
Preliminary Utility Letter

**KT Development – Woodspring Suites
5952 Promenade Parkway**

**Lot 2A-2, Block 4, Promenade at Castle Rock
Filing No. 1, Amendment 27**

September 27th, 2024

SDP24-0018

Prepared For:

KT Development

7951 E Maplewood Ave, Suite 122
Greenwood Village, CO 80111
Contact: Luke Taylor
(303) 906-9002

Prepared By:



Contact: Michael Drago, P.E.
Email: MDrago@K2civilconsultants.com

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: _____
Registered Professional Engineer
State Of Colorado No. _____
(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

Contents

Project Location and Description	4
Calculated Water Demands	4
Existing Water System	5
Proposed water System	6
Calculated Wastewater Flows	6
Existing Wastewater System	7
Proposed Wastewater System	7
References	9
Appendices	10

PROJECT LOCATION AND DESCRIPTION

K2 is pleased to provide a utility letter of conformance for the proposed site layout for Lot 2A-2, Block 4, Promenade at Castle Rock Filing No. 1, Amendment 27, County of Douglas, State of Colorado, Part of the North Half of Section 27, Township 7 South, Range 67 West of the 6th Principal Meridian. Specifically, within Planning Area 4 of the approved Final Utility Report for Promenade at Castle Rock (CD15-0005). The address is currently unassigned and will be provided at time of the SDP submittal. The site is bound to the north by open space and a drainage swale, an Ent Credit Union to the east, a private drive and parking lot to the south, and a vacant (future commercial) lot to the west.

The project site (a portion of Lot 1) was previously studied as part of the “Final Utility Report for Promenade at Castle Rock”, prepared by Bowman Consulting, Dated June 5, 2015 under city project number CD15-0005, herein referred to as Master Utility Report. Lot 1 falls within Planning Area 4 of the approved report, which had an estimated 173,834 sf of retail and 61,077 sf of restaurant space. Although not designed for a hotel, the resultant water and wastewater flows comply with the approved Master Utility Report.

The proposed project site is approximately 2.26 acres and will contain a Woodspring Suites Hotel containing 122 rooms. The total Water SFEs proposed for the development are 23.18 and 45.75 for wastewater based on Section 4.4.1 of the Town of Castle Rock Water and Wastewater System 2018 Criteria Manuals.

At the time of this report, it is unknown if easements will be required, however any easement or tracts necessary for utilities will be provided at time of either platting or at time of final design/construction documents, in accordance with Town standards regarding location and size of easements and tracts.

Based on FEMA Firm Map Number 08035C0167G, revised March 16, 2016, the project location lies within Zone X – Areas determined to be outside of the 0.2% annual chance floodplain. There are no navigable waterways, irrigation canals or ditches, on-site wastewater treatment systems, or existing water wells on site.

The site is sloped at 2-3% throughout the development, with water flowing from north to south towards the Private Drive on the south of the property. There are no major geologic features on-site that will affect the development of the proposed water or wastewater system.

Average Daily Demand (ADD) for water distribution flows were calculated based on the Town of Castle Rock Water System Design Criteria Manual, demand rates are listed below:

CALCULATED WATER DEMANDS

Land Use	Rooms	Typical ADD/Unit*	ADD (gpd)	ADF (af/yr)
Woodspring Suites (Hotel)	122	75 gpd/room	9,150	10.26

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Water System Design 2018 Criteria Manual

The maximum day demand (MDD) was calculated by multiplying the ADD by the maximum day demand factor of 2.5.

CALCULATED MAXIMUM DAY DEMAND				
Land Use	Rooms	Typical ADD/Unit*	MDD/Unit (Typical ADD/unit * 2.5)	MDD (ADD * 2.5)
Woodspring Suites (Hotel)	122	75 gpd/room	187.5 gpd/unit	22,875 gpd

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Water System Design 2018 Criteria Manual

Based on the above tables and Section 4.4.2 of the Water System Design Manual, the required storage volume for the water generated by the proposed development will be 262,875 gallons (240,000 gallons from fire demand for 2,000 gpm @ 2 hrs).

The peak hour demand (PHD) was calculated by multiplying the ADD by the peak hour demand factor of 5.5.

CALCULATED PEAK HOUR DEMAND				
Land Use	Rooms	Typical ADD/Unit*	PHD/unit (Typical ADD/unit * 5.5)	PHD (gpd) (ADD * 5.5)
Woodspring Suites (Hotel)	122	75 gpd	412.5	50,325

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Water System Design 2018 Criteria Manual

IRRIGATION DEMAND		
Land Use	Typical ADD/unit	Typical SFEs/Unit
Irrigated Land	3,750 gpd/irrigated acre	9.38/acre

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Water System Design 2018 Criteria Manual

There are 0.22 acres of irrigated land, therefore the ADD is 825 gpd.

EXISTING WATER SYSTEM

The site is located in the Town of Castle Rock's Yellow Pressure Zone, it is currently and will be served by Tanks No. 12A and 12B in the Meadows. An existing 8" PVC water main runs through the south side of the site within the E-W Private Drive. The existing site has no water service tied into it at this point. During communication with the city, no bottlenecks or shortcomings were brought up in relation to the project. No water mains will require extension to service the proposed development. There are two existing fire hydrants along the north side of the private drive (south of hotel).

A flow test was conducted by Crystal Clear Water treatment, showing an existing static pressure of 104 and a residual pressure of 87. The test was conducted on 2/22/24 and the results have been provided at the end of this report.

PROPOSED WATER SYSTEM

The proposed water system will connect into the existing water main within the private drive with a 2" Type K Copper domestic tap. The proposed 2" domestic water line will flow into the west side of the hotel where the water meter will be placed inside the building. Meter size will be based on water supply fixture units at time of building permitting. After the meter the proposed line will be upsized to a 3" and distributed through the building. There will be a separate ¾" tap for the irrigation meter tapped off the 8" water main to irrigate the landscaping on-site. The irrigation meter will be sized as a ¾" line and meter. In addition, a 6" DIP tap will be made for the proposed sprinklers within the building.

Refer to the Construction Drawings set within Appendix A for general utility layout.

The required fire flow for the proposed project is 4,000 gpm @ 20 psi for a duration of 2 hours. Per Castle Rock Fire, with sprinklers the flow is 50% of the required flow. This drops the required flow to 2,000 gpm. This fire flow will be provided by 2 fire hydrants surrounding the property. These hydrants (per Castle Rock GIS) are hydrant numbers FH4206 and FH4207.

The proposed water system layout will consist of only service lines and therefore no looping will be required. With a total proposed water demand of 9,150 gallons per day, the site will not negatively affect any water storage facilities within the town based on the allowable 218,072 gpd within the approved Final Utility Report for Promenade at Castle Rock. Any proposed developed utilizing the existing water infrastructure needed to serve this site is the responsibility of the developer/owner.

CALCULATED WASTEWATER FLOWS

Average daily flow (ADF) for wastewater flows were calculated based on Town of Castle Rock Wastewater System Design Criteria Manual flow rates. Peak flows are determined by multiplying the average daily flow (ADF) by the peaking factor (PF).

Land Use	Rooms	Typical ADF/Unit*	ADF (gpd)	ADF (mgd)
Woodspring Suites (Hotel)	122	75 gpd/room	9,150	0.00915

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Wastewater System Design 2018 Criteria Manual

Peaking Factor*:

$$PF = 3.65 * (ADF^{-0.168})$$

$$PF = 3.65 * (0.00915^{-0.168})$$

$$PF = 8.03 \text{ (Per 4.4.1.2 – The Maximum PF is 5.0)}$$

$$ADF * PF = 9,150 * 5.0 = 45,750 \text{ gpd} = 0.046 \text{ MGD}$$

* - Based on Chapter 4 - Section 4.4.1.2 of the Town of Castle Rock Wastewater System Design 2018 Criteria Manual

Peak Design Flow Rate*:

$$PDF = \text{Peak Base Flow} + I \text{ and } I \text{ Allowance} = (ADF * PF) + (0.1 ADF)$$

$$PDF = (5.0 * 9,150) + (0.1 * 9,150)$$

$$PF = 46,665 \text{ gpd} = 0.047 \text{ MGD}$$

* -Based on Chapter 4 - Section 4.4.1.3 of the Town of Castle Rock Wastewater System Design 2018 Criteria Manual

Therefore, based on the above calculations, the necessary capacity to handle the flow on site will be 0.047 MGD.

EXISTING WASTEWATER SYSTEM

The existing site has an existing 8" PVC sanitary main running east to west on the southern property line within the private drive. The run begins southeast of the site within the Private Drive at an existing sanitary manhole and flows west. All wastewater flows will outfall to a 27" and 54" sanitary trunk line (Plum Creek Interceptor) that runs along the east side of Santa Fe Drive (Hwy 85).

PROPOSED WASTEWATER SYSTEM

The proposed wastewater system will consist of a single 6" PVC sanitary service line on the east side of the proposed hotel building. The proposed sanitary service will flow directly south and connect into the existing 8" Sanitary main within the Private Drive. No manholes or additional infrastructure will be proposed on site. Any future development of the existing wastewater infrastructure needed to serve this site is the responsibility of the developer. Refer to the Construction Drawings for the utility layout within Appendix A. There will be no variance required based on the Towns Wastewater Master Plan.

Preliminary Utility Letter
KT Development – Woodspring Suites

There will be no requirement to dedicate land as all wastewater facilities will be accessible by the responsible parties.

REFERENCES

- Town of Castle Rock Wastewater Collection Design 2018 Criteria Manual [PDF] (December 4, 2018). Town of Castle Rock Water Department
- Town of Castle Rock Waste System Design 2018 Criteria Manual [PDF] (December 4, 2018). Town of Castle Rock Water Department
- Final Utility Report for Promenade at Castle Rock [PDF] (June 5, 2015), Bowman Consulting



APPENDICES

A faint, light gray dragonfly is centered on the page, serving as a background graphic. The dragonfly is oriented diagonally, with its head pointing towards the upper right and its tail towards the lower left. The wings are spread out, and the body is segmented.

