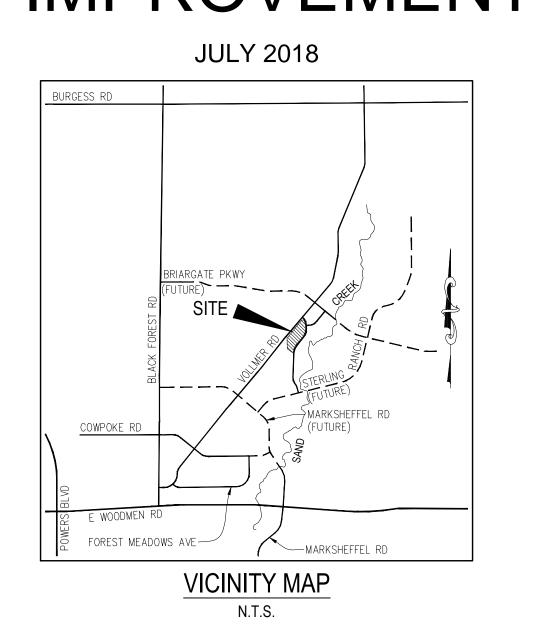
# HOMESTEAD AT STERLING RANCH FILING NO. 1 COUNTY OF EL PASO, STATE OF COLORADO STREET IMPROVEMENT PLANS

## AGENCIES

OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT, SUITE 201 COLORADO SPRINGS, CO 80903 JIM MORLEY (719) 471–1742
CIVIL ENGINEER:	M & S CIVIL CONSULTANTS, INC. 20 BOULDER CRESCENT, SUITE 110 COLORADO SPRINGS, CO 80903 VIRGIL A. SANCHEZ P.E. (719) 955–5485
COUNTY ENGINEERING:	EL PASO COUNTY DEVELOPMENT SERVICES 2880 INTERNATIONAL CIRCLE, SUITE 110 COLORADO SPRINGS, CO 80910 JEFF RICE, P.E. (719) 520–6300
TRAFFIC ENGINEERING:	EL PASO COUNTY PUBLIC SERVICES & TRANS. DEPT. 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

### **BENCHMARKS**

- 1. THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHEAST BOUNDARY CORNER OF BARBARICK SUBDIVISION NORTHING = 411416.273EASTING = 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 = 410095.404EASTING = 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 = 411399.962EASTING = 233849.817 ELEVATION = 7030.82





### APPROVALS:

#### ENGINEER'S STATEMENT:

DETAILED IMPROVEMENT PLANS AND SPECIFICATIONS ENGINEER'S STATEMENT: THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS. ERRORS. OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED IMPROVEMENT PLANS AND SPECIFICATIONS

VIRGIL A SANCHEZ, COLORADO P.E. NO. 37160 FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

OWNER/DEVELOPER STATEMENT: THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE DRAINAGE REPORT AND PLAN AND THIS SET OF CONSTRUCTION DOCUMENTS. THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

#### SR LAND, LLC JAMES F. MORLEY

EL PASO COUNTY:

MANUAL AS AMENDED.

#### JENNIFER IRVINE, P.E. COUNTY ENGINEER / ECM ADMINISTRATOR

# STERLING RANCH METROPOLITAN DISTRICT:

FOR AND ON BEHALF OF THE STERLING RANCH METRO. DISTRICT

BLACK FOREST FIRE PROTECTION DISTRICT:

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO THE BLACK FOREST FIRE PROTECTION DISTRICT SPECIFICATIONS. THE NUMBER OF FIRE HYDRANTS AND HYDRANT LOCATIONS AS SHOWN ON THE WATER INSTALLATION PLAN ARE CORRECT AND ADEQUATE TO SATISFY THE FIRE PROTECTION REQUIREMENTS AS SPECIFIED BY THE BLACK FOREST FIRE PROTECTION DISTRICT.

FOR AND ON BEHALF OF THE BLACK FOREST FIRE PROTECTION DISTRICT

## <u>SHEET INDEX</u>

SHEET 1	TITLE SHEET
SHEET 2	NOTES & DETAILS
SHEET 3	PLAN & PROFILE
SHEET 4	PLAN & PROFILE
SHEET 5	PLAN & PROFILE
SHEET 6	PLAN & PROFILE
SHEET 6	SIGNAGE & STRIPING

## Add:

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.

DATE

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 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, AND ENGINEERING CRITERIA

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

DATE

- WHEATLAND DRIVE STA 0+00.00 TO 13+50.00 - WHEATLAND DRIVE STA 13+50.00 TO 17+81.93 – SCOBY COURT

– RYEGATE WAY – CUTBANK WAY

ANS AND SPECIFICATIONS PECIFICATIONS, AND SAID D DRAINAGE PLANS AND SIBILITY FOR ANY LIABILITY PLANS AND SPECIFICATIONS.	HOMESTEAD AT STERLING RANCH FILING NO. 1 STRET IMPROVEMENT PLANS PROJECT NO. 09-005 PROJECT NO. 09-005	
N DOCUMENTS.	20 BOULDER CRESCENT, SUITE 110 20 BOULDER CRESCENT, SUITE 110	
TION.	VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160 FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.	
FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987	REVISIONS:       APRV'D: BY:       DATE:         No.       DATE:       BY:       DESCRIPTION:       APRV'D. BY:       DATE:         No.       DATE:       BY:       DESCRIPTION:       APRV'D. BY:       DATE:         No.       DATE:       BY:       DESCRIPTION:       APRV'D. BY:       DATE:         No.       DATE:       BY:       DATE:       APRV'D. BY:       DATE:         No.       DATE:       DATE:       APRV'D. BY:       DATE:       DATE:         No.       DATE:       DATE:       APRV'D. BY:       DATE:       DATE:         No.       DATE:       DATE:       DATE:       DATE:       DATE:       DATE:         No.       DATE:       DATE:       DATE:       DATE:       DATE:       DATE:       DATE:         DATE:       DATE:       DATE:       DATE:       DATE:       DATE:<	

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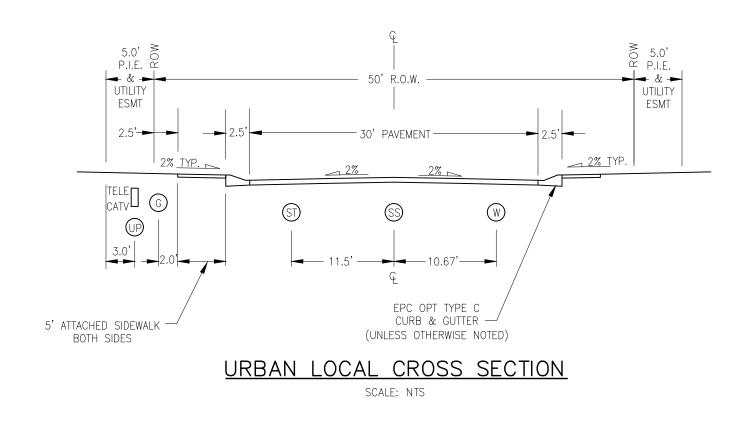
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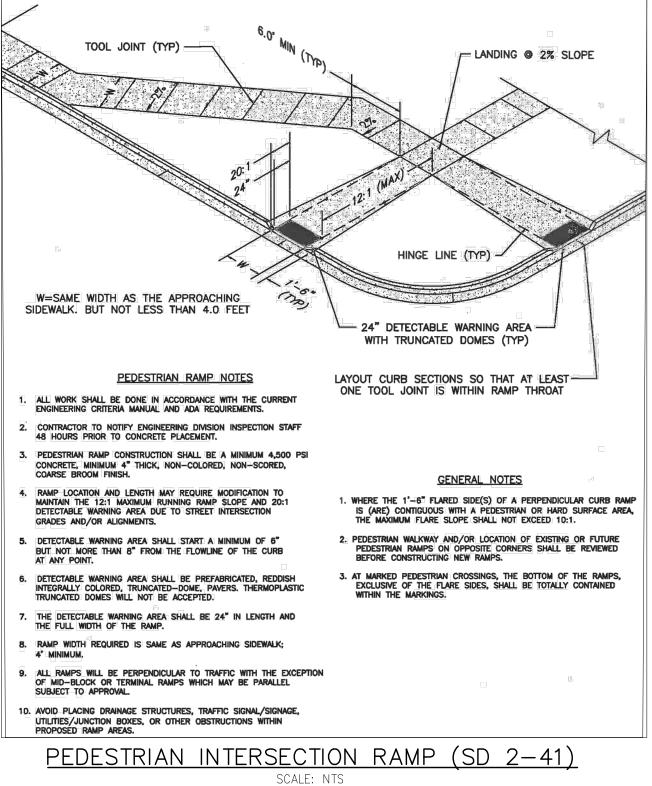
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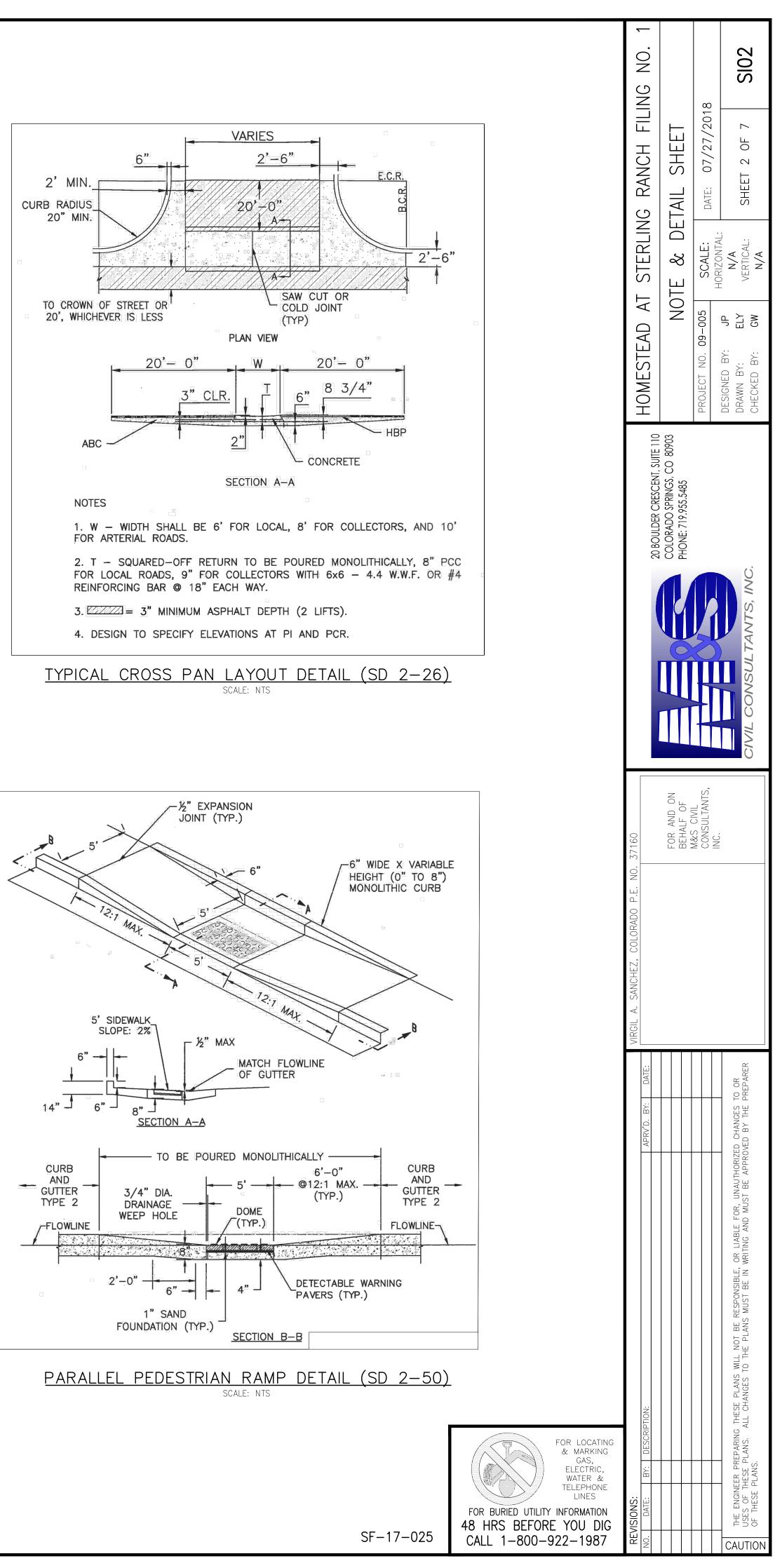
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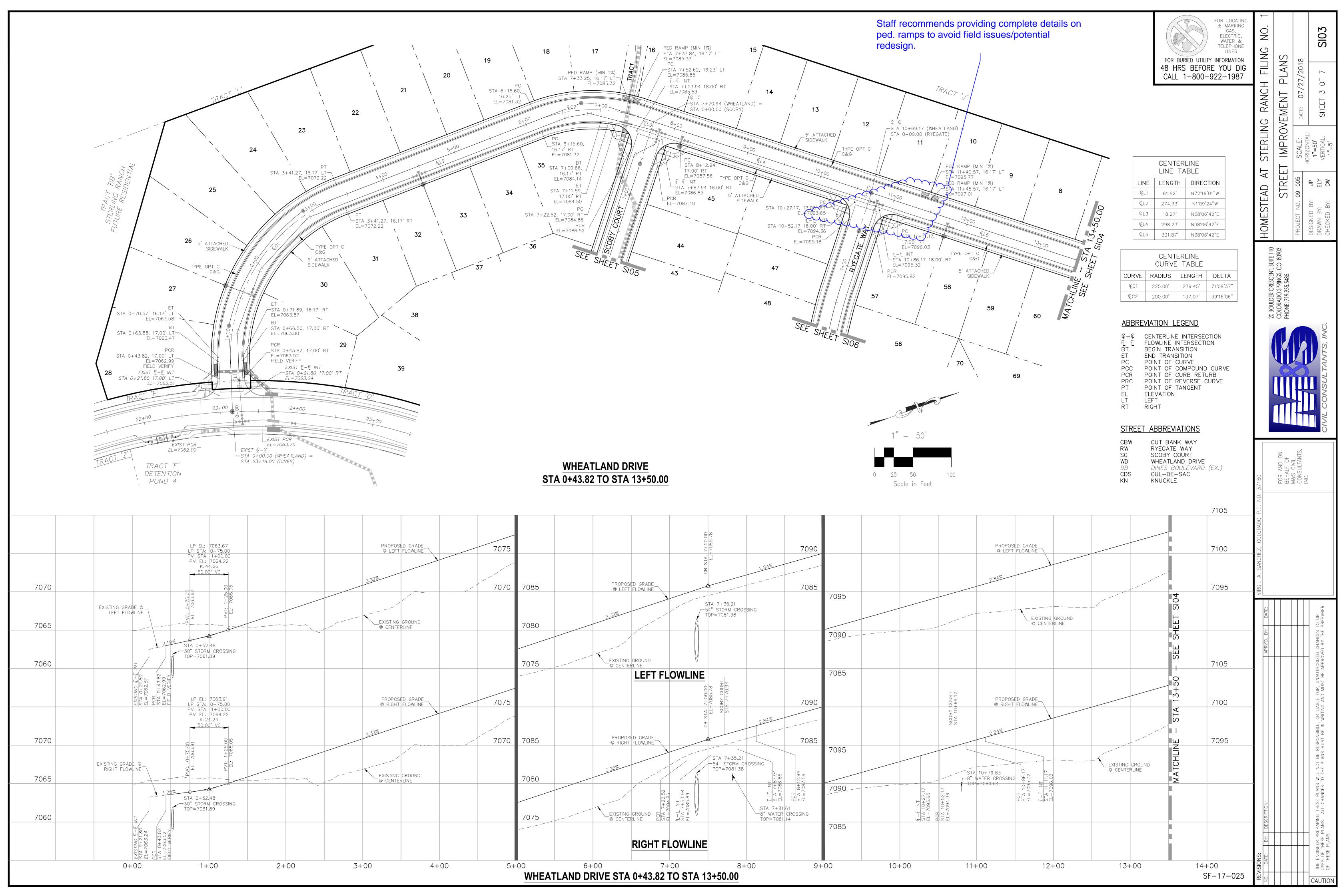
GENERAL CONSTRUCTION NOTES:	STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS	
<ol> <li>IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.</li> </ol>	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. 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	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).	
THE CONTRACTOR. 3. ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.	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	
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 PLANNING AND COMMUNITY DEVELOPMENT DIVISION.	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	2' M
5. ALL STATIONING IS CENTERLINE OF IMPROVEMENTS UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE	c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION d. CDOT M & S STANDARDS	CURB RAD
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.	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	20
7. ALL INTERSECTION ACCESSES TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLES EXCEPT BRAIRGATE PARKWAY AND VOLLMER ROAD WHICH ARE ARTERIALS AND A 50 FOOT SIGHT VISIBILITY TRIANGLE IS REQUIRED AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" VERTICAL IN THIS AREA.	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.	n
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	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.	TO CR 20', V
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	6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.	
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 PLANNING AND COMMUNITY DEVELOPMENT DIVISION PRIOR TO 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.	
SIGNING AND STRIPING NOTES:	8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND DEPARTMENT OF PUBLIC WORKS. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR	
<ol> <li>ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).</li> </ol>	INCONSISTENCIES.	
2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE	9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.	
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.	10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.	
3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DIVISION.	11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.	
4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY	12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES VERTICAL ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.	
MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.	13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA.	
5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.	14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DEPARTMENT PUBLIC WORKS, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.	
<ol> <li>ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.</li> <li>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"</li> </ol>	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.	TYP
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 DEPARTMENT OF PUBLIC WORKS (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.		01
14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS		

