

GENERAL NOTES:

1. TOPOGRAPHIC MAPPING AS OF 10/31/2024 PREPARED BY BARRON LAND, LLC. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN HE SHALL, AT HIS EXPENSE, HAVE NEW MAPPING PREPARED BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR ACCEPTANCE AND APPROVAL.
2. CONTRACTOR SHALL REFER TO THE GRADING, EROSION AND SEDIMENT CONTROL (GESC) PLAN FOR ADDITIONAL REQUIREMENTS. NO WORK SHALL OCCUR UNTIL THE BMPs DEPICTED ON THE GESC HAVE BEEN INSTALLED AND ARE APPROVED BY THE CITY. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE GENERAL PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
3. EXISTING CONTOURS ARE SHOWN AT 1-FOOT INTERVALS; PROPOSED OVERLOT CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
4. ALL EARTHWORK, GRADING, OVERLOT GRADING, BACKFILLING, FILLING, EXCAVATION, COMPACTON, PAVEMENT, AND FLATWORK SHALL BE IN CONFORMANCE WITH THE GEOTECHNICAL REPORT PREPARED BY UES. TITLED GEOTECHNICAL EXPLORATION REPORT, DATED FEBRUARY 21, 2024. THE CONTRACTOR IS REQUIRED TO HAVE A SIGNED AND SEALED COPY OF THE REPORT AT THE SITE AT ALL TIMES. DURING CONSTRUCTION, IF UNANTICIPATED CONDITIONS ARE ENCOUNTERED, THE GEOTECHNICAL ENGINEER SHALL BE CONTACTED BY THE CONTRACTOR FOR RECOMMENDATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR:
 - a. VERIFYING ALL UTILITIES, WHETHER SHOWN OR NOT SHOWN, AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION. ALL UTILITIES TO REMAIN (MANHOLES, VALVE COVERS, CLEANOUTS, VAULTS, BOXES, ETC.) SHALL BE PROTECTED FROM DAMAGE AND ADJUSTED TO FINAL GRADE.
 - b. PREPARING ANY TRAFFIC CONTROL PLANS, AS MAY BE REQUIRED TO PERFORM THE WORK, AND PROVIDING ALL NECESSARY TRAFFIC CONTROL (SIGNS, BARRICADES, FLAGMEN, LIGHTS, ETC) IN ACCORDANCE WITH THE MUTCD, CURRENT EDITION, AS REQUIRED FOR THE WORK. THE PLAN FOR TRAFFIC CONTROL SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO COMMENCING ANY WORK IN THE RIGHTS-OF-WAY.
 - c. OBTAINING ALL NECESSARY PERMITS AND APPROVALS REQUIRED TO PERFORM THE WORK AND TO OBTAIN A COPY OF ALL APPLICABLE CODES, LICENSES, SPECIFICATIONS, AND STANDARDS NECESSARY TO PERFORM THE WORK, AND BE FAMILIAR WITH THEIR CONTENTS PRIOR TO COMMENCING ANY WORK.
 - d. KEEPING ONE COPY OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR TO VERIFY WITH PROJECT ENGINEER THE LATEST REVISION DATE OF THE APPROVED CONSTRUCTION PLANS.
 - e. COORDINATING PRIOR TO CONSTRUCTION WITH THE GEOTECHNICAL ENGINEER, THE CITY, AND UTILITY AND STORM WATER DISTRICT INSPECTORS TO IDENTIFY PROJECT INSPECTION AND TESTING REQUIREMENTS.
 - f. KEEPING TRACK OF ALL APPROVED DEVIATIONS FROM THE PLANS AND PROVIDING THE PROJECT ENGINEER WITH AS-BUILT DRAWINGS OF ALL IMPROVEMENTS REQUIRED FOR THE WORK.
 - g. COMPLYING WITH CITY GENERAL REQUIREMENTS, STANDARDS, AND SPECIFICATIONS.
 - h. PROVIDING AS-BUILT DRAWINGS OF CONSTRUCTED UTILITIES UPON COMPLETION OF THE WORK.

Item No.	Description	Quantity	Unit
Sanitary Sewer System			
1	6" PVC SDR-35	213	LF
2	Sampling Manhole	1	EA
3	Sanitary Sewer Clean Out	2	EA
4	Grease Interceptor	1	EA
Water Distribution System			
1	1" Copper Service Line	151	LF
2	1" Water Service Installation on Existing 8" Water Main	1	EA
3	3/4" Water Service Installation on Existing 8" Water Main	1	EA
4	Fire Hydrant Assembly	1	EA
5	1" Backflow Preventer	1	EA
6	3/4" Landscape Meter	1	EA
7	3/4" Landscape Backflow Preventer	1	EA
8	1" Water Meter	1	EA
9	6" DIP	175	LF
10	45° Bends	2	EA

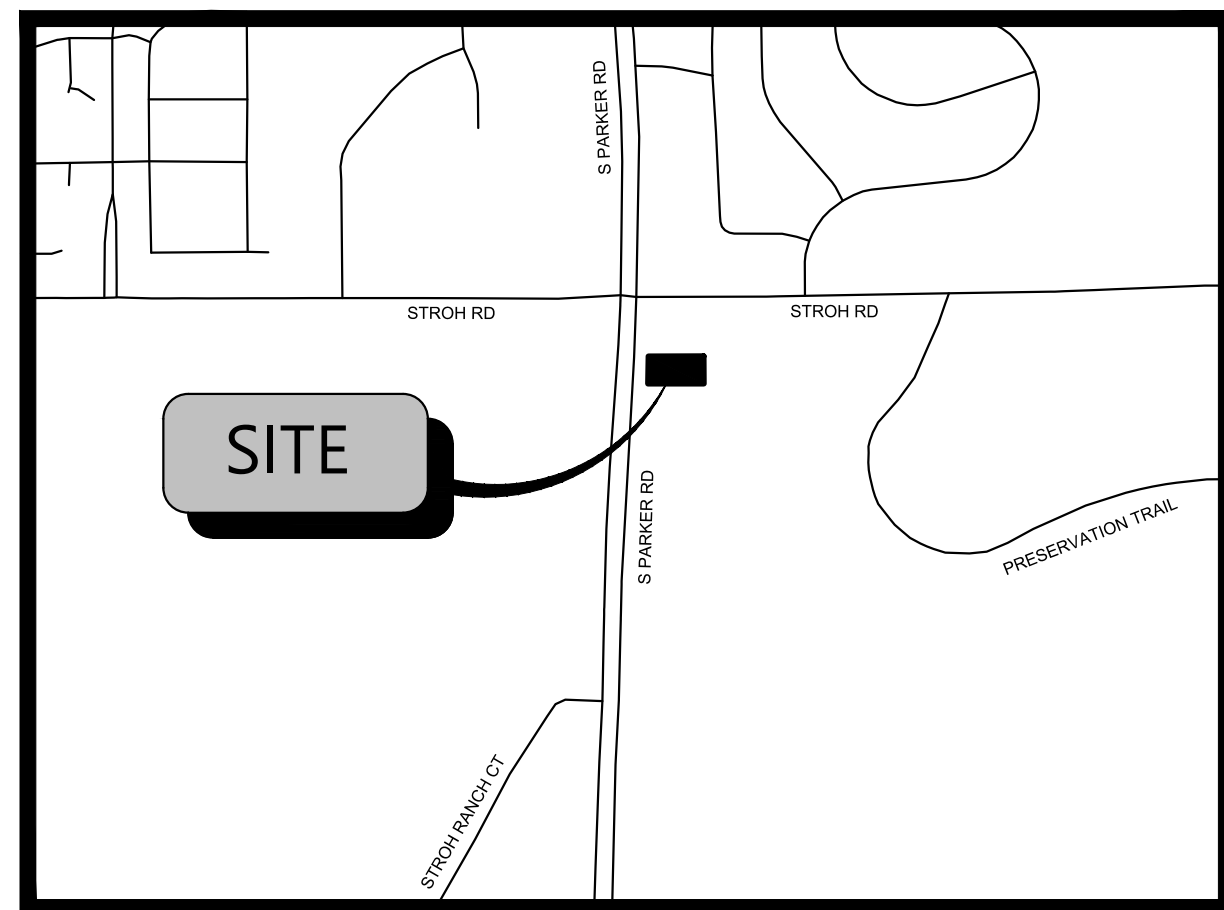
PARKER WATER AND SANITATION CONSTRUCTION PLANS FOR



**S. PARKER RD & STROH RD
PARKER, DOUGLAS COUNTY, COLORADO
TAX PARCEL: 234903104014**

UTILITY NOTES

1. ROADWAY DIMENSIONS ARE FROM FL-FL, 1-FOOT PAN IS PROPOSED ON SITE.
2. ALL UTILITY CONSTRUCTION SHALL CONFORM TO PARKER WATER AND SANITATION DISTRICT AND CRITERIA REFERENCE. LOCAL AGENCY INFRASTRUCTURE DESIGN AND CONSTRUCTION STANDARDS.
3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE PARKER WATER AND SANITATION DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PARKER PUBLIC WORKS AND PARKER WATER AND SANITATION DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES. EXISTING UTILITIES SHOWN ON THIS PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN AND DO NOT REFLECT A COMPLETE SURVEY OF EXISTING UTILITIES. CONTACT THE ENGINEER WITH DISCREPANCIES.
6. CONTRACTOR SHALL VERIFY THE STUB TIE IN ELEVATION PRIOR TO START OF CONSTRUCTION. THE ELEVATION OF THE STUB SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO SANITARY SEWER CONSTRUCTION.
7. SAWCUT OF EXISTING STREETS SHALL BE IN CONFORMANCE WITH TOWN STANDARDS. CUTS SHALL STRAIGHT WITH CLEAN EDGES. REMOVE EXISTING CURB AND GUTTER TO NEAREST JOINT RETURN ALONG EXISTING LINE AND GRADE.
8. THE OWNER AND OR THEIR REPRESENTATIVE SHALL BE RESPONSIBLE FOR COORDINATION WITH EXISTING FRANCHISE UTILITIES TO INCLUDE COMCAST, XCEL, CENTURY LINK OR OWNERS OF EXISTING DRY UTILITY LINES.
9. EXISTING UTILITY SURFACE APPURTENANCES SHALL BE RAISED TO FINISHED GRADE, THIS INCLUDES BUT IS NOT LIMITED TO MANHOLE LIDS, VALVE COVERS.
10. SITE SURVEY IS PROVIDED BY BARRON LAND DATED 10-31-2024.
11. THE CONTRACTOR SHALL HAVE AN APPROVED SET OF CONSTRUCTION PLANS ON SITE AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR THE CONSTRUCTION, NOTIFYING AND SCHEDULING LOCAL AGENCIES INSPECTIONS.
12. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF FITTING TO CENTER OF FITTING STATIONING IS ALIGN DRIVE CENTERLINE AND CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
13. ELEVATIONS ARE FINISHED GRADE ELEVATION UNLESS OTHERWISE NOTED.



VICINITY MAP
N.T.S.



FEMA MAP
N.T.S.

NOTE: BASED ON GRAPHIC DETERMINATION, THIS PROPERTY DOES NOT LIE IN A F.E.M.A./F.I.R.M. SPECIAL FLOOD HAZARD AREA PER COMMUNITY PANEL NO. 08035C0182G DATED MARCH, 16 2016.



AERIAL MAP
N.T.S.

Sheet List Table

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02	WATER AND SEWER GENERAL NOTES
03	OVERALL UTILITY PLAN
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06	WATER DETAILS
07	WATER DETAILS
08	SEWER DETAILS
09	SEWER DETAILS
L1.01	LANDSCAPE PLAN
L1.02	LANDSCAPE SPECIFICATIONS AND NOTES
L1.03	LANDSCAPE DETAILS
L2.01	IRRIGATION PLAN
L2.02	IRRIGATION SPECIFICATIONS AND NOTES
-	TAP SIZING WORKSHEET
-	UTILITY FIXTURE COUNT WORKSHEET

BLACK ROCK COFFEE BAR

TOTAL SITE AREA: 0.60 AC. / 25,933 SF AC.
ZONING: MODIFIED COMMERCIAL

DEVELOPMENT TEAM

OWNER	CIVIL ENGINEER	SURVEYOR	DEVELOPER
DOUBLETREE VENTURES, LLC P.O. BOX 40326 DENVER, CO 80204 CONTACT: BRIAN ZUREK EMAIL: BRIAN@DOUBLETREEVENTURES.COM	ATWELL, LLC 9001 AIRPORT FREEWAY, SUITE 660 NORTH RICHLAND HILLS, TX 76180 PHONE: (972) 638-8860 CONTACT: CATHERINE ATCHLEY EMAIL: CATCHLEY@ATWELL.COM	BARRON LAND 2790 N. ACADEMY BLVD., SUITE 311 COLORADO SPRINGS, CO 80917 PHONE: (719) 360-6827 CONTACT: SPENCER BARRON	BLACK ROCK COFFEE BAR 16307 NE CAMERON BLVD PORTLAND, OR 97230 PHONE: (541) 531-2149 CONTACT: TONY POLLOTTA

GOVERNING AGENCIES AND UTILITY CONTACTS

WATER & WASTEWATER	STORM DRAINAGE PROVIDER	GAS PROVIDER
PARKER WATER AND SANITATION DISTRICT 13939 ANCESTRY DRIVE PARKER, CO 80134 PHONE: (303) 841-4627 EMAIL: RRAMSEY@PWSD.ORG CONTACT: ROBERT RAMSEY	TOWN OR PARKER PUBLIC WORKS 20120 E. MAIN STREET PARKER, CO 80138 CONTACT: CHRIS HUDSON FIRE PROTECTION TOWN OF PARKER FIRE AND LIFE SAFETY 20120 E. MAIN STREET PARKER, CO 80138 PHONE: (303) 805-3169 CONTACT: RANDY CAPRA EMAIL: RCAPRA@PARKERONLINE.ORG	XCEL ENERGY 1123 WEST 3RD AVE, DENVER, CO 80223 PHONE: (303) 571-3927 CONTACT: BUILDER'S CALL LINE (800) 628-1212 X3
ENGINEERING DEPARTMENT	BUILDING PERMIT	PHONE PROVIDER
TOWN OF PARKER ENGINEERING & PUBLIC WORKS 20120 E. MAIN STREET PARKER, CO 80134 PHONE: (303) 841-4627 EMAIL: RRAMSEY@PWSD.ORG CONTACT: ROBERT RAMSEY	TOWN OR PARKING BUILDING DIVISION 20120 E. MAIN STREET PARKER, CO 80138 PHONE: (303) 841-1970 CONTACT: RANDY SALE EMAIL: RSALE@PARKERONLINE.ORG	CENTURYLINK 9750 EAST COSTILLA AVE. ENGLEWOOD, CO 80112 PHONE: (720) 578-5142
	ELECTRIC PROVIDER	
	CORE ELECTRIC COOPERATIVE 5496 NORTH U.S. HIGHWAY 85 SEDALIA, MO 64135 PHONE: (303) 332-9540 CONTACT: BRUFF SHEA	

SUBMITTAL DATE

SUBMITTAL - 2025-06-03

PROJECT NARRATIVE

BLACK ROCK COFFEE BAR IS OWNED BY BLACK ROCK DEVELOPMENT COMPANY, LLC. THEY ARE A PREMIUM CRAFT COFFEE SHOP WITH MULTIPLE LOCATIONS ACROSS THE COUNTRY. THEY CONSIDER THEMSELVES A "PART OF LOCAL COMMUNITIES. EACH BLACK ROCK COFFEE BAR TEAM FINDS WAYS TO SERVE THEIR NEIGHBORHOODS. AND BY DOING SO WE HELP RAISE THE BAR FOR RELATIONSHIP AND COMPASSION." THEIR PROTOTYPE BUILDING IS ROUGHLY 600-700 SQUARE FEET IN SIZE, WITH STATE-OF-THE-ART DESIGN AND IDENTIFIABLE BRANDING ELEMENTS. THEY OFFER PATIO AND INDOOR SEATING WITH THE OPTION OF DRIVE-THRU AVAILABILITY.

A BUILDING WITH THE STANDARD DUAL-LANE ORDERING SINGLE LANE PICKUP IS BEING PROPOSED FOR THIS LOCATION. THIS PROJECT WOULD UTILIZE A PROPOSED ACCESS POINT TO DECLAN DRIVE.

LEGAL DESCRIPTION

LOT 4A, PARKER POINTE SUBDIVISION FILING NO. 1, AMENDMENT NO. 1 ACCORDING TO THE PLAT AS RECORDED JULY 31, 2024 AT RECEPTION NO. 2024031650, COUNTY OF DOUGLAS, STATE OF COLORADO

ADDRESS OF RECORD:
6940 STROH ROAD, PARKER, CO

BENCHMARK

ELEVATIONS ARE BASED UPON DOUGLAS COUNTY GIS SECONDARY CONTROL MONUMENT "1.060032" (ELEVATION - 5903.17 NAVD88)

BASIS OF BEARINGS

BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 3, T7S, R66W OF THE 6TH PRINCIPAL MERIDIAN, MONUMENTED ON THE EAST WITH A #6 REBAR WITH 2" ALUMINUM CAP IN MONUMENT BOX STAMPED "PLS 22561" AND ON THE WEST WITH A #6 REBAR WITH A 3.25" ALUMINUM CAP IN MONUMENT BOX STAMPED "PLS 29761", AND IS ASSUMED TO BEAR S 89°59'29" W, A FIELD MEASURED DISTANCE OF 2648.43 FEET.

PARKER WATER AND SANITATION DISTRICT

THE DISTRICT INSPECTOR MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. CALL PARKER WATER AND SANITATION DISTRICT (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: _____

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 REQUIREMENT OF NFPA 24 WHEN SUBMITTING FOR REVIEW.

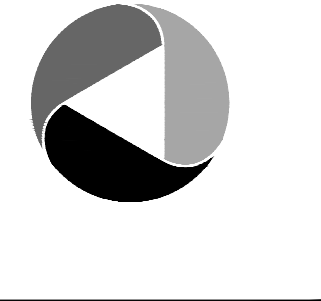


Know what's Below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR IN ATTEMPTING TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY OR THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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972.636.9860



S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
BLACK ROCK COFFEE BAR
WATER AND SEWER COVER SHEET

DATE 2025-06-03

REVISIONS

DRAWN BY: K. SARWAR

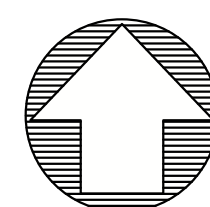
CHECKED BY: N. SALAZAR

PROJECT MANAGER: N. SALAZAR

JOB #: 24003198

FILE CODE: ##

SHEET NO. 01



811
Know what's below.
Call before you dig.
 THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR. THE CONTRACTOR SHALL LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
NOTICE:
 CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY INJURIES OR DAMAGES TO PERSONS OR PROPERTY OF ANY KIND ARISING FROM THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.
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S. PARKER RD & STROH RD
 PARKER
 DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
 BLACK ROCK DEVELOPMENT COMPANY, LLC
BLACK ROCK COFFEE BAR
 SEWER PLAN AND PROFILE

DATE 2025-06-03

REVISIONS

SCALE: 1"=20'

DRAWN BY: K. SARWAR
 CHECKED BY: N. SALAZAR
 PROJECT MANAGER: N. SALAZAR
 JOB #: 24003198
 FILE CODE: ##
 SHEET NO. **05**

CAD FILE: 24003198 - UTILITY SEWER PLAN AND PROFILE

UTILITY LEGEND

- EXISTING PROPERTY LINE
- - - EXISTING EASEMENT
- - - EXISTING ROAD CENTERLINE
- SS SEWER LINE
- 1W DOMESTIC 1" WATER LINE
- STORM SEWER LINE
- WM SANITARY SEWER MANHOLE
- CO SANITARY SEWER CLEAN OUT
- M WATER METER
- WB 45° WATER BEND 45°
- WBP WATER BACK FLOW PREVENTER
- FH FIRE HYDRANT
- GT GREASE TRAP
- SM STORM MANHOLE
- CI STORM CURB INLET

