

Circle K at Wilcox & Plum Creek

Drainage Conformance Letter

February 2022

Prepared for:



Land Development Consultants

950 S. Cherry St., Suite 510
Denver, CO 80246

Town of Castle Rock
SDP22-0020

Prepared by:



2435 Research Parkway, Suite 300
Colorado Springs, CO 80920
(719) 575-0100
fax (719) 572-0208

Matrix Project No. 21.1207.031

Certification Statement:

I affirm that this report and plan for the conformance drainage design of Circle K at Wilcox and Plum Creek was prepared by me (or under my direct supervision) in accordance with the provisions of the Town of Castle Rock Drainage Design and Technical Criteria for the owners thereof. I understand that the Town of Castle Rock does not and will not assume liability for drainage facilities designed by others.

Corey Petersen
Registered Professional Engineer
State of Colorado #56571

Date

SEAL

Introduction

Circle K at Wilcox and Plum Creek is located northeast of the intersection of S. Wilcox Street and Plum Creek Parkway with S. Wilcox Street to the west, Pizza Hut to the south, and existing commercial properties to the north and east. The project consists of 'Raze and Rebuild' with demolition of the existing store and replacing with a new Circle K store, asphalt paving, concrete paving, curb & gutter, and landscaping. The existing entrances to the site off of S. Wilcox Street, gas pump facilities, canopy and car wash are to remain open during construction. This drainage letter has been prepared to support the proposed Circle K at Wilcox and Plum Creek in Town of Castle Rock, Colorado and demonstrate compliance with the existing drainage and hydrologic patterns.

General Location and Description

More specifically, the project is located in a portion of the southwest $\frac{1}{4}$ of Section 11, Township 8 South, Range 67 West of the 6th Principal Meridian, Town of Castle Rock, State of Colorado.



Figure 1 – Vicinity Map

The parcel where the Circle K at Wilcox & Plum Creek raze and rebuild development is being proposed is 1.807 acres. Existing soils are made up of Hydrologic Soil Group Type C, loamy alluvial land based on USDA Web Soil Survey with slopes general flat ranging from 1% to 3% within the area of development. Area of disturbance for the raze and rebuild equates to approximately 0.76 acres.

Basin Descriptions

This site is located within the East Plum Creek Drainage Basin. This basin is tributary to East Plum Creek and, ultimately, Chatfield Reservoir. The drainage of the site is split approximately down the center of the parcel, draining east and west. The west half of the site drains to S. Wilcox Street and the east half of the site drains into an existing commercial development access road. The current drainage from the site and surrounding development is conveyed via existing curb and gutter and storm sewer directly to East Plum Creek. There is no existing known existing detention or water quality facilities to treat the Site or surrounding existing development. The proposed raze and rebuild of the existing Circle K generally follows the existing drainage patterns.

Sub-Basin Descriptions:

Basin delineation has been drawn based on limits of disturbance. Drainage analysis and comparison has been performed on the limits of disturbance only as the remainder of the site is remaining unchanged and unaffected by the proposed raze and rebuild improvements. Flows from proposed improvements are equal to or less than historic stormwater runoff flows.

Sub-basin E1 describes the existing west drainage sub-basin. Stormwater sheet flows across the site into curb and gutter within S. Wilcox Street. Stormwater flows have been calculated at Q5=1.1 cfs and Q100=2.1 cfs.

Sub-basin E2 describes the existing east drainage sub-basin. Stormwater is sheet flows across the site into existing curb and gutter and conveyed to the existing commercial alley east of the site and continues to the existing storm sewer system near S. Wilcox Street. Stormwater flows have been calculated at Q5=1.8 cfs and Q100=3.6 cfs.

Sub-basin P1 describes the proposed west drainage sub-basin. Stormwater follows existing drainage patterns and sheet flows across the site into existing curb and gutter within S. Wilcox Street. Stormwater flows have been calculated at Q5=1.0 cfs and Q100=2.1 cfs.

Sub-basin P2 describes the proposed east drainage sub-basin. Stormwater follows existing drainage patterns and sheet flows across the site into existing curb and gutter and conveyed to the existing commercial alley east of the site and continues to the existing storm sewer system near S. Wilcox Street. Stormwater flows have been calculated at Q5=1.4 cfs and Q100=3.3 cfs.

Regulatory Floodplain

According to the FEMA FIRM Number 08035C0301G, effective March 16, 2016. The site is located in Zone X and within the area of both 1% (100-yr) and 0.2% (500-yr) annual chance floodplains.

Drainage Design Criteria**a. Governing Criteria**

Analysis and design for the site was done in compliance with the Town of Castle Rock Storm Drainage Design & Technical Criteria Manual, June 2019 with the Mile High Flood District's Urban Storm Drainage Criteria Manual (USDCM). No deviations are proposed for this development.