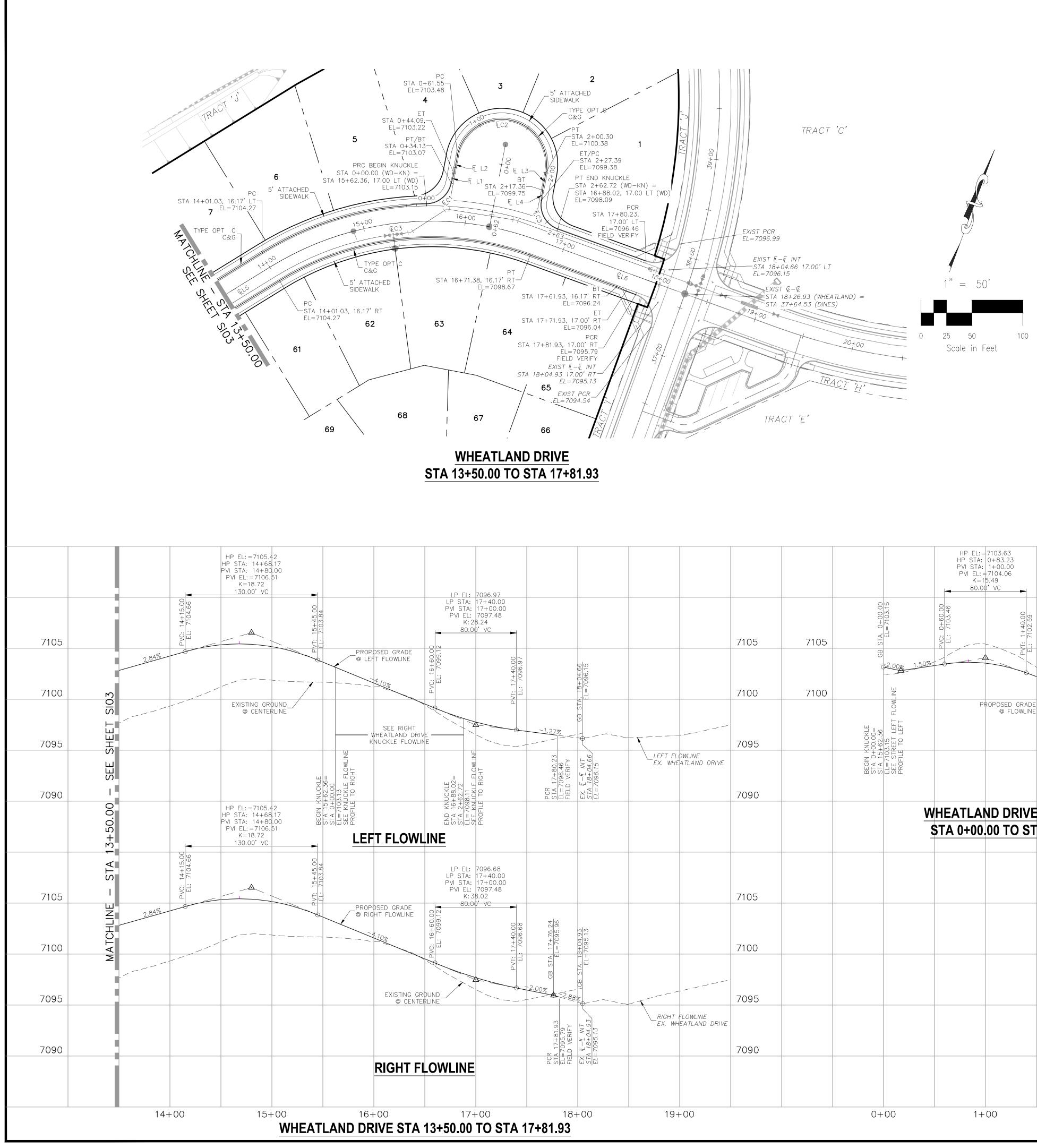
14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY, INCLUDING SIGNAGE OR STRIPING.











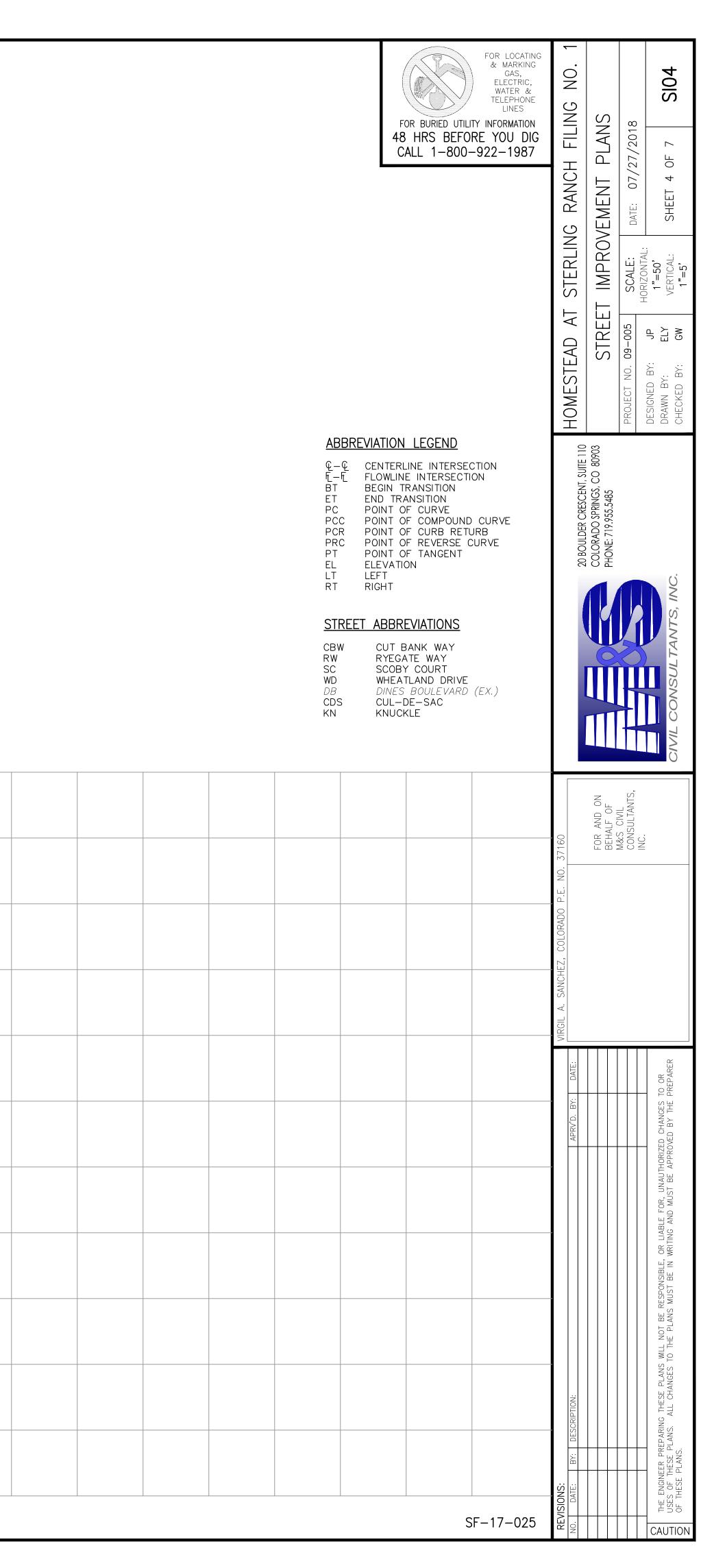
	CENTERLINE LINE TABLE						
	LIN	E	LENGT	Ή	DIREC	TION	
	QL5		331.87'		N38°06'42"E		
	₽L6		155.54'		N89°44'40"E		
CENTERLINE CURVE TABLE							
CUF	CURVE R		ADIUS	DIUS LE		DEL	ΓA

