

Planning and Community Development Department 2880 International Circle Colorado Springs, Colorado 80910

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DEVIATION REQUEST AND DECISION FORM

Low Flow Capacity

Updated: 6/26/2019

PROJECT INFORMATION

Project Name: Sterling Ranch Sand Creek Channel Construction Drawing Review CDR 20-4 Schedule No.(s): 5227301021, 5233309027, 5228000030 & 38, 5233301001 5233301016 &17

Legal Description: See Exhibit B - Legal Description

APPLICANT INFORMATION

Company: Classic SRJ Land, LLC

Name: Douglas Stimple

Mailing Address: 2138 Flying Horse Club Dr., Colorado Springs, CO., 80921

Phone Number: (719) 592-9333 FAX Number : (719) 457-1442

Email Address: DouglasS@classichomes.com

ENGINEER INFORMATION

Company: JR ENGINEERING

Colorado P.E. Number: 32314 Name: MIKE BRAMLETT

Mailing Address: 5475 TECH CENTER DRIVE, SUITE 235, COLORADO SPRINGS, COLORADO 80919

Phone Number: 719-593-2593

FAX Number: N/A

Email Address: MBRAMLETT@JRENGINEERING.COM

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission. Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Signature of owner (or authorized representative)

Engineer's Seal, Signature

And Date of Signature Meh Buler

PCD File No. CDR 20-4

DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)

A deviation from the standards of or in Section <u>ECM section 3.3.3 Open Channel Design Standards</u> of the Engineering Criteria Manual (ECM) is requested for the Sand Creek Channel Design – Low Flow Channel Capacity.

Identify the specific ECM standard which a deviation is requested:
Per ECM Section 3.3.3 Item B. All open channels shall conform to DCM Volume 1 and Volume 2. Per DCM Vol. 1 chapter 6.5 Open Channel Design Criteria, Section 3 Channel Cross Sections, the Low Flow Channel shall generally be designed to convey 10% of the 100 year storm or approximately 180 cfs.
Note: DCM Update Section 9.1 Q low flow = 103DA^0.4 was also checked and was 150-170 cfs which is generally equal to the above criteria values.
State the reason for the requested deviation:
The geomorphology study recommended a much smaller "low flow" channel section.
Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):
See Exhibit A for a representation of the "geomorphologist recommended" low flow channel cross section.
See Exhibit A for a representation of the "geomorphologist recommended" low flow channel cross section. The proposed low flow channel in the Sterling Ranch Sand Creek design is approximately 16.9 feet wide and 1.54 feet deep and has a capacity of 29 cubic feet per second. The low flow channel is armored with 24" deep type M void filled rip rap.
The proposed low flow channel in the Sterling Ranch Sand Creek design is approximately 16.9 feet wide and 1.54 feet deep and
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	MITS OF CONSIDERATION It least one of the conditions listed below must be met for this deviation request to be considered.)
	 □ The ECM standard is inapplicable to the particular situation. □ Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility. ☑ A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.
	Provide justification:
	The geomorpologist's reasoning for the smaller low flow channel cross section was that base flows in this reach of the channel are a fraction of the ECM criteria. Base flows in this portion of Sand Creek are a fraction of the required low flow capacity and the required low flow channel would be far larger than necessary to deal with the base flows, eventually leading the channel to cut its own low flow section for base flows. By using a narrower multi-stage section within the bankfull, dense vegetation can establish itself, particularly along the inner berm. Instead of the bankfull being sized for the larger events, the flood terrace has been sized to convey the two year storm. The frequency that the flood terrace sees inundation will also allow for denser vegetation within the flood terrace extents. Since the bankfull will be carrying a smaller proportion of the larger events, the floodplain is wide enough to ensure that flow depth remains low outside of the flood terrace. Shear stresses in the overbanks are low enough that seeding and riparian plantings will be sufficient to withstand the high flow events, with only a few areas requiring more substantial treatment.
С	RITERIA FOR APPROVAL
C	er ECM section 5.8.7 the request for a deviation may be considered if the request is not based exclusively on financial possible rations. The deviation must not be detrimental to public safety or surrounding property. The applicant must include apporting information demonstrating compliance with all of the following criteria: The deviation will achieve the intended result with a comparable or superior design and quality of improvement.
	This request is not based on financial considerations. The primary reason for the reduced size low flow channel is keep base flows contained and allow for a wide shallow flood terrace to promote dense wetland vegetation growth.
F	The deviation will not adversely affect safety or operations.
	The deviation will not adversely affect safety or operations.

By using the recommended widths of the geomorphology study, a more stable channel thalweg is achieved which is more consistent with what has naturally occurred. Maintenance requirements should be minimal.	
The deviation will not adversely affect aesthetic appearance.	
The deviation does not affect aesthetic appearance.	
The deviation meets the design intent and purpose of the ECM standards.	
Yes, the deviation meets the design intent and purpose of the ECM standards and is a balance of the various ECM and other	
agency standards for natural channel planning and design.	
agency standards for natural channel planning and design.	
The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable. Yes, the deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit. As a	
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REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator This request has been determined to have met the criteria for approval. hereby granted based on the justification provided.	A deviation from Section	_ of the ECM is
Γ	٦	
L	J	
Denied by the ECM Administrator This request has been determined not to have met criteria for approval. hereby denied.	A deviation from Section	_ of the ECM is
Г	٦	
L	J	
ECM ADMINISTRATOR COMMENTS/CONDITIONS:		
Maintenance of the low-flow channel shall be by the Sterling Ranch M	etro District.	
Full stabilization and vegetation density will be required prior to prelim	inary acceptance	

1.1. PURPOSE

The purpose of this resource is to provide a form for documenting the findings and decision by the ECM Administrator concerning a deviation request. The form is used to document the review and decision concerning a requested deviation. The request and decision concerning each deviation from a specific section of the ECM shall be recorded on a separate form.

1.2. BACKGROUND

A deviation is a critical aspect of the review process and needs to be documented to ensure that the deviations granted are applied to a specific development application in conformance with the criteria for approval and that the action is documented as such requests can point to potential needed revisions to the ECM.

