

CASTLE ROCK – CITY HOTEL

PRELIMINARY UTILITY REPORT

MARCH 2024
REVISION 1: JULY 2024
REVISION 2: SEPTEMBER 2024
SDP24-0014

For:
WHITE DEVELOPMENT, LLC
P.O. BOX 178
DENVER, CO 80201

Prepared By: :
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UTILITY REPORT APPROVAL BLOCKS

Engineer's Statement:

The enclosed utility report, and exhibits, were prepared by me or under my direct supervision and is correct to the best of my knowledge and belief. Said utility report has been prepared in accordance with applicable Town of Castle Rock criteria and is in conformance with the master utility plans for the affected area. I accept responsibility for any liability caused by negligent acts, errors, or omissions on my part in preparing this report.

Signature: _____
Stephen M. Douglas, Registered Professional Engineer
State Of Colorado No. 41176
(Affix Seal)

Owner/Developer's Statement:

As Owner/Developer of Land(s) identified within this report; I agree to proceed, implement and comply with all recommendations and requirements outlined herein.

Name of Developer

Authorized Signature

Town of Castle Rock Acceptance Block

Development Services Department Date

Utilities Director or Designee Date

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Castle Rock – City Hotel

Preliminary Utility Report

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SCOPE

The purpose of this study is to determine and analyse the water demands and sanitary sewer generations associated with the development of the Castle Rock – City Hotel project.

I. GENERAL LOCATION AND DESCRIPTION

A. Location

- The proposed Castle Rock City Hotel development is located 415 N. Perry St., Castle Rock, Douglas County, Colorado. The site is the location of the historic City Hotel, originally constructed on or around 1872. The original structure will be maintained and repurposed into the overall concept for the new hotel on the site.
- See the Vicinity Map located in Appendix F.

B. Description of Property

- The property is approximately 0.35 acres in size.
- The site includes the historic City Hotel structure, a concrete patio, and concrete parking area. The existing water service line and sanitary sewer service line for the historic structure will be removed back to the mainlines and new service lines will be installed.
- The project site historically drains west-northwest, with the historic flows leaving the site at the northwest property corner into the alley v-pan.
- General site topography slopes from the southeast to the northwest across the site, with grades between ranging 1% and 3%.
- Site Soil Mapping Units include: Bo (100%) (Blakeland-Orsa) across the entire site.
- The type Bo soil group is assigned the Hydrologic Soil Group A.
- The development is located within Zone X, as shown on Flood Insurance Rate Map panel 08035C0188G. No mapped 100-year floodplains exist within or immediately adjacent to the site.
- The proposed use of the site will be retail, restaurant and hospitality. The hotel portion of the structure will consist of 33 rooms; the retail portion of the structure will be 2,708 SF in size, and the restaurant portion of the structure will be 5,829 SF in size and will incorporate/repurpose the existing historic City Hotel structure.
- The total anticipated average daily demand for the proposed development is 20,504 gpd which equates to approximately 52 SFE's, based on the TOCR values of 400 gpd per unit, including irrigation demand.
- See Appendix F for Soil and FEMA FIRM maps.

II. DOMESTIC WATER

A. Calculated Demands

- Average Day Demands
 - The domestic demand for the structure is based on the mechanical engineer's evaluation of the number of hotel rooms, retail use square footage, and restaurant use square footage.
 - Hotel: 75gpd/Room, 33 rooms, 2,475 gpd.
 - Retail: 0.2 gpd/sf, 2,708 sf, 542 gpd.
 - Restaurant: 3.0 gpd/sf, 5,829 sf, 17,487 gpd.
 - The total average day demand for the structure is 20,504 gpd (14.24 gpm) which equates to approximately 52 SFE's, based on the TOCR values of 400 gpd per unit, including irrigation demand.
- Max Day Demands
 - The max day demand is computed from the average day demand and the max day factor of 2.5 plus irrigation demand. The max day demand for the structure is 51,260 gpd (35.60 gpm).
- Peak Hour Demands
 - The peak hour demand is computed from the average day demand and the peak hour factor of 5.5 plus irrigation demand. The peak hour demand for the structure is 112,772 gpd (78.31 gpm).

B. Existing Water System

- The City Hotel will tie into the existing water system in N. Perry St. south of the intersection with Fifth St.
 - The existing water line is a 12-inch PVC main and is listed as a Yellow Zone water distribution main.
 - An existing water service tap for the historic hotel located at the northeast corner of the property will be removed back to the main.
- The existing supply facilities
 - The available water pressure at the project location is 73 psi. This may be a bit low for a 4-story structure and may require a fire pump to get adequate pressures for the sprinkler heads at the top of the building.