UTILITY NOTES

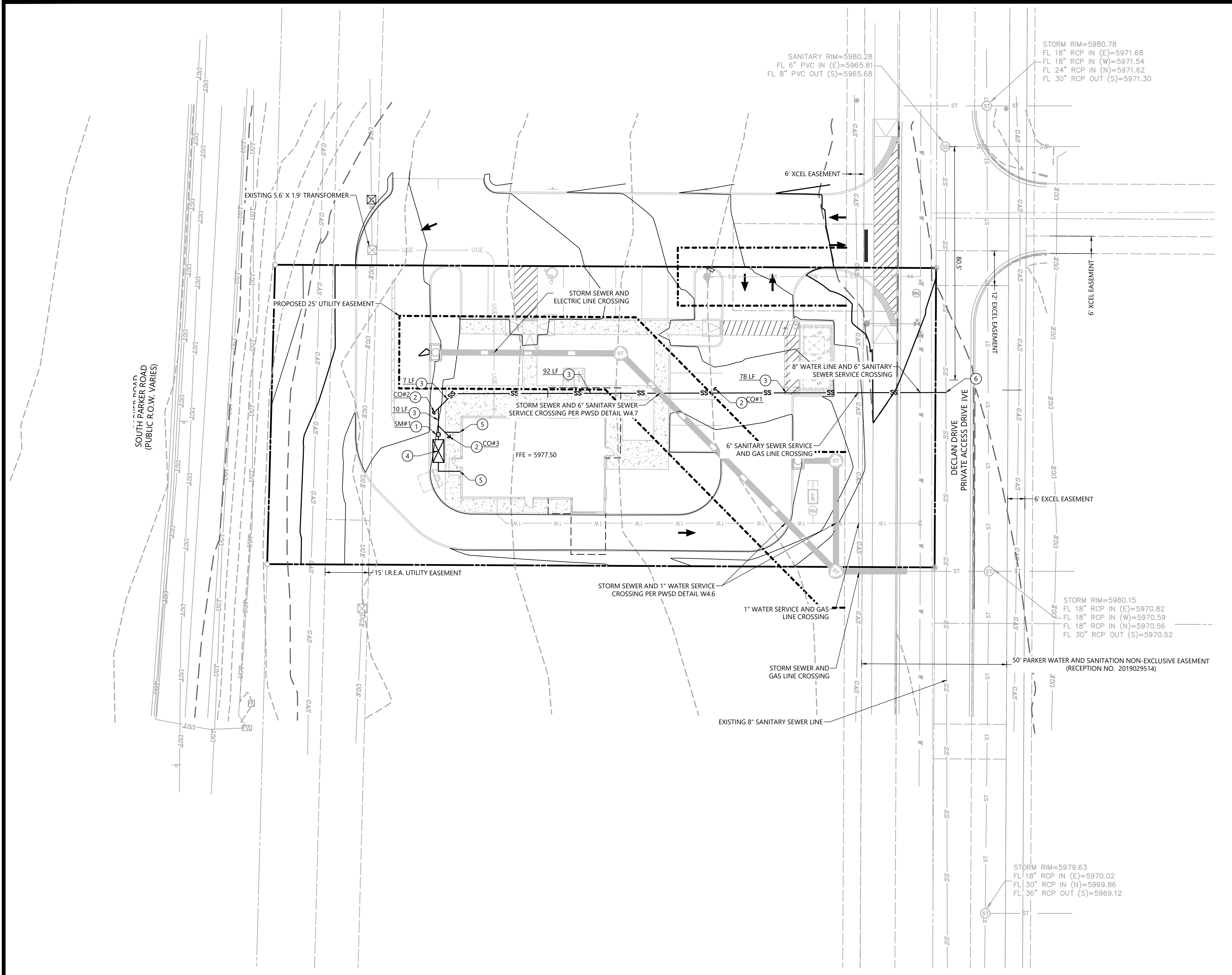
1. ALL UTILITY CONSTRUCTION SHALL CONFORM TO PARKER WATER AND SANITATION DISTRICT AND CRITERIA REFERENCE. LOCAL AGENCY INFRASTRUCTURE DESIGN AND CONSTRUCTION STANDARDS.
2. NOMINAL DEPTH OF WATER MAIN SHALL BE 4.5' FROM FINISHED GRADE TO TOP OF PIPE.
3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE PARKER WATER AND SANITATION DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PARKER PUBLIC WORKS AND PARKER WATER AND SANITATION DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES. EXISTING UTILITIES SHOWN ON THIS PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN AND DO NOT REFLECT A COMPLETE SURVEY OF EXISTING UTILITIES. CONTACT THE ENGINEER WITH DISCREPANCIES.
6. CONTRACTOR SHALL VERIFY THE STUB TIE IN ELEVATION PRIOR TO START OF CONSTRUCTION. THE ELEVATION OF THE STUB SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO SANITARY SEWER CONSTRUCTION.
7. SAWCUT OF EXISTING STREETS SHALL BE IN CONFORMANCE WITH TOWN STANDARDS. CUTS SHALL STRAIGHT WITH CLEAN EDGES. REMOVE EXISTING CURB AND GUTTER TO NEAREST JOINT RETURN ALONG EXISTING LINE AND GRADE.
8. THE OWNER AND OR THEIR REPRESENTATIVE SHALL BE RESPONSIBLE FOR COORDINATION WITH EXISTING FRANCHISE UTILITIES TO INCLUDE COMCAST, XCEL, CENTURY LINK OR OWNERS OF EXISTING DRY UTILITY LINES.
9. EXISTING UTILITY SURFACE APPURTENANCES SHALL BE RAISED TO FINISHED GRADE, THIS INCLUDES BUT IS NOT LIMITED TO MANHOLE LIDS, VALVE COVERS.

SANITARY SEWER QUANTITIES

DESCRIPTION	LEGEND	QUANTITY
SANITARY SEWER LINE (6-INCH)	SS	± 215 LF
SANITARY SEWER CLEAN OUT (CO)	CO	3 EACH
SANITARY SEWER MANHOLE (MH) (6-INCH)	WM	1 EACH
GREASE INTERCEPTOR REBAR PAVEMENT (ON-SITE)	GT	± 31 SF

SANITARY SEWER SERVICE NOTES

1. SAMPLING MANHOLE PER P.W.S.D. STD. DTL S5.3
2. INSTALL GAS/WATER TIGHT CLEANOUT PLUGS PER P.W.S.D. STD. DTL S4.12
3. INSTALL 6" PVC SDR-35 SEWER LINE BEDDING AND BACKFILL PER P.W.S.D. STD. DTL S4.1
4. INSTALL GREASE INTERCEPTOR PER P.W.S.D. STD. DTLS S5.1 & S5.2
5. CONNECT TO BUILDING STUB. SEE ARCHITECTURAL PLANS FOR CONTINUATION
6. CONNECT TO EXISTING SANITARY SEWER LINE



SANITARY RIM=5980.28
 FL 6" PVC IN (E)=5965.81
 FL 8" PVC OUT (S)=5965.68

STORM RIM=5980.78
 FL 18" RCP IN (E)=5971.68
 FL 18" RCP IN (W)=5971.54
 FL 24" RCP IN (N)=5971.82
 FL 30" RCP OUT (S)=5971.30

STORM RIM=5980.15
 FL 18" RCP IN (E)=5970.82
 FL 18" RCP IN (W)=5970.59
 FL 18" RCP IN (N)=5970.56
 FL 30" RCP OUT (S)=5970.52

STORM RIM=5979.63
 FL 18" RCP IN (E)=5970.02
 FL 30" RCP IN (N)=5969.86
 FL 36" RCP OUT (S)=5969.12

FILE NAME: \\fiona\c\proj\24003198 - BIC - Parker - Sewer - Plan and Profile.dwg LAST SAVED BY: 24003198 - BIC - Parker - Sewer - Plan and Profile.dwg DATE: 6/3/2025 10:15 AM PLOTTED BY: K. SARWAR

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:

1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND PVC SCHD 40 PIPE. APPROVED BEDDING IS TO BE SQUEEGEE.
2. NO-HUB CLAMPS SHALL BE USED TO JOIN 2 MALE PIPE ENDS WITH A MAXIMUM DEFLECTION OF 3'.
3. MINIMUM GRADE SHALL BE 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:
"X" FOR SANITARY SEWER SERVICE
"V" FOR WATER SERVICES

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

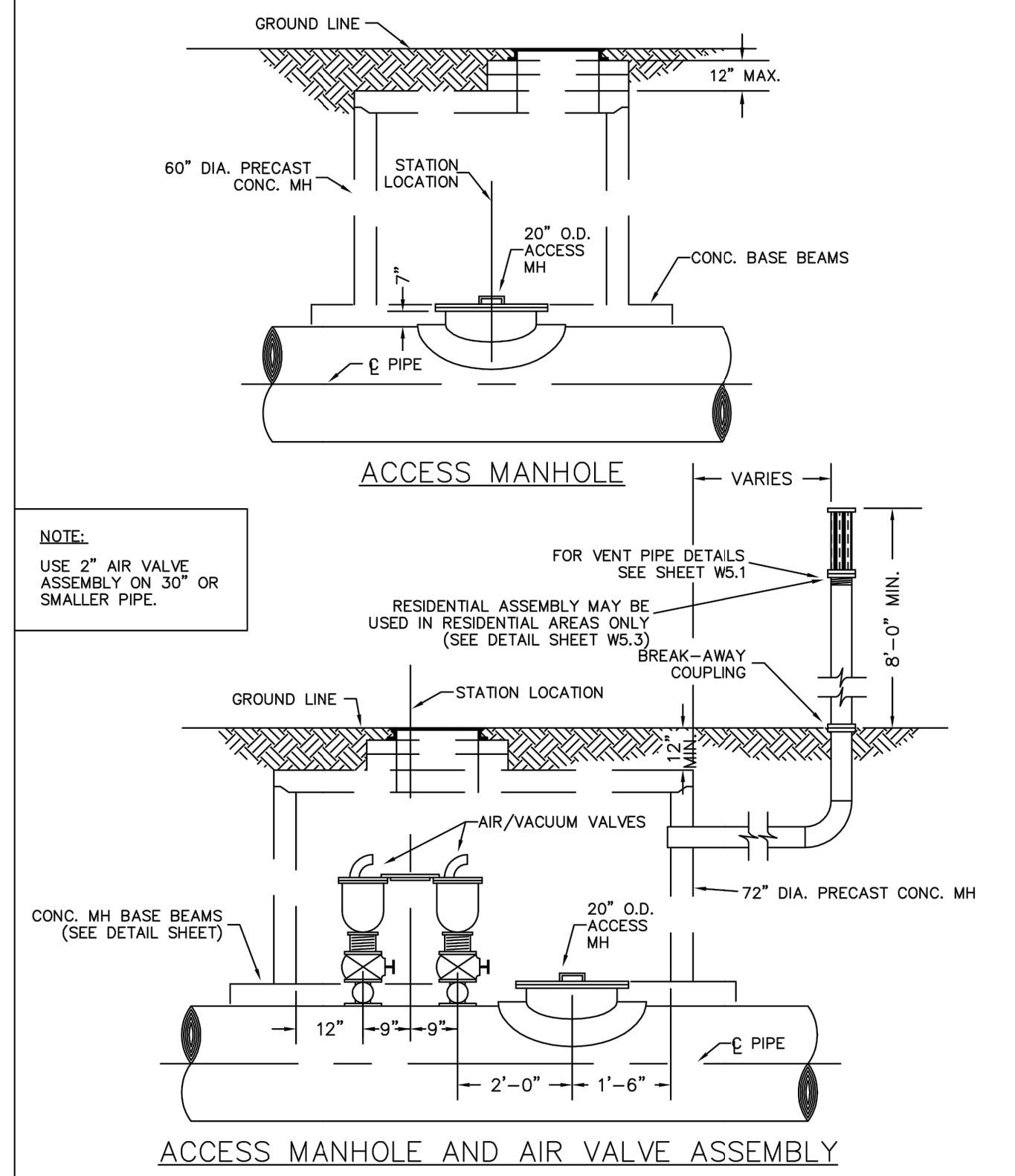
SCALE: NONE DATE: 2/96

APPROVED: PVR 01/02 10/16
1/08 1/16

DIRECTOR OF ENGINEERING

2016 REVISION

SHEET 51.1



PARKER WATER & SANITATION DISTRICT
ACCESS MANHOLE ASSEMBLY

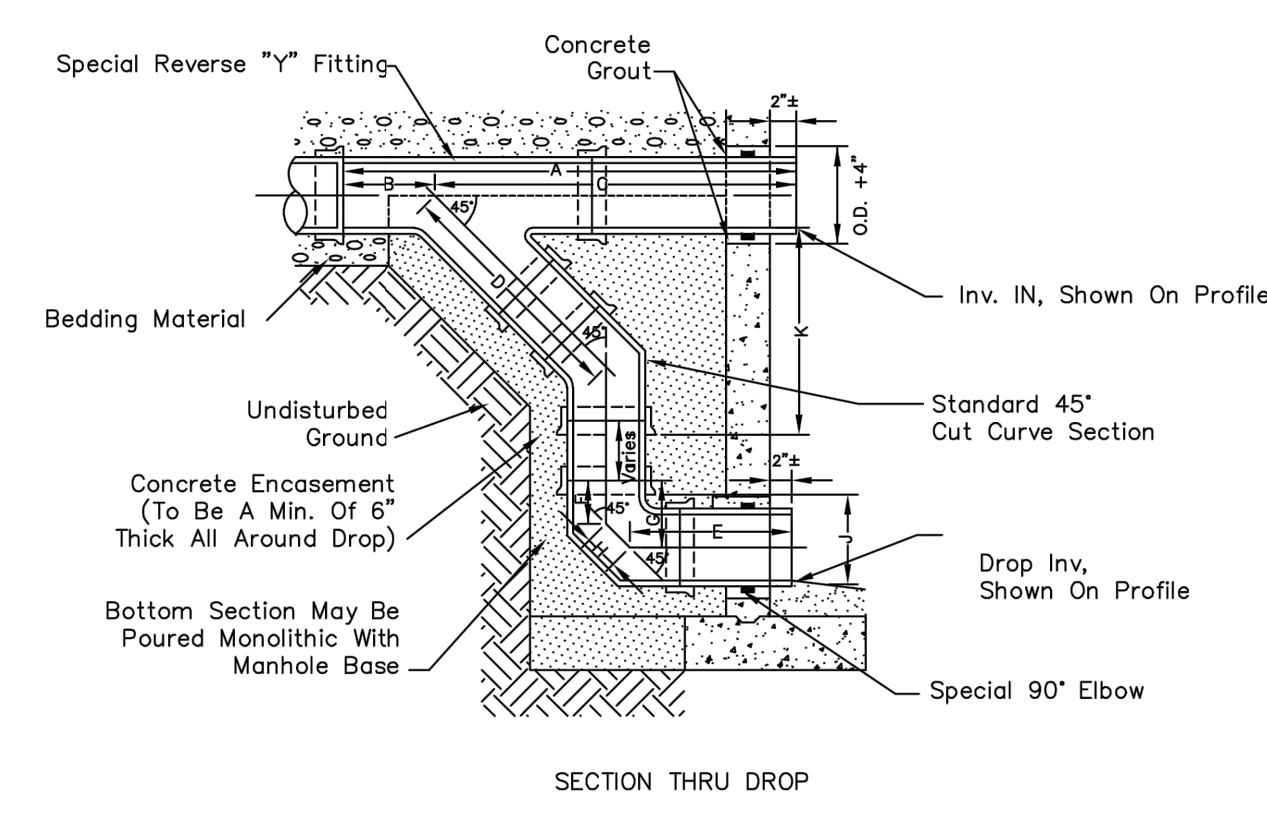
SCALE: NONE DATE: 2/96

APPROVED: PVR 4/01 10/16
1/16 10/16

DIRECTOR OF ENGINEERING

2016 REVISION

SHEET W3.20



SECTION THRU DROP

PIPE I.D.	A	B	C	D	E	F	G	H	J	K	J+K
8"	60"	26"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	15 7/8"	27 7/8"
10"	60"	26"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	15 7/8"	27 7/8"
12"	60"	26"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	15 7/8"	27 7/8"
14"	60"	26"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	15 7/8"	27 7/8"
16"	60"	26"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	15 7/8"	27 7/8"

- NOTES:**
1. Vit Clay Pipe & fittings (A.S.T.M. C-700) shown, details similar for all other pipe.
 2. Diameter of drop shall not be less than the line pipe diameter.
 3. For 18" diameter and larger, outside drop detail shall be a special design.
 4. Manhole shall be coated using bituminous mastic (ramneck) or plastic sealing compound.

