

Sterling Ranch Drainage

Initial Drainage Board Presentation

May, 2021

Sterling Ranch – Initial Presentation to Drainage Board

- Presentation Objective
 - Provide overview of the current drainage planning for the Sterling Ranch Development
 - Obtain Drainage Board concurrence on:
 - Vollmer storm crossings can be included in the reimbursable costs, one is almost completed and ready for submittal
 - Is it ok to go with underground (storm sewer) vs. above ground channel lining
 - Can two detention ponds serving offsite flows be considered reimbursable
- Sterling Ranch Overview (Sketch Plan in Back Up page 10)
 - 1,444 Ac; East of Vollmer Rd, West of proposed Banning Lewis Parkway, 1 mile north of Woodmen Road
 - Mixed Use Development: 1,181 ac Residential, 56 ac. Commercial, 57 ac. Schools, 150 ac. Parks and Open Space
 - 135 ac. Currently Platted – west of Sand Creek
 - Sand Creek Drainage Basin
 - MDDP Approved 2018

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- Sand Creek DBPS – 1996, Kiowa
 - Sterling Ranch is in Upper Sand Creek and East Fork Sand Creek sub-basins
 - Upper Sand Creek has the main stem and two western sub-tributaries
 - East Fork Tributary connects to main stem much lower in the basin
 - DBPS assumes rural residential development and calls for selective channel linings and grade control structures to stabilize creek and tributaries
 - Culverts at major roadway crossings
- Sand Creek DBPS – “Issues” (Map in Back Up page 12)
 - Improvements were not fully included for passing Upper Sand Creek Basin western basin flows across Vollmer
 - Assumed roadway locations and names have changed
 - Did not fully study eastern tributary in the north part of the basin in the Sand Creek improvements estimate

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- Sterling Ranch MDDP – 2018, M&S (Map in Back Up page 13)
 - Updated Land Use to Sketch Plan
 - Urban for Sterling Ranch
 - Research Parkway re-routed as Marksheffel/Sterling Ranch Road
 - Banning Lewis Parkway becomes Briargate Parkway
 - Updated Hydrologic Model (Increased upstream watershed)
 - ~270 ac. of East Fork basin diverted to Upper Sand Creek basin
 - EPC criteria changes reflected in Sand Creek Channel improvements
 - Provided additional improvements to pass flows under Vollmer
 - Redirected Tributary outfall locations
 - Tributary Channels – Replaced with Storm Sewer
 - Offline Full Spectrum Detention

Sterling Ranch – Initial Presentation to Drainage Board

- DBPS 2020 Dollar Improvements
 - Northern Western Tributary - \$2,006,041
 - Southern Western Tributary - \$2,652,746
 - Redirected East Fork Sub-Tributary - \$39,918
 - East Fork Tributary - \$1,815,069
 - Main Channel – \$1,869,502
 - Total Drainage DBPS Improvements = \$8,383,276
 - Bridges - \$754,817 (used DBPS Drainage fee increase, not bridge)
 - Total Bridge DBPS Improvements = \$754,817
- Sterling Ranch Estimated Current and Future Fees (2020)
 - Drainage - \$12,799,760
 - Bridge - \$5,235,439

Sterling Ranch – Initial Presentation to Drainage Board

- Sterling Ranch Drainage and Bridge Improvements Estimate
 - Northern Western Tributary - \$686,500 (\$2,006,041 in DBPS)
 - North of Briargate – \$392,000
 - 60" Culvert Under Vollmer (in DBPS)
 - Pipe from Vollmer to Creek (Alternative to Open Channel)
 - South of Briargate – \$294,500
 - 54" Culvert Under Vollmer (**not in DBPS**)
 - Pipe from Vollmer to Creek (Alternative to Open Channel)
 - Southern Western Tributary - \$1,981,894 (\$2,652,746 in DBPS)
 - North Leg (Sterling Ranch Road) - \$606,566
 - 66" Pipe Under Sterling Ranch Rd (Research culvert in DBPS)
 - Pipe from Babarick subdivision to Pond W-5 (Alternative to Open Channel)
 - Pond W-5 (**not in DBPS, assume 29% reimbursable for offsite flows**)
 - West Leg (Marksheffel) – \$1,375,328
 - Pond W-4 (**not in DBPS, assume 100% reimbursable for offsite flows**)
 - Pipe Under Vollmer to Creek (**not in DBPS**)