C. Proposed Water System

- Description of water distribution system
 - The proposed water system will include two connections to the existing 12-inch PVC water main within N. Perry St. to provide the domestic water service needs, and the fire flows for the structures sprinkler system and FDC

connection. Both connections will be near the northeast property corner and will tap the existing main on either side of the existing water tap for the historic hotel which will be removed. The existing water system is within the Yellow Zone. The domestic water tap size will be 2-inch, per the 2018 IPC criteria.

- The final meter size will be determined based on the required demand of the total building water supply fixture units and any additional water usage, as shown on the commercial fixture unit worksheet to be provided to the Town of Castle Rock at the time of building permitting.
- Irrigation water will be from the domestic water tap used to provide service to the hotel.
- Required Fire Flow
 - At the time of this writing, the fire flows and the required fire line tap size has not been determined. This information will be included in subsequent report submittals.
 - Two fire hydrants are located in the vicinity of the project site: one approx. 183 feet from the northeast building corner located at the northwest corner of N. Perry St. & Fifth St., and one at the southeast corner of the project site. The hydrant at the southeast corner of the site is proposed to be moved approximately 35' further south to the adjacent landscape island to make room for a valet car park.
 - The Castle Rock fire dept. has reviewed the proposed hotel development and the fire hydrant locations and has stated its approval. Documentation is included in Appendix A.
- Land Dedication Requirements
 - There are no land dedication requirements for this development.

D. Proposed water System Analysis and Modeling

- Since this is a single structure tapping to a single water main in the Yellow Zone, no water modeling was necessary. The mechanical engineer for this project provided the water demands and will determine if a fire pump will be necessary to achieve the necessary pressures for the sprinkler heads throughout the building.
- At the time of this writing the determination of if a fire pump will be necessary has not been made. This information will be included in subsequent report submittals.

III. SANITARY SEWER

A. Site Location

- See section I-A for Site Location Information.
- See section I-B for Description of Property and Land Use.

B. Calculated Flows

- The domestic demand for the structure is based on the mechanical engineer's evaluation of the number of hotel rooms, retail use square footage, and restaurant use square footage.
- Hotel: 75 gpd/Room, 33 rooms, 2,475 gpd average daily flow.
- Retail: 0.1 gpd/sf, 2,708 sf, 271 gpd average daily flow.
- Restaurant: 1.5 gpd/sf, 5,829 sf, 8,744 gpd average daily flow.
- The total average daily flows for the structure are calculated to be 11,490 gpd (7.98 gpm).
- The peak design flow (PDF) for the structure is calculated to be 57,450 gpd (39.90 gpm) using the max peaking factor of 5.0.
- For the purposes of sizing the sanitary sewer service lines, the PDF will be used, converted from gpm to cfs. In this case, 39.90 gpm = 0.089 cfs.

C. Existing Wastewater System

- The hotel will discharge all kitchen grey water fats, oils, and grease to the grease interceptor via 6" PVC. The grease interceptor will discharge to the 8-inch CIPP sewer main within the alley on the west side of the project via 6" PVC.
- The hotel will discharge all non-kitchen sanitary flows to the 6" PVC discharge pipe on the downstream side of the grease interceptor.

D. Proposed Wastewater System

- Proposed Collection System
 - The sanitary demands for the proposed hotel can be met with the use of a 6-inch pipe at minimum slope. See Appendix E for pipe calculations.
 - The proposed sanitary outfall system will consist of two separate 6-inch PVC service lines on the west side of the hotel. All kitchen grey water fats, oils, and grease will feed into a 2,500-gallon grease interceptor. The grease interceptor will discharge via a 6-inch PVC to the existing 8-inch CIPP sewer main within the alley on the west side of the hotel.
 - The grease interceptor shall be in accordance with the Plum Creek Water Reclamation Authority Code of Rules and Regulations.
 - All non-kitchen sanitary sewer discharge will connect to the discharge pipe on the downstream side of the grease interceptor.
- Land Dedication Requirements
 - There are no land dedication requirements for this development.

E. Proposed Wastewater System Analysis and Modeling

- The proposed sanitary outfall system has been modeled using Bentley Flow Master.
- Pipe analysis is included in Appendix E.
- Pipe velocities for both the ADF and the PDF are within 2 fps and 10 fps. Pipes are considered full at a d/D of 75%.

IV. CONCLUSIONS

- The proposed water improvements will provide service to the hotel in general accordance with the Town's requirements.
- The proposed sanitary sewer improvements will provide service to the hotel in general accordance with the Town's requirements.
- Any proposed development of the existing water and wastewater infrastructure needed to serve this site is the responsibility of the developer/owner.