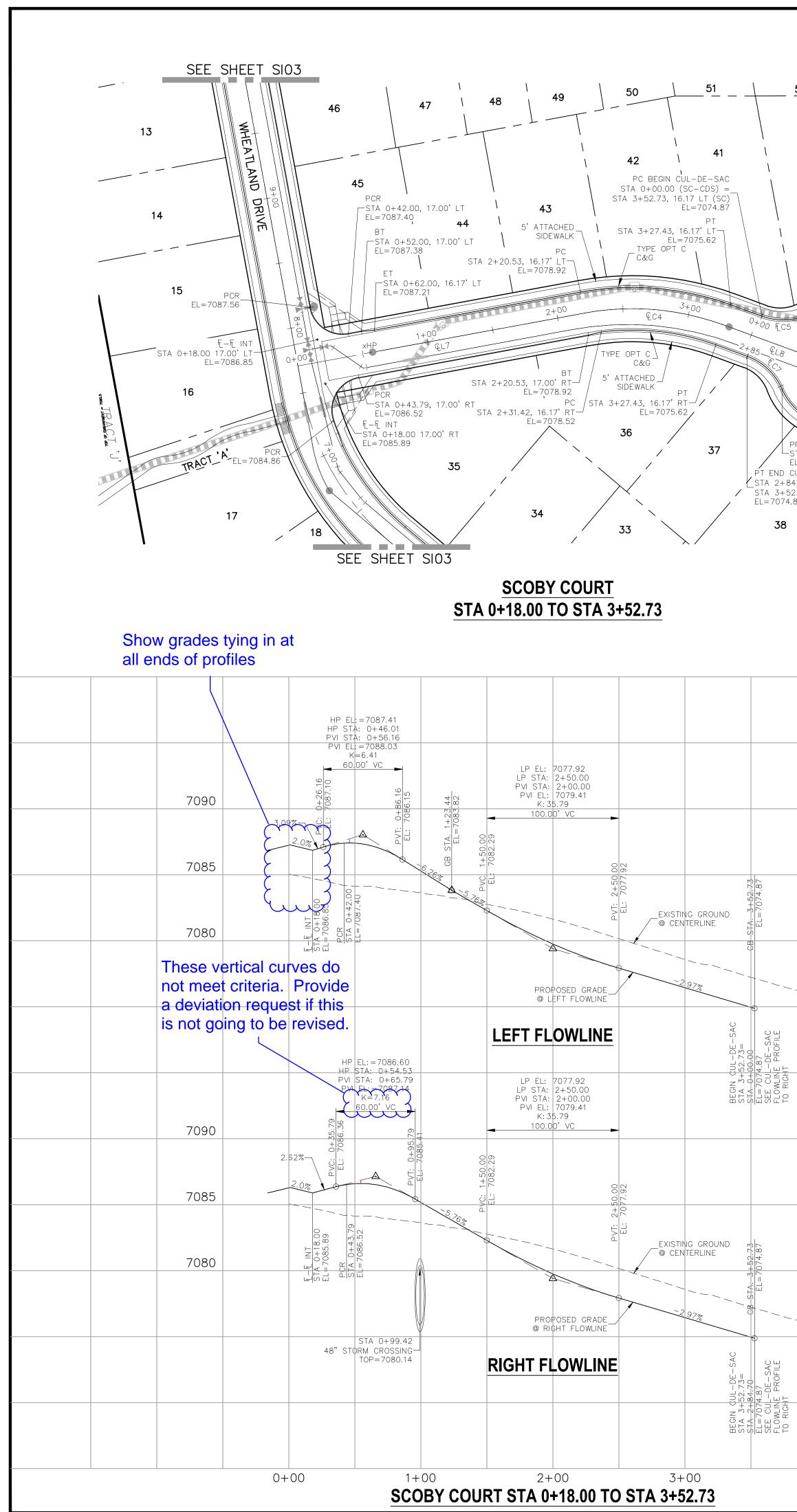
€C3 300.00' 270.35' 51°37'58"

CURB FLOWLINE LINE TABLE					
LINE	LENGTH	DIRECTION			
F_ L1	9.96'	N4°30'05"W			
F_ L2	17.46'	N9°18'07"W			
FL J	17.06'	S9°18'07"E			
F_ L4	10.03'	S14°03'57"E			

CURB FLOWLINE CURVE TABLE								
CURVE	RADIUS	LENGTH	DELTA					
₽_C1	25.00'	34.13'	78°13'29"					
FLC2	44.17'	138.75'	180°00'00"					
FLC3	25.00'	35.32'	80°57'13"					

EXISTING GROUND 2+62.72 =7098.09 EL. 7100 PROPOSED GRADE © FLOWLINE 7095 END KNUCKLE STA 2+62.72= STA 16+88.02 EL=7098.09 SEE STREET LEFT PROFILE TO LEFT WHEATLAND DRIVE KNUCKLE \$TA 0+00.00 TO STA 2+62.72 2+00



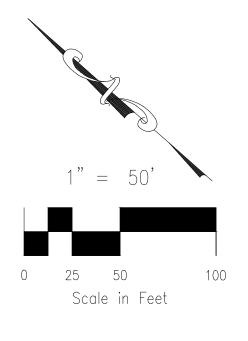


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				PVI S PVI E	L: 7071.17 TA: 1+31.16 TA: 1+26.78 L: 7070.56 K:13.06 D.00' VC				
	7080	7080	STA. 0+00.00 EL=7074.87						7080
	7075	7075	GB STA	/ / / VC: 0+86.78 EL: 7071.92	VT: 1+66.78 EL: 7071.66	EXISTING GROUI @ FLOWLII	EI EI		7075
	7075	7075	~	40%		2.73%			7075
TO RIGHT PROFILE	7070	7070		STA 0+25.83 48' STORM CROSSING TOP=7070.38	STA 1+13.59	PROPOSED GRA	ADE		7070
FLOW TO RI			SAC		STA 1+13.59 48" STORM CROSSING TOP=7067.72		SAC		
			BEGIN CUL-DE- STA 0+00.00= STA 3+52.73 EL=7074.87 SEE STREET LEF PROFILE TO LEF		STA 1+42.35 	R CROSSING	END CUL-DE-SA STA 2+84.70= STA 3+52.73 EL=7074.87 SEE STDFET DIG		
			<u> </u>		COURT CUL-D 0.00 TO STA 2	E-SAC			
	7080			<u>31A 010</u>	0.00 10 317 2	104.70			
	7075								
FLOWLINE PROFILE	7070								
FLOWLIN TO RIGH									
4+00			0+00	1+00	2	+00	3-	+00	

40 щō-. S \_ ک PRC STA 0+37.16 EL<u>=70</u>73.61 →STA 1+19.43 \ EL=7071.22 FΤ -STA 1+24.34, 0.83' LT EL=7071.19 CORNER INLET BOX -STA 1+27.55, 0.83' LT-----EL=7071.17 CORNER INLET BOX — STA 1+34.76, 0.83' LT EL=7071.17 101 BT --STA 1+37.97, 0.83' LT EL=7071.19 STA 1+42.88 R R R PRC EL=7071.22 STA 2+47.54 EL=7073.86 PT END CUL-DE-SAC STA 2+84.70 (SC-CDS) = STA 3+52.73, 16.17 RT (SC) EL=7074.87 39 38