Sterling Ranch – Initial Presentation to Drainage Board

- Sterling Ranch Drainage and Bridge Improvements Estimate
 - East Fork Tributary - \$1,815,069 (\$1,815,069 in DBPS)
 - Pipe to South Boundary (Alternative to Open Channel)
 - Not designed – assumed equal to DBPS reimbursable
 - Mainstem – \$5,857,333 (\$1,869,502 in DBPS)
 - Bridges – \$2,635,282 (\$754,817 in DBPS)

ESTIMATED CONSTRUCTION COST OPINION - SUMMARY			
ITEMS	ESTIMATED COST	DBPS COST (2020)	DELTA
Northwestern Tributary	\$686,500	\$2,006,041	-\$1,319,541
Southwestern Tributary	\$1,981,894	\$2,652,746	-\$670,852
East Fork Tributary	\$1,815,069	\$1,815,069	\$0
Sand Creek Channel	\$5,857,333	\$1,869,502	\$3,987,831
BG PKWY and SR RD.	<u>\$2,635,282</u>	<u>\$754,817</u>	<u>\$1,880,465</u>
TOTAL ESTIMATED REIMBURSABLE COSTS	\$12,976,078	\$9,098,175	\$3,877,903
SR EST. CURRENT AND FUTURE FEES (2020)	\$18,035,199		

Sterling Ranch – Initial Presentation to Drainage Board

- Requests for Input

- Confirmation of concept for reimbursement requests

- Address Flows crossing Vollmer
- Storm Pipe instead of Open Channels
- Two Ponds Reimbursable.

- Assuming concept reimbursement requests

- Drainage Fee's Paid = \$12,799,760 - Reimbursable Requests = \$11,391,346
- Bridge Fee's Paid = \$5,235,439 - Reimbursement Requests = \$2,635,282

- Deferral of Drainage and Bridge Fee's at time of future plats

- With condition that collateral for drainage improvements is provided prior to each plat being recorded

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- Potential “Future” Item Still in Discussion with EPC
 - Redirected East Fork Sub-Tributary
 - Existing Sub tributary flows south out of Sterling Ranch and into existing rural lots
 - Not fully studied or costed in DPBS, Undefined path, limited easements
 - In discussions with EPC to potentially gain concurrence on reimburseable costs, if any
 - Est. cost of planned improvements \$1,083,250 (\$39,918 in DBPS)
 - Pond W-3 (not in DBPS)
 - Pipe along SR Rd to Pond (not in DBPS)
 - Outlet Structure for existing stock pond (not in DBPS)

Sterling Ranch Drainage Initial Presentation to Drainage Board

Back-Up

STERLING RANCH SKETCH PLAN AMENDMENT

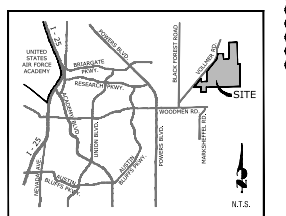
LAND USE LEGEND:

- 44 AC, RESIDENTIAL: 0.2 DU/AC
- 33 AC, RESIDENTIAL: 0.4 DU/AC
- 35 AC, RESIDENTIAL: 1 DU/AC
- 163 AC, RESIDENTIAL: 2 DU/AC
- 183 AC, RESIDENTIAL: 3.5 DU/AC
- 19 AC, RESIDENTIAL: 5.8 DU/AC
- 257 AC, RESIDENTIAL: 5.8 DU/AC ACTIVE ADULT
- 32 AC, RESIDENTIAL: 8-12 DU/AC
- 320 AC, RESIDENTIAL: 12-20 DU/AC
- 57 AC, ELEMENTARY / K-8 SCHOOL
- 18 AC, NEIGHBORHOOD PARK
- 30 AC, COMMUNITY PARK
- 57 AC, OPEN SPACE / PARK / GREENWAY
- 43 AC, OPEN SPACE / BUFFER
- UTILITY PARCEL

SYMBOL LEGEND:

- ROAD
- FULL MOVEMENT ACCESS POINT
- 100-YEAR FLOODPLAIN
- TRAIL
- BUFFER / OS / TRAIL CORRIDOR / EASEMENT
- NEIGHBORHOOD PARK
- ACCESS SPACING (FEET)

VICINITY MAP:



LEGAL DESCRIPTION:

THE WEST HALF OF THE WEST HALF OF THE EAST HALF AND EAST HALF OF THE WEST HALF AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 27; THE EAST HALF OF THE SOUTHWEST QUARTER AND THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER LYING SOUTH AND EAST OF THE COUNTY ROAD KNOWN AS VOLLMER ROAD, OF SECTION 28; THE WEST HALF OF THE EAST HALF AND THE WEST HALF OF SECTION 34; THE EAST HALF AND THE EAST HALF OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 33, AND ALL THAT PART OF THE NORTHWEST QUARTER OF SECTION 33 LYING SOUTH AND EAST OF THE COUNTY ROAD KNOWN AS VOLLMER ROAD, OF SECTION 32, EXCEPT THAT PORTION OF THE NORTHWEST QUARTER OF SAID SECTION 33 LYING SOUTH AND EAST OF SAID COUNTY ROAD AS DEEDED TO COLORADO INTERSTATE GAS COMPANY BY WARRANTY DEED RECORDED IN BOOK 1373 AT PAGE 359; AND THAT PORTION OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER LYING SOUTH AND EAST OF THE COUNTY ROAD KNOWN AS VOLLMER ROAD, OF SECTION 32, EXCEPT THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 32 DEEDED TO J. MARCUS BROWN BY TRUSTEE'S DEED RECORDED IN BOOK 3292 AT PAGE 158; ALL IN TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, LYING SOUTH AND EAST OF THE COUNTY ROAD KNOWN AS VOLLMER ROAD, OF SECTION 32, EXCEPT THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, LYING SOUTH AND EAST OF THE COUNTY ROAD KNOWN AS VOLLMER ROAD, ALSO; THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, LYING SOUTHERLY OF AN EXISTING EAST-WEST FENCE AS DESCRIBED IN SPECIAL WARRANTY DEED RECORDED DECEMBER 23, 2009 AT RECEPTION NO. 206090417, COUNTY OF EL PASO, STATE OF COLORADO; ALSO; THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 32, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., LYING SOUTHWESTERLY OF THE PUBLIC ROAD KNOWN AS VOLLMER ROAD, EL PASO COUNTY, COLORADO, AND CONTAINING 1443.695 ACRES MORE OR LESS.

NOTES:

1. ALL PROPOSED DEVELOPMENT AND FORMS SHALL BE IN ACCORDANCE WITH THE CITY OF COLORADO SPRINGS ZONING ORDINANCE.
2. NO SCHOOL SITES ARE SHOWN IN THE ACTIVE ADULT COMMUNITY DUE TO THE NATURE OF THE USE. IF THIS USE CHANGES, OR SCHOOL-AGE CHILDREN OCCUPY THESE UNITS, SCHOOL DEDICATION WILL BE MADE.

OWNER & DEVELOPER INFO:

SR LAND, LLC.
20 BOULDER CRESCENT STREET, SUITE 102
COLORADO SPRINGS, CO 80903-5300

CHALLENGER COMMUNITIES, LLC.
6605 EXXLOWER DRIVE, SUITE 250
COLORADO SPRINGS, CO 80902-1013

MORLEY BENTLEY/TRADEWIND VCS INVESTMENTS LLC.
P.O. BOX 217
GALENA, KS 66730-0217

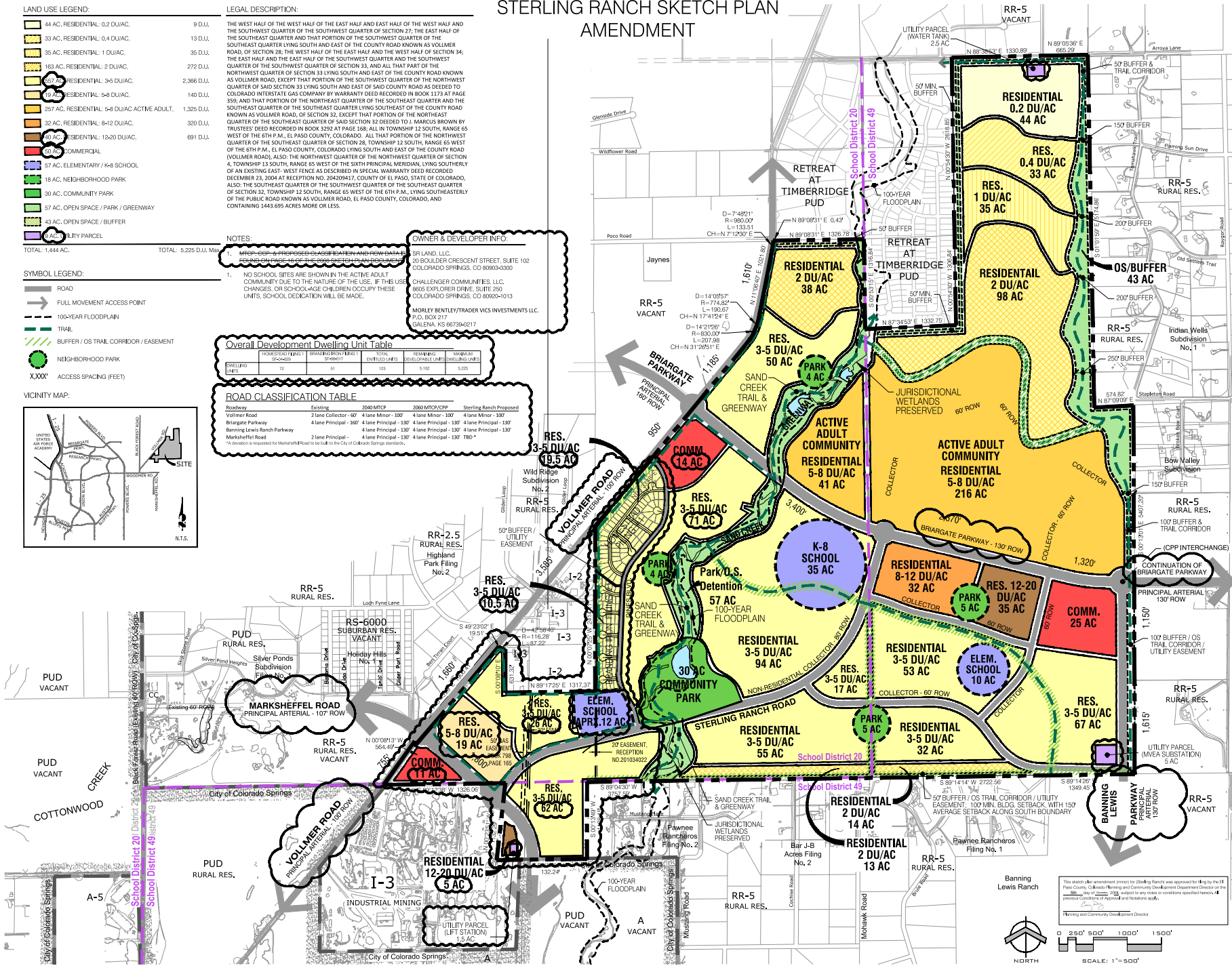
Overall Development Dwelling Unit Table

HOUSING UNITS	HOUSING UNITS	HOUSING UNITS	HOUSING UNITS	TOTAL HOUSING UNITS
72	51	123	0.02	5,225

ROAD CLASSIFICATION TABLE

ROADWAY	CLASSIFICATION	STANDARD	2004 MTCP	2006 MTCP / CPP	Sterling Ranch Proposed
Briargate Parkway	4 lane Principal - 160'	4 lane Minor - 100'	4 lane Minor - 100'	4 lane Principal - 130'	4 lane Principal - 130'
Banning Lewis Ranch Parkway	2 lane Principal - 130'	4 lane Principal - 130'	4 lane Principal - 130'	4 lane Principal - 130'	4 lane Principal - 130'
Marksheffel Road	2 lane Principal - 130'	4 lane Principal - 130'	4 lane Principal - 130'	4 lane Principal - 130'	4 lane Principal - 130'

*A deviation is requested for Marksheffel Road to build to the City of Colorado Springs standards.



Land Planning
Landscape
Architecture
Urban Design

NES

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619 N. Cascade Avenue, Suite 200
Colorado Springs, CO 80903

Tel. 719.471.0073
Fax 719.471.0267
www.nescolorado.com

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STERLING RANCH SKETCH PLAN AMENDMENT

MORLEY-BENTLEY INVESTMENTS, LLC.

AMENDMENT

DATE	BY	DESCRIPTION
04-12-2008	JKL	COUNTY COMMENTS
04-14-2008	JKL	COUNTY COMMENTS
05-12-2008	JKL	COUNTY COMMENTS
10-13-2008	JKL	PRE-COUNTY COMMENTS
10-29-2008	JKL	PRE-COUNTY COMMENTS
05-26-2009	JKL	PRE-COUNTY COMMENTS
09-24-2009	BE	PRE-COUNTY COMMENTS
10-27-2009	BE	PRE-COUNTY COMMENTS
11-10-2010	BE	COUNTY COMMENTS
11-20-2010	BE	COUNTY COMMENTS

This sketch plan amendment project for Sterling Ranch was approved for filing by the City of Colorado Springs, Colorado Planning and Community Development Department Director on the terms and conditions of Approval and Historic map.

