

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 AND 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 ENDS 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 FORTH 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 DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO PROCEEDING WITH THE EXCAVATION. ALL WORK PERFORMED IN THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
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.

N:\PROJECTS\SSR\BENCH\ENGINEERING\SSR\WATER AND SANITATION\SSR\COVERING.DWG, CDD\A_208\2018 1.10.PIN

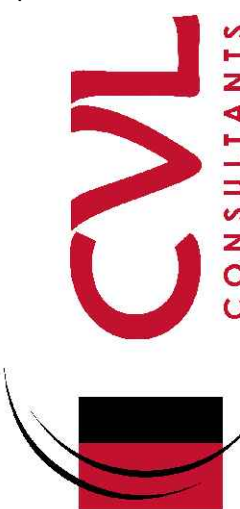
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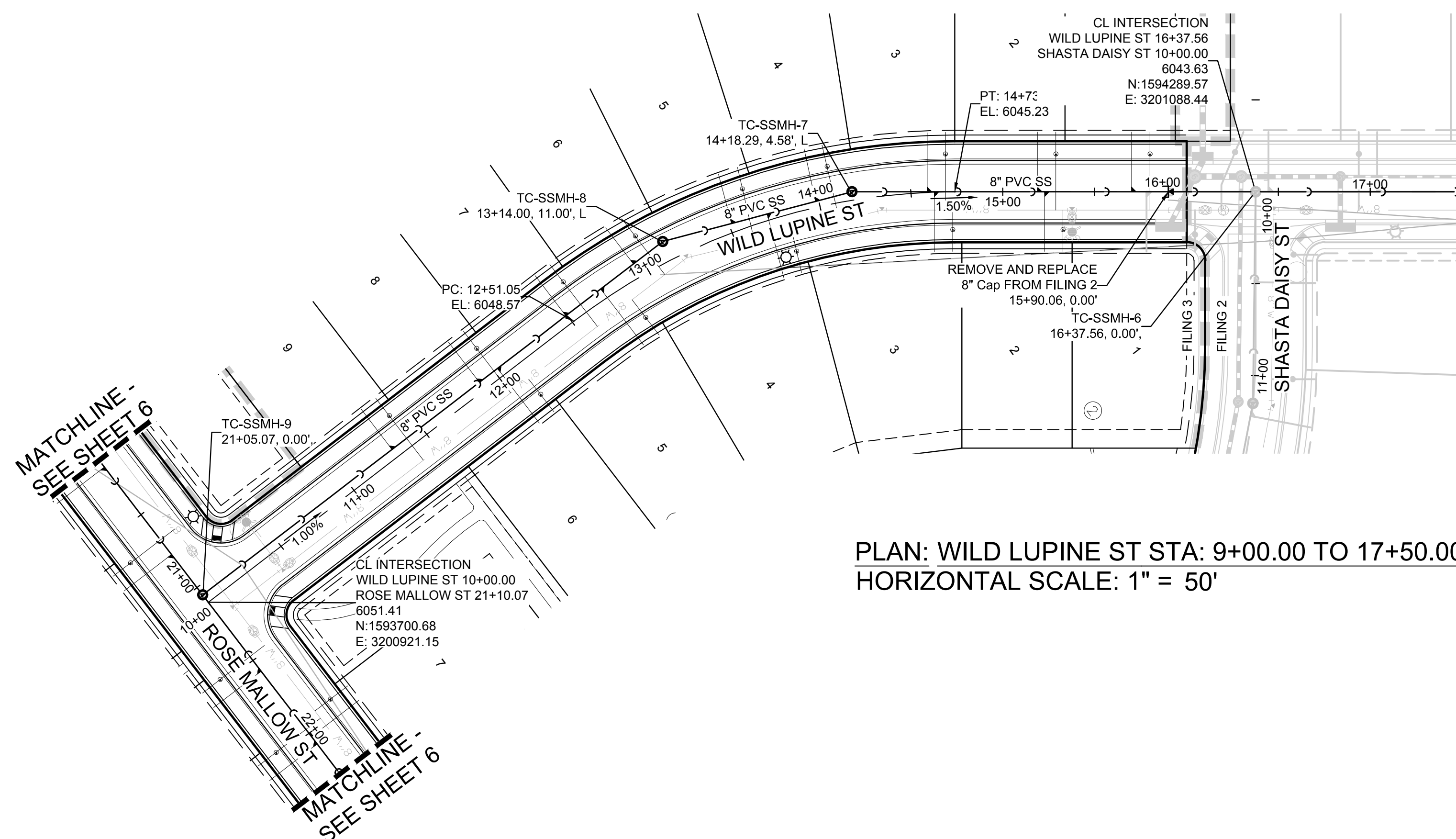
BENCHMARK
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID 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.

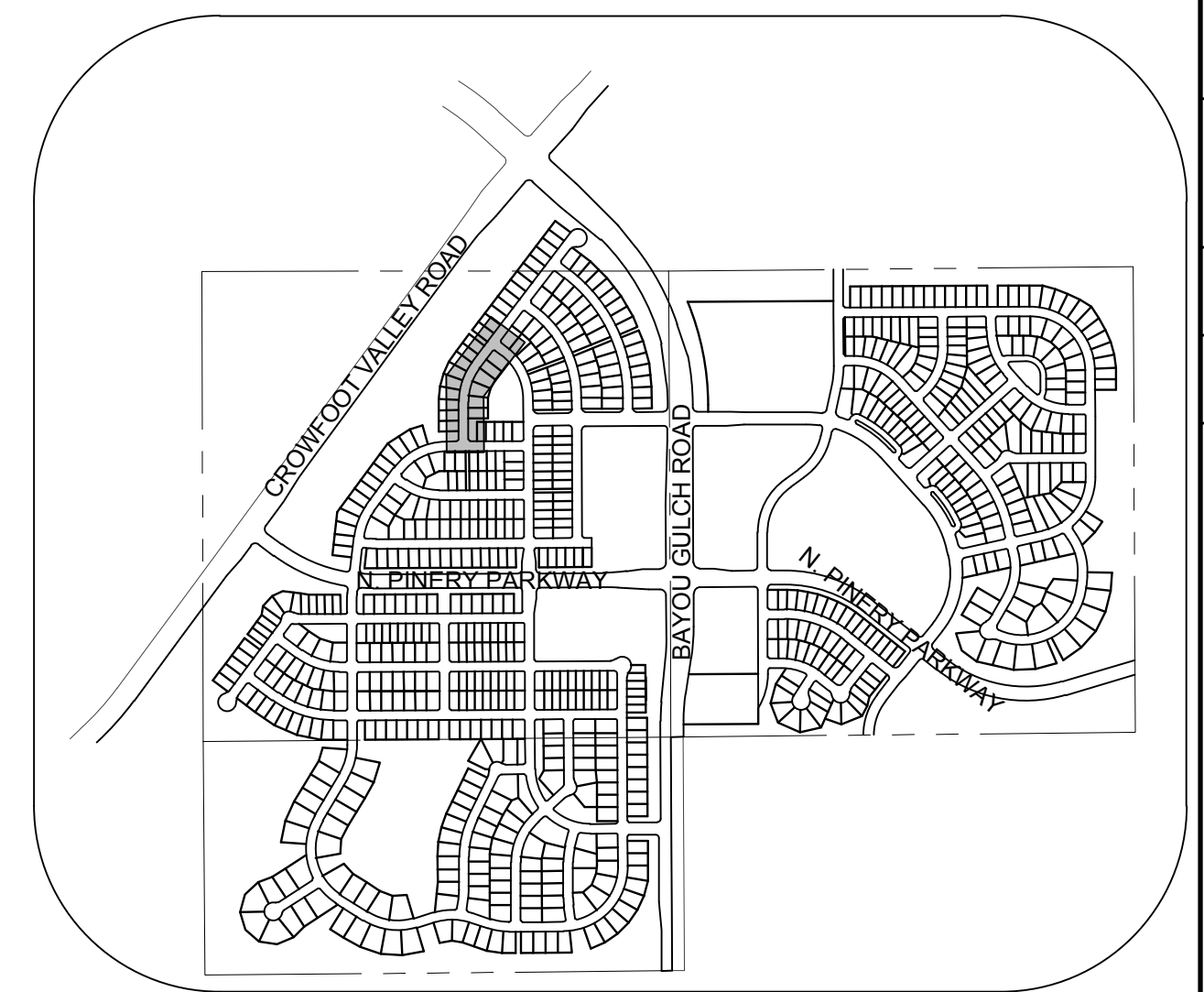
PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

SHEET NUMBER	DRAWN BY: KJD	CHECKED BY: JJ	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 Alton Way CENTENNIAL, CO 80112		10338 E. Dry Creek Rd. Centennial, CO 80110 Englewood, CO 80110 Tel: (720) 482-9526 Fax: (720) 482-9546	Revisions	No.	Date	Appr.	Date



PLAN: WILD LUPINE ST STA: 9+00.00 TO 17+50.00
HORIZONTAL SCALE: 1" = 50'

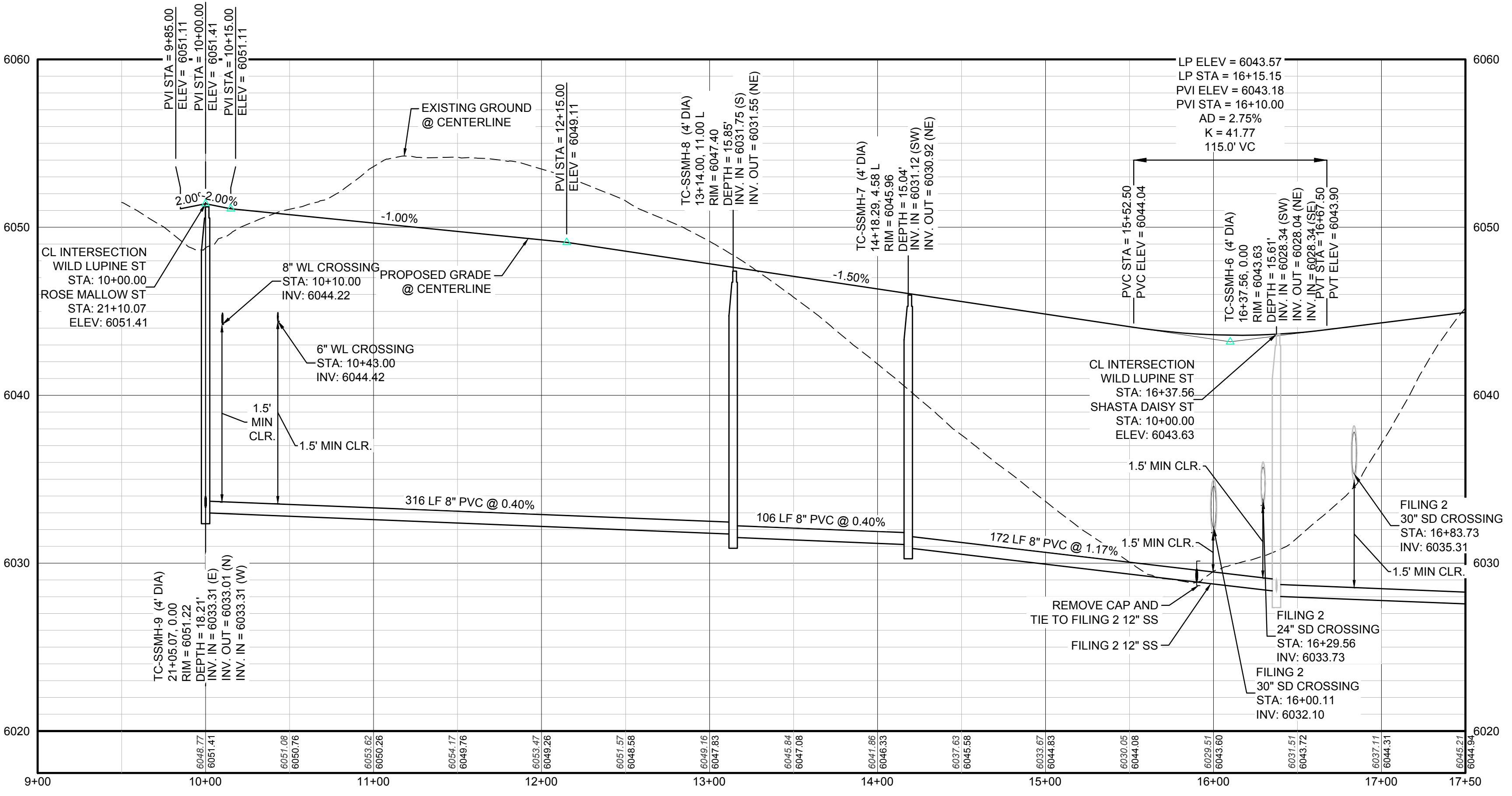


KEYMAP
N.T.S.

SANITARY SERVICE TABLE		
FILING, BLOCK, LOT	STREET	STATIONING
F3,B1,L1	WILD LUPINE ST	15+70.06
F3,B1,L2	WILD LUPINE ST	15+18.83
F3,B1,L3	WILD LUPINE ST	14+58.79
F3,B1,L4	WILD LUPINE ST	13+98.17
F3,B1,L5	WILD LUPINE ST	13+51.43
F3,B1,L6	WILD LUPINE ST	12+94.78
F3,B1,L7	WILD LUPINE ST	12+49.35
F3,B1,L8	WILD LUPINE ST	11+89.97
F3,B1,L9	WILD LUPINE ST	11+29.97
F3,B2,L1	WILD LUPINE ST	15+78.23
F3,B2,L2	WILD LUPINE ST	15+22.70
F3,B2,L3	WILD LUPINE ST	14+62.70
F3,B2,L4	WILD LUPINE ST	13+71.15
F3,B2,L5	WILD LUPINE ST	12+72.87
F3,B2,L6	WILD LUPINE ST	12+02.30

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	5615	EXISTING 5' CONTOUR
⊗	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
⊗	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
⊗	PROPOSED LOW POINT BLOW-OFF	5607	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 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



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

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	ROCB	REINFORCED CONCRETE BOX CULVERT
CR	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

10333 E. Dry Creek Rd. Suite 410 Englewood, CO 80150 Tel: (720) 482-9526 Fax: (720) 482-9546	10333 E. Dry Creek Rd. Suite 410 Englewood, CO 80150 Tel: (720) 482-9526 Fax: (720) 482-9546
CVL CONSULTANTS	CVL CONSULTANTS
HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112	HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112
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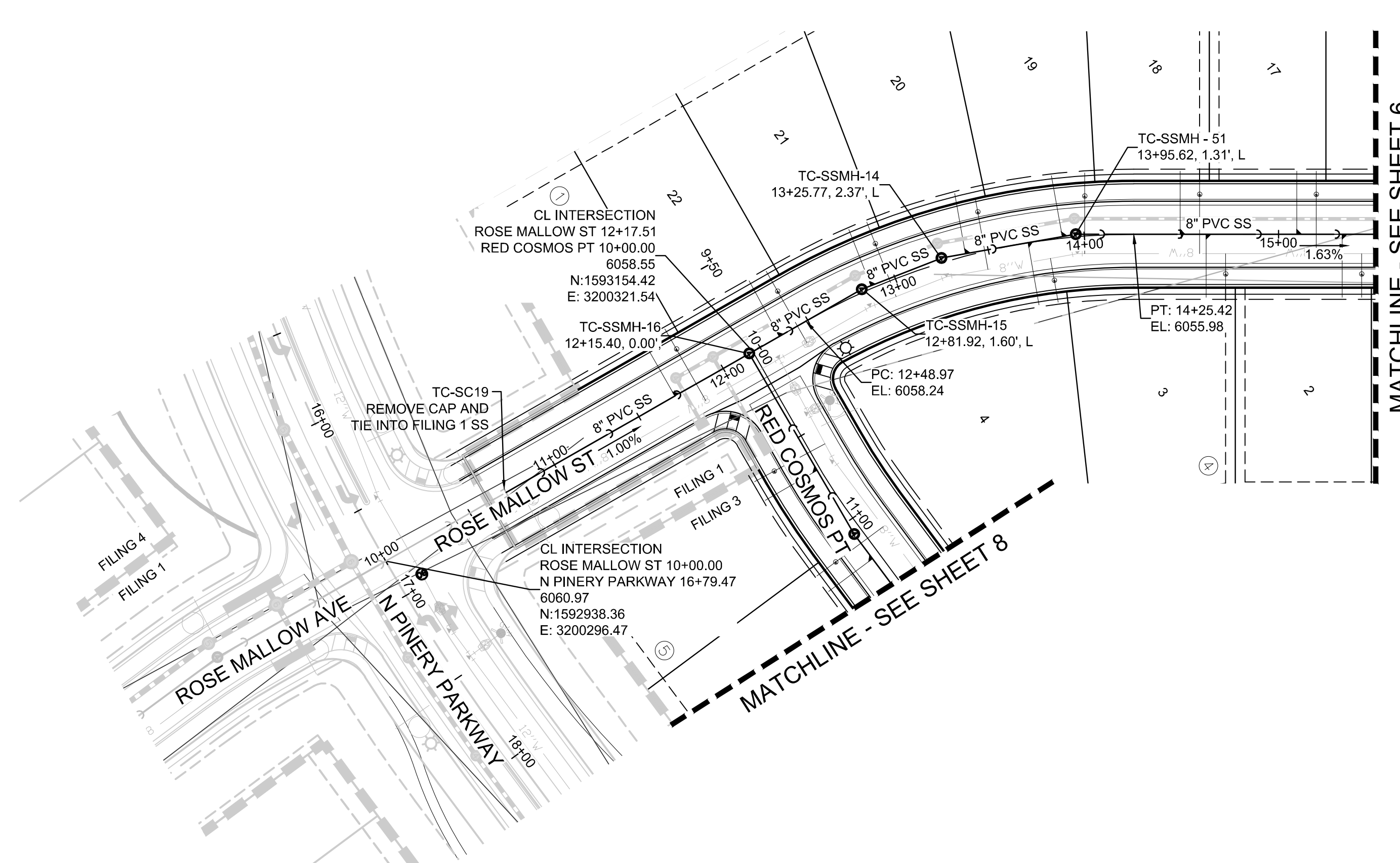
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UTILITY NOTIFICATION
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BENCHMARK
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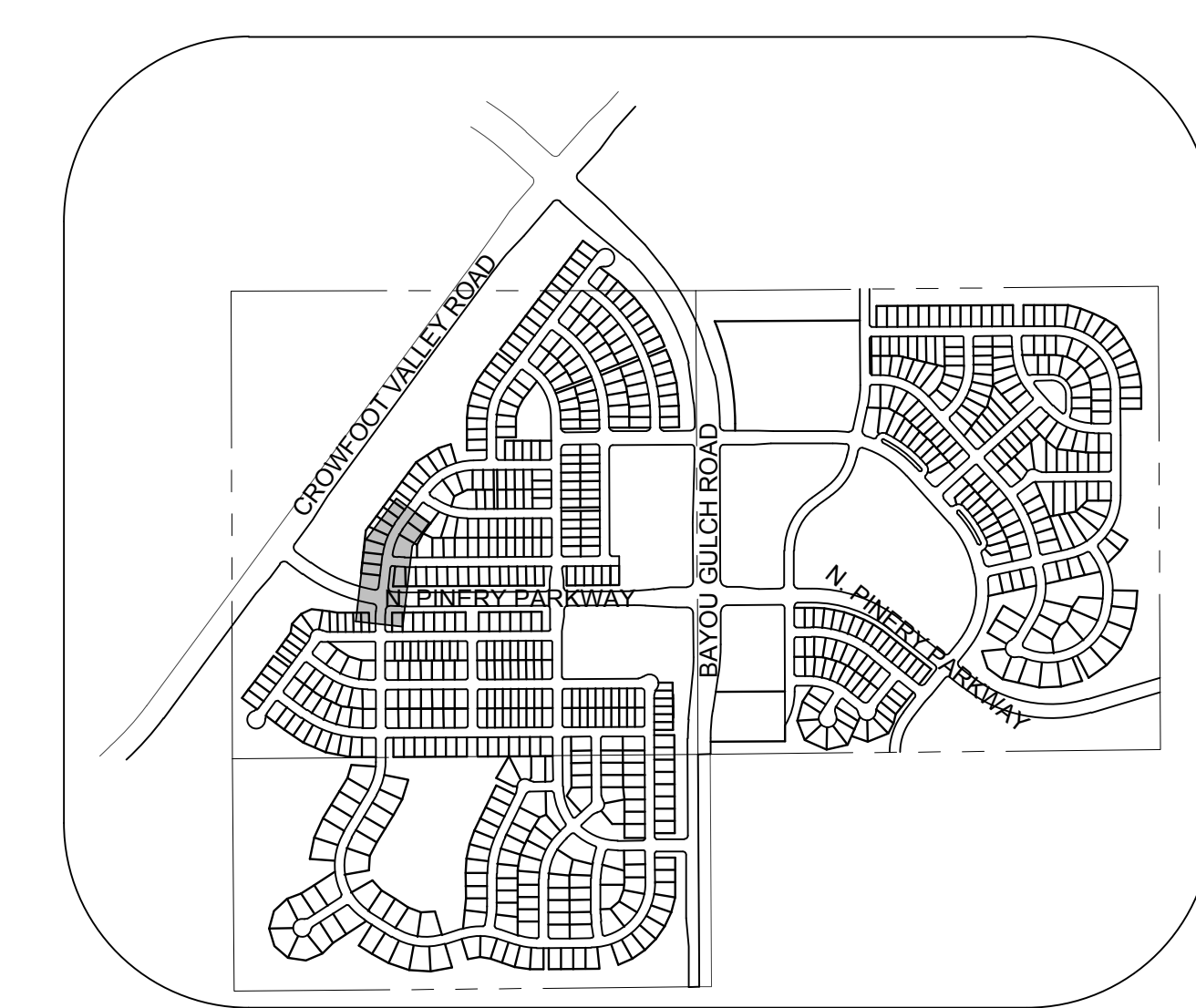
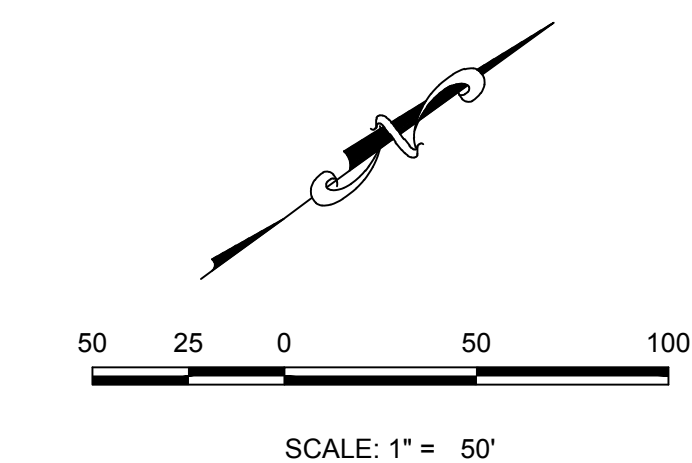
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PREPARED UNDER THE SUPERVISION OF

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COLORADO P.E. 0050067



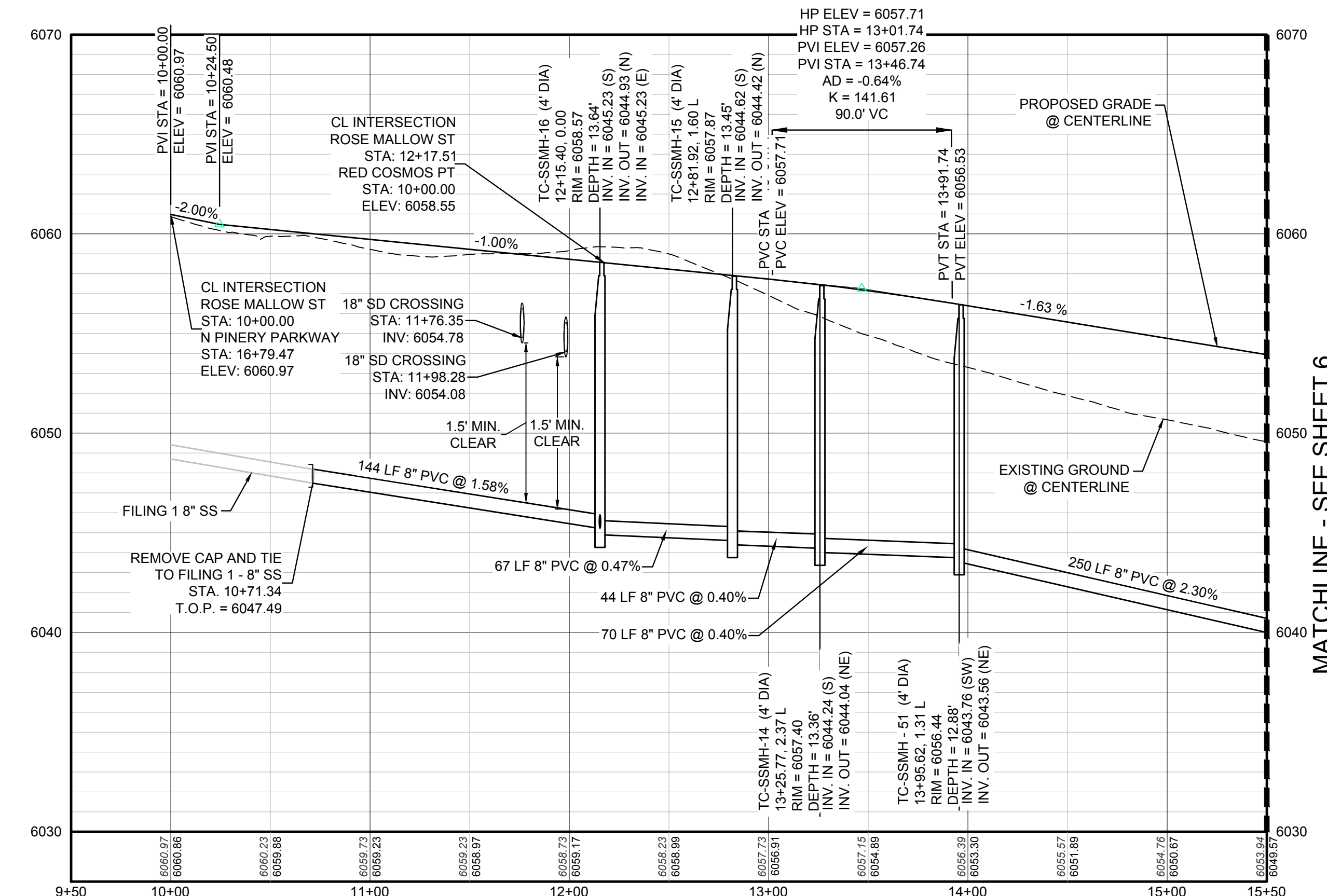
PLAN: ROSE MALLOW ST STA: 9+50.00 TO 15+50.00
HORIZONTAL SCALE: 1" = 50'



KEYMAP
N.T.S.
LEGEND

⊙	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
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⊕	PROPOSED STORM DRAIN INLET	---	EXISTING OVERHEAD POWER
⊕	PROPOSED STORM DRAIN MANHOLE	---	EXISTING TELEPHONE LINE

FILING, BLOCK, LOT	STREET	STATIONING
F3.B1.L17	ROSE MALLOW ST	15+09.32
F3.B1.L18	ROSE MALLOW ST	14+49.32
F3.B1.L19	ROSE MALLOW ST	13+88.66
F3.B1.L20	ROSE MALLOW ST	13+38.19
F3.B1.L21	ROSE MALLOW ST	12+87.01
F3.B1.L22	ROSE MALLOW ST	12+33.24
F3.B1.L23	ROSE MALLOW ST	11+71.35
F3.B4.L2	ROSE MALLOW ST	15+32.71
F3.B4.L3	ROSE MALLOW ST	14+62.71
F3.B4.L4	ROSE MALLOW ST	13+70.79



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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

PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

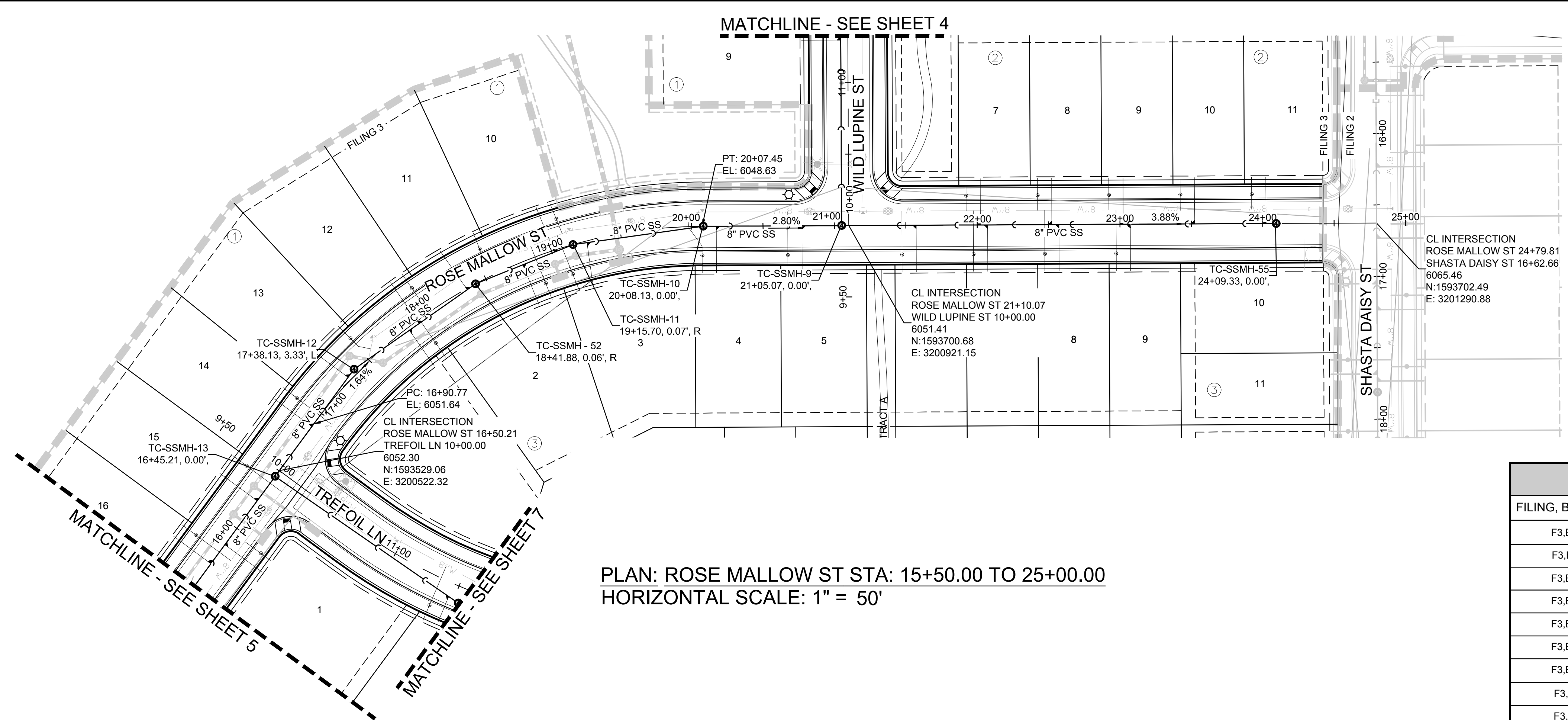
N:\PROJECTS\SS\BENCHM\ENGINEERING\SS\BENCHM\PLAN AND PROFILES\ROSE MALLOW ST SANITARY DWG.HAYDENI 2/28/2018 1:38 PM

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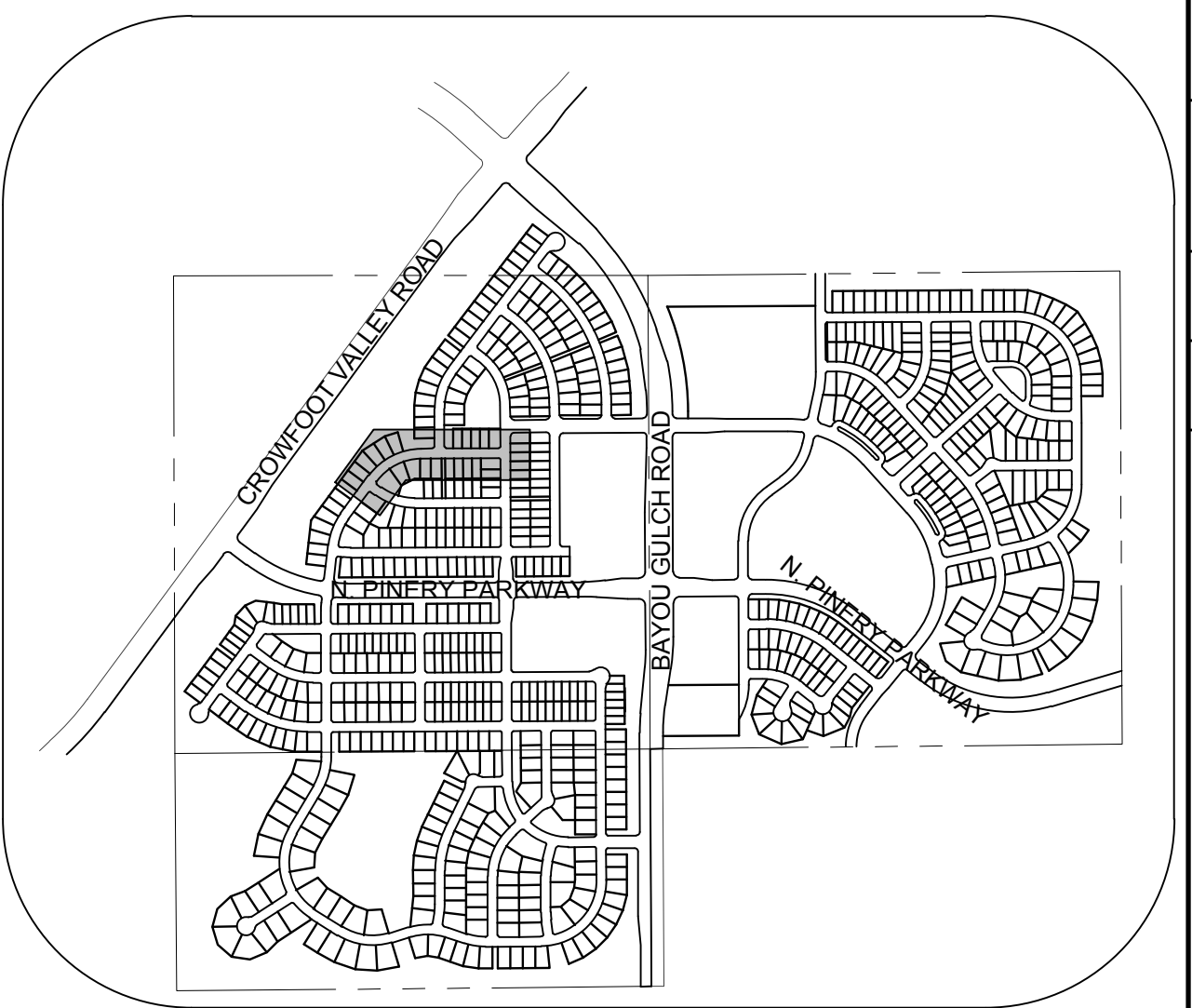
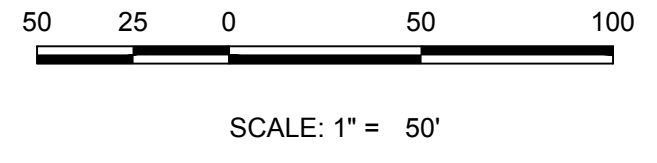
BENCHMARK
THE DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.069032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

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SHEET NUMBER	DRAWN BY: JLR	SCALE:	AS SHOWN
		CHECKED BY: JJJ	FILE NO: 8130283701
5	DATE: APRIL 2017	TRAILS AT CROWFOOT FILING 3 CONSTRUCTION DRAWINGS SANITARY SEWER PLAN AND PROFILE ROSE MALLOW ST	
		HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112	
Revisions	No.	Date	Appr.

