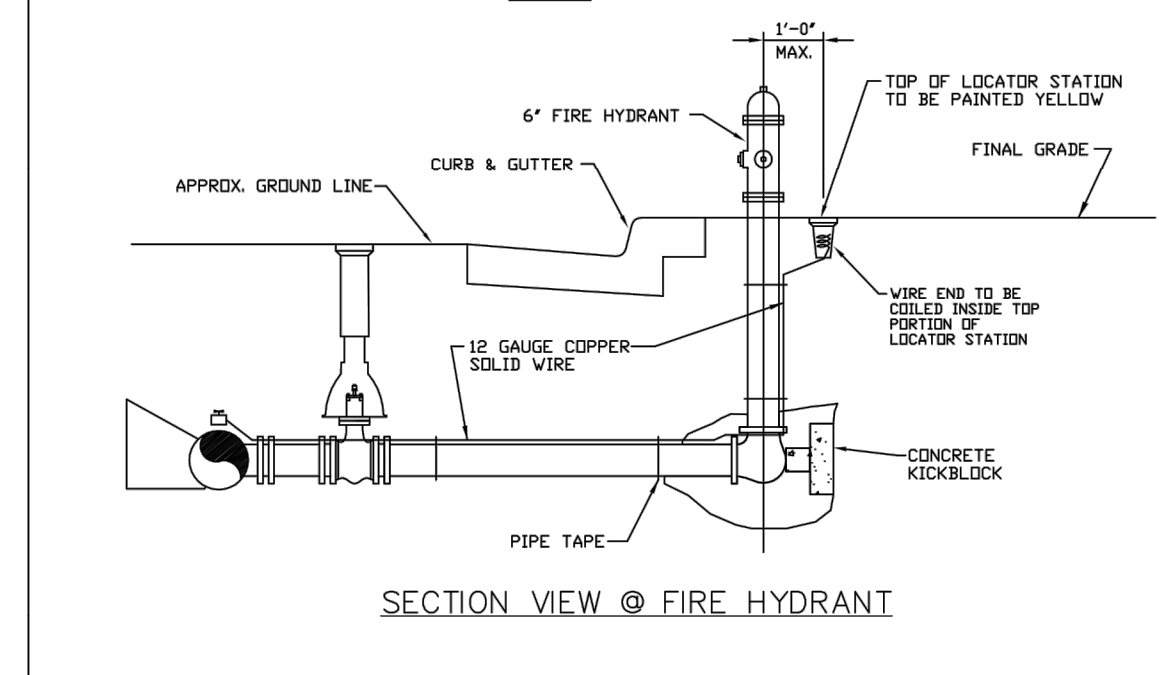
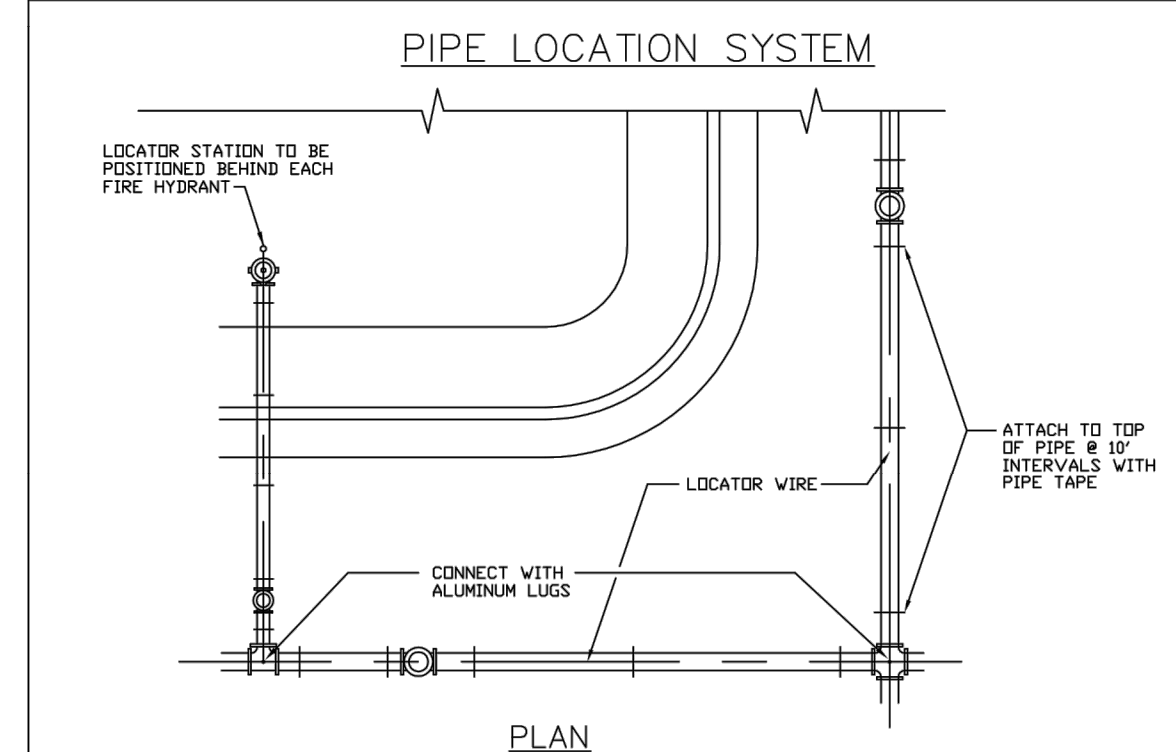


PARKER WATER & SANITATION DISTRICT
FIRE HYDRANTS LOCATION & INSTALLATION

SCALE: NONE	DATE: 2/96
APPROVED: PVR	4/01 01/02 12/07 1/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W2.5

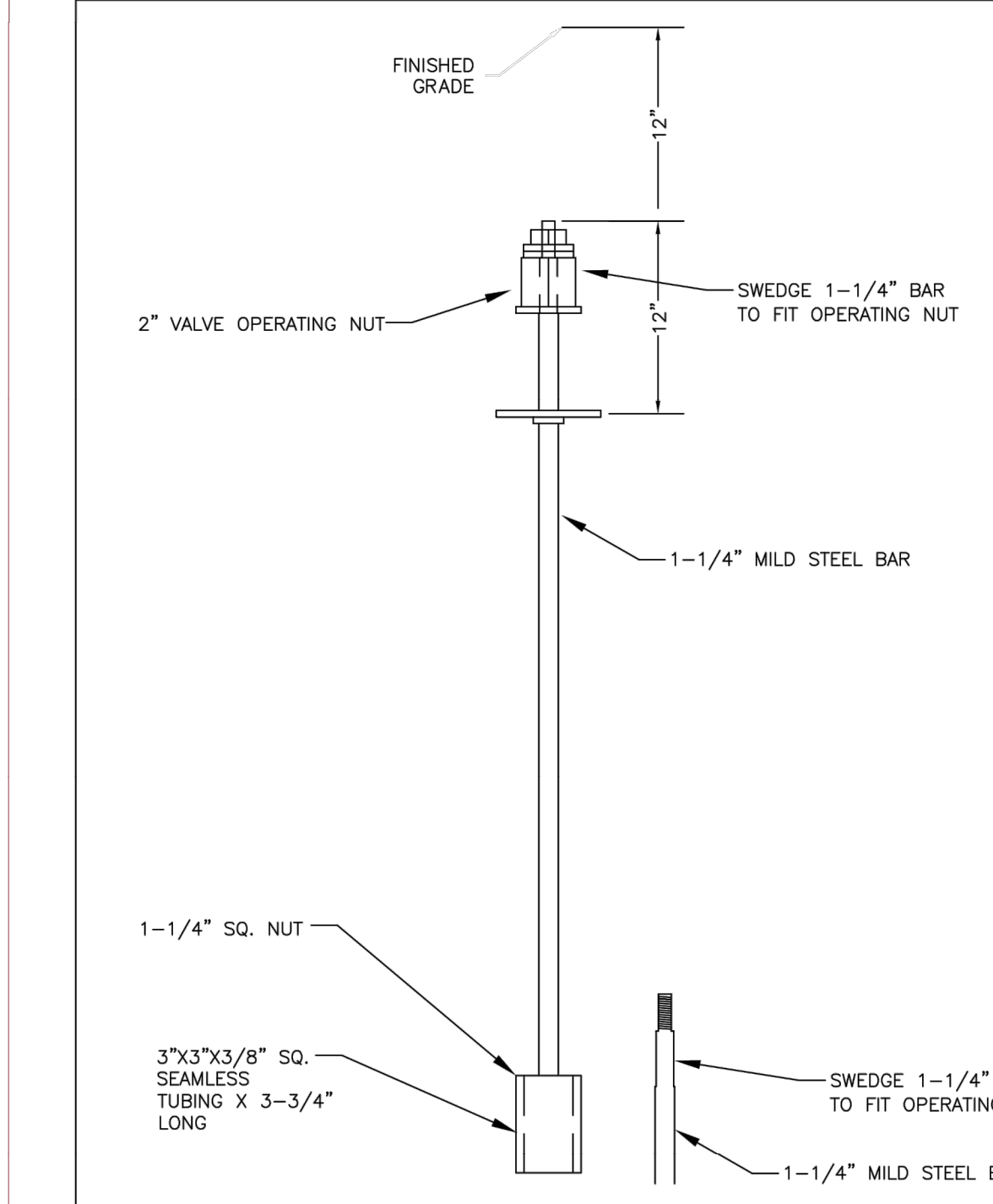


PARKER WATER & SANITATION DISTRICT
LOCATOR WIRE DETAILS

SCALE: NONE	DATE: 2/96
APPROVED: PVR	4/01 01/02 01/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W2.6

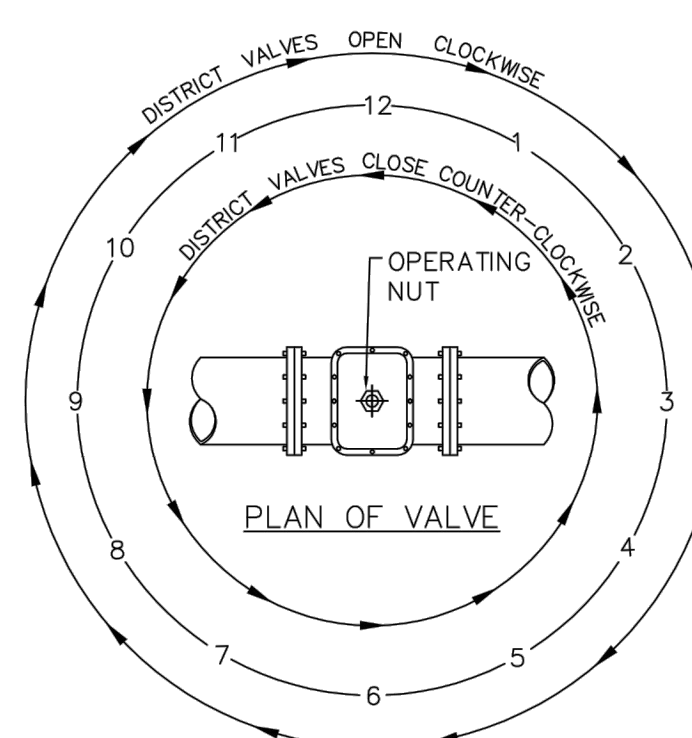


PARKER WATER & SANITATION DISTRICT
VALVE OPERATOR EXTENSION

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

2016 REVISION

SHEET W3.3



NOTE:
ONLY RIGHT HAND OPENING VALVES ALLOWED.