V. LIST OF REFERENCES

1. *Town of Castle Rock Water System Design Criteria Manual*, Town of Castle Rock, December 2018.
2. *Town of Castle Rock Wastewater Collection Design Criteria Manual*, Town of Castle Rock, December 2018.
3. *International Fire Code*, International Code Council 2021.
4. *International Plumbing Code*, International Plumbing Code 2018

APPENDIX A

WATER DEMANDS

CITY HOTEL DOMESTIC WATER DEMAND

	HOTEL		RETAIL		RESTAURANT
AVG DAILY DEMAND	75 gpd/room		0.2 gpd/sf		3.0 gpd/sf
MAX DAY DEMAND	2.5		2.5		2.5
PEAK HOUR DEMAND	5.5		5.5		5.5
FIRE FLOW	TBD		TBD		TBD

PROPOSED USE	NO. OF ROOMS OR USE ARE SF	AVG. DAY DEMAND (GPD)	MAX DAY DEMAND (GPD)	PEAK HOUR DEMAND (GPD)	FIRE FLOW DEMAND (GPM)
HOTEL	33 ROOMS	2475	6188	13613	TBD
RETAIL	2708 SF	542	1354	2979	TBD
RESTAURANT	5829 SF	17487	43718	96179	TBD
	TOTAL	20504	51260	112772	

SOURCE:

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 3301 Lawrence St, Suite 2
 Denver, CO 80205

- Average Day Demands
 - The domestic demand for the structure is based on the mechanical engineer's evaluation of the number of hotel rooms, retail use square footage, and restaurant use square footage.
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- Peak Hour Demands
 - The peak hour demand is computed from the average day demand and the peak hour factor of 5.5 plus irrigation demand. The peak hour demand for the structure is 112,772 gpd (78.31 gpm).

APPENDIX B

WATER STORAGE

CITY HOTEL WATER STORAGE

STORAGE REQUIRED:	GPD	GPM	STORAGE (GAL)	STORAGE (MG)
MAX DAY DEMAND	51260	35.6	51260	0.051
FIRE FLOW DEMAND	TBD	TBD	TBD	TBD

APPENDIX C

WATER HYDRAULIC ANALYSIS AND MODELING

NOT REQUIRED FOR THIS SITE

APPENDIX D

WATEWATER FLOWS

- The domestic demand for the structure is based on the mechanical engineer's evaluation of the number of hotel rooms, retail use square footage, and restaurant use square footage.
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- For the purposes of sizing the sanitary sewer service lines, the PDF will be used, converted from gpm to cfs. In this case, 39.90 gpm = 0.089 cfs.

SOURCE:

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APPENDIX E

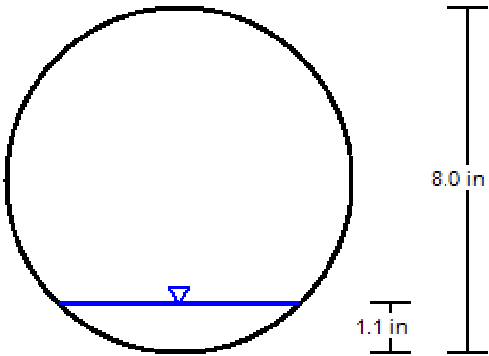
WATEWATER HYDRAULIC MODELING

CITY HOTEL WASTEWATER FLOW ANALYSIS

Project Description	
Friction Method	Manning
Solve For	Formula
	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.020 ft/ft
Diameter	8.0 in
Discharge	0.09 cfs
Results	
Normal Depth	1.1 in
Flow Area	0.0 ft ²
Wetted Perimeter	0.5 ft
Hydraulic Radius	0.7 in
Top Width	0.47 ft
Critical Depth	1.6 in
Percent Full	14.3 %
Critical Slope	0.005 ft/ft
Velocity	2.91 ft/s
Velocity Head	0.13 ft
Specific Energy	0.23 ft
Froude Number	2.007
Maximum Discharge	2.17 cfs
Discharge Full	2.02 cfs
Slope Full	0.000 ft/ft
Flow Type	Supercritical
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	14.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	1.1 in
Critical Depth	1.6 in
Channel Slope	0.020 ft/ft
Critical Slope	0.005 ft/ft

