STERLING RANCH FILING 3

COUNTY OF EL PASO, STATE OF COLORADO

STREET IMPROVEMENT PLAN

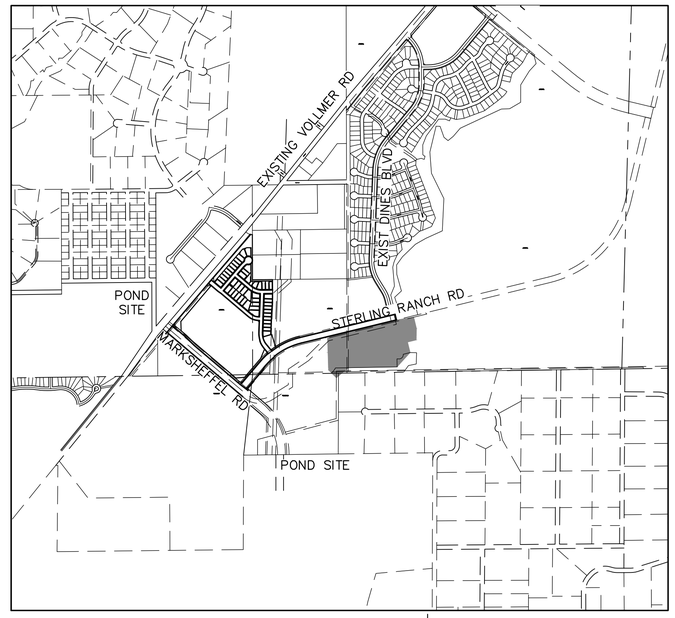
JUNE 2021

AGENCIES

OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT, SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742
CIVIL ENGINEER:	JR ENGINEERING, LLC 5475 TECH CENTER DRIVE COLORADO SPRINGS, CO 80919 MIKE BRAMLETT P.E. (303) 267-6240
COUNTY ENGINEERING:	EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT 2880 INTERNATIONAL CIRCLE, SUITE 110 COLORADO SPRINGS, CO 80910 JEFF RICE, P.E. (719) 520-6300
TRAFFIC ENGINEERING:	EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS 3275 AKERS DRIVE COLORADO SPRINGS, CO 80922 JENNIFER IRVINE, P.E. (719) 520-6460
WATER RESOURCES:	STERLING RANCH METRO DISTRICT ENGINEERS JDS-HYDRO CONSULTANTS 545 E. PIKES PEAK AVE., SUITE 300 COLORADO SPRINGS, CO 80903 JOHN MCGINN (719) 668-8769
FIRE DISTRICT:	BLACK FOREST FIRE PROTECTION DISTRICT 11445 TEACHOUT ROAD COLORADO SPRINGS, CO 80908 CHIEF BRYAN JACK (719) 495-4300
ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC 11140 E. WOODMEN ROAD FALCON, CO 80831 (719) 495-2283
COMMUNICATIONS:	QWEST COMMUNICATIONS (U.N.C.C. LOCATORS) (800) 922-1987 AT&T (LOCATORS) (719) 635-3674
GAS DEPARTMENT:	COLORADO SPRINGS UTILITIES 7710 DURANT DR. COLORADO SPRINGS, CO 80947 TIM WENDT (719) 668-3556
STORMWATER:	STORMWATER ENTERPRISE 30 S. NEVADA AVENUE, SUITE 401 COLORADO SPRINGS, CO 80903 (719)-385-5918
ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC 11140 E. WOODMEN ROAD FALCON, CO 80831 (719)-495-2283
COMMUNICATIONS:	QWEST COMMUNICATIONS (U.N.C.C. LOCATORS) (800) 922-1987 AT&T (LOCATORS) (719) 635-3674
STORMWATER:	STORMWATER ENTERPRISE 30 S. NEVADA AVENUE, SUITE 401 COLORADO SPRINGS, CO 80903 (719)-385-5980
TRAFFIC:	TRAFFIC AND TRANSPORTATION ENGINEERING 30 S. NEVADA AVE. COLORADO SPRINGS, CO 80903 (719)-385-5908
GAS:	STEPHEN BACON SR. ROW AGENT II COLORADO INTERSTATE GAS CO. (KINDER MORGAN) 2 N. NEVADA AVE. COLORADO SPRINGS, CO 80903 (719)-659-5936
GAS:	CRAIG KEIRSEY REAL ESTATE | MAGELLAN MIDSTREAM PARTNERS, L.P. ONE WILLIAMS CENTER, OTC-8, TULSA, OK 74172 (918)-574-7986

BENCHMARKS

1. THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHEAST BOUNDARY CORNER OF BARBARICK SUBDIVISION
   NORTHING = 411416.273
   EASTING = 235167.071
   ELEVATION = 7023.42
2. THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PAWNEE RANCHEROS SUBDIVISION
   NORTHING = 410095.404
   EASTING = 235052.131
   ELEVATION = 7000.40
3. THE TOP OF A RED PLASTIC SURVEYORS CAP, STAMPED "38141", AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDISION
   NORTHING = 411399.962
   EASTING = 233849.817
   ELEVATION = 7030.82



VICINITY MAP
SCALE : 1"=1,000'

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3	HORIZONTAL CONTROL
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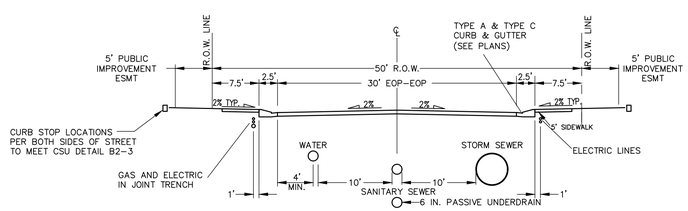


TYPICAL RESIDENTIAL STREET
SCALE: NTS
DESIGN SPEED: 25 MPH POSTED SPEED: 25 MPH

Engineering Review
11/24/2021 2:18:02 PM
dsdrice
JeffRice@elpasoco.com
(719) 520-7877
EPC Planning & Community Development Department

See comment letter also

Know what's **below.**
Call before you dig.

OWNER/DEVELOPER STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

JAMES F. MORLEY DATE

SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903

EL PASO COUNTY STATEMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. DATE

COUNTY ENGINEER/ECM ADMINISTRATOR

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLAN AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

COLORADO REGISTERED MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DISTRICT APPROVALS

THESE DOCUMENTS HAVE BEEN REVIEWED AND APPROVED FOR STORM DRAIN AND ASSOCIATED UTILITY SERVICE CONSTRUCTION.

FOR AND ON BEHALF OF THE STERLING RANCH METRO DISTRICT DATE

FILE NO. SF-21-XXX

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H-SCALE	N/A
V-SCALE	N/A
DATE	6/17/21
DESIGNED BY	RAB
DRAWN BY	RAB
CHECKED BY	

STERLING RANCH FILING 3

COVER SHEET

SHEET 1 OF 13

JOB NO. 25188.00

GENERAL CONSTRUCTION NOTES:

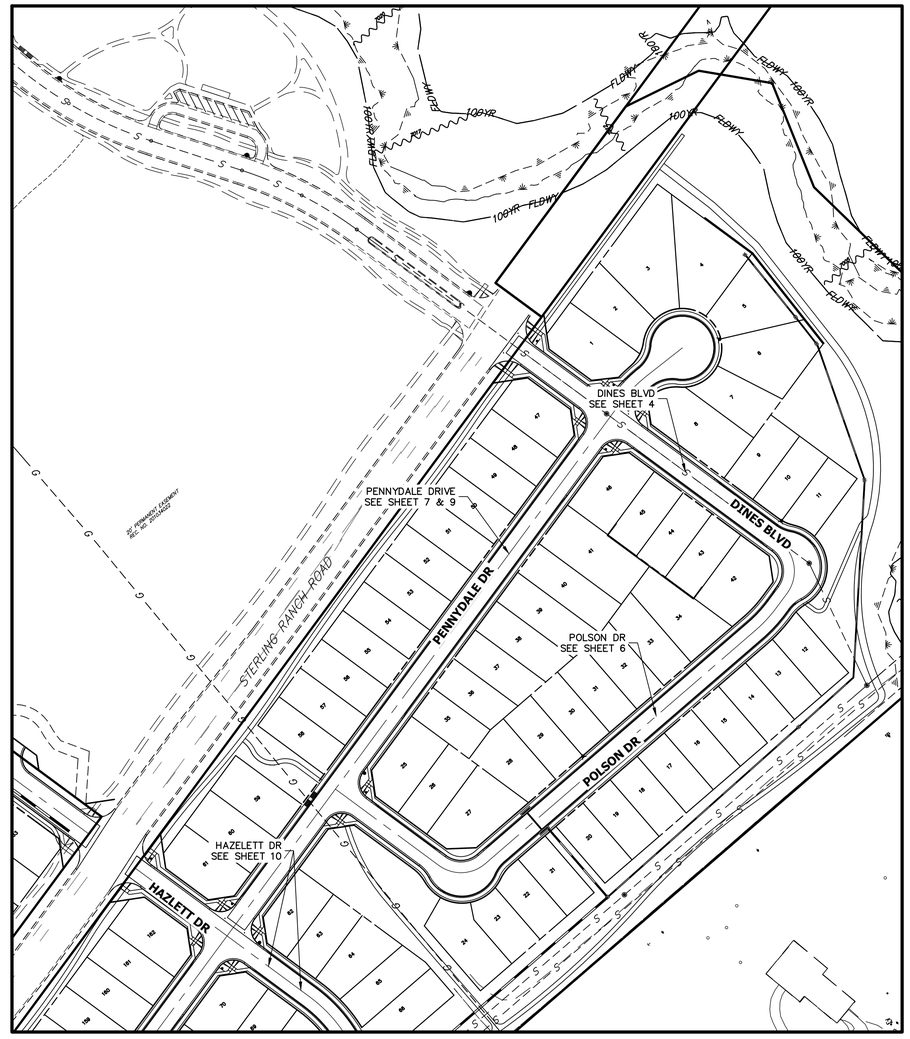
1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
2. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
3. ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
4. ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED PER THE SOILS ENGINEER'S RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY PCD.
5. ALL STATIONING IS CENTERLINE OF IMPROVEMENTS UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED AS TOP BACK OF CURB (TBC), ASPHALT (ASP), OR TOP OF INLET OR BOX (TOB).
6. ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO EPC ECM APPENDIX K – 1.2C.
7. ALL INTERSECTION ACCESSES TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLES IS REQUIRED AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" VERTICAL IN THIS AREA.
8. ALL CULVERTS AND STORM DRAIN PIPES SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (HDPE), REINFORCED CONCRETE PIPE (RCP). ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ADEQUACY OF MATERIAL THICKNESS FOR ANY CSP INSTALLED SHALL BE VERIFIED BY OWNER'S GEOTECHNICAL ENGINEER TO SUPPORT MINIMUM 50 YEAR DESIGN LIFE. CULVERTS MUST CONFORM TO EPC ECM SECTION 3.32 – CULVERTS.
9. ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED) FOR ROADS SHALL BE PER DESIGN REPORT BY OWNER'S GEOTECHNICAL ENGINEER. OWNER'S GEOTECHNICAL ENGINEER TO BE ON SITE AT THE TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.

SIGNING AND STRIPING NOTES:

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.
4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
7. ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS"
8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
9. ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
12. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS:

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
   a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   d. CDOT M & S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) – INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY PCD AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.



KEY MAP

100 50 0 100 200

ORIGINAL SCALE: 1" = 100'

FILE NO. SF-21-XXX

Know what's **below.** **Call** before you dig.

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

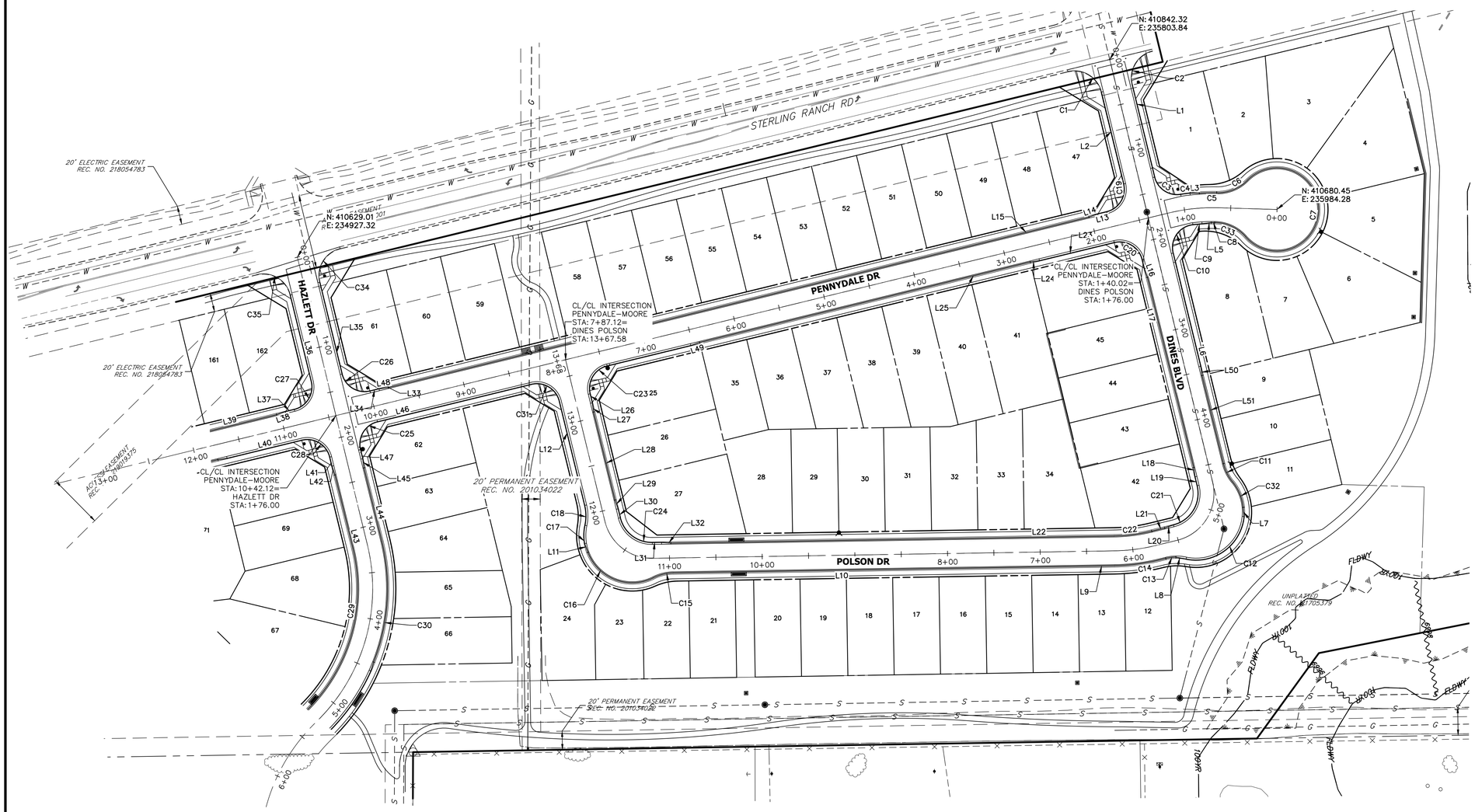
H-SCALE	N/A
V-SCALE	N/A
DATE	6/17/21
DESIGNED BY	AJH
DRAWN BY	CGV
CHECKED BY	

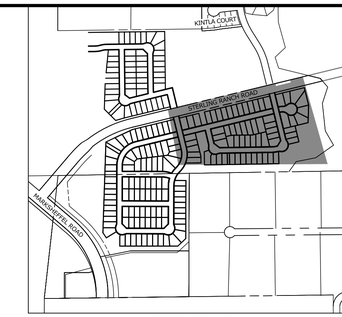
STERLING RANCH FILING 3

GENERAL NOTES

SHEET 2 OF 13

JOB NO. 25188.00





KEY MAP
SCALE: NTS

LINE AND CURVE TABLE			
LINE/CURVE	BEARING/DELTA	LENGTH	RADIUS
C1	90°00'00"	47.12'	30.00'
C2	90°00'00"	47.12'	30.00'
C3	85°29'41"	37.30'	25.00'
C4	2°38'25"	10.00'	217.00'
C5	4°59'37"	18.84'	216.17'
C6	46°36'19"	36.60'	45.00'
C7	274°21'38"	215.48'	45.00'
C8	1°08'23"	3.66'	183.83'
C9	3°07'00"	9.95'	183.00'
C10	96°54'35"	42.28'	25.00'
C11	25°50'31"	22.02'	48.83'
C12	96°17'35"	87.39'	52.00'
C13	12°55'16"	11.01'	48.83'
C14	12°45'09"	48.11'	216.17'
C15	25°50'32"	22.02'	48.83'
C16	95°54'15"	85.65'	51.17'
C17	21°49'47"	19.81'	52.00'
C18	25°50'31"	21.65'	48.00'
C19	90°00'00"	39.27'	25.00'
C20	90°00'00"	39.27'	25.00'
C21	90°00'00"	54.98'	35.00'
C22	12°45'09"	40.92'	183.83'

LINE AND CURVE TABLE			
LINE/CURVE	BEARING/DELTA	LENGTH	RADIUS
C23	90°00'00"	39.27'	25.00'
C24	77°14'51"	47.19'	35.00'
C25	90°00'00"	39.27'	25.00'
C26	90°00'00"	39.27'	25.00'
C27	90°00'00"	39.27'	25.00'
C28	90°00'00"	39.27'	25.00'
C29	59°37'12"	191.29'	183.83'
C30	35°09'37"	132.65'	216.17'
C31	90°00'00"	39.27'	25.00'
C32	31°45'54"	28.37'	51.17'
C33	48°15'43"	37.90'	45.00'
C34	90°00'00"	47.12'	30.00'
C35	90°00'00"	47.12'	30.00'
L1	S13°40'40"E	102.75'	
L2	S13°40'40"E	102.00'	
L3	S89°32'42"W	10.05'	
L5	N83°08'09"E	10.01'	
L6	S13°40'40"E	125.80'	
L7	N04°44'43"W	9.94'	
L8	N79°54'56"W	11.22'	
L9	S89°04'30"W	476.37'	
L10	S89°04'30"W	476.37'	

LINE AND CURVE TABLE			
LINE/CURVE	BEARING/DELTA	LENGTH	RADIUS
L11	S19°58'22"E	10.10'	
L12	S13°40'40"E	115.70'	
L13	S76°19'20"W	10.00'	
L14	N71°33'38"E	10.03'	
L15	N76°19'20"E	778.10'	
L16	S18°26'22"E	10.03'	
L17	S13°40'40"E	211.38'	
L18	N08°54'57"W	10.03'	
L19	N13°40'40"W	10.00'	
L20	N71°33'38"E	10.03'	
L21	N76°19'20"E	14.34'	
L22	N89°04'30"E	478.39'	
L23	N76°19'20"E	83.00'	
L24	S81°05'03"W	10.03'	
L25	N76°19'20"E	367.10'	
L26	S13°40'40"E	10.00'	
L27	S08°54'57"E	10.03'	
L28	S13°40'40"E	97.72'	
L29	S18°26'22"E	10.03'	
L30	S13°40'40"E	10.00'	
L31	S89°04'30"W	10.00'	
L32	S86°09'48"E	10.03'	

LINE AND CURVE TABLE			
LINE/CURVE	BEARING/DELTA	LENGTH	RADIUS
L33	N81°05'03"E	10.03'	
L34	N76°19'20"E	10.00'	
L35	S13°40'40"E	102.00'	
L36	S13°40'40"E	96.00'	
L37	N76°19'20"E	10.00'	
L38	S71°33'38"W	10.03'	
L39	N76°19'20"E	350.69'	
L40	N76°19'20"E	83.00'	
L41	S13°40'40"E	10.00'	
L42	S18°26'22"E	10.03'	
L43	S13°40'40"E	81.67'	
L44	S13°40'40"E	81.67'	
L45	S08°54'57"E	10.03'	
L46	N76°19'20"E	171.00'	
L47	S13°40'40"E	10.00'	
L48	N81°05'03"E	10.03'	
L49	S71°33'38"W	10.03'	
L50	N08°54'57"W	10.03'	
L51	S13°40'40"E	93.48'	

60 30 0 60 120
ORIGINAL SCALE: 1" = 60'

FILE NO. SF-21-XXX

Know what's **below.**
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PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

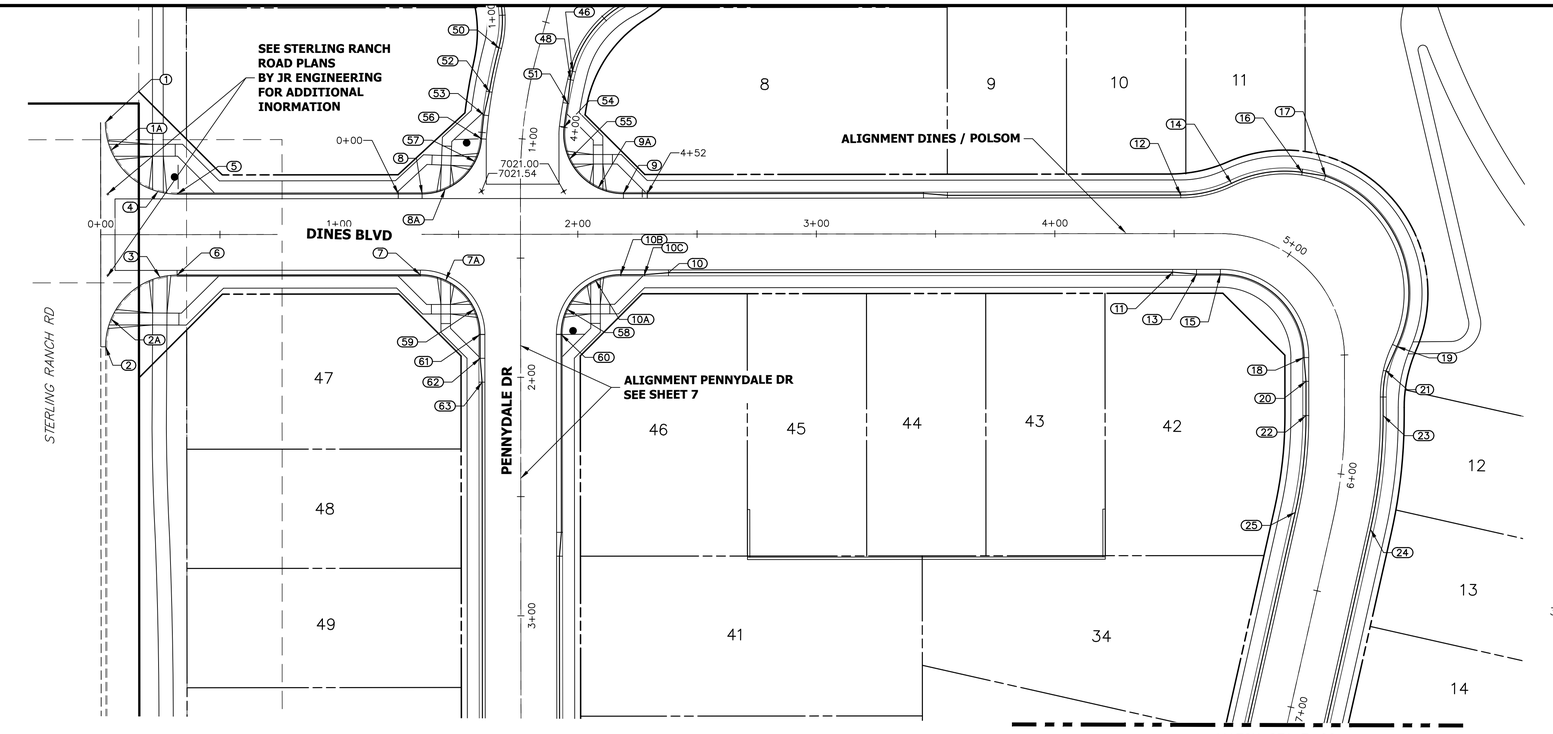
No.	REVISION	BY	DATE

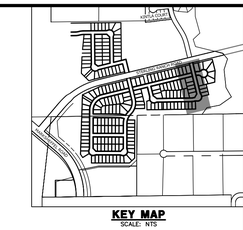
H-SCALE	1"=60'
V-SCALE	N/A
DATE	6/17/21
DESIGNED BY	ARJ
DRAWN BY	ARJ
CHECKED BY	

STERLING RANCH FILING 3
HORIZONTAL CONTROL

SHEET 3 OF 13
JOB NO. 25188.00

POINT TABULATION					
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	DESCRIPTION
1	0+02.00	47.00' (LT)	DINES POLSON	7022.00	PCR
1A	0+04.35	35.36' (LT)	DINES POLSON	7022.14	HC RAMP MID PT
2	0+02.00	47.00' (RT)	DINES POLSON	7021.23	PCR
2A	0+04.35	35.36' (RT)	DINES POLSON	7021.54	HC RAMP MID PT
3	0+24.86	17.86' (RT)	DINES POLSON	7021.97	HC RAMP MID PT
4	0+24.02	18.08' (LT)	DINES POLSON	7022.46	HC RAMP MID PT
5	0+32.00	17.00' (LT)	DINES POLSON	7022.56	BEGIN C&G
6	0+32.00	17.00' (RT)	DINES POLSON	7022.07	PCR
7	1+34.00	17.00' (RT)	DINES POLSON	7021.98	PCR
7A	1+44.60	19.36' (RT)	DINES POLSON	7021.57	HC RAMP MID PT
8	1+34.75	17.00' (LT)	DINES POLSON	7021.98	PCR
8A	1+44.45	18.96' (LT)	DINES POLSON	7021.96	HC RAMP MID PT
9	2+19.15	17.00' (LT)	DINES POLSON	7020.55	CURB TRANSITIONS
9A	2+08.55	19.36' (LT)	DINES POLSON	7020.73	HC RAMP MID PT
10	2+38.00	16.17' (RT)	DINES POLSON	7020.00	CURB TRANSITION
10A	2+07.40	19.36' (RT)	DINES POLSON	7020.72	HC RAMP MID PT
10B	2+18.00	17.00' (RT)	DINES POLSON	7020.50	PCR
10C	2+28.00	17.00' (RT)	DINES POLSON	7020.25	CURB TRANSITION
11	4+49.38	16.17' (RT)	DINES POLSON	7012.59	CURB TRANSITIONS
12	4+52.72	16.17' (LT)	DINES POLSON	7012.53	PCR
13	4+59.38	17.00' (RT)	DINES POLSON	7012.24	CURB TRANSITIONS
14	4+72.72	21.20' (LT)	DINES POLSON	7012.11	PCR
15	4+69.38	17.00' (RT)	DINES POLSON	7011.95	PCR
16	4+91.02	32.88' (LT)	DINES POLSON	7011.56	CURB TRANSITION
17	4+96.71	35.97' (LT)	DINES POLSON	7011.31	CURB TRANSITION
18	5+51.06	17.00' (RT)	DINES POLSON	7009.70	CURB TRANSITION
19	5+47.83	22.07' (LT)	DINES POLSON	7009.76	CURB TRANSITION
20	5+61.06	16.17' (RT)	DINES POLSON	7009.71	CURB TRANSITION
21	5+56.73	17.41' (LT)	DINES POLSON	7009.62	CURB TRANSTIONS
22	5+75.40	16.17' (RT)	DINES POLSON	7009.26	PCR
23	5+75.40	16.17' (LT)	DINES POLSON	7009.26	PCR
24	6+19.91	16.17' (LT)	DINES POLSON	7008.61	PCR
25	6+19.91	16.17' (RT)	DINES POLSON	7008.61	PCR

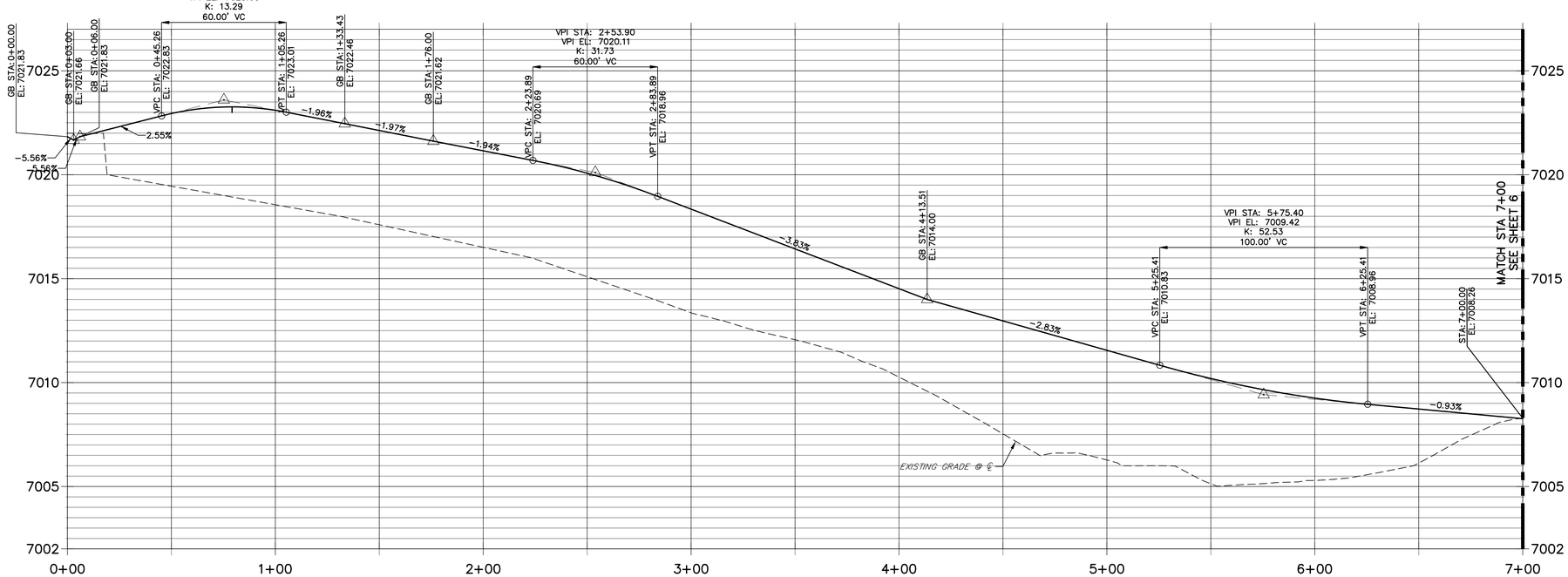




30 15 0 30 60

HORIZONTAL
ORIGINAL SCALE: 1" = 30'
VERTICAL
ORIGINAL SCALE: 1" = 3'