Storm Sewer Facilities

No major storm sewer facilities or improvements to the existing facilities are proposed. Existing drainage patterns are held without storm sewer improvements. Roof drainage will be conveyed via downspout to the proposed landscape area on the east side of the proposed Circle K store and sheet flow through the landscape area into proposed curb and gutter. The existing roof drain system for the fuel pump canopy will remain.

All Best Management Practice facilities and storm sewer will remain as owned and maintained by Circle K, Inc.

Water Quality and Detention

Per coordination with Town of Castle Rock, there are no existing water quality or detention facilities that currently treat the existing site. Proposed raze and rebuild improvements are less than an acre, therefore, water quality and detention are not required for the proposed improvements.

Per Chapter 14.1 of the Town of Castle Rock Storm Drainage Design & Technical Criteria Manual, the Manual requires the MHFD Four Step Process for receiving water protection that focuses on reducing runoff volumes, treating the water quality capture volume (WQCV), stabilizing drainageways, and implementing long-term source controls.

Step 1: Reduce runoff by disconnecting impervious area, eliminating “unnecessary” impervious area and encouraging infiltration into soils that are suitable.

- Site specific landscaping will be done as possible to minimize directly connected impervious areas. The layout for the proposed building allows for runoff conveyance via a grassed green space between impervious areas.

Step 2: Treat and slowly release the WQCV.

- The proposed raze and rebuild improvements are less than one acre and there are no existing water quality or detention features on-site or downstream.

Step 3: Stabilize stream channels.

- Proposed site discharges will be equal or less than existing site discharges, maintaining the currently stable downstream flows.
- There are no drainageways, streams or channels on or directly adjacent to the site.

Step 4: **Implement source controls.**

- Dumping of waste materials in the proposed storm system is not permitted.
- During construction, the contractor will have designated concrete washout areas and will implement sediment control logs, rock socks and inlet protection in order to control pollutants at their source.
- There are no plans for outdoor stockpiling of materials onsite after construction has been completed, therefore, no other source control BMPs are anticipated at this time.

Conclusion

The above analysis has demonstrated that the proposed development is within the constraints set upon the property. Proposed improvements are less than one acre, site runoff will follow existing drainage patterns and does not exceed existing stormwater flows.

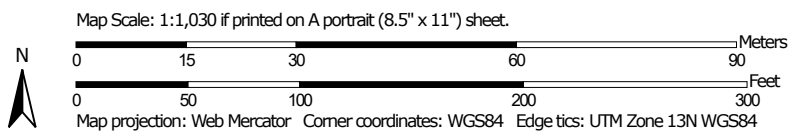
Appendix/Attachments

1. Hydrologic Soil Map
2. FEMA Floodplain Firmette Map
3. Circle K Rational Method Calculations
4. MS4 Compliance Summary
5. Permanent WQ Worksheet
6. Drainage Basin Maps

Hydrologic Soil Group—Castle Rock Area, Colorado



Soil Map may not be valid at this scale.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

2/7/2022
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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 14, Aug 31, 2021

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

Date(s) aerial images were photographed: Jul 24, 2018—Nov 19, 2018

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
Lu	Loamy alluvial land, dark surface	C	2.2	100.0%
Totals for Area of Interest			2.2	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