APPENDIX A – WATER DEMANDS

CALCULATED WATER DEMANDS

Land Use	Rooms	Typical ADD/Unit*	ADD (gpd)	ADF (af/yr)
Woodspring Suites (Hotel)	122	75 gpd/room	9,150	10.26

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Water System Design 2018 Criteria Manual

CALCULATED MAXIMUM DAY DEMAND

Land Use	Rooms	Typical ADD/Unit*	MDD/Unit (Typical ADD/unit * 2.5)	MDD (ADD * 2.5)
Woodspring Suites (Hotel)	122	75 gpd/room	187.5 gpd/unit	22,875 gpd

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Water System Design 2018 Criteria Manual

CALCULATED PEAK HOUR DEMAND

Land Use	Rooms	Typical ADD/Unit*	PHD/unit (Typical ADD/unit * 5.5)	PHD (gpd) (ADD * 5.5)
Woodspring Suites (Hotel)	122	75 gpd	412.5	50,325

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Water System Design 2018 Criteria Manual

IRREGATION DEMAND		
Land Use	Typical ADD/unit	Typical SFEs/Unit
Irrigated Land	3,750 gpd/irrigated acre	9.38/acre

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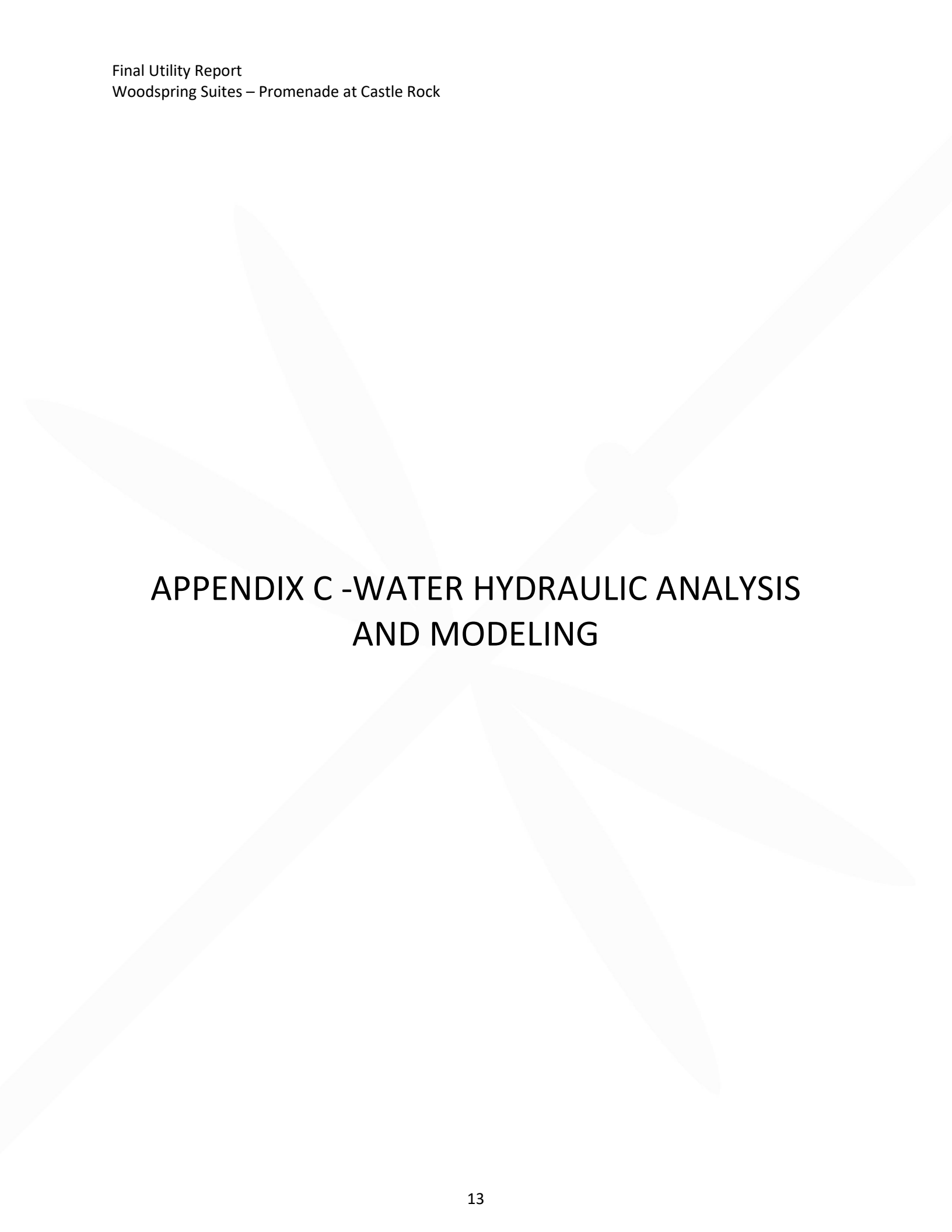
There are 0. 22 acres of irrigated land, therefore the ADD is 825 gpd.

APPENDIX B – WATER STORAGE

CALCULATED WATER STORAGE				
Land Use	Rooms	Typical ADD/Unit*	MDD/Unit (Typical ADD/unit * 2.5)	MDD (ADD * 2.5)
Woodspring Suites (Hotel)	122	75 gpd/room	187.5 gpd/unit	22,875 gpd

Required Fire Flow: 2 hours @ 2,000 gpm = 2 hours * 2,000 gpm * 60 min = 240,000

240,000 gal + 22,875 gal = 262,875 gallons of storage

A large, faint, light gray dragonfly is centered on the page, serving as a background graphic. The dragonfly's body is oriented vertically, with its head at the top and tail at the bottom. Its wings are spread outwards and downwards, creating a star-like pattern. The text of the section header is centered over the dragonfly's body.

APPENDIX C -WATER HYDRAULIC ANALYSIS AND MODELING

APPENDIX D – WASTEWATER FLOWS

CALCUALTED WASTEWATER FLOWS

Land Use	Rooms	Typical ADF/Unit*	ADF (gpd)	ADF (mgd)
Woodspring Suites (Hotel)	122	75 gpd/room	9,150	0.00915

* - Based on Chapter 4 - Section 4.4.1 of the Town of Castle Rock Wastewater System Design 2018 Criteria Manual

Peaking Factor*:

$$PF = 3.65 * (ADF^{-0.168})$$

$$PF = 3.65 * (0.00915^{-0.168})$$

$$PF = 8.03 \text{ (Per 4.4.1.2 – The Maximum PF is 5.0)}$$

$$ADF * PF = 9,150 * 5.0 = 45,750 \text{ gpd} = 0.046 \text{ MGD}$$

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Peak Design Flow Rate*:

$$PDF = \text{Peak Base Flow} + I \text{ and I Allownace} = (ADF * PF) + (0.1 ADF)$$

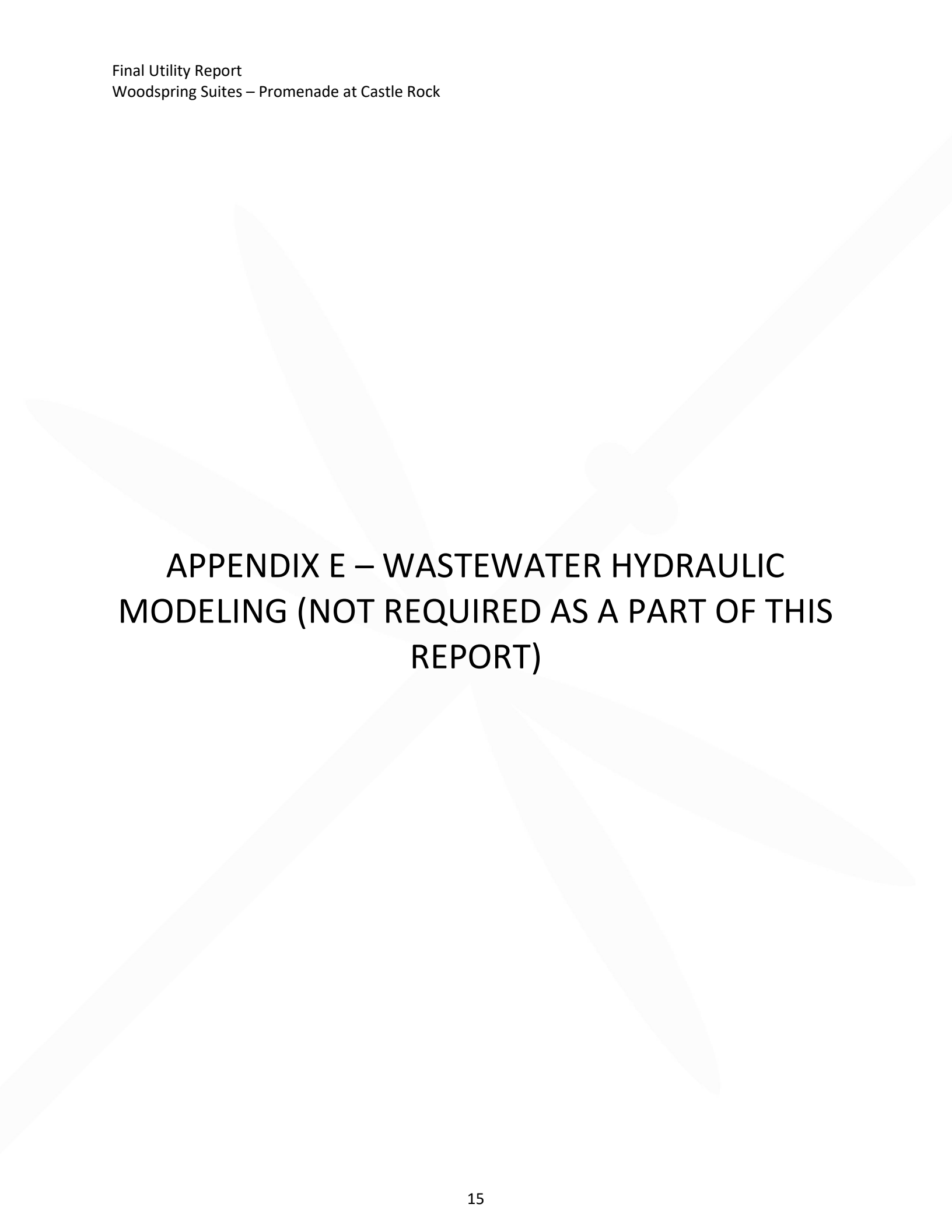
$$PDF = (5.0 * 9,150) + (0.1 * 9,150)$$

$$PF = 46,665 \text{ gpd} = 0.047 \text{ MGD}$$

* -Based on Chapter 4 - Section 4.4.1.3 of the Town of Castle Rock Wastewater System Design 2018 Criteria Manual

Therefore, based on the above calculations, the necessary capacity to handle the flow on site will be 0.047 MGD.