DINES PROFILE
STA 0+00.00 TO 7+00.00



Know what's below. Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

COLORADO REGISTERED MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

FILE NO. SF-21-XXX

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

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Fort Collins 970-491-9888 • www.jrengineering.com

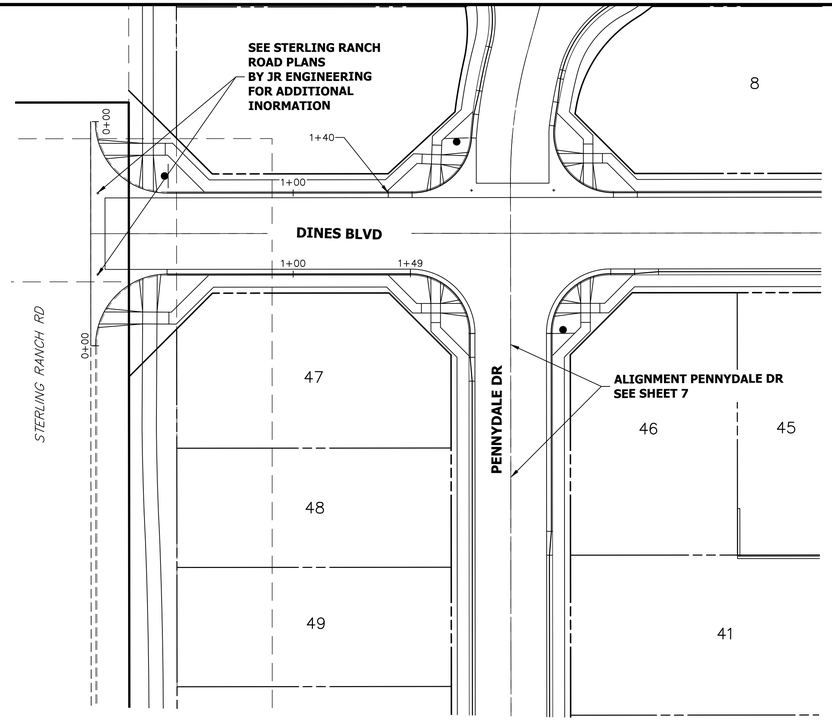
No.	REVISION	BY	DATE

H-SCALE	1" = 30'
V-SCALE	1" = 3'
DATE	6/17/21
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

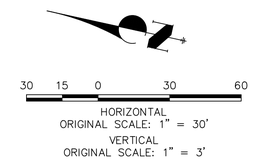
STERLING RANCH FILING 3
STREET IMPROVEMENT PLAN

SHEET 4 OF 13

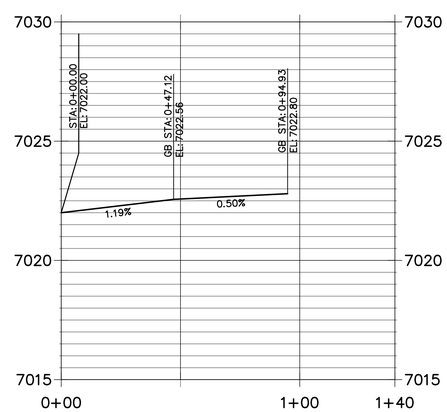
JOB NO. 25188.00



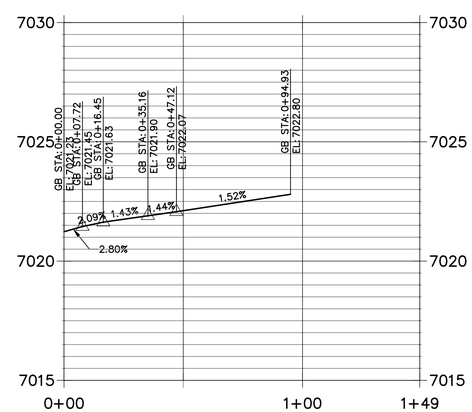
KEY MAP
SCALE: NTS



EAST FL DINES PROFILE
STA 0+00.00 TO 1+39.87



WEST FL DINES PROFILE
STA 0+00.00 TO 1+49.12



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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

FILE NO. SF-21-XXX

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PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

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Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H-SCALE	1" = 30'
V-SCALE	1" = 3'
DATE	6/17/21
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

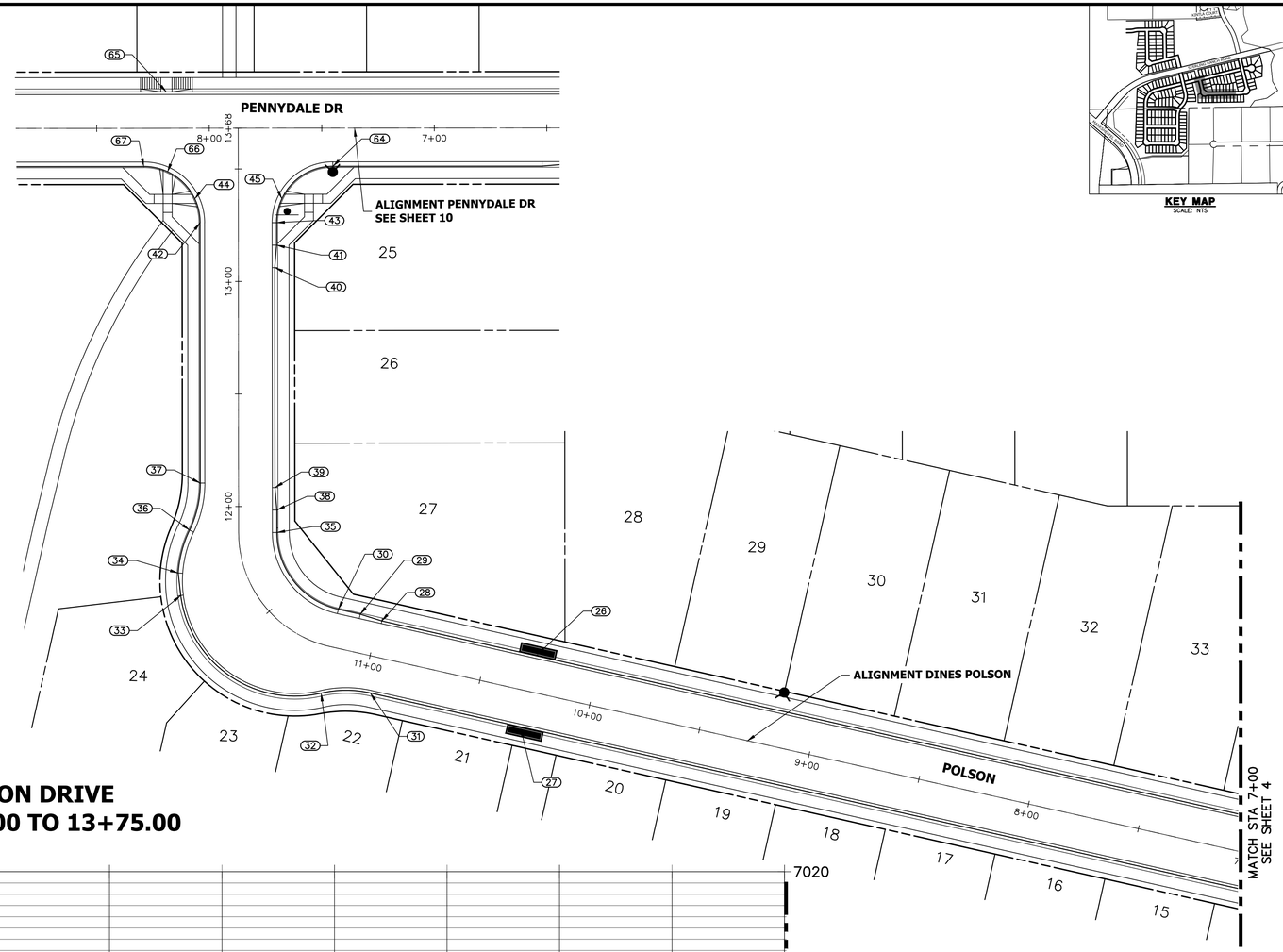
STERLING RANCH
FILING 3

STREET IMPROVEMENT PLAN

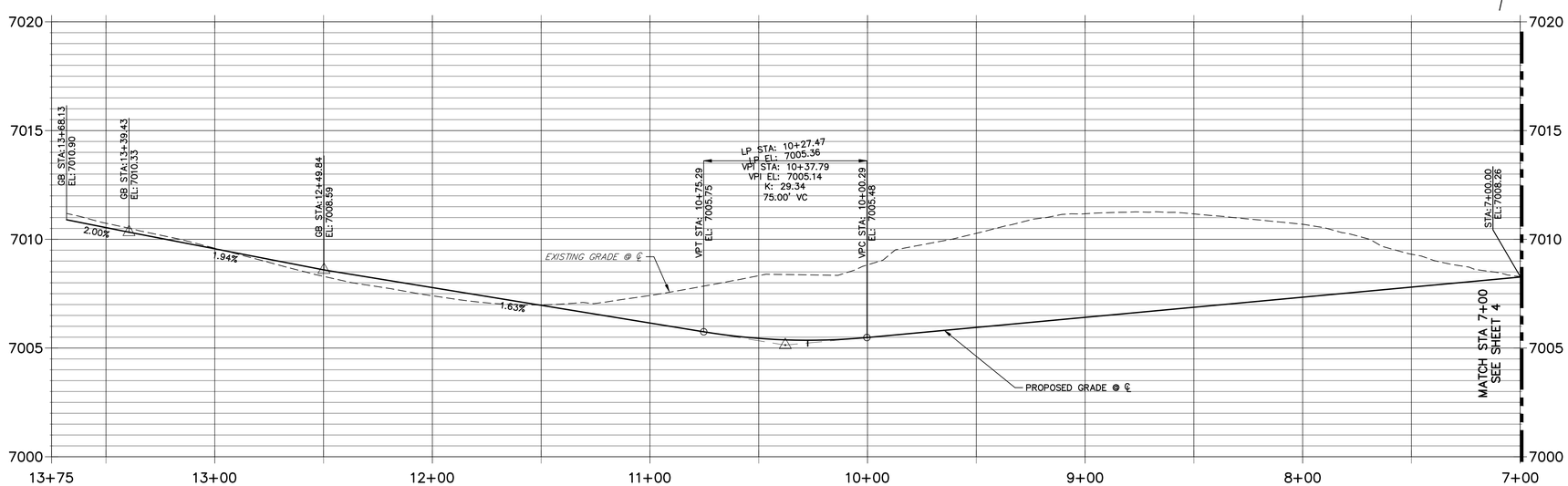
SHEET 5 OF 13

JOB NO. 25188.00

POINT TABULATION					
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	DESCRIPTION
26	10+27.53	16.83' (RT)	DINES POLSON	7005.36	LOW POINT
27	10+27.51	16.99' (LT)	DINES POLSON	7005.45	LOW POINT
28	10+98.31	16.17' (RT)	DINES POLSON	7006.01	CURB TRANSITION
29	11+08.31	17.00' (RT)	DINES POLSON	7005.82	CURB TRANSITION
30	11+18.31	17.00' (RT)	DINES POLSON	7005.98	PCR
31	10+96.29	16.17' (LT)	DINES POLSON	7005.69	PCR
32	11+17.57	21.05' (LT)	DINES POLSON	7005.95	PCR
33	11+70.46	30.64' (LT)	DINES POLSON	7006.95	CURB TRANSITION
34	11+76.79	28.89' (LT)	DINES POLSON	7007.07	CURB TRANSITION
35	11+88.41	17.00' (RT)	DINES POLSON	7007.12	PCR
36	11+89.51	21.80' (LT)	DINES POLSON	7007.30	PCR
37	12+10.43	17.00' (LT)	DINES POLSON	7007.57	PCR
38	11+98.41	17.00' (RT)	DINES POLSON	7007.29	CURB TRANSITION
39	12+08.41	16.17' (RT)	DINES POLSON	7007.52	CURB TRANSITION
40	13+06.13	16.25' (RT)	DINES POLSON	7009.33	CURB TRANSITION
41	13+16.13	17.00' (RT)	DINES POLSON	7009.44	CURB TRANSITION
42	13+26.13	17.00' (LT)	DINES POLSON	7009.41	PCR
43	13+26.13	17.00' (RT)	DINES POLSON	7009.66	PCR
44	13+36.72	19.36' (LT)	DINES POLSON	7009.55	HC RAMP MID PT
45	13+36.72	19.36' (RT)	DINES POLSON	7009.88	HC RAMP MID PT



POLSON DRIVE
STA 7+00.00 TO 13+75.00



HORIZONTAL
ORIGINAL SCALE: 1" = 30'
VERTICAL
ORIGINAL SCALE: 1" = 3'

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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

FILE NO. SF-21-XXX

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PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

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Fort Collins 970-491-9888 • www.jrengineering.com

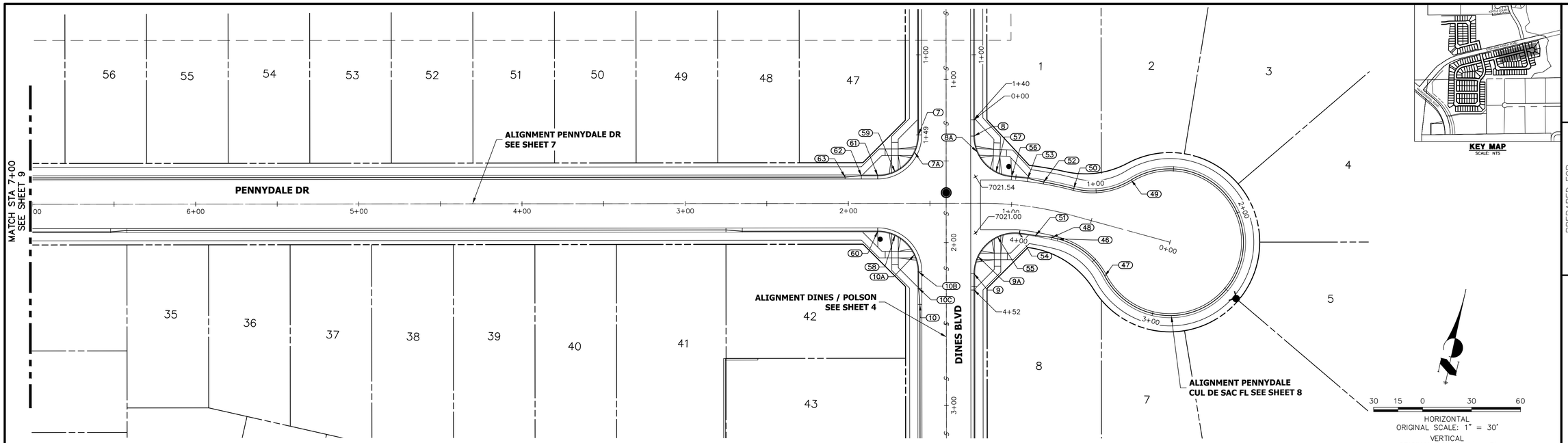
No.	REVISION	BY	DATE

H-SCALE	1"=30'
V-SCALE	1"=3'
DATE	6/17/21
DESIGNED BY	JRM
DRAWN BY	CJD
CHECKED BY	

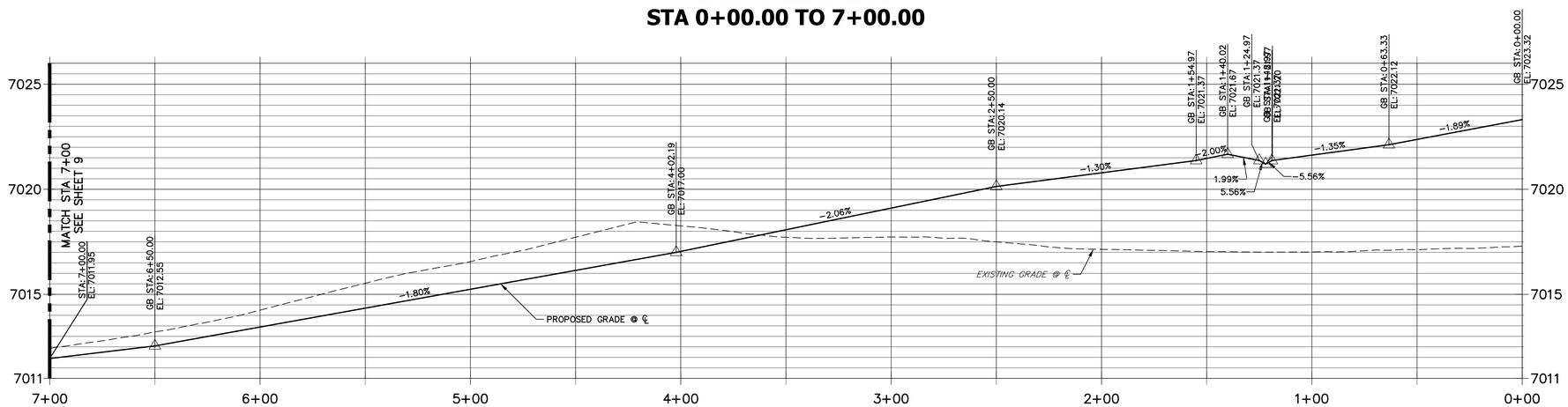
STERLING RANCH FILING 3
STREET IMPROVEMENT PLAN

SHEET 6 OF 13

JOB NO. 25188.00



PENNYDALE DRIVE
STA 0+00.00 TO 7+00.00



POINT TABULATION					
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	DESCRIPTION
46	0+67.17	16.17' (LT)	PENNYDALE-MOORE	7021.56	PCR
47	0+33.00	30.60' (LT)	PENNYDALE-MOORE	7022.02	PCR
48	0+71.15	16.17' (LT)	PENNYDALE-MOORE	7021.51	CURB TRANSITION
49	0+33.02	30.58' (RT)	PENNYDALE-MOORE	7022.57	PCR
50	0+65.40	16.17' (RT)	PENNYDALE-MOORE	7022.30	PCR
51	0+82.03	17.00' (LT)	PENNYDALE-MOORE	7021.36	CURB TRANSTION
52	0+82.83	16.09' (RT)	PENNYDALE-MOORE	7022.13	CURB TRANSITION
53	0+92.08	17.00' (RT)	PENNYDALE-MOORE	7022.03	CURB TRANSITION
54	0+92.91	17.00' (LT)	PENNYDALE-MOORE	7021.22	PCR
55	1+07.66	20.31' (LT)	PENNYDALE-MOORE	7021.00	HC RAMP MID PT
56	1+01.30	17.00' (RT)	PENNYDALE-MOORE	7021.93	PCR
57	1+10.15	19.17' (RT)	PENNYDALE-MOORE	7021.94	HC RAMP MID PT
58	1+71.42	19.36' (LT)	PENNYDALE-MOORE	7020.83	HC RAMP MID PT
59	1+71.42	19.36' (RT)	PENNYDALE-MOORE	7021.01	HC RAMP MID PT
60	1+82.02	17.00' (LT)	PENNYDALE-MOORE	7020.66	PCR
61	1+82.02	17.00' (RT)	PENNYDALE-MOORE	7020.73	PCR
62	1+92.02	17.00' (RT)	PENNYDALE-MOORE	7020.57	CURB TRANSITION
63	2+02.02	16.17' (RT)	PENNYDALE-MOORE	7020.36	CURB TRANSITION

FILE NO. SF-21-XXX

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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

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No.	REVISION	BY	DATE

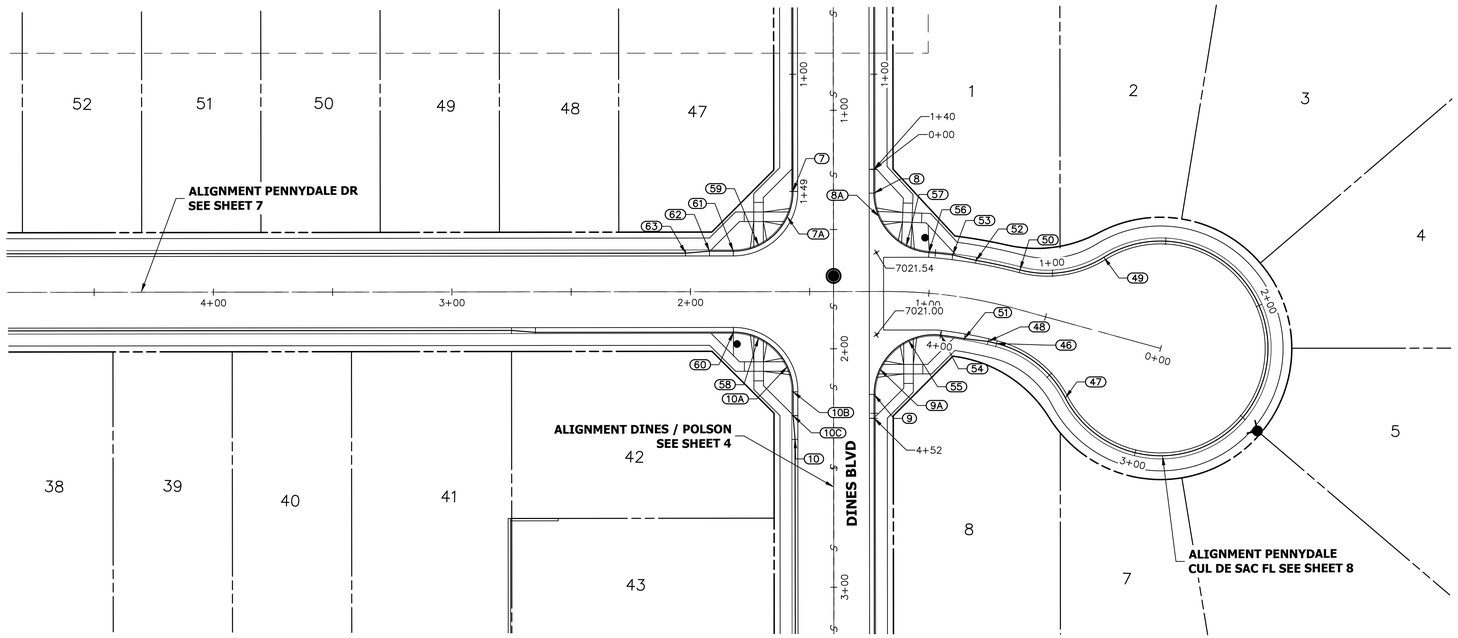
H-SCALE	1"=30'
V-SCALE	1"=3'
DATE	6/17/21
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

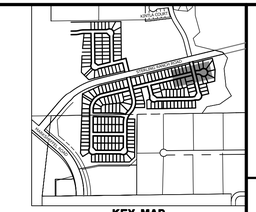
STERLING RANCH
FILING 3

STREET IMPROVEMENT PLAN

SHEET 7 OF 13

JOB NO. 25188.00



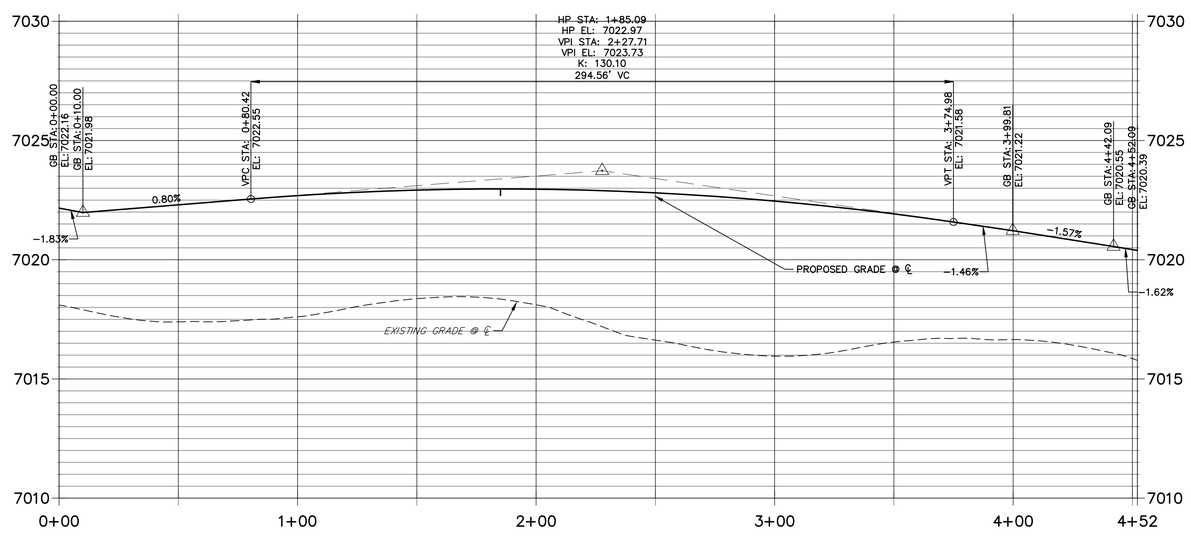


KEY MAP
SCALE: NTS

30 15 0 30 60

HORIZONTAL
ORIGINAL SCALE: 1" = 30'
VERTICAL
ORIGINAL SCALE: 1" = 3'

FL - PENNYDALE CUL DE SAC PROFILE
STA 0+00.00 TO 4+52.09



POINT TABULATION					
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	DESCRIPTION
46	0+67.17	16.17' (LT)	PENNYDALE-MOORE	7021.56	PCR
47	0+33.00	30.60' (LT)	PENNYDALE-MOORE	7022.02	PCR
48	0+71.15	16.17' (LT)	PENNYDALE-MOORE	7021.51	CURB TRANSITION
49	0+33.02	30.58' (RT)	PENNYDALE-MOORE	7022.57	PCR
50	0+65.40	16.17' (RT)	PENNYDALE-MOORE	7022.30	PCR
51	0+82.03	17.00' (LT)	PENNYDALE-MOORE	7021.36	CURB TRANSTION
52	0+82.83	16.09' (RT)	PENNYDALE-MOORE	7022.13	CURB TRANSITION
53	0+92.08	17.00' (RT)	PENNYDALE-MOORE	7022.03	CURB TRANSITION
54	0+92.91	17.00' (LT)	PENNYDALE-MOORE	7021.22	PCR
55	1+07.66	20.31' (LT)	PENNYDALE-MOORE	7021.00	HC RAMP MID PT
56	1+01.30	17.00' (RT)	PENNYDALE-MOORE	7021.93	PCR
57	1+10.15	19.17' (RT)	PENNYDALE-MOORE	7021.94	HC RAMP MID PT
58	1+71.42	19.36' (LT)	PENNYDALE-MOORE	7020.83	HC RAMP MID PT
59	1+71.42	19.36' (RT)	PENNYDALE-MOORE	7021.01	HC RAMP MID PT
60	1+82.02	17.00' (LT)	PENNYDALE-MOORE	7020.66	PCR
61	1+82.02	17.00' (RT)	PENNYDALE-MOORE	7020.73	PCR
62	1+92.02	17.00' (RT)	PENNYDALE-MOORE	7020.57	CURB TRANSITION
63	2+02.02	16.17' (RT)	PENNYDALE-MOORE	7020.36	CURB TRANSITION

Know what's **below.**
Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

FILE NO. SF-21-XXX

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PREPARED FOR
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20 BOULDER CRESCENT
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No.	REVISION	BY	DATE

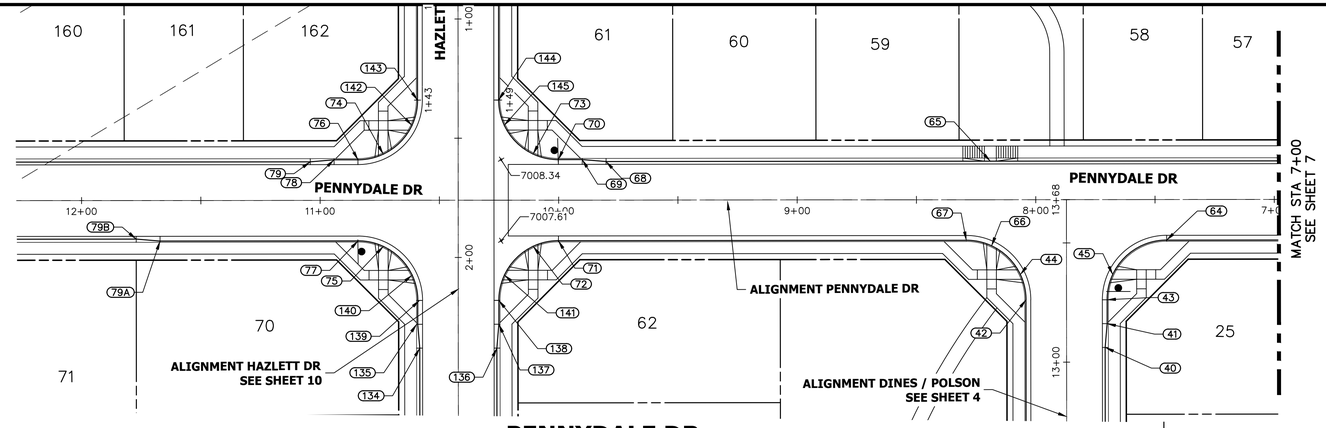
H-SCALE	1"=30'
V-SCALE	1"=3'
DATE	6/17/21
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

