



APPENDIX A

- FEMA FIRM MAPS
- WEB SOIL SURVEY RESULTS
- CASTLE ROCK MS₄ SUMMARY
- CASTLE ROCK WQ WORKSHEET

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Silviculture Elevations tables shown on this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the Flood Profiles and Floodway Data and/or Summary of Silviculture Elevations tables should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodway were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Floodway Data table shown on this FIRM.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 13. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey for information on flood control structures for the jurisdiction.

Base map information shown on this FIRM was provided by the Douglas County GIS Department and the Town of Castle Rock GIS Department. Additional input was provided by the City of Lone Tree and Town of Parker. These data are current as of 2010.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for the jurisdiction.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIRM report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the OFPA.

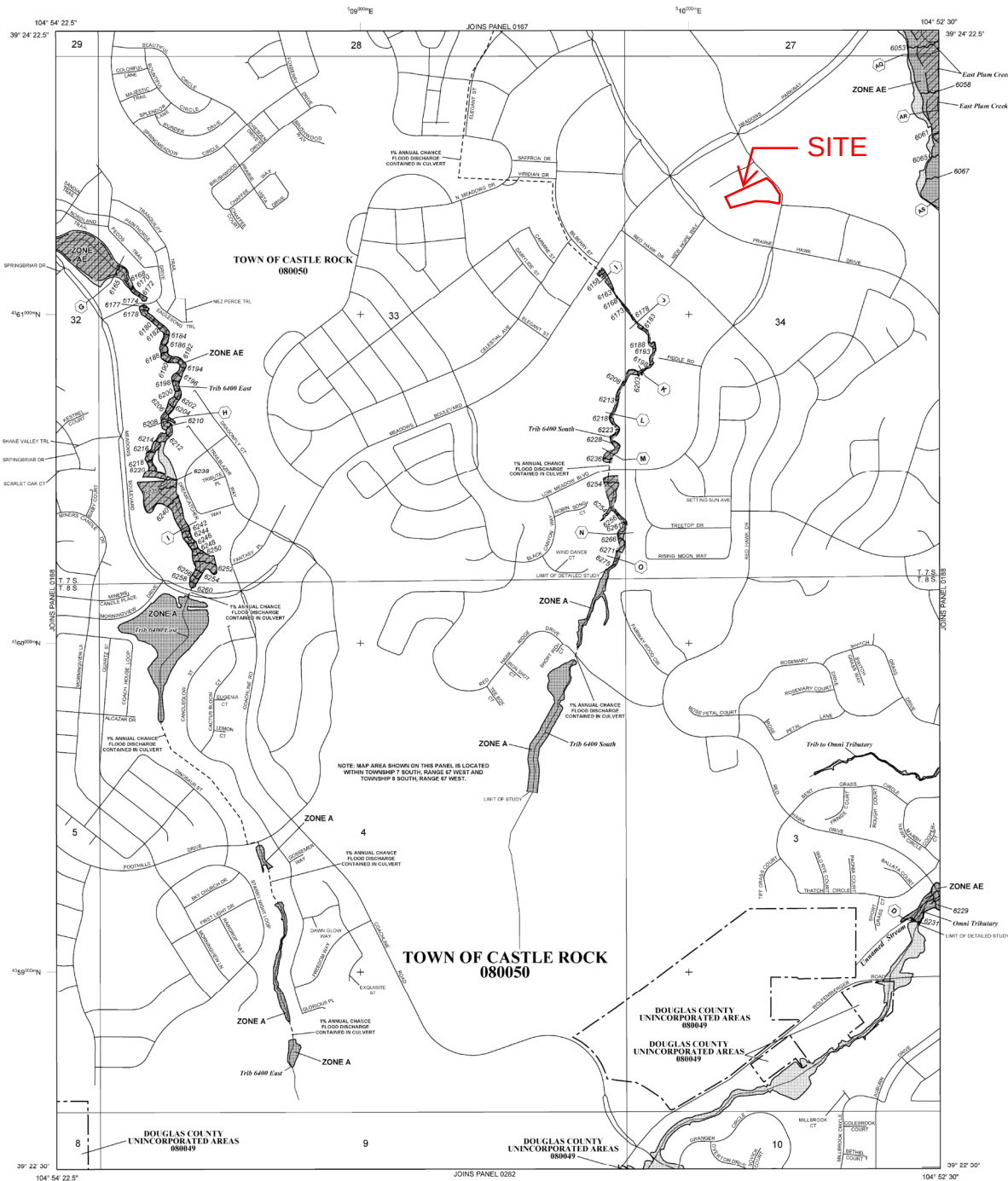
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations** and **floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains unannotated hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unreviewed streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at <http://map.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/businessinfo>.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The 1% annual chance flood is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, AR, V, VE, and X. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined; for areas of sheet flow flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently determined. Zone AR indicates that the former flood control system is being retained to provide protection from the 1% annual chance or greater flood.
- ZONE V** Areas to be protected from the 1% annual chance flood by a federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

- OTHER FLOOD AREAS**
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 1% annual chance flood.
- OTHER AREAS**
- ZONE D** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE F** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
- OTHERWISE PROTECTED AREAS (OPAs)**

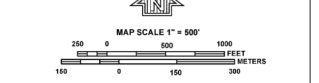
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.**
- 1% Annual Chance Floodplain Boundary**
- 0.2% Annual Chance Floodplain Boundary**
- Floodway boundary**
- Zone D boundary**
- CBRS and OPA boundary**
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities**
- Base Flood Elevation (in feet and value, elevation in feet)**
- Base Flood Elevation value where uniform within zone, elevation in feet**

- Referenced to the North American Vertical Datum of 1988**
- Cross section line**
- Transect line**
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere**
- 1000-meter Universal Transverse Mercator grid values, zone 13**
- Bench mark (see explanation in Notes to Users section of this FIRM panel)**
- River mile**
- Map repositories**
- Refer to Map Repositories Map in Map Index**
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**
- SEPTEMBER 30, 2006**
- EFFECTIVE DATES OF REVISION(S) TO THIS PANEL**

MARCH 16, 2016: To update corporate limits, to change base flood elevations, to add base flood elevations, to add special flood hazard areas, to update map format, to add roads and road names, to reflect updated geographic information, to incorporate previously issued letters of map revision.

For community map revision history prior to community mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-438-6623.



NFIP

PANEL 0169G

FIRM

FLOOD INSURANCE RATE MAP

DOUGLAS COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 169 OF 495
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CASTLE ROCK, TOWN OF	080050	0169G	G
DOUGLAS COUNTY	880049	0169G	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 08035C0169G

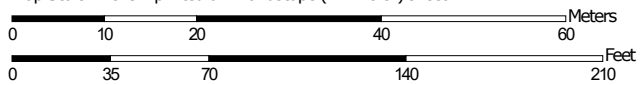
MAP REVISED MARCH 16, 2016

Federal Emergency Management Agency

Hydrologic Soil Group—Castle Rock Area, Colorado
(Limelight Retail)



Map Scale: 1:819 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

6/16/2026
Page 1 of 4

Hydrologic Soil Group—Castle Rock Area, Colorado (Limelight Retail)

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 18, Aug 29, 2025

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
BrB	Bresser sandy loam, cool, 1 to 3 percent slopes	B	1.5	100.0%
Totals for Area of Interest			1.5	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



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 Limelight Retail Center

Project Owner The Smith Group

Project Location Lot 6G-3, The Meadows Filing 17, Area No. 4

ToCR Project Number SP26-0028

Total Site Area 2.67 acres

Total Size of Common Plan of Development 170.2 acres

Check all that apply:

☒ **Project within Plum Creek Basin**

☐ **Project within Cherry Creek Basin**

Estimated construction completion date 7/2027

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

Applicant: Smith Group

Section	Question	Response	Instructions
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.
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.

Section	Question	Response	Instructions
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.
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.