There will be no requirement to dedicate land as all wastewater facilities will be accessible by the responsible parties.



APPENDIX E – WASTEWATER HYDRAULIC MODELING (NOT REQUIRED AS A PART OF THIS REPORT)

APPENDIX F – MAPS, PLANS, MISC.

FINAL UTILITY REPORT

FOR

PROMENADE AT CASTLE ROCK

(LOTS 2, 3-A AND 4, CASLTE PINES COMMERCIAL FILING 12 & UNPLATTED
LAND IN NORTHWEST CASTLE ROCK)

February 2, 2015

Revised: March 13, 2015

Revised: June 5, 2015

OWNER/DEVELOPER:

Promenade Castle Rock, LLC
5750 DTC Parkway, Suite 210
Greenwood Village, CO 80111
303-771-4004

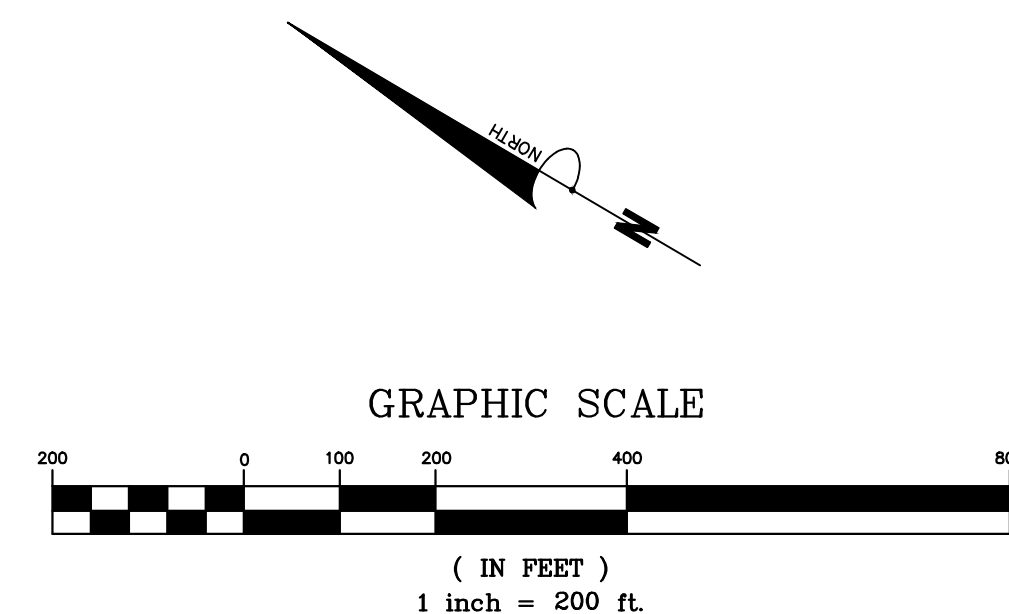
BY:

Bowman Consulting
603 Park Point Drive, Suite 100
Golden, CO 80401
303-801-2900

PROJECT NO: 020029-01-002
TOWN PROJECT NO: CD15-0005

020029-01-003

SHEET 01 OF 01



Promenade at Castle Rock - Planning Areas 1-7 - Water Demand

Planning Area	Area (ac)	Retail / Office (sf)	Restaurant (sf)	Multi-Family Res (du)	Hotel / Motel (Room)	Irr. Land (ac)	ADD (gpd)	ADD (gpm)	ADD (AF/YR)	MDD (gpd)	MDD (gpm)	PHD (gpd)	PHD (gpm)	SFE
1	25.32	164779	33750				134281	93	151	335702	233	738544	513	336
2	13.41	66241	38904				130034	90	146	325086	226	715189	497	325
3	16.70	113919	17022		240		74166	52	83	185415	129	407913	283	230
4	29.96	173834	61077				218072	151	244	545180	379	1199395	833	545
5	14.73	86621	28874				104020	72	117	260051	181	572113	397	260
6	29.76	214675	18667				99012	69	111	247530	172	544567	378	247
7	17.24			360			93675	65	105	234188	163	515213	358	234
Open Space by PA 1&4, and ROW	7.15					7.15	26888	19	30	26888	19	26888	19	67
Total:	154.27	820069	198294	360	240	7.15	880148	611	987	2160038	1500	4719819	3278	2244

Promenade at Castle Rock - Planning Areas 1-7- Sanitary Demand

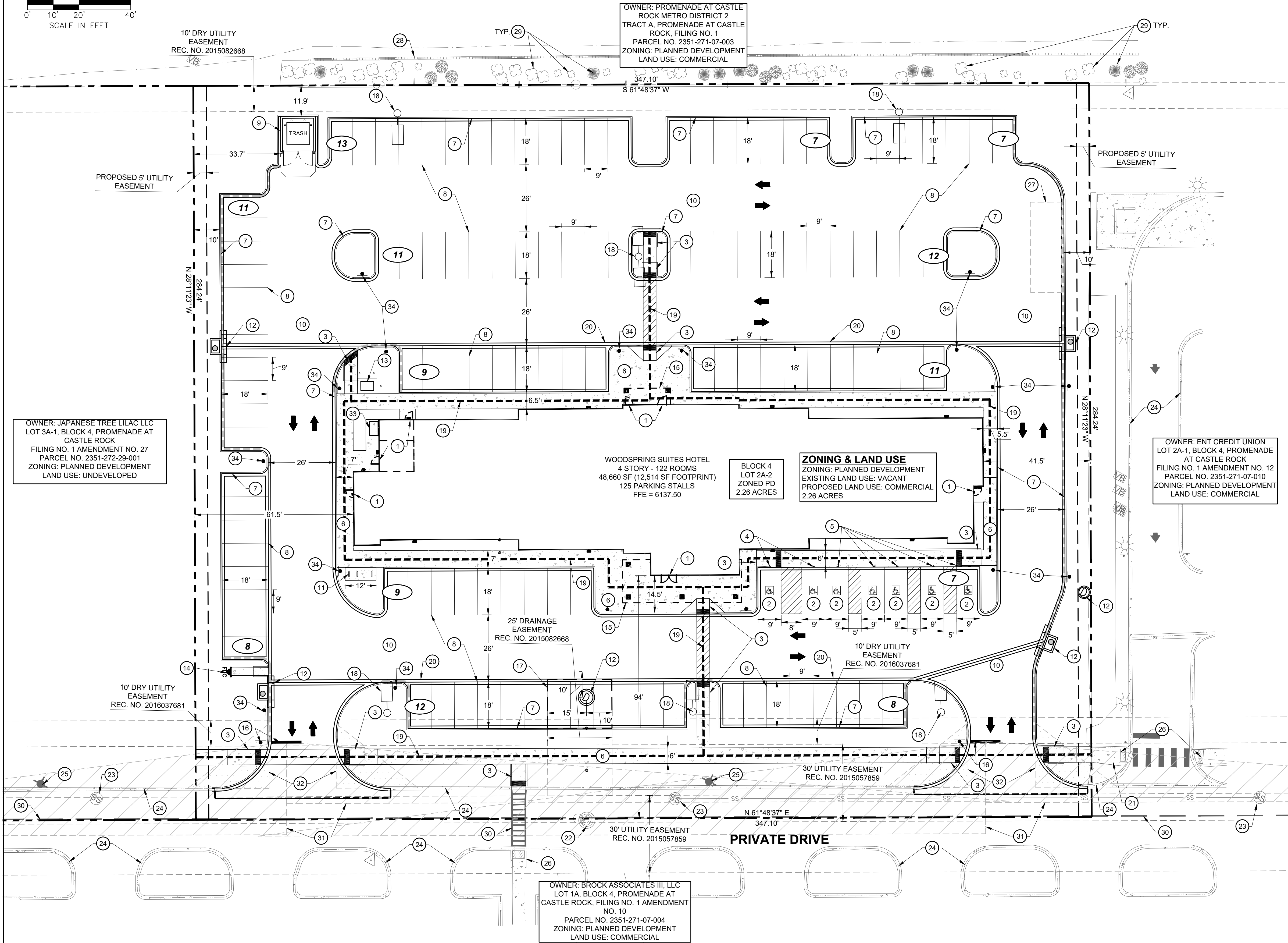
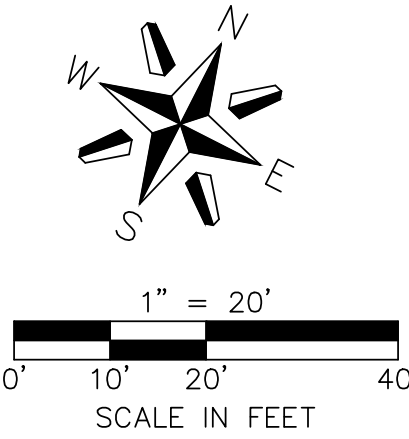
Planning Area	Area (ac)	Retail/Office (sf)	Restaurant (sf)	Multi-Family Res. (du)	Hotel/Motel (Room)	ADF (gpd)	ADF (gpm)	ADF (cfs)	PF	Infiltration & Inflow (gpd)	PDF (gpd)	PDF (gpm)	PDF (cfs)	SFE
1	25.32	164779	33750			67103	46.6	0.104	5.00	6710	342224	237.7	0.529	336
2	13.41	66241	38904			64980	45.1	0.101	5.00	6498	331396	230.1	0.513	325
3	16.70	113919	17022		240	54925	38.1	0.085	5.00	5493	280120	194.5	0.433	275
4	29.96	173834	61077			108998	75.7	0.169	5.00	10900	555892	386.0	0.860	545
5	14.73	86621	28874			51973	36.1	0.080	5.00	5197	265061	184.1	0.410	260
6	29.76	214675	18667			49469	34.4	0.077	5.00	4947	252290	175.2	0.390	247
7	17.24			360		46800	32.5	0.072	5.00	4680	238680	165.8	0.369	234
Total:	147.12	820069	198294	360	240	444248	308.5	0.687		44425	2265663	1573.4	3.505	2221



SITE DEVELOPMENT PLAN

LOT 2A-2, BLOCK 4, PROMENADE AT CASTLE ROCK FILING NO. 1, AMENDMENT NO. 27
PART OF THE NORTH HALF OF SECTION 27, TOWNSHIP 7 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO.

