



# WASTEWATER REPORT –STERLING RANCH FILING NO 5 PRELIMINARY PLAN AND PUD



**PREPARED BY**

John McGinn, PE 19534

JDS-RESPEC

5540 Tech Center Drive, Suite 100  
Colorado Springs, Colorado 80919

**PREPARED FOR**

Falcon Area Water and Wastewater Authority

**MARCH 31, 2023**

Project Number W0242.22001



# TABLE OF CONTENTS



<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 OVERALL DEVELOPMENT DESCRIPTION.....	1
<b>2.0 WASTEWATER REPORT .....</b>	<b>1</b>
2.1 PROJECTED WASTEWATER LOADS .....	1
2.2 WASTEWATER CONTRACT AND WASTEWATER TREATMENT.....	2
2.3 ADEQUANCY OF TREATMENT CAPACITY.....	2
2.4 COLLECTION, PUMPING, AND PIPING .....	3

## APPENDICES

APPENDIX A – FAWWA SERVICE AREA

APPENDIX B - PROPOSED DEVELOPMENT (STERLING RANCH FILING 5)



# 1.0 INTRODUCTION

This wastewater report is for the Sterling Ranch Filing No. 5. The service entity is the Falcon Area Water and Wastewater Authority. The proposed development is in the Sterling Ranch Metro District which is a part of the FAWWA service area. The service areas and location of tie-in point are shown in Appendix A.

## 1.1 OVERALL DEVELOPMENT DESCRIPTION

The overall Sterling Ranch Development consists of approximately 1,444 acres located east of Vollmer Rd and north of Woodmen Rd, Section 33, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M. Districts 1, 2 and 3 are considered Special Districts and are under the jurisdiction of the Special District Act.

1,119 acres is designated for 5,225 residential units. 56.36 acres is designated for commercial use. 270 acres is designated for open space, greenways, trails, parks, and school sites.

## 1.2 REPORT SPECIFIC DEVELOPMENT DESCRIPTION

This report is for the Sterling Ranch Filing No. 5 and includes 74 single family lots. The Sterling Ranch Filing 5 Development consists of approximately 11.66 acres located west of Dines Road and north of Sterling Ranch Road, Section 33, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M.

# 2.0 WASTEWATER REPORT

## 2.1 PROJECTED WASTEWATER LOADS

Wastewater unit user loading projections are based on similar District historical use developed in the Falcon area. Average daily- maximum monthly wastewater loads are expected to be roughly 172 gallons per day per single family residence.

Table 1. Calculation of Wastewater Loads

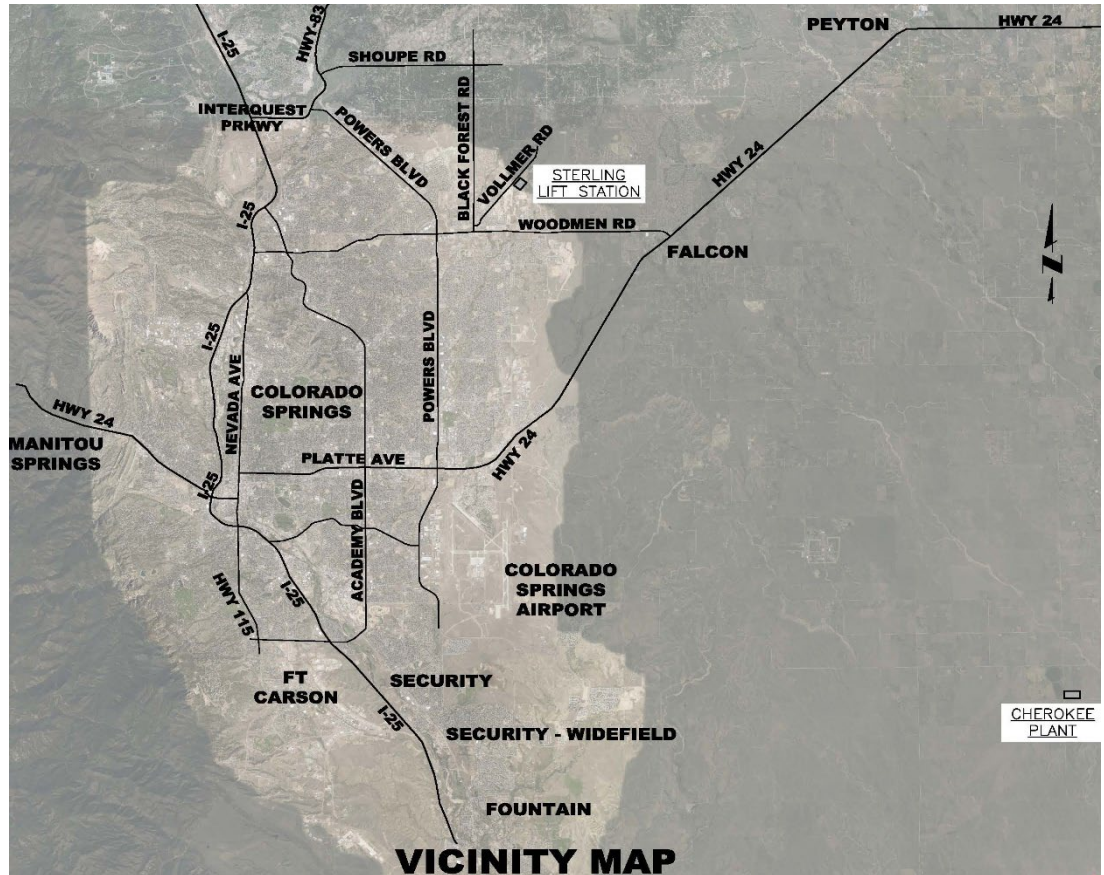
Use	Units	Single Family Equivalent	Average Daily Max-Month Flows	Estimated Population
	#	#	GPD	#
Residential Units				
Single Family	72	172	12,384	187
<b>Total</b>			<b>12,384</b>	