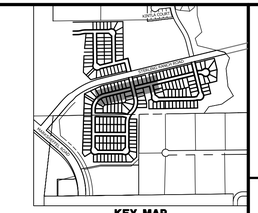
STERLING RANCH
FILING 3

STREET IMPROVEMENT PLAN

SHEET 8 OF 13

JOB NO. 25188.00



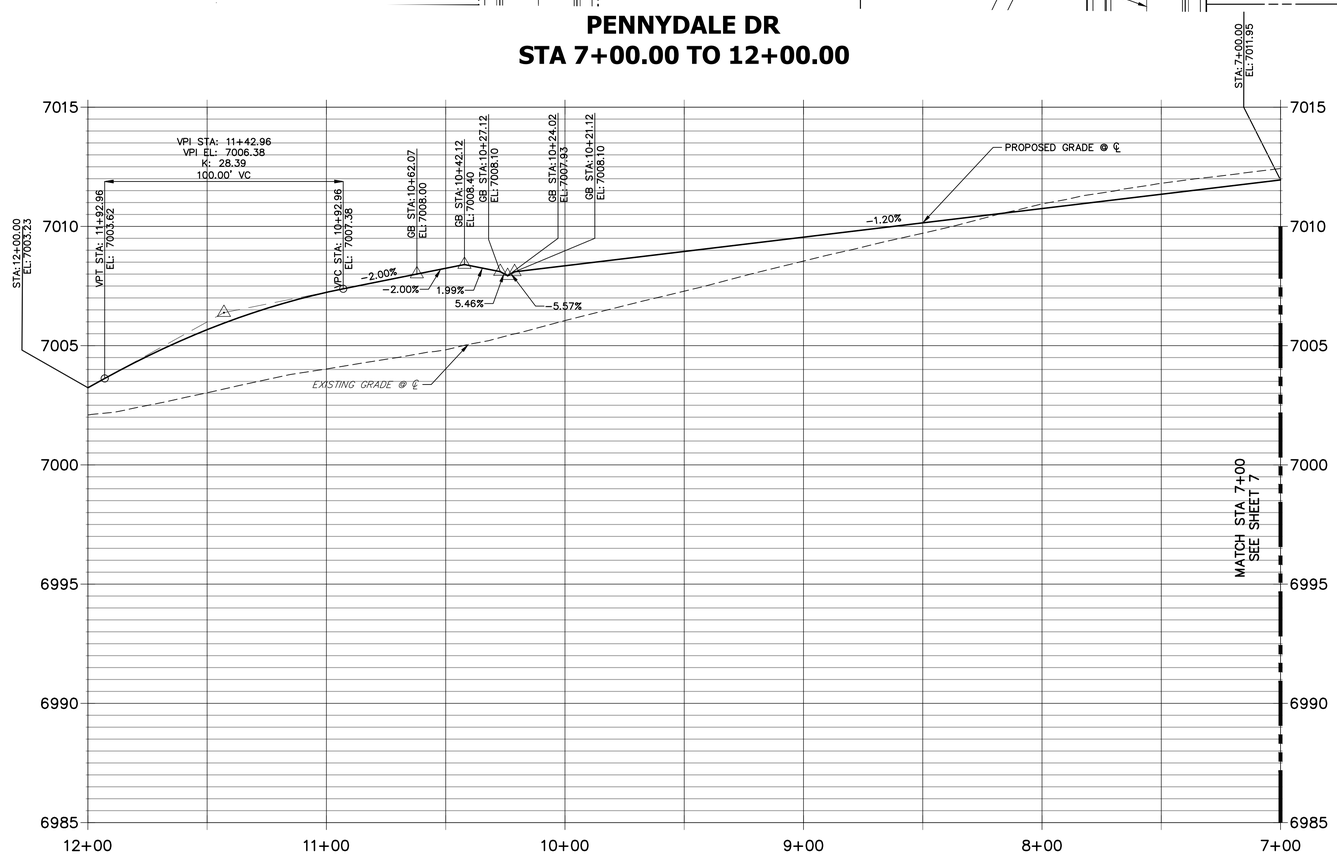


KEY MAP
SCALE: NTS

30 15 0 30 60

HORIZONTAL
ORIGINAL SCALE: 1" = 30'
VERTICAL
ORIGINAL SCALE: 1" = 3'

PENNYDALE DR
STA 7+00.00 TO 12+00.00



POINT TABULATION					
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	DESCRIPTION
64	7+45.12	17.00' (LT)	PENNYDALE-MOORE	7010.45	PCR
65	8+19.02	16.17' (RT)	PENNYDALE-MOORE	7010.12	HC RAMP MID PT
66	8+18.52	19.36' (LT)	PENNYDALE-MOORE	7009.79	HC RAMP MID PT
67	8+29.12	17.00' (LT)	PENNYDALE-MOORE	7009.94	PCR
68	9+80.12	16.17' (RT)	PENNYDALE-MOORE	7008.19	CURB TRANSITION
69	9+90.12	17.00' (RT)	PENNYDALE-MOORE	7008.30	CURB TRANSITION
70	10+00.12	17.00' (RT)	PENNYDALE-MOORE	7008.41	PCR
71	10+00.12	17.00' (LT)	PENNYDALE-MOORE	7007.78	PCR
72	10+10.71	19.36' (LT)	PENNYDALE-MOORE	7007.60	HC RAMP MID PT
73	10+10.71	19.36' (RT)	PENNYDALE-MOORE	7008.53	HC RAMP MID PT
74	10+73.52	19.36' (RT)	PENNYDALE-MOORE	7007.75	HC RAMP MID PT
75	10+73.52	19.36' (LT)	PENNYDALE-MOORE	7007.26	HC RAMP MID PT
76	10+84.12	17.00' (RT)	PENNYDALE-MOORE	7007.44	PCR

POINT TABULATION					
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	DESCRIPTION
77	10+84.12	17.00' (LT)	PENNYDALE-MOORE	7007.04	PCR
78	10+94.12	17.00' (RT)	PENNYDALE-MOORE	7007.04	CURB TRANSITION
79B	13+51.96	390.00' (LT)	DINES POLSON	7004.06	CURB TRANSITION
79A	13+51.13	380.00' (LT)	DINES POLSON	7004.47	CURB TRANSITION
79	11+04.12	16.17' (RT)	PENNYDALE-MOORE	7006.74	CURB TRANSITION

Know what's **below.**
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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

FILE NO. SF-21-XXX

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

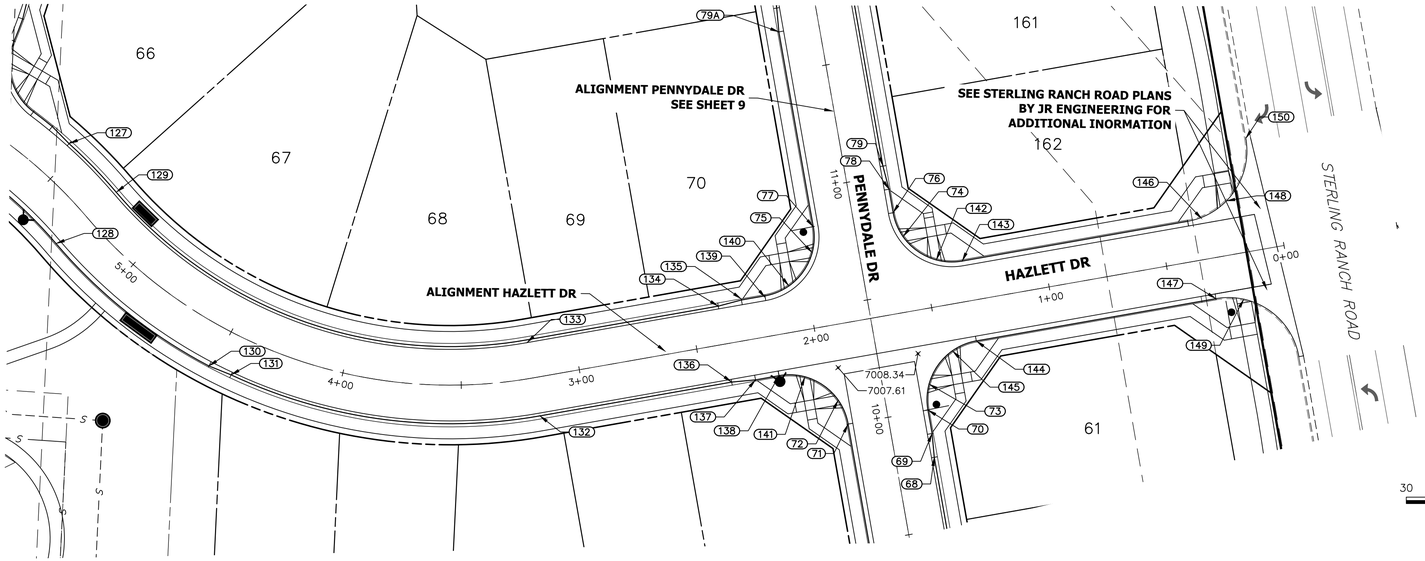
H-SCALE	1"=30'
V-SCALE	1"=3'
DATE	6/17/21
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

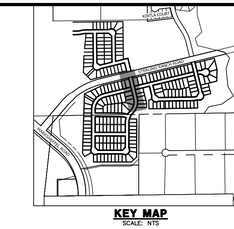
STERLING RANCH
FILING 3

STREET IMPROVEMENT PLAN

SHEET 9 OF 13

JOB NO. 25188.00





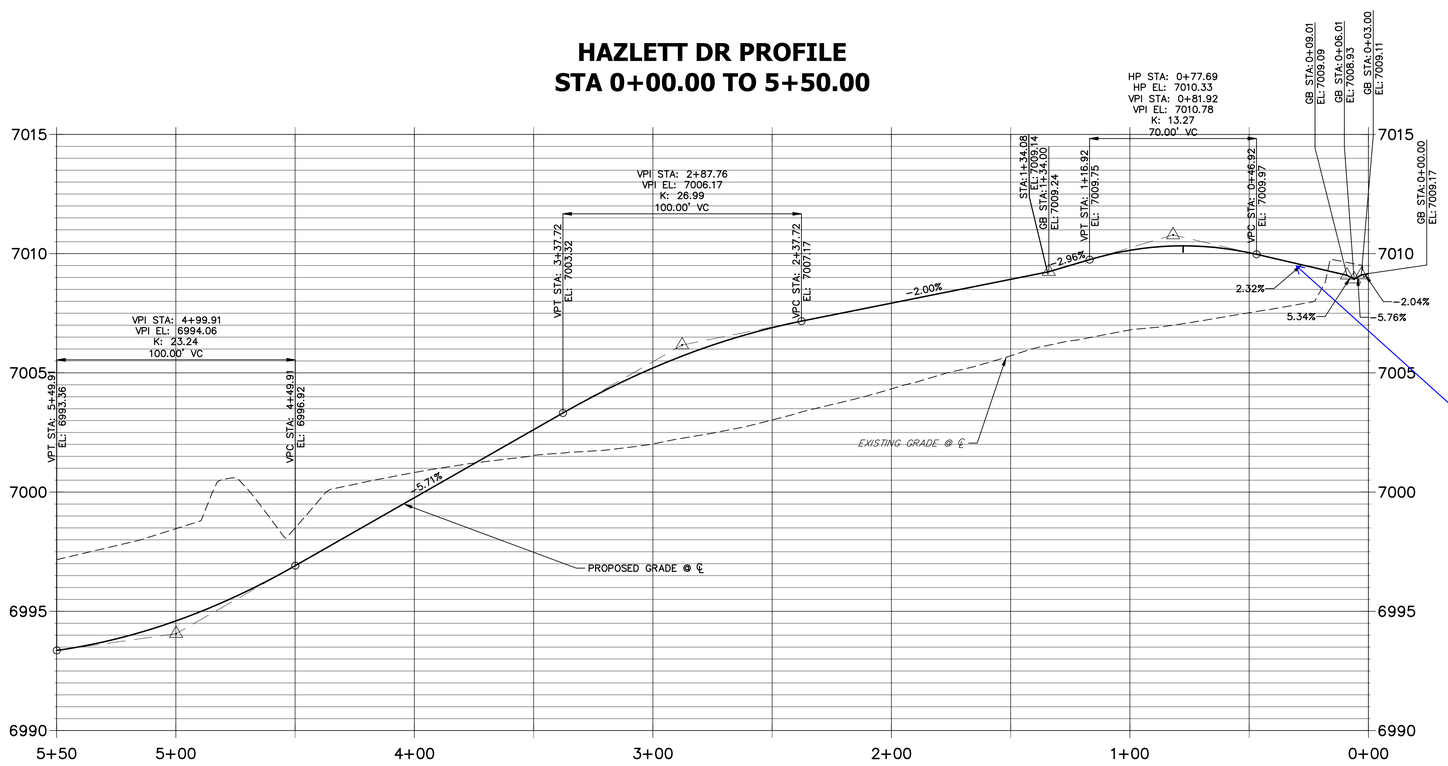
30 15 0 30 60

HORIZONTAL
ORIGINAL SCALE: 1" = 30'
VERTICAL
ORIGINAL SCALE: 1" = 3'

POINT TABULATION					
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	DESCRIPTION
127	5+54.08	16.25' (RT)	HAZLETT DR	6992.96	CURB TRANSITION
128	5+27.78	17.00' (LT)	HAZLETT DR	6993.31	PCR
129	5+27.78	16.17' (RT)	HAZLETT DR	6993.38	PCR
130	4+51.62	17.00' (LT)	HAZLETT DR	6996.36	CURB TRANSITION
131	4+42.40	16.17' (LT)	HAZLETT DR	6996.95	CURB TRANSITION
132	3+19.67	16.17' (LT)	HAZLETT DR	7003.89	PCR
133	3+19.67	15.00' (RT)	HAZLETT DR	7003.99	PCR
134	2+38.00	16.17' (RT)	HAZLETT DR	7006.77	CURB TRANSITION
135	2+28.00	17.50' (RT)	HAZLETT DR	7007.19	CURB TRANSITION
136	2+38.00	16.17' (LT)	HAZLETT DR	7006.77	CURB TRANSITION
137	2+28.00	17.00' (LT)	HAZLETT DR	7006.94	CURB TRANSITION
138	2+18.00	17.00' (LT)	HAZLETT DR	7007.11	PCR
139	2+18.00	16.25' (RT)	HAZLETT DR	7007.20	PCR
140	2+07.40	19.36' (RT)	HAZLETT DR	7007.37	HC RAMP MID PT
141	2+07.40	19.36' (LT)	HAZLETT DR	7007.30	HC RAMP MID PT
142	1+44.60	19.36' (RT)	HAZLETT DR	7008.22	HC RAMP MID PT

POINT TABULATION					
POINT NUMBER	STATION	OFFSET	ALIGNMENT	ELEVATION	DESCRIPTION
143	1+34.00	17.00' (RT)	HAZLETT DR	7008.51	PCR
144	1+34.00	17.00' (LT)	HAZLETT DR	7008.84	PCR
145	1+44.60	19.36' (LT)	HAZLETT DR	7008.72	HC RAMP MID PT
146	0+32.00	17.00' (RT)	HAZLETT DR	7008.73	PCR
147	0+32.00	17.00' (LT)	HAZLETT DR	7009.62	PCR
148	0+20.55	22.60' (RT)	HAZLETT DR	7008.32	HC RAMP MID PT
149	0+20.56	19.27' (LT)	HAZLETT DR	7009.58	HC RAMP HC RAMP
150	0+08.00	47.00' (RT)	HAZLETT DR	7007.40	PCR

HAZLETT DR PROFILE
STA 0+00.00 TO 5+50.00



provide slope to meet ADA requirements (<2%)

Know what's **below.**
Call before you dig.

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MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING

DATE

COLORADO REGISTERED MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

FILE NO. SF-21-XXX

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COLORADO SPRINGS, CO 80903
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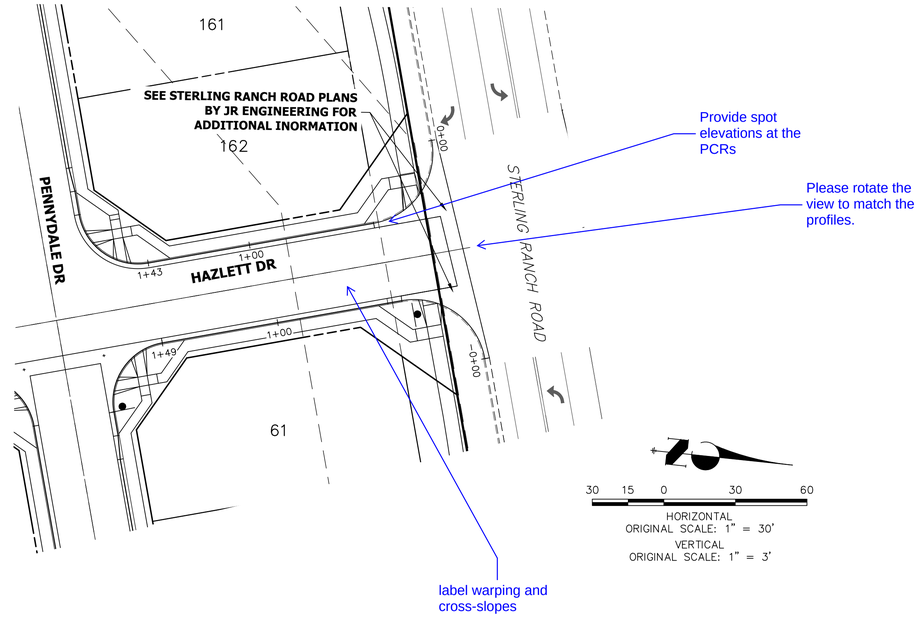
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

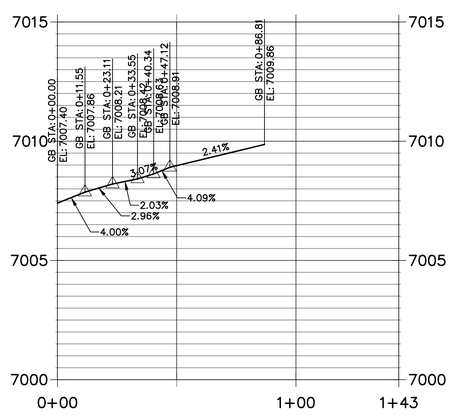
STERLING RANCH FILING 3
STREET IMPROVEMENT PLAN

SHEET 10 OF 13

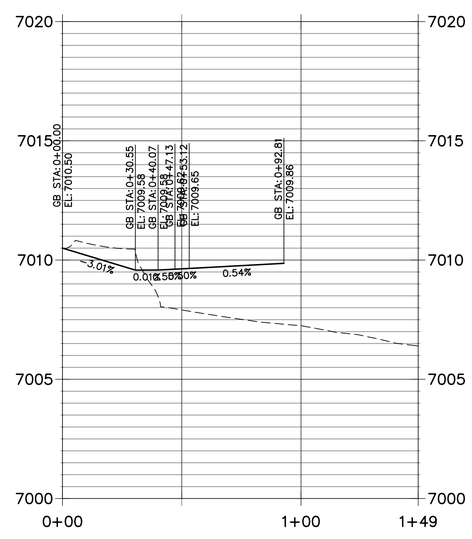
JOB NO. 25188.00



WEST FL HAZLETT DRIVE PROFILE PROFILE
STA 0+00.00 TO 1+43.12



EAST FL HAZLETT DRIVE PROFILE
STA 0+00.00 TO 1+49.12



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PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

FILE NO. SF-21-XXX

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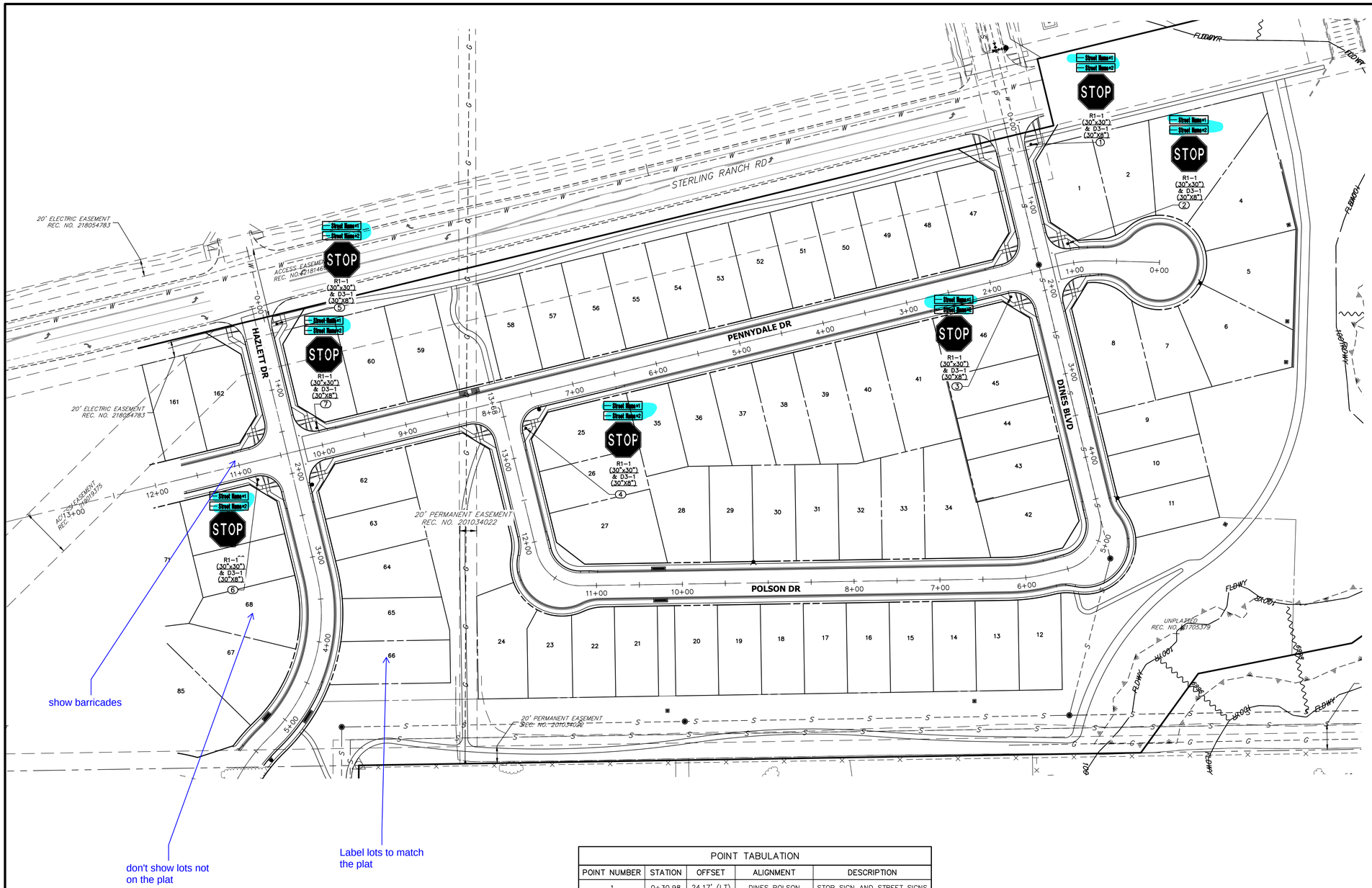
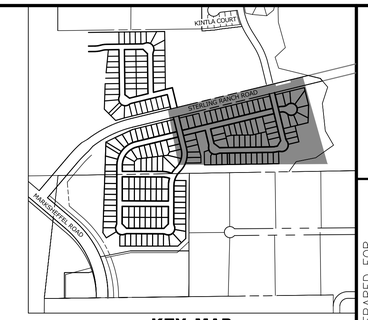
V-SCALE	1" = 3'
DATE	6/17/21
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

STERLING RANCH FILING 3
STREET IMPROVEMENT PLAN

SHEET 11 OF 13

JOB NO. 25188.00





KEY MAP
SCALE: NTS

60 30 0 60 120
ORIGINAL SCALE: 1" = 60'

POINT TABULATION

POINT NUMBER	STATION	OFFSET	ALIGNMENT	DESCRIPTION
1	0+30.98	24.17' (LT)	DINES POLSON	STOP SIGN AND STREET SIGNS
2	1+03.22	23.09' (RT)	PENNYDALE-MOORE	STOP SIGN AND STREET SIGNS
3	1+80.51	21.96' (LT)	PENNYDALE-MOORE	STOP SIGN AND STREET SIGNS
4	13+31.09	21.71' (RT)	DINES POLSON	STOP SIGN AND STREET SIGNS
5	0+26.55	23.75' (LT)	HAZLETT DR	STOP SIGN AND STREET SIGNS
6	10+82.64	21.47' (LT)	PENNYDALE-MOORE	STOP SIGN AND STREET SIGNS
7	10+01.78	20.89' (RT)	PENNYDALE-MOORE	STOP SIGN AND STREET SIGNS

FILE NO. SF-21-XXX

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No.	REVISION	BY	DATE

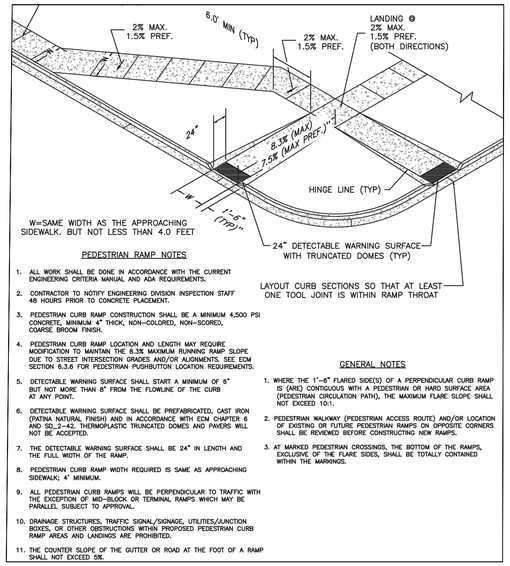
H-SCALE	1"=60'
V-SCALE	N/A
DATE	6/17/21
DESIGNED BY	ARJ
DRAWN BY	ARJ
CHECKED BY	

STERLING RANCH FILING 3

STREET SIGNAGE

SHEET 12 OF 13

JOB NO. 25188.00



PEDESTRIAN RAMP NOTES

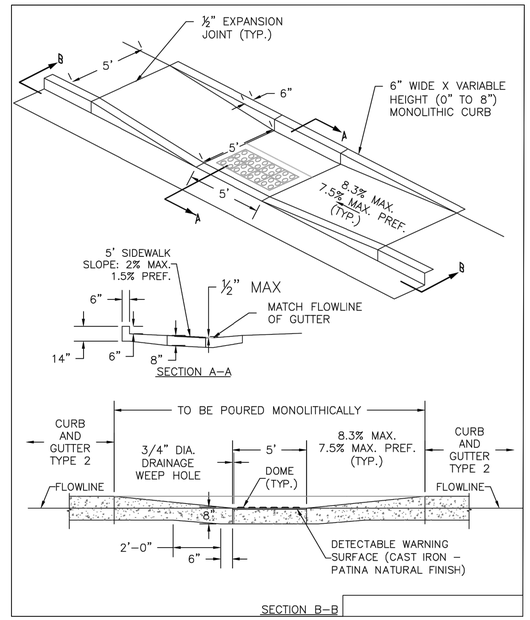
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ENGINEERING CRITERIA MANUAL AND ADA REQUIREMENTS.
2. CONTRACTOR TO NOTIFY ENGINEERING DIVISION INSPECTION STAFF 48 HOURS PRIOR TO CONCRETE PLACEMENT.
3. PEDESTRIAN CURB RAMP CONSTRUCTION SHALL BE A MINIMUM 4,500 PSI CONCRETE, MINIMUM 4" THICK, NON-COLORED, NON-SCORED, COARSE BROOM FINISH.
4. PEDESTRIAN CURB RAMP LOCATION AND LENGTH MAY REQUIRE MODIFICATION TO MAINTAIN THE 8.3% MAXIMUM RUNNING RAMP SLOPE DUE TO STREET INTERSECTION GRADES AND/OR ALIGNMENTS. SEE ECM SECTION 6.3.6 FOR PEDESTRIAN PUSHBUTTON LOCATION REQUIREMENTS.
5. DETECTABLE WARNING SURFACE SHALL START A MINIMUM OF 6" BUT NOT MORE THAN 8" FROM THE FLOWLINE OF THE CURB AT ANY POINT.
6. DETECTABLE WARNING SURFACE SHALL BE PREFABRICATED, CAST IRON (PATINA NATURAL FINISH) AND IN ACCORDANCE WITH ECM CHAPTER 6 AND SD_2-42. THERMOPLASTIC TRUNCATED DOMES AND PAVERS WILL NOT BE ACCEPTED.
7. THE DETECTABLE WARNING SURFACE SHALL BE 24" IN LENGTH AND THE FULL WIDTH OF THE RAMP.
8. PEDESTRIAN CURB RAMP WIDTH REQUIRED IS SAME AS APPROACHING SIDEWALK; 4' MINIMUM.
9. ALL PEDESTRIAN CURB RAMPS WILL BE PERPENDICULAR TO TRAFFIC WITH THE EXCEPTION OF MID-BLOCK OR TERMINAL RAMPS WHICH MAY BE PARALLEL. SUBJECT TO APPROVAL.
10. DRAINAGE STRUCTURES, TRAFFIC SIGNAL/SIGNAGE, UTILITIES/JUNCTION BOXES, OR OTHER OBSTRUCTIONS WITHIN PROPOSED PEDESTRIAN CURB RAMP AREAS AND LANDINGS ARE PROHIBITED.
11. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A RAMP SHALL NOT EXCEED 5%.

GENERAL NOTES

1. WHERE THE 1'-6" FLARED SIDE(S) OF A PERPENDICULAR CURB RAMP IS (ARE) CONTIGUOUS WITH A PEDESTRIAN OR HARD SURFACE AREA (PEDESTRIAN CIRCULATION PATH), THE MAXIMUM FLARE SLOPE SHALL NOT EXCEED 10:1.
2. PEDESTRIAN WALKWAY (PEDESTRIAN ACCESS ROUTE) AND/OR LOCATION OF EXISTING OR FUTURE PEDESTRIAN RAMPS ON OPPOSITE CORNERS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
3. AT MARKED PEDESTRIAN CROSSINGS, THE BOTTOM OF THE RAMPS, EXCLUSIVE OF THE FLARE SIDES, SHALL BE TOTALLY CONTAINED WITHIN THE MARKINGS.