OUTSIDE DROP MANHOLE CONSTRUCTION

PARKER WATER & SANITATION DISTRICT
OUTSIDE DROP MANHOLE CONSTRUCTION

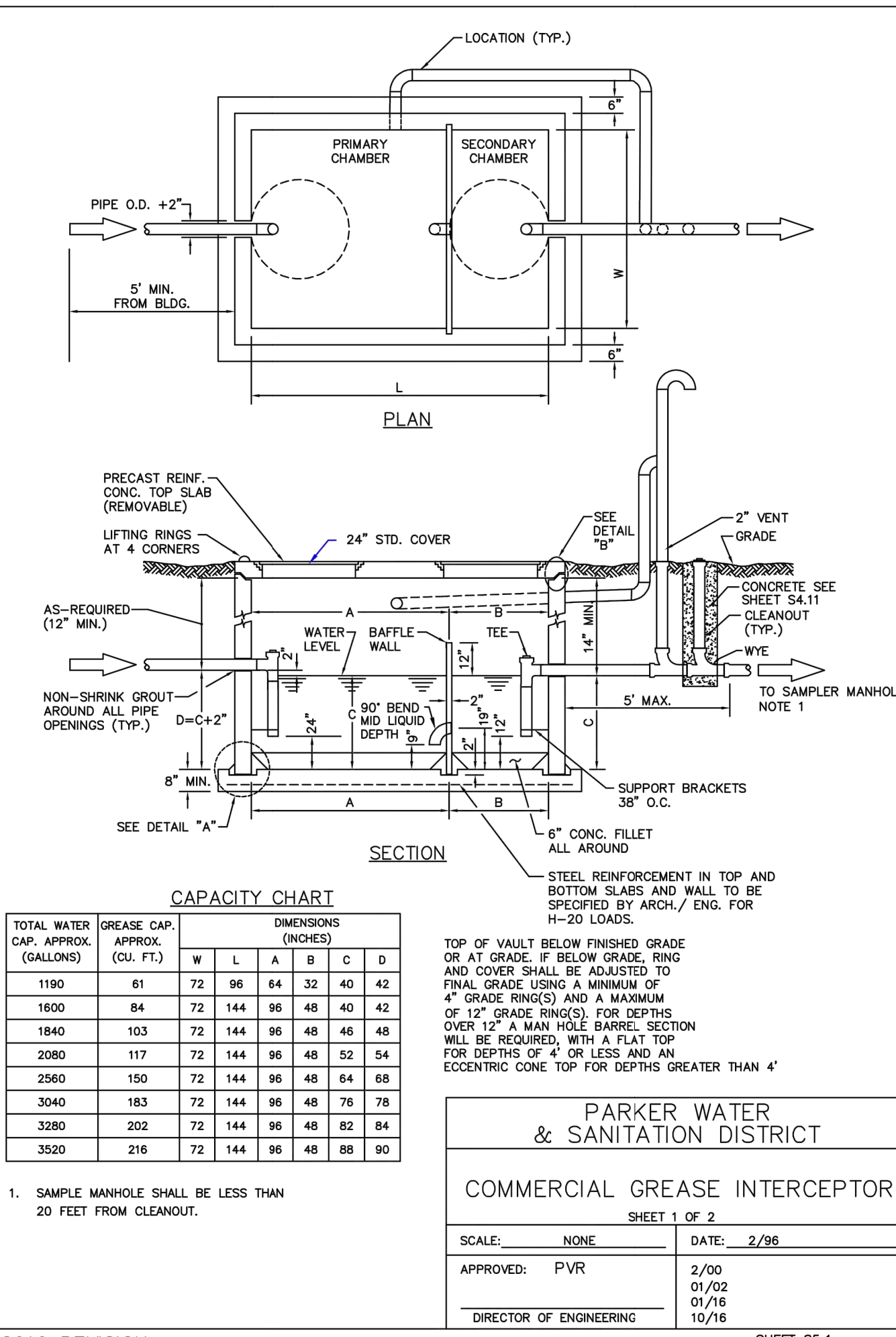
SCALE: NONE DATE: 2/96

APPROVED: PVR 01/16 10/16

DIRECTOR OF ENGINEERING

2016 REVISION

SHEET S3.8



PARKER WATER & SANITATION DISTRICT
COMMERCIAL GREASE INTERCEPTOR

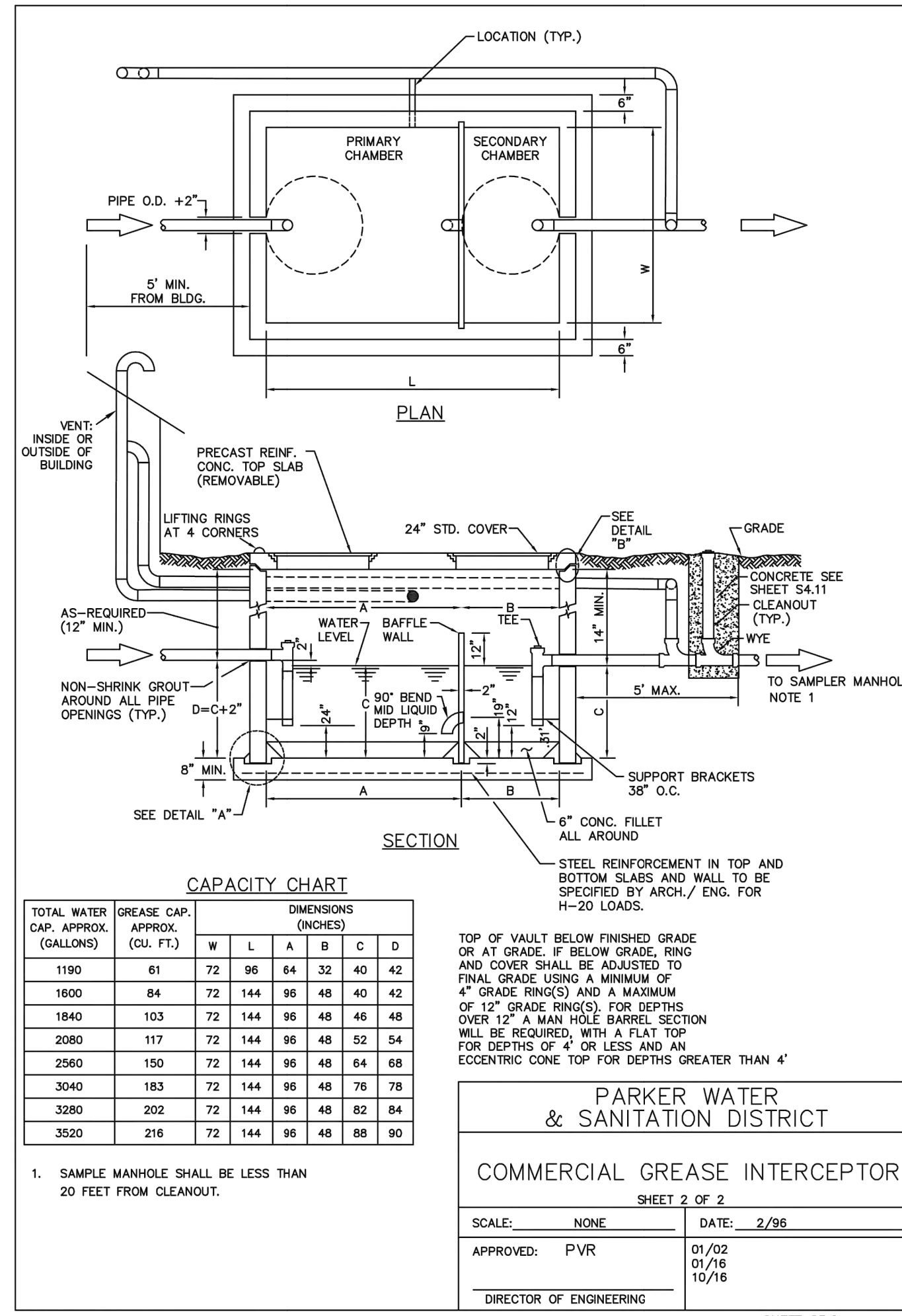
SCALE: NONE DATE: 2/96

APPROVED: PVR 2/00 01/02 01/16 10/16

DIRECTOR OF ENGINEERING

2016 REVISION

SHEET 51.1



PARKER WATER & SANITATION DISTRICT
COMMERCIAL GREASE INTERCEPTOR

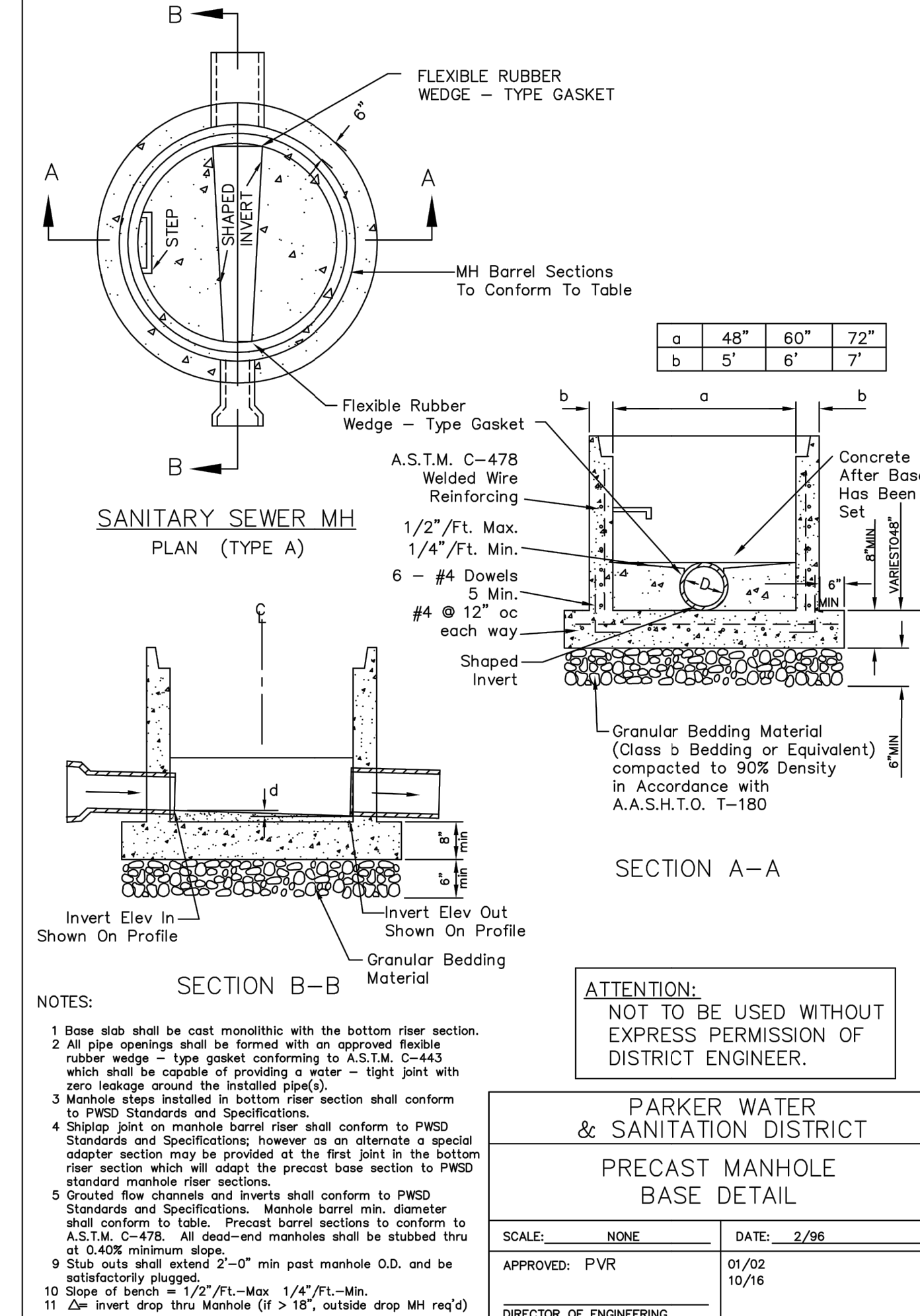
SCALE: NONE DATE: 2/96

APPROVED: PVR 01/02 01/16 10/16

DIRECTOR OF ENGINEERING

2016 REVISION

SHEET 51.2



PARKER WATER & SANITATION DISTRICT
PRECAST MANHOLE BASE DETAIL

SCALE: NONE DATE: 2/96

APPROVED: PVR 01/02 01/16 10/16

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2016 REVISION

SHEET S3.4

811
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NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY ACCIDENTS OR INJURIES TO PERSONS OR PROPERTY THAT MAY OCCUR AS A RESULT OF THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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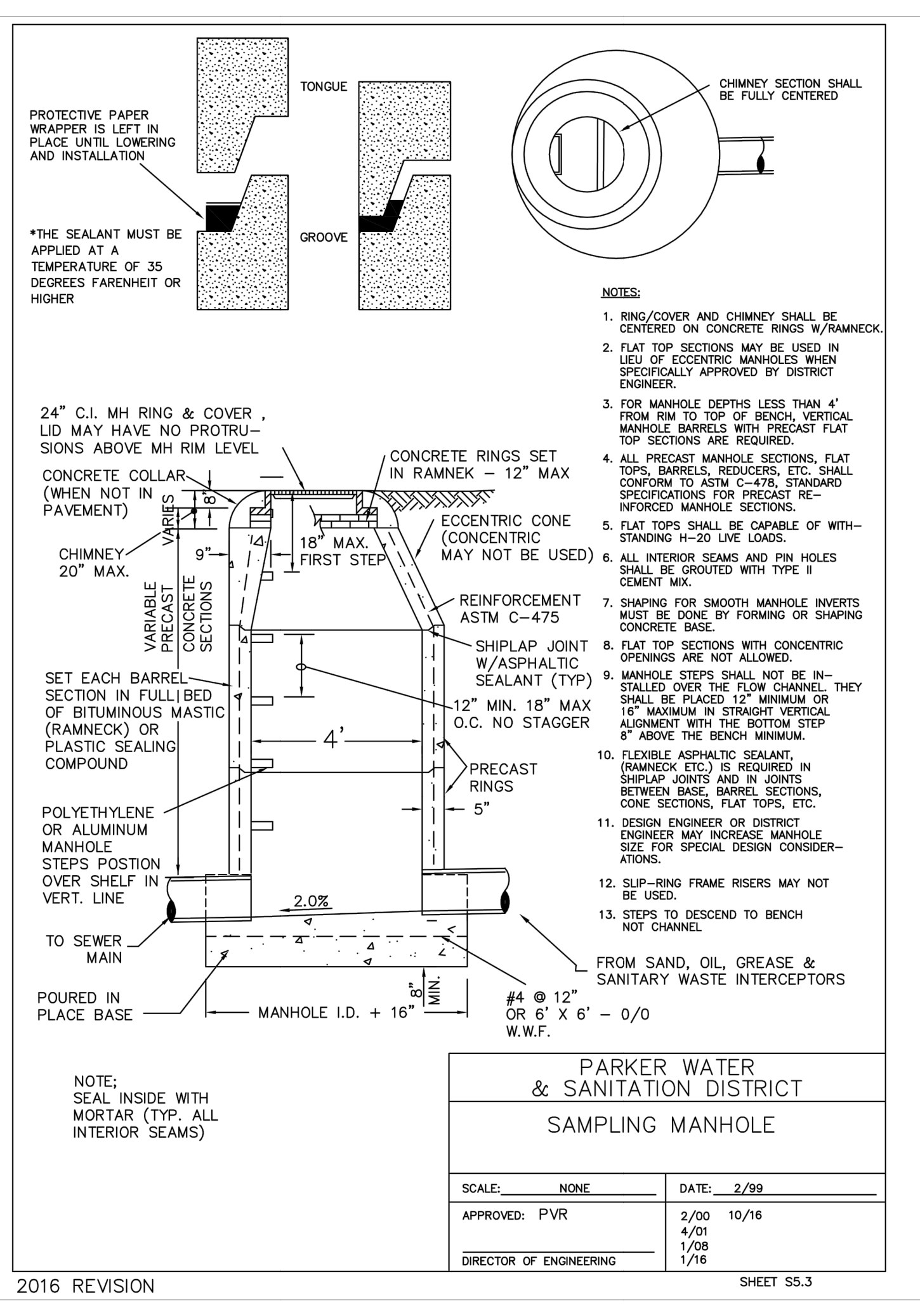
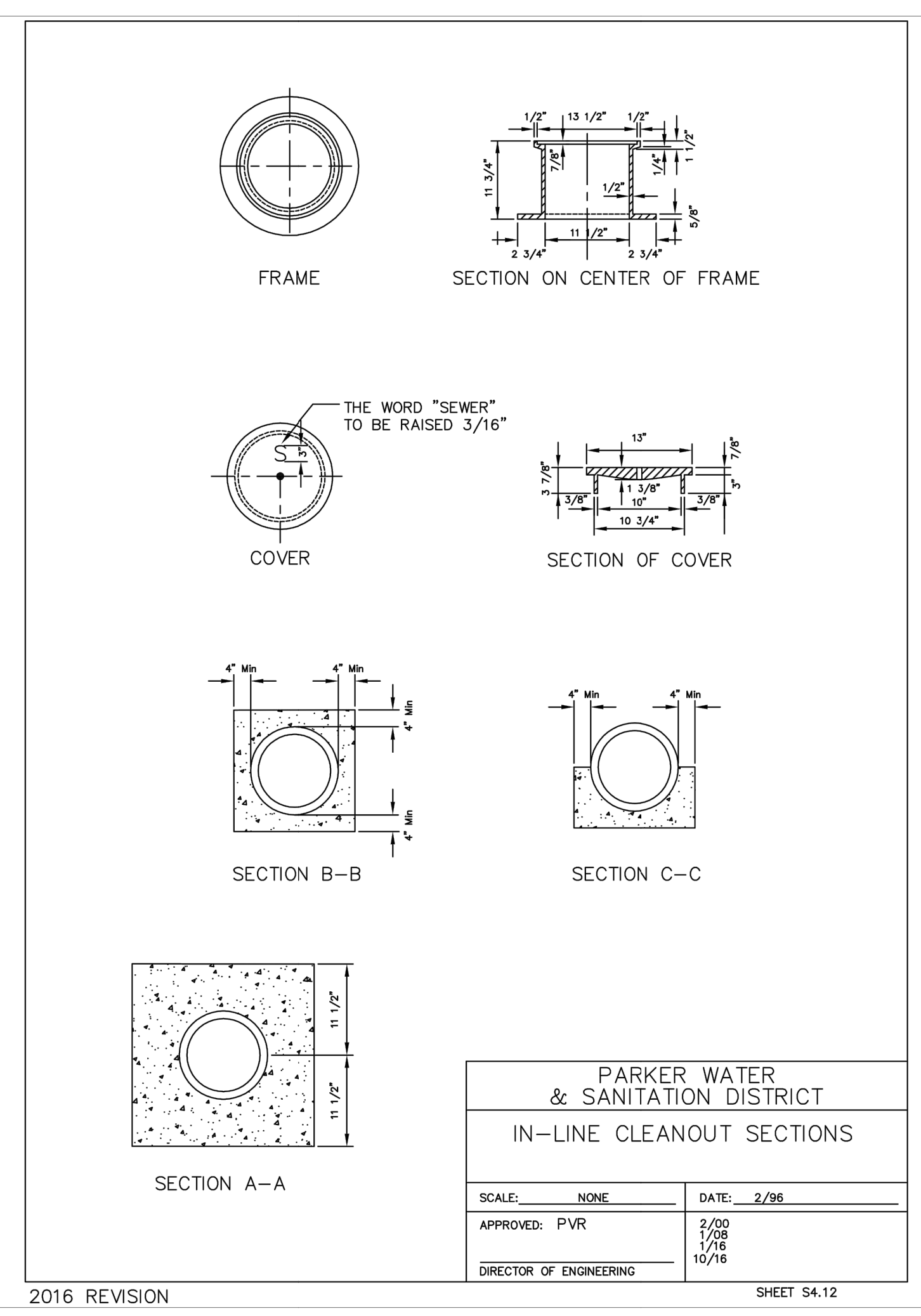
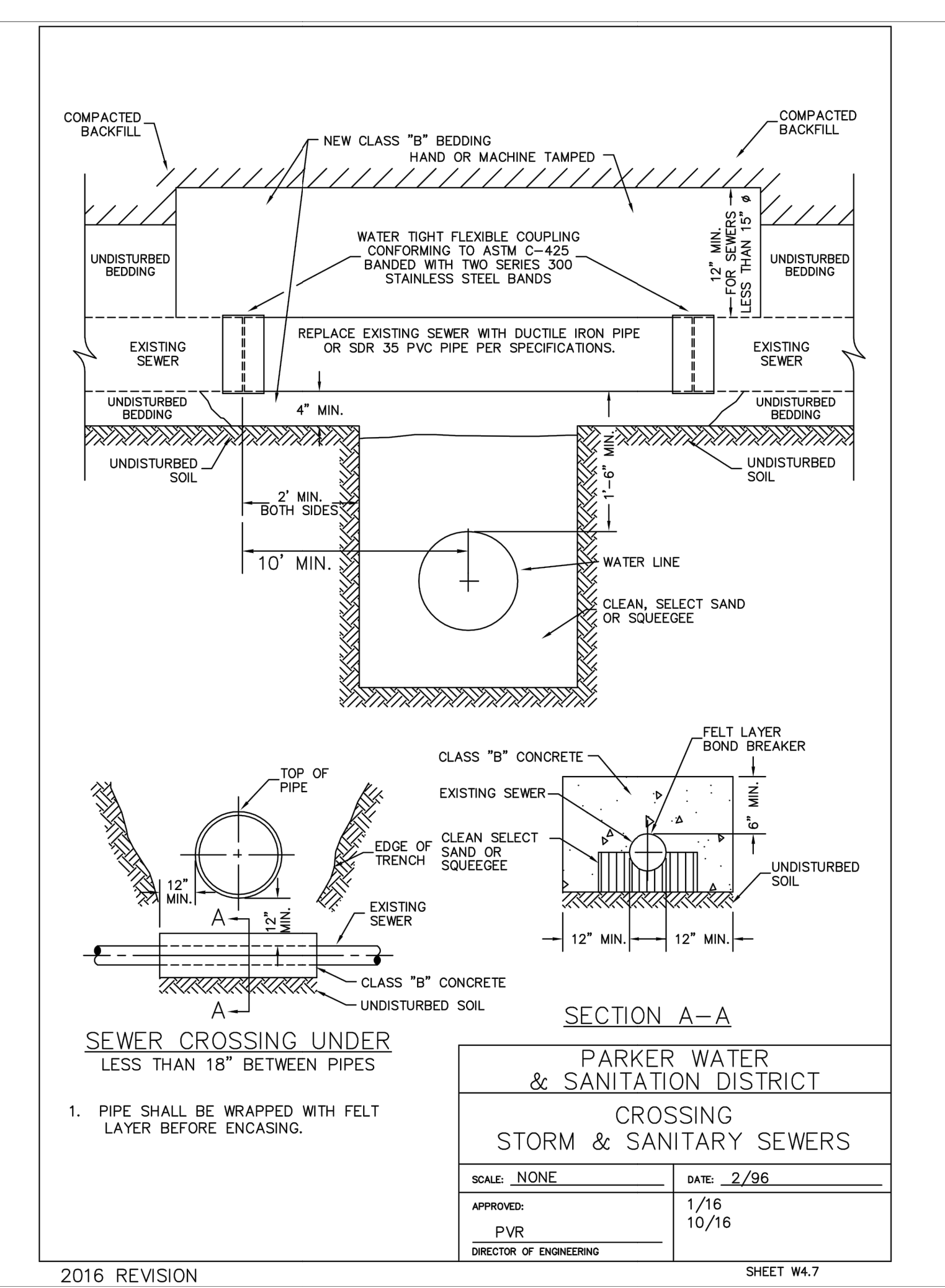
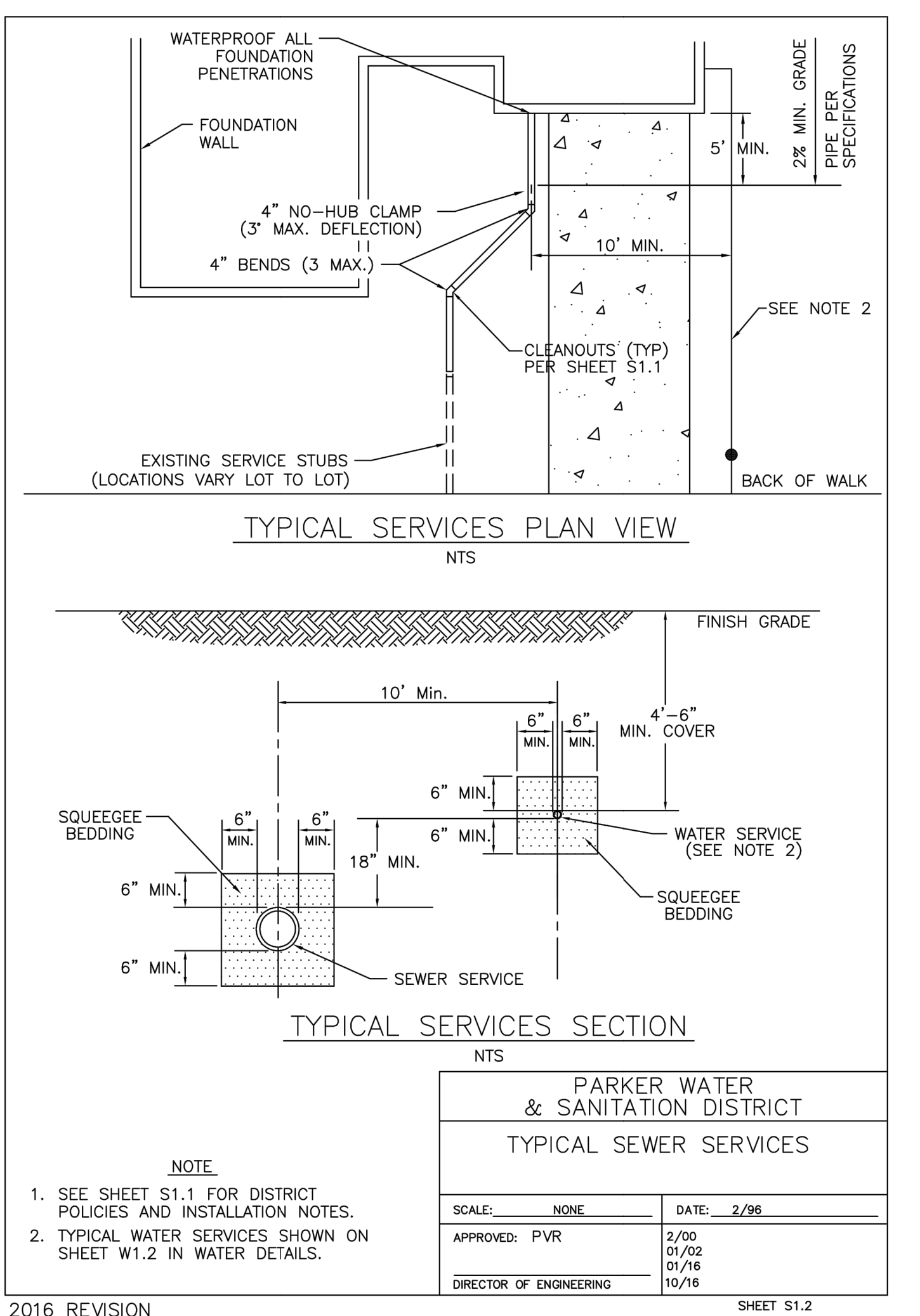
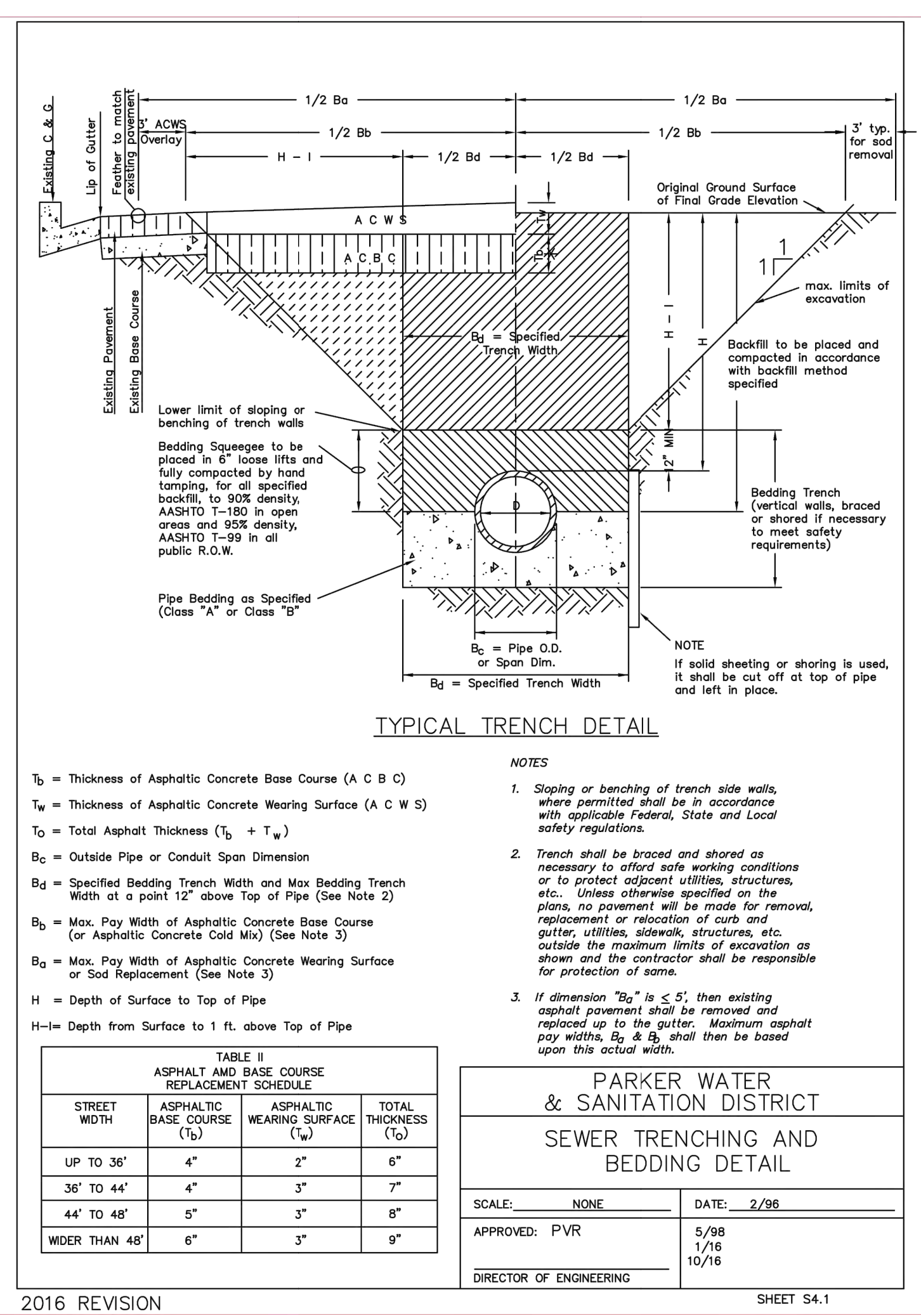
BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
DATE: 2025-06-03

