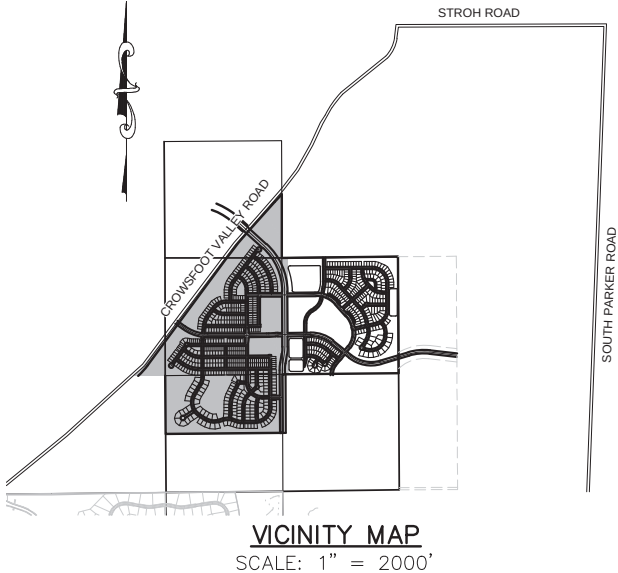


TRAILS AT CROWFOOT FILING 3

PARKER WATER AND SANITATION CONSTRUCTION PLANS

SECTIONS 4, 8, AND 9 TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN COUNTY OF DOUGLAS, STATE OF COLORADO

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	PARKER WATER AND SANITATION NOTES
3	AREA UTILITY PLAN
4	SANITARY P&P WILD LUPINE ST
5	SANITARY P&P ROSE MALLOW ST
6	SANITARY P&P ROSE MALLOW ST
7	SANITARY P&P TREFOIL LN
8	SANITARY P&P RED COSMOS POINT
9	WATER P&P WILD LUPINE STREET
10	WATER P&P ROSE MALLOW STREET
11	WATER P&P ROSE MALLOW STREET
12	WATER P&P TREFOIL LANE
13	WATER P&P RED COSMOS POINT
14	SANITARY SEWER DETAILS
15	SANITARY SEWER DETAILS
16	SANITARY SEWER DETAILS
17	WATER DETAILS
18	WATER DETAILS
19	WATER DETAILS
20	WATER DETAILS
21	WATER DETAILS
22	WATER DETAILS
23	WATER DETAILS



MATERIALS LIST		
DESCRIPTION	QUANTITY	UNIT
8" SEWER (PVC)	3,580	L.F.
4' DIA. MANHOLE	19	EA.
4" SEWER SERVICE	98	EA.
CONNECTION TO EXISTING MAIN	2	EA.
6" WATERPIPE (DIP)	100	L.F.
8" WATERPIPE (PVC)	3,588	L.F.
6" GATE VALVE	5	EA.
8" GATE VALVE	10	EA.
8" MISC. FITTINGS	22	EA.
8" CAP WITH BLOW OFF	1	EA.
2" BLOW OFF VALVE (8" LINE-LOW POINT)	1	EA.
FIRE HYDRANT WITH 6" LEAD	8	EA.
DEEP BURY FIRE HYDRANT WITH 6" LEAD	1	EA.
DOMESTIC WATER SERVICE W/ METER	98	EA.
CONNECTION TO EXISTING MAIN	5	EA.

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 THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

(FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE) _____ DATE _____

(NOTE- UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA24 WHEN SUBMITTING FOR REVIEW.)

THE DISTRICT INSPECTOR MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. CALL PARKER WATER AND SANITATION DISTRICT AT 303-841-4627. THE DISTRICT WILL PROVIDE PERIODIC INSPECTIONS OF THE WORK. 24 HOUR NOTICE TO THE INSPECTOR IS REQUIRED FOR SCHEDULED 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.

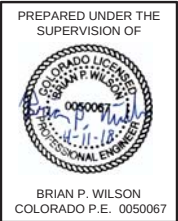
BY: _____
(DISTRICT REPRESENTATIVE)

DATE SIGNED: _____

APPROVED FOR CONSTRUCTION:
PARKER WATER AND SANITATION DISTRICT

BY: _____
(DISTRICT ENGINEER)

DATE SIGNED: _____



BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

DEVELOPER

HR 935 LLC
7353 SOUTH ALTON WAY
CENTENNIAL, CO 80112
TEL: (303) 770-9111
CONTACT: MATT JANKE

PLANNER/ LANDSCAPE DESIGNER:

PCS GROUP, INC.
200 KALAMATH STREET
DENVER, CO 80233
TEL: (303) 531-4905
CONTACT: JOHN PRESTWICH

SURVEYOR/ ENGINEER:

CVL CONSULTANTS
OF COLORADO, INC.
10333 E. DRY CREEK RD. STE 240
ENGLEWOOD, CO 80112
TEL: (720) 482-9526
CONTACT: JIM JANNICKE

UTILITY DISTRICT

PARKER WATER AND
SANITATION DISTRICT
18100 E. WOODMAN DRIVE
PARKER, CO 80134
TEL: (303) 841-4627



10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9526
Fax: (720) 482-9546

HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
COVER SHEET

SCALE:
AS SHOWN

DRAWN BY: KJD
CHECKED BY: JJ
DATE: APRIL 2017

FILE NO:
8130283701

SHEET NUMBER
1

Revisions
No.

Init.
Date

Appr.
Date

N:\PROJECTS\HSS RANCH\ENGINEERING\SHSHEET SET\SD\SD\PARKER WATER AND SANITATION\3 COVER.DWG, CDD\A, 2/28/2018 1:19 PM

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL COMPLY WITH PARKER WATER AND SANITATION DISTRICT SPECIFICATIONS.
2. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE TOWN OF PARKER PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
3. ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS, HE SHALL CONTACT THE ENGINEER IMMEDIATELY.
4. THE DISTRICT ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS THAT ARE NECESSARY TO PERFORM THE PROPOSED WORK.
6. ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000-POUND COMPRESSION STRENGTH.
7. THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF ROLLED "AS-BUILT" BLUELINE PRINTS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL PRIOR TO PRINTING MYLAR SEPIAS FOR THE DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE MYLAR SEPIA PRINTS SHALL BE TRANSMITTED TO THE PARKER WATER AND SANITATION DISTRICT OFFICE.
8. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. COMPACTION TESTS MUST BE SUBMITTED TO DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
9. TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
10. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND SEWER) FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
11. SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS ONE FOOT OF FINISHED GRADE AND VERIFICATION OF COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES. RESULTS MUST BE SUBMITTED TO THE DISTRICT ENGINEER.
12. NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER.
13. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS: "X" FOR SANITARY SERVICE SEWERS "V" FOR WATER SERVICES
14. NO TREES SHALL BE ALLOWED IN EASEMENTS OR WITHIN 8' OF ANY WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
15. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PARKER WATER AND SANITATION DISTRICT AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PARKER WATER AND SANITATION DISTRICT SPECIFICATION MANUAL.

WATER MAIN NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PARKER WATER AND SANITATION DISTRICT ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISIONS. ALL WORK SHALL BE INSPECTED AND APPROVED BY PERSONNEL OF THE PARKER WATER SANITATION DISTRICT AND THE DISTRICT ENGINEER.
2. ALL WATER MAINS SHALL BE PER PWSO MATERIALS SPECIFICATIONS.
3. ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED WITH 8-MIL MINIMUM THICKNESS POLYETHYLENE MATERIAL PER PWSO MATERIALS SPECIFICATIONS.
4. THERE SHALL BE A MINIMUM COVER OF 4.5 FEET OVER ALL WATER MAINS.
5. FIRE HYDRANTS SHALL CONFORM TO AWWA C-502 "DRY BARREL FIRE HYDRANTS" PIPE HYDRANT ASSEMBLIES SHALL INCLUDE ALL PIPE, FITTINGS, VALVES, MATERIALS, AND LABOR WHICH ARE NECESSARY TO INSTALL THE HYDRANT COMPLETE IN PLACE. SEE MATERIALS SPECIFICATIONS FOR APPROVED MODELS
6. ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS AND PLUGS AT DEAD END MAINS SHALL BE PROTECTED FROM THRUST BY USING CONCRETE THRUST BLOCKS.
7. PRECAUTIONS SHALL BE TAKEN TO PROTECT THE INTERIOR OF PIPES, FITTINGS, AND VALVES AGAINST CONTAMINATION. ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH WATERTIGHT PLUGS WHEN PIPE LAYING IS STOPPED AT THE CLOSE OF THE DAY'S WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MEAL PERIODS. THE MORE CLOSELY THE RATE OF DELIVERY IS CORRELATED TO THE RATE OF PIPE LAYING, THE LOWER THE RISK OF CONTAMINATION.
8. CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PARKER WATER AND SANITATION STANDARDS AND SPECIFICATIONS. THE LINES SHALL BE CHLORINATED IN ACCORDANCE WITH ANSI/AWWA C-651-92., "DISINFECTING WATER MAINS." PARKER WATER AND SANITATION DISTRICT REQUIRES THE INITIAL DOSAGE RATE OF DISINFECTION BE AT LEAST 50 MG PER LITER. CHLORINE TABLETS SHOULD BE ADHERED TO THE TOP OF THE PIPE SECTION WITH PERMATAX NO.1 (RED). THE CHLORINATION OF ANY FINISHED PIPELINE SHALL BE DONE PRIOR TO THE HYDROSTATIC TESTING.
9. HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS. ALL PIPE SHALL BE FIELD PRESSURE TESTED TO A MINIMUM OF 150 PSI. ALL TESTING SHALL BE DONE IN THE PRESENCE OF A PARKER WATER AND SANITATION DISTRICT INSPECTOR. LEAKAGE FOR EACH SECTION OF PIPE BETWEEN LINES VALVES SHALL NOT EXCEED THE LIMITS SET FOURTH IN THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS.
10. VALVES IN STREETS ARE TO BE LOCATED AT PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES WHERE AN ADDITIONAL VALVES SHALL BE PLACED ON THE TAPPING TEE. OTHER VALVE LOCATIONS, SUCH AS WHERE CROSS PANS EXIST, ARE SHOWN ON THE PLANS.
11. WHEN NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSING, A MINIMUM CLEARANCE OF 1.50 FEET SHALL BE MAINTAINED BETWEEN OUTSIDE OF PIPES.
12. THE CONTRACTOR SHALL NOTIFY THE PARKER WATER AND SANITATION DISTRICT AND THE DISTRICT ENGINEER AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION. IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP, THE CONTRACTOR MUST NOTIFY THE DISTRICT ENGINEER 48 HOURS PRIOR TO RE-START.
13. PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS, LATEST REVISION.
14. THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITY COMPANIES AND DETERMINED THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO PROCEEDING WITH THE EXCAVATION. ALL WORK PERFORMED IN THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
15. COMPACTION OF ALL TRENCHES MUST BE ATTAINED IN ACCORDANCE WITH THE SOILS REPORTS AND COMPACTION TEST RESULTS SUBMITTED TO THE DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
16. VALVE BOXES: TYLER SCREW-TYPE 6 INCHES CAST IRON VALVE BOX ASSEMBLY SERIES 6860 WITH NO. 160 OVAL BASE. CLAY AND BAILEY SCREW-TYPE 6 INCH CAST IRON VALVE BOX ASSEMBLY NO. P-108 WITH NO. 106 LARGE OVAL BASE.
17. ALL PIPE LENGTHS ARE APPROXIMATE.
18. AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVE OF OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER.

SANITARY SEWER NOTES:

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE PARKER WATER AND SANITATION DISTRICT SPECIFICATION.
2. ALL SEWER MAINS SHALL BE PVC, ASTM D-3034, SDR 35 OR APPROVED EQUAL. ALL SEWER MAIN SIZE IS 8" IN DIAMETER UNLESS OTHERWISE NOTED.
3. SEWER LINES SHALL BE INSTALLED 5.0 FEET SOUTH OR WEST OF STREET CENTERLINE, UNLESS OTHERWISE SHOWN ON PLANS. SEWER LINES SHALL BE 10.00 FEET FROM WATER LINES EXCEPT WHEN CROSSING EACH OTHER. SEWER LINES WHICH CROSS LESS THAN 1.50 FEET VERTICALLY FROM THE WATER MAIN SHALL BE ENCASED IN CONCRETE AS PER PARKER WATER AND SANITATION DISTRICT STANDARD AND SPECIFICATIONS. USE RUBBER GASKETS FOR PVC ENCASEMENT.
4. SEWER RIM ELEVATIONS SHOWN ARE APPROPRIATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. RING AND COVER SHALL BE SET IN CENTERED CONCRETE RINGS WITH RAM-NECK FOR ADJUSTMENT TO MATCH FINAL PAVEMENT ELEVATIONS.
5. THE CONTRACTOR AND SURVEY CREW SHALL VERIFY ELEVATIONS OF EXISTING SEWER LINES AND MANHOLES TO BE TIED TO PRIOR TO CONSTRUCTION OR STAKING OF SANITARY SEWER.
6. NO UNDERDRAIN SYSTEM WILL BE ALLOWED TO BE PLACED IN MAINLINE OR SEWER SERVICE TRENCHES.
7. SEWER SERVICE TEES FOR EACH UNIT SHALL BE STAKED BY A SURVEY CREW AND FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS CONSTRUCTED" LOCATION OF TEES. SEWER WYES SHALL BE USED RATHER THAN TEES.
8. ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE UNLESS OTHERWISE SPECIFIED.
9. PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
10. AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVES OF THE OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER TO SCHEDULE THIS MEETING.
11. ALL PIPE LENGTHS ARE APPROXIMATE.
12. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PARKER WATER AND SANITATION DISTRICT AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PARKER WATER AND SANITATION DISTRICT SPECIFICATION MANUAL.
13. ALL MANHOLES SHALL HAVE SHAPED INVERTS.
14. ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
15. PRIOR TO START WORK WHERE SEWER MAIN TO BE INSTALLED INTO EXISTING DISTRICT SEWER SYSTEMS. THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL ACCEPTANCE BY THE DISTRICT. ITS PURPOSE SHALL BE TO PREVENT ANY MUD, WATER OR OTHER MATERIALS FROM ENTERING THE LINE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN SO INSTRUCTED BY THE DISTRICT.
16. PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CLIENT SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.

DISTRICT ACCEPTANCE NOTES:

1. UPON COMPLETION OF SANITARY SEWER AND WATER CONSTRUCTION AND TESTING, THE DEVELOPER OR CONTRACTOR SHALL CONTACT THE DISTRICT FOR PROBATIONARY ACCEPTANCE INSPECTION. A PUNCHLIST WILL BE PROVIDED THE DEVELOPER AND CONTRACTOR UPON COMPLETION OF THE INITIAL WALK-THRU AND PROBATIONARY ACCEPTANCE WILL BE ISSUED FOLLOWING COMPLETION AND ACCEPTANCE OF THE WORK OUTLINED IN THE PUNCHLIST.
2. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF THE LINES FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
3. THE DATE OF FINAL ACCEPTANCE WILL BE INDICATED IN THE CONDITIONS OF THE PROBATIONARY ACCEPTANCE LETTER. THE DEVELOPER SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT FOR FINAL INSPECTION AND FINAL ACCEPTANCE.



CALL 811

TWO WORKING DAYS

BEFORE YOU DIG

1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1,799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

PREPARED UNDER THE SUPERVISION OF

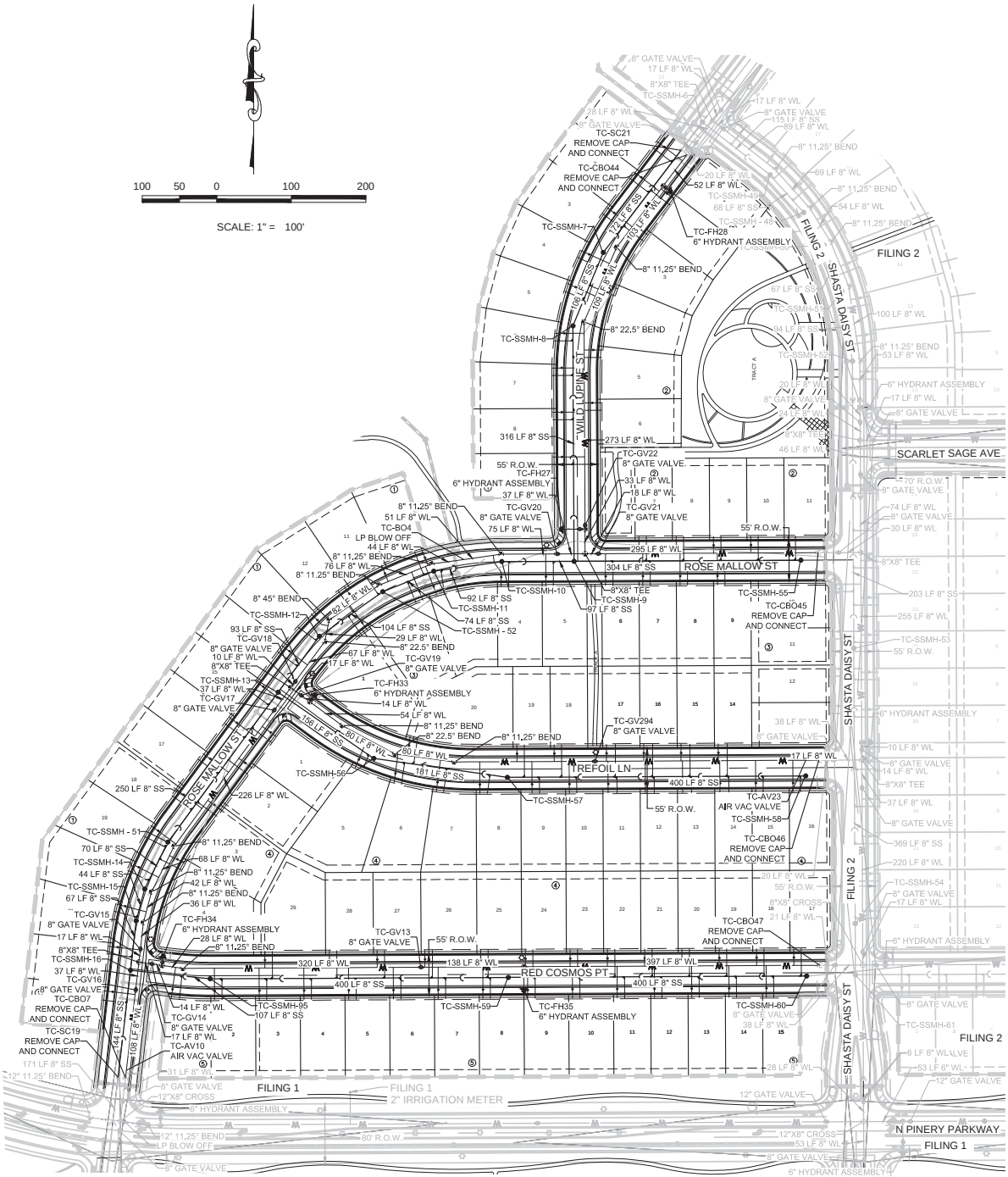


BRIAN P. WILSON
COLORADO P.E. 0050087

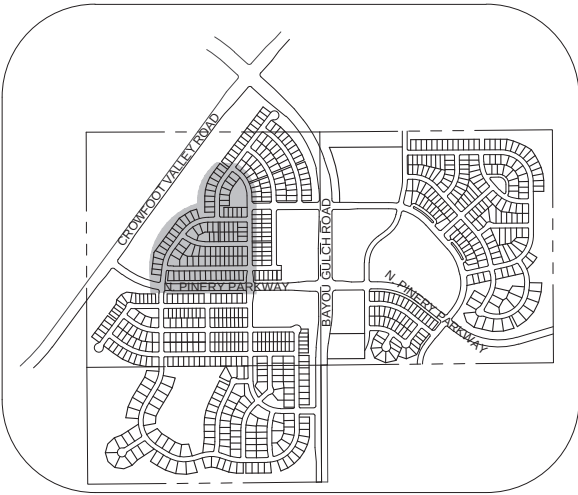
SHEET NUMBER	DRAWN BY: KJD	CHECKED BY: JW	DATE: APRIL 2017	SCALE: AS SHOWN	FILE NO: 8130283701
				TRAILS AT CROWFOOT FILING 3 CONSTRUCTION DRAWINGS PARKER WATER AND SANITATION NOTES	
HR 935 LLC 7353 South Allon Way CENTENNIAL, CO 80112					
10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 Tel: (720) 982-9528 Fax: (720) 982-9546					
					