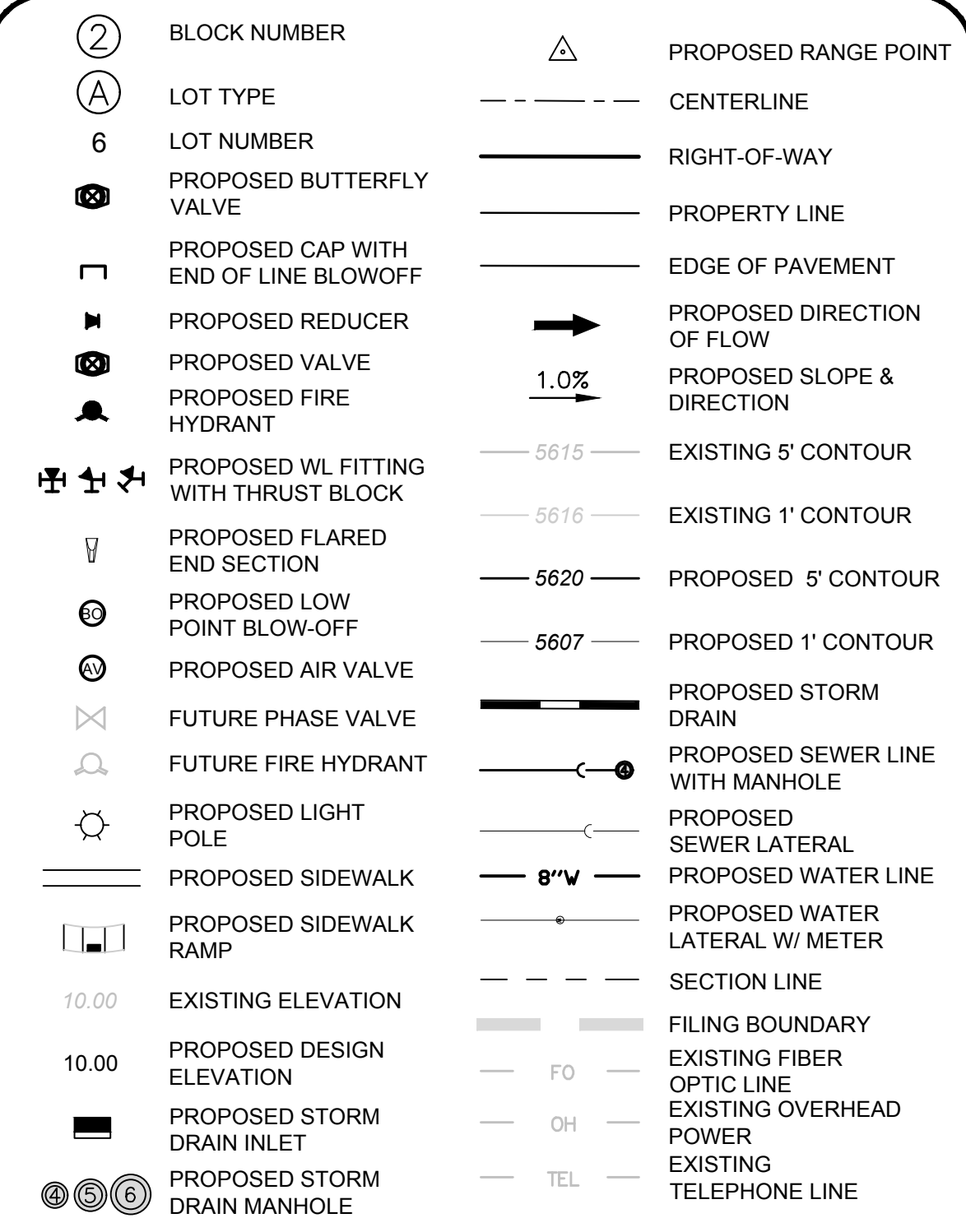


PLAN: ROSE MALLOW ST STA: 15+50.00 TO 25+00.00
HORIZONTAL SCALE: 1" = 50'



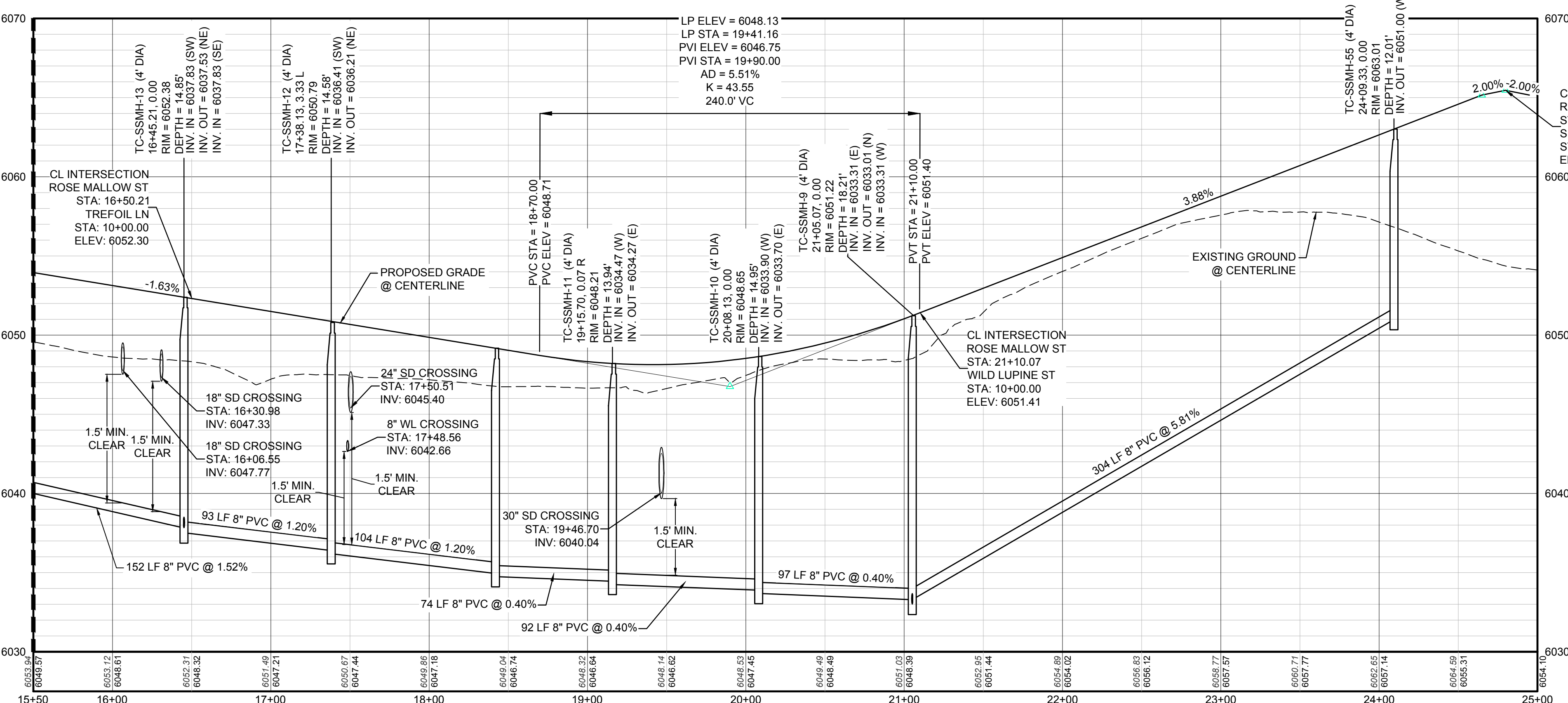
KEYMAP
N.T.S.
LEGEND

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



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
CR	CURB RETURN RADIUS	RCBC	REINFORCED CONCRETE BOX CULVERT
ELEV	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



PROFILE: ROSE MALLOW ST STA: 15+50.00 TO 25+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

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BENCHMARK
THE DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.069032, 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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10333 E. Dry Creek Rd.
Suite 410
Englewood, CO 80150
Tel: (720) 482-9526
Fax: (720) 482-9548

CVL CONSULTANTS

HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

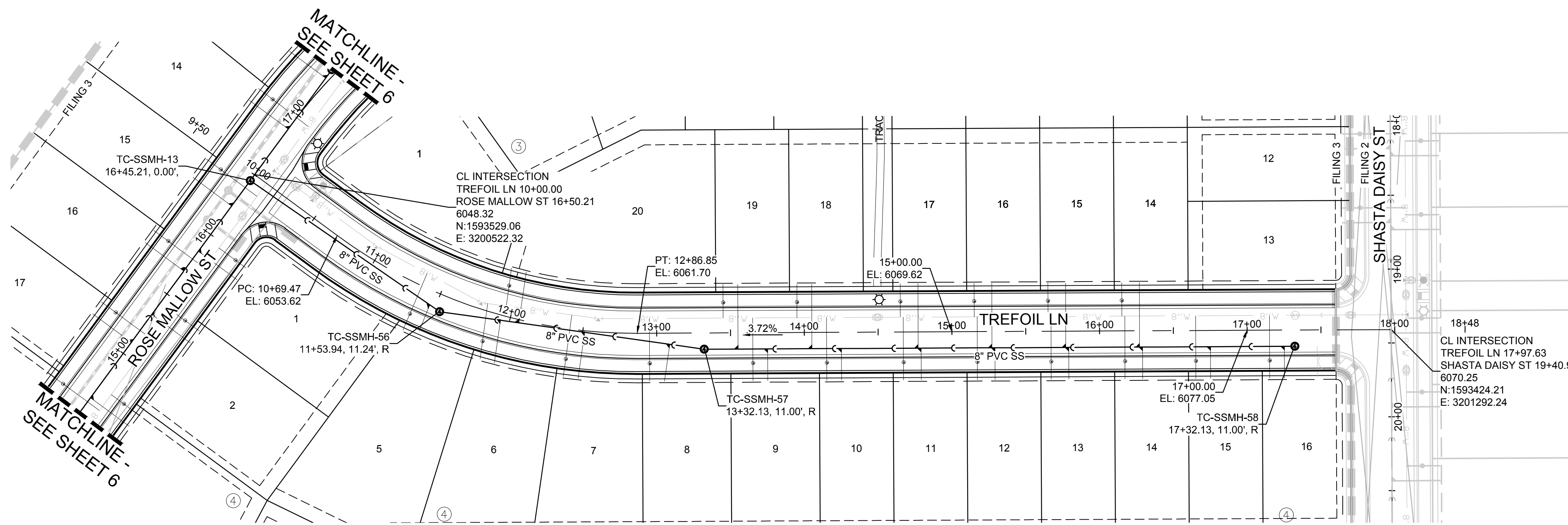
TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
ROSE MALLOW ST

SCALE: AS SHOWN
FILE NO: 8130283701

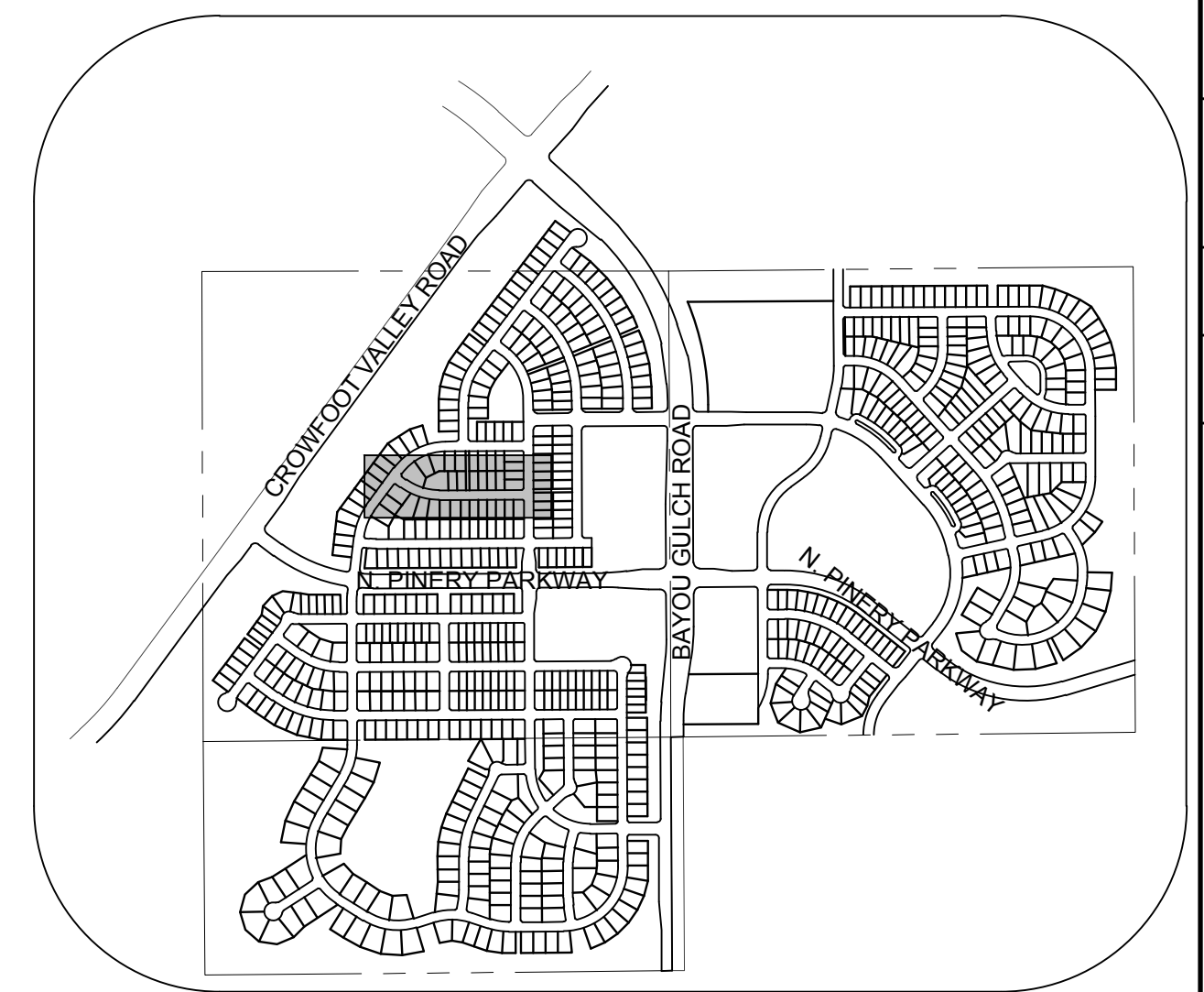
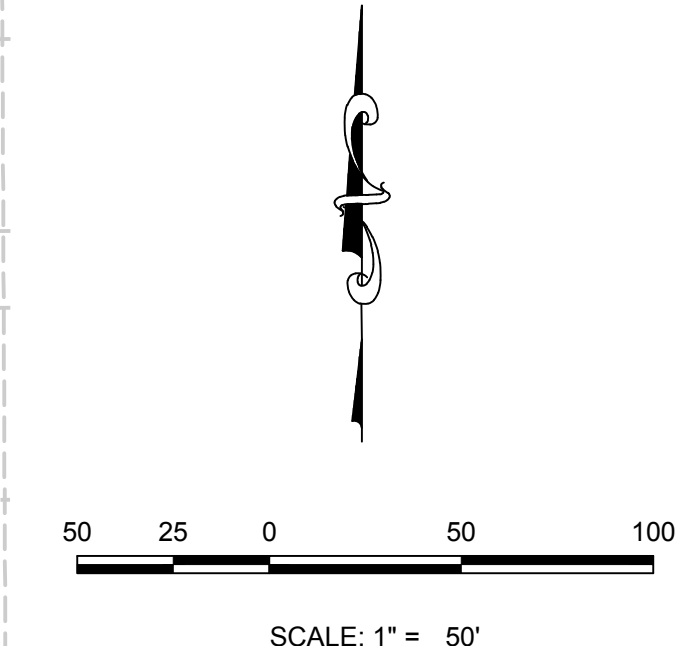
DRAWN BY: JUR
CHECKED BY: JJJ
DATE: APRIL 2017

SHEET NUMBER: 6

No.	Revisions	Date	Init.	Appr.	Date



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



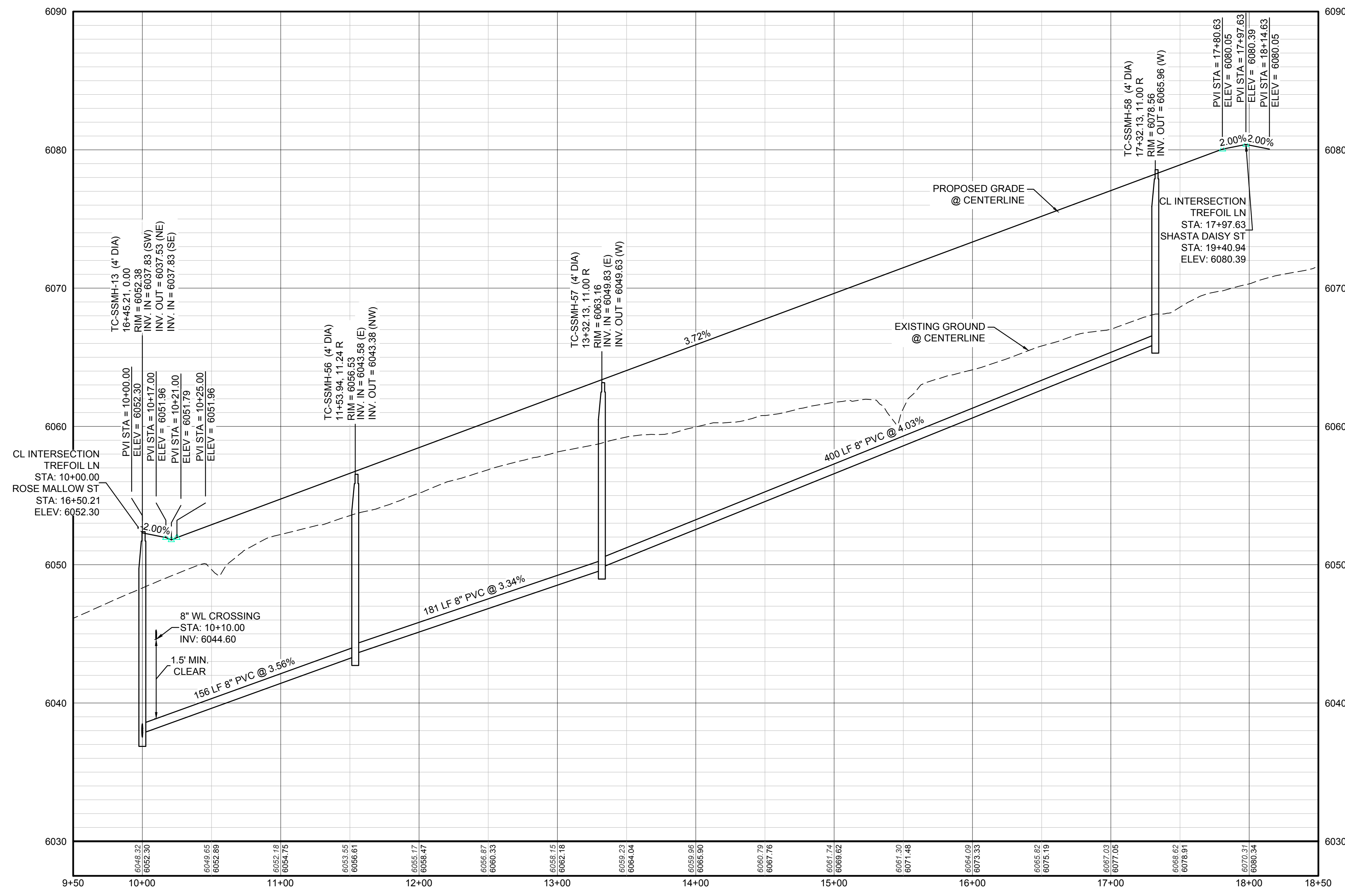
KEYMAP
N.T.S.
LEGEND

②	BLOCK NUMBER	△	PROPOSED RANGE POINT
Ⓐ	LOT TYPE	---	CENTERLINE
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	5615	EXISTING 5' CONTOUR
⊗	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
⊗	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
⊗	PROPOSED LOW POINT BLOW-OFF	5607	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	8" W	PROPOSED WATER LATERAL W/ METER
⊗	PROPOSED SIDEWALK RAMP	---	SECTION LINE
10.00	EXISTING ELEVATION	---	FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	FO	EXISTING FIBER OPTIC LINE
⊗	PROPOSED STORM DRAIN INLET	OH	EXISTING OVERHEAD POWER
⊗	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE

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
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
ELR	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
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PROFILE: TREFOIL LN STA: 9+50.00 TO 18+50.00
HORIZONTAL: 1" = 50'
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PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

N:\PROJECTS\SS\BACH\ENGINEERING\SS\BACH\SANITARY\PLAN AND PROFILES\TREFOIL LN SANITARY DWG - HAYDEN, 3/22/2018 2:58 PM

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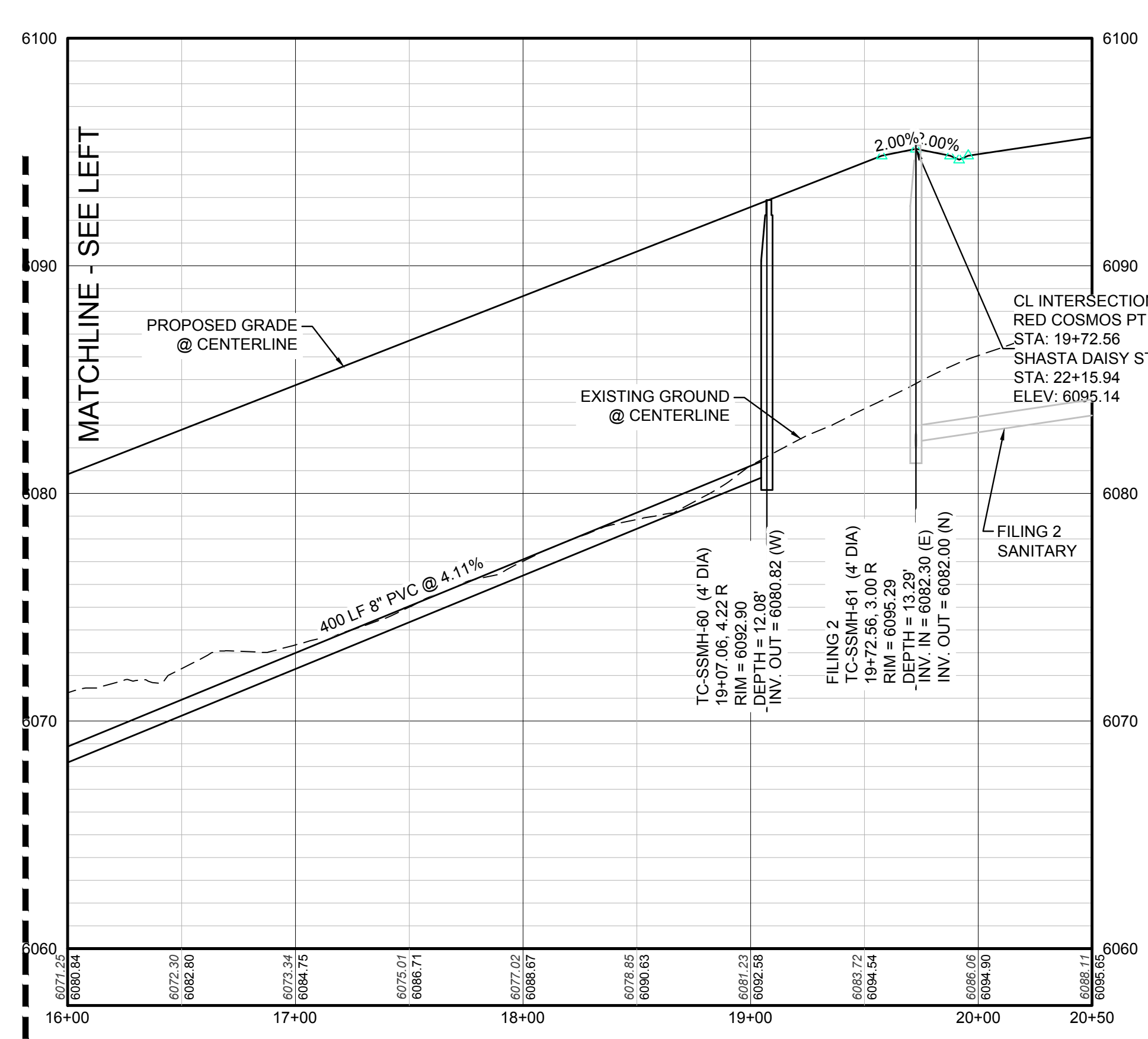
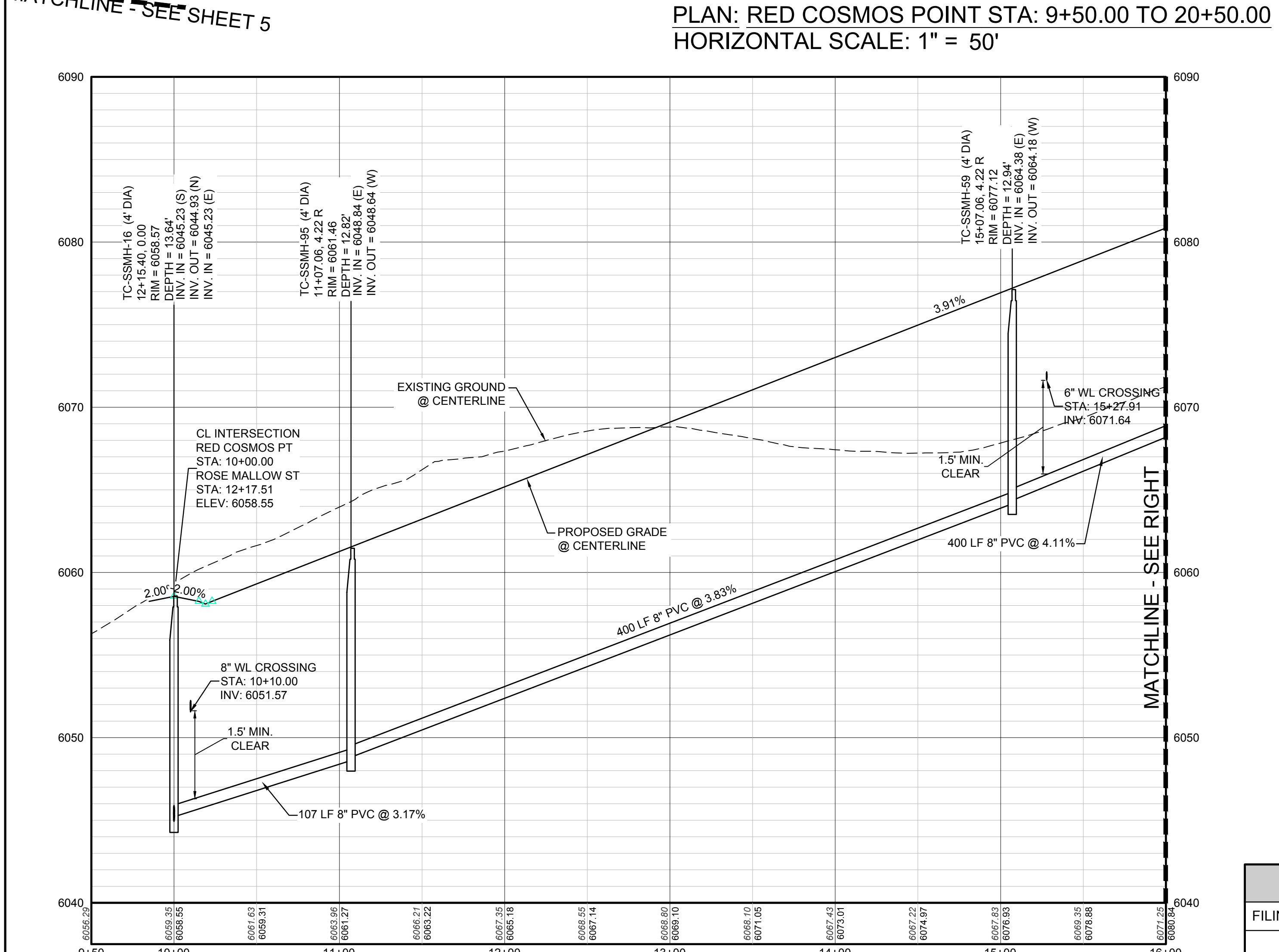
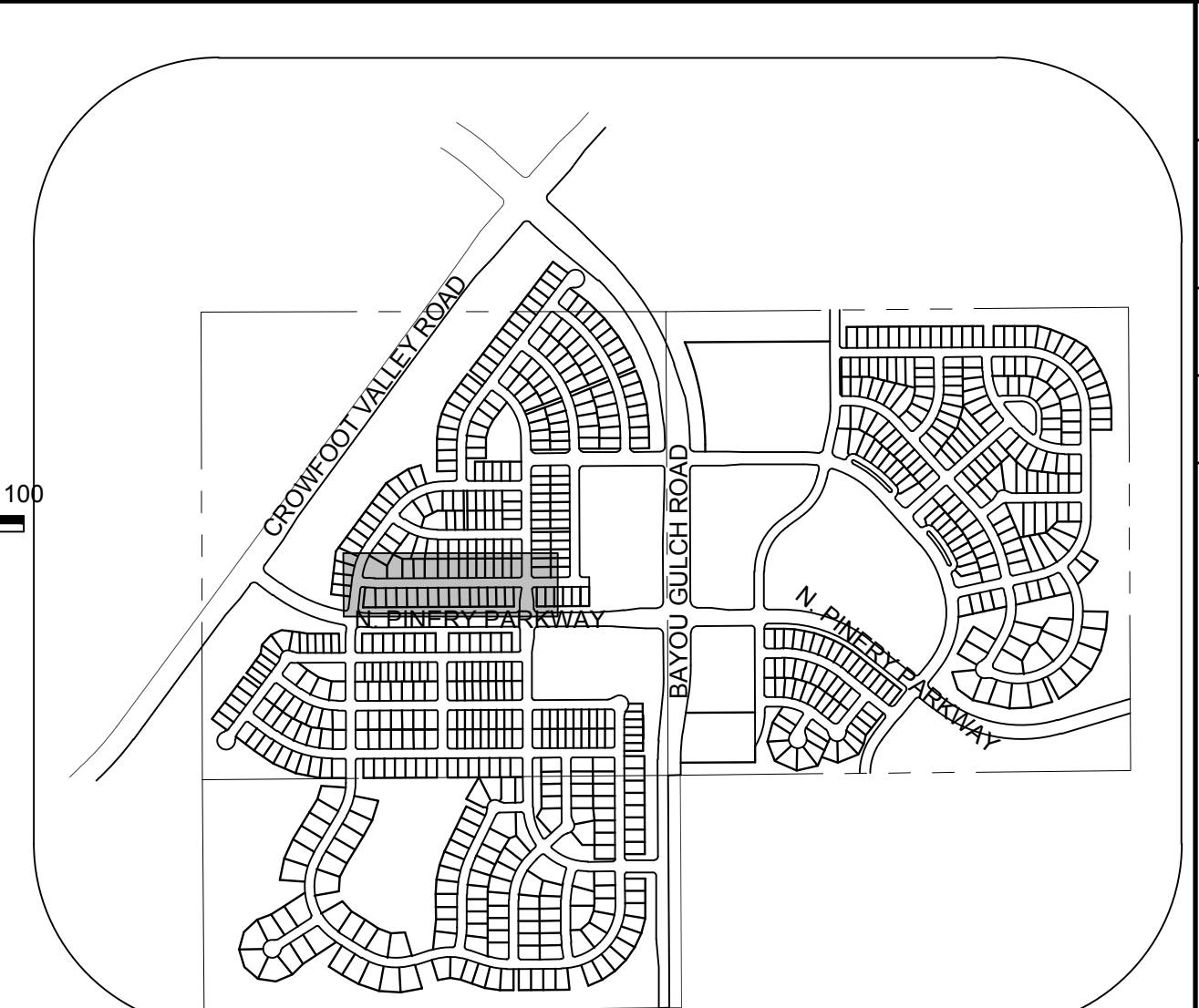
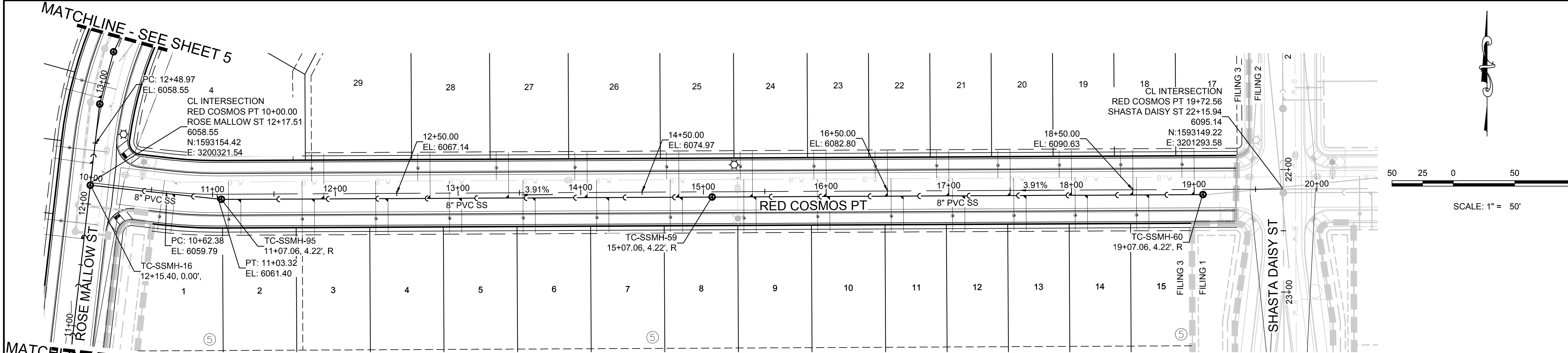
SHEET NUMBER	DRAWN BY: KJD	SCALE: AS SHOWN	CHECKED BY: JJ	DATE: APRIL 2017	FILE NO: 8130283701	Revisions	Date	Appr.	Date