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SITE PLAN LEGEND

	PROPOSED PROPERTY BOUNDARY
	PROPOSED EASEMENT
	PROPOSED BUILDING SETBACK
	PROPOSED BUILDING OUTLINE
	PROPOSED BUILDING OVERHANG
	EXISTING CURB AND GUTTER
	PROPOSED CATCH CURB AND GUTTER
	PROPOSED SPILL CURB AND GUTTER
	PROPOSED SIDEWALK
	DENOTES ADA ROUTE
	PARKING COUNT
	PROPOSED CONCRETE PAVEMENT
	SIGHT DISTANCE TRIANGLE
	INTERSECTION SAFETY TRIANGLE
	DENOTES TRAFFIC FLOW PATTERNS

SITE PLAN SCHEDULE

- PROPOSED BUILDING ENTRY - REFER TO ARCHITECTURE DRAWINGS.
- PROPOSED ADA PARKING STALL.
- PROPOSED ADA RAMP.
- PROPOSED ADA VAN PARKING SIGNAGE.
- PROPOSED ADA PARKING SIGNAGE.
- PROPOSED 6" CONCRETE SIDEWALK, WIDTH PER PLAN.
- PROPOSED 6" CURB AND GUTTER.
- PROPOSED 4" WHITE PAVEMENT MARKING (TYP.).
- PROPOSED TRASH ENCLOSURE WITH 14" X 13'-4" CMU WALLS, METAL SCREEN GATE (1/2" PERFORATED METAL 20 GAUGE THICKNESS) WITH HEAVY DUTY GATE HARDWARE, AND BOLLARD PROTECTION - SEE ARCHITECTURAL ELEVATIONS FOR ADDITIONAL DETAIL.
- PROPOSED ASPHALT PAVEMENT.
- PROPOSED4 SINGLE WAVE/U-SHAPE BIKE RACK ON 5.0" X 12" X 4" THICK CONCRETE PAD (8 BIKE SPACES PROVIDED).
- PROPOSED STORM INFRASTRUCTURE, REFER TO UTILITY PLAN ON SHEET P2-1 FOR ADDITIONAL DETAIL.
- PROPOSED TRANSFORMER LOCATION.
- PROPOSED FDC LOCATION.
- PROPOSED BUILDING OVERHANG.
- PROPOSED STOP SIGN AND 12" STOP BAR.
- PROPOSED 25' WIDE DRAINAGE EASEMENT FOR CONNECTION TO EXISTING DRAINAGE SYSTEM.
- PROPOSED SITE LIGHTING - REFER TO PHOTOMETRICS PLAN.
- PROPOSED ADA ROUTE
- PROPOSED 3' CONCRETE PAN.
- EXISTING PUBLIC SIDEWALK.
- EXISTING STORM INFRASTRUCTURE.
- EXISTING SANITARY MANHOLE.
- EXISTING CURB & GUTTER.
- EXISTING FIRE HYDRANT.
- EXISTING ADA RAMP.
- PROPOSED 12'X35' LOADING ZONE
- EXISTING RETAINING WALL.
- EXISTING TREE/SHRUB.
- EXISTING PAVEMENT STRIPING.
- AASHTO SIGHT TRIANGLE (25 MPH)
- INTERSECTION SAFETY TRIANGLE
- EUSERC ENCLOSURE - REFER TO MEP PLANS.
- PROPOSED FIRE LANE SIGNAGE AND CURB MARKINGS PER TOWN OF CASTLE ROCK FIRE AND RESCUE DEPARTMENT STANDARDS.

SITE PLAN NOTES

- ALL EXISTING UTILITY AND SITE FEATURES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- ALL FEATURES IN SITE SCHEDULE ARE PROPOSED UNLESS OTHERWISE NOTED.

P:\KT DEVELOPMENT\CO. CASTLE ROCK - PROMENADE PARKWAY\08 CAD\SDPPH1.1 SITE PLAN.DWG - Anna Grealish - 9/20/2024 7:38:02 AM

PRELIMINARY
NOT FOR
CONSTRUCTION



WOODSPRINGS SUITES - CASTLE ROCK
PROMENADE PARKWAY, CASTLE ROCK, CO
SITE PLAN

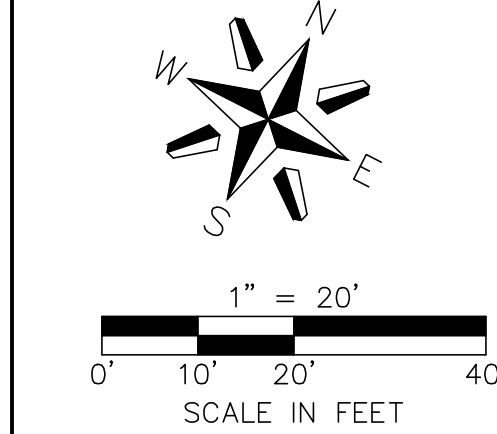
PROJECT NO.: KTD008.01
DESIGNED BY: KH
DRAWN BY: AG
DATE: 5/3/2024

SITE DEVELOPMENT PLAN
WOODSPRING SUITES - CASTLE ROCK
LOT 2A-2, BLOCK 4, PROMENADE AT CASTLE ROCK
FILING NO. 1, AMENDMENT NO. 27
TOWN OF CASTLE ROCK PROJECT NO. SDP24-0018

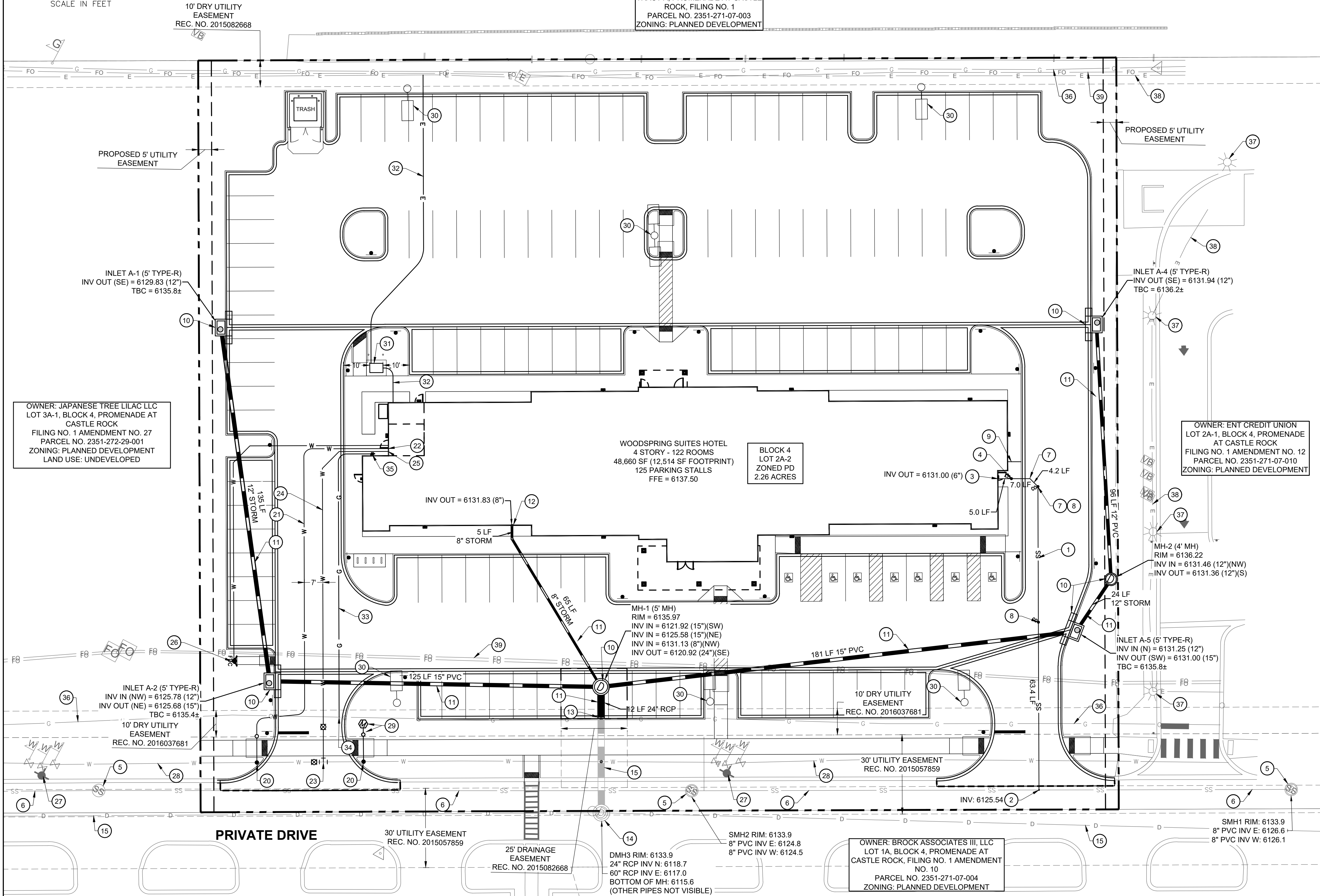
P1.1
SHEET 2 OF 12

SITE DEVELOPMENT PLAN

LOT 2A-2, BLOCK 4, PROMENADE AT CASTLE ROCK FILING NO. 1, AMENDMENT NO. 27
PART OF THE NORTH HALF OF SECTION 27, TOWNSHIP 7 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO.



