UTILITY REPORT

FOR

DAWSON TRAILS BLVD NORTH
TOWN OF CASTLE ROCK, COLORADO
CD23-0020

Prepared for:

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June 25, 2025

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

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1. PROJECT LOCATION AND DESCRIPTION

A. General

The purpose of this Utility Report is to present the overall backbone design of the water distribution systems for the Dawson Trails BLVD North development. Final Utility Reports will be prepared for the other various phases of the Dawson Trails project as the project progresses through the Town's development process. This Utility Report analyzes the proposed infrastructure associated with the development of Dawson Trails Boulevard North, hereon referred to as the "Site".

B. Site Location

The Site is in part of Sections 15, 21, 22, 27, 28, 29, 32 & 34 of Township 8 South, Range 67 West of the Sixth Principal Meridian, Town of Castle Rock, Douglas County, State of Colorado. The Site is bounded by Interstate 25 to the east, Keene Ranch Filing No. 1 to the west, an undeveloped Douglas County parcel to the south, and the Twin Oaks subdivision to the north. A vicinity map for the site can be found in Appendix A.

C. Project Description

The purpose of this report is to analyze potential future densities of the development to ensure that proper infrastructure is accounted for and will be installed to accommodate the ultimate build-out of the project. Per the approved Planned Development Plan, dated September 2021 the Site will consist of 5,850 residential units, 3.2 million square feet of commercial development, two (2) school sites, and approximately 760 +/- acres of community parks, open space, and public land dedication. The Site is currently undeveloped but there were previous infrastructure improvements constructed and abandoned in the 1980s. These improvements include concrete roads, water lines, sanitary sewer lines, storm sewer, and water distribution infrastructure, including wells and a tank, all of which has been deemed unusable per conversations with the Town and is therefore anticipated to be removed or abandoned before development of the Site.

This report proposes conceptual locations and sizes for the water and wastewater systems and analyzes the proposed networks using criteria from the Town of Castle Rock Water System Design 2018 Criteria Manual and Wastewater Collection Design 2018 Criteria Manual.

This report analyzes the proposed water and sanitary sewer systems which will be constructed as part of the development, as well as the connections to the surrounding existing infrastructure. The utility design will conform to the current Town of Castle Rock standards. Easements will be provided for utilities that fall out of the public right-of-way. These will be dedicated on the final plat or at the time of final design/construction documents. The proposed water line will be accessible within the site, predominantly within the proposed roadways.

The Land Use Map for each Planning Area is included in Appendix E.

2. WATER SYSTEM

A. General

The water system will be served by a network of Blue Zone transmission lines, primarily located within the backbone road system within the Site. The water system for the Site is fully within the Blue Zone with connections at the northern and southern ends of the Site. An Overall Water Map has been included in Appendix E.

B. Master Plan: Water Distribution System

The Site is part of the Dawson Trails Master Plan for the water distribution system. The Master Plan is located within three different pressure zones, the red zone, green zone and blue zone as defined by the Town of Castle Rock. The Site is only located within the Blue Zone and provides transmission from Plum Creek Parkway, CD24-0014 to the North to Dawson Trails Filing 1, CD23-0034 to the South. The Site is necessary for the development of Dawson Trails Filings 1 and 2 to provide regional looping.

C. Regional Offsite Improvements

The Dawson Trails development will require three (3) significant offsite improvements located within the vicinity of the development. The first is the Tank 21 which will be a supply for the Green Zone. The exact location of the site has not yet been determined. The second offsite improvement is a connection to the existing 12" Blue Zone water main at Crystal Valley Parkway, just west of Plum Creek Blvd, on the east side of Interstate I-25. This 12" connection would require a directional bore below two (2) existing railroad tracks, Interstate-25, and Plum Creek to a 24" transmission main. The third offsite improvement is a connection to the 16" proposed Blue Zone water main in Plum Creek Parkway, therefore providing looping to the major water distribution system. Since the Meadows Blue Zone has a higher HGL than that of Tank 15, a PRV in Prairie Hawk will be required to match the Tank 15 Blue Zone HGL, that of which being the fourth offsite improvement. This water line is anticipated to be constructed within Plum Creek Parkway as a part of the Miller's Landing project.

D. Phasing

The Overall Utility & Phasing Map can be found in Appendix E. The timeline of each phase is not yet determined. The phasing of the water infrastructure is an approximation and is subject to change based on the developer's discretion and further analysis during final design. The general phasing of the development transpires in a North to South and East to West direction, rising from the Blue, Red, then Green Zone as well as associated infrastructure for each.

<u>Phase 1</u>

Phase 1 of the Dawson Trails development is located on the northern portion of the Site and consists of Planning Areas E-1, F-1, and F-2, as well as PL-1.07, PL-2.04, and PL-2.06.

Phase 1 infrastructure CD23-0020 lies within both the Blue and Red Zones. The water main will have a minimum of two (2) points of connection to the town's existing system, providing adequate looping for the development. The first connection is to a 16" Blue Zone water main supplied by the Meadows Tank, Tank 8, at Plum Creek Parkway and is connected by the Plum Creek Parkway Waterline, CD24-0014. The second connection will be to an existing 12" Blue Zone water main on the east side of Interstate 25 at Crystal Valley Parkway. This connection is a 24" pipeline and will require a direct water boring underneath two (2) railroad tracks, Plum Creek, and Interstate-25.

Tank 19, a proposed Red Zone tank, will be essential to the initial phases of the Dawson Trails development, and will be designed and constructed in Phase 1. It is assumed that Tank 19 will be located in the vicinity of existing water tank near the central part of the development. The total Red Zone tank volume at buildout is approximately 5.04 million gallons; the initial tank volume will be determined during the design phase of this facility. A new Red Zone Booster Pump Station will be designed and constructed. It is currently planned near the intersection of Dawson Trails Boulevard and Territorial Road at the interface between the Blue and Red Zones. The proposed pump station will be sized to supply the required flows in both the Red and Green Zones. In

addition, the distribution system will have PRVs at all connections between the Red and Blue Zones.

Phase 2
Phase 2 of the Dawson Trails development is located just south of Phase 1 and consists of the eastern portion of B-1, the northern portion of D, E-2, F-3, and the northern portion of G-1 as well as PL-2.02, PL-1.05, PL-1.06, OSP-3, and OSP-4.

Phase 2 infrastructure falls within the Red Zone. Proposed mainlines will tie into the existing mainlines constructed in Phase 1, providing looping within developments and within water zones. The water main within Dawson Trails Blvd. will be built to the extent of development, and then connected with the existing water line built in Phase 1 running parallel to the Red Zone Tank transmission line.

Phase 3
Phase 3 of the Dawson Trails development is located on the southeastern part of the Site. Phase 3 consists of the northern and southeastern part of Planning Area C-2, the southern portion of D, and the southern portion of G-1, and G-2 as well as PL-1.04, PL-1.10, PL-2.08, OSP-2 and OSP-08.

Phase 3 infrastructure falls within the Red Zone. A connection to the existing line in Dawson Trails Blvd. will be constructed and built out to the southern end of the line, and a loop between this line and the existing water main on the west side Phase 2 will be made. Additional internal looping within the system will be necessary, however no major infrastructure such as PRV's, booster pumps, or tanks are anticipated during this phase, but may be required upon further analysis and final design.

Phase 4
Phase 4 of the Dawson Trails Development is located within the mid-northern portion of the Site. Phase 5 consists of the western half of Planning Area B-1 and the northern part of Planning Area C-1, as well as OSP-1, PL-1.02, PL-1.03, and the eastern part of PL-2.01.

Phase 4 infrastructure is within the Green Zone. Therefore, the Green Zone Tank 21 and its respective transmission line will need to be designed and constructed, unless final design and analysis shows that water can be provided to the development otherwise. For planning purposes, the total Green Zone tank volume at buildout is 2.30 million gallons. Correspondingly, a distribution line supplied by this tank will be designed and constructed from the south to north end of the site. It will be the responsibility of the developer to acquire the tank site and all necessary easements. A booster pump to provide additional redundancy to the system is advised and shown near PL-1.03.

Phase 5
Phase 5 of the Dawson Trails Development is located within the mid-southern portion of the Site. Phase 5 consists of the southern half of Planning Area C-1, the western half of Planning Area C-2 and as well as PL-1.09 and a small portion of PL-2.01.

Phase 5 infrastructure is within the Green Zone. If the Green Zone Tank 21 and its respective transmission line has not been constructed in Phase 4, it will be required to be constructed in Phase 5. Water distribution mains connecting to the transmission line will be built in order to serve the remaining development. Internal looping will be provided by connecting to the existing water mains constructed in Phase 4 and 5.