No.	Revisions				
	Date	Init.	Appr.	Date	

SERVICE TABLE			
FILING, BLOCK, LOT	STREET	SANITARY STATIONING	WATER STATIONING
F3.B1.L1	WILD LUPINE ST	15+70.06	15+80.06
F3.B1.L2	WILD LUPINE ST	15+18.83	15+28.83
F3.B1.L3	WILD LUPINE ST	14+58.79	14+68.63
F3.B1.L4	WILD LUPINE ST	13+98.17	14+08.93
F3.B1.L5	WILD LUPINE ST	13+51.43	13+59.94
F3.B1.L6	WILD LUPINE ST	12+94.78	13+06.82
F3.B1.L7	WILD LUPINE ST	12+49.35	12+59.60
F3.B1.L8	WILD LUPINE ST	11+89.97	11+99.97
F3.B1.L9	WILD LUPINE ST	11+29.97	11+39.97
F3.B1.L10	ROSE MALLOW ST	19+01.60	19+10.66
F3.B1.L11	ROSE MALLOW ST	18+34.91	18+54.48
F3.B1.L12	ROSE MALLOW ST	17+93.56	18+03.51
F3.B1.L13	ROSE MALLOW ST	17+31.25	17+56.20
F3.B1.L14	ROSE MALLOW ST	16+88.64	16+98.21
F3.B1.L15	ROSE MALLOW ST	16+23.96	16+39.32
F3.B1.L16	ROSE MALLOW ST	15+69.32	15+79.32
F3.B1.L17	ROSE MALLOW ST	15+09.32	15+19.32
F3.B1.L18	ROSE MALLOW ST	14+49.32	14+59.32
F3.B1.L19	ROSE MALLOW ST	13+88.66	13+99.44
F3.B1.L20	ROSE MALLOW ST	13+38.19	13+47.61
F3.B1.L21	ROSE MALLOW ST	12+87.01	12+96.94
F3.B1.L22	ROSE MALLOW ST	12+33.24	12+43.97
F3.B1.L23	ROSE MALLOW ST	11+71.35	11+83.97
F3.B2.L1	WILD LUPINE ST	15+78.23	16+04.56
F3.B2.L2	WILD LUPINE ST	15+22.70	15+32.70
F3.B2.L3	WILD LUPINE ST	14+62.70	14+72.66
F3.B2.L4	WILD LUPINE ST	13+71.15	13+81.54
F3.B2.L5	WILD LUPINE ST	12+72.87	12+84.07
F3.B2.L6	WILD LUPINE ST	12+02.30	12+12.30
F3.B2.L7	ROSE MALLOW ST	22+02.33	21+92.33
F3.B2.L8	ROSE MALLOW ST	22+52.33	22+42.33
F3.B2.L9	ROSE MALLOW ST	23+02.33	22+92.33
F3.B2.L10	ROSE MALLOW ST	23+52.33	23+42.33
F3.B2.L11	ROSE MALLOW ST	24+02.33	23+92.33
F3.B3.L1	ROSE MALLOW ST	17+85.16	17+95.48
F3.B3.L2	ROSE MALLOW ST	18+77.76	18+87.56
F3.B3.L3	ROSE MALLOW ST	19+25.60	19+07.04
F3.B3.L4	ROSE MALLOW ST	20+17.31	19+97.14
F3.B3.L5	ROSE MALLOW ST	20+77.31	20+67.31
F3.B3.L6	ROSE MALLOW ST	21+57.31	21+47.31
F3.B3.L7	ROSE MALLOW ST	22+07.31	21+97.31
F3.B3.L8	ROSE MALLOW ST	22+57.31	22+47.31
F3.B3.L9	ROSE MALLOW ST	23+07.31	22+97.31
F3.B3.L14	TREFOIL LN	16+27.13	16+15.13
F3.B3.L15	TREFOIL LN	15+77.13	15+65.13
F3.B3.L16	TREFOIL LN	15+27.13	15+15.13
F3.B3.L17	TREFOIL LN	14+77.13	14+65.13
F3.B3.L18	TREFOIL LN	14+05.13	13+95.13
F3.B3.L19	TREFOIL LN	13+55.13	13+45.13
F3.B3.L20	TREFOIL LN	12+06.42	11+95.37

SERVICE TABLE			
FILING, BLOCK, LOT	STREET	SANITARY STATIONING	WATER STATIONING
F3.B4.L1	ROSE MALLOW ST	15+85.88	15+95.88
F3.B4.L2	ROSE MALLOW ST	15+32.71	15+42.71
F3.B4.L3	ROSE MALLOW ST	14+62.71	14+72.71
F3.B4.L4	ROSE MALLOW ST	13+70.79	13+81.23
F3.B4.L5	TREFOIL LN	11+46.26	11+35.90
F3.B4.L6	TREFOIL LN	11+94.06	11+82.47
F3.B4.L7	TREFOIL LN	12+51.31	12+41.14
F3.B4.L8	TREFOIL LN	13+08.86	12+95.13
F3.B4.L9	TREFOIL LN	13+75.13	13+65.13
F3.B4.L10	TREFOIL LN	14+25.13	14+15.13
F3.B4.L11	TREFOIL LN	14+79.13	14+67.13
F3.B4.L12	TREFOIL LN	15+29.13	15+17.13
F3.B4.L13	TREFOIL LN	15+79.13	15+67.13
F3.B4.L14	TREFOIL LN	16+29.13	16+17.13
F3.B4.L15	TREFOIL LN	16+75.13	16+65.13
F3.B4.L16	TREFOIL LN	17+25.13	17+15.13
F3.B4.L17	RED COSMOS PT	19+00.06	18+90.06
F3.B4.L18	RED COSMOS PT	18+50.06	18+40.06
F3.B4.L19	RED COSMOS PT	18+00.06	17+90.06
F3.B4.L20	RED COSMOS PT	17+50.06	17+40.06
F3.B4.L21	RED COSMOS PT	17+00.06	16+90.06
F3.B4.L22	RED COSMOS PT	16+50.06	16+40.06
F3.B4.L23	RED COSMOS PT	16+00.06	15+90.06
F3.B4.L24	RED COSMOS PT	15+40.06	15+30.06
F3.B4.L25	RED COSMOS PT	14+80.06	14+70.06
F3.B4.L26	RED COSMOS PT	14+05.27	13+95.27
F3.B4.L27	RED COSMOS PT	13+41.27	13+31.27
F3.B4.L28	RED COSMOS PT	12+77.27	12+67.27
F3.B4.L29	RED COSMOS PT	11+90.68	11+80.68
F3.B5.L1	RED COSMOS PT	10+69.41	10+59.71
F3.B5.L2	RED COSMOS PT	11+22.91	11+12.91
F3.B5.L3	RED COSMOS PT	11+82.91	11+72.91
F3.B5.L4	RED COSMOS PT	12+42.91	12+32.91
F3.B5.L5	RED COSMOS PT	13+02.91	12+92.91
F3.B5.L6	RED COSMOS PT	13+62.91	13+52.91
F3.B5.L7	RED COSMOS PT	14+22.91	14+12.91
F3.B5.L8	RED COSMOS PT	14+82.91	14+72.91
F3.B5.L9	RED COSMOS PT	15+42.91	15+32.91
F3.B5.L10	RED COSMOS PT	16+02.91	15+92.91
F3.B5.L11	RED COSMOS PT	16+62.91	16+52.91
F3.B5.L12	RED COSMOS PT	17+12.91	17+02.91
F3.B5.L13	RED COSMOS PT	17+62.91	17+52.91
F3.B5.L14	RED COSMOS PT	18+12.91	18+02.91
F3.B5.L15	RED COSMOS PT	18+62.91	18+52.91



NOTES:
1. ALL WATER LINE IS IN PWSZ ZONE 2.



KEYMAP N.T.S. LEGEND

②	BLOCK NUMBER	△	PROPOSED RANGE POINT
Ⓐ	LOT TYPE	---	CENTERLINE
6	LOT NUMBER	---	RIGHT-OF-WAY
⊙	PROPOSED BUTTERFLY VALVE	---	PROPERTY LINE
⌈	PROPOSED CAP WITH END OF LINE BLOWOFF	---	EDGE OF PAVEMENT
⊙	PROPOSED REDUCER	→	PROPOSED DIRECTION OF FLOW
⊙	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
⊙	PROPOSED FIRE HYDRANT	---	EXISTING 5' CONTOUR
⊙	PROPOSED WL FITTING WITH THRUST BLOCK	---	EXISTING 1' CONTOUR
⊙	PROPOSED FLARED END SECTION	---	PROPOSED 5' CONTOUR
⊙	PROPOSED LOW POINT BLOW-OFF	---	PROPOSED 1' CONTOUR
⊙	PROPOSED AIR VALVE	---	PROPOSED STORM DRAIN
⊙	FUTURE PHASE VALVE	---	PROPOSED SEWER LINE WITH MANHOLE
⊙	FUTURE FIRE HYDRANT	---	PROPOSED SEWER LATERAL
⊙	PROPOSED LIGHT POLE	---	PROPOSED WATER LINE LATERAL W/ METER
⊙	PROPOSED SIDEWALK	---	SECTION LINE
⊙	PROPOSED SIDEWALK RAMP	---	FILING BOUNDARY
10.00	EXISTING ELEVATION	---	EXISTING FIBER
10.00	PROPOSED DESIGN ELEVATION	---	OPTIC LINE
⊙	PROPOSED STORM DRAIN INLET	---	EXISTING OVERHEAD POWER
⊙	PROPOSED STORM DRAIN MANHOLE	---	EXISTING TELEPHONE LINE

ABBREVIATIONS

AD	ANGLE DIFFERENCE	MH	MANHOLE
AV	AIR VAC RELEASE VALVE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
BVP	BEGIN VERTICAL PROFILE	PVI	PT. OF VERTICAL INTERSECTION
CBO	CAP WITH BLOW OFF	PVT	POINT OF VERTICAL TANGENT
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GV	GATE VALVE	T.O.P.	TOP OF PIPE
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HP	HIGH POINT	VC	VERTICAL CURVE
INV	INVERT	WL	WATER LINE
K	CURVATURE COEFFICIENT	WLC	WATER LINE CONNECTION
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION

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 SCHEDULED 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

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 THE TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

(FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE) DATE

(NOTE: UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA24 WHEN SUBMITTING FOR REVIEW.)

BENCHMARK

DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM

BASIS OF BEARINGS:

THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

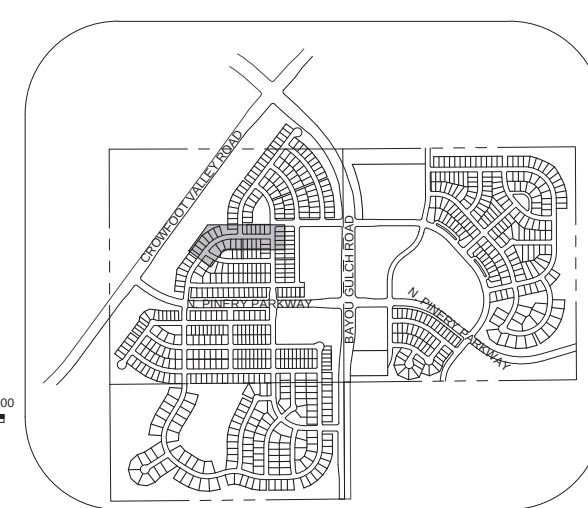
PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987

TOWN OF PARKER, DIRECTOR OF ENGINEERING DATE

10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 Tel: (720) 882-9526 Fax: (720) 882-9546		Revisions		Date	
No.		Date		Appr.	
HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112		DATE		APRIL 2017	
SHEET NUMBER		3		8130283701	
DRAWN BY: JLR		CHECKED BY: JLR		DATE: APRIL 2017	
SCALE: AS SHOWN		FILE NO: 8130283701			
TRAILS AT CROWFOOT FILING 3 CONSTRUCTION DRAWINGS AREA UTILITY PLAN					



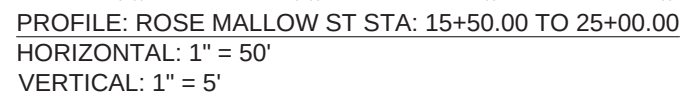
KEYMAP
N.T.S.
LEGEND

SANITARY SERVICE TABLE		
FILING, BLOCK, LOT	STREET	STATIONING
F3,B1,L10	ROSE MALLOW ST	19+01.60
F3,B1,L11	ROSE MALLOW ST	18+34.91
F3,B1,L12	ROSE MALLOW ST	17+93.56
F3,B1,L13	ROSE MALLOW ST	17+31.25
F3,B1,L14	ROSE MALLOW ST	16+88.64
F3,B1,L15	ROSE MALLOW ST	16+23.96
F3,B1,L16	ROSE MALLOW ST	15+69.32
F3,B2,L7	ROSE MALLOW ST	22+02.33
F3,B2,L8	ROSE MALLOW ST	22+52.33
F3,B2,L9	ROSE MALLOW ST	23+02.33
F3,B2,L10	ROSE MALLOW ST	23+52.33
F3,B2,L11	ROSE MALLOW ST	24+02.33
F3,B3,L1	ROSE MALLOW ST	17+85.16
F3,B3,L2	ROSE MALLOW ST	18+77.76
F3,B3,L3	ROSE MALLOW ST	19+25.60
F3,B3,L4	ROSE MALLOW ST	20+17.31
F3,B3,L5	ROSE MALLOW ST	20+77.31
F3,B3,L6	ROSE MALLOW ST	21+57.31
F3,B3,L7	ROSE MALLOW ST	22+07.31
F3,B3,L8	ROSE MALLOW ST	22+57.31
F3,B3,L9	ROSE MALLOW ST	23+07.31
F3,B4,L1	ROSE MALLOW ST	15+85.88

- | | | | |
|---|--|---|---|
|  | BLOCK NUMBER |  | PROPOSED RANGE POINT |
|  | LOT TYPE |  | CENTERLINE |
| 6 | LOT NUMBER |  | RIGHT-OF-WAY |
|  | PROPOSED BUTTERFLY VALVE |  | PROPERTY LINE |
|  | PROPOSED CAP WITH
END OF LINE BLOWOFF |  | EDGE OF PAVEMENT |
|  | PROPOSED REDUCER |  | PROPOSED DIRECTION
OF FLOW |
|  | PROPOSED VALVE |  | PROPOSED SLOPE &
DIRECTION |
|  | PROPOSED FIRE
HYDRANT |  | EXISTING 5' CONTOUR |
|  | PROPOSED WL FITTING
WITH THRUST BLOCK |  | EXISTING 1' CONTOUR |
|  | PROPOSED FLARED
END SECTION |  | PROPOSED 5' CONTOUR |
|  | PROPOSED LOW
POINT BLOW-OFF |  | PROPOSED 1' CONTOUR |
|  | PROPOSED AIR VALVE |  | PROPOSED STORM
DRAIN |
|  | FUTURE PHASE VALVE |  | PROPOSED SEWER LINE
WITH MANHOLE |
|  | FUTURE FIRE HYDRANT |  | PROPOSED
SEWER LATERAL |
|  | PROPOSED LIGHT
POLE |  | PROPOSED WATER LINE |
|  | PROPOSED SIDEWALK |  | PROPOSED WATER LINE
LATERAL W/ METER |
|  | EXISTING ELEVATION |  | SECTION LINE |
| 10.00 | EXISTING ELEVATION |  | FILING BOUNDARY |
| 10.00 | PROPOSED DESIGN
ELEVATION |  | EXISTING FIBER
OPTIC LINE |
|  | PROPOSED STORM
DRAIN INLET |  | EXISTING OVERHEAD
POWER |
|  | PROPOSED STORM
DRAIN MANHOLE |  | EXISTING
TELEPHONE LINE |

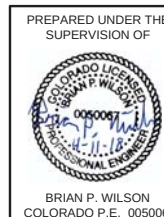
ABBREVIATIONS

AD	ANGLE DIFFERENCE	MH	MANHOLE
AV	AIR VAC RELEASE VALVE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
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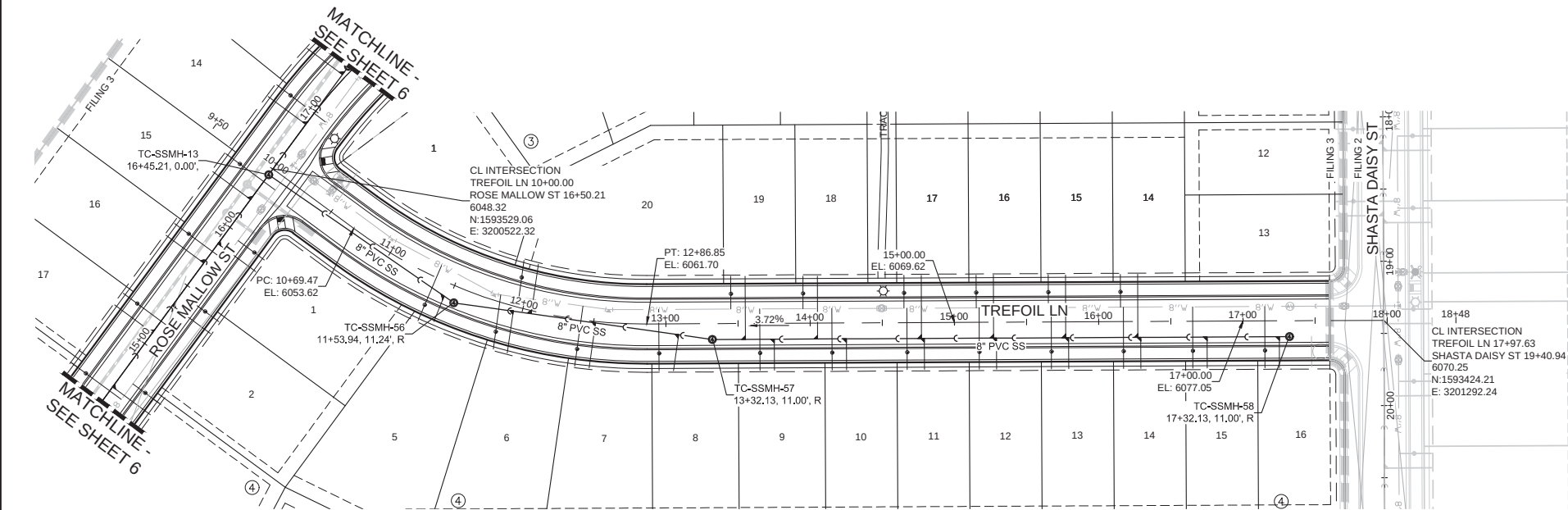


BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A
3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST
QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST
OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED
ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

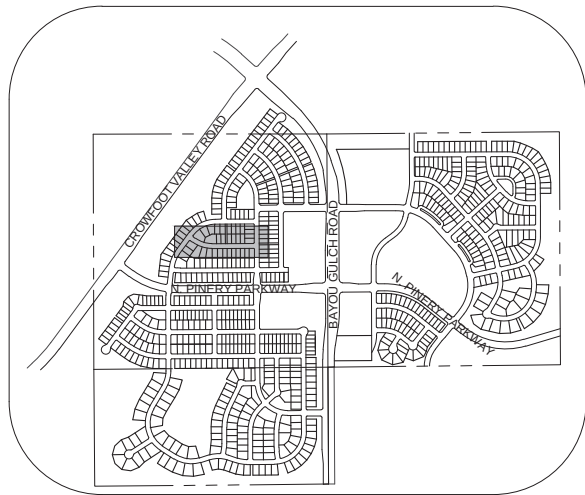
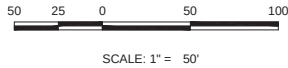
BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID
BEING MONUMENTED AT THE NORTHEAST CORNER
SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 230
THE EAST QUARTER CORNER OF SAID SECTION 9 BY
ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED
SOUTH 00°15'06" EAST, 2648.70 FEET.