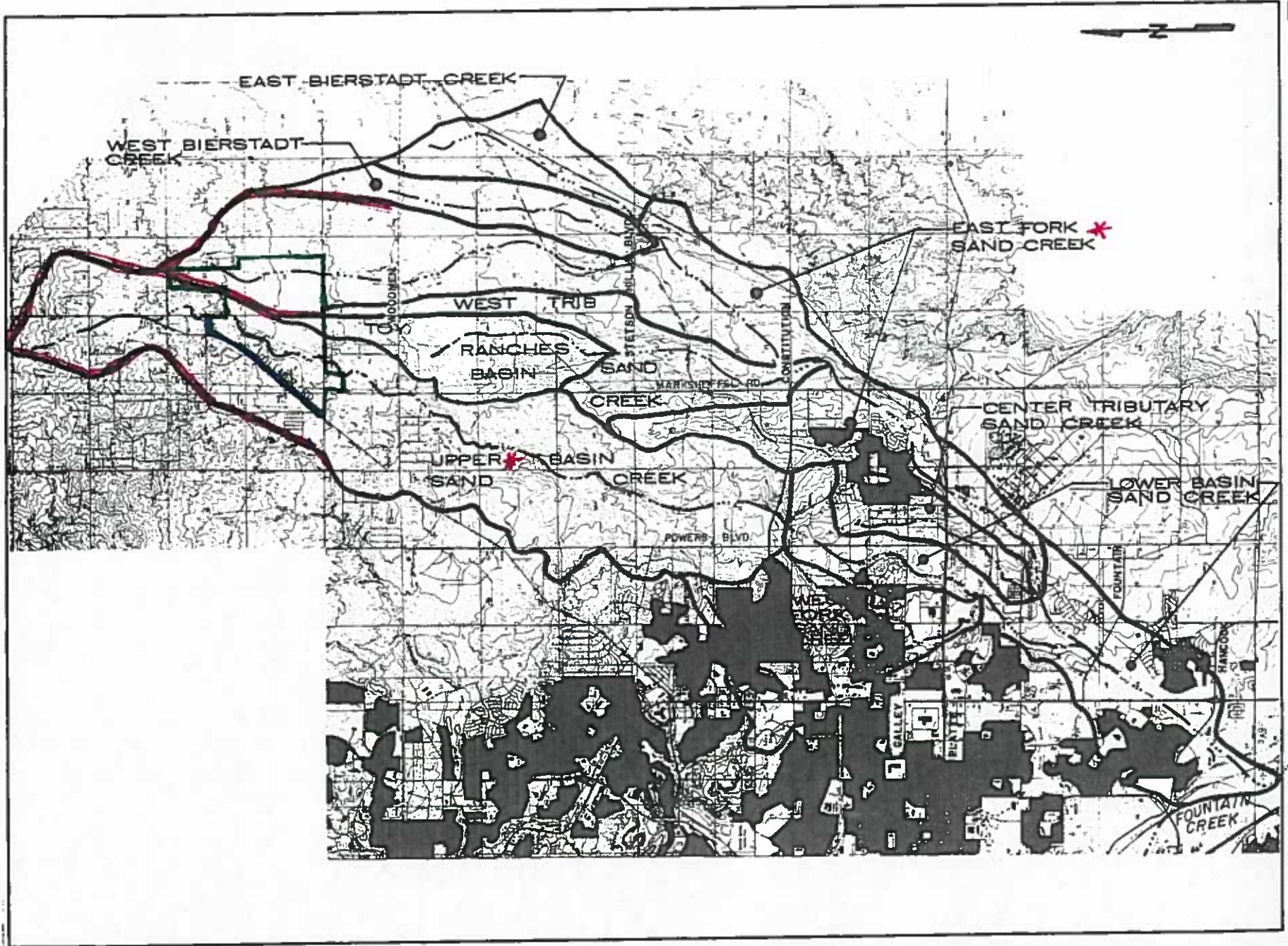
Morley and Community Development Director

Banning Lewis Ranch

SCALE: 1"=500'

1 OF 1

SKP 07-007



Kiowa Engineering Corporation
 419 W. Bijou Street
 Colorado Springs, Colorado
 80905-1308