OWNER: PROMENADE AT CASTLE
ROCK METRO DISTRICT 2
TRACT A, PROMENADE AT CASTLE
ROCK, FILING NO. 1
PARCEL NO. 2351-271-07-003
ZONING: PLANNED DEVELOPMENT



OWNER: JAPANESE TREE LILAC LLC
LOT 3A-1, BLOCK 4, PROMENADE AT
CASTLE ROCK
FILING NO. 1 AMENDMENT NO. 27
PARCEL NO. 2351-272-29-001
ZONING: PLANNED DEVELOPMENT
LAND USE: UNDEVELOPED

OWNER: ENT CREDIT UNION
LOT 2A-1, BLOCK 4, PROMENADE
AT CASTLE ROCK
FILING NO. 1 AMENDMENT NO. 12
PARCEL NO. 2351-271-07-010
ZONING: PLANNED DEVELOPMENT

OWNER: BROCK ASSOCIATES III, LLC
LOT 1A, BLOCK 4, PROMENADE AT
CASTLE ROCK, FILING NO. 1 AMENDMENT
NO. 10
PARCEL NO. 2351-271-07-004
ZONING: PLANNED DEVELOPMENT

GENERAL NOTES

- ALL ITEMS IN SCHEDULE ARE PROPOSED UNLESS NOTED OTHERWISE.
- ALL STORM INFRASTRUCTURE IS PRIVATE AND SHALL BE MAINTAINED BY OWNER.
- ALL EXISTING UTILITIES AND SITE FEATURES TO REMAIN UNLESS NOTED OTHERWISE.
- ALL ELEVATIONS ARE FLOWLINE TO FLOWLINE UNLESS OTHERWISE NOTED.
- PIPING DOWNSTREAM OF WATER METER IS PRIVATE AND SHALL BE MAINTAINED BY THE OWNER.
- ALL SANITARY SEWER SERVICES ARE PRIVATE
- BACKFLOW PREVENTERS ARE REQUIRED ON ALL WATER LINES AND IRRIGATION LINES

UTILITY LEGEND

	PROPERTY BOUNDARY		PROPOSED STORM SEWER		PROPOSED STORM INLET AND MANHOLE
	EXISTING EASEMENT		PROPOSED GAS SERVICE LINE		PROPOSED DRAINAGE FLOW ARROWS
	EXISTING SANITARY SEWER		PROPOSED UNDERGROUND ELECTRIC		EXISTING STREET LIGHT
	EXISTING WATER		PROPOSED COMMUNICATION LINE		EXISTING FIRE HYDRANT
	EXISTING STORM SEWER		PROPOSED SANITARY SEWER		PROPOSED SITE LIGHT
	EXISTING UNDERGROUND ELECTRIC		PROPOSED WATER		
	EXISTING UNDERGROUND COMMUNICATION				
	EXISTING GAS				

UTILITY SCHEDULE

SANITARY

- PROPOSED 6" PVC SANITARY SERVICE, 1.0% SLOPE MINIMUM.
- PROPOSED SANITARY CONNECTION TO EXISTING SEWER
- PROPOSED 6" SANITARY SERVICE CONNECTION TO BUILDING.
- PROPOSED DOUBLE-SWEEP 6" SANITARY CLEANOUT.
- EXISTING SANITARY STRUCTURE TO REMAIN.
- EXISTING 8" PVC SANITARY MAIN TO REMAIN.
- PROPOSED 45" PVC BEND
- PROPOSED CLEANOUT
- PROPOSED 5" PCWRA CAPPED SANITARY STUB FOR POTENTIAL FUTURE USE.

STORMWATER

- PROPOSED STORM STRUCTURE.
- PROPOSED STORM SEWER PIPE.
- PROPOSED ROOF DRAIN CONNECTION TO STORM.
- PROPOSED CONNECTION TO EXISTING STORM STUB.
- EXISTING STORM SEWER INFRASTRUCTURE.
- EXISTING STORM SEWER PIPE.

WATER

- PROPOSED 8"x2" TAPPLING SLEEVE AND CORP STOP.
- PROPOSED 2" TYPE K COPPER DOMESTIC SERVICE.
- PROPOSED 2" DOMESTIC CONNECTION TO BUILDING, 2" WATER METER INSIDE BUILDING.
- PROPOSED 8"x6" TEE AND 6" GATE VALVE.
- PROPOSED 6" FIRE LINE.
- PROPOSED 6" FIRE CONNECTION TO BUILDING.
- PROPOSED FDC LOCATION.
- EXISTING FIRE HYDRANT.
- EXISTING 8" PVC WATER MAIN.
- 3/4" IRRIGATION METER PIT AND CURB STOP.

DRY UTILITIES

- PROPOSED SITE LIGHTING (REFER TO PHOTOMETRIC PLANS FOR FINAL LOCATION).
- PROPOSED TRANSFORMER LOCATION - GENERAL CONTRACTOR TO FINALIZE LOCATION WITH UTILITY PROVIDER.
- PROPOSED ELECTRIC SERVICE
- PROPOSED GAS SERVICE LINE.
- PROPOSED GAS CONNECTION TO MAIN.
- PROPOSED GAS METER AND CONNECTION TO BUILDING.
- EXISTING GAS MAIN.
- EXISTING LIGHT POLE.
- EXISTING UNDERGROUND ELECTRIC LINE.
- EXISTING FIBER OPTIC LINE.

UTILITY NOTES

- THIS SITE IS LOCATED WITHIN THE TOWN OF CASTLE ROCK MEADOWS 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.

WOODSPRINGS SUITES - CASTLE ROCK

PROMENADE PARKWAY, CASTLE ROCK, CO

UTILITY PLAN

PROJECT NO.: KTD008.01

DESIGNED BY: KH

DRAWN BY: AG

DATE: 5/3/2024

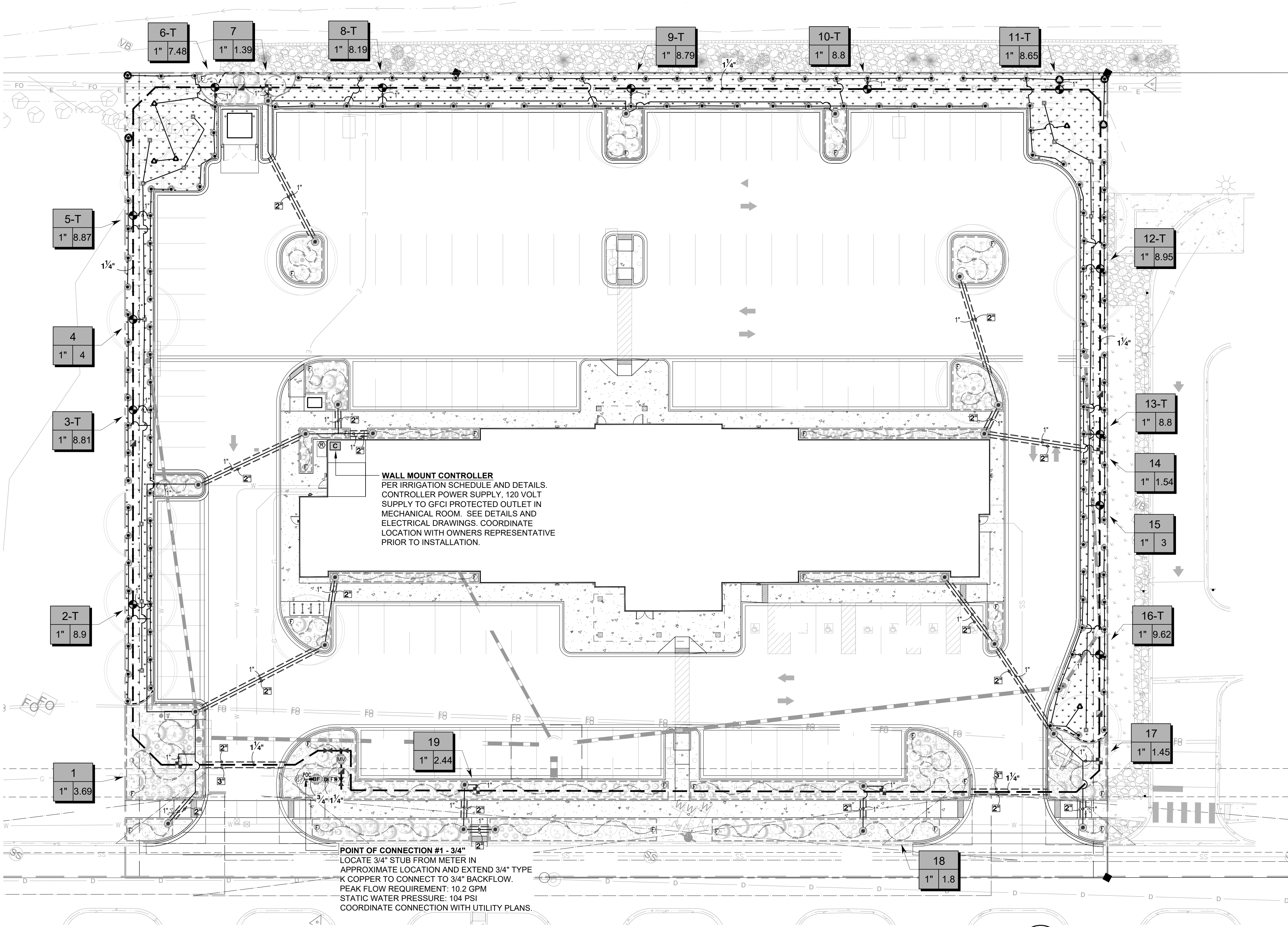
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SHEET 4 OF 12

SITE DEVELOPMENT PLAN
WOODSPRING SUITES - CASTLE ROCK
LOT 2A-2, BLOCK 4, PROMENADE AT CASTLE ROCK
FILING NO. 1, AMENDMENT NO. 27
TOWN OF CASTLE ROCK PROJECT NO. SDP24-0018

CASTLE ROCK IRRIGATION NOTES:

- THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION ASSEMBLY APPROVED BY THE TOWN OF CASTLE ROCK.
- IRRIGATION TAP, LINE, METER AND BACKFLOW PREVENTION ASSEMBLY MUST BE THE SAME SIZE FROM THE TAP TO A MINIMUM DISTANCE OF 10 PIPE DIAMETERS PAST THE BACKFLOW PREVENTION ASSEMBLY AND WINTERIZATION TEE.
- WATER WASTE IS NOT ALLOWED PER THE TOWN OF CASTLE ROCK'S WATER USE MANAGEMENT PLAN. THEREFORE, ALL NOZZLES ARE TO BE FINE TUNE/ADJUSTED SO THAT OVERSPRAY ONTO HARD SURFACES IS ELIMINATED.
- IRRIGATION IS NOT PERMITTED ON 3:1 SLOPES.
- VELOCITY SHALL NOT EXCEED 7.5 FPS THROUGH THE WATER METER.
- NO OVERHEAD IRRIGATION IN AREAS LESS THAN 10 FEET WIDE.
- THERE IS TO BE NEITHER PLANT MATERIAL NOR IRRIGATION IN AREAS LESS THAN 4 FEET WIDE.