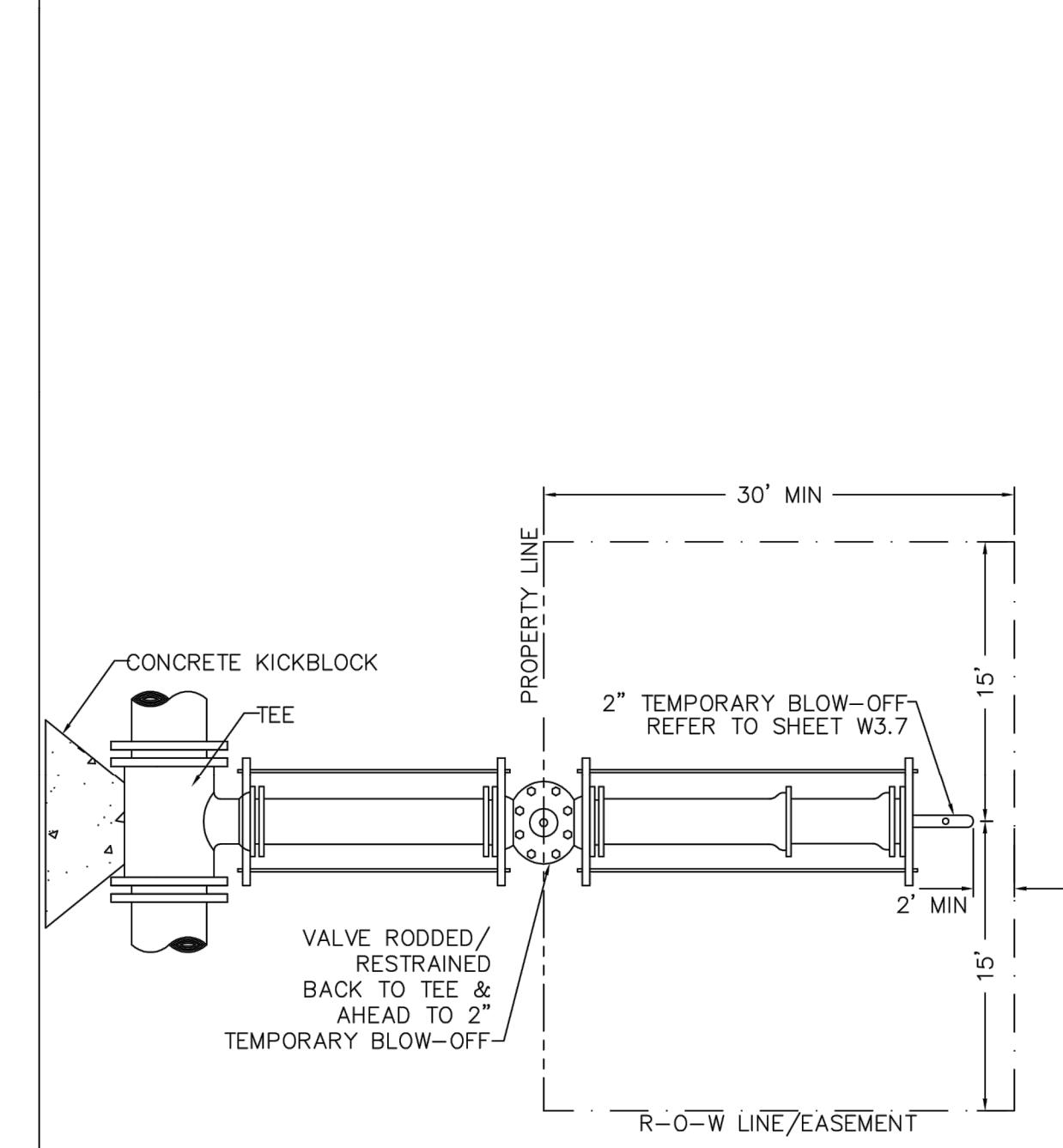
VALVE OPENING & CLOSING PROCEDURE

PARKER WATER & SANITATION DISTRICT
VALVE OPERATION

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

2016 REVISION

SHEET W3.4

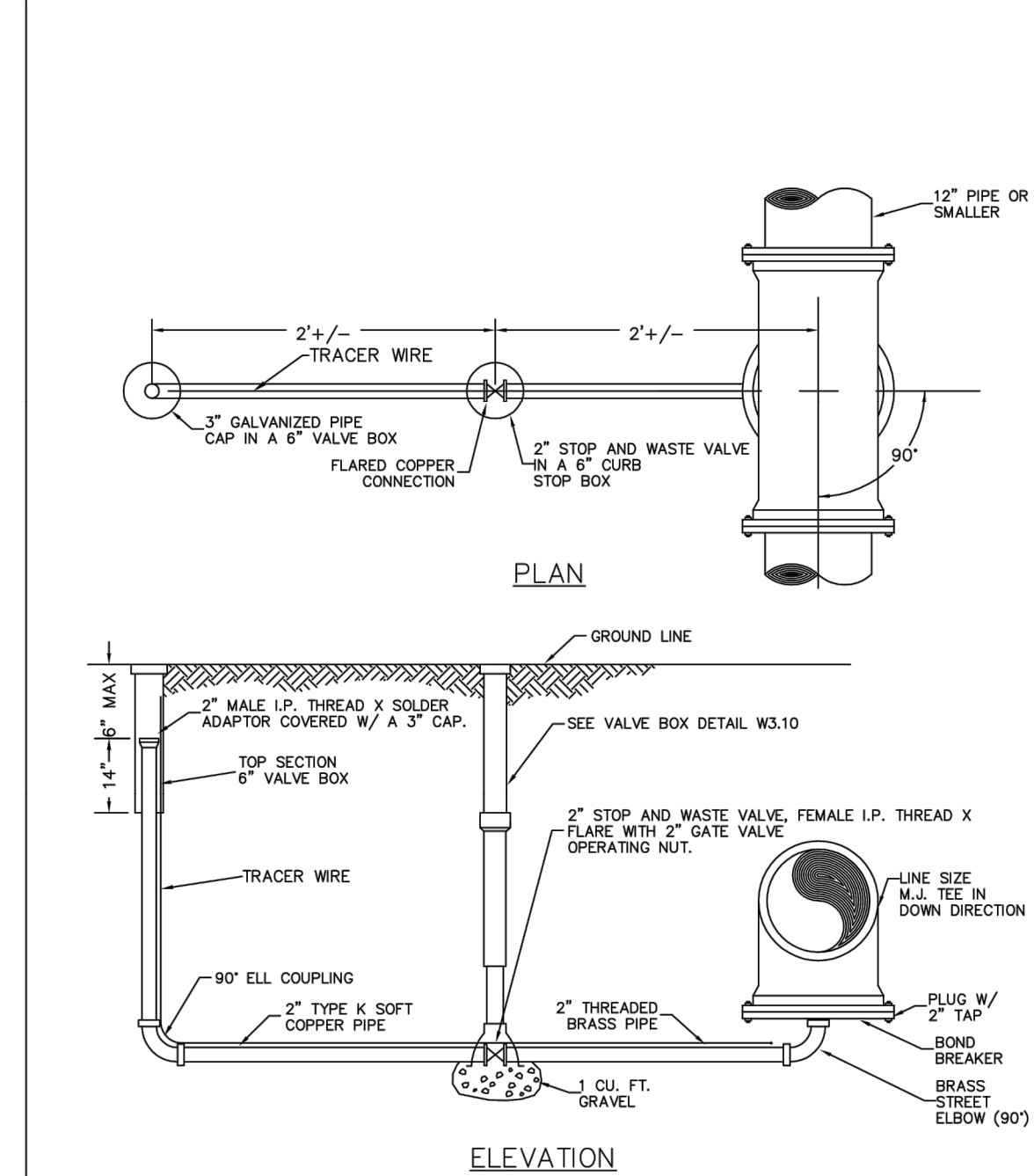


PARKER WATER & SANITATION DISTRICT
STUB-OUT CONFIGURATIONS

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

2016 REVISION

SHEET W3.5

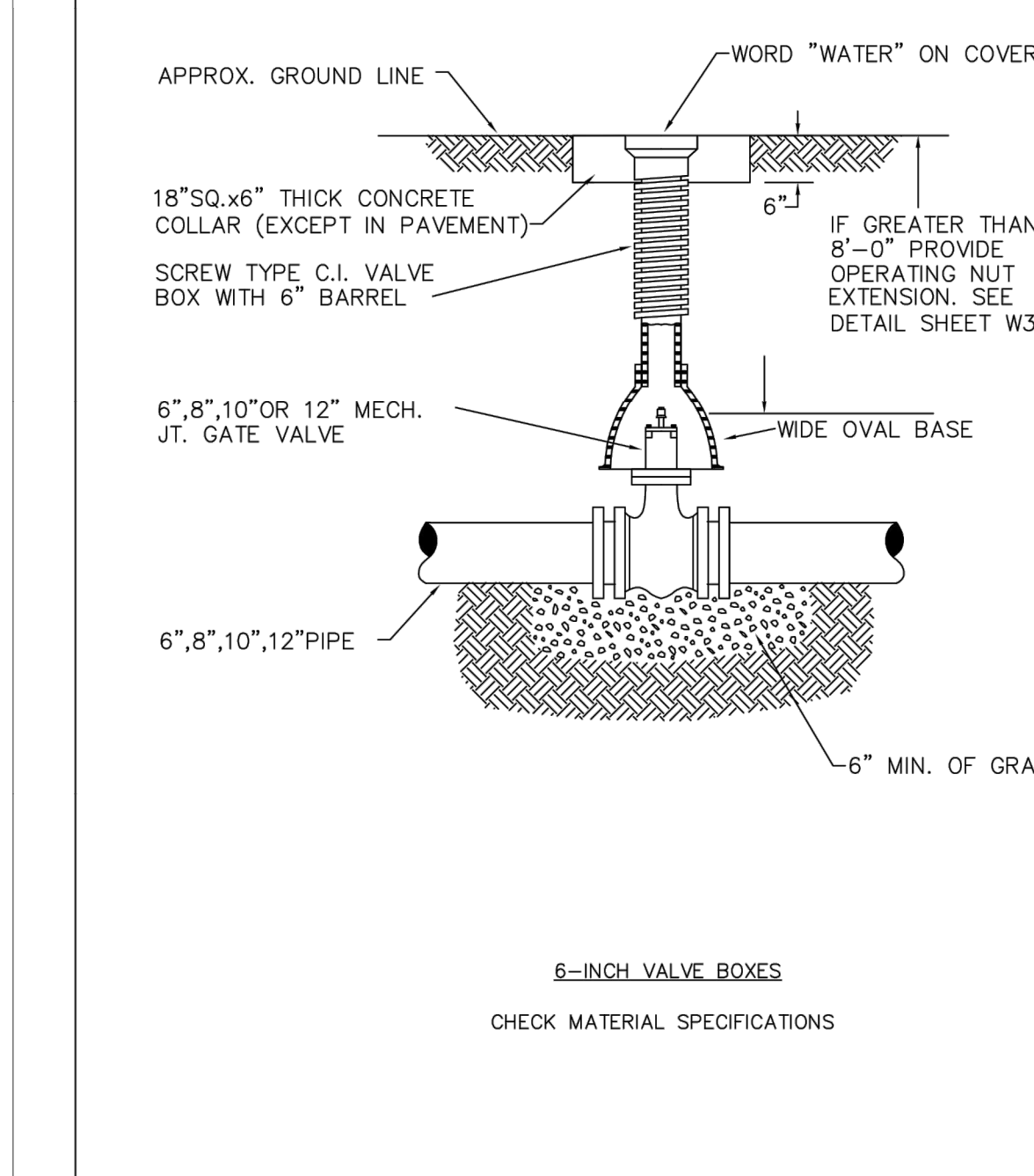


PARKER WATER & SANITATION DISTRICT
LOW POINT BLOW-OFF WITH SAND TRAP

SCALE: NONE	DATE: 2/96
APPROVED: PVR	4/01 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W3.8



PARKER WATER & SANITATION DISTRICT
VALVE BOX DETAIL

SCALE: NONE	DATE: 2/96
APPROVED: PVR	5/98 10/16 6/99 12/07 1/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W3.10

WATER & SEWER IMPROVEMENT PLANS FOR DOUGLAS 234 FILING NO. 6
DOUGLAS COUNTY, COLORADO

RICK ENGINEERING COMPANY
9801 EAST EASTER AVE
CENTENNIAL, CO 80112
303.537.8020
Tucson - San Diego - Riverside - Orange
Sacramento - San Luis Obispo - Phoenix
rickengineering.com



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REVISIONS:

NO.	DESCRIPTION	DATE:
1		

SCALE: NTS
DATE: 9/22/2020
DRAWN BY: WD
CHECKED BY: JS
JOB NO: D01173-A

WATER DETAILS

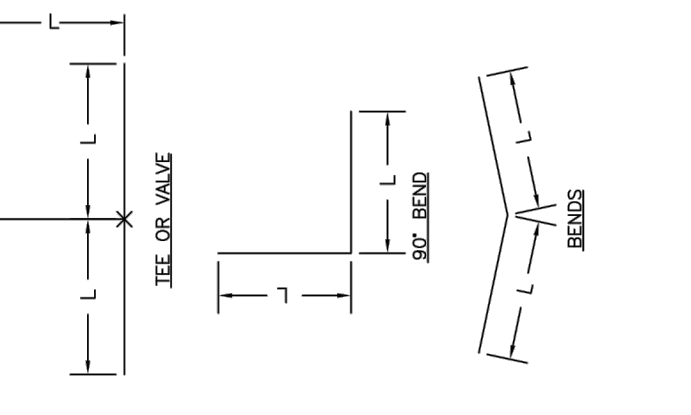
PROJECT NO. D01173-A
DRAWING NO. 8
SHEET NO. 8 OF 12 SHEETS

PRELIMINARY
NOT FOR CONSTRUCTION

LENGTH OF TIED PIPE

PIPE SIZE	4"	6"	8"	12"	16"	20"	24"
PIPE DIA.	D	G	D	L	G	D	L
MIN. OR FULL OR 45° BEND	3/4"	6.0'	3/4"	3.0'	3/4"	20.0'	3/4"
22-1/2° BEND	3/4"	6.0'	3/4"	3.0'	3/4"	20.0'	3/4"
11-1/4° BEND	3/4"	6.0'	3/4"	3.0'	3/4"	20.0'	3/4"

- NOTES:**
- LENGTH OF TIED PIPE MEASURED EACH WAY FROM VALVES AND BENDS.
 - CLAMPS AND RODS NOT ALLOWED FOR 24" AND LARGER PIPES.
 - D = DIAMETER, L = LENGTH, G = GRADE, M.S. = MILD STEEL.
 - MINIMUM 45° BENDING COVER REQUIRED.
 - BASED ON 150 PSI INTERNAL PRESSURE.
 - M.S. MEANS MILD STEEL ROD A.S.T.M. STANDARD DESIGNATION A-36.
 - H.S. MEANS HIGH STRENGTH STEEL ROD A.S.T.M. STANDARD DESIGNATION A-193 GRADE B-7.
 - SEE THE ROD DETAIL DRAWING, ALSO, THE ROD COUPLING DETAILS, CLAMP DETAILS AND SET CLAMP DETAILS.
 - LENGTH REFERS TO THE AMOUNT OF PIPE WHICH MUST BE TIED TO THE RODS.
 - STAR BOLTS NOT ALLOWED ON PIPE LARGER THAN 16".
 - MINIMUM OF 4 RODS REQUIRED ON 16" PIPE IF STAR BOLTS ARE USED.
 - TEES ARE TO BE RODDED ON BENDS ONLY.

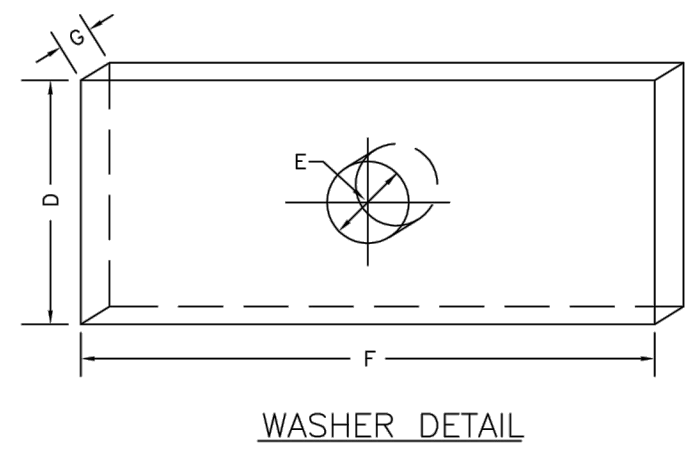
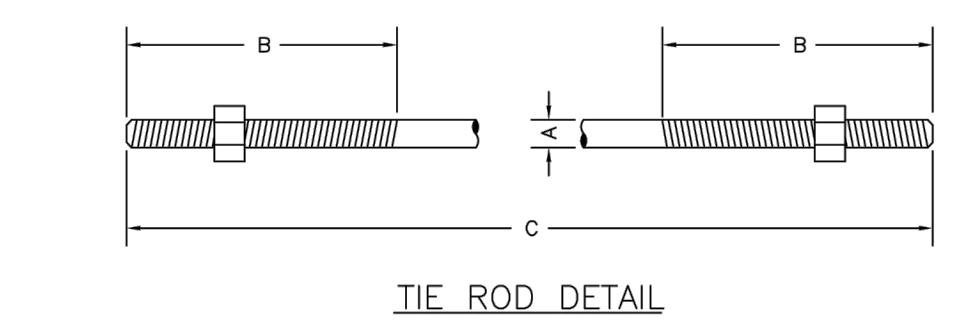


PARKER WATER & SANITATION DISTRICT
LENGTH OF TIED PIPE

SCALE: NONE DATE: 2/96

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

SHEET W3.11



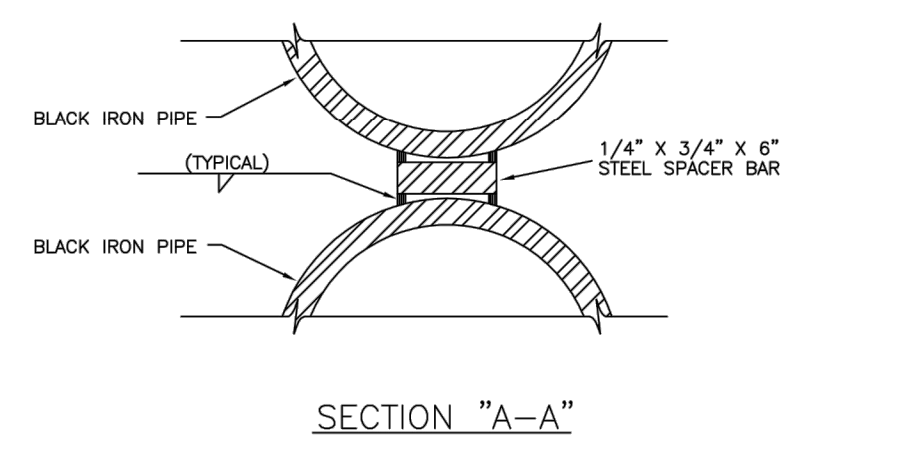
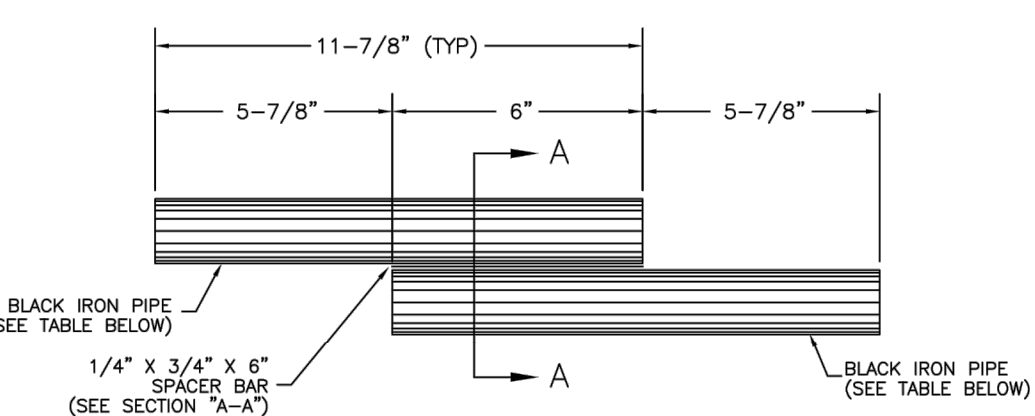
TIE RODS		WASHERS		
ROD DIA.	THREAD LENGTH	D	F	G
3/4"	1'-10 1/2" & 20"	3/8"	6"	3/8"
1"	1'-10 1/2" & 20"	1-1/8"	7"	1-1/8"
1-1/4"	ALL THREAD	1-1/2"	8"	1-1/2"

