

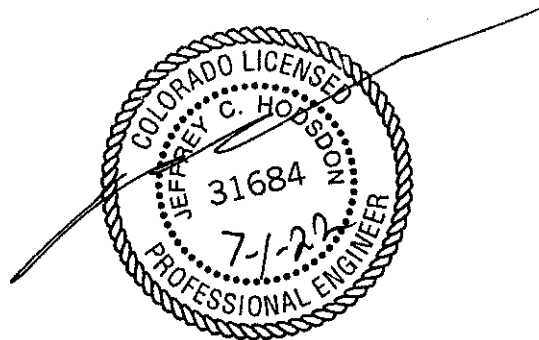
LSC TRANSPORTATION CONSULTANTS, INC.
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Sterling Ranch Filing No. 4
Transportation Memorandum
(LSC #S184663)
July 1, 2022

SF-22-030

Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

James J. Hardy

7/7/2022
Date



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July 1, 2022

Mr. Jim Morley
Morley-Bentley Investments, LLC
20 Boulder Crescent, 1st Floor
Colorado Springs, CO 80903

RE: Sterling Ranch Filing No. 4
El Paso County, Colorado
Transportation Memorandum
LSC #184663

Dear Mr. Morley:

LSC Transportation Consultants, Inc. has prepared this transportation memorandum to accompany the Sterling Ranch Filing No. 4 submittal. Sterling Ranch is located east of Vollmer Road near Lochwinnoch Lane between the future extensions of Marksheffel Road and Stapleton Drive in El Paso County, Colorado. This memorandum contains the following:

- A summary of the proposed land use and access plan;
- The projected average weekday and peak-hour vehicle trips to be generated by the Filing No. 4 land uses;
- Recommendations for street functional classifications for streets within Filing No. 4;
- The required Countywide Road Impact Fees; and
- An amendment to the Improvements Table from the Preliminary Plan (Table 4 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA*).

PREVIOUS TRAFFIC REPORTS

LSC prepared a traffic impact study (TIS) for the entire Sterling Ranch development dated June 5, 2008. LSC also prepared a traffic impact analysis for the Phase 2 Preliminary Plan entitled *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 Traffic Impact Analysis*, dated June 23, 2021. LSC also prepared a final plat transportation memorandum for Sterling Ranch Filing 3, which is located within the area identified as Phase 2 in that *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIS*. The currently-proposed Sterling Ranch Filing 4 includes the remaining area shown as Phase 2 in *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIS*.

SITE DEVELOPMENT AND LAND USE

Sterling Ranch Filing No. 3, which is currently under review, includes 63 lots for single-family homes. The currently-proposed Sterling Ranch Filing No. 4 includes 146 lots for single-family homes for a total of 209 single-family homes within the area identified as Phase 2 in the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIS*. This is three fewer single-family homes than were assumed in that report.

appears to be approved

157 lots per plat (11 being replatted)

Update total, as some of Filing 4 lots are a replat of Filing 3 lots

Two full-movement access points are proposed to Sterling Ranch Road and a right-in/right-out-only access is proposed to Vollmer Road. The access plan is consistent with what was assumed in the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIS*. The site plan for the currently-proposed Filing No. 4 is attached.

access
ch & do
ss to
g 4.

TRIP GENERATION

Estimates of the traffic volumes expected to be generated by the site have been made using the nationally-published trip-generation rates found in *Trip Generation, 11th Edition, 2022* by the Institute of Transportation Engineers (ITE). Table 1 shows the results of the trip-generation estimates. Table 1 also shows the estimated trip generation for Sterling Ranch Filing No. 3 and a comparison to the trip-generation estimate assumed in the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIS* for the entire area shown as Phase 2 in that report.

As shown in Table 1, Sterling Ranch Filing No. 4 is projected to generate about 1,377 new vehicle trips on the average weekday, with about one-half of the vehicles entering and one-half of the vehicles exiting in a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 a.m. and 8:30 a.m., about 27 vehicles would enter and 76 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:30 p.m. and 6:30 p.m., about 86 vehicles would enter and 51 vehicles would exit the site.

SHORT-TERM AND 2040 TOTAL TRAFFIC AND LEVELS OF SERVICE

Please refer to *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 Traffic Impact Analysis* dated June 23, 2021 for the short-term, intermediate-term, and 2040-total traffic volumes and level of service analysis. These volumes include the Filing 4 site-generated traffic.

INTERSECTION SIGHT DISTANCE

The intersections proposed to provide access to Filing No. 4 were evaluated for intersection sight distance with the Preliminary Plan TIS. Please refer to Figure 4 of the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA*. A copy of that figure is attached for reference.

ROADWAY CLASSIFICATIONS

As shown in Figure 22 of the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA*, all streets within Filing No. 4 should be classified as Urban Local or Urban Local (Low Volume). A copy of Figure 22 from that report is attached for reference.

RECOMMENDED IMPROVEMENTS

for Vollmer Road at the transition to City limits

As shown in the attached Table 4 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA*, the following improvement is recommended as part of Sterling Ranch Filing No. 4

- Restriping the 38' of pavement for two 11' southbound lanes (remove the bike lane), a 12' northbound lane, and a 4' outside paved shoulder along the east edge (Pending City Traffic Engineering Approval)

The attached Table 4 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA* is an amended version. The "Filing No. 3 amendment" to the table is shown in red font. The amendment is associated with **item no. 7** in the table.

As shown in the attached Table 5 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA*, the following auxiliary lanes are recommended as part of Sterling Ranch Filing No. 3 and will be required as part of Sterling Ranch Filing No. 4 if it precedes Filing No. 3:

- A northbound right-turn deceleration lane on Sterling Ranch Road approaching Hazlett Drive. This lane should be 155' long plus a 160' taper.
- A southbound left-turn lane on Sterling Ranch Road approaching Hazlett Drive. This lane should be 305' long plus a 160' taper.
- A westbound right-turn deceleration lane on Sterling Ranch Road approaching Dines Boulevard.

Per note from TIS for SF-21-032 (Filing 3 Traffic Memo) eastbound right-turn decel lane will not be required on Sterling Ranch Road approaching Dine Blvd per TIS dated June 23, 2021 (SF-20-015 & SP-19-001)

As shown in the attached Table 5 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA*, the following auxiliary lanes are recommended as part of Sterling Ranch Filing No. 4:

- A northbound left-turn lane on Sterling Ranch Road approaching Hazlett Drive. This lane should be 305' long plus a 160' taper.

All other required improvements shown in Table 5 are being completed as part of Sterling Ranch Filing No. 2.

ROADWAY IMPROVEMENT FEE PROGRAM

This project will be required to participate in the El Paso County Road Improvement Fee Program. Sterling Ranch Filing No. 4 will join the ten-mil PID. The ten-mil PID building permit fee portion associated with this option is \$1,221 per single-family dwelling unit. Based on 146 lots, the total building permit fee would be \$178,266.

157 lots (11 being replatted), update fee total

* * * * *

Please contact me if you have any questions regarding this memo.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.
Principal

JCH/KDF:jas

Enclosures: Table 1
Sterling Ranch No. 4 Site Exhibit
Pages from *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA*
Table 4 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA (w/April 2022 Filing 3 revision)*
Table 5 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA* with
June 2022 Filing 4 revisions

**Table 1
Trip Generation Estimate
Sterling Ranch Filing No. 4**

157 lots per Plat

Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates ⁽¹⁾				Total External Trips Generated					
			Average Weekday Traffic	Morning Peak Hour		Evening Peak Hour		Average Weekday Traffic	Morning Peak Hour		Evening Peak Hour	
				In	Out	In	Out		In	Out		
Trip Generation Estimate For the Currently Proposed Filing 4												
210	Single-Family Detached Housing	146 DU	9.43	0.18	0.52	0.59	0.35	1,377	27	76	86	51
Trip Generation Estimate For the Filing 3 (Currently Undeveloped)												
210	Single-Family Detached Housing	63 DU	9.43	0.18	0.52	0.59	0.35	594	11	33	37	22
	Total Filings 3 & 4	209 DU						1,971	38	109	123	73
Trip Generation Estimate From the Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 Traffic Impact Analysis, dated June 23, 2021												
210	Single-Family Detached Housing	212 DU	9.44	0.19	0.56	0.62	0.37	2,001	39	118	132	77
	Change	-3 DU						-30	-1	-9	-9	-4

Approved - Make sure numbers match what is shown in TIM for SF2132

Notes:

(1) Source: "Trip Generation, 11th Edition, 2021" by the Institute of Transportation Engineers (ITE)