N:\PROJECTS\SHS RANCH\ENGINEERING\SHSHEET SET\SCDS\SPARKER WATER AND SANITATIONS\SANITARY PLAN AND PROFILE\3 TREFOIL LN SANITARY DWG, HAYDEN, 3/22/2018 2:58 PM



PLAN: TREFOIL LN STA: 9+50.00 TO 18+50.00
HORIZONTAL SCALE: 1" = 50'



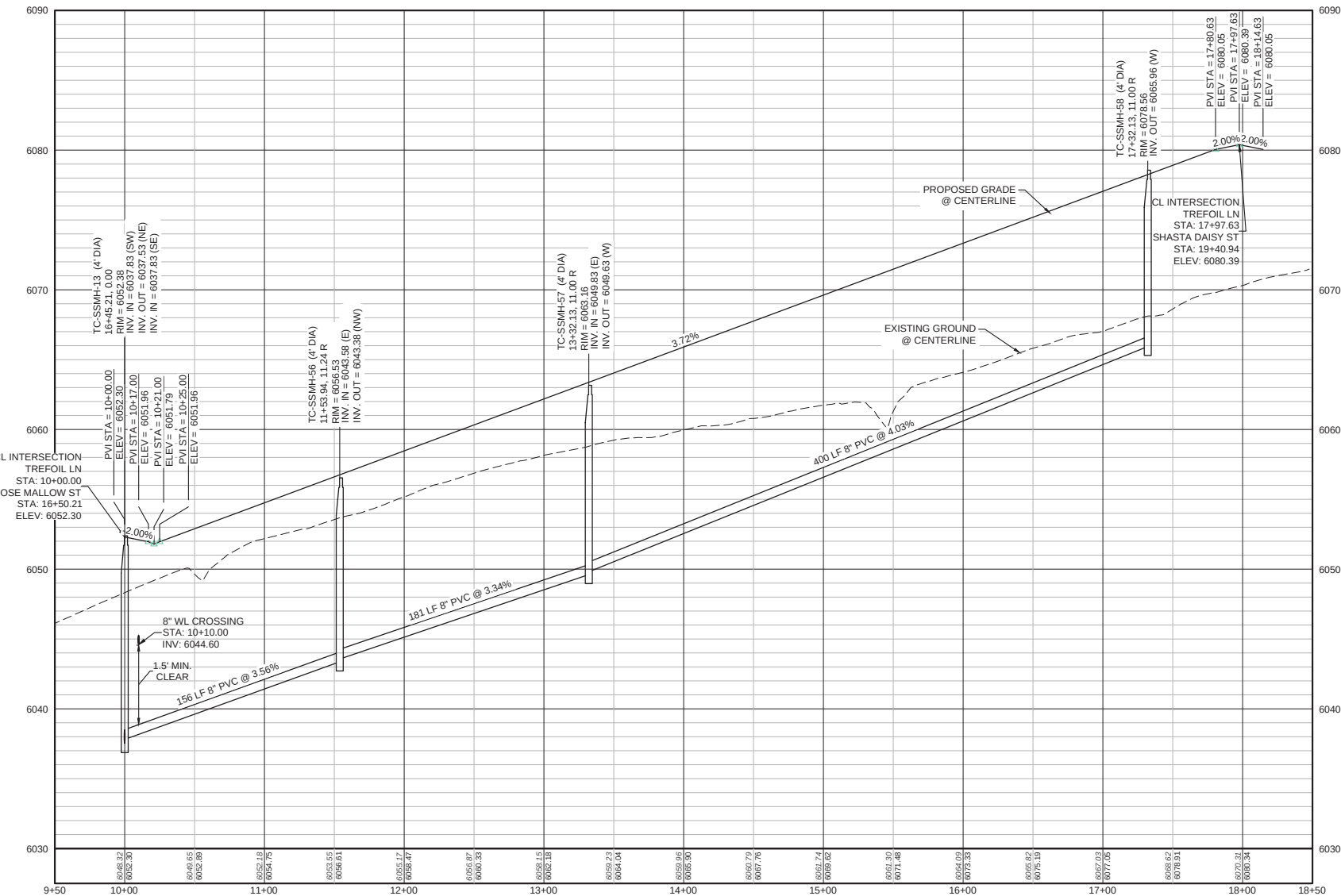
KEYMAP
N.T.S.
LEGEND

②	BLOCK NUMBER	△	PROPOSED RANGE POINT
Ⓐ	LOT TYPE	---	CENTERLINE
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➔	PROPOSED REDUCER	➔	PROPOSED DIRECTION OF FLOW
Ⓢ	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
Ⓢ	PROPOSED FIRE HYDRANT	---	EXISTING 5' CONTOUR
Ⓢ	PROPOSED WL FITTING WITH THRUST BLOCK	---	EXISTING 1' CONTOUR
Ⓢ	PROPOSED FLARED END SECTION	---	PROPOSED 5' CONTOUR
Ⓢ	PROPOSED LOW POINT BLOW-OFF	---	PROPOSED 1' CONTOUR
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Ⓢ	FUTURE PHASE VALVE	---	PROPOSED SEWER LINE WITH MANHOLE
Ⓢ	FUTURE FIRE HYDRANT	---	PROPOSED SEWER LATERAL
Ⓢ	PROPOSED LIGHT POLE	---	PROPOSED WATER LINE
Ⓢ	PROPOSED SIDEWALK	---	PROPOSED WATER LATERAL W/ METER
Ⓢ	PROPOSED SIDEWALK RAMP	---	SECTION LINE
10.00	EXISTING ELEVATION	---	FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	---	EXISTING FIBER OPTIC LINE
Ⓢ	PROPOSED STORM DRAIN INLET	---	EXISTING OVERHEAD POWER
Ⓢ	PROPOSED STORM DRAIN MANHOLE	---	EXISTING TELEPHONE LINE

SANITARY SERVICE TABLE		
FILING, BLOCK, LOT	STREET	STATIONING
F3,B3,L14	TREFOIL LN	16+27.13
F3,B3,L15	TREFOIL LN	15+77.13
F3,B3,L16	TREFOIL LN	15+27.13
F3,B3,L17	TREFOIL LN	14+77.13
F3,B3,L18	TREFOIL LN	14+05.13
F3,B3,L19	TREFOIL LN	13+55.13
F3,B3,L20	TREFOIL LN	12+06.42
F3,B4,L5	TREFOIL LN	11+46.26
F3,B4,L6	TREFOIL LN	11+94.06
F3,B4,L7	TREFOIL LN	12+51.31
F3,B4,L8	TREFOIL LN	13+08.86
F3,B4,L9	TREFOIL LN	13+75.13
F3,B4,L10	TREFOIL LN	14+25.13
F3,B4,L11	TREFOIL LN	14+79.13
F3,B4,L12	TREFOIL LN	15+29.13
F3,B4,L13	TREFOIL LN	15+79.13
F3,B4,L14	TREFOIL LN	16+29.13
F3,B4,L15	TREFOIL LN	16+75.13
F3,B4,L16	TREFOIL LN	17+25.13

ABBREVIATIONS

AD	ANGLE DIFFERENCE	MH	MANHOLE
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BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
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PROFILE: TREFOIL LN STA: 9+50.00 TO 18+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

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PREPARED UNDER THE SUPERVISION OF



BRIAN P. WILSON
COLORADO P.E. 0050067

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TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987

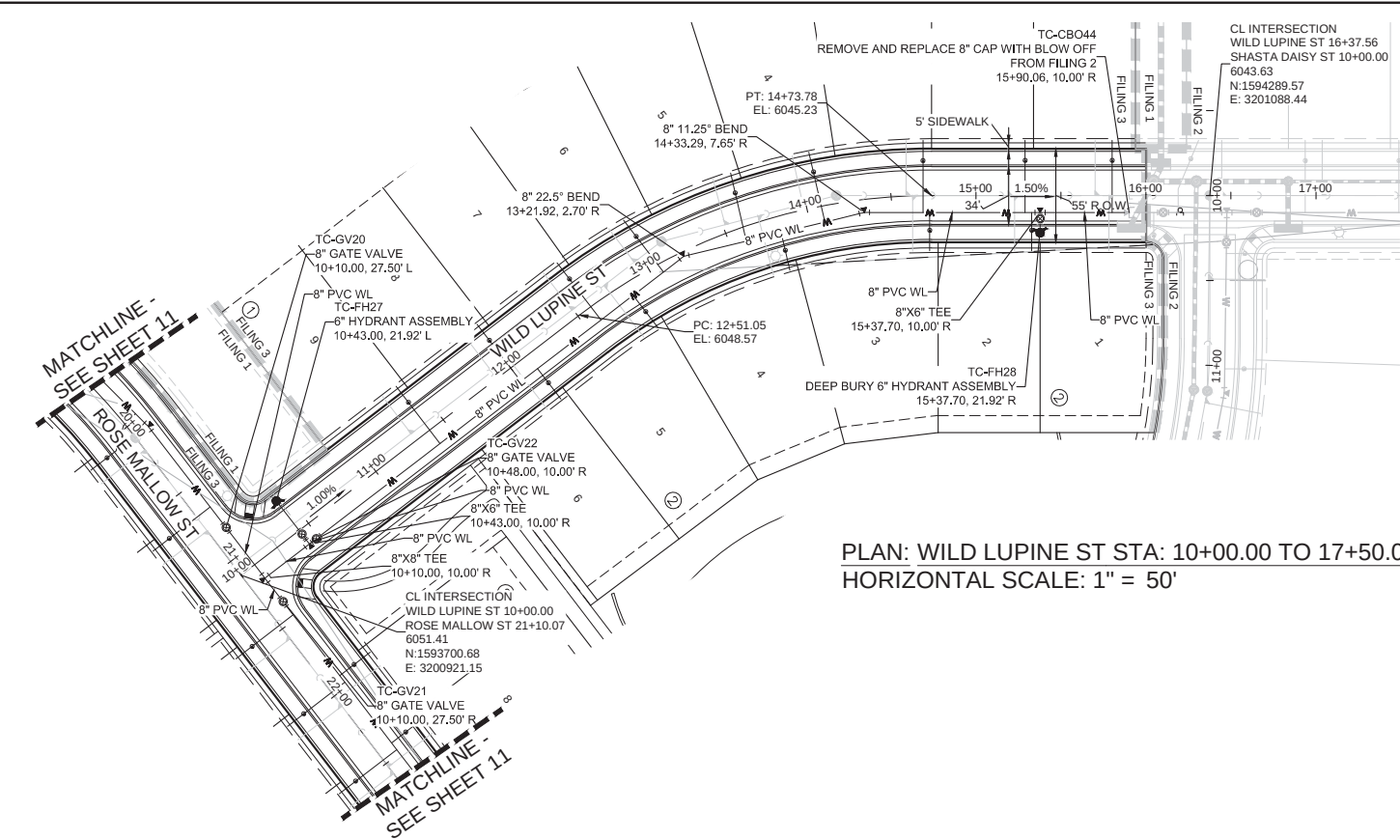
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7	KJD	JU	APRIL 2017										

TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
TREFOIL LN

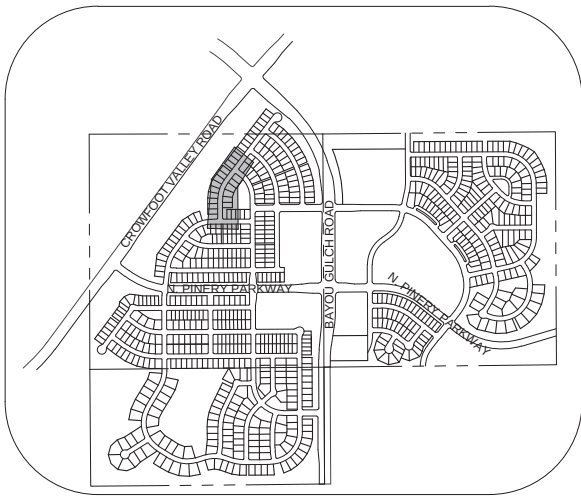
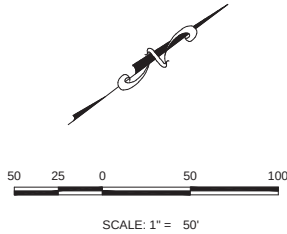
HR 935 LLC
7353 South Allion Way
CENTENNIAL, CO 80112

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 882-9526
Fax: (720) 882-9546
CVL CONSULTANTS

N:\PROJECTS\SHS RANCH\ENGINEERING\SHSHEET SET\SCDS\SPARKER WATER AND SANITATION\WATER PLAN AND PROFILE\3 WILD LUPINE STREET WATER.DWG, HAYDEN, 3/22/2018 3:01 PM



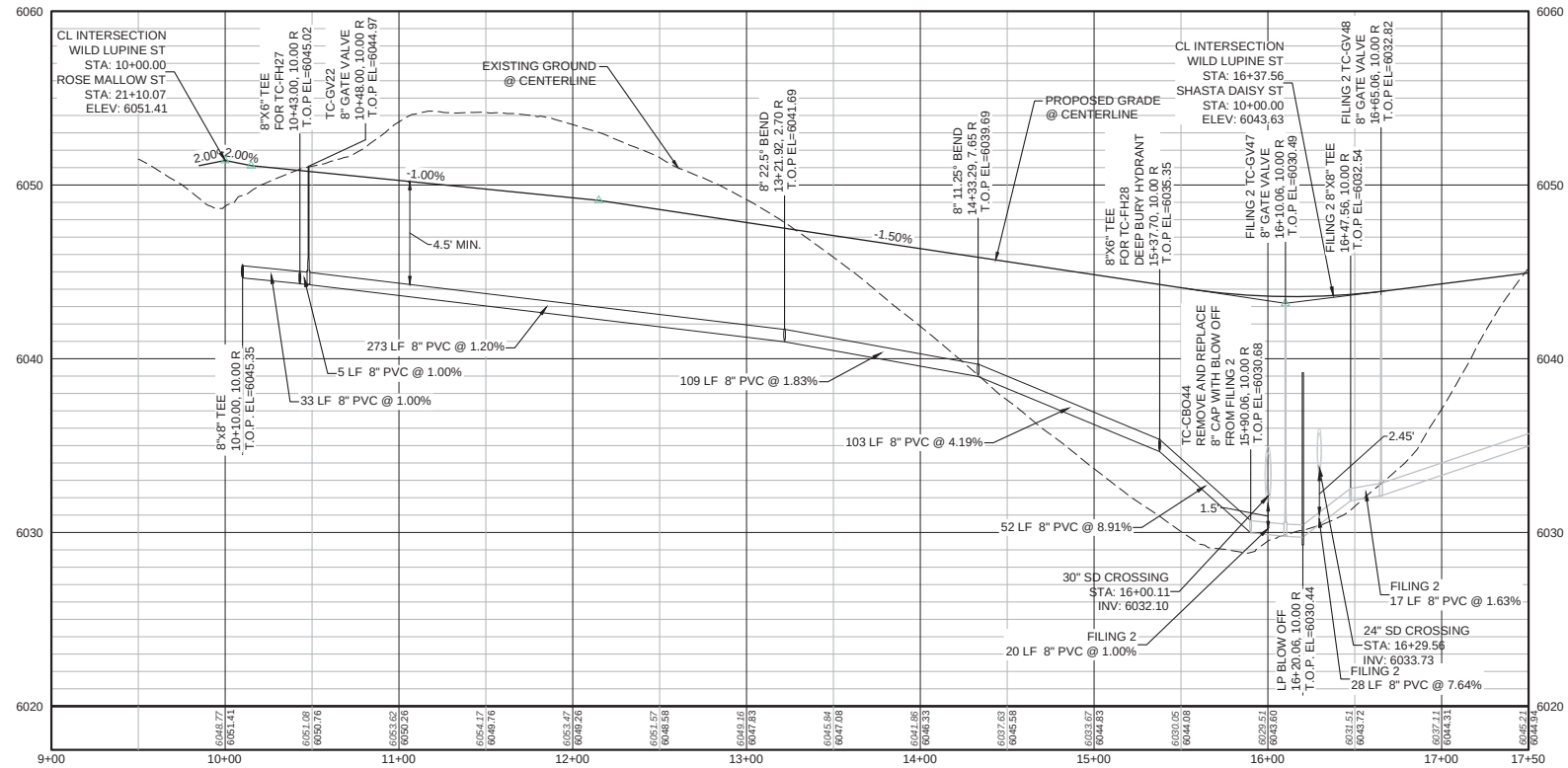
PLAN: WILD LUPINE ST STA: 10+00.00 TO 17+50.00
HORIZONTAL SCALE: 1" = 50'



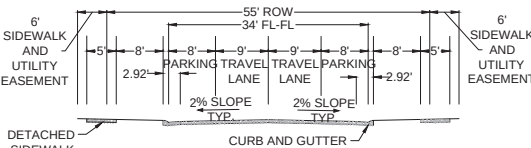
KEYMAP
N.T.S.
LEGEND

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Ⓢ	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
Ⓢ	PROPOSED FIRE HYDRANT	---	EXISTING 5' CONTOUR
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Ⓢ	PROPOSED FLARED END SECTION	---	PROPOSED 5' CONTOUR
Ⓢ	PROPOSED LOW POINT BLOW-OFF	---	PROPOSED 1' CONTOUR
Ⓢ	PROPOSED AIR VALVE	---	PROPOSED STORM DRAIN
Ⓢ	FUTURE PHASE VALVE	---	PROPOSED SEWER LINE WITH MANHOLE
Ⓢ	FUTURE FIRE HYDRANT	---	PROPOSED SEWER LATERAL
Ⓢ	PROPOSED LIGHT POLE	---	PROPOSED WATER LATERAL W/ METER
Ⓢ	PROPOSED SIDEWALK	---	SECTION LINE
Ⓢ	PROPOSED SIDEWALK RAMP	---	FILING BOUNDARY
10.00	EXISTING ELEVATION	---	EXISTING FIBER
10.00	PROPOSED DESIGN ELEVATION	---	OPTIC LINE
Ⓢ	PROPOSED STORM DRAIN INLET	---	EXISTING OVERHEAD POWER
Ⓢ	PROPOSED STORM DRAIN MANHOLE	---	TELEPHONE LINE

WATER SERVICE TABLE		
FILING, BLOCK, LOT	STREET	STATIONING
F3.B1.L1	WILD LUPINE ST	15+80.06
F3.B1.L2	WILD LUPINE ST	15+28.83
F3.B1.L3	WILD LUPINE ST	14+68.63
F3.B1.L4	WILD LUPINE ST	14+08.93
F3.B1.L5	WILD LUPINE ST	13+59.94
F3.B1.L6	WILD LUPINE ST	13+06.82
F3.B1.L7	WILD LUPINE ST	12+59.60
F3.B1.L8	WILD LUPINE ST	11+99.97
F3.B1.L9	WILD LUPINE ST	11+39.97
F3.B2.L1	WILD LUPINE ST	16+04.56
F3.B2.L2	WILD LUPINE ST	15+32.70
F3.B2.L3	WILD LUPINE ST	14+72.66
F3.B2.L4	WILD LUPINE ST	13+81.54
F3.B2.L5	WILD LUPINE ST	12+84.07
F3.B2.L6	WILD LUPINE ST	12+12.30



PROFILE: WILD LUPINE ST STA: 9+00.00 TO 17+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



RESIDENTIAL LOCAL

ABBREVIATIONS			
AD	ANGLE DIFFERENCE	MH	MANHOLE
AV	AIR VAC RELEASE VALVE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
BVP	BEGIN VERTICAL PROFILE	PVI	PT. OF VERTICAL INTERSECTION
CBO	CAP WITH BLOW OFF	PVT	POINT OF VERTICAL TANGENT
CRR	CURB RETURN RADIUS	RCBC	REINFORCED CONCRETE BOX CULVERT
EL	ELEVATION	RCP	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
EVC	END VERTICAL CURVE	SC	SANITARY CAP
EVP	END VERTICAL PROFILE	SD	STORM DRAIN
FG	FINISHED GROUND	SL	SECTION LINE
FH	FIRE HYDRANT	SS	SANITARY SEWER
FL	FLOW LINE	STA	STATION
GV	GATE VALVE	T.O.P.	TOP OF PIPE
HCR	HANDICAP CURB RAMP	UE	UTILITY EASEMENT
HP	HIGH POINT	VC	VERTICAL CURVE
INV	INVERT	WL	WATER LINE
K	CURVATURE COEFFICIENT	WLC	WATER LINE CONNECTION
LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION



CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987

BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

PREPARED UNDER THE SUPERVISION OF



BRIAN P. WILSON
COLORADO P.E. 0050067

10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 882-9526
Fax: (720) 882-9546



HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
WATER PLAN & PROFILE
WILD LUPINE STREET