PARKER WATER & SANITATION DISTRICT
TIE ROD AND WASHER DETAILS

SCALE: NONE DATE: 2/96

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

SHEET W3.12

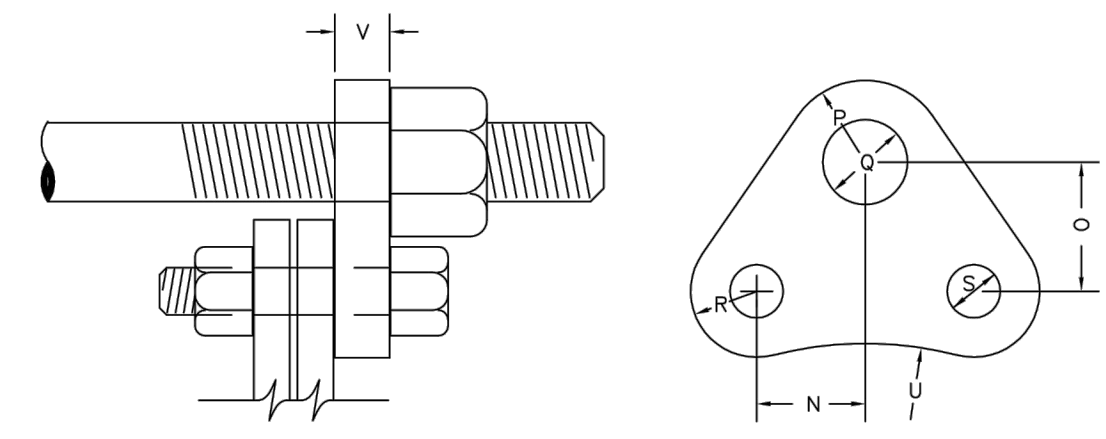


PARKER WATER & SANITATION DISTRICT
TIE ROD COUPLING

SCALE: NONE DATE: 2/96

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

SHEET W3.13



DIMENSIONS (IN INCHES)

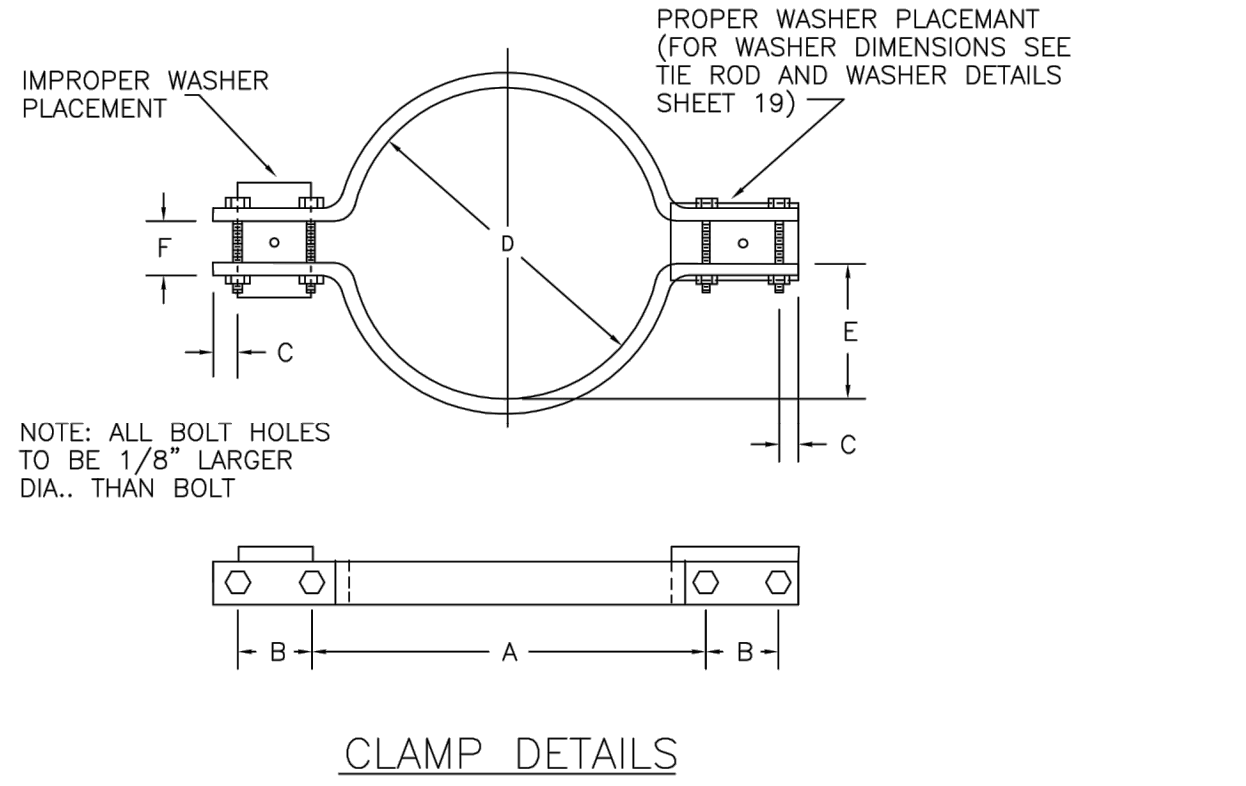
PIPE DIA.	N	O	P	Q	R	S	U	V	PIPE DIA.
4"	1-7/8"	2-1/4"	1-7/8"	3/4"	1-7/8"	3/4"	2-7/8"	3/4"	4"
6"	1-7/8"	2-1/4"	1-7/8"	3/4"	1-7/8"	3/4"	2-7/8"	3/4"	6"
8"	1-7/8"	2-1/4"	1-7/8"	3/4"	1-7/8"	3/4"	2-7/8"	3/4"	8"
12"	1-7/8"	2-1/4"	1-7/8"	3/4"	1-7/8"	3/4"	2-7/8"	3/4"	12"
16"	1-7/8"	2-1/4"	1-7/8"	3/4"	1-7/8"	3/4"	2-7/8"	3/4"	16"
20"	1-7/8"	2-1/4"	1-7/8"	3/4"	1-7/8"	3/4"	2-7/8"	3/4"	20"

PARKER WATER & SANITATION DISTRICT
FLANGE LUG DETAIL

SCALE: NONE DATE: 2/96

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

SHEET W3.14



DIMENSIONS

TABLE OF DIMENSIONS FOR CLAMPS

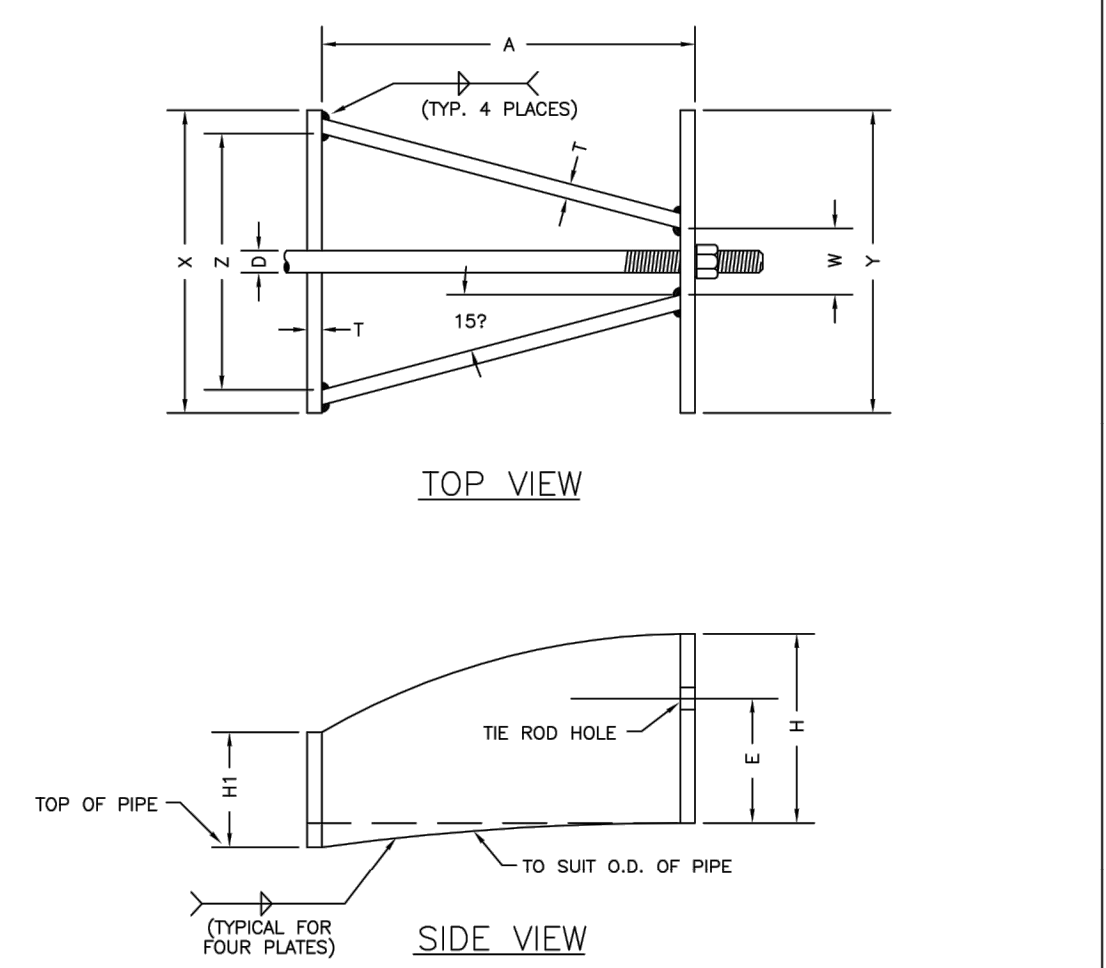
PIPE DIA.	BAR SIZE	A	B	C	D	E	F	BOLT SIZES	PIPE DIA.
4	1-1/2X1/2	9-3/4	7-1/2	3-1/2	3-1/2	1	1	6-3/4	4
6	2X1/2	13	9-1/2	4	4-1/2	2	2	10-1/4	6
8	2-1/2X1/2	15	12-3/4	4-3/4	4-1/2	1-1/4	1-1/4	12-1/4	8
12	2-1/2X5/8	17-1/2	16-5/8	4-3/4	4-3/4	1	1-1/4	14-1/2	12
16	3X3/4	24-1/2	21-7/8	4-1/2	4-3/4	1-1/2	1-1/2	19-3/4	16
20	3X3/4	30-1/2	25-5/8	4-1/2	4-3/4	1-1/2	1-1/2	24-3/4	20

PARKER WATER & SANITATION DISTRICT
CLAMP DETAILS AND DIMENSIONS

SCALE: NONE DATE: 2/96

APPROVED: 12/07/16
PVR 10/16
DIRECTOR OF ENGINEERING

SHEET W3.15



HARNES LUG DIMENSIONS

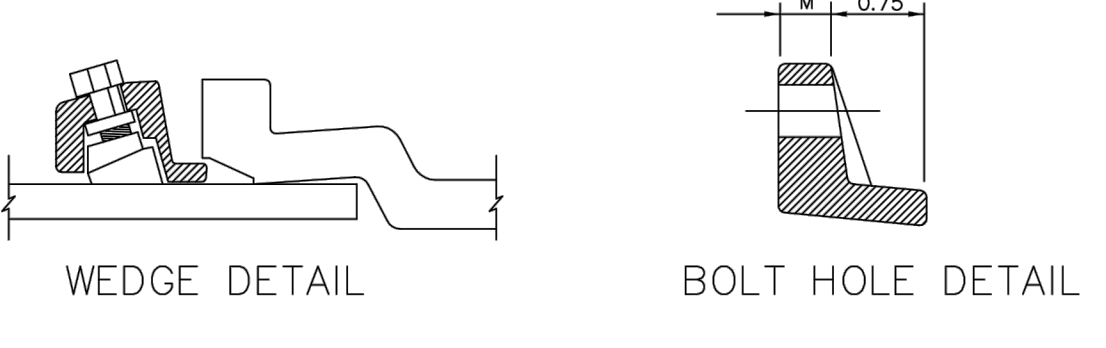
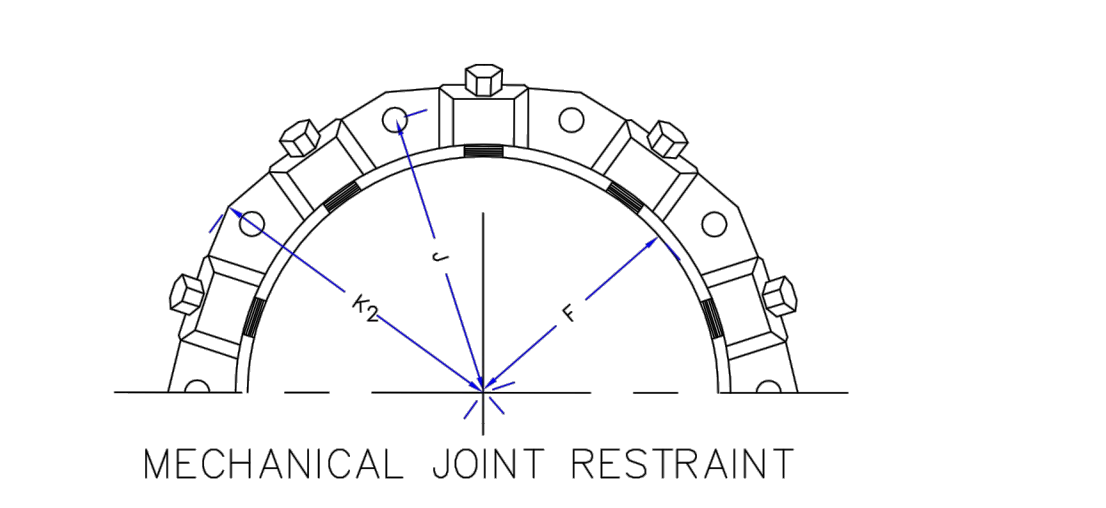
CARRIER PIPE NOMINAL DIA.	STUD DIA.	A	W	Z	T	H	E	H1	Y	X
4" TO 16"	3/4"	5"	1-1/2"	3-3/4"	3/8"	4-1/8"	3-1/8"	2"	4-1/2"	5"
20"	1"	5-3/4"	1-3/4"	4-7/16"	3/8"	4-1/2"	3-1/4"	2"	5-1/4"	5-11/16"

PARKER WATER & SANITATION DISTRICT
HARNES LUG DETAILS

SCALE: NONE DATE: 2/96

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

SHEET W3.16



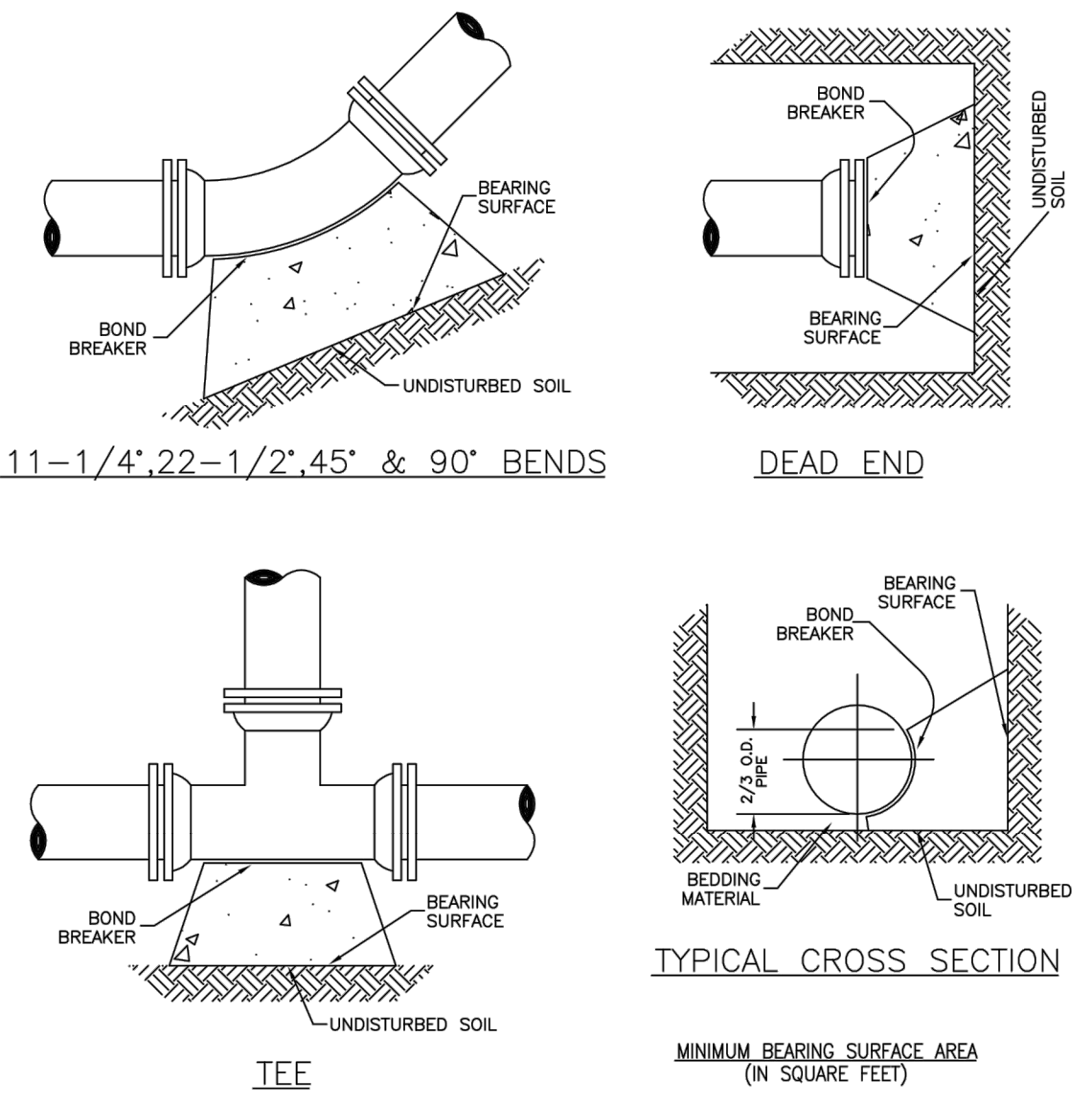
NOMINAL PIPE SIZE	NO. OF BOLTS	NO. OF WEDGES	K2 INCHES	J INCHES	F INCHES	M INCHES
4"	2	2	11.12	9.5	7.00	0.88
6"	3	3	13.37	11.75	9.15	1.00
8"	4	4	15.62	14.00	11.20	1.00
10"	6	6	17.88	16.25	13.30	1.25
12"	8	8	17.88	16.25	13.30	1.25