Phase 6
Phase 6 of the Dawson Trails Development is located along the western edge pf the Site. Phase 6 consists of Planning Area A as well as PL-1.01 and PL-2.01.

Phase 6 infrastructure is within the Green Zone. A Green Zone water main running through all of Planning Area A to supply water to its residential subdivision will be constructed here, if not previously built in earlier phases. This line will have a minimum of 2 connection points, one from the Green Zone transmission line supplied by Tank 21 and the other to the existing line constructed in Phase 5. No additional major infrastructure is anticipated, however may be required upon further analysis and final design.

E. Demand Categories, Design Criteria

Water consumption demands from Section 4.4.1 Design Demands were used for the Average Day Demands (ADD) and peaking factors as shown in Table 2.1: Water System Design Values from the Town of Castle Rock Water System Design 2018 Criteria Manual.

Table 2.1: Water System Design Values

Criteria	Value
Average Day Demand (ADD) per SFE	400 gallons per day (gpd)
Maximum Daily Demand (MDD) Factor	2.5 times ADD
Peak Hour Demand (PHD) Factor	5.5 times ADD
Minimum Static Pressure with Zero Demand (20% Tank Stage)	43 psi
Minimum Static Pressure with Zero Demand (100% Tank Stage)	125 psi
Minimum Dynamic Pressures (based on 20% Tank Stage) **Max Daily Demand + Fire Flow** **Peak Hour Demand**	 20 psi 35 psi

The following Single-Family Equivalents were used to calculate water demands.

Table 2.2: Single Family Equivalents

Criteria	Value
Single Family Residential and Duplexes	1.0 / dwelling unit
Multi-family Residential (Townhomes and Apartments)	0.65 / dwelling unit
Industrial / Commercial	3.0 / acre
Schools	0.85 / school-acre
Parks	Varies

Parameters used with the model of the Dawson Trails Water System are now as follows:

- **Average Day Demand (ADD)** is the total water use during a year divided by the number of days in a year (365).
- **Maximum Day Demand (MDD)** is the average demand in the month with the overall highest usage during the year (typically July or August). MDD is used to size water pipelines when combined with fire flows. MDD is also used to size water storage tanks (along with fire flow volumes).
- **Peak Hour Demand (PHD)** is the highest hourly demand occurring during the year. PHD is used to evaluate the required size of distribution pipelines.

The anticipated Costco Development will be located in Planning Area F-2. Water demands and pressure requirements from the Costco Wholesale Development Requirements, December 18, 2020 can be found in Appendix D.

In addition to the parameters above, fire flows were analyzed (along with the Maximum Day Demand) as follows:

- **Fire Flow Demand (FFD)** – Fire flow requirements within Town of Castle Rock are dictated by the Town's Fire Department and the latest edition of the International Fire Code (IFC). Fire flow demands (FFD) vary depending on building usage (residential versus commercial), building square footage, and type of building construction which are defined in Appendix B of the IFC. A 50 percent reduction in required fire flow may be allowed for approved residential sprinkler systems, and a 75 percent reduction may be allowed for approved commercial sprinkler systems at the discretion of the Town of Castle Rock Fire Chief. The minimum fire flow for the water distribution system is 1,500 gpm, unless otherwise approved by the Fire Department.

Commercial, schools, and multi-family residential are the only buildings anticipated to have sprinklers within the Dawson Trails development. The specific building square footages, construction type, and usages are not known at this time. For the water model, a fire flow demand of 3,000 gpm was used at all junctions with the potential for these types of development.

Fire flows and required pressures from the Costco Wholesale Development Requirements, December 18, 2020 can be found in Appendix D. In summary, the Costco standards have two fire flow conditions to satisfy: 4,000 gpm with 20 psi residual pressure (CRW requirements) and 2,150 gpm with 65 psi residual pressure.

F. Water System Modeling and Analysis

The water system was modeled by MSK Consulting, LLC. using InfoWater software. The InfoWater results are included in Appendix B along with a Vicinity Map in Appendix A for the simulation. Simulations were run for the following scenarios:

- Minimum and Maximum Static Pressures with Zero Demand (20% and 100% Tank level)
- Peak Hour Demand (PHD)
- Max Day Demand + Fire Flow (MDD+FF)
- Extended Period Simulation (EPS)

The steady-state simulations (PHD and MDD+FF) were run separately for each pressure zone since booster pump stations and pressure reducing valves will isolate one zone from another. For the EPS scenario, all three pressure zones were modeling concurrently.

Static Pressure with Zero Demand

Prior to applying any demands, the static pressures at each junction were evaluated for two conditions: 20% full tank and 100% full tank. The 20% full condition determines the low static pressure and the 100% full scenario reveals the maximum station pressure. For this analysis, the following tank levels were used:

Table 2.3 Tank Water Levels

Tank	20% Full Elevation	100% Full Elevation
Blue Zone	6493 ft	6507 ft
Red Zone	6662 ft	6680 ft
Green Zone	6806 ft	6824 ft

The majority of the junctions have a static pressure within the required range (43 psi to 125 psi). There are a few junctions in each pressure zone that will need to be raised or lowered during the final design process. Results are provided in Appendix B.

Peak Hour Demand

A PHD scenario was performed on each pressure zone assuming full buildout and the tank levels at 20% full. The PHD factors were applied to average day demands and the model output was evaluated for junction pressure and pipe velocity. A summary of the results is provided below, and full output is included in Appendix B.

Table 2.4 PHD Results

Zone	Lowest Junction Pressure (PSI)	Highest Pipe Velocity (FPS)
Blue	37.90 (J12)	6.55 (P-11)
Red	41.65 (J100)	7.85 (P-30)
Green	35.52 (J48)	4.94 (P-19)

MDD+FF

A maximum day demand plus fire flow (MDD+FF) scenario for each pressure zone was performed. As stated previously, the fire flow demand for all commercial, multi-family, or school development is assumed to be 3,000 gpm. The fire flow for all single-family residential developments is 1,500 gpm. Fire flows were applied during the MDD condition, and all fire hydrant junctions satisfied the CRW's requirement of a minimum of 20 psi residual pressure. A summary of the results is provided below, and complete results are in Appendix B.

Table 2.5 MDD+FF Results

Zone	Lowest Residual Pressure (PSI)
Blue	34.09 (J12)
Red	53.41 (J66)
Green	42.26 (J136)

COSTCO FIRE FLOW ANALYSIS

As mentioned previously, Costco requires that two fire flow conditions are satisfied. The first is the jurisdiction's requirements (4,000 gpm with 20 psi residual pressure per CRW requirements). The second is 2,150 gpm with 65 psi residual pressure.

Costco is anticipated to be in Planning Area F-2, which is in the Blue Zone. The static pressure at this location is 48 psi, thus the Costco requirement of 65 psi of residual pressure cannot be met. As a result, it is proposed that Costco's water service will be from the Red Zone. As currently planned, the Costco site is approximately 1,000 feet from the nearest Red Zone water line. A 12" water line can be routed to the Costco site. With service from the Red Zone, the Costco fire flow requirement can be satisfied. A summary of the Costco fire flow analysis is provided below.

Table 2.6 Costco MDD+FF Results

Serviced By Zone	Fire Flow Demand	Residual Pressure
Red	4,000 GPM	105.87 PSI
Red	2,150 GPM	130.31 PSI

Note: If connected to the Red Zone, the Costco static pressure will exceed 125 psi.

Extended Period Simulation

An Extended Period Simulation (EPS) was performed to analyze the distribution system during a 24-hour period during a maximum day condition. CRW provided the 24-hour diurnal curve (included in Appendix B) that were applied to the calculated MDD. As stated previously, the EPS scenario evaluated the three (3) pressure zones concurrently. The Green and Red Zone tanks were inputted into the model. The inputs included the total volume at buildout and the tank levels. The

booster pump stations included a pump curve to allow for the analysis of discharge flows and pressures.

The EPS scenario provides a complete full day's analysis of the distribution system, including a "tank-filling" situation. It provides the upper end of each pump stations' output and the junction pressures and pipe velocities during those conditions. Generally, the demands in the EPS analysis are lower than either the PHD or MDD+FF scenarios. However, it was included in the water system analysis to provide initial results on the tanks' and booster pump stations' performances. In particular, the Red Zone Booster Pump Station was evaluated because this facility will be responsible for conveying the flows to meet the demands of both the Red and Green Zones. Results from the EPS analysis are included in Appendix B, but they are considered preliminary because pump curves for actual pumps were not used and the tank volumes are for full buildout. A more specific analysis will be performed during the design of each booster pump station and tank.