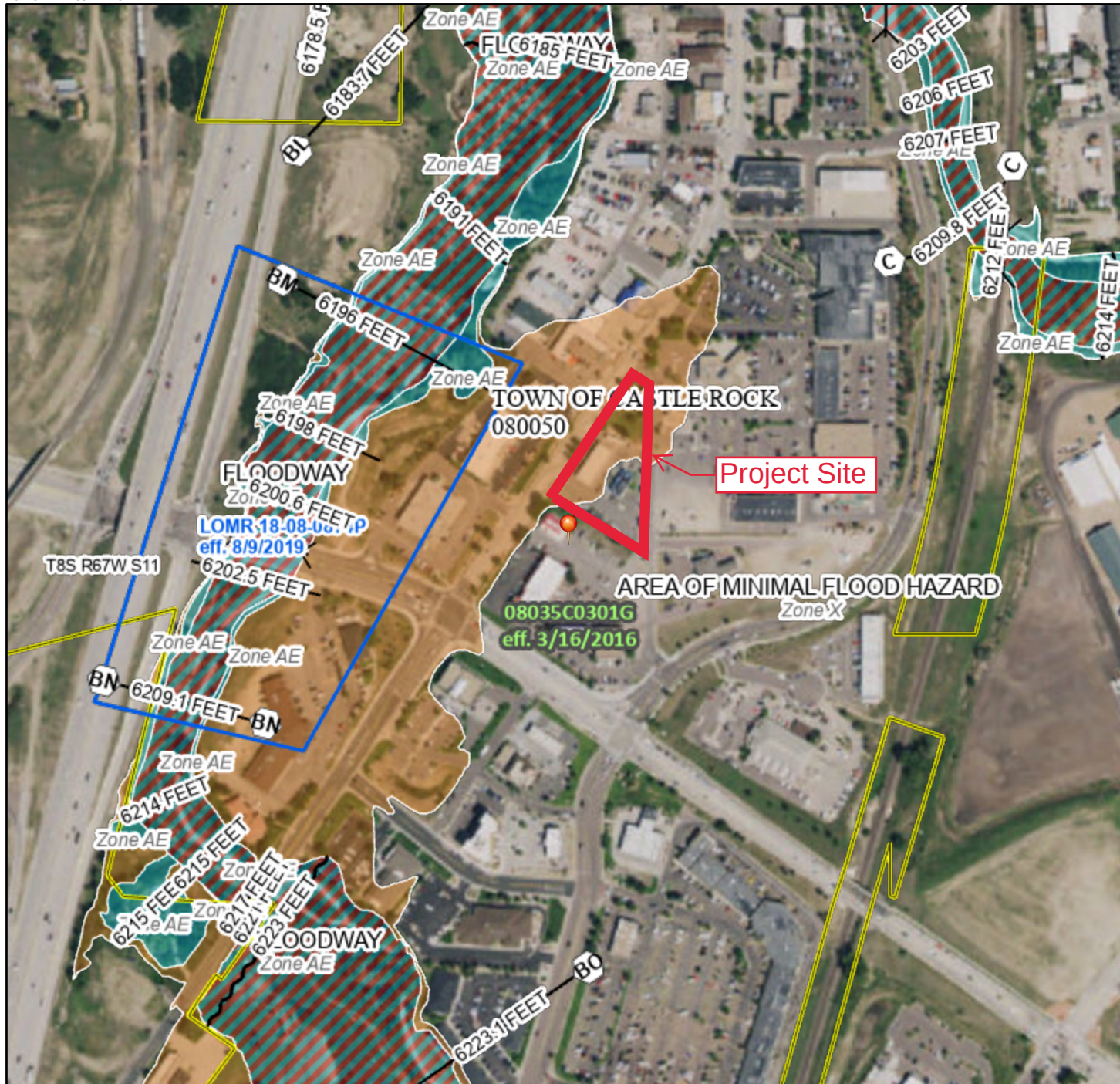
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

National Flood Hazard Layer FIRMette



104°52'1"W 39°22'13"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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
OTHER FEATURES		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		Coastal Transect
		Base Flood Elevation Line (BFE)
OTHER FEATURES		Limit of Study
		Jurisdiction Boundary
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
OTHER FEATURES		Hydrographic Feature
		Digital Data Available
MAP PANELS		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 2/7/2022 at 2:01 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.

Project Name:
Project Location:
Designer
Notes:

WILCOX
TOWN OF CASTLE ROCK
CAP
Predevelopment Conditions

Average Channel Velocity
Average Slope for Initial Flow

4 ft/s
0.04 ft/ft

(If specific channel vel is used, this will be ignored)
(If Elevations are used, this will be ignored)

Channel Flow Type Key	
Heavy Meadow	2
Tillage/Field	3
Short Pasture and Lawns	4
Nearly Bare Ground	5
Grassed Waterway	6
Paved Areas	7

		Area		Rational 'C' Values										Flow Lengths				Initial Flow		Channel Flow						Tc	Rainfall Intensity & Rational Flow Rate				
Major Basin / Sub-basin	Comments	sf	acres	Surface Type 1 (Impervious - Paved)			Surface Type 2 (Impervious - Roof)			Surface Type 3 (Undeveloped)			Composite		Initial ft	True Initial Length ft	Channel ft	ru e Chann Length ft	Average Slope	Initial Tc (min)	High Point Elevation	Low Point Elevation	Average (%) Slope	Channel Flow Type (See Key above) Ground Type	Velocity (ft/s)	Channel Tc (min)	Total (min)	i5 in/hr	Q5 cfs	i100 in/hr	Q100 cfs
				C5	C100	Area (SF)	C5	C100	Area (SF)	C5	C100	Area	C5	C100																	
EX1	Existing Basin - West	12,454.0	0.29	0.85	0.89	10786.00	0.77	0.85		0.05	0.49	1,668.0	0.74	0.84	10.00	10.00	245.00	245.00	0.01	1.97	0.00		1.1	7	2.1	1.9	5.0	4.9	1.1	8.9	2.1
EX2	Existing Basin - East	20,840.0	0.48	0.85	0.89	16272.00	0.77	0.85	1,850.0	0.05	0.49	2,718.0	0.74	0.83	10.00	10.00	85.00	85.00	0.01	1.99			1.1	7	2.1	0.7	5.0	4.9	1.8	8.9	3.6
DESIGN POINTS		INCLUDED SUB-BASINS																													
E1	EX1	12,454.0	0.29	0.85	0.89	10786.00	0.77	0.85	0.0	0.05	0.49	1,668.0	0.74	0.84	10.00	10.00	245.00	245.00	0.01	1.97	0.00		1.1	7	2.1	1.9	5.0	4.9	1.1	8.9	2.1
E2	EX2	20,840.0	0.48	0.85	0.89	16272.00	0.77	0.85	1,850.0	0.05	0.49	2,718.0	0.74	0.83	10.00	10.00	85.00	85.00	0.01	2.06	0.00		1.0	7	2.0	0.7	5.0	4.9	1.8	8.9	3.6