PARKER WATER & SANITATION DISTRICT
MECHANICAL JOINT RESTRAINT DETAILS

SCALE: NONE DATE: 2/96

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

SHEET W3.17



MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)

PIPE SIZE	90°	45°	TEE OR DEAD END
4"	1.00	1.00	1.00
6"	1.00	1.25	1.00
8"	1.00	2.00	1.00
10"	2.00	3.25	1.00
12"	3.50	6.50	1.00
16"	5.00	10.00	1.00
20"	6.50	13.00	1.00

PARKER WATER & SANITATION DISTRICT
CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION

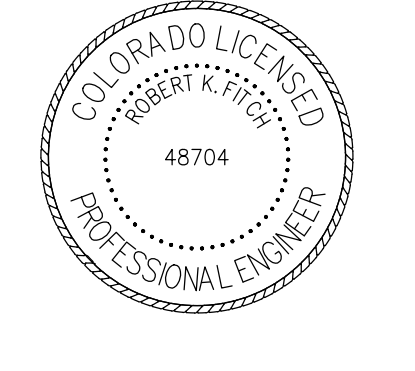
SCALE: NONE DATE: 2/96

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

SHEET W3.18

WATER & SEWER IMPROVEMENT PLANS FOR
DOUGLAS 234
FILING NO. 6
DOUGLAS COUNTY, COLORADO

RICK
ENGINEERING COMPANY
9801 EAST EASTER AVE
CENTENNIAL, CO 80112
303.537.8020
Tucson - San Diego - Riverside - Orange
Sacramento - San Luis Obispo - Phoenix
rickengineering.com



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REVISIONS:

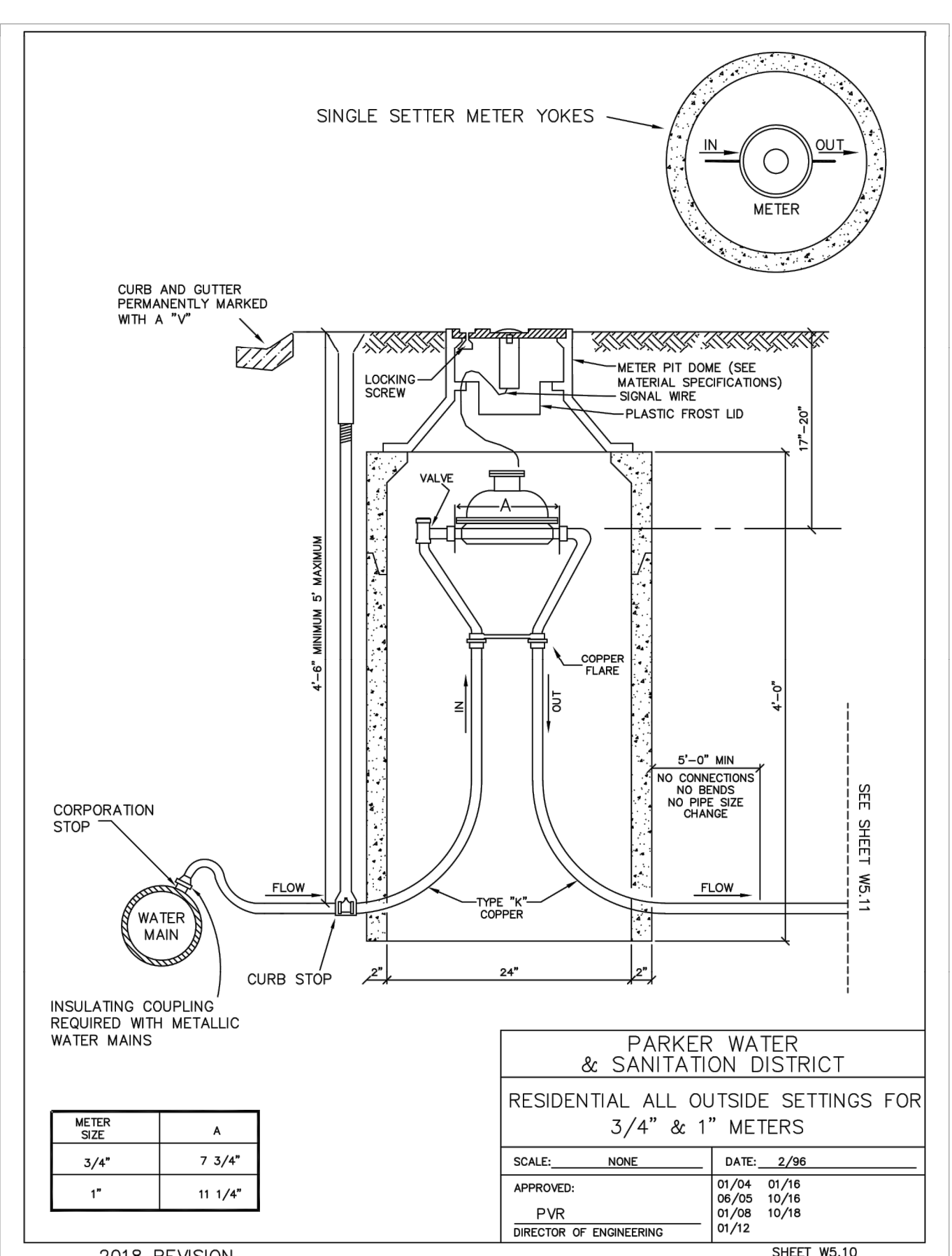
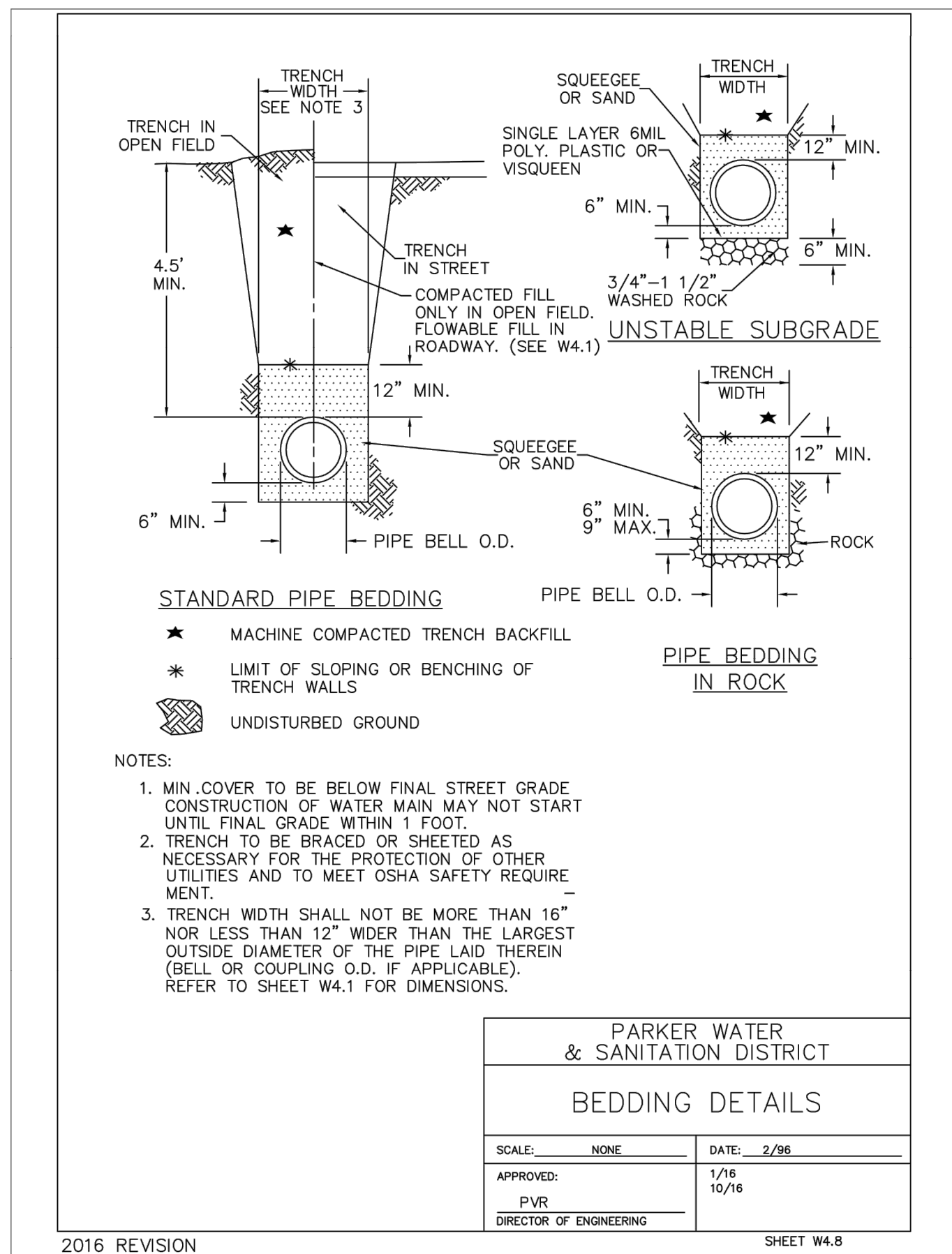
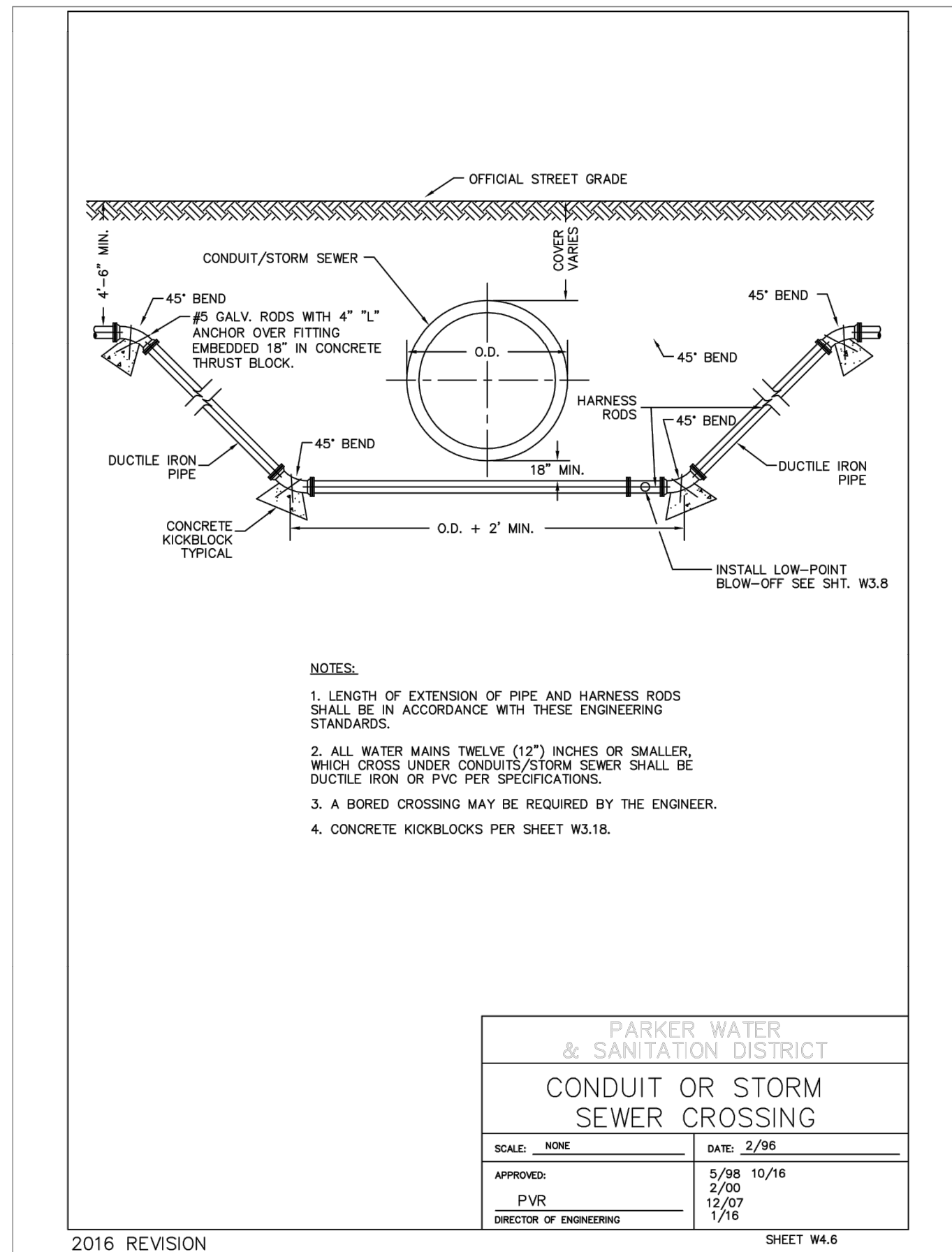
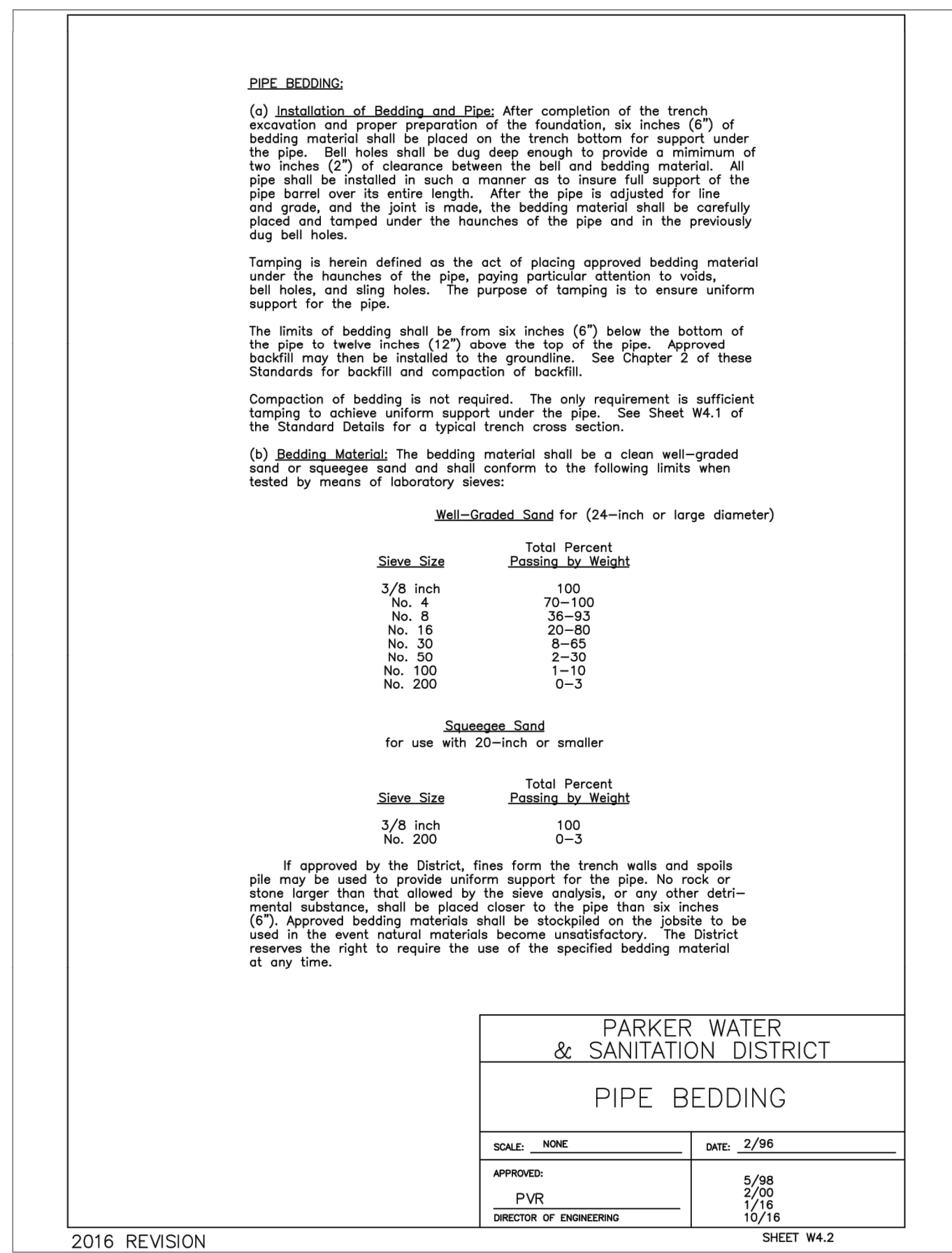
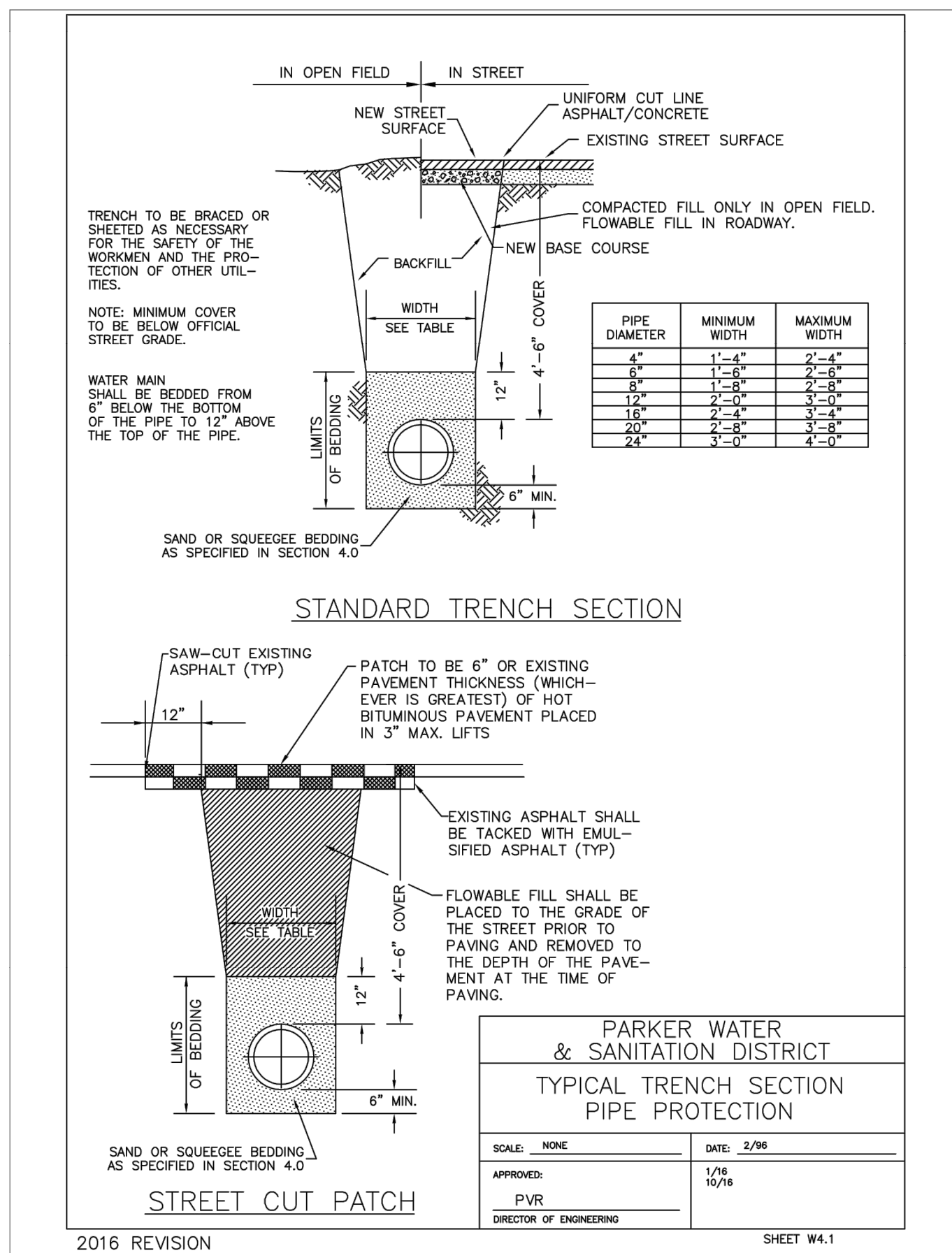
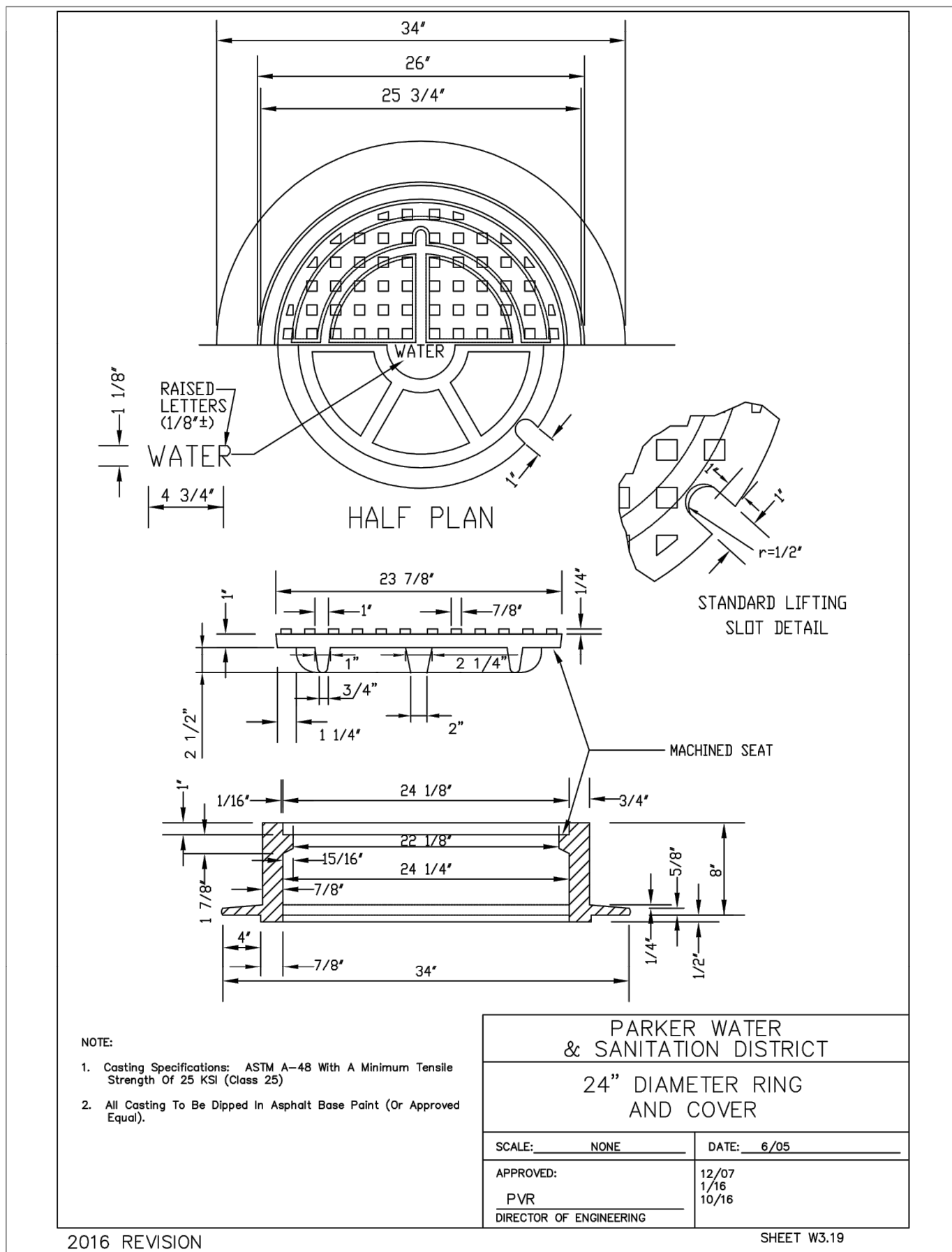
NO.	DESCRIPTION	DATE:
1		

