

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: _____ DATE _____
(DISTRICT REPRESENTATIVE)

APPROVED FOR CONSTRUCTION:
PARKER WATER AND SANITATION DISTRICT

BY: _____ DATE _____
(DISTRICT ENGINEER)

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	8" W	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	FO	EXISTING FIBER OPTIC LINE
Ⓜ	PROPOSED STORM DRAIN INLET	OH	EXISTING OVERHEAD POWER
Ⓜ	PROPOSED STORM DRAIN MANHOLE	TEL	EXISTING TELEPHONE LINE
		---	PWSD EASEMENT
		---	TYP. EASEMENT

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
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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

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.

09/22/2021 DATE

FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE

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

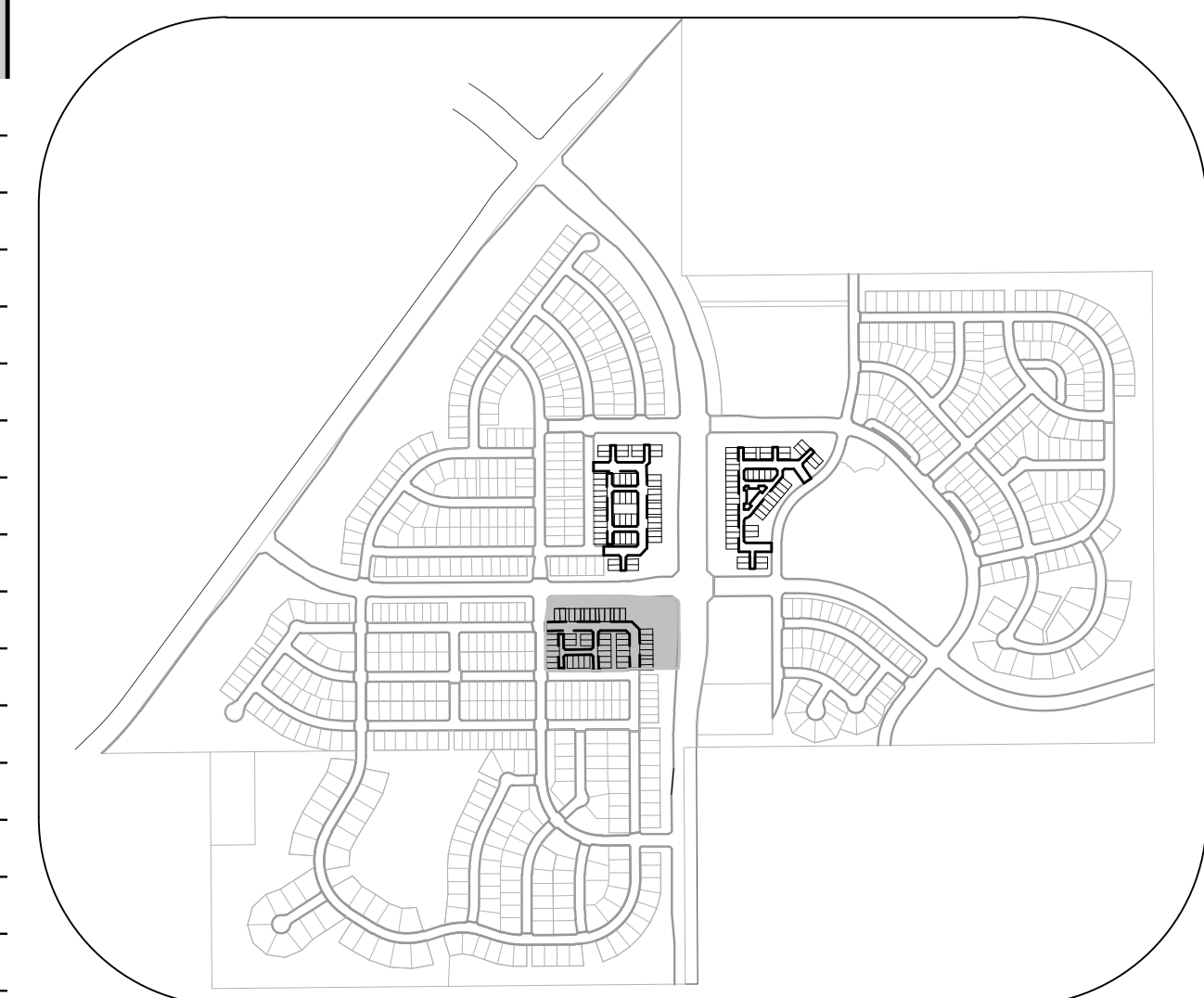
SANITARY SERVICE TABLE		
FILING, BLOCK, LOT	STREET	STATIONING
F16,B1,L1	BIRDS FOOT TRL	30+47.85
F16,B1,L2	BIRDS FOOT TRL	30+82.08
F16,B1,L3	BIRDS FOOT TRL	31+31.85
F16,B1,L4	BIRDS FOOT TRL	31+73.58
F16,B1,L5	BIRDS FOOT TRL	32+15.10
F16,B1,L6	BIRDS FOOT TRL	32+45.65
F16,B1,L7	BIRDS FOOT TRL	33+00.10
F16,B1,L8	BIRDS FOOT TRL	33+30.60
F16,B1,L9	BIRDS FOOT TRL	33+84.08
F16,B1,L10	BIRDS FOOT TRL	34+14.74
F16,B1,L11	FILING 16 SS EAST	10+36.57
F16,B1,L12	FILING 16 SS EAST	10+56.57
F16,B1,L13	FILING 16 SS EAST	11+20.57
F16,B1,L14	FILING 16 SS EAST	11+40.57
F16,B1,L15	FILING 16 SS EAST	12+04.57
F16,B1,L16	FILING 16 SS EAST	12+24.57
F16,B2,L7	FILING 16 SS WEST	10+60.92
F16,B2,L8	FILING 16 SS WEST	10+83.92
F16,B2,L9	FILING 16 SS WEST	10+63.92
F16,B2,L10	FILING 16 SS WEST	10+83.92
F16,B2,L15	FILING 16 SS MIDDLE	10+62.00
F16,B2,L16	FILING 16 SS MIDDLE	10+82.00
F16,B2,L17	FILING 16 SS MIDDLE	11+26.00

SANITARY SERVICE TABLE		
F16,B2,L17	FILING 16 SS MIDDLE	11+26.00
F16,B2,L18	FILING 16 SS MIDDLE	11+46.00
F16,B2,L19	FILING 16 SS MIDDLE	11+90.00
F16,B2,L20	FILING 16 SS MIDDLE	12+10.00
F16,B2,L21	FILING 16 SS MIDDLE	10+59.00
F16,B2,L22	FILING 16 SS MIDDLE	10+85.00
F16,B2,L23	FILING 16 SS MIDDLE	11+23.00
F16,B2,L24	FILING 16 SS MIDDLE	11+49.00
F16,B2,L25	FILING 16 SS MIDDLE	11+87.00
F16,B2,L26	FILING 16 SS MIDDLE	12+10.00

FILING 16 SANITARY SERVICES FOR BLOCK 2 LOTS 11-14 WERE INSTALLED WITH TRAILS AT CROWFOOT FILING 5

WATER SERVICE TABLE		
FILING, BLOCK, LOT	STREET	STATIONING
F16,B1,L1	BIRDS FOOT TRL	30+87.68
F16,B1,L2	BIRDS FOOT TRL	30+38.02
F16,B1,L3	BIRDS FOOT TRL	31+22.02
F16,B1,L4	BIRDS FOOT TRL	31+71.75
F16,B1,L5	BIRDS FOOT TRL	32+06.09
F16,B1,L6	BIRDS FOOT TRL	32+55.75
F16,B1,L7	BIRDS FOOT TRL	32+90.09
F16,B1,L8	BIRDS FOOT TRL	33+39.75
F16,B1,L9	BIRDS FOOT TRL	33+74.09
F16,B1,L10	BIRDS FOOT TRL	34+50.96
F16,B1,L11	HOP CLOVER TRL	10+54.27
F16,B1,L12	HOP CLOVER TRL	10+73.91
F16,B1,L13	HOP CLOVER TRL	11+32.48
F16,B1,L14	HOP CLOVER TRL	11+82.14
F16,B1,L15	HOP CLOVER TRL	12+49.07
F16,B1,L16	HOP CLOVER TRL	12+51.57
F16,B2,L1	ALPINE LILY LN	10+09.67
F16,B2,L2	ALPINE LILY LN	10+54.33
F16,B2,L3	ALPINE LILY LN	10+71.17
F16,B2,L4	ALPINE LILY LN	11+20.83
F16,B2,L5	ALPINE LILY LN	11+35.17
F16,B2,L6	ALPINE LILY LN	11+84.87
F16,B2,L7	ALPINE LILY LN	10+07.17

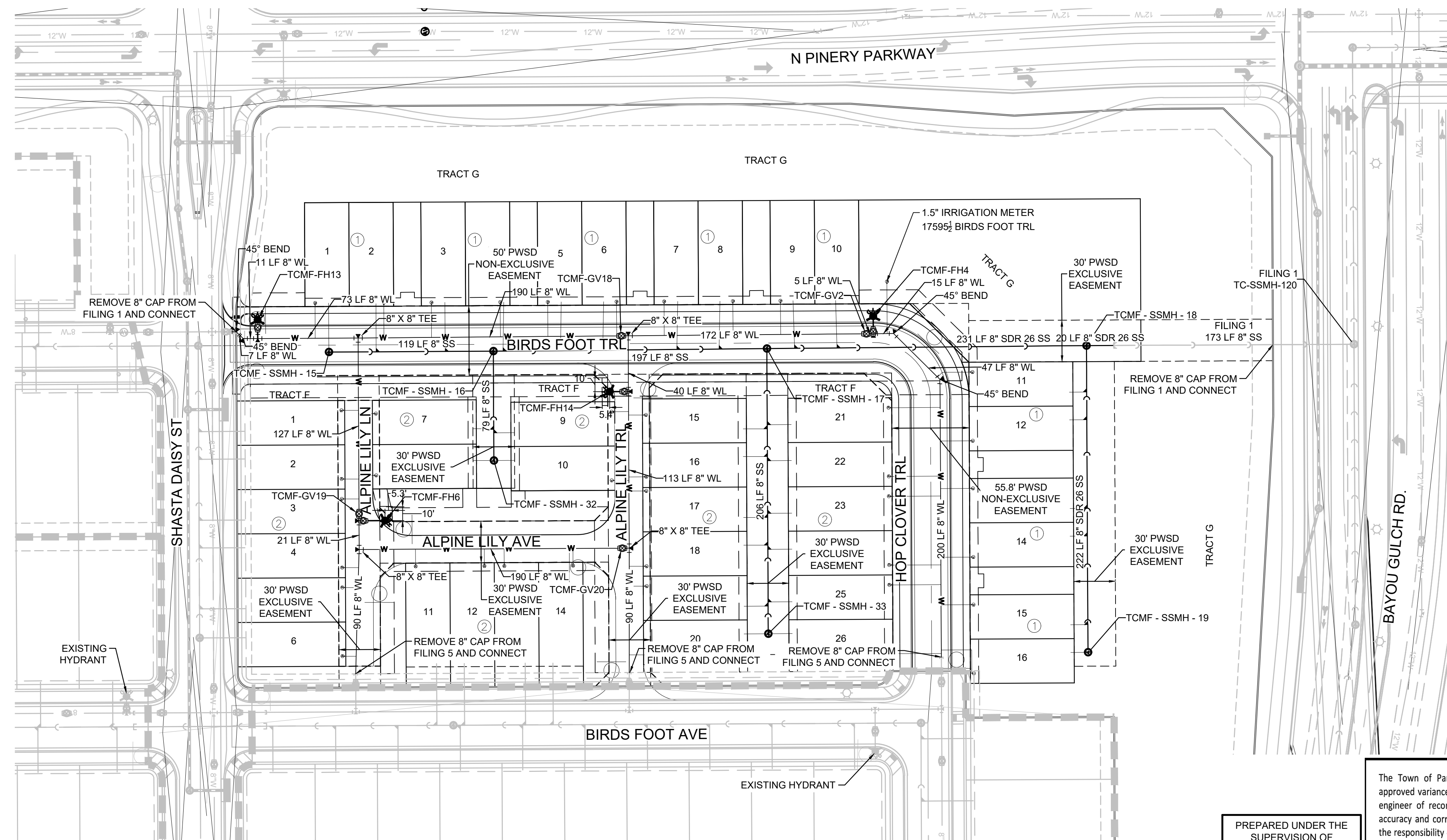
WATER SERVICE TABLE		
F16,B2,L8	ALPINE LILY LN	10+56.83
F16,B2,L9	ALPINE LILY TRL	10+51.59
F16,B2,L10	ALPINE LILY TRL	10+98.75
F16,B2,L11	ALPINE LILY ST	10+40.65
F16,B2,L12	ALPINE LILY ST	10+90.31
F16,B2,L13	ALPINE LILY ST	11+04.65
F16,B2,L14	ALPINE LILY ST	11+54.31
F16,B2,L15	ALPINE LILY TRL	10+49.09
F16,B2,L16	ALPINE LILY TRL	10+96.25
F16,B2,L17	ALPINE LILY TRL	11+06.45
F16,B2,L18	ALPINE LILY TRL	11+60.78
F16,B2,L19	ALPINE LILY TRL	11+75.12
F16,B2,L20	ALPINE LILY TRL	12+24.78
F16,B2,L21	HOP CLOVER TRL	10+98.14
F16,B2,L22	HOP CLOVER TRL	11+23.57
F16,B2,L23	HOP CLOVER TRL	11+37.91
F16,B2,L24	HOP CLOVER TRL	11+87.57
F16,B2,L25	HOP CLOVER TRL	12+01.91
F16,B2,L26	HOP CLOVER TRL	12+16.48



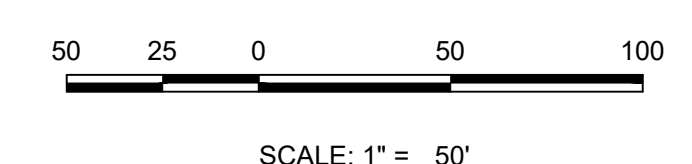
KEYMAP
N.T.S.

NOTES:

- SANITARY SERVICES FOR BLOCK 7, LOTS 1-6 & 21-28 WILL BE INSTALLED WITH TRAILS AT CROWFOOT FILING 1.
- THE PROPOSED UTILITY CONNECTION WILL REQUIRE A TOWN RIGHT-OF-WAY PERMIT PRIOR TO COMMENCING WORK. THE TOWN PREFERS CONNECTIONS TO BE BORED TO THE EXTENT POSSIBLE, AND ANY STREET CUT ALLOWED BY THE TOWN WILL BE REQUIRED TO BE PATCHED ACCORDING TO THE TOWN'S CONSTRUCTION STANDARDS AND DETAILS. THE LIMITS OF PATCHING WILL BE DETERMINED BY THE TOWN AT THE TIME OF CONSTRUCTION. THE TOWN OF PARKER DOES NOT ALLOW ROADWAY CLOSURES FOR UTILITY WORK.
- SANITARY SEWER PIPE INSTALLED DEEPER THAN 20' SHALL BE SDR 26 PVC.



APPROVED
Nov 23 2021
PARKER WATER AND SANITATION DISTRICT



PROJECT SHEET: BRANCH/ENGINEERING SHEET SETS/MULTIFAMILY/CSD/IF/PARKER WATER AND SANITATION/AREA UTILITY PLANNING, BRWILSON, 04/20/21 2:07 PM

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

The Town of Parker review constitutes general compliance with the Town's Standards and approved variances, subject to these plans being stamped, signed, and dated by the professional engineer of record. Review by the Town does not constitute approval of the plan design or accuracy and correctness of engineering calculations. Errors in the design or calculations remain the responsibility of the registered professional engineer whose stamp and signature are affixed to this document.