## 2.2 WASTEWATER TREATMENT PLANT

Interim Wastewater Treatment Services will be provided by Colorado Springs Utilities. A copy of the Interim Service Agreement was attached in prior Water and Wastewater Reports and therefore is not included here. An agreement relating to completion of the wastewater outfall and the associated EGF has been extended.

MSMD owns 2.2 million gallons per day of wastewater capacity in the Cherokee Wastewater Treatment Facility. The plant operator, Cherokee Metropolitan District (CMD) has already approved the systems associated with transport and treatment. MSMD and CMD are in compliance with their current COC issued by the Colorado Department of Public Health and Environment. The location of the 4.6 MGD Cherokee Wastewater Treatment Plant is shown below:

*Figure 1. Location of Cherokee Wastewater Treatment Plant*



## 2.3 ADEQUACY OF WASTEWATER TREATMENT CAPACITY

The Falcon Area Water and Wastewater Authority/Sterling Ranch Metropolitan District has a perpetual contract with the Meridian Service Metropolitan District (MSMD) for the provision of wastewater treatment. The contract allows for the purchase of up to 5849 SFEs of wastewater capacity from



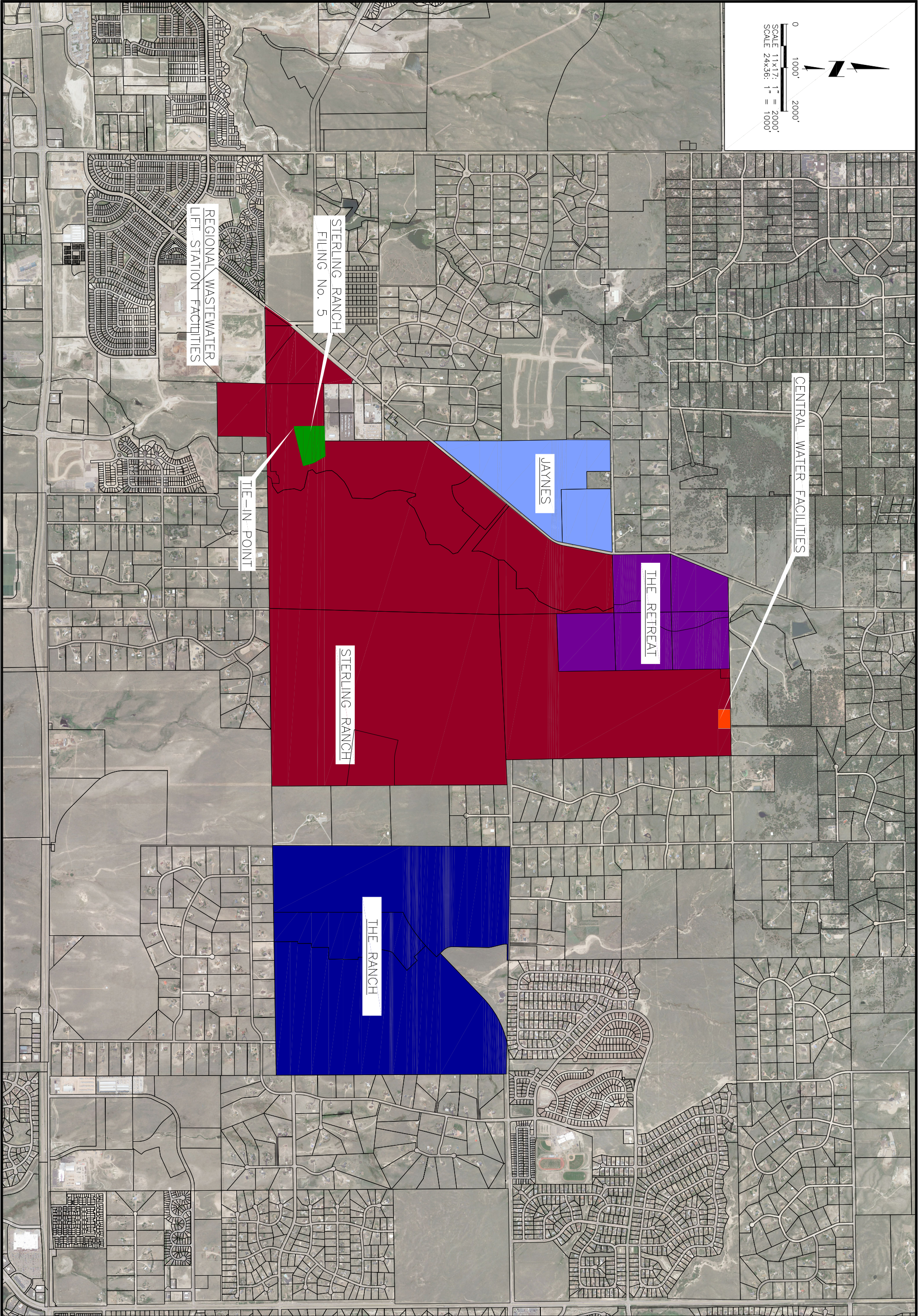
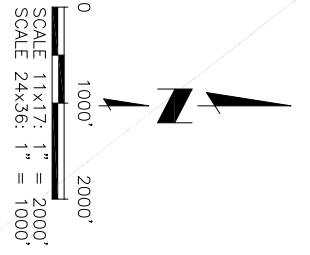