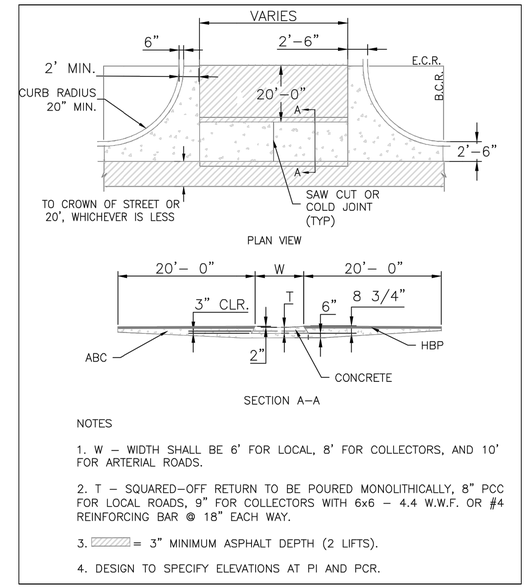
PEDESTRIAN INTERSECTION RAMP (SD 2-41)

SCALE: NTS



PARALLEL PEDESTRIAN RAMP DETAIL (SD 2-50)

SCALE: NTS

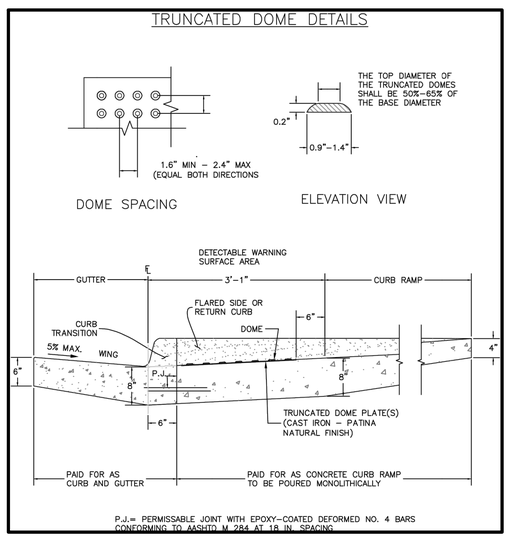


NOTES

1. W - WIDTH SHALL BE 6' FOR LOCAL, 8' FOR COLLECTORS, AND 10' FOR ARTERIAL ROADS.
2. T - SQUARED-OFF RETURN TO BE POURED MONOLITHICALLY, 8" PCC FOR LOCAL ROADS, 9" FOR COLLECTORS WITH 6x6 - 4.4 W.W.F. OR #4 REINFORCING BAR @ 18" EACH WAY.
3. ▨ = 3" MINIMUM ASPHALT DEPTH (2 LIFTS).
4. DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR.

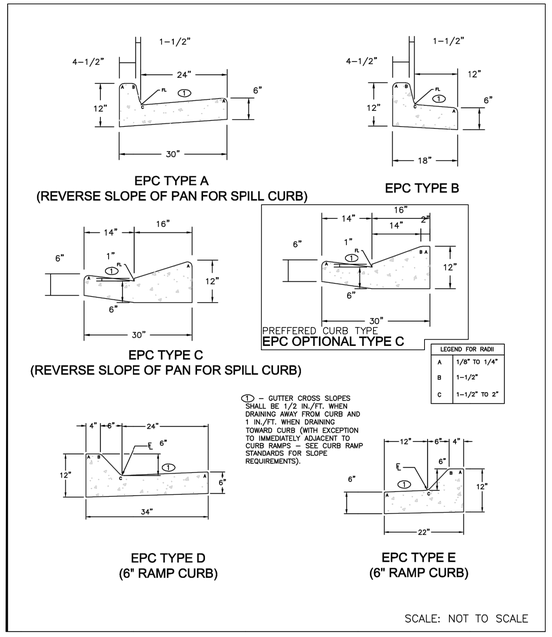
TYPICAL CROSS PAN LAYOUT DETAIL (SD 2-26)

SCALE: NTS



DETECTABLE WARNING SURFACE DETAILS (SD 2-42)

SCALE: NTS



TYPICAL CURB AND GUTTER DETAILS (SD 2-20)

SCALE: NTS

Provide trail and maintenance access road cross-sections

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No.	REVISION	BY	DATE

H-SCALE	N/A
V-SCALE	N/A
DATE	6/17/21
DESIGNED BY	AJH
DRAWN BY	CGV
CHECKED BY	

STERLING RANCH FILING 3

DETAILS

SHEET 13 OF 9

JOB NO. 25188.00

STERLING RANCH FILING 3

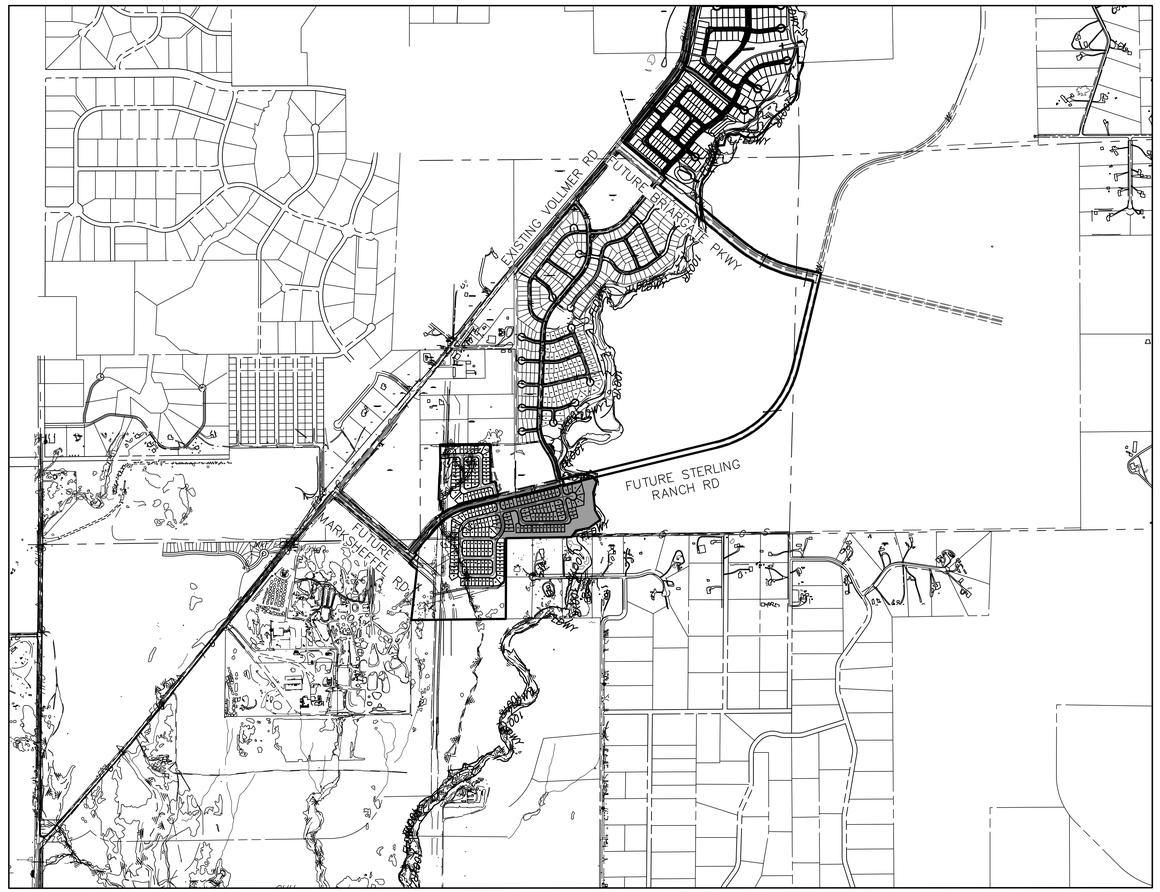
COUNTY OF EL PASO, STATE OF COLORADO

JUNE 2021

STORM SEWER PLANS

AGENCIES

OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT, SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471–1742
CIVIL ENGINEER:	JR ENGINEERING, LLC 5475 TECH CENTER DRIVE COLORADO SPRINGS, CO 80919 MIKE BRAMLETT P.E. (303) 267–6240
COUNTY ENGINEERING:	EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT 2880 INTERNATIONAL CIRCLE, SUITE 110 COLORADO SPRINGS, CO 80910 JEFF RICE, P.E. (719) 520–6300
TRAFFIC ENGINEERING:	EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS 3275 AKERS DRIVE COLORADO SPRINGS, CO 80922 JENNIFER IRVINE, P.E. (719) 520–6460
WATER RESOURCES:	STERLING RANCH METRO DISTRICT ENGINEERS JDS–HYDRO CONSULTANTS 545 E. PIKES PEAK AVE., SUITE 300 COLORADO SPRINGS, CO 80903 JOHN MCGINN (719) 668–8769
FIRE DISTRICT:	BLACK FOREST FIRE PROTECTION DISTRICT 11445 TEACHOUT ROAD COLORADO SPRINGS, CO 80908 CHIEF BRYAN JACK (719) 495–4300
GAS DEPARTMENT:	COLORADO SPRINGS UTILITIES 7710 DURANT DR. COLORADO SPRINGS, CO 80947 TIM WENDT (719) 668–3556
ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC 11140 E. WOODMEN ROAD FALCON, CO 80831 (719) 495–2283
COMMUNICATIONS:	QWEST COMMUNICATIONS (U.N.C.C. LOCATORS) (800) 922–1987 AT&T (LOCATORS) (719) 635–3674
STORMWATER	STORMWATER ENTERPRISE 30 S. NEVADA AVENUE, SUITE 401 COLORADO SPRINGS, CO 80903
COMMUNICATIONS:	QWEST COMMUNICATIONS (U.N.C.C LOCATORS) (800) 922–1987 AT&T (LOCATORS) (719) 635–3674
STORMWATER:	STORMWATER ENTERPRISE 30 S. NEVADA AVENUE, SUITE 401 COLORADO SPRINGS, CO 80903 (719) 385–5980
TRAFFIC:	TRAFFIC AND TRANSPORTATION ENGINEERING 30 S. NEVADA AVE. COLORADO SPRINGS, CO 80903 (719)–385–5908
GAS:	STEPHEN BACON SR. ROW AGENT II COLORADO INTERSTATE GAS CO. (KINDER MORGAN) 2 N. NEVADA AVE. COLORADO SPRINGS, CO 80903 719–659–5936
GAS:	CRAIG KEIRSEY REAL ESTATE | MAGELLAN MIDSTREAM PARTNERS, L.P. ONE WILLIAMS CENTER, OTC–8, TULSA, OK 74172 918–574–7986



VICINITY MAP
SCALE : 1"=1,000'

SHEET INDEX

1	COVER SHEET
2	NOTES
3–4	STORM SEWER PLANS
6–7	DETAIL SHEET

BENCHMARKS

1. THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHEAST BOUNDARY CORNER OF BARBARICK SUBDIVISION
   NORTHING = 411416.273
   EASTING = 235167.071
   ELEVATION= 7023.42
2. THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PAWNEE RANCHEROS SUBDIVISION
   NORTHING = 410095.404
   EASTING = 235052.131
   ELEVATION= 7000.40
3. THE TOP OF A RED PLASTIC SURVEYORS CAP, STAMPED "38141", AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDISION
   NORTHING = 411399.962
   EASTING = 233849.817
   ELEVATION= 7030.82

OWNER/DEVELOPER STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

JAMES F. MORLEY DATE

SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903

EL PASO COUNTY STATEMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. DATE

COUNTY ENGINEER/ECM ADMINISTRATOR

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLAN AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

COLORADO REGISTERED MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DISTRICT APPROVALS

THESE DOCUMENTS HAVE BEEN REVIEWED AND APPROVED FOR STORM DRAIN AND ASSOCIATED UTILITY SERVICE CONSTRUCTION.

FOR AND ON BEHALF OF THE STERLING RANCH METRO DISTRICT DATE

FILE NO. SF–21–XXX

811 Know what's below. Call before you dig.

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471–1742

J·R ENGINEERING
A Westrian Company
Centennial 303–740–9393 • Colorado Springs 719–593–2593
Fort Collins 970–491–9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H–SCALE	1"=1000'
V–SCALE	N/A
DATE	06/18/21
DESIGNED BY	XXX
DRAWN BY	XXX
CHECKED BY	

STERLING RANCH FILING 3

COVER SHEET

SHEET 1 OF 7

JOB NO. 25188.00

STANDARD CONSTRUCTION NOTES:

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIME INCLUDING THE FOLLOWING:
   - 3.1 EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   - 3.2 CITY OF COLORADO SPRINGS/EL PASO COUNTY ENGINEERING CRITERA MANUAL VOLUMES 1 AND 2.
   - 3.3 COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARDS SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
   - 3.4 CDOT M&S STANDARDS.
4. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ACCURACY SHOW EXISTING CONDITION BOTH ONSITE AND OFFSITE ON THE CONSTRUCTION PLANS. ANY MODIFICATION NECESSARY DUE TO CONFLICT OMISSIONS OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPERS RESPONSIBILITY TO RECTIFY.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORM WATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, US ARMY CORPS OF ENGINEER ISSUED 401 AND/OR 404 PERMITS AND COUNTY AND STATE FUGITIVE DUST PERMITS.
6. ANY TEMPORARY SIGNAGE AND STRIPING SHALL COMPLY WITH EL PASO COUNTY PCD AND MUTCD CRITERIA.
7. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
8. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFFSITE DISTURBANCE GRADING, OR CONSTRUCTION.

STORM SEWER GENERAL NOTES

1. ALL STATIONING IS ALONG STORM SEWER CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE INVERT UNLESS OTHERWISE INDICATED.
2. ALL STORM SEWER BENDS AND WYES SHOWN ON THE PLAN SHALL BE PREFABRICATED.
3. HORIZONTAL AND VERTICAL BENDS ARE INDICATED ON THE PLANS.
4. JOINTS SHALL BE IN ACCORDANCE WITH ASTM C443 "STANDARD SPECIFICATIONS FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE USING RUBBER GASKET." IN NO CASE SHALL THE MAXIMUM JOINT OPENING FOR STRAIGHT ALIGNMENT EXCEED 1 INCH OR ONE AND ONE-HALF INCH ON CURVED ALIGNMENT.
5. INLET DIMENSIONS SHOWN ON PLANS REFER TO DISTANCES FROM INSIDE FACES OF BOX BETWEEN THE WIDTHS AND LENGTHS.
6. MANHOLE WIDTHS AND LENGTHS SHOWN ON PLAN REFER TO THE EXTERIOR WALL DIMENSIONS.
7. ALL STORM SEWER SHALL BE A MINIMUM OF CLASS III REINFORCED CONCRETE PIPE. SPECIFIC SEGMENTS OF STORM SEWER SHALL BE REQUIRED TO BE CONSTRUCTED OF A MINIMUM OF 5000 PSI CONCRETE DUE TO EXCESSIVE VELOCITIES. REFER TO ADDITIONAL NOTES WITHIN CONSTRUCTION PLANS.
8. SINCE ALL PIPE ENTRIES INTO THE BASE ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK.
9. THE MH RING (FRAME) SHALL BE SET IN A BED OF GROUT. THE FRAME SHALL BE SURROUNDED WITH A GROUT IN UNPAVED AREA, OR A CONCRETE COLLAR IN PAVED AREA.
10. PRECAST MANHOLES AND REINFORCEMENT SHALL CONFORM TO ASTM C 478 (AASHTO M 199).
11. CAST IN PLACE MANHOLES SHALL BE CLASS B CONCRETE.
12. STEPS SHALL BE REQUIRED WHEN THE MANHOLE DEPTH EXCEEDS 3'-6" AND SHALL BE IN ACCORDANCE WITH AASHTO M 199.
13. ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI. VERTICAL STEEL SHALL BE PLACED AT ℄ OF WALL. ALL BARS SHALL HAVE A 2" MINIMUM CLEARANCE.
14. FLOW CHANNELS AND INVERTS SHALL BE FORMED BY SHAPING WITH CLASS B CONCRETE OR APPROVED GROUT.
15. STUB-OUTS SHALL EXTEND 4 FT MINIMUM BEYOND OUTSIDE WALL SURFACE OF MANHOLE AND BE SATISFACTORILY PLUGGED.
16. CHECK WITH THE LOCAL GOVERNMENT AUTHORITY FOR ANY ADDITIONAL STORM SEWER SPECIFICATIONS, DETAILS, OR REGULATIONS.
17. THE SLOPE OF THE MANHOLE COVER SHALL MATCH THE ROADWAY PROFILE AND CROSS SLOPE.
18. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL PREFABRICATED STRUCTURES TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.

SOIL RIPRAP NOTES:

1. THE SOIL MATERIAL SHALL BE NATIVE OR TOPSOIL AND MIXED WITH SIXTY FIVE PERCENT (65%) RIPRAP AND THIRTY FIVE PERCENT (35%) SOIL BY VOLUME.
2. SOIL RIPRAP SHALL CONSIST OF A UNIFORM MIXTURE OF SOIL AND RIPRAP WITHOUT VOIDS.
3. CONTRACTOR SHALL COOPERATE WITH ENGINEER IN OBTAINING AND PROVIDED SAMPLES OF ALL SPECIFIED MATERIALS.
4. CONTRACTOR SHALL SUBMIT CERTIFIED LABORATORY TEST CERTIFICATES FOR ALL ITEMS REQUIRED FOR SOIL RIPRAP.
5. RIPRAP USED SHALL BE THE TYPE DESIGNATED ON THE DRAWINGS AND SHALL CONFORM TO TABLE SHOWN TO THE RIGHT.
6. THE RIPRAP DESIGNATION AND TOTAL THICKNESS OF RIPRAP SHALL BE AS SHOWN ON THE DRAWINGS. THE MAXIMUM STONE SIZE SHALL NOT LARGER THAN THE THICKNESS OF THE RIPRAP.
7. NEITHER WIDTH NOR THICKNESS OF A SINGLE STONE OF RIPRAP SHALL BE LESS THAN ONE-THIRD (⅓) OF ITS LENGTH.
8. THE SPECIFIC GRAVITY OF THE RIPRAP SHALL BE TWO AND ONE-HALF (2.5) OR GREATER.
9. MINIMUM DENSITY FOR ACCEPTABLE RIPRAP SHALL BE ONE HUNDRED AND SIXTY FIVE (165) POUNDS PER CUBIC FOOT.
10. RIPRAP SPECIFIC GRAVITY SHALL BE ACCORDING TO THE BULK-SATURATED, SURFACE-DRY BASIS, IN ACCORDANCE WITH AASHTO T85.
11. BROKEN CONCRETE OR ASPHALT PAVEMENT SHALL NOT BE ACCEPTABLE FOR USE IN THE WORK.
12. ROUNDED RIPRAP (RIVER ROCK) IS NOT ACCEPTABLE, UNLESS SPECIFICALLY DESIGNATED ON THE DRAWINGS.

STRUCTURAL CONCRETE NOTES:

1. ALL CONSTRUCTION INVOLVING THE PLACEMENT OF STRUCTURAL CONCRETE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, AND AS SUPPLEMENTED BY THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION.
2. STEEL REINFORCING SHALL BE GRADE 60 FOR ALL REINFORCING STEEL GREATER THAN #4. SPLICING, LAP SPLICING SHALL BE MINIMUM IN THE FOLLOWING TABLE UNLESS OTHERWISE SPECIFIED:

BAR SIZE	#4	#5	#6	#7	#8
SPLICE LENGTH	1'-9"	2'-2"	2'-7"	3'-4"	4'-3"

   ALL REINFORCING SHALL HAVE A 2-INCH MINIMUM COVER UNLESS OTHERWISE SPECIFIED. ALL REINFORCED STEEL TO BE EPOXY COATED.
3. CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (fc) OF 4,000 PSI AT 28 DAYS. ALL CONCRETE PLACED AGAINST SOIL SHALL BE TYPE II PORTLAND CEMENT. ALL EXPOSED CORNERS SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS OTHERWISE SPECIFIED.
4. EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M-213.
5. BACKFILL AGAINST STRUCTURES SHALL NOT COMMENCE UNTIL ALL SUPPORTING DIAPHRAGMS ARE IN PLACE AND CONCRETE HAS OBTAINED ITS FULL SEVEN DAY STRENGTH. BACKFILL SHALL BE PLACED EQUALLY ON EACH SIDE OF RETAINING WALL STRUCTURES AND CUTOFF WALLS UNTIL THE FINAL GRADE IS REACHED.
6. FOOTING EXCAVATIONS SHALL BE EXAMINED BY THE GEOTECHNICAL ENGINEER WITH A 24-HOUR MINIMUM NOTIFICATION FOR SOIL AND/OR CONCRETE TESTING. PLACEMENT OF CONCRETE IN THE ABSENCE OF TESTING SHALL BE COMPLETED AT THE SOLE RISK OF THE CONTRACTOR.
7. PRIOR TO THE PLACEMENT OF CONCRETE IN AREAS WHERE SOIL IS PRESENT, THE SOIL SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6-INCHES. THE MOISTURE CONTENT SHALL BE ADJUSTED TO WITHIN PLUS OR MINUS 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT AND RECOMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION (AASHTO-T-180).

ABBREVIATIONS
EC -- EPOXY COATED O.F. -- OUTSIDE FACE E.F. -- EACH FACE E.W. -- EACH WAY I.F. -- INSIDE FACE N.F. -- NEAR FACE
T.O.C. -- TOP OF CONCRETE B.O.C. -- BOTTOM OF CONCRETE CONT. -- CONTINUOUS

ENGINEER'S STATEMENT
STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT
C:\Users\Joyce4\Desktop\Mike Bramlett blue.JPG
COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314
4/20/2021
MIKE A. BRAMLETT, P.E. — DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

FILE NO. SF-21-XXX

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

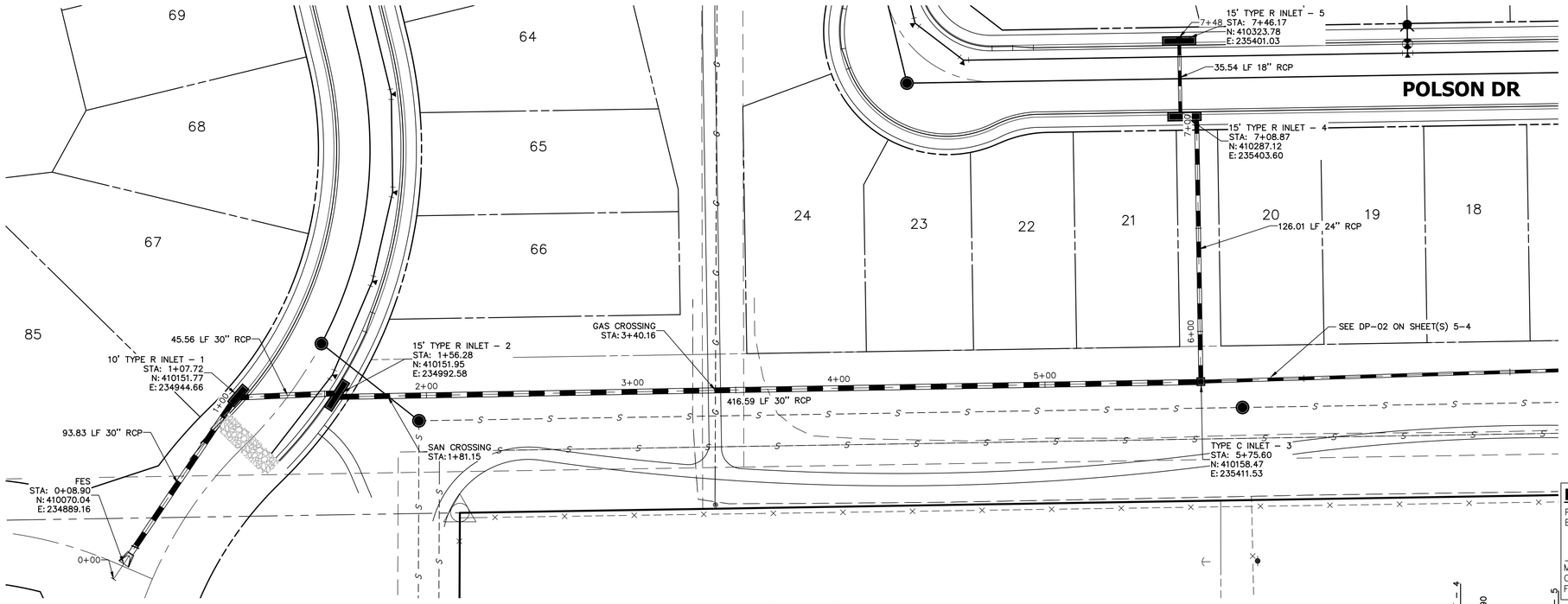
H-SCALE	1"=XX'
V-SCALE	1"=X'
DATE	06/18/21
DESIGNED BY	XXX
DRAWN BY	XXX
CHECKED BY	

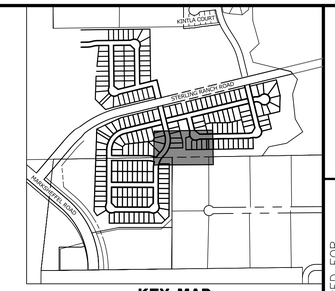
STERLING RANCH FILING 3

GENERAL NOTES

SHEET 2 OF 7

JOB NO. 25188.00





Know what's below. Call before you dig.

ENGINEER'S STATEMENT

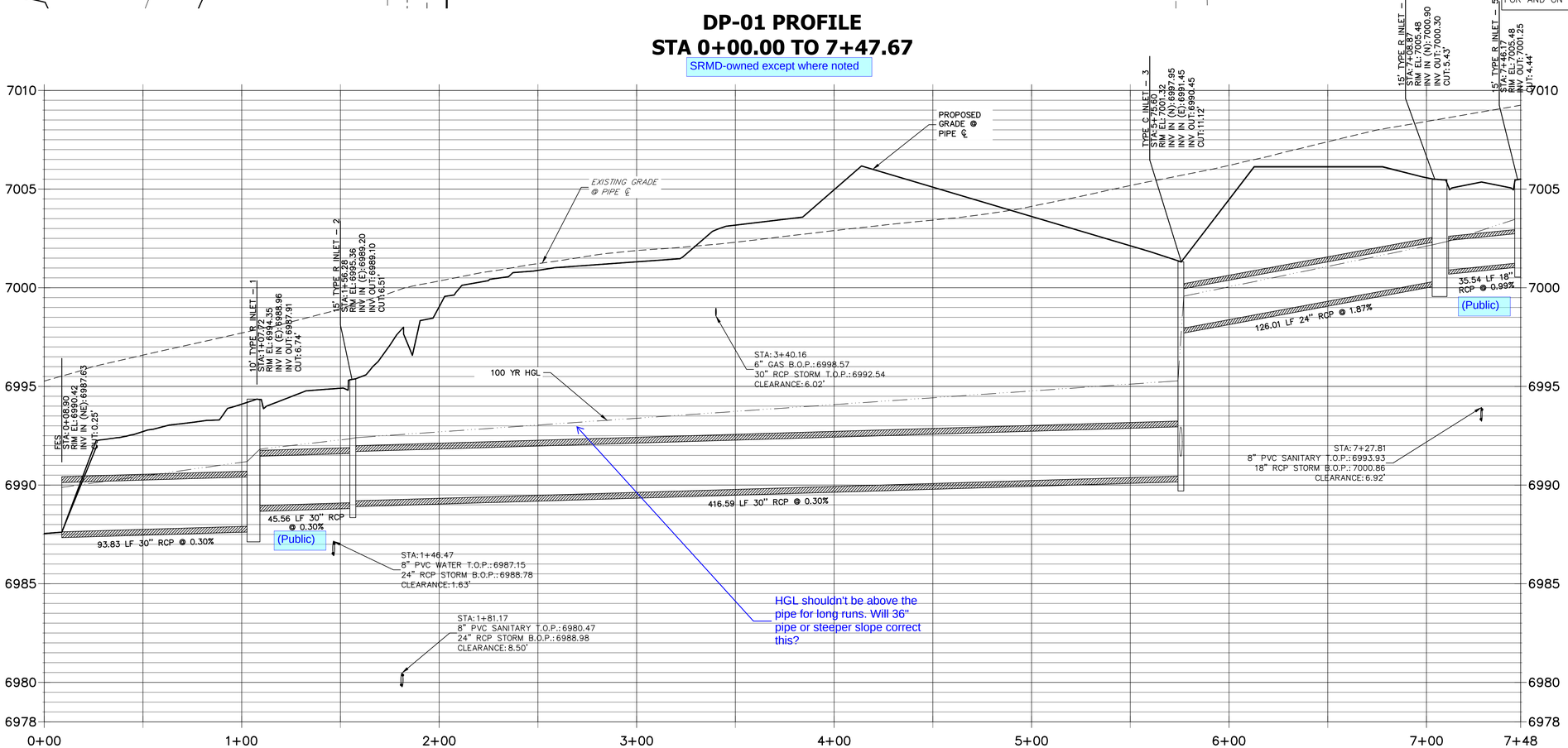
PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

DP-01 PROFILE
STA 0+00.00 TO 7+47.67

SRMD-owned except where noted



30 15 0 30 60

HORIZONTAL
ORIGINAL SCALE: 1" = 30'
VERTICAL
ORIGINAL SCALE: 1" = 3'