PARKER WATER & SANITATION DISTRICT
REVISIONS

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO. **08**

FILE NAME: \\F:\Data\DWG\PROJECTS\2025\24003198 - UTILITY DETAILS.dwg LAST SAVED BY: madd 5/15/2025 1:50 PM PLotted By: kshah Date Plotted: 5/15/2025 2:05 PM PLOTTER: HP DesignJet 5000 Series



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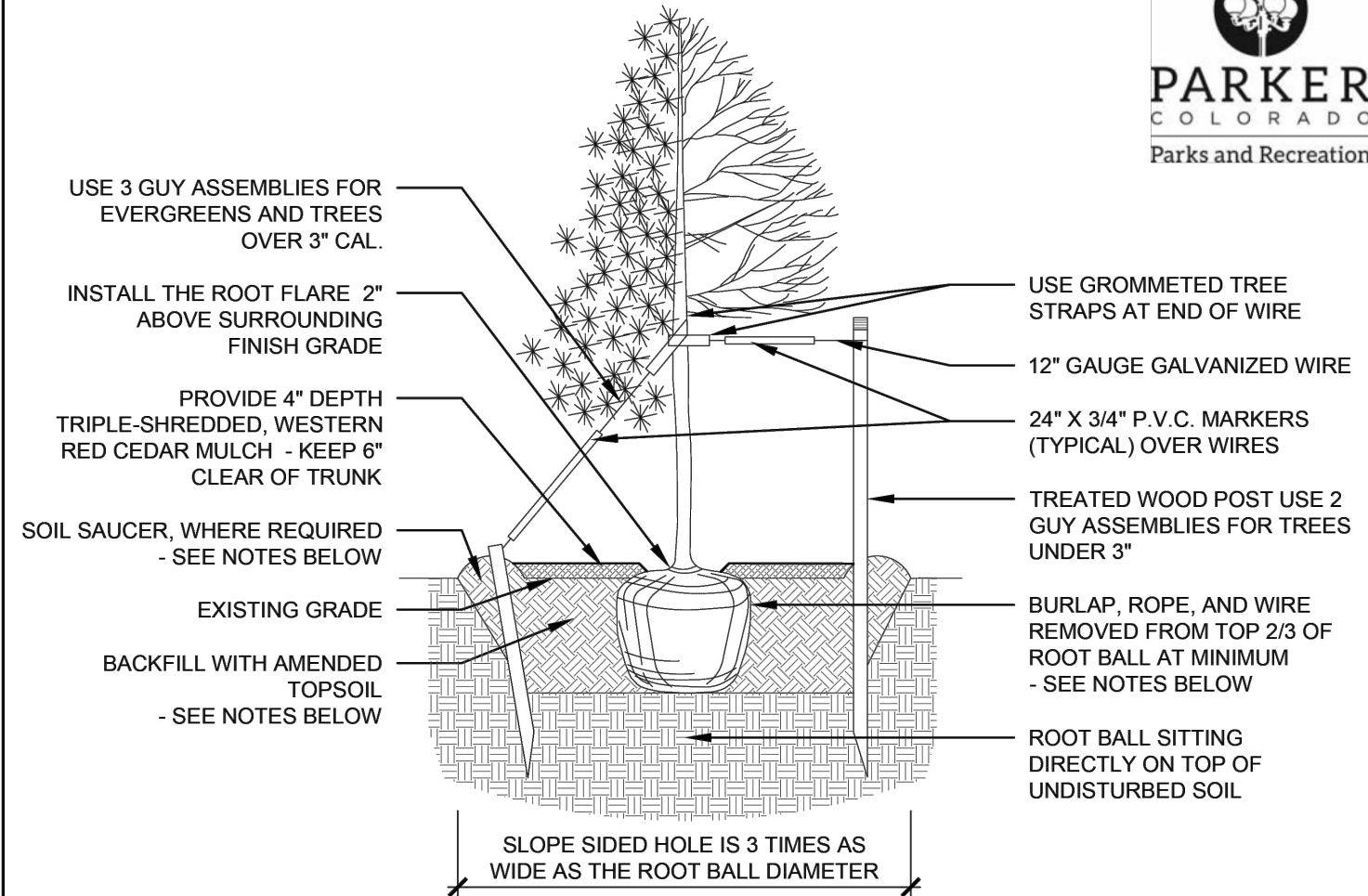
BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

DATE: 2025-06-03

REVISIONS

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO. 09

TOWN OF PARKER STANDARD DETAILS

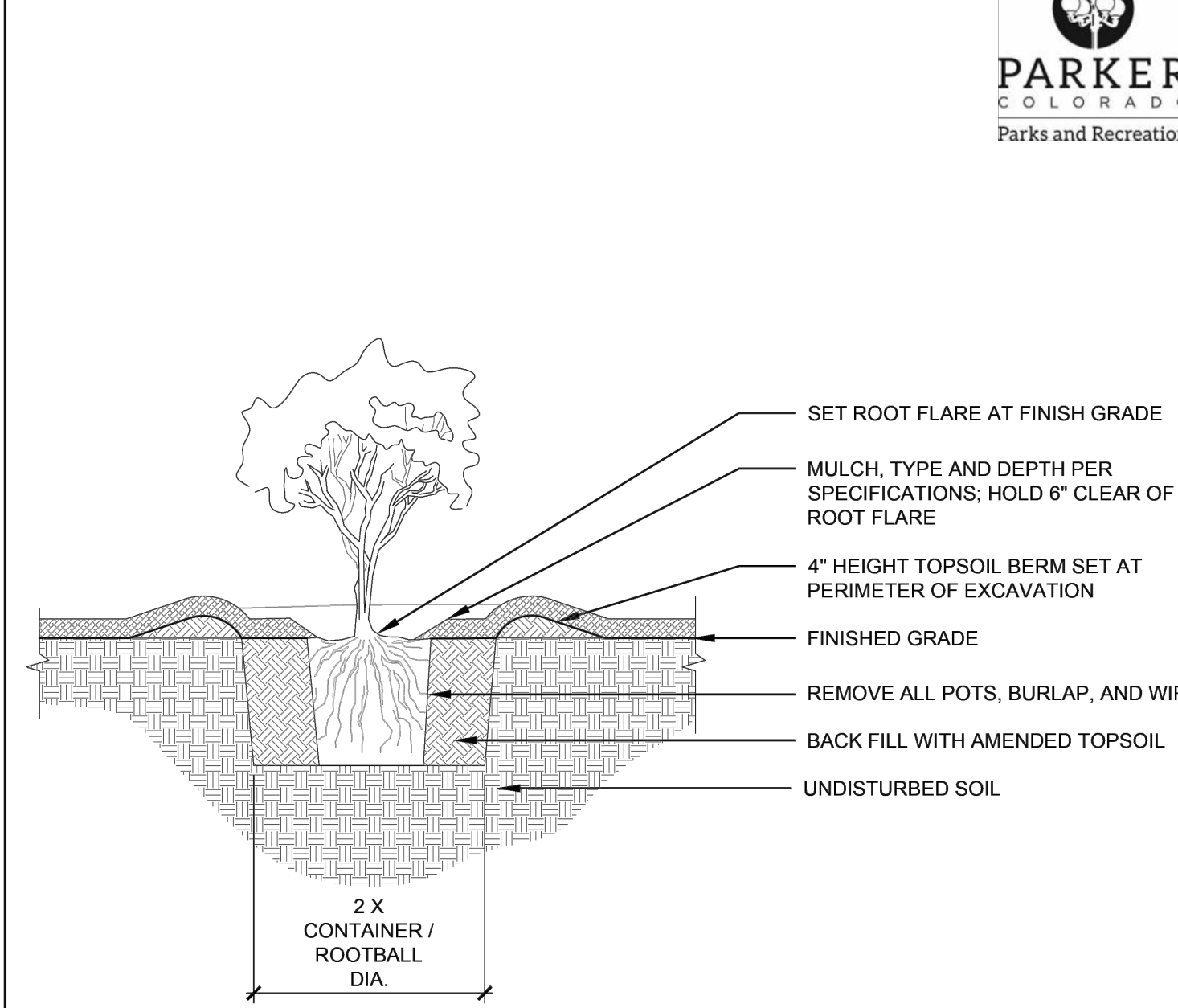


- NOTES:
- EXCAVATE PLANTING HOLES WITH SLOPING SIDES, MAKE EXCAVATIONS AT LEAST THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER AND NO DEEPER THAN THE DISTANCE FROM THE TOP OF THE ROOT BALL TO ALLOW FOR SETTLING. DO NOT DISTURB SOIL AT BOTTOM OF PLANTING HOLES, BUT DO SCORE THE SIDES OF THE PLANTING HOLE. THE PLANTING AREA SHALL BE LOOSENED AND AERATED AT LEAST THREE TIMES THE DIAMETER OF THE ROOT BALL.
 - BACKFILL SHALL CONSIST OF APPROVED ON-SITE TOPSOIL BLENDED W/ COMPOST AMENDMENT. IF ON-SITE TOPSOILS ARE NOT APPROVED FOR USE, BACKFILL W/ IMPORTED TOPSOIL BLENDED WITH COMPOST AMENDMENT. REFER TO SPECIFICATION SECTION 329113 FOR ADDITIONAL INFORMATION.
 - TREES SHALL BE PLANTED WITH THE ROOT COLLAR/FLARE VISIBLE ABOVE GRADE AND TWO OR MORE STRUCTURAL ROOTS LOCATED WITHIN THE TOP 1" TO 2" OF THE ROOT BALL/FINISHED GRADE MEASURED 3" TO 4" FROM TRUNK. THIS INCLUDES TREES THAT ARE SET ON SLOPES (SEE SLOPE PLANTING DETAIL). TREES THAT DO NOT HAVE A VISIBLE ROOT COLLAR SHALL BE REJECTED. DO NOT COVER THE ROOT BALL WITH SOIL.
 - WHEN ROOT BALL WILL REMAIN INTACT, CUT OFF BOTTOM 1/4 OF WIRE BASKET BEFORE PLACING TREE IN HOLE. CUT OFF REMAINDER OF BASKET AFTER TREE IS SET IN HOLE. REMOVE BASKET COMPLETELY. AT A MINIMUM, THE TOP 2/3 OF THE BURLAP AND BASKET SHALL BE REMOVED FROM THE ROOT BALL ON ALL TREES. REMOVE ALL NYLON TIES, TWINE, ROPE AND BURLAP. REMOVE UNNECESSARY PACKING MATERIAL.
 - FORM SOIL INTO A 6" TALL WATERING RING (SAUCER) AROUND PLANTING AREA. THIS IS NOT NECESSARY IN IRRIGATED TURF AREAS. APPLY 4" DEPTH OF SPECIFIED MULCH OVER PLANTING AREA AND INSIDE SAUCERS. AWAY FROM TRUNK.
 - STAKING AND GUYING OF TREES IS OPTIONAL IN MOST PLANTING SITUATIONS. IN AREAS OF EXTREME WINDS, OR ON STEEP SLOPES, STAKING MAY BE REQUIRED TO STABILIZE TREES. STAKING AND GUYING MUST BE REMOVED WITHIN 1 YEAR OF PLANTING DATE.
 - TREE WRAP IS NOT TO BE USED ON ANY NEW PLANTINGS, EXCEPT IN LATE FALL PLANTING SITUATIONS, AND ONLY AFTER CONSULTATION WITH THE TOWN ARBORIST.
 - RESETTING OF IMPROPERLY PLANTED TREES WILL ONLY BE ALLOWED IF IT IS DETERMINED THAT DOING SO WILL IN NO WAY COMPROMISE THE ROOT BALL, AND SHALL ONLY BE DONE WITH APPROVAL OF THE TOWN ARBORIST.

TREE PLANTING
1/4" = 1'-0"

DATE: MAY 2023 | DETAIL SD-3

TOWN OF PARKER STANDARD DETAILS

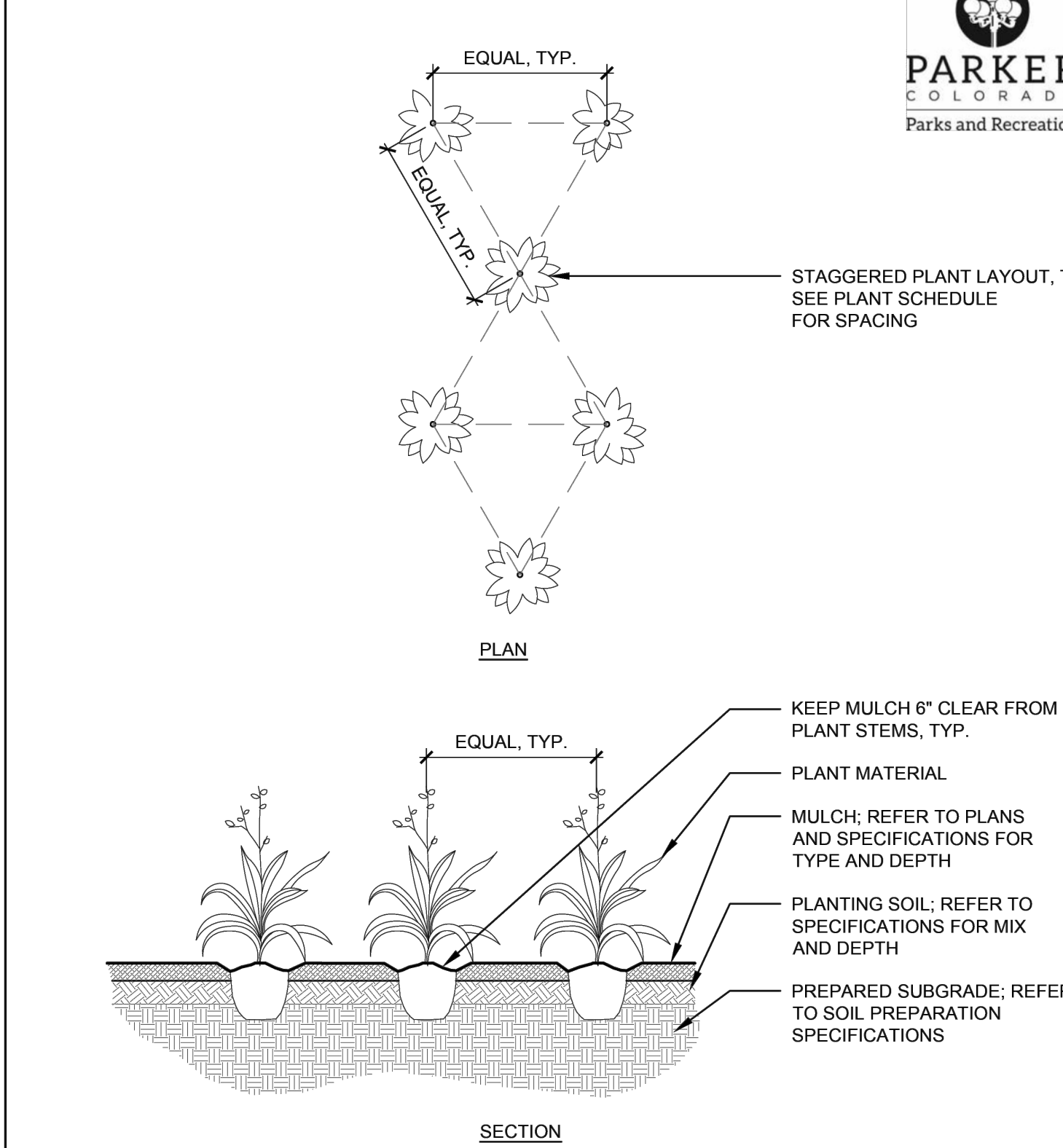


- NOTES:
- PRUNE ALL DAMAGED, DISEASED OR WEAK LIMBS.
 - CLEANLY PRUNE ALL DAMAGED ROOT ENDS.
 - DO NOT ALLOW ROOTS TO DRY OUT DURING INSTALLATION PROCESS.
 - DEEP WATER AFTER PLANTING.

SHRUB PLANTING
1/2" = 1'-0"

DATE: MAY 2023 | DETAIL SD-5

TOWN OF PARKER STANDARD DETAILS

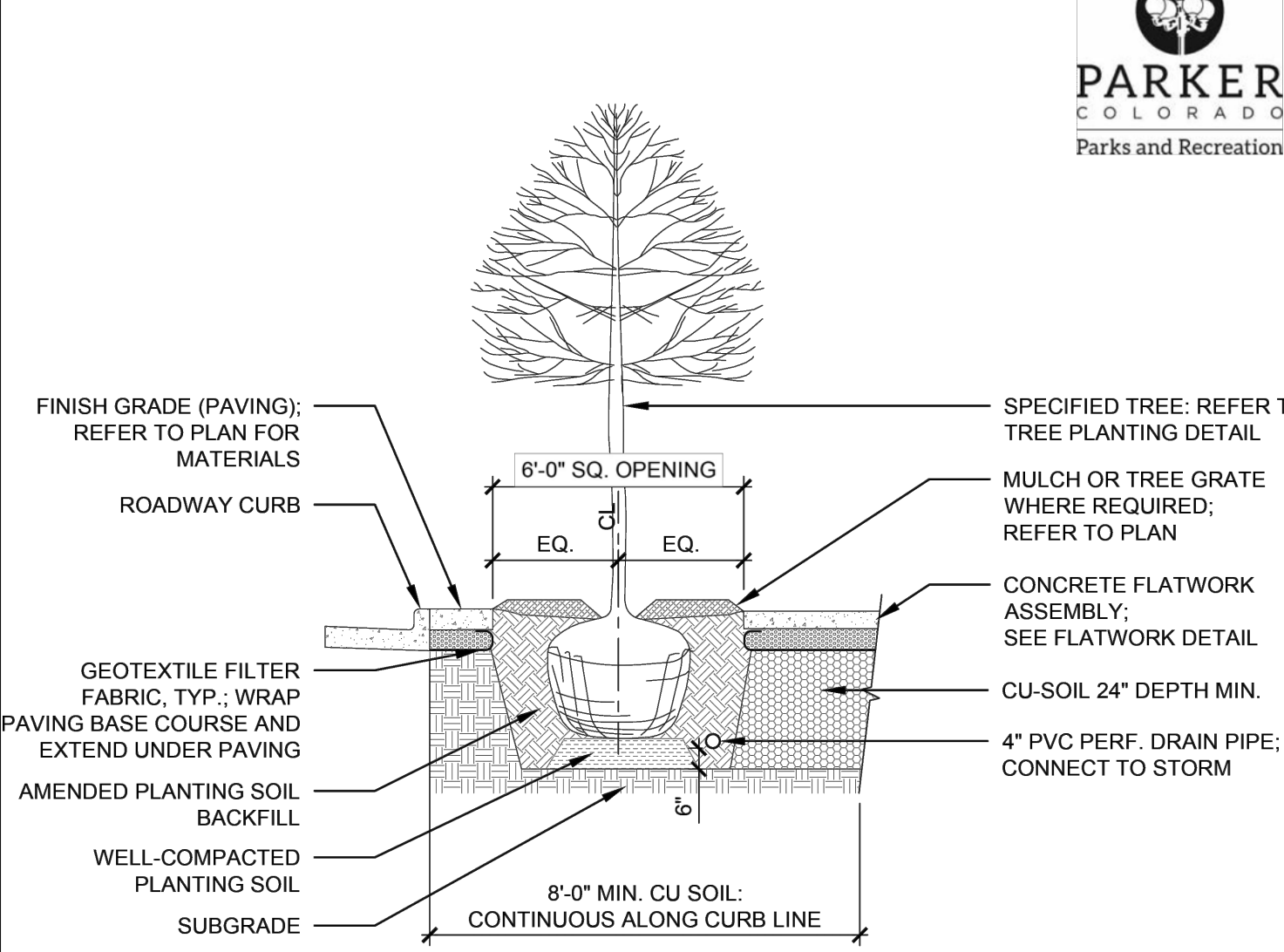


- NOTES:
- WHEN BACKFILLING AROUND PLANTS, DO NOT ALLOW AIR POCKETS TO FORM.
 - AFTER PLANTING, WATER THOROUGHLY.