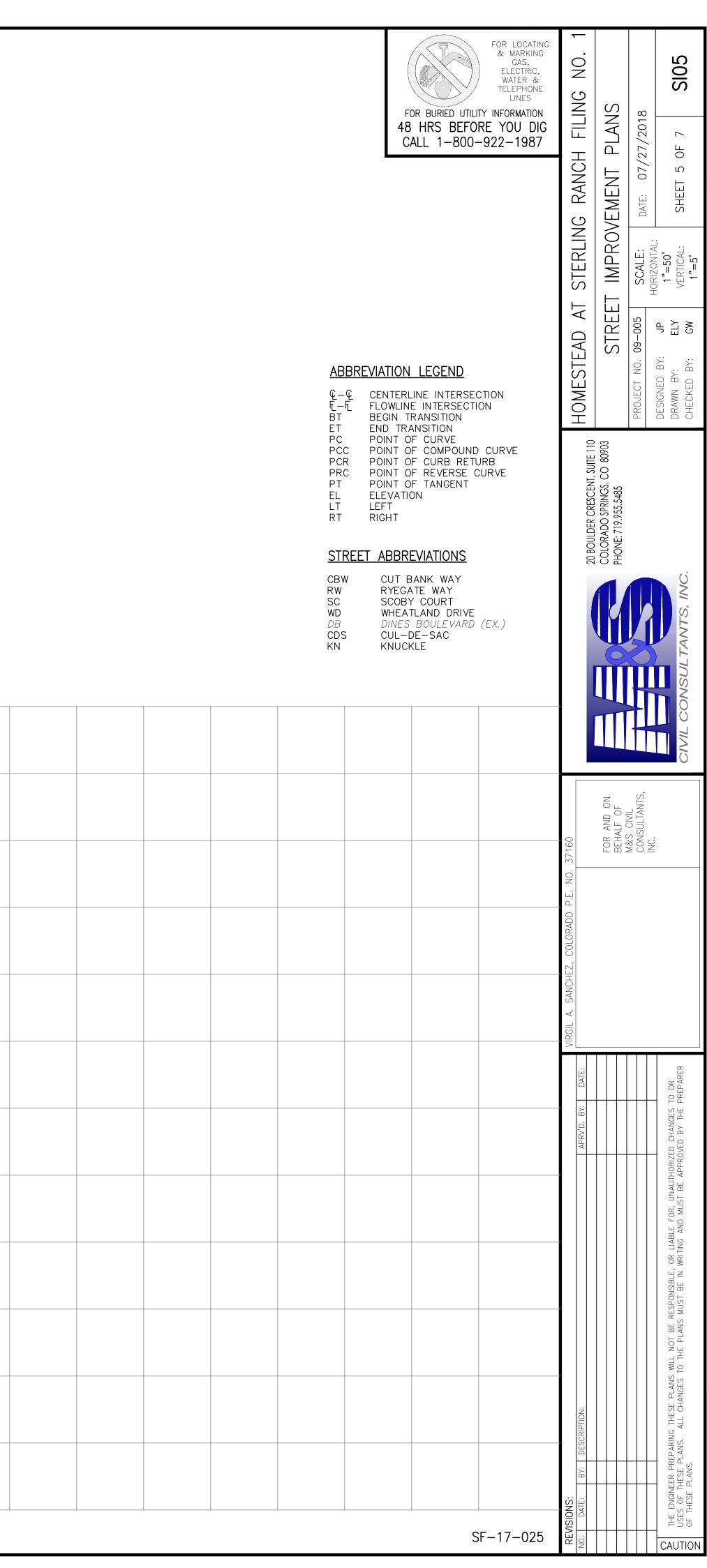
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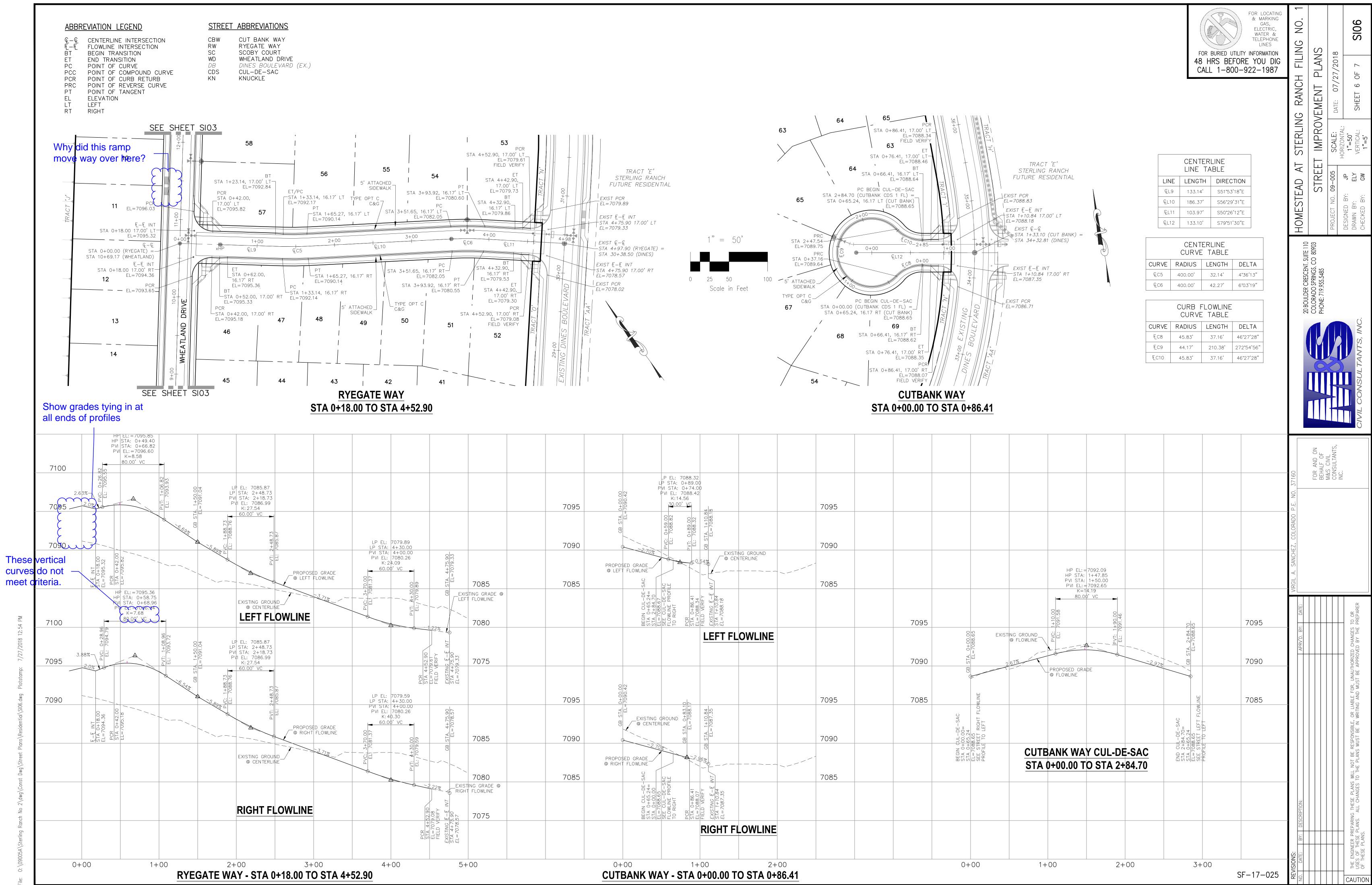


		CURVE TABLE									
	CURVE	RADIUS	LENGTH	DELTA							
	€C4	200.00'	106.89'	30°37'22"							
	CURB FLOWLINE CURVE TABLE										
CURVE RADIUS		LENGTH	DELTA								
F_C5 45.83'		37.16'	46°27'28"								
	F_C6	44.17'	210.38'	272°54'56"							

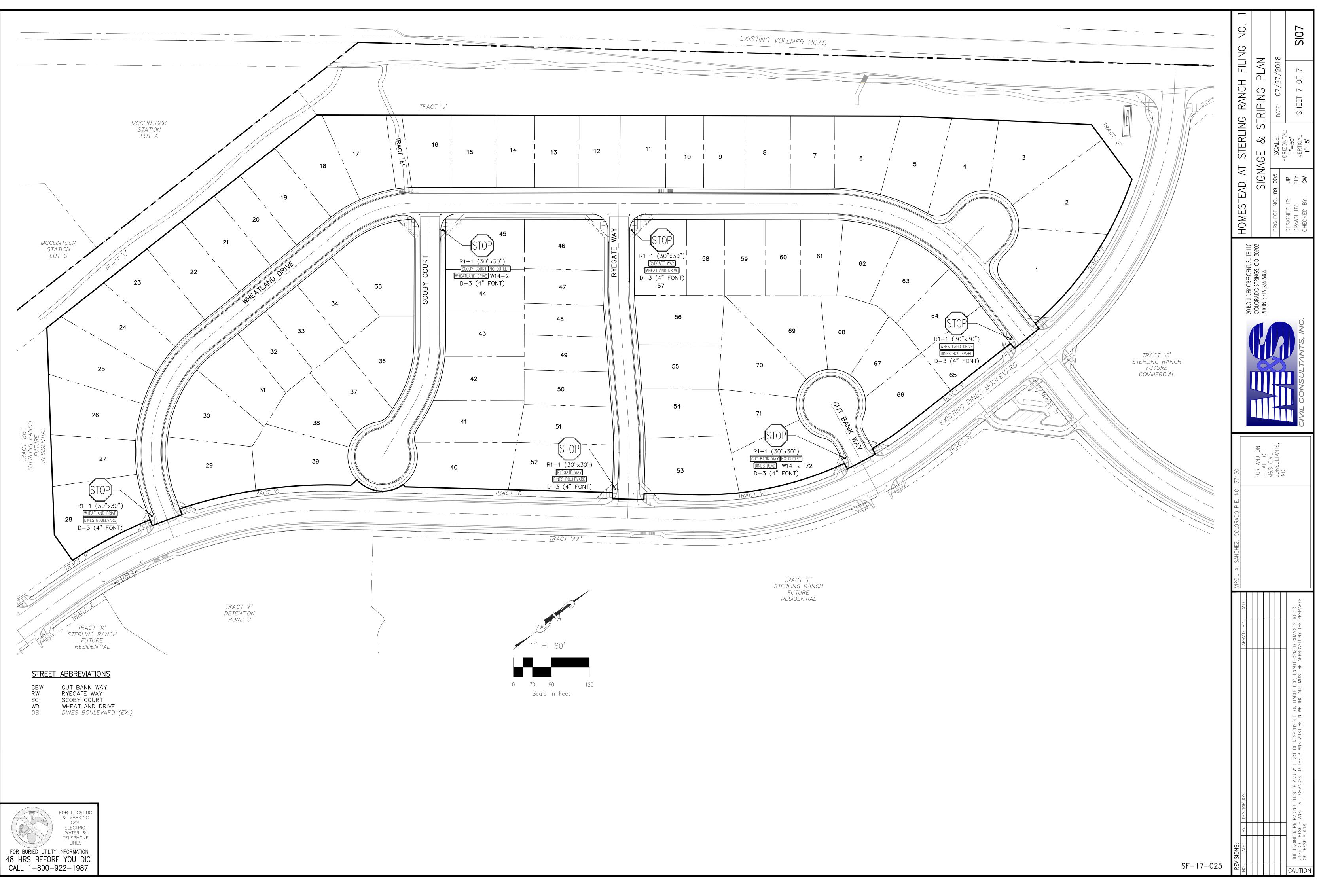
FLC7 45.83' 37.16' 46°27'28"

	CENTERLINE LINE TABLE						
	LIN	IE	LENG1	Ή	DIREC	TION	
	ΨL	7	220.53	3'	S51°53	18"E	
	ĘL8		90.54	,	S21°15	'56"E	
i							
CENTERLINE CURVE TABLE							
CUF	RVE	R	ADIUS	LE	ENGTH	DEL	ΓA





						<u>CUIBANK</u> STA 0+00.00 TO	
			D FL • 7088 32				
	7095	STA. 0+00.00 EL=7090.42	P EL: 7088.32 P STA: 0+89.00 1 STA: 0+74.00 VI EL: 7088.42 K:14.56 <u>30.00' VC</u>		7095		
		CB	C: 0+59.00 L: 7088.82 . 0+89.00 . 7088.32 . 7088.32 EL=7088.18 EL=7088.18				
	7090	PROPOSED GRADE @ LEFT FLOWLINE		OUND NE	7090		
085	7085				7085		
GRADE @ OWLINE		BEGIN CUL-DE-SA0 STA 0+65.24= STA 2+84.70 ELE 7088.67	SEE CUL-UE- FLOWLINE PRO TO RIGHT PCR PCR EL=7088.34 FIELD VERIFY <i>EXISTING E-E</i> <i>STA 1+10.84</i> <i>EL=7088.18</i>			7005	
080				<u>'LINE</u>		7095	
075						7090	R A A A A A A A A A A A A A A A A A A A
	7095	0+00.00			7095	7085	Ċ
085	7090	EXISTING GF BU BU EXISTING GF © CENTERLI	AI A		7090		BEGIN CUL-DE-SAC STA 0+00.00= STA 0+65.24
	7090	PROPOSED GRADE © RIGHT FLOWLINE					BEGIN CUI STA 0+000
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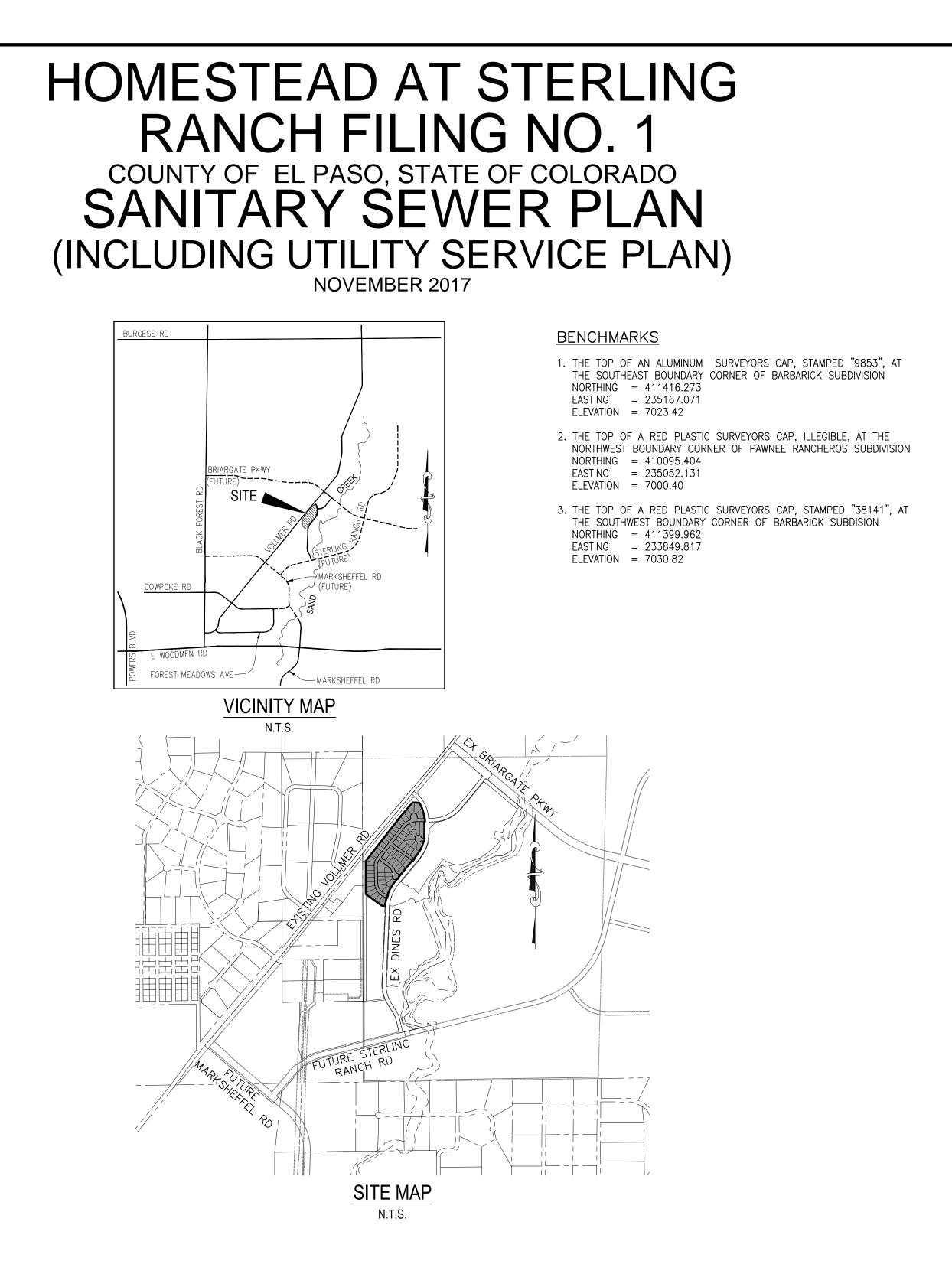