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

HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

10338 E. Dry Creek Rd.
Suite 6410
Englewood, CO 80150
Tel: (720) 482-9526
Fax: (720) 482-9548

CVL
CONSULTANTS



FILING, BLOCK, LOT	STREET	STATIONING
F3.B4.L17	RED COSMOS PT	19+00.06
F3.B4.L18	RED COSMOS PT	18+50.06
F3.B4.L19	RED COSMOS PT	18+00.06
F3.B4.L20	RED COSMOS PT	17+50.06
F3.B4.L21	RED COSMOS PT	17+00.06
F3.B4.L22	RED COSMOS PT	16+50.06
F3.B4.L23	RED COSMOS PT	16+00.06
F3.B4.L24	RED COSMOS PT	15+40.06
F3.B4.L25	RED COSMOS PT	14+80.06
F3.B4.L26	RED COSMOS PT	14+05.27
F3.B4.L27	RED COSMOS PT	13+41.27
F3.B4.L28	RED COSMOS PT	12+77.27
F3.B4.L29	RED COSMOS PT	11+90.68

FILING, BLOCK, LOT	STREET	STATIONING
F3.B5.L1	RED COSMOS PT	10+69.41
F3.B5.L2	RED COSMOS PT	11+22.91
F3.B5.L3	RED COSMOS PT	11+82.91
F3.B5.L4	RED COSMOS PT	12+42.91
F3.B5.L5	RED COSMOS PT	13+02.91
F3.B5.L6	RED COSMOS PT	13+62.91
F3.B5.L7	RED COSMOS PT	14+22.91
F3.B5.L8	RED COSMOS PT	14+82.91
F3.B5.L9	RED COSMOS PT	15+42.91
F3.B5.L10	RED COSMOS PT	16+02.91
F3.B5.L11	RED COSMOS PT	16+62.91
F3.B5.L12	RED COSMOS PT	17+12.91
F3.B5.L13	RED COSMOS PT	17+62.91
F3.B5.L14	RED COSMOS PT	18+12.91
F3.B5.L15	RED COSMOS PT	18+62.91

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PREPARED UNDER THE SUPERVISION OF
BRIAN P. WILSON
COLORADO P.E. 0050067

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

10333 E. Dry Creek Rd.
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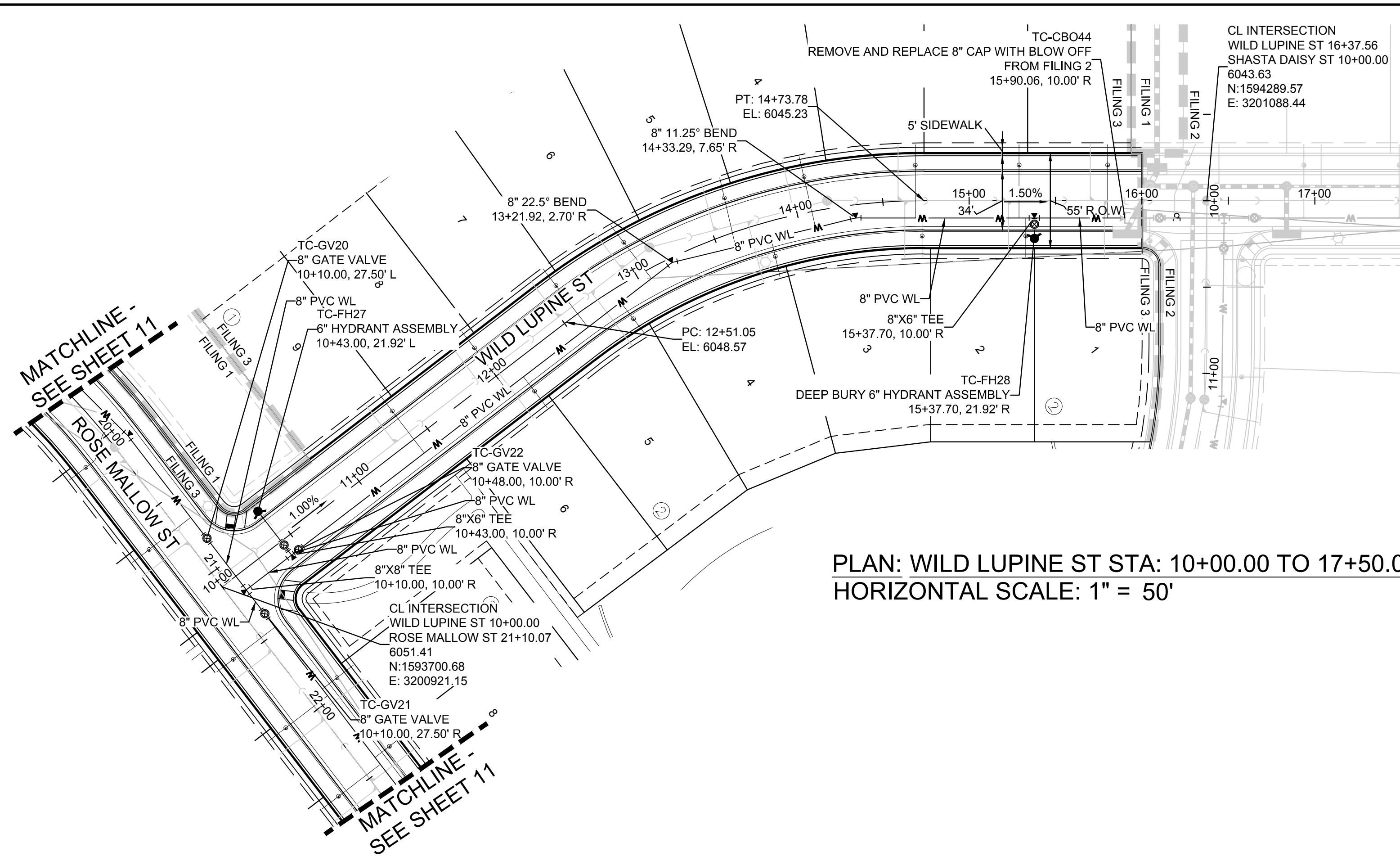
CVL CONSULTANTS

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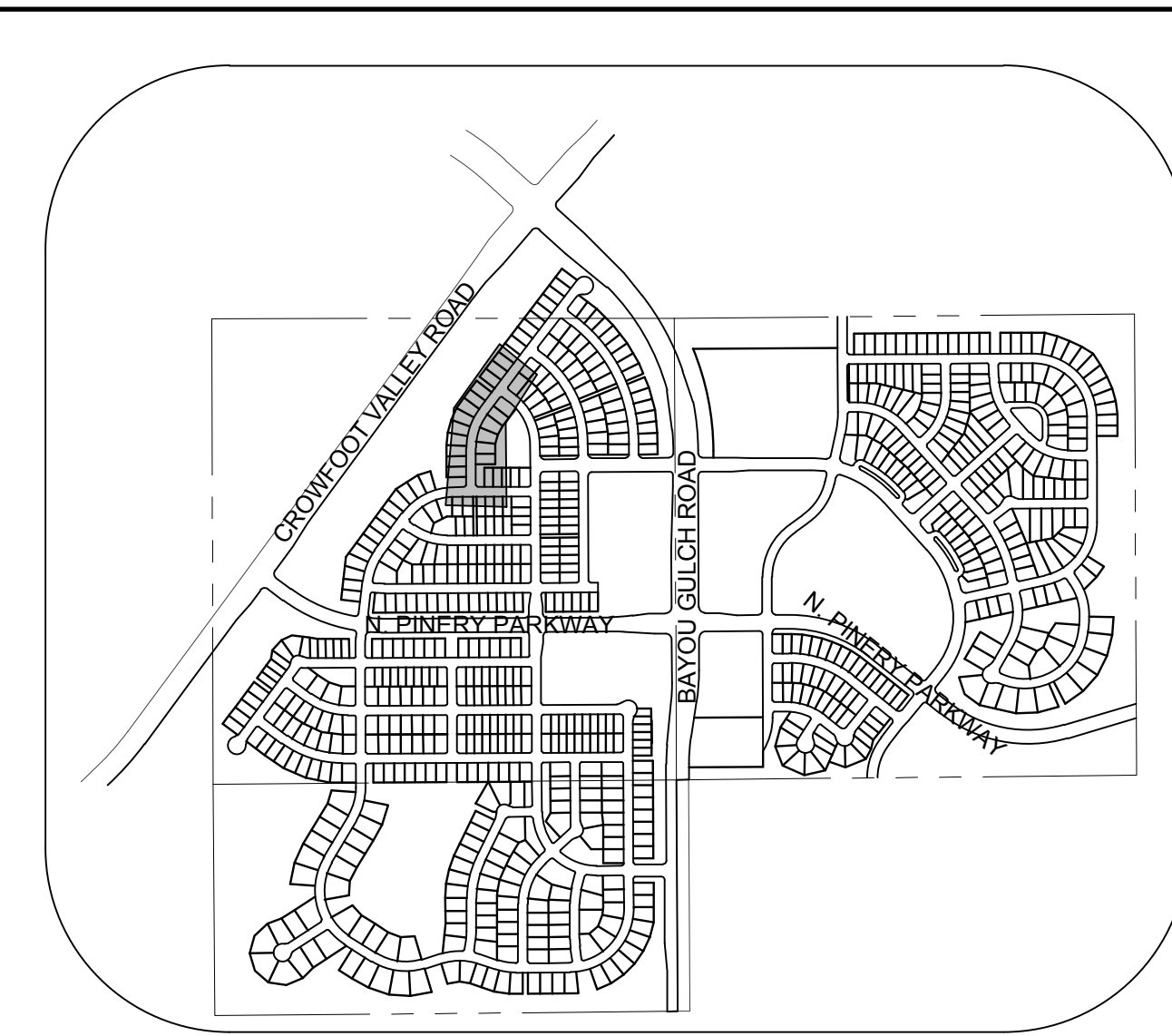
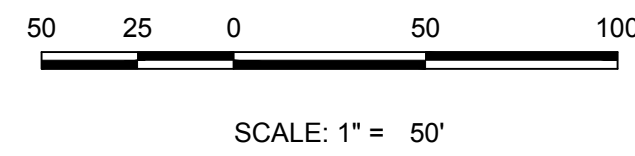
TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN AND PROFILE
RED COSMOS POINT

SCALE:	AS SHOWN
FILE NO.:	8130283701
DRAWN BY:	KJD
CHECKED BY:	JU
DATE:	APRIL 2017

SHEET NUMBER **8**



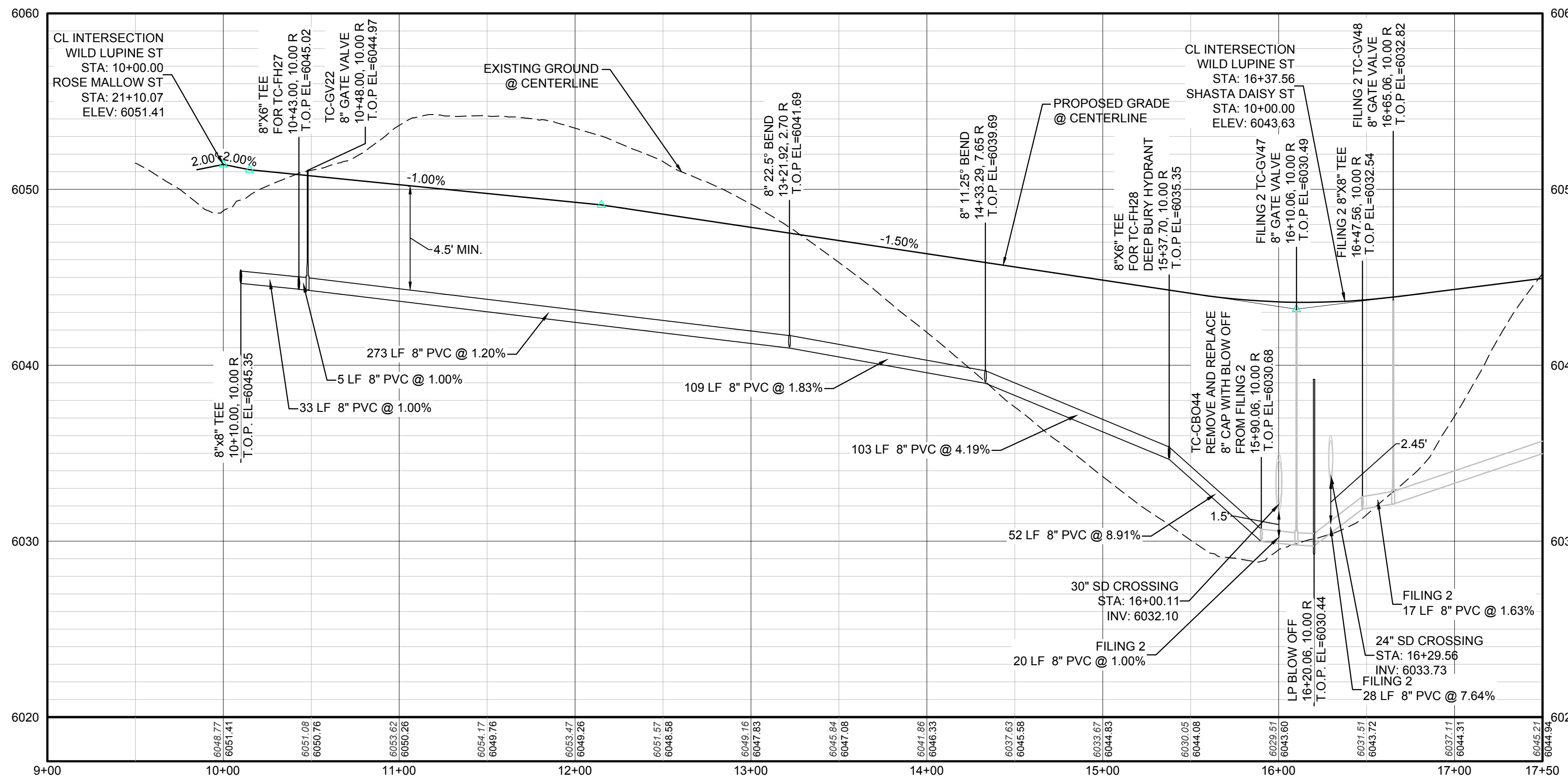
PLAN: WILD LUPINE ST STA: 10+00.00 TO 17+50.00
HORIZONTAL SCALE: 1" = 50'



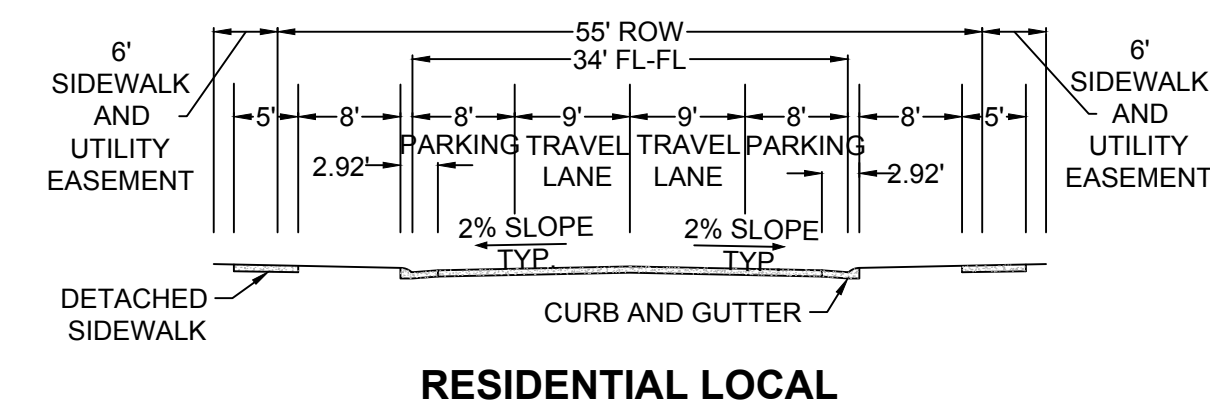
KEYMAP
N.T.S.
LEGEND

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	5615	EXISTING 5' CONTOUR
⊕	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
⊕	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
⊕	PROPOSED LOW POINT BLOW-OFF	5607	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 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

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

PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

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.

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

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Suite 6410
Englewood, Colorado 80150
Tel: (720) 482-9526
Fax: (720) 482-9548

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HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

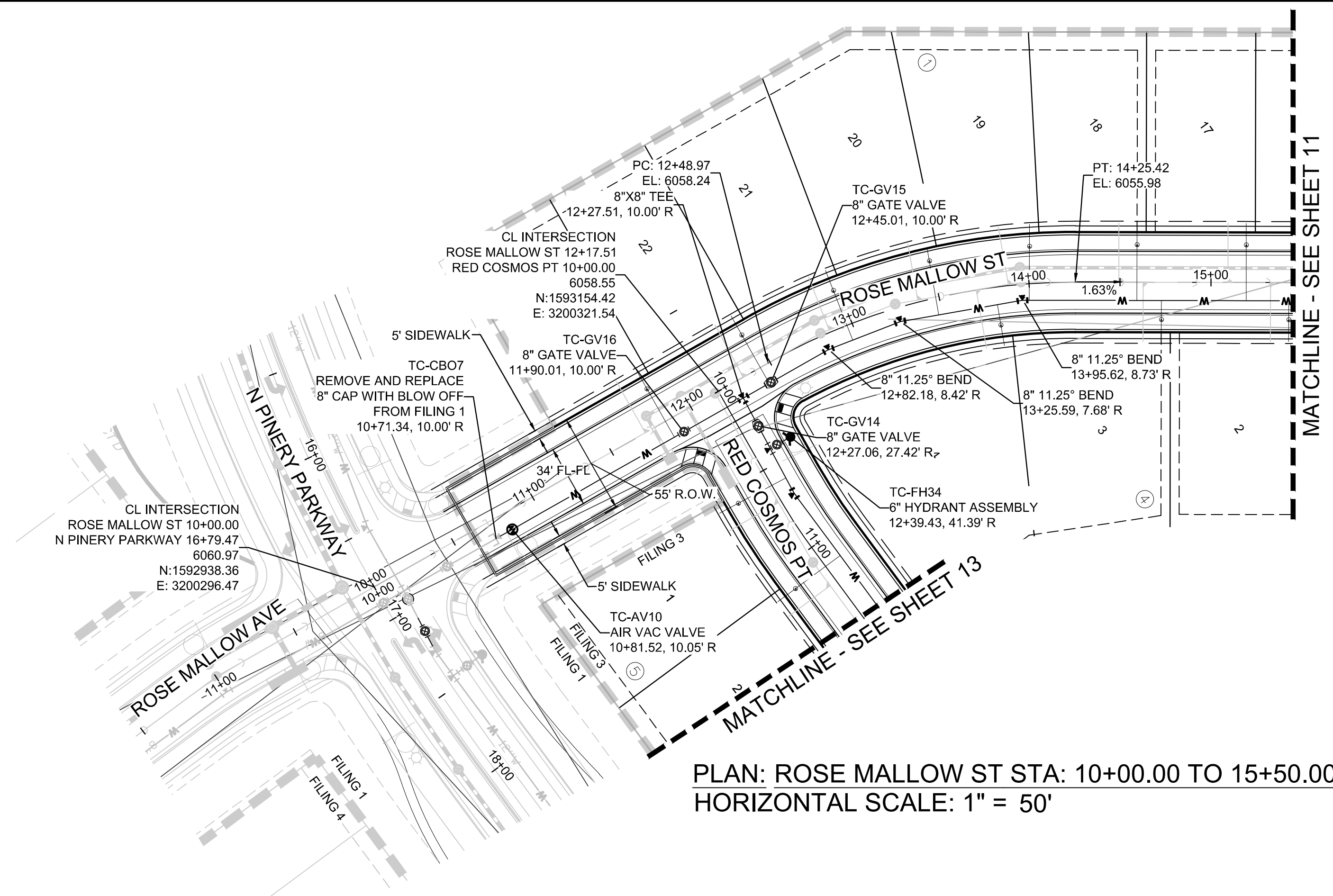
TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
WATER PLAN & PROFILE
WILD LUPINE STREET

SCALE: AS SHOWN
DRAWN BY: RHR
CHECKED BY: JU
DATE: APRIL 2017

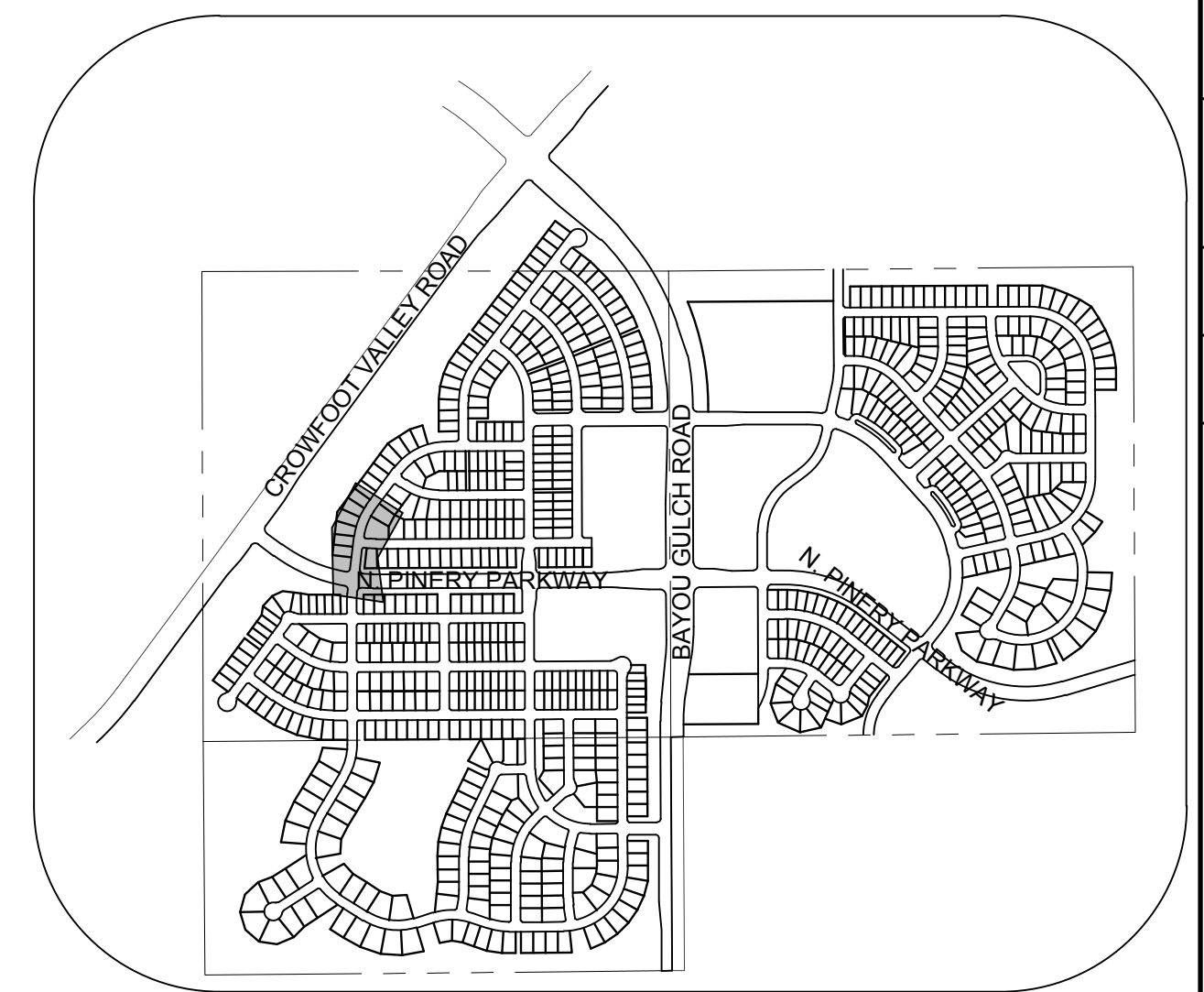
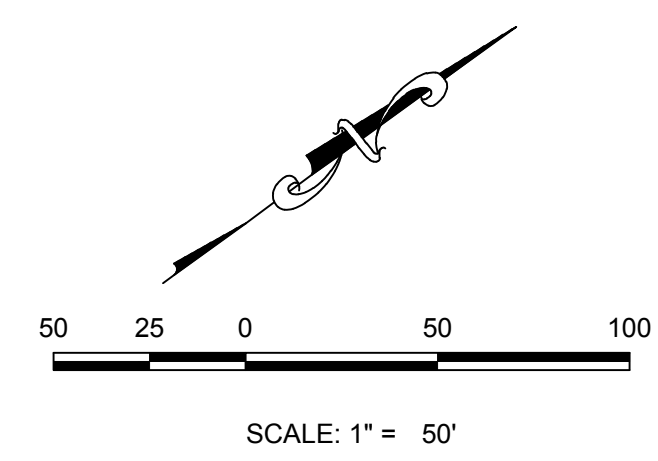
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SHEET NUMBER: 9

No.	Revisions	Date	Appr.	Date



PLAN: ROSE MALLOW ST STA: 10+00.00 TO 15+50.00
HORIZONTAL SCALE: 1" = 50'



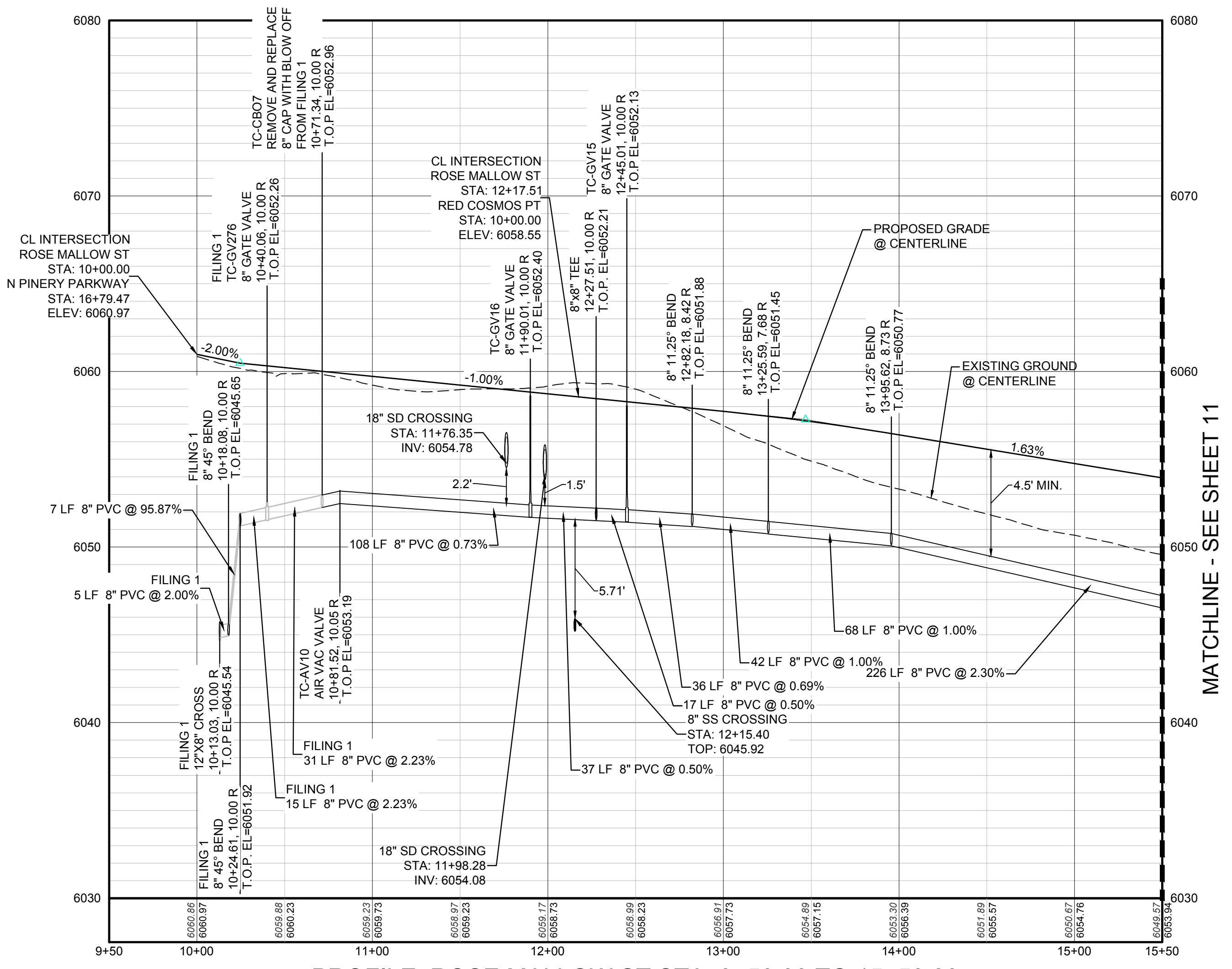
KEYMAP
N.T.S.

LEGEND

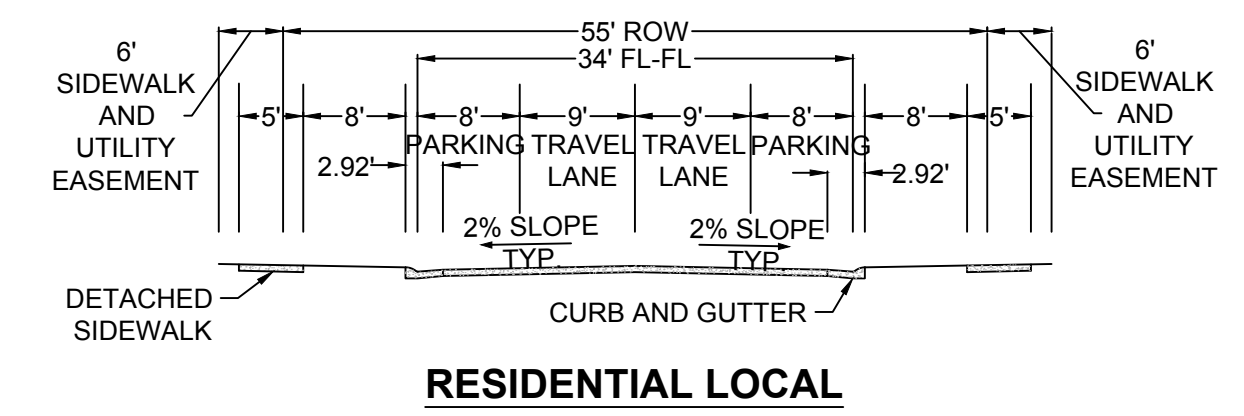
②	BLOCK NUMBER	△	PROPOSED RANGE POINT
Ⓐ	LOT TYPE	---	CENTERLINE
6	LOT NUMBER	---	RIGHT-OF-WAY
⊗	PROPOSED BUTTERFLY VALVE	---	PROPERTY LINE
⌈	PROPOSED CAP WITH END OF LINE BLOWOFF	---	EDGE OF PAVEMENT
⌋	PROPOSED REDUCER	→	PROPOSED DIRECTION OF FLOW
⊗	PROPOSED VALVE	1.0%	PROPOSED SLOPE & DIRECTION
Ⓜ	PROPOSED FIRE HYDRANT	5615	EXISTING 5' CONTOUR
Ⓜ	PROPOSED WL FITTING WITH THRUST BLOCK	5616	EXISTING 1' CONTOUR
Ⓜ	PROPOSED FLARED END SECTION	5620	PROPOSED 5' CONTOUR
Ⓜ	PROPOSED LOW POINT BLOW-OFF	5607	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 LATERAL W/ METER
---	PROPOSED SIDEWALK RAMP	---	SECTION LINE
10.00	EXISTING ELEVATION	---	FILING BOUNDARY
10.00	PROPOSED DESIGN ELEVATION	---	EXISTING FIBER
---	PROPOSED STORM DRAIN INLET	---	FO
Ⓜ	PROPOSED STORM DRAIN MANHOLE	---	OH
		---	EXISTING OVERHEAD POWER
		---	TEL
		---	EXISTING TELEPHONE LINE

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



PROFILE: ROSE MALLOW ST STA: 9+50.00 TO 15+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	ROBC	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

PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

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BENCHMARK
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.069032, 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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NO.	REVISIONS	DATE	INIT.	APPR.	DATE

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Fax: (720) 482-9546

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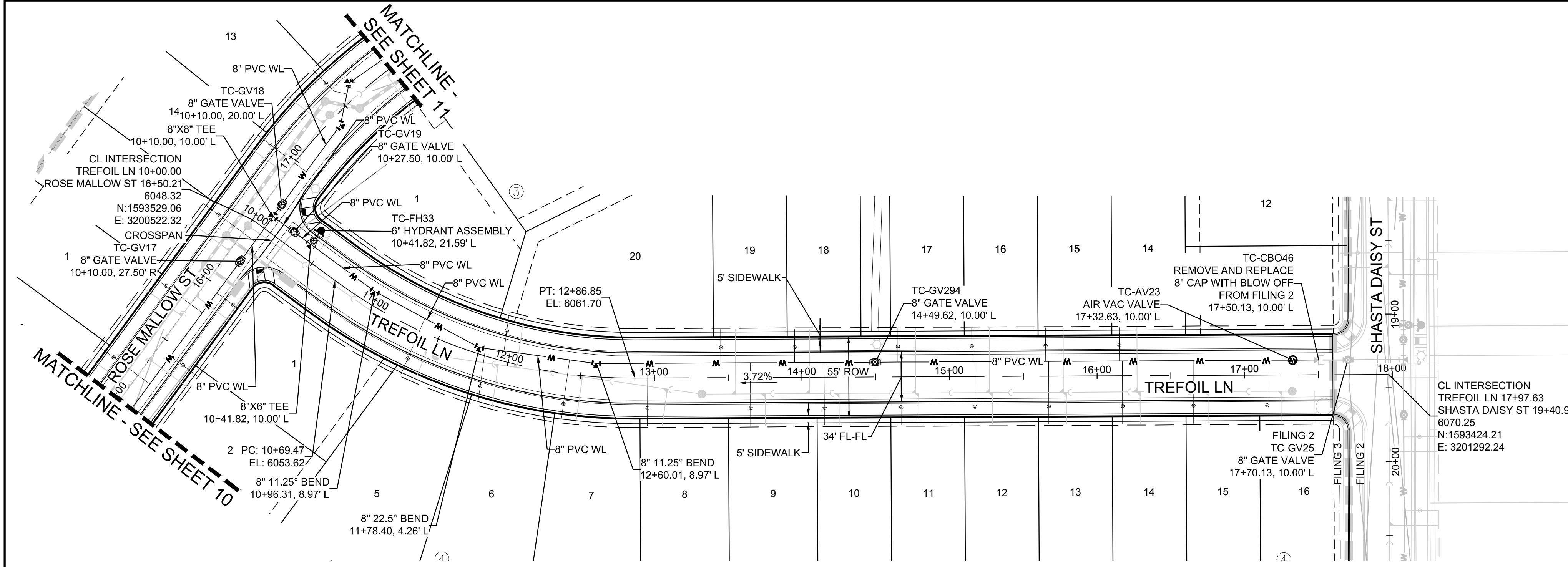
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TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
WATER PLAN & PROFILE
ROSE MALLOW STREET