SAND CREEK DRAINAGE
 BASIN PLANNING STUDY
 REGIONAL SUB-BASINS

Project No.	90-04-09
Date	11/90
Scale	
Drawn	EAK
Checked	
Revisions	

SAND CREEK DBPS IMPROVEMENTS

LEGEND

REACH IDENTIFIER

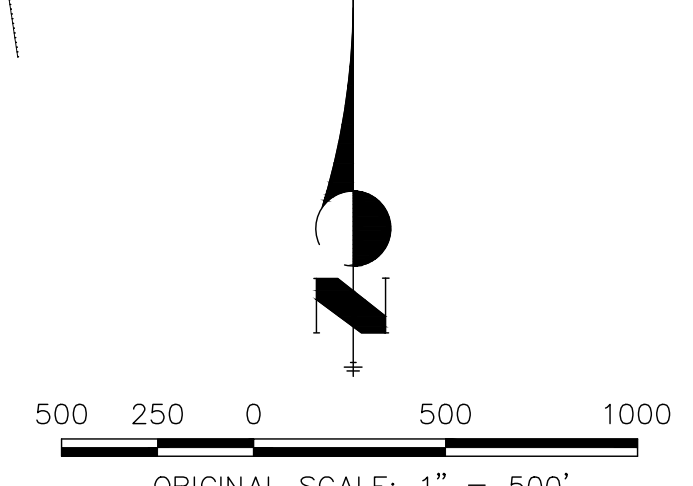
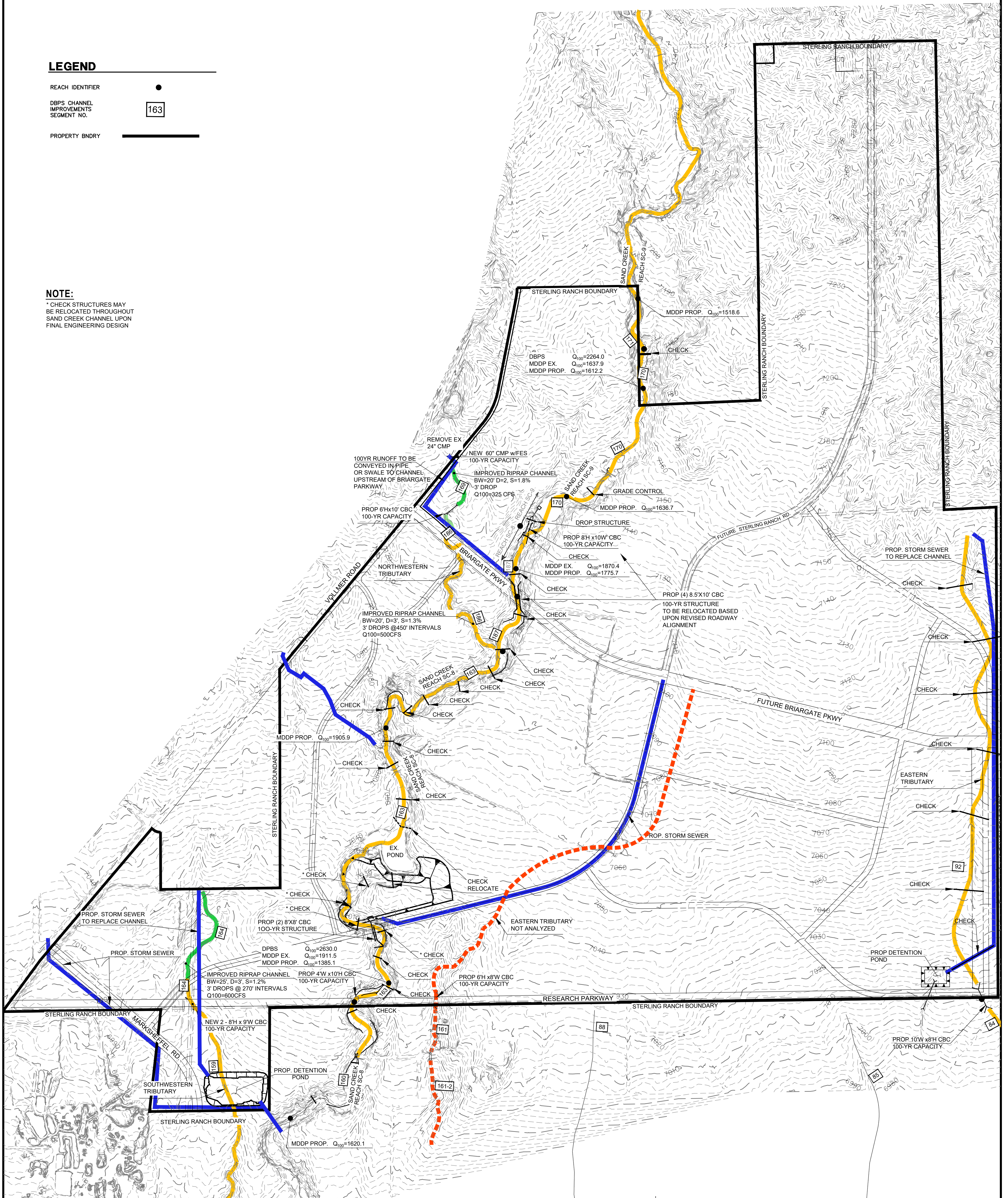
DBPS CHANNEL IMPROVEMENTS SEGMENT NO.