PERENNIAL PLANTING
1/4" = 1'-0"

DATE: MAY 2023 | DETAIL SD-6

TOWN OF PARKER STANDARD DETAILS

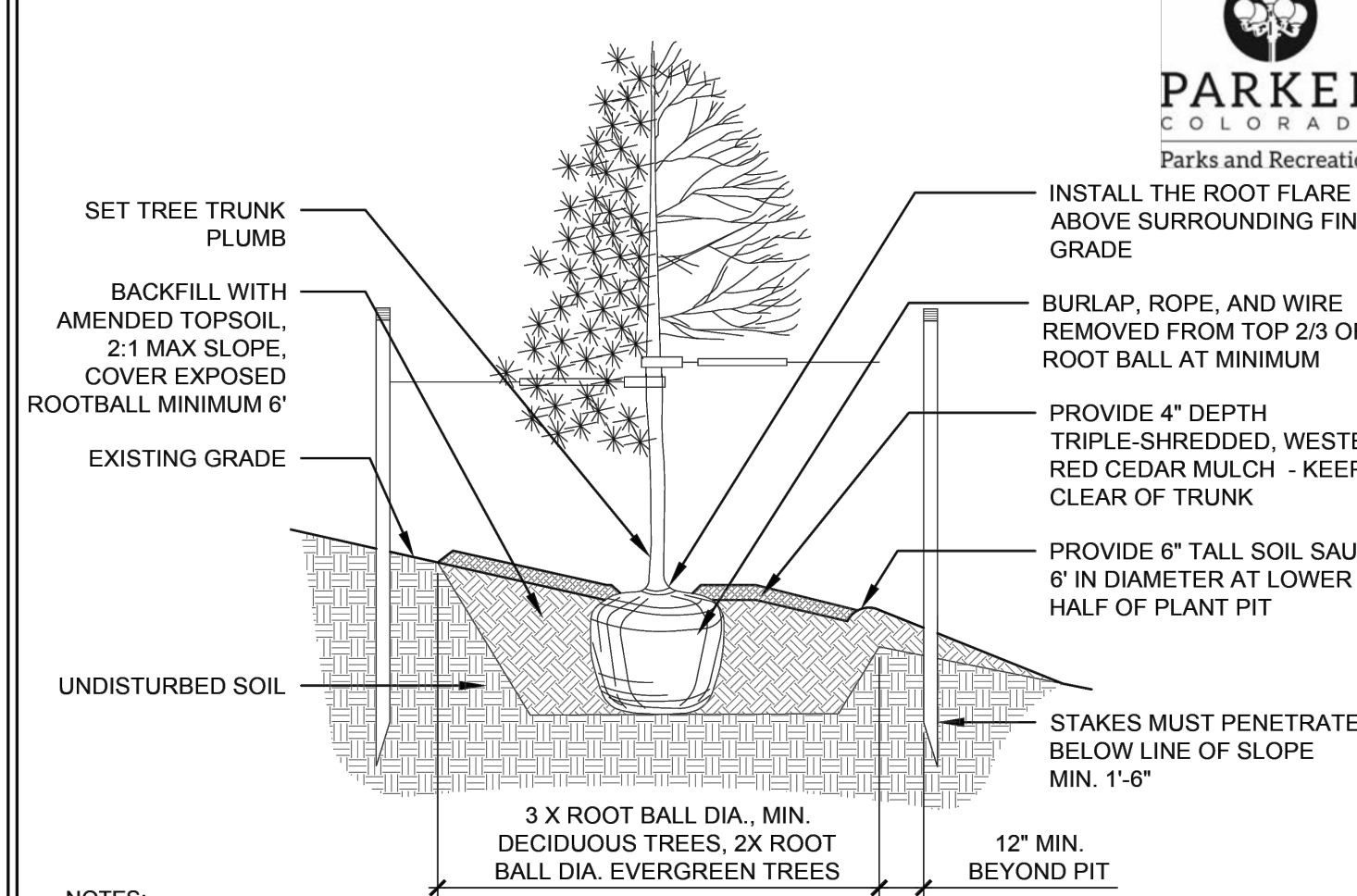


- NOTES:
- TREES SHALL BE PLANTED WITH THE ROOT COLLAR/FLARE VISIBLE ABOVE GRADE AND TWO OR MORE STRUCTURAL ROOTS LOCATED WITHIN THE TOP 1" TO 2" OF THE ROOT BALL/FINISHED GRADE MEASURED 3" TO 4" FROM TRUNK.
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CU SOIL TREE PIT
1/4" = 1'-0"

DATE: MAY 2023 | DETAIL SD-2

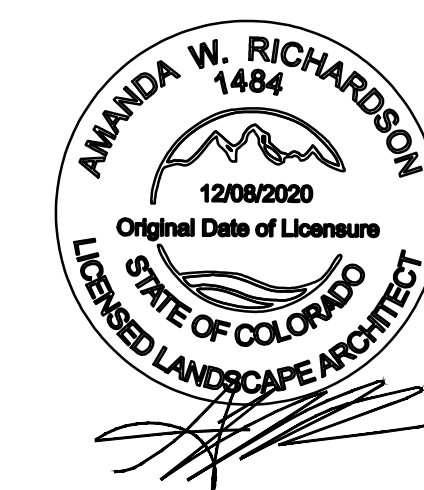
TOWN OF PARKER STANDARD DETAILS



- NOTES:
- THIS INSTALLATION SHALL APPLY TO ALL TREE TYPES AND SIZES PLANTED ON SLOPES 4:1 OF GREATER.
 - EXCAVATE PLANTING HOLES WITH SLOPING SIDES, MAKE EXCAVATIONS AT LEAST THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER AND NO DEEPER THAN THE DISTANCE FROM THE TOP OF THE ROOT BALL TO ALLOW FOR SETTLING. DO NOT DISTURB SOIL AT BOTTOM OF PLANTING HOLES, BUT DO SCORE THE SIDES OF THE PLANTING HOLE. THE PLANTING AREA SHALL BE LOOSENED AND AERATED AT LEAST THREE TIMES THE DIAMETER OF THE ROOT BALL.
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TREE PLANTING ON SLOPE
1/4" = 1'-0"

DATE: MAY 2023 | DETAIL SD-4



AWR Designs, LLC
P.O. Box 1746
Aledo, Texas 76608
amanda@awr-designs.com
c. 512.517.5589

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CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



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S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
LANDSCAPE DETAILS

DATE: 2025-05-20

REVISIONS

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO. L1.03

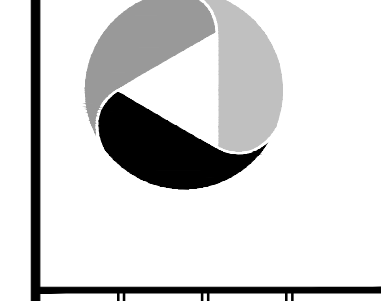


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 S. PARKER RD & STROH RD
 PARKER
 DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
 13135 DECLAN DRIVE
 IRRIGATION PLAN

DATE: 2025-05-20

REVISIONS

DRAWN BY: K. SARWAR
 CHECKED BY: N. SALAZAR
 PROJECT MANAGER: N. SALAZAR
 JOB #: 24003198
 FILE CODE: ##
 SHEET NO. L2.01

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SLEEVING NOTES

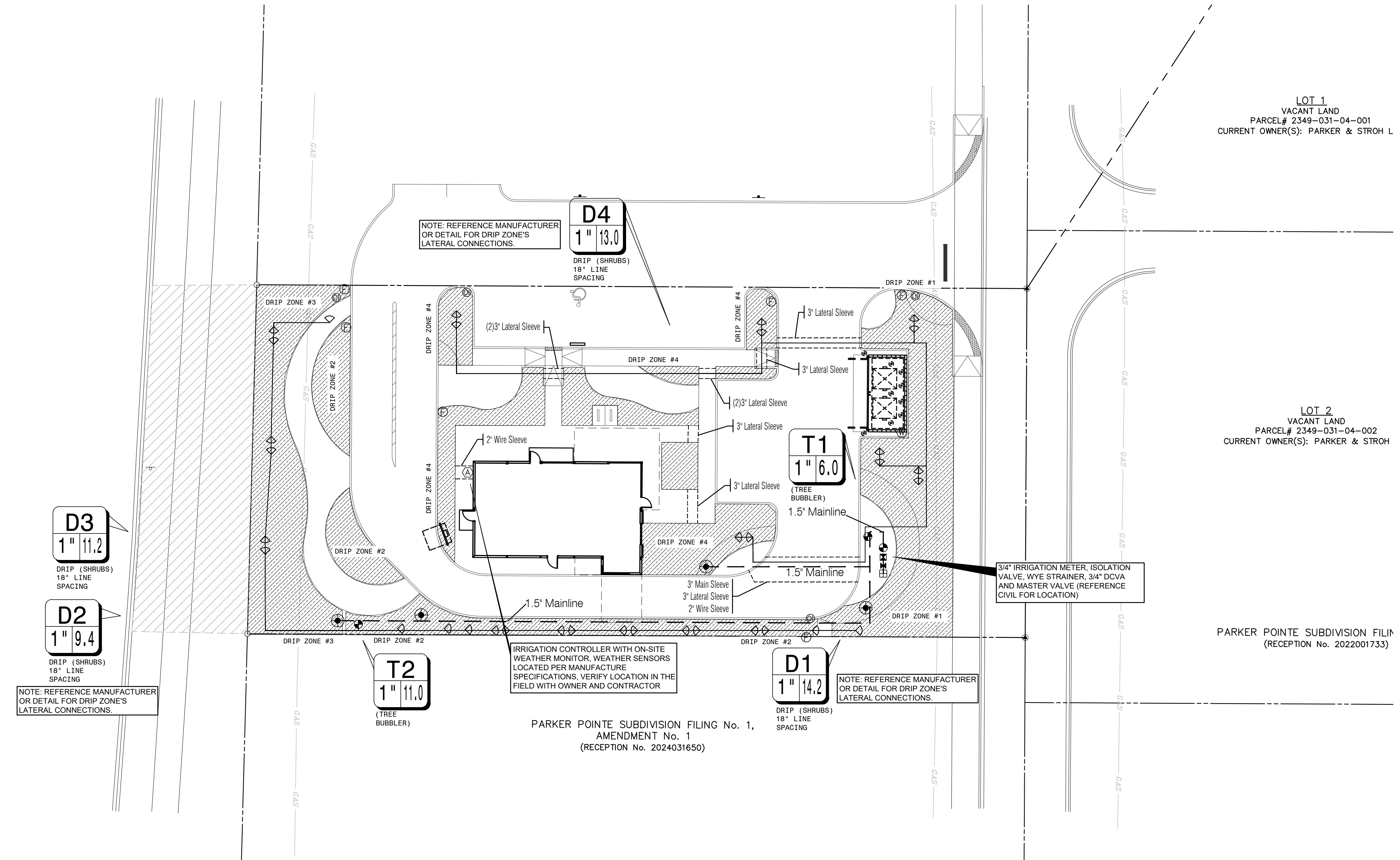
1. PIPING AND CONTROL WIRES SHALL BE INSTALLED IN SEPARATE SLEEVES UNDER PAVING. REFERENCE DRAWINGS FOR SLEEVE SIZE AND LOCATION.
2. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
3. INSTALLATION OF SLEEVES SHALL BE TWENTY (20) FEET BELOW TOP OF PAVEMENT OR FINISHED GRADE.
4. SLEEVES SHALL EXTEND ONE (1) FOOT BEYOND EDGE OF ALL PAVEMENT AND STAKED FOR LOCATION.
5. ALL SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, CAPPED ON BOTH ENDS AND SIZED AT LEAST TWO TIMES LARGER THAN THE DIAMETER OF THE PIPE INSIDE THE SLEEVE.
6. SLEEVE LOCATIONS SHALL BE MARKED ONTO THE CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE TWO (2) INCHES LONG AND ONE (1) APART.
7. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND SHALL ALSO BE RESPONSIBLE FOR LOCATING ANY SLEEVE THAT CANNOT BE FOUND DURING THE INSTALLATION OF THE SYSTEM.
8. CONTRACTOR SHALL FURNISH OWNER AND IRRIGATION CONTRACTOR WITH AN AS-BUILT DRAWING SHOWING ALL SLEEVE LOCATIONS.

IRRIGATION GENERAL NOTES

1. THE IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE IRRIGATION DESIGNER OF SITE CONDITIONS OR ASSUME FULL RESPONSIBILITY FOR ANY AND ALL ON SITE REVISIONS NECESSARY.
3. CONTRACTOR TO VERIFY DESIGN AND ITS INTENT TO PROVIDE FULL COVERAGE TO ALL NEW PLANTING MATERIAL.
4. NOTIFY IRRIGATION DESIGNER OF ANY LAYOUT DISCREPANCIES PRIOR TO BIDDING.
5. LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE IRRIGATION INSTALLATION BEGINS.
6. IRRIGATION CONTRACTOR TO PROCURE ALL PERMITS, LICENSES AND GIVE ALL NECESSARY NOTICES THROUGHOUT THE DURATION OF THE PROJECT.
7. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN GOOD STANDING WITH STATE BOARDS AND REGULATORS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PLANT MATERIAL UPON ACCEPTANCE AND THROUGH THE WARRANTY PERIOD FOR DAMAGE DUE TO IRRIGATION SYSTEM FAILURE.
9. ALL ASPECTS OF THE IRRIGATION INSTALLATION SHALL CONFORM WITH THE PROPER GOVERNING AUTHORITIES, CODES AND ORDINANCES.
10. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR. SLEEVE MATERIAL SHALL BE SCHEDULE 40, SIZE AS INDICATED ON PLAN. REFER TO SLEEVING NOTES.
11. ALL MAIN LINE AND LATERAL LINE PIPING IN PLANTING AND LAWN AREAS SHALL HAVE A MINIMUM OF 12 INCHES OF COVER. ALL PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18 INCHES OF COVER. CONTRACTOR TO VERIFY LOCAL FREEZE DEPTHS AND ADJUST DEPTH OF COVER ACCORDINGLY.
12. ZONE VALVES SHALL NOT BE LOCATED WITHIN THREE (3) FEET OF ANY DRIVEWAY, TRAFFIC AISLE, ISLAND ETC. WHERE THEY WILL BE DAMAGED BY VEHICLES DRIVING OVER CURBS.
13. ALL NOZZLES IN PARKING LOT ISLANDS AND PLANTING BEDS SHALL BE LOW ANGLE NOZZLES TO MINIMIZE OVER SPRAY ON PAVEMENT SURFACES.
14. AUTOMATIC CONTROLLER SHALL BE INSTALLED AT LOCATION SHOWN. POWER (120V) SHALL BE LOCATED IN A JUNCTION BOX WITHIN FIVE (5) FEET OF CONTROLLER. LOCATION BY OTHER TRADES. RAIN AND FREEZE SENSORS SHALL BE INSTALLED WITH EACH CONTROLLER.
15. ELECTRICAL SPLICES SHOULD BE LOCATED AT EACH VALVE AND CONTROLLER ONLY.
16. PROVIDE A 3/4" BLOW DOWN DRAIN TEE TO ALLOW WATER TO BE BLOWN FROM THE IRRIGATION LINES SYSTEM.
17. DISTURBED AREAS IN NEED OF TURF ESTABLISHMENT MAY EXIST BEYOND COVERAGE LIMITS OF THE PERMANENT IRRIGATION SYSTEM. IN THESE AREAS, CONTRACTOR TO DETERMINE A TEMPORARY MEANS TO ESTABLISH NECESSARY TURF. CONTRACTOR IS ENCOURAGED TO BEGIN TURF ESTABLISHMENT IMMEDIATELY UPON FINAL GRADE IN ACCORDANCE WITH AND TO SATISFY SWPPP.
18. PROVIDE WITH OWNER A COPY OF ALL INSTALLED EQUIPMENT AND LINES (AS BUILT PLANS).
19. PLACE COPY OF ZONE MAP WITH ALL ZONE VALVE LOCATIONS SHOWN AND APPROVED IRRIGATION PLAN IN PROTECTIVE JACKET IN MAIN CONTROL PANEL.

IRRIGATION PROJECT NOTES

1. THE LOCATION OF MAINLINE AND VALVES ON THIS PLAN MAY BE SHOWN IN PAVED AREAS FOR DESIGN CLARITY ONLY. IRRIGATION ELEMENTS HAVE BEEN SHOWN ON THIS PLAN AS ACCURATELY AS POSSIBLE WITHOUT THE FORFEIT OF DESIGN CLARITY AND INTENT. ALL PIPES AND VALVES SHALL BE INSTALLED WITHIN PERVIOUS AREAS. ALL PIPE AND WIRES THAT CROSS UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES AS SPECIFIED.
2. ALL SPRINKLER EQUIPMENT NUMBERS REFERENCE THE HUNTER EQUIPMENT CATALOG UNLESS OTHERWISE INDICATED.
3. TEN DAYS PRIOR TO START OF CONSTRUCTION, IRRIGATION CONTRACTOR SHALL VERIFY STATIC WATER PRESSURE. THE IRRIGATION SYSTEM FOR THIS SITE IS DESIGNED TO OPERATE WITH A PRESSURE OF SIXTY (60 PSI) POUNDS PER SQUARE INCH. SHOULD THE DESIGN PRESSURE FOR THE SYSTEM BE HIGHER THAN THE EXISTING PRESSURE, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE IRRIGATION DESIGNER IMMEDIATELY.
4. IRRIGATION CONTRACTOR SHALL COORDINATE THE LOCATION OF THE CONTROLLER AND SENSORS WITH THE GENERAL CONTRACTOR AND OWNER. A 110 VOLT ELECTRICAL SERVICE TO POWER THE IRRIGATION CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AT THE LOCATION SHOWN ON THIS PLAN.
5. WATER SERVICE TAP, METER AND LEAD FOR THE IRRIGATION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. SERVICE LINE AND METER SHALL BE SIZED AS NOTED ON THIS PLAN.
6. TYPE AND INSTALLATION OF THE WATER METER AND BACK FLOW PREVENTION DEVICE SHALL BE DETERMINED BY THE GOVERNING AUTHORITY. AN ISOLATION VALVE SHALL BE PROVIDED BETWEEN THE WATER METER AND BACK FLOW DEVICE.
7. ALL CALCULATIONS FOR THIS IRRIGATION SYSTEM ARE BASED ON PROFILES AND EQUIPMENT INFORMATION PROVIDED BY HUNTER. INSTALLATION OF THESE PRODUCTS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
8. REFERENCE HUNTER GUIDELINES AND SPECIFICATIONS PRIOR TO INSTALLATION. CONFIRM REQUIREMENTS FOR CONTROLLER, WATERPROOF CONNECTIONS, GROUNDING, SURGE PROTECTORS, DECODERS, VALVES AND WIRING PRIOR TO INSTALLATION. HUNTER TECHNICAL SERVICES (760) 591-7383. WWW.HUNTERINDUSTRIES.COM
9. IRRIGATION REMOTE CONTROL VALVES SHALL BE 1" AND/OR 1.5" HUNTER ICV AS INDICATED. PRIOR TO ALL REMOTE CONTROL VALVES, INSTALL A NOMINALLY SIZED BALL VALVE WITHIN THE SAME BOX.
10. SIZE OF VALVES ARE AS SHOWN ON PLAN. VALVES SHALL BE INSTALLED IN APPROVED BOXES WITH COVERS LARGE ENOUGH TO PERMIT MANUAL OPERATION. REMOVAL OF SOLENOID AND / OR VALVE COVER WITHOUT ANY EARTH EXCAVATION, OWNERS MAY ELECT LOCKING BOXES ON A PROJECT BY PROJECT BASIS.
11. QUICK COUPLING VALVES SHALL BE HUNTER INSTALLED PER DETAIL SHOWN. SWING JOINTS SHALL BE CONSTRUCTED USING 1/2" SCHEDULE 80 ELBOWS. CONTRACTOR SHALL SUPPLY OWNER WITH TWO (2) HS-3/8C COUPLERS WITH (2) HK-33 KEYS AND TWO (2) HS-0 HOSE SWIVELS AS PART OF THIS CONTRACT.
12. IRRIGATION SYSTEM AUTOMATIC CONTROLLER SHALL BE HUNTER PRO-C WITH RAIN AND FREEZE SENSORS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. CONFIRM WIRING, GROUNDING AND SURGE PROTECTION REQUIREMENTS BEFORE INSTALLING.
13. ET/RAIN/FREEZE SENSOR TO BE HUNTER SOLAR SYNC SENSOR. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
14. DRIP IRRIGATION REMOTE CONTROL VALVES SHALL BE HUNTER IC2-101-LF-25 AS INDICATED. DRIP TUBING SHALL BE HUNTER HDL-06-12-CV.
15. INSTALL DRIP TUBING LINES PER MANUFACTURERS RECOMMENDATIONS. USE PLD-LOC FITTINGS PLD-LOC 075, PLD-LOC 050, PLD-LOC ELB, PLD-LOC CPL, PLD-LOC CAP, PLD-LOC TEE, PLD-LOC OR USE FHS BARB FITTINGS PLD-075, PLD-050, PLD-ELB, PLD-CPL, PLD-CAP, PLD-TEE, PLD-075-BEE, PLD-BV. USE ECO-INDICATOR ECO-ID. USE LINE FLUSHING VALVE HUNTER AFB-B.
16. DRIP TUBING SHALL BE SPACED 18" APART IN SHRUB AREAS. REFER TO MANUFACTURERS RECOMMENDATIONS.
17. TREE BUBBLERS SHALL USE HUNTER PRO-66-PRS30 BODIES WITH HUNTER MULTI-STREAM BUBBLERS MODEL MSBH-50H NOZZLES.
18. ALL VALVE CONTROL WIRE SHALL BE SIZED PER MANUFACTURER GUIDELINES BY THE CONTRACTOR ACCORDING TO THE ACTUAL FIELD DISTANCE. ALL CONNECTIONS SHALL BE WATER-PROOF, KEPT TO A MINIMUM, AND LOCATED IN AN APPROVED BOX.



