

# MEADOWBROOK PARK

## MEADOWBROOK PARKWAY EL PASO COUNTY, COLORADO

### WASTEWATER RESOURCE REPORT

Look at Code revisions on County's Planning Web page for LDC 19-007  
<https://planningdevelopment.elpasoco.com/recent-amendments-and-development-code/>  
Please verify you have provided data.  
IS Metro installing the infrastructure then turning it over to Cherokee?

Cherokee provided comments that reports were nit up to date (water and WW)

OCTOBER 20, 2020

Prepared by:

**Kimley»»Horn**



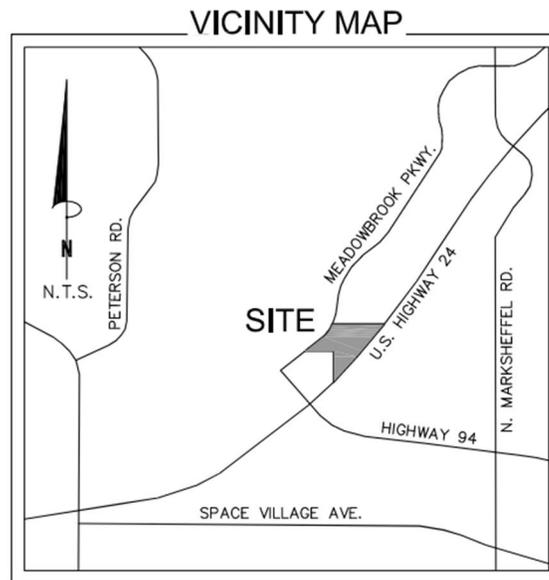
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## GENERAL LOCATION AND PROJECT DESCRIPTION

### Site Location

The Site is located at the northeast corner of Meadowbrook Parkway and CO-24 and currently consists of Tract A of the 94/24 Business Park Filing No. 1 (the "Site"). More specifically, the Site is located in the southeast quarter of Section 8, Township 14 South, Range 65 West of the Sixth Principal Meridian, County of El Paso, State of Colorado. The Site is bounded by Meadowbrook Pkwy to the west, U.S. Highway 24 to the east, and existing commercial lots to the east and west. A vicinity map is provided below for reference:



### Description of Property

The overall site is approximately 8 acres of partially undeveloped land. The site development is anticipated to consist of 70 single family homes. Roadway infrastructure proposed within the site will provide access from the Project to adjacent right-of-way and access roadways. Project access will be obtained through Meadowbrook Pkwy.

A proposed street will run through the middle of the Project with two streets connecting to Meadowbrook Pkwy to provide a loop through the site for proficient emergency access.

The existing topography generally drains from east to west. The overall site varies in elevation from a low of approximately 6322 feet to a high of approximately 6353.

There is one point of connection for proposed sanitary sewer service to the Site. The connection will be made off the 8-inch line within Meadowbrook Pkwy from the northwestern corners of the Project. Refer to **Appendix A** for an overview of the sewer system and point of connection.

The sanitary sewer design presented herein will focus on the sanitary sewer demands anticipated with development of the Site.

## DESIGN CRITERIA

The Project is within the Cherokee Metropolitan District Service area. This Project will substantially comply with the current Colorado Springs Utilities Wastewater Line Extension & Service Standards 2017 (the Criteria) adopted by Cherokee Metropolitan District (CMD).

### Opinion of Probable Population and Quantity of Effluent

The site development is anticipated to consist of 70 single family homes. The opinion of probable population and effluent is as follows:

70 Single Family Homes \* 2.5 residents/ household= 175 residents

175 resident\* 65 GPD/ resident =11,375 GPD

This estimate is made based on methodology used by other utility providers in the area and on industry standards. The actual number of residents and effluent flow could vary from these calculations.

### Capacity of Existing Treatment Plant and Current Utilization

The sanitary sewer system capacity was based on correspondence sent by the CMD for Meadowbrook Park dated October 9<sup>th</sup>, 2020. See **Appendix A** for reference.