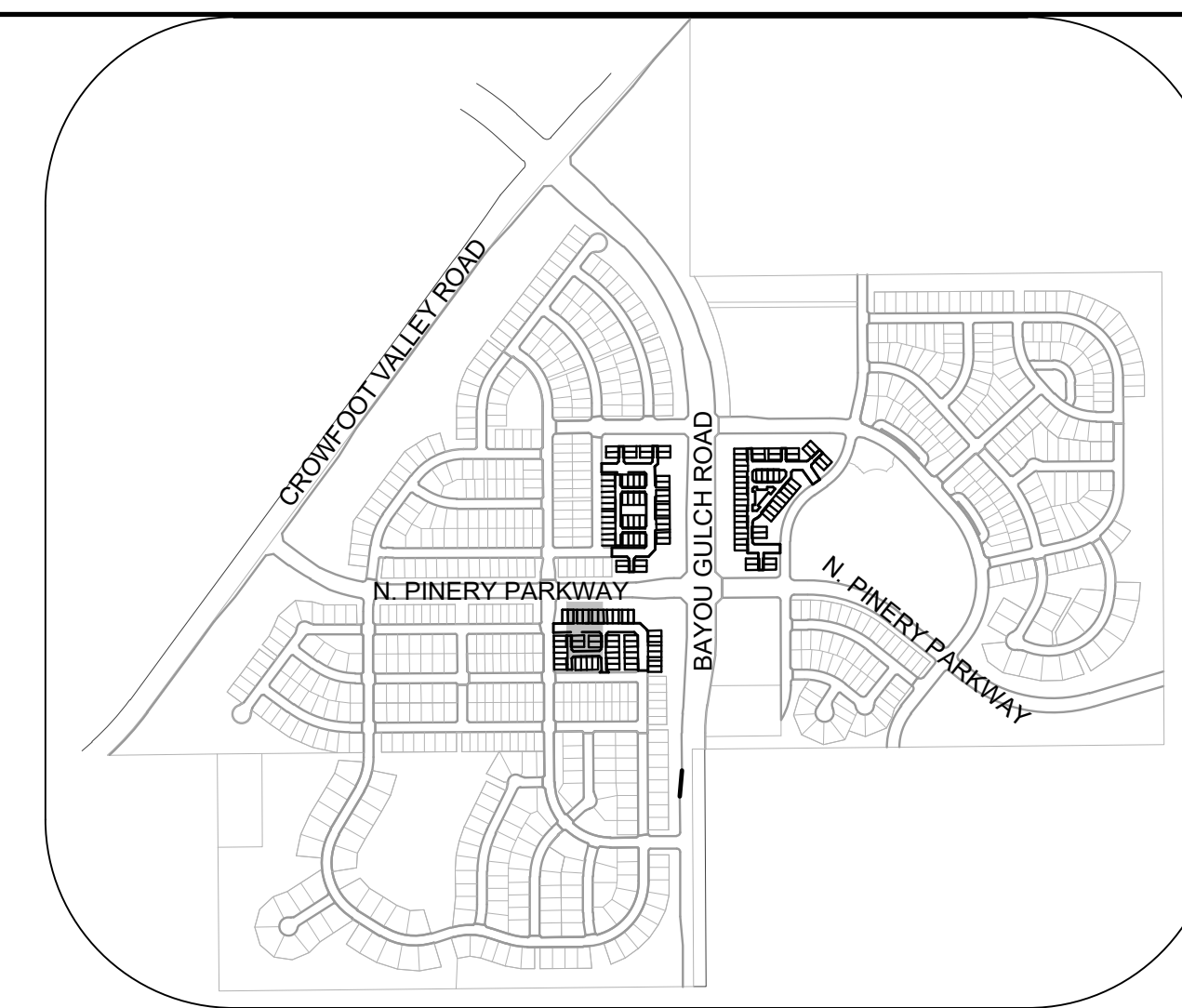
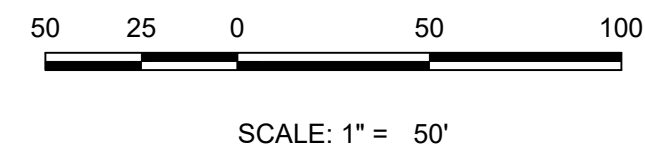
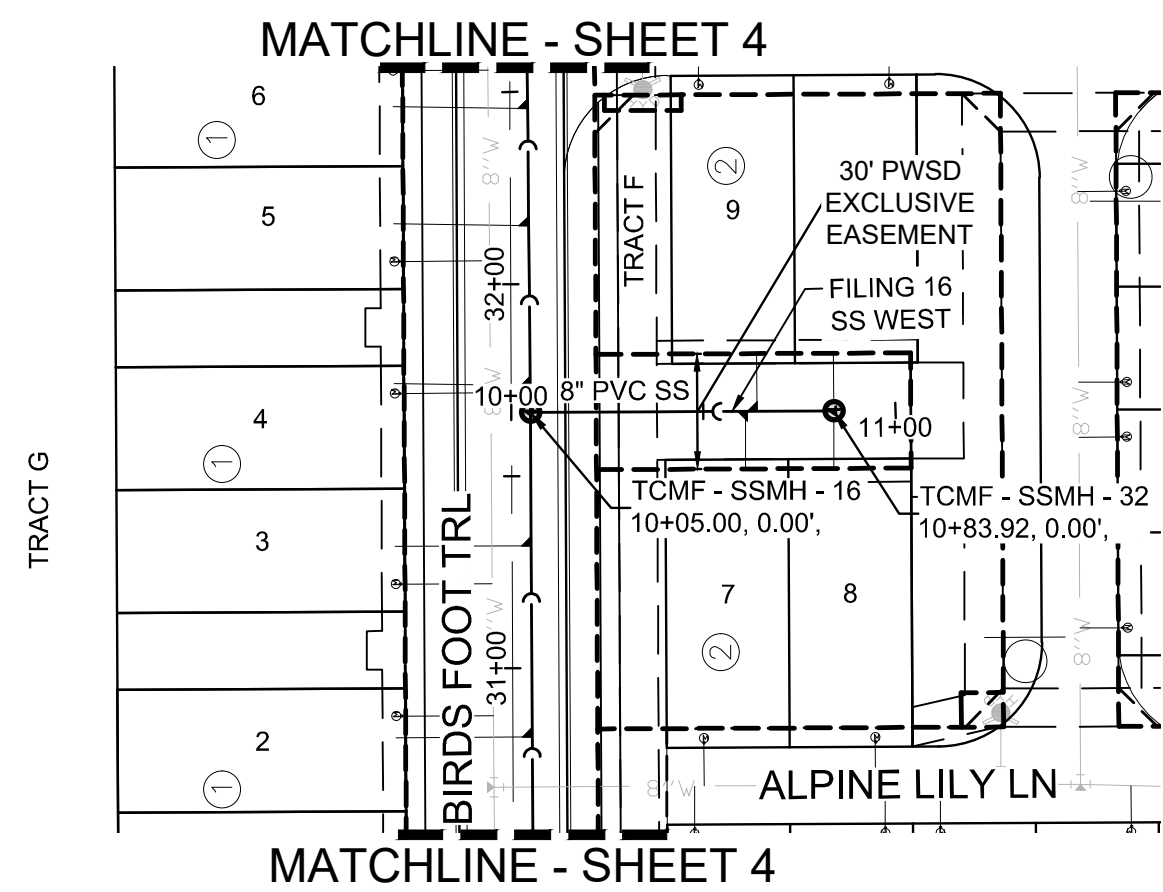
This review does not constitute approval of any private on-site improvements which may be shown. Construction cannot commence until all required drainage/traffic report(s), final development plan(s), special review(s), grading permit, and/or other permits are complete, approved and on file with the Town of Parker.

11/30/2021 DATE

Town of Parker, Director of Engineering

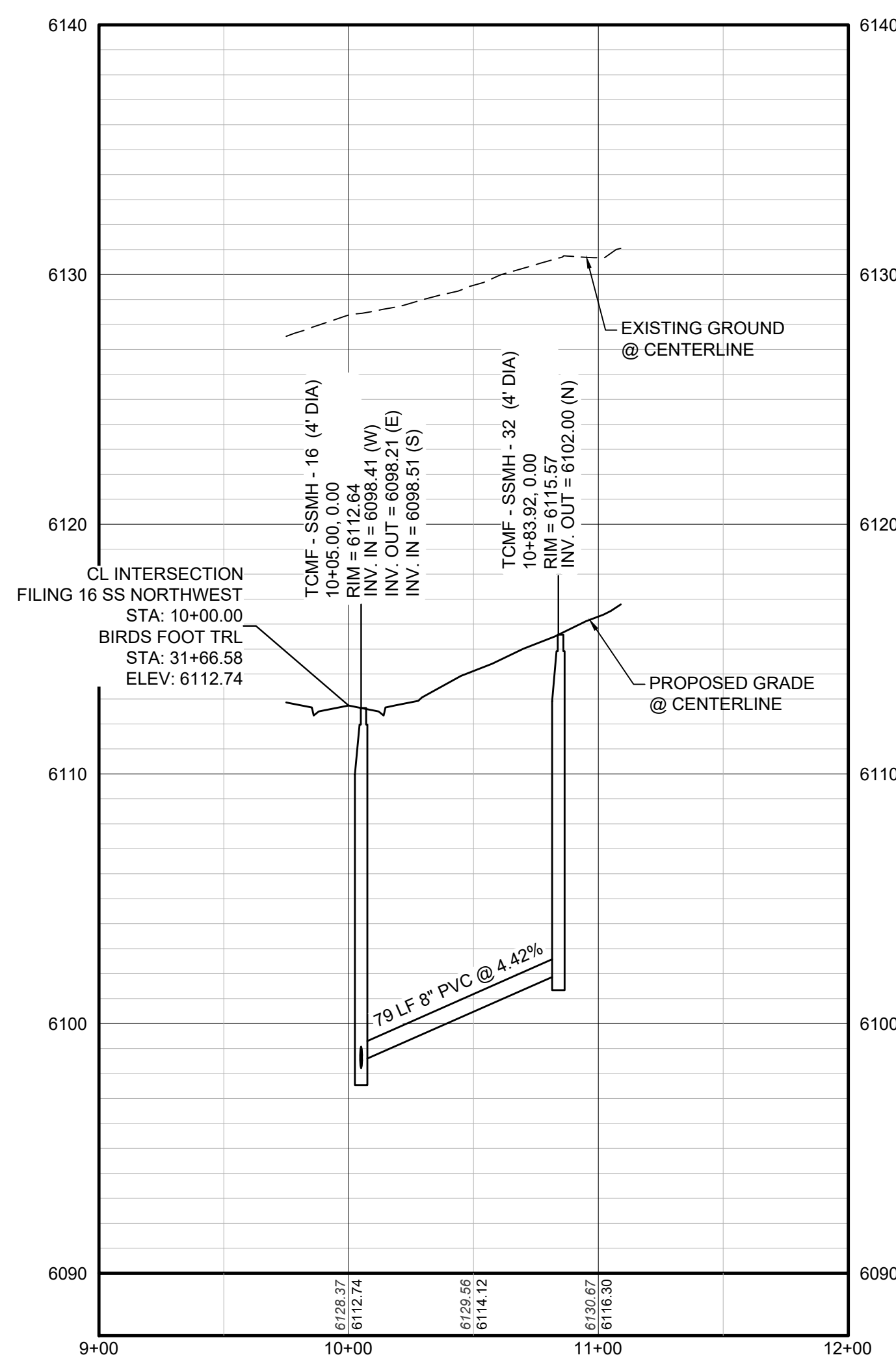
10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 Tel: 720.482.9522 www.cwflinc.net westwoodps.com	10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 Tel: 720.482.9522 www.cwflinc.net westwoodps.com
HR 935 LLC 7363 South Alton Way CENTENNIAL, CO 80112	HR 935 LLC 7363 South Alton Way CENTENNIAL, CO 80112
TRAILS AT CROWFOOT FILING 16 CONSTRUCTION DRAWINGS AREA UTILITY PLAN	TRAILS AT CROWFOOT FILING 16 CONSTRUCTION DRAWINGS AREA UTILITY PLAN
SCALE: AS SHOWN	SCALE: AS SHOWN
DRAWN BY: BFW	DRAWN BY: BFW
CHECKED BY: BFW	CHECKED BY: BFW
DATE: JUNE 2018	DATE: JUNE 2018
FILE NO: 8130283701	FILE NO: 8130283701
SHEET NUMBER	SHEET NUMBER
3	3

N:\PROJECTS\SS RANCH\ENGINEERING\SS RANCH\SS FILING 16 SS NORTHWEST.DWG, D:\DOBEN, 04/20/21, 12:31 PM



KEYMAP
N.T.S.

PLAN: FILING 16 SS WEST STA: 9+00.00 TO 12+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: FILING 16 SS WEST STA: 9+00.00 TO 12+00.00
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LEGEND

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

BENCHMARK
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PREPARED UNDER THE SUPERVISION OF

BRIAN P. WILSON
COLORADO P.E. 0050067

APPROVED
Nov 23 2021
PARKER WATER AND SANITATION DISTRICT

10333 E. Dry Creek Rd
Suite 240
Englewood, CO 80112
Tel: 720.482.952
www.cvlinc.net
westwoodjpa.com

HR 935 LLC
7353 South Alton Way
CENTENNIAL, CO 80112

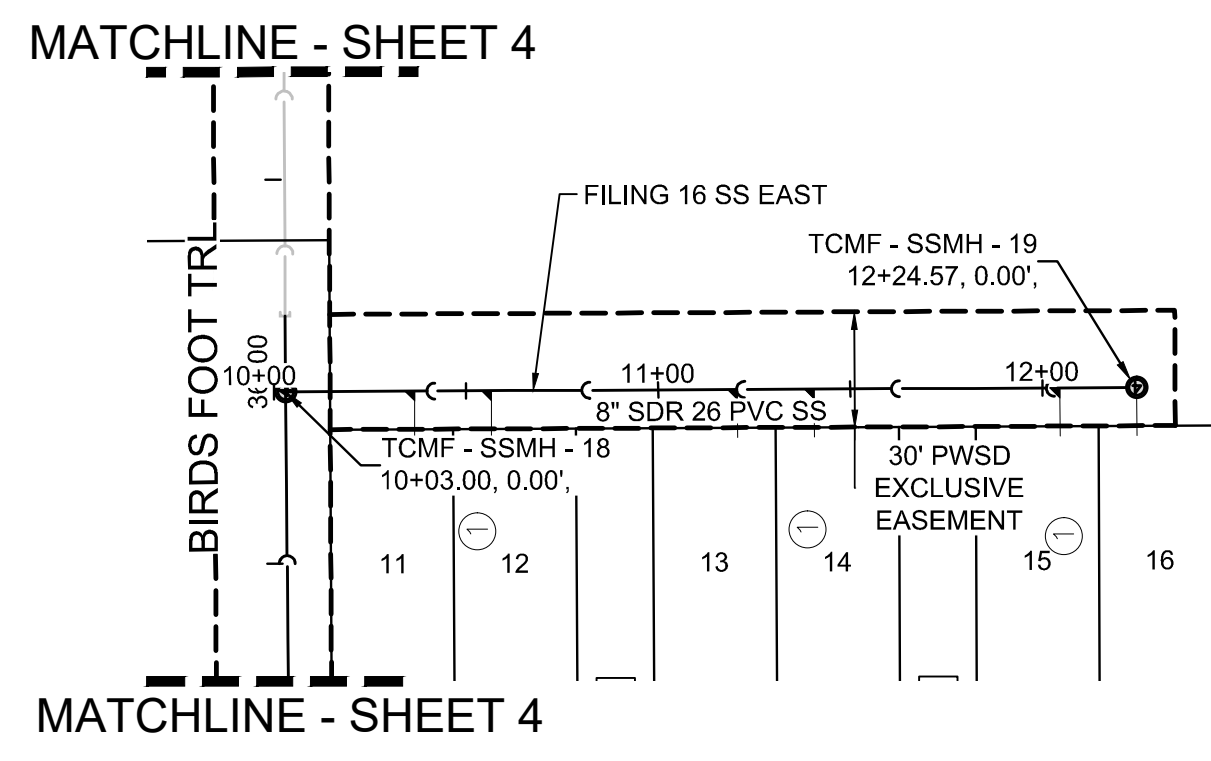
TRAILS AT CROWFOOT
FILING 16 CONSTRUCTION DRAWINGS
SANITARY SEWER PLAN & PROFILE
FILING 16 SS NORTHWEST

SCALE: AS SHOWN
FILE NO: 8130283701

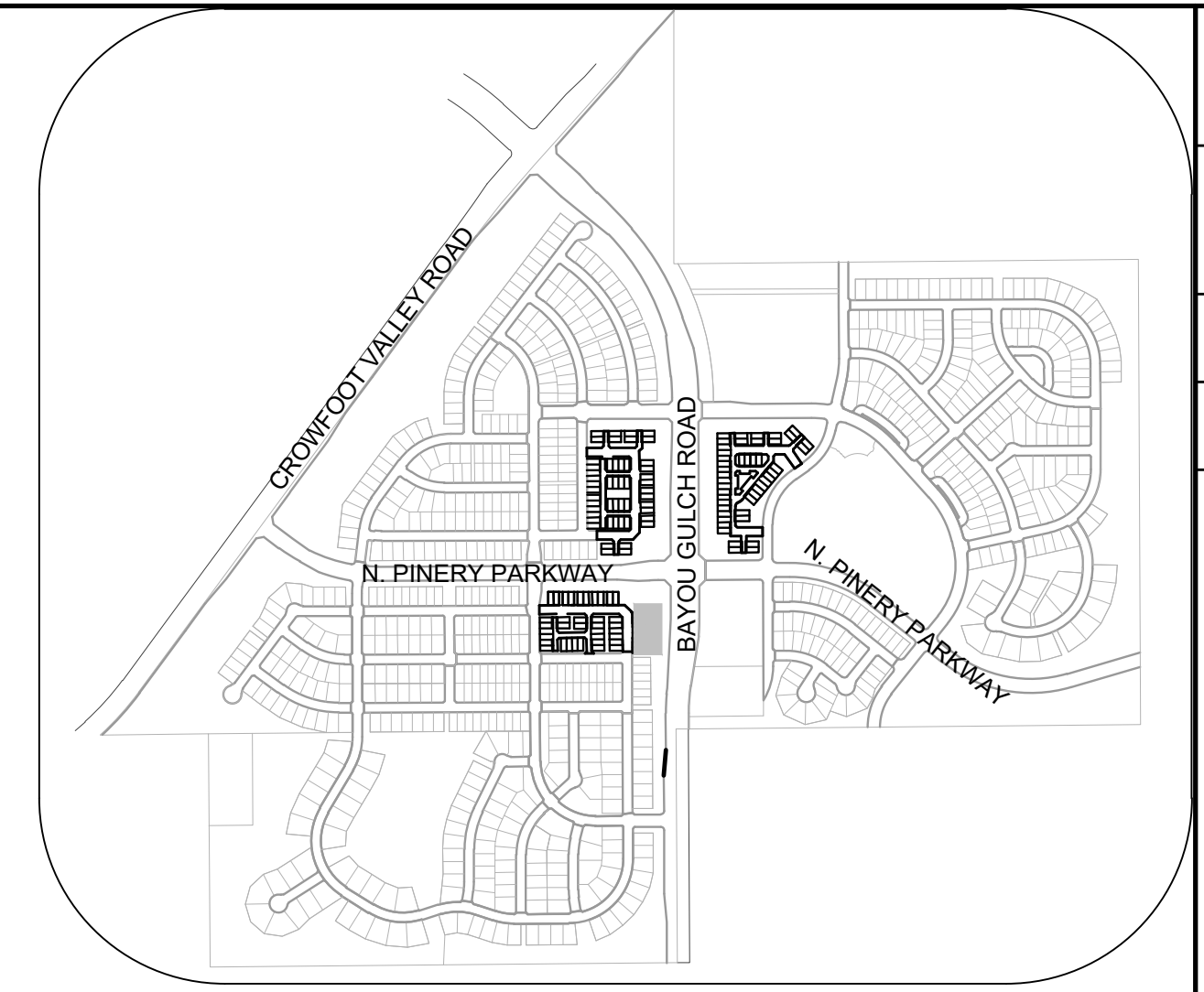
DRAWN BY: RRR
CHECKED BY: BPW
DATE: JUNE 2018

SHEET NUMBER: **5**

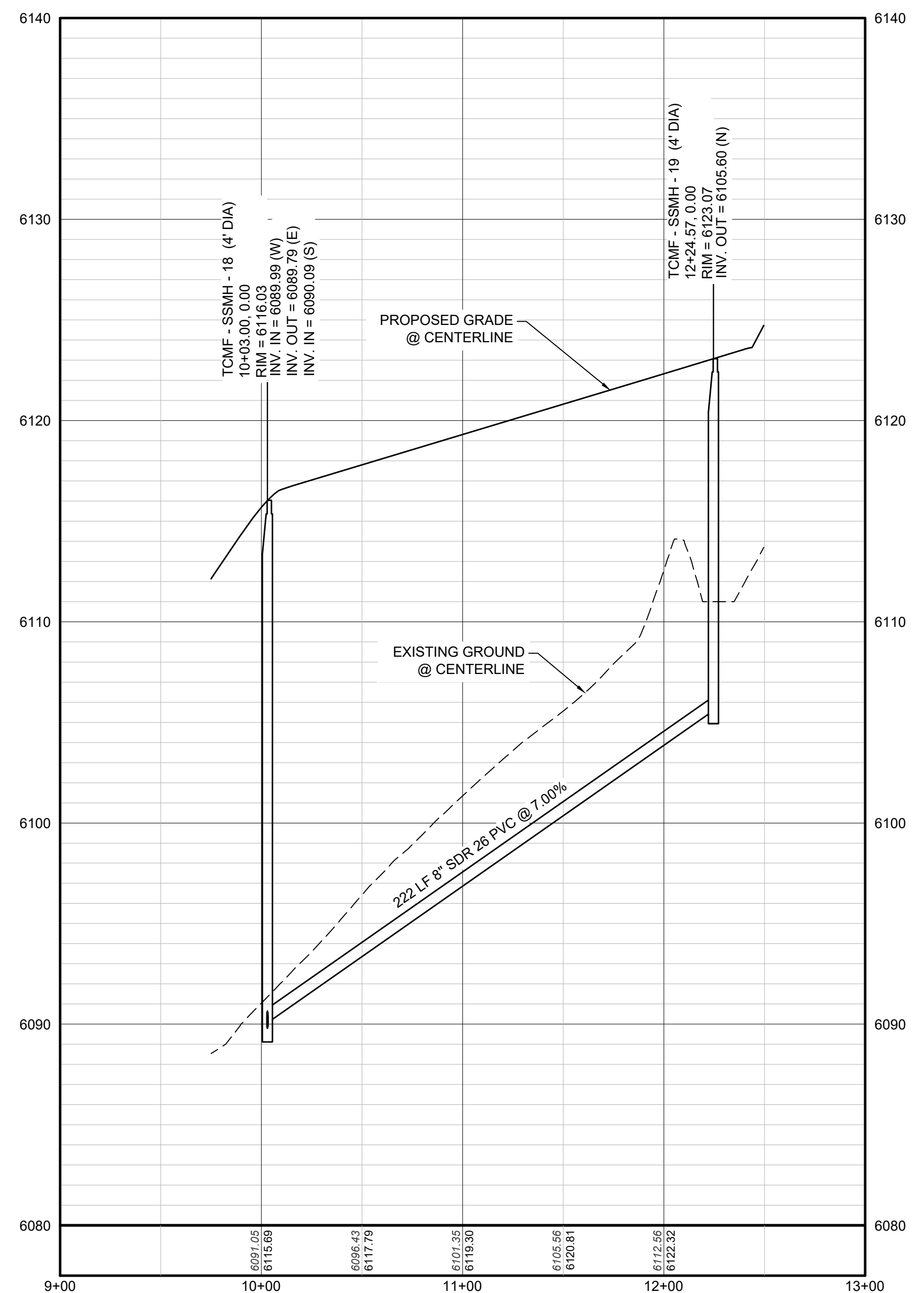
No.	Revisions	Date	Init.	Appr.	Date



PLAN: FILING 16 SS EAST STA: 9+00.00 TO 12+00.00
HORIZONTAL SCALE: 1" = 50'



KEYMAP
N.T.S.