1.3. APPLICABLE STATUTES AND REGULATIONS

Section 5.8 of the ECM establishes a mechanism whereby an engineering design standard can be modified when if strictly adhered to, would cause unnecessary hardship or unsafe design because of topographical or other conditions particular to the site, and that a departure may be made without destroying the intent of such provision.

1.4. APPLICABILITY

All provisions of the ECM are subject to deviation by the ECM Administrator provided that one of the following conditions is met:

- The ECM standard is inapplicable to a particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship
 on the applicant, and an equivalent alternative that can accomplish the same design objective is
 available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not
 modified, the standard will impose an undue hardship on the applicant with little or no material benefit to
 the public.

1.5. TECHNICAL GUIDANCE

The review shall ensure all criteria for approval are adequately considered and that justification for the deviation is properly documented.

1.6. LIMITS OF APPROVAL

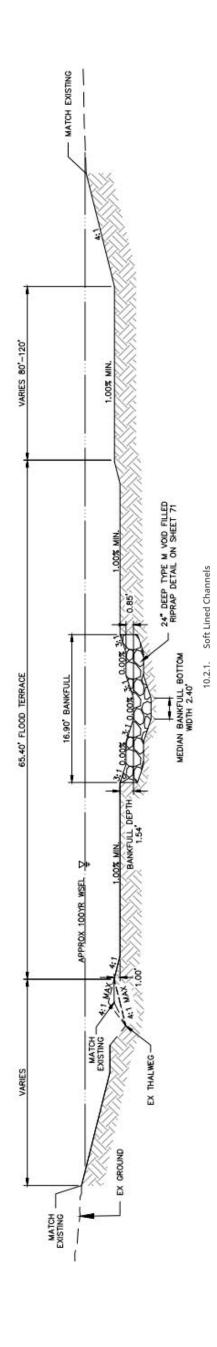
Whether a request for deviation is approved as proposed or with conditions, the approval is for project-specific use and shall not constitute a precedent or general deviation from these Standards.

1.7. REVIEW FEES

A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.

Exhibit A

Typical Channel Cross Section



Bottom Width

Minimum bottom width shall be as necessary to accommodate construction and maintenance equipment, but shall be not less than 8 feet for channels conveying more than 400 cfs.

Low Flow Channel

Low flow channels shall generally be designed for the 10-year event. A minimum conveyance capacity of down to 10% of the 100-year storm event may be allowed if overbank conditions and scour velocities permit or only as otherwise approved by City/County Engineer.

10.2.2. Soft Side, Hard Bottom Channels (Low Flow

orchardgrass, redtop, Stalian ryegrass, and buffalograss. Depending on the length and thickness of the grass cover, the channel surface is stabilized in a two-fold manner; (1) velocity is retarded, lessening the hydrodynamic forces against the soils, and (2) the soil is protected and reinforced by the grass

developments. Grass lined channels are the preferred means of conveying storm water runoff because of their desirability from the standpoint of erosion protection, maintainability, accessibility and aesthetics. Grasses typically used for channel lining are Bermudagrass, Kentucky bluegrass,

Unlined channels in the plains of eastern Colorado are subject to severe erosion and are therefore undesirable in urbanized or urbanizing

The City/County acceptance for maintenance is subject to adequate maintenance accessibility, drainage easements and the installation of adequate

and its root system. Grass linings can be used in moderately steep channel systems in conjunction with using drop structures for grade control.

The continuous presence of minor flows in a grass lined channel creates problems with respect to maintenance. Flatter slopes tend to get boggy, with a proliferation of aquatic growth, while steep slopes have a greater potential for erosion. In such cases, it is necessary to construct a low flow channel of concrete or riprap along the channel invert, depending on the amount of flow. This type of channel is appropriate as long as the major storm events can be conveyed without exceeding the velocity limitations of the grass lined portions of the channel.

10.5.3. Bottom Width

Open channels with narrow bottoms are difficult to maintain and can be subjected to high flow velocities during periods of excess runoff. It is desirable to design open channels such that the bottom width is at least twice the design flow depth, but not less than eight (8) feet for channels conveying more than 400 cfs.

10.5.4. Low Flow Channels

Channel low flow, including base flows, from urban areas must be given special attention. If erosion of the bottom of the channel appears to be a potential problem, low flow is shall be carried in a riprapped or concrete lined channel which generally has a minimum conveyance capacity of a 10-year duration storm. A minimum conveyance capacity of down to 10% of the 100 year storm event may be allowed if overbank conditions and scour velocities permit or only as otherwise approved by the City/County Engineer.

Exhibit B

Legal Description

Recorded Plats West of Channel

Tract B, Sterling Ranch Filing No. 3

Tract D, Sterling Ranch Filing No. 1

See following pages for remaining West Side and East Side Channel Easement descriptions.



CHANNEL EASEMENT

PROPERTY DESCRIPTION

A PARCEL OF LAND BEING A PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 27, THE SOUTHEAST QUARTER OF SECTION 28, AND THE NORTHEAST QUARTER OF SECTION 33, ALL IN TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 34, TOWNSHIP

12 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, 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.

COMMENCING AT THE SOUTHWEST OF CORNER OF THE SOUTHWEST QUARTER OF SECTION 34. TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.:

THENCE N14°51'14"W A DISTANCE OF 4,859.83 FEET, TO THE POINT OF BEGINNING;

THENCE THE FOLLOWING THIRTY-EIGHT (38) COURSES:

- 1. N13°09'32"E A DISTANCE OF 352.52 FEET;
- 2. N39°33'48"E A DISTANCE OF 127.36 FEET;
- N24°46'24"E A DISTANCE OF 78.34 FEET:
- 4. N39°32'55"E A DISTANCE OF 134.35 FEET;
- 5. N26°11'26"E A DISTANCE OF 56.58 FEET, TO A POINT OF CURVE;
- 6. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 6.00 FEET, A CENTRAL ANGLE OF 12°20'46" AND AN ARC LENGTH OF 1.29 FEET, TO A POINT OF TANGENT;
- 7. N13°50'40"E A DISTANCE OF 4.78 FEET, TO A POINT OF CURVE;
- 8. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 360.00 FEET, A CENTRAL ANGLE OF 77°36'15" AND AN ARC LENGTH OF 487.60 FEET, TO A POINT OF REVERSE CURVE;
- ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 210.00 FEET, A CENTRAL ANGLE OF 44°20'11" AND AN ARC LENGTH OF 162.50 FEET, TO A POINT TANGENT;
- 10. N47°06'44"E A DISTANCE OF 42.79 FEET, TO A POINT OF CURVE;
- 11. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 61.00 FEET, A CENTRAL ANGLE OF 18°09'34" AND AN ARC LENGTH OF 19.33 FEET, TO A POINT OF TANGENT;

- 12. N65°16'17"E A DISTANCE OF 68.61 FEET, TO A POINT OF CURVE;
- 13. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 39.00 FEET, A CENTRAL ANGLE OF 66°32'02" AND AN ARC LENGTH OF 45.29 FEET. TO A POINT OF TANGENT:
- 14. N01°15'45"W A DISTANCE OF 72.65 FEET, TO A POINT OF CURVE;
- 15. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 92.50 FEET, A CENTRAL ANGLE OF 49°17'46" AND AN ARC LENGTH OF 79.59 FEET, TO A POINT OF TANGENT;
- 16. N48°02'01"E A DISTANCE OF 109.77 FEET, TO A POINT OF CURVE:
- 17. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 37.50 FEET, A CENTRAL ANGLE OF 10°21'41" AND AN ARC LENGTH OF 6.78 FEET, TO A POINT OF TANGENT;
- 18. N37°40'20"E A DISTANCE OF 20.53 FEET, TO A POINT OF CURVE:
- 19. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 62.50 FEET, A CENTRAL ANGLE OF 20°49'08" AND AN ARC LENGTH OF 22.71 FEET, TO A POINT OF TANGENT;
- 20. N58°29'29"E A DISTANCE OF 21.44 FEET, TO A POINT OF CURVE;
- 21. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 372.00 FEET, A CENTRAL ANGLE OF 28°48'24" AND AN ARC LENGTH OF 187.03 FEET, TO A POINT OF TANGENT;
- 22. N29°41'04"E A DISTANCE OF 273.67 FEET, TO A POINT OF CURVE;
- 23. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 808.00 FEET, A CENTRAL ANGLE OF 24°35'20" AND AN ARC LENGTH OF 346.76 FEET, TO A POINT OF COMPOUND CURVE:
- 24. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 37.50 FEET, A CENTRAL ANGLE OF 35°58'11" AND AN ARC LENGTH OF 23.54 FEET, TO A POINT TANGENT:
- 25. N30°52'26"W A DISTANCE OF 86.69 FEET, TO A POINT OF CURVE;
- 26. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 112.50 FEET, A CENTRAL ANGLE OF 22°05'57" AND AN ARC LENGTH OF 43.39 FEET, TO A POINT OF TANGENT;
- 27. N08°46'30"W A DISTANCE OF 175.18 FEET, TO A POINT OF CURVE;
- 28. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 120.00 FEET, A CENTRAL ANGLE OF 07°55'00" AND AN ARC LENGTH OF 16.58 FEET, TO A POINT OF TANGENT;
- 29. N00°51'29"W A DISTANCE OF 199.03 FEET, TO A POINT OF CURVE;
- 30. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 87.50 FEET, A CENTRAL ANGLE OF 17°51'03" AND AN ARC LENGTH OF 27.26 FEET, TO A POINT OF TANGENT;
- 31. N18°42'32"W A DISTANCE OF 80.54 FEET, TO A POINT OF CURVE;
- 32. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 112.50 FEET, A CENTRAL ANGLE OF 44°32'40" AND AN ARC LENGTH OF 87.46 FEET, TO A POINT OF TANGENT;

- 33. N25°50'08"E A DISTANCE OF 88.95 FEET, TO A POINT OF CURVE;
- 34. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 75.00 FEET, A CENTRAL ANGLE OF 85°51'02" AND AN ARC LENGTH OF 112.38 FEET, TO A POINT OF REVERSE CURVE;
- 35. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 23.00 FEET, A CENTRAL ANGLE OF 91°10'38" AND AN ARC LENGTH OF 36.60 FEET, TO A POINT OF TANGENT;
- 36. N31°09'44"E A DISTANCE OF 11.45 FEET;
- 37, N01°04'03"W A DISTANCE OF 143,40 FEET:
- 38. N72°19'10"W A DISTANCE OF 70.69 FEET, TO A POINT ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.;

THENCE ON SAID NORTH LINE, N89°08'31"E A DISTANCE OF 207.97 FEET, TO THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 28;

THENCE ON THE EAST LINE OF SAID NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 28, S00°53'15"E A DISTANCE OF 1,316.84 FEET, TO THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SECTION 27, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.;

THENCE ON THE NORTH LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 27, N87°34'53"E A DISTANCE OF 73.60 FEET:

THENCE DEPARTING SAID NORTH LINE, THE FOLLOWING TWENTY-SIX (26) COURSES:

- 1. S04°00'08"W A DISTANCE OF 38.86 FEET:
- 2. S23°30'33"W A DISTANCE OF 96.02 FEET;
- S17°58'09"W A DISTANCE OF 105.84 FEET:
- S07°20'33"W A DISTANCE OF 248.45 FEET;
- S27°44'47"W A DISTANCE OF 82.16 FEET;
- S51°16'10"W A DISTANCE OF 361.44 FEET;
- S29°35'35"W A DISTANCE OF 198.68 FEET;
- 8. S56°06'51"W A DISTANCE OF 68.55 FEET;
- 9. S51°10'06"W A DISTANCE OF 86.23 FEET;
- 10. S82°29'37"W A DISTANCE OF 85.63 FEET:
- 11. N82°52'49"W A DISTANCE OF 82.74 FEET:
- 12. N63°10'02"W A DISTANCE OF 59.72 FEET, TO A POINT OF NON-TANGENT CURVE;