APPENDIX B

- HYDROLOGIC CALCULATIONS

Project : Limelight Retail Center
 Project No. : 22022

Date : 6/16/2026
 By : JGD

Drainage Basin Imperviousness

Soil Type : **B**

	Roof	Concrete	Asphalt	Landscape	Playground	Gravel	Undeveloped						
Imperviousness :	95%	95%	95%	20%	20%	60%	5%	Total Area	Composite	Runoff Coefficients			
Basin Name	Areas (sq.ft.)							(sq.ft.)	% Imp.	C ₂	C ₅	C ₁₀	C ₁₀₀
I1-A1				692				692	20%	0.13	0.15	0.22	0.52
I1-A2		1,057	14,822	1,892				17,771	87%	0.71	0.74	0.75	0.83
I1-A3		2,356	21,372	2,829				26,557	87%	0.71	0.74	0.75	0.83
I1-A4		871	4,713	941				6,525	84%	0.69	0.71	0.73	0.82
I1-B1	20,887							20,887	95%	0.79	0.81	0.82	0.87
I1-B2		1,894						1,894	95%	0.79	0.81	0.82	0.87
I1-C1				7,013				7,013	20%	0.13	0.15	0.22	0.52
I1-D1		1,801	3,579	2,502				7,882	71%	0.56	0.59	0.63	0.76
Total I1 Developed	20,887	7,979	44,486	15,869	0	0	0	89,221	82%	0.66	0.69	0.71	0.81
OS6-A1		1,817	3,613	2,993				8,423	68%	0.54	0.57	0.60	0.75
I1-OSB1							8,794	8,794	5%	0.03	0.03	0.10	0.45
I1-OSB2							37,990	37,990	5%	0.03	0.03	0.10	0.45
I1-OSB3							3,472	3,472	5%	0.03	0.03	0.10	0.45

SF2 - Time of Concentration

Basin ID	Area (AC.)	C _s	Initial/Overland Time			Travel Time					Time of Concentration		Final
			L _i (ft.)	S (%)	T _i (min.)	L _t (ft.)	S (%)	Conveyance Factor	Vel (fps)	T _t (min.)	Comp. T _c (min.)	Regional T _c (Min.)	T _c (Min.)
I1-A1	0.02	0.15	11	20.00	2.1	1	20.0	10	4.5	0.0	2.1	22.6	5.0
I1-A2	0.41	0.74	93	3.20	4.3	15	0.8	20	1.8	0.1	4.4	11.3	5.0
I1-A3	0.61	0.74	116	3.10	4.8	24	2.5	20	3.2	0.1	5.0	11.3	5.0
I1-A4	0.15	0.71	85	2.80	4.6	2	2.0	20	2.8	0.0	4.6	11.7	5.0
I1-B1	0.48	0.81	75	5.00	2.6	10	2.0	20	2.8	0.1	2.7	9.9	5.0
I1-B2	0.04	0.81	3	2.00	0.7	1	5.0	20	4.5	0.0	0.7	9.9	5.0
I1-C1	0.16	0.15	92	1.80	13.6	2	2.0	10	1.4	0.0	13.6	22.6	13.6
I1-D1	0.18	0.59	24	5.00	2.6	162	2.9	20	3.4	0.8	3.4	14.7	5.0
OS6-A1	0.19	0.57	82	4.90	5.1	187	1.8	20	2.7	1.2	6.3	15.6	6.3
I1-OSB1	0.20	0.03	135	1.30	20.5	1	1.3	10	1.1	0.0	20.5	25.2	20.5
I1-OSB2	0.87	0.03	298	1.25	30.9	1	1.3	10	1.1	0.0	30.9	25.2	25.2
I1-OSB3	0.08	0.03	76	1.30	15.4	1	1.3	10	1.1	0.0	15.4	25.2	15.4

Project : Limelight Retail Center
Project No. : 22022

Date : 6/16/2026
By : JGD

SF₃ - Minor Storm

1-hr Point Rainfall **1.43** in. (5-year Event)

Description	Design Point	Direct Runoff						Total Runoff				Street		Travel Time			Comments
		Area (ac.)	C _s	T _c (min.)	CA (ac.)	I (in/hr)	Q (cfs)	T _c (min.)	CA (ac.)	I (in/hr)	Q (cfs)	Slope (%)	Flow (cfs)	Length (ft)	Vel. (fps)	tt (min.)	
I1-OSB1		0.20	0.03	20.5	0.01	2.77	0.0										
I1-A1	1	0.02	0.15	5.0	0.00	4.85	0.0	20.5	0.01	2.77	0.0						
I1-OSB2		0.87	0.03	25.2	0.03	2.48	0.1										
I1-A2	2	0.41	0.74	5.0	0.30	4.85	1.5	25.2	0.34	2.48	0.8						
I1-OSB3		0.08	0.03	15.4	0.00	3.20	0.0										
I1-A3	3	0.61	0.74	5.0	0.45	4.85	2.2	25.2	0.79	2.48	2.0						
I1-A4	4	0.15	0.71	5.0	0.11	4.85	0.5	25.2	0.90	2.48	2.2						
I1-B1		0.48	0.81	5.0	0.39	4.85	1.9										
I1-B2	5	0.04	0.81	5.0	0.04	4.85	0.2	5.0	0.43	4.85	2.1						
I1-C1		0.16	0.15	13.6	0.02	3.40	0.1										
I1-D1		0.18	0.59	5.0	0.11	4.85	0.5										
OS6-A1		0.19	0.57	6.3	0.11	4.54	0.5										

Project : Limelight Retail Center
Project No. : 22022

Date : 6/16/2026
By : JGD

SF₃ - Major Storm

1-hr Point Rainfall **2.6** in. (100-year Event)

Description	Design Point	Direct Runoff						Total Runoff				Street		Travel Time			Comments
		Area (ac.)	C ₁₀₀	Tc (min.)	CA (ac.)	I (in/hr)	Q (cfs)	Tc (min.)	CA (ac.)	I (in/hr)	Q (cfs)	Slope (%)	Flow (cfs)	Length (ft)	Vel. (fps)	tt (min.)	
I1-OSB1		0.20	0.45	20.5	0.09	5.04	0.5										
I1-A1	1	0.02	0.52	5.0	0.01	8.82	0.1	20.5	0.10	5.04	0.5						
I1-OSB2		0.87	0.45	25.2	0.39	4.51	1.8										
I1-A2	2	0.41	0.83	5.0	0.34	8.82	3.0	25.2	0.83								
I1-OSB3		0.08	0.45	15.4	0.04	5.83	0.2										
I1-A3	3	0.61	0.83	5.0	0.51	8.82	4.5	25.2	1.38	4.51	6.2						
I1-A4	4	0.15	0.82	5.0	0.12	8.82	1.1	25.2	1.50	4.51	6.8						
I1-B1		0.48	0.87	5.0	0.42	8.82	3.7										
I1-B2	5	0.04	0.87	5.0	0.04	8.82	0.3	5.0	0.46	8.82	4.0						
I1-C1		0.16	0.52	13.6	0.08	6.18	0.5										
I1-D1		0.18	0.76	5.0	0.14	8.82	1.2										
OS6-A1		0.19	0.75	6.3	0.14	8.26	1.2										



APPENDIX C

- EXCEPRTS FROM PREVIOUS REPORTS

The following pages
are excerpts from a
previously approved
drainage report

PHASE III DRAINAGE REPORT

For

**THE MEADOWS
Filing No. 17, Lots 5 and 6**

*Located northeast of Meadows Boulevard and Prairie Hawk Drive
Section 34, Township 7 South, Range 67 West,
Town of Castle Rock*

Prepared for:

Castle Rock Development Company
3033 E. First Avenue Ste. 410
Denver, CO 80206

Prepared by:

CVL Consultants of Colorado, Inc.
7901 E. Belleview Ave, Suite 150
Englewood, CO 80111
Phone (720) 482-9526

February 15, 2005

5. At locations of the stubs at design points 3, 12, 19, 28, 32 and 37 temporary sediment ponds will be constructed. Temporary diversion dikes will be graded along the boundaries of the site to direct drainage to these sediment ponds. Permanent water quality will be provided in the regional detention facility.

B. Specific Details

1. Currently, the existing 72" culvert under the railroad daylights at existing ground into an existing swale. However, the installation of a downstream detention and water quality facility required that these flows be conveyed to the bottom of the pond at 4:1 slope. To ensure prevent erosion and slope stability, a grouted sloping boulder drop of 11.5' with a stilling basin will be used to carry flows to the pond bottom.
2. The required detention and water quality volumes for lots 5 and 6, as well as the required water quality volumes for the upstream, offsite basins west of Prairie Hawk Drive are provided in the regional detention and water quality pond. The total required water quality volume is 3.062 ac-ft, including 1.967 ac-ft for the onsite basin, 0.315 ac-ft for Outfall 4, and 0.780 for Outfall 5. This volume is achieved at elevation 6090.00. Approximately 3.918 ac-ft and 6.546 ac-ft of storage are required for the 10-year storm and 100-year storms respectively.

Per the TOCR PWR for regional facilities, water quality volumes are permitted to be inclusive within the 100-year volume and additive to the 10-year volume. The entire upstream contributing watershed determined the water quality volume required and the upstream basins that required detainment of developed flows determined the detention volume.

In this case, however, when the already detained off-site basins (Outlet 4 & 5) are added to the on-site water quality volumes and 10-year detention volume, the total is greater than the 100-year volume and an outlet structure cannot be designed to provide a 10-year and 100-year release rate. Hence, it is proposed to "stack" the off-site water quality volume below the additive on-site water quality volume and 10-year storm elevation and below the 100-year detention volume. This allows the 100-year volume to remain larger than the additive 10-year and water quality volume and an outlet structure can be designed to release the 10-year and 100-year historic flows. Including the water quality volumes, the 10-year volume is thus attained at elevation 6093.46, the 100-year volume at 6093.97. The top of berm is at elevation 6095.5,

allowing for 1.5 feet of freeboard. The emergency spillway elevation is at elevation 6094.00.

The pond water quality outlet structure is designed per Urban Drainage, including a water quality restrictor plate, a notch for the restricted 10-year discharge and an orifice plate on the outlet pipe sized for the restricted 100-year discharge. The 100-year and 10-year historic release rates, based on Type B soils, are 38.0 cfs and 10.3 cfs respectively. An emergency spillway sized for the developed 100-year rate is provided.

