

WASTEWATER REPORT FOR CROSSROADS MIXED USE

1.0 INTRODUCTION AND CONCLUSION

The purpose of this report is to provide a Wastewater Report to address the specific needs of Crossroads Mixed Use in a portion of the south half of Section 8 and the northeast quarter of Section 8, Township 14 South, Range 65 West of the 6th Principal Meridian, in El Paso County, Colorado. The currently undeveloped site is bound to the west by undeveloped Softball West Subdivision Filing No.2, to the north by Meadowbrook Parkway, to the south by Hwy 24 (South Bound), and to the east by Newt Drive. Land use for Crossroads Mixed Use is currently listed as vacant commercial lots. Improvements proposed for the site include subdividing the existing parcel into 11 lots and 1 tract. 174,581 square feet of commercial space is designated to the eastern 16 acres of the site. Ten, three-story structures that will each host 36 dwelling units, totaling 360 dwelling units, will utilize the remaining 13.035 acres of the site for multi-family residential use. 8.0 acres are estimated for the irrigated acreage use for the Crossroads Mixed Use project.

The site is within the Cherokee Metropolitan District (CMD) Service Area. CMD is a Title 32 Special District which provides water and wastewater to an ~~800~~ ^{5,000} acre enclave of unincorporated El Paso County surrounded by the City of Colorado Springs. Currently, CMD serves approximately 7,000 residential taps and 500 commercial taps in addition to bulk users in eastern El Paso County including Schriever Air Force Base and several small developments located along State Highway 94. A map of the CMD Water and Wastewater Service Boundary is included in the Appendix.

Section 30-28-133(d), C.R.S. requires that the applicant submit to the County, "Adequate evidence of a water supply that is sufficient in terms of quantity, quality, and dependability will be available to ensure an adequate supply of water. The purpose of this report is to meet the requirements of this section. The State Engineers Office (SEO) water supply information summary sheet is included in the Appendix.

Water and wastewater services will be provided by Cherokee Metropolitan District. The Intent to Serve Letter is included in the Appendix, and reflects the most updated irrigation square footages and consumption estimates for the residential and commercial uses involved in the project.

CONCLUSION: This report and project is preliminary, and is being submitted for commercial and multi-family residential rezone. Therefore, the actual amount of building square footage is unknown. The estimates provided in this report are intended to serve as conservative maximums for the District and Colorado Springs Equities, LLC. This report will be updated at a later date once more information concerning actual development is known.

2.0 WASTEWATER REPORT

2.1 Projected Wastewater Loads

Wastewater flows from the commercial portion of the development is expected to be 0.10 gallons per day per square foot of floor space. For the residential portion of the wastewater contribution, 65 gallons per day per person was estimated. 2.16 persons per unit were also used as a conservative estimate. These two values were multiplied together, and then multiplied with the number of units to obtain the average daily flow. Table 1 below summarizes this information, along with providing an expected maximum daily flow over a one month period.

**Table 1
Summary of Expected Wastewater Loads**

Type of Use	Water Demands			Wastewater Loads	
	# Units	Area (ft ²)	Rate	Average Daily Flow (GPD)	Max. Monthly Flow =115% ADF (GPD)
Multi-Family Residential	360	N/A	140.4 $\frac{\text{gal}}{\text{day}\cdot\text{unit}}$	50,544	58,126
Commercial	N/A	174,581	0.10 $\frac{\text{gal}}{\text{day}\cdot\text{ft}^2}$	17,458	20,077
Totals:				68,002	76,203

2.2 Treatment Facilities

2.6 MGD capacity of a 4.8 MGD treatment plant

The CMD wastewater treatment system has a capacity of 2.6 million gallons per day and is;

- In compliance with its discharge permit
- Has adequate capacity for the additional flows.

Per the Water and Wastewater Reports for Crossroads North, dated October 2020, CMD is currently using approximately 1.64 MGD (63% of capacity), including the proposed development for Crossroads North. After the Crossroads Mixed Use addition, CMD will be using approximately 1.71 MGD (66% of capacity). The wastewater treatment plant is currently in the design stage for a treatment upgrade, which will not change capacity but will improve the treatment process. The treatment facility has adequate capacity existing to handle the additional flows proposed from Crossroads Mixed Use.