3. CONCLUSIONS

Executive Summary

This Master Utility Report is intended to provide analysis and guidance to ensure the various filings and phases of the development are constructed in accordance with the overall needs and requirements of the development, and that the proposed infrastructure considers the full build-out condition.

The Town of Castle Rock currently does not have any domestic water connections to Dawson Trails. The connections to the Blue Zone will be from Plum Creek Parkway and Crystal Valley Parkway. The Red and Green Zones will both need to construct new tanks for service. There will be booster pumps and pressure reducing valves connecting the zones to each other.

The developers and design engineers will continue to work closely with the Town of Castle Rock as the various phases of the project are designed and constructed to ensure adequate infrastructure is provided to ultimately serve the full build-out of the development.

Compliance with Master Plans

The proposed water and wastewater layouts presented in the report provide systems which are in substantial conformance with the 2016 and 2017 Master Plan Updates.

Final Utility Report

The layout and design of the water proposed in this report, although in conformance with the Town of Castle Rock Water and Wastewater Collection System Design Criteria Manuals, is general in nature. Once a more refined design for the future development is available, a Final Utility Report shall be prepared and submitted with a final plat and construction drawings for each portion of the development.

REFERENCES

Costco Wholesale. December 18, 2020. Costco Wholesale Development Requirements

TOCR (Town of Castle Rock). December 4, 2018. Town of Castle Rock Water System Design Criteria Manual.

TOCR (Town of Castle Rock). December 4, 2018. Town of Castle Rock Wastewater Collection System Design Criteria Manual.

TOCR (Town of Castle Rock). 2016, Town of Castle Rock, 2016 Wastewater Master Plan.

TOCR (Town of Castle Rock). 2017. Town of Castle Rock, 2017 Water Master Plan Update.

Dawson Trails Planned Development Plan. September 2022.

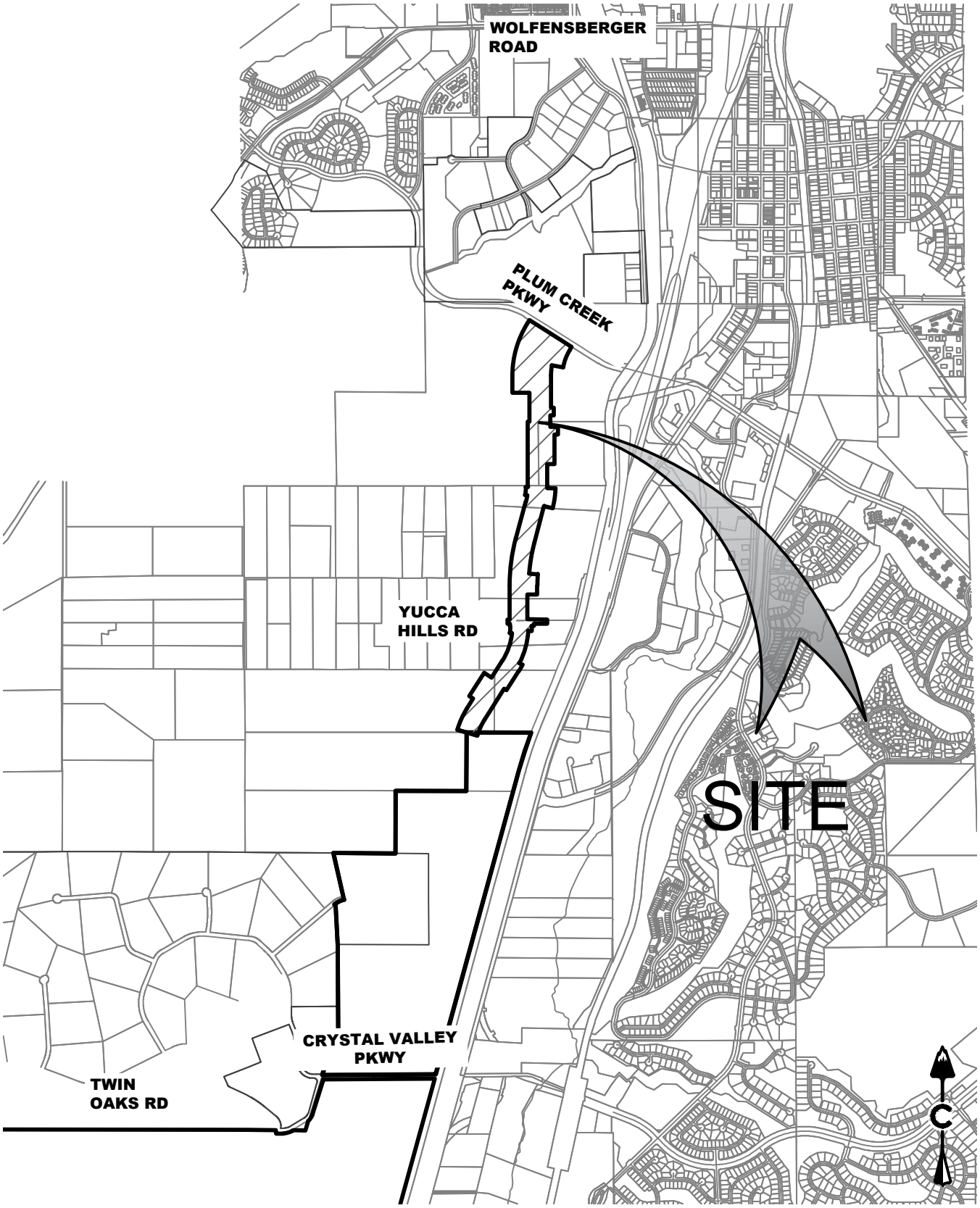
Computer Modeling Programs:

Bentley Systems, Inc., Version 2018. WaterCAD

Excel by Microsoft, Inc.

Appendix A

Figures



CORE
CORE CONSULTANTS. INC.
LIVEYOURCORE.COM

0 2,000'
1 inch = 2,000 ft.

DAWSON TRAILS
VICINITY MAP

CREATED BY: CGV DATE: 9/19/2024

SHEET NUMBER 1 OF 1 SHEETS

JOB NUMBER 20-224

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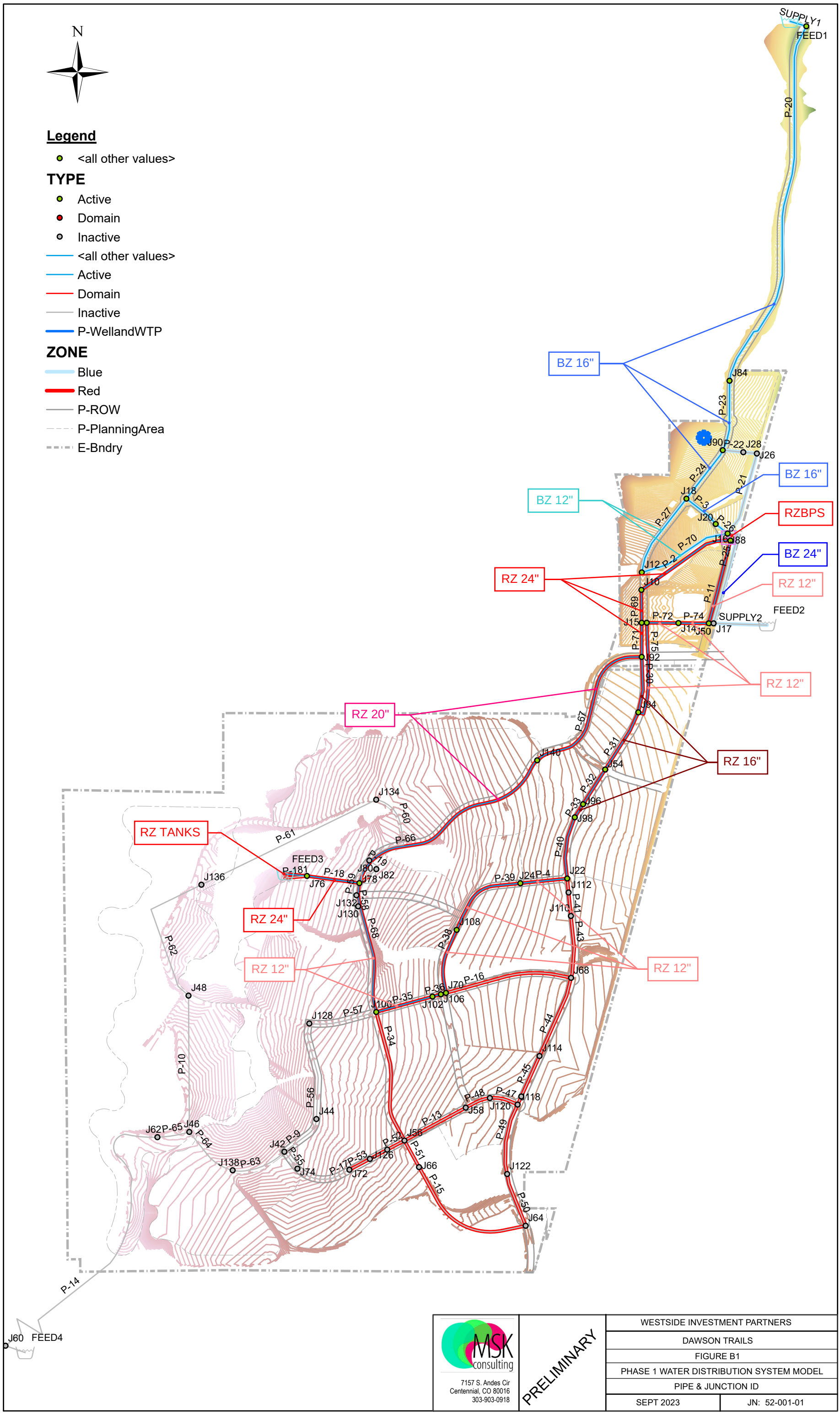
Appendix B