- 13. ON THE ARC OF A CURVE TO THE LEFT WHOSE CENTER BEARS \$52°33'19'W, HAVING A RADIUS OF 43.53 FEET, A CENTRAL ANGLE OF 66°07'59" AND AN ARC LENGTH OF 50.25 FEET, TO A POINT OF REVERSE CURVE:
- 14. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 208.41 FEET, A CENTRAL ANGLE OF 21°27'48" AND AN ARC LENGTH OF 78.07 FEET, TO A POINT REVERSE CURVE:
- 15. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 85.46 FEET, A CENTRAL ANGLE OF 85°24'40" AND AN ARC LENGTH OF 127.39 FEET, TO A POINT TANGENT;
- 16. S12°28'27"W A DISTANCE OF 90.70 FEET:
- 17. S87°04'53"W A DISTANCE OF 91.55 FEET:
- 18. S01°04'54'W A DISTANCE OF 49.42 FEET;
- 19. S27°12'58'W A DISTANCE OF 75.48 FEET:
- 20. S12°38'34"W A DISTANCE OF 55.41 FEET;
- 21. S19°42'21"W A DISTANCE OF 185.56 FEET;
- 22. S32°15'45'W A DISTANCE OF 71.66 FEET;
- 23. S41°47'19"W A DISTANCE OF 88.37 FEET:
- 24. S14°57'52"W A DISTANCE OF 155.36 FEET;
- 25. S03°04'57"E A DISTANCE OF 108.15 FEET:
- 26. N78°59'19"W A DISTANCE OF 158.05 FEET, TO THE POINT OF BEGINNING.

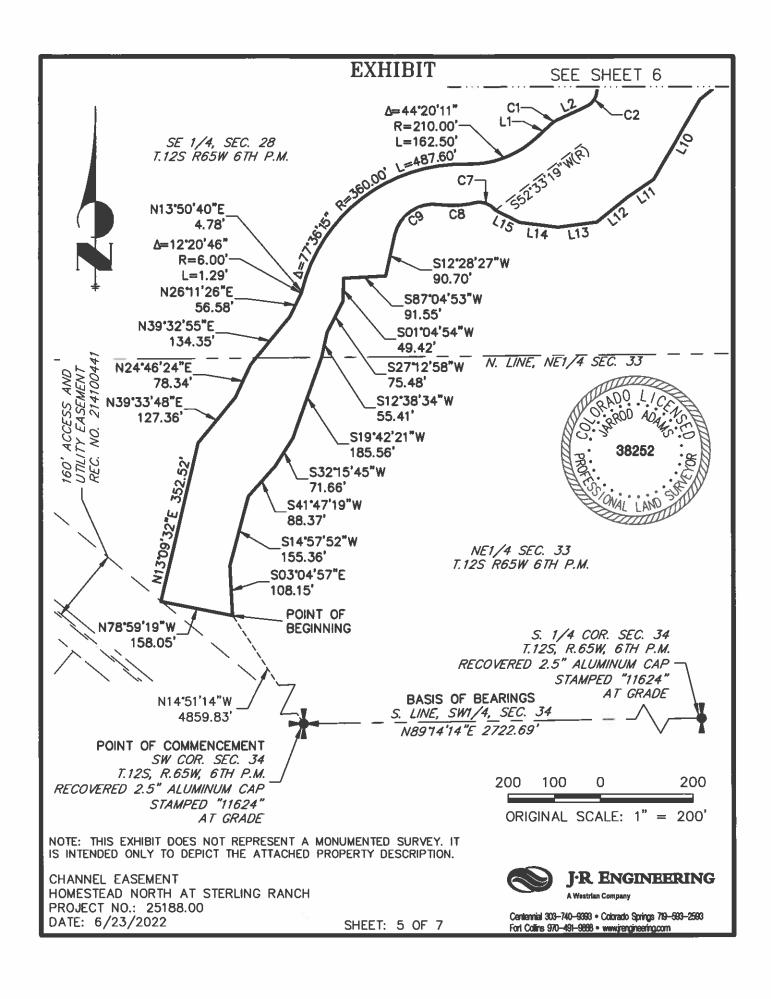
CONTAINING A CALCULATED AREA OF 591,216 SQUARE FEET OR 13.5725 ACRES.

