

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



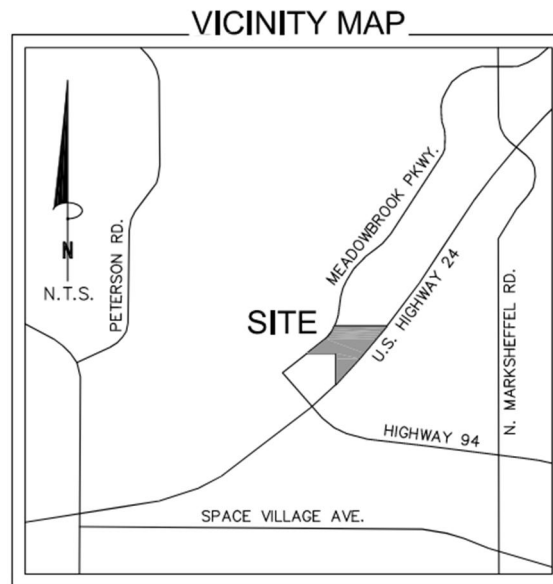
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GENERAL LOCATION AND PROJECT DESCRIPTION

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 9th, 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 21st, 2020

Danny Mientka

The Equity Group

90 S. Cascade Avenue, Suite 1500

Colorado Springs, CO 80903

Sent via email: 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
Total	18.7

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>

Sent: Friday, October 9, 2020 11:12 AM

To: Kofford, Kevin <Kevin.Kofford@kimley-horn.com>; Heiberger, John <john.heiberger@kimley-horn.com>

Cc: Houk, Jim <Jim.Houk@kimley-horn.com>; Jeff Munger <jmunger@cherokeemetro.org>; Peter C. Johnson <pcj@vrlaw.com>; Steven Hasbrouck (Board Member) <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.