1 IRRIGATION PLAN

IRRIGATION NOTES:

- VALVE CALLOUTS LABELED WITH 'T' REPRESENT TEMPORARY IRRIGATION ZONES. TEMPORARY IRRIGATION IS FOR NATIVE SEED ESTABLISHMENT ONLY. REFER TO CASTLE ROCK IRRIGATION CONSTRUCTION NOTES (SHEET IR.1.1) FOR TEMPORARY IRRIGATION SYSTEM INSTALLATION AND REMOVAL.

IRRIGATION SCHEDULE (CONT.)

FS	HUNTER HC-100-FLOW 1" FOR USE WITH HYDRAWISE ENABLED CONTROLLER TO MONITOR FLOW AND PROVIDE SYSTEM ALERTS. ALSO FUNCTIONS AS STAND ALONE FLOW TOTALIZER/SUB METER ON ANY RESIDENTIAL OR COMMERCIAL IRRIGATION SYSTEM.	1
POC	POINT OF CONNECTION 3/4"	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	2,875 L.F.
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21	1,193 L.F.

---	IRRIGATION MAINLINE: TYPE K COPPER PIPE	4.4 L.F.
----	PIPE SLEEVE: PVC CLASS 160 SDR 26	347.3 L.F.

Valve Callout		
#	Valve Number	
#	Valve Flow	
#	Valve Size	

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
14 ACJ 14 F	TURF ROTARY - R-VAN14 RAIN BIRD R-VAN14, 1806-SAM-P45, 8'-14', TURF ROTARY W/1800 TURF SPRAY BODY ON 6" POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. ABOVE-GRADE INSTALLATION.	142	45
18 ACJ 18 F	TURF ROTARY - R-VAN18 RAIN BIRD R-VAN18, 1806-SAM-P45, 13'-18', TURF ROTARY W/1800 TURF SPRAY BODY ON 6" POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. ABOVE-GRADE INSTALLATION.	2	45
24 ACJ 24 F	TURF ROTARY - R-VAN24 RAIN BIRD R-VAN24, 1806-SAM-P45, 17'-24', TURF ROTARY W/1800 TURF SPRAY BODY ON 6" POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. ABOVE-GRADE INSTALLATION.	3	45
1401 1402 1404 1408	TREE DRIPLINE LOOP 1401 XFS-06-12 SUBSURFACE DRIP TUBING WITH 0.60 GPH, PRESSURE COMPENSATING EMITTERS INTERNALLY INSTALLED IN THE DRIP TUBING AT 12" O.C. SPACING. DRIP TUBING SHALL BE INSTALLED 2" BELOW FINISHED SOIL GRADE (NOT COUNTING GROUND COVER MATERIAL) AND IN A DUAL "RING" AROUND THE TRUNK TO BE 50 FEET IN LENGTH AND CONTAIN APPROXIMATELY 50 DRIP EMITTERS FOR A TOTAL FLOW RATE OF 0.5 GPM (50 X 0.6 GPH = 30 GPH = 0.5 GPM). SEE DETAIL DRAWING FOR ALL THE COMPONENTS REQUIRED FOR INSTALLATION OF EACH TREE DRIP ASSEMBLY.	14	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
1401 1402 1404 1408	DRIP CONTROL VALVE ASSEMBLY RAIN BIRD KCZ-100-LC, WIDE FLOW DRIP CONTROL KIT, FOR LIGHT COMMERCIAL USES. 1IN. PEB VALVE, WITH 1IN. PRESSURE REGULATING 40PSI BASKET FILTER, 0.3-20 GPM.	6
1401 1402 1404 1408	PIPE TRANSITION POINT PIPE TRANSITION FROM PVC LATERAL TO DRIP TUBING WITH RISER IN 6" DRIP BOX.	24
1401 1402 1404 1408	FLUSH VALVE 3/4" PVC BALL VALVE IN 10" VALVE BOX.	29
1401 1402 1404 1408	AREA TO RECEIVE DRIP EMITTERS AREA FOR DRIP EMITTERS RAIN BIRD XB-PC SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS. FLOW RATES OF 0.5GPH=BLUE, 1.0GPH=BLACK, AND 2.0GPH=RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET. Emitter Notes: 0.5 GPH emitters (2 assigned to each #1 plant) 1.0 GPH emitters (2 assigned to each #5 plant) 2.0 GPH emitters (6 assigned to each B & B, 2" Cal plant) 2.0 GPH emitters (6 assigned to each B & B, 6-8' HT plant) 2.0 GPH emitters (6 assigned to each B & B, Multi-Stem plant)	6,735 S.F.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
1401 1402 1404 1408	CONTROL VALVE HUNTER ICV-G PLASTIC ELECTRIC REMOTE CONTROL VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET.	13
1401 1402 1404 1408	QUICK COUPLER VALVE RAIN BIRD 44-RC 1" BRASS QUICK-COUPPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.	5
1401 1402 1404 1408	GATE VALVE - 2-1/2" AND SMALLER MATCO-NORCA 514T BRASS GATE VALVE, FULL PORT, WITH SOLID WEDGE. IPS. WHEEL HANDLE. SAME SIZE AS MAINLINE PIPE.	3
1401 1402 1404 1408	MASTER VALVE - NORMALLY CLOSED 1" RAIN BIRD EFB-CP BRASS MASTER VALVE, THAT IS CONTAMINATION PROOF W/SELF-FLUSHING FILTER SCREEN AND FD-101 TURF DECODER. GLOBE CONFIGURATION, RECLAIMED WATER COMPATIBLE.	1
1401 1402 1404 1408	MANUAL DRAIN VALVE MUELLER ORISEAL #H-10283, WITH BRASS SWING JOINT ASSEMBLY. INSTALL PER INSTALLATION DETAIL.	1
1401 1402 1404 1408	REDUCED PRESSURE BACKFLOW PREVENTER 3/4" FEBCO 825YA	1
1401 1402 1404 1408	HUNTER PHC-24001 WI-FI ENABLED, FULL-FUNCTIONING CONTROLLER WITH TOUCHSCREEN, 24-STATION FIXED CONTROLLER, 120 VAC, INDOOR MODEL.	1
1401 1402 1404 1408	HUNTER WSS WIRELESS SOLAR, RAIN FREEZE SENSOR WITH OUTDOOR INTERFACE, CONNECTS TO HUNTER PCC, PRO-C, AND I-CORE CONTROLLERS. INSTALL AS NOTED. INCLUDES 10 YEAR LITHIUM BATTERY AND RUBBER MODULE COVER, AND GUTTER MOUNT BRACKET.	1

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

APPROVED BY:

DEVELOPMENT SERVICES DATE

PROFESSIONAL LANDSCAPE ARCHITECT CERTIFICATION

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.

MCLEAN FLEMING, P.L.A. #1737

DATE



CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987 or 811

CALL 3 BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTACT) IN ADVANCE BEFORE YOU DIG. GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

Know what's below.
Call before you dig.

1. INSTALLING CONTRACTOR SHALL CONTACT THE TOWN OF CASTLE ROCK UTILITIES DEPARTMENT AT 720.733.6017 TO SCHEDULE A PRECONSTRUCTION MEETING BEFORE BEGINNING THE INSTALLATION OF THE IRRIGATION SYSTEM.
2. IRRIGATION SHALL BE INSTALLED BY A TOWN OF CASTLE ROCK REGISTERED LANDSCAPE CONTRACT PROFESSIONAL.
3. BACKFLOW IS TO BE TESTED BY A CERTIFIED BACKFLOW TECHNICIAN APPROVED BY THE UTILITY DEPARTMENT WITHIN 10 DAYS OF THE IRRIGATION METER INSTALLATION AND ANNUALLY THEREAFTER.
4. IRRIGATION EXEMPTION MUST BE OBTAINED FROM THE CASTLE ROCK WATER IF IRRIGATING THE NATIVE SEED OR THE SOD ON A DAILY BASIS FOR ESTABLISHMENT DURING THE MONTHS OF JUNE AND AUGUST. IRRIGATION EXEMPTIONS WILL NOT BE ISSUED DURING THE MONTH OF JULY.
5. IRRIGATION SYSTEMS MUST BE DESIGNED TO OPERATE WITHIN THE TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN. CURRENT COMMERCIAL HOURS OF OPERATION ARE A THREE FIXED DAYS A WEEK FROM 10 PM TO 6 AM.
6. OVERHEAD IRRIGATION IN AREAS LESS THAN 10' IN WIDTH OR INSTALLED ON SLOPES STEEPER THAN 3:1 WILL NOT BE APPROVED BY TOWN OF CASTLE ROCK INSPECTORS.
7. ALL IRRIGATION INSTALLATIONS MUST MEET TOWN OF CASTLE ROCK DETAILS
8. PLEASE NOTE THAT THE IRRIGATION TAP, LINE, METER AND BACKFLOW PREVENTION ASSEMBLY MUST BE THE SAME SIZE FROM THE TAP TO A MINIMUM DISTANCE OF 10 PIPE DIAMETERS LAST THE BACKFLOW PREVENTION ASSEMBLY AND WINTERIZATION TEE.
9. ALL SPRINKLER HEADS TO BE ADJUSTED TO MINIMIZE/ELIMINATE OVER SPRAY ON TO HARD SURFACES OR UNINTENDED AREAS. PER TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN WATER WASTE IS NOT ALLOWED
10. IRRIGATION SYSTEMS ARE TO BE WINTERIZED ANNUALLY IN THE FALL.
11. THE TEMPORARY IRRIGATION SYSTEM MUST BE INSTALLED ABOVE GROUND AND UPON EXPIRATION OF THE WINTERED ESTABLISHMENT PERIOD, ALL COMPONENTS OF THE TEMPORARY IRRIGATION SYSTEM MUST BE REMOVED. EQUIPMENT TO BE REMOVED INCLUDES: CONTROL VALVES, MANUAL BALL VALVES, ALL FITTINGS USED TO CONNECT VALVES TO MAINLINE, VALVE BOXES, ABOVE GROUND LATERAL PIPING, SPRINKLER HEADS, AND ALL ASSOCIATED STAKING MATERIALS. BELOW GROUND IRRIGATION MAINLINE AND WIRING CAN BE ABANDONED IN PLACE.