Cross Section for Circular Pipe - 1

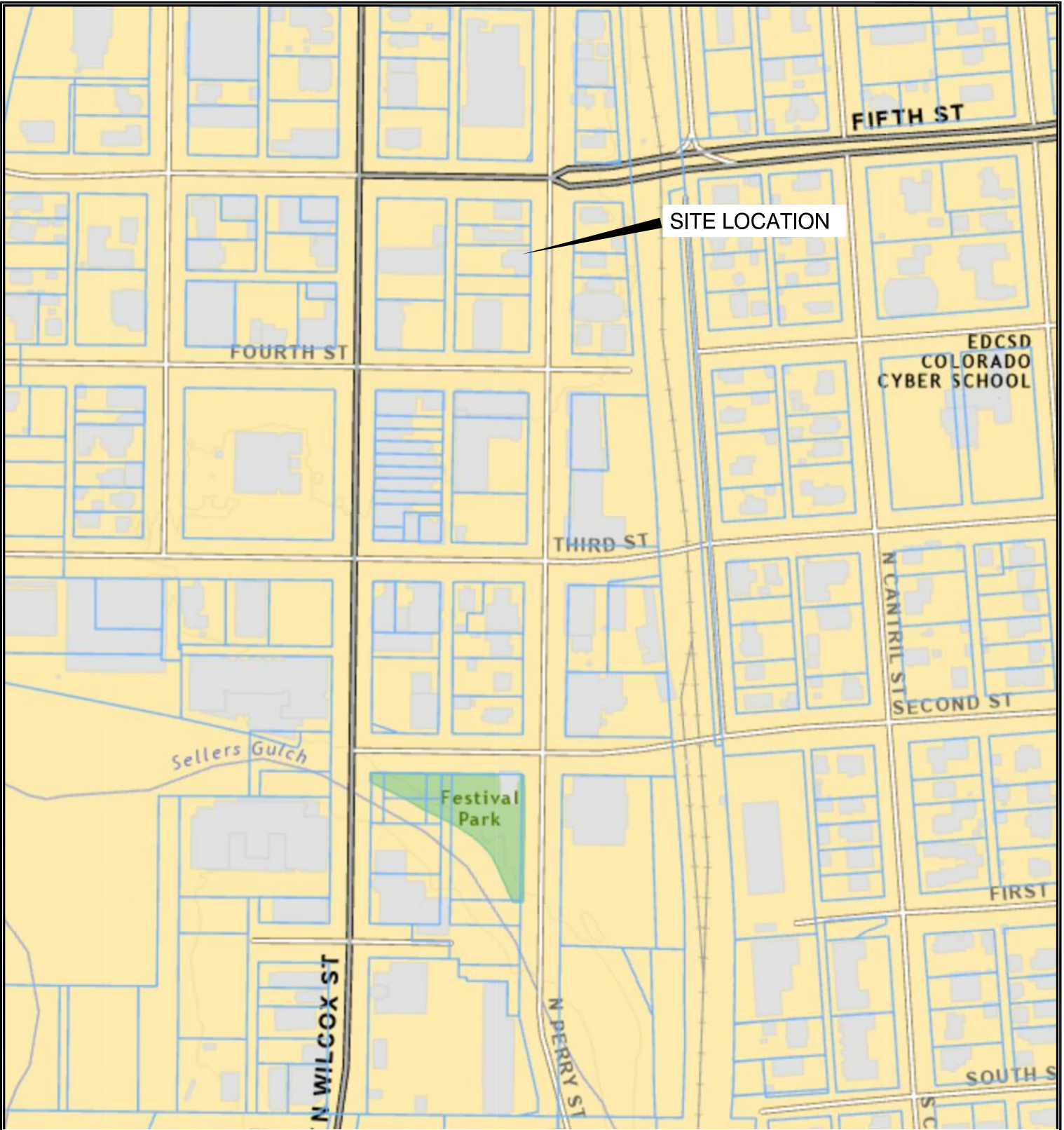
Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.011
Channel Slope	0.020 ft/ft
Normal Depth	1.1 in
Diameter	8.0 in
Discharge	0.09 cfs



V: 1
H: 1

APPENDIX F

MAPS AND PLANS



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 Const. Management Civil Engineering Land Planning

CASTLE ROCK CITY HOTEL VICINITY MAP

Sheet

01

Scale N.T.S.

