

WASTEWATER REPORT
for
WINDERMERE FILING NO. 2

El Paso County, Colorado

November 2023

Prepared for:

Colo Windermere #2

4164 Austin Bluffs Pkwy #361

Colorado Springs, CO 80918

Contact: James Todd Stephens

(719) 200-9594

Prepared by:

Drexel, Barrell & Co.

3 South 7th Street

Colorado Springs, CO 80905

Contact: Tim McConnell, P.E.

(719) 260-0887

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El Paso County, Colorado

1.0 PURPOSE

This report is prepared by Drexel, Barrel & Co in support of the Windermere Filing No. 2 project. This report is used to confirm that the sanitary sewer lines are sized to carry the peak wastewater discharge.

2.0 GENERAL LOCATION AND DESCRIPTION

The site is located at the northwest corner of N. Carefree Cir. and Marksheffel Rd. - the E 1/2 of Section 29, Township 13 S, Range 65 W of the 6th P.M., El Paso County, Colorado.

The site is approximately 9.3 acres in size and slopes to the south and east. The site is bound on the west by Antelope Ridge Dr., on the north by Windermere Filing No. 1 subdivision, on the east by Marksheffel Road, and on the south by N. Carefree Cir.

The current owner of the property is Colo Windermere #2.

The proposed concept plan will provide for a maximum of 80 multi-family residences and 4.28 acres of mini-storage warehouse.

3.0 WASTEWATER SERVICE

The development of the Windermere subdivision was previously approved for inclusion within the Cherokee Metropolitan District. Proposed sanitary lines for the project are preliminary at this stage, but will connect to the existing sanitary system in Pronghorn Meadows Circle. Reference the preliminary utility plan in the appendix.

4.0 OPINION OF PROBABLE POPULATION AND QUALITY OF EFFLUENT

The proposed development includes a maximum of 80 multi-family residential units and 4.28 acres of mini-storage warehouse. The opinion of probable population and quantity of effluent is as follows:

Residential: (80 units) x (172 GPD/SFE) = 13,760 gpd

Commercial: (4.28 acres) x (3 SFE/Commercial Acre) x (172 GPD/SFE) = 2,208 gpd

Estimated total wastewater load = 15,968 gpd

The projected quantity of effluent is based upon industry standards as well as methodology used by other utility providers in the area. The actual population and flow could vary from these calculations.

5.0 WASTEWATER DISPOSAL

Effluent from the subdivision will be collected by standard 4 inch service lines and 8 inch mainlines. The proposed internal 8 inch mainlines will outfall into the Windermere Filing No. 1 subdivision in Pronghorn Meadows Circle, ultimately reaching the Cherokee Metropolitan District treatment facility via other gravity mains and lift stations.

6.0 WASTEWATER TREATMENT

Cherokee Metropolitan District's wastewater treatment facility went into operation in June 2010 and sits on a 160-acre parcel, which is located approximately 20 miles east of Cimarron Hills. The plants actual footprint is roughly 26 of the 160-acre total.

The plants design rate capacity is 4.8 million gallons per day (MGD), at the present time the plant receives 1.5 MGD. The wastewater that the plant takes in daily is a combination from three contributors. The largest of these three is Cherokee Metropolitan District with an average flow of 1.2 MGD, Meridian Service Metropolitan District is next with 0.18 MGD and lastly is Schriever Air Force Base with their flow of 0.13 MGD.

The treatment plant consists of an 'Influent' building, four 'Sequential Batch Reactors' (SBR's), three 'Aerobic Digesters' (AD's), 'Blower' and 'Operations' building,' Solids Handling' building (i.e. Biosolids), two 'Equalization Basins' (EQ) and a 'Effluent' building that contains the 'Ultraviolet Light Disinfection' (UV) unit. The treated effluent then leaves the plant and continues five miles to the 'Rapid Infiltration Basins'. This is an overall general description of the plant with explanations of the individual components that make up the wastewater treatment to come in the future.

7.0 PHASING/CONSTRUCTION/PERMITTING

Grading is anticipated to begin in Summer/Fall 2024. The roadways and utility mains will be installed at this time.

8.0 SUMMARY

The Windermere Filing No. 2 development contains 9.3 acres, and is anticipated to generate a wastewater load of 15,968 gallons per day. Cherokee Metropolitan District has confirmed that the existing sanitary sewer main in Pronghorn Meadows is able to accommodate the additional flows, with actual volume to be confirmed later in the project when site layout and other water needs are established.