(2) DU = dwelling unit

Sterling Ranch No. 4 Site Exhibit



STERLING RANCH FILING NO. 4

A REPLAT OF TRACTS B & J, STERLING RANCH FILING NO. 2 &

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN & A PORTION OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 13S SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN COUNTY OF EL PASO, STATE OF COLORADO

PLAT NOTES:

1. BASIS OF BEARINGS: BEARINGS ARE BASED ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M. AS MONUMENTED AT THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER BY A 2-1/2" ALUMINUM CAP STAMPED "LS 11624" AND AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER BY A 2-1/2" ALUMINUM CAP STAMPED "LS 11624", SAID LINE BEARS N89°14'14"E, A DISTANCE OF 2,722.56 FEET.
2. WATER SERVICE SHALL BE SUPPLIED BY STERLING RANCH METROPOLITAN DISTRICT NO. 1.
3. SEWER SERVICE SHALL BE SUPPLIED BY STERLING RANCH METROPOLITAN DISTRICT NO. 1.
4. ELECTRIC SERVICES SHALL BE PROVIDED BY MOUNTAIN VIEW ELECTRIC ASSOCIATION.
5. NATURAL GAS SERVICES SHALL BE PROVIDED BY COLORADO SPRINGS UTILITIES.
6. FIRE PROTECTION BY THE BLACK FOREST FIRE PROTECTION DISTRICT.
7. ALL STRUCTURAL FOUNDATIONS SHALL BE LOCATED AND DESIGNED BY A PROFESSIONAL ENGINEER, CURRENTLY LICENSED IN THE STATE OF COLORADO.
8. THE FOLLOWING REPORTS HAVE BEEN SUBMITTED IN ASSOCIATION WITH THE PRELIMINARY PLAN SP 20-03 OR FINAL PLAT FOR THIS SUBDIVISION AND ARE ON FILE AT THE COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT: TRANSPORTATION IMPACT STUDY; DRAINAGE REPORT; WATER RESOURCES REPORT; WASTEWATER DISPOSAL REPORT; NATURAL HAZARDS REPORT; GEOLOGY AND SOILS REPORT; WETLAND STUDY/ 404 PERMIT.
9. ALL PROPERTY OWNERS ARE RESPONSIBLE FOR MAINTAINING PROPER STORM WATER DRAINAGE IN AND THROUGH THEIR PROPERTY. PUBLIC DRAINAGE EASEMENTS AS SPECIFICALLY NOTED ON THE PLAT SHALL BE MAINTAINED BY THE INDIVIDUAL LOT OWNERS UNLESS OTHERWISE INDICATED. STRUCTURES, FENCES, MATERIALS OR LANDSCAPING THAT COULD IMPEDE THE FLOW OF RUNOFF SHALL NOT BE PLACED IN DRAINAGE EASEMENTS.
10. UNLESS OTHERWISE INDICATED, ALL SIDE LOT LINES ARE HEREBY PLATTED ON EITHER SIDE WITH A 5 FOOT PUBLIC UTILITY AND DRAINAGE EASEMENT, EXCEPT WHEN THE SIDE YARD IS ADJACENT TO A PUBLIC STREET AND THEREFORE A 10 FOOT PUBLIC IMPROVEMENT, PUBLIC UTILITY AND DRAINAGE EASEMENT. ALL EXTERIOR LOT LINES ARE HEREBY PLATTED WITH A 10 FOOT PUBLIC IMPROVEMENT, PUBLIC UTILITY AND DRAINAGE EASEMENT, AND ALL REAR LOT LINES ARE HEREBY PLATTED WITH A 10 FOOT PUBLIC UTILITY AND DRAINAGE EASEMENT. ALL EXTERIOR SUBDIVISION BOUNDARIES ARE HEREBY PLATTED WITH A 7 FOOT PUBLIC UTILITY AND DRAINAGE EASEMENT. THE SOLE RESPONSIBILITY FOR THE SURFACE MAINTENANCE OF EASEMENTS IS HEREBY VESTED WITH THE INDIVIDUAL PROPERTY OWNERS.
11. DEVELOPER SHALL COMPLY WITH FEDERAL AND STATE LAWS, REGULATIONS, ORDINANCES, REVIEW AND PERMIT REQUIREMENTS, AND OTHER AGENCY REQUIREMENTS, IF ANY, OF APPLICABLE AGENCIES INCLUDING, BUT NOT LIMITED TO, THE COLORADO PARKS AND WILDLIFE, COLORADO DEPARTMENT OF TRANSPORTATION, U.S. ARMY CORP OF ENGINEERS AND THE U.S. FISH AND WILDLIFE SERVICE REGARDING THE ENDANGERED SPECIES ACT, PARTICULARLY AS IT RELATES TO THE LISTED SPECIES.
12. THE ADDRESS EXHIBITED ON THIS PLAT ARE FOR INFORMATIONAL PURPOSES ONLY. THEY ARE NOT THE LEGAL DESCRIPTION AND ARE SUBJECT TO CHANGE.
13. NO DRIVEWAY SHALL BE ESTABLISHED UNLESS AN ACCESS PERMIT HAS BEEN GRANTED BY EL PASO COUNTY. THERE SHALL BE NO DIRECT LOT ACCESS TO STERLING RANCH ROAD.
14. NO LOT OR INTEREST THEREIN, SHALL BE SOLD, CONVEYED, OR TRANSFERRED WHETHER BY DEED OR BY CONTRACT, NOR SHALL BUILDING PERMITS BE ISSUED, UNTIL AND UNLESS EITHER THE REQUIRED PUBLIC AND COMMON DEVELOPMENT IMPROVEMENTS HAVE BEEN CONSTRUCTED AND COMPLETED AND PRELIMINARILY ACCEPTED IN ACCORDANCE WITH THE SUBDIVISION IMPROVEMENTS AGREEMENT BETWEEN THE APPLICANT/ OWNER AND EL PASO COUNTY AS RECORDED UNDER RECEPTION NUMBER _____ IN THE OFFICE OF THE CLERK AND RECORDER OF EL PASO COUNTY, COLORADO OR, IN THE ALTERNATIVE, OTHER COLLATERAL IS PROVIDED TO MAKE PROVISION FOR THE COMPLETION OF SAID IMPROVEMENTS IN ACCORDANCE WITH THE EL PASO COUNTY LAND DEVELOPMENT CODE AND ENGINEERING CRITERIA MANUAL. ANY SUCH ALTERNATIVE COLLATERAL MUST BE APPROVED BY THE BOARD OF COUNTY COMMISSIONERS OR, IF PERMITTED BY THE SUBDIVISION IMPROVEMENTS AGREEMENT, BY THE PLANNING AND COMMUNITY DEVELOPMENT CHAIR AND MEET THE POLICY AND PROCEDURE REQUIREMENTS OF EL PASO COUNTY PRIOR TO THE RELEASE BY THE COUNTY OF ANY LOTS FOR SALE, CONVEYANCE OR TRANSFER.

THIS PLAT RESTRICTION MAY BE REMOVED OR RESCINDED BY THE BOARD OF COUNTY COMMISSIONERS OR, IF PERMITTED BY THE SUBDIVISION IMPROVEMENTS AGREEMENT, BY THE PLANNING AND COMMUNITY DEVELOPMENT CHAIR UPON EITHER APPROVAL OF AN ALTERNATIVE FORM OF COLLATERAL OR COMPLETION AND PRELIMINARY ACCEPTANCE BY THE EL PASO BOARD OF COUNTY COMMISSIONERS OF ALL IMPROVEMENTS REQUIRED TO BE CONSTRUCTED AND COMPLETED IN ACCORDANCE WITH SAID SUBDIVISION IMPROVEMENTS AGREEMENT. THE PARTIAL RELEASE OF LOTS FOR SALE, CONVEYANCE OR TRANSFER MAY ONLY BE GRANTED IN ACCORDANCE WITH ANY PLANNED PARTIAL RELEASE OF LOTS AUTHORIZED BY THE SUBDIVISION IMPROVEMENTS AGREEMENT.
15. NOTICE OF POTENTIAL AIRCRAFT OVERFLIGHT AND NOISE IMPACT ASSOCIATED WITH AIRPORT: THIS SERVES AS A NOTICE OF POTENTIAL AIRCRAFT OVERFLIGHT AND NOISE IMPACTS ON THIS PROPERTY DUE TO ITS CLOSE PROXIMITY TO AN AIRPORT, WHICH IS BEING DISCLOSED TO ALL PROSPECTIVE PURCHASERS CONSIDERING THE USE OF THIS PROPERTY FOR RESIDENTIAL AND OTHER PURPOSES. THIS PROPERTY IS SUBJECT TO THE OVERFLIGHT AND ASSOCIATED NOISE OF ARRIVING AND DEPARTING AIRCRAFT DURING THE COURSE OF NORMAL OPERATIONS.