Date MARCH 2024

SITE DEVELOPMENT PLAN

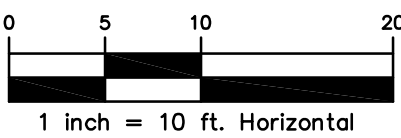
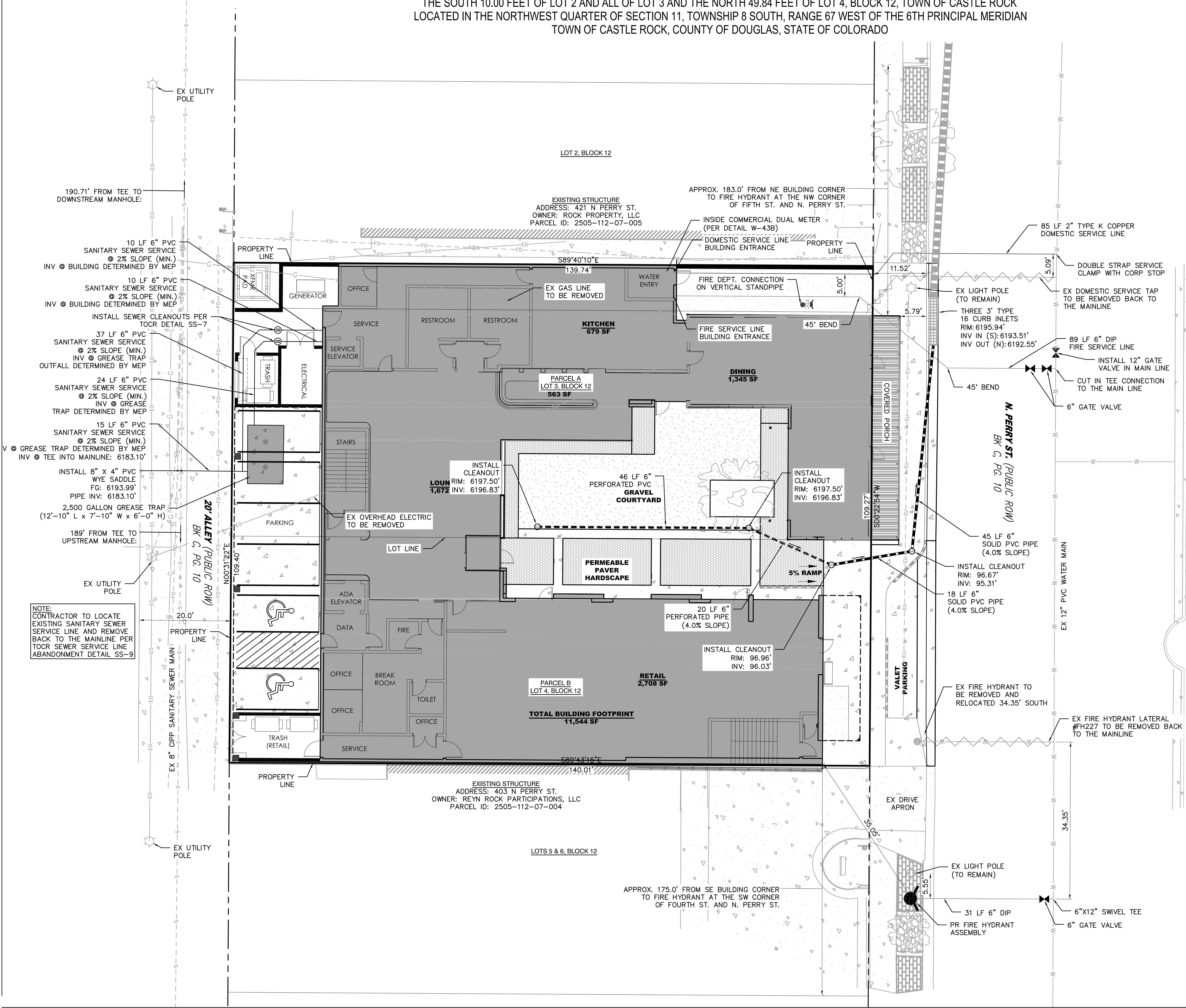
THE SOUTH 10.00 FEET OF LOT 2 AND ALL OF LOT 3 AND THE NORTH 49.84 FEET OF LOT 4, BLOCK 12, TOWN OF CASTLE ROCK
LOCATED IN THE NORTHWEST QUARTER OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

LEGEND

- PROPERTY BOUNDARY
- EX CURB AND GUTTER
- CURB HEIGHT TRANSITION ZONE
- PR RETAINING WALL
- EXISTING STRUCTURES (TO REMAIN)
- PR. 6" PVC SOLID PIPE
- PR. 6" PVC PERFORATED PIPE
- PR BUILDING
- PR CONCRETE SIDEWALK/PARKING
- PR PERMEABLE PAVERS/HARDSCAPE
- PR COMPACTED CRUSHER FINE SURFACE
- PR STREETSCAPE AREA
- PR BUILDING DECK
- EX CONCRETE FLATWORK

UTILITY NOTES

- THIS SITE IS LOCATED WITHIN THE TOWN OF CASTLE ROCK [YELLOW] WATER PRESSURE ZONE.
- ALL PROPOSED EASEMENTS MUST BE RECORDED PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.
- ALL UTILITY EASEMENTS FOR WATER AND WASTEWATER LINES SHALL BE FOR THE EXCLUSIVE USE OF THE TOWN SO THAT ACCESS AND MAINTENANCE MAY BE PERFORMED.
- THE MINIMUM SEPARATION BETWEEN WATERLINES, SANITARY SEWER AND STORM SEWER LINES IS 10 FEET.
- THE MINIMUM SEPARATION BETWEEN WATER SERVICE LINES IS 5 FEET.
- ANY TIE-IN, CROSSING OR LOWERING OF TOWN CRITICAL INFRASTRUCTURE WILL REQUIRE A TIME AND MATERIALS PERMIT (TMU) WITH FEES REQUIRED PRIOR TO CONSTRUCTION.