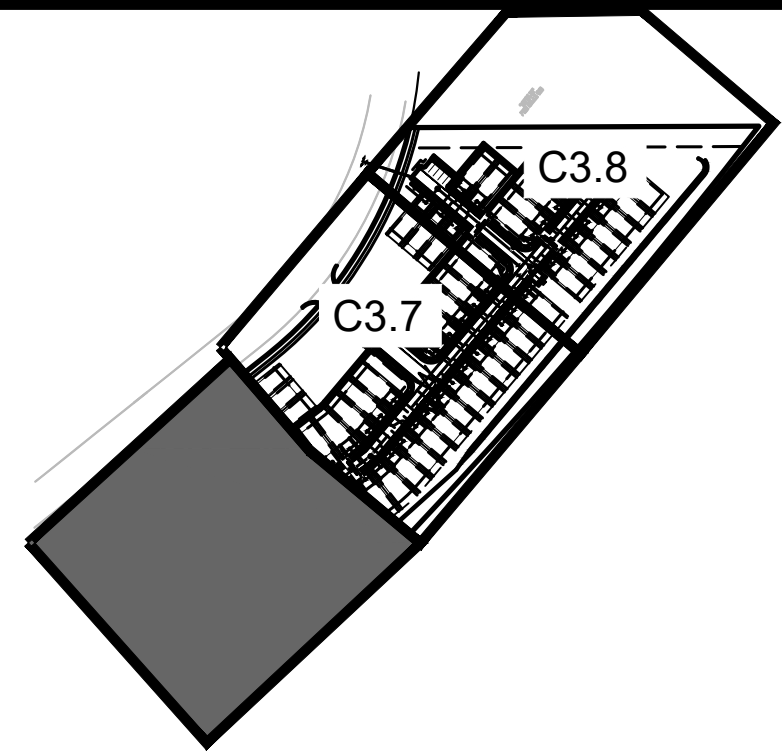
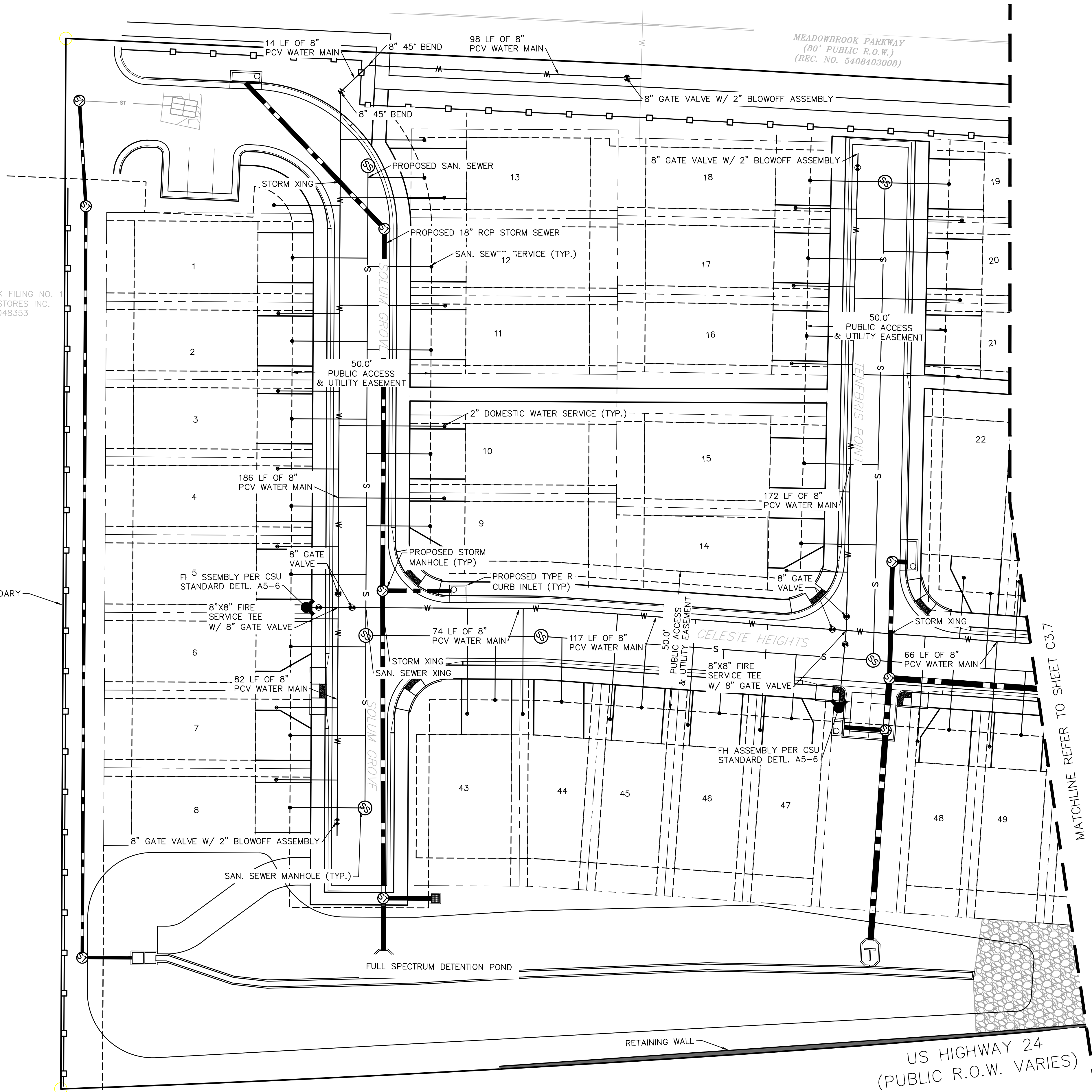
Let me know what other information you need.

Thanks,
Kevin Brown

K:\COS_Civil\096956009_Meadowbrook\CADD\PlanSheets\Utilities\096956009UT_WT.dwg Kofford, Kevin 10/28/2020 10:11 AM

LOT 1
24/94 BUSINESS PARK FILING NO. 1
OWNER: CIRCLE K STORES INC.
REC. NO. 217048353

PROPERTY BOUNDARY



KEY MAP
NOT TO SCALE

LEGEND

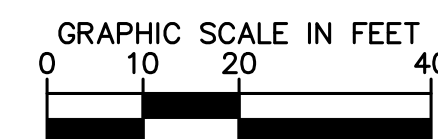
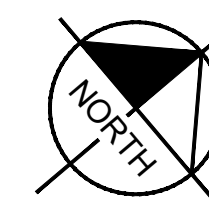
---	PROPERTY LINE
--- ---	EXISTING WATER LINE & VALVE
--- ---	PROPOSED WATER LINE & VALVE
---	LOT LINE
⦿	PROPOSED FIRE HYDRANT
⦿	EXISTING SANITARY SEWER LINE & MANHOLE
⦿	PROPOSED SANITARY SEWER LINE & MANHOLE
⦿	PROPOSED STORM SEWER LINE & MANHOLE
⦿	PROPOSED STORM SEWER STRUCTURES

NOTES:

- ALL WATER LINES TO BE BEDDED PER COLORADO SPRINGS UTILITIES SPECIFICATIONS.
- 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.
- THE HORIZONTAL DIMENSIONS BETWEEN PROPOSED UTILITY LINES MAY VARY SLIGHTLY BASED ON INSTALLED VALVES, ADAPTER, AND PUMPS.
- 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.