1.3 Collection and Pumping Facilities

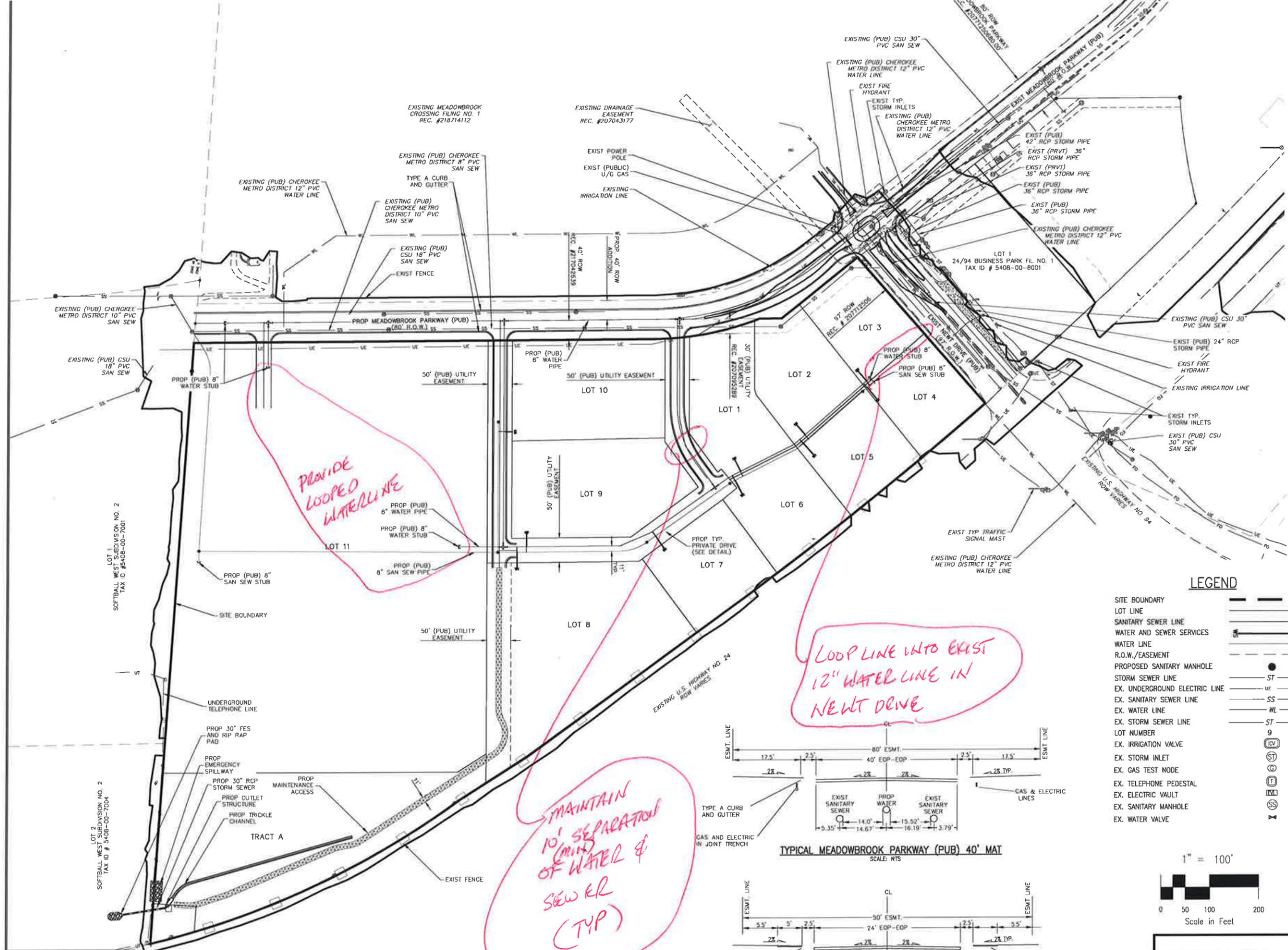
This development will be required to install gravity sewer facilities in accordance with CMD standards and approvals. Said gravity sewer facilities will connect to existing collection systems owned and operated by CMD.

Wastewater pumping facilities are not necessary to serve Crossroads Mixed Use.

GENERAL NOTES FOR ALL PRELIMINARY UTILITY PLANS

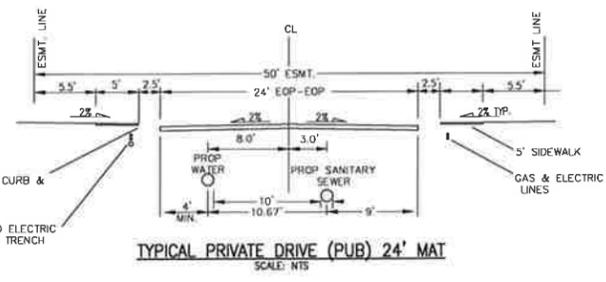
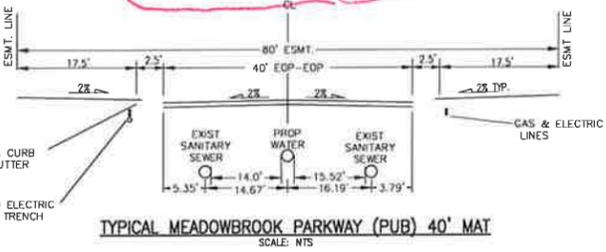
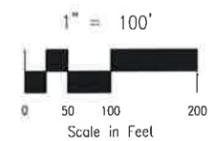
PROPERTY OWNER(S) ACKNOWLEDGE AND AGREE TO THE FOLLOWING UPON APPROVAL OF PRELIMINARY UTILITY PLAN:

- THIS DRAWING IS A PRELIMINARY UTILITY PLAN AND THEREFORE, CHEROKEE METRO DISTRICT (CMD) SHALL MAKE THE FINAL DETERMINATION OF THE LOCATION OF ALL WATER, WASTEWATER, ELECTRIC, AND GAS FACILITIES, WHICH MAY NOT BE THE SAME LOCATION AS SHOWN ON THIS PRELIMINARY UTILITY PLAN.
- PROPERTY OWNER(S) ("OWNER") ACKNOWLEDGE THAT THE CONNECTION AND/OR EXTENSION OF UTILITY SERVICES TO THE PROPERTY IDENTIFIED IN THIS PRELIMINARY UTILITY PLAN ("PROPERTY") SHALL BE IN ACCORD WITH ALL APPLICABLE CODES AND REGULATIONS, SPRINGS UTILITIES' LINE EXTENSION AND SERVICE STANDARDS ("STANDARDS"), TARIFFS, RULES, REGULATIONS, AND POLICIES, CITY ORDINANCES, RESOLUTIONS, AND POLICIES, AND Pikes Peak REGIONAL BUILDING DEPARTMENT CODES, IN EFFECT AT THE TIME OF UTILITY SERVICE CONNECTION AND/OR EXTENSION.
- OWNER ACKNOWLEDGES RESPONSIBILITY FOR THE COSTS OF EXTENSIONS OR UTILITY SYSTEM IMPROVEMENTS THAT SPRINGS UTILITIES DETERMINES NECESSARY TO PROVIDE UTILITY SERVICES TO THE PROPERTY OR TO ENSURE TIMELY DEVELOPMENT OF INTEGRATED UTILITY SYSTEMS SERVING THE PROPERTY AND AREAS OUTSIDE THE PROPERTY (INCLUDING THE COSTS TO DESIGN AND INSTALL ALL POTABLE AND NON-POTABLE WATER SYSTEM FACILITIES AND APPURTENANCES, AND ALL WASTEWATER COLLECTION SYSTEM FACILITIES AND APPURTENANCES, AND ANY WATER OR WASTEWATER SERVICE LINES TO AND WITHIN THE PROPERTY). OWNER MAY BE ELIGIBLE FOR A COST RECOVERY AGREEMENT AS PROVIDED IN UTILITIES' RULES AND REGULATIONS.
- SPRINGS UTILITIES' UTILITY SERVICES ARE AVAILABLE ON A "FIRST-COME, FIRST-SERVED" BASIS, AND THEREFORE NO SPECIFIC ALLOCATIONS OR AMOUNTS OF UTILITY SERVICES, FACILITIES, CAPACITIES OR SUPPLIES ARE RESERVED FOR THE OWNER, AND SPRINGS UTILITIES MAKES NO COMMITMENT AS TO THE AVAILABILITY OF ANY UTILITY SERVICE UNTIL SUCH TIME AS PERMANENT SERVICE IS INITIATED.
- ONLY WITH THE PRIOR WRITTEN APPROVAL BY SPRINGS UTILITIES, OWNER MAY CAUSE THE RELOCATION OR ALTERATION OF ANY EXISTING UTILITY FACILITIES WITHIN THE PROPERTY AT THE OWNER'S SOLE COST AND EXPENSE. IF SPRINGS UTILITIES DETERMINES THAT OWNER'S RELOCATION OR ALTERATION REQUIRES NEW OR UPDATED EASEMENTS, OWNER SHALL CONVEY THOSE EASEMENTS PRIOR TO RELOCATING OR ALTERING THE EXISTING UTILITY FACILITIES.
- OWNER, AT ITS SOLE COST AND EXPENSE, SHALL DEDICATE BY PLAT AND/OR CONVEY BY RECORDED DOCUMENT, ALL PROPERTY AND EASEMENTS THAT SPRINGS UTILITIES DETERMINES ARE REQUIRED FOR ALL UTILITY SYSTEM FACILITIES NECESSARY TO SERVE THE PROPERTY OR TO ENSURE DEVELOPMENT OF AN INTEGRATED UTILITY SYSTEM. ALL EASEMENTS GRANTED BY SEPARATE INSTRUMENT SHALL UTILIZE SPRINGS UTILITIES' THEN-CURRENT PERMANENT EASEMENT AGREEMENT FORM (OR EXECUTIVE AGREEMENT FORM) WITHOUT MODIFICATION UNLESS APPROVED BY SPRINGS UTILITIES.
- THE WATER DISTRIBUTION SYSTEM FACILITIES MUST MEET SPRINGS UTILITIES' CRITERIA FOR WATER QUALITY, RELIABILITY AND PRESSURE, INCLUDING LOOPING REQUIREMENTS (SEE SECTION 4.08 OF SPRINGS UTILITIES' WATER STANDARDS).
- OWNER RECOGNIZES THAT THE EXTENSION OF WATER SYSTEM FACILITIES MAY AFFECT THE QUALITY OF WATER IN SPRINGS UTILITIES' WATER SYSTEM. WHEN WATER QUALITY IS AFFECTED, OWNER ACKNOWLEDGE RESPONSIBILITY FOR ANY COSTS THAT SPRINGS UTILITIES DETERMINES NECESSARY TO INCUR IN ORDER TO MAINTAIN WATER QUALITY IN ITS SYSTEM AS A RESULT OF OWNER'S WATER SYSTEM EXTENSIONS. (WATER-QUALITY MAINTENANCE COSTS). OWNER SHALL REIMBURSE SPRINGS UTILITIES FOR SUCH WATER-QUALITY MAINTENANCE COSTS WITHIN THIRTY (30) DAYS OF RECEIPT OF AN INVOICE FOR SUCH COSTS.
- OWNER MUST CONTACT SPRINGS UTILITIES FIELD ENGINEERING TO SECURE APPROVAL OF GAS-SERVICE-LINE PRESSURES IN EXCESS OF SPRINGS UTILITIES' STANDARD GAS-SYSTEM PRESSURE, AND THE LOCATION OF ALL METERS AND TRANSFORMERS. (CONTACT NORTH WORK CENTER 668-4985 OR SOUTH WORK CENTER 668-5564).
- IT SHALL NOT BE PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY SPRINGS UTILITIES EASEMENT OR RIGHTS OF WAY WITHOUT THE WRITTEN APPROVAL OF SPRINGS UTILITIES (CITY CODE 12.2.540).
- SPRINGS UTILITIES' APPROVAL OF THIS PRELIMINARY UTILITY PLAN SHALL NOT BE CONSTRUED AS A LIMITATION UPON THE AUTHORITY OF SPRINGS UTILITIES TO APPLY ITS STANDARDS; AND IF THERE ARE ANY CONFLICTS BETWEEN ANY APPROVED DRAWINGS AND ANY PROVISION OF STANDARDS OR THE CITY CODE, THEN THE STANDARDS SHALL APPLY. SPRINGS UTILITIES' APPROVAL OF THIS PRELIMINARY UTILITY PLAN SHALL NOT BE CONSTRUED AS A LIMITATION UPON THE AUTHORITY OF THE CITY OR THE SPRINGS UTILITIES TO ADOPT DIFFERENT ORDINANCES, RULES, REGULATIONS, RESOLUTIONS, POLICIES OR CODES WHICH CHANGE ANY OF THE PROVISIONS OF THE STANDARDS SO LONG AS THESE APPLY TO THE CITY GENERALLY AND ARE IN ACCORD WITH THE THEN-CURRENT TARIFFS, RATES, RULES, REGULATIONS AND POLICIES OF SPRINGS UTILITIES.