SCALE: NTS
DATE: 9/22/2020
DRAWN BY: WD
CHECKED BY: JS
JOB NO: D01173-A

WATER DETAILS

PROJECT NO. D01173-A
DRAWING NO. 9
SHEET NO. 9 OF 12 SHEETS

PRELIMINARY
NOT FOR CONSTRUCTION



**WATER & SEWER IMPROVEMENT PLANS FOR
DOUGLAS 234
FILING NO. 6**
DOUGLAS COUNTY, COLORADO

**RICK
ENGINEERING COMPANY**
9801 EAST EASTER AVE
CENTENNIAL, CO 80112
303.537.8020
Tucson - San Diego - Riverside - Orange
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REVISIONS:

NO.	DESCRIPTION	DATE:
1		

SCALE: NTS
DATE: 9/22/2020
DRAWN BY: WD
CHECKED BY: JS
JOB NO: D01173-A

**WATER
DETAILS**

PROJECT NO:
D01173-A
DRAWING NO:
10
SHEET NO. 10 OF 12 SHEETS

PRELIMINARY
NOT FOR CONSTRUCTION

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 SQUEEGE.
2. NO-HUB CLAMPS SHALL BE USED TO JOIN 2 MALE PIPE ENDS WITH A MAXIMUM DEFLECTION OF 3".
3. MINIMUM GRADE SHALL BE 2%.
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:
 * FOR SANITARY SEWER SERVICE
 V FOR WATER SERVICES

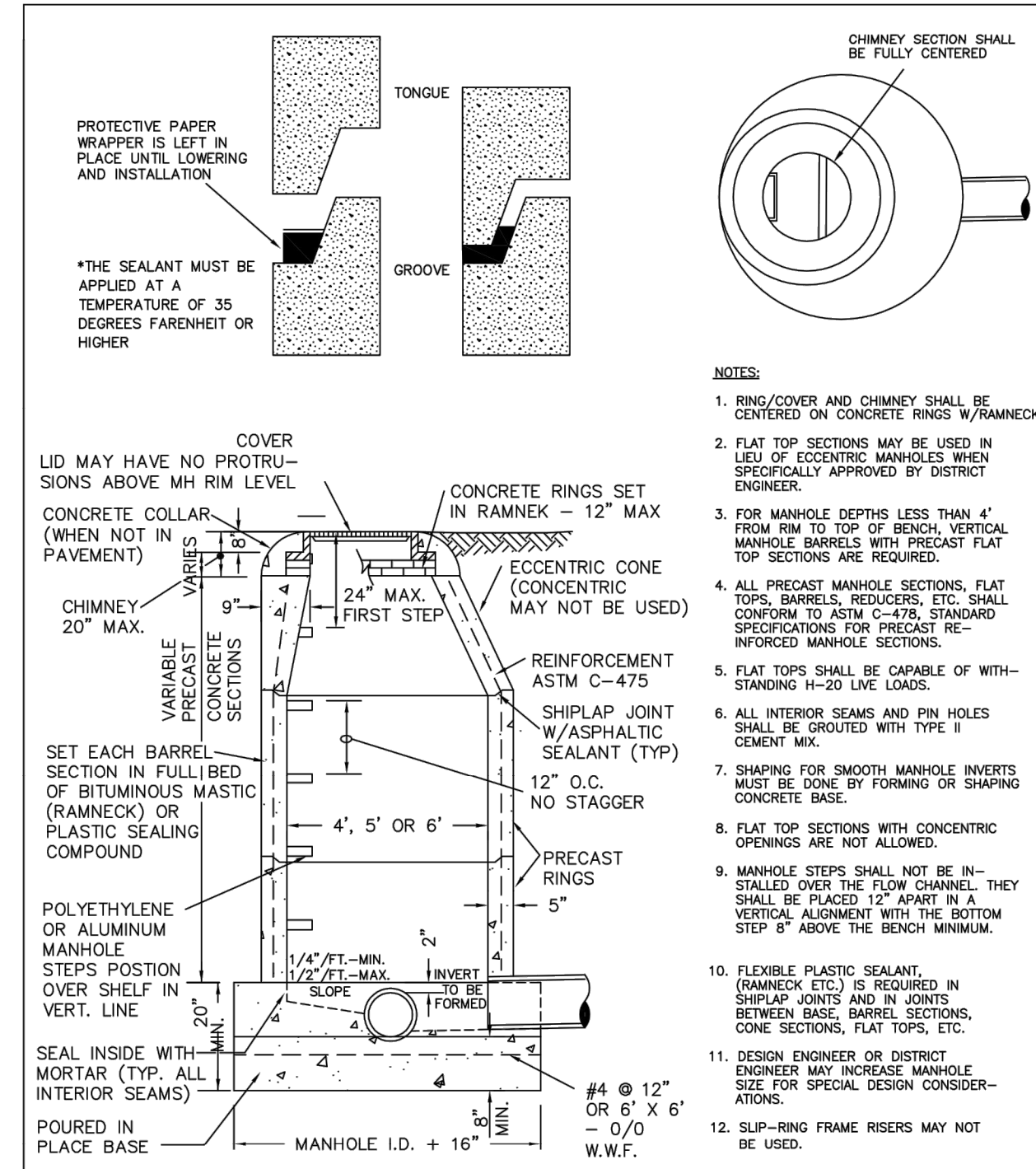
PARKER WATER & SANITATION DISTRICT
DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/02 10/16
	1/08
	1/16