Water Modeling / Calculations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Active
Domain
Inactive
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Domain
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Blue
Red
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J84
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J90
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P-3
P-27
J20
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P-25
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RZ 24"
J10
P-11
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J54
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J64
P-14
J60
FEED4
MSK consulting
7157 S. Andes Cir
Centennial, CO 80016
303-903-0918
PRELIMINARY
WESTSIDE INVESTMENT PARTNERS
DAWSON TRAILS
FIGURE B1
PHASE 1 WATER DISTRIBUTION SYSTEM MODEL
PIPE & JUNCTION ID
SEPT 2023
JN: 52-001-01

WESTSIDE PROPERTY

Dawson Trails Scenario #13 - Buildout, SS, RZBPS ON

Water Model Pipe Report

Model Run Date: Oct 7, 2023

Max Velocity Criteria =	10	ft/sec
Max Velocity =	4.46	ft/sec
Criteria met?	yes	

Table B2-3: Water Model Pipe Report

ID	Description (Char)	Zone (Char)	Phase (Int)	From Node	To Node	Length (ft)	Diameter (in)	Roughness	PHD OUTPUT Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
P-1		Red	1	J15	J161	83.66	12	120	-161.60	0.46	0.01	0.1	Open
P-11		Red	1	J50	J16	1,423.65	12	120	-831.65	2.36	2.97	2.09	Open
P-12		Red		J52	J54	1,023.71	16	120	0.00	0	0	0	Closed
P-13		Red		J56	J58	1,156.14	12	120	-377.62	1.07	0.56	0.48	Open
P-15		Red		J64	J66	2,301.39	12	120	236.90	0.67	0.47	0.2	Open
P-16		Red		J68	J70	2,127.41	12	120	421.84	1.2	1.26	0.59	Open
P-18		Red	1	J76	J78	879.01	24	120	0.00	0	0	0	Open
P-181	Supply 3	Red		T1-RZ	J76	1.00	24	120	0.00	0	0	0	Closed
P-2		Red	1	J16	J10	1,728.80	24	120	5,368.36	3.81	3.9	2.26	Open
P-20		Blue	1	J84	J86	6,218.83	16	120	-965.54	1.54	4.22	0.68	Open
P-21		Blue		J26	J88	1,436.03	12	120	284.18	0.81	0.41	0.29	Open
P-22		Blue		J28	J90	342.27	12	120	-284.18	0.81	0.1	0.29	Open
P-23		Blue	1	J90	J84	1,172.78	16	120	-965.54	1.54	0.8	0.68	Open
P-24		Blue	1	J18	J90	1,011.16	16	120	-681.36	1.09	0.36	0.36	Open
P-25		Blue		J17	J88	1,707.01	24	120	5,234.47	3.71	3.68	2.15	Open
P-26		Blue		J88	J20	253.09	16	120	-548.25	0.87	0.06	0.24	Open
P-27		Blue	1	J12	J18	1,454.96	12	120	-133.11	0.38	0.1	0.07	Open
P-28		Red		J50	J52	2,860.32	16	120	0.00	0	0	0	Open
P-29	Zone Bndy (R2	Red	1	J88	J16	126.82	24	120	0.00	0	0	0	Closed
P-291	Zone Bndy	Blue		J88	P1	68.07	24	120	6,200.02	4.4	0.2	2.95	Open
P-292	Zone Bndy	Red		P1	J16	61.69	24	120	6,200.02	4.4	0.18	2.94	Open
P-293	Zone Bndy	Blue	1	J88	P1_PH1	64.87	24	120	0.00	0	0	0	Open
P-294	Zone Bndy	Red	1	P1_PH1	J16	64.44	24	120	0.00	0	0	0	Open
P-3		Blue		J18	J20	646.08	16	120	548.25	0.87	0.15	0.24	Open
P-30		Red	1	J94	J92	930.51	16	120	-1,167.07	1.86	0.9	0.96	Open
P-31		Red	1	J54	J94	1,101.20	16	120	-1,837.12	2.93	2.46	2.23	Open
P-32		Red	1	J96	J54	685.74	16	120	-1,837.13	2.93	1.53	2.23	Open
P-33		Red	1	J98	J96	257.42	16	120	-1,837.13	2.93	0.57	2.23	Open
P-34		Red		J100	J56	2,226.75	12	120	-614.51	1.74	2.66	1.19	Open
P-35		Red	1	J102	J100	970.07	12	120	1,222.61	3.47	4.14	4.26	Open
P-36		Red	1	J106	J102	144.99	12	120	1,222.61	3.47	0.62	4.27	Open
P-37		Red	1	J70	J106	87.97	12	120	1,222.61	3.47	0.38	4.26	Open
P-38		Red	1	J108	J70	1,096.69	12	120	800.77	2.27	2.14	1.95	Open
P-39		Red	1	J24	J108	1,454.20	12	120	800.77	2.27	2.83	1.95	Open
P-4		Red	1	J22	J24	781.22	12	120	800.77	2.27	1.52	1.95	Open
P-40		Red	1	J22	J98	1,043.14	16	120	-1,837.13	2.93	2.33	2.23	Open
P-41		Red		J110	J112	393.61	12	120	-1,036.35	2.94	1.24	3.14	Open
P-42		Red		J112	J22	233.82	12	120	-1,036.35	2.94	0.73	3.14	Open
P-43		Red		J68	J110	1,036.73	12	120	-1,036.35	2.94	3.26	3.14	Open
P-44		Red		J114	J68	1,405.64	12	120	-614.51	1.74	1.68	1.19	Open
P-45		Red		J116	J114	738.3	12	120	-614.51	1.74	0.88	1.19	Open
P-46		Red		J118	J116	148.99	12	120	-614.51	1.74	0.18	1.19	Open
P-47		Red		J120	J118	481.07	12	120	-377.62	1.07	0.23	0.48	Open
P-48		Red		J58	J120	435.82	12	120	-377.62	1.07	0.21	0.48	Open
P-49		Red		J122	J118	1,191.76	12	120	-236.90	0.67	0.24	0.2	Open
P-5		Blue		J26	J28	227.24	12	120	-284.18	0.81	0.06	0.29	Open
P-50		Red		J64	J122	917.58	12	120	-236.90	0.67	0.19	0.2	Open
P-51		Red		J66	J56	505.3	12	120	236.90	0.67	0.1	0.2	Open
P-52		Red		J56	J124	323.43	12	120	0.00	0	0	0	Open
P-53	Zone Bndy	Red		J126	J72	384.78	12	120	0.00	0	0	0	Closed
P-54		Red		J124	J126	327.74	12	120	0.00	0	0	0	Open
P-66		Red	1	J140	J78	3,778.95	20	120	4,362.88	4.46	14.12	3.74	Open
P-661		Red		J78	P2	100.00	12	120	0.00	0	0	0	Open
P-67		Red	1	J92	J140	2,723.50	20	120	4,362.88	4.46	10.18	3.74	Open
P-68		Red	1	J78	J100	2,188.12	16	120	-1,837.13	2.93	4.89	2.23	Open
P-69		Red	1	J10	J15	546.44	24	120	5,368.36	3.81	1.23	2.26	Open
P-70		Blue		J12	J88	1,592.12	12	120	133.11	0.38	0.11	0.07	Open
P-71		Red	1	J15	J92	570.16	24	120	5,529.95	3.92	1.36	2.39	Open
P-72		Red	1	J161	J14	526.76	12	120	-831.65	2.36	1.1	2.09	Open
P-74		Red	1	J14	J50	503.93	12	120	-831.65	2.36	1.05	2.09	Open
P-75		Red	1	J94	J161	1,617.47	12	120	-670.05	1.9	2.26	1.4	Open
SUPPLY1	Supply 1	Blue	1	FEED1	J86	1.00	16	120	965.54	1.54	0	0.49	Open
SUPPLY2	Supply 2	Blue		FEED2	J17	887.22	24	120	5,234.47	3.71	1.91	2.15	Open
SUPPLY3	Supply 3	Red	1	FEED3	J76	1	24	120	0	0	0	0	Closed