1. THE CONTRACTOR SHALL INSTALL SYSTEM COMPONENTS IN A MANNER THAT WILL PROVIDE ADEQUATE WATER SUPPLY TO THE EXISTING IRRIGATION SYSTEM.
2. REFER TO IRRIGATION SCHEDULE, NOTES, AND SPECIFICATIONS AND DETAILS FOR PRODUCT TYPES, SIZES AND INSTALLATION REQUIREMENTS.
3. CONTRACTOR SHALL MEET ALL APPLICABLE LOCAL AND MUNICIPAL CODES FOR WORK NECESSARY IN IRRIGATION SYSTEM INSTALLATION.
4. VERIFY ALL SITE INFORMATION PRIOR TO CONSTRUCTION. NOTIFY OWNER OF ANY DISCREPANCIES FROM PREPARED IRRIGATION PLANS.
5. LOCATE ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING OF WORK. CONTRACTOR SHALL COORDINATE WITH ALL OTHER DISCIPLINES ON UTILITY INFORMATION PRIOR TO START OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO UNDERGROUND UTILITIES AND DRAINAGE SYSTEMS CAUSED BY INSTALLATION OF SYSTEM COMPONENTS.
6. CONTRACTOR IS TO REFER TO AND COORDINATE IRRIGATION SYSTEM INSTALLATION AND SITE PLANS. AVOID CONFLICTING LOCATIONS BETWEEN PIPING AND AN EXISTING LANDSCAPE MATERIAL, EDGING, ETC. IRRIGATION RIG EQUIPMENT LOCATIONS ARE DIAGRAMMATIC AND ARE LOCATED FOR GRAPHIC CLARITY ONLY. IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED IN LANDSCAPED AREAS AND WITHIN THE COMMON LANDSCAPE TRACT PROPERTY LIMITS (NOT WITHIN PRIVATE LOT AREAS). ANY EQUIPMENT SHOWN OUTSIDE OF THESE LIMITS IS SHOWN IN THAT LOCATION FOR GRAPHICAL CLARITY ONLY. ALL VALVE BOXES SHALL BE INSTALLED A MINIMUM OF 2'-0" FROM EDGE OF ANY PAVED SURFACES AND A MINIMUM OF 3'-0" FROM THE CENTERLINE OF ANY DRAINAGE SWALES.
7. CONTRACTOR IS TO PROVIDE ALL NECESSARY PIPE, VALVES, ETC. DOWNSTREAM FROM POINT OF CONNECTION NOT INSTALLED BY OTHER DISCIPLINES IN ACCORDANCE WITH THE CITY OF THORNTON STANDARDS, DETAILS AND SPECIFICATIONS.
8. CONTRACTOR IS TO VERIFY AVAILABLE PRESSURE AND FLOW AT POINT OF CONNECTION PRIOR TO INSTALLATION OF IRRIGATION SYSTEM EQUIPMENT AND NOTIFY OWNER WITH VERIFICATION FIGURES. FAILURE TO NOTIFY OF VERIFICATION WILL RESULT IN CONTRACTOR TAKING RESPONSIBILITY FOR ANY ALTERATIONS TO THE PLAN DUE TO VARIATIONS OF PRESSURE OR FLOW AT HIS/HER OWN RISK.
9. CONTRACTOR TO COORDINATE INSTALLATION OF SLEEVING. ALL SLEEVING UNDER PAVED SURFACES SHOWN ON PLANS IS BY CONTRACTOR UNLESS OTHERWISE NOTED. ALL MAINLINES, LATERAL LINES, DRIP LINES AND WIRES UNDER PAVED SURFACES ARE TO BE INSTALLED IN SLEEVING. INSTALL SLEEVING AS PER DETAIL AND IRRIGATION SCHEDULE.
10. ALL PIPING, PVC ELECTRICAL SLEEVES, ETC. UNDER PAVING SHALL BE INSTALLED PRIOR TO PAVING WORK. NO TEES, ELBS OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER PAVING. CAP ALL ENDS HAND TIGHT PRIOR TO BACKFILL.
11. CONTRACTOR IS TO MAINTAIN ELECTRICAL POWER TO THE AUTOMATIC CONTROLLER AND COORDINATE WITH UTILITY PROVIDER AND OWNER ON CONNECTION TO NEW CONTROLLER.
12. CONTRACTOR SHALL EXTEND ONE YELLOW 14 GAUGE TRACER WIRE FROM THE BACKFLOW ASSEMBLY TO THE END OF THE NEW MAINLINE PIPE.
13. MAINLINE VALVE ORW SENSOR WIRE SHALL BE CONTINUOUS/STRAIGHT RUNS (WITHOUT SPLICES) TO CONTROLLER LOCATION. WIRE SHALL BE SHIELDED PER THE SPECIFICATIONS
14. CONTRACTOR SHALL GROUND THE IRRIGATION CONTROLLER PER RAINBIRD SPECIFICATIONS AND RECOMMENDATIONS.
15. INSTALL ALL MATERIALS AND EQUIPMENT AS SHOWN IN DETAILS. USE TEFLON TAPE OR TEFLON PIPE DOPE ON ALL MALE PIPE THREADS ON ALL IRRIGATION SWING JOINT AND VALVE ASSEMBLIES.
16. ALL TRENCHES TO BE PUDDLED AND COMPACTED TO THE SAME DENSITY AS THE UNDISTURBED ADJACENT SOIL. TRENCH SETTLEMENT SHALL BE REPAIRED THROUGHOUT THE WARRANTY PERIOD.
17. CONTRACTOR SHALL WARRANTY THE IRRIGATION EQUIPMENT FOR A MINIMUM OF 1 YEAR AFTER FINAL ACCEPTANCE.
18. CONTRACTOR SHALL REPAIR ANY EXISTING LANDSCAPE OR IRRIGATION DAMAGE DUE TO CONSTRUCTION OPERATIONS WITHIN THE LIMIT OF WORK AT NO ADDITIONAL COST TO THE OWNER.

POINT OF CONNECTION #1 - CONNECT TO 3/4" SERVICE LINE DOWNSTREAM OF 3/4" WATER METER (RE: CIVIL PLANS) IN APPROXIMATE LOCATION INDICATED ON PLANS WITH 3/4" TYPE 'K' COPPER STUB. EXTEND 3/4" TYPE 'K' COPPER PIPE TO 3/4" BACKFLOW.

DESIGN PRESSURE: 104 PSI

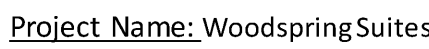
DESIGN FLOW : 10.1 GPM MAX, (SINGLE VALVE OPERATING AT ONE TIME)
MAX CAPACITY AND PEAK FLOW OF THE IRRIGATION SYSTEM BASED ON THE FLOW FROM THE PROPOSED IRRIGATION SYSTEM.

1. THE IRRIGATION SYSTEM IS DESIGNED WITHIN A WATER WINDOW AND SIZED TO ACCOMMODATE MULTIPLE VALVE STARTS NOT TO EXCEED DESIGN FLOW LISTED. CONTRACTOR TO PROGRAM CONTROLLER ACCORDINGLY AND COORDINATE SCHEDULING WITH OWNER.
2. CONTRACTOR TO COORDINATE CONTROLLER LOCATIONS WITH OWNERS REPRESENTATIVE PRIOR TO INSTALLATION. INSTALL CONTROLLERS IN LANDSCAPE BED OR INSIDE OF MECHANICAL ROOM, COORDINATE WITH LANDSCAPE INSTALLATION TO SCREEN CONTROLLERS FROM ADJACENT HOMES AND RIGHT-OF-WAYS AND TRIM PROPOSED IRRIGATION HEADS TO ELIMINATE OVERSPRAY ONTO THE IRRIGATION CONTROLLER, BACKFLOW ENCLOSURE.
3. ALL ENCLOSURES SHALL BE SECURELY MOUNTED AND LOCKABLE TO PREVENT VANDALISM, DAMAGE AND/OR THE TURN KEYS OVER TO OWNER AT COMPLETION OF WORK AS PER SPECIFICATIONS.
4. ALL IRRIGATION EQUIPMENT SHALL BE INSTALLED PER THE TOWN OF CASTLE ROCK STANDARDS AND SPECIFICATIONS.
5. RAIN SENSOR, MOUNT WIRELESS RAIN SENSOR WITHIN OPTIMAL RANGE FROM CONTROLLER, PER MANUFACTURERS RECOMMENDATIONS. INSTALL SENSOR ON LIGHT/UTILITY POLE A MINIMUM OF 10' ABOVE GRADE TO MINIMIZE DAMAGE/VANDALISM. CLEARLY NOTE LOCATION AND PROVIDE INFORMATION TO OWNERS REPRESENTATIVE.
6. EXISTING IRRIGATION ZONES HAVE BEEN CREATED TO PROPERLY HYDROZONE THE SITE BASED ON SITE CONDITIONS AND MICROCLIMATES AT THE TIME OF INSTALLATION. IF FIELD ADJUSTMENTS ARE TO BE MADE IRRIGATION EQUIPMENT IRRIGATES A NORTH AND EAST EXPOSURE SHOULD NOT BE INSTALLED ON THE SAME ZONE AS IRRIGATION EQUIPMENT ON THE SOUTH AND WEST EXPOSURES TO ALLOW FOR MICROCLIMATE ADJUSTMENTS IN THE CONTROLLER PROGRAMMING.