Kimley»Horn

2020 KIMLEY-HORN AND ASSOCIATES, INC.
2 North Nevada Avenue Suite 300
Colorado Springs, Colorado 80903 (719) 453-0180

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

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

PROJECT NO.
096956009

SHEET
C3.6

NO.	REVISION	BY	DATE	APPR.

MEADOWBROOK PARKWAY
(80' PUBLIC R.O.W.)
(REC. NO. 5408403008)

19
20
21
23
24
25
26
27
28
29
30
31
32
34
35
36

DISTRICT TRACT
0.23 ACRES

DISTRICT TRACT
0.22 ACRES

50.0'
PUBLIC ACCESS & UTILITY EASEMENT

PROPOSED TYPE R
CURB INLET (TYP.)

8" 90° BEND
8"x6" REDUCER
6" GATE VALVE
FH ASSEMBLY PER CSU
STANDARD DETL. A5-6

NOVA VIEW

PROPOSED 18" RCP STORM SEWER

102 LF OF 8"
PCV WATER MAIN

8" GATE VALVE

CELESTE HEIGHTS

56 LF OF 8"
PCV WATER MAIN

8" 12.5° BEND

128 LF OF 8"
PCV WATER MAIN

2" DOMESTIC
WATER SERVICE (TYP.)

SAN. SEWER SERVICE (TYP.)

183 LF OF 8"
PCV WATER MAIN

50.0'
PUBLIC ACCESS & UTILITY EASEMENT

SAN. SEWER MANHOLE (TYP.)

PROPOSED STORM
MANHOLE (TYP.)

PROPOSED SAN. SEWER

8"x8" TEE

STORM XING

50
51
52
53
54
55
56
57
58
59
60
61
62

US HIGHWAY 24
(PUBLIC R.O.W. VARIES)

MATCHLINE REFER TO SHEET C3.6

MATCHLINE REFER TO SHEET C3.7

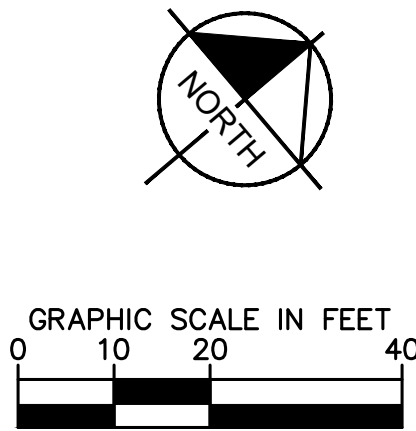
MATCHLINE REFER TO SHEET C3.8



	PROPERTY LINE
	EXISTING WATER LINE & VALVE
	PROPOSED WATER LINE & VALVE
	PROPOSED FIRE HYDRANT
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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

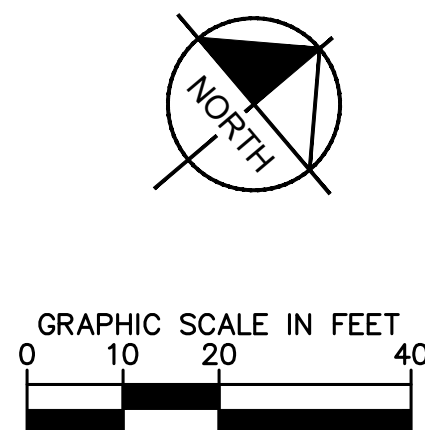
PROJECT NO. 096956009
SHEET C3.7



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[illegible]

Kimley»»Horn
2020 KIMLEY-HORN AND ASSOCIATES, INC.
2 North Nevada Avenue Suite 300
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: KK
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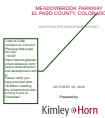
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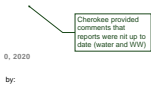
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dsdparsons (2)



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