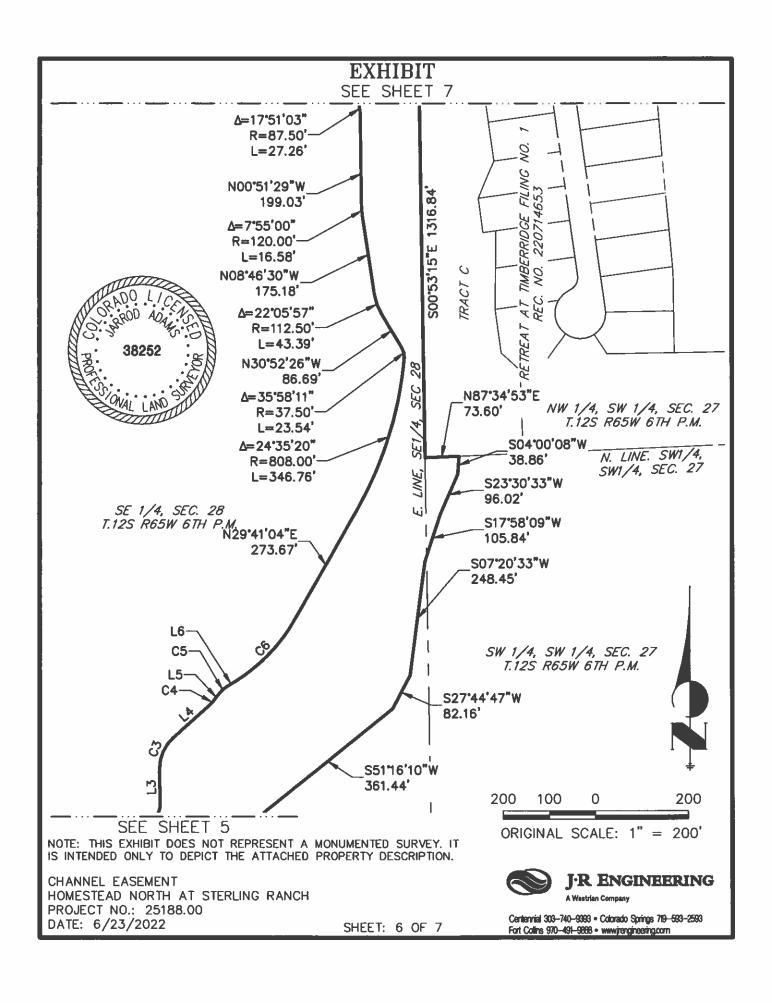
PROPERTY DESCRIPTION STATEMENT

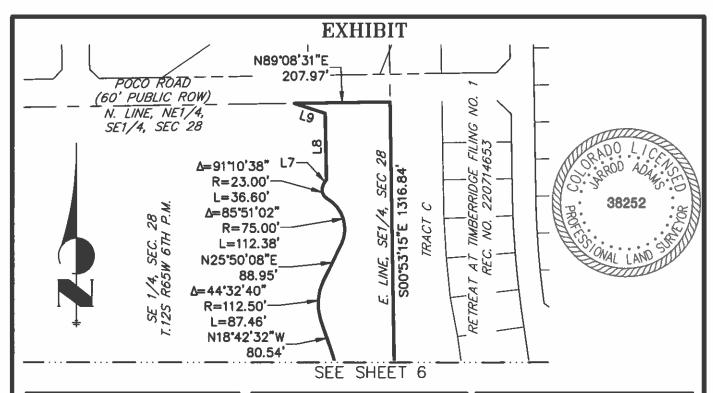
I, JARROD ADAMS, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF COLORADO, DO HEREBY STATE THAT THE ABOVE PROPERTY DESCRIPTION AND ATTACHED EXHIBIT WERE PREPARED UNDER MY RESPONSIBLE CHARGE, AND ON THE BASIS OF MY KNOWLEDGE, INFORMATION AND BELIEF, ARE CORRECT.

JARROD ADAMS, PROFESSIONAL LAND SURVEYOR COLORADO NO. 38252 FOR AND ON BEHALF OF JR ENGINEERING, LLC









LINE TABLE			
LINE	BEARING	DISTANCE	
L1	N47'06'44"E	42.79'	
L2	N65*16'17"E	68.61	
L3	N01°15'45"W	72.65	
L4	N48'02'01"E	109.77'	
L5	N37*40'20"E	20.53'	

	LINE TABLE			
LINE	BEARING	DISTANCE		
L6	N58°29'29"E	21.44'		
L7	N31°09'44"E	11.45'		
L8	N01°04'03"W	143.40'		
L9	N72*19'10"W	70.69'		
L10	S29*35'35"W	198.68'		

SHEET: 7 OF 7

LINE TABLE			
LINE	BEARING	DISTANCE	
L11	S56°06'51"W	68.55'	
L12	S51"10'06"W	86.23'	
L13	S82*29'37"W	85.63	
L14	N82'52'49"W	82.74'	
L15	N63"10'02"W	59.72'	

CURVE TABLE			
CURVE	DELTA	RADIUS	LENGTH
C1	18*09'34"	61.00'	19.33'
C2	66*32'02"	39.00'	45.29'
C3	49*17'46"	92.50'	79.59'
C4	10"21'41"	37.50	6.78
C5	20*49'08"	62.50'	22.71'

CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	
C6	28*48'24"	372.00'	187.03'	
C7	66°07'59"	43.53'	50.25	
C8	21°27'48"	208.41'	78.07'	
C9	85°24'40"	85.46	127.39	
200 100 0				

200

NOTE: THIS EXHIBIT DOES NOT REPRESENT A MONUMENTED SURVEY. IT IS INTENDED ONLY TO DEPICT THE ATTACHED PROPERTY DESCRIPTION.

ORIGINAL SCALE: 1" = 200'

CHANNEL EASEMENT

HOMESTEAD NORTH AT STERLING RANCH

PROJECT NO.: 25188.00

DATE: 6/23/2022



J·R ENGINEERING

A Westrian Company

Centennial 303-740-9393 • Colorado Springs 719-593-2593 Fort Colins 970-491-9898 • www.jrengineering.com



JOB NO. 1183.22-07 JULY 7, 2022 PAGE 1 OF 6

619 N. Cascade Avenue, Suite 200 (719) 785-0790 Colorado Springs, Colorado 80903 (719) 785-0799 (Fax)

LEGAL DESCRIPTION: STERLING RANCH EAST DRAINAGE EASEMENT

THREE (3) PARCELS OF LAND BEING A PORTION OF SECTIONS 27, 28, 33 AND 34, ALL IN TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, BEING MONUMENTED AT THE WEST END WHICH IS THE CENTER-EAST ONE-SIXTEENTH CORNER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI PLS 10376, 2006" AND AT THE EAST END, WHICH IS A 30' WITNESS CORNER TO THE EAST OF THE EAST QUARTER CORNER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI 10376, 2006", IS ASSUMED TO BEAR N89°08'28"E, A DISTANCE OF 1356.68 FEET.