ALL PROPERTY WITHIN THIS SUBDIVISION IS SUBJECT TO AN AVIGATION EASEMENT AS RECORDED AT RECEPTION NO. _____ OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER. THIS SITE IS LOCATED WITHIN PART 77.
16. PIKES PEAK REGIONAL BUILDING ENUMERATIONS APPROVAL PROVIDED BY EMAIL DATED _____ AND RECORDED IN THE EL PASO COUNTY CLERK AND RECORDER RECORDS AT RECEPTION NO. _____

PLAT NOTES:

16. NO STRUCTURES OR FENCES ARE PERMITTED WITHIN DESIGNATED "FLOODPLAIN" AREAS.
17. NO PORTION OF THIS SITE IS LOCATED WITHIN A DESIGNATED FEMA FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAP, COMMUNITY MAP NUMBER 08041C0533G, EFFECTIVE DATE DECEMBER 7, 2018.
18. ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACTS ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY, COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO CRS 18-4-508.
19. ALL PROPERTY WITHIN THIS SUBDIVISION IS INCLUDED IN STERLING RANCH METROPOLITAN DISTRICT NO. 1.
20. THE STERLING RANCH METROPOLITAN DISTRICT NO. 1 WILL BE RESPONSIBLE FOR MAINTENANCE OF THE ROADS AND DRAINAGE FACILITIES UNTIL PRELIMINARY ACCEPTANCE OF THE PUBLIC IMPROVEMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, AND THE SUBDIVISION IMPROVEMENTS AGREEMENT.
21. ALL PROPERTY WITHIN THIS SUBDIVISION IS SUBJECT TO A DECLARATION OF COVENANT AS RECORDED AT RECEPTION NUMBER _____ OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER.
22. SPECIAL DISTRICT DISCLOSURE: A TITLE 32 SPECIAL DISTRICT ANNUAL REPORT AND DISCLOSURE FORM SATISFACTORY TO THE DEVELOPMENT SERVICES DEPARTMENT SHALL BE RECORDED WITH EACH PLAT.
23. MAIL BOXES SHALL BE INSTALLED IN ACCORDANCE WITH ALL EL PASO COUNTY AND UNITED STATES POSTAL SERVICE REGULATION.
24. THE SUBDIVIDER(S) AGREES ON BEHALF OF HIM/HERSELF AND ANY DEVELOPER OR BUILDER SUCCESSORS AND ASSIGNEES THAT SUBDIVIDER AND/OR SAID SUCCESSORS AND ASSIGNS SHALL BE REQUIRED TO PAY TRAFFIC IMPACT FEES IN ACCORDANCE WITH THE EL PASO COUNTY ROAD IMPACT FEE PROGRAM RESOLUTION (RESOLUTION NO. 19-471), OR ANY AMENDMENTS THERETO, AT OR PRIOR TO THE TIME OF BUILDING PERMIT SUBMITTALS. THE FEE OBLIGATION, IF NOT PAID AT FINAL PLAT RECORDING, SHALL BE DOCUMENTED ON ALL SALES DOCUMENTS AND ON PLAT NOTES TO ENSURE THAT A TITLE SEARCH WOULD FIND THE FEE OBLIGATION BEFORE SALE OF THE PROPERTY. TRANSPORTATION IMPACT FEES ARE TO BE PAID AT BUILDING PERMIT.

PURSUANT TO RESOLUTION APPROVED BY THE BOARD OF DIRECTORS, EL PASO COUNTY PUBLIC IMPROVEMENT DISTRICT 2 AND RECORDED IN THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER AT RECEPTION NO. _____, THE PARCELS WITHIN THE PLATTED BOUNDARIES OF STERLING RANCH FILING NO. 4 ARE INCLUDED WITHIN THE BOUNDARIES OF THE EL PASO COUNTY PUBLIC IMPROVEMENT DISTRICT 2 AND AS SUCH IS SUBJECT TO APPLICABLE ROAD IMPACT FEES AND MILL LEVY.
25. THE FOLLOWING LOTS HAVE BEEN FOUND TO BE IMPACTED BY GEOLOGIC HAZARDS, MITIGATION MEASURES AND A MAP OF THE HAZARD AREA CAN BE FOUND IN THE GEOLOGIC HAZARD REPORT BY ENTEC DATED MAY 4, 2021 IN SF-20-03 AVAILABLE AT THE EL PASO PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT. THE FOLLOWING LOTS AND TRACTS ARE IMPACTED:

TRACT SUMMARY CHART

TRACT	AREA (SF)	AREA (AC)	USE	MAINTENANCE	OWNERSHIP
A	14,280	0.3278	LANDSCAPE, PEDESTRIAN ACCESS, DRAINAGE, UTILITIES, OPEN SPACE	SRMD#1	SRMD#1
B	32,428	0.7445	LANDSCAPE, PEDESTRIAN ACCESS, DRAINAGE, UTILITIES, OPEN SPACE	SRMD#1	SRMD#1
C	128,408	2.9478	LANDSCAPE, PEDESTRIAN ACCESS, DRAINAGE, UTILITIES, OPEN SPACE	SRMD#1	SRMD#1
D	646	0.0148	OPEN SPACE	SRMD#1	SRMD#1
E	16,095	0.3695	LANDSCAPE, PEDESTRIAN ACCESS, DRAINAGE, UTILITIES, OPEN SPACE	SRMD#1	SRMD#1
F	24,973	0.5733	LANDSCAPE, PEDESTRIAN ACCESS, DRAINAGE, UTILITIES, OPEN SPACE	SRMD#1	SRMD#1
G	695,916	15.9760	LANDSCAPE, PEDESTRIAN ACCESS, DRAINAGE, UTILITIES, OPEN SPACE	SRMD#1	SRMD#1
H	217,620	4.9959	LANDSCAPE, PEDESTRIAN ACCESS, DRAINAGE, UTILITIES, OPEN SPACE	SRMD#1	SRMD#1
TOTAL	1,130,366	25.9496			

JOB NO. 25188.11
MAY 6, 2022
SHEET 2 OF 6



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STERLING RANCH FILING NO. 4

A REPLAT OF TRACTS B & J, STERLING RANCH FILING NO. 2 &

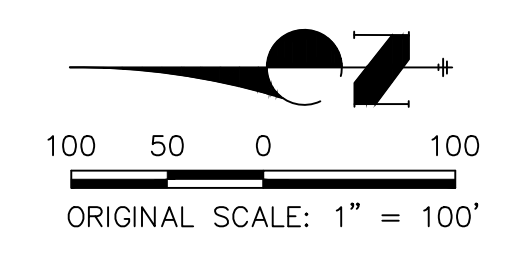
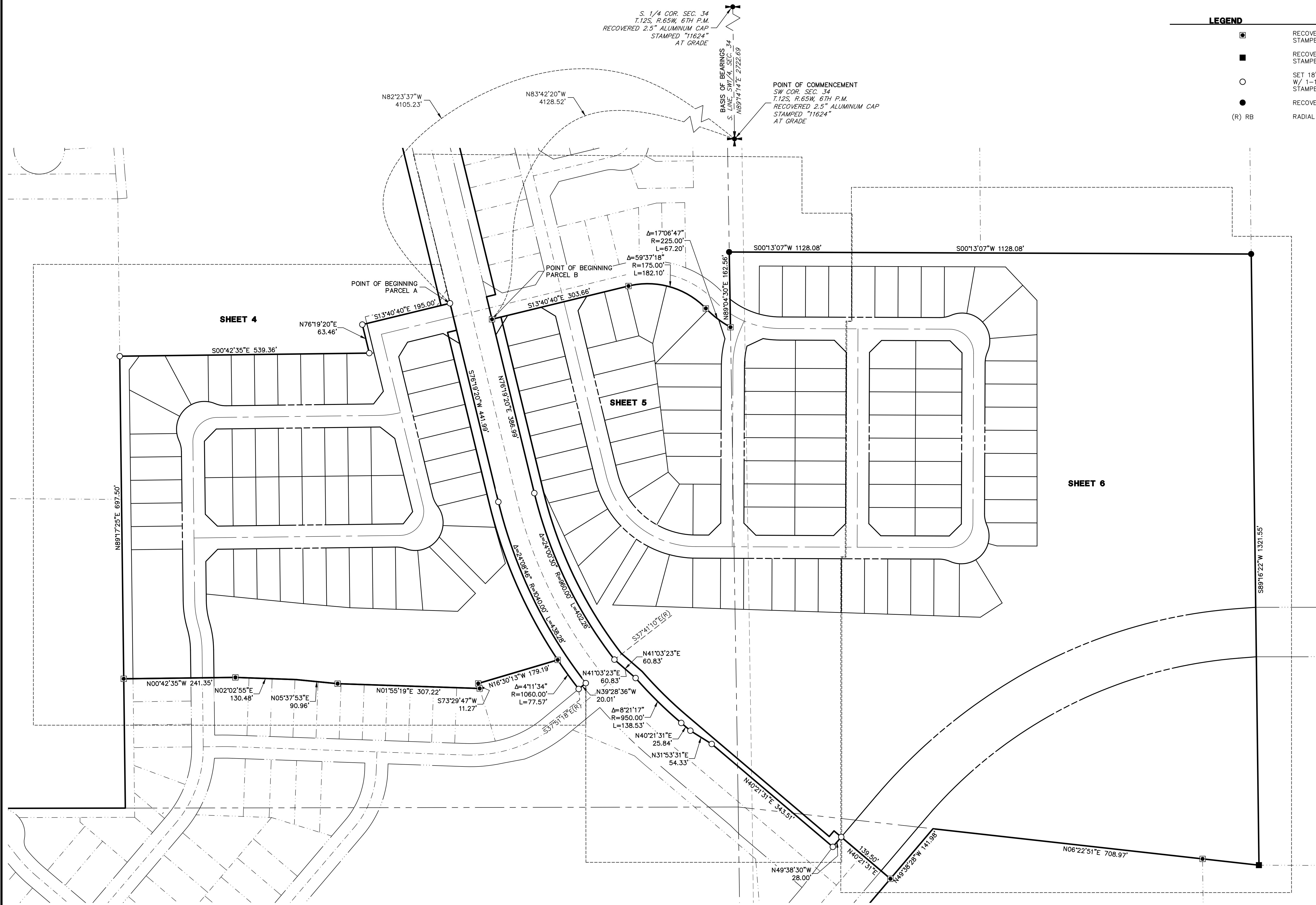
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 A PORTION OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 13S SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN
 COUNTY OF EL PASO, STATE OF COLORADO