SCALE: AS SHOWN

DRAWN BY: BHR

CHECKED BY: JJJ

DATE: APRIL 2017

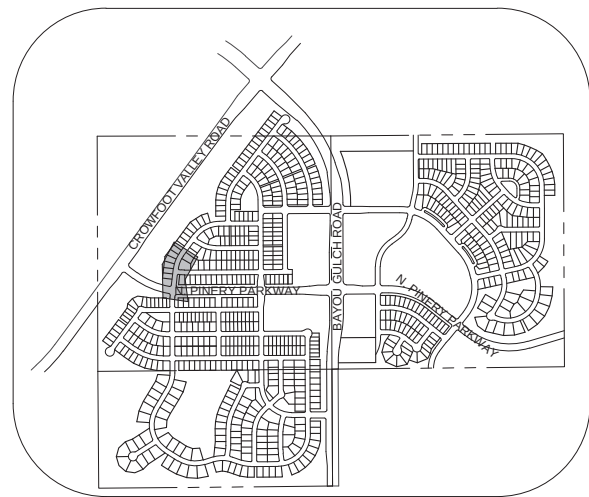
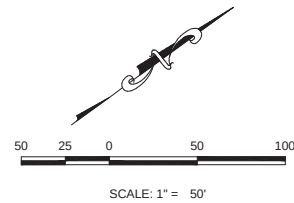
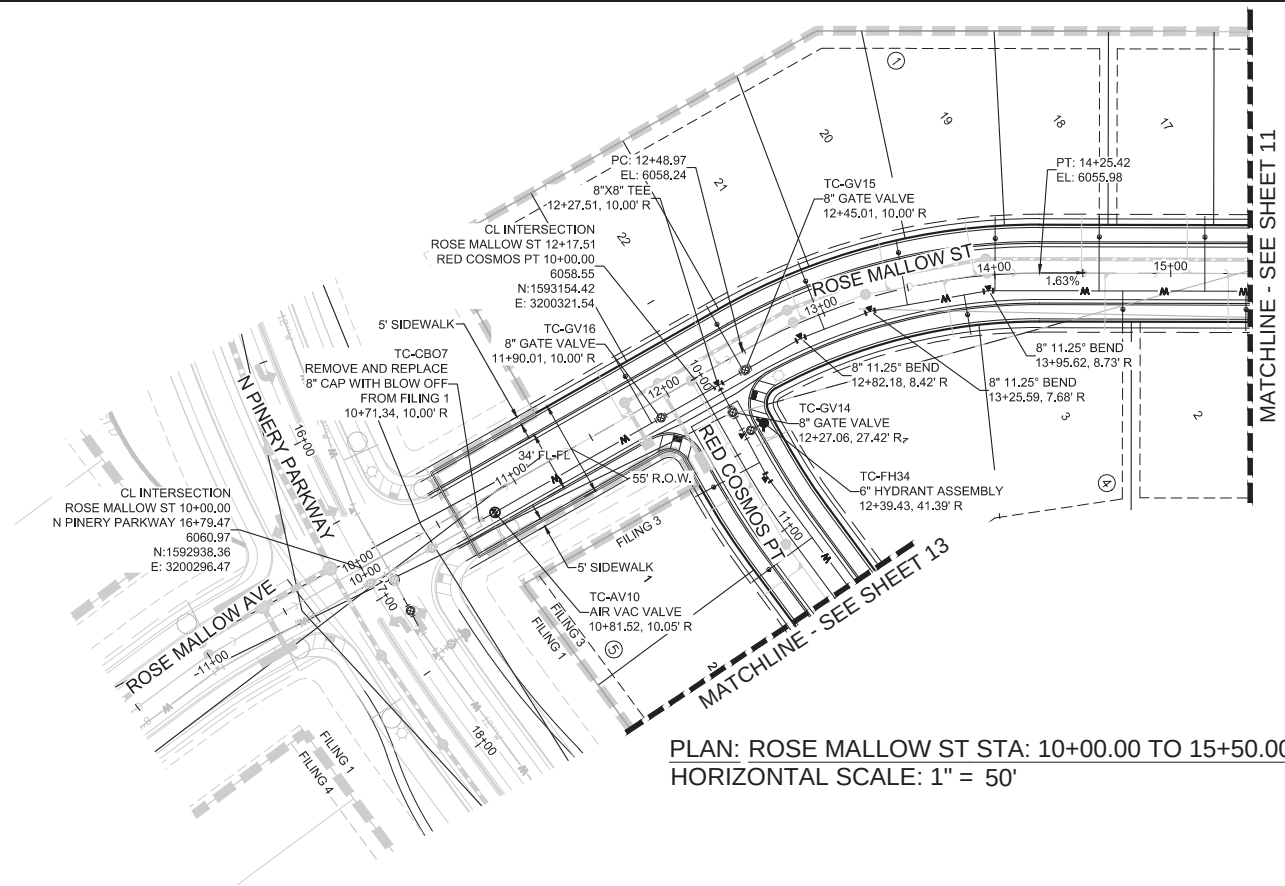
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SHEET NUMBER

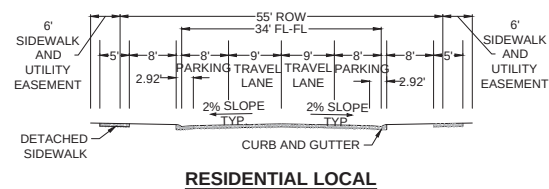
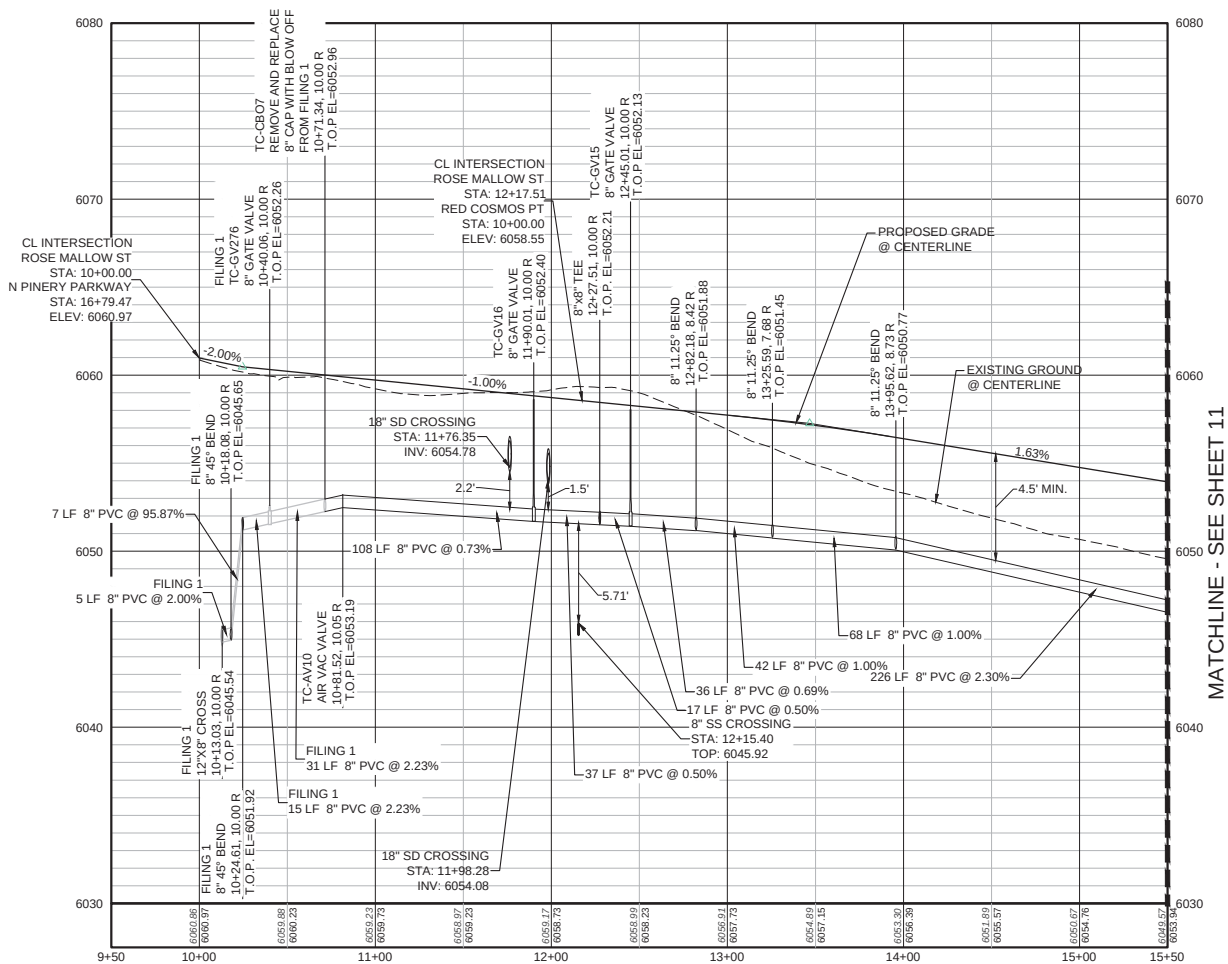
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Revisions

No.	Date	Init.	Appr.	Date

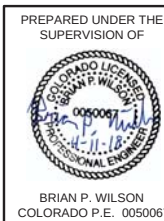


WATER SERVICE TABLE		
FILING, BLOCK, LOT	STREET	STATIONING
F3.B1.L17	ROSE MALLOW ST	15+19.32
F3.B1.L18	ROSE MALLOW ST	14+59.32
F3.B1.L19	ROSE MALLOW ST	13+99.44
F3.B1.L20	ROSE MALLOW ST	13+47.61
F3.B1.L21	ROSE MALLOW ST	12+96.94
F3.B1.L22	ROSE MALLOW ST	12+43.97
F3.B1.L23	ROSE MALLOW ST	11+83.97
F3.B4.L2	ROSE MALLOW ST	15+42.71
F3.B4.L3	ROSE MALLOW ST	14+72.71
F3.B4.L4	ROSE MALLOW ST	13+81.23



ABBREVIATIONS			
AD	ANGLE DIFFERENCE	MH	MANHOLE
AV	AIR VAC RELEASE VALVE	N.T.S	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
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CBO	CAP WITH BLOW OFF	PVT	POINT OF VERTICAL TANGENT
CCR	CURB RETURN RADIUS	RCBC	REINFORCED CONCRETE BOX CULVERT
EL	ELEVATION	RPC	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
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EVP	END VERTICAL PROFILE	SD	STORM DRAIN
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FH	FIRE HYDRANT	SS	SANITARY SEWER
FL	FLOW LINE	STA	STATION
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HCR	HANDICAP CURB RAMP	UE	UTILITY EASEMENT
HP	HIGH POINT	VC	VERTICAL CURVE
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LF	LINEAR FEET	WSE	WATER SURFACE ELEVATION

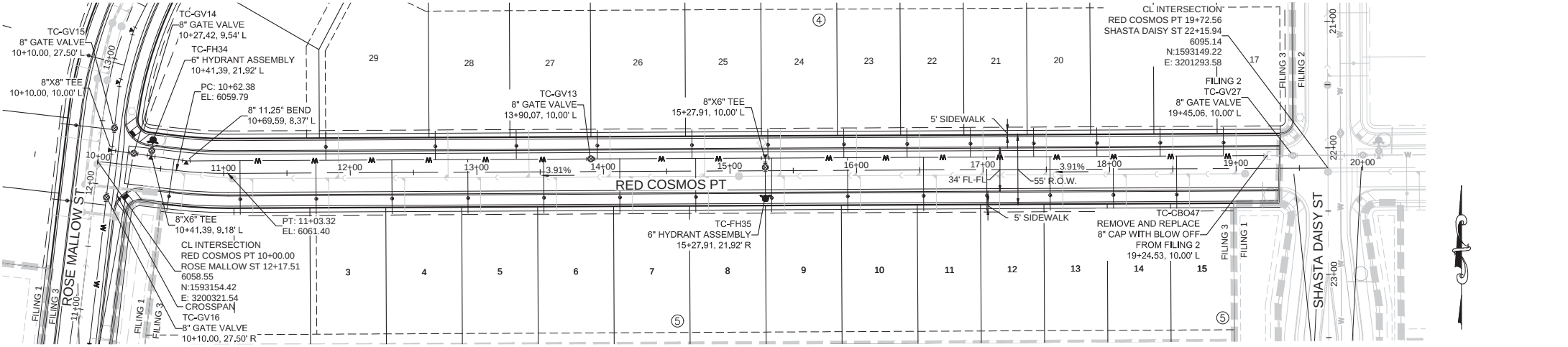
BASIS OF BEARINGS:
THE EAST LINE OF THE
BEING MONUMENTED
SECTION 9 BY A 3-1/4"
THE EAST QUARTER
ALUMINUM CAP STAKE
SOUTH 00°15'06" EAST



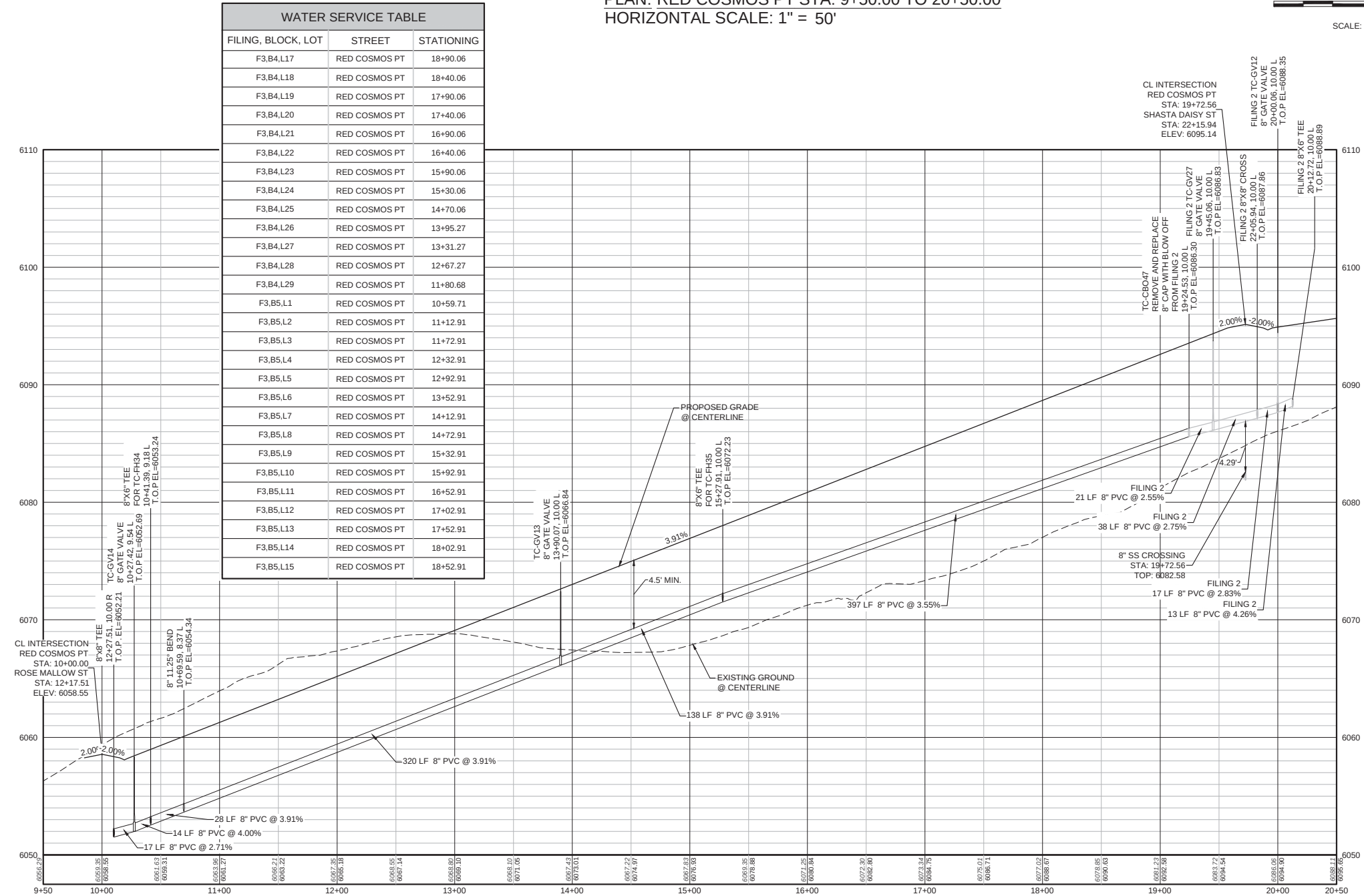
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1-800-922-1987



PLAN: RED COSMOS PT STA: 9+50.00 TO 20+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: RED COSMOS PT STA: 9+50.00 TO 20+50.00

HORIZONTAL: 1" = 50'

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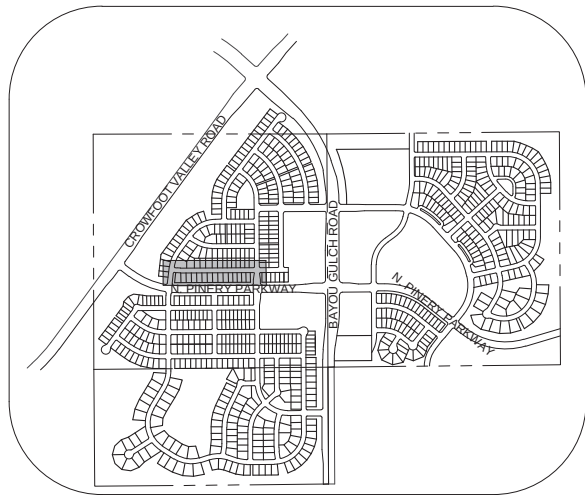
BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

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PREPARED UNDER THE
SUPERVISION OF



BRIAN P. WILSON
COLORADO P.E. 0050067



KEYMAP

N.T.S.

LEGEND

②	BLOCK NUMBER	△	PROPOSED RANGE POINT
Ⓐ	LOT TYPE	---	CENTERLINE
6	LOT NUMBER	---	RIGHT-OF-WAY
⊗	PROPOSED BUTTERFLY VALVE	---	PROPERTY LINE
⌈	PROPOSED CAP WITH END OF LINE BLOWOFF	---	EDGE OF PAVEMENT
⌋	PROPOSED REDUCER	→	PROPOSED DIRECTION OF FLOW
⌋	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
⌋	PROPOSED FIRE HYDRANT	---	EXISTING 5' CONTOUR
⌋	PROPOSED WL FITTING WITH THRUST BLOCK	---	EXISTING 1' CONTOUR
⌋	PROPOSED FLARED END SECTION	---	PROPOSED 5' CONTOUR
⌋	PROPOSED LOW POINT BLOW-OFF	---	PROPOSED 1' CONTOUR
⌋	PROPOSED AIR VALVE	---	PROPOSED STORM DRAIN
⌋	FUTURE PHASE VALVE	---	PROPOSED SEWER LINE WITH MANHOLE
⌋	FUTURE FIRE HYDRANT	---	PROPOSED SEWER LATERAL
⌋	PROPOSED LIGHT POLE	---	PROPOSED WATER LATERAL W/ METER
⌋	PROPOSED SIDEWALK	---	SECTION LINE
⌋	PROPOSED SIDEWALK RAMP	---	FILING BOUNDARY
10.00	EXISTING ELEVATION	---	EXISTING FIBER OPTIC LINE
10.00	PROPOSED DESIGN ELEVATION	---	EXISTING OVERHEAD POWER
⊗	PROPOSED STORM DRAIN INLET	---	EXISTING TELEPHONE LINE
⊗	PROPOSED STORM DRAIN MANHOLE	---	

ABBREVIATIONS

AD	ANGLE DIFFERENCE	MH	MANHOLE
AV	AIR VAC RELEASE VALVE	N.T.S.	NOT TO SCALE
BVC	BEGIN VERTICAL CURVE	PVC	POLYVINYL CHLORIDE
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SHEET NUMBER	DRAWN BY: BHR	CHECKED BY: JW	DATE: APRIL 2017	SCALE: AS SHOWN	FILE NO: 8130283701	TRAILS AT CROWFOOT FILING 3 CONSTRUCTION DRAWINGS WATER PLAN & PROFILE RED COSMOS POINT	HR 935 LLC 7353 South Allen Way CENTENNIAL, CO 80112		10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 Tel: (720) 882-9528 Fax: (720) 882-9546	No.	Revisions	Date	Init.	Appr.	Date

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.