Rational Method - Proposed Conditions

Project Name:	WILCOX
Project Location:	TOWN OF CASTLE ROCK
Designer	CAP
Notes:	Proposed Condition, Hydraulic Type C Soil

Average Channel Velocity

4.00 ft/s

(If specific channel vel is used, this will be ignored)

Average Slope for Initial Flow

0.04 ft/ft

(If Elevations are used, this will be ignored)

Channel Flow Type Key				
Heavy Meadow 2				
Tillage/Field 3				
Short Pasture and Lawns 4				
Nearly Bare Ground 5				
Grassed Waterway 6				
Paved Areas 7				

		Area		Rational 'C' Values													Flow Lengths						Tc	Rainfall Intensity & Rational Flow Rate							
Sub-basin	Comments			Surface Type 1 Paved (100% Impervious)			Surface Type 2 Roof (90% Impervious)			Surface Type 2 Undeveloped Lawns (2% Impervious)			Composite		Percent Impervious	Initial	True Initial	Channel	True Channel	Average (decimal)	Initial	Average (%)	Channel Flow Type (See Key above)	Velocity	Channel	Total	i5	Q5	i100	Q100	
		sf	acres	C5	C100	Area	C5	C100	Area (SF)	C5	C100	Area	C5	C100		ft	Length ft	ft	Length ft	Slope	Tc (min)	Slope	Ground Type	(ft/s)	Tc (min)		(min)	in/hr	cfs	in/hr	cfs
PR1	Proposed - West	12,342.0	0.28	0.85	0.89	10216	0.77	0.85		0.05	0.49	2,126.0	0.71	0.82	79.50	10.0	10	85.0	85	0.01	2.14	1.10	7	2.10	0.68	5.00	4.93	1.0	8.88	2.1	
PR2	Proposed - East	20,954.0	0.48	0.85	0.89	10437	0.77	0.85	3,886.0	0.05	0.49	6,631.0	0.58	0.76	67.45	10	10	245	245	0.01	2.95	1.00	7	2.00	2.04	5.00	4.93	1.4	8.88	3.3	
DESIGN POINTS	INCLUDED SUB-BASINS																														
P1	P1	12,342.0	0.28	0.85	0.89	10216	0.77	0.85	0.0	0.05	0.49	2,126.0	0.71	0.82	79.50	10.0	10	85.0	85	0.01	2.14	0.50	7	1.41	1.00	5.00	4.93	1.0	8.88	2.1	
P2	P2	20,954.0	0.48	0.85	0.89	10437	0.77	0.85	3,886.0	0.05	0.49	6,631.0	0.58	0.76	67.45	10	10	245	245	0.01	2.95	1.00	7	2.00	2.04	5.00	4.93	1.4	8.88	3.3	



Summary of Water Quality Conformance to MS4 Permit

The purpose of this worksheet is to document conformance with the Town of Castle Rock's MS4 permit with regard to permanent water quality on land disturbance projects.

Project Name Circle K - Wilcox and Plum Creek

Project Owner Circle K

Project Location S. Wilcox Street and Plum Creek Parkway

ToCR Project Number N/A

Total Site Area 1.807 acres

Total Size of Common Plan of Development 0.76 acres

Check all that apply:

☒ **Project within Plum Creek Basin**

☐ **Project within Cherry Creek Basin**

Estimated construction completion date December 2022

1. The water quality control measure(s) for applicable development sites shall meet one of the following base design standards as per the SDDTCM Section 14.4. Please select all design standards that were applied to meet conformance with the MS4 on this site.