DIRECTOR OF ENGINEERING

2016 REVISION

SHEET S1.1



PIPE I.D.	MANHOLE I.D.
18" & SMALLER	4'-0"
21" TO 48"	5'-0"
54"	6'-0"
60" & LARGER	SPECIAL DESIGN

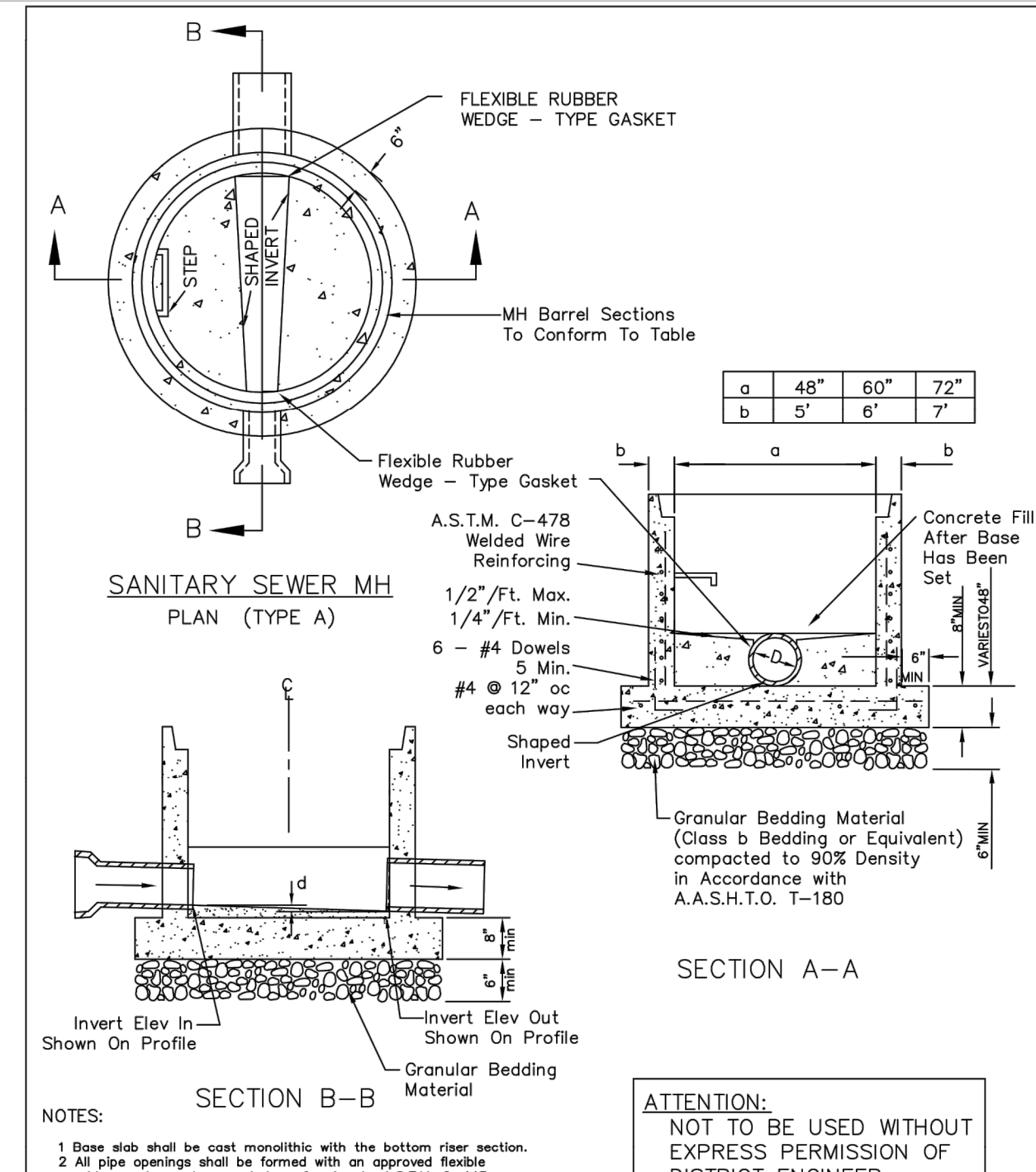
PARKER WATER & SANITATION DISTRICT
PARKER MANHOLE ECCENTRIC CONE

SCALE: NONE	DATE: 2/96
APPROVED: PVR	4/01 10/16
	01/02
	1/08
	1/16

DIRECTOR OF ENGINEERING

2016 REVISION

SHEET S3.1



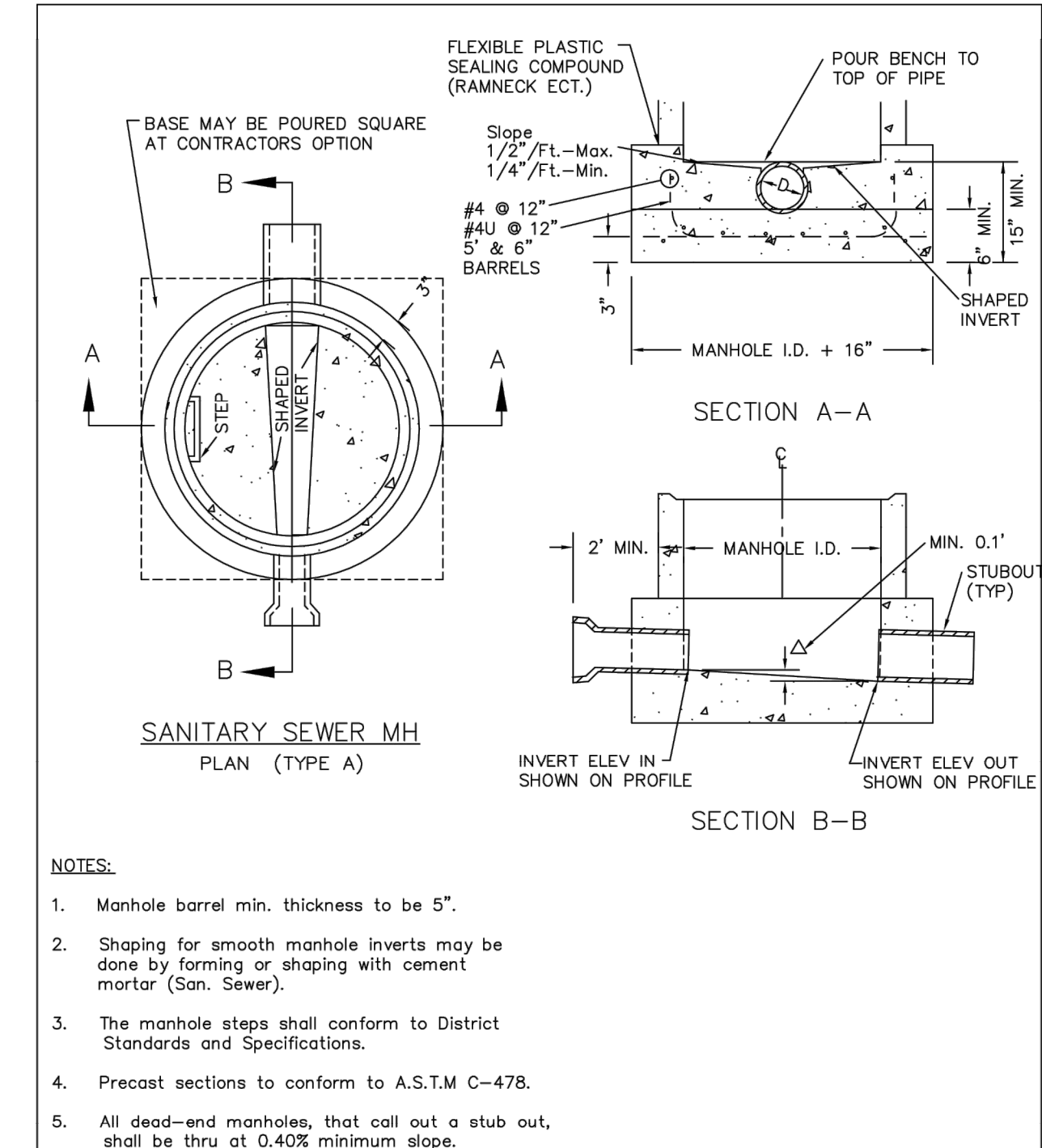
PARKER WATER & SANITATION DISTRICT
PRECAST MANHOLE BASE DETAIL