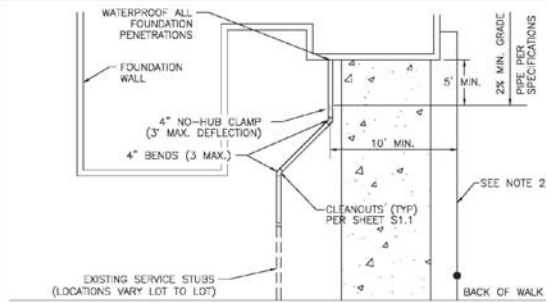
INSTALLATION NOTES:

- SEWER**
1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND PVC SCHD 40 PIPE. APPROVED BEDDING IS TO BE 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

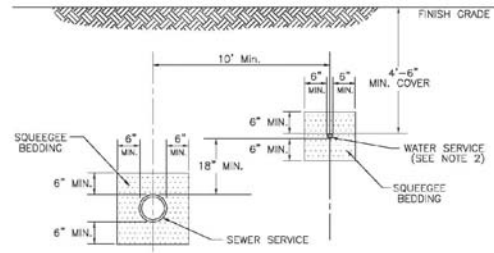
PARKER WATER & SANITATION DISTRICT	
DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES	
SCALE: NONE	DATE: 2/20/16
APPROVED: PVR	2/20/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET S1.1



TYPICAL SERVICES PLAN VIEW

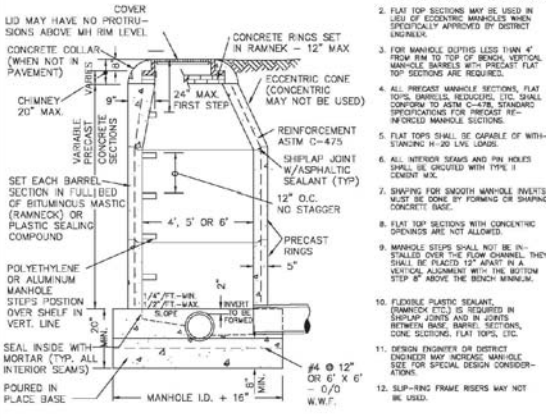
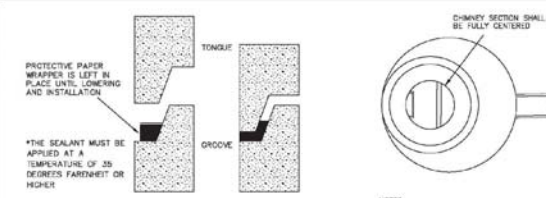


TYPICAL SERVICES SECTION

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

2016 REVISION

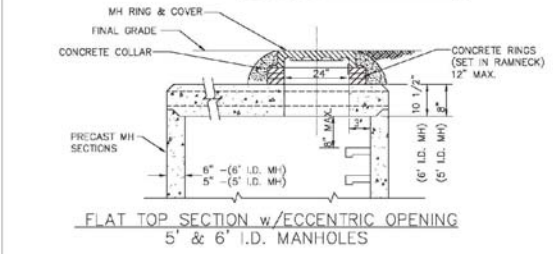
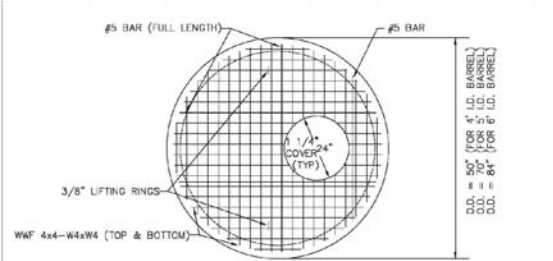
SHEET S1.2



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

2016 REVISION

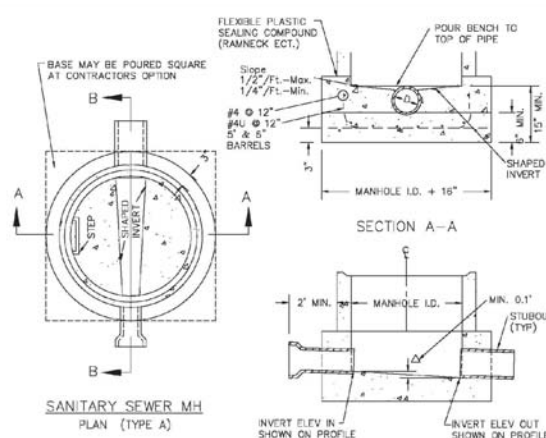
SHEET S1.3



PARKER WATER & SANITATION DISTRICT	
PRECAST MANHOLE - 5' & 6' I.D. WITH ECCENTRIC CONE	
SCALE: NONE	DATE: 2/20/16
APPROVED: PVR	2/20/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET S3.3



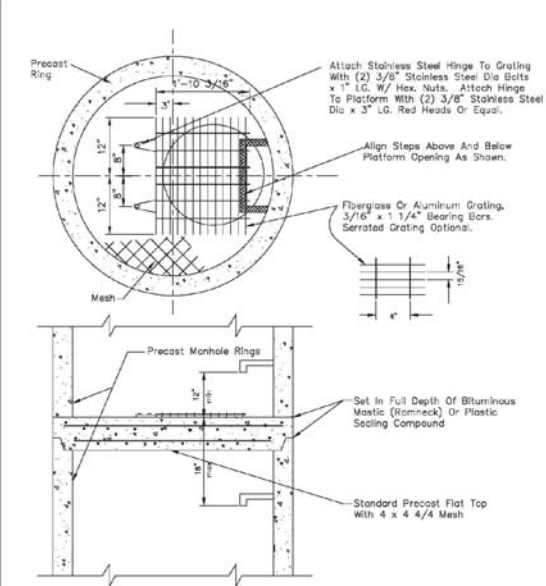
NOTES:

1. Manhole barrel min. thickness to be 5".
2. Shaping for smooth manhole inverts may be done by forming or shaping with cement mortar (See Sewer).
3. The manhole steps shall conform to District Standards and Specifications.
4. Precast sections to conform to A.S.T.M. C-478.
5. All dead-end manholes, that call out a stub out, shall be thru at 0.40% minimum slope.
6. Stub outs shall extend 2'-0" minimum past manhole O.D. and be satisfactorily plugged.
7. Reinforcing in base required for manhole.
8. Slope of bench = 1/2"/ft. - Max. 1/4"/ft. - Min.
9. Δ = Invert drop thru MH (If Δ > 18", outside drop MH required). Min. 0.1" for all straight through MH and 0.2" for all angled MH.

PARKER WATER & SANITATION DISTRICT	
CAST-IN-PLACE MANHOLE BASE DETAIL	
SCALE: NONE	DATE: 2/20/16
APPROVED: PVR	2/20/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET S3.5

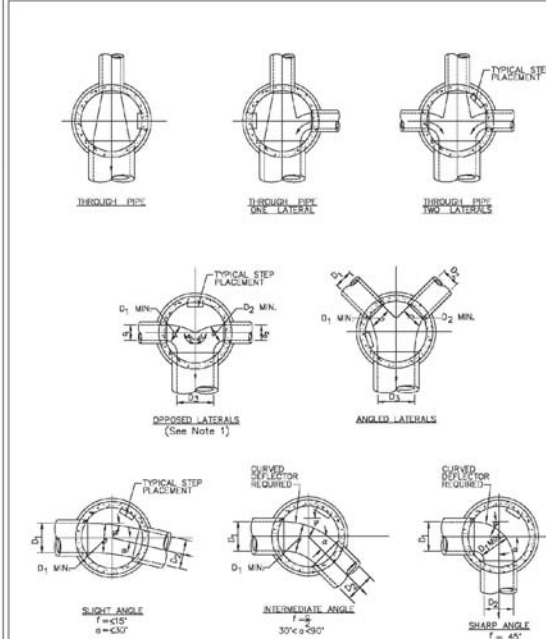


- NOTES:
- 1.1 Maximum distance between platforms shall be 15' vertically.
 - 1.2 All hardware used inside a manhole shall be stainless steel.
 - 1.3 Manholes over 20' deep shall submit structural calculations on base and wall sizing.

PARKER WATER & SANITATION DISTRICT	
INTERMEDIATE PLATFORM FOR MANHOLES OVER 20' DEPTH	
SCALE: NONE	DATE: 2/20/16
APPROVED: PVR	2/20/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET S3.6

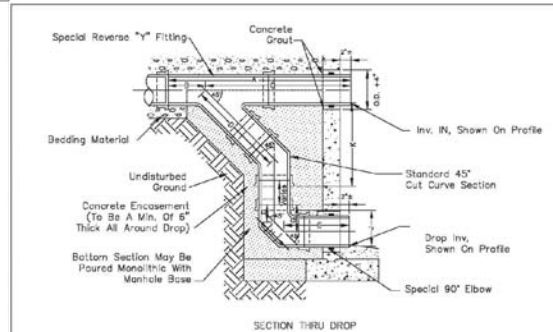


- NOTES:
1. Manhole shall be coated using bituminous mastic (ramneck) or plastic sealing compound.

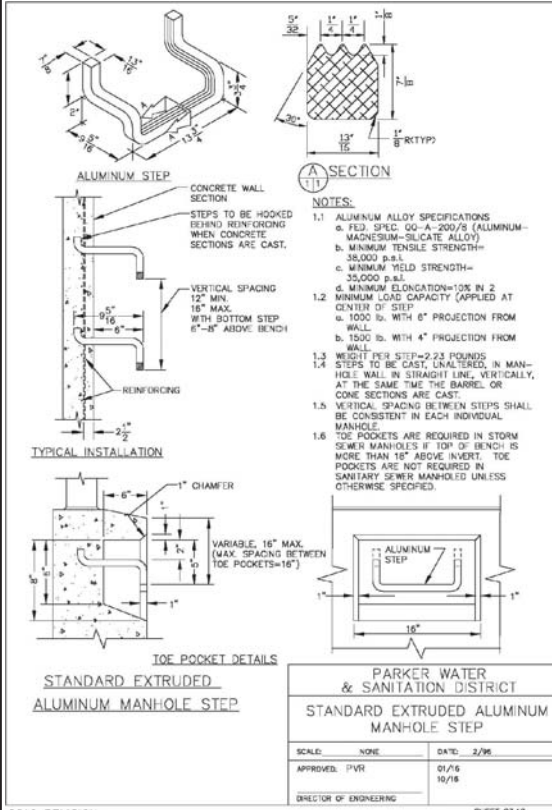
PARKER WATER & SANITATION DISTRICT	
TYPICAL BASE CHANNELIZATION DETAILS	
SCALE: NONE	DATE: 2/20/16
APPROVED: PVR	2/20/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET S3.7

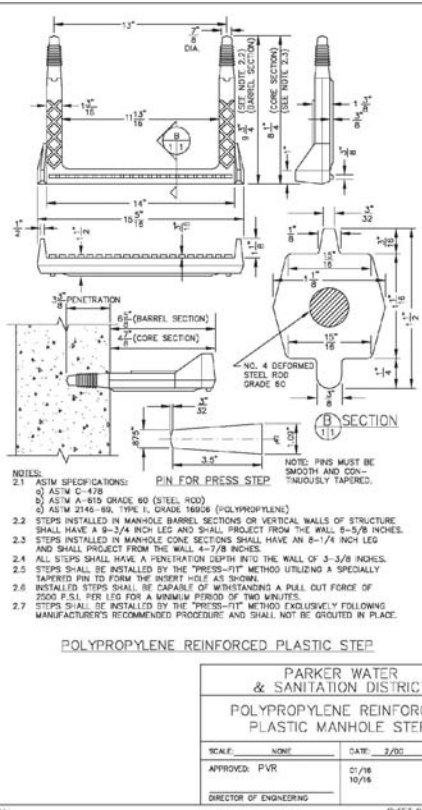


PIPE I.D.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
8"	60"	28"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	13 7/8"	27 1/2"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"
10"	60"	28"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	13 7/8"	27 1/2"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"
12"	60"	28"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	13 7/8"	27 1/2"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"
14"	60"	28"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	13 7/8"	27 1/2"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"
16"	60"	28"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	13 7/8"	27 1/2"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"
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30"	60"	28"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	13 7/8"	27 1/2"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"
32"	60"	28"	34"	18"	21"	4 1/2"	8"	4 3/8"	12"	13 7/8"	27 1/2"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"
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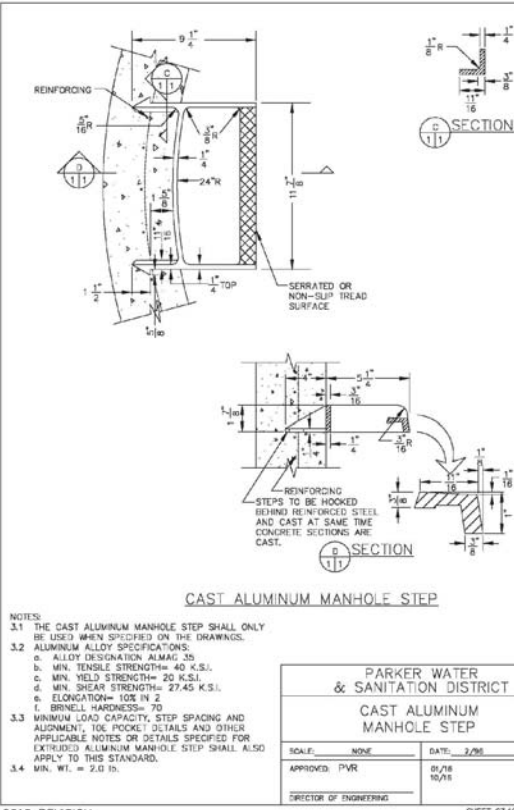
2016 REVISION