- ☐ WQCV standard
- ☐ Pollutant removal standard
- ☐ Runoff reduction standard
- ☐ Applicable site draining to regional WQVC control measure (accepts drainage prior to discharging to WOTS)
- ☐ Applicable site draining to regional WQVC control facility (with receiving pervious area control measure upstream of WOTS)
- ☐ Constrained redevelopment sites standard
 - Imperviousness of existing site _____/_____ (Imp. Ac/Site Ac) = ____%
 - Variance required TCV No. _____
- ☐ Existing control measure with WQCV per previous criteria standards
 - Reference Construction Permit No. _____
- ☐ Cherry Creek Basin only, choose one: ☐ Tier 1 ☐ Tier 2 ☐ Tier 3
- ☒ No control measures provided (See Permanent WQ Worksheet for applicability)

Summary of Water Quality Conformance to MS4 Permit

2. Was an exclusion to water quality applied as per SDDTCM Section 13.1.5? ☒ Yes ☐ No

i. If yes, please select all that apply, provide total excluded impervious area(s) and submit variance, as applicable: TCV No. _____

- ☐ Pavement management site
Excluded impervious area: _____ acres
- ☐ Excluded roadway redevelopment
Excluded impervious area: _____ acres
- ☐ Excluded existing roadway areas
Excluded impervious area: _____ acres
- ☐ Above ground and below ground utilities
- ☐ Large lot single family home
- ☐ Non-residential and non-commercial infiltration
Excluded impervious area: _____ acres
- ☐ Land disturbance for land to remain undeveloped
Excluded impervious area: _____ acres
- ☐ Stream Stabilization Sites
Excluded impervious area: _____ acres
- ☐ Trails
Excluded impervious area: _____ acres
- ☐ Oil and Gas Exploration

3. For Development and Redevelopment sites, following any exclusions claimed above, was any portion of the site excluded up to 20% of the site and not to exceed one acre? ☐ Yes ☒ No

If yes, complete the following:

Excluded area: _____ acres
Total Site area: _____ acres, _____ % site excluded

4. For Constrained sites, was any portion of the site excluded up to 50% of the site and not to exceed 50% of the impervious area? ☐ Yes ☒ No

If yes, complete the following:

Excluded area: _____ acres
Excluded impervious area: _____ acres
Total Site area: _____ acres, _____ % site excluded
Total Impervious area: _____ acres, _____ % impervious excluded

Permanent Water Quality Determination Worksheet (Taken from 2019 SDDTCM Sections 13.1.4 and 13.1.5)

Project:		Project#		Applicant:
Section	Questions	Response	Check those that apply	Instructions
1	Non-applicable Sites			
1.1	Will the project result in a temporary disturbance of greater than one acre?	No Yes	☒ ☐	Proceed to section 1.2. Proceed to section 2.
1.2	Is the project part of a larger common plan of development or sale where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related and are within 1/4 mile of each other? (A common plan of development will generally be documented on a site development plan, master plan, or equivalent, for the property/project)	No Yes	☒ ☐	Proceed to section 1.3. Proceed to section 2.
1.3	Is the project within the Cherry Creek Watershed?	Yes No	☐ ☒	Permanent water quality control measures may be required. Refer to Water Quality Control Regulation 72.7 for details and allowable exclusions. Permanent water quality control measures are not required.
2	Applicable Site Types and Exclusions by Variance			
2.1	Does the project have more than 35% impervious area on the existing site?	No Yes	☐ ☐	Project is an applicable Development Site. Proceed to section 3. Proceed to 2.2.
2.2	Does the project have greater than 75% impervious area on the existing site?	No Yes	☐ ☐	Project is an applicable Redevelopment Site. Proceed to section 3. Project is an applicable Constrained Redevelopment Site. Proceed to 2.3.
2.3	Will 100% of the runoff from the existing and proposed site be captured and treated using one or more of the allowable design standards for permanent water quality?	Yes No	☐ ☐	No further action required. Proceed to 2.4.
2.4	Do any other water quality exclusions apply to the site?	No Yes	☐ ☐	Portions of the project are excluded. Proceed with design in accordance with Constrained Redevelopment standards and apply for variance for <u>Constrained Redevelopment Sites</u> . Proceed to section 3. Following approval of other exclusions, design remaining site in accordance with Constrained Redevelopment standards and apply for variance for <u>Constrained Redevelopment Sites</u> .
3	Applicable Sites with Other Exclusions by Variance			
3.1	Category 1: Roadways, bridges and trails only			
3.1.1	Is the project a bike or pedestrian trail?	Yes No	☐ ☐	Proceed to next line. Proceed to 3.1.2.
	Is the trail for a roadway?	Yes No	☐ ☐	Proceed to 3.1.2. Project is excluded. Submit variance for <u>Trails Excluded from Permanent Water Quality Requirements</u> .
3.1.2	Is the project primarily used for parking or access to parking?	Yes No	☐ ☐	This exclusion does not apply. Permanent water quality is required. Proceed to 3.1.3.
3.1.3	Does the project add impervious area?	No Yes	☐ ☐	Project is excluded. Submit variance for <u>Pavement Management Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.1.4.