PARCEL 1

COMMENCING AT THE CENTER-EAST ONE-SIXTEENTH CORNER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN EL PASO COUNTY, COLORADO, SAID POINT BEING THE SOUTHWESTERLY CORNER OF RETREAT AT TIMBERRIDGE FILING NO. 1 RECORDED UNDER RECEPTION NO. 220714653 RECORDS OF EL PASO COUNTY, COLORADO;

THENCE S12°01'42"W, A DISTANCE OF 7255.05 FEET TO THE POINT OF BEGINNING;

THENCE N76°19'20"E, A DISTANCE OF 79.99 FEET;

THENCE S13°40'40"E, A DISTANCE OF 475.82 FEET;

THENCE S51°50'20"E, A DISTANCE OF 126.52 FEET;

THENCE S31°00'00"W, A DISTANCE OF 351.85 FEET TO THE SOUTH LINE OF SECTION 33, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO:

THENCE S89°04'30"W, ON THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 33, A DISTANCE OF 416.25 FEET TO THE SOUTHEASTERLY CORNER OF PARCEL A AS DESCRIBED IN A DOCUMENT RECORDED UNDER RECEPTION NO. 214100607;

THENCE ON THE EASTERLY BOUNDARY OF SAID PARCEL A AS DESCRIBED IN A DOCUMENT RECORDED UNDER RECEPTION NO. 214100607 THE FOLLOWING SEVEN (7) COURSES;

- N35°56'43"E, A DISTANCE OF 113.88 FEET;
- 2. N78°47'17"E, A DISTANCE OF 182.32 FEET;
- 3. N54°45'26"E, A DISTANCE OF 199.63 FEET;
- 4. N30°01'21"W, A DISTANCE OF 151.07 FEET;
- N05°59'19"W, A DISTANCE OF 253.00 FEET;
- 6. N17°59'13"E, A DISTANCE OF 156.80 FEET;
- 7. N40°32'14"W, A DISTANCE OF 73.04 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 3,480 ACRES.

PARCEL 2

COMMENCING AT THE CENTER-EAST ONE-SIXTEENTH CORNER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN EL PASO COUNTY, COLORADO, SAID POINT BEING THE SOUTHWESTERLY CORNER OF RETREAT AT TIMBERRIDGE FILING NO. 1 RECORDED UNDER RECEPTION NO. 220714653 RECORDS OF EL PASO COUNTY, COLORADO;

THENCE S00°12'09"E, A DISTANCE OF 3492.74 FEET TO THE NORTHEASTERLY CORNER OF TRACT D AS PLATTED IN STERLING RANCH FILING NO. 1 RECORDED UNDER RECEPTION NO. 218714151 SAID POINT BEING THE POINT OF BEGINNING;

THENCE \$50°26'12"E, A DISTANCE OF 323.25 FEET;

THENCE S52°00'00"W, A DISTANCE OF 185.50 FEET;

THENCE \$38°00'00"W, A DISTANCE OF 193.10 FEET;

THENCE \$10°00'00"W, A DISTANCE OF 220.86 FEET;

THENCE S30°00'00"W, A DISTANCE OF 132.91 FEET;

THENCE S66°00'00"W, A DISTANCE OF 166.27 FEET;

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THENCE S78°00'00"W, A DISTANCE OF 159.90 FEET:
THENCE S65°00'00"W, A DISTANCE OF 409.58 FEET;
THENCE S56°00'00"W, A DISTANCE OF 158.76 FEET;
THENCE $45°00'00"W, A DISTANCE OF 189.12 FEET;
THENCE S65°00'00"W, A DISTANCE OF 83.60 FEET;
THENCE $80°00'00"W, A DISTANCE OF 107.71 FEET;
THENCE S15°00'00"W, A DISTANCE OF 116.14 FEET;
THENCE S08°00'00"E, A DISTANCE OF 73.64 FEET;
THENCE S31°00'00"E, A DISTANCE OF 313.48 FEET;
THENCE S20°00'00"E, A DISTANCE OF 147.64 FEET;
THENCE S08°00'00"E, A DISTANCE OF 146.16 FEET;
THENCE S10°00'00"W, A DISTANCE OF 238.00 FEET;
THENCE $40°00'00"W, A DISTANCE OF 220.56 FEET;
THENCE $00°08'25"W, A DISTANCE OF 136.58 FEET;
THENCE $33°00'00"E, A DISTANCE OF 357.10 FEET;
THENCE S57°00'00"W, A DISTANCE OF 316.11 FEET;
THENCE S00°00'00"E, A DISTANCE OF 359.20 FEET;
THENCE S76°19'20"W, A DISTANCE OF 376.40 FEET TO THE SOUTHEASTERLY CORNER OF SAID
TRACT D:
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THENCE ON THE EASTERLY BOUNDARY OF SAID TRACT D THE FOLLOWING TWENTY-SIX (26) COURSES:

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    N76°13'42"W, A DISTANCE OF 278.31 FEET;
    N17°53'47"W, A DISTANCE OF 105.91 FEET;
    N46°52'24"E, A DISTANCE OF 128.28 FEET;
    N15°27'56"W, A DISTANCE OF 241.77 FEET;
    N00°53'19"W, A DISTANCE OF 131.63 FEET;
    N35°47'33"E, A DISTANCE OF 139.61 FEET;
    N46°04'45"E, A DISTANCE OF 252.38 FEET;
    N60°18'33"E, A DISTANCE OF 166.84 FEET;
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9. N65°39'18"E, A DISTANCE OF 252.42 FEET; 10. N02°44'27"E, A DISTANCE OF 452.46 FEET; 11. N26°06'12"W, A DISTANCE OF 393.42 FEET;

12. N04°22'24°W, A DISTANCE OF 296.69 FEET; 13. N13°28'59"E, A DISTANCE OF 371.46 FEET; 14. S88°53'18"E, A DISTANCE OF 56.14 FEET; 15. S19°39'33"E, A DISTANCE OF 163.51 FEET; 16. S50°40'25"E, A DISTANCE OF 72.52 FEET;

17. N50°58'40"E, A DISTANCE OF 94.24 FEET; 18. N40°27'16"E, A DISTANCE OF 150.60 FEET; 19. N65°02'48"E, A DISTANCE OF 632.56 FEET; 20. N87°30'37"E, A DISTANCE OF 117.08 FEET; 21. N59°31'52"E, A DISTANCE OF 178.71 FEET;