SITE DEVELOPMENT PLAN
CITY HOTEL
TOWN CASTLE ROCK PROJECT NO. SDP24-0014

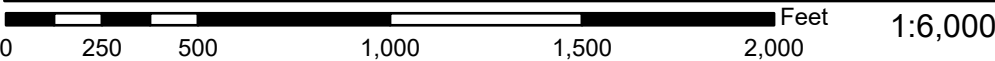
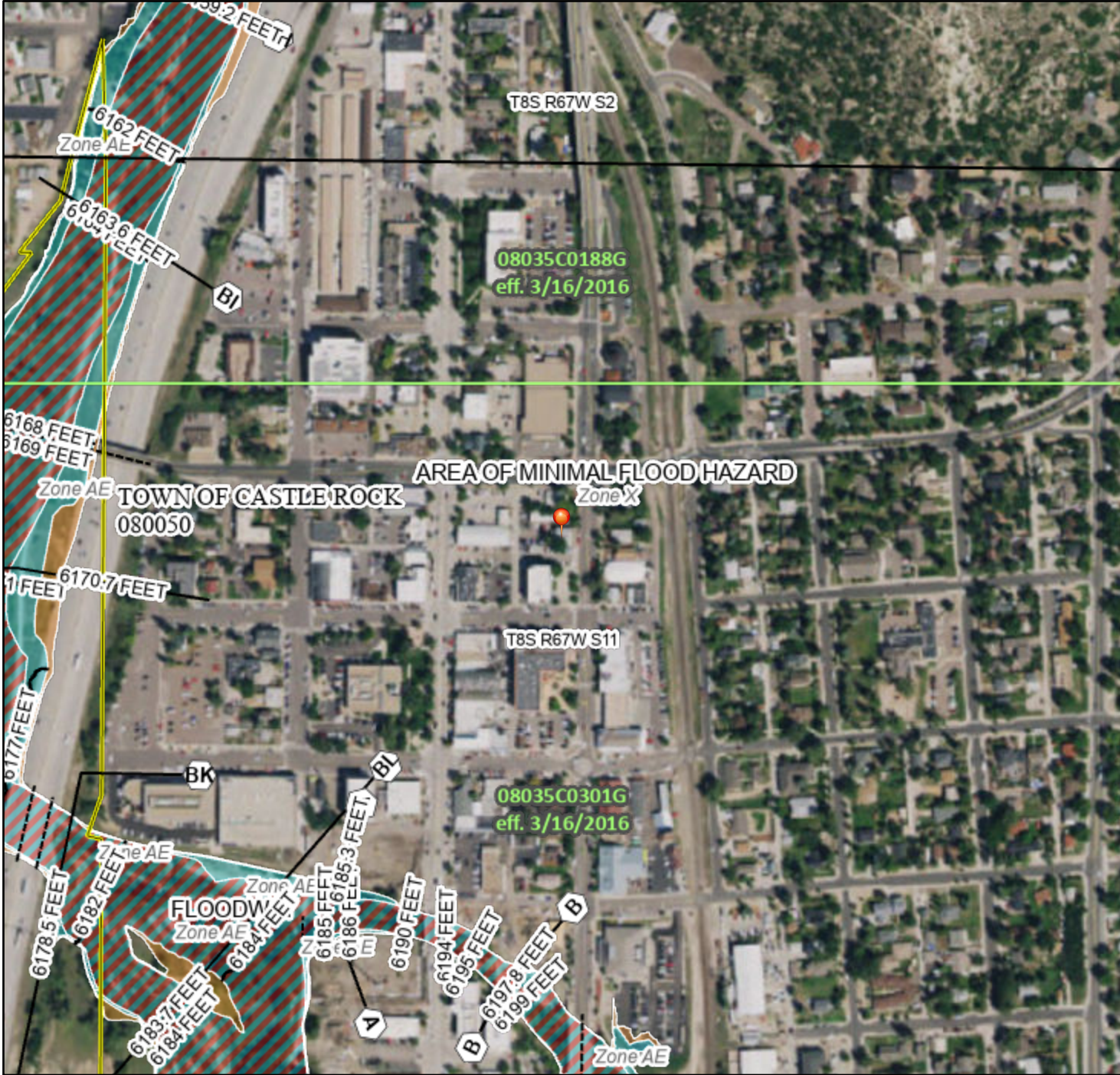
ISSUE DATE:	3.15.2024
REVISION 1:	7.22.2024
REVISION 2:	9.25.2024
REVISION 3:	
REVISION 4:	