Section	Questions	Response	Check those that apply	Instructions
3.1.4	Does the project add more than 8.25 feet of paved width at any location to the existing roadway?	No Yes	☐ ☐	Project is excluded. Submit variance for <u>Roadway Redevelopment Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to next line.
	Does the project add more than one acre of paved area per mile to an existing roadway?	No Yes	☐ ☐	Project is excluded. Submit variance for <u>Roadway Redevelopment Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to next line.
	Does the project increase the width by two times or more, on average, of the original roadway area?	No Yes	☐ ☐	Existing areas of site are excluded only. Submit variance for <u>Existing Roadway Surfaces Only Excluded from Permanent Water Quality Requirements</u> . This exclusion does not apply. Permanent water quality is required.
3.2	Category 2: Non-residential and non-commercial projects only			
3.2.1	Is the project associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities, including activities necessary to prepare a site for drilling and the movement and placement of drilling equipment?	Yes No	☐ ☐	Project is excluded. Submit variance for <u>Oil and Gas Exploration Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.2.
3.2.2	Is the project for stream stabilization?	Yes No	☐ ☐	Project is excluded. Submit variance for <u>Stream Stabilization Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.3.
3.2.3	Is the project for installation or maintenance of aboveground or underground utilities or infrastructure that does not permanently alter the terrain, ground cover, or drainage patterns from those present prior to the construction activity including activities to install, replace or maintain utilities under roadways or other paved areas that return the surface to the same condition?	Yes No	☐ ☐	Project is excluded. Submit variance for <u>Aboveground and Underground Utilities Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.4.
3.2.4	Is the project on undeveloped land (land with no human-made structures such as buildings or pavement) that will remain undeveloped after the project?	Yes No	☐ ☐	Project is excluded. Submit variance for <u>Sites with Land Disturbances to Undeveloped Land that will Remain Undeveloped Excluded from Permanent Water Quality Requirements</u> . Proceed to 3.2.5.
3.2.5	Will the post-project condition result in surface water discharge during the 80th percentile storm runoff event?	No Yes	☐ ☐	Project is excluded. Submit study along with variance for <u>Non-residential and Non-commercial Infiltration Conditions Excluded from Permanent Water Quality Requirements</u> . This exclusion does not apply. Permanent water quality is required.
3.3	Category 3: Residential, Agricultural and Commercial projects			
3.3.1	Is the project a single-family residential lot, or agricultural zoned lands, greater than or equal to 2.5 acres in size per dwelling unit?	Yes No	☐ ☐	Proceed to next line. Proceed to 3.3.2.
	Is the project site greater than 10% impervious?	No Yes	☐ ☐	Project is excluded. Submit variance for <u>Large Lot Single Family Sites Excluded from Permanent Water Quality Requirements</u> . Proceed to next line.
	Is the project site greater than 20% impervious?	Yes No	☐ ☐	This exclusion does not apply. Permanent water quality is required. Proceed to next line.
	Will the post-project condition result in surface water discharge during the 80th percentile storm runoff event?	No Yes	☐ ☐	Project is excluded. Submit study along with variance for <u>Large Lot Single Family Sites Excluded from Permanent Water Quality Requirements</u> . This exclusion does not apply. Permanent water quality is required.

Section	Questions	Response	Check those that apply	Instructions
3.3.2	Will 100% of the runoff from the residential or commercial site be captured?	Yes No	☐ ☐	This exclusion does not apply. Permanent water quality is required. Proceed to next line.
	Is all or a portion of the site undeveloped or will it remain undeveloped after construction?	Yes No	☐ ☐	This portion of the project is excluded. Submit variance for <u>Sites with Land Disturbance to Undeveloped Land that will Remain Undeveloped Excluded from Permanent Water Quality Requirements</u> . Proceed to next line. Proceed to next line.
	Is the remaining untreated impervious area greater than 20% of the site?	Yes No	☐ ☐	This exclusion does not apply. Permanent water quality is required. Proceed to next line.
	Is the remaining untreated impervious area greater than one acre?	Yes No	☐ ☐	This exclusion does not apply. Permanent water quality is required. Proceed to next line.
	Is it practicable to capture runoff from portions of the site that will not drain to a control measure?	No Yes	☐ ☐	Document justification demonstrating that it is not practicable to capture runoff from this portion of the site in the drainage report . No further action is needed. This exclusion does not apply. Permanent water quality is required.

CIRCLE K AT WILCOX & PLUM CREEK
SITE DEVELOPMENT PLAN

A PORTION OF THE SW 1/4 OF SECTION 11, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO



Know what's below.
Call before you dig.