22. N00°14'13"E, A DISTANCE OF 243.48 FEET; 23. N31°50'18"E, A DISTANCE OF 229.19 FEET;

24. N42°37'17"E, A DISTANCE OF 138.57 FEET;

25. N14°40'14"W, A DISTANCE OF 112.26 FEET;

26. N39°33'48"E, A DISTANCE OF 15.00 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 28.987 ACRES.

PARCEL 3

COMMENCING AT THE CENTER-EAST ONE-SIXTEENTH CORNER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN EL PASO COUNTY, COLORADO, SAID POINT BEING THE SOUTHWESTERLY CORNER OF RETREAT AT TIMBERRIDGE FILING NO. 1 RECORDED UNDER RECEPTION NO. 220714653 RECORDS OF EL PASO COUNTY, COLORADO;

THENCE ON THE SOUTHERLY, WESTERLY AND SOUTHERLY BOUNDARY OF SAID RETREAT AT TIMBERRIDGE FILING NO. 1 THE FOLLOWING THREE (3) COURSES:

- N89°08'28"E, A DISTANCE OF 1326.68 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 28;
- 2. S00°53'18"E, A DISTANCE OF 1316.78 FEET;
- 3. N87°35'00"E, A DISTANCE OF 73.64 FEET TO THE POINT OF BEGINNING;

THENCE CONTINUING N87°35'00"E, ON THE SOUTHERLY BOUNDARY OF SAID RETREAT AT TIMBERRIDGE FILING NO. 1, A DISTANCE OF 61.61 FEET; THENCE S02°25'00"E, A DISTANCE OF 408.44 FEET; THENCE S15°00'00"W, A DISTANCE OF 125.56 FEET;

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THENCE S51°25'27"W, A DISTANCE OF 147.11 FEET;
THENCE $47°55'25"W, A DISTANCE OF 147.11 FEET;
THENCE $43°01'44"W, A DISTANCE OF 147.11 FEET;
THENCE S39°33'48"W, A DISTANCE OF 282.90 FEET;
THENCE $34°39'51"W, A DISTANCE OF 70.26 FEET;
THENCE S47°41'36'W, A DISTANCE OF 70.71 FEET;
THENCE $43°38'56"W. A DISTANCE OF 70.18 FEET;
THENCE N50°26'12"W, A DISTANCE OF 40.00 FEET;
THENCE S71°59'24"W, A DISTANCE OF 208.94 FEET;
THENCE S39°33'48"W, A DISTANCE OF 98.87 FEET;
THENCE S18°00'00"W, A DISTANCE OF 171.46 FEET;
THENCE S50°26'12"E, A DISTANCE OF 40.00 FEET;
THENCE $39°33'48"W, A DISTANCE OF 721.68 FEET;
THENCE N50°26'12"W, A DISTANCE OF 75.41 FEET;
THENCE N03°04'57"W, A DISTANCE OF 230.22 FEET;
THENCE N14°57'52"E, A DISTANCE OF 155.36 FEET;
THENCE N41°47'19"E, A DISTANCE OF 88.37 FEET;
THENCE N32°15'45"E, A DISTANCE OF 71.66 FEET
THENCE N19°42'21"E, A DISTANCE OF 185.56 FEET;
THENCE N12°38'34"E, A DISTANCE OF 55.41 FEET;
THENCE N27°12'58"E, A DISTANCE OF 75.48 FEET;
THENCE N01°04'54"E, A DISTANCE OF 49.42 FEET;
THENCE N87°04'53"E, A DISTANCE OF 91.55 FEET;
THENCE N12°28'27"E, A DISTANCE OF 90.70 FEET TO A POINT OF CURVE;
THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 85°24'40", A RADIUS OF
85.46 FEET AND A DISTANCE OF 127.39 FEET TO A POINT OF REVERSE CURVE;
THENCE ON THE ARC OF A CURVE TO THE LEFT HAVING A DELTA OF 21°27'48", A RADIUS OF
208.41 FEET AND A DISTANCE OF 78.07 FEET TO A POINT OF REVERSE CURVE:
THENCE ON THE ARC OF A CURVE TO THE RIGHT HAVING A DELTA OF 66°07'59", A RADIUS OF
43.53 FEET AND A DISTANCE OF 50.24 FEET TO A POINT ON CURVE;
THENCE S63°10'02"E, A DISTANCE OF 59.72 FEET;
THENCE S82°52'49"E, A DISTANCE OF 82.74 FEET;
THENCE N82°29'37"E, A DISTANCE OF 85.63 FEET;
THENCE N51°10'06"E, A DISTANCE OF 86.23 FEET;
THENCE N56°06'51"E, A DISTANCE OF 68.55 FEET;
THENCE N29°35'35"E, A DISTANCE OF 198.68 FEET;
THENCE N51°16'10"E, A DISTANCE OF 361.44 FEET;
THENCE N27°44'47"E, A DISTANCE OF 82.16 FEET;
THENCE N07°20'33"E, A DISTANCE OF 248.45 FEET;
THENCE N17°58'09"E, A DISTANCE OF 105.84 FEET;
THENCE N23°30'33"E, A DISTANCE OF 96.02 FEET;
THENCE N04°00'08"E, A DISTANCE OF 38.97 FEET TO THE POINT OF BEGINNING.
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CONTAINING A CALCULATED AREA OF 11.976 ACRES.

CONTAINING A TOTAL CALCULATED AREA OF 44,443 ACRES.

LEGAL DESCRIPTION STATEMENT:

I, DOUGLAS P. REINELT, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY STATE THAT THE ABOVE LEGAL DESCRIPTION AND ATTACHED EXHIBIT WERE PREPARED UNDER MY RESPONSIBLE CHARGE AND ON THE BASIS OF MY KNOWLEDGE, INFORMATION AND BELIEF ARBUNDERECT. CADO UCA