WESTSIDE PROPERTY

Dawson Trails Scenario #3 - Ph1, SS, PHD, Feed 2 OFF, PS OFF

Dawson Trails Scenario #4B - Ph1, SS, MDD+FF, Costco FF Alternative

Water Model Junction Report

Model Run Date: Sept 29, 2023

ADD:	265.0	gpd/SFE
MDD:	2.5	x ADD
PHD	5.5	x ADD

Table B2-2: Water Model Junction Report

						[Scenario #3 Results]		
		671.5				PHD DMD = 679.7 gpm		
ID	Description (Char)	SFE	Zone (Char)	Phase (Int)	Elevation (ft)	Demand (gpm)	Head (ft)	Pressure (psi)
J10			Red	1	6,381.00	0.00	6,662.02	121.77
J100			Red	1	6,549.09	0.00	6,662.30	49.05
J102	FH	0.0	Red	1	6,498.44	0.00	6,662.20	70.96
J106	FH	0.0	Red	1	6,492.07	0.00	6,662.19	73.71
J108	FH	0.0	Red	1	6,496.31	0.00	6,662.07	71.82
J12	FH	0.0	Blue	1	6,370.48	0.00	6,493.00	53.09
J14	FH	102.0	Red	1	6,381.00	103.24	6,662.01	121.76
J140	FH	233.0	Red	1	6,467.50	235.83	6,662.08	84.31
J15		0.0	Red	1	6,381.00	0.00	6,662.02	121.77
J16			Red	1	6,350.00	0.00	6,662.02	135.20
J161			Red	1	6,386.00	0.00	6,662.02	119.60
J18	FH	0.0	Blue	1	6,370.48	0.00	6,493.00	53.09
J20	FH		Blue	1	6,352.61	0.00	6,493.00	60.83
J22			Red	1	6,433.62	0.00	6,661.96	98.94
J24	FH	274.0	Red	1	6,471.80	277.33	6,661.92	82.38
J50			Red	1	6,377.00	0.00	6,662.01	123.49
J54			Red	1	6,425.00	0.00	6,661.99	102.69
J70			Red	1	6,490.00	0.00	6,662.18	74.61
J84			Blue	1	6,339.66	0.00	6,493.00	66.44
J86			Blue	1	6,286.00	0.00	6,493.00	89.69
J88	RZBPS		Blue	1	6,350.00	0.00	6,493.00	61.96
J90			Blue	1	6,346.49	0.00	6,493.00	63.48
J92			Red	1	6,380.00	0.00	6,662.02	122.20
J94	FH	62.5	Red	1	6,395.02	63.26	6,662.00	115.68
J96	FH	0.0	Red	1	6,444.45	0.00	6,661.98	94.26
J98	FH	0.0	Red	1	6,443.18	0.00	6,661.98	94.81
		671.5			6,443.18	679.66		

WESTSIDE PROPERTY

Dawson Trails Scenario #3 - Ph1, SS, PHD, Feed 2 OFF, PS OFF

Water Model Pipe Report

Model Run Date: Sept 29, 2023

Max Velocity Criteria =	10	ft/sec
Max Velocity =	0.53	ft/sec
Criteria met?	yes	

Table B2-3: Water Model Pipe Report

[Scenario #3 Results]

									PHD OUTPUT				
ID	Description (Char)	Zone (Char)	Phase (Int)	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
P-1		Red	1	J15	J161	83.66	12	120	104.97	0.3	0	0.05	Open
P-11		Red	1	J50	J16	1,423.65	12	120	-37.84	0.11	0.01	0.01	Open
P-18		Red	1	J76	J78	879.01	24	120	679.66	0.48	0.04	0.05	Open
P-2		Red	1	J16	J10	1,728.80	24	120	-37.84	0.03	0	0	Open
P-20		Blue	1	J84	J86	6,218.83	16	120	0.00	0	0	0	Open
P-23		Blue	1	J90	J84	1,172.78	16	120	0.00	0	0	0	Open
P-24		Blue	1	J18	J90	1,011.16	16	120	0.00	0	0	0	Open
P-26		Blue	1	J88	J20	253.09	16	120	-0.13	0	0	0	Open
P-27		Blue	1	J12	J18	1,454.96	12	120	0.14	0	0	0	Open
P-29	Zone Bndy (R2	Red	1	J88	J16	126.82	24	120	0.00	0	0	0	Closed
P293	Zone Bndy	Blue	1	J88	P1_PH1	64.87	24	120	0.00	0	0	0	Open
P294	Zone Bndy	Red	1	P1_PH1	J16	64.44	24	120	0.00	0	0	0	Open
P-3		Blue	1	J18	J20	646.08	16	120	0.13	0	0	0	Open
P-30		Red	1	J94	J92	930.51	16	120	-138.63	0.22	0.02	0.02	Open
P-31		Red	1	J54	J94	1,101.20	16	120	-114.94	0.18	0.01	0.01	Open
P-32		Red	1	J96	J54	685.74	16	120	-114.94	0.18	0.01	0.01	Open
P-33		Red	1	J98	J96	257.42	16	120	-114.94	0.18	0	0.01	Open
P-35		Red	1	J102	J100	970.07	12	120	-162.39	0.46	0.1	0.1	Open
P-36		Red	1	J106	J102	144.99	12	120	-162.39	0.46	0.01	0.1	Open
P-37		Red	1	J70	J106	87.97	12	120	-162.39	0.46	0.01	0.1	Open
P-38		Red	1	J108	J70	1,096.69	12	120	-162.39	0.46	0.11	0.1	Open
P-39		Red	1	J24	J108	1,454.20	12	120	-162.39	0.46	0.15	0.1	Open
P-4		Red	1	J22	J24	781.22	12	120	114.94	0.33	0.04	0.05	Open
P-40		Red	1	J22	J98	1,043.14	16	120	-114.94	0.18	0.01	0.01	Open
P-66		Red	1	J140	J78	3,778.95	20	120	-517.27	0.53	0.27	0.07	Open
P-67		Red	1	J92	J140	2,723.50	20	120	-281.44	0.29	0.06	0.02	Open
P-68		Red	1	J78	J100	2,188.12	16	120	162.39	0.26	0.05	0.02	Open
P-69		Red	1	J10	J15	546.44	24	120	-37.84	0.03	0	0	Open
P-70		Blue	1	J12	J88	1,592.12	12	120	-0.14	0	0	0	Open
P-71		Red	1	J15	J92	570.16	24	120	-142.81	0.1	0	0	Open
P-72		Red	1	J161	J14	526.76	12	120	65.40	0.19	0.01	0.02	Open
P-74		Red	1	J14	J50	503.93	12	120	-37.84	0.11	0	0.01	Open
P-75		Red	1	J94	J161	1,617.47	12	120	-39.56	0.11	0.01	0.01	Open
SUPPLY1	Supply 1	Blue	1	FEED1	J86	1.00	16	120	0.00	0	0	0	Open
SUPPLY3	Supply 3	Red	1	FEED3	J76	1.00	24	120	679.66	0.48	0	0	Open

WESTSIDE PROPERTY
Dawson Trails Scenario #4A - Ph1, SS, MDD+FF
Water Model Fire Flow Report
Model Run Date: Sept 29, 2023