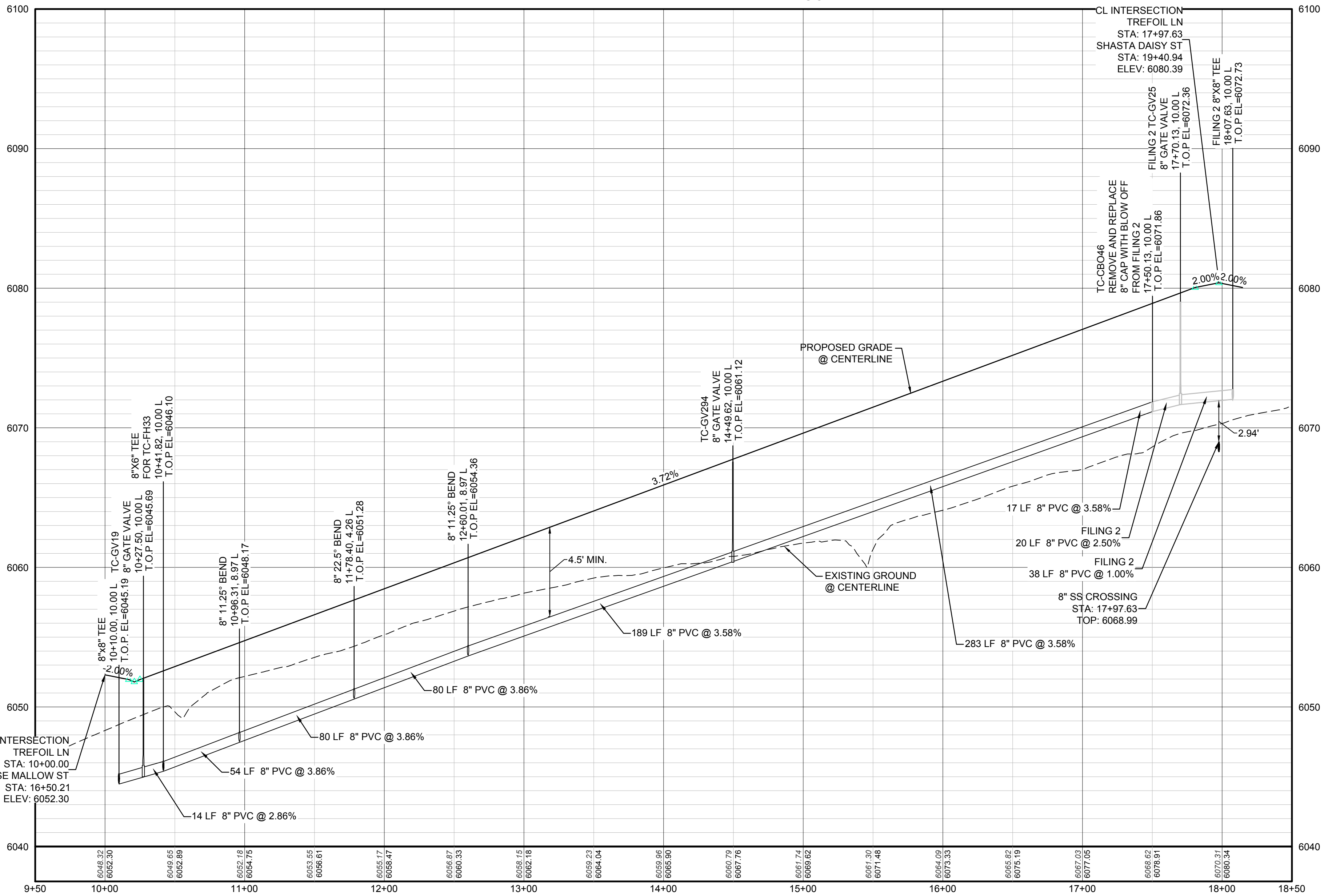
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CHECKED BY: JJ
DATE: APRIL 2017

SHEET NUMBER **10**

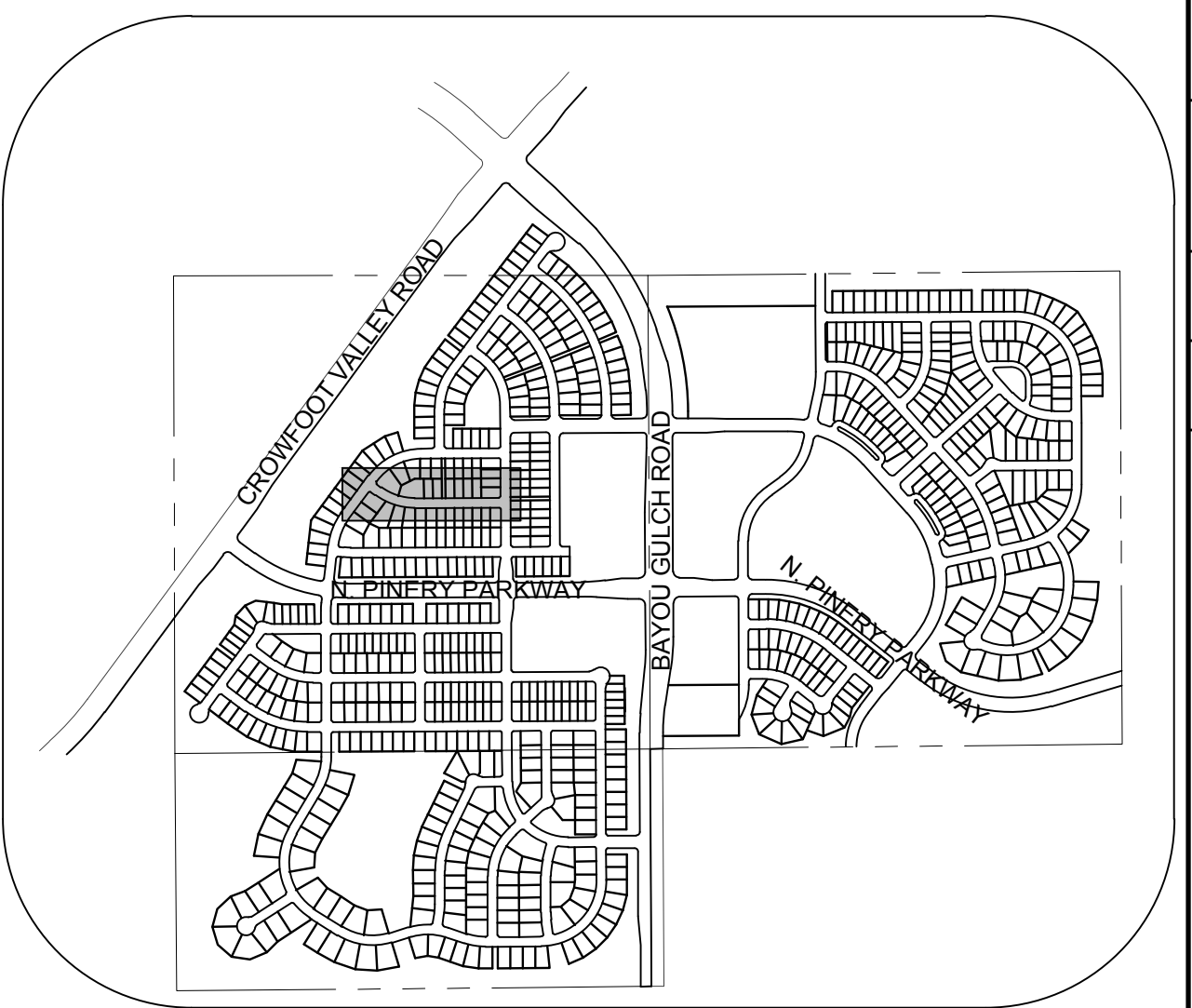


PLAN: TREFOIL LN STA: 9+50.00 TO 18+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: TREFOIL LN STA: 9+50.00 TO 18+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

FILING, BLOCK, LOT	STREET	STATIONING
F3,B3,L14	TREFOIL LN	16+15.13
F3,B3,L15	TREFOIL LN	15+65.13
F3,B3,L16	TREFOIL LN	15+15.13
F3,B3,L17	TREFOIL LN	14+65.13
F3,B3,L18	TREFOIL LN	13+95.13
F3,B3,L19	TREFOIL LN	13+45.13
F3,B3,L20	TREFOIL LN	11+95.37
F3,B4,L5	TREFOIL LN	11+35.90
F3,B4,L6	TREFOIL LN	11+82.47
F3,B4,L7	TREFOIL LN	12+41.14
F3,B4,L8	TREFOIL LN	12+95.13
F3,B4,L9	TREFOIL LN	13+65.13
F3,B4,L10	TREFOIL LN	14+15.13
F3,B4,L11	TREFOIL LN	14+67.13
F3,B4,L12	TREFOIL LN	15+17.13
F3,B4,L13	TREFOIL LN	15+67.13
F3,B4,L14	TREFOIL LN	16+17.13
F3,B4,L15	TREFOIL LN	16+65.13
F3,B4,L16	TREFOIL LN	17+15.13



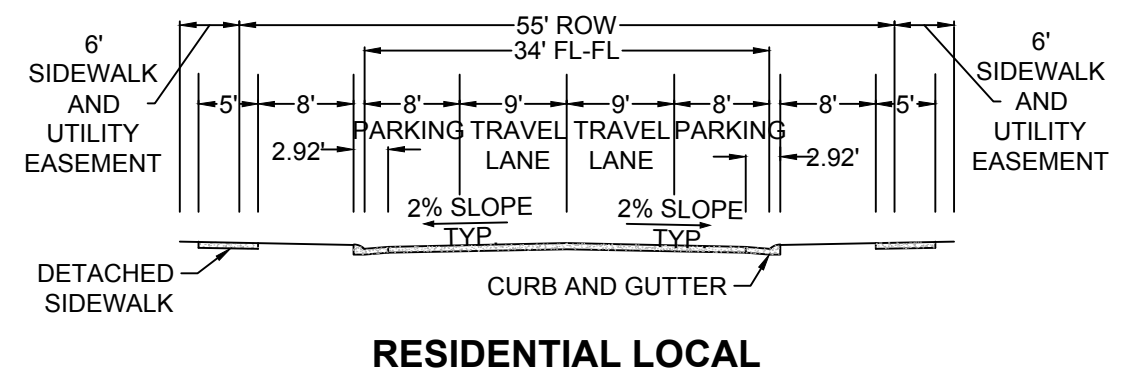
KEYMAP
N.T.S.

LEGEND

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



RESIDENTIAL LOCAL

PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

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BENCHMARK
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.069032, 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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Suite 410
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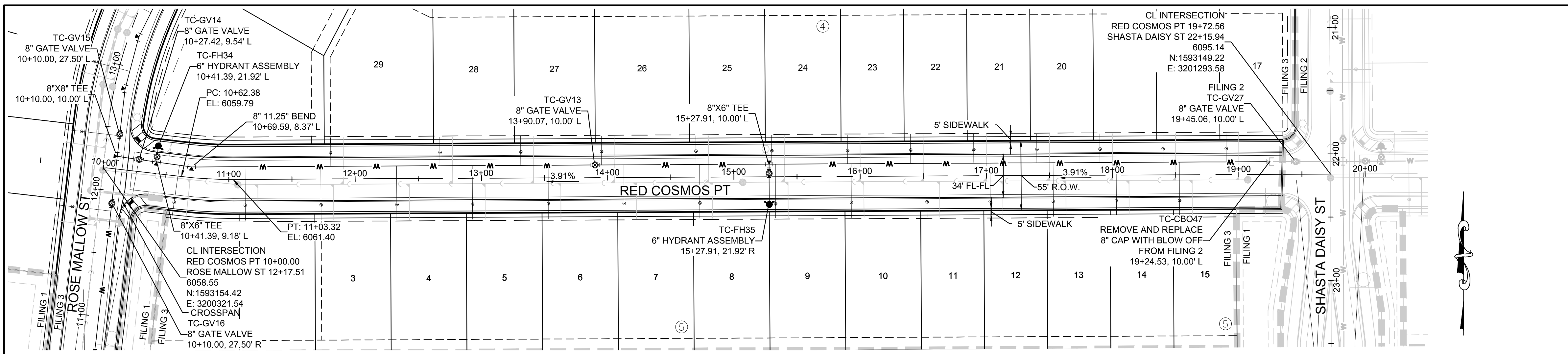
HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
WATER PLAN & PROFILE
TREFOIL LANE

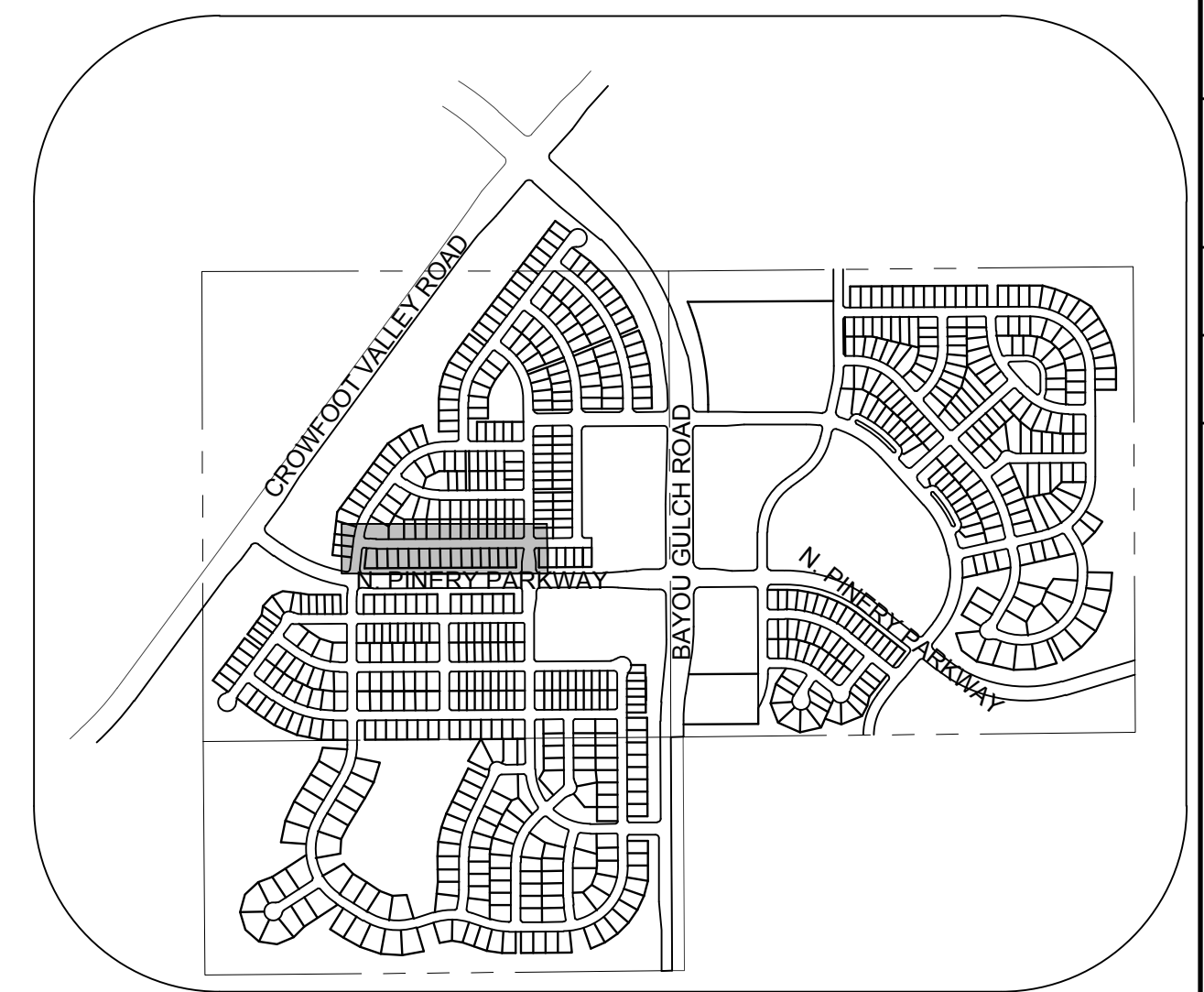
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DATE: APRIL 2017

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

SHEET NUMBER **12**



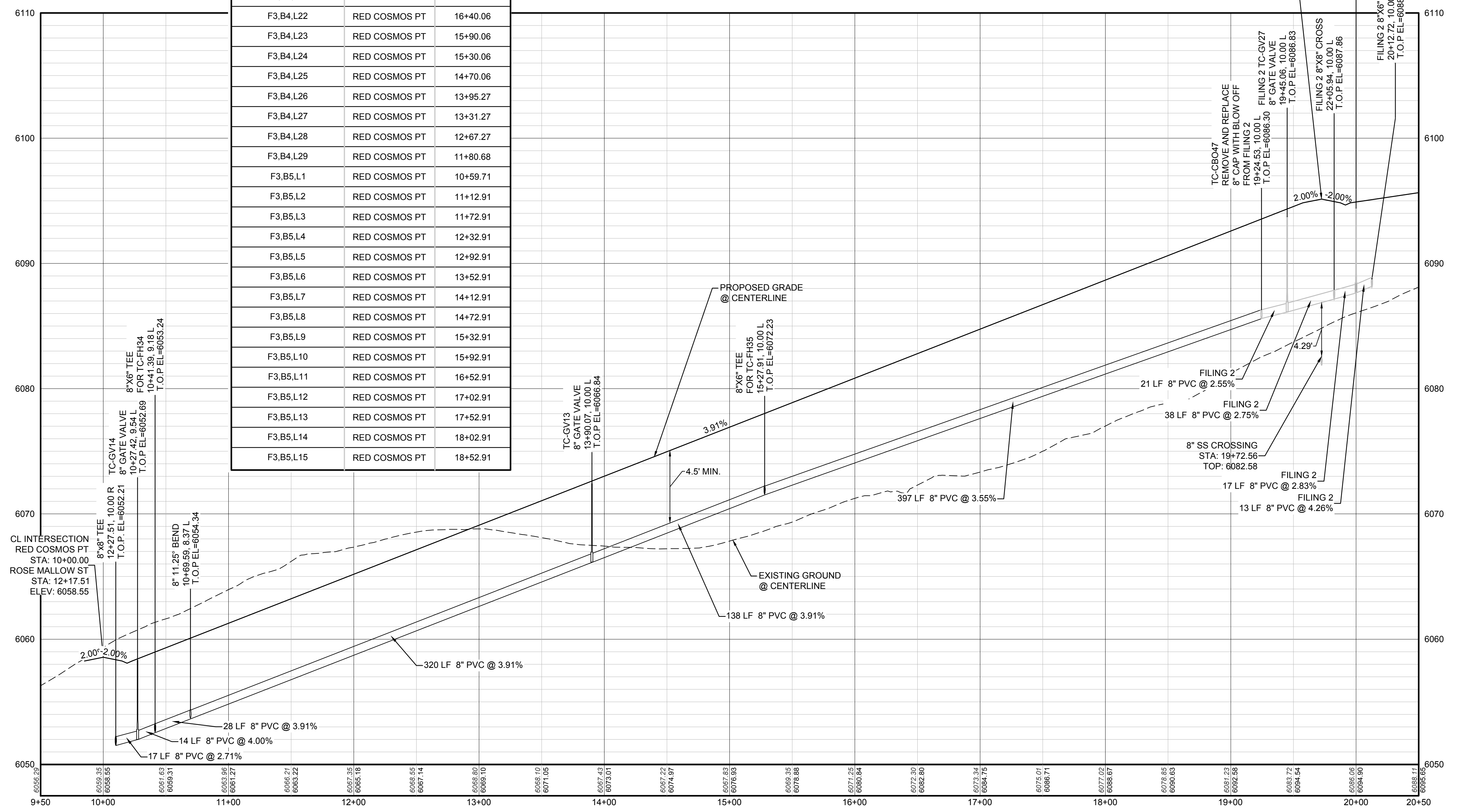
PLAN: RED COSMOS PT STA: 9+50.00 TO 20+50.00
HORIZONTAL SCALE: 1" = 50'



KEYMAP
N.T.S.
LEGEND

⊙	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
⊕	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

FILING, BLOCK, LOT	STREET	STATIONING
F3,B4,L17	RED COSMOS PT	18+90.06
F3,B4,L18	RED COSMOS PT	18+40.06
F3,B4,L19	RED COSMOS PT	17+90.06
F3,B4,L20	RED COSMOS PT	17+40.06
F3,B4,L21	RED COSMOS PT	16+90.06
F3,B4,L22	RED COSMOS PT	16+40.06
F3,B4,L23	RED COSMOS PT	15+90.06
F3,B4,L24	RED COSMOS PT	15+30.06
F3,B4,L25	RED COSMOS PT	14+70.06
F3,B4,L26	RED COSMOS PT	13+95.27
F3,B4,L27	RED COSMOS PT	13+31.27
F3,B4,L28	RED COSMOS PT	12+67.27
F3,B4,L29	RED COSMOS PT	11+80.68
F3,B5,L1	RED COSMOS PT	10+59.71
F3,B5,L2	RED COSMOS PT	11+12.91
F3,B5,L3	RED COSMOS PT	11+72.91
F3,B5,L4	RED COSMOS PT	12+32.91
F3,B5,L5	RED COSMOS PT	12+92.91
F3,B5,L6	RED COSMOS PT	13+52.91
F3,B5,L7	RED COSMOS PT	14+12.91
F3,B5,L8	RED COSMOS PT	14+72.91
F3,B5,L9	RED COSMOS PT	15+32.91
F3,B5,L10	RED COSMOS PT	15+92.91
F3,B5,L11	RED COSMOS PT	16+52.91
F3,B5,L12	RED COSMOS PT	17+02.91
F3,B5,L13	RED COSMOS PT	17+52.91
F3,B5,L14	RED COSMOS PT	18+02.91
F3,B5,L15	RED COSMOS PT	18+52.91



PROFILE: RED COSMOS PT STA: 9+50.00 TO 20+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

N:\PROJECTS\SSR\BENCHM\ENGINEERING\SSR\BENCHM\WATER\DRAWING\HARDENY_3/22/2018 2:03 PM

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BENCHMARK
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 69355 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

10339 E. Dry Creek Rd. Suite 410 Englewood, CO 80150 Tel: (720) 482-9526 Fax: (720) 482-9546	10339 E. Dry Creek Rd. Suite 410 Englewood, CO 80150 Tel: (720) 482-9526 Fax: (720) 482-9546
HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112	HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112
TRAILS AT CROWFOOT FILING 3 CONSTRUCTION DRAWINGS WATER PLAN & PROFILE RED COSMOS POINT	TRAILS AT CROWFOOT FILING 3 CONSTRUCTION DRAWINGS WATER PLAN & PROFILE RED COSMOS POINT
SCALE: AS SHOWN FILE NO: 8130283701	SCALE: AS SHOWN FILE NO: 8130283701
DRAWN BY: RHR	DRAWN BY: RHR
CHECKED BY: JU	CHECKED BY: JU
DATE: APRIL 2017	DATE: APRIL 2017
SHEET NUMBER 13	SHEET NUMBER 13

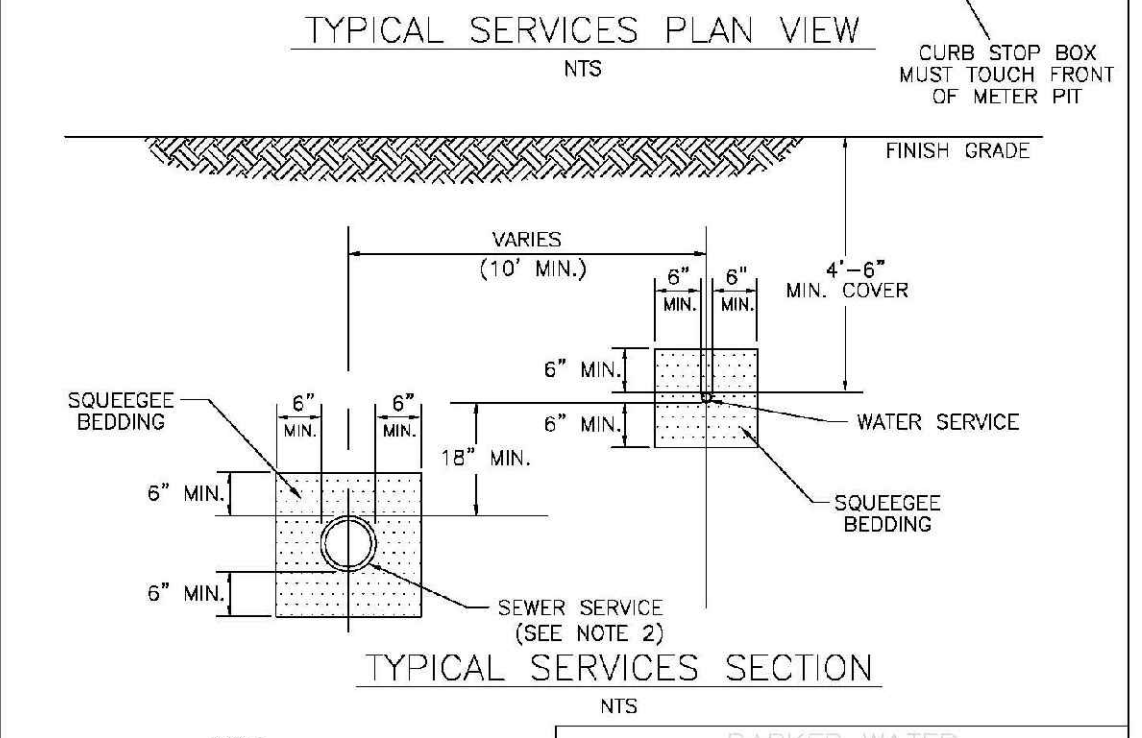
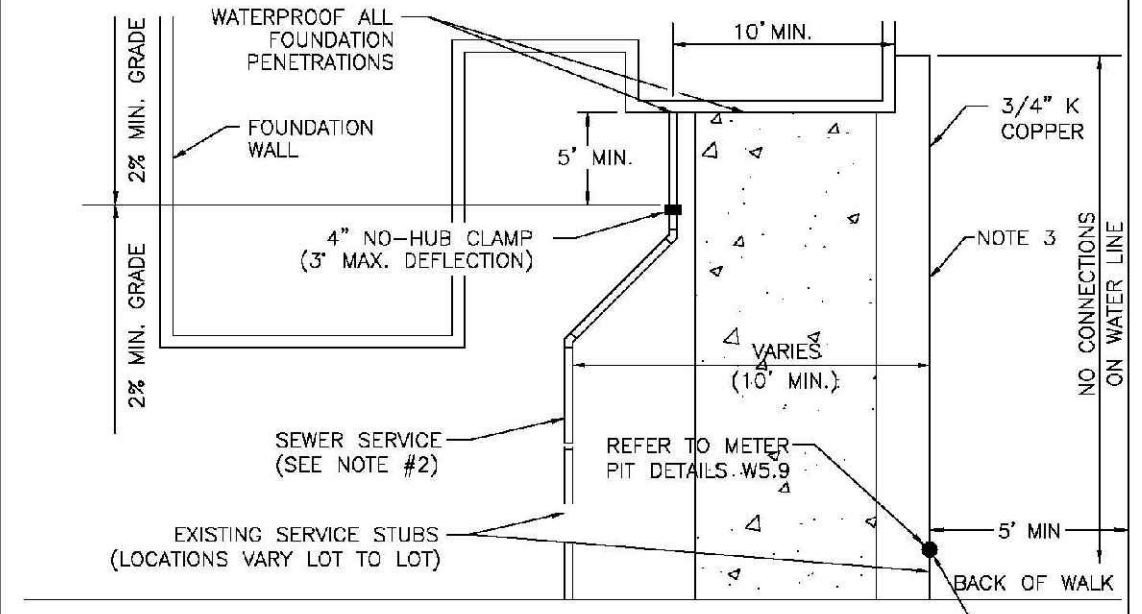
- INSPECTION POLICY:**
1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
 2. SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
 3. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE OR SERVICE FAILS, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE AND A RE-INSPECTION FEE CHARGED.
 4. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
 5. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
 6. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
 7. LOTS WITHOUT BUILDING ADDRESSES BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
 8. CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION, UNLESS COORDINATED WITH DISTRICT INSPECTOR.

- INSTALLATION NOTES:**
- WATER**
1. ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING, (3/4" MIN.)
 2. APPROVED BEDDING TO BE SQUEEGEE.
 3. ONLY ONE COUPLING WILL BE ALLOWED BETWEEN THE SUB-IN AND BUILDING. COMPRESSION COUPLINGS WILL NOT BE ALLOWED ON NEW CONSTRUCTION. SILVER SOLDERED JOINTS MUST BE USED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWS BEFORE BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.
 4. A WATER SERVICE WHICH CROSSES A SEWER SERVICE CAN DO SO ONLY AT A 45-90° ANGLE. WATER SERVICES SHALL BE LOCATED A MINIMUM OF 18" ABOVE SEWER SERVICE.
 5. WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD. CRAWL SPACE REQUIRES CONTINUOUS COPPER WITH A 1" BURY.
 6. CURB STOP MUST BE PLUMB AND CENTERED OVER THE NUT. IT SHOULD BE STRAPPED TO THE METER PIT (RESIDENTIAL INSTALLATIONS) OR CENTERED OVER THE EASEMENT LINE (COMMERCIAL INSTALLATIONS). THE ASSEMBLY MUST BE AT OR SLIGHTLY ABOVE FINISHED GRADE.
 7. MOVED CURB BOXES MUST BE INSPECTED BY PWS PRIOR TO BURIAL.
 8. WATERLINE MUST BE ATTACHED TO A SUPPORT BOARD THAT IS MOUNTED TO THE WALL.
 9. NO VOIDS ALLOWED UNDER WATERLINES FROM STOP BOX TO FOUNDATION.
 10. CURBSTOP BOXES AND METER PITS CANNOT BE IN DRIVEWAYS.
 11. ONLY 3/4" (JUMPER) PIPES (RESIDENCES) ARE ALLOWED. (JUMPER) PIPES WILL BE REMOVED PRIOR TO METER SET DATE.
 12. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"X" FOR SANITARY SEWER SERVICE
"W" FOR WATER SERVICES
 13. NO SPLICES OR FLARED COUPLINGS ALLOWED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWS PRIOR TO BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.

PARKER WATER & SANITATION DISTRICT	
DISTRICT POLICIES & INSTALLATION NOTES FOR WATER SERVICES	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W1.1



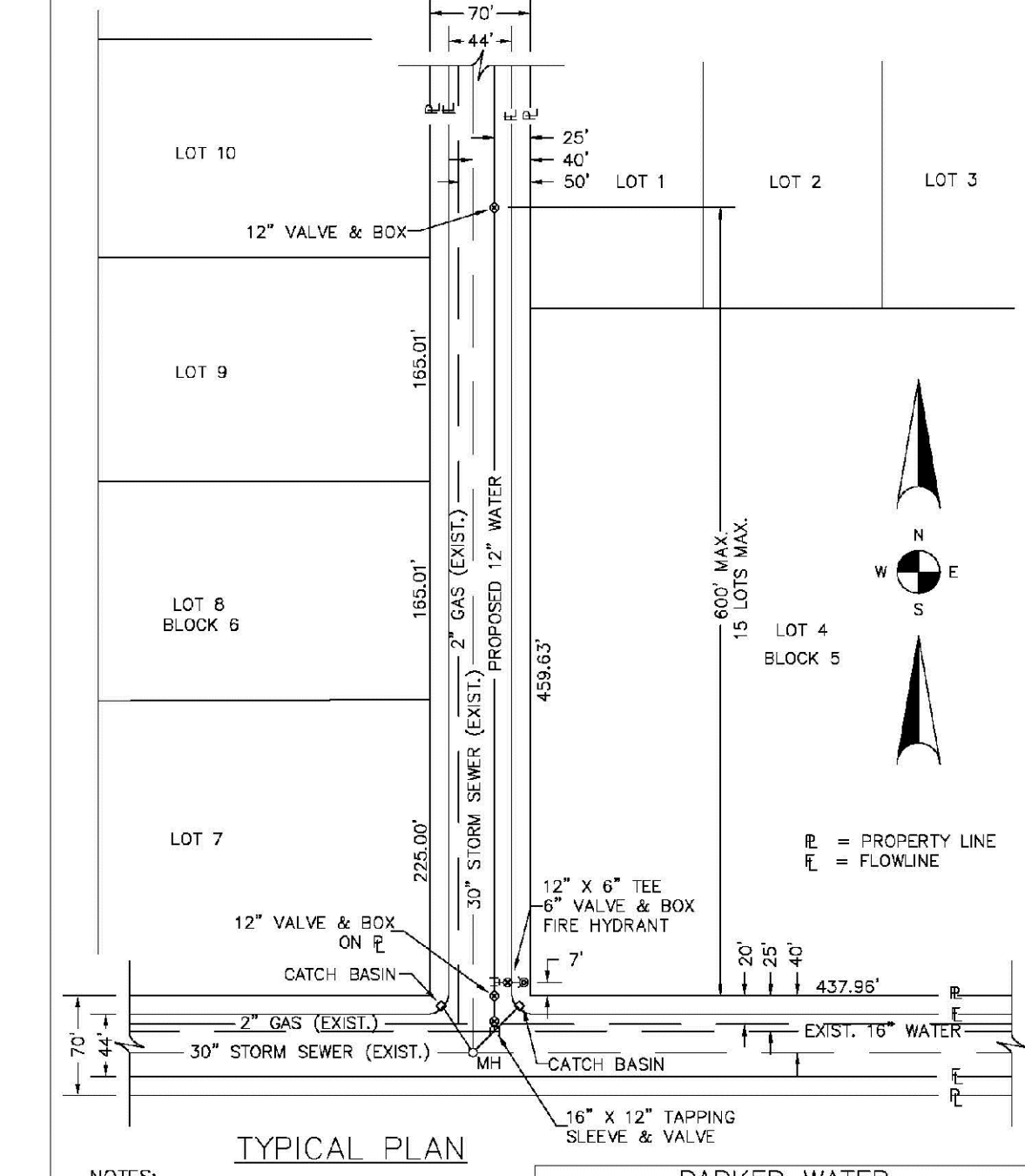
NOTE:

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.