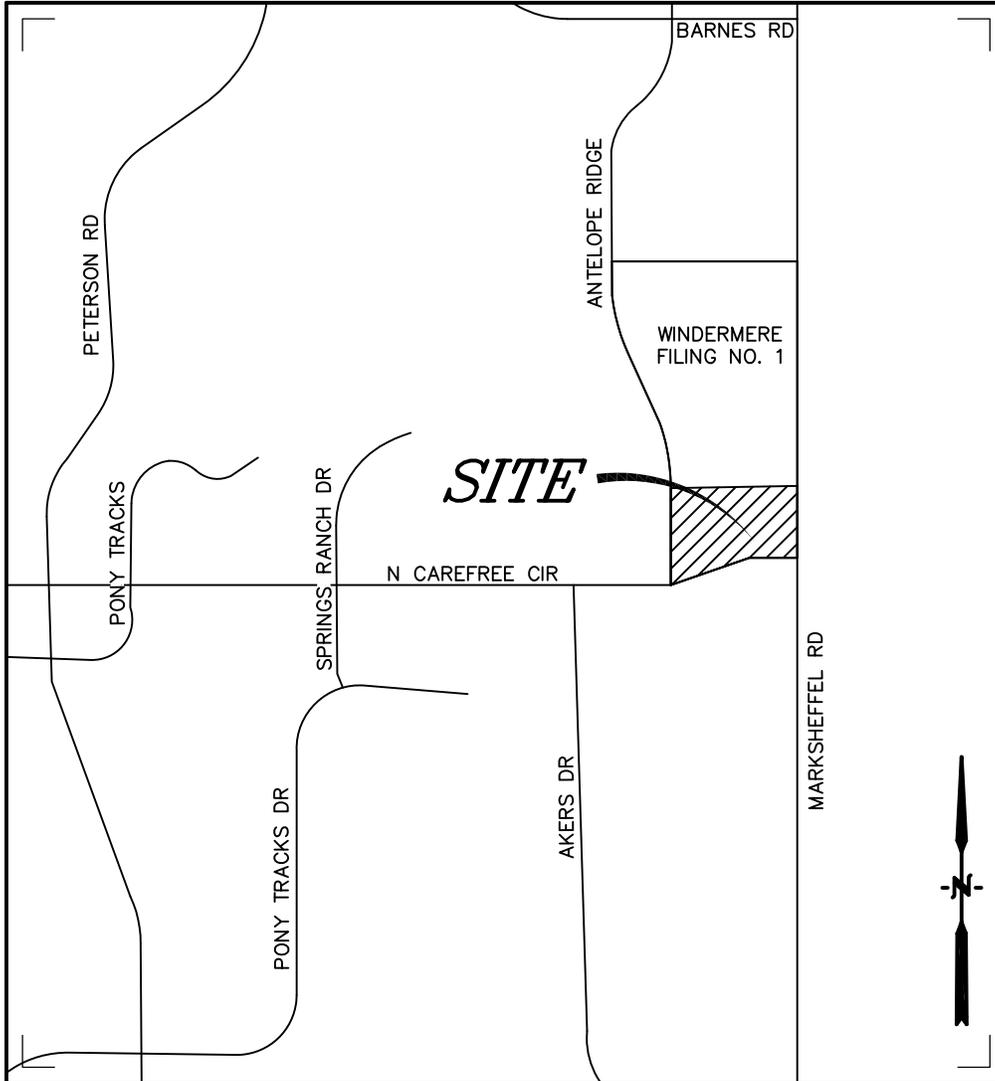
This report represents a preliminary analysis of the wastewater collection system for the Windermere Filing No. 2 project. The system will be analyzed in further detail during the design process, and is subject to change due to final design considerations.

9.0 UTILITY CONTACT INFORMATION

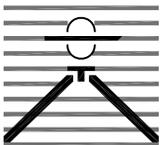
Cherokee Metropolitan District
Attn: Amy Lathen, General Manager
6250 Palmer Park Blvd.
Colorado Springs, CO 80915
Phone: (719) 597-5080
Fax: (719) 597-5145

Drexel, Barrell & Co.
Attn: Tim McConnell, P.E.
3 South 7th Street
Colorado Springs, CO 80905
Phone: (719) 260-0887pl

Appendix



Vicinity Map
Not to scale



WINDERMERE FILING 2
COLORADO SPRINGS, CO
VICINITY MAP

Drexel, Barrell & Co.
Engineers • Surveyors

DATE: _____
JOB NO:
21187-03CSCV

DWG. NO.
VMAP
SHEET 1 OF 1