S. 1/4 COR. SEC. 34
 T.12S, R.65W, 6TH P.M.
 RECOVERED 2.5" ALUMINUM CAP
 STAMPED "11624"
 AT GRADE

POINT OF COMMENCEMENT
 SW COR. SEC. 34
 T.12S, R.65W, 6TH P.M.
 RECOVERED 2.5" ALUMINUM CAP
 STAMPED "11624"
 AT GRADE

LEGEND

- RECOVERED 1-1/2" ALUMINUM CAP
STAMPED "JR ENG LS 38252" AT GRADE
- RECOVERED 1-1/4" ALUMINUM CAP
STAMPED "MATRIX LS 34977"
- SET 18" #5 REBAR
W/ 1-1/2" ALUMINUM CAP
STAMPED "JR ENG LS 38252" AT GRADE
- RECOVERED #4 REBAR
- (R) RB RADIAL BEARING



JOB NO. 25188.11
 MAY 6, 2022
 SHEET 3 OF 6



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STERLING RANCH FILING NO. 4

A REPLAT OF TRACTS B & J, STERLING RANCH FILING NO. 2 &

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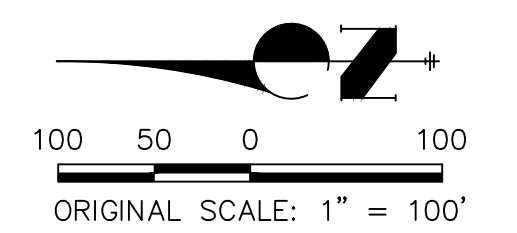
LINE	BEARING	DISTANCE
L1	N53°24'19"W	37.03'
L2	S52°11'35"E	34.45'
L3	S37°48'23"W	40.39'
L4	N13°40'40"W	10.00'
L5	N13°40'40"W	2.27'
L6	N52°11'37"W	33.23'
L7	N44°18'32"E	36.76'
L8	S45°41'28"E	36.78'
L9	S45°41'28"E	36.78'
L10	S31°19'20"W	42.43'
L11	S31°19'20"W	14.15'
L12	S31°19'20"W	28.28'
L13	S58°40'40"E	36.78'
L14	N76°19'20"E	51.66'

CURVE	DELTA	RADIUS	LENGTH
C1	15°28'26"	175.00'	47.26'
C2	15°28'26"	200.00'	54.01'
C3	15°28'26"	225.00'	60.77'
C4	15°30'40"	225.00'	60.91'
C5	15°30'40"	200.00'	54.14'
C6	15°30'40"	175.00'	47.38'
C7	23°33'23"	60.00'	24.67'
C8	15°14'22"	60.00'	15.96'
C9	36°39'17"	60.00'	38.38'
C10	34°12'33"	60.00'	35.82'
C11	37°02'49"	60.00'	38.80'

CURVE	DELTA	RADIUS	LENGTH
C12	13°55'31"	60.00'	14.58'
C13	23°33'23"	60.00'	24.67'
C14	20°59'28"	60.00'	21.98'
C15	25°10'16"	60.00'	26.36'
C16	25°18'51"	60.00'	26.51'
C17	28°57'18"	60.00'	30.32'
C18	25°04'13"	60.00'	26.25'
C19	42°21'10"	60.00'	44.35'
C20	0°39'12"	60.00'	0.68'
C21	23°33'27"	60.00'	24.67'
C22	12°58'05"	200.00'	45.27'

LEGEND

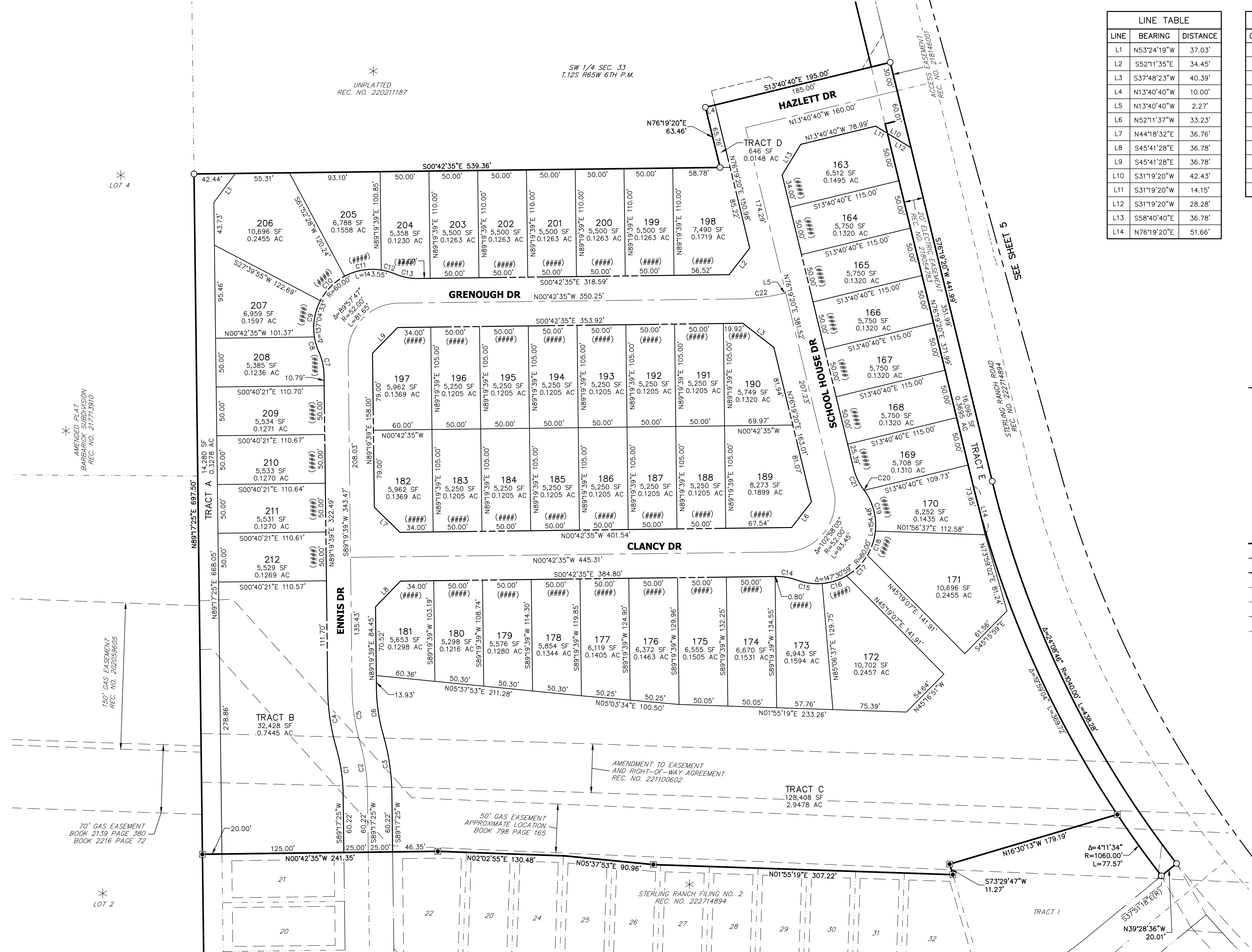
- ◻ RECOVERED 1-1/2" ALUMINUM CAP STAMPED "JR ENG LS 38252" AT GRADE
- ◼ RECOVERED 1-1/4" ALUMINUM CAP STAMPED "MATRIX LS 34977"
- SET 18" #5 REBAR W/ 1-1/2" ALUMINUM CAP STAMPED "JR ENG LS 38252" AT GRADE
- RECOVERED #4 REBAR
- (R) RB RADIAL BEARING
- #### ADDRESS
- S.F. SQUARE FEET
- * NOT A PART OF THIS SUBDIVISION
- PROPOSED SUBDIVISION BOUNDARY
- PROPOSED LOT LINE
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED CENTERLINE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING CENTERLINE