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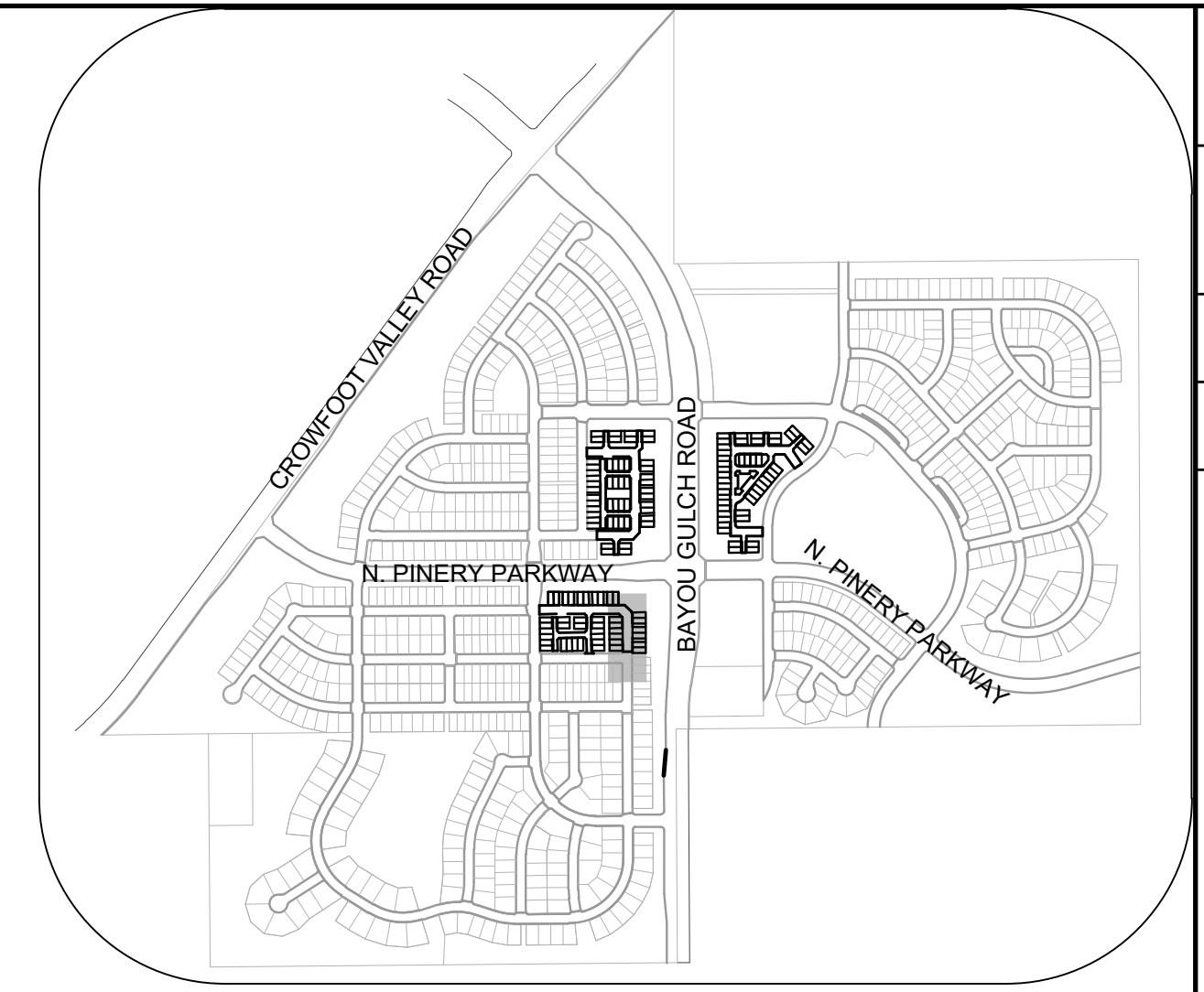
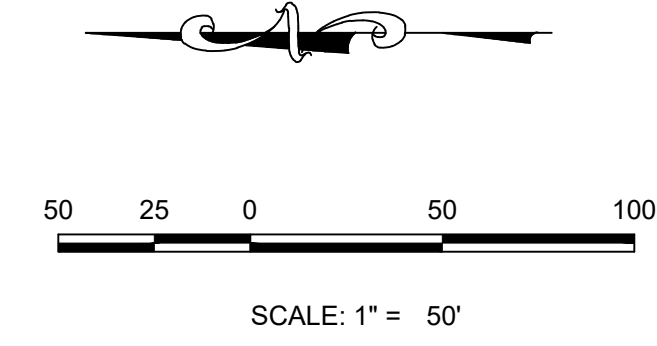
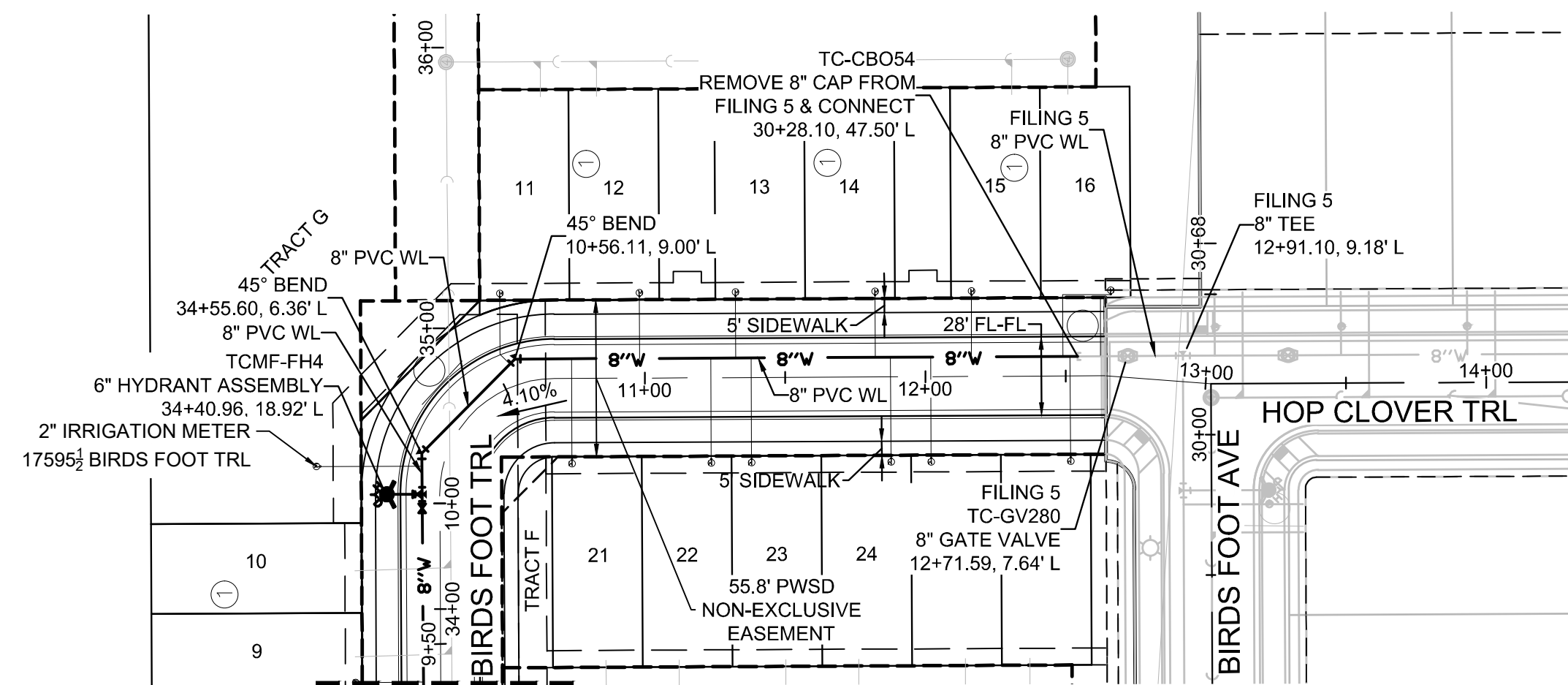
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DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13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

SHEET NUMBER	DRAWN BY: RRR	CHECKED BY: BPW	DATE: JUNE 2018	SCALE: AS SHOWN	FILE NO: 8130283701
				NO. REVISIONS	DATE
10333 E. Dry Creek Rd Suite 240 Englewood, CO 80112 Tel: 720.482.952 www.cvlinc.net westwoodjpa.com				HR 935 LLC 7353 South Alton Way CENTENNIAL, CO 80112	
TRAILS AT CROWFOOT FILING 16 CONSTRUCTION DRAWINGS SANITARY SEWER PLAN & PROFILE 7 - FILING 16 SS EAST					

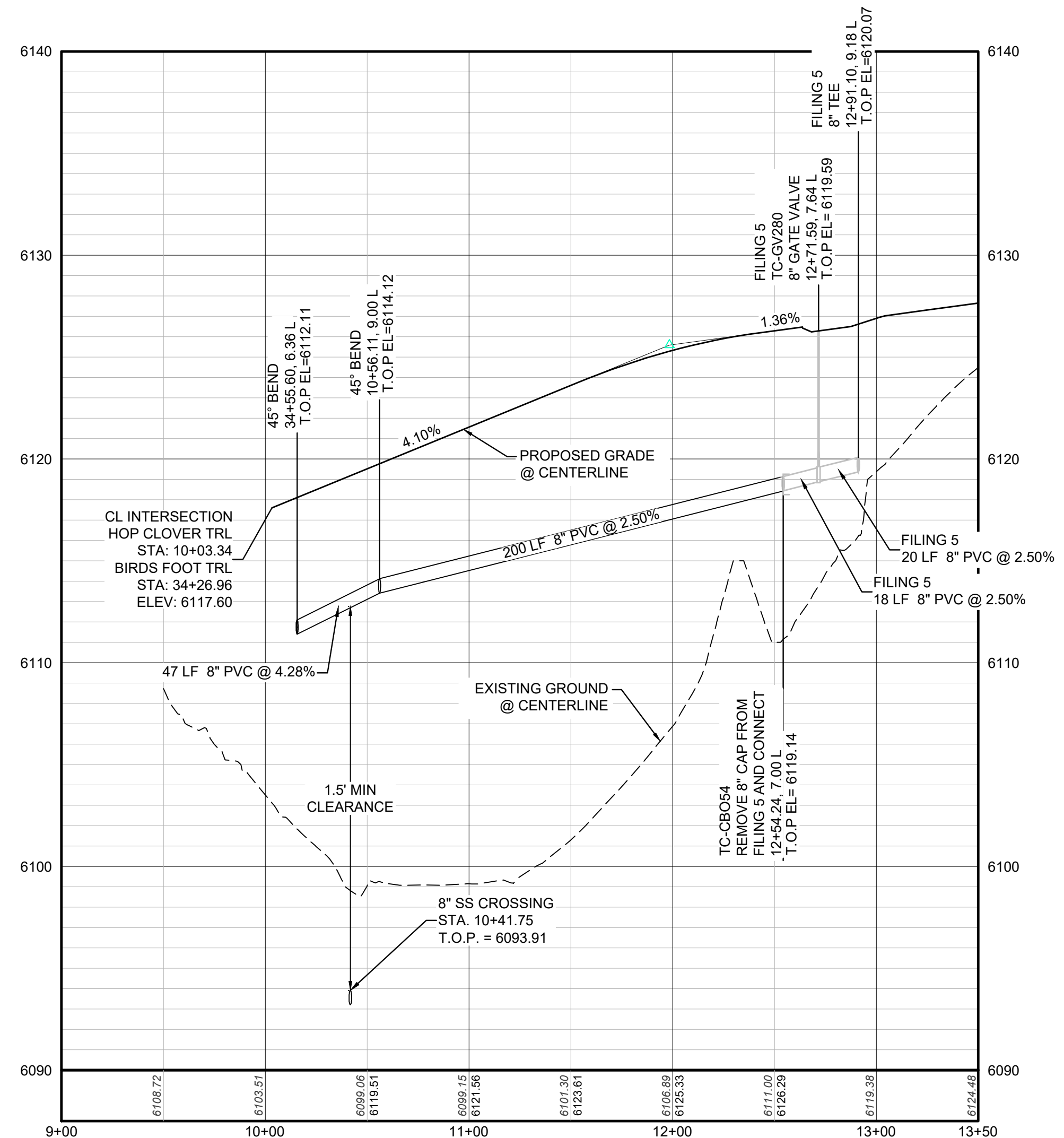
N:\PROJECTS\SS RANCH\ENGINEERING\SSHEET SETS\MULTIFAMILY\CD\16 PARKER WATER AND SANITATION\SANITARY SEWER SHEET SS\FILING 16 SS EAST.DWG, DTTORIN, 6/4/2021 12:34 PM



KEYMAP
N.T.S.

MATCHLINE - SHEET 8

PLAN: HOP CLOVER TRL STA: 9+50.00 TO 14+00.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: HOP CLOVER TRL STA: 9+00.00 TO 13+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

LEGEND

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

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	ROP	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

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TRAILS AT CROWFOOT FILING 16 CONSTRUCTION DRAWINGS WATER PLAN & PROFILE HOP CLOVER TRAIL	TRAILS AT CROWFOOT FILING 16 CONSTRUCTION DRAWINGS WATER PLAN & PROFILE HOP CLOVER TRAIL	TRAILS AT CROWFOOT FILING 16 CONSTRUCTION DRAWINGS WATER PLAN & PROFILE HOP CLOVER TRAIL	TRAILS AT CROWFOOT FILING 16 CONSTRUCTION DRAWINGS WATER PLAN & PROFILE HOP CLOVER TRAIL
SCALE: AS SHOWN	SCALE: AS SHOWN	SCALE: AS SHOWN	SCALE: AS SHOWN
DRAWN BY: RRR	DRAWN BY: RRR	DRAWN BY: RRR	DRAWN BY: RRR
CHECKED BY: BPW	CHECKED BY: BPW	CHECKED BY: BPW	CHECKED BY: BPW
DATE: JUNE 2018	DATE: JUNE 2018	DATE: JUNE 2018	DATE: JUNE 2018
SHEET NUMBER: 9	SHEET NUMBER: 9	SHEET NUMBER: 9	SHEET NUMBER: 9
FILE NO: 8130283701	FILE NO: 8130283701	FILE NO: 8130283701	FILE NO: 8130283701

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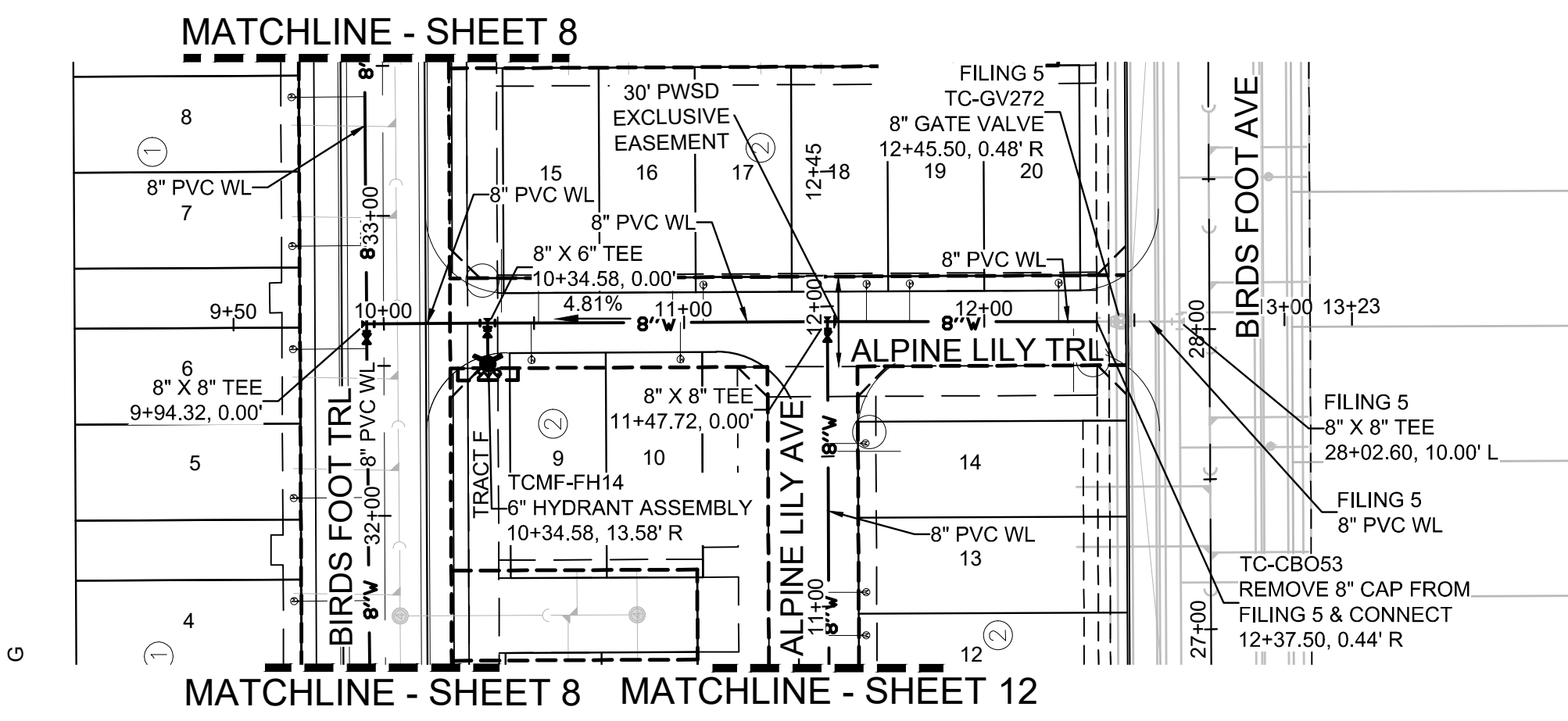
BASIS OF BEARINGS:
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PREPARED UNDER THE SUPERVISION OF