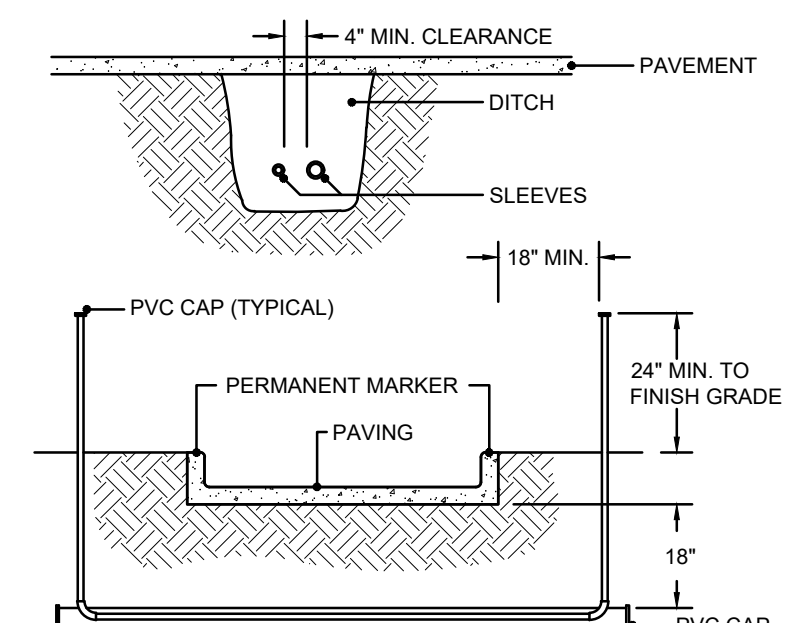
SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
⬇	MULTI-STREAM BUBBLERS	HUNTER	PROS-06-PRS30 W/ MSB50H NOZZLES
⬇	REMOTE CONTROL VALVE	HUNTER	ICV
⬇	1" DOUBLE CHECK ASSEMBLY	FEBCO	850 SERIES
⬇	HDL DRIPLINE	HUNTER	HDL-06-12-CV
⬇	LINE FLUSHING VALVE	HUNTER	AFV-B
⬇	PRESSURE OPERATOR INDICATOR	HUNTER	ECO-ID
⬇	DRIP CONTROL VALVE	HUNTER	IC2-101-LF-25

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
⬇	1" IRRIGATION METER	HUNTER	ICV
⬇	HUNTER - PRO-C CONTROLLER WITH RAIN AND FREEZE SENSORS	HUNTER	PRO-C
⬇	HUNTER SOLAR SYNC ET/RAIN/FREEZE SENSOR	HUNTER	SSC
⬇	ISOLATION VALVE	HUNTER	ICV
⬇	LATERAL PIPING	REFER TO PLAN	CLASS 200 PVC
⬇	MAINLINE PIPING	REFER TO PLAN	SCH. 40 PVC, SIZED AS SHOWN
⬇	IRRIGATION SLEEVE, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED, ONE SLEEVE PER PIPE		
⬇	CONTROL WIRING SLEEVE, 2" SCH. 40 PVC		
⬇	VALVE STATION # (WHERE D = DRIP TUBING, S = SPRAY, R = ROTOR, T = TREE DRIP)		
⬇	VALVE SIZE		
⬇	GPM		

NOTE TO CONTRACTOR:
 1. PLAN SHEETS DO NOT SHOW EXISTING AND PROPOSED UTILITIES FOR CLARITY ONLY. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO INSTALLATION. CONTRACTOR IS TO USE EXTREME CAUTION IN DIGGING AND TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES.

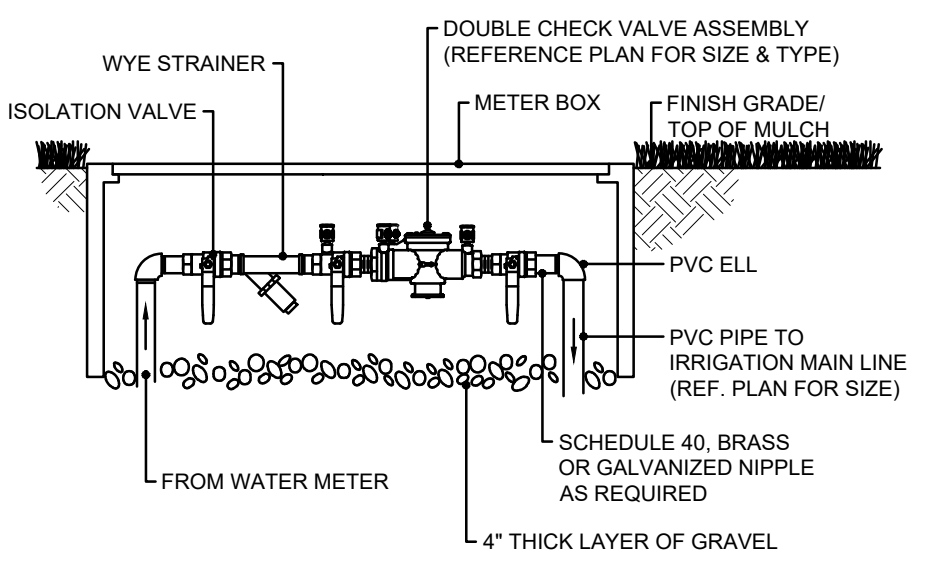
FLOW RANGE GPM	PIPE SIZE
0 - 6 GPM	3/4"
8 - 12 GPM	1"
12 - 22 GPM	1-1/4"
22 - 28 GPM	1-1/2"
28 + GPM	2"

- NOTE:**
 1. ENTIRE SYSTEM SHALL BE INSTALLED PER STATE STANDARDS. MANUFACTURER'S SPECIFICATIONS AND ALL CITY CODES.
2. THIS DESIGN IS DIAGRAMMATIC, ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY. AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE GROUND IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
 3. VARIOUS AREAS ON PLAN ARE SHOWING SINGLE HEAD COVERAGE. IF OWNER SHOULD ELECT FOR FULL COVERAGE, CONTRACTOR TO PROCURE THE PROPER PERMITS AND BID ALTERNATE FOR THESE ADDITIONAL SPRAY HEADS, ZONES, AND CONTROLLER EXPANSION FOR THE SYSTEM.
 4. IRRIGATION CONTRACTOR IS TO COORDINATE LOCATION AND PLACEMENT OF ALL IRRIGATION ITEMS WITH THE GENERAL CONTRACTOR. CONTRACTOR IS TO USE EXTREME CAUTION IN TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO IRRIGATION INSTALLATION.
 5. IRRIGATION SPRAY NOZZLES TO BE ADJUSTED TO AVOID PAVEMENT, BUILDING, WALLS, FENCES, UTILITIES, EQUIPMENT, SIGNAGE, AND CALL BOX.
 6. REFERENCE LANDSCAPE PLAN FOR LOCATION OF GRAVEL, STEEL EDGING AND ALL PROPOSED PLANT MATERIAL.
 7. IN TURF AREAS (BOTH SOD AND HYDROMULCH AREAS) OUTSIDE OF IRRIGATION PERMANENT COVERAGE, CONTRACTOR TO PROVIDE TEMPORARY IRRIGATION UNTIL ESTABLISHED, TYP.
 8. CONTRACTOR TO TAKE ALL NECESSARY MEASURES TO PREVENT WATER HAMMER AND SYSTEM COLLAPSE BY DISCHARGING AIR DURING STARTUP AND ALLOWING AIR TO ENTER DURING SHUTDOWN. INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM. FOR 3 INCH AND LARGER MAINLINE, INSTALL JOINT RESTRAINTS AT TURNS. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
 9. ALL MAINLINE PIPING 3 INCHES AND LARGER SHALL BE BELL AND GASKETED CLASS 200 PVC PIPE, SDR 21. INSTALL PER MANUFACTURERS RECOMMENDATIONS. CONTACT MANUFACTURER OR DISTRIBUTOR FOR PRODUCT DEMONSTRATION.
 10. GROUP VALVES IN FIELD AS NECESSARY FOR MAINLINE SIZING. CENTER FEED LATERALS WHEN POSSIBLE.



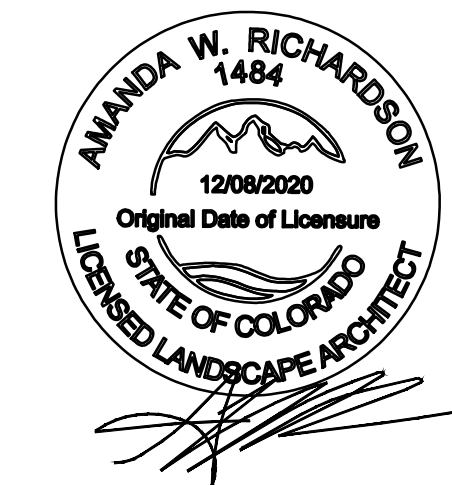
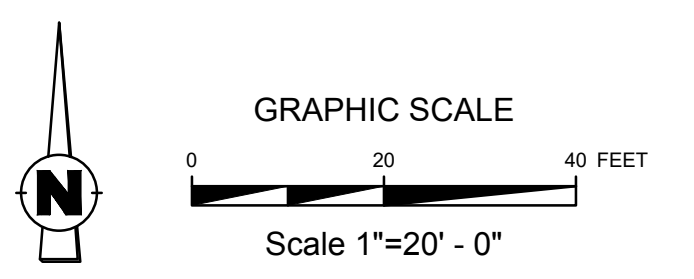
- NOTES:**
1. ALL PVC IRRIGATION SLEEVES TO BE SCHEDULE 40 PIPE.
 2. ALL JOINTS TO BE SOLVENT WELDED AND WATER TIGHT.
 3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE.
 4. MECHANICALLY TAMP TO 95% PROCTOR.
 5. SLEEVE LOCATIONS SHALL BE MARKED ONTO THE TOP OF CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE 2" LONG AND 1" APART.

1 IRRIGATION PVC SLEEVES
 N.T.S.



- NOTE:**
1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION. PRIOR TO BACKFLOW PREVENTER, INSTALL A NOMINALLY SIZED ISOLATION VALVE.

2 DOUBLE CHECK ASSEMBLY
 N.T.S.



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SECTION 32 8423 - UNDERGROUND IRRIGATION SLEEVES AND UTILITY CONDUITS

- PART 1 - GENERAL**
- 1.1 DESCRIPTION
- A. PROVIDE UNDERGROUND IRRIGATION SLEEVES AS INDICATED ON THE DRAWINGS.
- 1.2 RELATED WORK
- A. SECTION 32 8424 - IRRIGATION SYSTEM.
- 1.3 REFERENCE STANDARDS
- A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST EDITION.
- PART 2 - MATERIALS**
- 2.1 GENERAL
- A. POLYVINYL CHLORIDE PIPE (PVC) - SCHEDULE 40 SHALL BE USED FOR ALL SLEEVING PURPOSES.
- B. PVC PIPES SHALL BE MARKED WITH SDR NUMBER, ASTA STANDARD NUMBER, AND THE NSF SEAL.
- C. SOLVENT SHALL BE USED AS RECOMMENDED BY MANUFACTURER TO MAKE SOLVENT WELDED JOINTS. PIPE AND FITTINGS SHOULD BE CLEANED BEFORE APPLYING SOLVENT.
- PART 3 - EXECUTION**
- 3.1 INSTALLATION
- A. A MINIMUM OF TWENTY FOUR (24) INCHES COVER SHALL BE PROVIDED OVER THE TOP OF SLEEVE FROM FINISH GRADE.
- B. SLEEVES SHALL BE EXTENDED ONE (1) FOOT PAST THE EDGE OF PAVEMENT OF WALLS. INSTALL A NINETY DEGREE ELBOW ON EACH SLEEVE AND ADD ADDITIONAL LENGTH TO EXTEND ABOVE FINISH GRADE BY TWELVE (12) INCHES. CAP PIPE ENDS.
- 3.2 BACKFILL
- A. BACKFILL SHALL BE PLACED OVER SLEEVES IN SIX (6) INCH LIFTS. SOIL SHALL BE TAMPED INTO PLACE, TAKING CARE TO NOT DAMAGE SLEEVE.
- B. REPAIR ANY DAMAGE FROM IMPROPER COMPACTION.
- END OF SECTION

SECTION 32 8424 - IRRIGATION SYSTEM

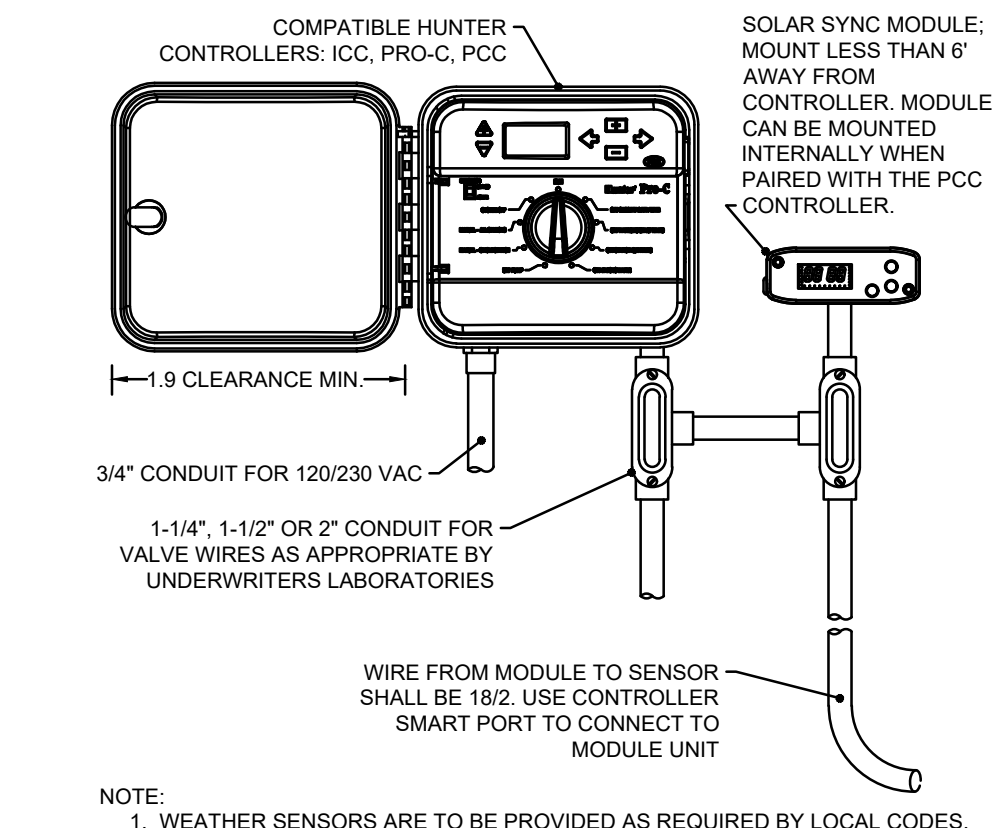
- PART 1 - GENERAL**
- 1.1 DESCRIPTION
- A. PROVIDE A COMPLETE IRRIGATION SYSTEM INSTALLATION AS DETAILED AND SPECIFIED. THIS SHALL INCLUDE FURNISHING ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES NECESSARY TO PROVIDE COMPLETE INSTALLATION. WORK INCLUDES:
- a. TRENCHING
- b. BACKFILL
- c. AUTOMATIC CONTROLLED SYSTEM
- d. AS BUILT DRAWINGS
- B. SLEEVING AS SHOWN SHALL BE FURNISHED BY THE GENERAL CONTRACTOR.
- C. METER AND POWER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
- 1.2 RELATED WORK
- C. REFERENCE IRRIGATION PLANS FOR CONTROLLER, HEAD AND ALL VALVE LOCATIONS.
- D. REFERENCE LANDSCAPE PLANS, NOTES, DETAILS FOR ADDITIONAL REQUIREMENTS.
- E. SECTION 32 9300 - LANDSCAPE
- F. SECTION 32-8423 - UNDERGROUND IRRIGATION SLEEVE AND UTILITY CONDUITS

- 1.3 REFERENCE STANDARDS
- A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST EDITION.
- 1.4 QUALITY ASSURANCE AND REQUIREMENTS
- A. PERMITS AND FEES: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS NECESSARY AND ALL OBSERVATIONS AS REQUIRED.
- B. MANUFACTURER'S DIRECTIONS: MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURER'S DIRECTIONS ARE IN THIS CONTRACT.
- C. ORDINANCES, CODES, AND REGULATIONS: ALL LOCAL, MUNICIPAL AND STATE LAWS, AND RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS AND REQUIREMENTS OF THE SAME.
- D. HOWEVER, WHEN THESE SPECIFICATIONS AND DRAWINGS CALL FOR OR DESCRIBE MATERIALS, WORKMANSHIP, OR CONSTRUCTION OF A BETTER QUALITY, HIGHER STANDARD OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.
- 1.5 SCHEDULE OF MATERIALS
- A. MATERIALS LIST:
- a. ALL EQUIPMENT MANUFACTURERS AND MODEL NUMBERS SHALL BE AS NOTED ON THE PLANS.
- b. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS, OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
- c. A COMPLETE MATERIAL LIST OF EQUIPMENT SHALL BE SUBMITTED BEFORE PERFORMING ANY WORK. SUBMITTAL SHOULD INCLUDE ALL MANUFACTURER'S SPECIFICATIONS AND LITERATURE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- d. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED.
- e. APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE INDICATES ONLY THAT THE PRODUCT OR PRODUCTS APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION OR SAMPLES SUBMITTED.
- f. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.
- 1.4 RECORD AND AS BUILT DRAWINGS/SUBMITTALS
- A. CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE AND COMPLETE "AS-BUILT" RECORD SET OF PRINTS.
- B. CONTRACTOR SHOULD USE ALL SYMBOLS AND NOTATIONS CONSISTENT WITH THE ORIGINAL DRAWINGS.
- C. IN "AS-BUILT" DRAWINGS, CONTRACTOR SHALL LOCATE:
- a. CONNECTION TO EXISTING WATER LINES
- b. CONNECTION TO ELECTRICAL POWER
- c. GATE VALVES
- d. ROUTING OF SPRINKLER PRESSURE LINES
- e. SPRINKLER CONTROL VALVES
- f. QUICK COUPLING VALVES
- g. OTHER RELATED EQUIPMENT
- D. SUBMIT COMPLETED TRACINGS PRIOR TO FINAL ACCEPTANCE. DATE AND SIGN ALL DRAWINGS.
- E. EQUIPMENT TO BE FURNISHED:

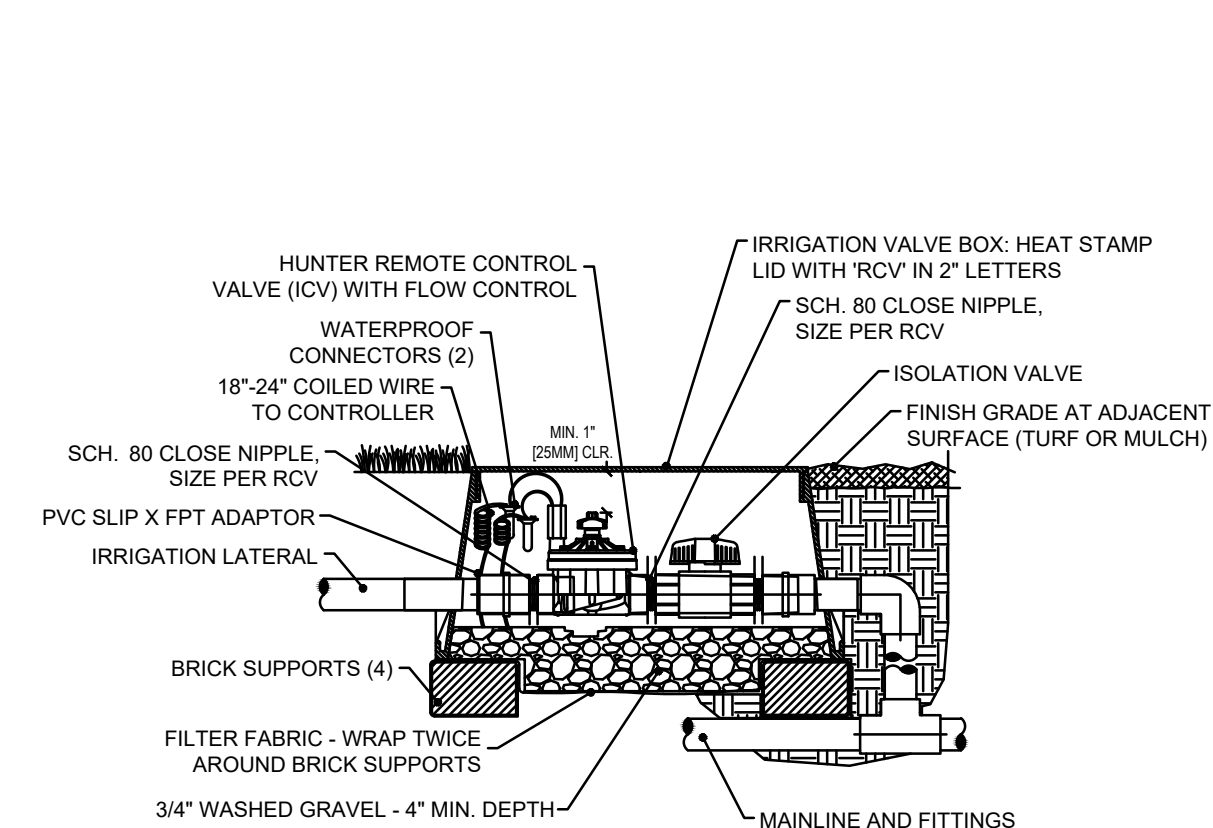
- a. SUPPLY AS PART OF THIS CONTRACT THE FOLLOWING TOOLS:
- i. QUICK COUPLING KEYS, THREE (3) WITH BOILER DRAINS ATTACHED USING BRASS REDUCER.
- ii. THREE (3) KEYS FOR EACH AUTOMATIC CONTROLLER
- b. THE ABOVE MENTIONED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
- F. THE IRRIGATION CONTRACTOR SHOULD DEMONSTRATE THAT THE FINAL INSTALLED SYSTEM WILL OPERATE ACCORDING TO THE INTENT OF THE DESIGNED AND SPECIFIED SYSTEM. IRRIGATION CONTRACTOR SHALL GUARANTEE 100% COVERAGE TO ALL AREAS TO BE IRRIGATED.
- 1.5 MAINTENANCE AND GUARANTEE
- A. MAINTENANCE AND WORKMANSHIP SHALL BE GUARANTEED FULLY FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE.
- B. PROVIDE MAINTENANCE OF SYSTEM, CLEANING AND ADJUSTMENT OF THE HEADS, FOR ONE (1) YEAR AFTER COMPLETION OF INSTALLATION.
- C. GUARANTEE IS LIMITED TO REPAIR AND REPLACEMENT OF DEFECTIVE MATERIALS AND WORKMANSHIP, INCLUDING THE REPAIR OF BACKFILL SETTLEMENT.
- 1.6 TESTING
- A. PERFORM TESTING REQUIRED WITH OTHER TRADES INCLUDING EARTHWORK, PAVING, PLUMBING, ETC. TO AVOID CUTTING, PATCHING OR BORING.
- B. WATER PRESSURE SHOULD BE FOUND PRIOR TO STARTING CONSTRUCTION. DETERMINE/CONFIRM THAT STATIC WATER PRESSURE IS MORE THAN THE WATER PRESSURE NEEDED FOR THE SYSTEM TO FUNCTION PROPERLY. IF STATIC PRESSURE IS LESS THAN THE DESIGN PRESSURE NEEDED, DO NOT START WORK UNTIL THE LANDSCAPE ARCHITECT IS NOTIFIED.
- 1.7 COORDINATION
- A. COORDINATE INSTALLATION OF ALL PRODUCTS, INCLUDING EARTHWORK, PAVING AND PLUMBING.
- B. COORDINATE TO ENSURE THAT ELECTRICAL POWER SOURCE IS IN PLACE.
- C. COORDINATE INSTALLATION WITH WORK SPECIFIED IN OTHER SECTIONS.
- D. COORDINATE WITH THE LANDSCAPE CONTRACTOR TO ENSURE PLANT MATERIAL IS UNIFORMLY WATERED IN ACCORDANCE WITH INTENT SHOWN ON DRAWINGS.
- PART 2 - PRODUCTS**
- 2.1 MATERIALS
- B. REFER TO CONSTRUCTION DRAWINGS AND NOTES.
- C. SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN
- D. PVC PIPE - CLASS 200 SPR 21
- E. COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"
- F. 24V WIRE - SIZE 14, TYPE UF
- G. ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON PLANS.
- H. REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION - COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.
- PART 3 - EXECUTION**
- 3.1 INSTALLATION
- A. SITE CONDITIONS:
- a. ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SIZE DIMENSIONS.
- b. EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY ANY OF HIS OPERATIONS OR NEGLIGENCE.
- c. COORDINATE INSTALLATION OF IRRIGATION MATERIALS, INCLUDING PIPE, SO THERE SHALL BE NO

- INTERFERENCE WITH UTILITIES OR OTHER CONSTRUCTION DIFFICULTY IN PLANTING TREES, SHRUBS, AND GROUNDCOVERS. COORDINATE WORK WITH OTHER SITE CONTRACTORS.
- 3.2 PREPARATION
- A. PHYSICAL LAYOUT:
- a. PIPING AND HEAD LAYOUT AS SHOWN ON PLANS IS SCHEMATIC ONLY. ALL PIPES TO BE INSTALLED DIRECTLY BEHIND CURBS, WALLS AND WALLS WHEREVER POSSIBLE.
- b. PRIOR TO INSTALLATION CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS.
- c. ALL LAYOUTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- B. WATER SUPPLY:
- a. IRRIGATION SYSTEM SHALL BE CONNECTED TO WATER SUPPLY POINTS OF CONNECTION AS INDICATED ON THE DRAWINGS.
- b. CONNECTIONS SHOULD BE MADE AT APPROXIMATE LOCATIONS AS SHOWN ON DRAWINGS. CONTRACTOR SHALL VERIFY IN FIELD AND BE RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS.
- 3.3 INSTALLATION
- A. TRENCHING
- a. DIG TRENCHES STRAIGHT 6" WIDE WITH NEAR VERTICAL SIDE AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE LUMBER, RUBBISH, LARGE ROCKS ETC. FROM TRENCHES. LAY PIPE TO AN EVEN GRADE - WITH A FIRM, UNIFORM BEARING FOR ENTIRE LENGTH OF PIPE.
- b. REMOVE FOREIGN MATTER OR DIRT FROM INSIDE OF PIPE BEFORE WELDING AND KEEP PIPING CLEAN BY ANY MEANS POSSIBLE DURING AND AFTER LAYING OF PIPE.
- c. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF COVER FOR ALL PRESSURE SUPPLY LINES.
- d. PROVIDE A MINIMUM OF TWELVE (12) INCHES OF COVER FOR ALL NON-PRESSURE LINES.
- e. PROVIDE A MINIMUM COVER OF EIGHTEEN (18) INCHES FOR ALL CONTROL WIRING.
- f. NO MACHINE TRENCHING, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT, SHALL BE DONE WITHIN DRIP LINE OF EXISTING TREES. TRENCHING SHOULD BE DONE BY HAND, TUNNELING OR BORING OR OTHER METHODS APPROVED BY THE LANDSCAPE ARCHITECT. IT SHOULD BE UNDERSTOOD THAT PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND TREES AND SHRUBS IN SUCH A MANNER TO AVOID DAMAGE TO PLANTS.
- B. BACKFILL
- a. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED. TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS, FREE FROM LARGE CLODS, STONES OR STICKS.
- b. IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENTS IN PIPE, VALVES, SPRINKLER HEADS, LAWN OR PLANTING OR OTHER CONSTRUCTION ARE NECESSARY, THE CONTRACTOR SHALL MAKE ALL REQUIRED ADJUSTMENTS WITHOUT THE COST TO THE OWNER.
- C. TRENCHING AND BACKFILL UNDER PAVING:
- a. ALL IRRIGATION MAIN LINE AND LATERAL LINES OR WIRING LOCATED UNDER AREAS WHERE PAVING, ASPHALTIC PAVING, OR CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES OF ADEQUATE SIZE. SEE SECTION 32 8423.
- D. ASSEMBLIES
- a. INSTALL ALL ASSEMBLIES SPECIFIED HEREIN IN ACCORDANCE WITH RESPECTIVE DETAILS. IN ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS, PERFORM SUCH WORK IN ACCORDANCE WITH BEST STANDARD PRACTICES OR MANUFACTURER'S RECOMMENDATIONS AS APPROVED BY THE LANDSCAPE ARCHITECT.
- b. MAKE SOLVENT WELDED JOINTS USING ONLY THE SOLVENT RECOMMENDED BY THE MANUFACTURER. PIPES AND FITTINGS SHOULD BE CLEANED OF ALL DIRT AND DUST AND MOISTENED

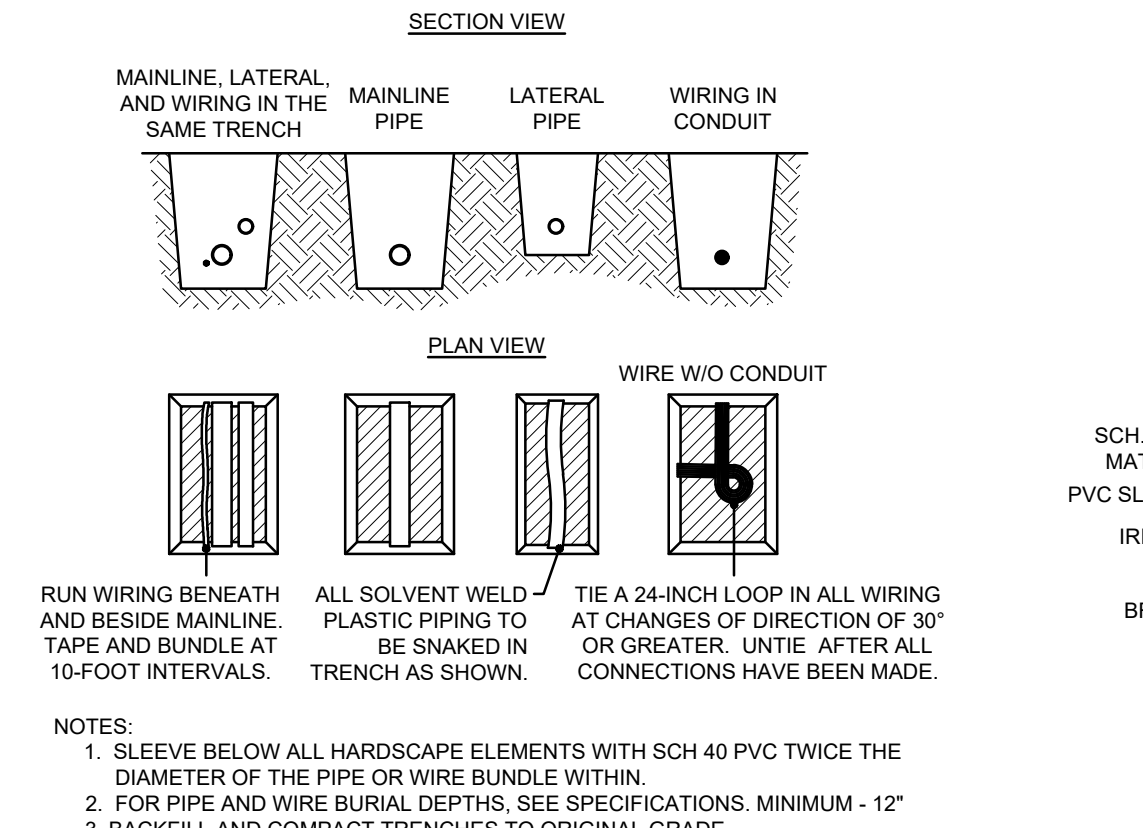
- BEFORE APPLYING SOLVENT.
- c. ON PVC TO METAL CONNECTIONS, THE CONTRACTOR SHALL WORK METAL CONNECTIONS FIRST. USE NON HARDENING PIPE DOOR OR TEFLOON TAPE ON THREADED PVC ADAPTERS INTO WHICH PIPE MAY BE WELDED. LIGHT WRENCH PRESSURE IS ALL THAT IS REQUIRED, USE THREADED PVC ADAPTERS INTO WHICH THE PIPE MAY BE WELDED.
- E. LINE CLEARANCE: ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF SIX (6) INCHES FROM EACH OTHER AND FROM OTHER TRADES. PARALLEL LINES SHALL NOT BE DIRECTLY INSTALLED ONE OVER THE OTHER.
- F. WIRING: SUPPLY WIRE FROM THE AUTOMATIC CONTROLLER TO ALL THE VALVES. A SEPARATE WIRE IS REQUIRED TO EACH ELECTRIC VALVE. A COMMON NEUTRAL WIRE IS ALSO REQUIRED FROM EACH CONTROL TO EACH OF THE VALVES. BUNDLE MULTIPLE WIRES AND TAPES THEM TOGETHER AT TEN FOOT INTERVALS. EXPANSION COILS OF TEN INCHES SHALL BE INSTALLED APPROXIMATELY EVERY 100 FEET. MAKE ALL SPLICES WATERPROOF.
- G. AUTOMATIC CONTROLLER: INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. REMOVE CONTROL VALVES SHALL BE CONNECTED TO CONTROLLER IN NUMERICAL SEQUENCE AS SHOWN ON THE DRAWINGS. EACH REMOVE CONTROL VALVE SHALL BE WIRED TO ONE STATION OF THE CONTROLLER.
- H. REMOTE CONTROL VALVES:
- a. INSTALL WHERE SHOWN ON DRAWINGS AND DETAILS. VALVES SHALL BE SIZED ACCORDING TO THE DRAWINGS.
- b. INSTALL IN A LEVEL POSITION IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
- c. WHEN GROUPED TOGETHER, ALLOW AT LEAST TWELVE (12) INCHES BETWEEN VALVES. INSTALL EACH REMOTE CONTROL VALVE IN A SEPARATE VALVE BOX. EACH VALVE NUMBER AND ITS CONTROLLER LETTER SHALL BE STENCILED INSIDE VALVE BOX TOP WITH EXTERIOR PAINT.
- I. FLUSHING OF SYSTEM:
- a. AFTER ALL NEW SPRINKLER PIPE LINES AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WORK HAS BEEN COMPLETED, AND PRIOR TO INSTALLATION OF SPRINKLER HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.
- b. SPRINKLER HEADS SHALL BE INSTALLED ONLY AFTER FLUSHING OF THE SYSTEM HAS BEEN ACCOMPLISHED.
- J. SPRINKLER HEADS:
- a. INSTALL HEADS AS DESIGNED ON THE DRAWINGS. MAKE APPROPRIATE ADJUSTMENTS TO HEAD LAYOUT TO ACCOMMODATE FOR ACTUAL FIELD CONDITIONS.
- b. SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM INDICATED ON THE DRAWINGS. IN NO CASE SHALL THE SPACING EXCEED THE MAXIMUM RECOMMENDED BY THE MANUFACTURER.
- c. ALL SPRINKLERS TO ATTACH TO LATERAL LINES WITH FLEXIBLE CONNECTORS. REFERENCE DETAILS ON DRAWINGS.
- 3.4 TESTING
- A. THE CONTRACTOR SHALL TEST SPRINKLER MAIN FOR TWELVE TO FOURTEEN HOURS UNDER NORMAL PRESSURE. IF LEAKS ARE PRESENT, REPLACE JOINT OR JOINS AND REPEAT TEST.
- B. A COMPLETE TEST SHALL BE MADE PRIOR TO BACKFILLING. BACKFILLING MATERIALS MAY BE PLACED IN TRENCHES IN LIFTS TO ENSURE STABILITY OF THE LINE UNDER THE PRESSURE OF BACKFILL. IN EACH CASE, LEAVE FITTINGS AND COUPLINGS OPEN TO VISUALLY INSPECT FOR FULL PERIOD OF TEST.
- C. WHEN SYSTEM IS COMPLETE, A COVERAGE TEST SHALL BE PERFORMED. IT SHALL BE DETERMINED IF THE WATER COVERAGE FOR ALL PLANTING AREAS IS COMPLETE AND ADEQUATE. FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE.
- D. UPON COMPLETION OF EACH PHASE OF WORK, THE ENTIRE SYSTEM SHOULD BE TESTED AND ADJUSTED TO MEET SITE REQUIREMENTS.
- END OF SECTION



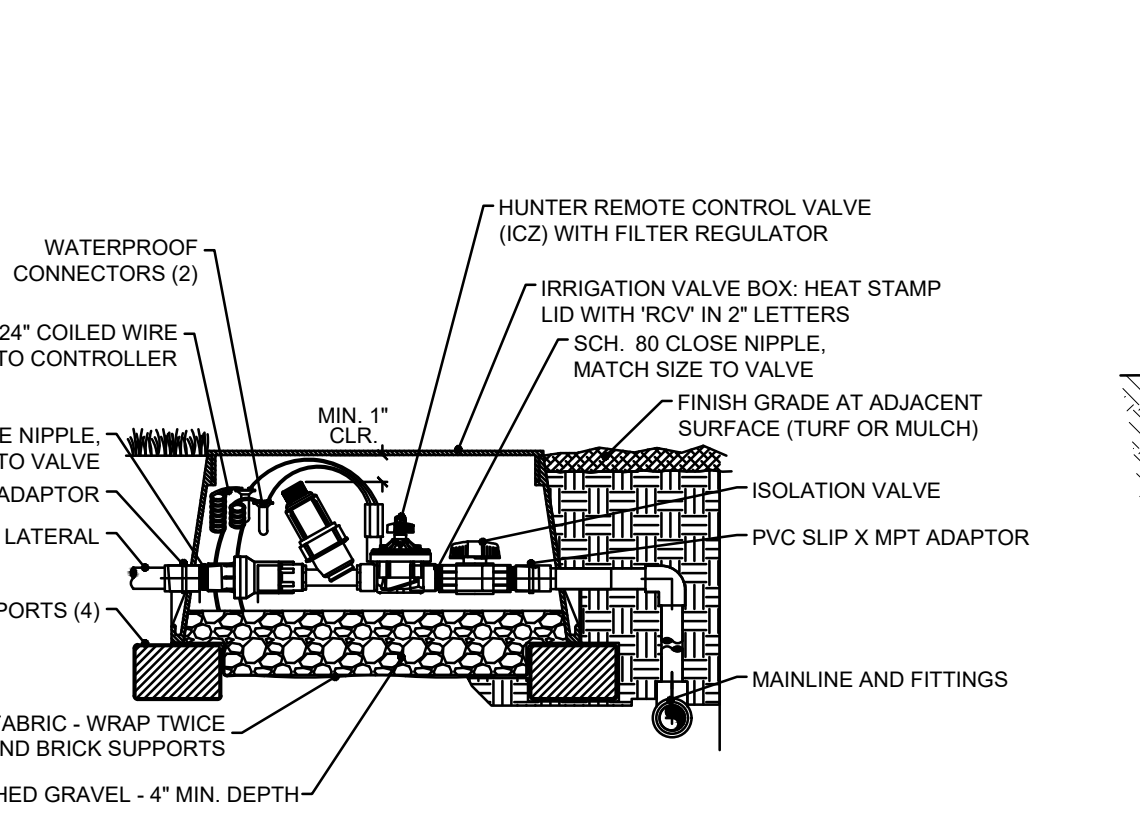
1 PRO-C CONTROLLER W/SOLAR SYNC SYSTEM
N.T.S.



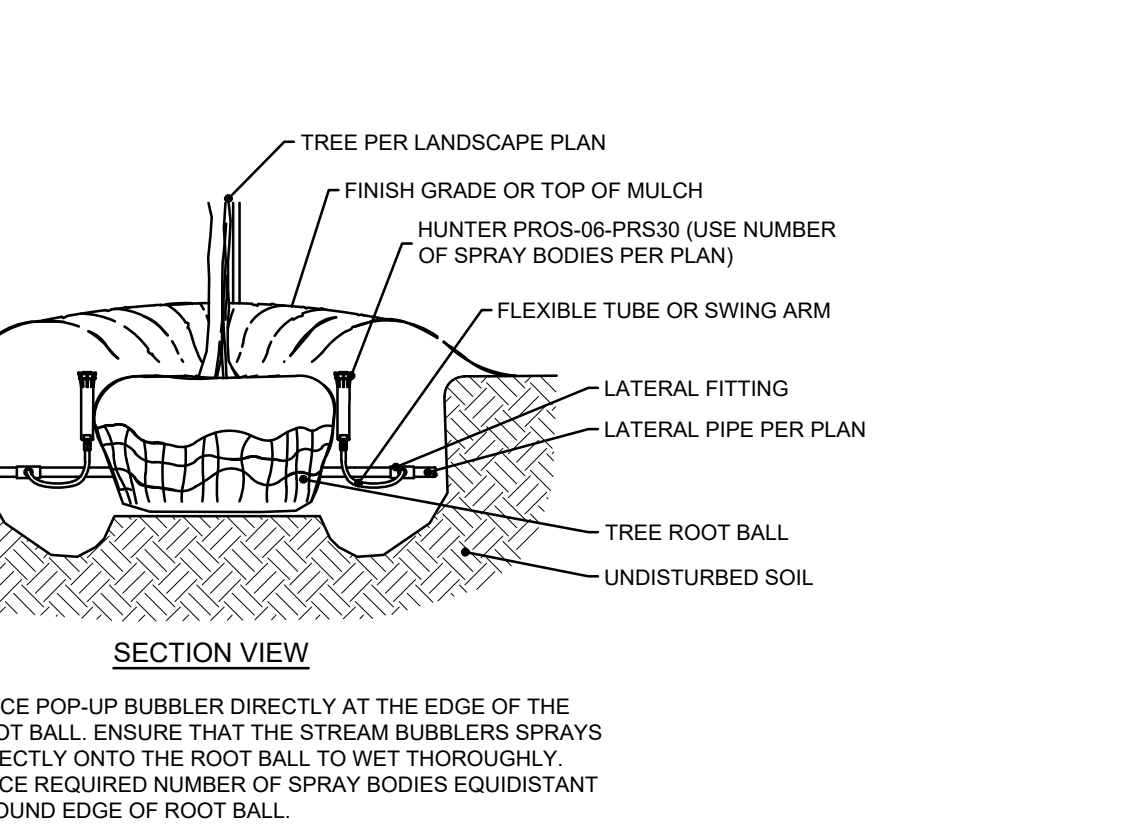
2 IN-LINE VALVE (ICV) WITH ISOLATION VALVE
N.T.S.