JOB NO. 25188.11
 MAY 6, 2022
 SHEET 4 OF 6

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SEE SHEET 5

LOT 2

LOT 4

STERLING RANCH FILING NO. 4

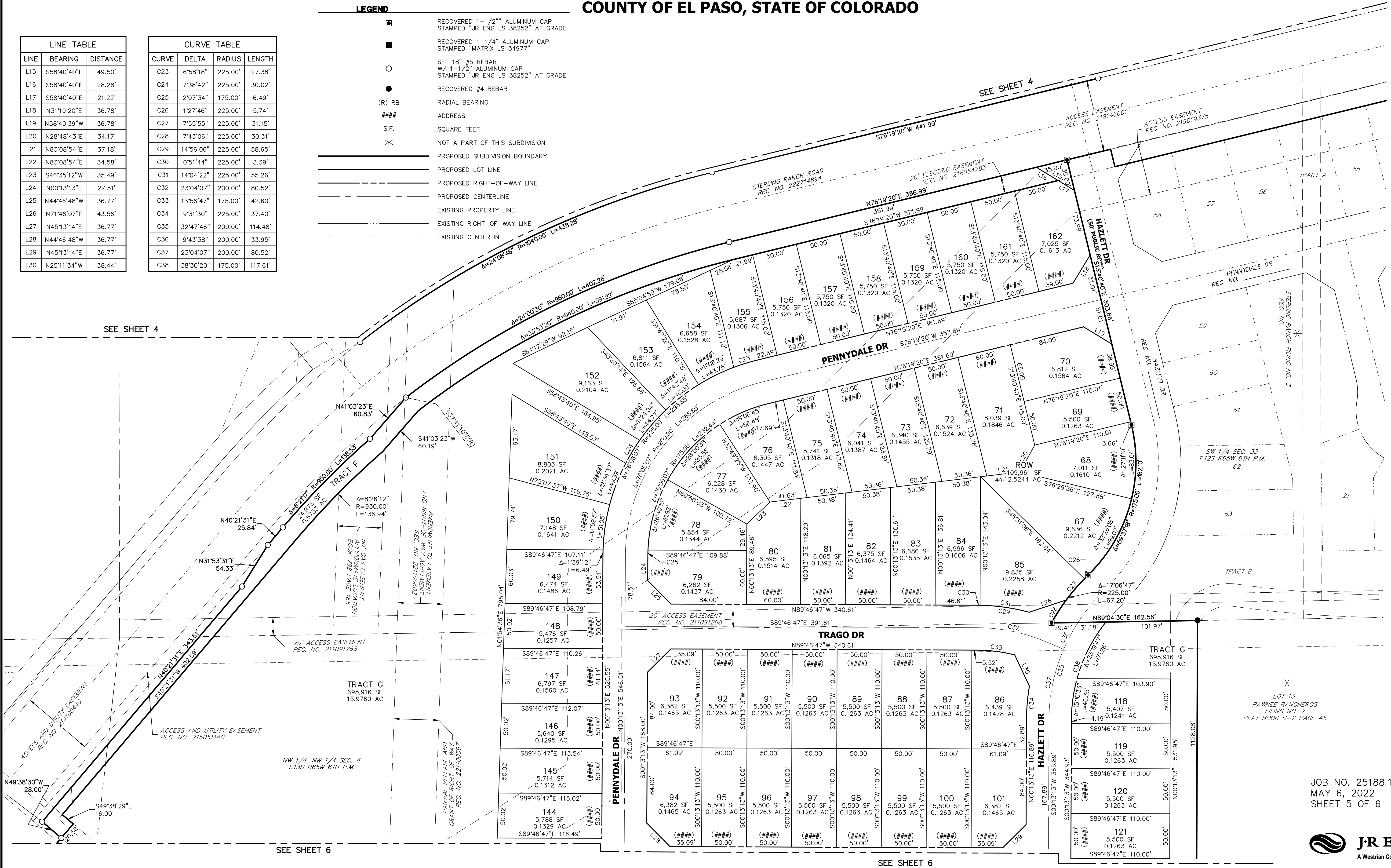
A REPLAT OF TRACTS B & J, STERLING RANCH FILING NO. 2 &

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN &
 A PORTION OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 13S SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN
 COUNTY OF EL PASO, STATE OF COLORADO

LINE	BEARING	DISTANCE
L15	S58°40'40"E	49.50'
L16	S58°40'40"E	28.28'
L17	S58°40'40"E	21.22'
L18	N31°19'20"E	36.78'
L19	N58°40'39"W	36.78'
L20	N28°48'43"E	34.17'
L21	N83°08'54"E	37.18'
L22	N83°08'54"E	34.58'
L23	S46°35'12"W	35.49'
L24	N00°13'13"E	27.51'
L25	N44°46'48"W	36.77'
L26	N71°46'07"E	43.56'
L27	N45°13'14"E	36.77'
L28	N44°46'48"W	36.77'
L29	N45°13'14"E	36.77'
L30	N25°11'34"W	38.44'

CURVE	DELTA	RADIUS	LENGTH
C23	6°58'18"	225.00'	27.38'
C24	7°38'42"	225.00'	30.02'
C25	2°07'34"	175.00'	6.49'
C26	1°27'46"	225.00'	5.74'
C27	7°55'55"	225.00'	31.15'
C28	7°43'06"	225.00'	30.31'
C29	14°56'06"	225.00'	58.65'
C30	0°51'44"	225.00'	3.39'
C31	14°04'22"	225.00'	55.26'
C32	23°04'07"	200.00'	80.52'
C33	13°56'47"	175.00'	42.60'
C34	9°31'30"	225.00'	37.40'
C35	32°47'46"	200.00'	114.48'
C36	9°43'38"	200.00'	33.95'
C37	23°04'07"	200.00'	80.52'
C38	38°30'20"	175.00'	117.61'

- LEGEND**
- ◻ RECOVERED 1-1/2" ALUMINUM CAP STAMPED "JR ENG LS 38252" AT GRADE
 - ◼ RECOVERED 1-1/4" ALUMINUM CAP STAMPED "MATRIX LS 34977"
 - SET 18" #5 REBAR W/ 1-1/2" ALUMINUM CAP STAMPED "JR ENG LS 38252" AT GRADE
 - RECOVERED #4 REBAR
 - (R) RB RADIAL BEARING
 - #### ADDRESS
 - S.F. SQUARE FEET
 - * NOT A PART OF THIS SUBDIVISION
 - PROPOSED SUBDIVISION BOUNDARY
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 - EXISTING CENTERLINE