FILE NO. SF-21-XXX

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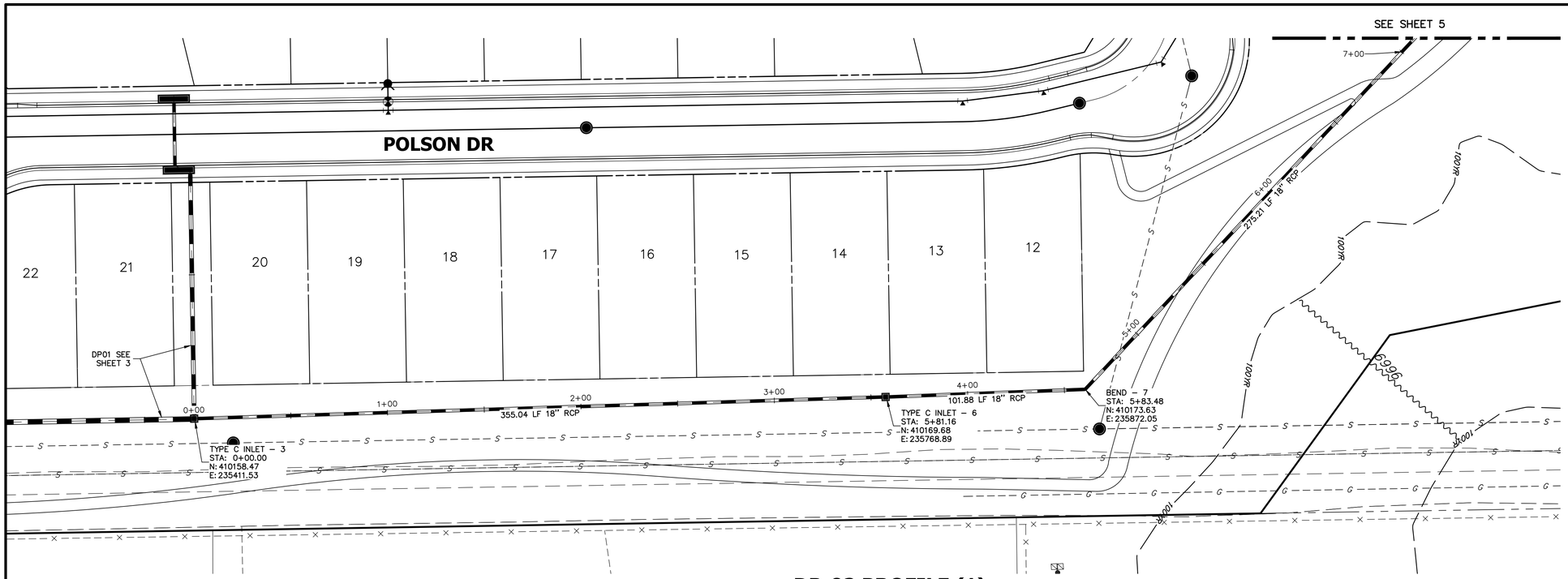
V-SCALE	1" = 3'
DATE	06/18/21
DESIGNED BY	ARJ
DRAWN BY	ARJ
CHECKED BY	

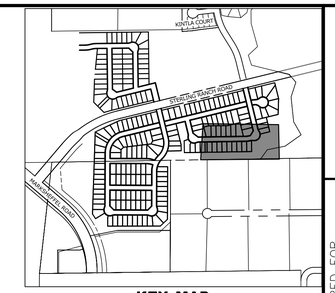
STERLING RANCH FILING 3

STORM SEWER PLAN

SHEET 3 OF 7

JOB NO. 25188.00

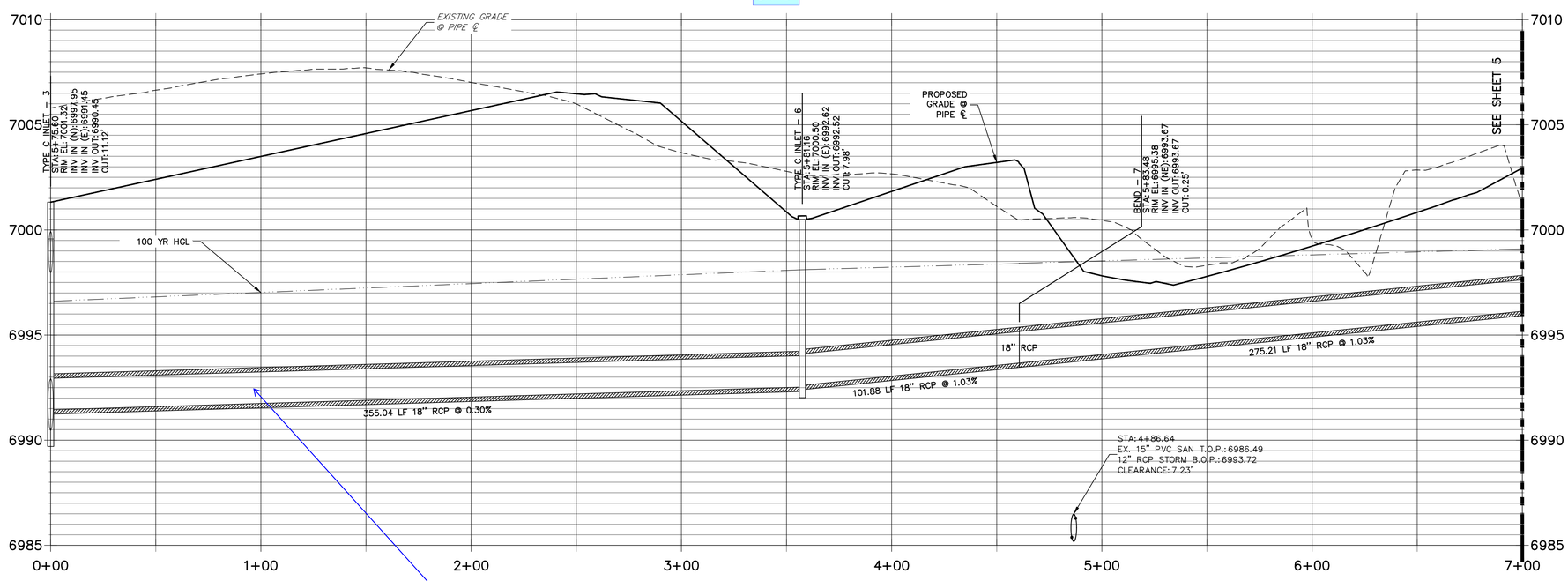




KEY MAP
SCALE: NTS

DP-02 PROFILE (1)
STA 0+00.00 TO 7+00.00

SRMD



Add watertight joints specification note

30 15 0 30 60
HORIZONTAL
ORIGINAL SCALE: 1" = 30'
VERTICAL
ORIGINAL SCALE: 1" = 3'

Know what's **below.**
Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

DATE

COLORADO REGISTERED MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

FILE NO. SF–21–XXX

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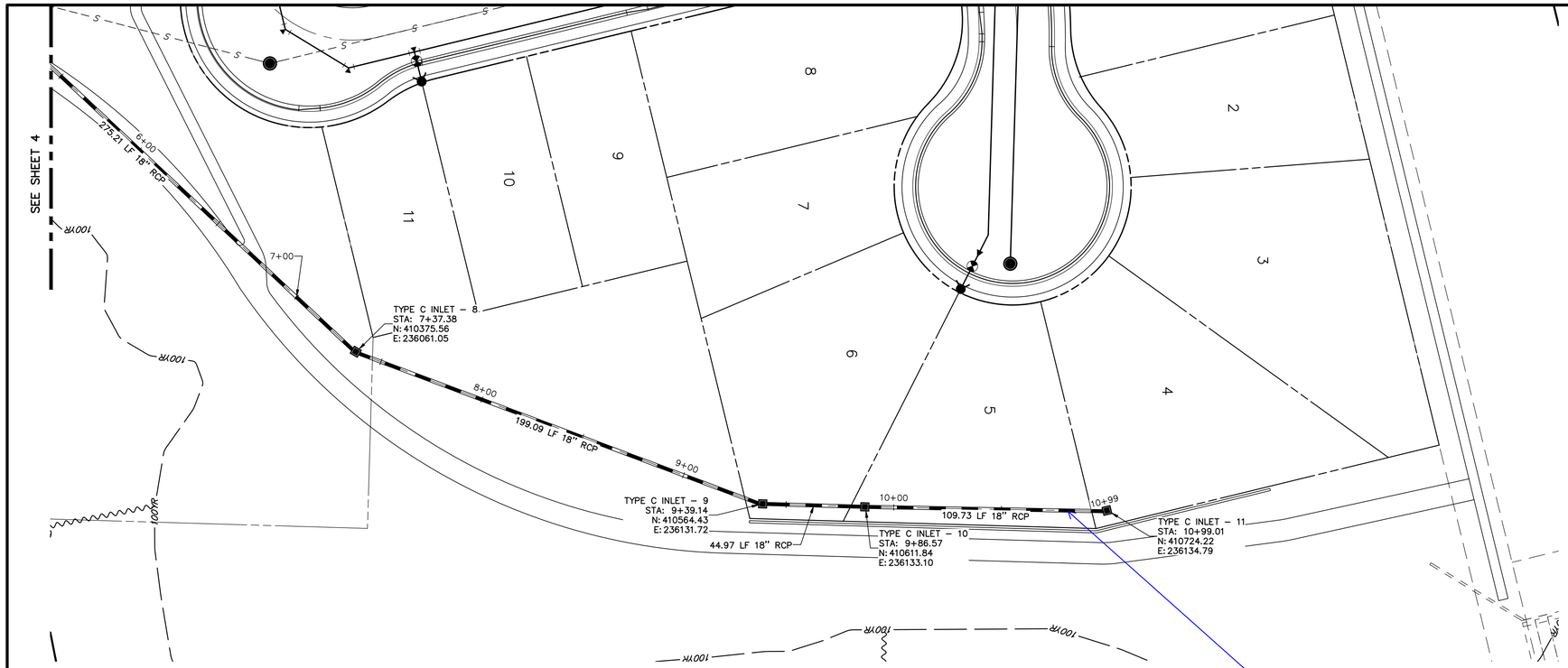
DRAWN BY	ARJ
CHECKED BY	

STERLING RANCH FILING 3

STORM SEWER PLAN

SHEET 4 OF 7

JOB NO. 25188.00



KEY MAP
SCALE: NTS

Know what's **below.**
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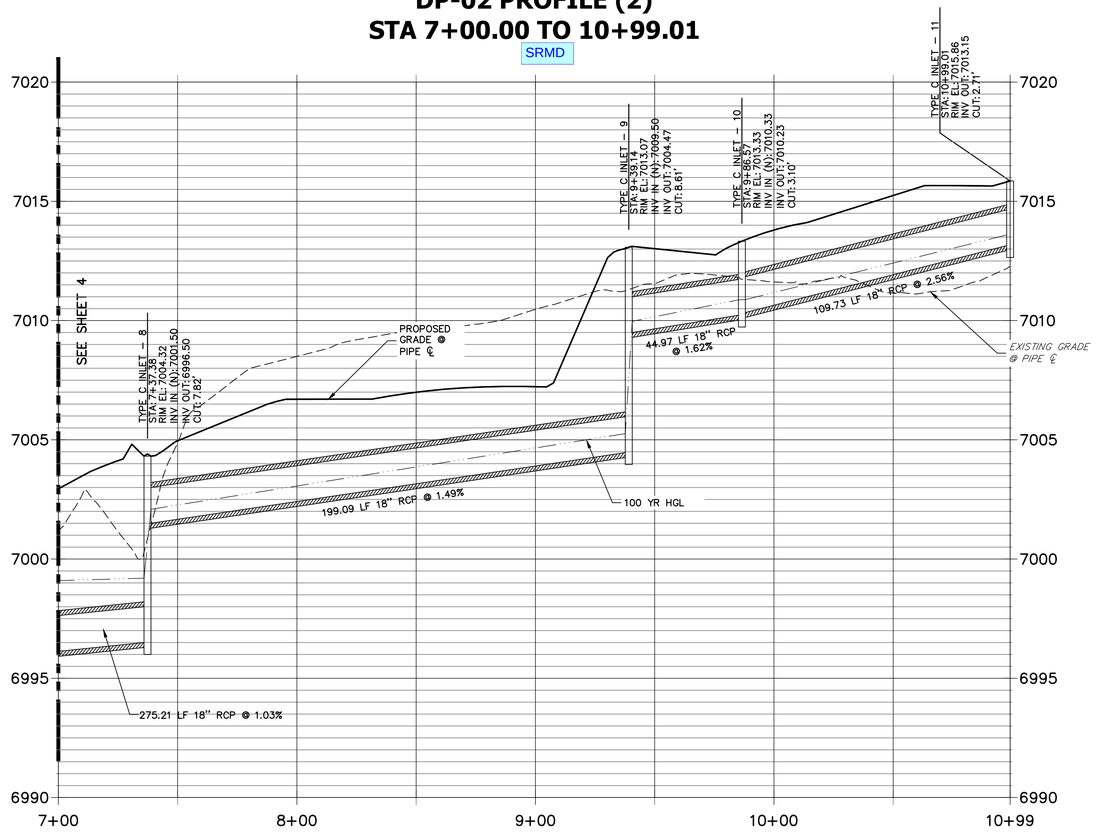
DP-02 PROFILE (2)
STA 7+00.00 TO 10+99.01

SRMD

Show and label the necessary drainage easement.



30 15 0 30 60
HORIZONTAL
ORIGINAL SCALE: 1" = 30'
VERTICAL
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FILE NO. SF-21-XXX

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

COLORADO REGISTERED MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
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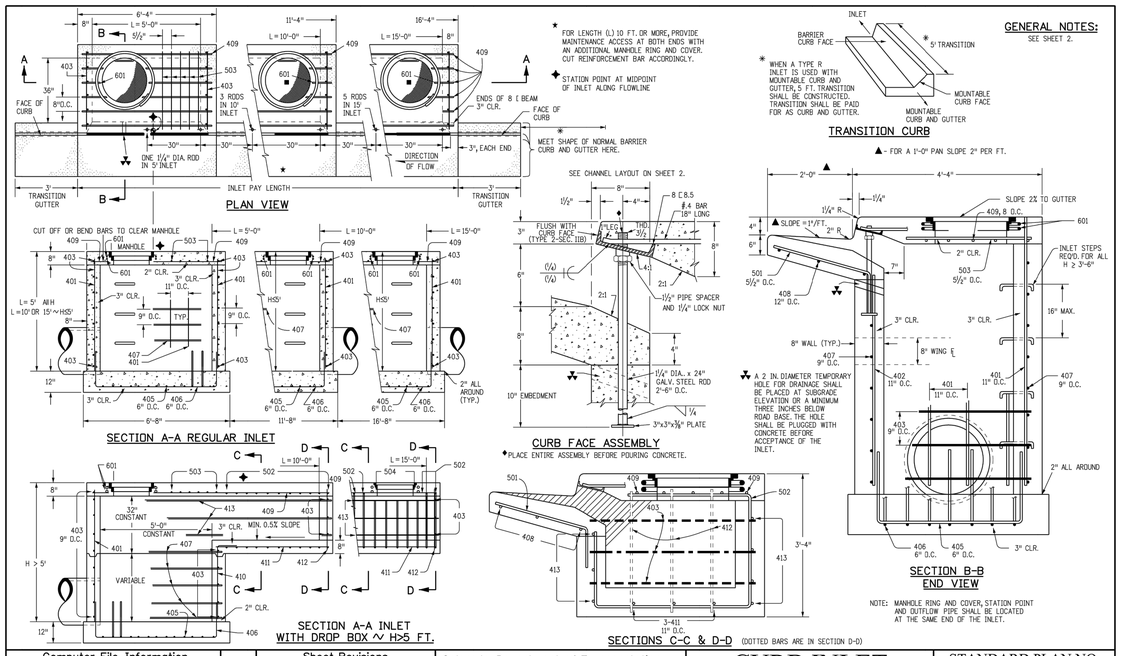
STERLING RANCH FILING 3

STORM SEWER PLAN

SHEET 5 OF 7

JOB NO. 25188.00



Computer File Information		Sheet Revisions	
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Last Modification Date: 07/31/19	(R-X)		
Detailer Initials: LTA	(R-X)		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)		

Colorado Department of Transportation
2829 West Howard Place
CDOT HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868
Project Development Branch JBK

CURB INLET TYPE R

Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO. M-604-12
Standard Sheet No. 1 of 2
Project Sheet Number:

MARK	BAR # OR SIZE	D.C. SPACING	TYPE	ALL INLETS L = 5 FT. NO. REQ'D.	ALL INLETS L = 5 FT. LENGTH	INLETS: H ≤ 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 10 FT. LENGTH	INLETS: H ≤ 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 15 FT. LENGTH	INLETS: H > 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 10 FT. LENGTH	INLETS: H > 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 15 FT. LENGTH
401	4	11"	II	15	*	21	*	26	*	11	*	11	*
402	4	11"	II	7	*	13	*	18	*	7	*	7	*
403	4	9"	II	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"
405	4	6"	VI	11	6'-10"	21	6'-10"	31	6'-10"	11	6'-10"	11	6'-10"
406	4	6"	VIII	7	8'-10"	7	13'-10"	7	18'-10"	7	8'-10"	7	8'-10"
407	4	9"	II	*	5'-10"	*	10'-10"	*	15'-10"	*	5'-10"	*	5'-10"
408	4	12"	II	3	6'-10"	3	11'-10"	3	16'-0"	3	11'-10"	3	16'-0"
409	4	8"	II	6	5'-10"	6	10'-10"	6	15'-10"	6	10'-10"	6	15'-10"
410	4	11"	VII							3		3	*
411	4	11"	II							3	5'-2"	3	10'-2"
412	4	11"	II							3	2'-9"	3	2'-9"
413	4	9"	II							7	10'-10"	7	15'-10"
501	5	5½"	IV	11	3'-4"	22	3'-4"	33	3'-4"	22	3'-4"	33	3'-4"
502	5	5½"	III							11	11'-5"	17	11'-5"
503	5	5½"	II	5	3'-6"	16	3'-6"	27	3'-6"	6	3'-6"	6	3'-6"
504	5	5½"	IX									5	8'-4"
601	6	2½"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	4	8'-10"
■B.8.5				1	5'-10"	1	10'-10"	1	15'-10"	1	10'-10"	1	15'-10"
				2 BARS, 1 RODS	—	4 BARS, 3 RODS	—	8 BARS, 5 RODS	—	4 BARS, 3 RODS	—	8 BARS, 5 RODS	—
						REGULAR INLETS				DROP BOX INLETS			

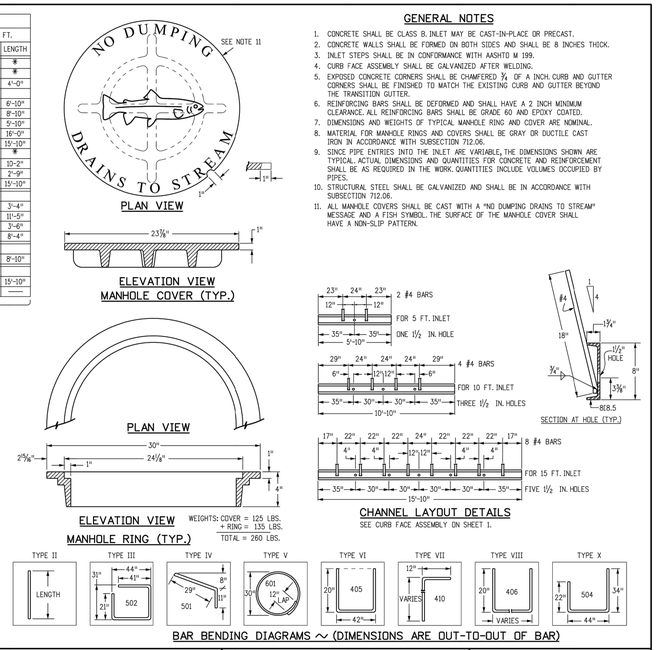
* VARIABLE REFER TO TABLE TWO.
■ INCLUDE #4, 18 IN. BARS (SEE CHANNEL LAYOUT).

TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

"H"	LENGTH 401	LENGTH 402	LENGTH 410	NO. REQ'D. REGULAR 403	NO. REQ'D. REGULAR 407	NO. REQ'D. DROP BOX 403	NO. REQ'D. DROP BOX 407	L = 5 FT. CONC. CU. YDS.	L = 5 FT. STEEL LBS.	L = 10 FT. CONC. CU. YDS.	L = 10 FT. STEEL LBS.	L = 15 FT. CONC. CU. YDS.	L = 15 FT. STEEL LBS.
3'-0"	2'-8"	1'-8"		10	7			3.2	285	5.3	497	7.4	706
3'-6"	3'-2"	2'-2"		10	7			3.4	305	5.7	528	7.9	747
4'-0"	3'-8"	2'-8"		12	9			3.7	326	6.0	559	8.4	786
4'-6"	4'-2"	3'-2"		12	9			3.9	334	6.4	571	8.8	803
5'-0"	4'-8"	3'-8"		14	11			4.1	354	6.7	602	9.3	844
5'-6"	5'-2"	4'-2"	3'-5"	16	13	15	6	4.4	375	6.0	607	7.4	850
6'-0"	5'-8"	4'-8"	3'-11"	16	13	16	6	4.6	382	6.2	616	7.6	860
6'-6"	6'-2"	5'-2"	4'-5"	18	15	18	8	4.8	402	6.4	637	7.8	880
7'-0"	6'-8"	5'-8"	4'-11"	20	17	19	10	5.0	423	6.6	654	8.0	897
7'-6"	7'-2"	6'-2"	5'-5"	20	17	20	10	5.3	430	6.9	664	8.3	907
8'-0"	7'-8"	6'-8"	5'-11"	22	19	22	12	5.5	451	7.1	684	8.5	927
8'-6"	8'-2"	7'-2"	6'-5"	24	21	23	14	5.7	471	7.3	702	8.7	944
9'-0"	8'-8"	7'-8"	6'-11"	24	21	24	14	6.0	479	7.6	711	9.0	954
9'-6"	9'-2"	8'-2"	7'-5"	26	23	26	16	6.2	499	7.8	732	9.2	974
10'-0"	9'-8"	8'-8"	7'-11"	28	25	27	18	6.4	520	8.0	749	9.4	992
10'-6"	10'-2"	9'-2"	8'-5"	28	25	28	18	6.7	527	8.3	759	9.7	1001
11'-0"	10'-8"	9'-8"	8'-11"	30	27	30	20	6.9	547	8.5	779	9.9	1022

NOTES: FOR L = 5 FT., L = 10 FT., AND L = 15 FT.
REGULAR INLETS: TOTAL QUANTITIES NEEDED ARE OUTSIDE THE HEAVY BLACK LINE.
DROP BOX INLETS: TOTAL QUANTITIES NEEDED ARE INSIDE THE HEAVY BLACK LINE.
STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL CHANNEL.

TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"



GENERAL NOTES

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES AND SHALL BE 8 INCHES THICK.
3. INLET STEPS SHALL BE IN CONFORMANCE WITH AASHTO M 199.
4. CURB FACE ASSEMBLY SHALL BE GALVANIZED AFTER WELDING.
5. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾" OF A INCH. CURB AND GUTTER CORNERS SHALL BE FINISHED TO MATCH THE EXISTING CURB AND GUTTER BEYOND THE TRANSITION GUTTER.
6. REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2 INCH MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE GRADE 60 AND EPOXY COATED.
7. DIMENSIONS AND WEIGHTS OF TYPICAL MANHOLE RING AND COVER ARE NOMINAL.
8. MATERIAL FOR MANHOLE RINGS AND COVERS SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06.
9. SINCE PIPE ENTRIES INTO THE INLET ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK. QUANTITIES INCLUDE VOLUMES OCCUPIED BY PIPES.
10. STRUCTURAL STEEL SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
11. ALL MANHOLE COVERS SHALL BE CAST WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE AND A FISH SYMBOL. THE SURFACE OF THE MANHOLE COVER SHALL HAVE A NON-SLIP PATTERN.

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Project Development Branch JBK

CURB INLET TYPE R

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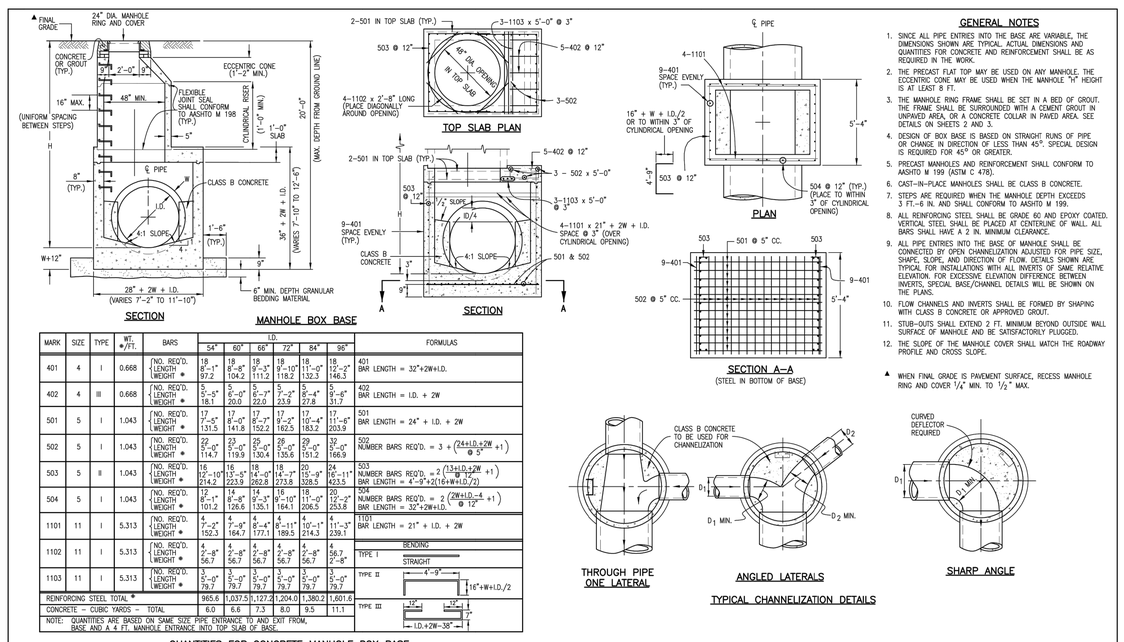
Standard Sheet No. 2 of 2
Project Sheet Number:



GENERAL NOTES

1. SINCE ALL PIPE ENTRIES INTO THE BASE ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK.
2. THE PRECAST FLAT TOP MAY BE USED ON ANY MANHOLE. THE ECCENTRIC CONE MAY BE USED WHEN THE MANHOLE "H" HEIGHT IS AT LEAST 8 FT.
3. THE MANHOLE RING FRAME SHALL BE SET IN A BED OF GROUT. THE FRAME SHALL BE SURROUNDED WITH A CEMENT GROUT IN UNPAVED AREA, OR A CONCRETE COLLAR IN PAVED AREA. SEE DETAILS ON SHEETS 2 AND 3.
4. DESIGN OF BOX BASE IS BASED ON STRAIGHT RUNS OF PIPE OR CHANGE IN DIRECTION OF LESS THAN 45°. SPECIAL DESIGN IS REQUIRED FOR 45° OR GREATER.
5. PRECAST MANHOLES AND REINFORCEMENT SHALL CONFORM TO AASHTO M 199 (ASTM C 478).
6. CAST-IN-PLACE MANHOLES SHALL BE CLASS B CONCRETE.
7. STEPS ARE REQUIRED WHEN THE MANHOLE DEPTH EXCEEDS 3 FT.-6 IN. AND SHALL CONFORM TO AASHTO M 199.
8. ALL REINFORCING STEEL SHALL BE GRADE 60 AND EPOXY COATED. VERTICAL STEEL SHALL BE PLACED AT CENTERLINE OF WALL. ALL BARS SHALL HAVE A 2 IN. MINIMUM CLEARANCE.
9. ALL PIPE ENTRIES INTO THE BASE OF MANHOLE SHALL BE CONNECTED BY OPEN CHANNELIZATION ADJUSTED FOR PIPE SIZE, SHAPE, SLOPE, AND DIRECTION OF FLOW. DETAILS SHOWN ARE TYPICAL FOR INSTALLATIONS WITH ALL INVERTS OF SAME RELATIVE ELEVATION. FOR EXCESSIVE ELEVATION DIFFERENCE BETWEEN INVERTS, SPECIAL BASE/CHANNEL DETAILS WILL BE SHOWN ON THE PLANS.
10. FLOW CHANNELS AND INVERTS SHALL BE FORMED BY SHAPING WITH CLASS B CONCRETE OR APPROVED GROUT.
11. STUB-OUTS SHALL EXTEND 2 FT. MINIMUM BEYOND OUTSIDE WALL SURFACE OF MANHOLE AND BE SATISFACTORILY PLUGGED.
12. THE SLOPE OF THE MANHOLE COVER SHALL MATCH THE ROADWAY PROFILE AND CROSS SLOPE.

▲ WHEN FINAL GRADE IS PAVEMENT SURFACE, RECESS MANHOLE RING AND COVER ¼" MIN. TO ½" MAX.

MARK	SIZE	TYPE	WT. #/FT.	BARS	I.D. 54"	I.D. 60"	I.D. 66"	I.D. 72"	I.D. 84"	I.D. 96"	FORMULAS
401	4	I	0.668	(NO. REQ'D. / LENGTH / WEIGHT *)	18 / 8'-1" / 97.2	18 / 8'-8" / 104.2	18 / 9'-3" / 111.2	18 / 9'-10" / 118.2	18 / 11'-0" / 132.3	18 / 12'-2" / 146.3	401 BAR LENGTH = 32"+2W+I.D.
402	4	III	0.668	(NO. REQ'D. / LENGTH / WEIGHT *)	5 / 5'-5" / 18.1	5 / 6'-0" / 20.0	5 / 6'-7" / 22.0	5 / 7'-2" / 23.9	5 / 8'-4" / 27.8	5 / 9'-6" / 31.7	402 BAR LENGTH = I.D. + 2W
501	5	I	1.043	(NO. REQ'D. / LENGTH / WEIGHT *)	17 / 7'-5" / 131.5	17 / 8'-0" / 141.8	17 / 8'-7" / 152.2	17 / 9'-2" / 162.5	17 / 10'-4" / 183.2	17 / 11'-6" / 203.9	501 BAR LENGTH = 24" + I.D. + 2W
502	5	I	1.043	(NO. REQ'D. / LENGTH / WEIGHT *)	22 / 5'-0" / 114.7	23 / 5'-0" / 119.9	25 / 5'-0" / 130.4	26 / 5'-0" / 135.6	29 / 5'-0" / 151.2	32 / 5'-0" / 166.9	502 NUMBER BARS REQ'D. = 3 + (24+I.D.+2W / @ 5") +1)
503	5	II	1.043	(NO. REQ'D. / LENGTH / WEIGHT *)	16 / 9'-10" / 214.2	16 / 10'-5" / 223.9	16 / 11'-4" / 262.8	18 / 12'-3" / 273.8	20 / 15'-9" / 328.5	24 / 16'-11" / 423.5	503 NUMBER BARS REQ'D. = 2 (13+I.D.+2W / @ 12") +1) BAR LENGTH = 4'-9"+2(16'+W+I.D./2)
504	5	I	1.043	(NO. REQ'D. / LENGTH / WEIGHT *)	12 / 8'-1" / 101.2	14 / 8'-8" / 126.6	14 / 9'-3" / 135.1	16 / 9'-10" / 164.1	18 / 11'-0" / 206.5	20 / 12'-2" / 253.8	504 NUMBER BARS REQ'D. = 2 (2W+I.D.-4 / @ 12") +1) BAR LENGTH = 32"+2W+I.D.
1101	11	I	5.313	(NO. REQ'D. / LENGTH / WEIGHT *)	4 / 7'-2" / 152.3	4 / 7'-9" / 164.7	4 / 8'-4" / 177.1	4 / 8'-11" / 189.5	4 / 10'-1" / 214.3	4 / 11'-3" / 239.1	1101 BAR LENGTH = 21" + I.D. + 2W
1102	11	I	5.313	(NO. REQ'D. / LENGTH / WEIGHT *)	4 / 2'-8" / 56.7	4 / 2'-8" / 56.7	4 / 2'-8" / 56.7	4 / 2'-8" / 56.7	4 / 2'-8" / 56.7	4 / 2'-8" / 56.7	1102 BENDING: TYPE I STRAIGHT; TYPE II 4'-9" 16"+W+I.D./2; TYPE III 12" 12" I.D.+2W-38"
1103	11	I	5.313	(NO. REQ'D. / LENGTH / WEIGHT *)	3 / 5'-0" / 79.7	3 / 5'-0" / 79.7	3 / 5'-0" / 79.7	3 / 5'-0" / 79.7	3 / 5'-0" / 79.7	3 / 5'-0" / 79.7	
REINFORCING STEEL TOTAL *					965.6	1,037.5	1,127.2	1,204.0	1,380.2	1,601.6	
CONCRETE – CUBIC YARDS – TOTAL					6.0	6.6	7.3	8.0	9.5	11.1	

NOTE: QUANTITIES ARE BASED ON SAME SIZE PIPE ENTRANCE TO AND EXIT FROM, BASE AND A 4 FT. MANHOLE ENTRANCE INTO TOP SLAB OF BASE.