UTILITY PLAN
04 OF 17

National Flood Hazard Layer FIRMMette



104°51'51"W 39°22'40"N



104°51'13"W 39°22'12"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



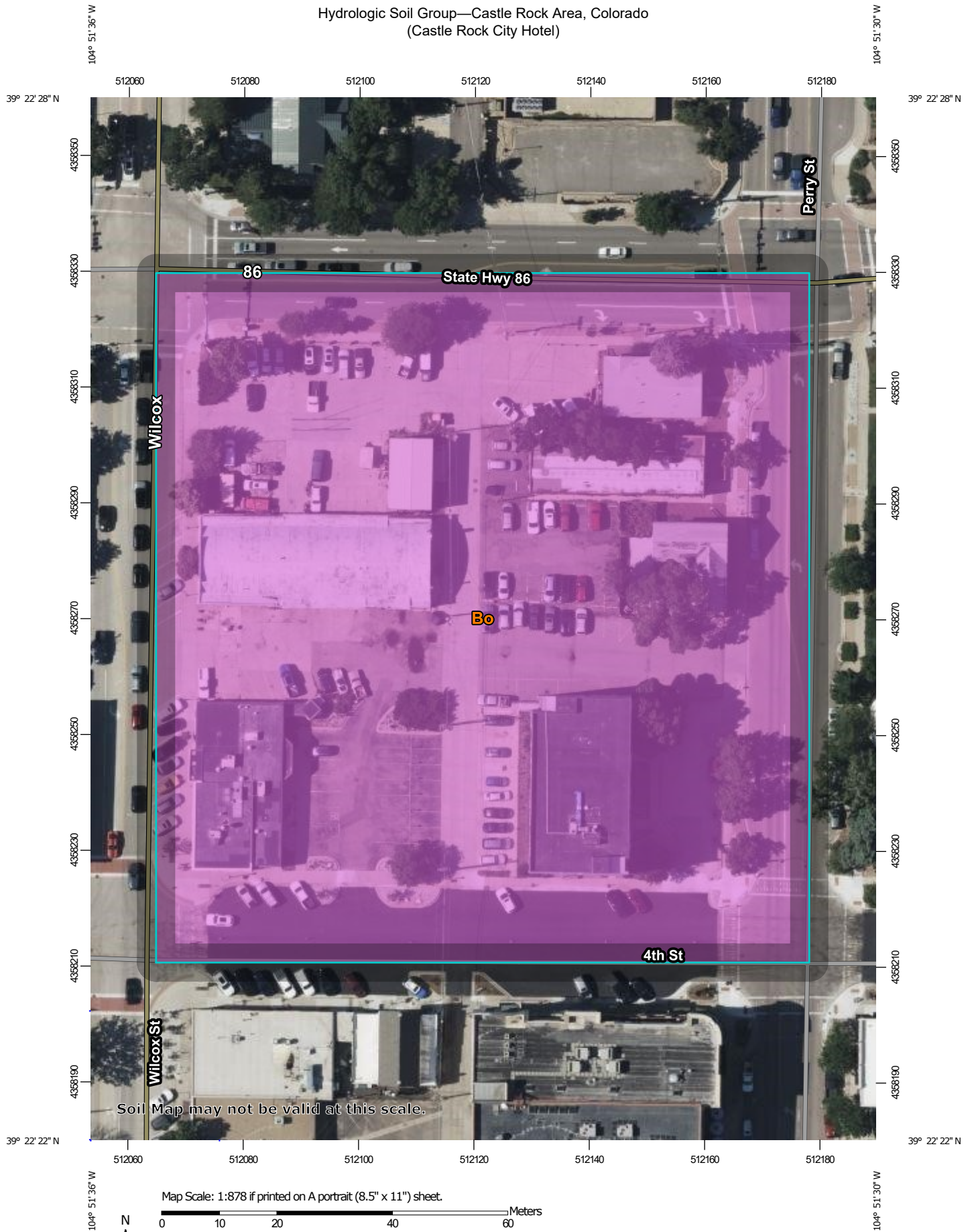
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/14/2024 at 1:18 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Hydrologic Soil Group—Castle Rock Area, Colorado (Castle Rock City Hotel)



Hydrologic Soil Group—Castle Rock Area, Colorado
(Castle Rock City Hotel)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Castle Rock Area, Colorado
Survey Area Data: Version 16, Aug 24, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 1, 2023—Sep 1, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bo	Blakeland-Orsa association, 1 to 4 percent slopes	A	3.3	100.0%
Totals for Area of Interest			3.3	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



Preliminary Utility Report Checklist

The Preliminary Utility Report must be in conformance with the latest Town of Castle Rock Water and Wastewater System Design Criteria Manuals, available on the Town's website.

For the Preliminary Utility Report, information contained in the Concept Utility Letter shall be updated to reflect the latest projections for land use and densities. Hydraulic modeling shall only be required for the site proposed in the Site Development Plan (SDP). This modeling may be waived on a case-by-case basis at the discretion of the Utilities Department if it is adequately demonstrated that the SDP is already consistent with the Town's Water/Wastewater Master Plans and that the existing adjacent water/wastewater infrastructure is adequate to support the development without modifications or if the SDP is for a commercial structure on a single lot. The modeling shall accurately reflect the sizes and locations of all proposed water mains associated with the SDP layout. In addition to providing updated land use and density information, the following items shall be specifically addressed:

- Further analysis of any concerns raised in the Concept Utility Letter regarding the Town's ability to serve the development.
- Updated discussion of appurtenant water/wastewater facilities other than distribution mains that will be necessary to serve the development, and the principal design parameters that will be utilized in the final design of such facilities.
- Status of any variances that have been obtained, or will be pursued.
- Updated discussion of maintenance access and any associated concerns.
- Updated status of permitting requirements.
- Updated appendices.