The following statement clearly defines the Meadowbrook Park project to be in compliance with the CMD allowable capacities:

“Wastewater from the CMD main district flows by gravity to a 1.1 million gallon equalization pond before being pumped east to the Cherokee Metropolitan District/Meridian Metropolitan District Water Reclamation Facility operated by Cherokee. Cherokee holds 2.6 million gallons per day of the 4.8 million gallon per day (MGD) capacity of the plant of which CMD is currently using approximately 1.5 MGD. At buildout of the District area, CMD expects flow from the main district to reach 1.9 MGD and the development of this property is in line with the buildout estimate.”

### Anticipated Capacity of Proposed Treatment Plants

Cherokee holds 2.6 million gallons per day of the 4.8 million gallon per day (MGD) capacity of the plant of which CMD is currently using approximately 1.5 MGD. At buildout of the District area, CMD expects flow from the main district to reach 1.9 MGD and the development of this property is in line with the buildout estimate.

### Letter of Commitment

Cherokee Metro District provided a letter of commitment to provide both water and wastewater services. The letter is attached to in the Appendix.

### Opinion of Probable Construction Costs

Below is a probable opinion of construction costs that was also provided in the financial assurance estimate:

**SANITARY SEWER  
IMPROVEMENTS**

Sewer Main Pipe (PVC), Size 8"	1,435	LF	\$ 64.00	=	\$91,840.00
Sanitary Sewer Manhole, Depth < 15 feet	10	EA	\$ 4,386.00	=	\$43,860.00
Sanitary Service Line Installation, complete	70	EA	\$ 1,402.00	=	\$98,140.00
			TOTAL:		\$233,840

Creation or Annexation into Special Sewer District

The Site is already within the Cherokee Metro District service area and does not require a special district

Map of Existing and Proposed Facilities

An Overall Utility Plan of the Project with both proposed and existing utility facilities is shown in the Appendix. The plan is subject to review by Cherokee Metro District.

REFERENCES

Colorado Springs Utilities Wastewater Line Extension & Service Standards 2017, City of Colorado Springs; January 2, 2017.

Cherokee Metropolitan District. "Meadowbrook Park-Preliminary Utility Plan." Email to Kevin Kofford. 9 October. 2020.

APPENDIX



# CHEROKEE METROPOLITAN DISTRICT

6250 Palmer Park Blvd., Colorado Springs, CO 80915-2842

Telephone: (719) 597-5080 Fax: (719) 597-5145

September 21<sup>st</sup>, 2020

Danny Mientka

The Equity Group

90 S. Cascade Avenue, Suite 1500

Colorado Springs, CO 80903

*Sent via email: [kevin.kofford@kimley-horn.org](mailto:kevin.kofford@kimley-horn.org)*

*Original to follow by US Mail*

Re: Water and Sewer Service to **Meadowbrook Park**  
Commitment Letter No. **2020-11**

Dear Danny Mientka,

As requested, this document will serve as a formal Letter of Commitment from the Cherokee Metropolitan District to provide municipal water and sewer services for Meadowbrook Park located at the north corner of U.S. Highway 24 and State Highway 94. The proposed location for this development is located within the District's established boundaries and therefore is eligible for service connections from the District.

Cherokee Metropolitan District staff, along with the developer, have determined that the following will be the total water demand required by this occupancy:

Type of Use	Demand (AF/yr)
Domestic	15.4
Irrigation	3.3
<b>Total</b>	<b>18.7</b>

This water commitment is hereby made exclusively for this specific development project at this site within the District. To confirm this commitment you must provide the District with a copy of the final plat approval from El Paso County Development Services within 12 months of the date of this letter. Otherwise, the District may use this allocation for other developments requesting a water commitment. If the subject project is re-platted, you must submit a new commitment request prior to submitting the re-plat to El Paso County, which may result in a recalculation of the water demand for the project.