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/02 10/16

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SHEET S3.4



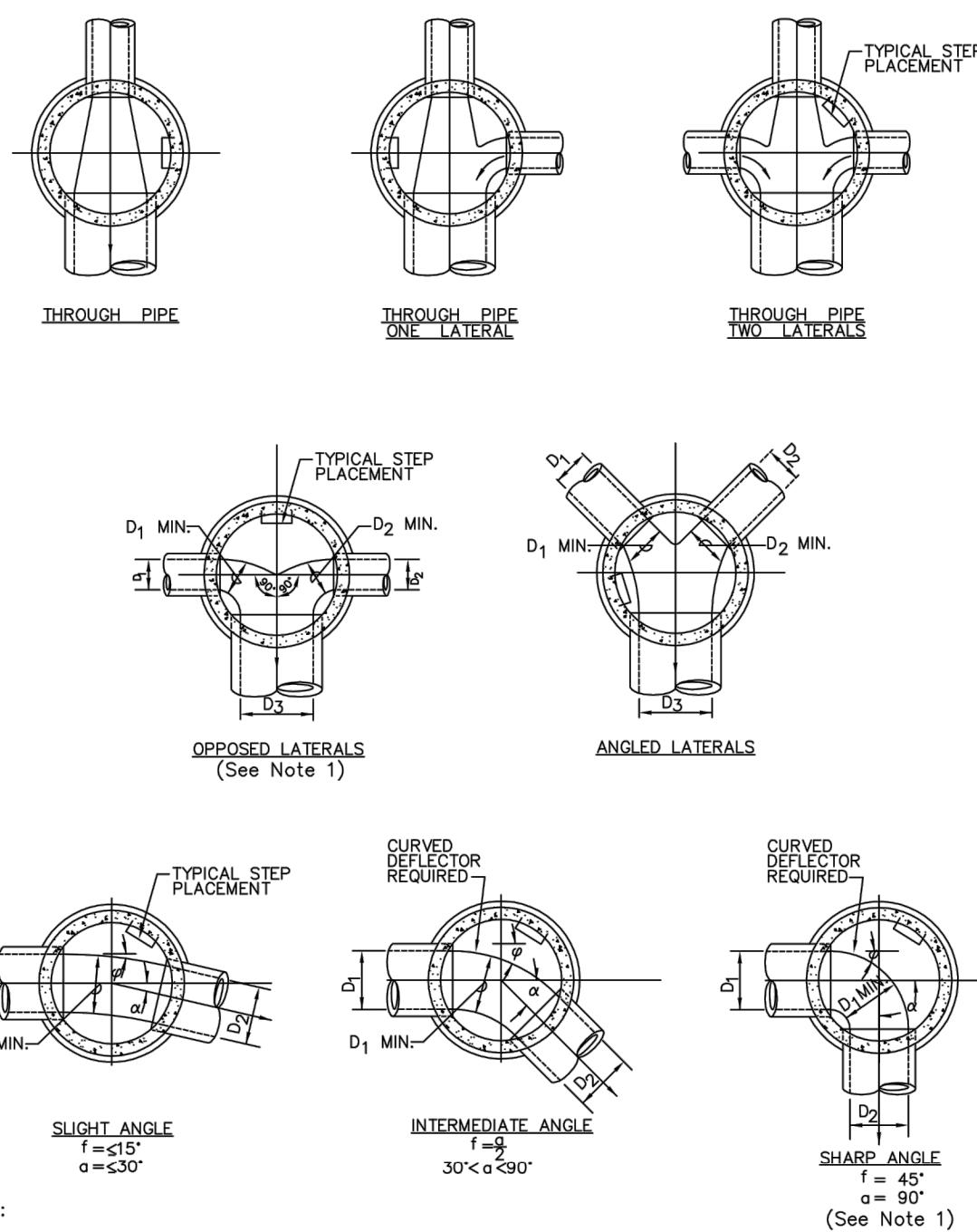
PARKER WATER & SANITATION DISTRICT
CAST-IN-PLACE MANHOLE BASE DETAIL

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/02 01/16 10/16

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SHEET S3.5



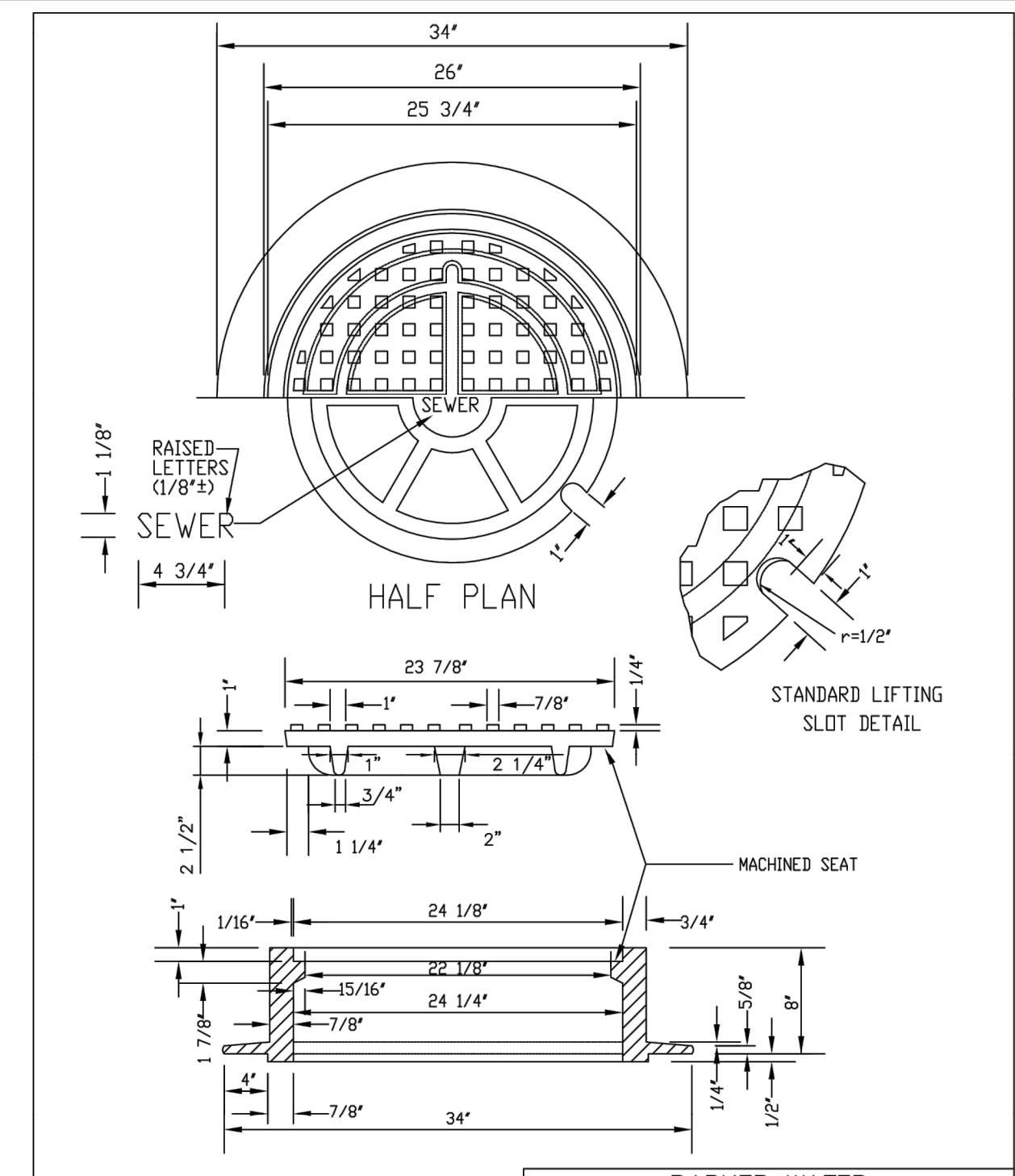
PARKER WATER & SANITATION DISTRICT
TYPICAL BASE CHANNELIZATION DETAILS

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/16 10/16

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SHEET S3.7



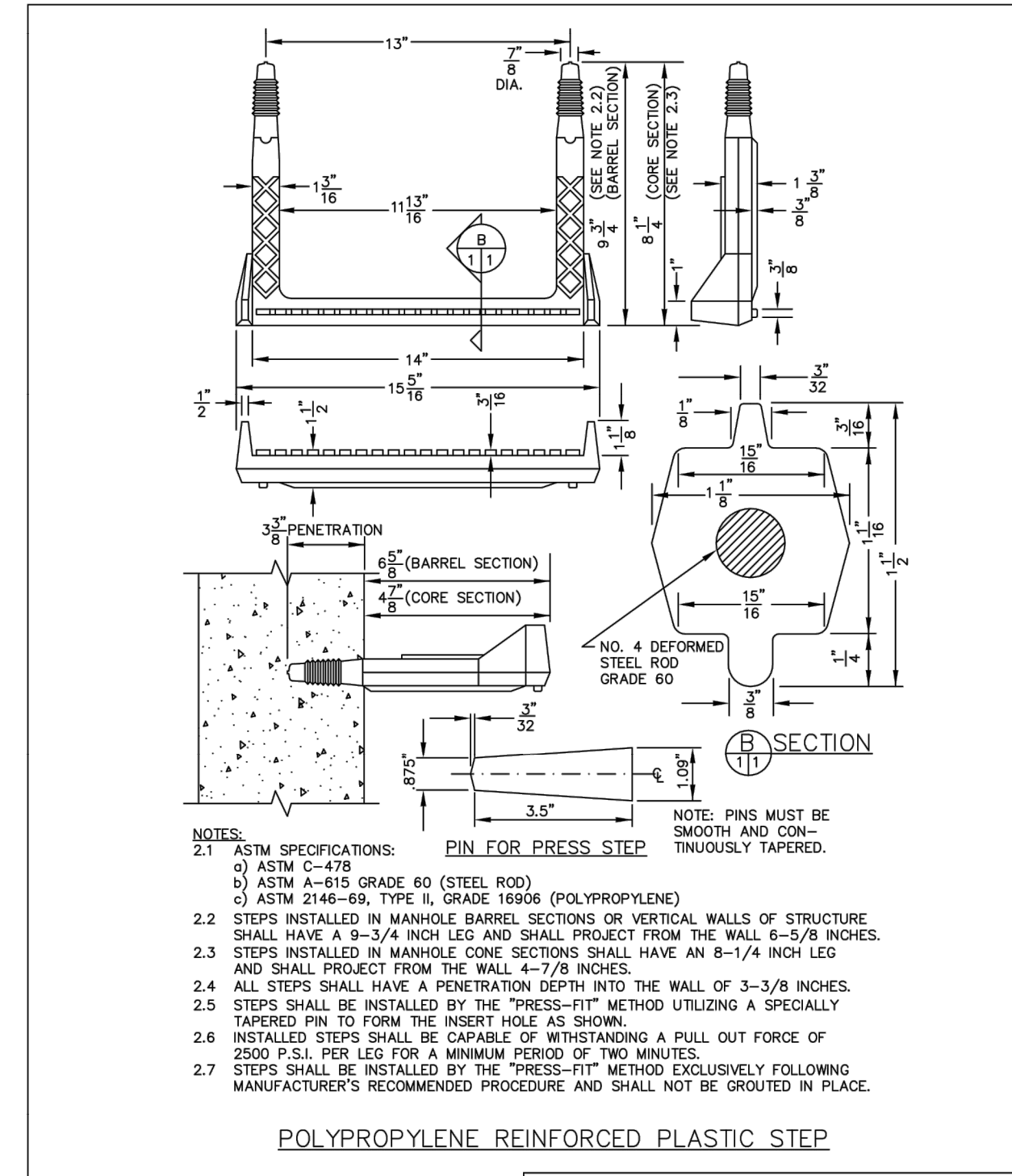
PARKER WATER & SANITATION DISTRICT
24" DIAMETER RING AND COVER

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/16 10/16

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2016 REVISION

SHEET S3.9



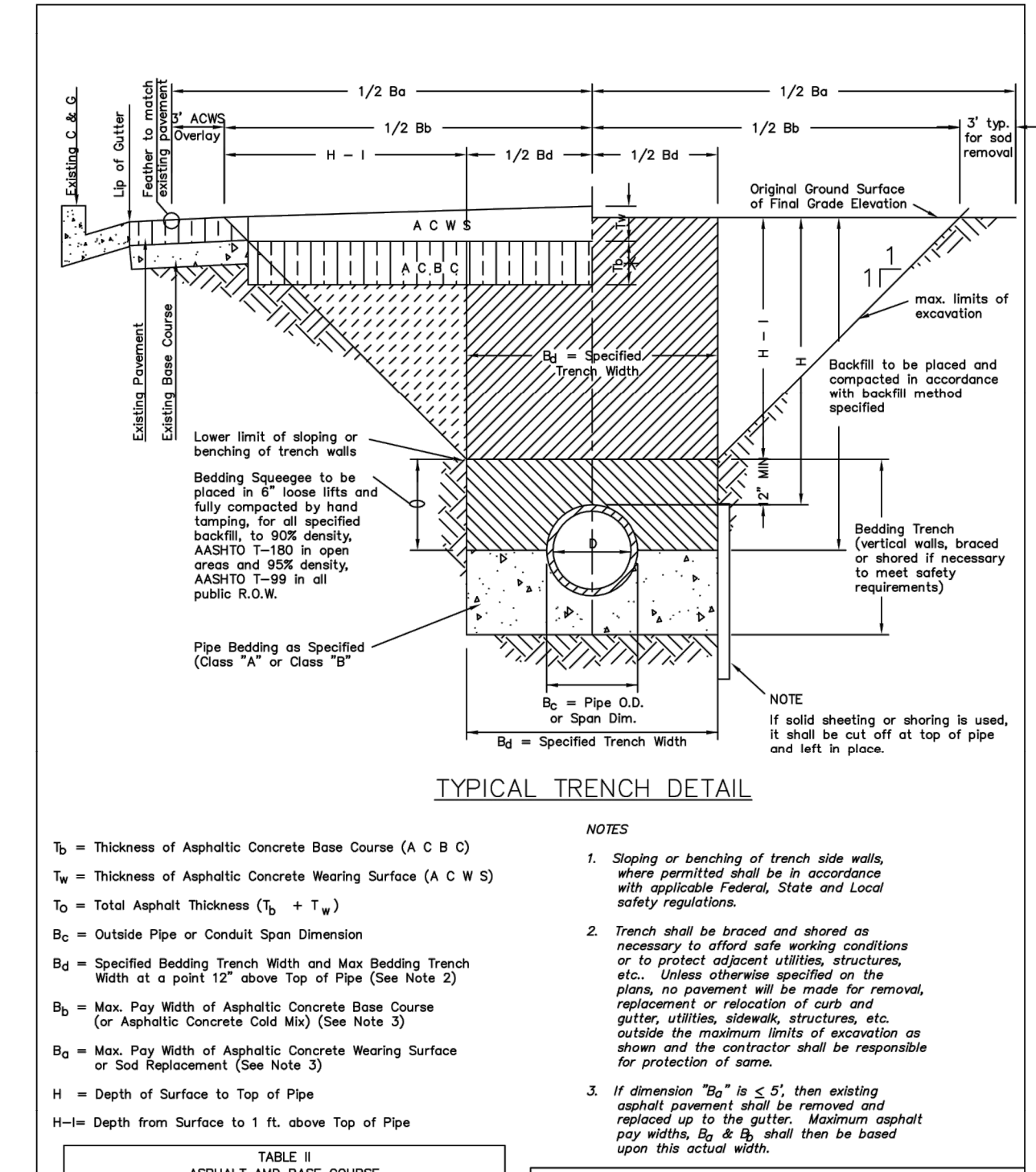
PARKER WATER & SANITATION DISTRICT
POLYPROPYLENE REINFORCED PLASTIC MANHOLE STEP

SCALE: NONE	DATE: 2/00
APPROVED: PVR	01/16 10/16

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SHEET S3.11



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

2016 REVISION

SHEET S4.1

WATER & SEWER IMPROVEMENT PLANS FOR DOUGLAS 234 FILING NO. 6
DOUGLAS COUNTY, COLORADO

RICK ENGINEERING COMPANY
9801 EAST EASTER AVE
CENTENNIAL, CO 80112
303.537.8020
Tucson - San Diego - Riverside - Orange
Sacramento - San Luis Obispo - Phoenix
rickengineering.com



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SCALE: NTS
DATE: 9/22/2020
DRAWN BY: WD
CHECKED BY: JS
JOB NO: D01173-A

SEWER DETAILS

PROJECT NO: D01173-A
DRAWING NO: 11
SHEET NO. 11 OF 12 SHEETS

PRELIMINARY
NOT FOR CONSTRUCTION

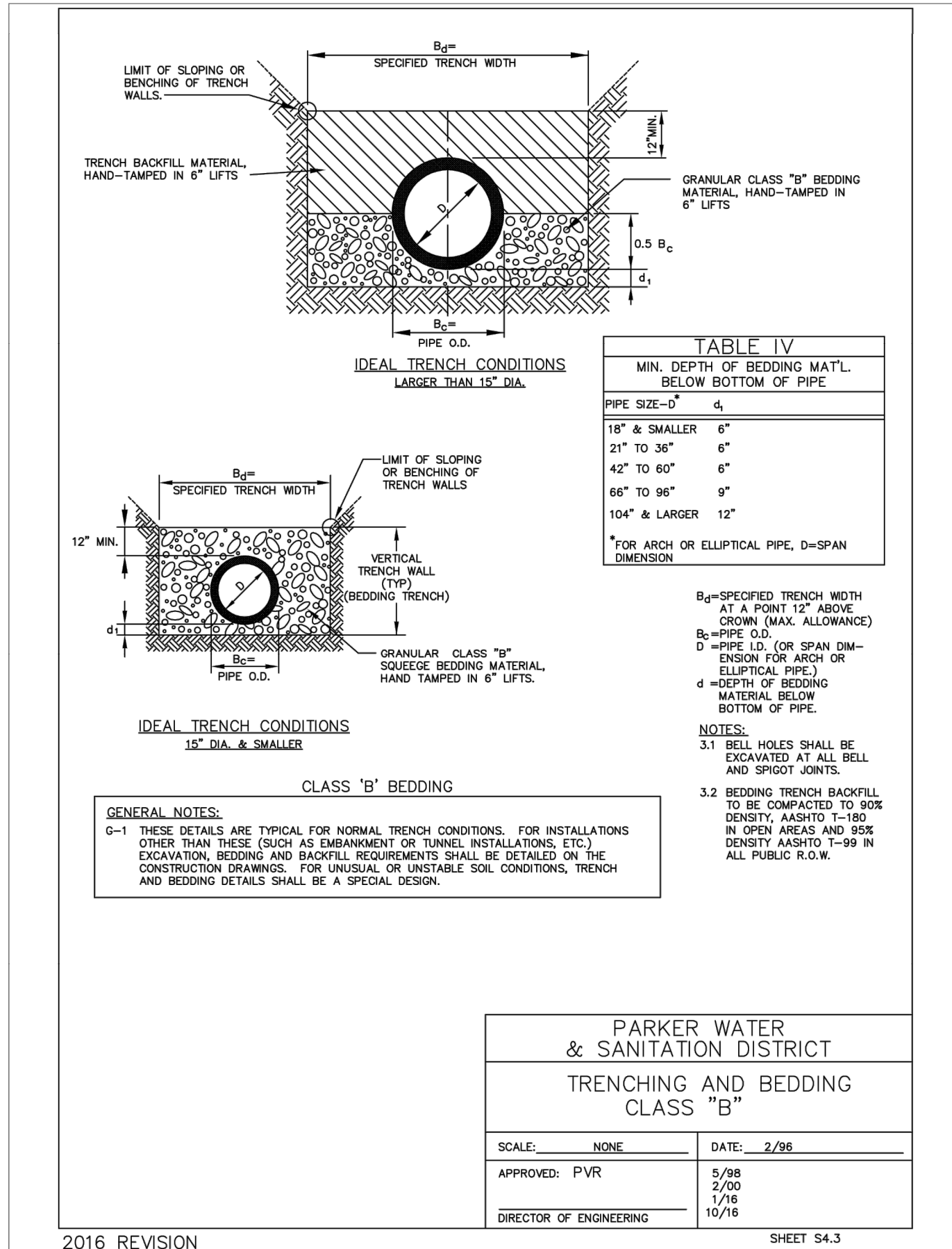


TABLE IV
MIN. DEPTH OF BEDDING MATL. BELOW BOTTOM OF PIPE

PIPE SIZE-D"	4
18" & SMALLER	6"
21" TO 36"	6"
42" TO 60"	6"
66" TO 96"	9"
104" & LARGER	12"

FOR ARCH OR ELLIPTICAL PIPE, D=SPAN DIMENSION

B₀=SPECIFIED TRENCH WIDTH AT A POINT 12" ABOVE CROWN (MAX. ALLOWANCE)
B₁=PIPE O.D.
D=PIPE I.D. (OR SPAN DIMENSION FOR ARCH OR ELLIPTICAL PIPE.)
4=DEPTH OF BEDDING MATERIAL BELOW BOTTOM OF PIPE.

NOTES:
3.1 BELL HOLES SHALL BE EXCAVATED AT ALL BELL AND SPOOT JOINTS.
3.2 BEDDING TRENCH BACKFILL TO BE COMPACTED TO 90% DENSITY, AASHTO T-180 IN OPEN AREAS AND 95% DENSITY AASHTO T-99 IN ALL PUBLIC R.O.W.

PARKER WATER & SANITATION DISTRICT
TRENCHING AND BEDDING CLASS "B"

SCALE: NONE DATE: 2/96
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2016 REVISION SHEET S4.3

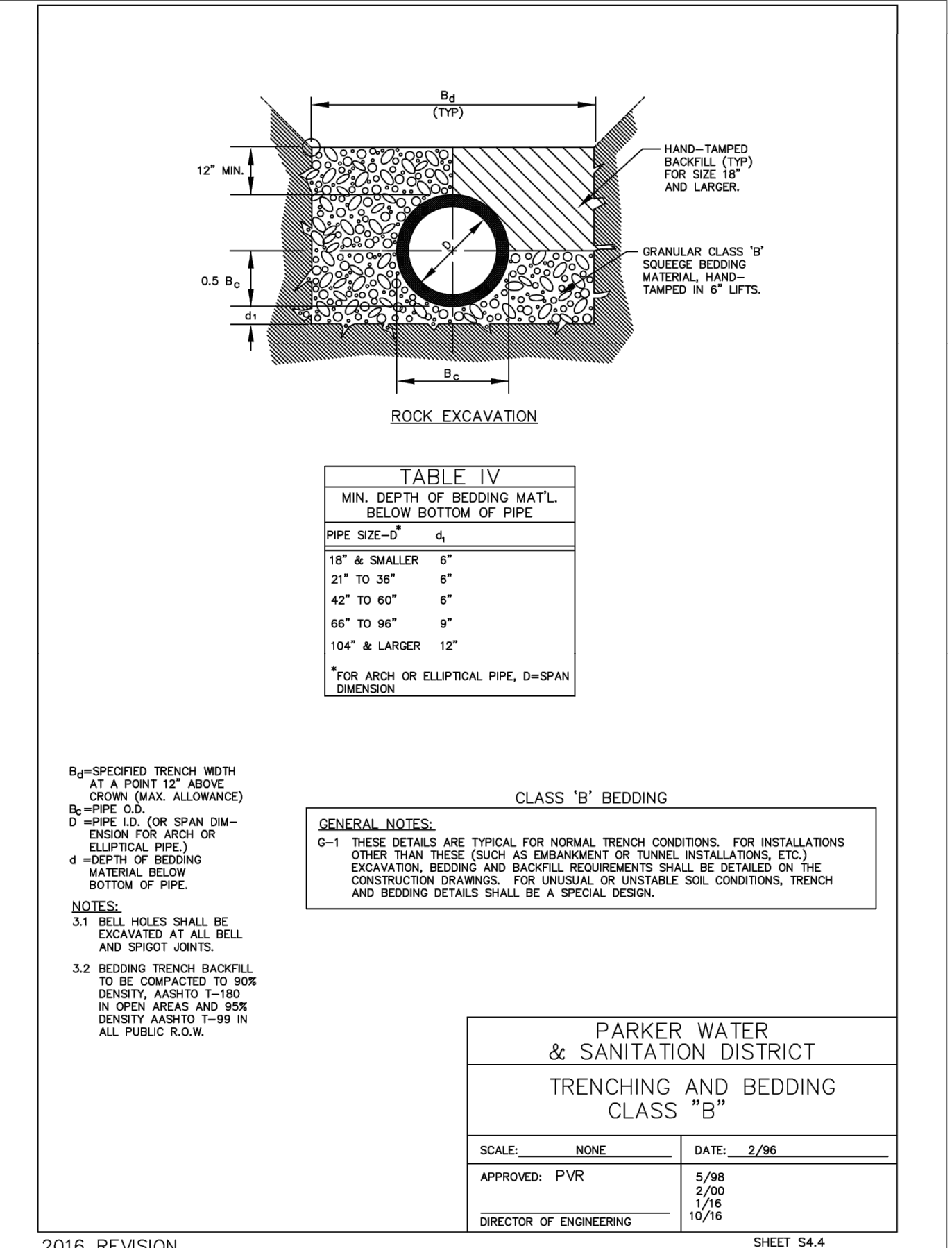


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PARKER WATER & SANITATION DISTRICT
TRENCHING AND BEDDING CLASS "B"