SEE SHEET 4

SEE SHEET 4

SEE SHEET 6

SEE SHEET 6

JOB NO. 25188.11
 MAY 6, 2022
 SHEET 5 OF 6

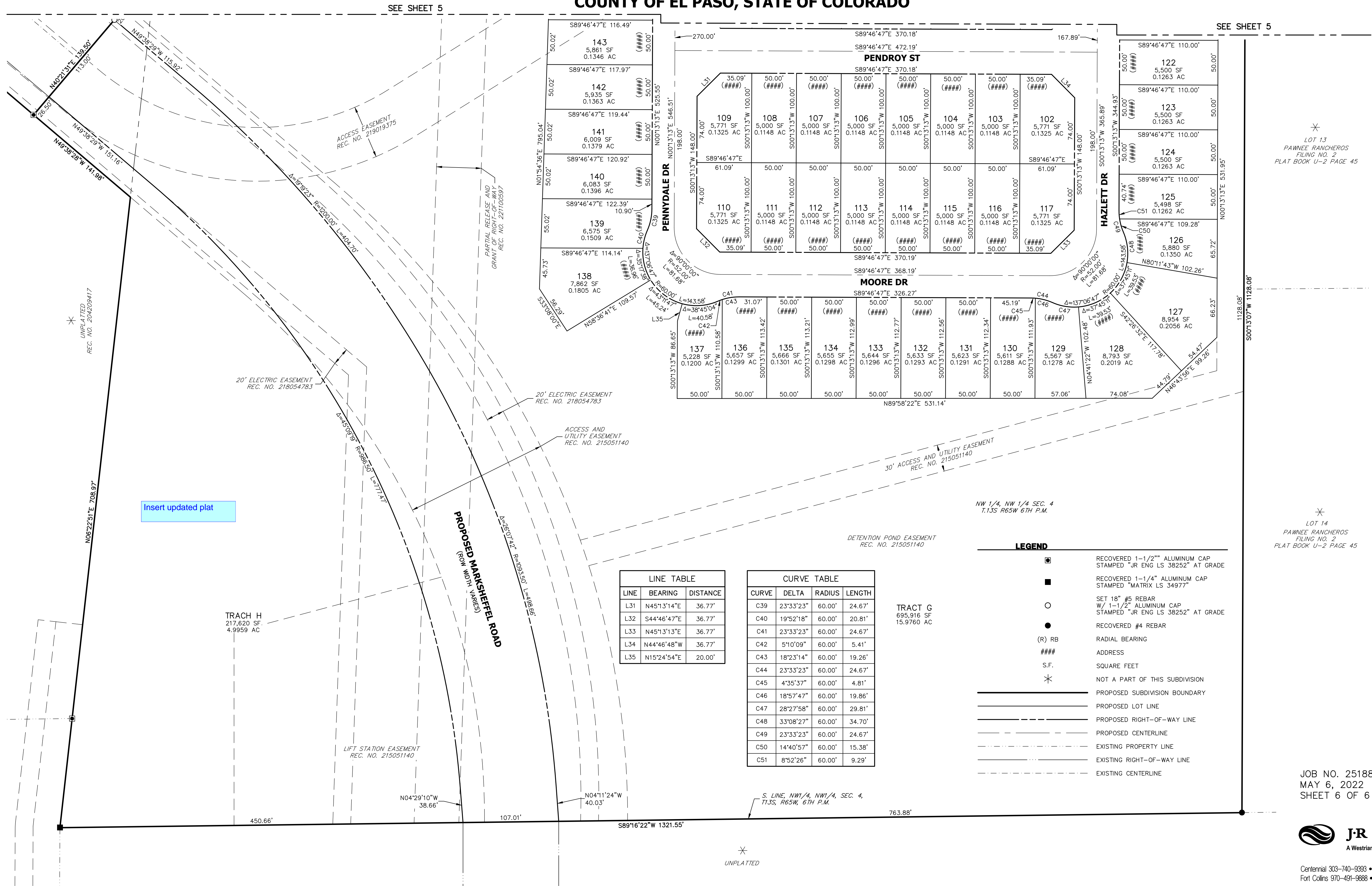


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STERLING RANCH FILING NO. 4

A REPLAT OF TRACTS B & J, STERLING RANCH FILING NO. 2 &

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN &
 A PORTION OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 13S SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN
 COUNTY OF EL PASO, STATE OF COLORADO



LINE TABLE

LINE	BEARING	DISTANCE
L31	N45°13'14"E	36.77'
L32	S44°46'47"E	36.77'
L33	N45°13'13"E	36.77'
L34	N44°46'48"W	36.77'
L35	N15°24'54"E	20.00'

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH
C39	23°33'23"	60.00'	24.67'
C40	19°52'18"	60.00'	20.81'
C41	23°33'23"	60.00'	24.67'
C42	5°10'09"	60.00'	5.41'
C43	18°23'14"	60.00'	19.26'
C44	23°33'23"	60.00'	24.67'
C45	4°35'37"	60.00'	4.81'
C46	18°57'47"	60.00'	19.86'
C47	28°27'58"	60.00'	29.81'
C48	33°08'27"	60.00'	34.70'
C49	23°33'23"	60.00'	24.67'
C50	14°40'57"	60.00'	15.38'
C51	8°52'26"	60.00'	9.29'

TRACT G
 695,916 SF
 15,9760 AC

NW 1/4, NW 1/4 SEC. 4
 T.13S, R.65W, 6TH P.M.

LEGEND

- RECOVERED 1-1/2" ALUMINUM CAP STAMPED "JR ENG LS 38252" AT GRADE
- RECOVERED 1-1/4" ALUMINUM CAP STAMPED "MATRIX LS 34977"
- SET 18" #5 REBAR W/ 1-1/2" ALUMINUM CAP STAMPED "JR ENG LS 38252" AT GRADE
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* LOT 13
 PAWNEE RANCHEROS
 FILING NO. 2
 PLAT BOOK U-2 PAGE 45

* LOT 14
 PAWNEE RANCHEROS
 FILING NO. 2
 PLAT BOOK U-2 PAGE 45

JOB NO. 25188.11
 MAY 6, 2022
 SHEET 6 OF 6

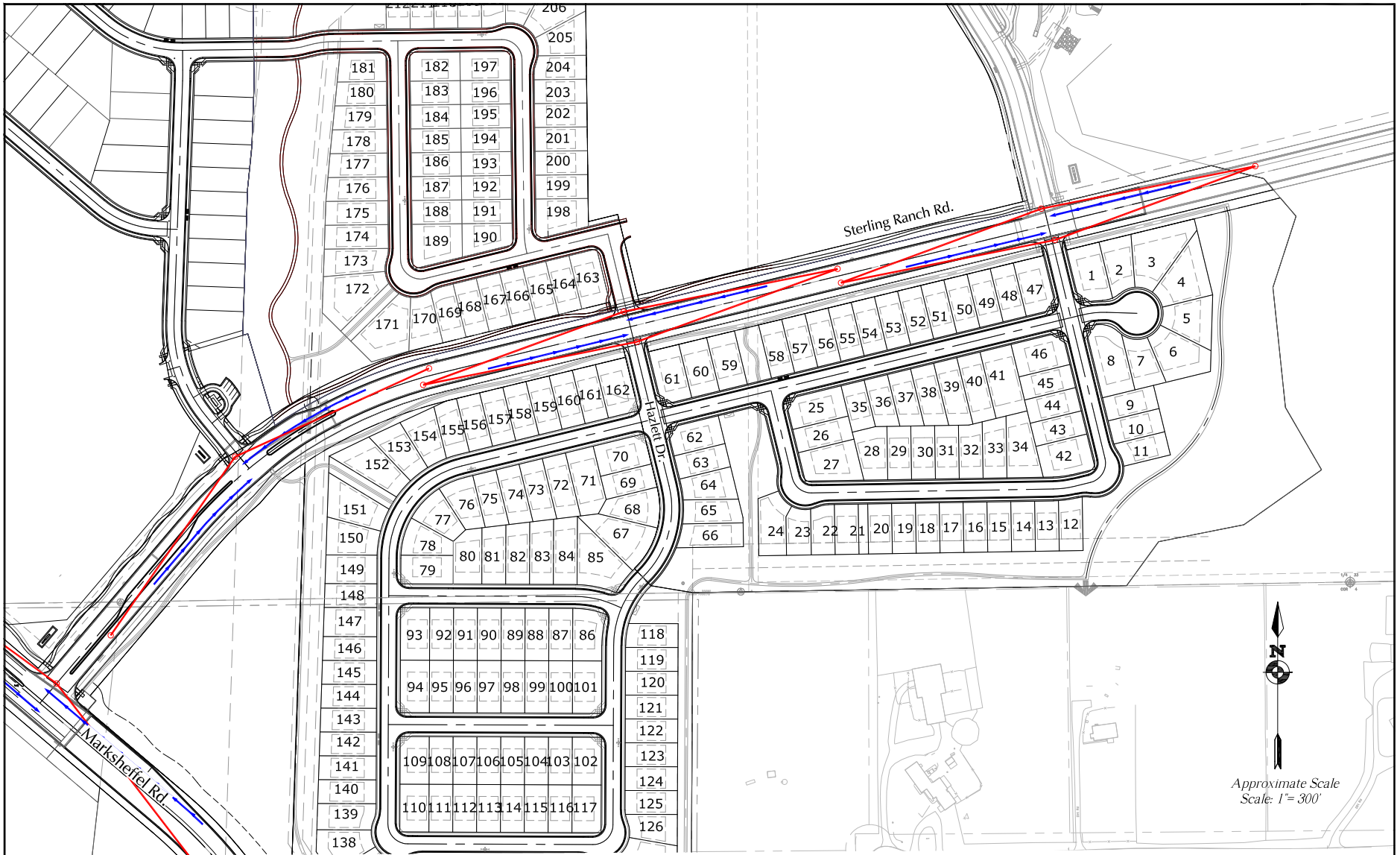


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Additional Attachments

Pages from Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA





LEGEND:

- = ECM Required Intersection Sight Distance (445' from Table 2-21 Based on a Design Speed of 40mph)
- = ECM Required Stopping Sight Distance (305' from Table 2-17 Based on a Design Speed of 40mph)

Sterling Ranch Road Sight Distance Analysis

Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 (LSC #184660)



Figure 4

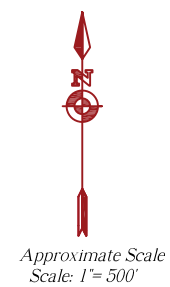
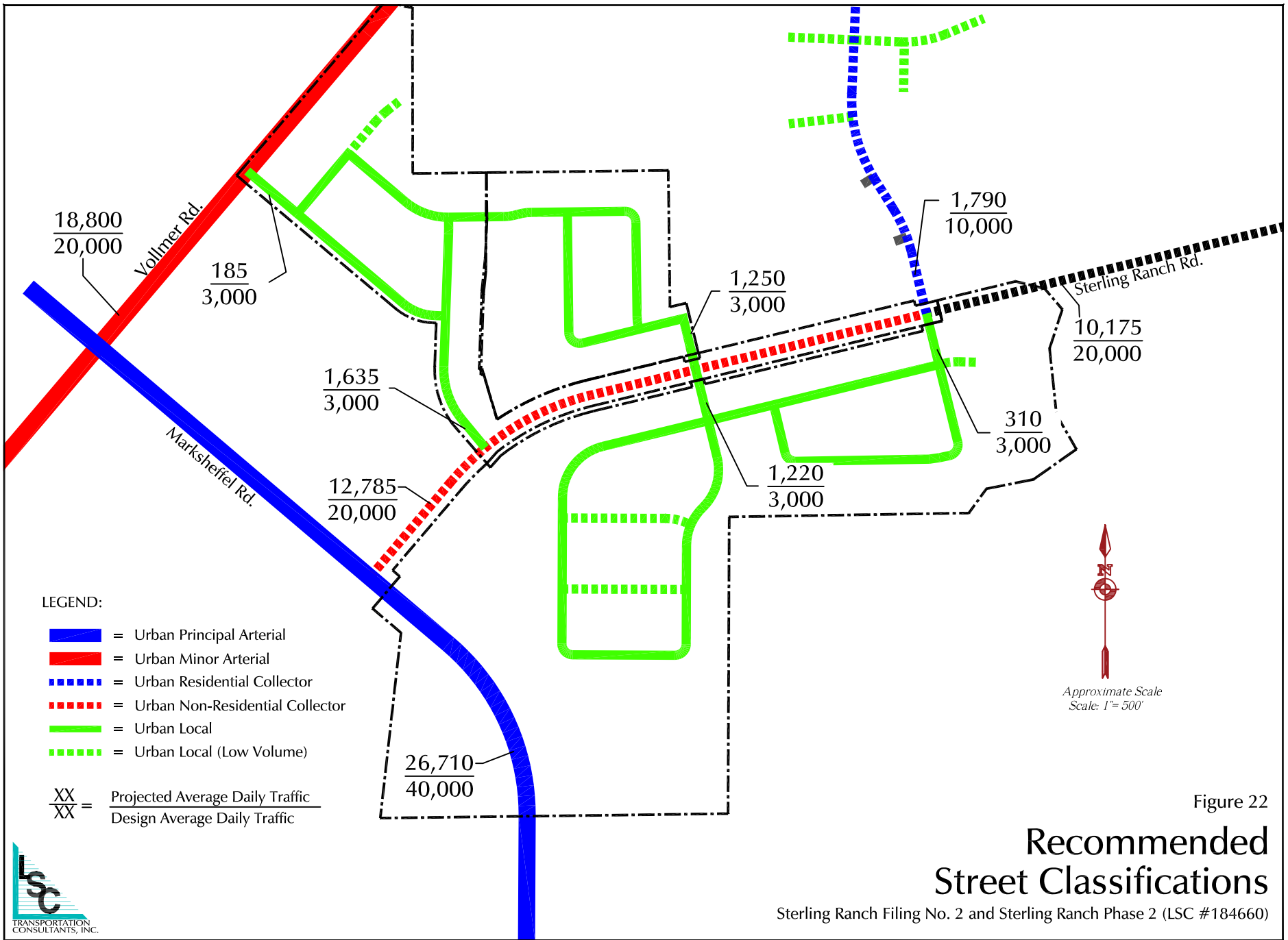


Figure 22
**Recommended
Street Classifications**

Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 (LSC #184660)



Additional Attachments

Table 4 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA* (with April 2022 Filing 3 revision)



Table 4
(page 1 of 2)

Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2

Roadway Improvements

Item	Segment ID ⁽¹⁾	Improvement Description	Timing	Design ADT (vpd)	Projected Short-Term ADT (vph)	Projected Intermediate-Term ADT (vph)	Projected 2040 ADT (vpd)	Responsibility
1	SR1	Construct Sterling Ranch Road as an Urban Non-Residential Collector from Marksheffel Road to Dines Boulevard	With Sterling Ranch Fil No. 2	20,000	3,155	5,410	12,785	Sterling Ranch
2	SR2	Construct Sterling Ranch Road as an Urban Non-Residential Collector from Dines Boulevard to Briargate Parkway	Intermediate/ Long-Term Future	20,000	0	0	10,175	Sterling Ranch
3	M1	Construct Marksheffel Road as an Urban Principal Arterial to City of Colorado Springs standards in 107' of right-of-way between Vollmer Road and Sterling Ranch Road. Close the Tahiti Drive/Vollmer Road intersection as part of the improvement	With Sterling Ranch Fil No. 2	40,000	3,155	4,035	24,185	Sterling Ranch
4	M2	Construct Marksheffel Road as an Urban Principal Arterial to City of Colorado Springs standards in 107' of right-of-way between Sterling Ranch Road and the south boundary of the Sterling Ranch Master Plan Area	Intermediate Term (When the Level of Service at Marksheffel/Vollmer degrades below ECM Standards)	40,000	0	5,085	26,710	Sterling Ranch
5	M3	Construct Marksheffel Road between the south boundary of the Sterling Ranch Master Plan Area and Woodmen Road	Intermediate Term	40,000	0	5,085	26,710	Others
6	M4	Construct Marksheffel Road between Black Forest Road and Vollmer Road	Long-Term Future	40,000	0	0	25,515	Others
7	V1 northbound	Restriping the 38' of pavement for two 11' southbound lanes (remove the bike lane), a 12' northbound lane and a 4' outside paved shoulder along the east edge ⁽²⁾ (Pending City Traffic Engineering Approval)	With Sterling Ranch Filing No. 4	5,500 (Directional northbound)	5,415 (Directional northbound)	4,670 (Directional northbound)	7,840 (Directional northbound)	Sterling Ranch
	V1 southbound			10,000 (Directional southbound)	5,415 (Directional southbound)	4,670 (Directional southbound)	7,840 (Directional southbound)	---
8	V1	Improve Vollmer Road from Dry Needle Place to Marksheffel Road to a standard 4-Lane Urban Minor Arterial Cross Section (Add a second northbound through lane and painted center median) ⁽³⁾	Long-Term Future	20,000	10,830	9,335	15,680	Sterling Ranch and/or Others
9	V2	Improve Vollmer Road from Marksheffel Road to Lochwinnoch Lane to a standard 4-Lane Urban Minor Arterial Cross Section ⁽³⁾	Short-Term Future (With Sterling Ranch Phase 2)	20,000 (Note: Existing Capacity 8,000 ⁽⁴⁾)	7,900	9,490	18,800	Sterling Ranch

Notes:

(1) See Figure 23

(2) See Exhibit 1

(3) Adequate transition/redirect tapers would be needed between the various cross sections on Vollmer Road. Based on the criteria contained in Table 2-29 of the *El Paso Engineering Criteria Manual* an appropriate taper ratio for a roadway with a design speed of 40 mile per hour is 20:1

(4) Source: Table 20 *Road Impact Fee Study Updated* November 16, 2016

(5) Source: *The Ranch Sketch Plan Master Traffic Impact Study* by LSC Transportation Consultants, Inc. July 9, 2019 PCD File No. SKP-18-006