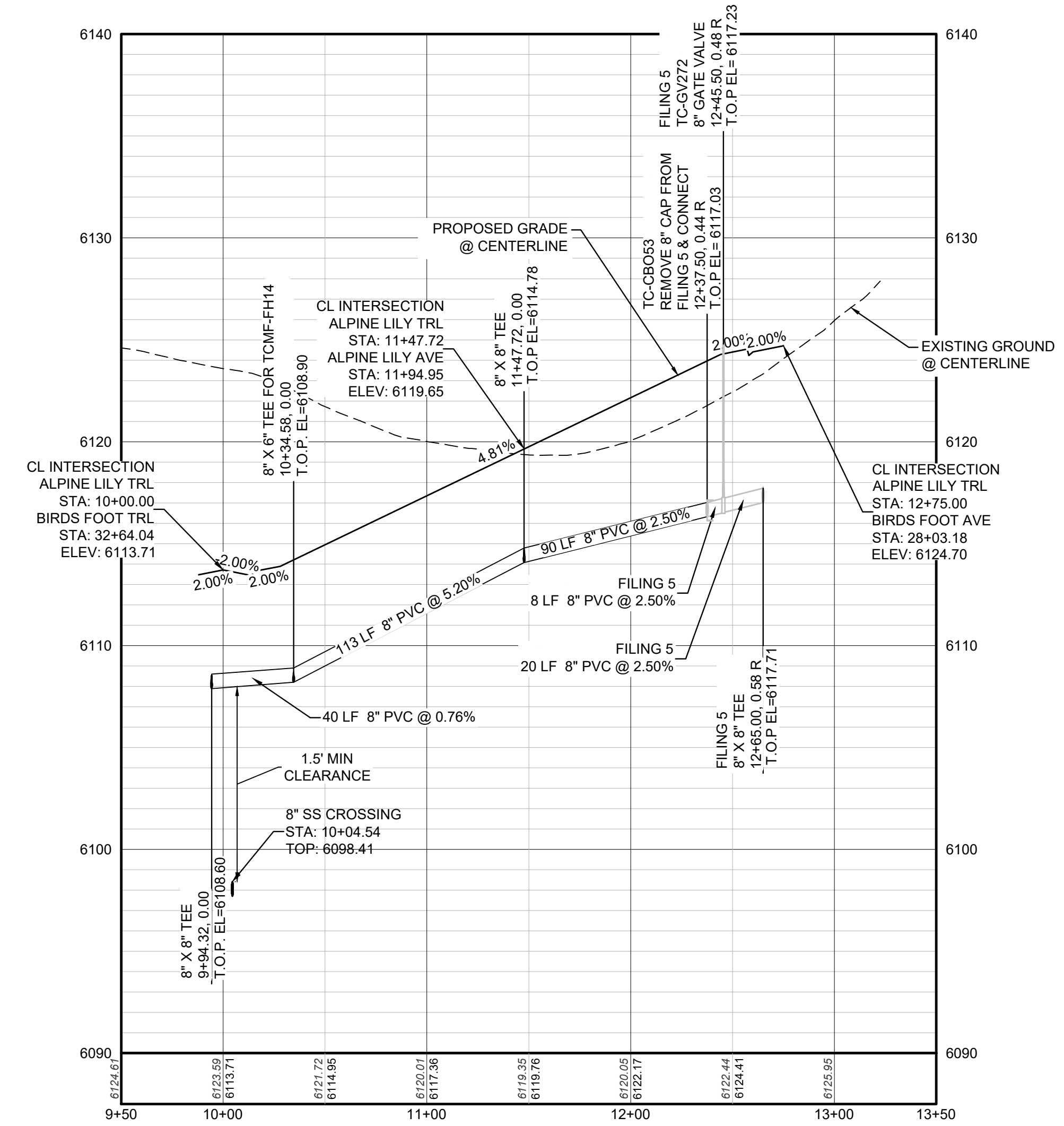
BRIAN P. WILLSON
COLORADO P.E. 0050067

APPROVED
Nov 23 2021
PARKER WATER AND
SANITATION DISTRICT

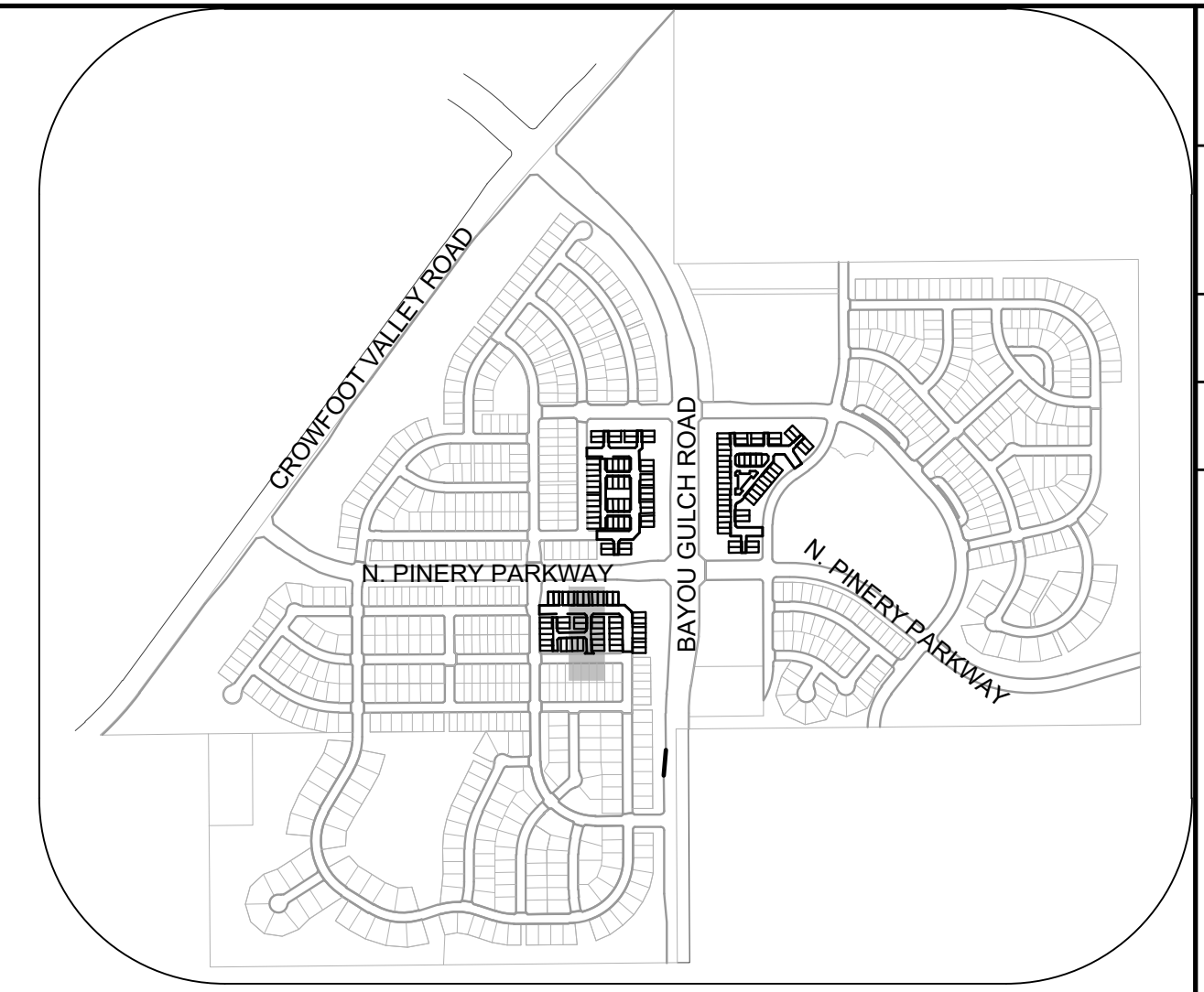
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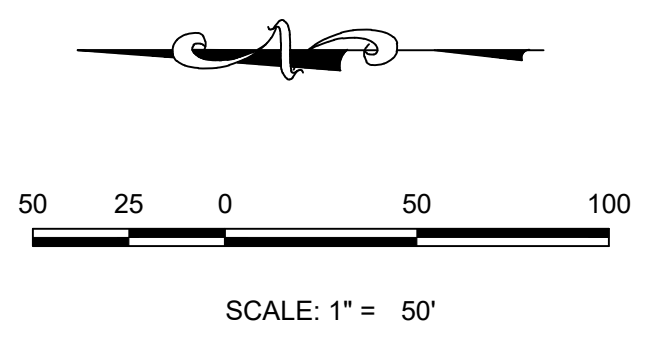
PLAN: ALPINE LILY TRL STA: 9+50.00 TO 13+50.00
HORIZONTAL SCALE: 1" = 50'



PROFILE: ALPINE LILY TRL STA: 9+50.00 TO 13+50.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



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
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ABBREVIATIONS

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DATE: JUNE 2018	DATE: JUNE 2018	DATE: JUNE 2018	DATE: JUNE 2018	DATE: JUNE 2018	DATE: JUNE 2018
SHEET NUMBER 11	SHEET NUMBER 11	SHEET NUMBER 11	SHEET NUMBER 11	SHEET NUMBER 11	SHEET NUMBER 11
FILE NO: 8130283701	FILE NO: 8130283701	FILE NO: 8130283701	FILE NO: 8130283701	FILE NO: 8130283701	FILE NO: 8130283701

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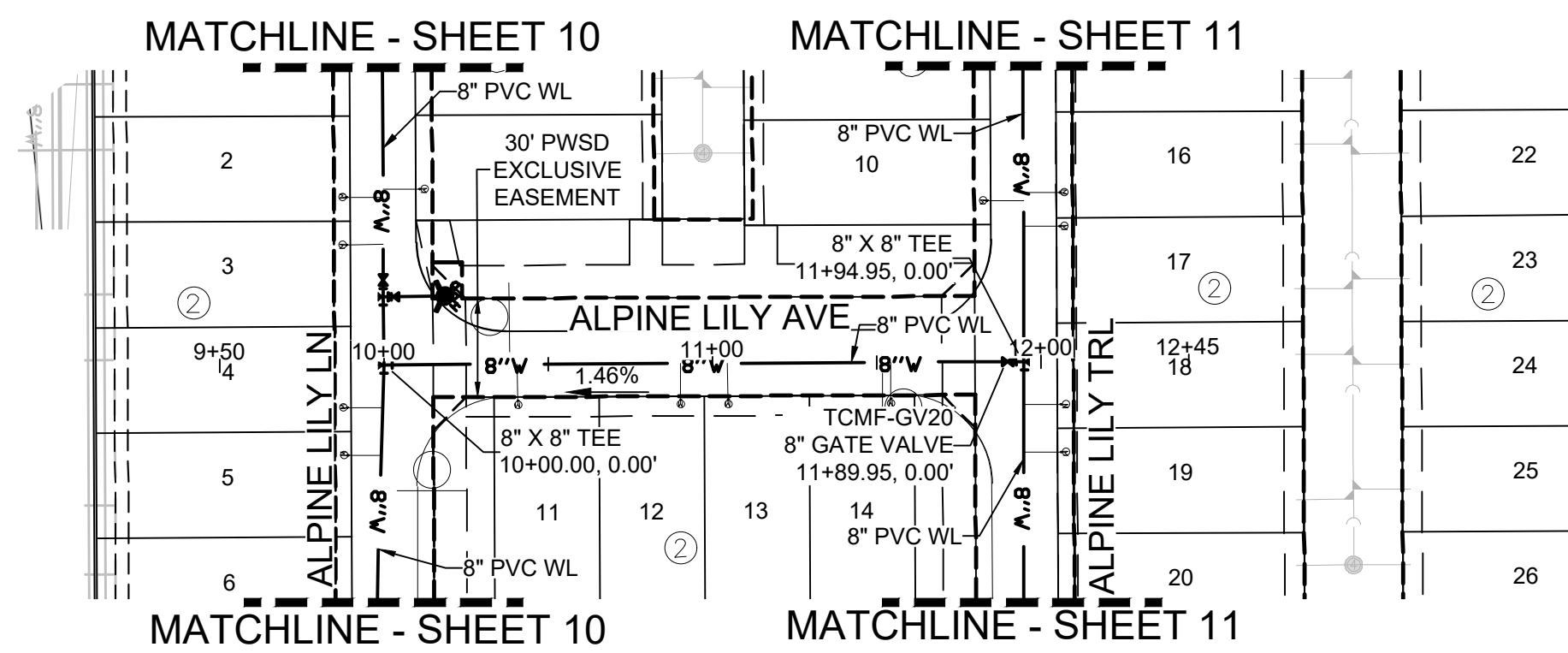
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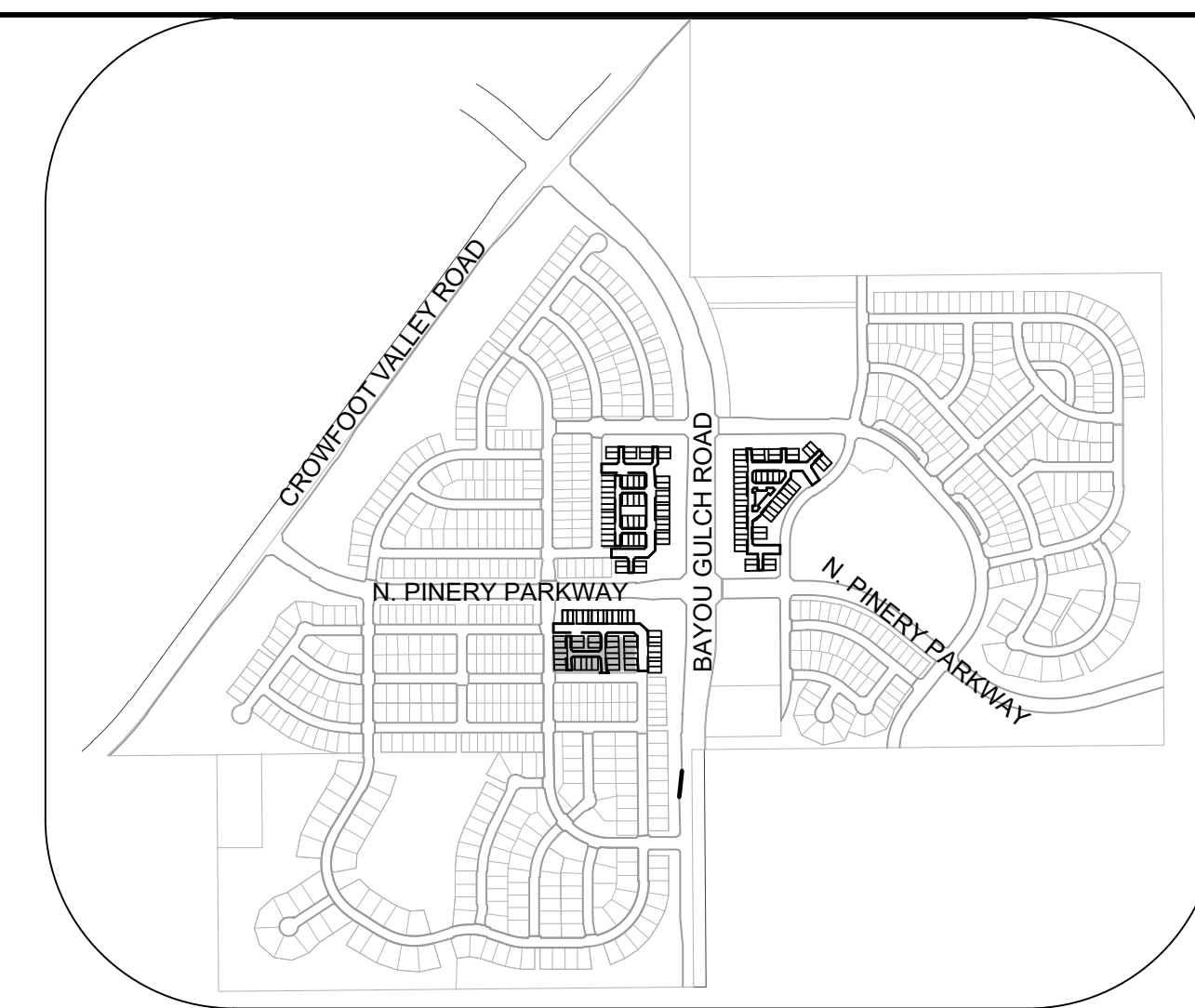
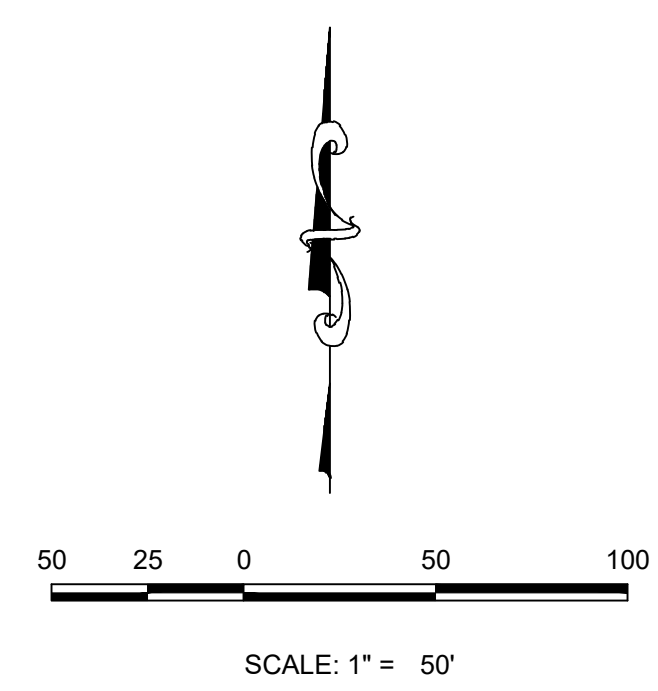
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PARKER WATER AND
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PLAN: ALPINE LILY AVE STA: 9+50.00 TO 12+45.00
HORIZONTAL SCALE: 1" = 50'