SHEET 53.10



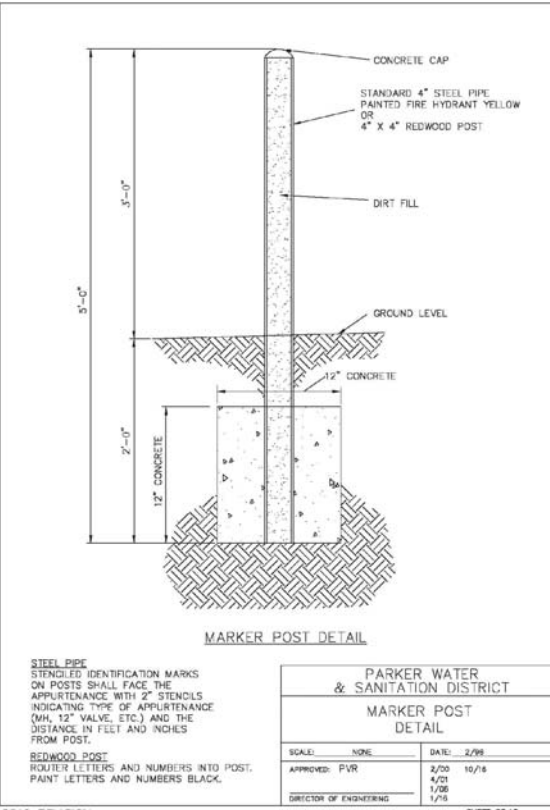
2016 REVISION

SHEET 53.11



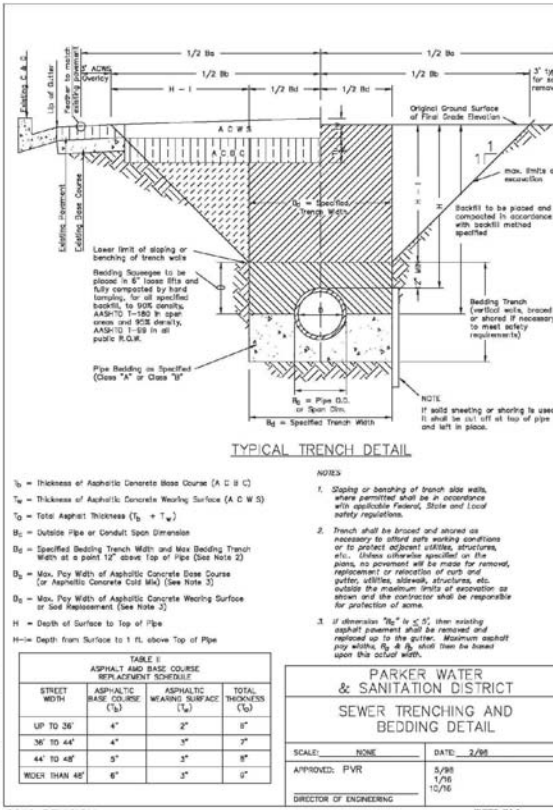
2016 REVISION

SHEET 53.12



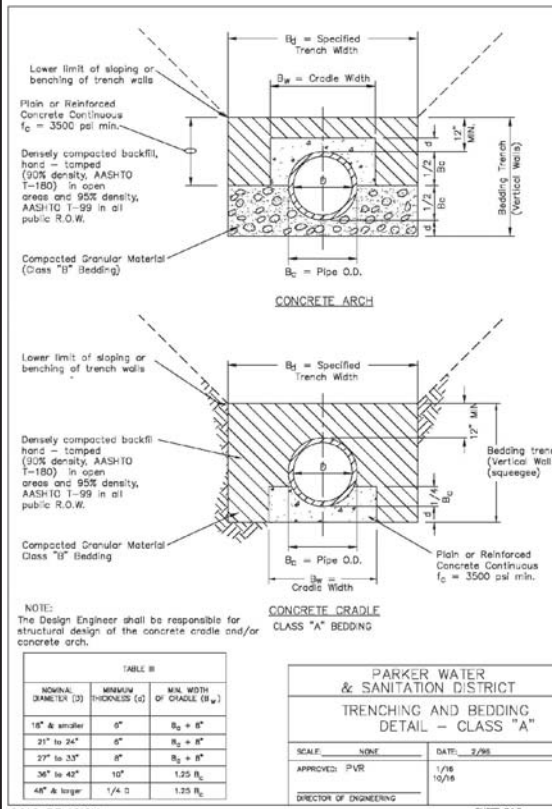
2016 REVISION

SHEET 53.13



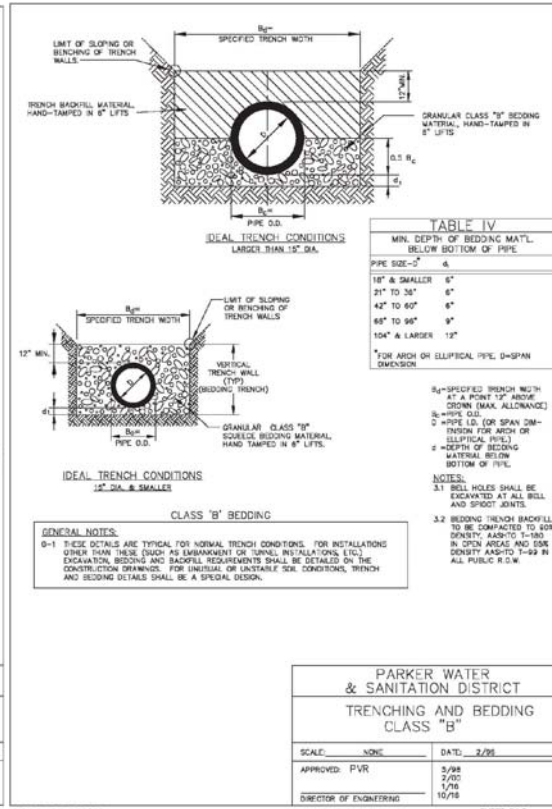
2016 REVISION

SHEET 54.1



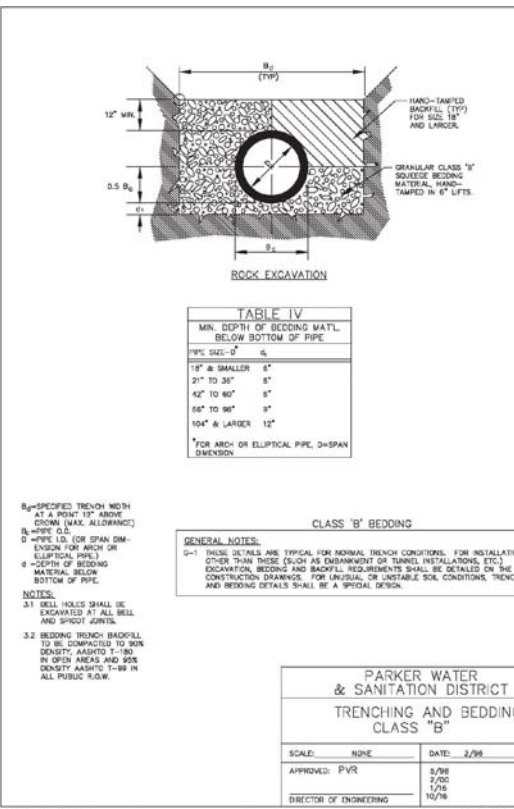
2016 REVISION

SHEET 54.2



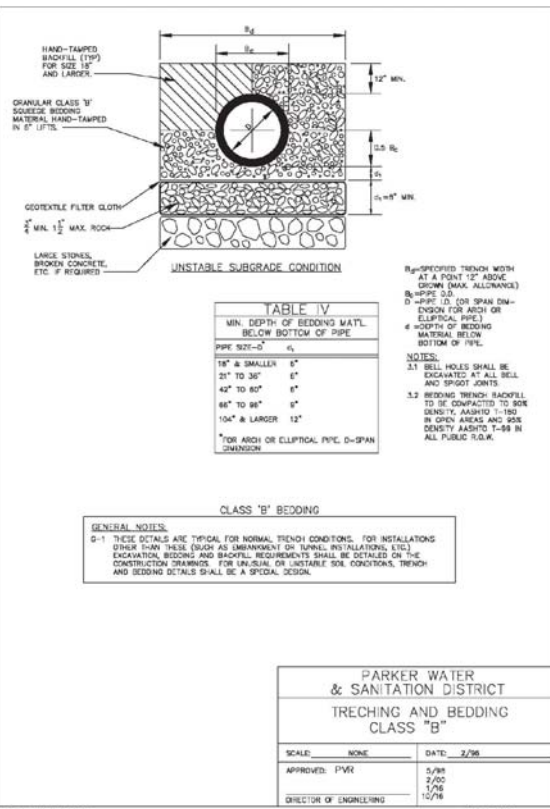
2016 REVISION

SHEET 54.3



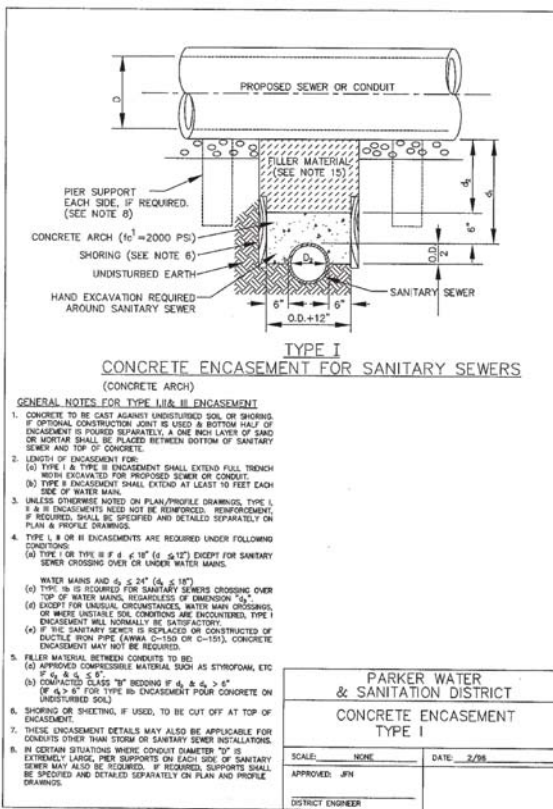
2016 REVISION

SHEET 54.4



2016 REVISION

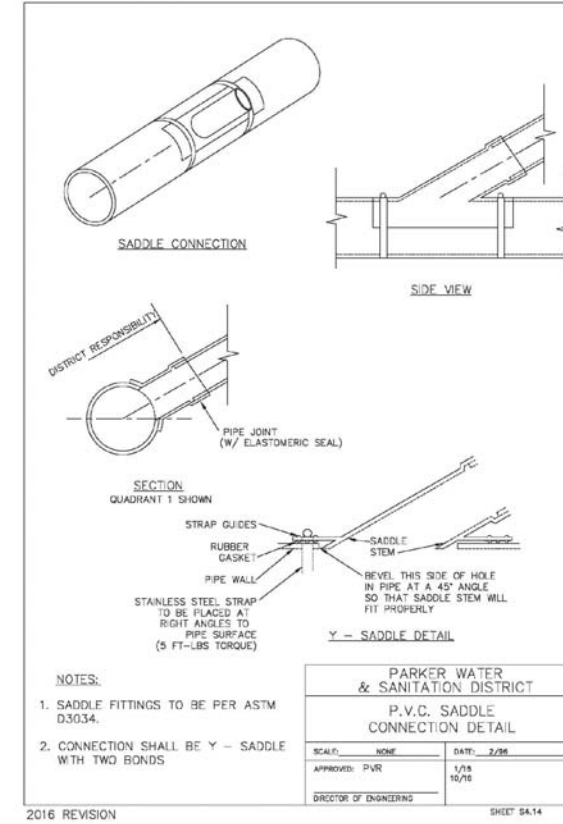
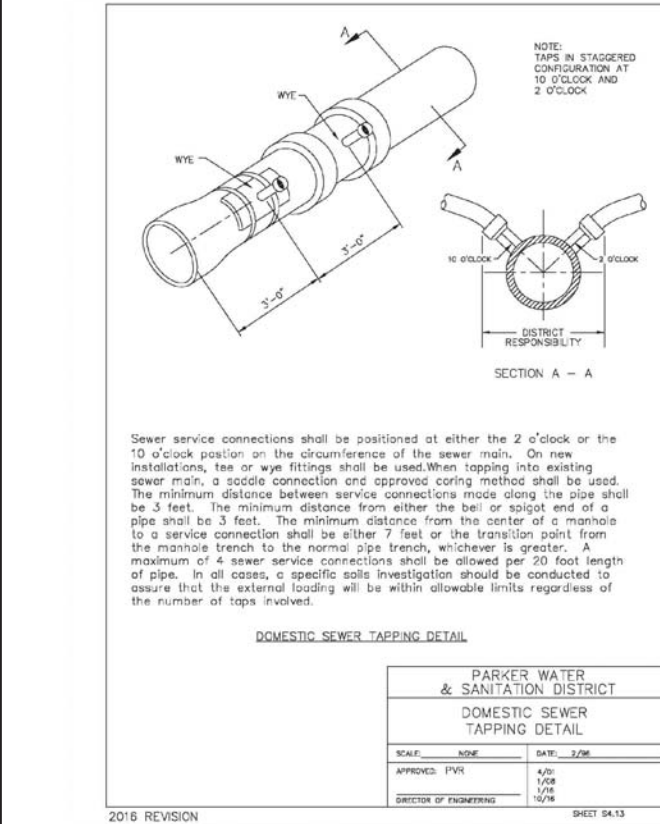
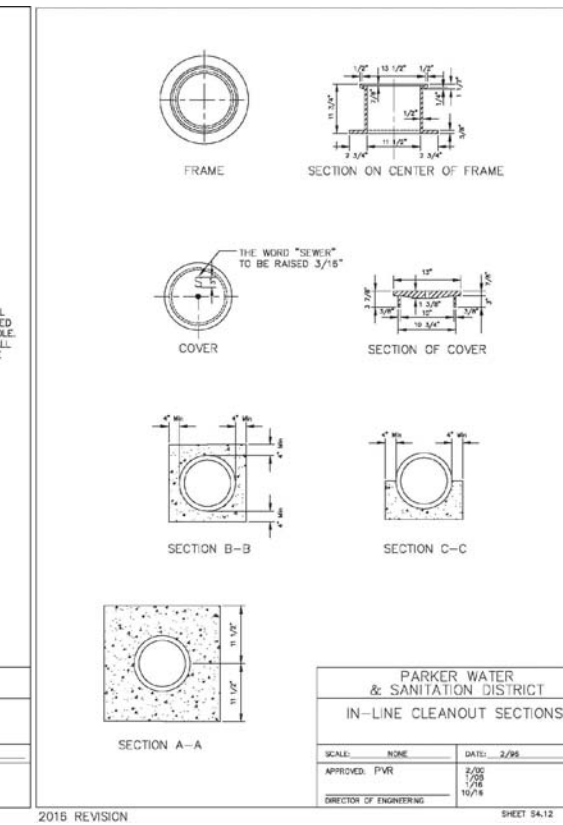
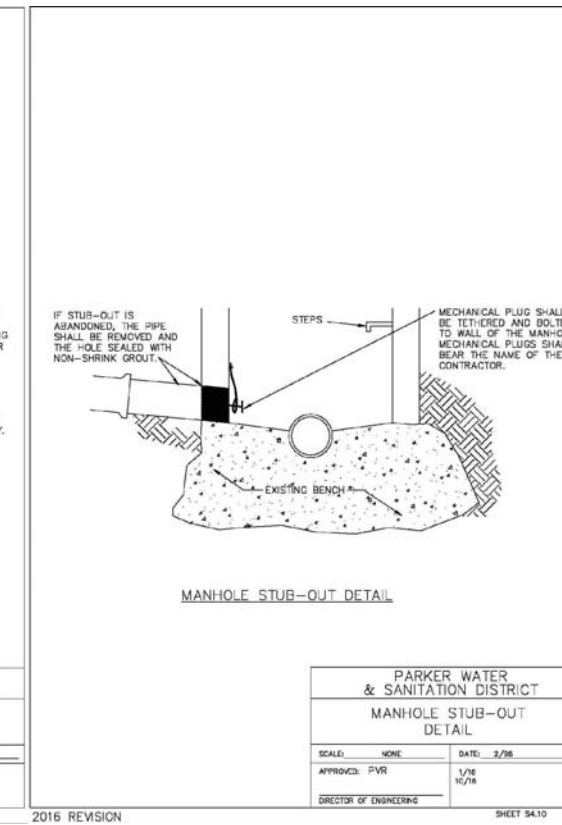
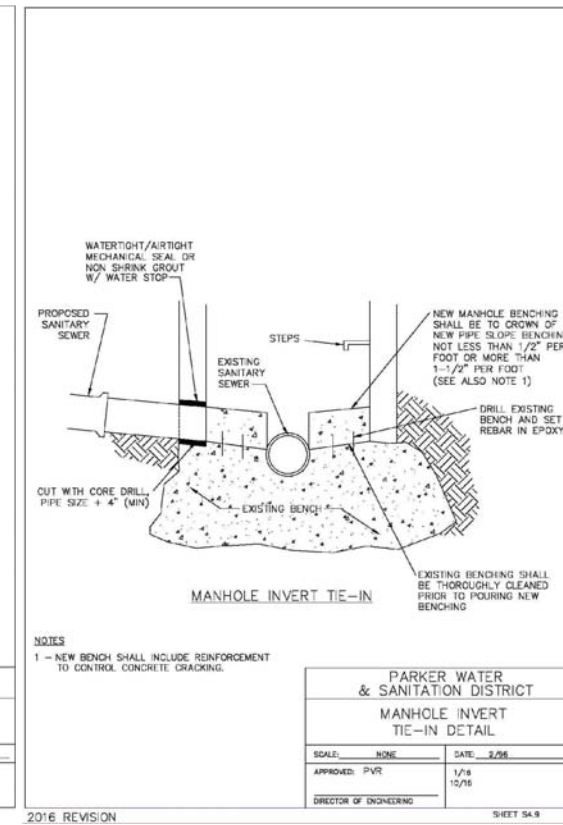
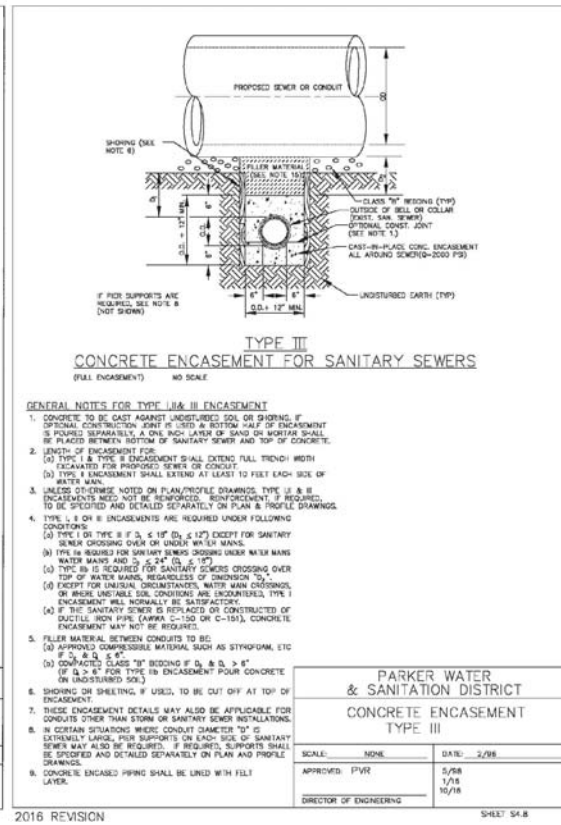
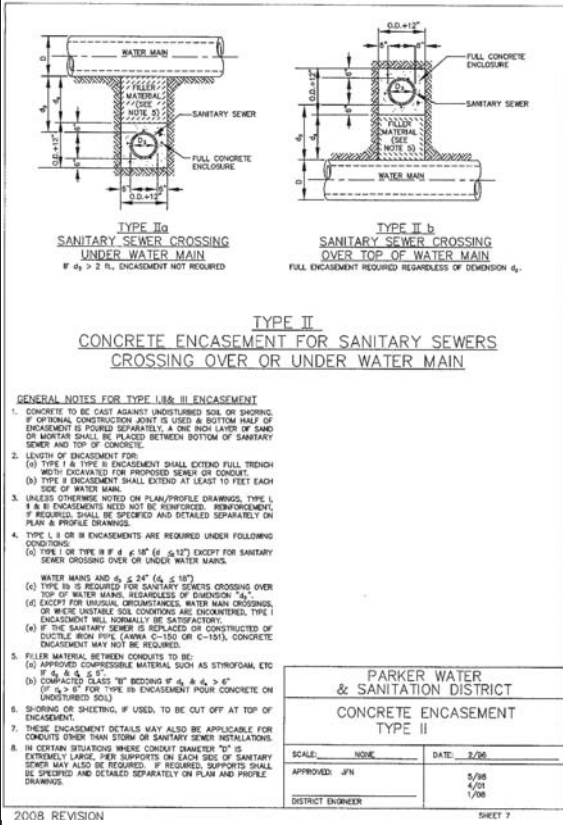
SHEET 54.5



2008 REVISION

SHEET 54.6

N:\PROJECTS\SS RANCH\ENGINEERING\SS\SET\SCDS\PARKER WATER AND SANITATION\3 SANITARY SEWER DETAILS.DWG, TOWN, 2/28/2018 2:05 PM



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:

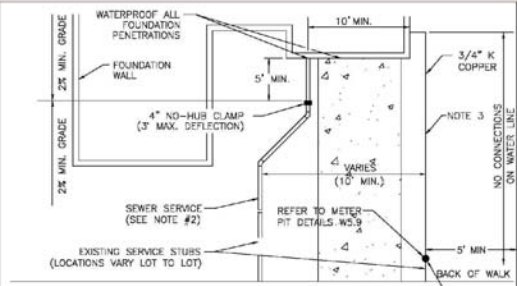
1. ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING, (3/4" MIN.)
2. APPROVED BEDDING TO BE SQUEEGEE.
3. ONLY ONE COUPLING WILL BE ALLOWED BETWEEN THE STOP-N-BUILDING. COMPRESSION COUPLINGS WILL NOT BE ALLOWED ON NEW CONSTRUCTION. SILVER SOLDERED JOINTS MUST BE USED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWSD PRIOR TO BURNAL. 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" BURR.
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 BASEMENT LINE (COMMERCIAL INSTALLATIONS). THE ASSEMBLY MUST BE AT OR SLIGHTLY ABOVE FINISHED GRADE.
7. MOVED CURB BOXES MUST BE INSPECTED BY PWSD PRIOR TO BURNAL.
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 JOINED 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 BURNAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.

DISTRICT POLICIES & INSTALLATION NOTES FOR WATER SERVICES

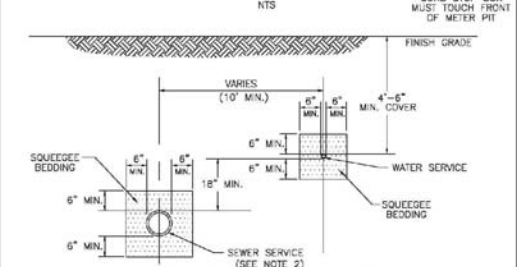
SCALE: NONE	DATE: 2/26
APPROVED: PVR	1/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W1.1



TYPICAL SERVICES PLAN VIEW



TYPICAL SERVICES SECTION

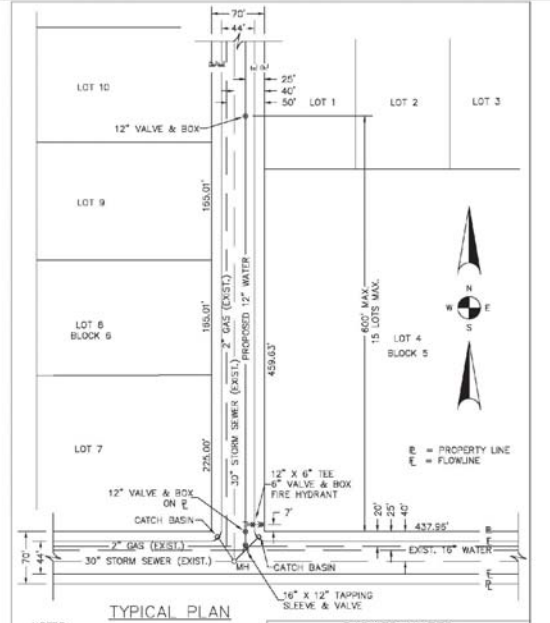
- NOTE:
1. SEE SHEET W1.1 FOR DISTRICT POLICIES AND INSTALLATION NOTES.
 2. REFER TO SEWER SERVICES DETAIL SHEET S1.2.
 3. 4" PVC SLEEVES REQUIRED FOR SERVICE LINES UNDER CONCRETE SURFACE.

TYPICAL WATER SERVICES

SCALE: NONE	DATE: 2/26
APPROVED: PVR	1/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W1.2



TYPICAL PLAN

- NOTES:
1. SEE "TYPICAL STREET CROSS SECTION - TYPICAL STREET Q. PROFILE" DRAWING.
 2. ALL FIRE HYDRANTS TO BE LOCATED AT POINTS OTHER THAN CORNER INTERSECTIONS SHALL BE INSTALLED AT A LOT LINE EXTENDED.

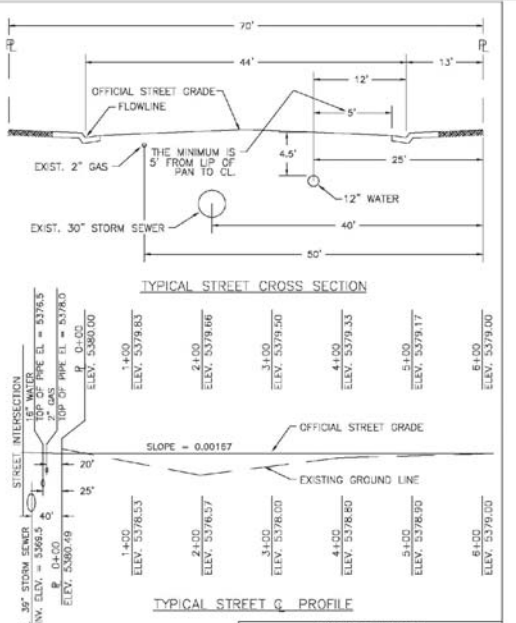
2016 REVISION

PARKER WATER & SANITATION DISTRICT

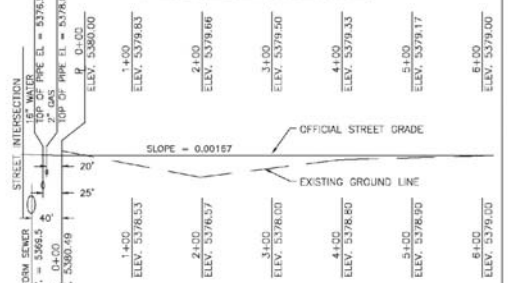
WATER DISTRIBUTION SYSTEM

SCALE: NONE	DATE: 2/26
APPROVED: PVR	1/16
DIRECTOR OF ENGINEERING	10/16

SHEET W2.1



TYPICAL STREET CROSS SECTION



TYPICAL STREET Q. PROFILE

- NOTES:
1. SEE "TYPICAL STREET CROSS SECTION - TYPICAL STREET Q. PROFILE" DRAWING.
 2. ALL FIRE HYDRANTS TO BE LOCATED AT POINTS OTHER THAN CORNER INTERSECTIONS SHALL BE INSTALLED AT A LOT LINE EXTENDED.