2435 RESEARCH PARKWAY, SUITE
300 COLORADO SPRINGS, CO 80920
PHONE: (719) 575-0100



LAND DEVELOPMENT
CONSULTANTS, LLC

950 S. CHERRY ST., SUITE 512
DENVER, CO 80246

OWNER/DEVELOPER:

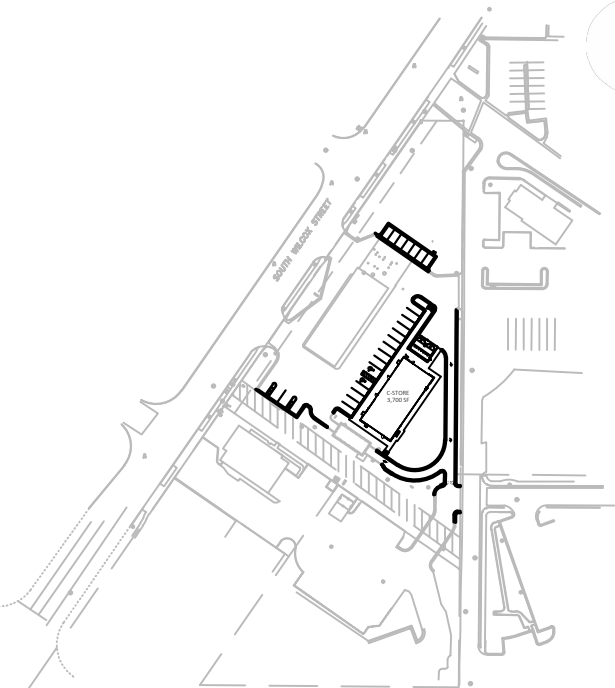


ROCKY MOUNTAINS DIVISION
5500 S QUEBEC STREET, SUITE 100
GREENWOOD VILLAGE, CO 80111
PHONE: (720) 758-6223

SEAL

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC

VICINITY MAP: NTS



PROJECT:

CIRCLE K STORES, INC

SITE DEVELOPMENT PLAN

WILCOX & PLUM CREEK
TOWN OF CASTLE ROCK

REVISION HISTORY:

NO.	DATE	DESCRIPTION	BY

DRAWING INFORMATION:

PROJECT NO: ---

DRAWN BY: ---

CHECKED BY: ---

DESIGNED BY: ---

SHEET TITLE:

DRAINAGE MAP

SHEET 1 OF 2
DR01

ISSUE DATE: FEBRUARY 2022

OWNER INFORMATION
PLUM CREEK LLC 506 EAST 3RD ST
SALIDA, CO 81201
LEGAL: LOT 2 BLOCK 1 WALGREENS FILING 1 TOTAL
ACREAGE 1.344 AML
ZONE: COMMERCIAL

OWNER INFORMATION
14901 INC9555 E CALEY CIR
GREENWOOD VILLAGE, CO 80111
LEGAL: LOT 7 CASTLE PLAZA SOUTH 1ST
AMENDMENT: 0.744 AML
ZONE: COMMERCIAL

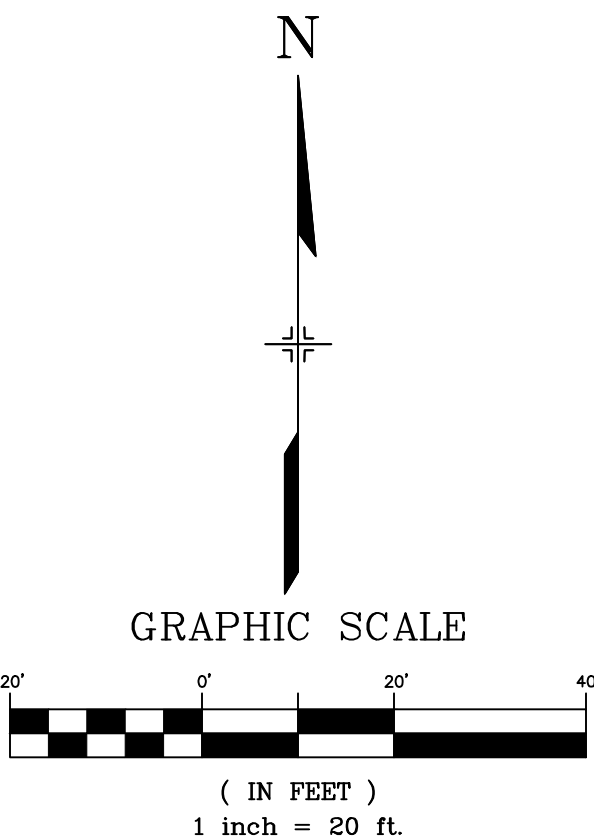
OWNER INFORMATION
46 STILLINGS PROPERTIES LLC ET AL 49 STILLINGS AVE
SAN FRANCISCO, CA 94131
LEGAL: LOT 6A CASTLE PLAZA SOUTH FIFTH AMD 0.788 AML
ZONE: COMMERCIAL

OWNER INFORMATION
340 S WILCOX STREET LLC/O GRAND MERE
RESTAURANT GRP 300 PARK AVE 12TH FLOOR
NEW YORK, NY 10022
LEGAL: LOT 1 K.L.N. SUBDIVISION 0.86 AML
ZONE: COMMERCIAL