3. The proposed drainage improvements will be privately owned and maintained. Storm drain will be located in drainage easements or in public right-of-way, so maintenance access is simplified. An access road will be provided specifically for the pond.
4. The storm drain system and regional detention facility, when located outside public right-of-way, will be located within easements dedicated to the Town.

V. CONCLUSIONS

A. Compliance with Standards

1. This drainage report is in compliance with the standards set forth in the TCRPWR.
2. The design for The Meadows Filing No. 17, Lot 5 and Lot 6 site complies with the major drainageway planning studies described in section II.A.1 of this report.
3. Urban Drainage and Flood Control District's criteria manual was complied with for this report.

Detention Pond Volume Calculations

Equations:

$$V = K(A)$$

Calc. for required pond volume

$$K_{100} = [1.78(i) - 0.002(i)^2 - 3.56] / 1000$$

Calc. of constant for volume calculation per TOCR

$$K_{10} = [0.95(i) - 1.90] / 1000$$

i = basin imperviousness (percent)

$$\text{Required Storage} = .91I^3 - 1.19I^2 + 0.78I$$

$$WQCV = (\text{required storage}) / 12 \times (\text{basin area}) \times (1.2)$$

required storage from Urban Drainage Volume 3 Fig EDB-2 (ac-ft)

	Area	Weighted I%	Req'd Storage (ft.)	WQCV (ac.ft.)
Onsite	44.70	94.26	0.440	1.967
Offsite-Outfall 4*	9.05	83.00	0.348	0.315
Offsite-Outfall 5*	43.64			0.78

* Outfall 4 and 5 area, imperviousness and storage WQCV per Phase III Drainage Report for Meadows Filing 18 by Engineering Partners, Inc. dated 9-28-04.

Water Quality Control Volume

Onsite WQCV = 1.967 ac-ft

Outfall 4 (Offsite) WQCV = 0.315 ac-ft

Outfall 5 (Offsite) WQCV = 0.780 ac-ft

Total Offsite WQCV = 1.095 ac-ft

Total WQCV = 3.062 ac-ft

$K_{10} = 0.088$

$V_{10} = 3.918 \text{ ac-ft}$

$V_{10} = 170,654 \text{ c.f.}$

$V_{10} + \text{Total WQCV} = 6.979 \text{ ac-ft}$

$V_{10} + \text{Total WQCV} = 304,022 \text{ c.f.}$

$K_{100} = 0.146$

$V_{100} = 6.546 \text{ ac-ft}$

$V_{100} = 285,154 \text{ c.f.}$

$V_{100} + \text{Offsite WQCV} = 7.641 \text{ ac-ft}$

$V_{100} + \text{Offsite WQCV} = 332,847 \text{ c.f.}$

Note: Water Quality volumes are permitted to be inclusive within the 100-year volume and additive to the 10-year volume per the TOCR PWR for regional facilities. However, when the already detained off-site basins are added to the on-site water quality volumes and 10-year detention volume, the total is greater than the 100-year volume and an outlet structure cannot be designed to provide a 10-year and 100-year release rate. Hence, it is proposed to "stack" the off-site water quality volume below the additive on-site water quality volume and 10-year storm elevation and below the 100-year detention volume. This allows the 100-year volume to remain larger than the additive 10-year and water quality volume and an outlet structure can be designed to release the 10-year and 100-year historic flows.

ONSITE WEIGHTED IMPERVIOUSNESS			
LAND USE	AREA	IMP	WEIGHTED IMP.
A1	0.5	100.00%	0.50
B1	0.76	100.00%	0.76
D1	0.59	100.00%	0.59
E1	4.84	95.00%	4.60
E2	0.88	100.00%	0.88
E3	0.54	100.00%	0.54
G1	5.63	95.00%	5.35
G2	0.55	100.00%	0.55
H1	3.92	95.00%	3.72
H2	0.71	100.00%	0.71
H3	0.31	100.00%	0.31
I1	7.82	95.00%	7.43
I2	0.39	100.00%	0.39
J1	4.55	95.00%	4.32
J2	0.43	100.00%	0.43
J3	0.31	100.00%	0.31
K1	1.46	67.00%	0.98
K2	0.55	82.00%	0.45
K3	0.55	93.00%	0.51
K4	2.41	91.00%	2.19
K5	2.07	92.00%	1.90
L	4.55	95.00%	4.32
OS5a	0.16	100.00%	0.16
OS5b	0.22	100.00%	0.22
TOTAL=	44.70		
ONSITE % IMP. WEIGHTED=			94.26

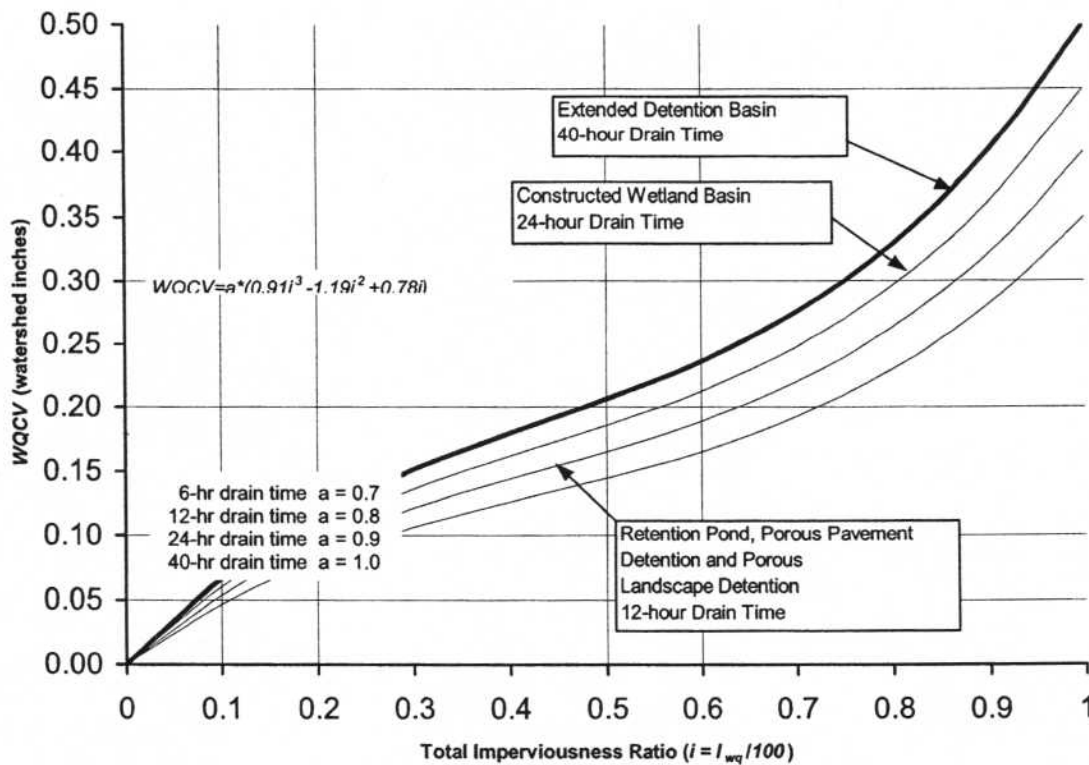


FIGURE EDB-2

Water Quality Capture Volume (WQCV), 80th Percentile Runoff Event

Pond Volume (Conical Volume Method)