Table B2-4A: Water Model Fire Flow Report

ID	Description (Char)	Zone (Char)	Elevation (ft)	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)	Hydrant Pressure at Available Flow (psi)	Pass /Fail
J102	FH	Red	6,498.44	0	71.02	6,662.35	3,000	63.64	8,665.77	20	Pass
J106	FH	Red	6,492.07	0	73.78	6,662.35	1,500	71.53	8,689.99	20	Pass
J108	FH	Red	6,496.31	0	71.93	6,662.32	3,000	62.4	7,642.80	20	Pass
J12	FH	Blue	6,370.48	0	53.09	6,493.00	3,000	28.55	3,525.77	20	Pass
J14	FH	Red	6,381.00	46.93	121.89	6,662.31	2,000	118.44	13,242.64	20	Pass
J140	FH	Red	6,467.50	107.2	84.42	6,662.33	1,500	83.51	17,271.92	20	Pass
J18	FH	Blue	6,370.48	0	53.09	6,493.00	3,000	32.92	3,919.68	20	Pass
J20	FH	Blue	6,352.61	0	60.83	6,493.00	3,000	39.56	4,266.37	20	Pass
J24	FH	Red	6,471.80	126.06	82.54	6,662.29	3,000	73.33	8,846.65	20	Pass
J94	FH	Red	6,395.02	28.75	115.82	6,662.31	3,000	111	15,920.53	20	Pass
J96	FH	Red	6,444.45	0	94.4	6,662.30	3,000	87.85	11,600.27	20	Pass
J98	FH	Red	6,443.18	0	94.95	6,662.30	3,000	88.19	11,439.26	20	Pass

WESTSIDE PROPERTY

Dawson Trails Scenario #3 - Ph1, SS, PHD, Feed 2 OFF, PS OFF

Dawson Trails Scenario #4B - Ph1, SS, MDD+FF, Costco FF Alternative

Water Model Junction Report

Model Run Date: Sept 29, 2023

ADD:	265.0	gpd/SFE
MDD:	2.5	x ADD
PHD	5.5	x ADD

Table B2-2: Water Model Junction Report

						[Scenario #4B Results]		
		671.5				**MDD DMD = 2,308.9 gpm**		
ID	**Description (Char)**	**SFE**	**Zone (Char)**	**Phase (Int)**	**Elevation (ft)**	**Demand (gpm)**	**Head (ft)**	**Pressure (psi)**
J10			Red	1	6,381.00	0.00	6,657.31	119.73
J100			Red	1	6,549.09	0.00	6,661.52	48.71
J102	FH	0.0	Red	1	6,498.44	0.00	6,660.69	70.3
J106	FH	0.0	Red	1	6,492.07	0.00	6,660.56	73.01
J108	FH	0.0	Red	1	6,496.31	0.00	6,659.55	70.73
J12	FH	0.0	Blue	1	6,370.48	0.00	6,493.00	53.09
J14	FH	102.0	Red	1	6,381.00	2046.93	6,654.35	118.44
J140	FH	233.0	Red	1	6,467.50	107.20	6,659.26	83.09
J15		0.0	Red	1	6,381.00	0.00	6,657.34	119.74
J16			Red	1	6,350.00	0.00	6,657.23	133.12
J161			Red	1	6,386.00	0.00	6,657.06	117.45
J18	FH	0.0	Blue	1	6,370.48	0.00	6,493.00	53.09
J20	FH		Blue	1	6,352.61	0.00	6,493.00	60.83
J22			Red	1	6,433.62	0.00	6,657.90	97.18
J24	FH	274.0	Red	1	6,471.80	126.06	6,658.30	80.81
J50			Red	1	6,377.00	0.00	6,655.10	120.5
J54			Red	1	6,425.00	0.00	6,657.65	100.81
J70			Red	1	6,490.00	0.00	6,660.49	73.87
J84			Blue	1	6,339.66	0.00	6,493.00	66.44
J86			Blue	1	6,286.00	0.00	6,493.00	89.69
J88	RZBPS		Blue	1	6,350.00	0.00	6,493.00	61.96
J90			Blue	1	6,346.49	0.00	6,493.00	63.48
J92			Red	1	6,380.00	0.00	6,657.51	120.24
J94	FH	62.5	Red	1	6,395.02	28.75	6,657.51	113.74
J96	FH	0.0	Red	1	6,444.45	0.00	6,657.74	92.42
J98	FH	0.0	Red	1	6,443.18	0.00	6,657.77	92.98
		671.5			6,443.18	2,308.9		

WESTSIDE PROPERTY

Dawson Trails Scenario #4B - Ph1, SS, MDD+FF, Costco FF Alternative

Water Model Pipe Report

Model Run Date: Sept 29, 2023

Max Velocity Criteria =	5	ft/sec
Max Velocity =	3.84	ft/sec
Criteria met?	yes	

Table B2-3: Water Model Pipe Report

[Scenario #4B Results]

ID	Description (Char)	Zone (Char)	Phase (Int)	From Node	To Node	Length (ft)	Diameter (in)	Roughness	MDD OUTPUT Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
P-1		Red	1	J15	J161	83.66	12	120	1,073.21	3.04	0.28	3.35	Open
P-11		Red	1	J50	J16	1,423.65	12	120	-693.46	1.97	2.12	1.49	Open
P-18		Red	1	J76	J78	879.01	24	120	2,308.95	1.64	0.42	0.47	Open
P-2		Red	1	J16	J10	1,728.80	24	120	-693.47	0.49	0.09	0.05	Open
P-20		Blue	1	J84	J86	6,218.83	16	120	0.00	0	0	0	Open
P-23		Blue	1	J90	J84	1,172.78	16	120	0.00	0	0	0	Open
P-24		Blue	1	J18	J90	1,011.16	16	120	0.00	0	0	0	Open
P-26		Blue	1	J88	J20	253.09	16	120	-0.30	0	0	0	Open
P-27		Blue	1	J12	J18	1,454.96	12	120	0.31	0	0	0	Open
P-29	Zone Bndy (R2	Red	1	J88	J16	126.82	24	120	0.00	0	0	0	Closed
P293	Zone Bndy	Blue	1	J88	P1_PH1	64.87	24	120	0.00	0	0	0	Open
P294	Zone Bndy	Red	1	P1_PH1	J16	64.44	24	120	0.00	0	0	0	Open
P-3		Blue	1	J18	J20	646.08	16	120	0.30	0	0	0	Open
P-30		Red	1	J94	J92	930.51	16	120	79.36	0.13	0.01	0.01	Open
P-31		Red	1	J54	J94	1,101.20	16	120	388.36	0.62	0.14	0.13	Open
P-32		Red	1	J96	J54	685.74	16	120	388.36	0.62	0.09	0.13	Open
P-33		Red	1	J98	J96	257.42	16	120	388.36	0.62	0.03	0.13	Open
P-35		Red	1	J102	J100	970.07	12	120	-514.42	1.46	0.83	0.86	Open
P-36		Red	1	J106	J102	144.99	12	120	-514.42	1.46	0.12	0.86	Open
P-37		Red	1	J70	J106	87.97	12	120	-514.42	1.46	0.08	0.86	Open
P-38		Red	1	J108	J70	1,096.69	12	120	-514.42	1.46	0.94	0.86	Open
P-39		Red	1	J24	J108	1,454.20	12	120	-514.42	1.46	1.25	0.86	Open
P-4		Red	1	J22	J24	781.22	12	120	-388.36	1.1	0.4	0.51	Open
P-40		Red	1	J22	J98	1,043.14	16	120	388.36	0.62	0.13	0.13	Open
P-66		Red	1	J140	J78	3,778.95	20	120	-1,794.52	1.83	2.72	0.72	Open
P-67		Red	1	J92	J140	2,723.50	20	120	-1,687.32	1.72	1.75	0.64	Open
P-68		Red	1	J78	J100	2,188.12	16	120	514.42	0.82	0.46	0.21	Open
P-69		Red	1	J10	J15	546.44	24	120	-693.47	0.49	0.03	0.05	Open
P-70		Blue	1	J12	J88	1,592.12	12	120	-0.31	0	0	0	Open
P-71		Red	1	J15	J92	570.16	24	120	-1,766.68	1.25	0.16	0.29	Open
P-72		Red	1	J161	J14	526.76	12	120	1,353.47	3.84	2.71	5.15	Open
P-74		Red	1	J14	J50	503.93	12	120	-693.46	1.97	0.75	1.49	Open
P-75		Red	1	J94	J161	1,617.47	12	120	280.25	0.8	0.45	0.28	Open
SUPPLY1	Supply 1	Blue	1	FEED1	J86	1.00	16	120	0.00	0	0	0	Open
SUPPLY3	Supply 3	Red	1	FEED3	J76	1.00	24	120	2,308.95	1.64	0	0.49	Open