#### GENERAL NOTES

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- ALL OVER-LOT GRADING MUST BE COMPLETED TO WITHIN ONE (1) FOOT OF FINAL GRADE PRIOR TO INSTALLATION OF WATER AND WASTEWATER INFRASTRUCTURE.
- 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.
- 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 BITUMINOUS COATINGS.
- . 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.
- 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.
- 10. 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.
- 1. 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.
- 12. ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
- 13. 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.
- 4. 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.
- 15. ALL UNUSED SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN DISTRICT AS REQUESTED.
- 16. 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.
- 7. PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
- 18. 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.
- 19. ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINES) 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.
- 20. 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.
- 21. COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN METROPOLITAN DISTRICT:
- a) PRIOR TO THE START OF CONSTRUCTION, A <u>PRE-CONSTRUCTION MEETING IS REQUIRED</u> 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 UTILITY LINES.

22. 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.
- 23. 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.
- 24. 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 FACILITIÉS PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.
- 25. 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).
- 26. ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
- 27. 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.
- 28. 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.
- 29. INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE.



#### WASTEWATER SYSTEM INSTALLATION NOTES

1. SANITARY SEWER LENGTHS ARE MH CENTER-MH 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:

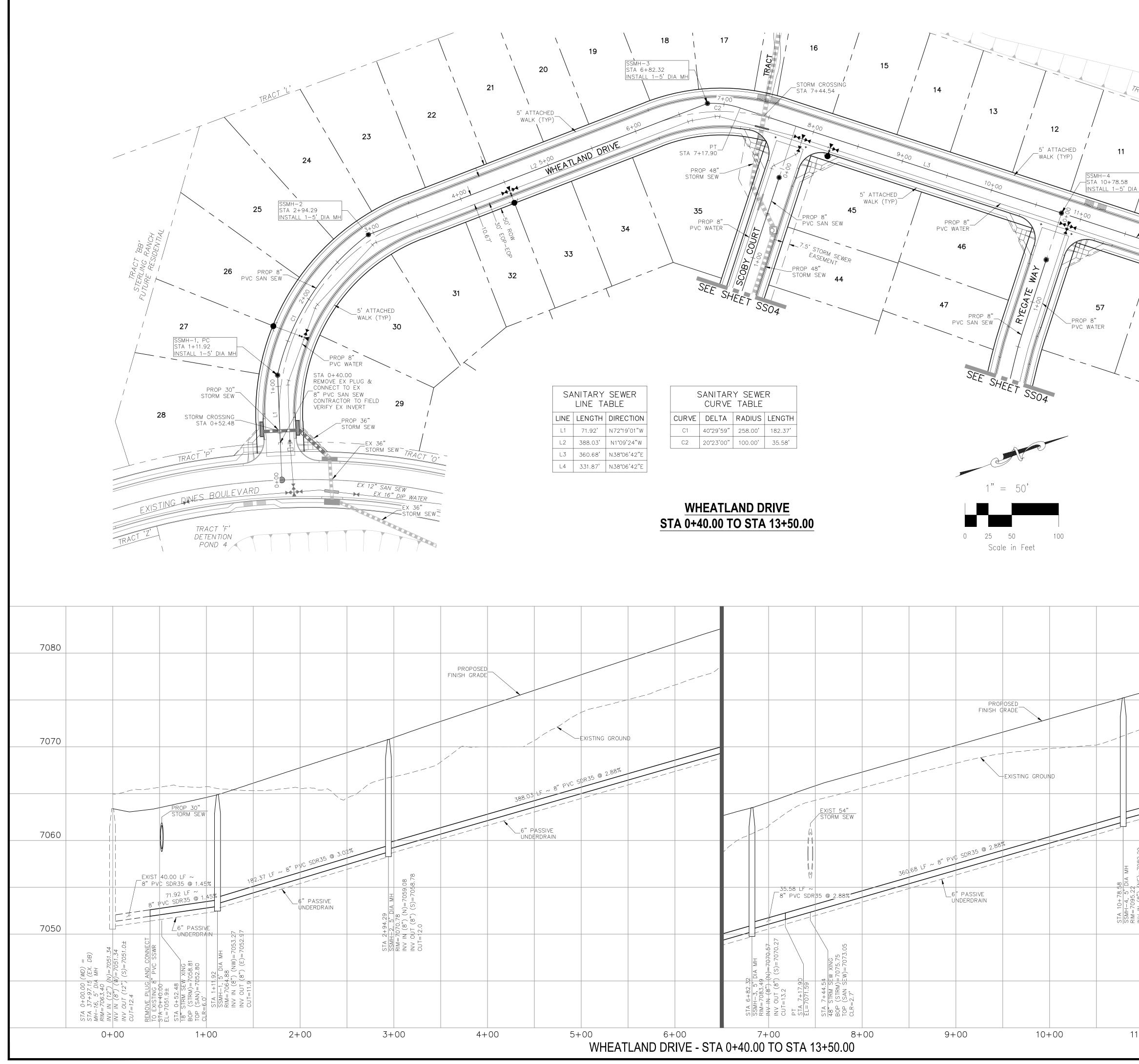
a) NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL THE COMPLETION OF ALL JET CLEANING. PRESSURE TESTING. VACUUM TESTING, CCTV INSPECTION, COMPACTION TESTING, AND AS-BUILT DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT.

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 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.

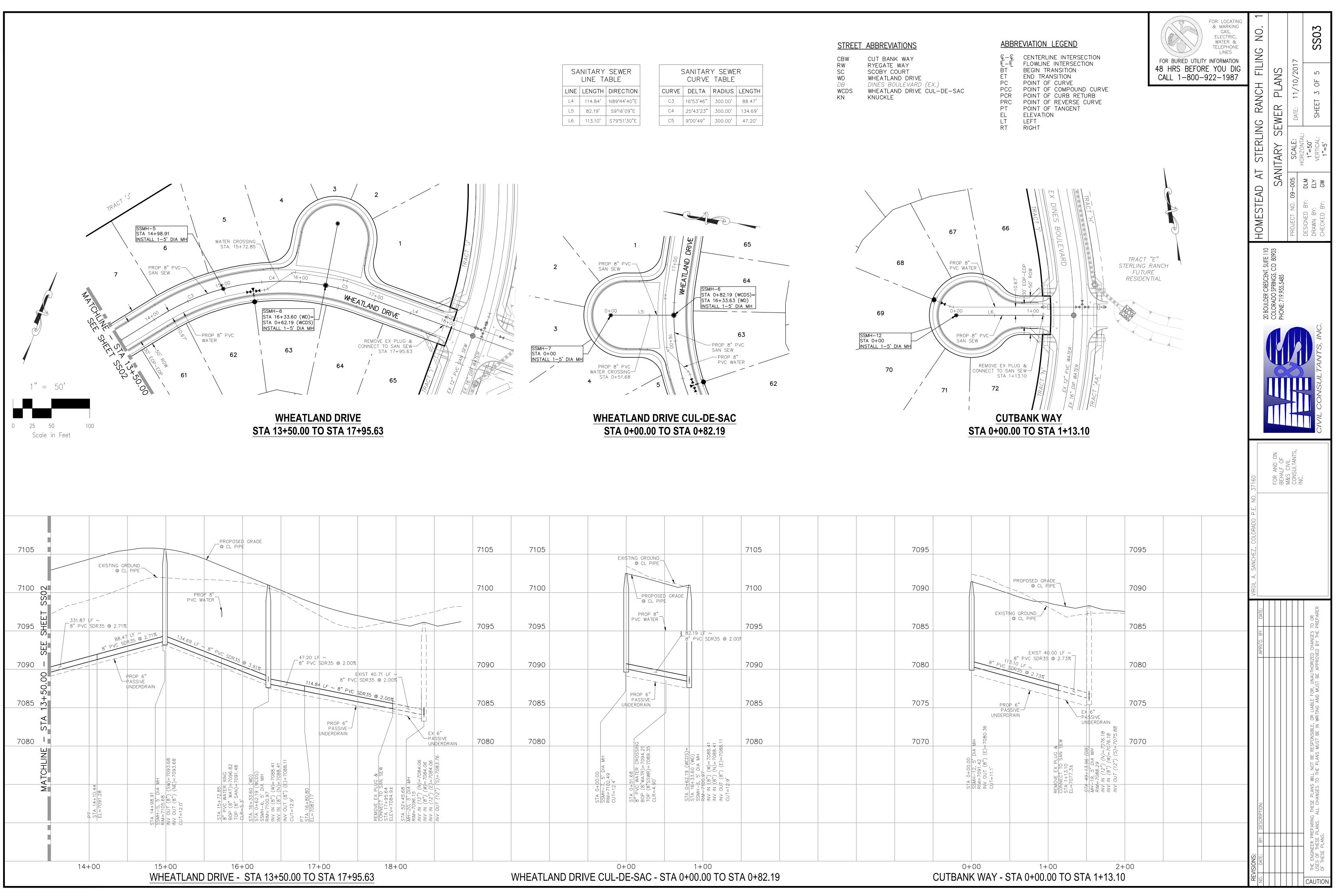
d) DOWNSTREAM PLUG CAN BE REMOVED ONCE FIRST LIFT OF ASPHALT IS DOWN AND THE ABOVE REQUIREMENTS ARE MET.