If I may be of further assistance please contact me at your convenience.

Sincerely,



Amy Lathen  
General Manager

Cc: Peter Johnson; Water Counsel w/ encl: sent via email  
Steve Hasbrouck; Board President w/ encl: sent via email  
Kevin Brown; Jr. Engineer

**From:** Kevin Brown <[kbrown@cherokeemetro.org](mailto:kbrown@cherokeemetro.org)>  
**Sent:** Friday, October 9, 2020 11:12 AM  
**To:** Kofford, Kevin <[Kevin.Kofford@kimley-horn.com](mailto:Kevin.Kofford@kimley-horn.com)>; Heiberger, John <[john.heiberger@kimley-horn.com](mailto:john.heiberger@kimley-horn.com)>  
**Cc:** Houk, Jim <[Jim.Houk@kimley-horn.com](mailto:Jim.Houk@kimley-horn.com)>; Jeff Munger <[jmunger@cherokeemetro.org](mailto:jmunger@cherokeemetro.org)>; Peter C. Johnson <[pcj@vrlaw.com](mailto:pcj@vrlaw.com)>; Steven Hasbrouck (Board Member) <[s.hasbrouck@cherokeemetroboard.org](mailto:s.hasbrouck@cherokeemetroboard.org)>  
**Subject:** RE: Meadowbrook Park-Preliminary Utility Plan

Kevin,

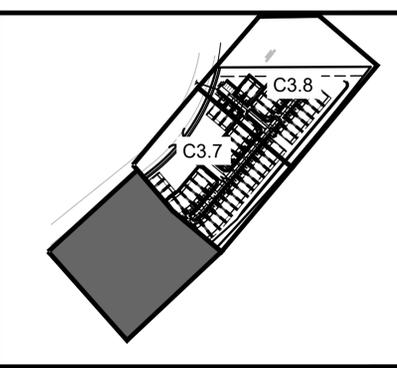
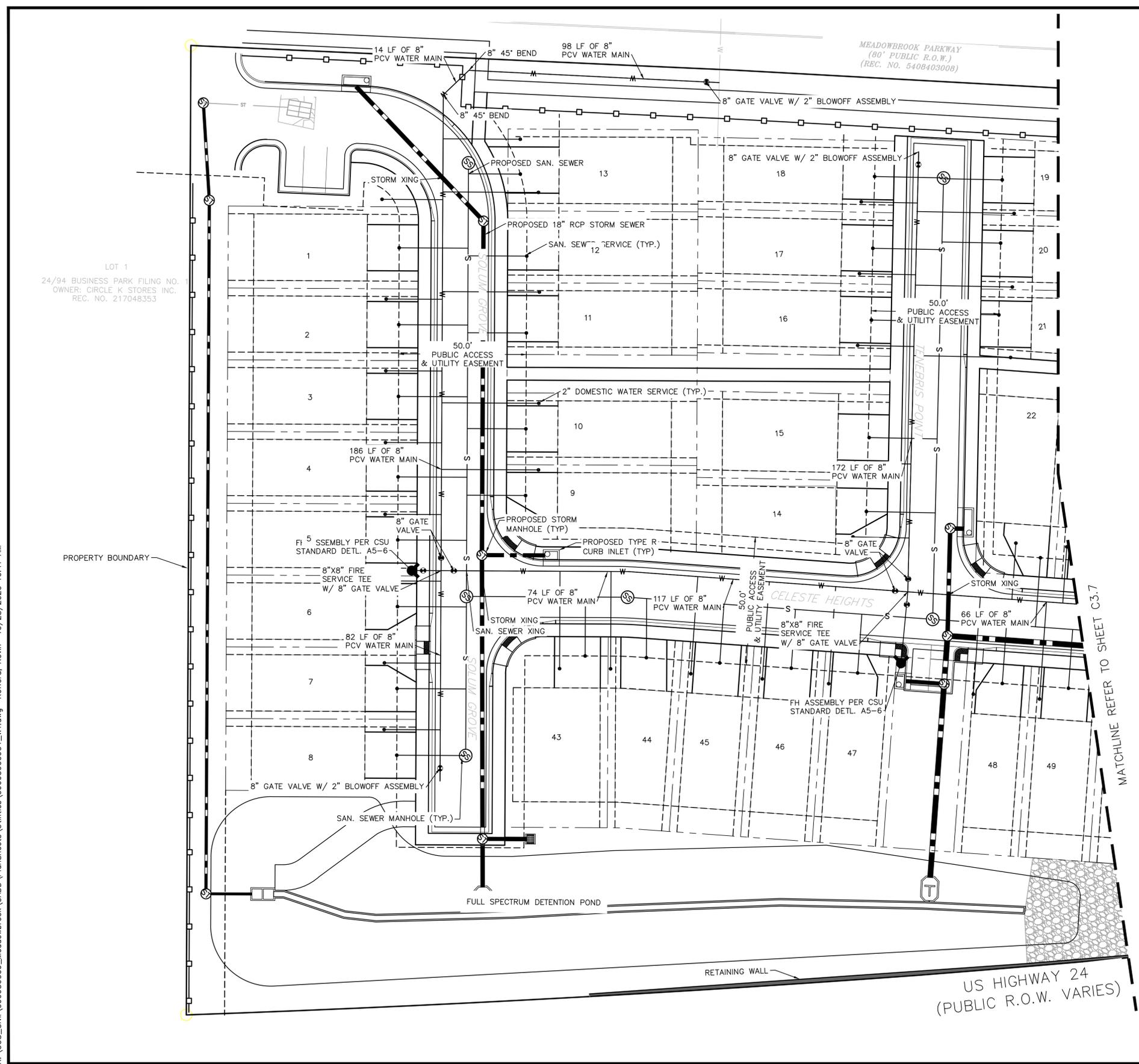
We haven't had a supplemental wastewater report requested in the past and our wastewater system is far simpler than our water system. I can give you some basic details below to integrate into a report:

Wastewater from the CMD main district flows by gravity to a 1.1 million gallon equalization pond before being pumped east to the Cherokee Metropolitan District/Meridian Metropolitan District Water Reclamation Facility operated by Cherokee. Cherokee holds 2.6 million gallons per day of the 4.8 million gallon per day (MGD) capacity of the plant of which CMD is currently using approximately 1.5 MGD. At buildout of the District area, CMD expects flow from the main district to reach 1.9 MGD and the development of this property is in line with the buildout estimate.

Let me know what other information you need.

Thanks,  
Kevin Brown

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**LEGEND**

- — — — — PROPERTY LINE
- — — — — EXISTING WATER LINE & VALVE
- — — — — PROPOSED WATER LINE & VALVE
- - - - - LOT LINE
- ⊙ PROPOSED FIRE HYDRANT
- — — — — EXISTING SANITARY SEWER LINE & MANHOLE
- — — — — PROPOSED SANITARY SEWER LINE & MANHOLE
- — — — — PROPOSED STORM SEWER LINE & MANHOLE
- □ ▽ PROPOSED STORM SEWER STRUCTURES

**NOTES:**

1. ALL WATER LINES TO BE BEDDED PER COLORADO SPRINGS UTILITIES SPECIFICATIONS.
2. ALL CONDITIONS SHOWN TO BE "EXISTING" OR "ASSUMED" SHALL BE VERIFIED IN THE FIELD BY THE GENERAL CONTRACTOR PRIOR TO START OF CONSTRUCTION INCLUDING BUT NOT LIMITED TO POTHOLING OF EXISTING UTILITY ELEVATIONS AT CROSSINGS AND TIE-IN LOCATIONS. ANY DISCREPANCIES SHALL BE NOTED AND SUBMITTED TO THE OWNER AND THE ENGINEER FOR REVIEW. CHANGES TO THE ORIGINAL DESIGN OF THIS PROJECT DUE TO EXISTING SITE CONDITIONS MUST BE APPROVED BY BOTH THE ENGINEER AND OWNER PRIOR TO MAKING ANY CHANGES.
3. THE HORIZONTAL DIMENSIONS BETWEEN PROPOSED UTILITY LINES MAY VARY SLIGHTLY BASED ON INSTALLED VALVES, ADAPTER, AND PUMPS.
4. ALL APPURTENANCES ON HYDRANT LATERALS SHALL BE INSTALLED WITH MJ RESTRAINTS PER CSU STANDARDS.