SCALE: NONE DATE: 2/96
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2016 REVISION SHEET S4.4

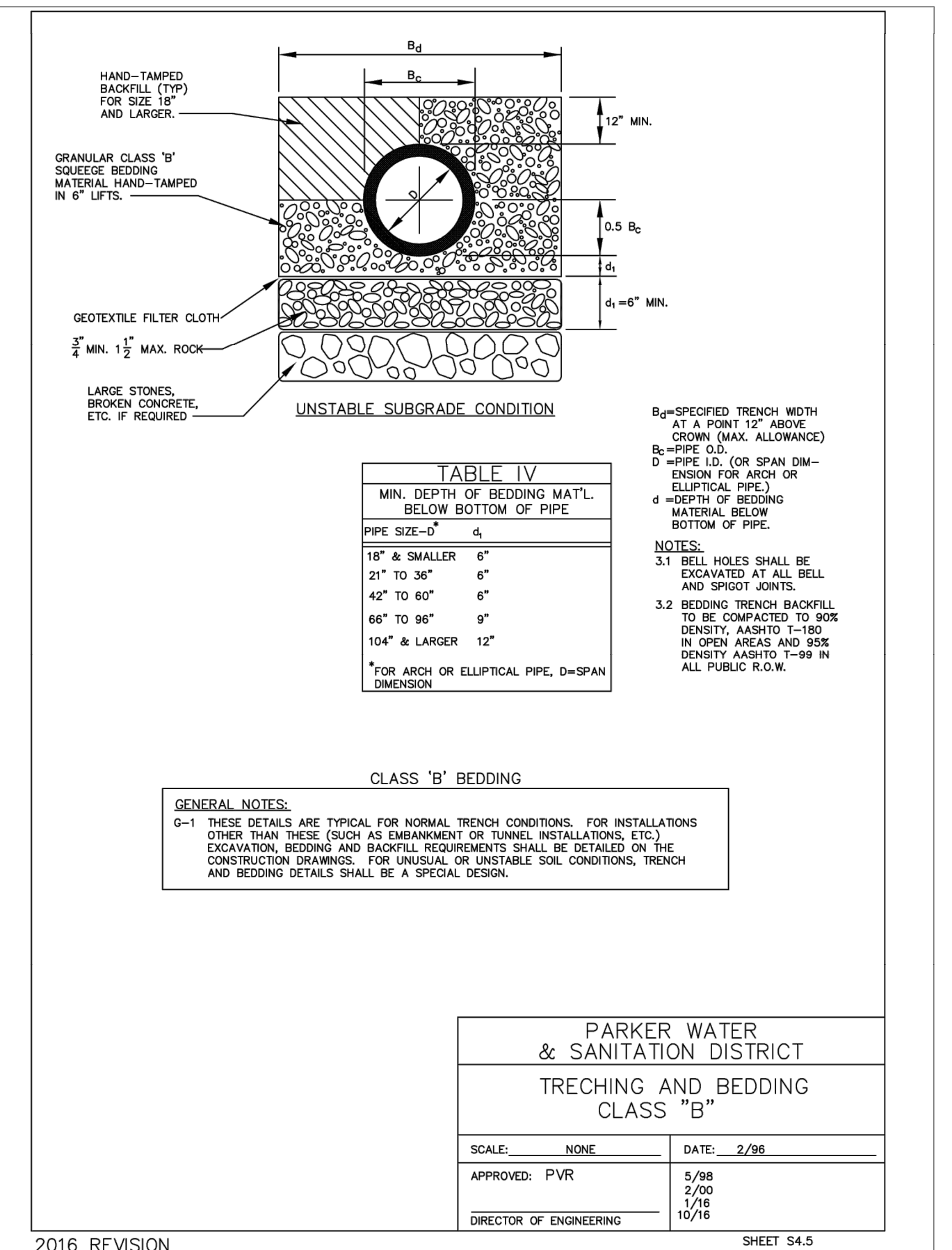


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FOR ARCH OR ELLIPTICAL PIPE, D=SPAN DIMENSION

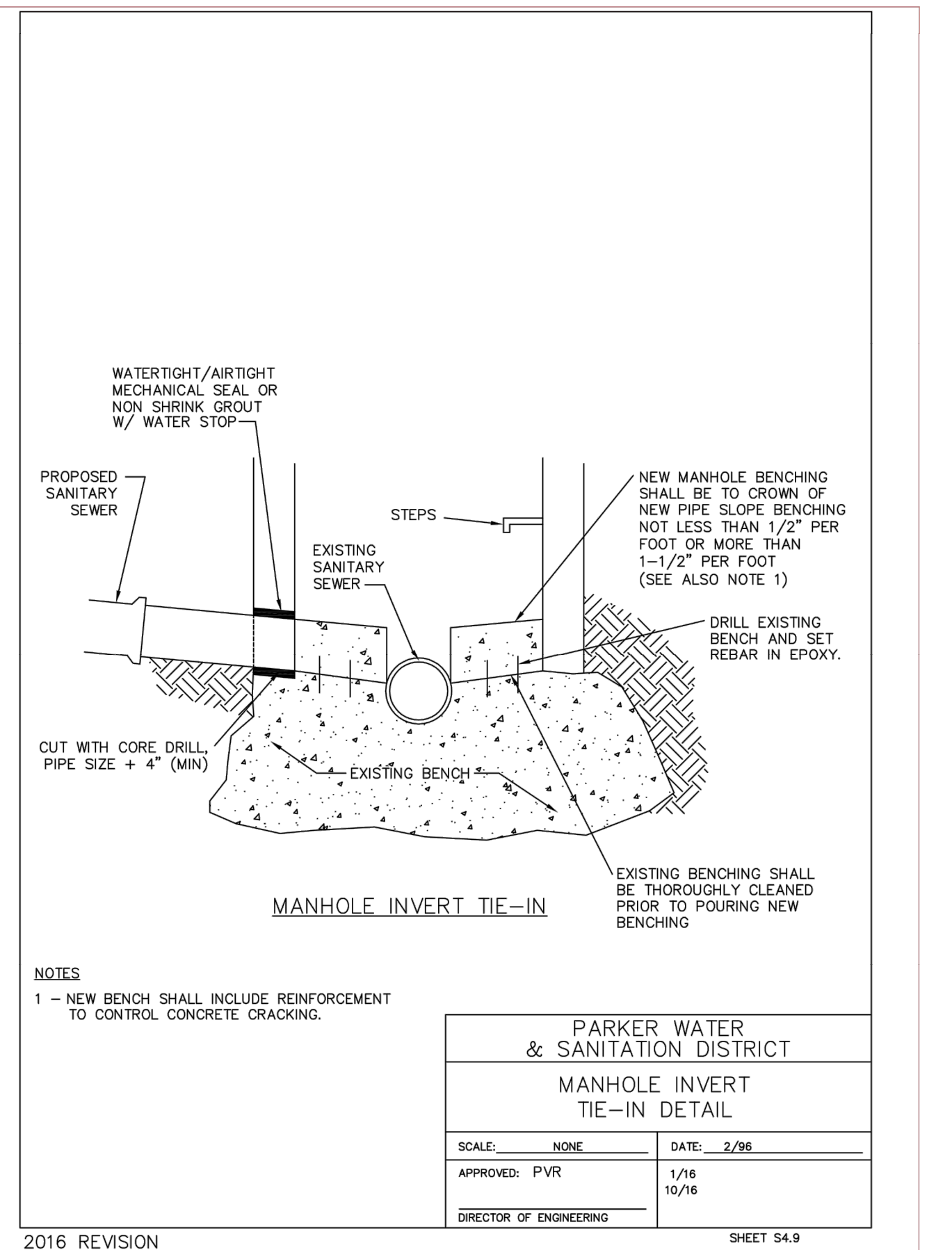
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PARKER WATER & SANITATION DISTRICT
TRENCHING AND BEDDING CLASS "B"

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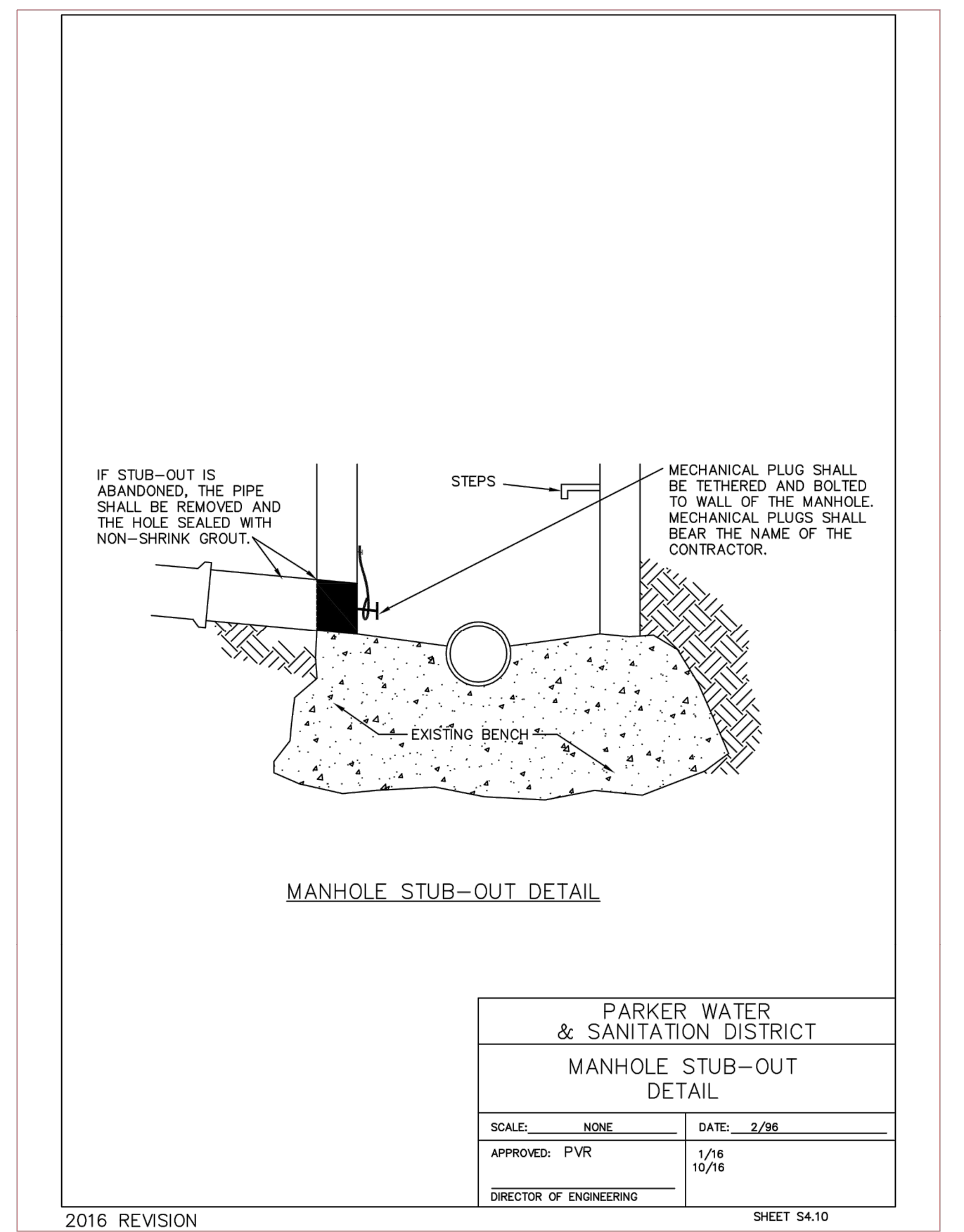
2016 REVISION SHEET S4.5



PARKER WATER & SANITATION DISTRICT
MANHOLE INVERT TIE-IN DETAIL

SCALE: NONE DATE: 2/96
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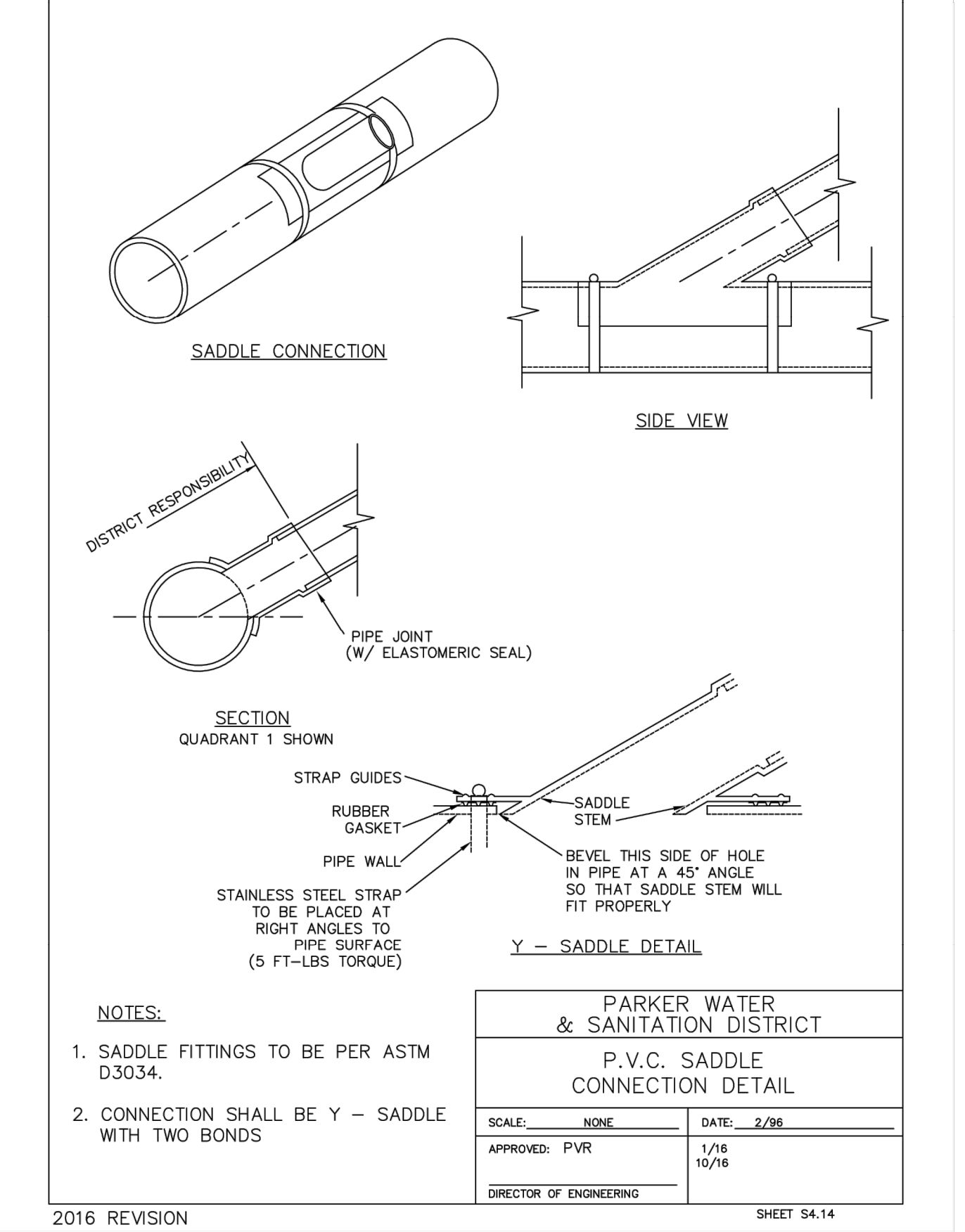
2016 REVISION SHEET S4.9



PARKER WATER & SANITATION DISTRICT
MANHOLE STUB-OUT DETAIL

SCALE: NONE DATE: 2/96
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2016 REVISION SHEET S4.10



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

SCALE: NONE DATE: 2/96
APPROVED: PVR 5/98 2/00 1/16 10/16
DIRECTOR OF ENGINEERING

2016 REVISION SHEET S4.14

WATER & SEWER IMPROVEMENT PLANS FOR DOUGLAS 234 FILING NO. 6
DOUGLAS COUNTY, COLORADO

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SEWER DETAILS

PROJECT NO. D01173-A
DRAWING NO. 12
SHEET NO. 12 OF 12 SHEETS

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