				<u> </u>			
				NO.			10
	AGENCIES						SS01
	OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT COLORADO SPRINGS, CO JIM MORLEY (719) 471	D 80903	FILING	NS	)/2017	2
	CIVIL ENGINEER:	M & S CIVIL CONSULTA 20 BOULDER CRESCENT COLORADO SPRINGS, CO VIRGIL A. SANCHEZ P.E	, SUITE 110 D 80903	RANCH	ER PLANS	DATE: 11/10/	SHEET 1 OF
	COUNTY ENGINEERING:	EL PASO COUNTY PLAN AND COMMUNITY DEVEL 2880 INTERNATIONAL CI COLORADO SPRINGS, CO JEFF RICE, P.E. (719)	OPMENT RCLE, SUITE 110 D 80910	STERLING	Y SEWER	SCALE: DAT	
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	WATER RESOURCES:	STERLING RANCH METRO JDS—HYDRO CONSULTAN 545 E. PIKES PEAK AV COLORADO SPRINGS, CO JOHN MCGINN (719) 60	NTS E., SUITE 300 D 80903	ESTEAD		NO. 09-	ВҮ: ВҮ:
	FIRE DISTRICT:	BLACK FOREST FIRE PF 11445 TEACHOUT ROAD COLORADO SPRINGS, CO CHIEF BRYAN JACK (71	ROTECTION DISTRICT	HOME	503		DESIGNED DRAWN BY CHECKED
	GAS DEPARTMENT:	COLORADO SPRINGS UT 7710 DURANT DR. COLORADO SPRINGS, CO TIM WENDT (719) 668-	LITIES D 80947	L ETILIS THEOSEG	PRINGS, CO 809 55.5485		
	ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTR 11140 E. WOODMEN RC FALCON, CO 80831 (719) 495–2283	IC		COLORADO SPRINGS, CO 80903 PHONE: 719.955.5485		
	COMMUNICATIONS:	QWEST COMMUNICATION (U.N.C.C. LOCATORS) (8 AT&T (LOCATORS) (719	300) 922–1987				NSULTANTS, INC.
ANY CHANGES OR ALTER ANY WATER OR SEWER RESPONSIBILITY OF THE OPERATIONAL DAMAGES A	R MAIN EXTENTIONS ATIONS AFFECTING THE GRADE, MAINS OR OTHER APPURTEN OWNER/DEVELOPER. THE OV AND DEFECTS IN INSTALLATION FINAL ACCEPTANCE IS ISSUED.	ALIGNMENT, ELEVATION AND/C NANCE SHOWN ON THIS DR WNER/DEVELOPER SHALL BE	AWING SHALL BE THE RESPONSIBLE FOR ALL			Ċ,	CIVIL CC
SIGNED OWNER/DEVELOPER	2	DATE		0	R AND ON Half of	M&S CIVIL CONSULTANT INC.	
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SHEET 3 PLAN & SHEET 4 PLAN &	IEET PROFILE – WHEATLAND DRIVE S PROFILE – WHEATLAND DRIVE S – WHEATLAND DRIVE C – CUTBANK WAY PROFILE – RYEGATE WAY – SCOBY COURT SERVICE PLAN	TA 13+50.00 TO 16+23.63		ON:			THESE PLANS WILL NOT BE RESPONSIBLE, C ALL CHANGES TO THE PLANS MUST BE IN W
			FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES	REVISIONS: 40. DATE: BY: DESCRIPTION			THE ENGINEER PREPARING TI USES OF THESE PLANS. AL OF THESE PLANS.



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7RACT 'J' 10 10 14 12+00 10 10 10 10 10 10 10 10 10	8" SAN SEW	MATCHLINE - STA 13+50.00 - 8 SEE SHEET SS03 50.00 -	48 HR	FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES URED UTILITY INFORMATION S BEFORE YOU DIG 1-800-922-1987	20 BOULDER CRESCENT, SUITE 110 COLORADO SPRINGS, CO 80903 PHONE: 719.955.5485 SANITARY SEWER PLANS	PROJECT NO. 09-005SCALE:DATE: 11/10/2017DESIGNED BY:DLMHORIZONTAL:I"=50'DRAWN BY:ELYVERTICAL:VERTICAL:CHECKED BY:GW1"=5'SHEET 2 OF 5CHECKED BY:GW1"=5'SHEET 2 OF 5
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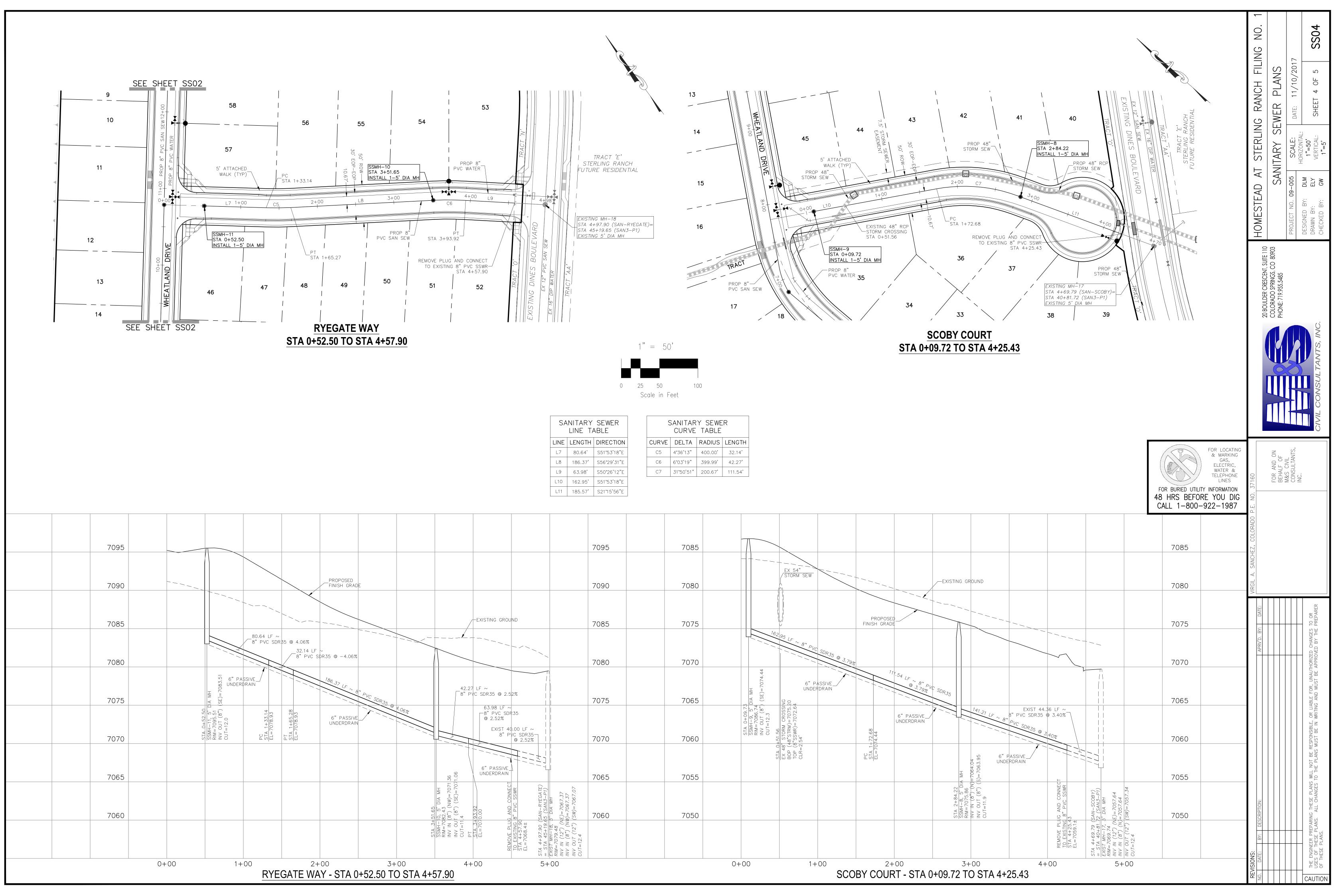
STREET	ABBREVIATIONS

CBW	CUT BANK WAY
RW	RYEGATE WAY
SC	SCOBY COURT
WD	WHEATLAND DRIVE
DB	DINES BOULEVARD
WCDS	WHEATLAND DRIVE
KN	KNUCKI F

SANITARY SEWER LINE TABLE				
LINE	LENGTH	DIRECTION		
L4	114.84'	N89°44'40"E		
L5	82.19'	S9°16'09"E		
L6	113.10'	S79°51'30"E		

SANITARY SEWER CURVE TABLE						
CURVE DELTA RADIUS LENGTH						
C3	16°53'46"	300.00'	88.47'			
C4	25°43'23"	300.00'	134.69'			
C5	9°00'49"	300.00'	47.20'			

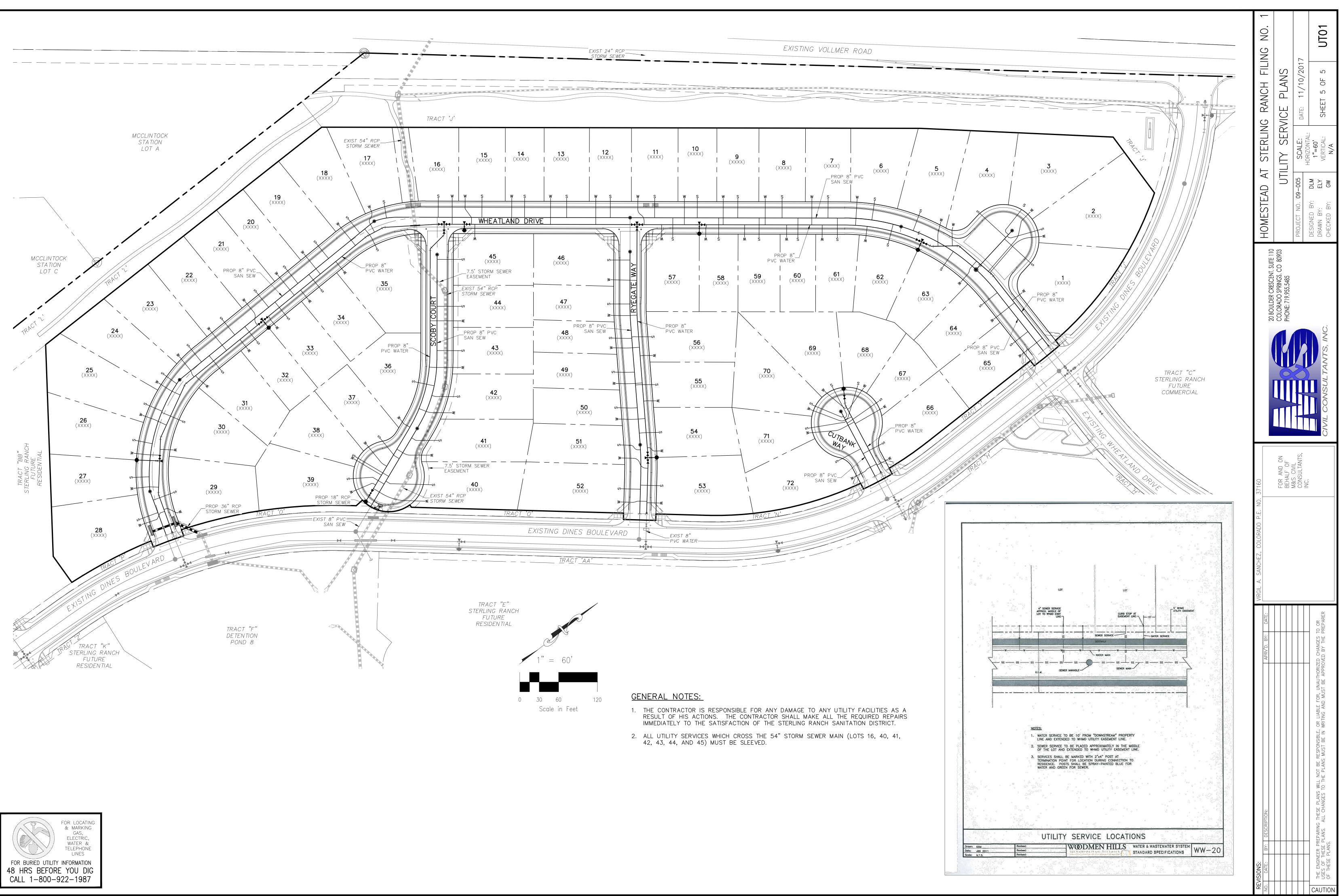
	7105	7105	 				7105			7095
	7100	7100	EXI	STING GROUND © CL PIPE			7100			7090
				PROPOSEI © CL PIPI PROP 8" PVC WATER	D GRADE					
	7095	7095					7095			7085
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	7085	7085	UI	PROP 6" PASSIVE NDERDRAIN			7085			7075
/E DRAIN	7080	7080		0		4 1 1 1	7080			7070
			STA 0+00.00 SSMH-7, 5' DIA MH RIM=7102.49 CUT=12 4'	STA 0+51.68 8" PVC WATER CROSSING BOP (8'WATR)=7094.25 TOP (8'SSWR)=7089.35 CLR=4.90'	+62.19 (WCDS)= +53.60 (WD) 5.5' DIA MH	NIN IN (8") (W)=7088.41 INV IN (8") (W)=7088.41 INV OUT (8") (E)=7088.11 CUT=12.9'				
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SA	SANITARY SEWER LINE TABLE				
LINE	LENGTH	DIRECTION			
L7	80.64'	S51°53'18"E			
L8	186.37'	S56°29'31"E			
L9	63.98'	S50°26'12"E			
L10	162.95'	S51°53'18"E			
L11	185.57'	S21°15'56"E			