QUANTITIES FOR CONCRETE MANHOLE BOX BASE

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MANHOLES

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STANDARD PLAN NO. M-604-20
Sheet No. 1 of 3

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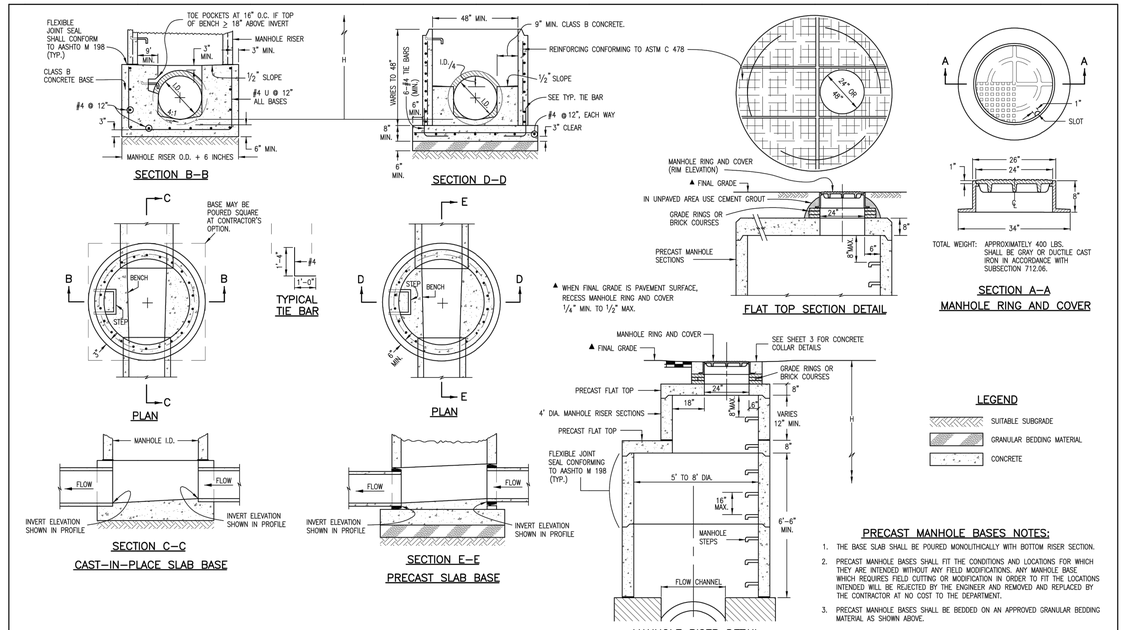

TOTAL WEIGHT: APPROXIMATELY 400 LBS. SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06.

PRECAST MANHOLE BASES NOTES:

1. THE BASE SLAB SHALL BE POURED MONOLITHICALLY WITH BOTTOM RISER SECTION.
2. PRECAST MANHOLE BASES SHALL FIT THE CONDITIONS AND LOCATIONS FOR WHICH THEY ARE INTENDED WITHOUT ANY FIELD MODIFICATIONS. ANY MANHOLE BASE WHICH REQUIRES FIELD CUTTING OR MODIFICATION IN ORDER TO FIT THE LOCATIONS INTENDED WILL BE REJECTED BY THE ENGINEER AND REMOVED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE DEPARTMENT.
3. PRECAST MANHOLE BASES SHALL BE BEDDED ON AN APPROVED GRANULAR BEDDING MATERIAL AS SHOWN ABOVE.

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MANHOLES

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SHEET 6 OF 7

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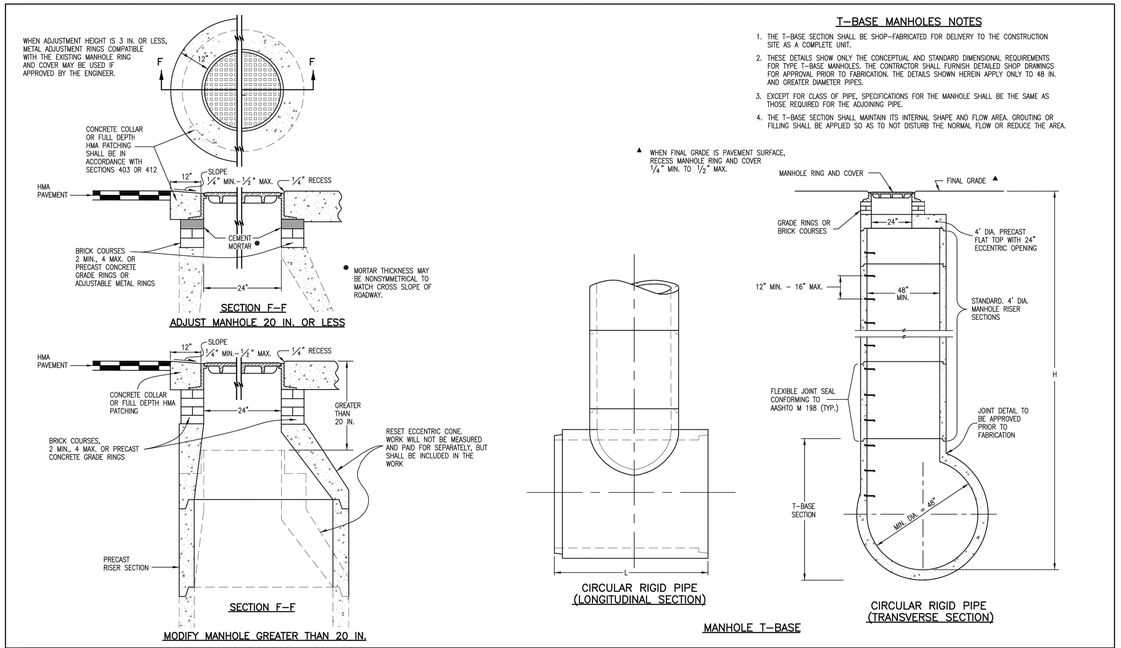

T–BASE MANHOLES NOTES

1. THE T–BASE SECTION SHALL BE SHOP–FABRICATED FOR DELIVERY TO THE CONSTRUCTION SITE AS A COMPLETE UNIT.
2. THESE DETAILS SHOW ONLY THE CONCEPTUAL AND STANDARD DIMENSIONAL REQUIREMENTS FOR TYPE T–BASE MANHOLES. THE CONTRACTOR SHALL FURNISH DETAILED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. THE DETAILS SHOWN HEREIN APPLY ONLY TO 48 IN. AND GREATER DIAMETER PIPES.
3. EXCEPT FOR CLASS OF PIPE, SPECIFICATIONS FOR THE MANHOLE SHALL BE THE SAME AS THOSE REQUIRED FOR THE ADJOINING PIPE.
4. THE T–BASE SECTION SHALL MAINTAIN ITS INTERNAL SHAPE AND FLOW AREA. GROUTING OR FILLING SHALL BE APPLIED SO AS TO NOT DISTURB THE NORMAL FLOW OR REDUCE THE AREA.

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MANHOLES

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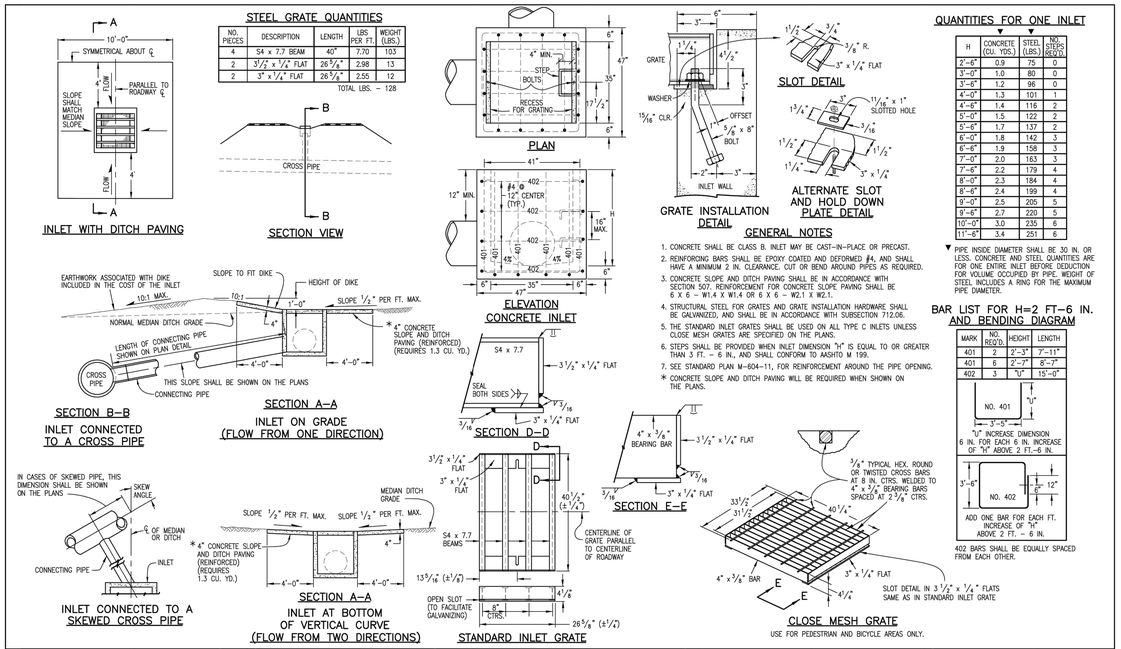

STEEL GRATE QUANTITIES

NO. PIECES	DESCRIPTION	LENGTH	LBS PER FT.	WEIGHT (LBS.)
4	S4 x 7.7 BEAM	40"	7.70	103
2	3 1/2" x 1/4" FLAT	26 5/8"	2.98	13
2	3" x 1/4" FLAT	26 5/8"	2.55	12
			TOTAL LBS. –	128

QUANTITIES FOR ONE INLET

H	CONCRETE (CU. YDS.)	STEEL (LBS.)	NO. STEPS REQ'D.
2'–6"	0.9	75	0
3'–0"	1.0	80	0
3'–6"	1.2	96	0
4'–0"	1.3	101	1
4'–6"	1.4	116	2
5'–0"	1.5	122	2
5'–6"	1.7	137	2
6'–0"	1.8	142	3
6'–6"	1.9	158	3
7'–0"	2.0	163	3
7'–6"	2.2	179	4
8'–0"	2.3	184	4
8'–6"	2.4	199	4
9'–0"	2.5	205	5
9'–6"	2.7	220	5
10'–0"	3.0	235	6
11'–6"	3.4	251	6

▼ PIPE INSIDE DIAMETER SHALL BE 30 IN. OR LESS. CONCRETE AND STEEL QUANTITIES ARE FOR ONE ENTIRE INLET BEFORE DEDUCTION FOR VOLUME OCCUPIED BY PIPE. WEIGHT OF STEEL INCLUDES A RING FOR THE MAXIMUM PIPE DIAMETER.

GENERAL NOTES

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST–IN–PLACE OR PRECAST.
2. REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED #4, AND SHALL HAVE A MINIMUM 2 IN. CLEARANCE. CUT OR BEND AROUND PIPES AS REQUIRED.
3. CONCRETE SLOPE AND DITCH PAVING SHALL BE IN ACCORDANCE WITH SECTION 507. REINFORCEMENT FOR CONCRETE SLOPE PAVING SHALL BE 6 X 6 – W1.4 X W1.4 OR 6 X 6 – W2.1 X W2.1.
4. STRUCTURAL STEEL FOR GRATES AND GRATE INSTALLATION HARDWARE SHALL BE GALVANIZED, AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
5. THE STANDARD INLET GRATES SHALL BE USED ON ALL TYPE C INLETS UNLESS CLOSE MESH GRATES ARE SPECIFIED ON THE PLANS.
6. STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FT. – 6 IN., AND SHALL CONFORM TO AASHTO M 199.
7. SEE STANDARD PLAN M–604–11, FOR REINFORCEMENT AROUND THE PIPE OPENING.

* CONCRETE SLOPE AND DITCH PAVING WILL BE REQUIRED WHEN SHOWN ON THE PLANS.

BAR LIST FOR H=2 FT–6 IN. AND BENDING DIAGRAM

MARK	NO. REQ'D.	HEIGHT	LENGTH
401	2	2'–3"	7'–11"
401	6	2'–7"	8'–7"
402	3	"U"	15'–0"

NO. 401 — 3'–5" — "U"

"U" INCREASE DIMENSION 6 IN. FOR EACH 6 IN. INCREASE OF "H" ABOVE 2 FT.–6 IN.

NO. 402 — 3'–6" — 6" — 12"

ADD ONE BAR FOR EACH FT. INCREASE OF "H" ABOVE 2 FT. – 6 IN.

402 BARS SHALL BE EQUALLY SPACED FROM EACH OTHER.

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STANDARD PLAN NO.
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SHEET 7 OF 7

JOB NO. 25188.00

STERLING RANCH FILING 3

COUNTY OF EL PASO, STATE OF COLORADO

SANITARY SEWER PLANS

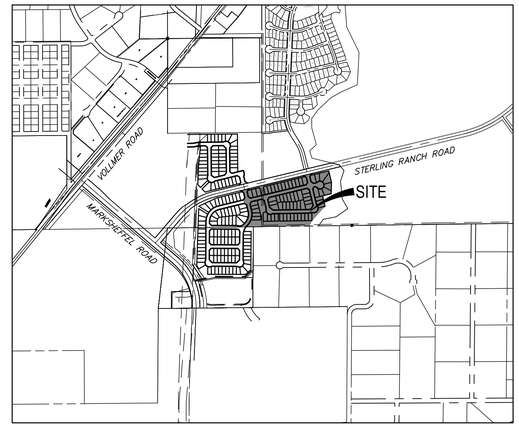
JUNE 2021

GENERAL NOTES

1. ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT STERLING RANCH METROPOLITAN DISTRICT (SRMD, THE DISTRICT) SPECIFICATIONS.
2. ALL PLANS ON THE JOB SITE SHALL BE SIGNED BY THE DISTRICT AND THE DISTRICT'S ENGINEER. ANY REVISION TO THE PLANS SHALL BE SO NOTED WITH THE OLD DRAWING MARKED NOT VALID.
3. ALL STATIONING IS CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE CENTERLINE UNLESS OTHERWISE NOTED.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
5. ALL WATER AND SEWER SERVICE LOCATIONS SHALL BE CLEARLY MARKED ON EITHER THE CURB HEAD OR THE FACE OF THE CURB, WITH AN "S" FOR SEWER AND A "W" FOR WATER.
6. DUCTILE IRON PIPES, INCLUDING FITTINGS, VALVES AND FIRE HYDRANTS, SHALL BE WRAPPED WITH POLYETHYLENE TUBING, DOUBLE BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED. BONDING AND ANODE CONNECTIONS SHALL BE THOROUGHLY COATED WITH BITUMINUOUS COATINGS.
7. ALL DUCTILE IRON PIPE LESS THAN 12 INCHES AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB MAGNESIUM ANODES EVERY 400 FEET AND 9 LB MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE 12 INCHES AND GREATER AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB MAGNESIUM ANODES EVERY 300 FEET AND 9 LB MAGNESIUM ANODES AT EACH FITTING.
8. ALL PIPE MATERIAL, BACKFILL AND INSTALLATION SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS, COLORADO DEPARTMENT OF TRANSPORTATION, EL PASO COUNTY DEPARTMENT OF TRANSPORTATION, COLORADO SPRINGS UTILITIES AND THE GEOTECHNICAL ENGINEER.
9. COMPACTION TESTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE DISTRICT OR HIGHER STANDARD AS IMPOSED BY ANOTHER AGENCIES HAVING RIGHT-OF-WAY JURISDICTION. THIS SHALL INCLUDE ALL VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES AND MANHOLES. ALL REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
10. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE DISTRICT SHALL BE NOTIFIED OF ANY DEVIATIONS TO THE LINE AND/OR GRADE AS DEPICTED ON THE PLANS. CONTRACTOR SHALL SUBMIT TO THE DISTRICT AND THE ENGINEER OF RECORD A REPORT OF THE FIELD VERIFIED INFORMATION PRIOR TO THE START OF CONSTRUCTION.
11. ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
12. BENDS, DEFLECTION & CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO NO MORE THAN 0.5' FROM THE DESIGNED ALIGNMENT. CONSTRUCTION STAKES TO BE AT 25' INTERVALS ALONG CURVES TO ASSURE LOCATION OF PIPE LINE CONSTRUCTION.
13. AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS, PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS.
14. ALL UNUSED SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN DISTRICT AS REQUESTED.
15. AT THE CONTRACTOR'S EXPENSE, ALL UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED SUCH THAT THEY SHALL FUNCTION CONTINUOUSLY DURING CONSTRUCTION OPERATIONS. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR OR BY THE DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR/DEVELOPER.
16. PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
17. THE CONTRACTOR SHALL REPLACE OR REPAIR DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
18. ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINE) SHALL HAVE LIABILITY INSURANCE NAMING THE DISTRICT AS AN ADDITIONAL INSURED AND SHALL PROVIDE A CURRENT COPY OF WORKERS COMPENSATION INSURANCE ON FILE WITH THE DISTRICT. NO WORK CAN PROCEED WITHOUT CURRENT CERTIFICATES ON FILE AT THE DISTRICTS' OFFICE.
19. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. A WEEKLY CONSTRUCTION MEETING SHALL BE REQUIRED WITH THE CONTRACTOR, DISTRICT ENGINEER AND ALL OTHER PARTIES AS DEEMED NECESSARY BY THE DISTRICT.
20. COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN THE METROPOLITAN DISTRICT:
    a. PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING IS REQUIRED A MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. A REPRESENTATIVE OF THE OWNER OR DEVELOPER, A REPRESENTATIVE OF THE CONTRACTOR AND DESIGN ENGINEER ARE REQUIRED TO ATTEND. CONTACT THE DISTRICT TO SCHEDULE THE PRE-CONSTRUCTION MEETING. NO PRE-CONSTRUCTION MEETING CAN BE SCHEDULED PRIOR TO FOUR (4) SIGNED/ APPROVED PLAN SETS ARE RECEIVED BY THE DISTRICT.
    b. THE CONTRACTOR IS REQUIRED TO NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION ADJACENT TO THE KNOWN UTILITYLINES.
21. TESTING OF FACILITIES:
    a. THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING.
    b. ALL SECTIONS OF WATER LINE ARE TO MEET THE FOLLOWING PRESSURE TESTING REQUIREMENTS:
       - TEST 100% OF ALL LINES
       - MUST PASS PRESSURE TEST TO 200 PSI FOR TWO HOURS (UNLESS OTHERWISE APPROVED ON THE PLANS).
    c. ALL SANITARY SEWER FACILITIES ARE TO MEET THE FOLLOWING TESTING REQUIREMENTS
       - ALL LINES SHALL BE JET CLEANED PRIOR TO VACUUM OR PRESSURE TESTING
       - ALL MANHOLES SHALL BE VACUUM TESTED WITH DISTRICT STAFF PRESENT PRIOR TO CCTV INSPECTION.
       - SEWER MAINS TO BE PRESSURE TEST PRIOR TO CCTV INSPECTION
       - ALL LINES SHALL BE CCTV INSPECTED AND VIDEO SHALL TO BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
22. PRELIMINARY ACCEPTANCE SHALL BE DEFINED AS THE POINT IN TIME THAT THE DISTRICT ACCEPTS THE FACILITY FOR USE. ALL SURFACE IMPROVEMENTS AND RESTORATION SHALL BE COMPLETED WITHIN 30 DAYS OF COMMENCEMENT. SHOULD THE CONTRACTOR FAIL TO COMPLETE ALL SURFACE IMPROVEMENTS AND RESTORATION WITHIN 30 DAYS OF COMMENCEMENT OF SERVICE, THE DISTRICT, AT THEIR DISCRETION, MAY ELECT TO COMPLETE THE IMPROVEMENTS AT THE CONTRACTORS COST.
23. FINAL ACCEPTANCE BY THE DISTRICT OF ANY LINE OR SYSTEM SHALL NOT OCCUR UNTIL COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.
24. ACCEPTANCE:
    a. THE DISTRICT MAY GIVE PRELIMINARY ACCEPTANCE ONCE ALL OF THE TESTS ON ALL THE LINES HAVE BEEN COMPLETED AND A WALK-THRU HAS OCCURRED.
    b. A SECOND ACCEPTANCE MAY OCCUR ONCE FIRST LIFT OF ASPHALT GOES DOWN AND A SECOND WALK-THRU OF THE SYSTEM OCCURS. IF ALL FACILITIES ARE CLEAN AND ACCESSIBLE, A FINAL ACCEPTANCE MAY OCCUR (THE DISTRICT MAY REQUIRE CLEANING AND RE-VIDEO OF THE SYSTEM, DEPENDING ON THE SEVERITY OF THE CONTAMINATION).
25. ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
26. ALL COMMERCIAL/BUSINESS DEVELOPMENTS SHALL HAVE AN EIGHT INCH (MIN.) WATER MAIN LOOPED THROUGH THE PROPOSED PROPERTY WITH GATE VALVES LOCATED WHERE THE MAIN ENTERS THE PROPERTY LINE. AN EIGHT INCH SEWER MAIN SHALL BE INSTALLED FOR SERVICE TO COMMERCIAL/BUSINESS DEVELOPMENTS, AND A MANHOLE SHALL BE LOCATED WHERE THE MAIN ENTERS THE PROPERTY. THE END OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATE COLORED CARSONITE MARKER ALONG WITH TRACER WIRE.
27. AFTER REVIEW AND APPROVAL OF PLANS FOR THE EXTENSION OF LINES, FACILITIES AND/OR SERVICES, CONSTRUCTION MUST BE COMMENCED WITHIN 18 MONTHS FOR RESIDENTIAL SUBDIVISIONS AND 12 MONTHS FOR ANY COMMERCIAL INSTALLATIONS.
28. INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE.

WASTEWATER SYSTEM INSTALLATION NOTES

1. SANITARY SEWER LENGTHS ARE MH CENTER-MH CENTER (OR STRUCTURE CENTER-STRUCTURE CENTER). ALL SANITARY SEWER PIPES SHALL BE SDR 35 PVC OR EQUAL. SEWER LINES MAY NOT EXCEED 7% GRADE FOR ANY SIZE WITHOUT PRIOR APPROVAL OF THE DISTRICT. ALL NEWLY CONSTRUCTED RESIDENTIAL SANITARY SEWER TAPS SHALL USE PRE-MANUFACTURED IN-LINE PVC PUSH-ON WYES. TAPPING SADDLES MAY ONLY BE USED FOR TAPPING PRE-EXISTING MAINS.
2. ALL SANITARY SEWER MANHOLES SHALL BE WRAPPED WITH RU116 - RUBR-NEK JOINT WRAP OR EQUIVALENT AND COATED.
3. COMMENCEMENT OF USE OF SEWER LINES AND/OR SYSTEMS:
    a. NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL AFTER THE COMPLETION OF ALL JET CLEANING, PRESSURE TESTING, CCTV INSPECTION, COMPACTION TESTING AND AS-BUILT DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT.
    b. NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, ANY REQUIRED SURFACE SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
    c. ALL NECESSARY EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND RECORDED.
    d. DOWNSTREAM PLUG CAN BE REMOVED ONCE FIRST LIFT OF ASPHALT IS DOWN AND THE ABOVE REQUIREMENTS ARE MET.



VICINITY MAP
SCALE : 1"=1,000'

SHEET INDEX

1	COVER SHEET
2-4	SANITARY SEWER PLANS
5	SANITARY SERVICE PLAN

BENCHMARKS

1. THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHEAST BOUNDARY CORNER OF BARBARICK SUBDIVISION
   NORTHING = 411416.273
   EASTING = 235167.071
   ELEVATION= 7023.42
2. THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PAWNEE RANCHEROS SUBDIVISION
   NORTHING = 410095.404
   EASTING = 235052.131
   ELEVATION= 7000.40
3. THE TOP OF A RED PLASTIC SURVEYORS CAP, STAMPED "38141", AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDISION
   NORTHING = 411399.962
   EASTING = 233849.817
   ELEVATION= 7030.82

LEGEND

ROW	RIGHT OF WAY
FL-FL	FLOWLINE TO FLOWLINE
BOP	BOTTOM OF PIPE
TOP	TOP OF PIPE
SS	SANITARY SEWER
STM	STORM SEWER
WL	WATER
STA	STATION
9	LOT NUMBER
BT	BEGIN TRANSITION
ET	END TRANSITION
PCR	POINT OF CURB RETURN
PRC	POINT OF REVERSE CURVE
PCC	POINT OF COMPOUND CURVE
PC	POINT OF CURVE
PT	POINT OF TANGENT
✳	SPECIAL BEDDING NOTES

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AGENCIES

OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT, SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742
CIVIL ENGINEER:	JR ENGINEERING, LLC 5475 TECH CENTER DRIVE COLORADO SPRINGS, CO 80919 MIKE BRAMLETT P.E. (303) 267-6240
COUNTY ENGINEERING:	EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT 2880 INTERNATIONAL CIRCLE, SUITE 110 COLORADO SPRINGS, CO 80910 JEFF RICE, P.E. (719) 520-6300
TRAFFIC ENGINEERING:	EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS 3275 AKERS DRIVE COLORADO SPRINGS, CO 80922 JENNIFER IRVINE, P.E. (719) 520-6460
WATER RESOURCES:	STERLING RANCH METRO DISTRICT ENGINEERS JDS-HYDRO CONSULTANTS 545 E. PIKES PEAK AVE., SUITE 300 COLORADO SPRINGS, CO 80903 JOHN MCGINN (719) 668-8769
FIRE DISTRICT:	BLACK FOREST FIRE PROTECTION DISTRICT 11445 TEACHOUT ROAD COLORADO SPRINGS, CO 80908 CHIEF BRYAN JACK (719) 495-4300
GAS DEPARTMENT:	COLORADO SPRINGS UTILITIES 7710 DURANT DR. COLORADO SPRINGS, CO 80947 TIM WENDT (719) 668-3556
ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC 11140 E. WOODMEN ROAD FALCON, CO 80831 (719) 495-2283
COMMUNICATIONS:	QWEST COMMUNICATIONS (U.N.C.C. LOCATORS) (800) 922-1987 AT&T (LOCATORS) (719) 635-3674

EL PASO COUNTY STATEMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. DATE

COUNTY ENGINEER/ECM ADMINISTRATOR

WATER & SEWER MAIN EXTENSIONS

ANY CHANGES OR ALTERATIONS AFFECTING THE GRADE, ALIGNMENT, ELEVATION AND/OR DEPTH OF COVER OF ANY WATER OR SEWER MAINS OR OTHER APPURTENANCE SHOWN ON THIS DRAWING SHALL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ALL OPERATIONAL DAMAGES AND DEFECTS IN INSTALLATION AND MATERIAL FOR MAINS AND SERVICES FROM THE DATE OF APPROVAL UNTIL FINAL ACCEPTANCE IS ISSUED.

SIGNED _____ DATE _____
JAMES F. MORLEY

SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
(719) 471-1742

DISTRICT APPROVALS

THE STERLING RANCH METROPOLITAN DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN AND HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

STERLING RANCH METROPOLITAN DISTRICT

WASTEWATER DESIGN APPROVAL

DATE:_____ BY:_____

PROJECT NO._____

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WASTEWATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL.

ENGINEER'S STATEMENT

THIS WASTEWATER SYSTEM PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR WASTEWATER SYSTEM PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLANS.

COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
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COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H-SCALE	N/A
V-SCALE	N/A
DATE	6/8/21
DESIGNED BY	JMF
DRAWN BY	JRM
CHECKED BY	

STERLING RANCH FILING 3

COVER SHEET

SHEET 1 OF 5

JOB NO. 25188.00

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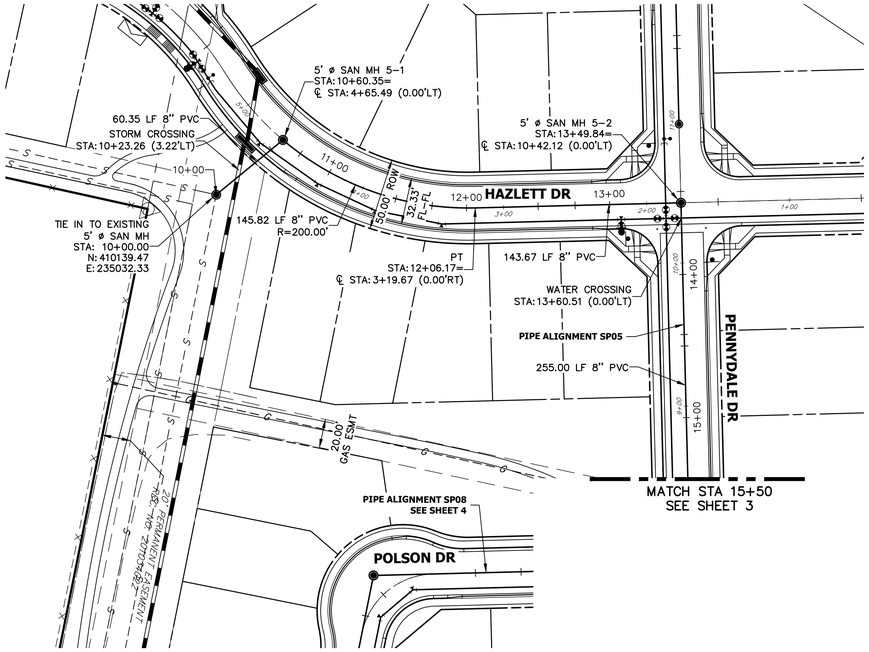

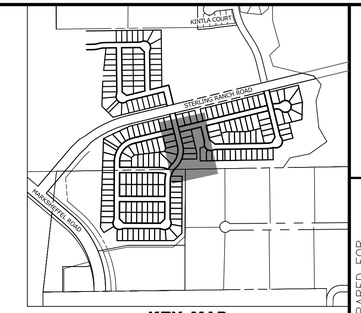

KEY MAP
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SP05 PROFILE
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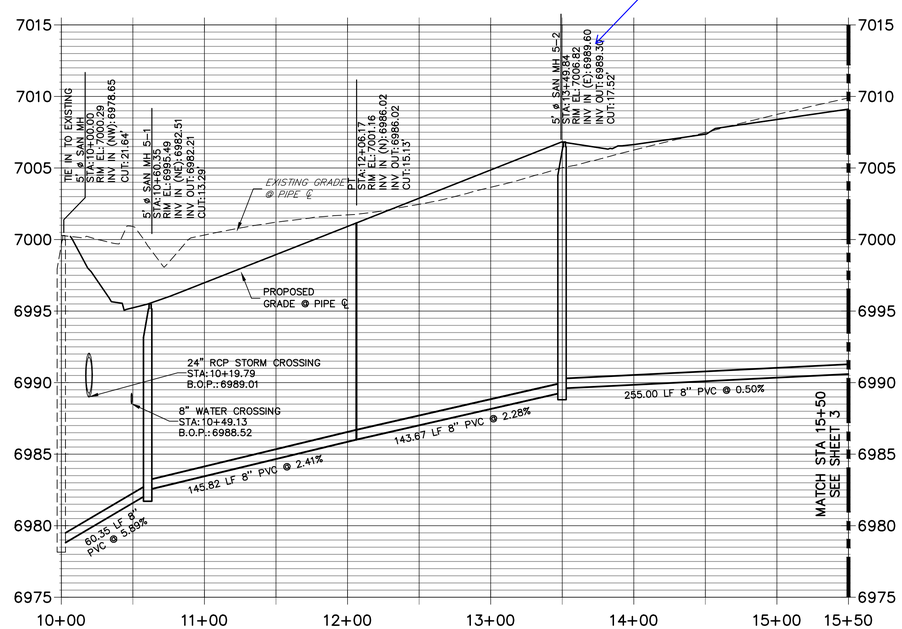

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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

5/26/2021
DATE

COLORADO REGISTERED PROFESSIONAL ENGINEER
MIKE A. BRAMLETT
32314

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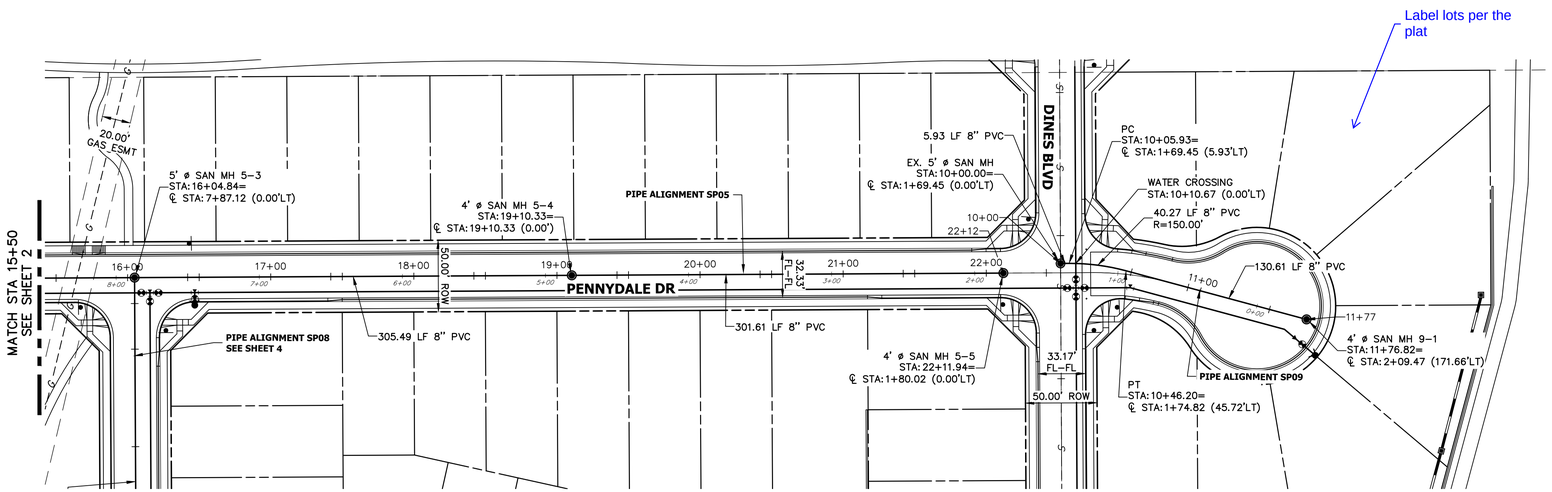
DATE	6/8/21
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

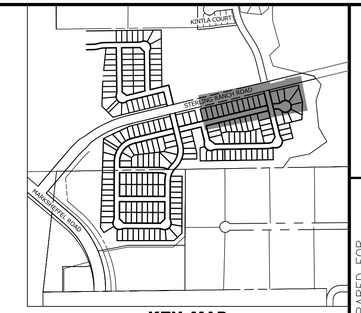
STERLING RANCH FILING 3

SANITARY SEWER PLANS

SHEET 2 OF 5

JOB NO. 25188.00





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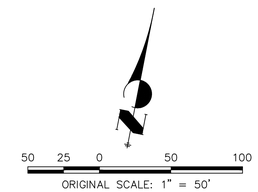

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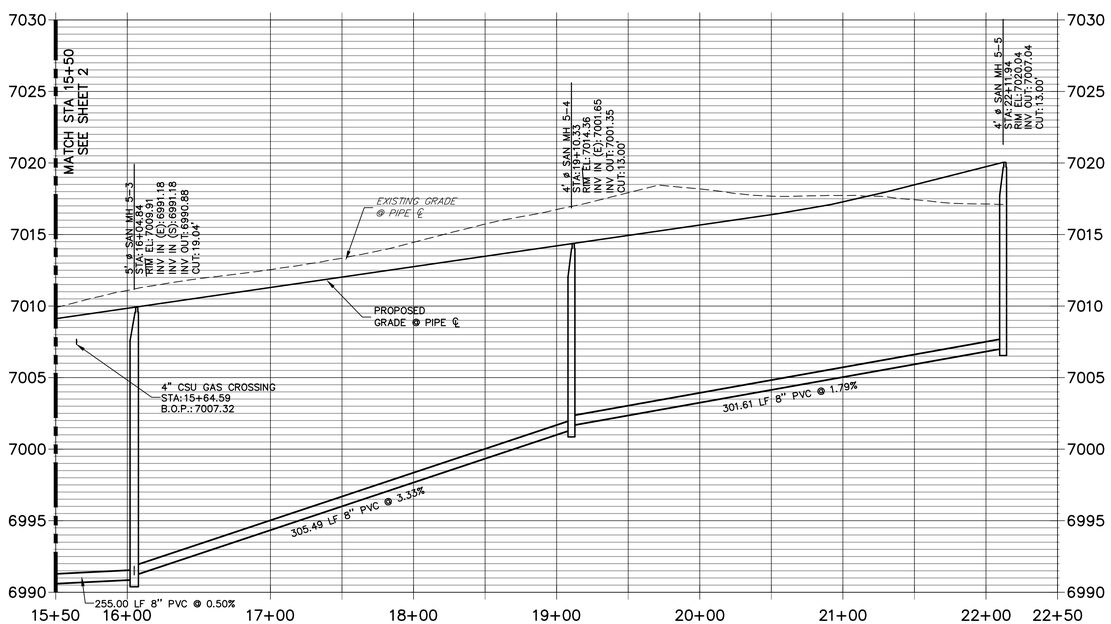

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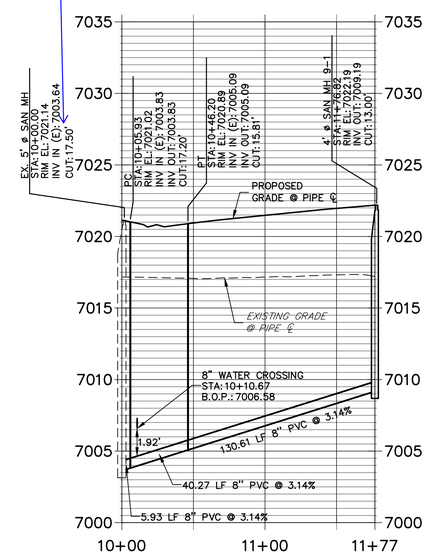

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MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314

5/26/2021
DATE

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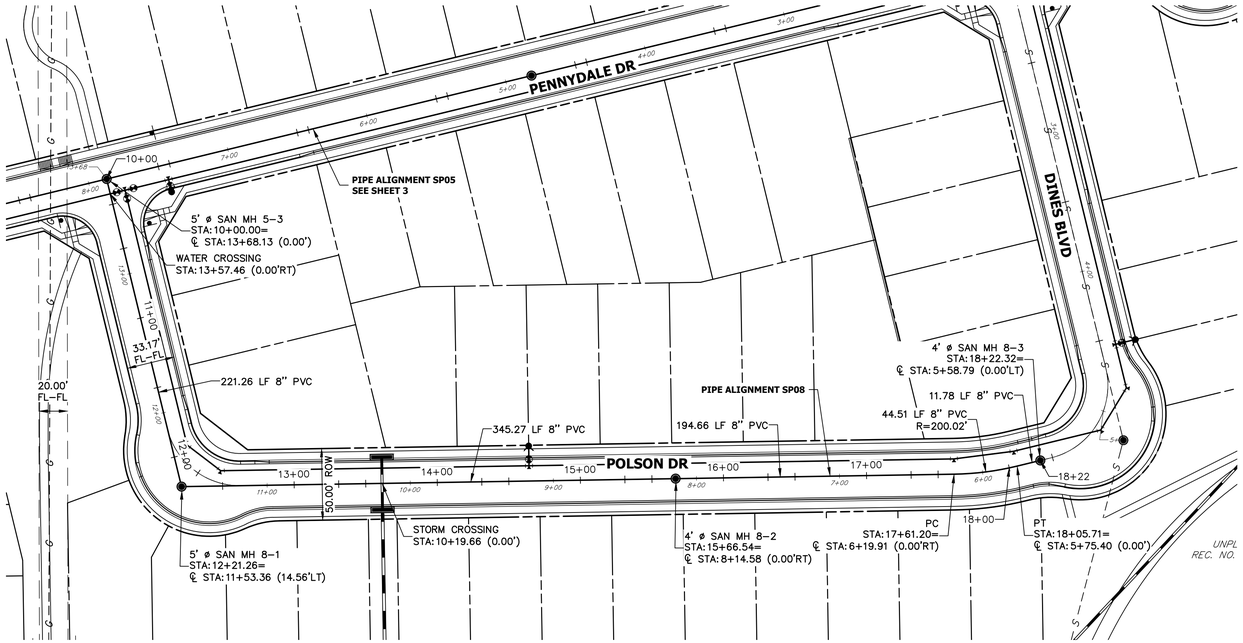
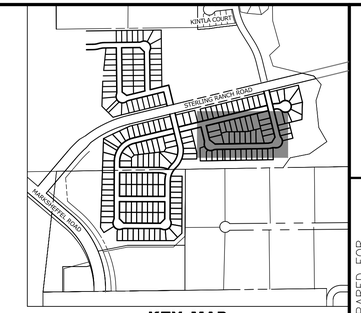
STERLING RANCH FILING 3

SANITARY SEWER PLANS

SHEET 3 OF 5

JOB NO. 25188.00





KEY MAP
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SP08 PROFILE
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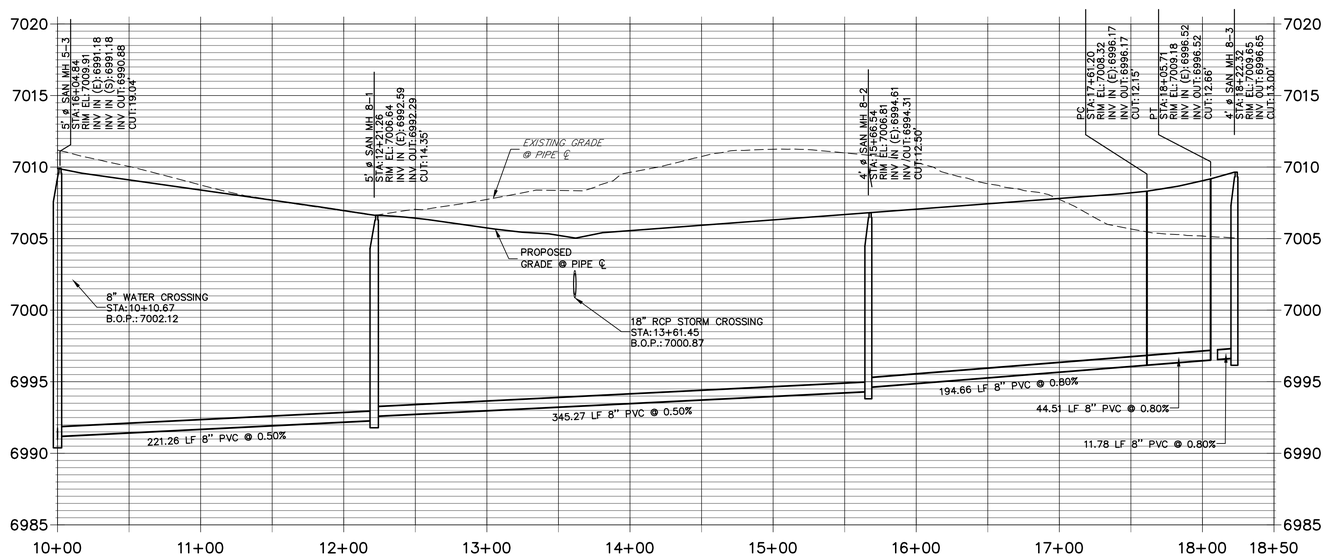

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ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314

5/26/2021

MIKE A. BRAMLETT, P.E. DATE
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
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COLORADO SPRINGS, CO 80903
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No.	REVISION	BY	DATE

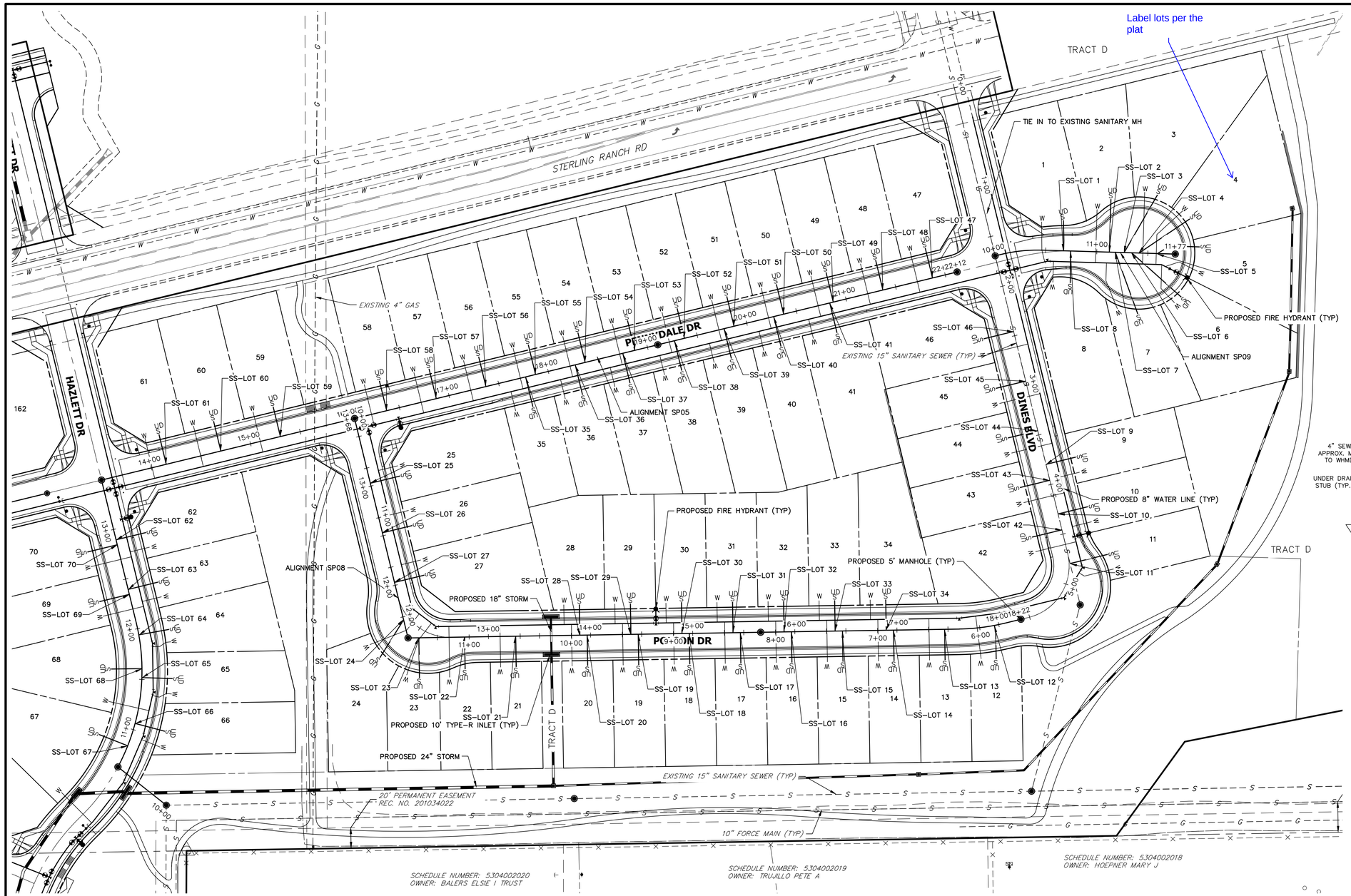
H-SCALE	1"=50'
V-SCALE	1"=5'
DATE	6/8/21
DESIGNED BY	JRM
DRAWN BY	JRM
CHECKED BY	

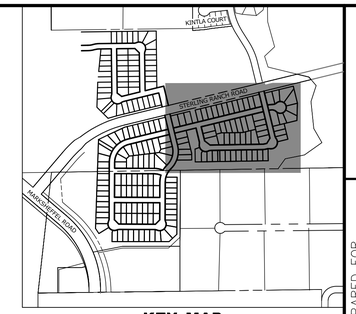
STERLING RANCH FILING 3

SANITARY SEWER PLANS

SHEET 4 OF 5

JOB NO. 25188.00





KEY MAP

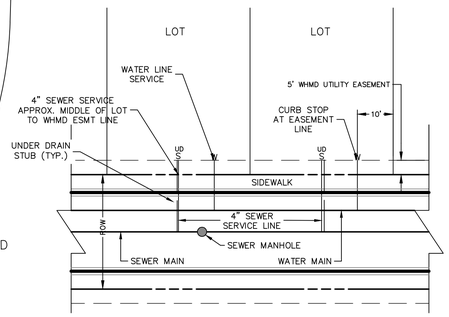
SCALE: NTS

NOTES:

1. WATER SERVICE TO BE 10' FROM "DOWNSTREAM" PROPERTY LINE AND EXTENDED TO WHMD UTILITY EASEMENT LINE.

2. SEWER SERVICE TO BE PLACED APPROXIMATELY IN THE MIDDLE OF THE LOT AND EXTENDED TO WHMD UTILITY EASEMENT LINE.

3.SERVICE SHALL BE MARKED WITH 2"x4" POST AT TERMINATION POINT FOR LOCATION DURING CONNECTION TO RESIDENCE. POSTS SHALL BE SPRAY-PAINTED BLUE FOR WATER AND GREEN FOR SEWER.



UTILITY SERVICE LOCATIONS

NTS

SANITARY SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
SS-LOT 1	10+67.19	SP09
SS-LOT 2	10+16.30	SP08
SS-LOT 3	11+26.53	SP09
SS-LOT 4	11+40.98	SP09
SS-LOT 5	11+59.17	SP09
SS-LOT 6	11+33.76	SP09
SS-LOT 7	11+17.92	SP09
SS-LOT 8	10+74.18	SP09
SS-LOT 9	3+79.95	DINES POLSON
SS-LOT 10	4+29.95	DINES POLSON
SS-LOT 11	4+79.81	DINES POLSON
SS-LOT 12	17+95.42	SP08
SS-LOT 13	17+46.45	SP08

SANITARY SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
SS-LOT 14	16+96.45	SP08
SS-LOT 15	16+46.45	SP08
SS-LOT 16	15+96.45	SP08
SS-LOT 17	15+46.45	SP08
SS-LOT 18	14+96.45	SP08
SS-LOT 19	14+46.45	SP08
SS-LOT 20	13+96.45	SP08
SS-LOT 21	13+26.45	SP08
SS-LOT 22	12+76.45	SP08
SS-LOT 23	12+31.60	SP08
SS-LOT 24	12+02.69	SP08
SS-LOT 25	10+65.00	SP08
SS-LOT 26	11+15.00	SP08

SANITARY SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
SS-LOT 27	11+65.00	SP08
SS-LOT 28	13+89.27	SP08
SS-LOT 29	14+39.27	SP08
SS-LOT 30	14+89.30	SP08
SS-LOT 31	15+39.27	SP08
SS-LOT 32	15+89.27	SP08
SS-LOT 33	16+39.27	SP08
SS-LOT 34	16+89.27	SP08
SS-LOT 35	17+76.94	SP05
SS-LOT 36	18+26.94	SP05
SS-LOT 37	18+74.84	SP05
SS-LOT 38	19+26.94	SP05
SS-LOT 39	19+76.94	SP05

SANITARY SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
SS-LOT 40	20+26.94	SP05
SS-LOT 41	20+83.39	SP05
SS-LOT 42	4+46.00	DINES POLSON
SS-LOT 43	3+96.00	DINES POLSON
SS-LOT 44	3+46.00	DINES POLSON
SS-LOT 45	2+96.00	DINES POLSON
SS-LOT 46	2+46.00	DINES POLSON
SS-LOT 47	21+86.94	SP05
SS-LOT 48	21+36.94	SP05
SS-LOT 49	20+86.94	SP05
SS-LOT 50	20+36.94	SP05
SS-LOT 51	19+86.94	SP05
SS-LOT 52	19+36.94	SP05

SANITARY SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
SS-LOT 53	18+86.94	SP05
SS-LOT 54	18+36.94	SP05
SS-LOT 55	17+86.94	SP05
SS-LOT 56	17+36.94	SP05
SS-LOT 57	16+86.94	SP05
SS-LOT 58	16+36.94	SP05
SS-LOT 59	15+29.84	SP05
SS-LOT 60	14+69.84	SP05
SS-LOT 61	14+14.84	SP05
SS-LOT 62	12+89.34	SP05
SS-LOT 63	12+39.34	SP05
SS-LOT 64	11+93.60	SP05
SS-LOT 65	11+51.52	SP05

SANITARY SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
SS-LOT 66	11+06.08	SP05
SS-LOT 67	10+82.97	SP05
SS-LOT 68	11+60.33	SP05
SS-LOT 69	12+34.34	SP05
SS-LOT 70	12+84.34	SP05

Know what's **below.** **Call** before you dig.

50 25 0 50 100

ORIGINAL SCALE: 1" = 50'

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

COLORADO REGISTERED MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

6/26/2021

MIKE A. BRAMLETT, P.E. — DATE

COLORADO P.E. 32314

FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR

SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J·R ENGINEERING
A Westrian Company

Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

H-SCALE	1"=50'
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DESIGNED BY	JRM
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CHECKED BY	

STERLING RANCH FILING 3

SANITARY SEWER PLANS

SHEET 5 OF 5

JOB NO. 25188.00

STERLING RANCH FILING 3

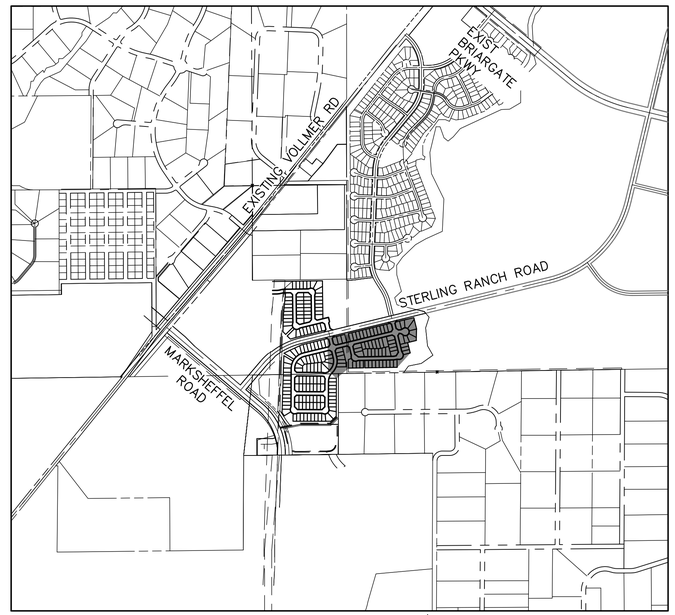
COUNTY OF EL PASO, STATE OF COLORADO

WATER SYSTEM PLANS

JUNE 2021

GENERAL NOTES

1. ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT STERLING RANCH METROPOLITAN DISTRICT (SRMD, THE DISTRICT) SPECIFICATIONS.
2. ALL PLANS ON THE JOB SITE SHALL BE SIGNED BY THE DISTRICT AND THE DISTRICT'S ENGINEER. ANY REVISION TO THE PLANS SHALL BE SO NOTED WITH THE OLD DRAWING MARKED NOT VALID.
3. ALL STATIONING IS CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE CENTERLINE UNLESS OTHERWISE NOTED.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
5. ALL WATER AND SEWER SERVICE LOCATIONS SHALL BE CLEARLY MARKED ON EITHER THE CURB HEAD OR THE FACE OF THE CURB, WITH AN "S" FOR SEWER AND A "W" FOR WATER.
6. DUCTILE IRON PIPES, INCLUDING FITTINGS, VALVES AND FIRE HYDRANTS, SHALL BE WRAPPED WITH POLYETHYLENE TUBING, DOUBLE BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED. BONDING AND ANODE CONNECTIONS SHALL BE THOROUGHLY COATED WITH BITUMINUOUS COATINGS.
7. ALL DUCTILE IRON PIPE LESS THAN 12 INCHES AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB MAGNESIUM ANODES EVERY 400 FEET AND 9 LB MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE 12 INCHES AND GREATER AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB MAGNESIUM ANODES EVERY 300 FEET AND 9 LB MAGNESIUM ANODES AT EACH FITTING.
8. ALL PIPE MATERIAL, BACKFILL AND INSTALLATION SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS, COLORADO DEPARTMENT OF TRANSPORTATION, EL PASO COUNTY DEPARTMENT OF TRANSPORTATION, COLORADO SPRINGS UTILITIES AND THE GEOTECHNICAL ENGINEER.
9. COMPACTION TESTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE DISTRICT OR HIGHER STANDARD AS IMPOSED BY ANOTHER AGENCIES HAVING RIGHT-OF-WAY JURISDICTION. THIS SHALL INCLUDE ALL VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES AND MANHOLES. ALL REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
10. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE DISTRICT SHALL BE NOTIFIED OF ANY DEVIATIONS TO THE LINE AND/OR GRADE AS DEPICTED ON THE PLANS. CONTRACTOR SHALL SUBMIT TO THE DISTRICT AND THE ENGINEER OF RECORD A REPORT OF THE FIELD VERIFIED INFORMATION PRIOR TO THE START OF CONSTRUCTION.
11. ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
12. BENDS, DEFLECTION & CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO NO MORE THAN 0.5' FROM THE DESIGNED ALIGNMENT. CONSTRUCTION STAKES TO BE AT 25' INTERVALS ALONG CURVES TO ASSURE LOCATION OF PIPE LINE CONSTRUCTION.
13. AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS, PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS.
14. ALL UNUSED SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN DISTRICT AS REQUESTED.
15. AT THE CONTRACTOR'S EXPENSE, ALL UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED SUCH THAT THEY SHALL FUNCTION CONTINUOUSLY DURING CONSTRUCTION OPERATIONS. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR OR BY THE DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR/DEVELOPER.
16. PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
17. THE CONTRACTOR SHALL REPLACE OR REPAIR DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
18. ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINE) SHALL HAVE LIABILITY INSURANCE NAMING THE DISTRICT AS AN ADDITIONAL INSURED AND SHALL PROVIDE A CURRENT COPY OF WORKERS COMPENSATION INSURANCE ON FILE WITH THE DISTRICT. NO WORK CAN PROCEED WITHOUT CURRENT CERTIFICATES ON FILE AT THE DISTRICTS' OFFICE.
19. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. A WEEKLY CONSTRUCTION MEETING SHALL BE REQUIRED WITH THE CONTRACTOR, DISTRICT ENGINEER AND ALL OTHER PARTIES AS DEEMED NECESSARY BY THE DISTRICT.
20. COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN THE METROPOLITAN DISTRICT:
    a. PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING IS REQUIRED A MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. A REPRESENTATIVE OF THE OWNER OR DEVELOPER, A REPRESENTATIVE OF THE CONTRACTOR AND DESIGN ENGINEER ARE REQUIRED TO ATTEND. CONTACT THE DISTRICT TO SCHEDULE THE PRE-CONSTRUCTION MEETING. NO PRE-CONSTRUCTION MEETING CAN BE SCHEDULED PRIOR TO FOUR (4) SIGNED/ APPROVED PLAN SETS ARE RECEIVED BY THE DISTRICT.
    b. THE CONTRACTOR IS REQUIRED TO NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION ADJACENT TO THE KNOWN UTILITYLINES.
21. TESTING OF FACILITIES:
    a. THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING.
    b. ALL SECTIONS OF WATER LINE ARE TO MEET THE FOLLOWING PRESSURE TESTING REQUIREMENTS:
       - TEST 100% OF ALL LINES
       - MUST PASS PRESSURE TEST TO 200 PSI FOR TWO HOURS (UNLESS OTHERWISE APPROVED ON THE PLANS).
    c. ALL SANITARY SEWER FACILITIES ARE TO MEET THE FOLLOWING TESTING REQUIREMENTS
       - ALL LINES SHALL BE JET CLEANED PRIOR TO VACUUM OR PRESSURE TESTING
       - ALL MANHOLES SHALL BE VACUUM TESTED WITH DISTRICT STAFF PRESENT PRIOR TO CCTV INSPECTION.
       - SEWER MAINS TO BE PRESSURE TEST PRIOR TO CCTV INSPECTION
       - ALL LINES SHALL BE CCTV INSPECTED AND VIDEO SHALL TO BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
22. PRELIMINARY ACCEPTANCE SHALL BE DEFINED AS THE POINT IN TIME THAT THE DISTRICT ACCEPTS THE FACILITY FOR USE. ALL SURFACE IMPROVEMENTS AND RESTORATION SHALL BE COMPLETED WITHIN 30 DAYS OF COMMENCEMENT. SHOULD THE CONTRACTOR FAIL TO COMPLETE ALL SURFACE IMPROVEMENTS AND RESTORATION WITHIN 30 DAYS OF COMMENCEMENT OF SERVICE, THE DISTRICT, AT THEIR DISCRETION, MAY ELECT TO COMPLETE THE IMPROVEMENTS AT THE CONTRACTORS COST.
23. FINAL ACCEPTANCE BY THE DISTRICT OF ANY LINE OR SYSTEM SHALL NOT OCCUR UNTIL COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.
24. ACCEPTANCE:
    a. THE DISTRICT MAY GIVE PRELIMINARY ACCEPTANCE ONCE ALL OF THE TESTS ON ALL THE LINES HAVE BEEN COMPLETED AND A WALK-THRU HAS OCCURRED.
    b. A SECOND ACCEPTANCE MAY OCCUR ONCE FIRST LIFT OF ASPHALT GOES DOWN AND A SECOND WALK-THRU OF THE SYSTEM OCCURS. IF ALL FACILITIES ARE CLEAN AND ACCESSIBLE, A FINAL ACCEPTANCE MAY OCCUR (THE DISTRICT MAY REQUIRE CLEANING AND RE-VIDEO OF THE SYSTEM, DEPENDING ON THE SEVERITY OF THE CONTAMINATION).
25. ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
26. ALL COMMERCIAL/BUSINESS DEVELOPMENTS SHALL HAVE AN EIGHT INCH (MIN.) WATER MAIN LOOPED THROUGH THE PROPOSED PROPERTY WITH GATE VALVES LOCATED WHERE THE MAIN ENTERS THE PROPERTY LINE. AN EIGHT INCH SEWER MAIN SHALL BE INSTALLED FOR SERVICE TO COMMERCIAL/BUSINESS DEVELOPMENTS, AND A MANHOLE SHALL BE LOCATED WHERE THE MAIN ENTERS THE PROPERTY. THE END OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATE COLORED CARSONITE MARKER ALONG WITH TRACER WIRE.
27. AFTER REVIEW AND APPROVAL OF PLANS FOR THE EXTENSION OF LINES, FACILITIES AND/OR SERVICES, CONSTRUCTION MUST BE COMMENCED WITHIN 18 MONTHS FOR RESIDENTIAL SUBDIVISIONS AND 12 MONTHS FOR ANY COMMERCIAL INSTALLATIONS.
28. INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE.