PARKER WATER & SANITATION DISTRICT	
TYPICAL WATER SERVICES	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/04 10/16 1/16 09/06 12/07 1/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W1.2



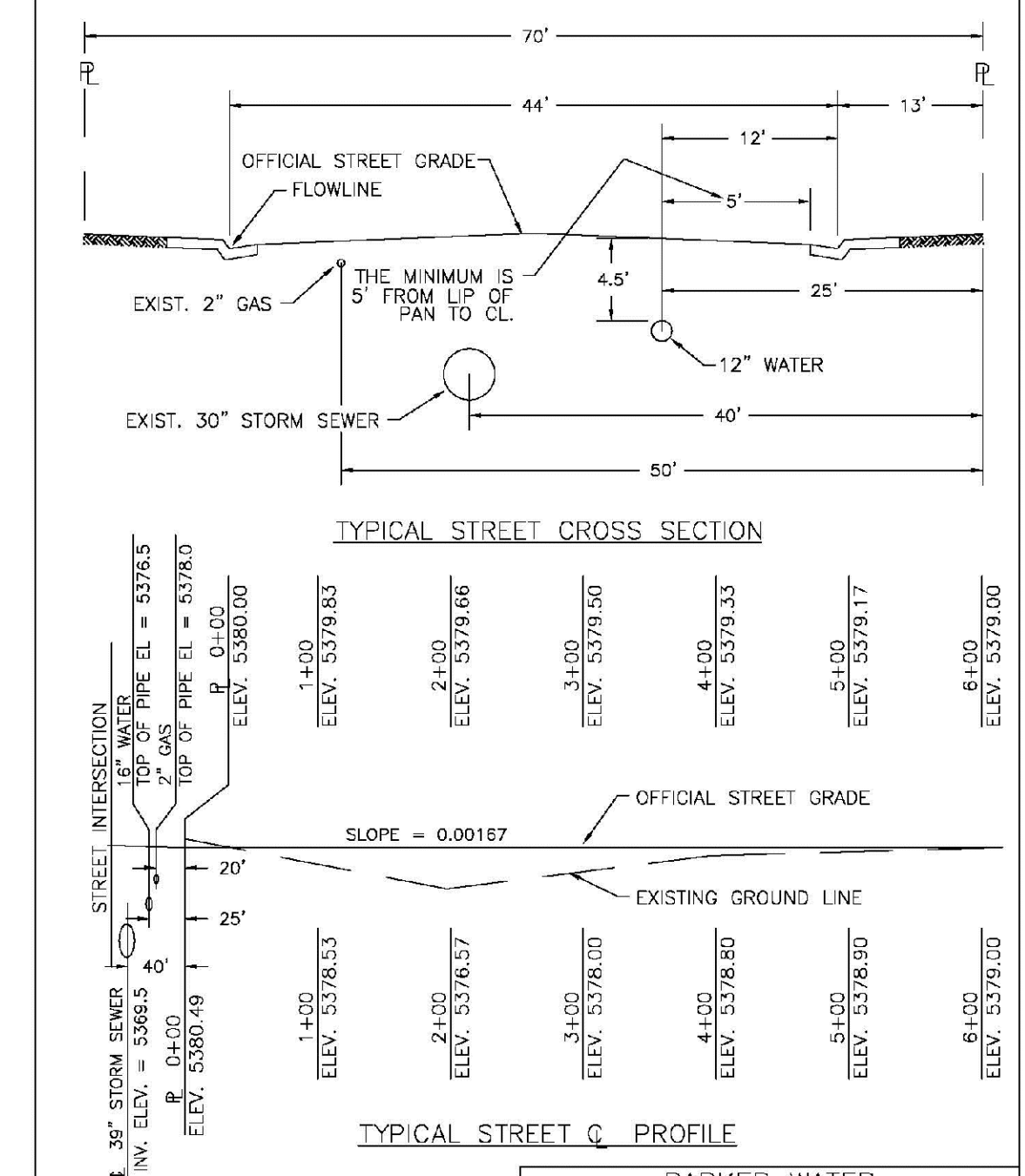
NOTES:

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

PARKER WATER & SANITATION DISTRICT	
WATER DISTRIBUTION SYSTEM TYPICAL PLAN	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

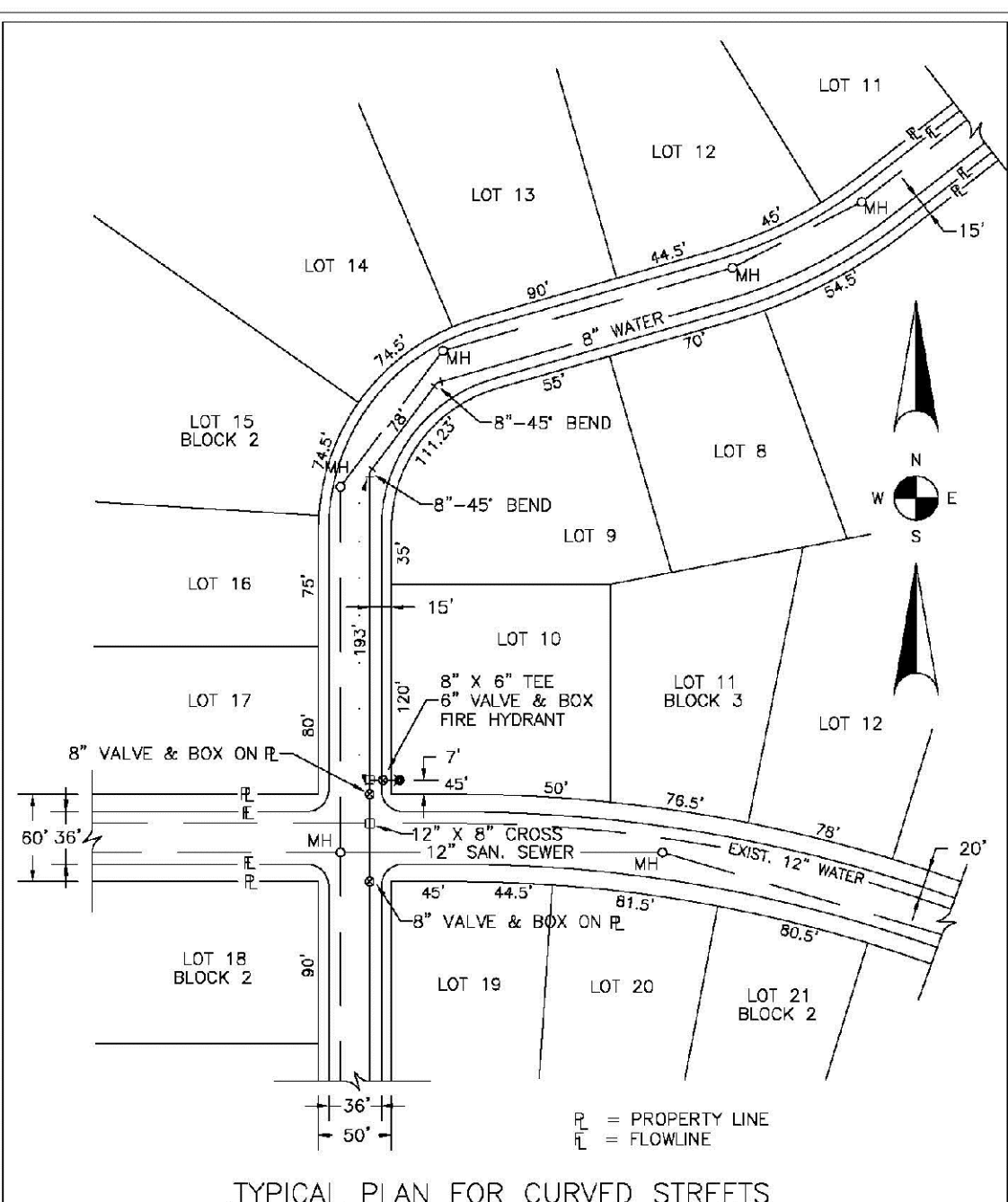
SHEET W2.1



PARKER WATER & SANITATION DISTRICT	
TYPICAL STREET CROSS SECTION TYPICAL STREET CL PROFILE	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W2.2

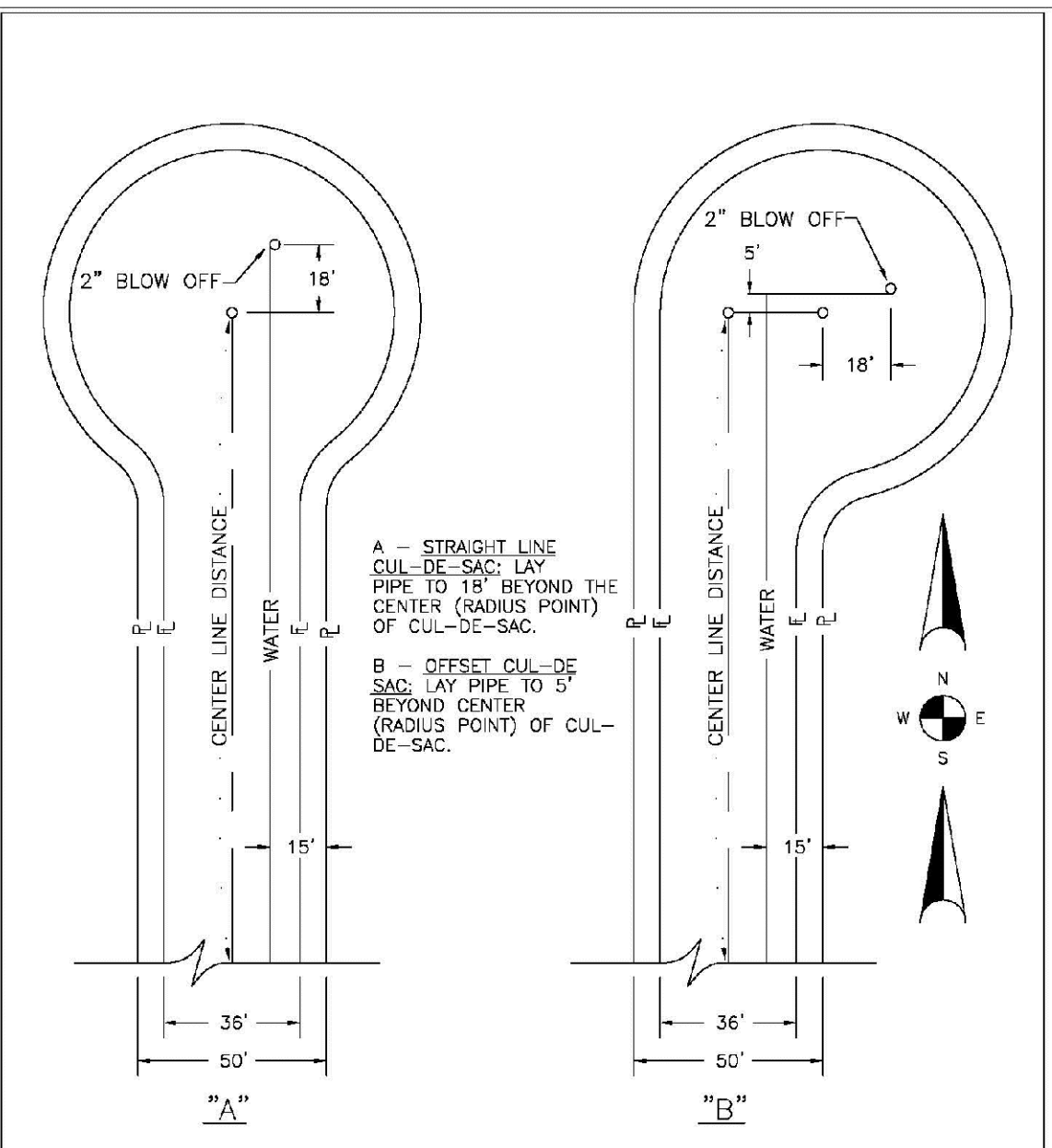


NOTE: WATER AND SEWER MAY NEVER BE CLOSER THAN 10' HORIZONTALLY AND MUST MAINTAIN A MINIMUM OF 5' FROM THE LIP OF PAN ON THE GUTTER.

PARKER WATER & SANITATION DISTRICT	
WATER DISTRIBUTION SYSTEM TYPICAL PLAN FOR CURVED STREETS	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

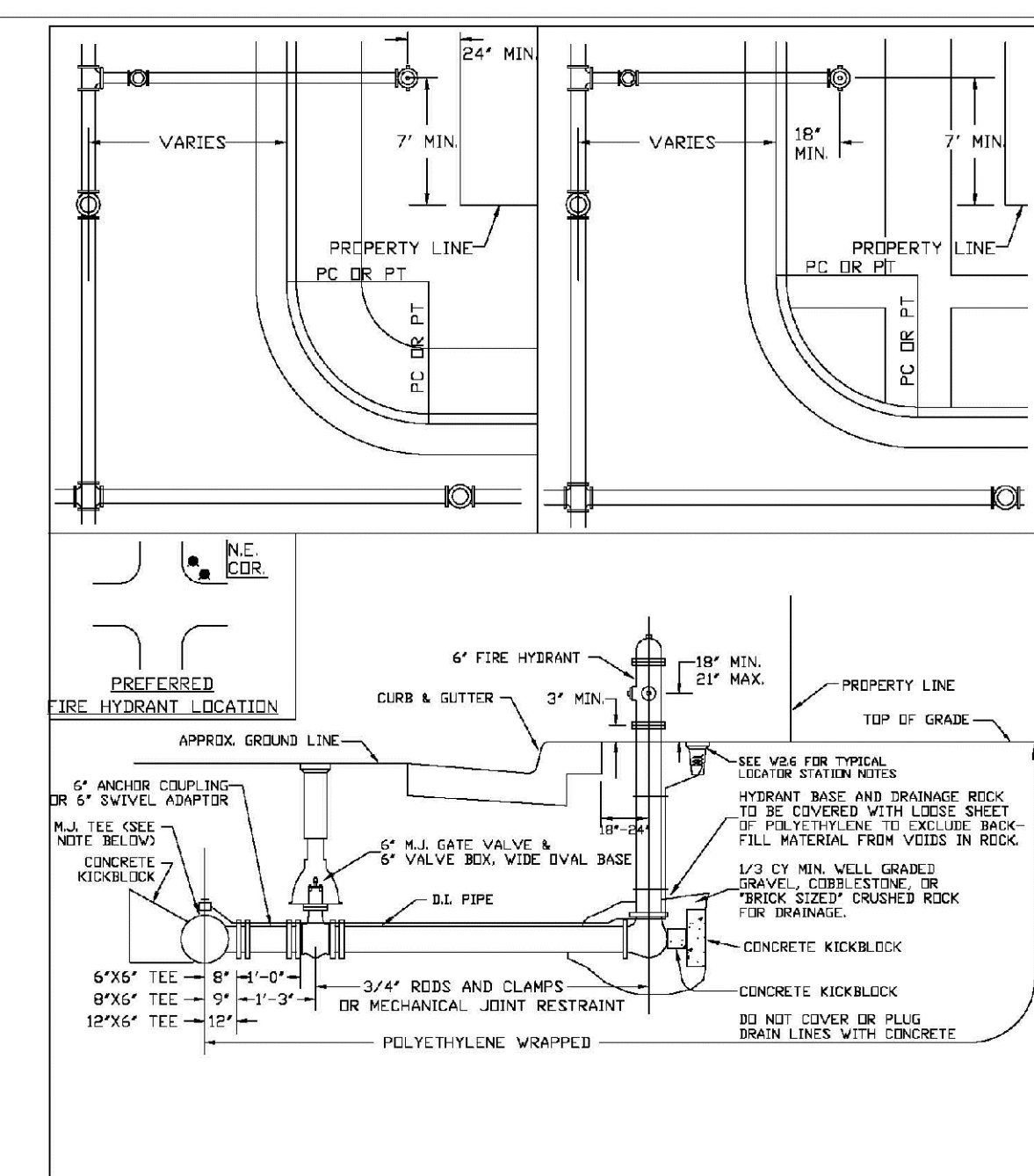
SHEET W3.3



PARKER WATER & SANITATION DISTRICT	
WATER DISTRIBUTION SYSTEM TYPICAL PLAN FOR CUL-DE-SACS	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/16 10/16
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2016 REVISION

SHEET W2.4



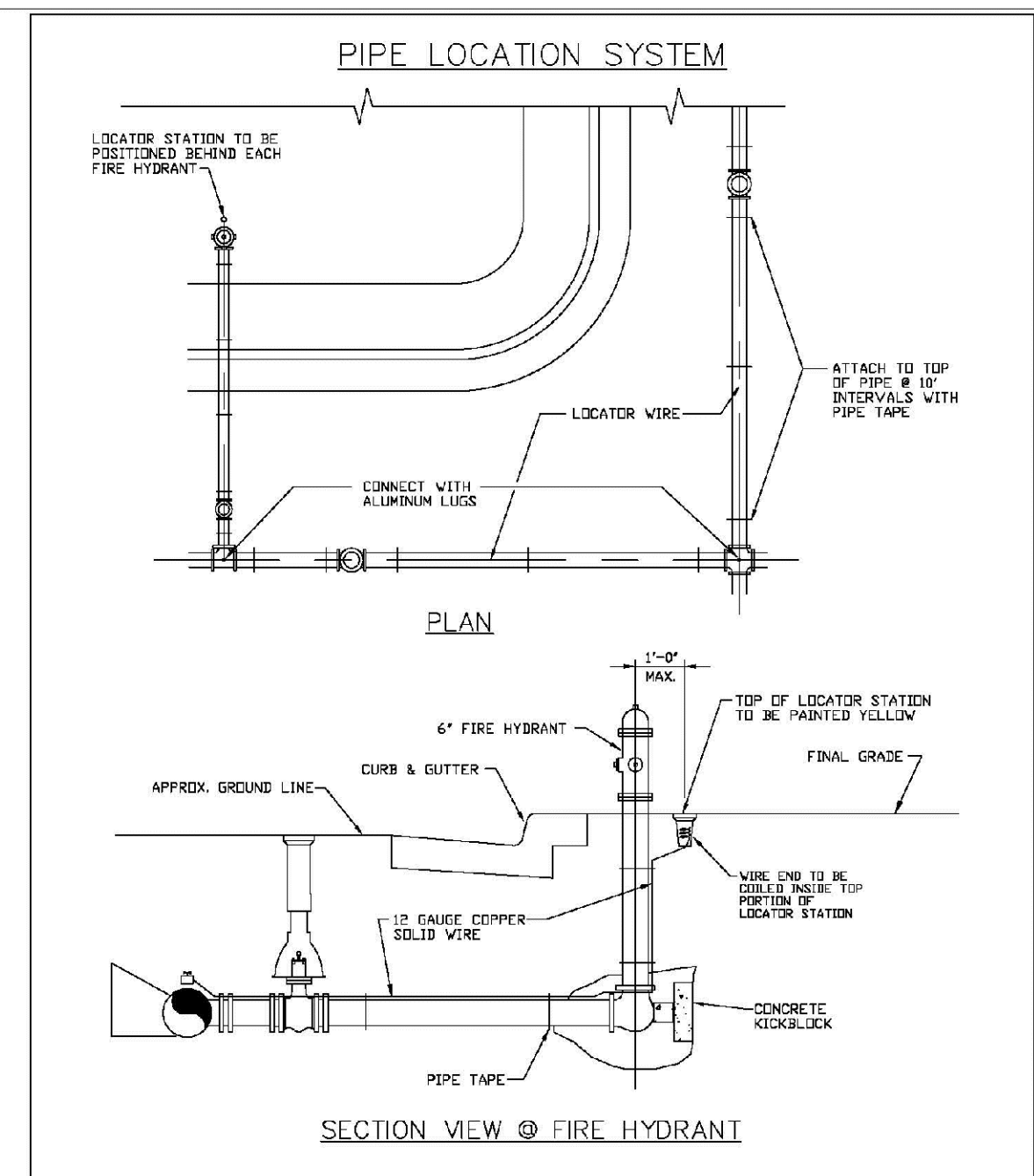
NOTES:

1. ALTERNATE TO FIG ABOVE: FASTEN ALL VALVE DIRECTLY TO A 4\"/>

PARKER WATER & SANITATION DISTRICT	
FIRE HYDRANTS LOCATION & INSTALLATION	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	4/01 10/16 01/02 09/06 10/27 1/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W3.5



NOTES:

1. FOR USE BY ALL DUCTILE IRON AND PVC WATER MAINS
2. LOCATOR STATION POSITION MAY BE VERIFIED AT THE DIRECTION OF THE DISTRICT ENGINEER.
3. A CONFIRMATORY TEST WILL BE REQUIRED PRIOR TO PERMANENTLY ACCEPTANCE.

PARKER WATER & SANITATION DISTRICT	
LOCATOR WIRE DETAILS	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	4/01 10/16 01/02 09/06 10/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET W3.6

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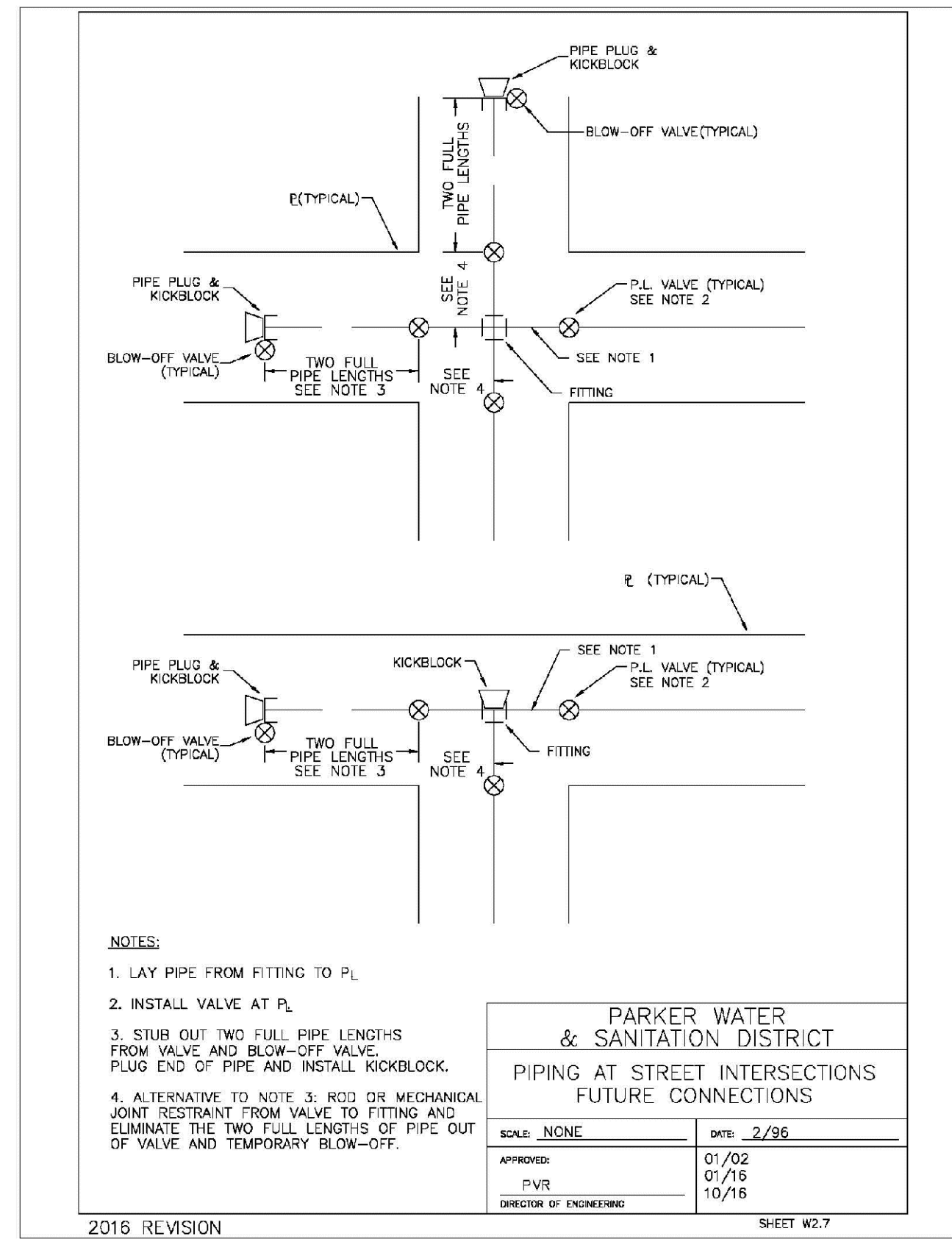
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SHEET NUMBER	DRAWN BY: JF	CHECKED BY: JJ	DATE: APRIL 2017	SCALE: AS SHOWN	FILE NO: 8130283701	Revisions	Date	Appr.	Date
				PROJECT: TRAILS AT CROWFOOT	FILE NO: 8130283701				
17									

HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

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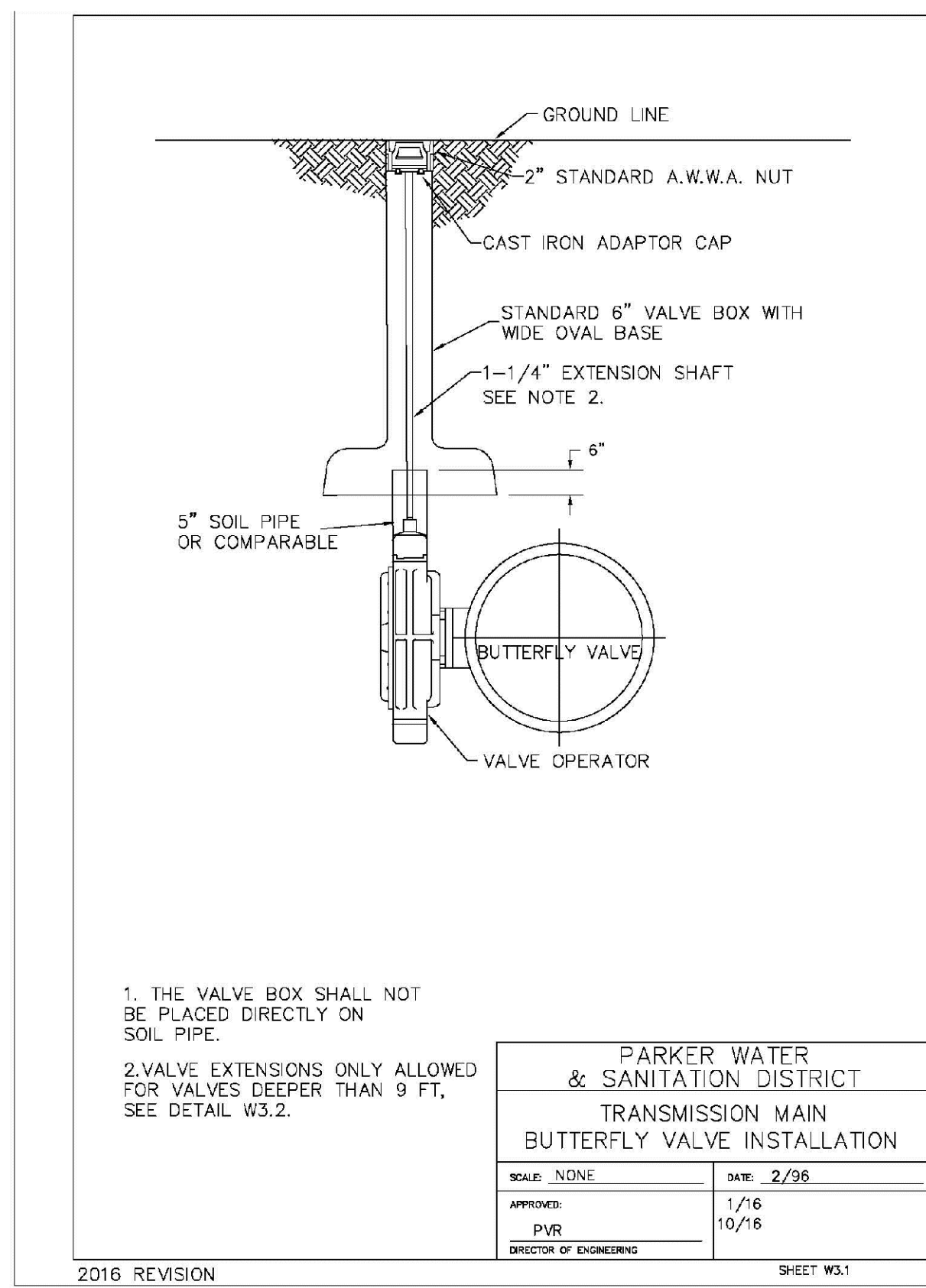
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Fax: (720) 482-9546



PARKER WATER & SANITATION DISTRICT
 PIPING AT STREET INTERSECTIONS
 FUTURE CONNECTIONS

SCALE: NONE DATE: 2/96
 APPROVED: PVR 01/02 01/16 10/16
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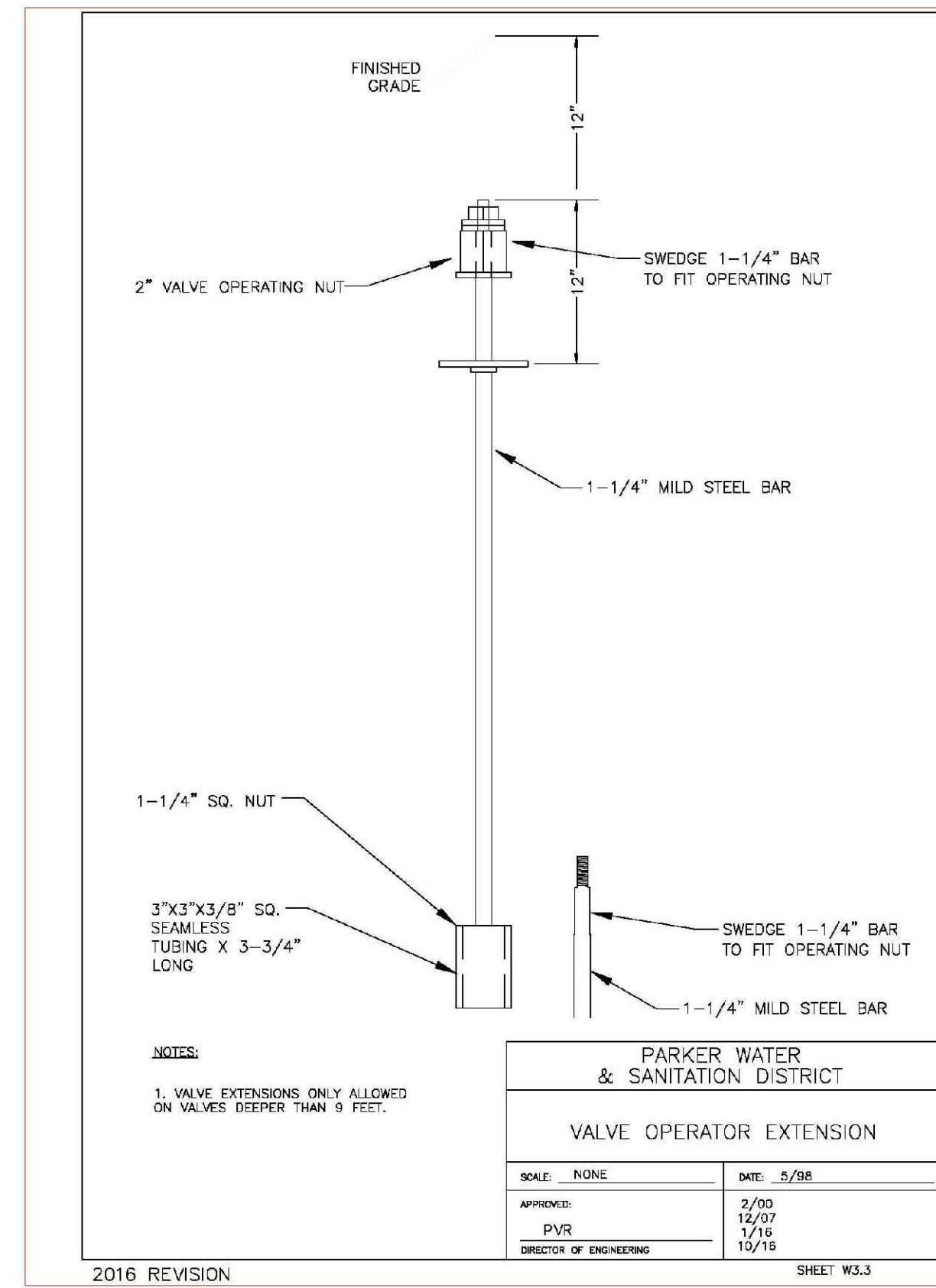
2016 REVISION SHEET W3.7



PARKER WATER & SANITATION DISTRICT
 TRANSMISSION MAIN
 BUTTERFLY VALVE INSTALLATION

SCALE: NONE DATE: 2/96
 APPROVED: PVR 1/16 10/16
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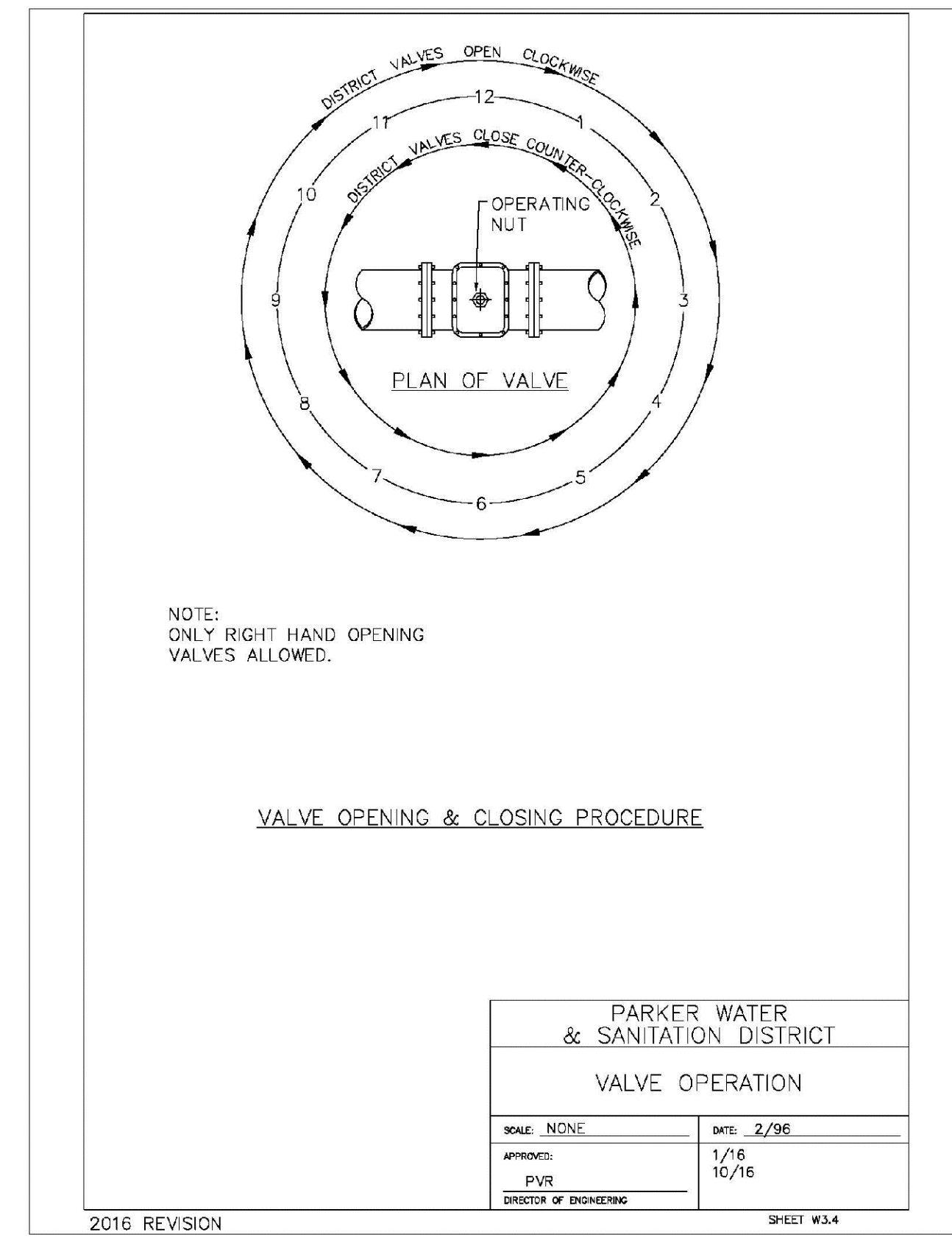
2016 REVISION SHEET W3.1