LEGEND

- SITE BOUNDARY
- LOT LINE
- SANITARY SEWER LINE
- WATER AND SEWER SERVICES
- WATER LINE
- R.O.W./EASEMENT
- PROPOSED SANITARY MANHOLE
- STORM SEWER LINE
- EX. UNDERGROUND ELECTRIC LINE
- EX. SANITARY SEWER LINE
- EX. WATER LINE
- EX. STORM SEWER LINE
- LOT NUMBER
- EX. IRRIGATION VALVE
- EX. STORM INLET
- EX. GAS TEST NODE
- EX. TELEPHONE PEDESTAL
- EX. ELECTRIC VAULT
- EX. SANITARY MANHOLE
- EX. WATER VALVE



MAINTAIN 10' SEPARATION OF WATER & SEW RR (TYP)

TYPICAL PRIVATE DRIVE (PUB) 24' MAT SCALE: NTS

TYPICAL MEADOWBROOK PARKWAY (PUB) 40' MAT SCALE: NTS

FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987

102 E. PIKES PEAK AVE., 5TH FLOOR
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

CROSSROADS MIXED USE

PRELIMINARY UTILITIES

PROJECT NO. 18-003	SCALE: HORIZONTAL: 1"=100' VERTICAL: N/A	DATE: 12/03/20
DESIGNED BY: VAS	CHECKED BY: VAS	SHEET 1 OF 1

PUO