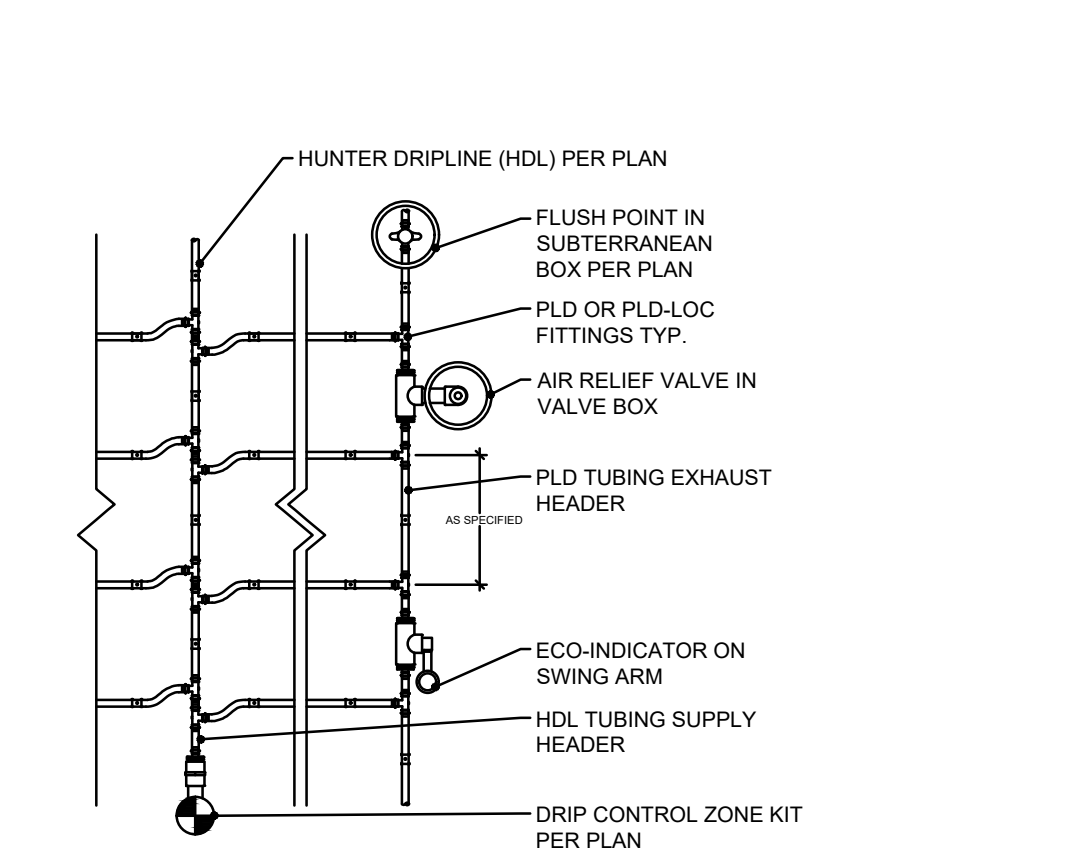
3 PIPE AND WIRING TRENCHING
N.T.S.



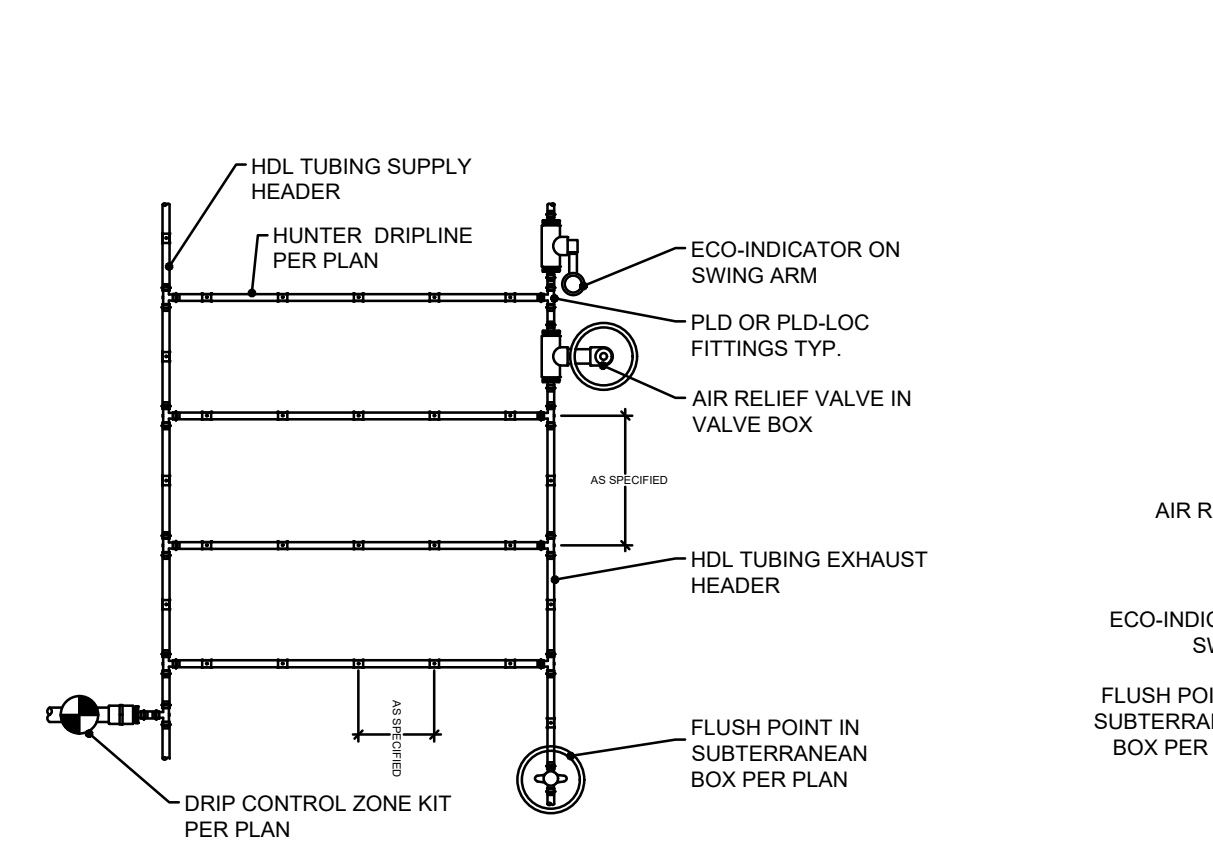
4 DRIP CONTROL ZONE KIT W/ ISOLATION VALVE
N.T.S.



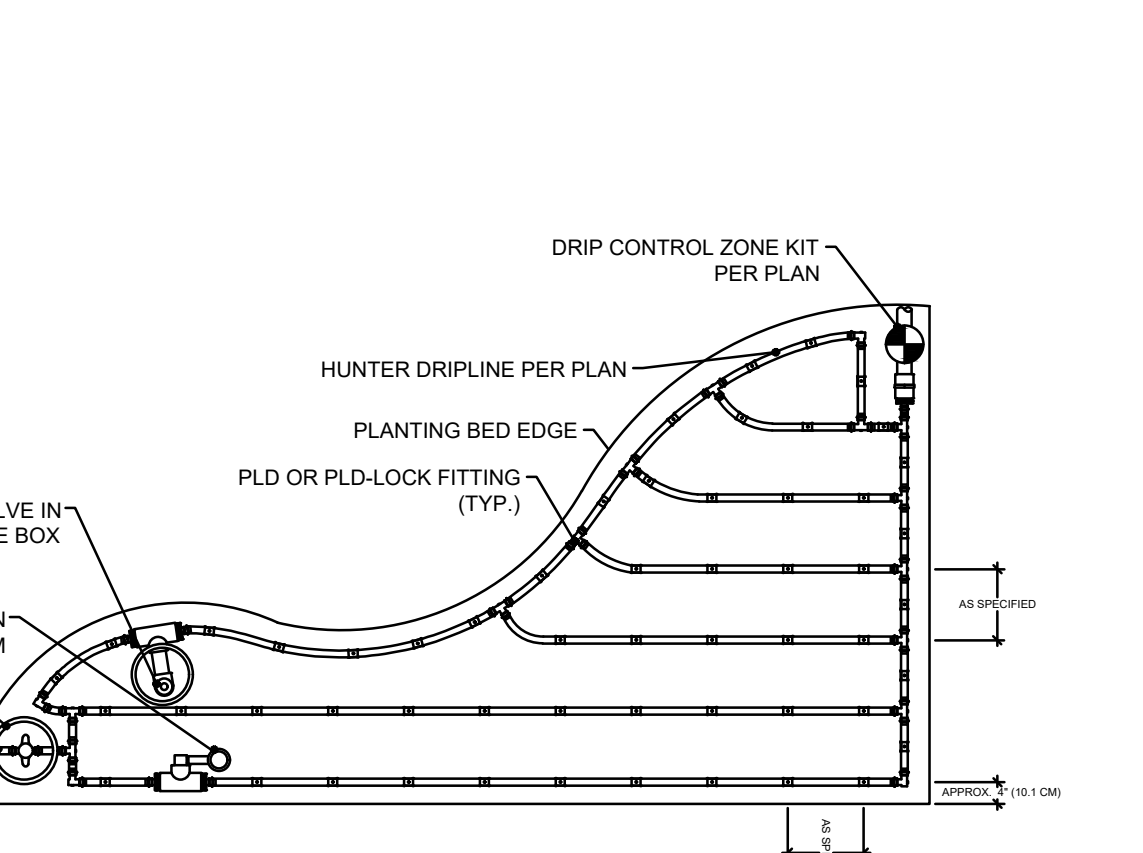
5 TREE BUBBLER ASSEMBLY WITH HUNTER PROS-06-PRS30
N.T.S.



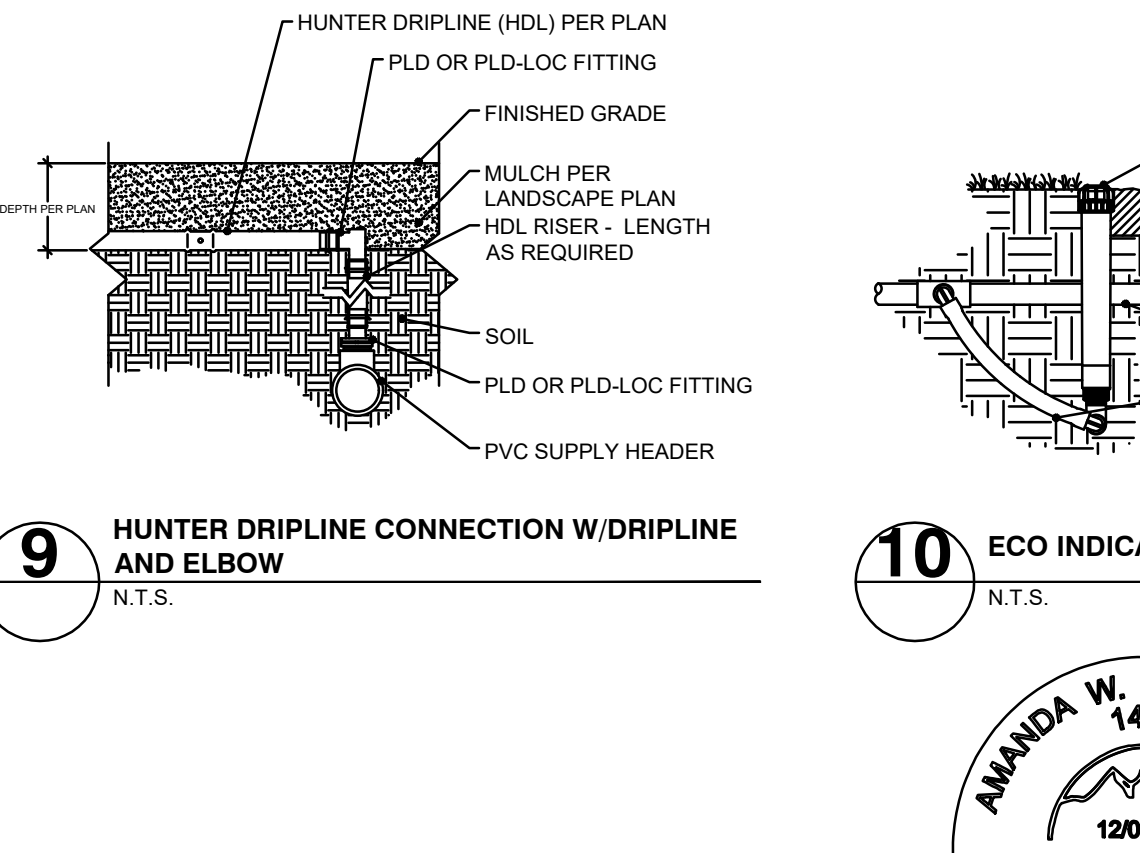
6 HUNTER DRIPLINE- PLANTING BED CENTER FEED
N.T.S.



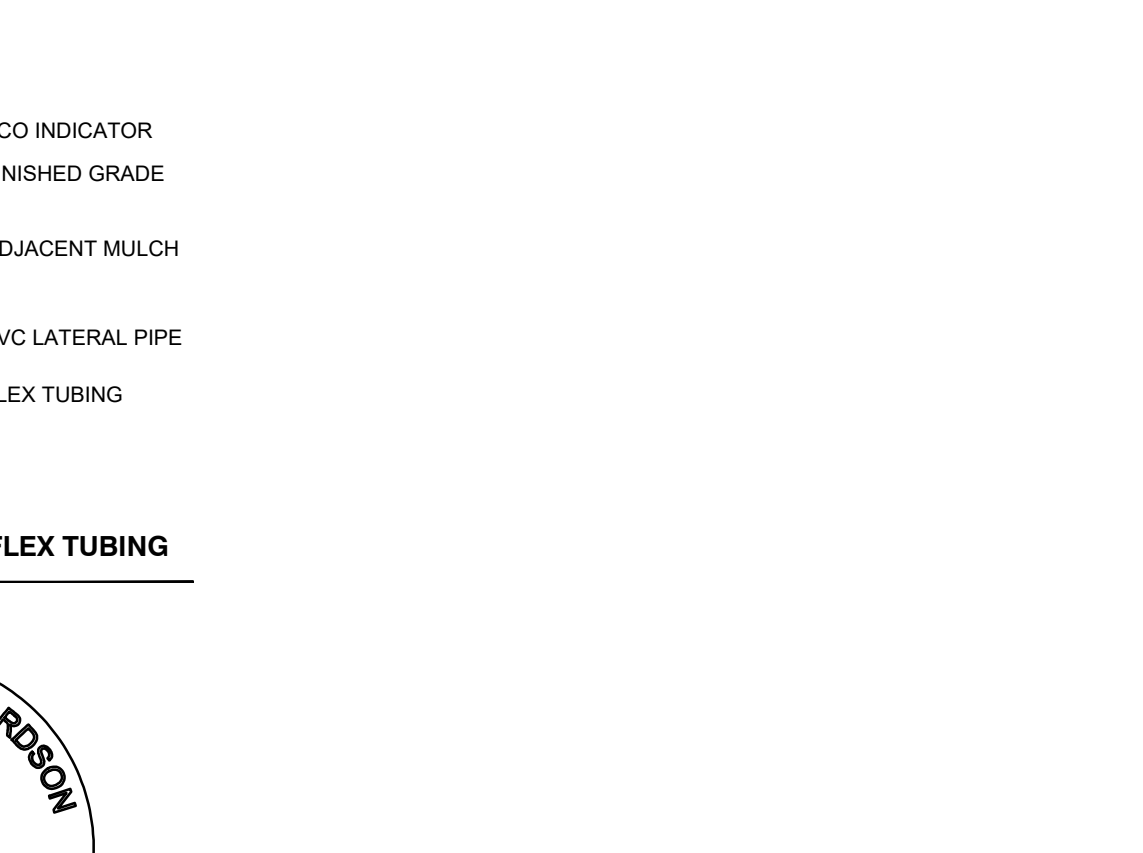
7 HUNTER DRIPLINE- PLANTING BED
N.T.S.



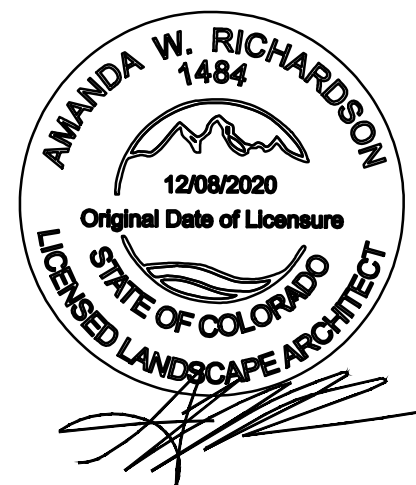
8 HUNTER DRIPLINE- IRREGULAR PLANTING AREA
N.T.S.



9 HUNTER DRIPLINE CONNECTION W/ DRIPLINE AND ELBOW
N.T.S.



10 ECO INDICATOR- FLEX TUBING
N.T.S.



CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

811
Know what's Below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND ACCEPT FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY ACCIDENTS OR INJURIES TO PERSONS OR PROPERTY OCCURRING IN THE WORK OF ANY MEMBER STRUCTURE, OR OF ANY OTHER PERSONS.

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24 HOUR EMERGENCY CONTACT

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9001 AIRPORT FREEWAY, SUITE 660
NORTH RICHLAND HILLS, TX 76180
972.656.9860

LOT 4A, PARKER POINT SUBD. FILING NO. 1, AMEND. NO. 1
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
PARKER
IRRIGATION SPECIFICATIONS AND DETAILS

DATE 2025-05-20

REVISIONS

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO. L2.02



LANDSCAPE/IRRIGATION WORKSHEET

Tap sizing for dedicated irrigation taps

Project Information

Project Name:

Irrigation Tap Address:

*physical location of tap

Worksheet Submission Details

Prepared By:

Company:

Company Address:

Submission Date: Phone:

Owner/Developer Information

Owner/Developer: Phone:

Attn:

Billing Address:

ET Controller Information (with Rain Sensor)

Manufacturer:

Model Number:

****PLEASE CONTINUE TO 'CALCULATOR' TAB FOR LANDSCAPE/IRRIGATION WORKSHEET****

Yellow fields require user input

$$\text{Irrigation Water Requirement} = (\text{ETo} \times \text{PF} \times \text{LA}) / \text{IE}$$

Define Landscape & Irrigation System:

High Water Use Plant Material		
*Cool season turfgrass (Kentucky bluegrass)		
Plant Factor (PF, %)	High	0.9
Landscape Area (LA, sq ft)		
Irrigation Efficiency (IE, %)	Overhead	0.65

High-Moderate Water Use Plant Material		
*Hybrid grass types (Texas hybrids, fescue, etc.)		
Plant Factor (PF, %)	High-Med	0.8
Landscape Area (LA, sq ft)		
Irrigation Efficiency (IE, %)	Overhead	0.65

Moderate Water Use Plant Material		
*Traditional trees/shrubs/perennials, alternative grass types (buffalograss, blue grama, etc.)		
Plant Factor (PF, %)	Med	0.5
Landscape Area (LA, sq ft)		
Irrigation Efficiency (IE, %)	Drip	0.9

Low Water Use Plant Material		
*Xeric trees/shrubs/perennials, native grass mixes		
Plant Factor (PF, %)	Low	0.25
Landscape Area (LA, sq ft)	7164	
Irrigation Efficiency (IE, %)	Drip	0.9

*PWSD holds final discretion for determining appropriate plant factor designations based on landscape plan submission

Site Summary:

Total Irrigated Area (sq ft)	7164
Avg Plant Factor (%)	0.25
Avg Irrigation Efficiency (%)	0.90

Peak monthly ET, Parker, CO:

Peak monthly ET (July):	7.56 in
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Irrigation Water Requirement (IWR):

Peak monthly IWR:	9328 gal
Maximum flow requirement	1.0 GPM

* Max. flow requirements are based on peak monthly irrigation demands and follow PWSD's watering

Hydraulic Requirements:

Tap Size (in)	Max GPM v = 7.5 fps
3/4"	10
1"	18
1 1/2"	40
2"	71
3"	189
4"	380

* 2" and smaller assumes Seamless K Copper Tube
3" and larger assumes Ductile Iron Pipe Class 350

Tap Size Requirement	3/4"
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System Design Pressure: 61.1 PSI

- Design pressure has been field tested &
- This form has been completed in compliance with PWSD's Engineering Standards & Specifications Manual regarding irrigation design specifications

[Visit Appendix B of the SMWSA Model Ordinance for Plant Factor Guidelines](#)