(6) Source: *Homestead North Phase 1 Traffic Impact Study* by LSC Transportation Consultants, Inc. August 5, 2020 PCD File No. SP-20-008

Source: LSC Transportation Consultants, Inc. (January 2021 w/Filing No. 3 Revision in red 4/6/2022)

Table 4

(page 2 of 2)

Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2

Roadway Improvements

10	V3	Improve Vollmer Road from Lochwinnoch Lane to Sterling Ranch/McClintock Station boundary to provide 36' of pavement (existing pavement approx. 23.38') and stripe for one through lane and plus a 6' paved, striped outside shoulder in each direction ⁽³⁾	Short-Term Future (With Homestead North)	11,000 (Note: Existing Capacity 8,000)	7,230	8,855	18,735	Sterling Ranch
11		Improve Vollmer Road from Lochwinnoch Lane to Sterling Ranch/McClintock Station boundary south of Dines Boulevard to a standard 4-Lane Urban Minor Arterial Cross Section ⁽³⁾	Long-Term Future	20,000	6,415	8,040	17,735	Sterling Ranch and/or Others
12	V4	Improve Vollmer Road from Sterling Ranch/McClintock Station boundary south of Dines Boulevard to Sam Bass Drive to a standard 4-Lane Urban Minor Arterial Cross Section ⁽³⁾	Short-Term Future (With Homestead North Fil 1)	20,000	5,935	8,110	17,385	Sterling Ranch
13	B1	Construct the south half section of Briargate Pkwy (4-Lane Principal Arterial) between Vollmer Road and Wheatland Dr	Short-Term Future (With Homestead at Sterling Ranch Fil 2)	20,000	1,190	1,190	36,400	Sterling Ranch
14		Construct the north half section of Briargate Pkwy (4-Lane Principal Arterial) between Vollmer Road and Wheatland Dr	Long-Term Future	40,000				Sterling Ranch and/or others
15	B2-B3	Construct Briargate Pkwy as a 4-Lane Principal Arterial Wheatland Dr and Banning Lewis Parkway	Long-Term Future	40,000	0	0	36,675 ⁽⁵⁾	Sterling Ranch and/or others
16	B4	Construct Briargate Pkwy as a 4-Lane Principal Arterial between Banning Lewis Parkway and Meridian Road	Long-Term Future	40,000	0	0	34,375 ⁽⁶⁾	Others
17	B5	Construct Briargate Pkwy as a 4-Lane Principal Arterial between its current terminus and Black Forest Road and between Black Forest Road and Vollmer Road	Long-Term Future	40,000	0	0	33,160	Others
18	---	Construct Banning Lewis Parkway as a 4-Lane Principal Arterial between the south Sterling Ranch boundary and Briargate Pkwy	Long-Term Future	40,000	0	0	---	Sterling Ranch and/or others w/ cost recovery
19	---	Construct Banning Lewis Parkway as a 4-Lane Principal Arterial between Woodmen Road and the south Sterling Ranch boundary	Long-Term Future	40,000	0	0	---	Others
20	---	Widen Woodmen Road from 4-lane to 6-lane section from Powers Boulevard to US 24	Long-Term Future	---	---	---	---	Woodmen Road Metro District/ Others
21	---	Widen Black Forest Road from 2-lane to 6-lane section from Woodmen Road to Baker Road	Long-Term Future	---	---	---	---	Woodmen Heights District/ Wolf Ranch/ Other Adjacent Properties

Notes:

(1) See Figure 23

(2) See Exhibit 1

(3) Adequate transition/redirect tapers would be needed between the various cross sections on Vollmer Road. Based on the criteria contained in Table 2-29 of the *El Paso Engineering Criteria Manual* an appropriate taper ratio for a roadway with a design speed of 40 mile per hour is 20:1

(4) Source: Table 20 *Road Impact Fee Study Updated* November 16, 2016

(5) Source: *The Ranch Sketch Plan Master Traffic Impact Study* by LSC Transportation Consultants, Inc. July 9, 2019 PCD File No. SKP-18-006

(6) Source: *Homestead North Phase 1 Traffic Impact Study* by LSC Transportation Consultants, Inc. August 5, 2020 PCD File No. SP-20-008

Source: LSC Transportation Consultants, Inc. (January 2021 w/Filing No. 3 Revision in red 4/6/2022)

Additional Attachments

Table 5 from the *Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2 TIA* with June 2022 Filing 4 revisions



Table 5				
Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2				
Auxiliary Turn Lane Requirements				
Intersection	Improvement Description	Threshold (vph)	Recommended Length	Timing
Marksheffel/ Vollmer	Northbound right-turn deceleration lane on Vollmer approaching Marksheffel	RT > 50	155' Plus 160' taper	Included in Initial Construction Plans
	Southbound left-turn lane on Vollmer approaching Marksheffel	LT > 25	310' Plus 160' taper	Included in Initial Construction Plans
	Westbound left-turn lane on Marksheffel approaching Vollmer	LT > 10 ⁽¹⁾	425' Plus 200' taper	Included in Initial Construction Plans
	Westbound right-turn deceleration lane on Marksheffel approaching Vollmer	RT > 25 ⁽¹⁾	235' Plus 200' taper	Included in Initial Construction Plans
Alzada/ Vollmer	Northbound right-turn deceleration lane on Vollmer approaching Alzada	RT > 50	Not Required	
Dines/ Vollmer	Northbound right-turn deceleration lane on Vollmer approaching Dines	RT > 50	Existing	
	Southbound left-turn lane on Vollmer approaching Dines	LT > 25	210' Plus 160' taper	Included in Initial Construction Plans
Briargate/ Vollmer	Northbound right-turn deceleration lane on Vollmer approaching Briargate	RT > 50	155' Plus 160' taper	Included in Initial Construction Plans
	Southbound left-turn lane on Vollmer approaching Briargate	LT > 25	280' Plus 160' taper	Included in Initial Construction Plans
	Westbound left-turn lane on Briargate approaching Vollmer	LT > 10 ⁽¹⁾	435' Plus 200' taper	Included in Initial Construction Plans
	Westbound right-turn deceleration lane on Briargate approaching Vollmer	RT > 25 ⁽¹⁾	235' Plus 200' taper	Included in Initial Construction Plans
Sterling Ranch/ Marksheffel	Westbound right-turn deceleration lane on Marksheffel approaching Sterling Ranch	RT > 25	235' Plus 200' taper	Intermediate Term
	Eastbound left-turn lane on Marksheffel approaching Sterling Ranch	LT > 10	470' Plus 200' taper	Included in Initial Construction Plans
	Southbound left-turn lane on Sterling Ranch approaching Marksheffel	LT > 25 ⁽¹⁾	285' Plus 90' reverse curve taper	Included in Initial Construction Plans
	Second southbound left-turn lane on Sterling Ranch approaching Marksheffel	LT > 300		Long Term (With conversion of the intersection of Marksheffel/Sterling Ranch to traffic signal control)
	Southbound right-turn lane on Sterling Ranch approaching Marksheffel	RT > 50 ⁽¹⁾	155' Plus 160' taper	Included in Initial Construction Plans
Sterling Ranch/ Bynum	Northbound left-turn lane Sterling Ranch Road approaching Bynum	LT > 25	155' feet long plus a 90' reverse curve taper.	Included in Initial Construction Plans
Sterling Ranch/ School House Hazlet Dr	Northbound left-turn lane on Sterling Ranch Road approaching School House Hazlet Dr	LT > 25	305' feet long plus a 160' taper.	Included in Initial Construction Plans
	Northbound right-turn deceleration lane on Sterling Ranch Road approaching Hazlet Dr	RT > 50	155' feet long plus a 160' taper.	With Phase 2
	Southbound left-turn lane Sterling Ranch Road approaching School House Hazlet Dr	LT > 25	305' feet long plus a 160' taper.	Included in Initial Construction Plans
Sterling Ranch/ Dines	Northbound left-turn lane Sterling Ranch Road approaching Dines Boulevard	LT > 25	305' feet long plus a 160' taper.	Included in Initial Construction Plans
	Eastbound right-turn deceleration lane on Dines Boulevard approaching Sterling Ranch Road	RT > 50	155' feet long plus a 160' taper	Included in Initial Construction Plans
Notes:				
(1) Although the turning volume thresholds are shown, in the short term, these will not function as "speed change lanes" as the intersection will be a T with all approach traffic turning left or right. The short term (interim) need for and length of these turn lanes could potentially, more appropriately, be based on intersection capacity and queuing.				
Source: LSC Transportation Consultants, Inc. (January 2021)				

Required With Fil 2

Required With Fil 4

Required With Fil 3

Required With Fil 3

Required With Fil 2

Required With Fil 2