Registered Professional Lindsay Rappa				Registration # 22-0853			Date 8/8/2024			
Company Name Valerian LLC				Address 165 South Union Boulevard, Suite 366, Lakewood, CO 80228						
Phone 303-347-1200		Email lindsay@valerianllc.com		Clock Make Hunter		Model PHC-2400j				
X Monday, Wednesday, Friday (west side of I-25)										
Zone	Hydrozone	Plant Type	Head Type	Nozzle	App. Rate	GPM	Inches/Month	Run Time	Run Time	Water Usage
	Very Low (<5") Low (5-10") Medium (10-15") High (>15")	(turf, native, shrubs, perennials, trees, annuals, etc.)	(rotors, sprays, bubblers, drip, SDI, etc.)	(nozzel/ emitter size)	(inches/hour)	(per zone)	(peak not to exceed 6" per month or 1.5" per week)	(minutes per month)	(minutes per day)	(gallons per month)
1-T	L	Shrubs/Trees	Drip*	0.03	0.5	5	2	240	24	1,200
2-T	L	Native	Rotary Spray	RVAN 14	0.5	9	2.76	331	33	2,948
3-T	L	Native	Rotary Spray	RVAN 14	0.62	9	2.76	267	27	2,353
4-15	L	Trees	Bubbler*	0.06	0.5	7	2	240	24	1,680
5-T	L	Native	Rotary Spray	RVAN 14/24	0.62	9	2.76	267	27	2,369
6-T	L	Native	Rotary Spray	RVAN 14	0.62	7	2.76	267	27	1,998
8-T	L	Native	Rotary Spray	RVAN 14	0.62	8	2.76	267	27	2,188
9-T	L	Native	Rotary Spray	RVAN 14	0.62	9	2.76	267	27	2,348
10-T	L	Native	Rotary Spray	RVAN 14	0.62	9	2.76	267	27	2,350
11-T	L	Native	Rotary Spray	RVAN 14/18/2	0.62	9	2.76	267	27	2,310
12-T	L	Native	Rotary Spray	RVAN 14	0.62	9	2.76	267	27	2,391
13-T	L	Native	Rotary Spray	RVAN 14	0.62	9	2.76	267	27	2,350
14-17	L	Shrubs/Trees	Drip*	0.03	0.5	7	2	240	24	1,680
18-T	L	Native	Rotary Spray	RVAN 14	0.62	10	2.76	267	27	2,569
18-19	L	Shrubs/Trees	Drip*	0.03	0.5	4	2	240	24	1,018
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*Bubblers/Drip zones that are running at the same time are not to exceed 10 GPM.

[illegible]

Project Name:	Castle Rock Woodspring Suites					Date:	July 8, 2024		
Project Location:									
Prepared by:	Lindsay Rappa					Current TOCR Registration #	22-0853		
Tap Size	0.75 "				Source of Pressure	Castle Rock Fire Flow Test			
Static Water Pressure:	104 psi								
Hydraulic Grade At Zone:	6135				Company	Valerian LLC			
	Ft. of Copper		Pipe Size (")		K Copper	Friction Loss (from chart)	Flow-GPM	Loss/Gain	
Service Line (tap to meter):	13	LF	0.75		K Copper	14.41 /100 FT	10	1.87	
Water Meter:			0.75			5.00	10	5.00	
Service Line (meter to backflow):	5	LF	0.75		K Copper	14.41 /100 FT	10	0.72	
Backflow:			0.75			11.3	10	11.30	
Master Valve:			1			0.66	10	0.66	
Pressure Required at Head:								48	
Lateral Allowance:								8.00	
Control Valve Allowance:								2.96	
Mainline Allowances:									
Length of Mainline	Pipe Material	Size	Gals.						
	10 LF CL200BE	1.250 "@	10	GPM	0.42 /100 FT			0.04	
	837 LF CL200BE	1.250 "@	10	GPM-Looped	0.42 /100 FT			3.52	
Elevation:	Tap elevation	6,135			High/Low:	6,139		1.73	
Green shading indicates <u>required</u> information you must provide									
Total System requirements (PSI)								84.00	
Available System Pressure (PSI)								104.00	
Town of Castle Rock provides a minimum of 43 psi									
Total irrigated area for tap # 1 is 9,522 sq. ft.									

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES APPROVAL

APPROVED BY: _____

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

PROFESSIONAL LANDSCAPE ARCHITECT CERTIFICATION

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.

MCLEAN FLEMING, P.L.A. #1737

DATE

No.	REVISION	BY	DATE
1	CD SUBMITTAL #2	MF	08.13.2024
2	CD SUBMITTAL #3	MF	09.24.2024



CONSTRUCTION DOCUMENTS

WOODSPRINGS SUITES PROMENADE

5952 PROMENADE PKWY

IRRIGATION NOTES & CHARTS

PROJECT NO:	23-091
DESIGNED BY:	MF
DRAWN BY:	MF
DATE:	7/09/24

IR1.2

SHEET 20 OF 25

CRYSTAL CLEAR WATER TREATMENT

720-234-3734

info@cc-wt.com

Water-Based Fire Protection Equipment

Date: 2/22/2024

Client Name: KT Development - Castle Rock

Property Address: Promenade Parkway (north of Sam's Club)

City: Castle Rock

County: Douglas

State: CO

Zip: 80108

Date: 2/22/24 Time: 11:50a Static Pressure: 104 Residual Pressure: 87 G.P.M.: 1370

NOTES: NFPA-25

* Hydrant Make/Model: Hydrant Type:	<u>Mueller</u>
* Accessible & unobstructed:	<u>Yes</u>
* Base Leak:	<u>No</u>
* Barrel Damage:	<u>No</u>
* Missing Caps:	<u>No</u>
* Stem Damage/Broken:	<u>No</u>
* Positive Drainage:	<u>Yes</u>

Extra:

Water Test:

- * TDS = 377
- * Total Hardness / GPG = 139 ppm / 8 GPG

Tested By: Ron Krueger (Technician)

Ron Krueger

Crystal Clear Water Treatment

Accepted By: _____ Date: _____

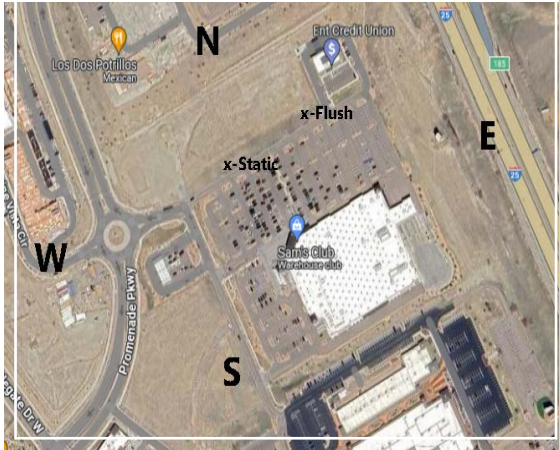
Company: _____

Crystal Clear Water Treatment

JOB #: KT Development - Castle Rock

LOCATION: Promenade Parkway (North of Sam's Club) Castle Rock, Colorado

DATE: 02/22/2024



Map Location



Location



Location (2)



Static Hydrant

Crystal Clear Water Treatment



Residual Hydrant



Static Pressure
-104 PSI



Residual Pressure
-87 PSI



GPM- 1370

Town of Castle Rock Fire Flow Memorandum

A. Project Name and Description

Woodspring Suites Promenade – 5952 Promenade Parkway, Castle Rock, Colorado.

The proposed project will encompass approximately 2.26 acres and will contain a Woodspring Suites extended stay hotel. The entire 4-story building has one use as a hotel.

B. Square Footage & Unit Count

5952 Promenade Pkwy: 4 stories, 122 rooms = 48,660 sf hotel

C. Building Construction Type

The proposed hotel will be Type V-A.

D. Sprinkler System

5952 Promenade Pkwy – NFPA 13 Fire Sprinkler System

E. Required Fire Flow

Per 2018 International Fire Code (IFC), Appendix B, the required fire flow for the proposed project is 4,000 gpm @ 20 psi for a duration of 2 hours. Per Castle Rock Fire, with sprinklers the flow is 50% of the required flow. This drops the required flow to 2,000 gpm.

The existing hydrant was tested at 1,370 gpm on 2/22/2024.

There are 2 existing hydrants within the 250' spacing of the project structures, FH-4206 and FH-4207

F. Signature Line

Kevin Sullivan

(Castle Rock Fire and Rescue Department)

Digitally signed by Kevin Sullivan
DN: c=US, E=FPO@CRGOV.COM, O=Castle Rock Fire and Rescue Department,
OU="Castle Rock Fire and Life Safety Division ", CN=Kevin Sullivan
Reason: I am approving this document
Contact Info: ksullivan@crgov.com
Date: 2024.06.05 14:11:13-06'00'

(Date)

FIRE REVIEW 14509

Michael Drago

From: noreply@pcwra.org
Sent: Thursday, June 6, 2024 9:22 AM
To: ltaylor@ktdevelopment.com; Michael Drago; ltaylor@ktdevelopment.com
Cc: pretreatment@pcwracolorado.org
Subject: PCWRA Approval for Woodspring Suites at Promenade

RE: Woodspring Suites at Promenade - 5952 Promenade Pkwy

Thank you for submitting the requested information for your facility.

Based on the information provided in the Industry Information Questionnaire, Plum Creek Water Reclamation Authority (PCWRA) requires no further information to be submitted at this time.

However, please note the following:

All new commercial buildings are required to provide a stub-out for a separate waste line for future OGI installation. New commercial multi-tenant buildings are required to provide the same for each individual speculative or "flex" space therein.

If this is a multi-tenant building, all tenants must complete the Industry Information Questionnaire (IIQ). Depending on the type of business, further applications may be required.

If at any time the following occurs, PCWRA must be notified and the application process must be completed prior to operation:

- Sale or transfer of ownership of the business;
- Change in the trade name under which the business is operated;
- Change in the nature of the services provided or building use; and/or
- Remodeling of the building that may result in an increase in flow to the sanitary sewer.

Your facility is not required to obtain an industrial wastewater discharge permit at this time. However, please note that there are significant local prohibitions and/or restrictions on discharges of hazardous or toxic pollutants into the sanitary sewer system. These prohibitions and restrictions are detailed in the PCWRA Code of Rules & Regulations which may be found on our website at <https://pcwracolorado.org/pretreatment/index.php>

Additional information on PCWRA's application process and information for new business is available at: https://www.pcwracolorado.org/pretreatment/commercial_businesses/index.php

PCWRA reserves the right to further review should business activities of this location change in the future. PCWRA may also need to gather additional information pursuant to changes with state and federal pretreatment regulations.

Thank you,
PCWRA Pretreatment Staff
4255 N. US Hwy 85

Castle Rock, CO 80108
303-688-1991
pretreatment@pcwracolorado.org



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.

WoodSpring Suites Hotel - Castle Rock

Name of Project

TBD - In the Meadows Development Next to Sam's Club

Address of property, if known

B. Luke Taylor

Signature

8-23-24

Date