**CAUTION NOTE (SERVICE LINES):**

CONTRACTOR SHALL MAINTAIN 1' OF VERTICAL SEPARATION AT ALL DRY UTILITY CROSSINGS. CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITY CROSSINGS TO VERIFY DEPTH AND COORDINATE WITH ENGINEER OF RECORD.

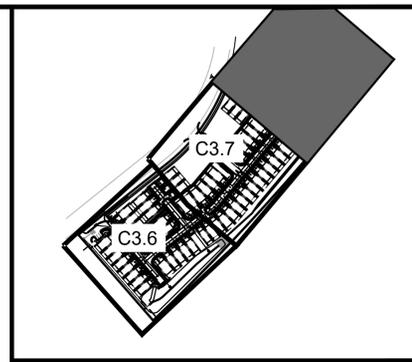
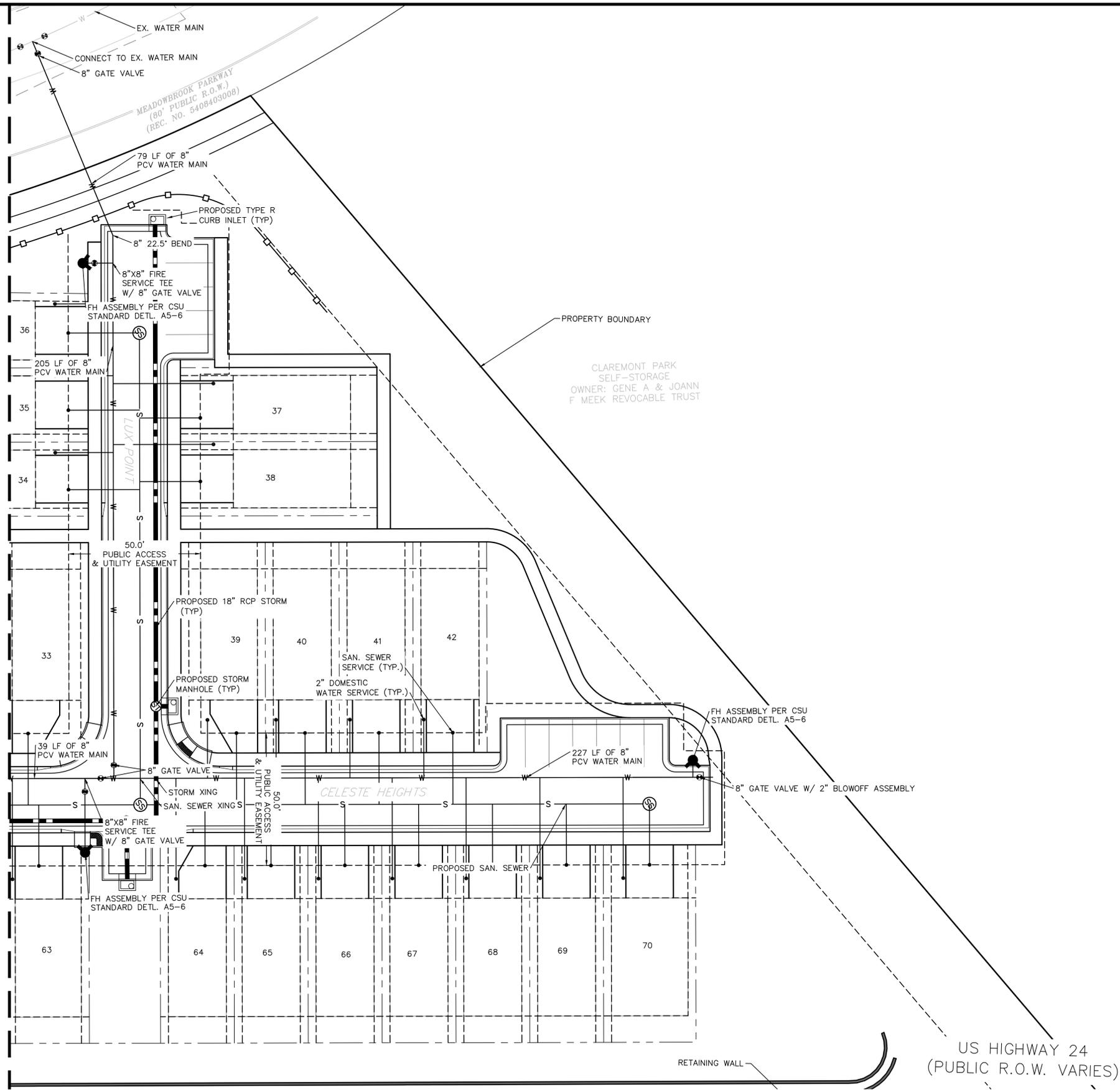