WESTSIDE PROPERTY

Dawson Trails Scenario #5 - Ph1, SS, Feed2 OFF, PS ON

Water Model Junction Report

Model Run Date: Sept 29, 2023

ADD:	265.0	gpd/SFE
MDD:	2.5	x ADD
PHD	5.5	x ADD

Table B2-2: Water Model Junction Report

Minimum pressure= 51.75

		671.5				PHD DMD = 616.4 gpm		
ID	Description (Char)	SFE	Zone (Char)	Phase (Int)	Elevation (ft)	Demand (gpm)	Head (ft)	Pressure (psi)
J10			Red	1	6,381.00	0.00	6,768.80	168.03
J100			Red	1	6,549.09	0.00	6,768.65	95.13
J102	FH	0.0	Red	1	6,498.44	0.00	6,768.62	117.07
J106	FH	0.0	Red	1	6,492.07	0.00	6,768.62	119.83
J108	FH	0.0	Red	1	6,496.31	0.00	6,768.58	117.97
J12	FH	0.0	Blue	1	**6,370.48**	0.00	6,489.92	51.75
J14	FH	102.0	Red	1	6,381.00	103.24	6,768.78	168.02
J140	FH	233.0	Red	1	6,467.50	235.83	6,768.68	130.50
J15		0.0	Red	1	6,381.00	0.00	6,768.78	168.02
J16			Red	1	6,350.00	0.00	6,768.86	181.49
J161			Red	1	6,386.00	0.00	6,768.78	165.86
J18	FH	0.0	Blue	1	6,370.48	0.00	6,490.02	51.80
J20	FH		Blue	1	6,352.61	0.00	6,489.87	59.48
J22			Red	1	6,433.62	0.00	6,768.63	145.16
J24	FH	274.0	Red	1	6,471.80	277.33	6,768.53	128.57
J50			Red	1	6,377.00	0.00	6,768.80	169.77
J54			Red	1	6,425.00	0.00	6,768.70	148.93
J70			Red	1	6,490.00	0.00	6,768.61	120.72
J76	RZ Tank		Red	1	6,646.85	0.00	6,768.67	52.79
J78	GZBPS		Red	1	6,607.50	0.00	6,768.67	69.84
J84			Blue	1	6,339.66	0.00	6,490.80	65.49
J86			Blue	1	6,286.00	0.00	6,493.00	89.69
J88	RZBPS		Blue	1	6,350.00	0.00	6,489.81	60.58
J90			Blue	1	6,346.49	0.00	6,490.38	62.35
J92			Red	1	6,380.00	0.00	6,768.76	168.45
J94	FH	62.5	Red	1	6,395.02	0.00	6,768.74	161.93
J96	FH	0.0	Red	1	6,444.45	0.00	6,768.68	140.49
J98	FH	0.0	Red	1	6,443.18	0.00	6,768.67	141.04

WESTSIDE PROPERTY

Dawson Trails Scenario #5 - Ph1, SS, Feed 2 OFF, PS ON

Water Model Pipe Report

Model Run Date: Sept 29, 2023

Max Velocity Criteria =	10	ft/sec
Max Velocity =	1.08	ft/sec
Criteria met?	yes	

Table B2-3: Water Model Pipe Report

									PHD OUTPUT				
ID	Description (Char)	Zone (Char)	Phase (Int)	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
P-1		Red	1	J15	J161	83.66	12	120	76.48	0.22	0	0.02	Open
P-11		Red	1	J50	J16	1,423.65	12	120	-103.23	0.29	0.06	0.04	Open
P-18		Red	1	J76	J78	879.01	24	120	0.00	0	0	0	Open
P-2		Red	1	J16	J10	1,728.80	24	120	576.43	0.41	0.06	0.04	Open
P-20		Blue	1	J84	J86	6,218.83	16	120	-679.66	1.08	2.2	0.35	Open
P-23		Blue	1	J90	J84	1,172.78	16	120	-679.66	1.08	0.42	0.35	Open
P-24		Blue	1	J18	J90	1,011.16	16	120	-679.66	1.08	0.36	0.35	Open
P-26		Blue	1	J88	J20	253.09	16	120	-546.89	0.87	0.06	0.24	Open
P-27		Blue	1	J12	J18	1,454.96	12	120	-132.77	0.38	0.1	0.07	Open
P-29	Zone Bndy (R2	Red	1	J88	J16	126.82	24	120	0.00	0	0	0	Closed
P293	Zone Bndy	Blue	1	J88	P1_PH1	64.87	24	120	679.66	0.48	0	0.05	Open
P294	Zone Bndy	Red	1	P1_PH1	J16	64.44	24	120	679.66	0.48	0	0.05	Open
P-3		Blue	1	J18	J20	646.08	16	120	546.89	0.87	0.15	0.24	Open
P-30		Red	1	J94	J92	930.51	16	120	-175.76	0.28	0.03	0.03	Open
P-31		Red	1	J54	J94	1,101.20	16	120	-188.97	0.3	0.04	0.03	Open
P-32		Red	1	J96	J54	685.74	16	120	-188.97	0.3	0.02	0.03	Open
P-33		Red	1	J98	J96	257.42	16	120	-188.97	0.3	0.01	0.03	Open
P-35		Red	1	J102	J100	970.07	12	120	-88.36	0.25	0.03	0.03	Open
P-36		Red	1	J106	J102	144.99	12	120	-88.36	0.25	0	0.03	Open
P-37		Red	1	J70	J106	87.97	12	120	-88.36	0.25	0	0.03	Open
P-38		Red	1	J108	J70	1,096.69	12	120	-88.36	0.25	0.04	0.03	Open
P-39		Red	1	J24	J108	1,454.20	12	120	-88.36	0.25	0.05	0.03	Open
P-4		Red	1	J22	J24	781.22	12	120	188.97	0.54	0.1	0.13	Open
P-40		Red	1	J22	J98	1,043.14	16	120	-188.97	0.3	0.03	0.03	Open
P-66		Red	1	J140	J78	3,778.95	20	120	88.36	0.09	0.01	0	Open
P-67		Red	1	J92	J140	2,723.50	20	120	324.19	0.33	0.08	0.03	Open
P-68		Red	1	J78	J100	2,188.12	16	120	88.36	0.14	0.02	0.01	Open
P-69		Red	1	J10	J15	546.44	24	120	576.43	0.41	0.02	0.04	Open
P-70		Blue	1	J12	J88	1,592.12	12	120	132.77	0.38	0.11	0.07	Open
P-71		Red	1	J15	J92	570.16	24	120	499.95	0.35	0.02	0.03	Open
P-72		Red	1	J161	J14	526.76	12	120	0.00	0	0	0	Open
P-74		Red	1	J14	J50	503.93	12	120	-103.23	0.29	0.02	0.04	Open
P-75		Red	1	J94	J161	1,617.47	12	120	-76.47	0.22	0.04	0.03	Open
SUPPLY1	Supply 1	Blue	1	FEED1	J86	1.00	16	120	679.66	1.08	0	0.49	Open

