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Subject: 629 Sawatch Road (Lot 4, 700 Chambers Avenue Subdivision)
Public Facilities Impact Report and Water Demand Analysis

Kyle:

Sawatch 263 Rd, LLC has contracted Yarnell Consulting & Civil Design, LLC (YCCD) to serve as the civil engineer-of-record responsible for the grading, drainage, and utility designs of the proposed industrial building with apartments on Lot 4, with associated landscaping, walkways, parking, and utilities. This letter is intended to address the requirement of a “Public Facilities Impact Report” and “Water Demand Report” for the proposed Development Permit.

Sanitary Sewer

The proposed project will receive sanitary sewer service from an existing, public, 8-inch sanitary sewer main which exists within the Sawatch Road public right-of-way along the southeasterly property limits — parallel to and northwest of the road itself. The building will be equipped with a 6-inch private sanitary sewer service that is presently connected to a stub off the existing main, near the south property corner. From there, wastewater will be conveyed southwest.

Downstream system limitations have not been disclosed to JCV LLC; therefore, it is assumed that this building will not adversely impact the existing system beyond its designed capacity.

Potable Water System

The proposed project will receive potable water service from an existing, public, 8-inch water main located in the Sawatch Road right-of-way along the southeasterly limits of the parcel. Per town records, there is an existing potable water service stub near the easterly property corner. It is proposed to extend the service to the proposed building. Inside a proposed mechanical room, the pipe will branch to an unmetered fire suppression system and a metered potable water system. Fire hydrants are available along Sawatch Road; therefore, no on-site fire hydrants are required to be constructed. Available pressures and volumes within the system are unknown but assumed to be adequate for providing domestic and fire suppression water service to the proposed building.

Per the project’s building architect-of-record (The McKinzie Group), the project will not have any permanent irrigation demands. Temporary irrigation will be utilized to establish vegetation but then turned off.

The equivalent residential units (EQRs) for this project have been tabulated by the project's building architect-of-record (The McKinzie Group). The calculations are attached to this letter. In summary, the project will have 7.0 EQRs. Again, system limitations have not been disclosed to JCV LLC; therefore, it is assumed that this building will not adversely impact the existing system beyond its designed capacity.

Streets

Please refer to the letter from the traffic consultant regarding the project's proposed impacts to the adjacent street system.

Schools

According to JCV LLC, this project will have minimal impact on the school system.

Emergency Service

The ambulance facility is less than one (1) mile away.

Fire

The fire department is less than one (1) mile away.

Summary

In summary, the proposed development of Lot 4 within the 700 Chambers Subdivision will have minimal impact on the existing public infrastructure and schools, while adequate emergency and fire service appears to be available to serve the project.

Please let know if you have any further questions regarding this letter.

Sincerely,



Justin J. Yarnell, PE
Colorado PE Number 47241

Attachment(s):

1. Equivalent residential unit calculations

EQR Defined per Title 12-Water and Wastewater Collection of the Town of Eagle Municipal Code

Section 12.16.060. - Plant investment fees and connection fees.
TABLE OF EQUIVALENT UNITS

CLASSIFICATION	EQUIVALENT UNIT
3. Multi-family residential (townhouses, condominiums, and apartments per unit)—includes 500 square feet of permanently irrigated landscaped area per unit	
Studio—no bedrooms, one bathroom	.....0.4
Up to two bedrooms and one and one-half bathrooms	.....0.6
Two bedrooms and two bathrooms	.....0.8
Each additional bedroom	.....0.15
Each additional kitchen (wet bar)	.....0.1
Each additional 1,000 square feet of permanently irrigated landscaped area	.....0.25
4. Non-potable irrigation credit	.....0.25
EQR per 2,500 square feet permanently irrigated landscaped area, not to exceed 25% of total EQR	
c. Commercial, industrial-warehouse, or public buildings, such as stores, offices, and similar, having no process water or waste loads (i.e. which are served by sanitary sewer use only for nonsolid waste disposal)	.....
Up to two men's and two women's toilets or urinals with manual flush mechanism	.....0.5
For each additional toilet or urinal with manual flush mechanism	.....0.5
For each lavatory	.....0.2
For each shower or tub or combination thereof	.....0.3
For each laundry or mop sink or bar sink	.....0.2
For each other water using fixture or appliance except as otherwise specified in this table, including drinking fountains which are not continuous flow or decorative fountains which recycle water	.....0.3

Square Footage and Bedroom Calculations

Total Building Square Feet, main level (gross)	12,225
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New Electric office space	816	
New Electric warehouse, toilets, and common mechanical room		2,335
New Electric upper level training room	600	
Upper level 4 bedroom apartment with washer (1,518)		
Sub Total	1,416	2,235
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Total Lease Space Square Feet (gross)		9,075

Occupants Generated

Assume 25% is office = 2,269 sf	
Per Table 1004.5 2021 IBC, 1 occupant / 150 sf =	16 occ
Assume 75% is warehouse, toilet, mechanical = 6,806 sf	
Per Table 1004.5 2021 IBC, 1 occupant / 500 sf =	14 occ
Total Occupants generated by 9,075 sf lease space	30 occupants

Plumbing Fixtures Required per 2021 IBC f

TABLE 2902.1, MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

use	water closets / urinals male female	lavatories	drinking fountains	service sinks
office / training	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50	1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80	1 per 100	1
warehouse	1 per 100	1 per 100	1 per 1000	1

Total Fixtures Required for Lease Space

office space 16 occupants	
1 ea men's and women's toilet and lavatories, 1 drinking fountain, 1 service sink	
warehouse 14 occupants	
1 ea men's and women's toilet and lavatories, 1 drinking fountain, 1 service sink	

New Electric

office 816 sf
occupants $1/150 \text{ sf} = 6$

training 600 sf
occupants $1/30 = 20$

warehouse
occupants $1/500 = 5$

Total 31 occupants

1 ea men's and women's toilet and lavatories, 1 drinking fountain, 1 service sink

4 bedroom employee unit,
2 toilets, lavs, showers, 1 kitchen sink, dishwasher, clothes washer

Total EQRs in Project

4 bedroom employee unit		
Two bedrooms and two bathrooms	0.8	0.8
Each additional bedroom	0.15	0.3

New Electric offices, training and warehouse

2 toilets	up to 2	0.5
2 lavatories	at 0.2	0.4
1 drinking fountain	at 0.3	0.3
1 service sink	at 0.2	0.2
1 bar sink	at 0.3	0.3

Lease Space

4 Toilets	at 0.5	2.0
4 Lavatories	at 0.2	0.8
2 Drinking Fountains	at 0.3	0.6
2 Service Sinks	at 0.2	0.4

Total EQRs	7.0
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