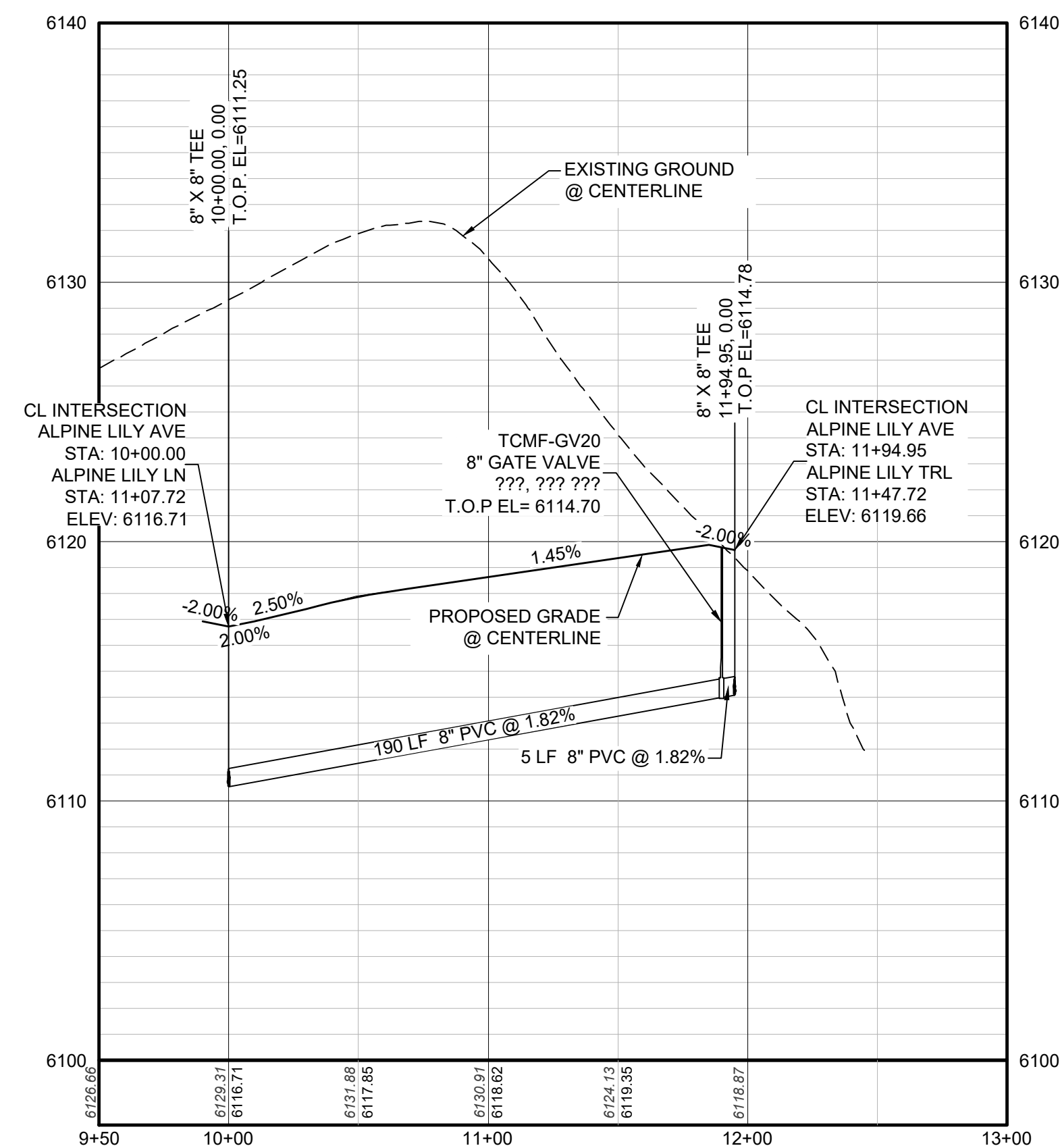
KEYMAP
N.T.S.

LEGEND

Legend table with symbols for Block Number, Lot Type, Proposed Butterfly Valve, Proposed Cap, Proposed Reducer, Proposed Valve, Proposed Fire Hydrant, Proposed WL Fitting, Proposed Flared End Section, Proposed Low Point Blow-off, Proposed Air Valve, Future Phase Valve, Future Fire Hydrant, Proposed Light Pole, 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, Existing Overhead Power, Existing Telephone Line, PWSd Easement, TYP. Easement.

ABBREVIATIONS

Table of abbreviations including AD (Angle Difference), AV (Air Vac Release Valve), BVC (Begin Vertical Curve), BVP (Begin Vertical Profile), CBD (Cap with Blow Off), CRR (Curb Return Radius), EL (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), RCB (Reinforced Concrete Box Culvert), ROP (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).



PROFILE: ALPINE LILY AVE STA: 9+50.00 TO 13+00.00
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

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PREPARED UNDER THE SUPERVISION OF
BRIAN P. WILSON
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Revisions table with columns for No., Date, Init., Appr., Date.

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Tel: 720.482.952
www.cvlinc.net
westwoodjax.com

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7353 South Alton Way
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT
FILING 16 CONSTRUCTION DRAWINGS
WATER PLAN & PROFILE
ALPINE LILY STREET

SCALE: AS SHOWN
DRAWN BY: RRR
CHECKED BY: BPW
DATE: JUNE 2018
FILE NO: 8130283701
SHEET NUMBER 12

ALUMINUM STEP

NOTES:

- ALUMINUM ALLOY SPECIFICATIONS
 - F35C-90-A-200/9 (ALUMINUM-MAGNESIUM-SILICATE ALLOY)
 - MINIMUM TENSILE STRENGTH= 35,000 P.S.I.
 - MINIMUM YIELD STRENGTH= 35,000 P.S.I.
 - MINIMUM ELONGATION=10% IN 2 INCHES
- MINIMUM LOAD CAPACITY (APPLIED AT CENTER OF STEP)
 - 1000 LB. WITH 6" PROJECTION FROM WALL.
 - 1500 LB. WITH 4" PROJECTION FROM WALL.
- WEIGHT PER STEP=2.23 POUNDS IN MANHOLE WALL IN STRAIGHT LINE, VERTICALLY, AT THE SAME TIME THE BARREL OR CONE SECTIONS ARE CAST.
- VERTICAL SPACING BETWEEN STEPS SHALL BE CONSISTENT IN EACH INDIVIDUAL MANHOLE.
- TOE POCKETS ARE REQUIRED IN STORM SEWER MANHOLES IF TOP OF BENCH IS MORE THAN 18" ABOVE INVERT. TOE POCKETS ARE NOT REQUIRED IN SANITARY SEWER MANHOLES UNLESS OTHERWISE SPECIFIED.

TYPICAL INSTALLATION

TOE POCKET DETAILS

STANDARD EXTRUDED ALUMINUM MANHOLE STEP

PARKER WATER & SANITATION DISTRICT
STANDARD EXTRUDED ALUMINUM MANHOLE STEP

SCALE: NONE DATE: 2/98
APPROVED: PVR 01/16 10/16
DIRECTOR OF ENGINEERING

SHEET 53.10

PIN FOR PRESS STEP

POLYPROPYLENE REINFORCED PLASTIC STEP

NOTES:

- ASTM SPECIFICATIONS:
 - ASTM C-419
 - ASTM A-815 GRADE 60 (STEEL ROD)
 - ASTM 2146-99, TYPE II, GRADE 180 (POLYPROPYLENE)
- STEPS INSTALLED IN MANHOLE BARREL SECTIONS OR VERTICAL WALLS OF STRUCTURE SHALL HAVE A 3-7/8 INCH LEG AND SHALL PROJECT FROM THE WALL 8-5/8 INCHES.
- STEPS INSTALLED IN MANHOLE CONE SECTIONS SHALL HAVE AN 8-1/4 INCH LEG AND SHALL PROJECT FROM THE WALL 4-7/8 INCHES.
- ALL STEPS SHALL HAVE A PENETRATION DEPTH INTO THE WALL OF 3-3/8 INCHES.
- STEPS SHALL BE INSTALLED BY THE "PRESS-FIT" METHOD UTILIZING A SPECIALLY FABRICATED PIN TO FORM THE INSERT HOLE AS SHOWN.
- INSTALLED STEPS SHALL BE CAPABLE OF WITHSTANDING A PULL OUT FORCE OF 2500 P.S.I. PER LEG FOR A MINIMUM PERIOD OF TWO MINUTES.
- STEPS SHALL BE INSTALLED BY THE "PRESS-FIT" METHOD EXCLUSIVELY FOLLOWING MANUFACTURER'S RECOMMENDED PROCEDURE AND SHALL NOT BE GROUTED IN PLACE.

PARKER WATER & SANITATION DISTRICT
POLYPROPYLENE REINFORCED PLASTIC MANHOLE STEP

SCALE: NONE DATE: 2/05
APPROVED: PVR 01/16 10/16
DIRECTOR OF ENGINEERING

SHEET 53.11

CAST ALUMINUM MANHOLE STEP

NOTES:

- THE CAST ALUMINUM MANHOLE STEP SHALL ONLY BE USED WHEN SPECIFIED ON THE DRAWINGS.
- ALUMINUM ALLOY SPECIFICATIONS:
 - F35C-90-A-200/9 (ALUMINUM-MAGNESIUM-SILICATE ALLOY)
 - MIN. TENSILE STRENGTH= 40 K.S.I.
 - MIN. YIELD STRENGTH= 20 K.S.I.
 - MIN. SHEAR STRENGTH= 27.45 K.S.I.
 - ELONGATION= 10% IN 2 INCHES
 - BRIEFLY HARDNESS= 70
- MINIMUM LOAD CAPACITY, STEP SPACING AND ALIGNMENT, TOE POCKET DETAILS AND OTHER APPLICABLE NOTES OR DETAILS SPECIFIED FOR EXTRUDED ALUMINUM MANHOLE STEP SHALL ALSO APPLY TO THIS STANDARD.
- MIN. WT. = 2.0 LB.

PARKER WATER & SANITATION DISTRICT
CAST ALUMINUM MANHOLE STEP

SCALE: NONE DATE: 2/98
APPROVED: PVR 01/16 10/16
DIRECTOR OF ENGINEERING

SHEET 53.12

MARKER POST DETAIL

PARKER WATER & SANITATION DISTRICT
MARKER POST DETAIL

SCALE: NONE DATE: 2/98
APPROVED: PVR 2/02 10/16
DIRECTOR OF ENGINEERING

SHEET 53.13

TYPICAL TRENCH DETAIL

NOTES:

- Sloping or benching of trench side walls, where permitted shall be in accordance with applicable Federal, State and Local safety regulations.
- Trench shall be benching and shoring as necessary to allow safe working conditions or to protect adjacent utilities, structures, etc. (Unless otherwise specified on the plans, no pavement will be made for removal, replacement or relocation of existing gutters, utilities, sidewalks, structures, etc. outside the maximum limits of excavation as shown and the contractor shall be responsible for protection of same.)
- If dimension "B₂" is < 5', then existing asphalt pavement shall be removed and replaced up to the gutter. Maximum asphalt shall be cut off at top of pipe and left in place.

PARKER WATER & SANITATION DISTRICT
SEWER TRENCHING AND BEDDING DETAIL

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

SHEET 54.1

CONCRETE ARCH

CONCRETE CRADLE

PARKER WATER & SANITATION DISTRICT
TRENCHING AND BEDDING DETAIL - CLASS "A"

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

SHEET 54.2

CONCRETE ARCH

CONCRETE CRADLE

PARKER WATER & SANITATION DISTRICT
TRENCHING AND BEDDING DETAIL - CLASS "A"