OWNER INFORMATION
WELLS FARGO BANK NAC/O THOMSON PROPERTY TAX
SERVICES PO BOX 2609
CARLSBAD, CA 92018
LEGAL: LOT 5A CASTLE PLAZA SOUTH 3RD AMD 1.63 AML
ZONE: COMMERCIAL

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF CONSTRUCTION
- DRAINAGE BASIN BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- FLOW DIRECTION
- DESIGN POINT
- DRAINAGE BASIN DESIGNATION
- 100-YEAR STORMWATER EVENT (CFS)
- 5-YEAR STORMWATER EVENT (CFS)
- DRAINAGE BASIN AREA (AC)
- PERVIOUS AREA



FILE LOCATION: S:\CIRCLE K\WILCOX (CASTLE ROCK)\20 DRAINAGE\01 DRAINAGE REPORTS\DR01\DWG01.DWG

CIRCLE K AT WILCOX & PLUM CREEK
SITE DEVELOPMENT PLAN

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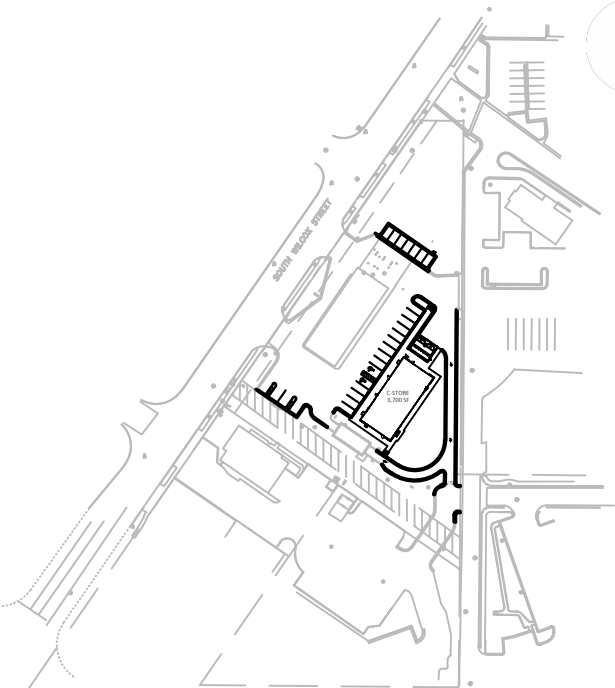


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VICINITY MAP:



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CIRCLE K STORES, INC

SITE DEVELOPMENT PLAN

WILCOX & PLUM CREEK
TOWN OF CASTLE ROCK

REVISION HISTORY:

NO.	DATE	DESCRIPTION	BY

DRAWING INFORMATION:

PROJECT NO: ###

DRAWN BY: ###

CHECKED BY: ###

DESIGNED BY: ###

SHEET TITLE:

DRAINAGE MAP

SHEET 2 OF 2
DR02

ISSUE DATE: FEBRUARY 2022

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SALIDA, CO 81201
LEGAL: LOT 2 BLOCK 1 WALGREENS FILING 1 TOTAL
ACREAGE 1.344 AML
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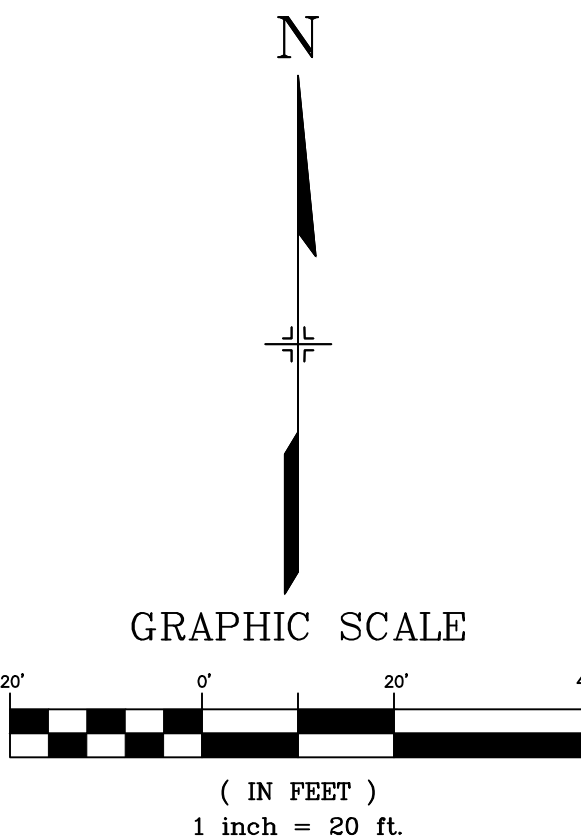
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