PARKER WATER & SANITATION DISTRICT
 VALVE OPERATOR EXTENSION

SCALE: NONE DATE: 5/98
 APPROVED: PVR 2/93 12/07 1/16 10/16
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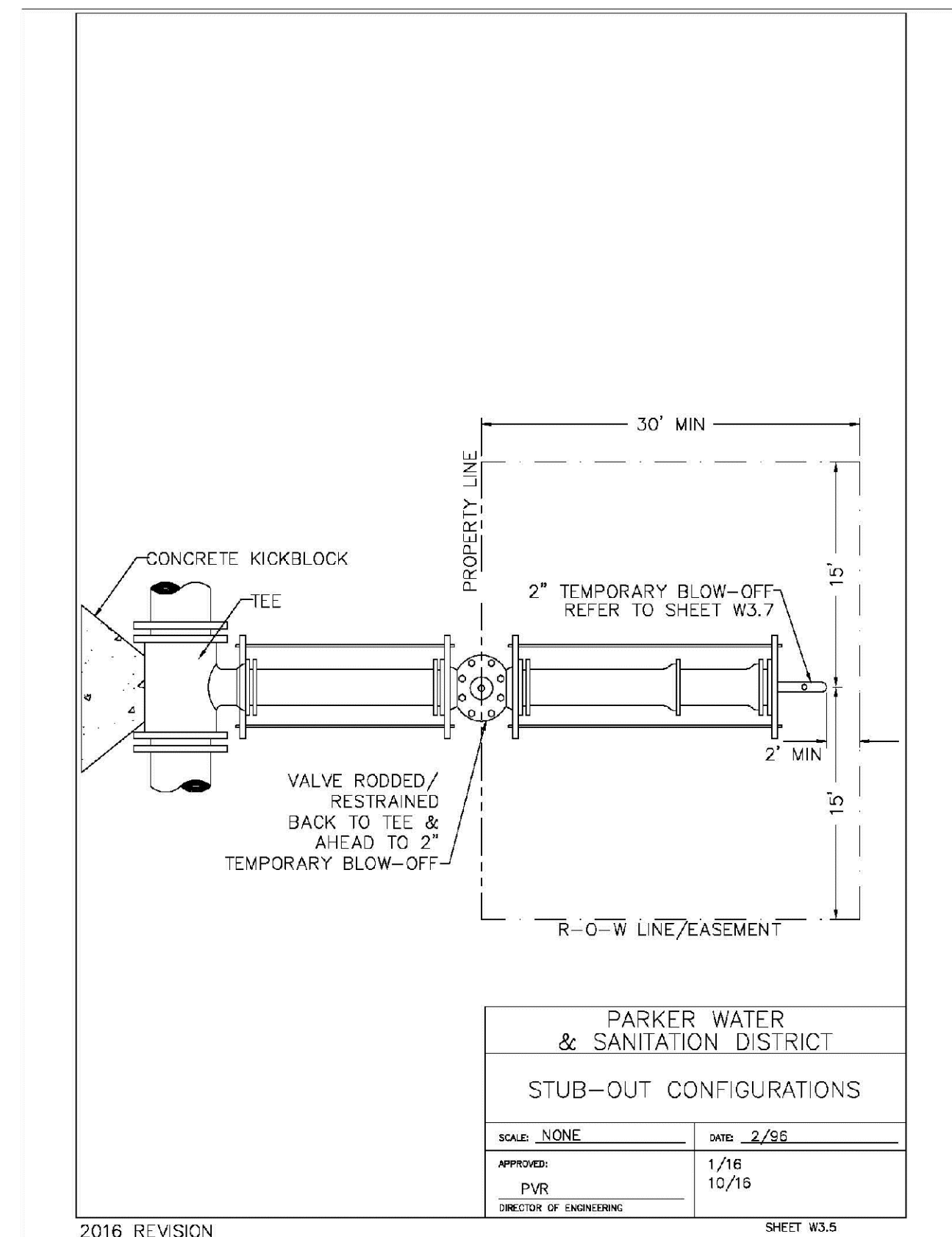
2016 REVISION SHEET W3.3



PARKER WATER & SANITATION DISTRICT
 VALVE OPERATION

SCALE: NONE DATE: 2/96
 APPROVED: PVR 1/16 10/16
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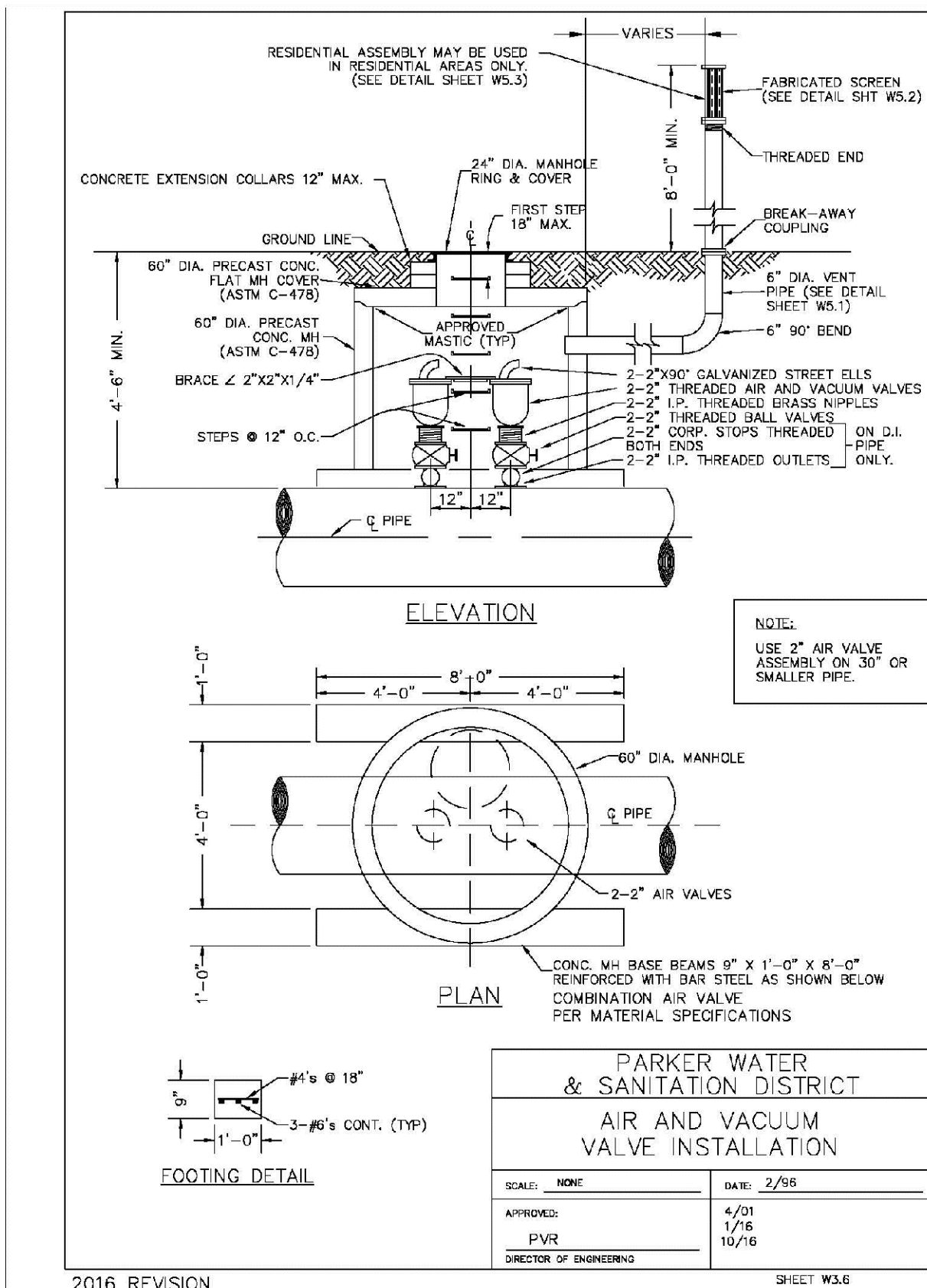
2016 REVISION SHEET W3.4



PARKER WATER & SANITATION DISTRICT
 STUB-OUT CONFIGURATIONS

SCALE: NONE DATE: 2/96
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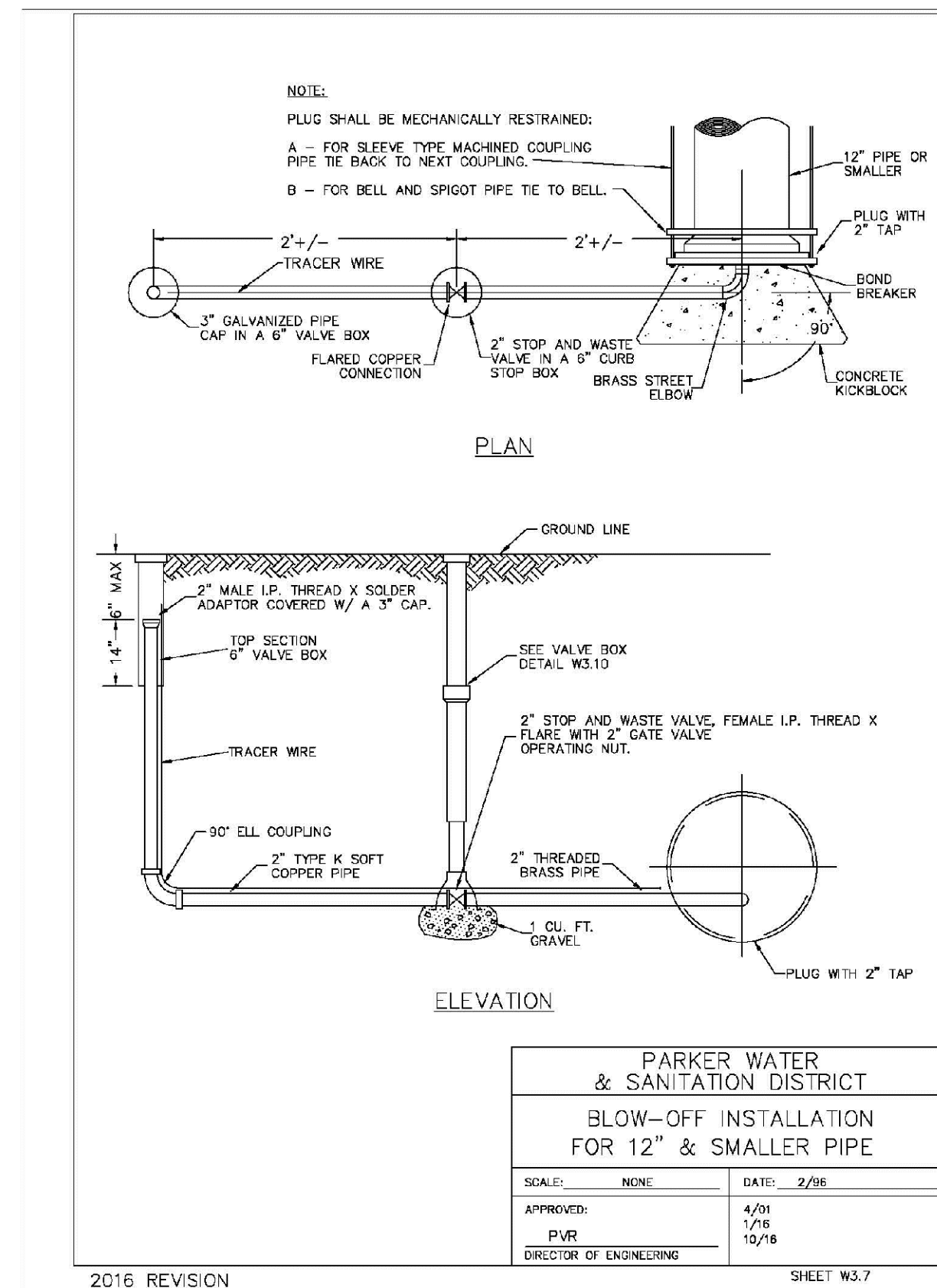
2016 REVISION SHEET W3.5



PARKER WATER & SANITATION DISTRICT
 AIR AND VACUUM VALVE INSTALLATION

SCALE: NONE DATE: 2/96
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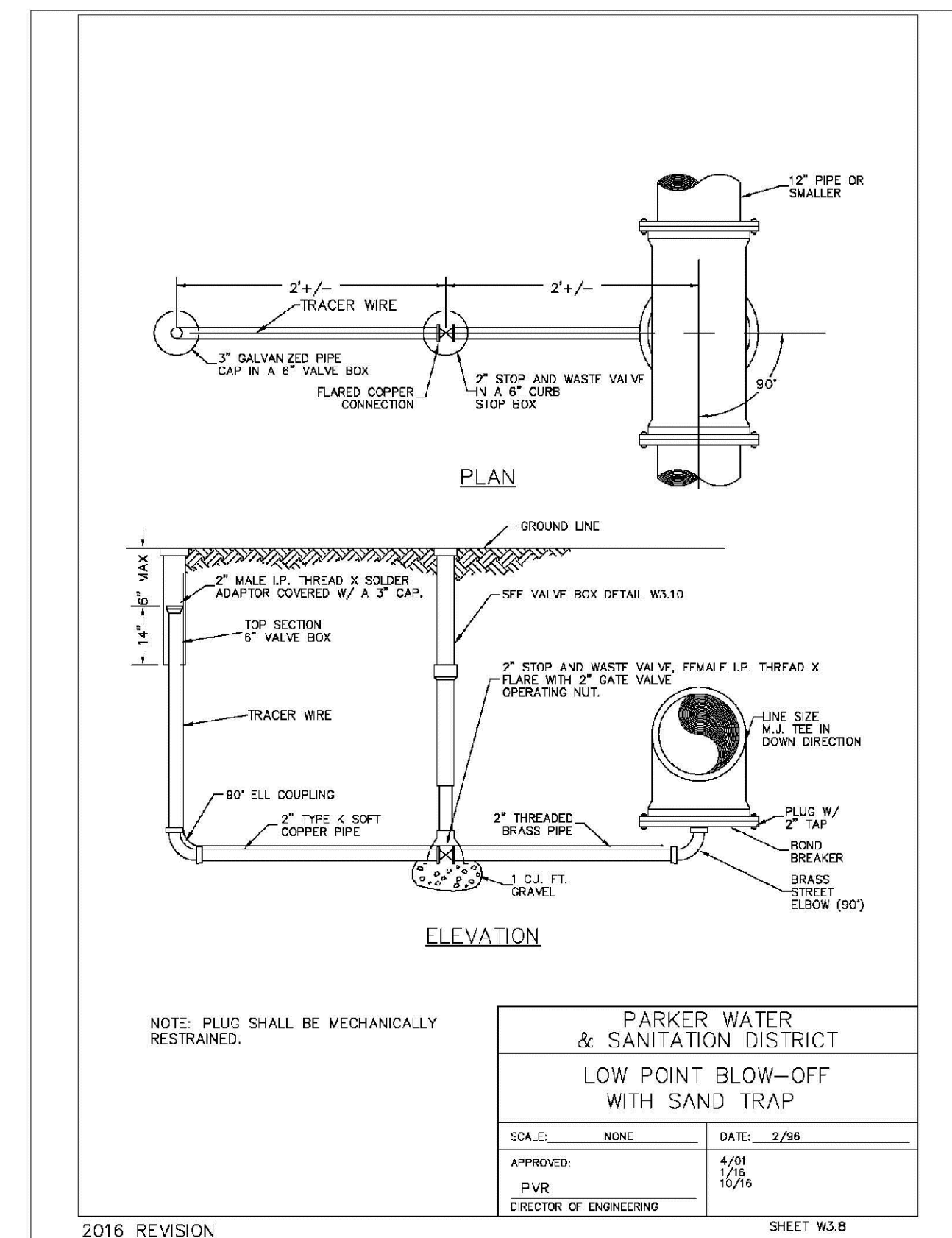
2016 REVISION SHEET W3.6



PARKER WATER & SANITATION DISTRICT
 BLOW-OFF INSTALLATION FOR 12" & SMALLER PIPE

SCALE: NONE DATE: 2/96
 APPROVED: PVR 4/01 1/16 10/16
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2016 REVISION SHEET W3.7



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

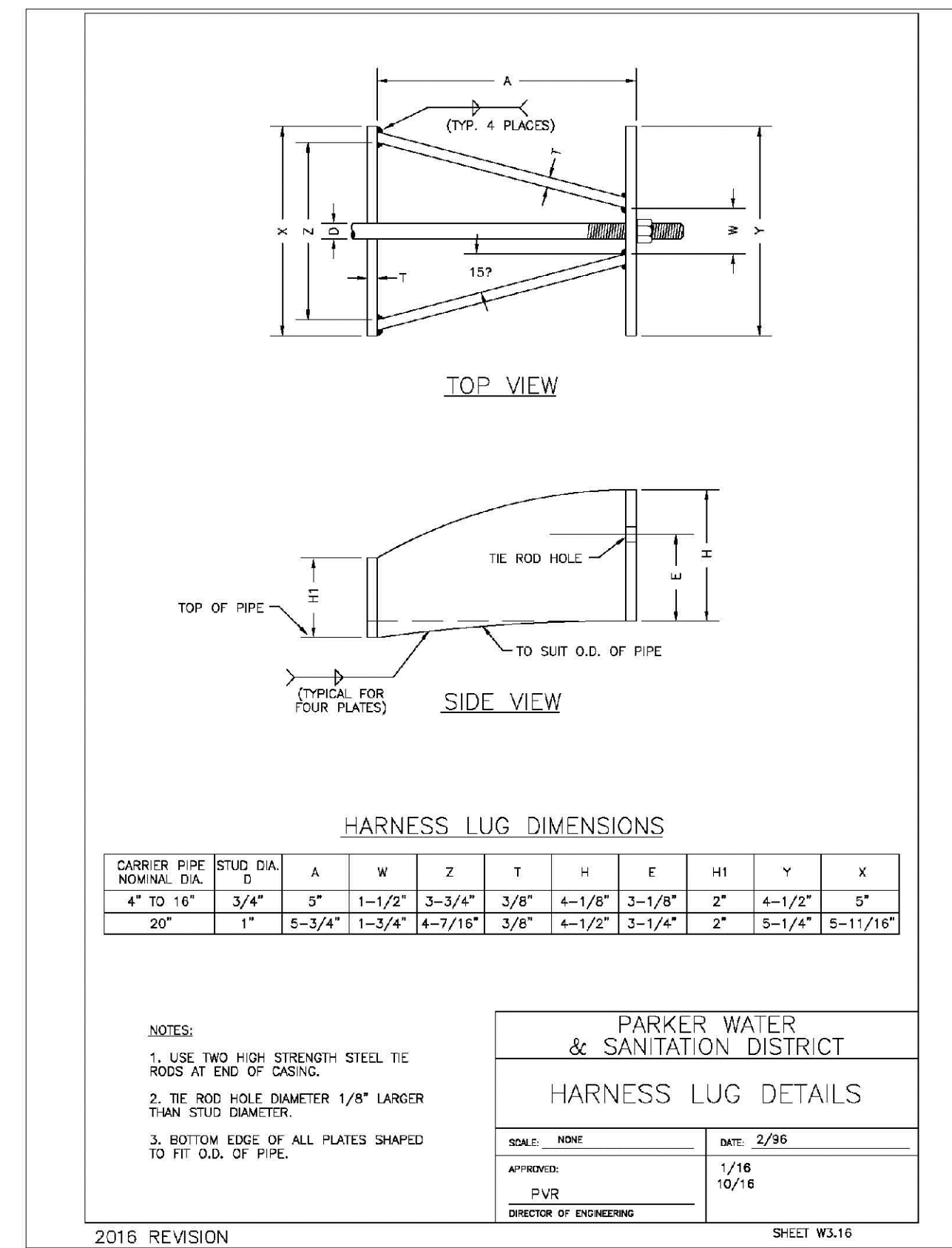
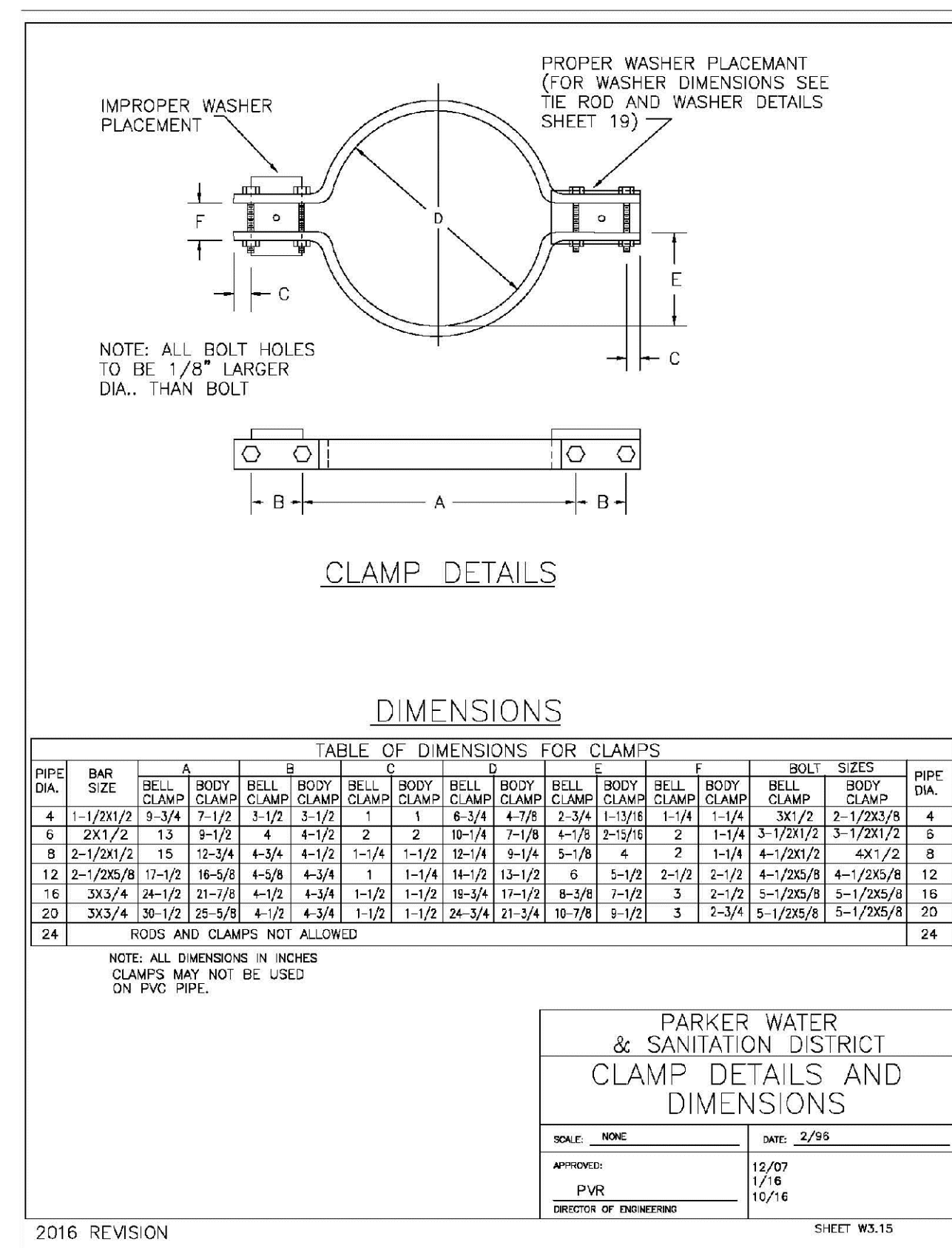
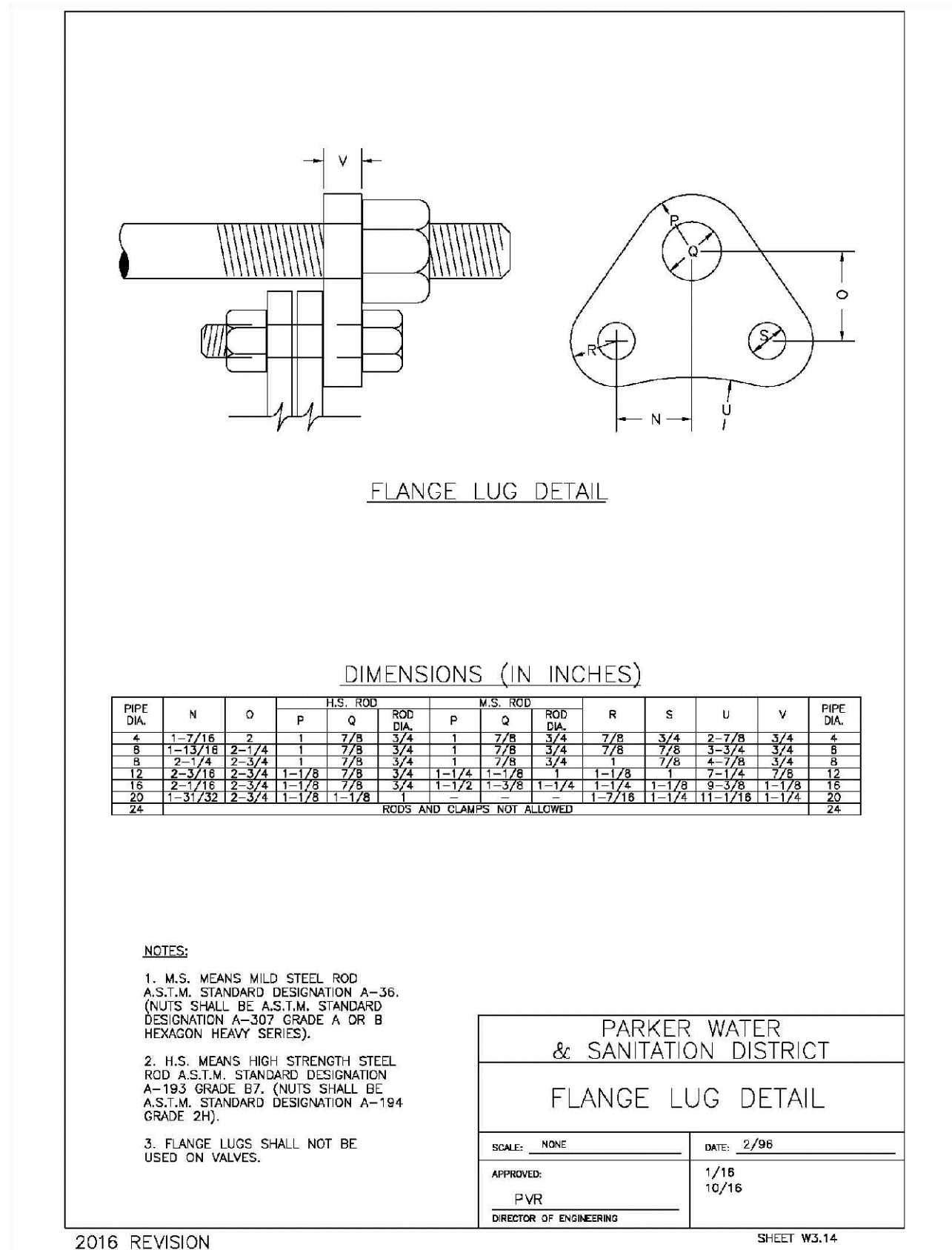
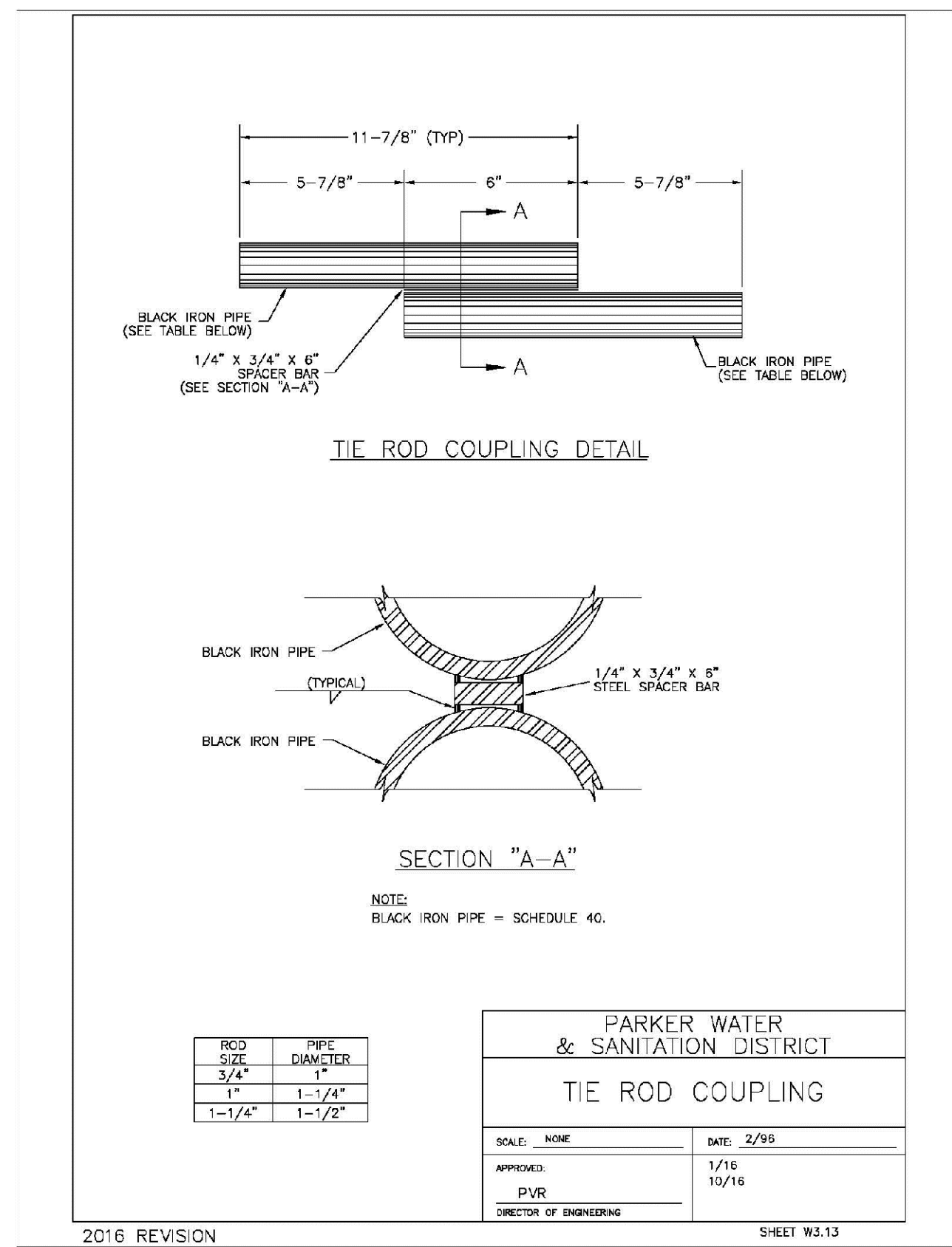
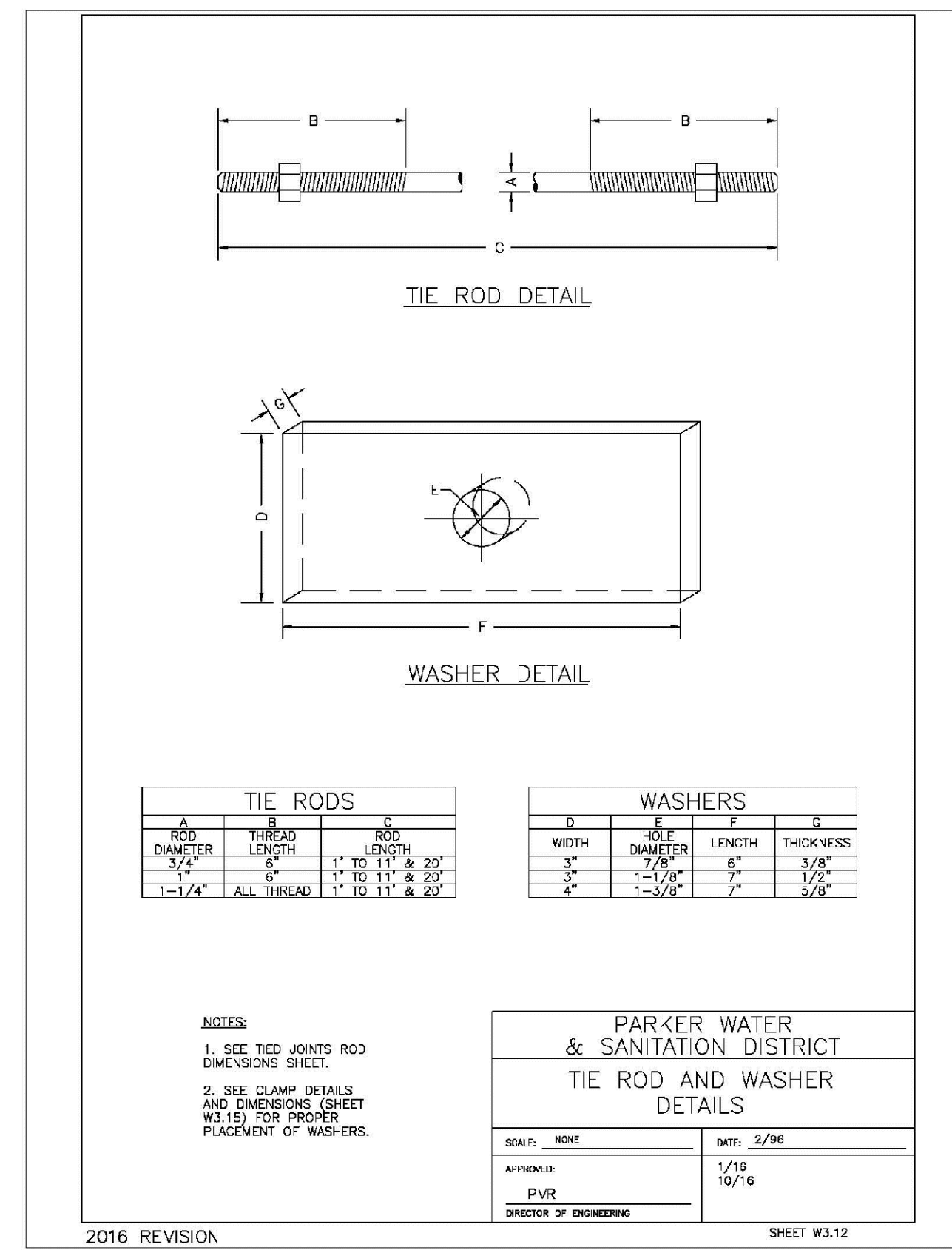
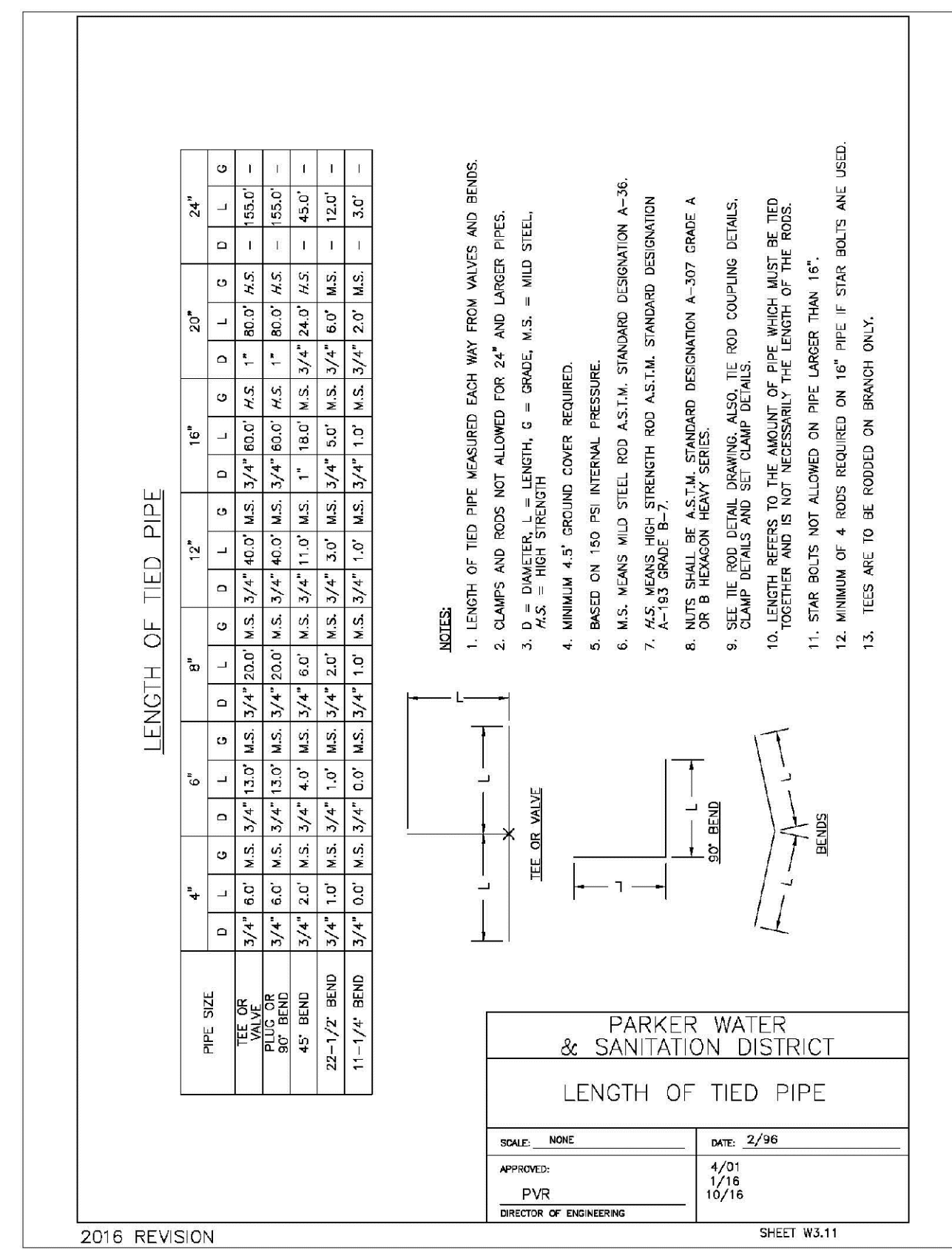
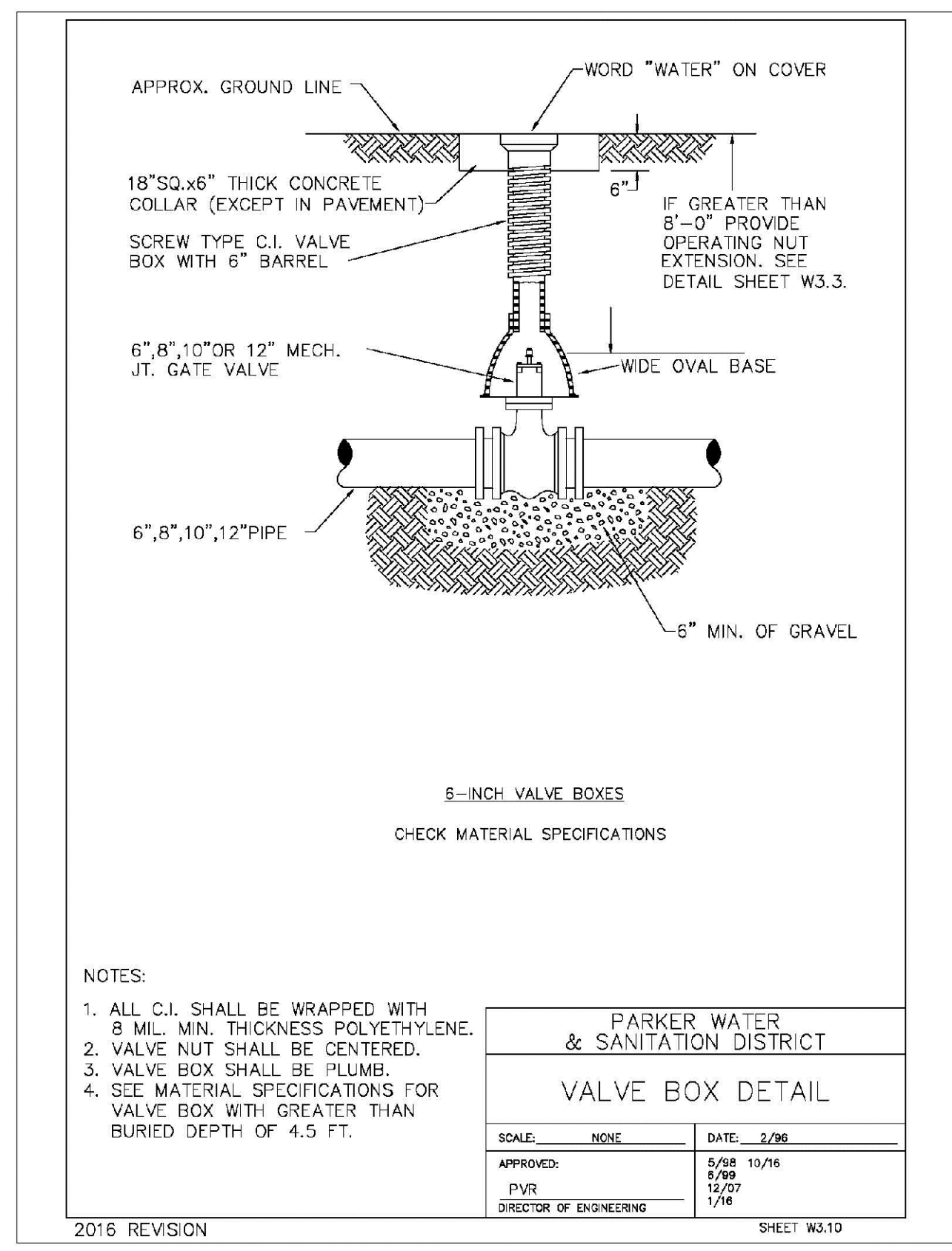
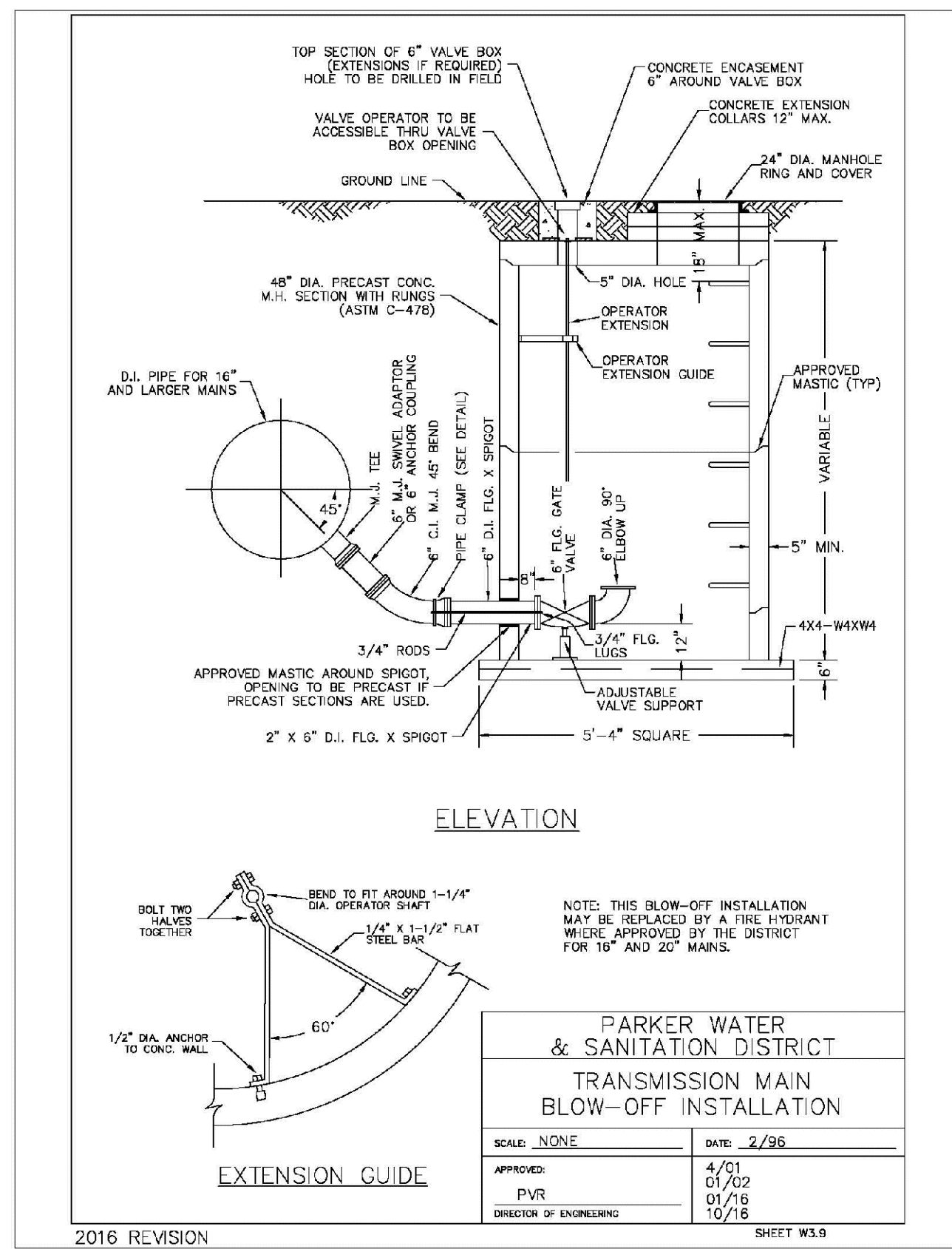
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2016 REVISION SHEET W3.8