<p><b>Kimley-Horn</b> 2020 KIMLEY-HORN AND ASSOCIATES, INC. 2 North Nevada Avenue Suite 300 Colorado Springs, Colorado 80903 (719) 453-0180</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">NO.</td> <td style="width: 50%;">REVISION</td> </tr> <tr> <td style="width: 50%;">BY</td> <td style="width: 50%;">DATE</td> </tr> <tr> <td style="width: 50%;">APPR.</td> <td style="width: 50%;">DATE</td> </tr> </table>	NO.	REVISION	BY	DATE	APPR.	DATE
NO.	REVISION						
BY	DATE						
APPR.	DATE						
<p>DESIGNED BY: KK DRAWN BY: KK CHECKED BY: JH DATE: 10/09/2020</p>							
<p><b>MEADOWBROOK PARK</b> EL PASO COUNTY, COLORADO UTILITY AND WATER SERVICE PLANS <b>WATER PLAN</b></p>							
<p>PRELIMINARY FOR REVIEW ONLY NOT FOR CONSTRUCTION</p> <p>Kimley-Horn and Associates, Inc.</p>							
<p>PROJECT NO. 096956009</p>							
<p>SHEET <b>C3.6</b></p>							



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MATCHLINE REFER TO SHEET C3.7



KEY MAP  
NOT TO SCALE

**LEGEND**

- PROPERTY LINE
- EXISTING WATER LINE & VALVE
- PROPOSED WATER LINE & VALVE
- PROPOSED FIRE HYDRANT
- EXISTING SANITARY SEWER LINE & MANHOLE
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**Kimley»Horn**  
 2020 KIMLEY-HORN AND ASSOCIATES, INC.  
 2 North Nevada Avenue Suite 300  
 Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: KK  
 DRAWN BY: KK  
 CHECKED BY: JH  
 DATE: 10/09/2020

**MEADOWBROOK PARK**  
 EL PASO COUNTY, COLORADO  
 UTILITY AND WATER SERVICE PLANS  
**WATER PLAN**

PRELIMINARY  
 FOR REVIEW ONLY  
 NOT FOR  
 CONSTRUCTION  
  
 Kimley-Horn and Associates, Inc.

PROJECT NO.  
096956009  
 SHEET  
**C3.8**

# wastewater V\_1 redlines.pdf Markup Summary 12-15-2020

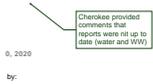
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Please verify you have provided data.  
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**Subject:** Callout  
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Cherokee provided comments that reports were nit up to date (water and WW)