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

SHEET 54.2

CLASS "B" BEDDING

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

SCALE: NONE DATE: 2/98
APPROVED: PVR 5/98 2/02 1/16 10/16
DIRECTOR OF ENGINEERING

SHEET 54.3

CLASS "B" BEDDING

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

SCALE: NONE DATE: 2/98
APPROVED: PVR 5/98 2/02 1/16 10/16
DIRECTOR OF ENGINEERING

SHEET 54.4

CLASS "B" BEDDING

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

SCALE: NONE DATE: 2/98
APPROVED: PVR 5/98 2/02 1/16 10/16
DIRECTOR OF ENGINEERING

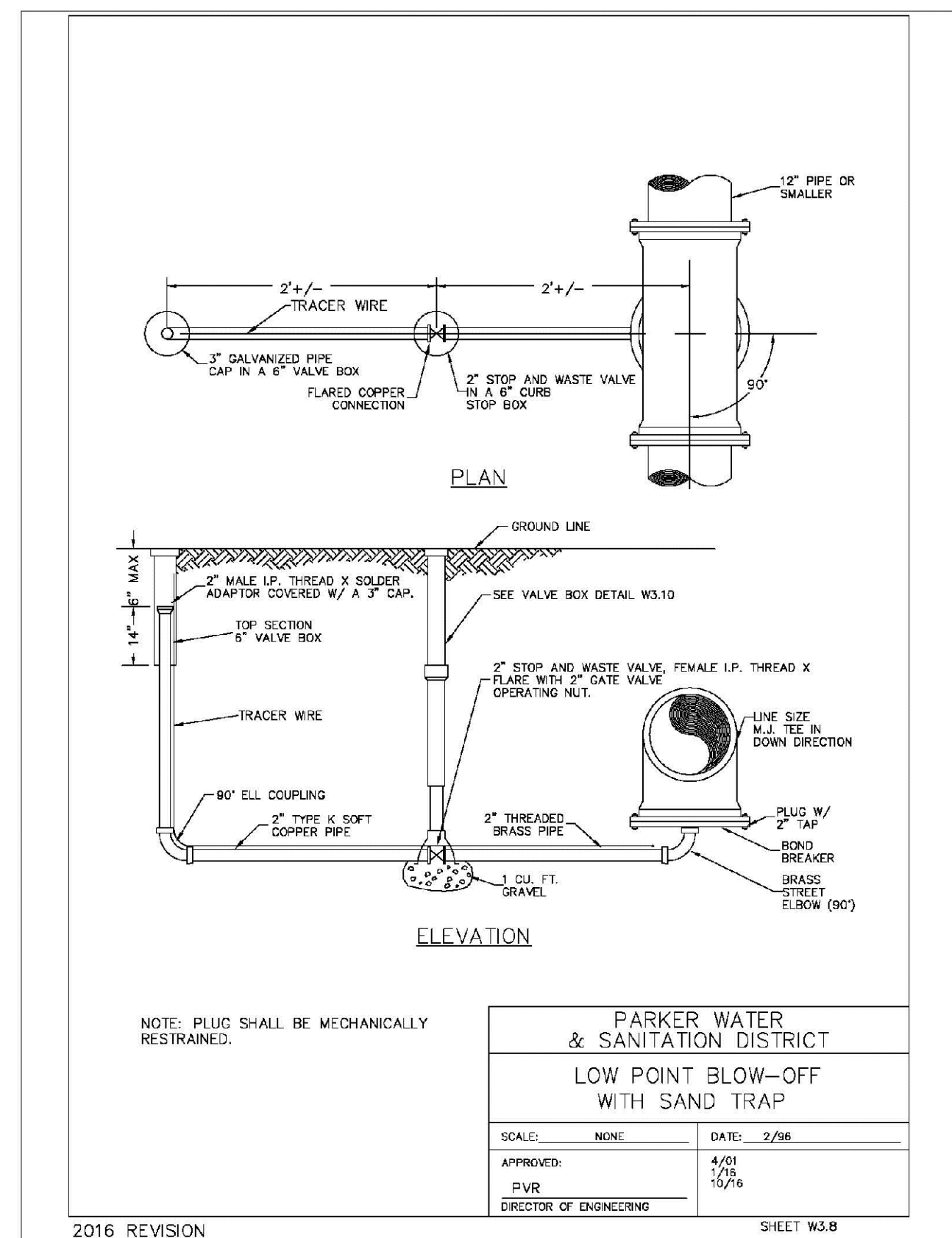
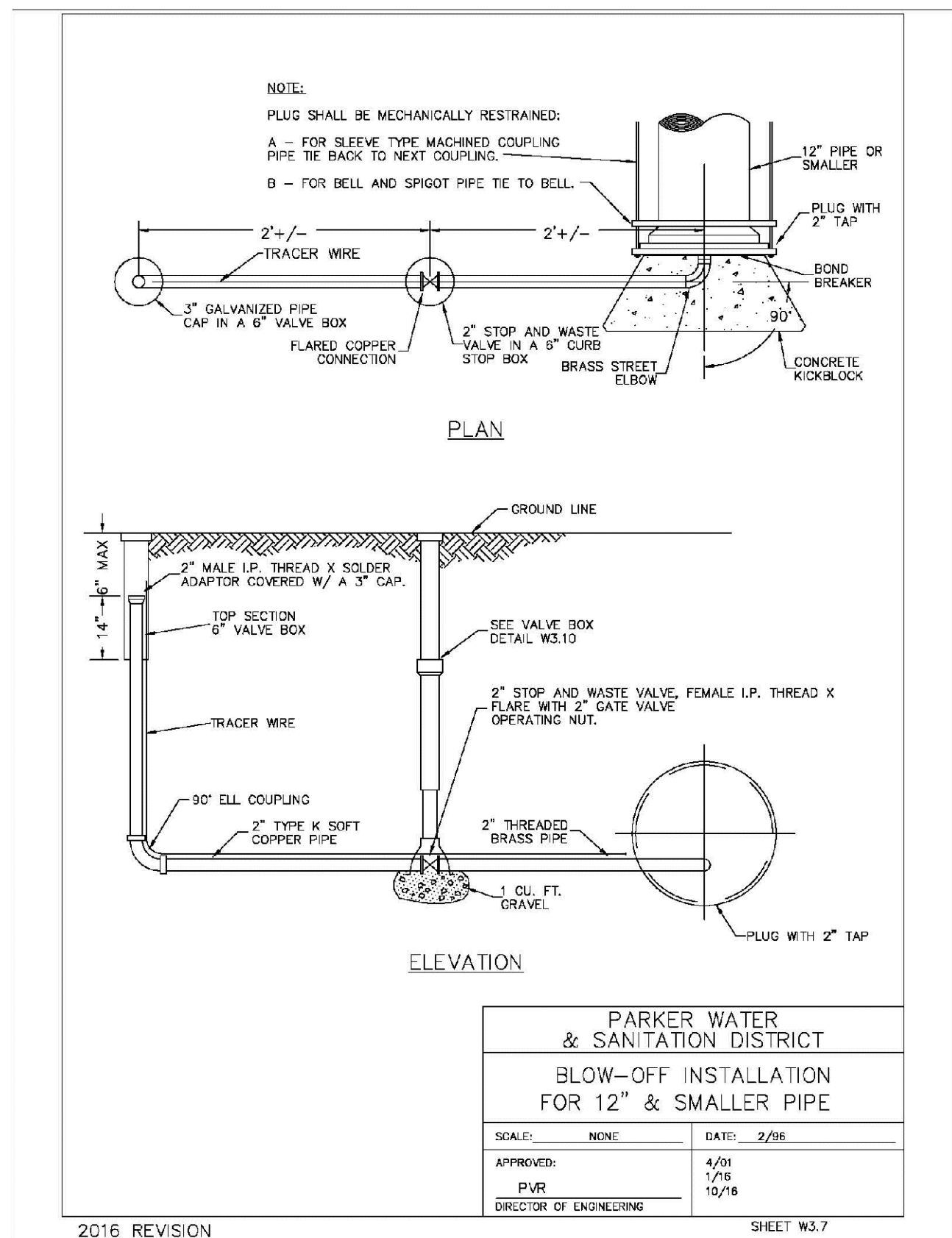
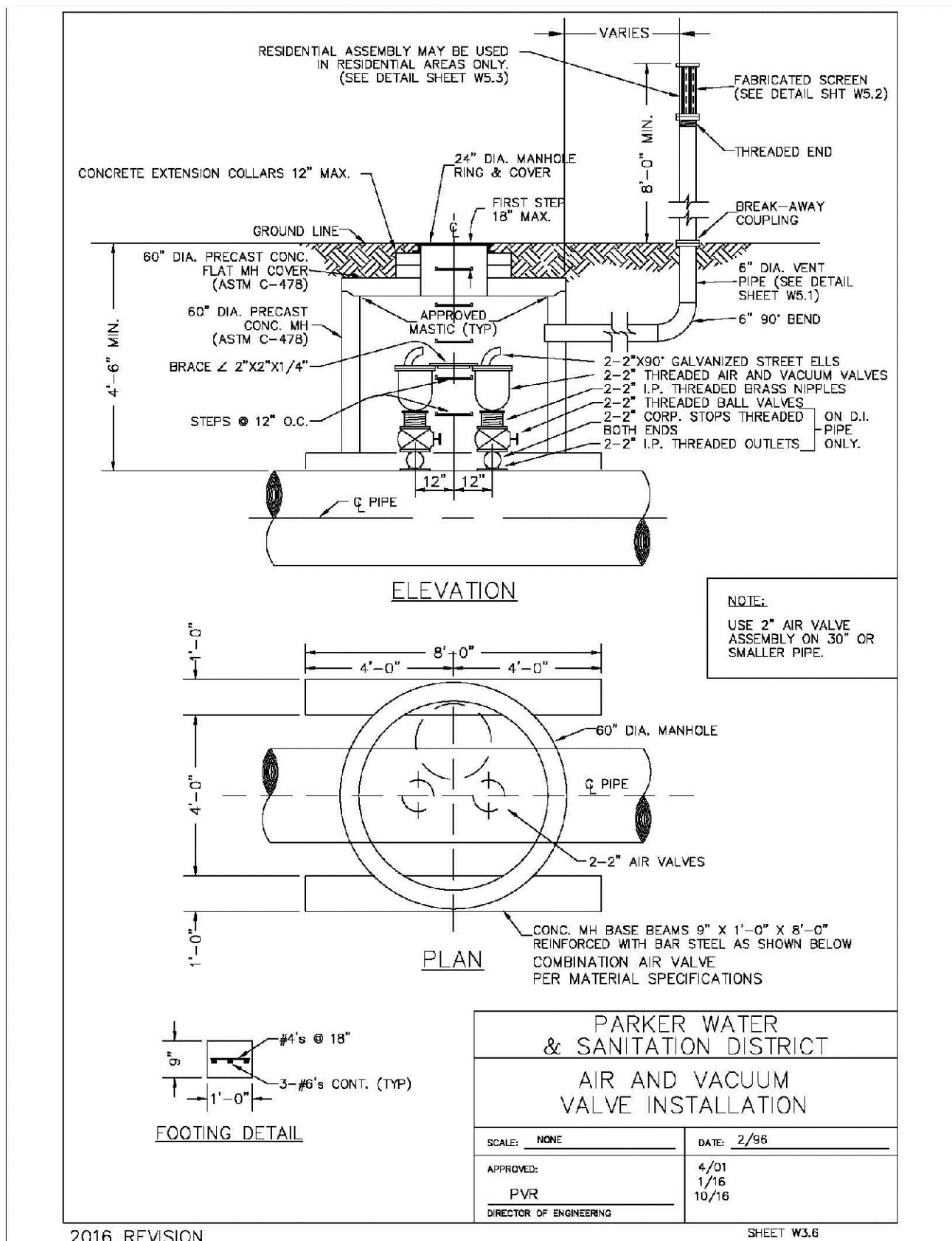
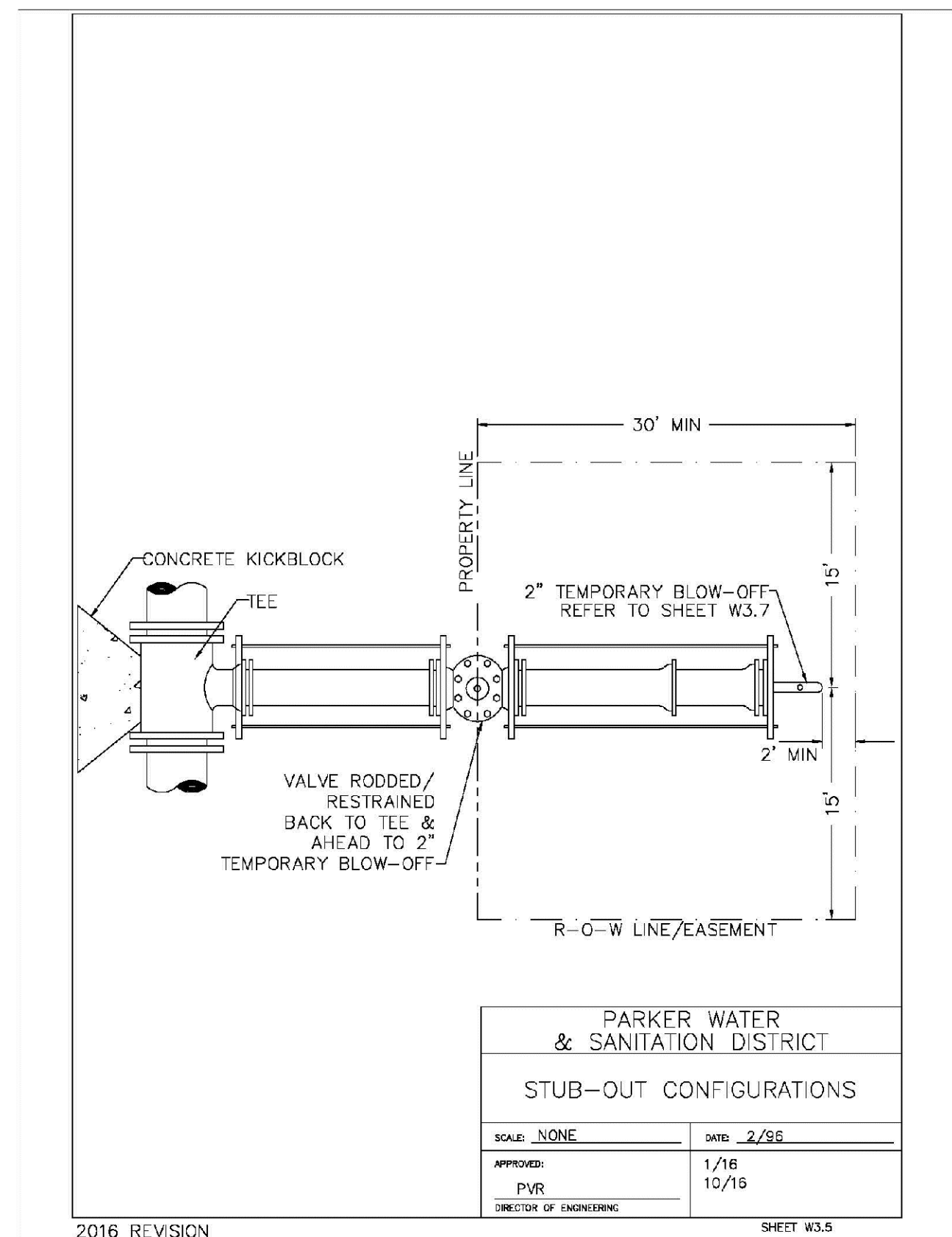
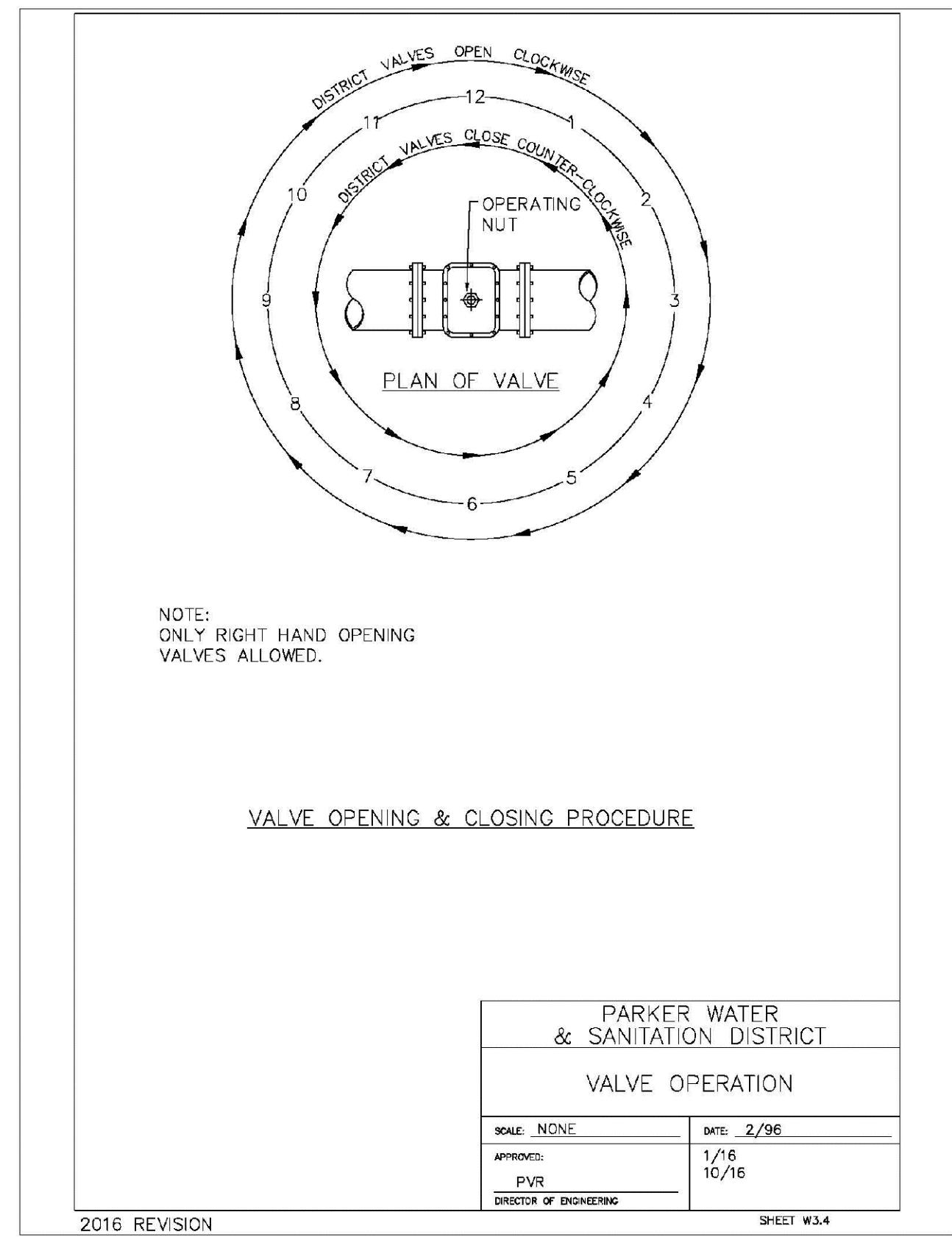
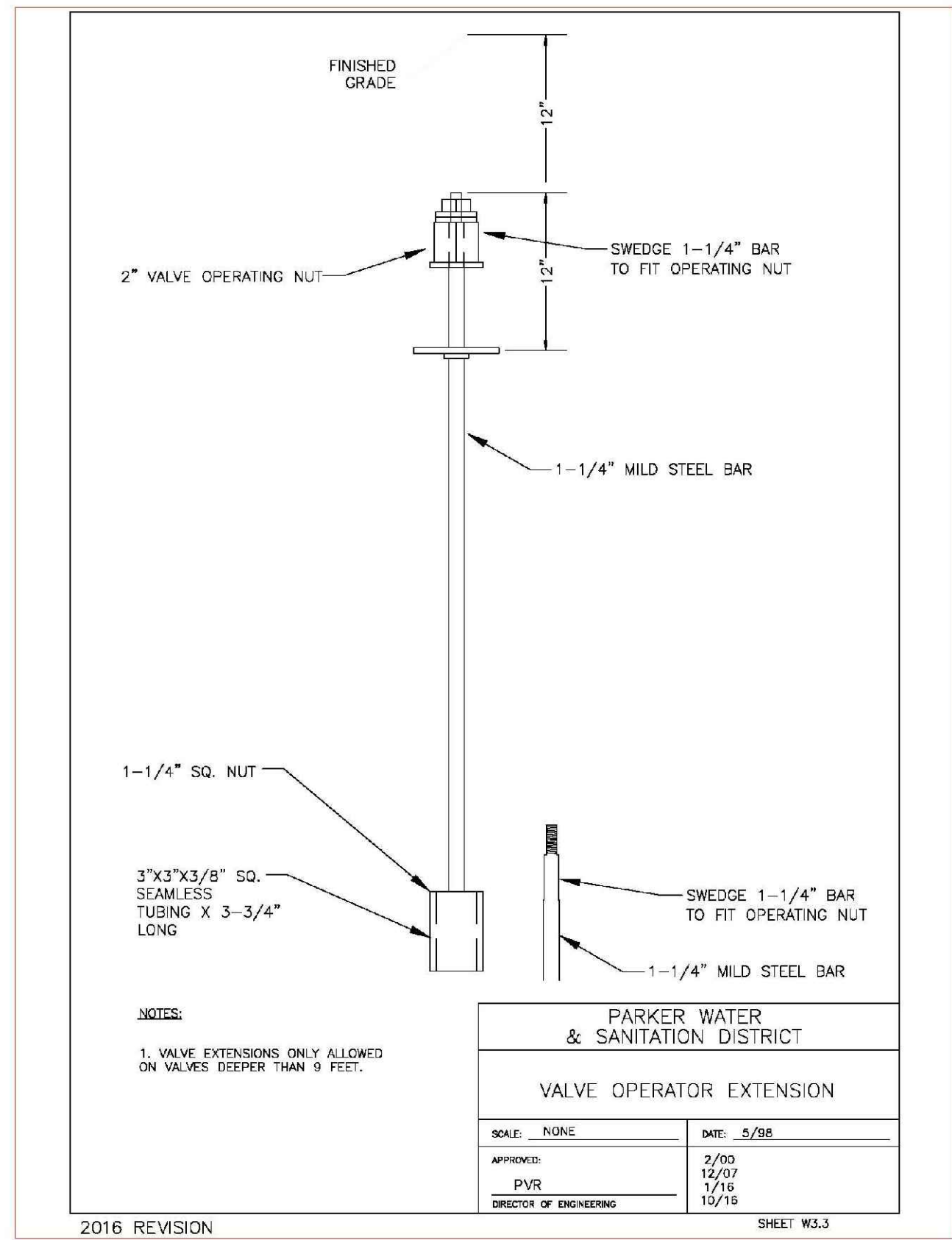
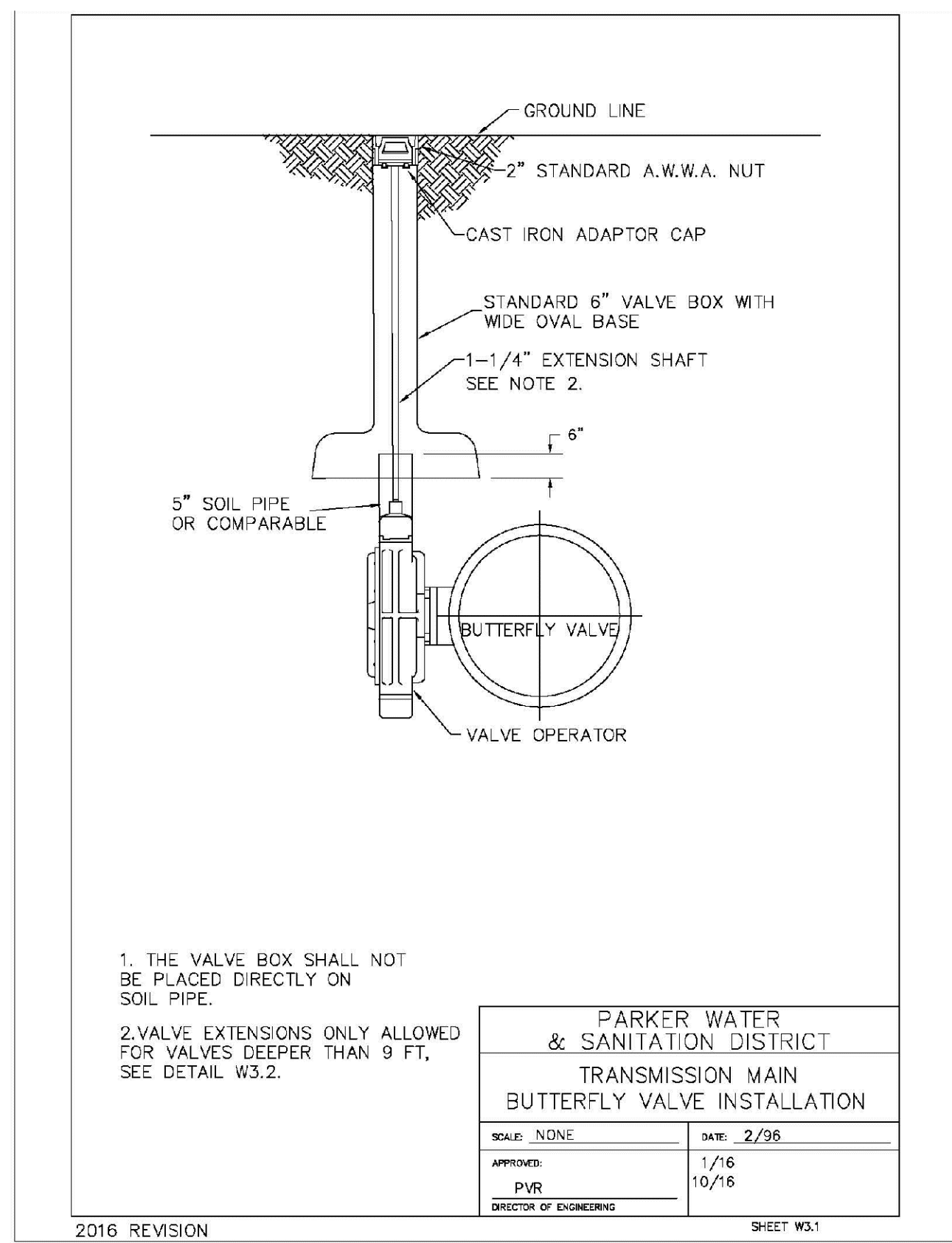
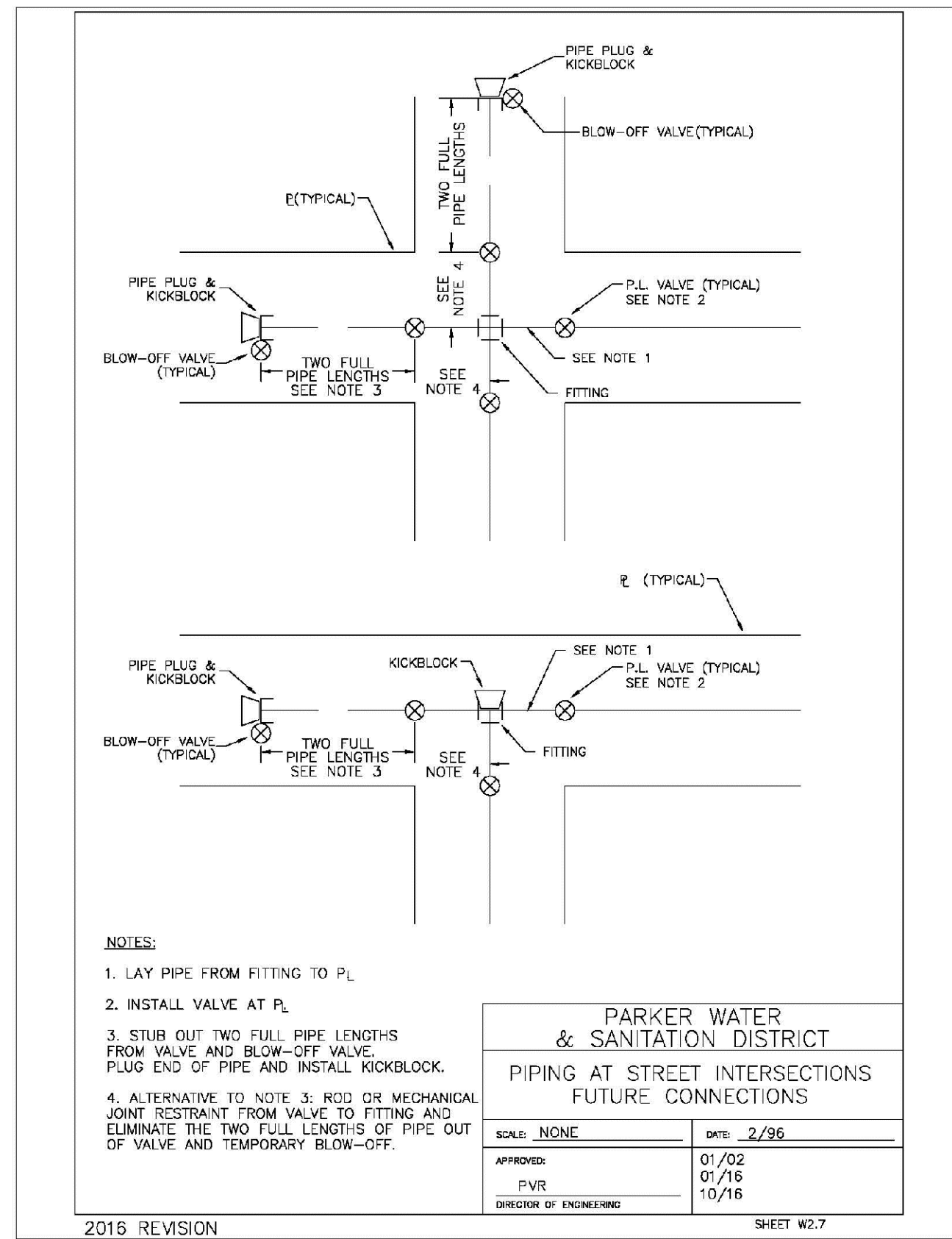
SHEET 54.5