MSMD which is equivalent to 1.006 Million Gallons/Day (MGD). Wastewater projections are based on similar District historical use developed in the Falcon area. Average daily-maximum monthly wastewater loads of 172 gallons per day per single family residence are iterated in the Wastewater Contract.

The loading projected from Sterling Ranch Filing 5 represents roughly 1.265 % of the contractual capacity available to the Falcon Area Water and Wastewater Authority. FAWWA therefore has more than adequate wastewater treatment capacity to provide service to serve the Subdivision.

Including all subdivisions submitted before March 31 of 2023, the current committed capacity is for 2722 SFE which is 46.538 % of FAWWA contractual treatment capacity.

## **2.4 COLLECTION, PUMPING, AND PIPING**

All lands to be developed within Sterling Ranch Filing No. 5 will gravity feed to the southern portion of the Sterling site. This will be the main collection point for most of the entire future development as well. Sterling is completing construction of the Lift Station and Force Main to serve the area. The force main is constructed across the lower portion of The Ranch. From this point wastewater is intercepted by Meridian Service Metropolitan District and delivered to Cherokee through the Meridian system.



PROJECT NO.: 161.04  
 DATE: 10/11/22  
 DESIGNER: JPM  
 DRAWN: JLB  
 CHECK: JPM

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1			
2			
3			
4			
5			
6			
7			