The following outline sets forth the **required minimum** content to be provided in the Preliminary Utility Report that shall be submitted with the SDP. This report must be prepared by, or the report preparation supervised by a registered Professional Engineer licensed in Colorado. A copy of this checklist must be submitted with the Preliminary Utility Report.

Please check off the following items to assure your report is complete. Appropriate notations shall be provided with the checklist. For example, if a specific item is not addressed or not applicable, an explanation needs to be provided.

Included	N/A	
		TITLE SHEET
✓		A. Name of Project, including legal name of development
✓		B. Address
✓		C. Owner
✓		D. Developer
✓		E. Engineer
✓		F. Submittal date and revision dates as applicable

Preliminary Utility Report – Formatting Checklist

Included	N/A	
✓		APPROVAL BLOCK SHEET (Available on Town's website)
✓		TABLE OF CONTENTS
✓		PROJECT LOCATION AND DESCRIPTION
✓		A. Site Location
✓		B. Description of Property and Land Use
✓		CALCULATED WATER DEMANDS
✓		A. Average Day Demands (ADD)
✓		B. Max Day Demands (MDD)
✓		C. Peak Hour Demands (PHD)
✓		EXISTING WATER SYSTEM
✓		A. Existing Distribution System
✓		B. Existing Supply Facilities
✓		PROPOSED WATER SYSTEM
✓		A. Proposed Distribution System
✓		B. Proposed Supply Facilities
✓		C. Land Dedication Requirements
✓		PROPOSED WATER SYSTEM ANALYSIS AND MODELING
	X	A. Hydraulic Models
	X	B. Hydraulic Modeling Scenarios
	X	C. Hydraulic Modeling Output and Required Schematics
✓		CALCULATED WASTEWATER FLOWS
✓		A. Average Day Wastewater Flows (ADF)
✓		B. Peaking Factor
✓		C. Peak Design Flows (PDF)
✓		EXISTING WASTEWATER SYSTEM
✓		A. Existing Collection System
✓		PROPOSED WASTEWATER SYSTEM
✓		A. Proposed Collection System
✓		B. Proposed Wastewater Facilities
✓		C. Land Dedication Requirements
✓		PROPOSED WASTEWATER SYSTEM ANALYSIS AND MODELING
✓		A. Hydraulic Models
	X	B. Hydraulic Modeling Scenarios
	X	C. Hydraulic Modeling Output and Required Schematics

Preliminary Utility Report – Formatting Checklist

Included	N/A	
		POTENTIAL PERMITTING REQUIREMENTS
		REFERENCES
		APPENDICES
		Appendix A — Water Demands
		Appendix B — Water Storage
		Appendix C — Water Hydraulic Analysis and Modeling
		Appendix D — Wastewater Flows
		Appendix E — Wastewater Hydraulic Modeling
		Appendix F — Maps and Plans
		A. Vicinity Map
		B. Utility Map(s) provided by the Utilities Department
		C. Site Development Plan
		D. Water/Wastewater Utility Plan(s)

Notes/Comments:



Commercial Business Building Permit Grease Interceptor Requirement

All Commercial Business Building Permits for new business and construction of new buildings, remodels, or tenant improvement permits will be required to comply with Town Code 13.05, Grease Interceptors Required. Applicant will be required to submit an Industry Information Questionnaire through Plum Creek Water Reclamation Authority (PCWRA) to verify if the business will require an oil/grease interceptor. Please go to the PCWRA website at:

https://www.pcwracolorado.org/pretreatment/commercial_businesses/index.php

CONSTRUCTION DRAWINGS

Please note PCWRA requires all new commercial buildings to provide a stub-out for a separate waste line for future interceptor installation, if not proposed with the project. All drainage fixtures and grease waste lines that are tied to the oil/grease must be shown in the construction drawings as well as the location of the oil/grease.

ACKNOWLEDGEMENT

The applicant must sign and date this form to acknowledge that the applicant has read and understands the Town's Code requirement regarding Grease Interceptors, PCWRA's requirement to complete an Industry Information Questionnaire and Food Service Application, and the Town's requirement that a letter from PCWRA must be provided with the Town of Castle Rock Building Permit. This signed form is required to be included in the Utility Report with the Predevelopment Plan (PDP), Site Development Plan (SDP) and Construction Document (CD) submittals.

City Hotel

Name of Project

415 Perry Street, Castle Rock ,CO

Address of property, if known

Devin Visciano

Signature

9/25/2024

Date