PROPERTY BNDRY

163

NOTE:

* CHECK STRUCTURES MAY BE RELOCATED THROUGHOUT SAND CREEK CHANNEL UPON FINAL ENGINEERING DESIGN



DBPS MAP OVERLAY
STERLING RANCH
JOB NO. 25188.00
3-11-2021
SHEET 1 OF 1

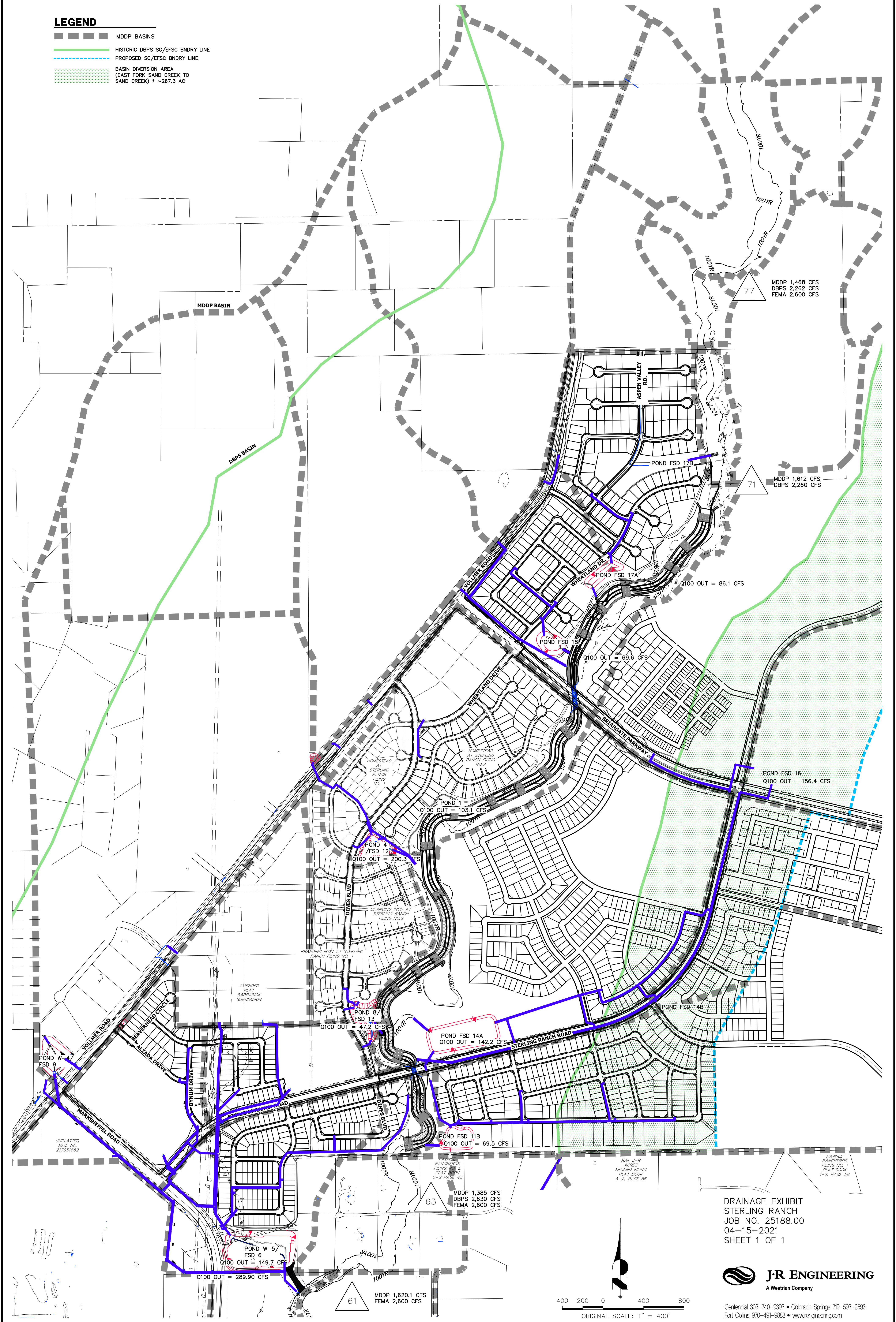
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STERLING RANCH OVERALL POND/ DRAIANGE EXHIBIT

LEGEND

- ■ ■ ■ ■ MDDP BASINS
- HISTORIC DBPS SC/EFSC BNDRY LINE
- PROPOSED SC/EFSC BNDRY LINE
- ■ ■ ■ ■ BASIN DIVERSION AREA
(EAST FORK SAND CREEK TO SAND CREEK) • ~267.3 AC