**EXHIBIT**

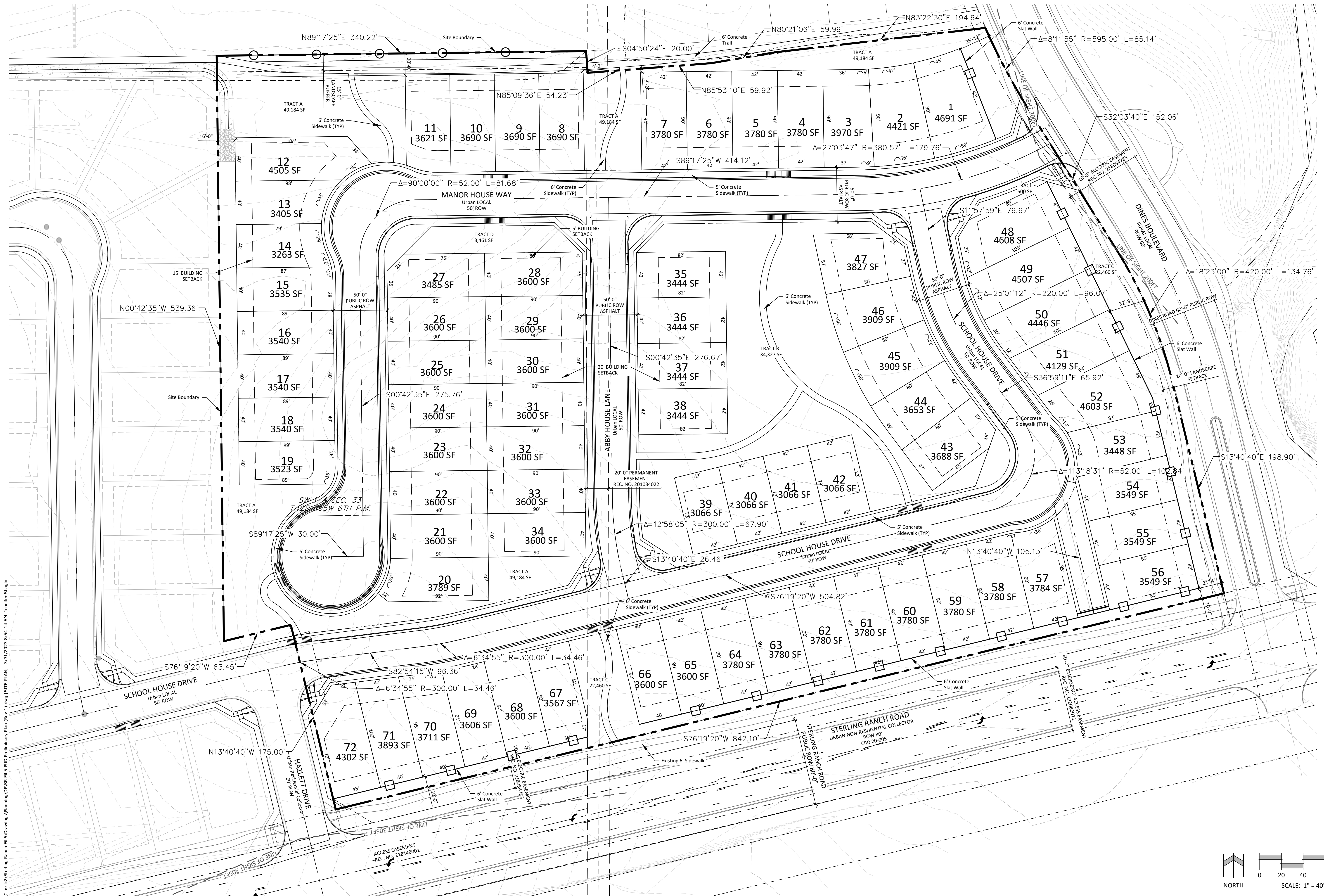
**APPENDIX A**  
 FALCON AREA WATER AND WASTEWATER AUTHORITY  
 SERVICE AREA

**JDS-HYDRO** a Division of **RESPEC**  
 5540 TECH CENTER DR., SUITE 100  
 COLORADO SPRINGS, COLORADO 80919  
 (719) 227-0072

DISCLAIMER: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO JDS-HYDRO, A DIVISION OF RESPEC. JDS-HYDRO ASSUMES NO LIABILITY FOR UNAUTHORIZED CHANGES AND/OR REVISIONS MADE TO PLANS.

# STERLING RANCH FILING 5

TRACT B, BRANDING IRON AT STERLING RANCH FILING NO. 2 RECORDED UNDER RECEPTION NO. 220714654 IN THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER  
PUD/PRELIMINARY/DEVELOPMENT PLAN



N.E.S. Inc.  
619 N. Cascade Avenue, Suite 200  
Colorado Springs, CO 80903  
Tel. 719.471.0073  
Fax 719.471.0267  
www.nescolorado.com  
© 2012. All Rights Reserved.

**STERLING RANCH FILING 5**  
Development / PUD / Preliminary Plan  
PROJECT ADDRESS

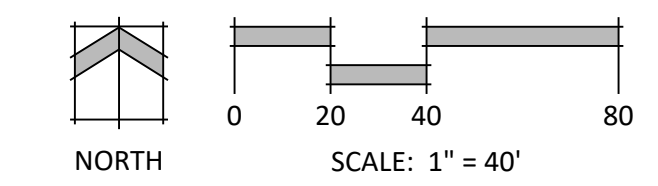
OTHER INFO  
DATE: 04/05/23  
PROJECT MGR: A BARLOW  
PREPARED BY: A LANGHANS

ENTITLEMENT

DATE:	BY:	DESCRIPTION:

SITE PLAN

2 OF 7



P:\Client\Sterling Ranch Fil 5\Drawings\Planning\DP\SR Fil 5 PUD Preliminary Plan (Rev. 1).dwg (SITE PLAN) 3/31/2023 8:54:14 AM Jennifer Shapiro