Project Name: Meadows Master Plan

Project No. 4811401

By: JDS

Checked By: AMV

Date: 2/7/2005

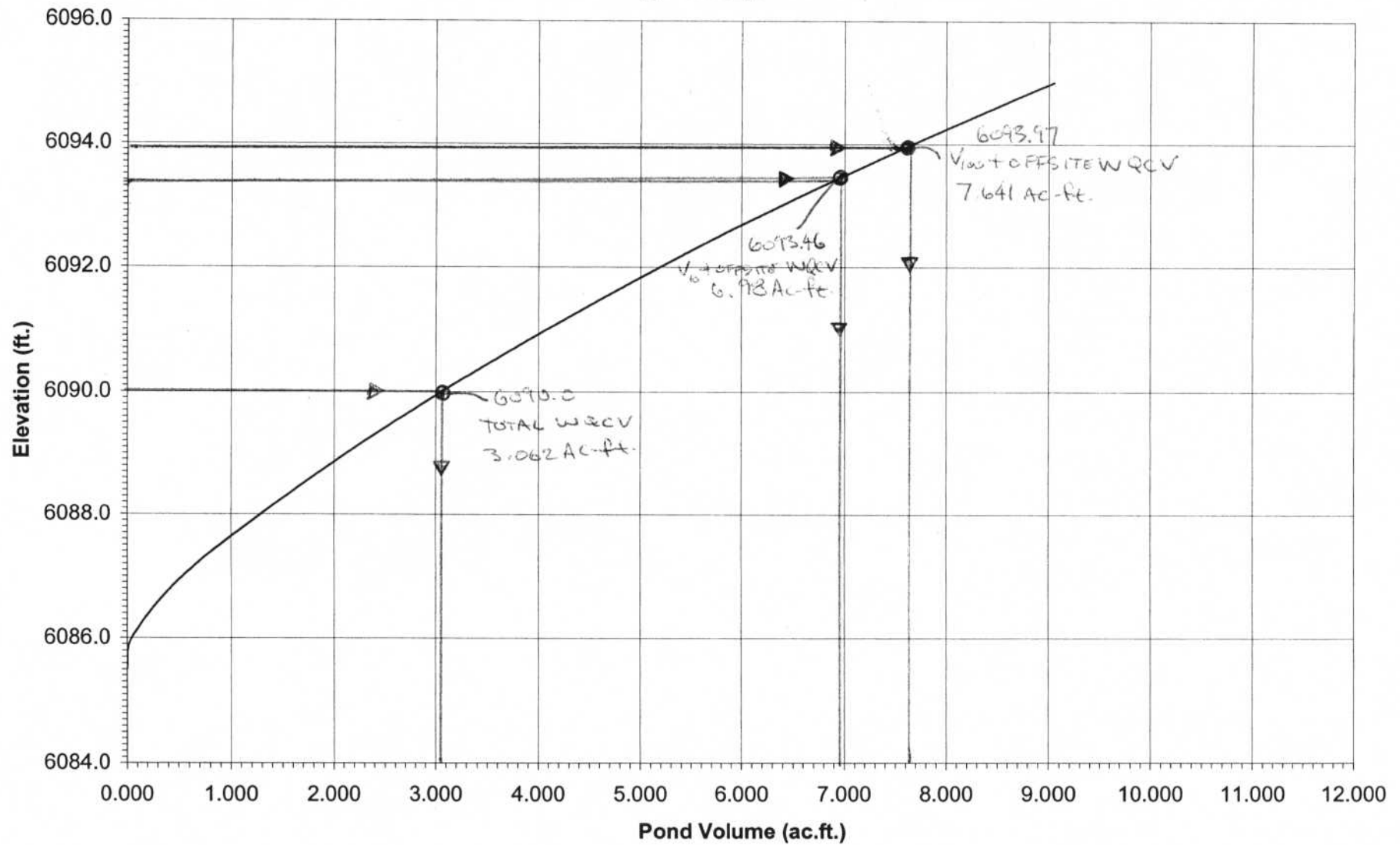
Volume = $\frac{1}{3} \times \text{Depth} \times (A + B + (A \times B)^{0.5})$

A - Upper Surface

B - Lower Surface

Elevation	Surface Area (square feet)	$A+B+(A \times B)^{0.5}$	1/3	Depth (feet)	Volume (cubic feet)	Cumulative Volume (cubic feet)	Cumulative Volume (acre feet)
6085.5	0	0	0	0.0	0	0	0.000
6086.0	12,891	12,891	4,297	0.5	2,149	2,149	0.049
6087.0	30,897	63,746	21,249	1.0	21,249	23,397	0.537
6088.0	34,447	97,968	32,656	1.0	32,656	56,053	1.287
6089.0	38,793	109,795	36,598	1.0	36,598	92,651	2.127
6090.0	42,741	122,253	40,751	1.0	40,751	133,402	3.062
6091.0	46,406	133,682	44,561	1.0	44,561	177,963	4.085
6092.0	50,171	144,828	48,276	1.0	48,276	226,239	5.194
6093.0	54,037	156,276	52,092	1.0	52,092	278,331	6.390
6094.0	58,003	168,025	56,008	1.0	56,008	334,339	7.675
6095.0	62,120	180,150	60,050	1.0	60,050	394,389	9.054

Regional Pond Stage-Storage



DETENTION POND RELEASE RATES

Project Name: Meadows Master Plan

Project No. 4811401

By: MRR

Checked By: AMV

Date: 2/5/2005

$$Q_{10R} = Q_{10} \times A$$

$$Q_{100R} = Q_{100} \times A$$

CONTRIBUTING AREA = 44.7 Ac.

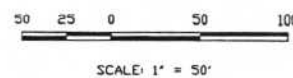
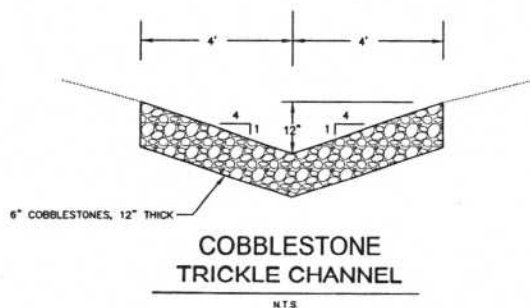
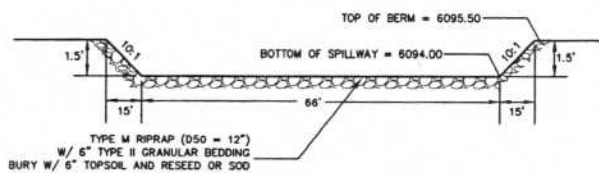
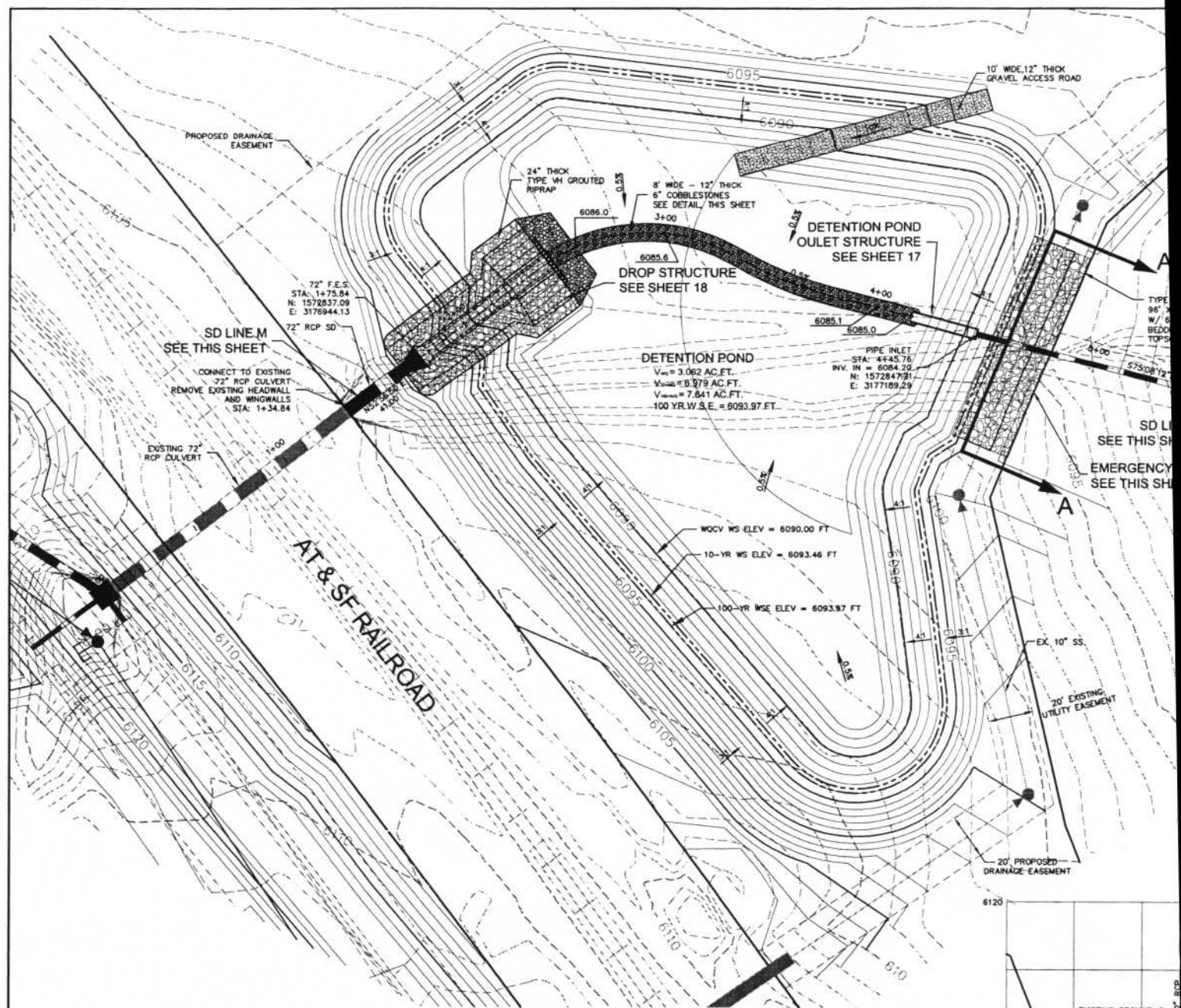
SOIL GROUP = B