TYPE I CONCRETE ENCASEMENT FOR SANITARY SEWERS

PARKER WATER & SANITATION DISTRICT
CONCRETE ENCASEMENT TYPE I

SCALE: NONE DATE: 2/98
APPROVED: JFN
DISTRICT ENGINEER

SHEET 6



APPROVED
 Nov 23 2021
PARKER WATER AND SANITATION DISTRICT

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TRAILS AT CROWFOOT
FILING 16 CONSTRUCTION DRAWINGS
WATER DETAILS

SCALE: AS SHOWN
 FILE NO: 8130283701

DRAWN BY: RRR
 CHECKED BY: BPV
 DATE: JUNE 2018

SHEET NUMBER: 17

No.	Date	Init.	Appr.	Date

MECHANICAL JOINT RESTRAINT

WEDGE DETAIL BOLT HOLE DETAIL

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

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: 2/00
PVR 1/18
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W3.17

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

TEE TYPICAL CROSS SECTION

MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)

SIZE OF	BENDS			TEE OR DEAD END
	11-1/4"	22-1/2"	45"	90"
4"	1.00	1.00	1.00	1.00
6"	1.00	1.25	2.25	3.00
8"	1.00	2.00	4.00	7.00
10"	1.50	3.50	12.50	18.50
12"	2.00	5.00	18.50	28.00
24"	3.50	15.00	45.00	53.00

NOTES:
1. ALL VALVES, TEES, BENDS AND PLUGS SHALL BE RESTRAINED AND KICKBLOCKED.
2. BEARING SURFACES SHOWN IN CHART ARE MINIMUM.
3. BASED ON 150 PSI PIPE PRESSURE PLUS WATER HAMMER:
4", 6" AND 8" WATER HAMMER = 120 PSI.
10", 12" AND 24" WATER HAMMER = 70 PSI.
4. SOIL BEARING CAPACITY = 3,000 LBS./SQ. FT.

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

SCALE: NONE DATE: 2/96

APPROVED: 4/01
PVR 1/18
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W3.18

24" DIAMETER RING AND COVER

STANDARD LIFTING SLOT DETAIL

MACHINED SEAT

NOTE:
1. Coating Specifications: ASTM A-48 With A Minimum Tensile Strength of 28 KSI (Class 25).
2. All Casting to be Done in Anhydrous Base (Or Approved Equivalent).

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

SCALE: NONE DATE: 6/05

APPROVED: 12/07
PVR 1/18
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W3.19

ACCESS MANHOLE

ACCESS MANHOLE AND AIR VALVE ASSEMBLY

NOTE:
USE 2" AIR VALVE ASSEMBLY ON 30" OR SMALLER PIPE.
RESIDENTIAL ASSEMBLY MAY BE USED IN RESIDENTIAL AREAS ONLY (SEE DETAIL SHEET W3.3).
SEE SHEET W3.6 FOR CONCRETE MANHOLE BASE BEAMS AND AIR/VACUUM VALVE DETAILS.

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

SCALE: NONE DATE: 2/96

APPROVED: 4/01
PVR 1/18
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"	6'-0"	4'-0"

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

SCALE: NONE DATE: 2/96

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

2016 REVISION SHEET W4.1

PIPE BEDDING

(c) 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. Bedding 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 and the joint is made, the bedding material shall be carefully placed and tamped under the haunches of the pipe and in the previously dug ball holes.

Tamping is herein defined as the act of placing approved bedding material under the haunches of the pipe, paying particular attention to voids, ball 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 for a typical trench cross section.

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.

(d) Bedding Material: the bedding material shall be a clean well-graded sand or squeegee sand and shall conform to the following limits when tested by means of laboratory tests:

Well-Graded Sand for (24-inch or larger diameter)

Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 4	70-100
No. 6	35-65
No. 10	20-50
No. 20	5-25
No. 40	1-10
No. 100	0-3

Squeegee 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 detrimental 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 2/00
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 ENCASEMENT.

**PARKER WATER & SANITATION DISTRICT
WATERLINE ENCASEMENT**

SCALE: NONE DATE: 5/08

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
PVR 1/18
DIRECTOR OF ENGINEERING 10/16