DRAINAGE EXHIBIT
STERLING RANCH
JOB NO. 25188.00
04-15-2021
SHEET 1 OF 1

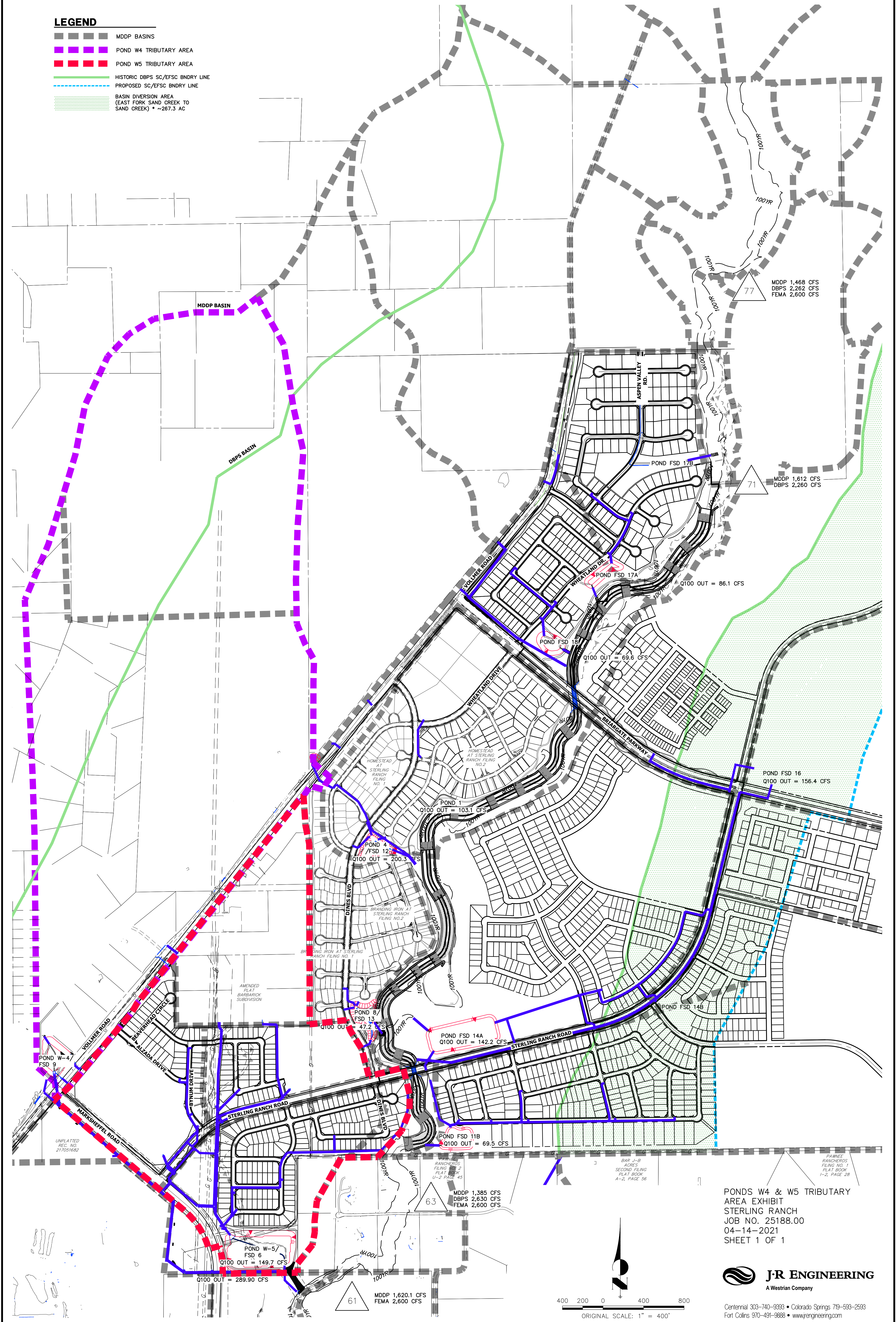


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STERLING RANCH PONDS W4 & W5 TRIBUTARY AREA EXHIBIT

LEGEND

- MDDP BASINS
- POND W4 TRIBUTARY AREA
- POND W5 TRIBUTARY AREA
- HISTORIC DBPS SC/EFSC BNDRY LINE
- PROPOSED SC/EFSC BNDRY LINE
- BASIN DIVERSION AREA (EAST FORK SAND CREEK TO SAND CREEK) * ~267.3 AC



PONDS W4 & W5 TRIBUTARY
AREA EXHIBIT
STERLING RANCH
JOB NO. 25188.00
04-14-2021
SHEET 1 OF 1

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