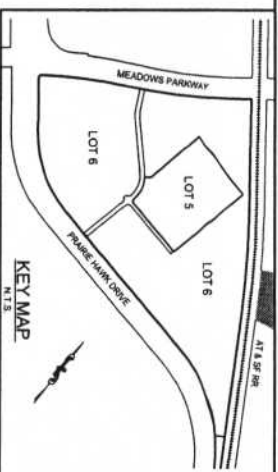
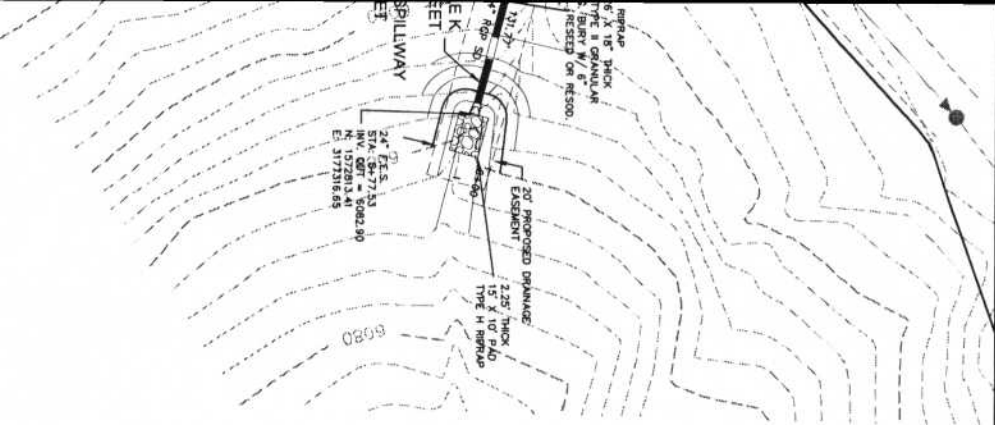
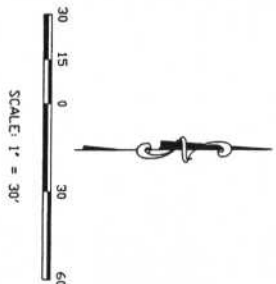
Q₁₀ RELEASE RATE MULTIPLIER= 0.23

Q₁₀₀ RELEASE RATE MULTIPLIER= 0.85

Q_{10R} = 10.3 cfs.

Q_{100R} = 38.0 cfs.





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 1-800-922-1967
 334-8700 METRO DENVER AREA
 UTILITY INFORMATION CENTER OF COLORADO

LEGEND

- X—X—X— EXISTING FIRE HYDRANT
- X—X—X— EXISTING VALVE
- X—X—X— PROPOSED VALVE
- X—X—X— EXISTING MANHOLE
- X—X—X— PROPOSED MANHOLE
- X—X—X— EXISTING LIGHT STANDARD
- X—X—X— EXISTING FENCE
- X—X—X— EXISTING ELECTRIC LINE
- X—X—X— EXISTING TELEPHONE LINE
- X—X—X— EXISTING GAS LINE
- X—X—X— EXISTING SANITARY LINE
- X—X—X— PROPOSED SANITARY LINE
- X—X—X— EXISTING WATER/FIRE LINE
- X—X—X— PROPOSED WATERLINE
- X—X—X— EXISTING STORM DRAINAGE LINE
- X—X—X— EXISTING POWER POLE W/ O.H. LINES
- X—X—X— PROPERTY LINE
- X—X—X— EXISTING MAJOR CONTOURS
- X—X—X— PARCEL BOUNDARY
- X—X—X— EXISTING R.R. TRACKS
- X—X—X— LIMITS OF GRADING

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY, AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

KURT A. LANG, COLORADO P.E. 32248 DATE _____

TOWN OF CASTLE ROCK APPROVALS
 THESE PLANS ARE VALID FOR ONE YEAR FROM
 DATE OF DEVELOPMENT SERVICES DIRECTOR APPROVAL.

RECOMMEND APPROVAL BY: _____

ENGINEERING DIVISION DATE _____

APPROVED BY: _____

DEVELOPMENT SERVICES DIRECTOR DATE _____

CASTLE ROCK LAND COMPANY
 3033 EAST 1ST AVENUE, #410
 DENVER, CO 80206

CYL
 CONSULTANTS OF COLORADO, INC.
 CIVIL ENGINEERING • LAND SURVEYING • LAND PLANNING
 7901 E. Bellevue Avenue Suite 150
 Englewood, CO 80111
 Tel: (720) 482-9526
 Fax: (720) 482-9546

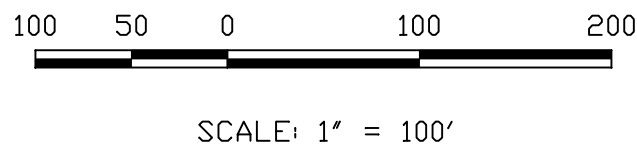
THE MEADOWS FILING 17
 LOT 5 AND 6
 DETENTION POND GRADING

SCALE: AS SHOWN
 FILE NO: 04811401

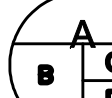
DRAWN BY: ACS
 CHECKED BY: AMZ
 DATE: FEB.15, 2004

SHEET NUMBER
16

ISSUED FOR CONSTRUCTION		02/15/05	KAL		
No.	Revisions	Date	Init.	Appr.	Date



BASIN	AREA (AC)	Q5 (CFS)	Q100 (CFS)
A1	0.50	2.2	4.2
B1	0.76	3.3	6.4
D1	0.59	2.6	5.0
E1	4.84	19.0	37.6
E2	0.88	3.5	6.8
E3	0.54	2.4	4.6
G1	5.63	21.0	41.5
G2	0.55	2.2	4.2
H1	3.92	15.4	30.4
H2	0.71	3.1	6.0
H3	0.31	1.4	2.6
I1	7.82	26.6	52.6
I2	0.39	1.7	3.3
J1	4.55	14.3	28.2
J2	0.43	1.6	3.0
J3	0.31	1.4	2.6
K1	1.46	4.0	9.0
K2	0.55	2.0	4.1
K3	0.55	2.2	4.5
K4	2.41	9.7	19.3
K5	2.07	8.4	16.8
L	4.55	15.5	30.6
OS-1	1.05	0.3	2.4
OS-2	0.58	0.3	1.8
OS-3	1.72	0.5	3.7
OS-4	0.71	0.2	1.6
OS-5a	0.16	0.7	1.4
OS-5b	0.22	1.0	1.9
OS-6	0.97	4.0	7.9
OS-7	1.52	0.5	3.3
OS-8	1.99	0.7	4.8

LEGEND	
	A = BASIN DESIGNATION B = AREA IN ACRES C = 5 YEAR RUNOFF COEFF. D = 100 YEAR RUNOFF COEFF.
	PROPOSED BASIN
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	DESIGN POINT
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN
	FLOW AROW

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

TOWN OF CASTLE ROCK APPROVALS
THESE PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES DIRECTOR APPROVAL

RECOMMEND APPROVAL BY:

ENGINEERING DIVISION

APPROVED BY:

DEVELOPMENT SERVICES DIRECTOR	DATE
-------------------------------	------

SHEET NUMBER 1	DRAWN BY: ACS		SCALE: AS SHOWN	THE MEADOWS FILING 17 LOT 5 AND 6 DEVELOPED DRAINAGE MAP	CASTLE ROCK LAND COMPANY 3033 EAST 1ST AVENUE, #410 DENVER, CO 80206	CRL CONSULTANTS OF COLORADO, INC. CIVIL ENGINEERING • LAND SURVEYING • LAND PLANNING 7901 E. Bellevue Avenue Suite 150 Englewood, CO 80111 Tel: (720) 482-9546 Fax: (720) 482-9546	 ISSUED FOR CONSTRUCTION	02/15/05	KAL	
	CHECKED BY:									
	FILE NO: ANZ									
	DATE: FEB. 15, 2004									
	04811401									
No.	Revisions	Date	Init.	Appr.	Date					



APPENDIX D

- DRAINAGE MAPS

SITE DEVELOPMENT PLAN
LIMELIGHT RETAIL CENTER
LOT 6G-3, THE MEADOWS FILING NO. 17, AREA NO. 4
LOCATED IN THE NORTHWEST 1/4 OF SECTION 34, TOWNSHIP 7 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

LEGEND:

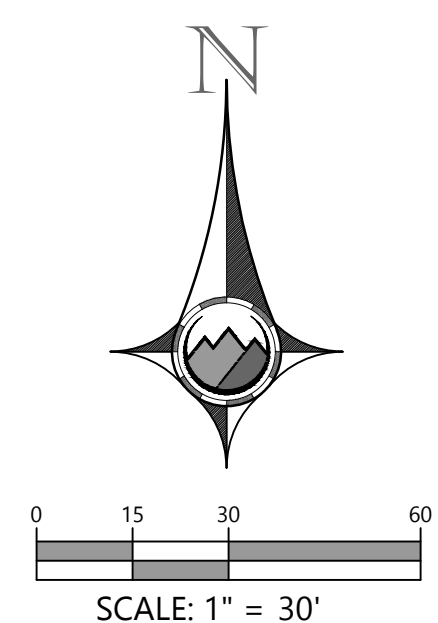
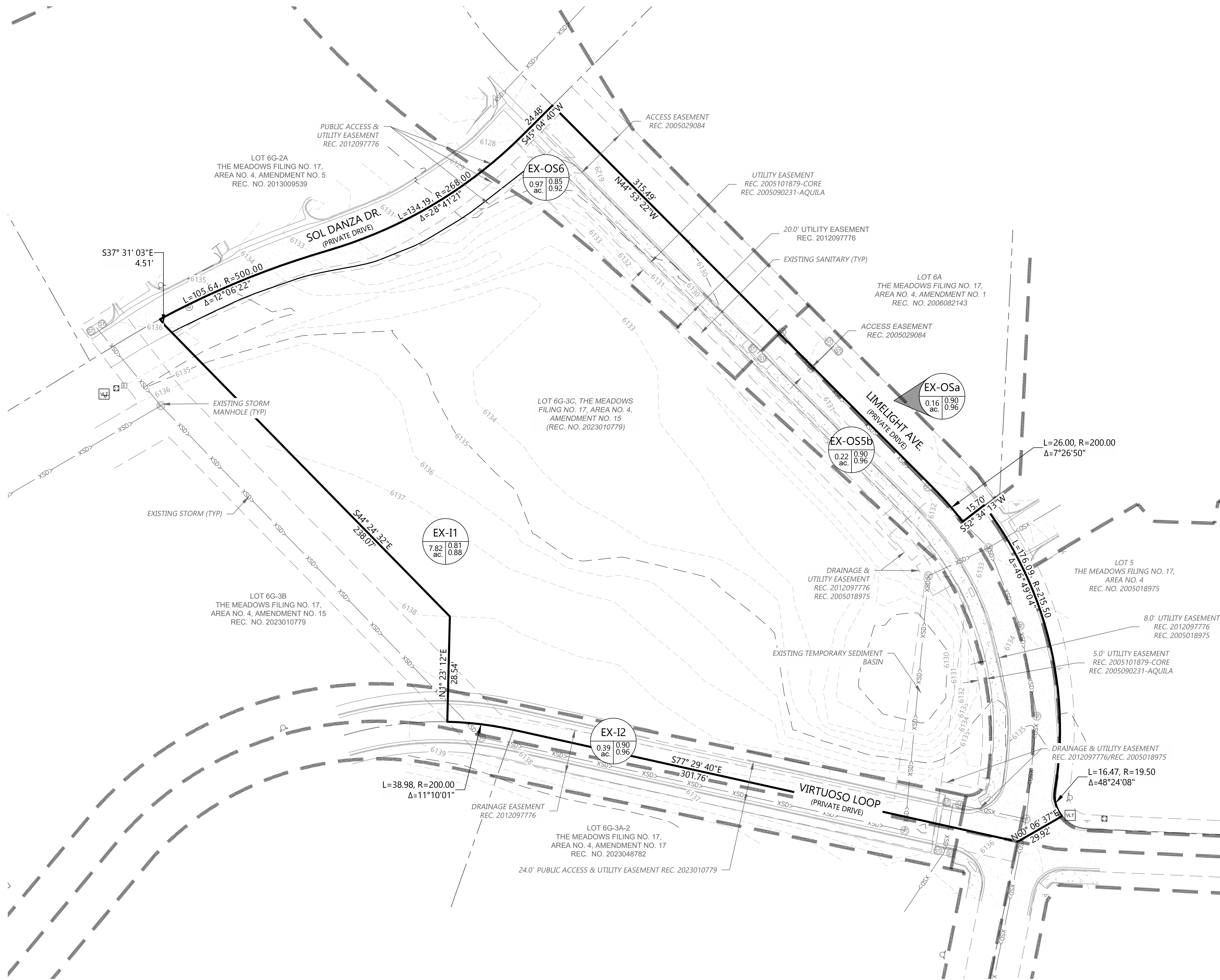
- PROPERTY LINE
- PROPOSED BUILDING
- EXISTING BUILDING
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED BASIN BOUNDARY
- HISTORICAL BASIN BOUNDARY
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR
- EXISTING 5' CONTOUR
- EXISTING 1' CONTOUR
- PROPOSED STORM LINE W/F.E.S.
- EXISTING STORM LINE W/F.E.S.
- PROPOSED SAWCUT
- PROPOSED STORM INLET
- EXISTING STORM INLET
- FLOW DIRECTION
- OVERFLOW PATH
- PROPOSED SPOT GRADE
- EXISTING SPOT GRADE
- SLOPE AND DIRECTION
- HP HIGH POINT
- LP LOW POINT
- GB GRADE BREAK
- BASIN ID
- BASIN IDENTIFICATION TAG
- 5-YR RUNOFF COEFFICIENT
- 100-YR RUNOFF COEFFICIENT

BASIN ACREAGE

BASIN ID: A1

5-YR RUNOFF COEFFICIENT: 0.80

100-YR RUNOFF COEFFICIENT: 0.90



PROOF CIVIL
consulting engineers
600 Grant Street | Suite 210 | Denver, CO

SEAL:

FOR AND ON BEHALF OF PROOF CIVIL CO.

REVISIONS	
NO.	DESCRIPTION

PROJ. NO.:	22012
DATE:	06/17/2026
DRAWN BY:	ANM
CHECKED BY:	JGD

EXISTING DRAINAGE PLAN

LIMELIGHT RETAIL CENTER

COLORADO

CASTLE ROCK

DRAWING NO.

DRN-1

SITE DEVELOPMENT PLAN
LIMELIGHT RETAIL CENTER
LOT 6G-3, THE MEADOWS FILING NO. 17, AREA NO. 4
LOCATED IN THE NORTHWEST 1/4 OF SECTION 34, TOWNSHIP 7 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

LEGEND:

- PROPERTY LINE
- PROPOSED BUILDING
- EXISTING BUILDING
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED BASIN BOUNDARY
- HISTORICAL BASIN BOUNDARY
- PROPOSED 5' CONTOUR
- PROPOSED 1' CONTOUR
- EXISTING 5' CONTOUR
- EXISTING 1' CONTOUR
- PROPOSED STORM LINE W/F.E.S.
- EXISTING STORM LINE W/F.E.S.
- PROPOSED SAWCUT
- PROPOSED STORM INLET
- EXISTING STORM INLET
- FLOW DIRECTION
- OVERFLOW PATH
- PROPOSED SPOT GRADE
- EXISTING SPOT GRADE
- SLOPE AND DIRECTION
- HIGH POINT
- LOW POINT
- GRADE BREAK
- BASIN ID
- BASIN IDENTIFICATION TAG
- 5-YR RUNOFF COEFFICIENT
- 100-YR RUNOFF COEFFICIENT

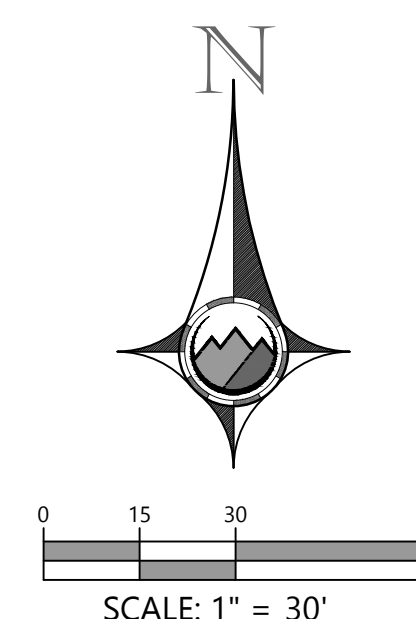
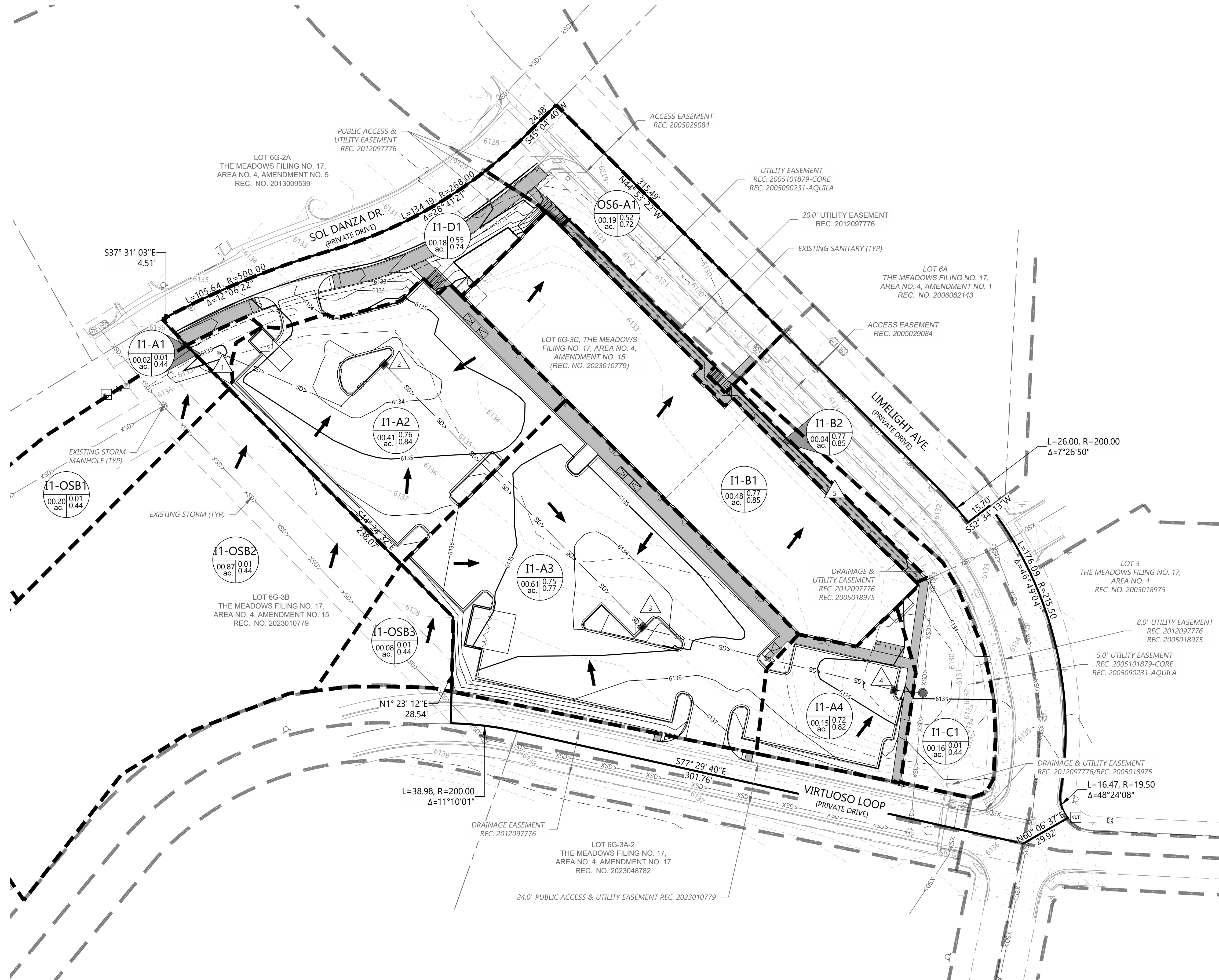
BASIN ACREAGE