	SANITARY SEWER CURVE TABLE						
CURVE	DELTA	RADIUS	LENGTH				
C5	4°36'13"	400.00'	32.14'				
C6	6°03'19"	399.99'	42.27'				
C7	31°50'51"	200.67'	111.54'				

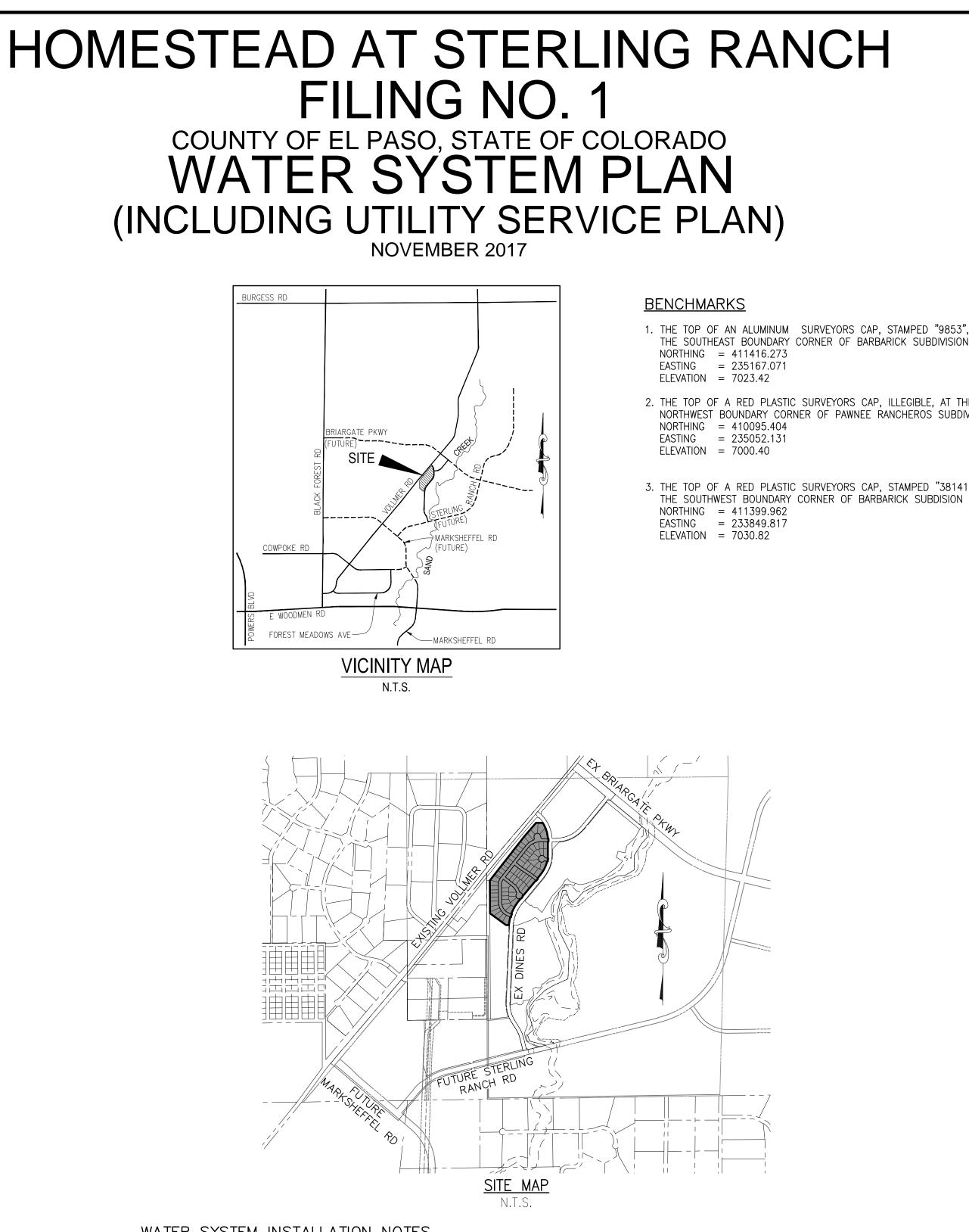
	7095	7085			
	7090	7080	EX 54" STORM SEW		
-EXISTING GROUND	7085	7075		PROPOSED FINISH GRADE	
	7080	7070	162.95 LF ~ 8" p	PVC SDR35 @ 3.79%	
42.27 LF ~   8" PVC SDR35 @ 2.52%	7075	7065	G (SE) = 7074.44	PASSIVE	54 LF ~ 8" F @ 3.79%
63.98 LF ~ 8" PVC SDR35 @ 2.52% EXIST 40.00 LF ~ 8" PVC SDR35 @ 2.52%	7070	7060	STA 0+09.73 SSMH-9, 5' DIA RIM=7086.74 INV OUT (8") (9 CUT=12.3 CUT=12.3 STA 0+51.56 EX 48' STORM CROSSING BOP (48"STRM)=7075.20 TOP (8"SSWR)=7072.64 CLR=2,54'	74.44	6" PASSIVE_ UNDERDRAIN
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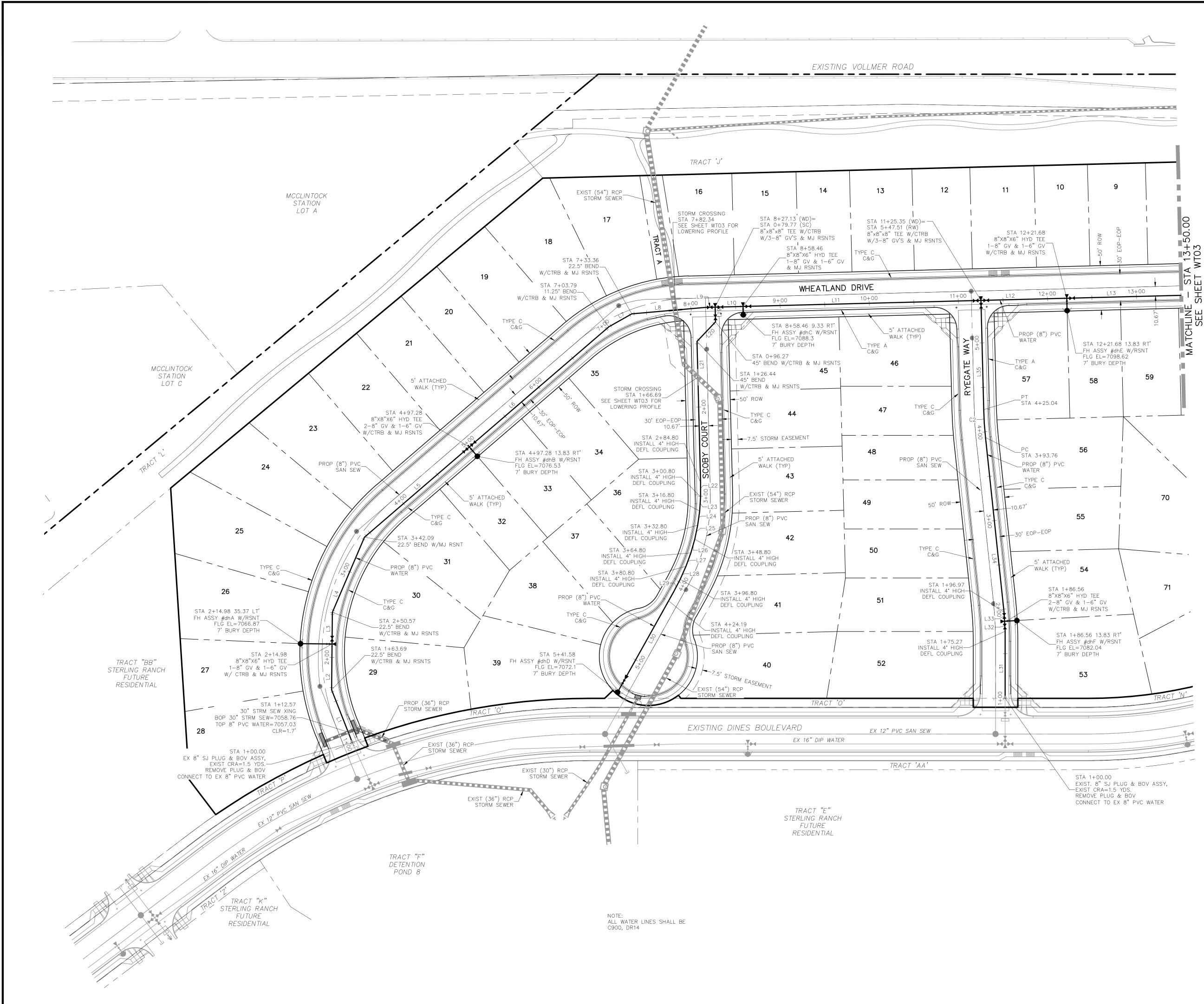
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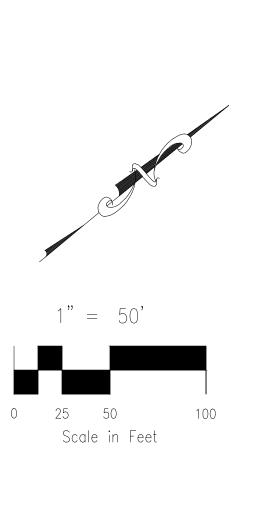
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- 8. ALL DUCTILE IRON PIPE LESS THAN 12 INCHES AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE 12 INCHES AND GREATER AND 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.
- 9. 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.
- 10. 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.
- 11. 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.
- 12. ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
- 13. 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.
- 14. 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.
- 15. ALL UNUSED SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN DISTRICT AS REQUESTED.
- 16. 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.
- 17. PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
- 18. 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.
- 19. ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINES) 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.
- 20. 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.
- 21. COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN METROPOLITAN DISTRICT:
- a) PRIOR TO THE START OF CONSTRUCTION, A <u>PRE-CONSTRUCTION MEETING IS REQUIRED</u> 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. <u>NO PRE-CONSTRUCTION MEETING CAN BE SCHEDULED PRIOR TO FOUR (4) SIGNED/APPROVED</u> 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 UTILITY LINES.
- 22. 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.
- 23. 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.
- 24. 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 <u>24 MONTHS</u> COMMENCING AFTER PRELIMINARY ACCEPTANCE.
- 25. 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).
- 26. ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
- 27. 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.
- 28. 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.
- 29. INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE.



- 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 RESTRAINTS AND THRUST BLOCKS. ALL WATER AND FORCE MAIN PIPE SHALL HAVE A MINIMUM COVER DEPTH OF FIVE AND ONE-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 SERVICE STUB OUTS FOR FUTURE DEVELOPMENT. 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.