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TRAILS AT CROWFOOT FILE 3 CONSTRUCTION DRAWINGS WATER DETAILS											
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HR 935 LLC
7353 South Alton Way
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TRAILS AT CROWFOOT
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WATER DETAILS

SCALE: AS SHOWN
FILE NO: 8130283701

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

SHEET NUMBER 19

No.	Revisions	Date	Init.	Appr.	Date

MECHANICAL JOINT RESTRAINT

WEDGE DETAIL BOLT HOLE DETAIL

NOMINAL PIPE SIZE	NO. OF BOLTS	NO. OF WEDGES	K2 INCHES	K1 INCHES	F INCHES	M INCHES
4"	2	2				
6"	3	3	11.12	9.5	7.00	0.88
8"	4	4	13.37	11.75	8.75	1.00
10"	5	5	15.62	14.00	11.20	1.00
12"	6	6	17.88	16.25	13.30	1.25

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

**PARKER WATER & SANITATION DISTRICT
MECHANICAL JOINT RESTRAINT DETAILS**

SCALE: NONE DATE: 2/96

APPROVED: 2/90
PVR 12/07
DIRECTOR OF ENGINEERING 1/16

2016 REVISION SHEET W3.17

11-1/4, 22-1/2, 45° & 90° BENDS DEAD END

TYPICAL CROSS SECTION

MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)

SIZE OF PIPE	11-1/4"	22-1/2"	45"	90"	TEE OR DEAD END
4"	1.00	1.20	1.00	1.80	1.50
6"	1.00	1.45	1.25	4.00	3.00
8"	1.00	2.00	4.00	7.50	3.50
10"	2.00	2.25	4.50	11.00	4.00
12"	3.50	6.50	12.50	23.00	18.50
20"	5.50	10.00	19.50	38.50	29.00
24"	5.50	13.00	28.00	47.00	33.00

NOTES:
1. ALL VALVES, TEES, BENDS AND PLUGS SHALL BE RESTRAINED AND KICKBLOCKED.
2. WATER HAMMER: 1" C 16", 20" AND 24" WATER HAMMER = 70 PSI.
3. SOIL BEARING CAPACITY = 3,000 LBS./SQ. FT.

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

SCALE: NONE DATE: 2/96

APPROVED: 4/01
PVR 1/16
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W3.18

24" DIAMETER RING AND COVER

HALF PLAN

TYPICAL CROSS SECTION

NOTES:
1. Coating Specifications: ASTM A-48 With A Minimum Tensile Strength of 20 KSI (Class 20)
2. All Castings to be Dipped in Asphalt Base Coat (Or Approved Lead)

**PARKER WATER & SANITATION DISTRICT
24" DIAMETER RING AND COVER**

SCALE: NONE DATE: 6/28

APPROVED: 12/07
PVR 1/16
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W2.19

ACCESS MANHOLE ASSEMBLY

ACCESS MANHOLE AND AIR VALVE ASSEMBLY

NOTES:
1. USE 2" AIR VALVE ASSEMBLY ON 30" OR SMALLER PIPES.
2. RESIDENTIAL ASSEMBLY MAY BE USED IN RESIDENTIAL AREAS ONLY (SEE DETAIL SHEET W6.3)

**PARKER WATER & SANITATION DISTRICT
ACCESS MANHOLE ASSEMBLY**

SCALE: NONE DATE: 2/96

APPROVED: 4/01
PVR 1/16
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W3.20

STANDARD TRENCH SECTION

STREET CUT PATCH

PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-4"	2'-4"
6"	1'-6"	2'-6"
8"	1'-8"	2'-8"
10"	2'-0"	3'-0"
12"	2'-2"	3'-2"
24"	3'-0"	4'-0"

**PARKER WATER & SANITATION DISTRICT
TYPICAL TRENCH SECTION PIPE PROTECTION**

SCALE: NONE DATE: 2/96

APPROVED: 5/08
PVR 2/02
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W4.1

PIPE BEDDING

(a) Installation of Bedding and Pipes: 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 soil and bedding material. All pipe shall be installed in such a manner as to insure full support of the pipe barrel over its entire length. After the pipe is adjusted for line and grade, and the joint is made, the bedding material shall be carefully placed and tamped under the fullness of the pipe and in the previously dug bed holes.

Tamping is herein defined as the act of placing approved bedding material under the fullness of the pipe, paying particular attention to voids, bed holes, and silt holes. The purpose of tamping is to ensure uniform support for the pipe.

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

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 spongy 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	70-100
No. 6	35-83
No. 16	20-80
No. 30	5-60
No. 50	2-30
No. 100	1-10
No. 200	0-3

Spongy Sand for use with 20-inch or smaller

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 pile may be used to provide uniform support for the pipe. No rock or stone larger than that allowed by the sieve analysis, or any other detrital materials, shall be placed closer to the pipe than six inches (6"). Approved bedding materials shall be stockpiled on the jobsite to be used in the event natural materials become unsatisfactory. The District reserves the right to require the use of the specified bedding material at any time.

**PARKER WATER & SANITATION DISTRICT
PIPE BEDDING**

SCALE: NONE DATE: 2/96

APPROVED: 5/08
PVR 2/02
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W4.2

WATERLINE ENCASEMENT

PLAN VIEW

PROFILE

TYPICAL SECTION

NOTES:
1. 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 5-7% ENTRAINED AIR CONTENT AND A MAXIMUM SLUMP OF 4".
2. ALL REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
3. ALL REINFORCEMENT SHALL HAVE 2" MIN. CONCRETE COVER.
4. THE SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY PRIOR TO FORMING THE STRUCTURE.
5. PIPE SHALL BE WRAPPED WITH FELT LAYER BEFORE ENCASING.

**PARKER WATER & SANITATION DISTRICT
WATERLINE ENCASEMENT**

SCALE: NONE DATE: 5/28

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

2016 REVISION SHEET W4.3

BORED CROSSINGS BENEATH CONDUITS

PLAN FOR PERPENDICULAR CROSSING

PLAN FOR ANGLE CROSSING

PROFILE

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

FORMULA FOR FINDING L:
$$L = \frac{C}{\sin \phi}$$

**PARKER WATER & SANITATION DISTRICT
BORED CROSSINGS BENEATH CONDUITS**

SCALE: NONE DATE: 2/96

APPROVED: 2/00
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2016 REVISION SHEET W4.4

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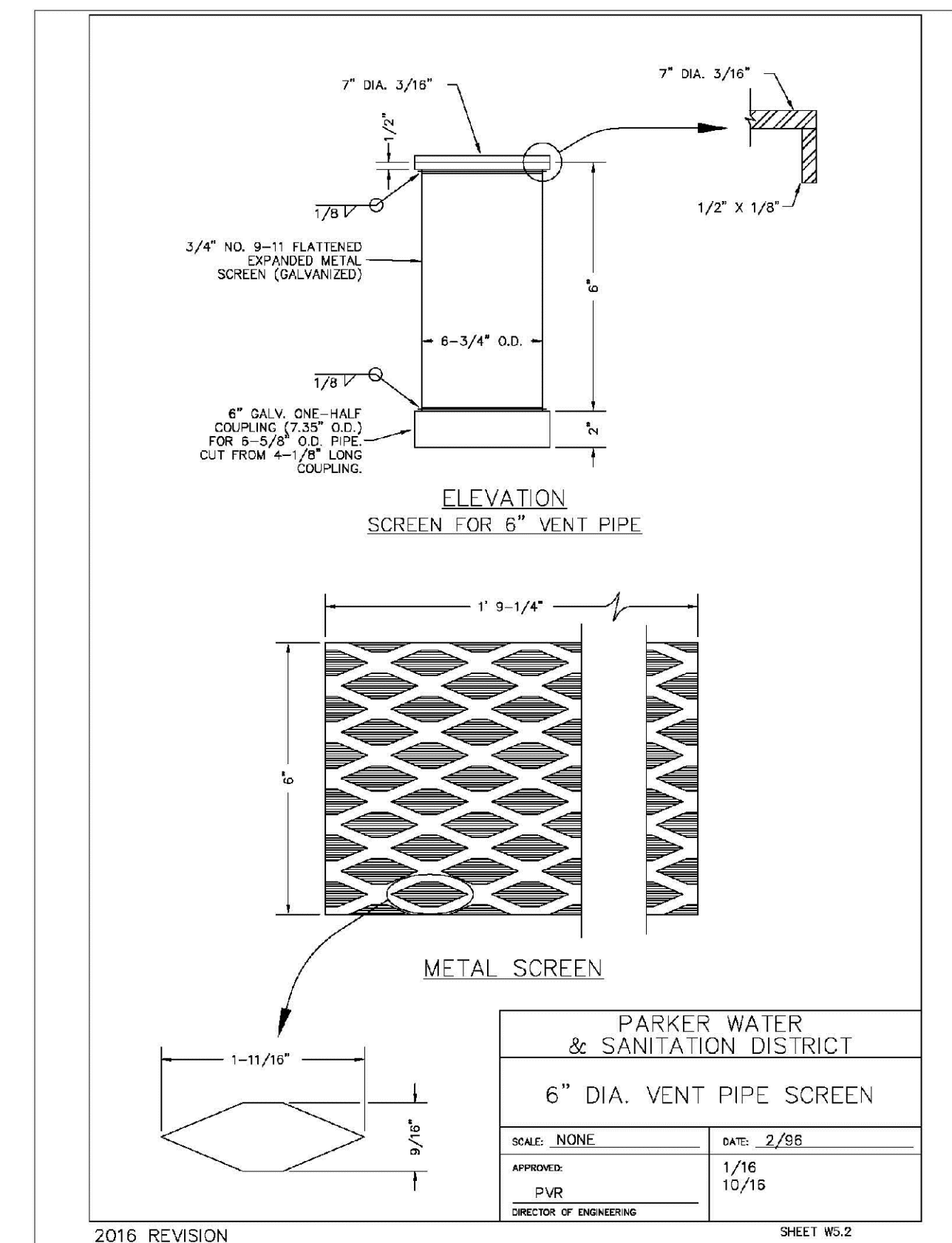
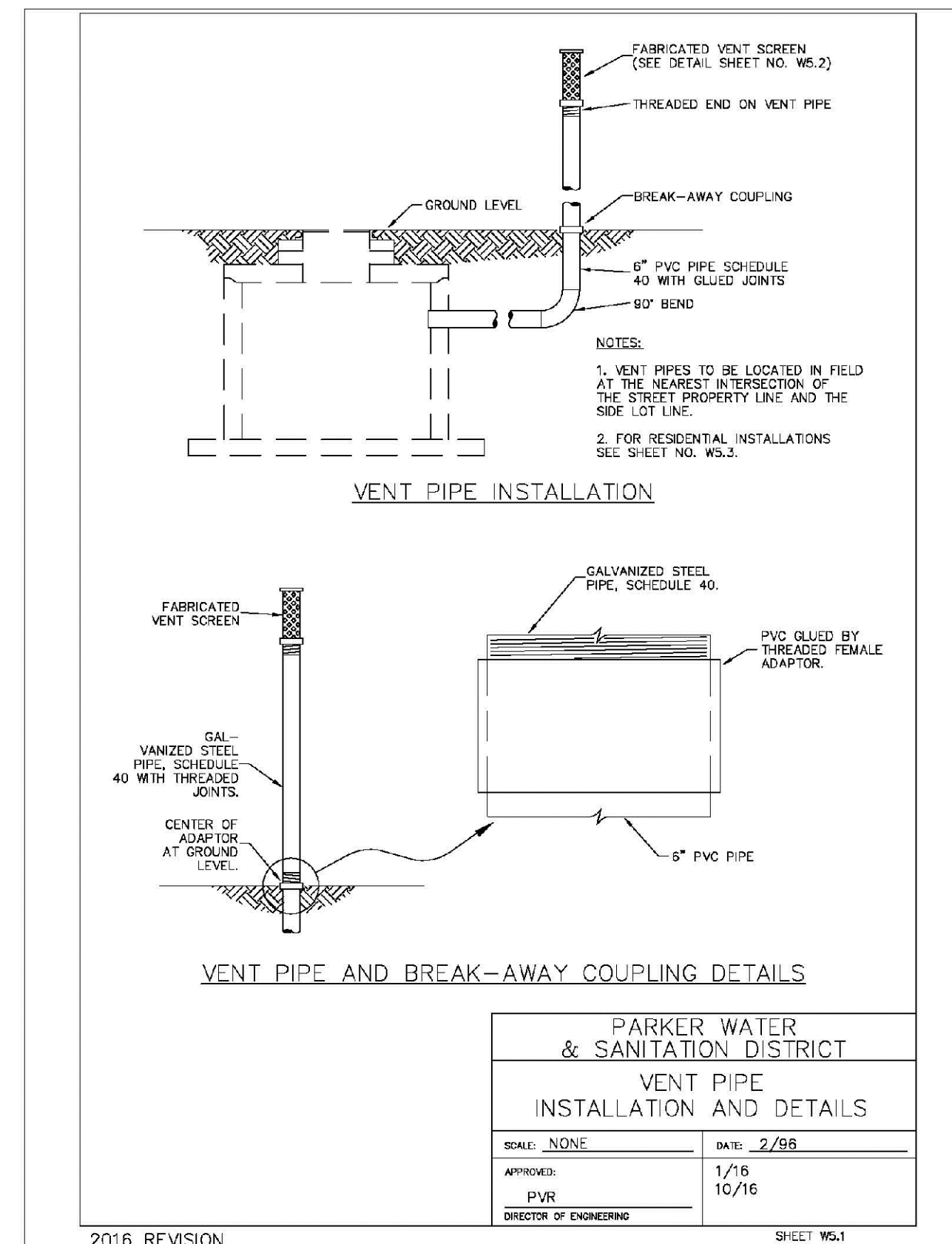
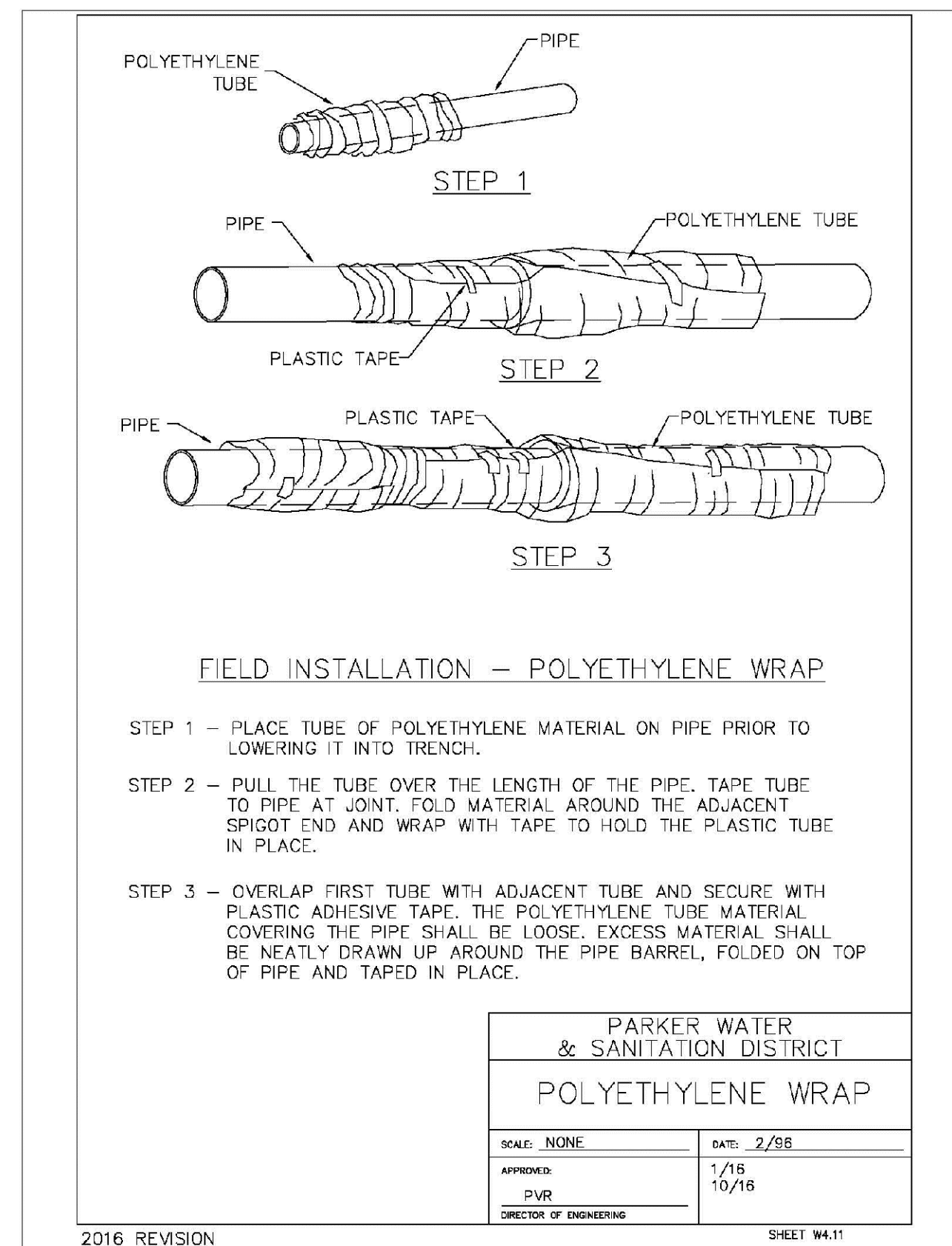
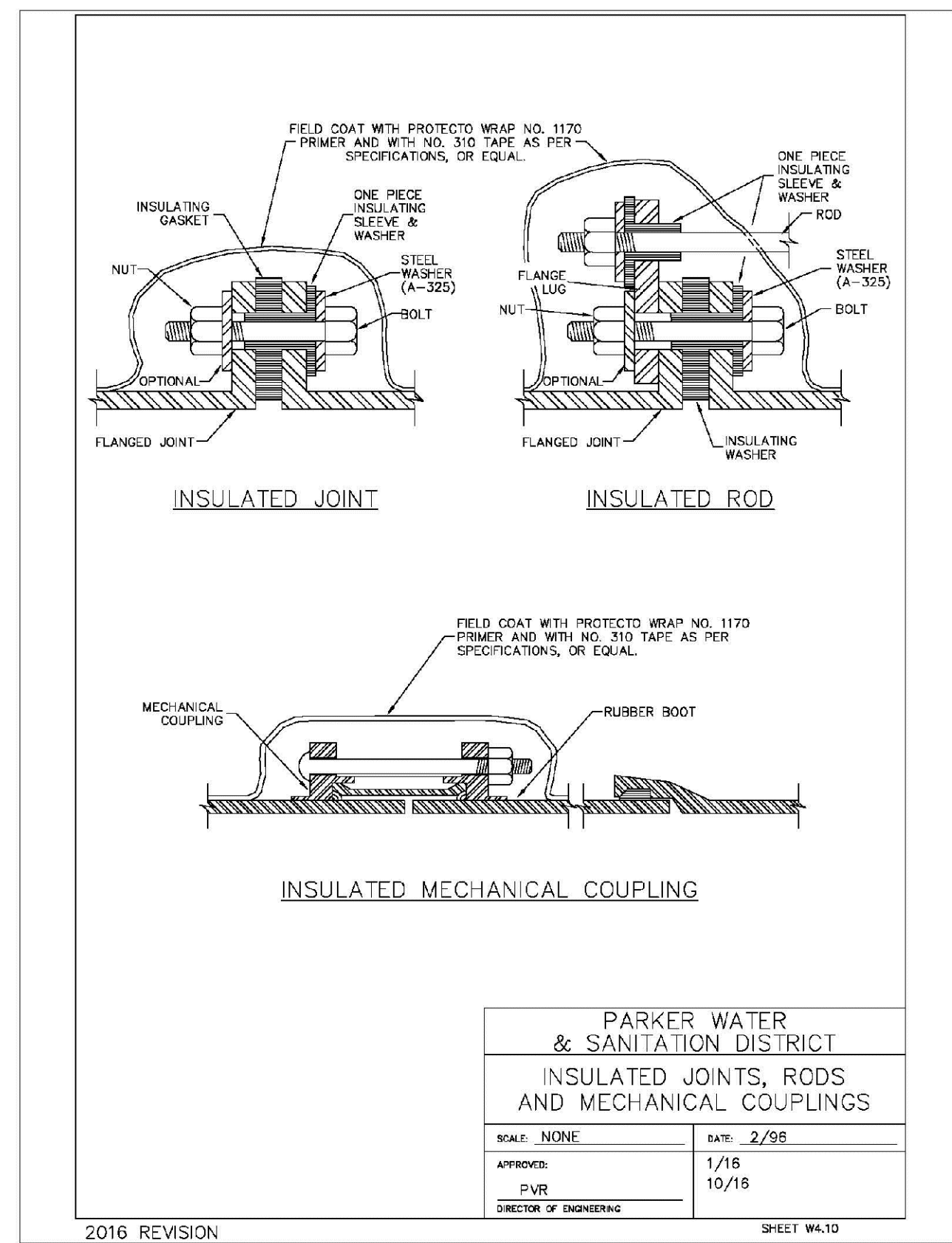
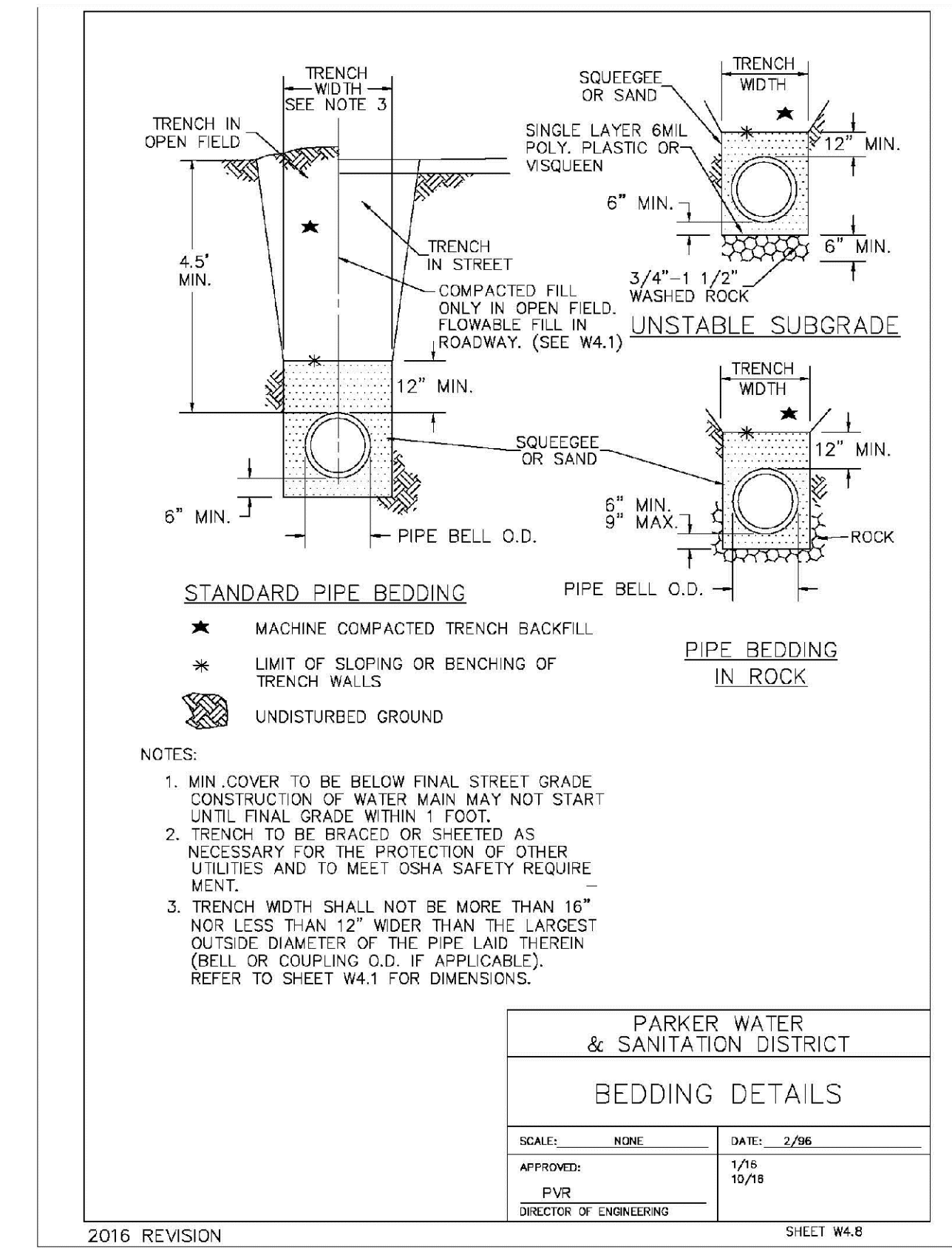
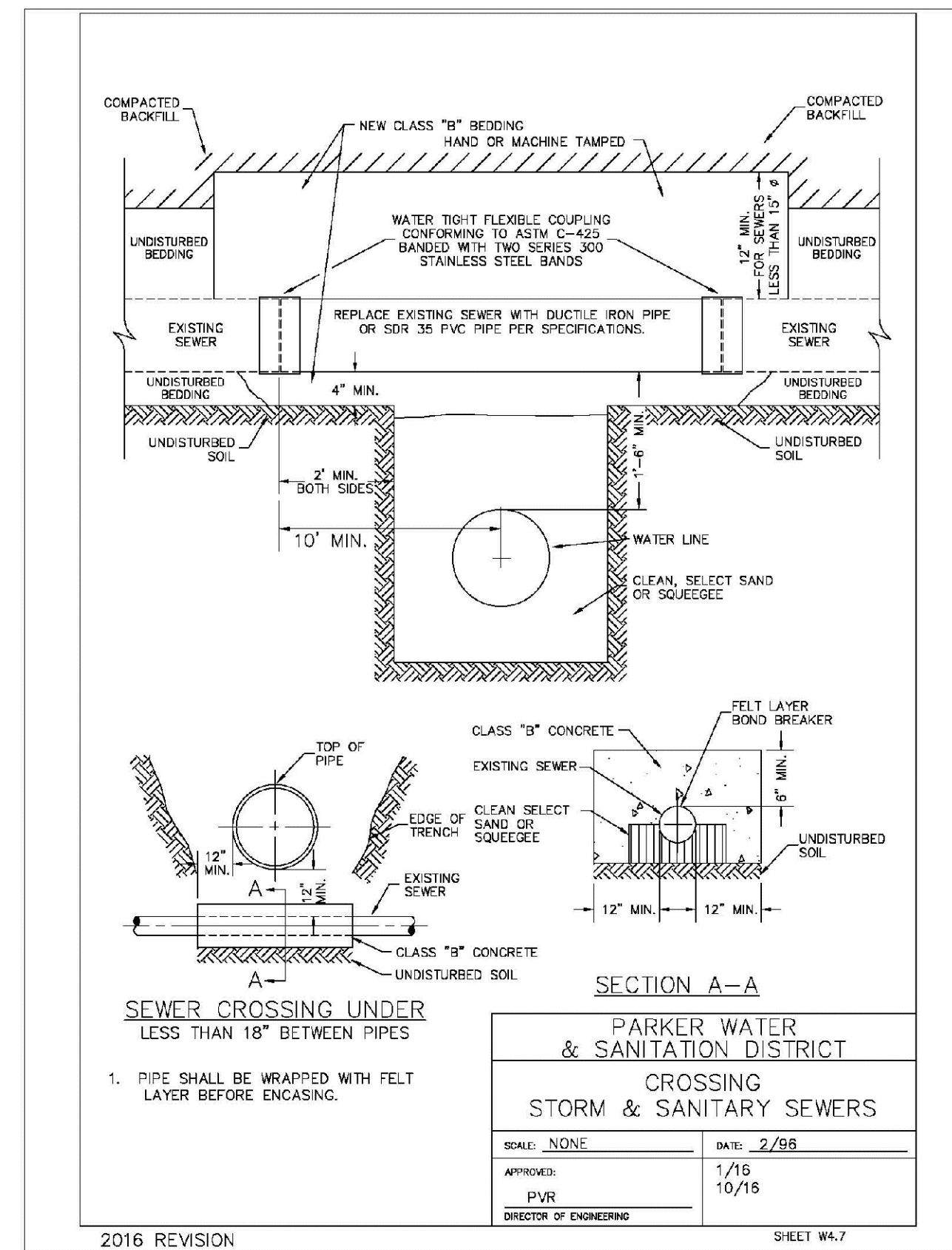
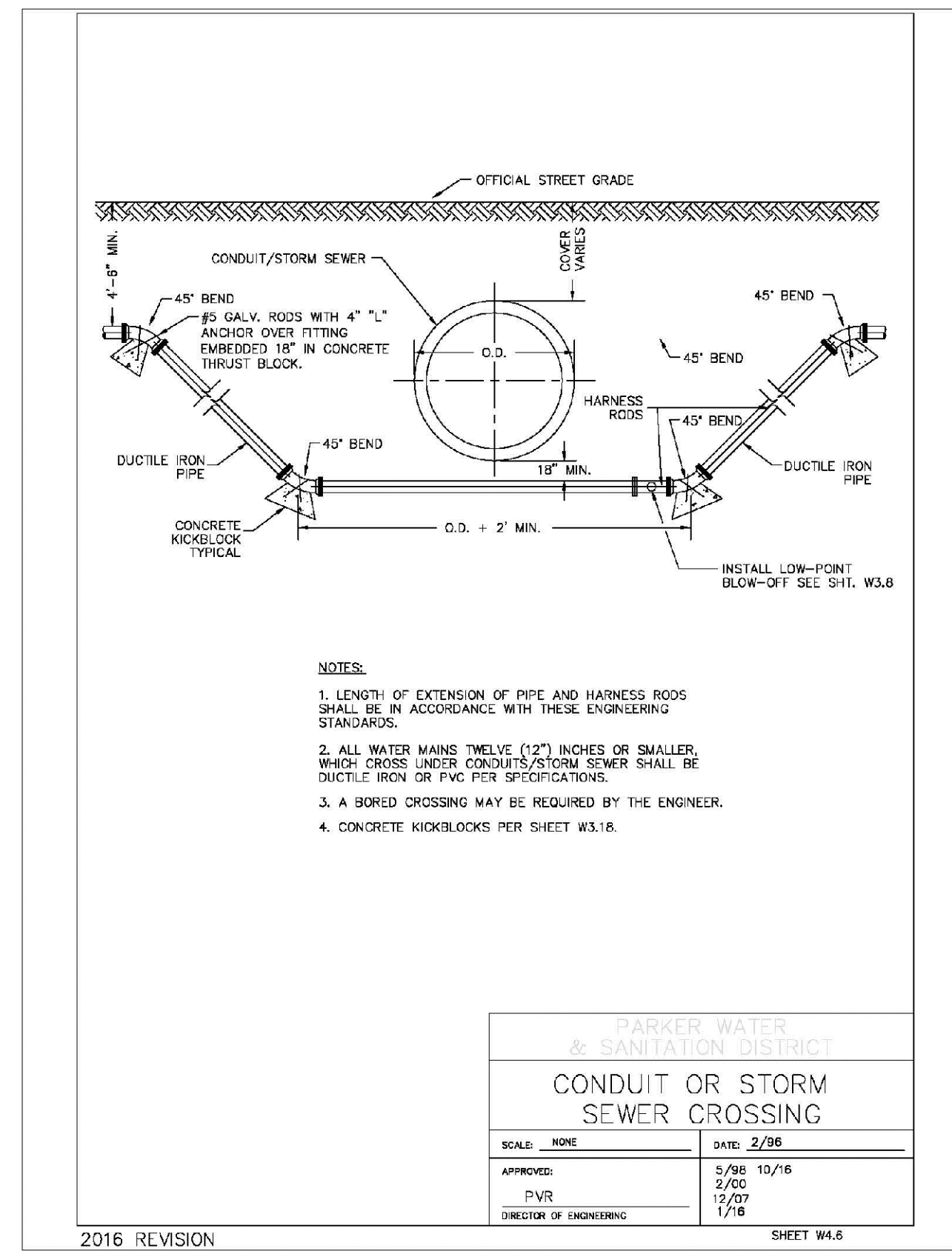
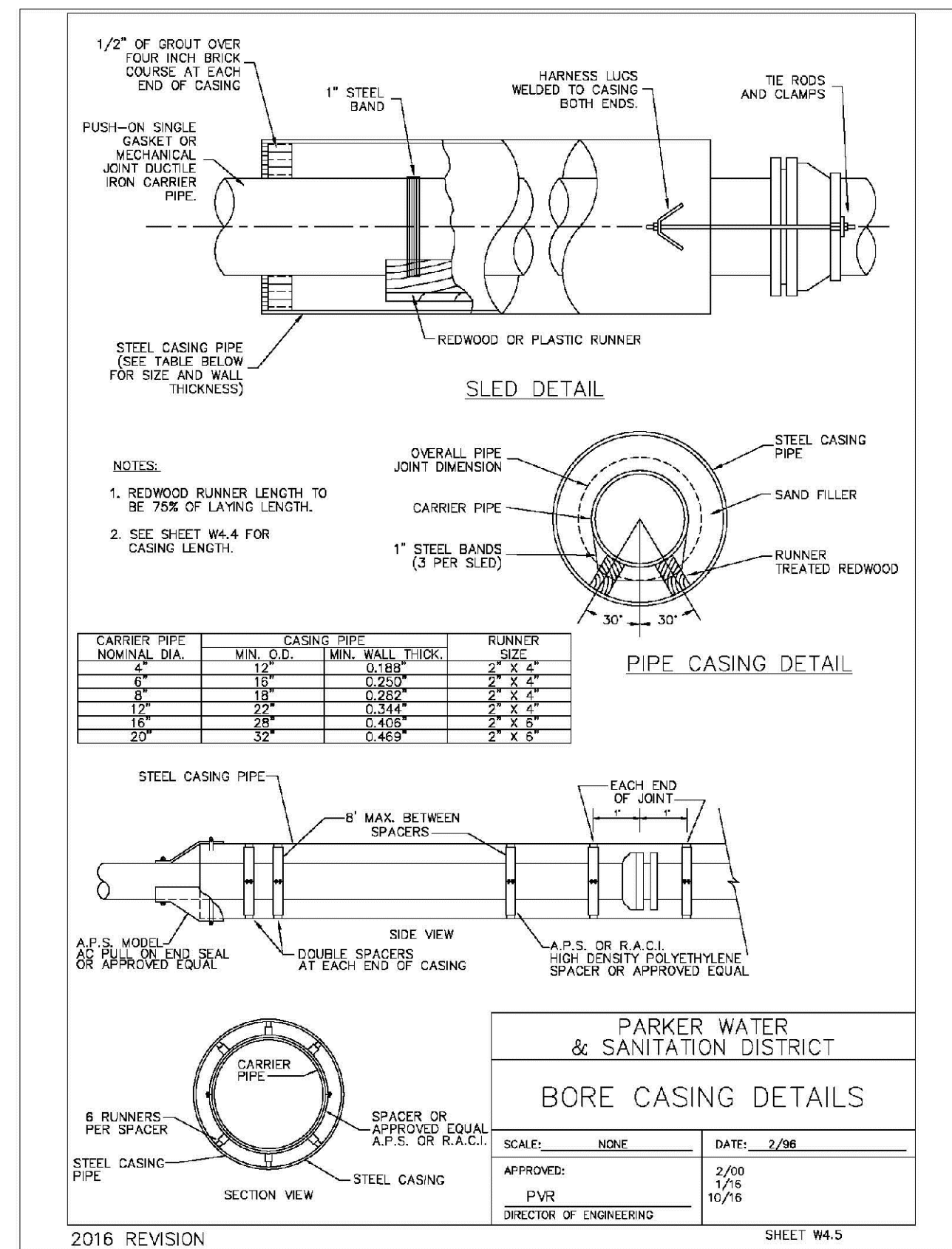
TRAILS AT CROWFOOT
FILING 3 CONSTRUCTION DRAWINGS
WATER DETAILS