BASIN ID

BASIN IDENTIFICATION TAG

5-YR RUNOFF COEFFICIENT

100-YR RUNOFF COEFFICIENT



REVISIONS		DESCRIPTION	
NO.	DATE	NO.	DATE
22012	06/17/2026	ANM	JGD
PROJ. NO.:		DRAWN BY:	
DATE:		CHECKED BY:	
22012		ANM	
06/17/2026		JGD	
PROPOSED DRAINAGE PLAN		LIMELIGHT RETAIL CENTER	
COLORADO		CASTLE ROCK	
DRAWING NO.		DRN-2	

SITE DEVELOPMENT PLAN
LOT 6G-3, THE MEADOWS FILING NO. 17, AREA NO. 4
TOWN OF CASTLE ROCK PROJECT #SDP26-00XX



June 19, 2026

Revised October 16, 2026

Town of Castle Rock
Castle Rock Water
175 Kellogg Court
Castle Rock, CO 80109

Re: SDP26-0028 Castle Rock Inline Retail
Utility Conformance Letter

The purpose of this letter is to prove conformance of the proposed Limelight Retail Center project with the utility report for The Meadows Filing No. 17 by CVL Consultants. The proposed site is located within Lot 6G-3, The Meadows Filing No. 17, Area No. 4, located in the northwest quarter of Section 34, Township 7 South, Range 67 West of the 6th Principal Meridian, in Douglas County. The lot is situated at the northwest corner of Limelight Avenue and Virtuoso Loop. The site lies within The Meadows master-planned development in Castle Rock, and has been designated within the Meadows yellow pressure zone.

The proposed development accounts for 2.67 acres and includes the construction of a new multi-tenant commercial space that will accommodate retail tenants and an attached patio on the northwest side of the building. Associated parking and sidewalks will make up the remainder of the site.

The development will include a 3,120 SF restaurant on the northwest side of the building along with 17,835 sf of demised retail spaces. The building will be fed by a single (assumed) 1" domestic service and a 6" fireline entering the northwest portion of the building. Easements for proposed utility infrastructure will be provided at the time of final design and construction documents.

The final meter size will be determined at the time of building permitting 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. The required fire flow, based on a 21,056 SF type II-B building, is 3,000 gpm for a duration of 3-hours. However, the code allows for a 50% reduction in the fire flow since the building is fully sprinklered, which brings the required fire flow down to 1,500 gpm for a duration of 2-hours.

Calculated Water Demands

The average daily demand (ADD) calculations for the proposed site were calculated based on the Town of Castle Rock Water System Design Criteria Manual demand rates. The typical ADD for a restaurant use is 3.0 gpd per SF, or 0.0075 SFE per SF and the typical ADD for a retail use is 0.2 gpd per SF, or 0.0005 per SF. The maximum day demand (MDD) was determined by multiplying the ADD by the MDD factor of 2.5. Finally, the peak hour demand (PHD) was determined by multiplying the ADD by the PHD factor of 5.5. The Irrigation Average Day Demand for a restaurant use is 3,750 gpd/acre, or 9.38 SFE per acre with a proposed irrigated acreage of 0.36 acres (via a separate meter).

The results are shown below:

Irrigation Average Day Demand: $3,750 \text{ gpd} \times 0.36 \text{ ac.} = 1,350 \text{ gpd}$ (0.94 gpm) (separate meter)

Average Day Demand Restaurant: $3,120 \text{ SF} \times 3.0 \text{ gpdpsf} = 9,360 \text{ gpd}$ (6.5 gpm)

Average Day Demand Retail: $17,835 \text{ SF} \times 0.2 \text{ gpdpsf} = 3,567 \text{ gpd}$ (2.5 gpm)

Average Day Demand Total: $9,360 \text{ gpd} + 3,567 \text{ gpd} = 12,927 \text{ gpd}$ (9.0 gpm)

Maximum Day Demand: $12,927 \text{ gpd} * 2.5 = 32,317 \text{ gpd}$ (22.4 gpm)

Peak Hour Demand: $12,927 \text{ gpd} * 5.5 = 71,098 \text{ gpd}$ (49.4 gpm)

The "Final Utility Report" for Meadows Filing No. 17 Lots 5&6 designated the subject site as "Commercial" land use with an average site water demand of 1.24 gpm/acre (with open space use factored in) and a peak flow of 3.84 gpm/acre. This would allocate a total of 3.31 gpm of average daily flow and 10.27 gpm peak flow for the subject site. However, the original study utilized a fire flow of 3000 gpm for this area, which results in a fire flow + peak domestic demand of 3010.27 gpm. The proposed condition will create a peak demand of 1550.3 gpm.

Calculated Sanitary Demands

The average daily flow (ADF) for the proposed site was calculated based on the Town of Castle Rock Wastewater System Design Criteria Manual which shows restaurant flows rates of 1.5 gpd per SF and retail flow rates of 0.1 gpd per sf. Peak flows are then determined by multiplying the ADF by the peaking factor (PF). The PF is determined based on the calculation provided below.

$$PF = 3.65 \times [(ADF)^{-0.168}], \text{ ADF in millions of gallons per day; Max PF} = 5.0$$

The peak design flow (PDF) is calculated by multiplying the ADF with the PF and adding that number to the ADF multiplied by 10% to account for infiltration and inflows.

$$PDF = (ADF \times PF) + (ADF \times 0.1)$$

The results are shown below.

Average Daily Flow Restaurant: $3,120 \text{ SF} * 1.5 \text{ gpd} = 4,680 \text{ gpd}$ (3.25 gpm)

Average Daily Flow Retail: $17,835 \text{ SF} * 0.2 \text{ gpd} = 3,567 \text{ gpd}$ (2.48 gpm)

Average Daily Flow Total: $4,680 \text{ gpd} + 3,567 \text{ gpd} = 8,247 \text{ gpd}$ (5.73 gpm)

Peaking Factor: $3.65 * (0.008247 \text{ MGD})^{-0.168} = 8.17$ (5.0 max)

Peak Design Flow: $8,247 * 5.0 + 8,247 * 0.1 = 42,059 \text{ gpd}$ (29.21 gpm)

The "Final Utility Report" for Meadows Filing No. 17 designated the subject site as "Commercial" land use with an average site sanitary generation of 0.42 gpm/acre (with open space use factored in) and a peak flow of 2.08 gpm/acre. This would allocate a total of 2.1 gpm of average daily flow and 10.5 gpm peak flow for the subject site.

The proposed development will create an overage of 18.71 gpm, or 0.04 cfs when compared to anticipated values from the master utility report. According to that report, sufficient capacity exists in the downstream sanitary sewer system throughout the master development. The 10" pipe downstream of the retail development that crosses under the adjacent railroad tracks offers 0.38 cfs of available capacity, the 10" line downstream of the lift station at the terminus of Lombard Street offers 0.41 cfs of capacity, and the 12" line west of the site that ties into the Plum Creek Interceptor near the intersection of Limelight Avenue and Sabercat Way includes 0.38 cfs of available capacity.

Should you have any questions regarding this letter, please feel free to contact me at 303.325.5709.

Sincerely,

PROOF CIVIL CO.



Jason DeYoung, P.E.

Certifications:**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.

Jason DeYoung
State of Colorado No. 45332
For and on behalf of Proof Civil Co.