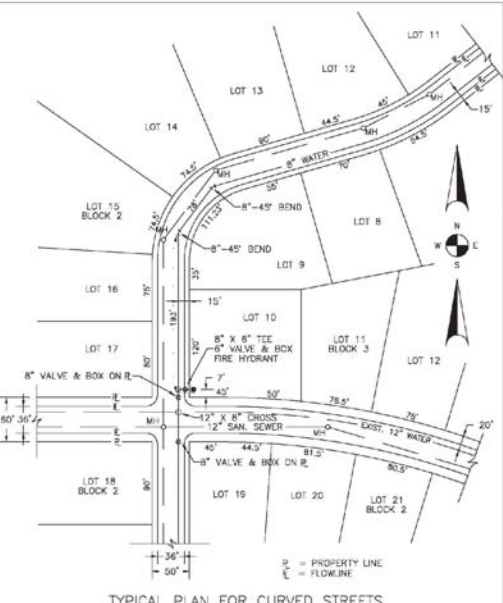
2016 REVISION

PARKER WATER & SANITATION DISTRICT

TYPICAL STREET CROSS SECTION

SCALE: NONE	DATE: 2/26
APPROVED: PVR	1/16
DIRECTOR OF ENGINEERING	10/16

SHEET W2.2



TYPICAL PLAN FOR CURVED STREETS

- NOTE: WATER AND SEWER MAY NEVER BE CLOSER THAN 10" HORIZONTALLY AND MUST MAINTAIN A MINIMUM OF 5" FROM THE LIP OF PAN ON THE OUTTER.

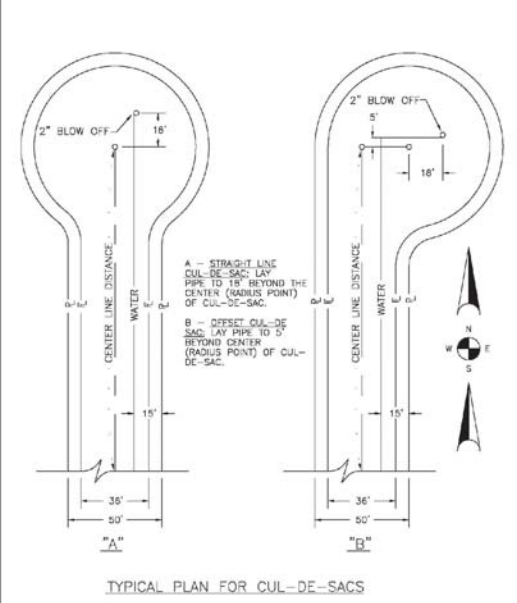
PARKER WATER & SANITATION DISTRICT

WATER DISTRIBUTION SYSTEM

SCALE: NONE	DATE: 2/26
APPROVED: PVR	1/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W2.3



TYPICAL PLAN FOR CUL-DE-SACS

- NOTE:
1. STRAIGHT LINE CUL-DE-SAC LAY PIPE TO 15' BEYOND THE CENTER (RADIUS POINT) OF CUL-DE-SAC.
 2. OFFSET CUL-DE-SAC LAY PIPE TO 5' BEYOND CENTER (RADIUS POINT) OF CUL-DE-SAC.

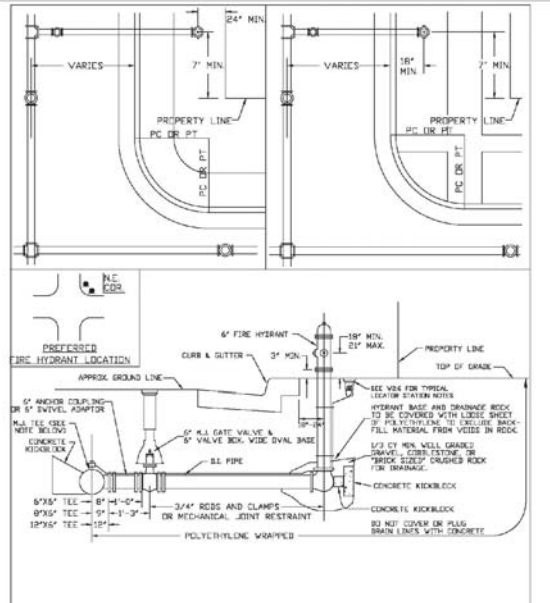
PARKER WATER & SANITATION DISTRICT

WATER DISTRIBUTION SYSTEM

SCALE: NONE	DATE: 2/26
APPROVED: PVR	1/16
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W2.4



- NOTES:
1. ALTERNATE TO THE ABOVE (FACED M.V. VALVE DIRECTLY TO A 4\"/>

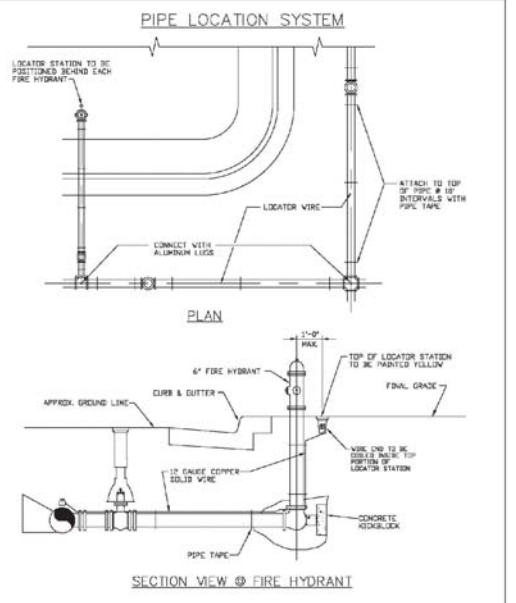
2016 REVISION

PARKER WATER & SANITATION DISTRICT

FIRE HYDRANTS

SCALE: NONE	DATE: 2/26
APPROVED: PVR	1/16
DIRECTOR OF ENGINEERING	10/16

SHEET W2.5



PLAN

SECTION VIEW @ FIRE HYDRANT

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

PARKER WATER & SANITATION DISTRICT

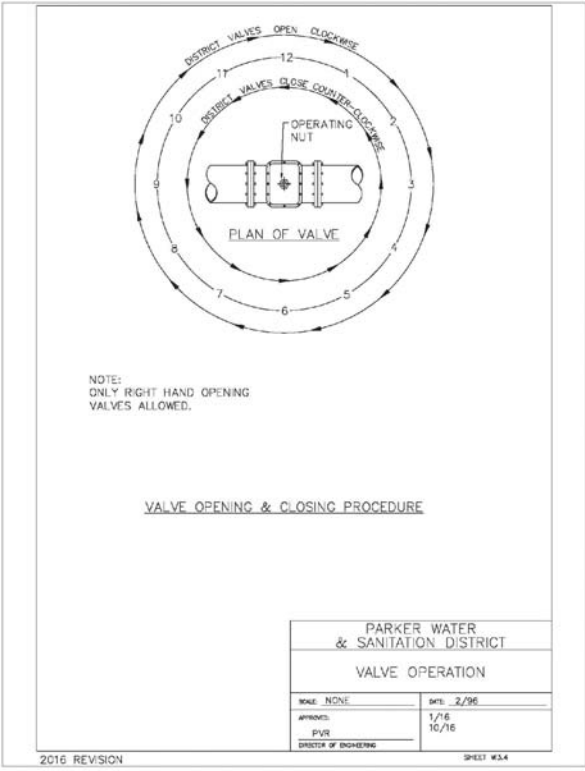
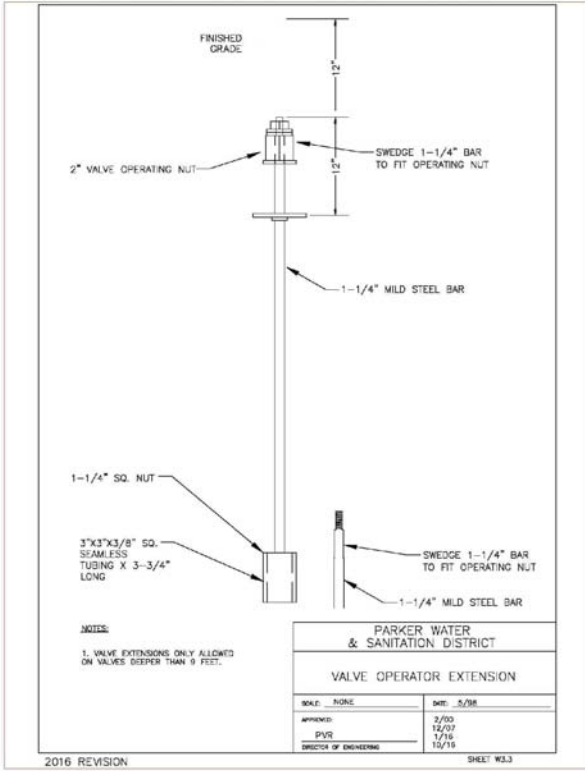
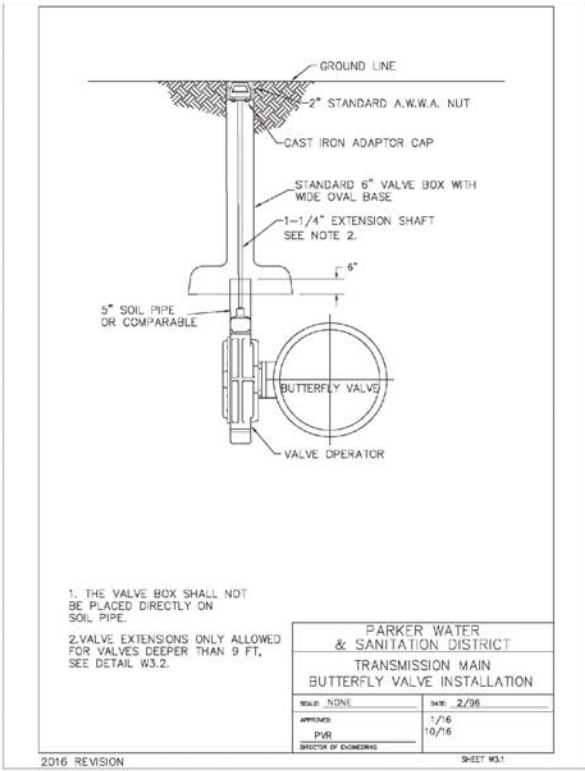
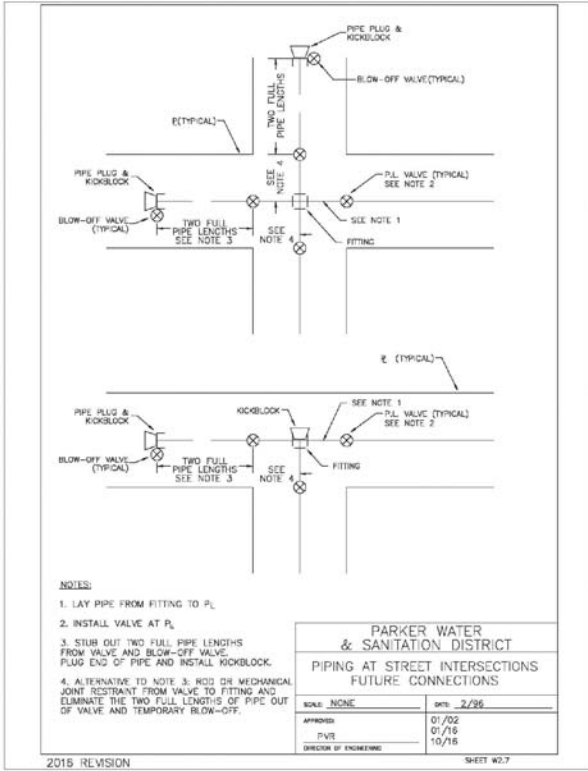
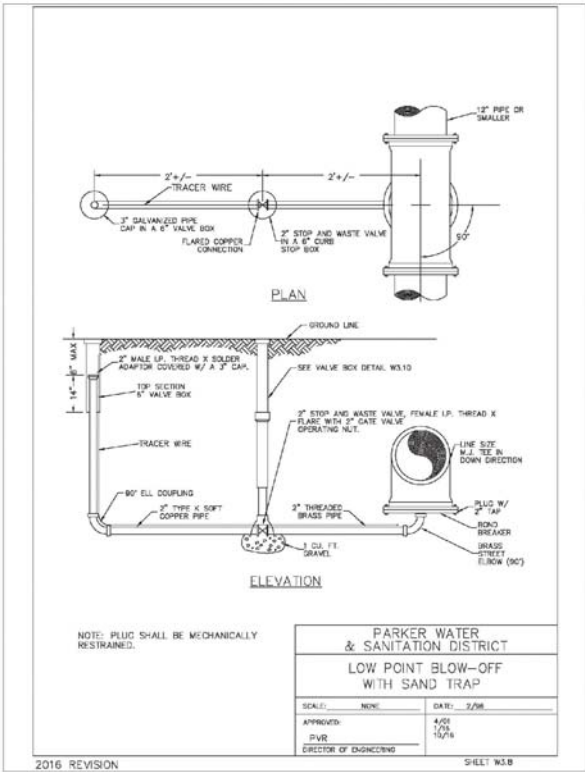
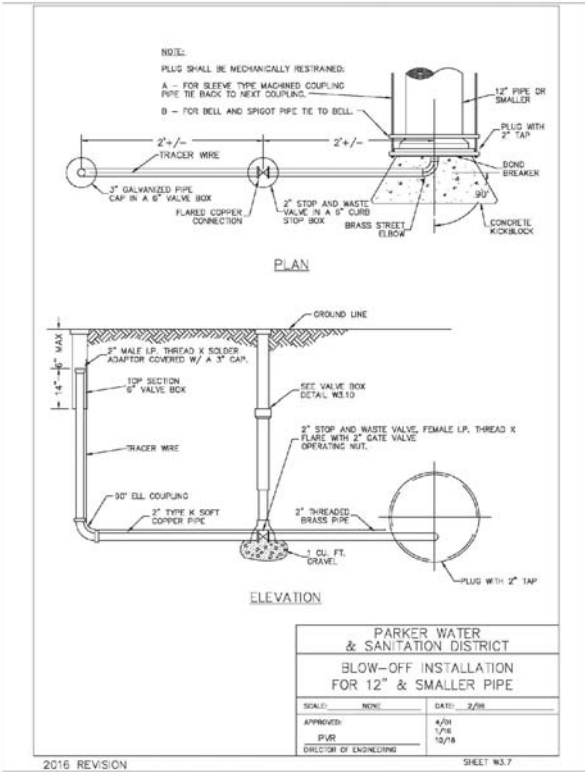
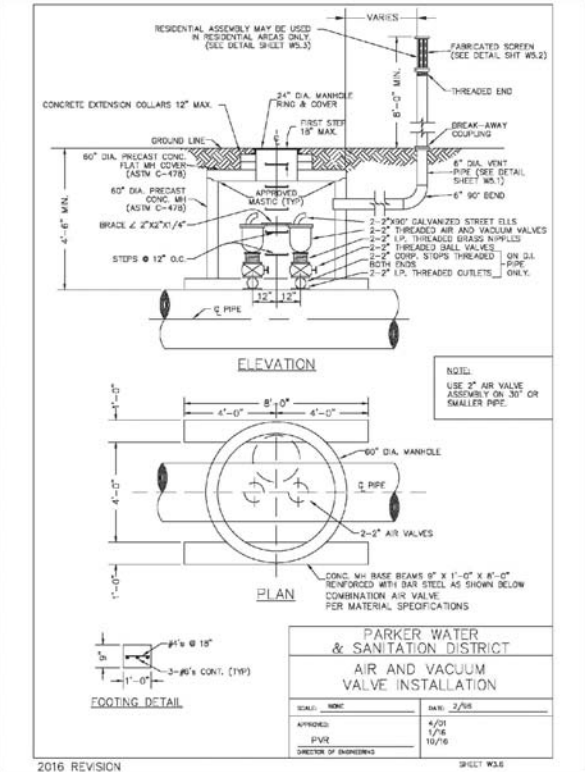
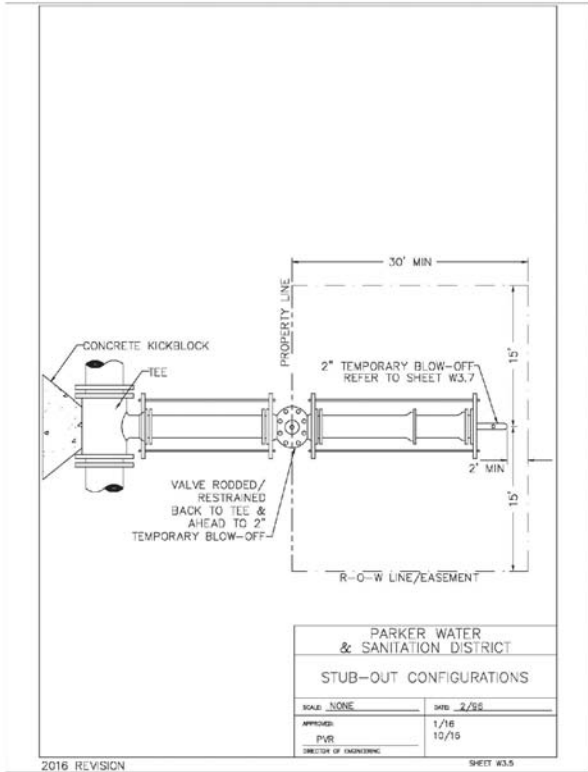
LOCATOR WIRE DETAILS