2016 REVISION SHEET W4.4

APPROVED
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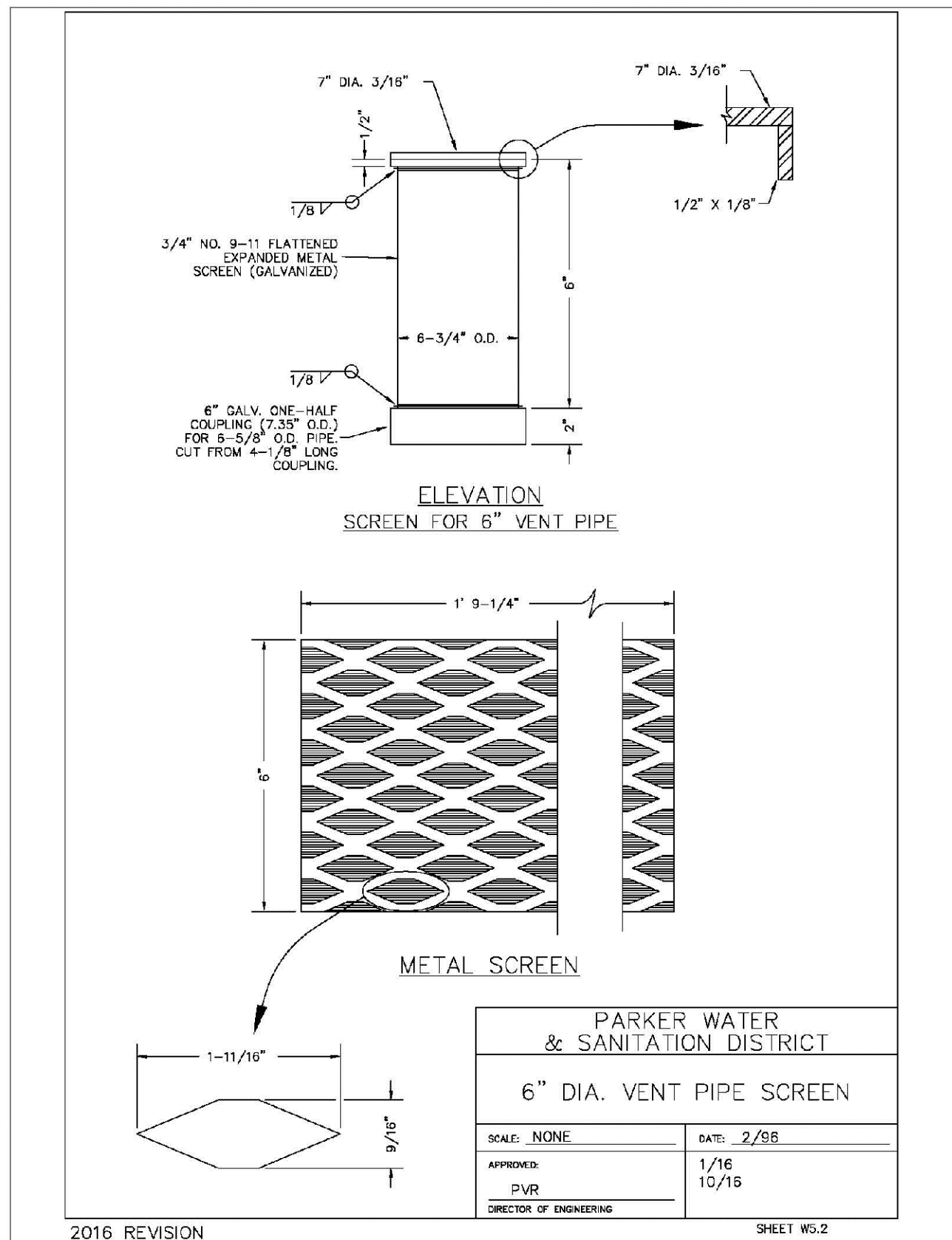
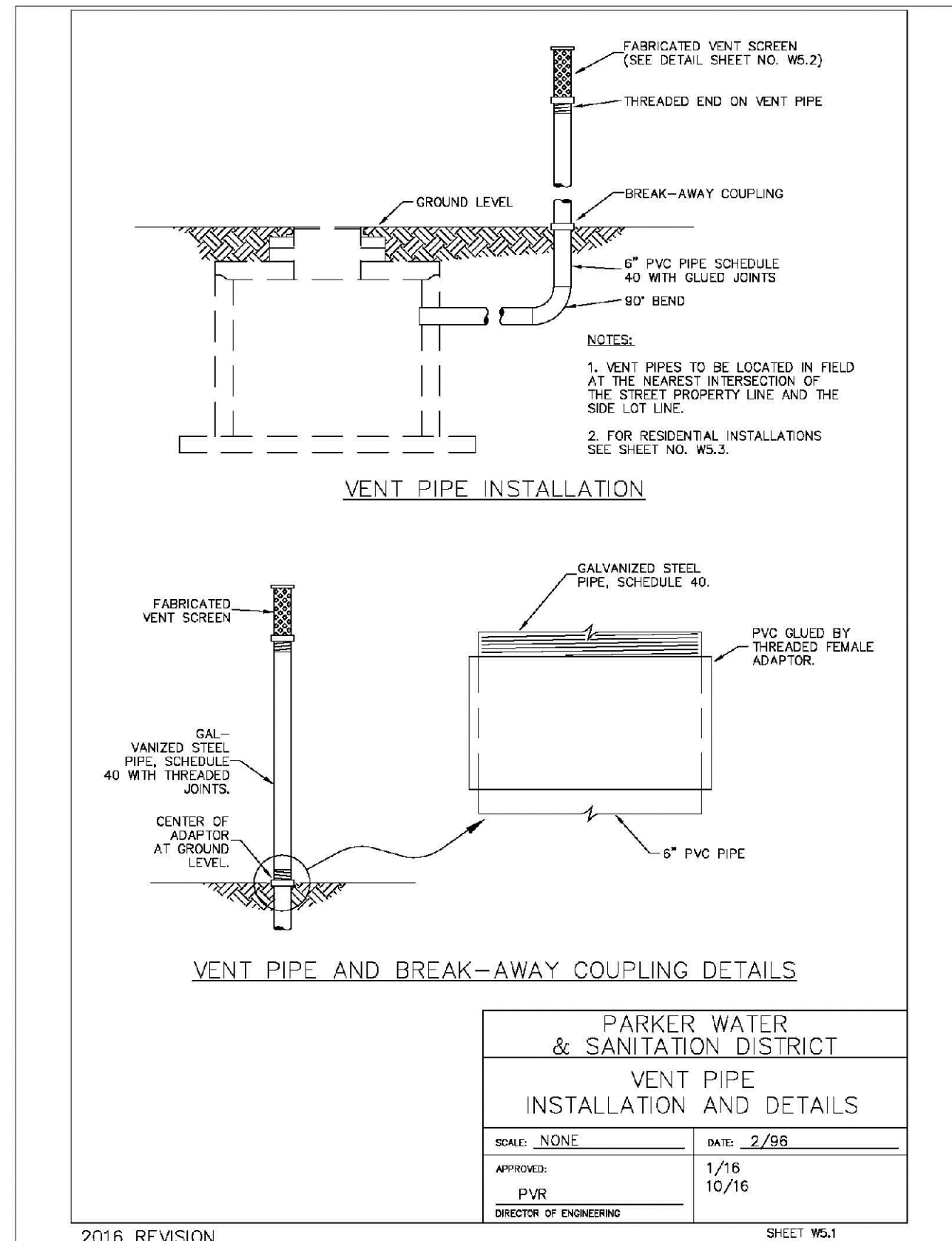
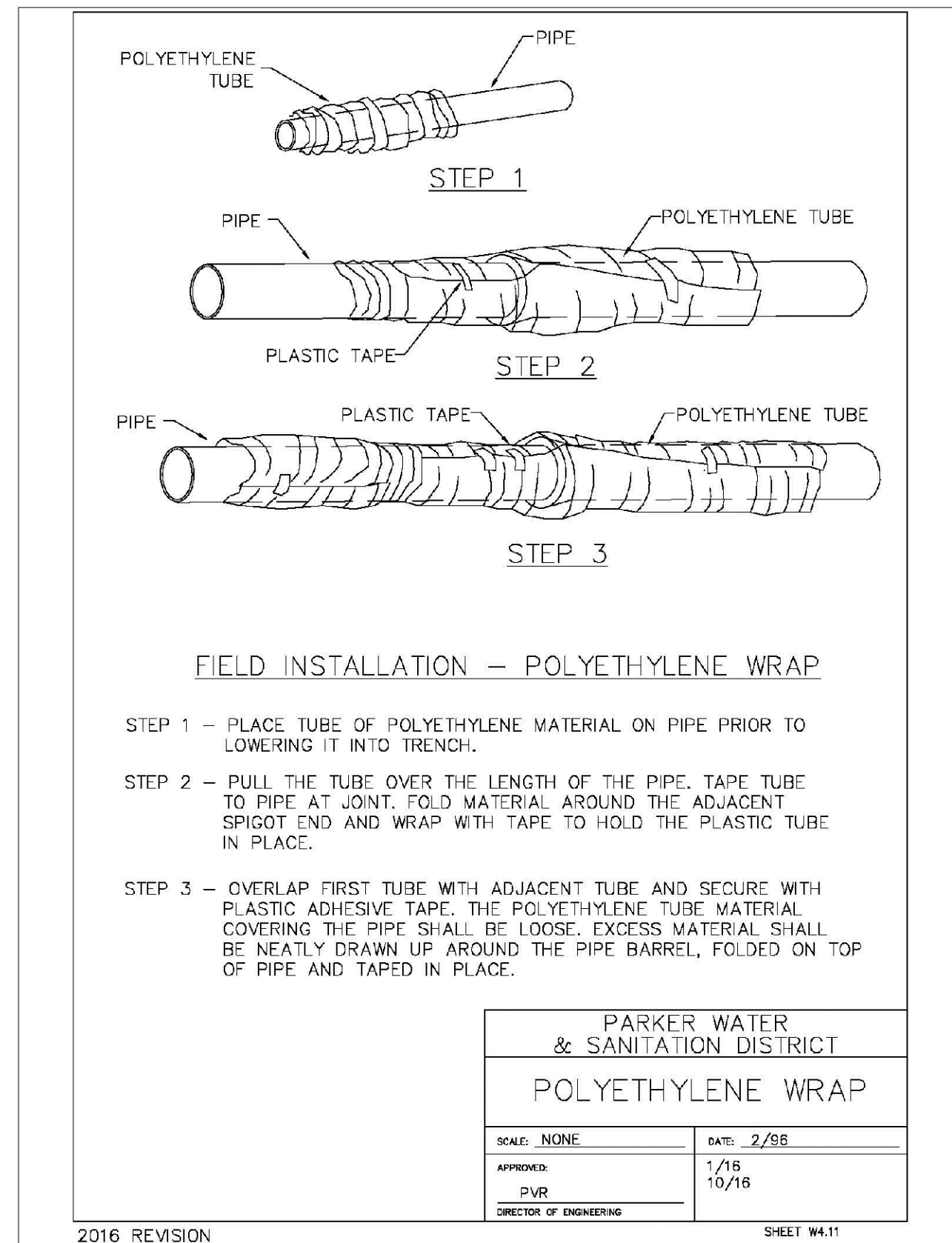
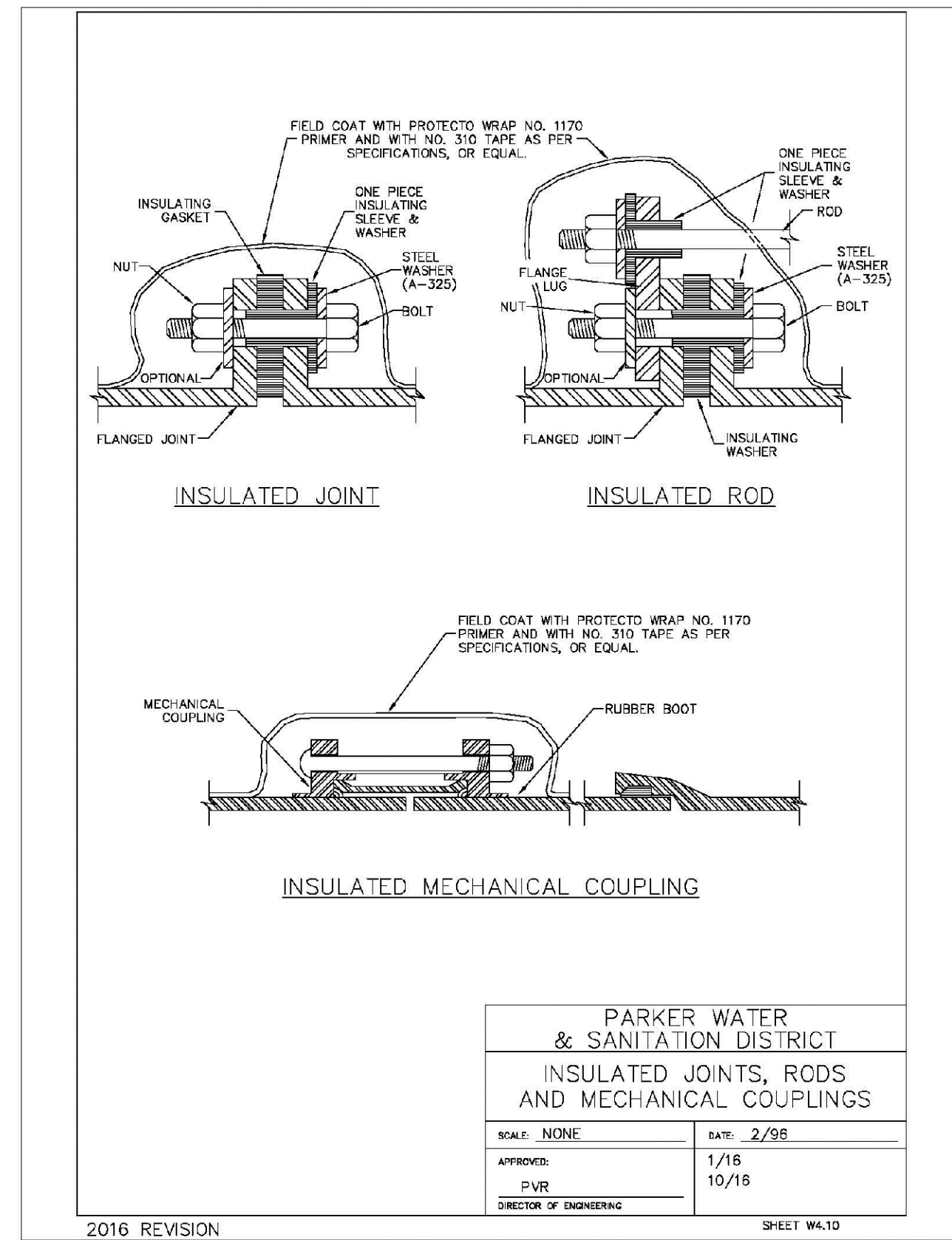
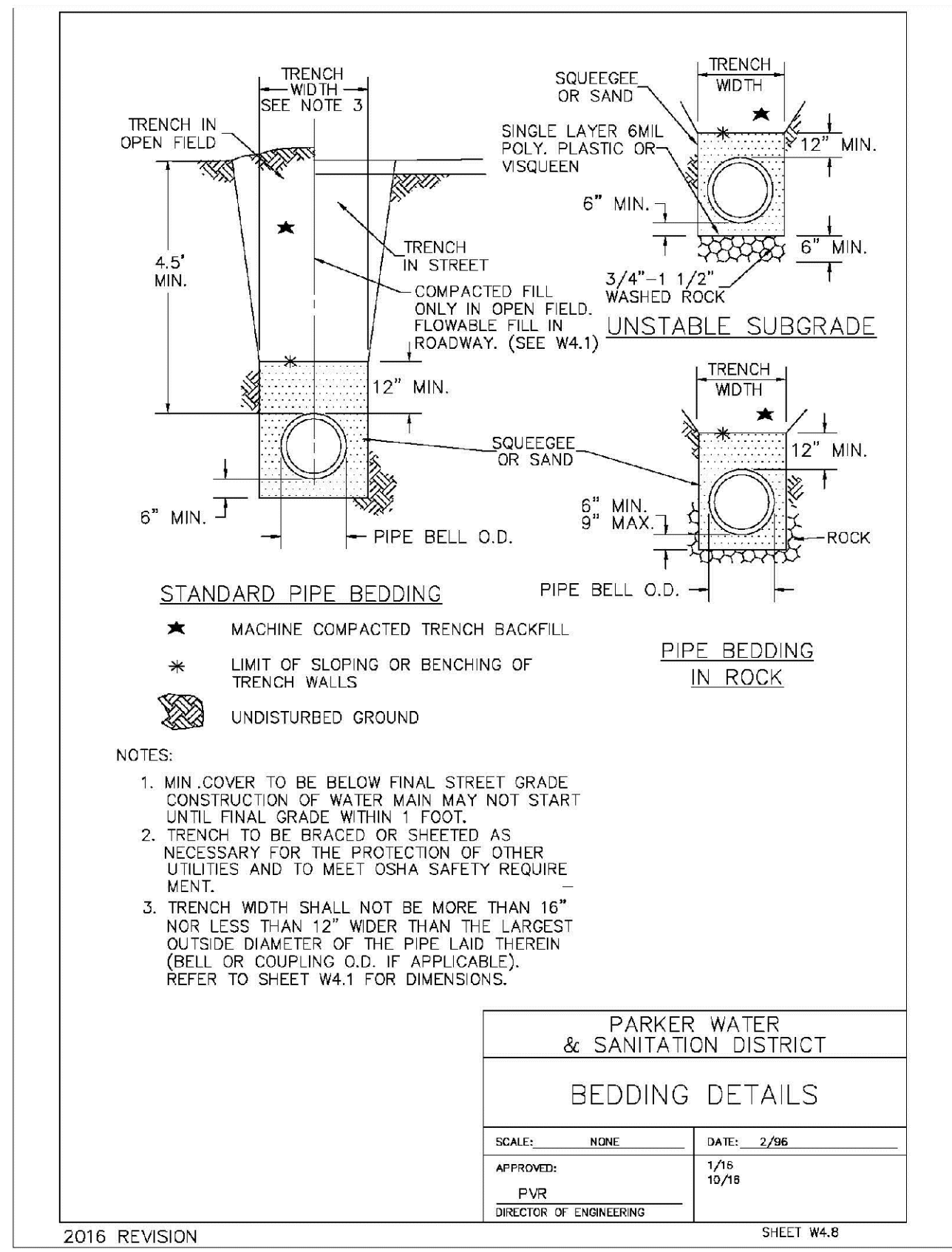
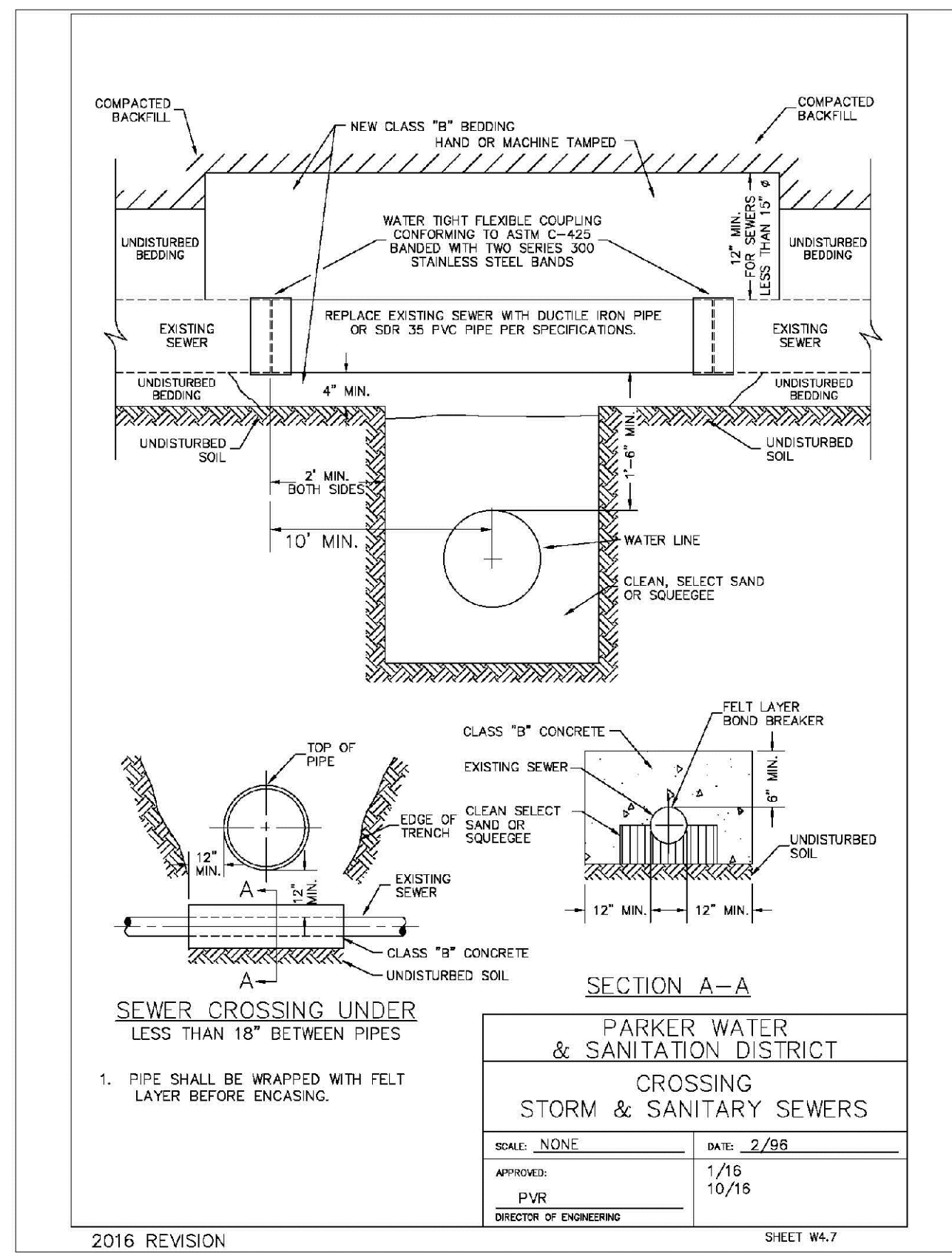
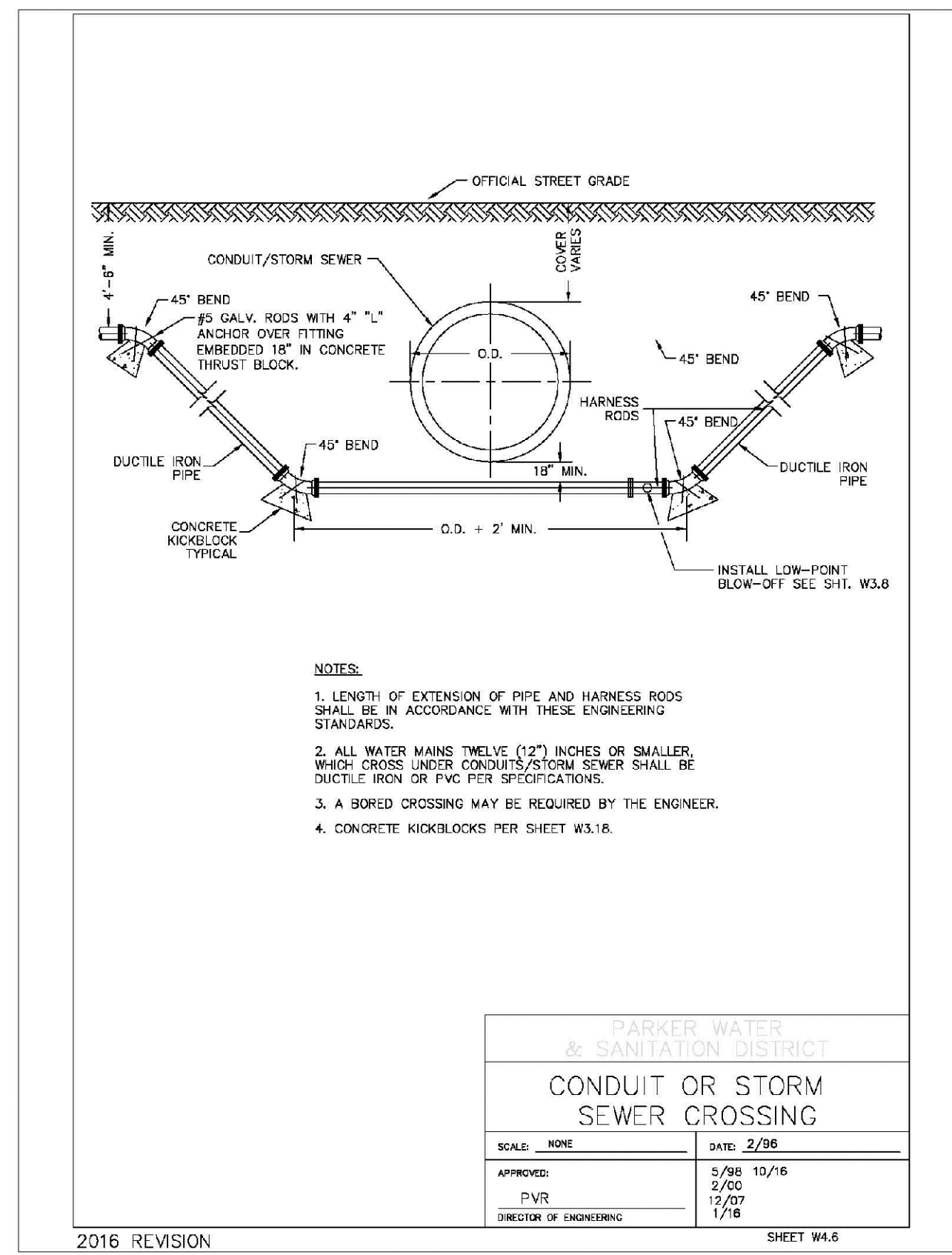
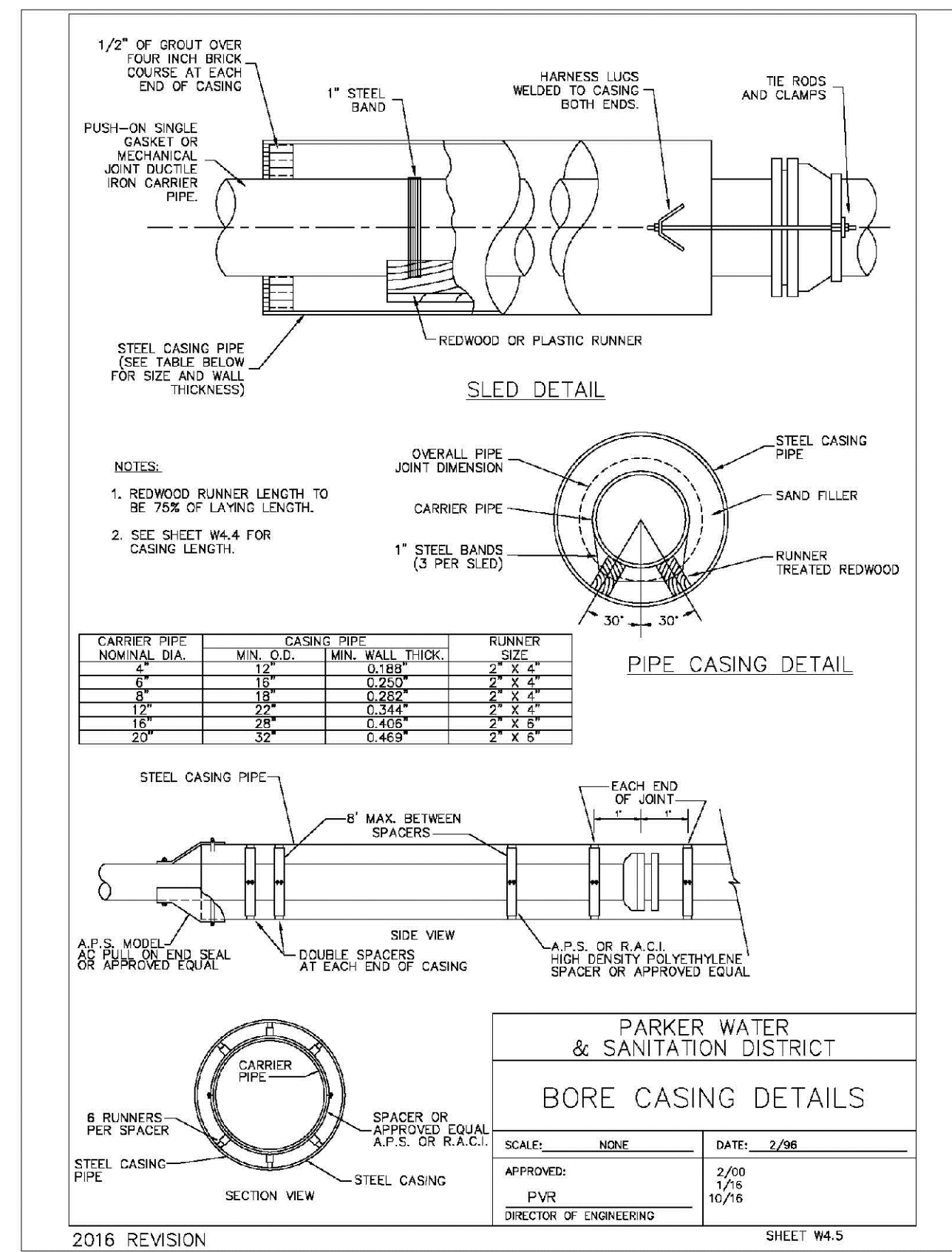
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WATER DETAILS

SCALE: AS SHOWN
FILE NO: 8130283701

DRAWN BY: RRR
CHECKED BY: BPW
DATE: JUNE 2018

SHEET NUMBER: 19

Revisions: No. Date Init. Appr. Date



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