				NO.			
	AGENCIES OWNER/DEVELOPER:	SR LAND, LLC					>
		20 BOULDER CRESCENT, SU COLORADO SPRINGS, CO 80 JIM MORLEY (719) 471–17	0903	FILING		/2017	4
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Г	TRAFFIC ENGINEERING:	JEFF RICE, P.E. (719) 520 EL PASO COUNTY DEPARTM 3275 AKERS DRIVE COLORADO SPRINGS, CO 80 JENNIFER IRVINE, P.E. (719	ENT OF PUBLIC WORKS	AT STE	MA	5 SCALE: HORIZONTAL	
	WATER RESOURCES:	STERLING RANCH METRO DI JDS-HYDRO CONSULTANTS 545 E. PIKES PEAK AVE., COLORADO SPRINGS, CO 80	ISTRICT ENGINEERS SUITE 300	HOMESTEAD		NO. 09-005 D BY: VAS ЗҮ: EY	3Y:
ON	FIRE DISTRICT:	JOHN MCGINN (719) 668– BLACK FOREST FIRE PROTE 11445 TEACHOUT ROAD COLORADO SPRINGS, CO 80	8769 CTION DISTRICT			PROJECT N DESIGNED DRAWN BY:	CHECKED
AT	GAS DEPARTMENT:	CHIEF BRYAN JACK (719) COLORADO SPRINGS UTILITII 7710 DURANT DR. COLORADO SPRINGS, CO 80	495–4300 ES	CENT. SUITE 110	COLORADO SPRINGS, CO 80903 PHONE: 719.955.5485		
	ELECTRIC DEPARTMENT:	TIM WENDT (719) 668–355 MOUNTAIN VIEW ELECTRIC 11140 E. WOODMEN ROAD FALCON, CO 80831	56	BOULDER CRES	OLORADO SPRIN HONE: 719.955.5		
	COMMUNICATIONS:	(719) 495–2283 QWEST COMMUNICATIONS (U.N.C.C. LOCATORS) (800) AT&T (LOCATORS) (719) 63		20			S, INC.
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LINE LENGTH		DIRECTION
L1	63.69'	N71° 55' 40"W
L2	51.29'	N49°49'01"W
L3	35.59'	N49°49'01"W
L4	91.52'	N27° 19' 01"W
L5	155.18'	N1°09'24"W
L6	206.52'	N1°09'24"W
L7	29.56'	N10°05'36"E
L8	83.10'	N34°35'36"E
L9	10.67'	N38°06'42"E
L10	31.33'	N38°06'42"E
L11	266.89'	N38°06'42"E
L12	96.33'	N38°06'42"E
L13	224.87'	N38°06'42"E
L19	16.50'	S51° 53' 18"E
L20	30.18'	S6°53'18"E
L21	158.36'	S51° 53' 18"E
L22	16.00'	S50° 34' 37"E
L23	16.00'	S46° 34' 37"E
L24	16.00'	S42° 34' 37"E
L25	16.00'	S38° 34' 37"E
L26	16.00'	S34°34'37"E
L27	16.00'	S30° 34' 37"E
L28	16.00'	S26° 34' 37"E
L29	16.00'	S22° 34' 37"E
L30	128.78'	S21°15'56"E
L31	75.27'	N50°26'12"W
L32	11.29'	N53° 35' 15"W
L33	10.41'	N53° 35' 15"W
L34	196.79'	N56°29'31"W
L35	122.47'	N51° 53' 18"W

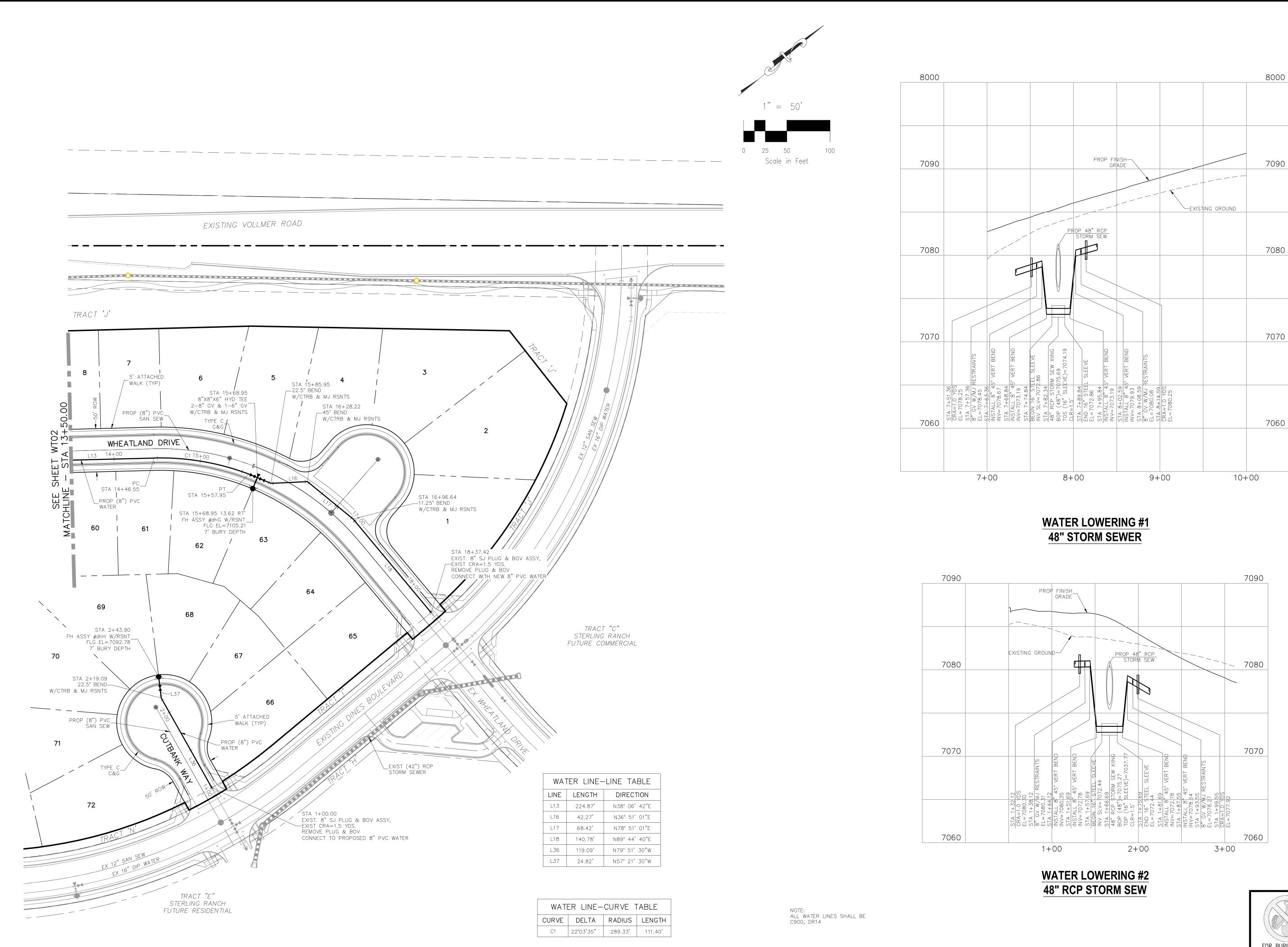
	WATER LINE-CURVE TABLE						
CURVE DELTA RADIUS LENGTH							
	C2	4°36'13"	389.33'	31.28'			



FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987

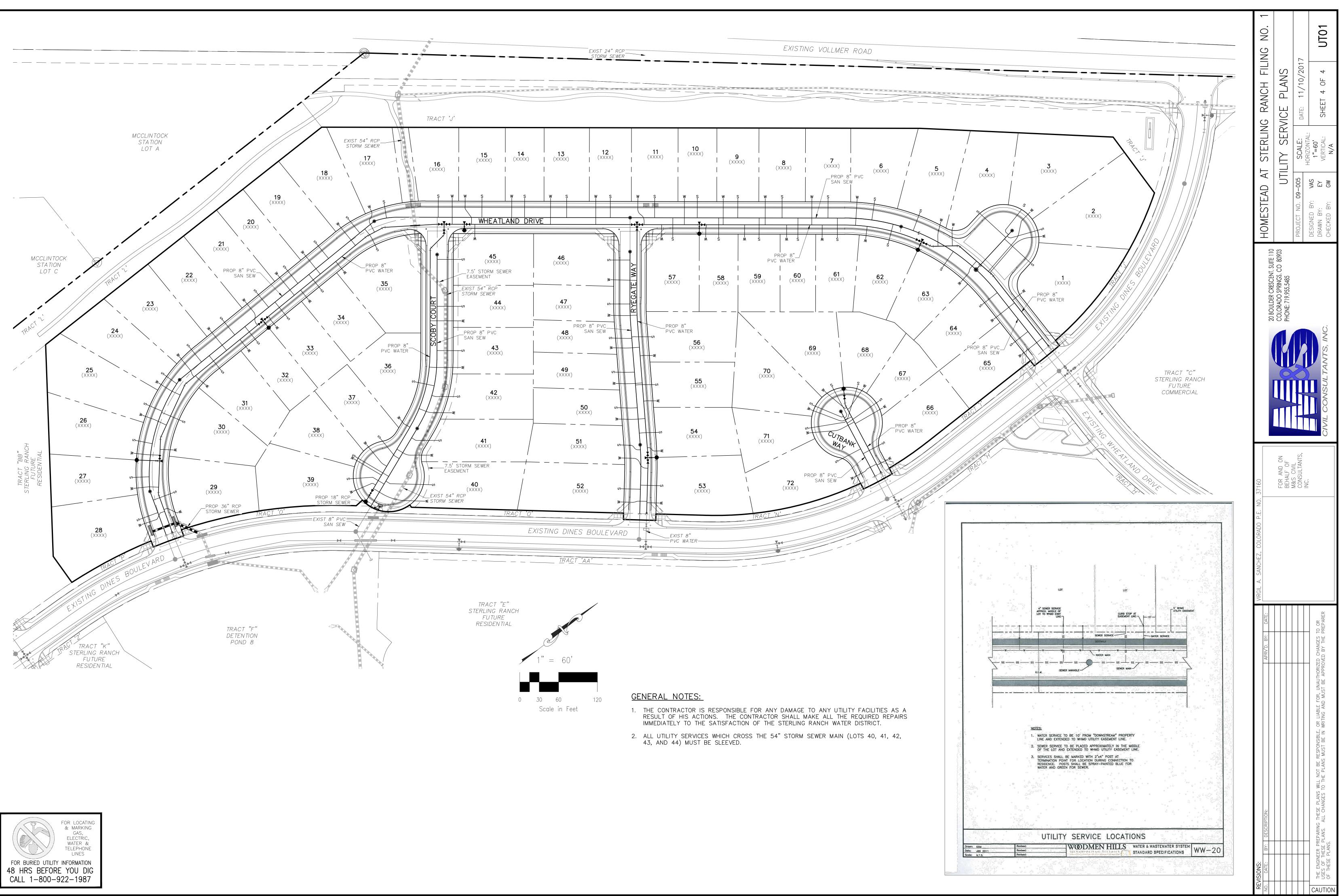
LINES

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	NG RAN	WATER PLANS	DATE: 1	SHEET
	VIERLII	WATER	SCALE:	HORIZONTAL: 1"=50' VERTICAL: 1"=5'
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	TUMENE		PROJECT NO. 09-005	DESIGNED BY: DRAWN BY: CHECKED BY:
	20 BOULDER CRESCENT, SUITE 110	COLORADO SPRINGS, CO 80903 PHONE: 719.955.5485		
				CIVIL CONSULTANTS, INC.
37160		FOR AND ON BEHALF OF	M&S CIVIL CONSULTANTS,	INC.
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160				
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				OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR WRITING AND MUST BE APPROVED BY THE PREPARER
				THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN OF THESE PLANS.
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NO. DATE: BY: DESCRIPTION: APRV'D. BY: DATE:		20 BOULDER CRESCENT, SUITE 110	DUMESTEAU AT STERLING RANCH FILING NO. I
	FOR AND ON BEHALF OF	COLORADO SPRINGS, CO 80903 PHONE: 719.955.5485	3 WATER PLANS
	M&S CIVIL CONSULTANTS,		PROJECT NO. 09-005 SCALE: DATE: 11/10/2017
THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.		CIVIL CONSULTANTS, INC.	DESIGNED BY: VAS HORIZONTAL: DRAWN BY: EY CHECKED BY: GW 1"=5' 1"=5' T"=5' T"=5' T"=5' T"=5' T"=5' T"=5'





## Markup Summary