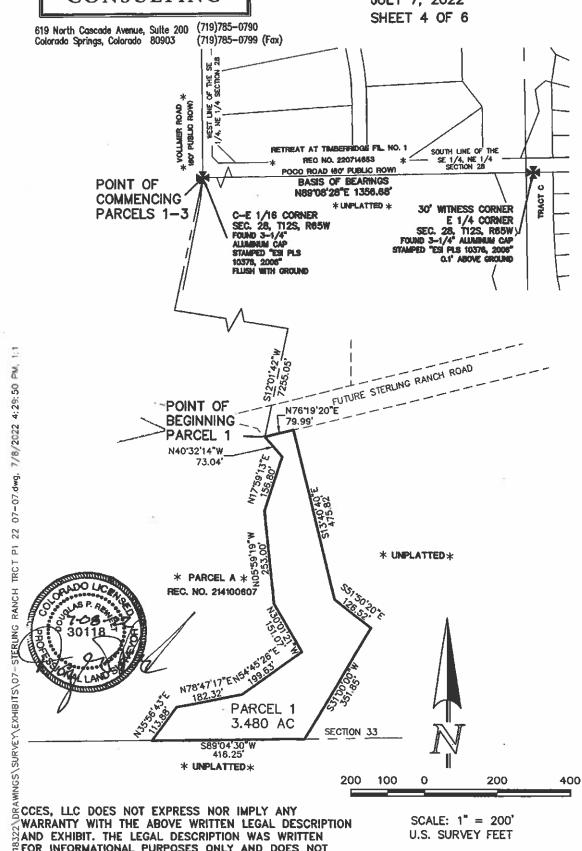
DOUGLAS P. REINELT PRO CELEND SURVEYOR

COLORADO P.L.S. NO. 80118 FOR AND ON BEHALF OF CLASSIC CONSULTING

ENGINEERS AND SURVEYORS, LLC



STERLING RANCH TRACTS PARCEL 1 JOB NO. 1183.22-07 JULY 7, 2022

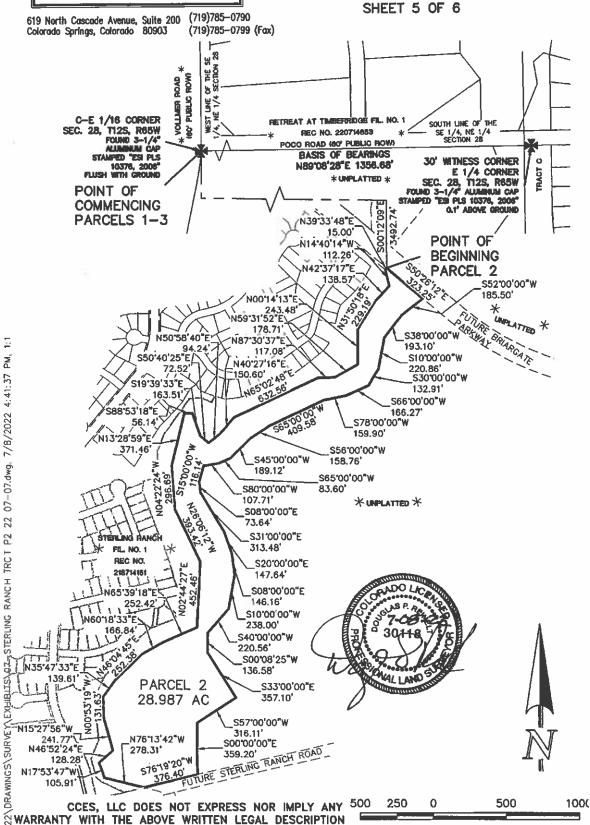


WARRANTY WITH THE ABOVE WRITTEN LEGAL DESCRIPTION MARRANTY WITH THE ABOVE WRITTEN LEGAL DESCRIP SAND EXHIBIT. THE LEGAL DESCRIPTION WAS WRITTEN FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT DEPICT A MONUMENTED LAND SURVEY.

SCALE: 1" = 200' U.S. SURVEY FEET



STERLING RANCH TRACTS
PARCEL 2
JOB NO. 1183.22-07
JULY 7, 2022
SHEET 5 OF 6



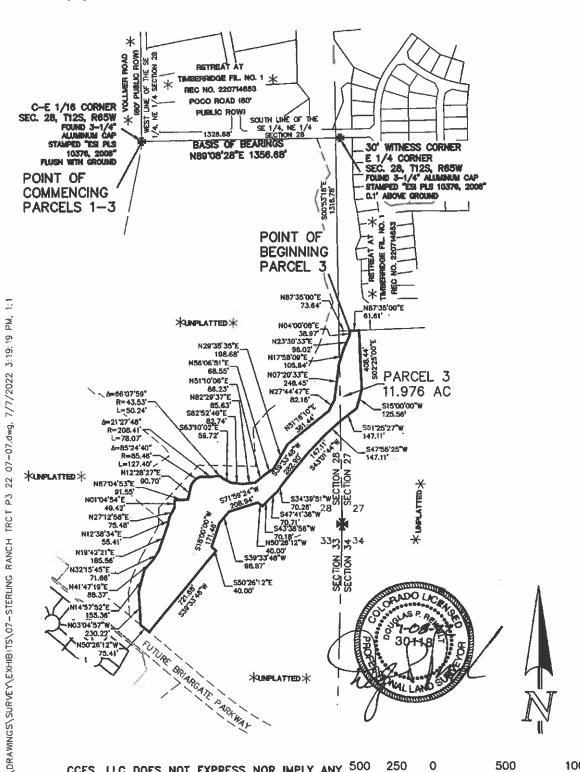
WARRANTY WITH THE ABOVE WRITTEN LEGAL DESCRIPTION AND EXHIBIT. THE LEGAL DESCRIPTION WAS WRITTEN FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT DEPICT A MONUMENTED LAND SURVEY.

SCALE: 1" = 500' U.S. SURVEY FEET



619 North Cascade Avenue, Suite 200 (719)785-0790 Colorado Springs, Colorado 80903 (719)785-0799 (719)785-0799 (Fax)

STERLING RANCH TRACTS PARCEL 3 JOB NO. 1183.22-07 JULY 7, 2022 SHEET 6 OF 6



CCES, LLC DOES NOT EXPRESS NOR IMPLY ANY 500 WARRANTY WITH THE ABOVE WRITTEN LEGAL DESCRIPTION AND EXHIBIT. THE LEGAL DESCRIPTION WAS WRITTEN FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT EDEPICT A MONUMENTED LAND SURVEY.

SCALE: 1" = 500' U.S. SURVEY FEET

500

1000

250

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