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



APPENDIX A

- REFERENCE MATERIAL

**ADDENDUM TO THE
FINAL UTILITY REPORT**

For

**THE MEADOWS FILING NO. 17
LOT 5 & LOT 6
TOWN OF CASTLE ROCK**

Prepared for:

Castle Rock Development Company
3033 E. First Avenue Ste. 410
Denver, CO 80206

Prepared by:

CVL Consultants of Colorado, Inc.
7901 E. Belleview Ave, Suite 150
Englewood, CO 80111
Phone (720) 482-9526

March 20, 2006

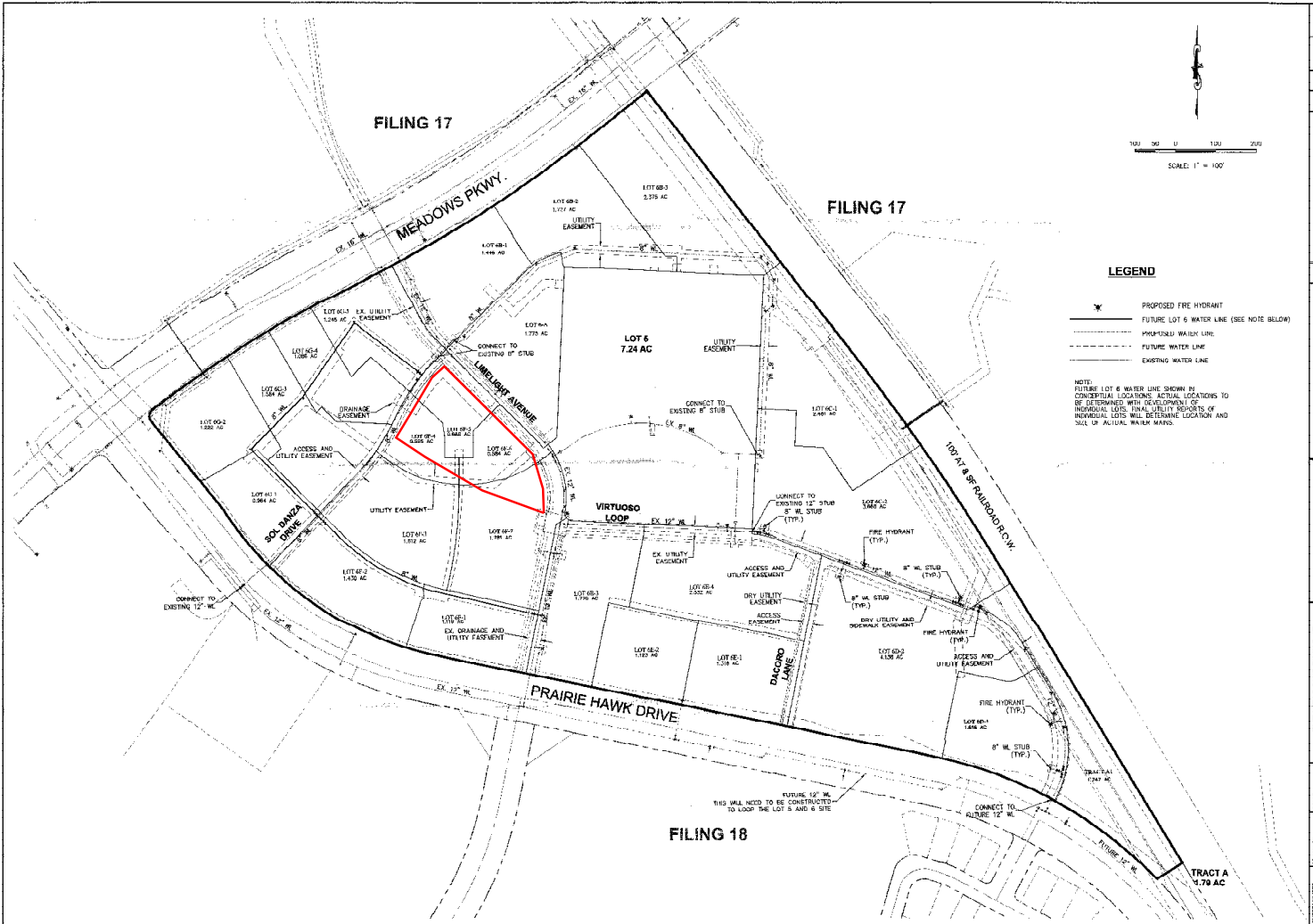
Revised: May 9, 2006

THE MEADOWS
FILING NO. 17 Lot 5 & Lot 6
TOWN OF CASTLE ROCK
WATER PLAN
TABLE 1.0: DEMAND CALCULATIONS

Max Day Demand 2.65 x Avg. Day Demand
Peak Hour Demand 4.5 x Avg. Day Demand
Commercial Land Use Demand 3 SFE/ac

		Gross area	Commercial Land Use Demand Rate	Total Average Day Demand	Total Max Day Demand	Total Peak Hour Demand	Commercial Equivalent Demand
	Lot Type	(Acres)	(GPAD)*	(GPM)	(GPM)	(GPM)	SFE
Lot 5	Commercial	7.24	1200	6.0	16.0	27.2	22
Lot 6-A	Commercial	1.78	1200	1.5	3.9	6.7	5
Lot 6-B	Commercial	5.55	1200	4.6	12.3	20.8	17
Lot 6-C	Commercial	6.15	1200	5.1	13.6	23.1	18
Lot 6-D	Commercial	5.75	1200	4.8	12.7	21.6	17
Lot 6-E	Commercial	6.54	1200	5.5	14.4	24.5	20
Lot 6-F	Commercial	7.79	1200	6.5	17.2	29.2	23
Lot 6-G	Commercial	6.10	1200	5.1	13.5	22.9	18
Tract A1	Open Space	1.79	0	5.0	5.0	5.0	0
TOTALS		50.23		44.1	108.6	180.9	141

*Land use demands are per "Town of Castle Rock Public Works Regulations, Chapter 14"
SFE-Single Family Equivalent



DATE	10/12/2010
BY	W. J. BROWN
CHECKED BY	W. J. BROWN
DATE	10/12/2010
SCALE	AS SHOWN
PROJECT	THE MEADOWS FILING 17
SHEET NUMBER	1
OWNER	CASTLE ROCK LAND COMPANY
ADDRESS	3333 EAST 1ST AVENUE, #10
CITY	DENVER, CO 80202
STATE	CO
COUNTY	ADAMS
SECTION	10
TOWNSHIP	10N
RANGE	60W



APPENDIX B

- UTILITY PLAN

SITE DEVELOPMENT PLAN LIMELIGHT RETAIL CENTER

LOT 6G-3C, THE MEADOWS FILING NO. 17, AREA NO. 4, AMENDMENT NO. 15,
COUNTY OF DOUGLAS, STATE OF COLORADO

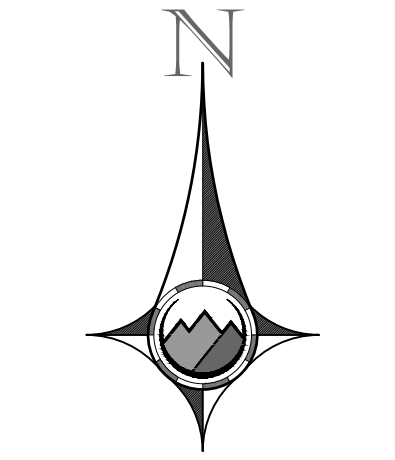
LEGEND:	
	PROPERTY LINE
	PROPOSED BUILDING
	EXISTING BUILDING
	PROPOSED EASEMENT
	EXISTING EASEMENT
	PROPERTY SETBACK
	PROPOSED STORM LINE
	EXISTING STORM LINE
	PROPOSED INLET
	EXISTING INLET
	PROPOSED WATER LINE
	EXISTING WATER LINE
	PROPOSED HYDRANT & VALVE
	EXISTING HYDRANT & VALVE
	PROPOSED SAN SEWER LINE
	EXISTING SAN SEWER LINE
	EXISTING ELECTRICAL LINE
	EXIST. OVERHEAD ELEC. LINE
	EXISTING TELECOMM LINE
	EXISTING GAS LINE
	EXISTING IRRIGATION LINE
	EXISTING FIBER OPTIC LINE
	PROPOSED LIGHT POLE
	EXISTING LIGHT POLE

- 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.



Pappasarchitecture.design

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Englewood, Colorado 80110
P. 303 733 0877 F. 303 733 3477
pdp @ pappasarc.com



0 10 20 40
SCALE: 1" = 20'

UTILITY PLAN

SHEET 4

SHEET 04 OF 15

LIMELIGHT RETAIL CENTER - SITE DEVELOPMENT PLAN - SDP26-0028



APPENDIX C

- PLUM CREEK ACKNOWLEDGEMENT



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 the Plum Creek Water Reclamation Authority (PCWRA) to verify if the business will require an oil/grease interceptor. Please go to PCWRA website at:

<https://www.pcwracolorado.org/commercial-businesses>

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 interceptor.

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.

Limelight Retail

Name of Project

/sol Danza Drive at Limelight Avenue

Address of property, if known



Peter D. Pappas

10/15/26

Signature

Date