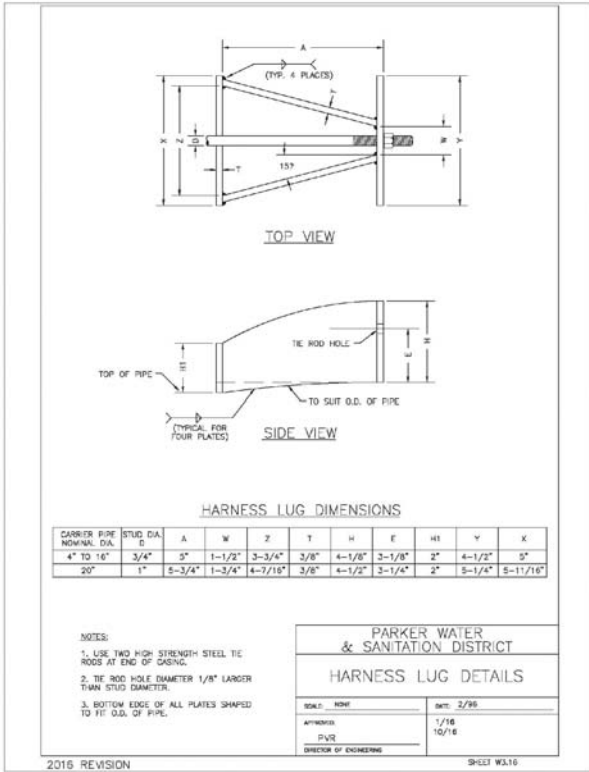
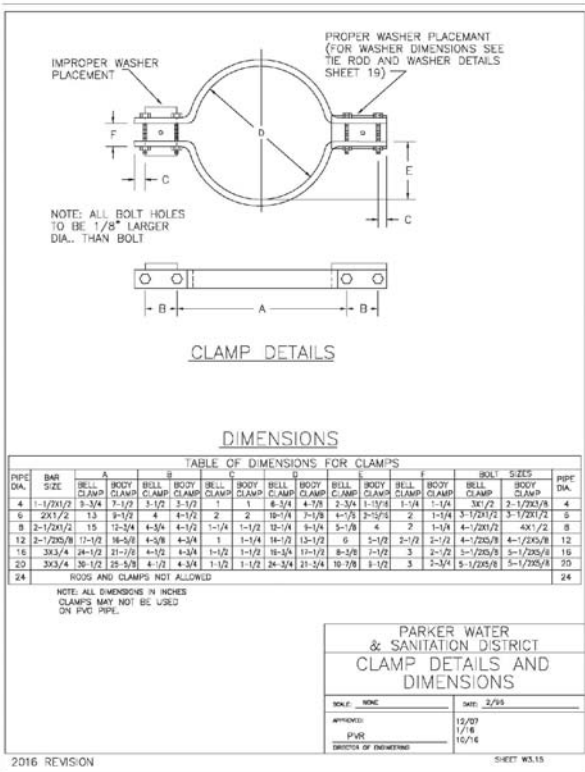
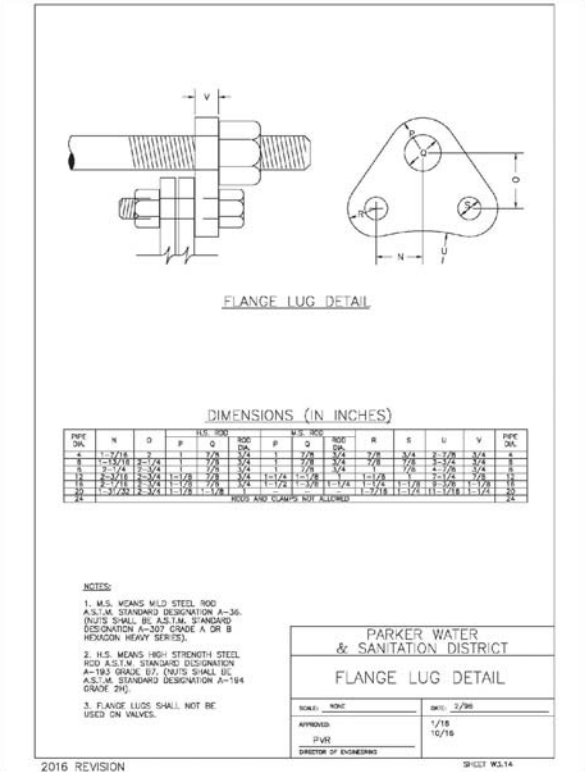
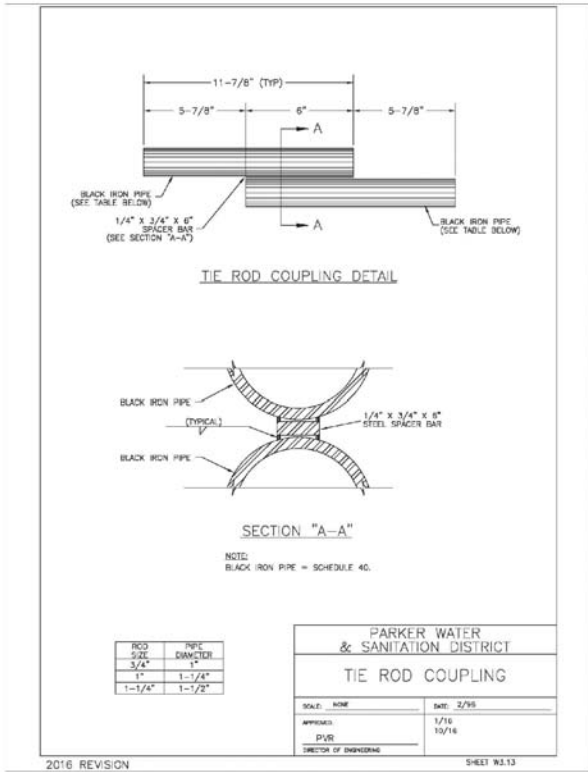
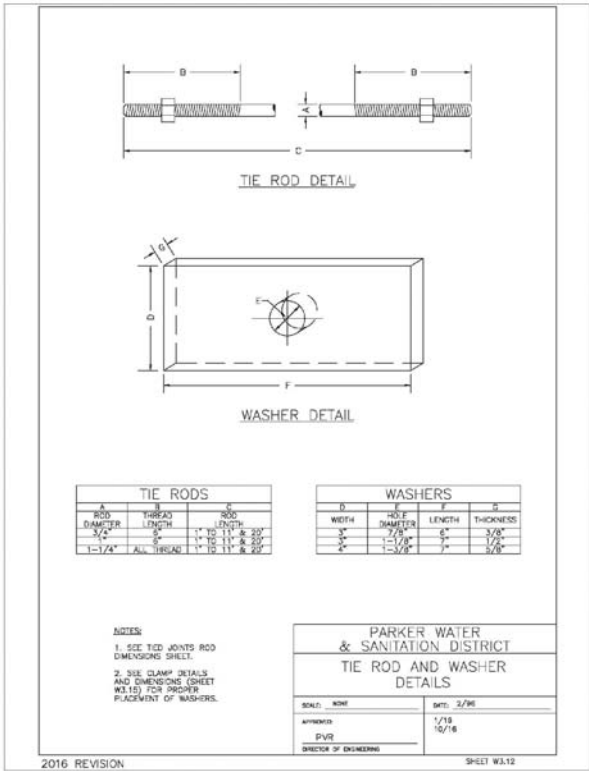
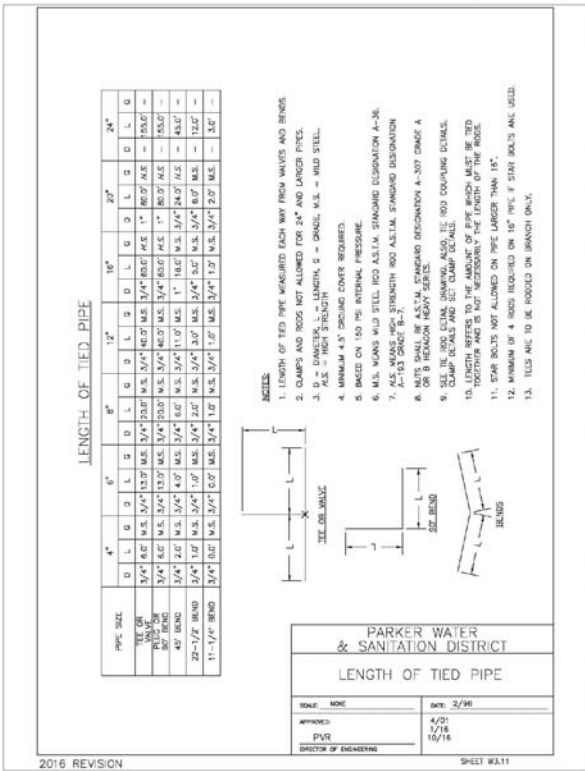
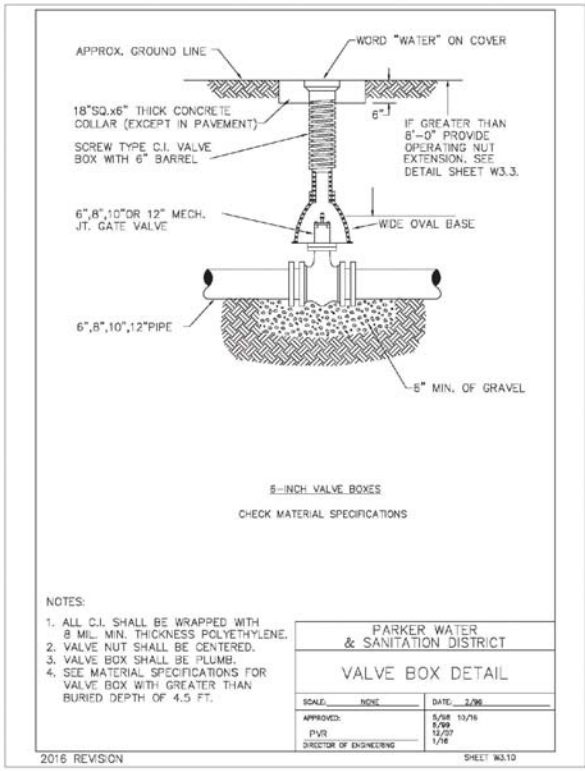
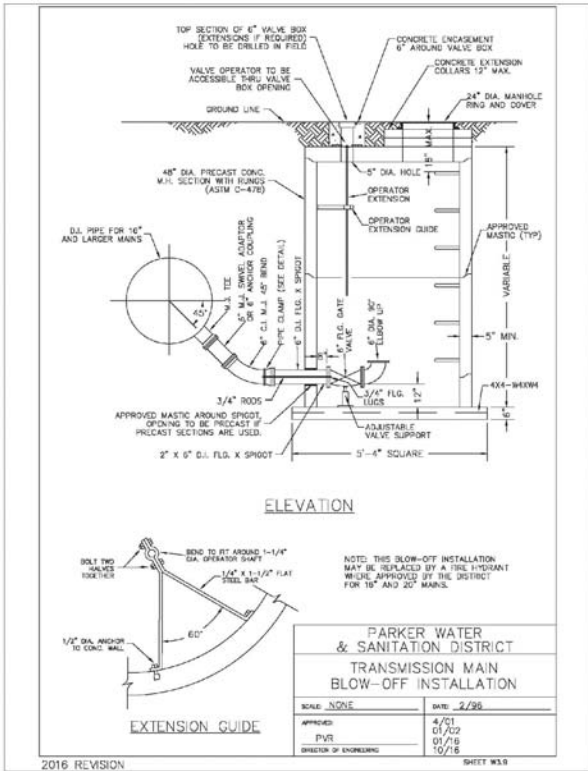
SCALE: NONE	DATE: 2/26
APPROVED: PVR	1/16
DIRECTOR OF ENGINEERING	10/16

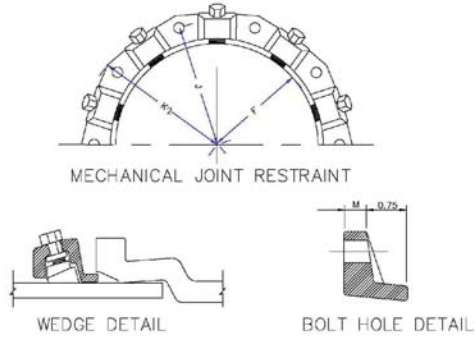
2016 REVISION

SHEET W2.6

10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 Tel: (720) 882-9526 Fax: (720) 882-9546	Revisions	No.	Date	Appr.	Date
HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112	TRAILS AT CROWFOOT FILING 3 CONSTRUCTION DRAWINGS WATER DETAILS	SCALE: AS SHOWN	FILE NO: 8130283701	JF	APRIL 2017
SHEET NUMBER	17	CHECKED BY: JJ	DATE: APRIL 2017		







NOMINAL PIPE SIZE	NO. OF JOINTS	NO. OF WEDGES	INCHES	INCHES	INCHES	INCHES
4"	2	2	11.12	9.5	7.00	5.88
6"	3	3	13.37	11.75	8.15	7.00
8"	4	4	15.62	14.00	11.25	10.00
10"	5	5	17.88	16.25	13.50	12.25
12"	6	6	20.13	18.50	15.75	14.50

NOTES:

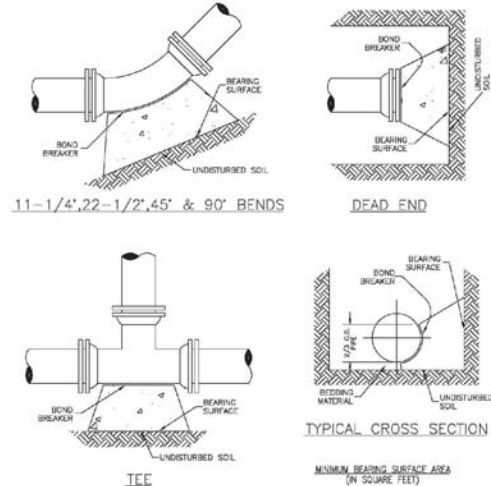
- DIMENSIONS FOR 16" AND 20" D.I. PIPE NOT SHOWN.

PARKER WATER & SANITATION DISTRICT MECHANICAL JOINT RESTRAINT DETAILS

SCALE: NONE	DATE: 2/95
APPROVED: PVR	4/01
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W3.17



NOTES:

- ALL VALVES, TEES, BENDS AND PLUGS SHALL BE SUBMITTALS AND KICKBLOCKS.
- BEARING SURFACES SHOWN IN CHART ARE MINIMUM.
- BASED ON 150 PSI PIPE PRESSURE PLUS WATER HAMMER.
- 4" 6" AND 8" WATER HAMMER = 120 PSI.
- 12" WATER HAMMER = 140 PSI.
- 16", 20" AND 24" WATER HAMMER = 70 PSI.
- SOIL BEARING CAPACITY = 3,000 LBS./SQ. FT.

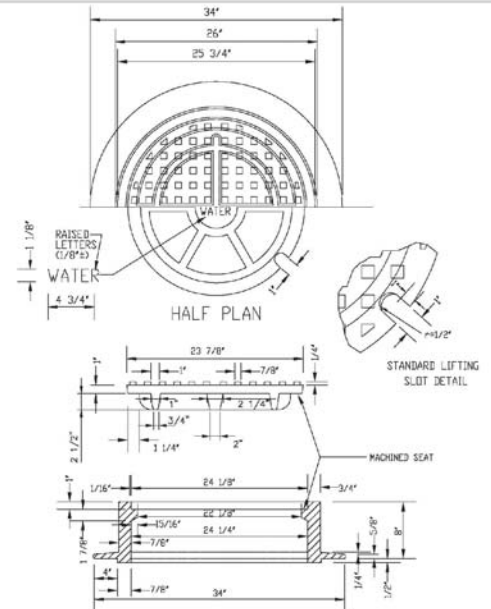
SIZE OF PIPE	MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)	TEE OR 90° BEND
4"	1.00	1.00
6"	1.25	1.25
8"	1.50	1.50
10"	1.75	1.75
12"	2.00	2.00
16"	2.50	2.50
20"	3.00	3.00
24"	3.50	3.50

PARKER WATER & SANITATION DISTRICT CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION

SCALE: NONE	DATE: 2/95
APPROVED: PVR	4/01
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W3.18



NOTES:

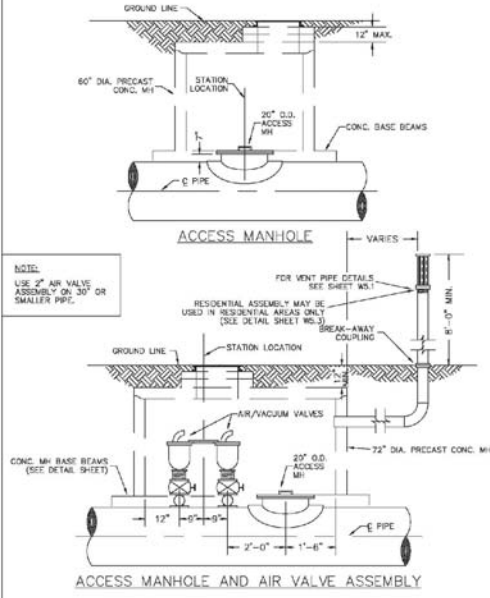
- Coating Specifications: ASTM A-48 With A Minimum Tenacity (through 24" x 24" Cover 20)
- It is to be Sloped to Asphalt Base Point (Or Approved Equal)

PARKER WATER & SANITATION DISTRICT 24" DIAMETER RING AND COVER

SCALE: NONE	DATE: 6/25
APPROVED: PVR	12/03
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W3.19



NOTES:

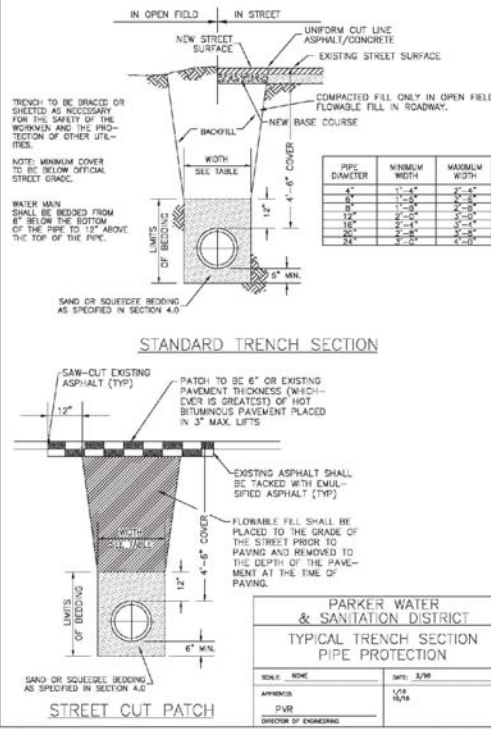
- USE 2" AIR VALVE ASSEMBLY ON 20" OR SMALLER PPT.

PARKER WATER & SANITATION DISTRICT ACCESS MANHOLE ASSEMBLY

SCALE: NONE	DATE: 2/95
APPROVED: PVR	4/01
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W3.20



2016 REVISION

SHEET W4.1

PIPE BEDDING:

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

Tamping is herein defined as the act of placing approved bedding material under the bottom of the pipe, paying particular attention to under bell holes, and along holes. The purpose of tamping is to insure uniform support for the pipe.

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

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

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

Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 4	75-100
No. 8	35-85
No. 16	20-60
No. 30	8-50
No. 60	3-30
No. 100	1-10
No. 200	0-2

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

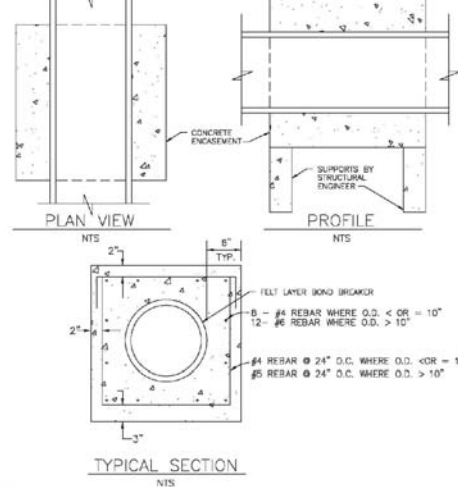
If approved by the District, fines from the trench walls and spoils may be used to provide uniform support for the pipe. No rock or stone larger than that allowed by the above methods, or any other detrimental materials, shall be placed under the pipe from its bottom (6") Approved bedding materials shall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

PARKER WATER & SANITATION DISTRICT PIPE BEDDING

SCALE: NONE	DATE: 2/95
APPROVED: PVR	2/95
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W4.2



NOTES:

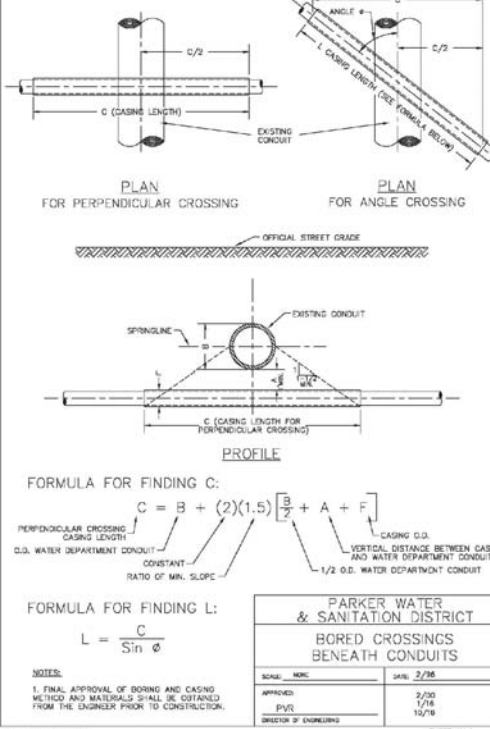
- ALL CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3,000 PSI USING TYPE I PORTLAND CEMENT AND 3/4" AGGREGATE. ALL CONCRETE SHALL HAVE 5-78 ENTRAINED AIR CONTENT AND A MAXIMUM SLUMP OF 4".
- ALL REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
- ALL REINFORCEMENT SHALL HAVE 2" MIN. CONCRETE COVER.
- THE SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY PRIOR TO FORMING THE STRUCTURE.
- PIPE SHALL BE WRAPPED WITH FELT LAYER BEFORE ENCASEMENT.

PARKER WATER & SANITATION DISTRICT WATERLINE ENCASEMENT

SCALE: NONE	DATE: 5/98
APPROVED: PVR	2/95
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W4.3



FORMULA FOR FINDING C:

$$C = B + (2)(1.5) \left[\frac{B}{2} + A + F \right]$$

PERPENDICULAR CROSSING CASING LENGTH

C.O. WATER DEPARTMENT CONDUIT

CONSTANT RATIO OF MIN. SLOPE

VERTICAL DISTANCE BETWEEN CASING AND WATER DEPARTMENT CONDUIT

1/2 O.D. WATER DEPARTMENT CONDUIT

FORMULA FOR FINDING L:

$$L = \frac{C}{\sin \phi}$$

NOTES:

- FINAL APPROVAL OF BORING AND CASING METHOD AND MATERIALS SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION.

PARKER WATER & SANITATION DISTRICT BORED CROSSINGS BENEATH CONDUITS

SCALE: NONE	DATE: 2/95
APPROVED: PVR	2/95
DIRECTOR OF ENGINEERING	10/16

2016 REVISION

SHEET W4.4