SCALE: AS SHOWN
FILE NO: 8130283701

DRAWN BY: JF
CHECKED BY: JU
DATE: APRIL 2017

SHEET NUMBER: 20

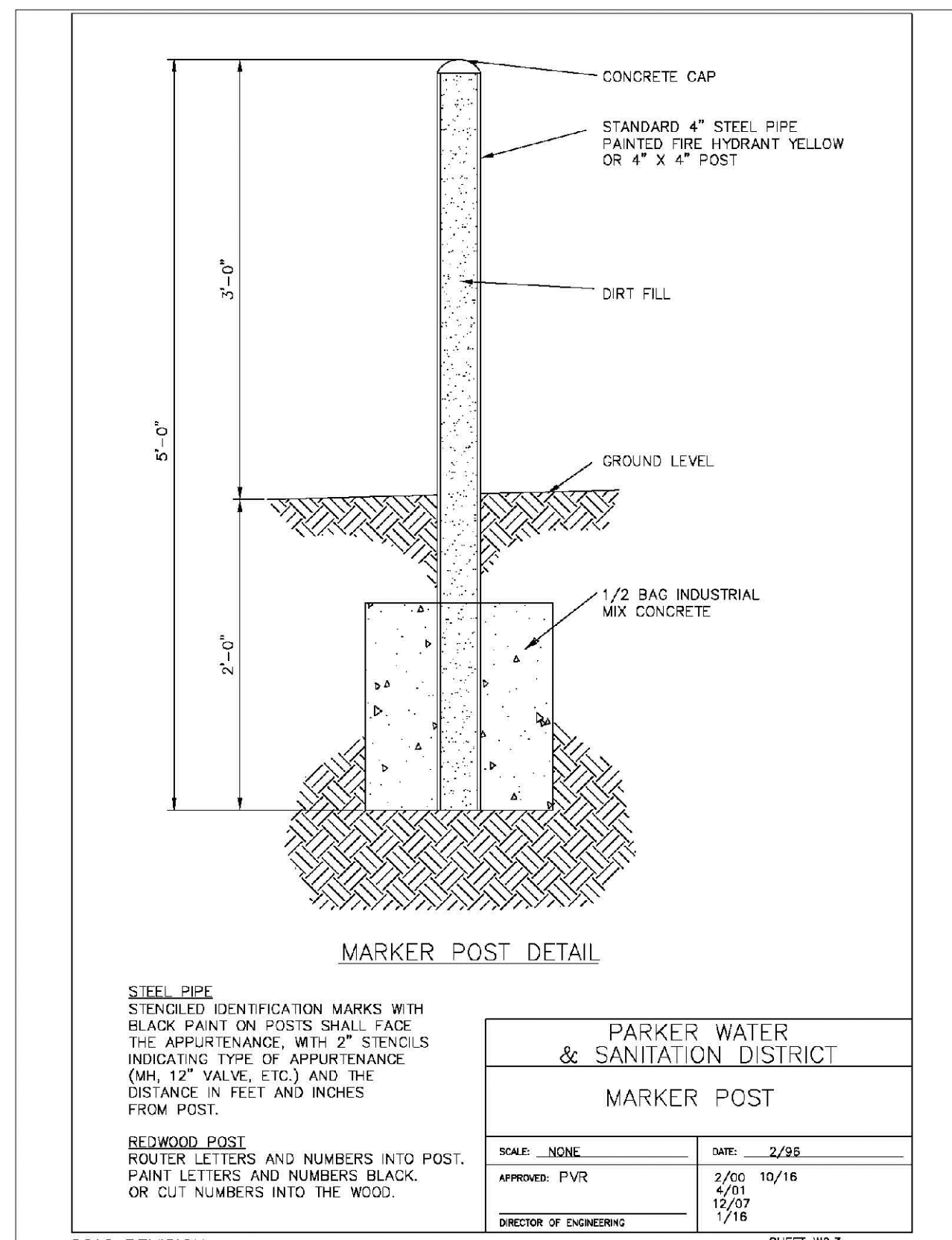
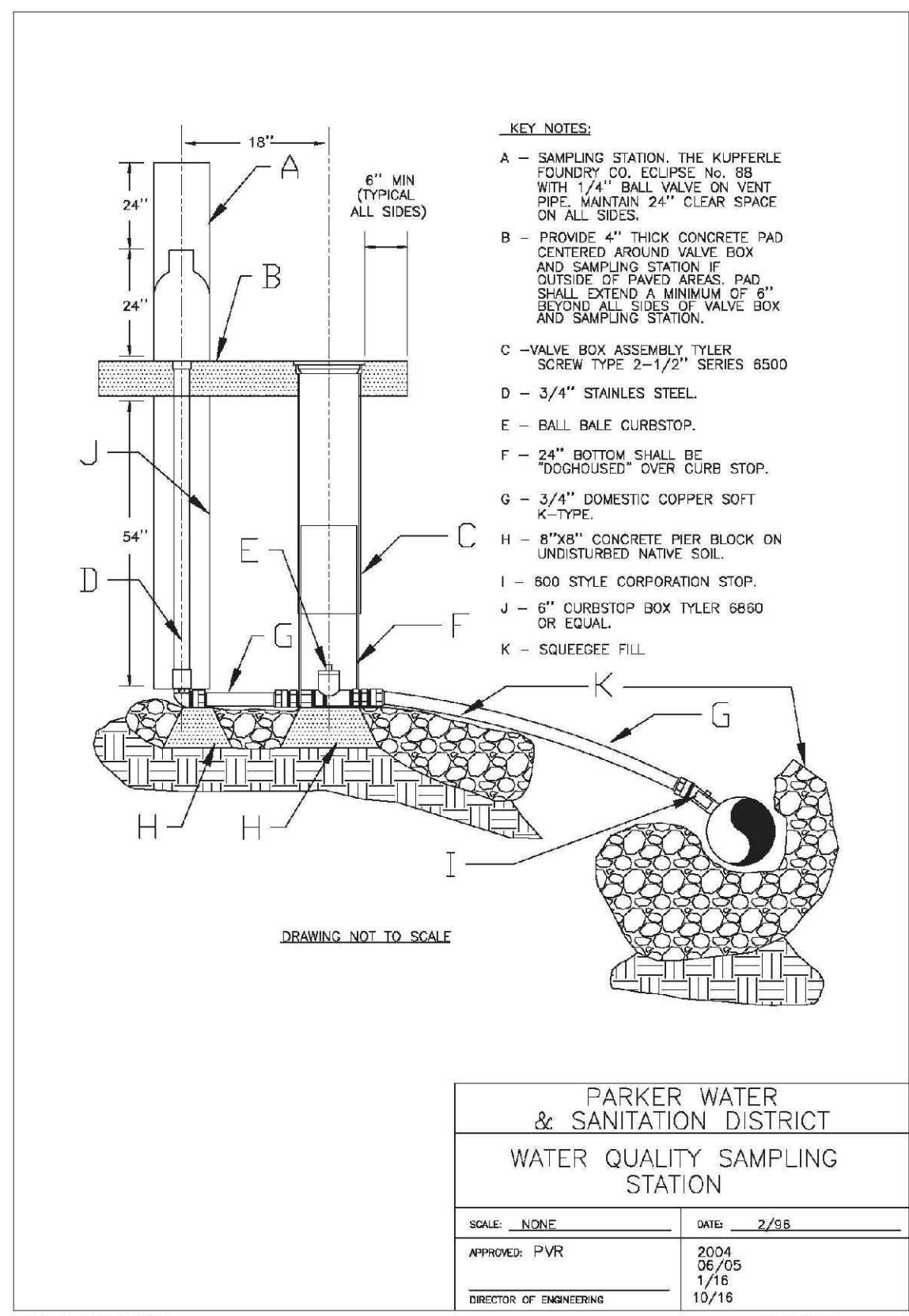
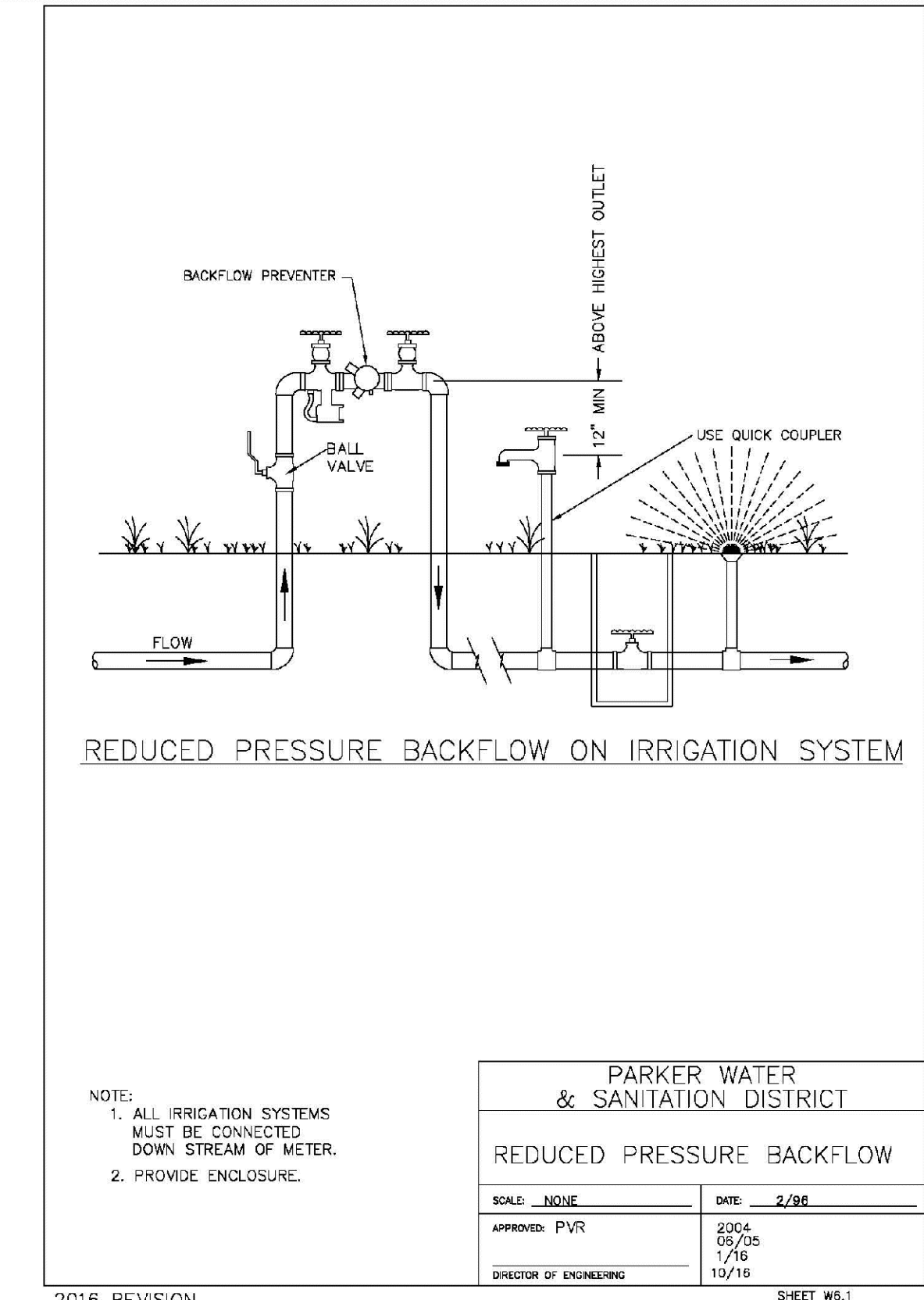
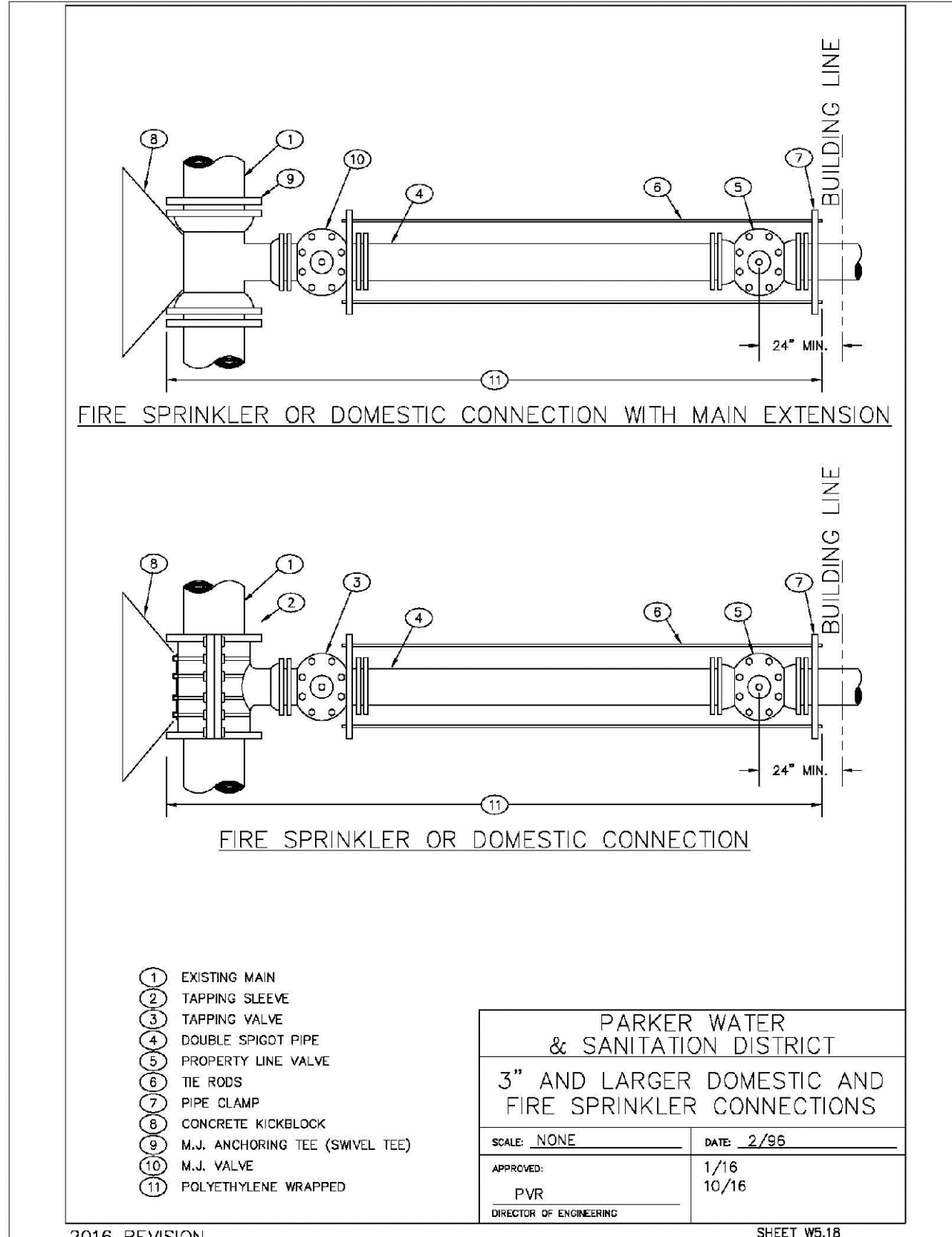
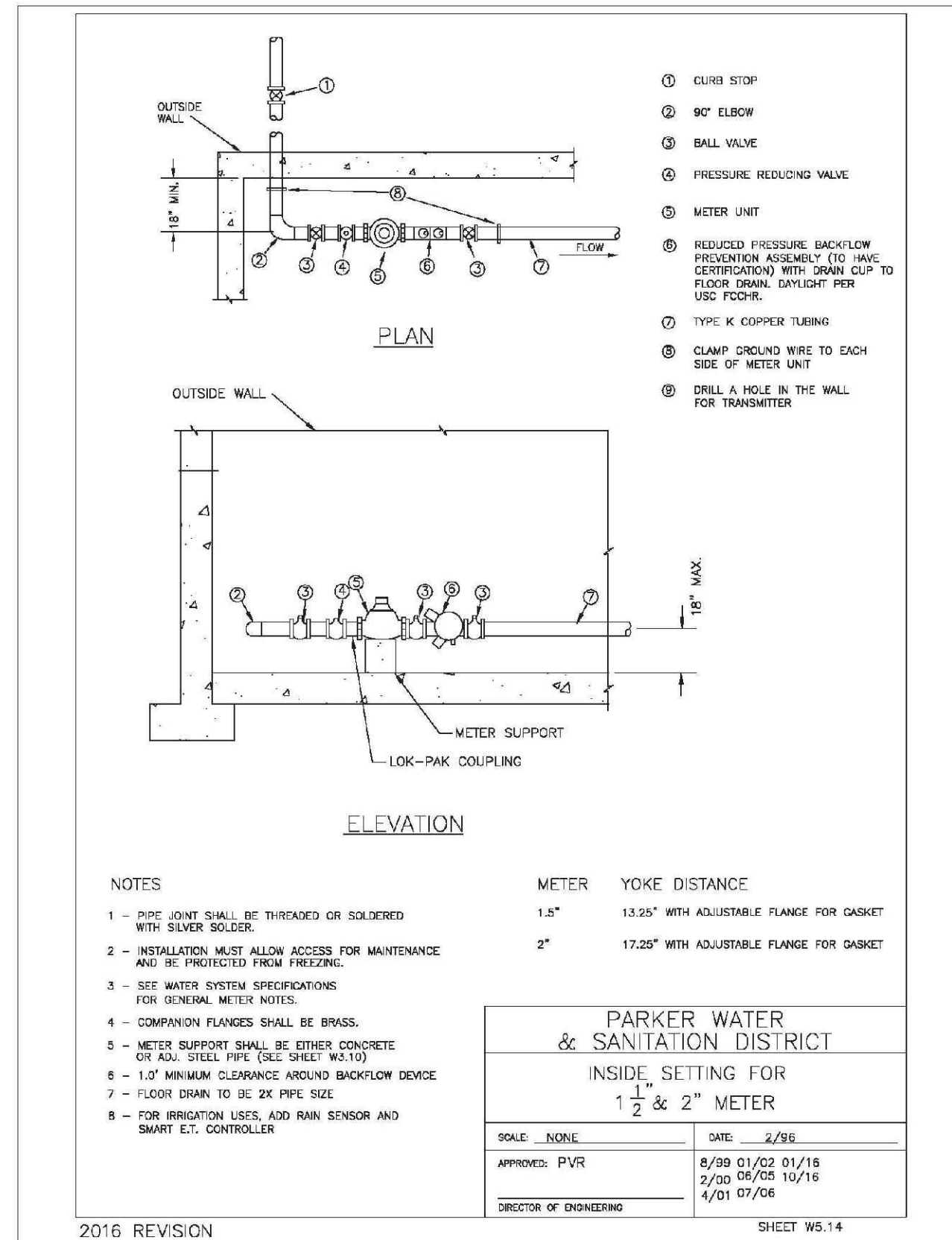
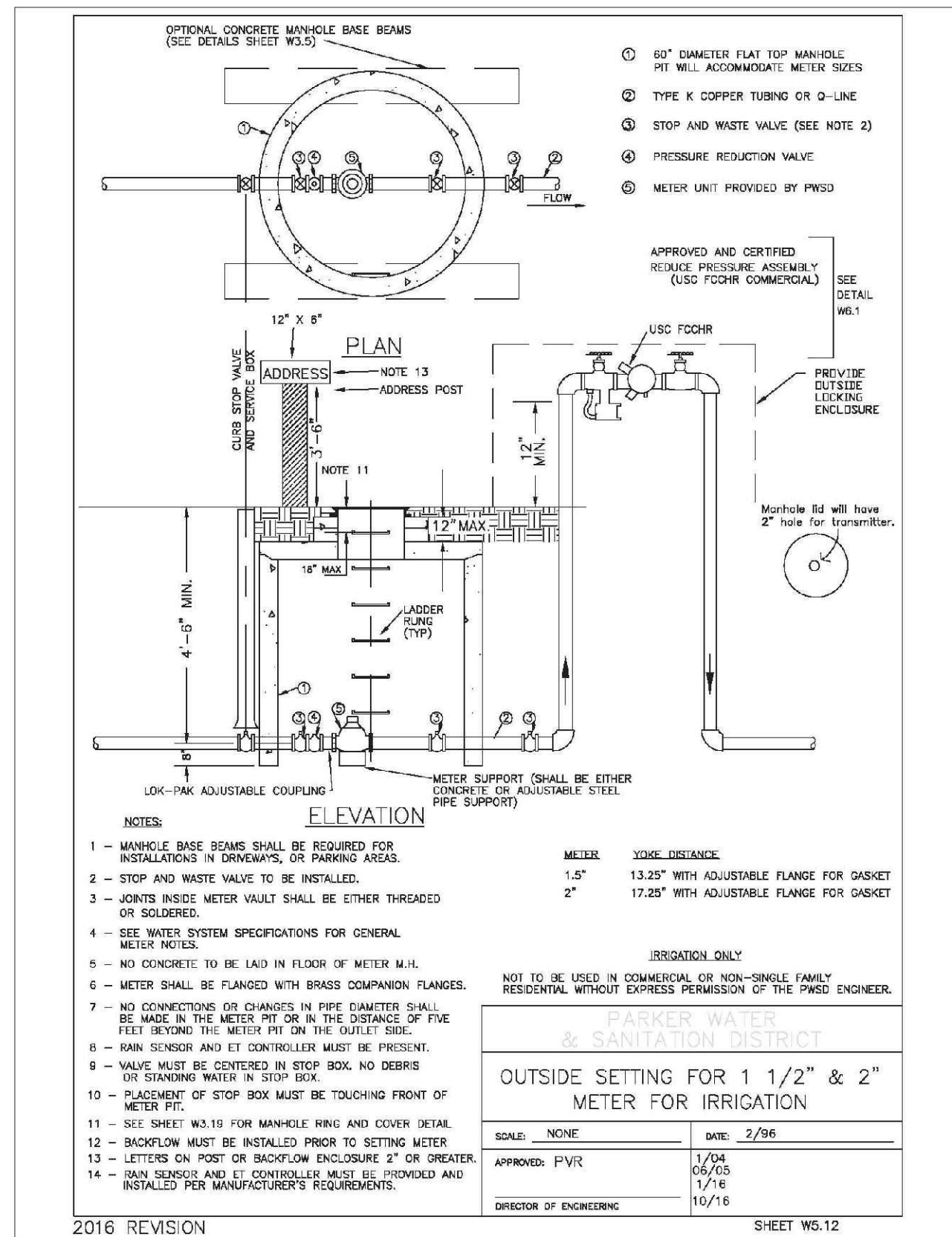
Revisions	Date	Init.	Appr.	Date



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CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
UNCC 1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

DATE:	APRIL 2017
CHECKED BY:	JU
DRAWN BY:	JF
FILE NO:	8130283701
SCALE:	AS SHOWN
TRAILS AT CROWFOOT FILM 3 CONSTRUCTION DRAWINGS WATER DETAILS	
HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112	
CVL CONSULTANTS	
No.	Revisions
Date	Init.
Appr.	Date



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UNCC 1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

SHEET NUMBER	DRAWN BY: JF	CHECKED BY: JJ	DATE: APRIL 2017	SCALE:	AS SHOWN	FILE NO:	8130283701
				TRAILS AT CROWFOOT FILING 3 CONSTRUCTION DRAWINGS WATER DETAILS			
				CVL CONSULTANTS 10338 E. Dry Creek Rd. Suite 410 Englewood, CO 80150 Tel: (720) 482-9526 Fax: (720) 482-9546			
				HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112			
				PARKER WATER & SANITATION DISTRICT REDUCED PRESSURE BACKFLOW			
				PARKER WATER & SANITATION DISTRICT 3" AND LARGER DOMESTIC AND FIRE SPRINKLER CONNECTIONS			
				PARKER WATER & SANITATION DISTRICT OUTSIDE SETTING FOR 1 1/2" & 2" METER FOR IRRIGATION			
				PARKER WATER & SANITATION DISTRICT INSIDE SETTING FOR 1 1/2" & 2" METER			
				PARKER WATER & SANITATION DISTRICT FIRE SPRINKLER OR DOMESTIC CONNECTION WITH MAIN EXTENSION			
				PARKER WATER & SANITATION DISTRICT FIRE SPRINKLER OR DOMESTIC CONNECTION			
				PARKER WATER & SANITATION DISTRICT REDUCED PRESSURE BACKFLOW ON IRRIGATION SYSTEM			
				2016 REVISION SHEET W5.12 2016 REVISION SHEET W5.14 2016 REVISION SHEET W5.18 2016 REVISION SHEET W5.1 2016 REVISION SHEET W5.2 2016 REVISION SHEET W5.3			
				Revisions Date Init. Appr. Date			