VICINITY MAP
SCALE : 1"=1,000'

SHEET INDEX

1	COVER SHEET
2	WATER PLANS
3	WATER LOWERING PROFILES
4	WATER SERVICE PLAN

BENCHMARKS

1. THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHEAST BOUNDARY CORNER OF BARBARICK SUBDIVISION
   NORTHING = 411416.273
   EASTING = 235167.071
   ELEVATION= 7023.42
2. THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PAWNEE RANCHEROS SUBDIVISION
   NORTHING = 410095.404
   EASTING = 235052.131
   ELEVATION= 7000.40
3. THE TOP OF A RED PLASTIC SURVEYORS CAP, STAMPED "38141", AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDISION
   NORTHING = 411399.962
   EASTING = 233849.817
   ELEVATION= 7030.82

WATER SYSTEM INSTALLATION NOTES

1. ALL WATER AND FORCE MAIN PIPE SHALL BE AWWA C900 PVC, OR EQUAL, PRESSURE CLASS 200. ALL WATER AND FORCE MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINS AND THRUST BLOCKS. ALL WATER AND FORCE MAIN PIPE SHALL HAVE A MINIMUM COVER DEPT OF FIVE AND ON-HALF (5.5) FEET.
2. ALL WATER VALVES ASSOCIATED WITH THE POTABLE WATER SYSTEM SHALL BE OPEN CLOCKWISE. ALL VALVES INSTALLED IN LANDSCAPED AREAS AND/OR NOT WITHIN PAVED STREETS SHALL BE MARKED WITH CARSONITE MARKERS. ALL VALVES ASSOCIATED WITH THE RAW WATER SYSTEM SHALL BE OPEN COUNTERCLOCKWISE AND MARKED WITH CARSONITE MARKERS AS APPLICABLE.
3. THE DEVELOPER OR HIS ENGINEER SHALL LOCATE ALL FIRE HYDRANTS AND SERVCIE STUB-OUTS FOR FUTURE DEVELOPEMENT. ANY REQUIRED REALIGNMENT, (HORIZONTAL OR VERTICAL), SHALL BE AT THE EXPENSE OF THE DEVELOPER. FIRE HYDRANT LOCATION SHALL BE REVIEWED AND APPROVED BY THE APPLICABLE FIRE AUTHORITY.
4. FIRE HYDRANTS SHALL BE OPEN RIGHT WITH 7/8" x 7/8" SQUARE TAPERED ALONG WITH SERVICE CAPS. LUBRICATION TYPE: (GREASE). ACCEPTABLE BRANDS ARE AMERICAN AVK SERIES 2700 (MODERN) AND MUELLER SUPER CENTURION 250.
5. ALL MAIN LINES (PVC & DUCTILE IRON) SHALL BE INSTALLED WITH COATED #12 TRACER WIRE WITH TEST STATIONS AT INTERVALS NO GREATER THAN 500 FT (VALVE BOXES CAN BE USED AT INTERSECTIONS AND SERVICE STUBS).
6. CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER LINE WITHOUT SHUTDOWN, OR ELSE NOTIFY THE DISTRICT OF ANY SERVICE SHUTDOWNS NECESSARY TO CONNECT TO EXISTING LINES.
7. IRRIGATION SERVICES SHALL HAVE A STOP AND WASTE CURB STOP VALVE INSTALLED ALONG WITH TRACER WIRE EXTENDING BACK TO THE MAIN LINE.
8. COMMENCEMENT OF USE OF WATER LINES AND/OR SYSTEMS:
   a. NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL AFTER THE COMPLETION OF ALL PRESSURE TESTING, FLUSHING, BAC-T TESTING, COMPACTION TESTING, AND AS-BUILT DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT.
   b. NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
   c. ALL EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND RECORDED.

AGENCIES

OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT, SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742	FIRE DISTRICT:	BLACK FOREST FIRE PROTECTION DISTRICT 11445 TEACHOUT ROAD COLORADO SPRINGS, CO 80908 CHIEF BRYAN JACK (719) 495-4300
CIVIL ENGINEER:	JR ENGINEERING, LLC 5475 TECH CENTER DRIVE COLORADO SPRINGS, CO 80919 MIKE BRAMLETT P.E. (303) 267-6240	GAS DEPARTMENT:	COLORADO SPRINGS UTILITIES 7710 DURANT DR. COLORADO SPRINGS, CO 80947 TIM WENDT (719) 668-3556
COUNTY ENGINEERING:	EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT 2880 INTERNATIONAL CIRCLE, SUITE 110 COLORADO SPRINGS, CO 80910 JEFF RICE, P.E. (719) 520-6300	ELECTRIC DEPARTMENT: (719)	MOUNTAIN VIEW ELECTRIC 11140 E. WOODMEN ROAD FALCON, CO 80831 495-2283
TRAFFIC ENGINEERING:	EL PASO COUNTY DEPT. OF PUBLIC WORKS 3275 AKERS DRIVE COLORADO SPRINGS, CO 80922 JENNIFER IRVINE, P.E. (719) 520-6460	COMMUNICATIONS: (U.N.C.C.	QWEST COMMUNICATIONS LOCATORS) (800) 922-1987 AT&T (LOCATORS) (719) 635-3674
WATER RESOURCES:	STERLING RANCH METRO DISTRICT ENGINEERS JDS-HYDRO CONSULTANTS 545 E. PIKES PEAK AVE., SUITE 300 COLORADO SPRINGS, CO 80903 JOHN MCGINN (719) 668-8769		

EL PASO COUNTY STATEMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. DATE

COUNTY ENGINEER/ECM ADMINISTRATOR

WATER & SEWER MAIN EXTENSIONS

ANY CHANGES OR ALTERATIONS AFFECTING THE GRADE, ALIGNMENT, ELEVATION AND/OR DEPTH OF COVER OF ANY WATER OR SEWER MAINS OR OTHER APPURTENANCE SHOWN ON THIS DRAWING SHALL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ALL OPERATIONAL DAMAGES AND DEFECTS IN INSTALLATION AND MATERIAL FOR MAINS AND SERVICES FROM THE DATE OF APPROVAL UNTIL FINAL ACCEPTANCE IS ISSUED.

SIGNED _____ DATE _____
JAMES F. MORLEY

SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
(719) 471-1742

DISTRICT APPROVALS

THE STERLING RANCH METROPOLITAN DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN AND HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

STERLING RANCH METROPOLITAN DISTRICT

WASTEWATER DESIGN APPROVAL

DATE: _____ BY: _____

PROJECT NO. _____

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WASTEWATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL.

FIRE AUTHORITY APPROVAL

THE NUMBER OF FIRE HYDRANTS AND HYDRANT LOCATIONS SHOWN ON THIS WATER INSTALLATION PLAN ARE CORRECT AND ADEQUATE TO SATISFY THE FIRE PROTECTION REQUIREMENTS AS SPECIFIED BY THE FIRE DISTRICT SERVIING THE PROPERTY NOTED ON THE PLANS.

FIRE PROTECTION DISTRICT _____

SIGNED _____ DATE _____
FIRE PROTECTION DISTRICT

ENGINEER'S STATEMENT

THIS WATER SYSTEM PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR WASTEWATER SYSTEM PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLANS.

COLORADO REGISTERED MIKE A. BRAMLETT 32314 PROFESSIONAL ENGINEER

_____ DATE
MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
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H-SCALE	1"=1000'
V-SCALE	N/A
DATE	6/8/21
DESIGNED BY	JMF
DRAWN BY	JRM
CHECKED BY	

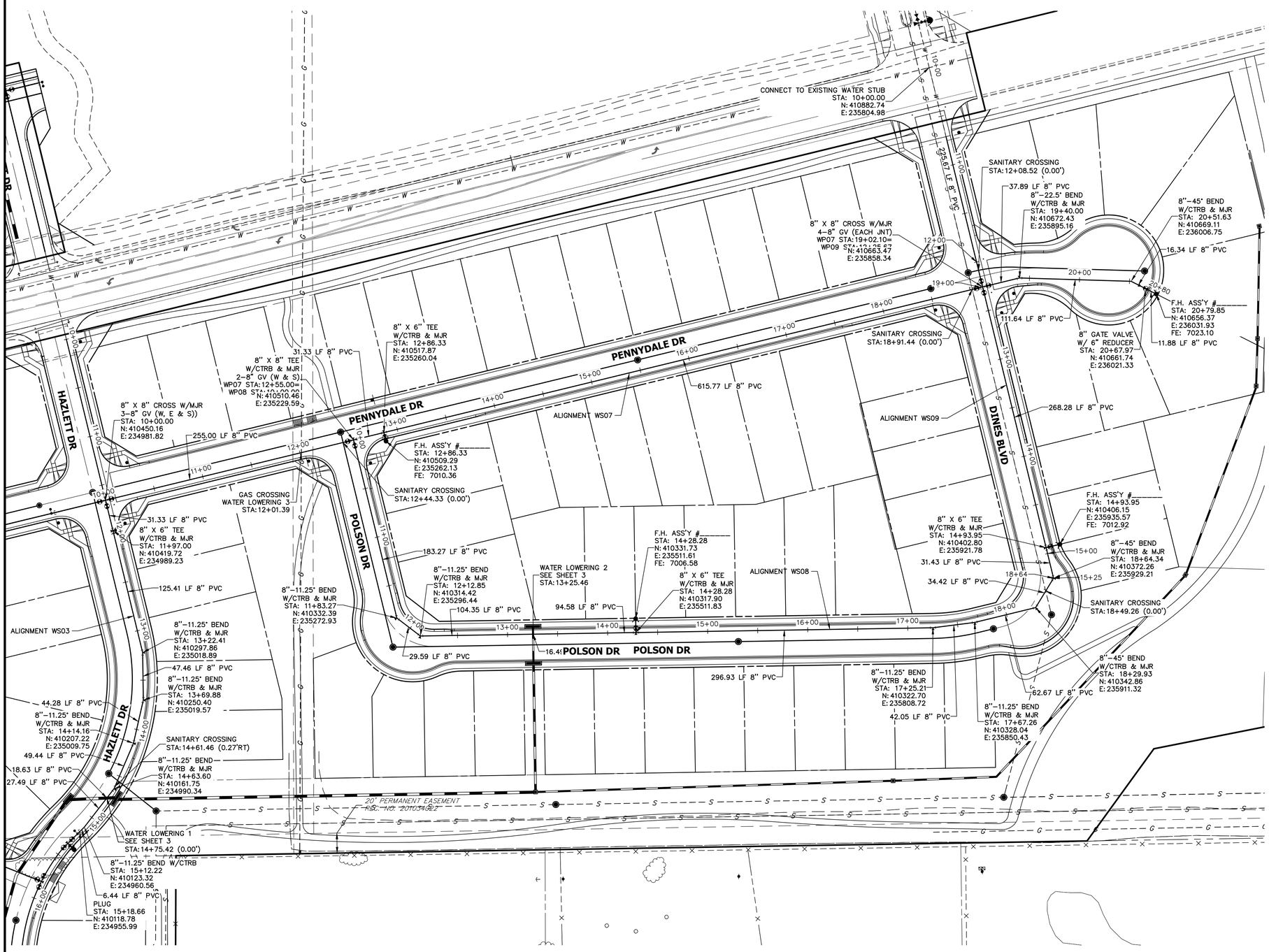
STERLING RANCH FILING 3

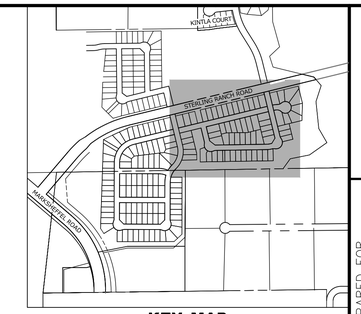
COVER SHEET

SHEET 1 OF 4

JOB NO. 25188.00

X:\2518000.all\25188D0\Drawings\Sheet Dwgs\Sterling Ranch Phase 2\Water System Plan\25188D0 CV01.dwg, Cover Sheet, 6/8/2021 4:44:03 PM, FC





KEY MAP
SCALE: NTS

N

50 25 0 50 100
ORIGINAL SCALE: 1" = 50'

Know what's **below.**
Call before you dig.

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF JR ENGINEERING

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

5/26/2021
DATE

COLORADO REGISTERED PROFESSIONAL ENGINEER MIKE A. BRAMLETT 32314

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PREPARED FOR
SR LAND, LLC
20 BOULDER CRESCENT
SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY
(719) 471-1742

J·R ENGINEERING
A Westrian Company
Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

No.	REVISION	BY	DATE

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V-SCALE	1"=5'
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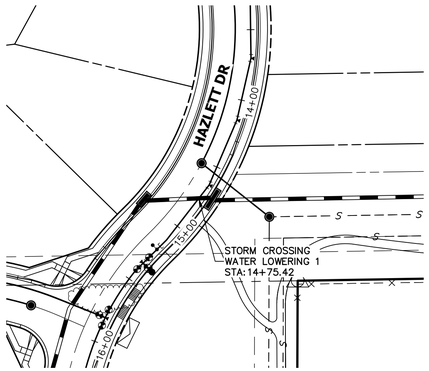
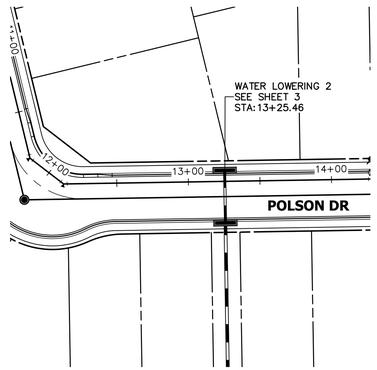
STERLING RANCH FILING 3

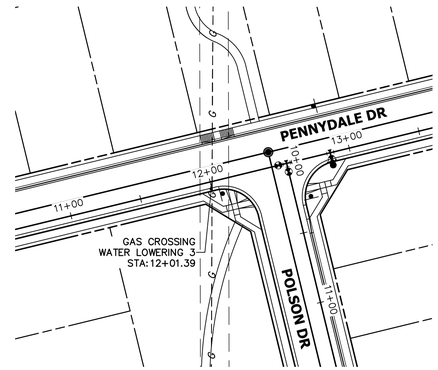
WATER PLANS

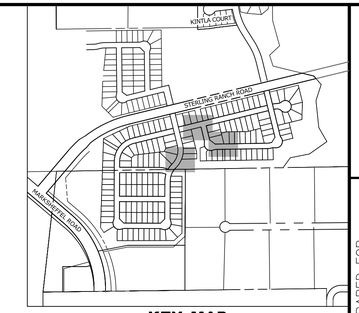
SHEET 2 OF 4

JOB NO. 25188.00

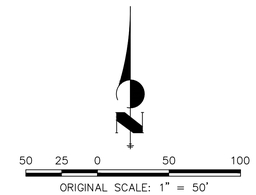




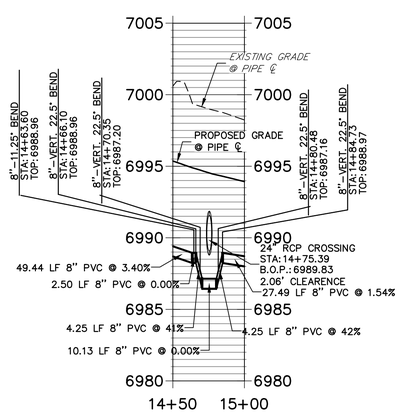




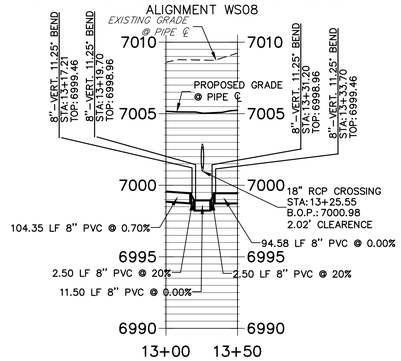
KEY MAP
SCALE: NTS



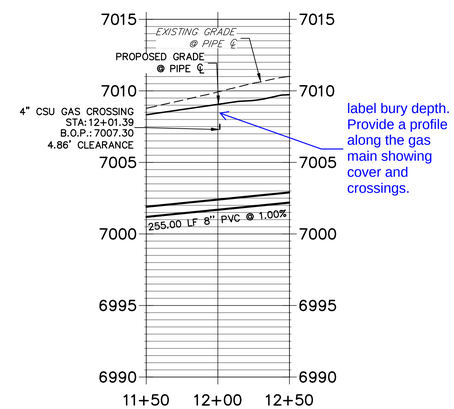
WATER LOWERING 1
STA 14+50.00 TO 15+00.00
ALIGNMENT WS03



WATER LOWERING 2
STA 13+00.00 TO 13+50.00
ALIGNMENT WS08



GAS CROSSING 3
STA 11+50.00 TO 12+50.00
ALIGNMENT WS07



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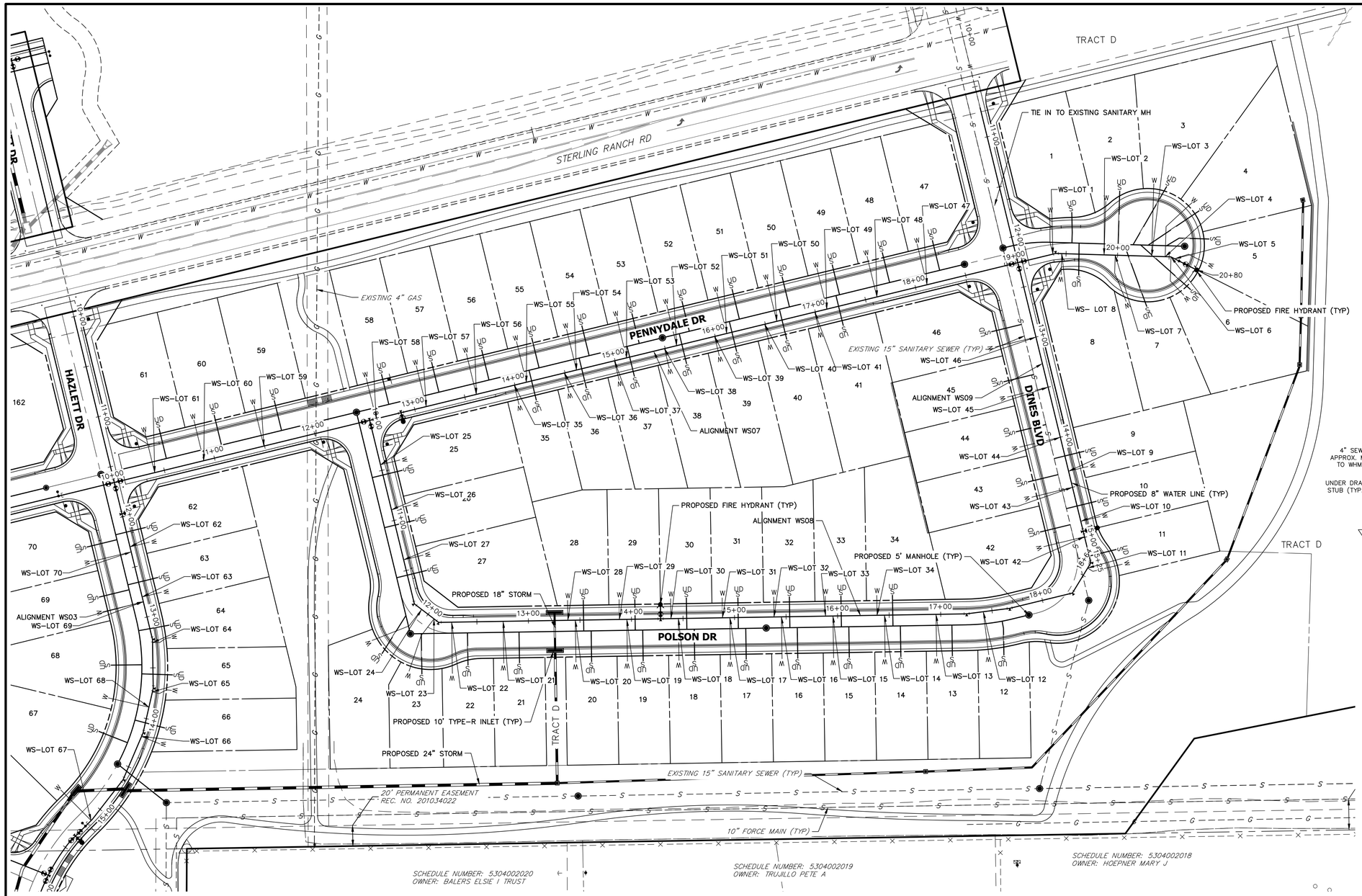
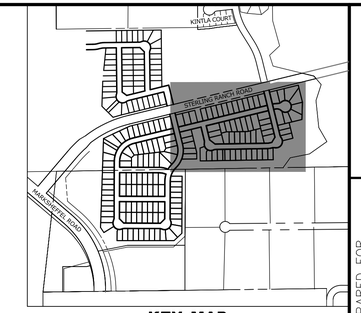
STERLING RANCH FILING 3

WATER LOWERING PROFILES

SHEET 3 OF 4

JOB NO. 25188.00





KEY MAP

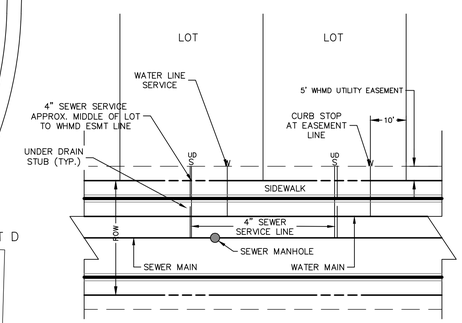
SCALE: NTS

NOTES:

1. WATER SERVICE TO BE 10' FROM "DOWNSTREAM" PROPERTY LINE AND EXTENDED TO WHMD UTILITY EASEMENT LINE.

2. SEWER SERVICE TO BE PLACED APPROXIMATELY IN THE MIDDLE OF THE LOT AND EXTENDED TO WHMD UTILITY EASEMENT LINE.

3.SERVICE SHALL BE MARKED WITH 2"x4" POST AT TERMINATION POINT FOR LOCATION DURING CONNECTION TO RESIDENCE. POSTS SHALL BE SPRAY-PAINTED BLUE FOR WATER AND GREEN FOR SEWER.



UTILITY SERVICE LOCATIONS

NTS

WATER SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
WS- LOT 8	19+45.79	WP07
WS-LOT 1	19+37.16	WP07
WS-LOT 2	19+86.93	WP07
WS-LOT 3	20+33.05	WP07
WS-LOT 4	20+46.20	WP07
WS-LOT 5	20+55.80	WP07
WS-LOT 6	20+51.86	WP07
WS-LOT 7	19+97.68	WP07
WS-LOT 9	14+33.95	WP09
WS-LOT 10	14+83.95	WP09
WS-LOT 11	18+58.28	WP08
WS-LOT 12	17+41.42	WP08
WS-LOT 13	16+95.46	WP08

WATER SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
WS-LOT 14	16+45.46	WP08
WS-LOT 15	15+95.46	WP08
WS-LOT 16	15+45.46	WP08
WS-LOT 17	14+95.46	WP08
WS-LOT 18	14+45.46	WP08
WS-LOT 19	13+95.46	WP08
WS-LOT 20	13+45.46	WP08
WS-LOT 21	12+75.46	WP08
WS-LOT 22	12+25.46	WP08
WS-LOT 23	12+07.25	WP08
WS-LOT 24	11+92.17	WP08
WS-LOT 25	10+44.34	WP08
WS-LOT 26	10+89.33	WP08

WATER SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
WS-LOT 27	11+39.33	WP08
WS-LOT 28	13+38.28	WP08
WS-LOT 29	13+88.28	WP08
WS-LOT 30	14+38.28	WP08
WS-LOT 31	14+88.28	WP08
WS-LOT 32	15+38.28	WP08
WS-LOT 33	15+88.28	WP08
WS-LOT 34	16+38.28	WP08
WS-LOT 35	13+99.33	WP07
WS-LOT 36	14+49.33	WP07
WS-LOT 37	14+99.33	WP07
WS-LOT 38	15+49.33	WP07
WS-LOT 39	15+99.33	WP07

WATER SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
WS-LOT 40	16+49.33	WP07
WS-LOT 41	16+99.33	WP07
WS-LOT 42	14+99.38	WP09
WS-LOT 43	14+50.00	WP09
WS-LOT 44	14+00.00	WP09
WS-LOT 45	13+50.00	WP09
WS-LOT 46	13+00.00	WP09
WS-LOT 47	18+11.44	WP07
WS-LOT 48	17+61.44	WP07
WS-LOT 49	17+11.44	WP07
WS-LOT 50	16+61.44	WP07
WS-LOT 51	16+11.44	WP07
WS-LOT 52	15+61.44	WP07

WATER SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
WS-LOT 53	15+11.44	WP07
WS-LOT 54	14+61.44	WP07
WS-LOT 55	14+11.44	WP07
WS-LOT 56	13+61.44	WP07
WS-LOT 57	13+11.44	WP07
WS-LOT 58	12+61.44	WP07
WS-LOT 59	11+49.33	WP07
WS-LOT 60	10+89.33	WP07
WS-LOT 61	10+40.34	WP07
WS-LOT 62	12+30.00	WP03
WS-LOT 63	12+80.00	WP03
WS-LOT 64	13+25.50	WP03
WS-LOT 65	13+73.46	WP03

WATER SERVICE TABULATION		
SERVICE/LOT #	STATION	ALIGNMENT
WS-LOT 66	14+17.96	WP03
WS-LOT 67	15+13.95	WP03
WS-LOT 68	13+88.59	WP03
WS-LOT 69	12+84.68	WP03
WS-LOT 70	12+35.00	WP03

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STERLING RANCH FILING 3

WATER PLANS

SHEET 4 OF 4

JOB NO. 25188.00