WESTSIDE PROPERTY

Dawson Trails Scenario #11 - Buildout, SS, PHD, PS OFF

ADD:	265.0	gpd/SFE
MDD:	2.5	x ADD
PHD	5.5	x ADD

Water Model Junction Report

Model Run Date: Oct 7, 2023

Table B2-2: Water Model Junction Report

ID	Description (Char)	SFE	Zone (Char)	Phase (Int)	Elevation (ft)	[Scenario #11 Results] PHD DMD = 4,994.0 gpm Demand (gpm)	Head (ft)	Pressure (psi)
J10			Red	1	6,381.00	0.00	6,652.49	117.64
J100			Red	1	6,549.09	0.00	6,653.30	45.15
J102	FH	216.0	Red	1	6,498.44	218.63	6,649.13	65.29
J106	FH	102.0	Red	1	6,492.07	103.24	6,648.69	67.86
J108	FH	17.0	Red	1	6,496.31	17.21	6,647.93	65.70
J110	FH	68.0	Red		6,432.18	68.83	6,646.68	92.94
J112	FH	517.0	Red		6,433.00	523.28	6,646.74	92.61
J114	FH	688.0	Red		6,460.00	696.36	6,644.73	80.04
J116	FH	101.0	Red		6,452.69	102.23	6,644.74	83.21
J118	FH	191.0	Red		6,450.00	193.32	6,644.75	84.38
J12	FH	20.0	Blue	1	6,370.48	20.24	6,492.99	53.08
J120	FH	2.0	Red		6,458.83	2.02	6,644.78	80.57
J122	FH	5.0	Red		6,440.00	5.06	6,644.97	88.81
J124	FH	189.0	Red		6,515.38	191.30	6,645.65	56.45
J126	FH	114.0	Red		6,528.47	115.39	6,645.64	50.77
J14	FH	102.0	Red	1	6,381.00	103.24	6,652.41	117.60
J140	FH	245.0	Red	1	6,467.50	247.98	6,655.60	81.50
J15		0.0	Red	1	6,381.00	0.00	6,652.49	117.64
J16			Red	1	6,350.00	0.00	6,652.49	131.07
J161			Red	1	6,386.00	0.00	6,652.41	115.44
J17			Blue		6,351.40	0.00	6,493.00	61.35
J18	FH	4.0	Blue	1	6,370.48	4.05	6,492.99	53.08
J20	FH	36.0	Blue		6,352.61	36.44	6,492.99	60.83
J22			Red	1	6,433.62	0.00	6,647.12	92.51
J24	FH	148.0	Red	1	6,471.80	149.80	6,647.26	76.03
J26	FH		Blue		6,320.51	0.00	6,492.99	74.73
J28	FH	90.0	Blue		6,341.09	91.09	6,492.99	65.82
J50			Red	1	6,377.00	0.00	6,652.43	119.35
J52			Red		6,398.96	0.00	6,652.43	109.83
J54			Red	1	6,425.00	0.00	6,648.79	96.97
J56			Red		6,500.00	0.00	6,645.76	63.16
J58	FH	384.0	Red		6,471.27	388.67	6,644.80	75.19
J64	FH	13.0	Red		6,430.00	13.16	6,645.14	93.22
J66	FH	25.0	Red		6,492.95	25.30	6,645.63	66.16
J68			Red		6,440.00	0.00	6,646.61	89.52
J70			Red	1	6,490.00	0.00	6,648.48	68.67
J84			Blue	1	6,339.66	0.00	6,492.99	66.44
J86			Blue	1	6,286.00	0.00	6,493.00	89.69
J88	RZBPS		Blue		6,350.00	0.00	6,492.99	61.96
J90			Blue	1	6,346.49	0.00	6,492.99	63.48
J92			Red	1	6,380.00	0.00	6,652.52	118.08
J94	FH	509.0	Red	1	6,395.02	515.19	6,650.85	110.85
J96	FH	678.0	Red	1	6,444.45	686.24	6,647.51	87.99
J98	FH	470.0	Red	1	6,443.18	475.71	6,647.33	88.46
		6,875.0				6,958.55		

WESTSIDE PROPERTY

Dawson Trails Scenario #11 - Buildout, SS, PHD, PS OFF

Water Model Pipe Report

Model Run Date: Oct 7, 2023

Max Velocity Criteria =	10	ft/sec
Max Velocity =	5.57	ft/sec
Criteria met?	yes	

Table B2-3: Water Model Pipe Report

[Scenario #11 Results]

									PHD OUTPUT				
ID	Description (Char)	Zone (Char)	Phase (Int)	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
P-1		Red	1	J15	J161	83.66	12	120	552.58	1.57	0.08	0.98	Open
P-11		Red	1	J50	J16	1,423.65	12	120	-99.44	0.28	0.06	0.04	Open
P-12		Red		J52	J54	1,023.71	16	120	0.00	0	0	0	Closed
P-13		Red		J56	J58	1,156.14	12	120	505.70	1.43	0.96	0.83	Open
P-15		Red		J64	J66	2,301.39	12	120	-241.85	0.69	0.49	0.21	Open
P-16		Red		J68	J70	2,127.41	12	120	-521.12	1.48	1.87	0.88	Open
P-18		Red	1	J76	J78	879.01	24	120	4,842.16	3.43	1.64	1.86	Open
P-181	Supply 3	Red		T1-RZ	J76	1.00	24	120	0.00	0	0	0	Closed
P-2		Red	1	J16	J10	1,728.80	24	120	-99.44	0.07	0	0	Open
P-20		Blue	1	J84	J86	6,218.83	16	120	-31.01	0.05	0.01	0	Open
P-21		Blue		J26	J88	1,436.03	12	120	-32.43	0.09	0.01	0.01	Open
P-22		Blue		J28	J90	342.27	12	120	-58.66	0.17	0.01	0.02	Open
P-23		Blue	1	J90	J84	1,172.78	16	120	-31.01	0.05	0	0	Open
P-24		Blue	1	J18	J90	1,011.16	16	120	27.65	0.04	0	0	Open
P-25		Blue		J17	J88	1,707.01	24	120	120.81	0.09	0	0	Open
P-26		Blue		J88	J20	253.09	16	120	71.51	0.11	0	0	Open
P-27		Blue	1	J12	J18	1,454.96	12	120	-3.37	0.01	0	0	Open
P-28		Red		J50	J52	2,860.32	16	120	0.00	0	0	0	Open
P-29	Zone Bndy (R2	Red	1	J88	J16	126.82	24	120	0.00	0	0	0	Closed
P-291	Zone Bndy	Blue		J88	P1	68.07	24	120	0.00	0	0	0	Open
P-292	Zone Bndy	Red		P1	J16	61.69	24	120	0.00	0	0	0	Open
P-293	Zone Bndy	Blue	1	J88	P1_PH1	64.87	24	120	0.00	0	0	0	Open
P-294	Zone Bndy	Red	1	P1_PH1	J16	64.44	24	120	0.00	0	0	0	Open
P-3		Blue		J18	J20	646.08	16	120	-35.07	0.06	0	0	Open
P-30		Red	1	J94	J92	930.51	16	120	-1,634.16	2.61	1.67	1.8	Open
P-31		Red	1	J54	J94	1,101.20	16	120	-1,667.75	2.66	2.06	1.87	Open
P-32		Red	1	J96	J54	685.74	16	120	-1,667.75	2.66	1.28	1.87	Open
P-33		Red	1	J98	J96	257.42	16	120	-981.51	1.57	0.18	0.7	Open
P-34		Red		J100	J56	2,226.75	12	120	1,079.53	3.06	7.54	3.39	Open
P-35		Red	1	J102	J100	970.07	12	120	-1,228.47	3.48	4.17	4.3	Open
P-36		Red	1	J106	J102	144.99	12	120	-1,009.84	2.86	0.43	2.99	Open
P-37		Red	1	J70	J106	87.97	12	120	-906.60	2.57	0.22	2.45	Open
P-38		Red	1	J108	J70	1,096.69	12	120	-385.48	1.09	0.55	0.5	Open
P-39		Red	1	J24	J108	1,454.20	12	120	-368.27	1.04	0.67	0.46	Open
P-4		Red	1	J22	J24	781.22	12	120	-218.47	0.62	0.14	0.18	Open
P-40		Red	1	J22	J98	1,043.14	16	120	-505.80	0.81	0.21	0.2	Open
P-41		Red		J110	J112	393.61	12	120	-200.98	0.57	0.06	0.15	Open
P-42		Red		J112	J22	233.82	12	120	-724.26	2.05	0.38	1.62	Open
P-43		Red		J68	J110	1,036.73	12	120	-132.15	0.37	0.07	0.07	Open
P-44		Red		J114	J68	1,405.64	12	120	-653.27	1.85	1.88	1.34	Open
P-45		Red		J116	J114	738.3	12	120	43.09	0.12	0.01	0.01	Open
P-46		Red		J118	J116	148.99	12	120	145.32	0.41	0.01	0.08	Open
P-47		Red		J120	J118	481.07	12	120	115.01	0.33	0.03	0.05	Open
P-48		Red		J58	J120	435.82	12	120	117.03	0.33	0.02	0.05	Open
P-49		Red		J122	J118	1,191.76	12	120	223.63	0.63	0.22	0.18	Open
P-5		Blue		J26	J28	227.24	12	120	32.43	0.09	0	0	Open
P-50		Red		J64	J122	917.58	12	120	228.69	0.65	0.18	0.19	Open
P-51		Red		J66	J56	505.3	12	120	-267.15	0.76	0.13	0.26	Open
P-52		Red		J56	J124	323.43	12	120	306.69	0.87	0.11	0.33	Open
P-53	Zone Bndy	Red		J126	J72	384.78	12	120	0.00	0	0	0	Closed
P-54		Red		J124	J126	327.74	12	120	115.39	0.33	0.02	0.05	Open
P-66		Red	1	J140	J78	3,778.95	20	120	-2,534.16	2.59	5.16	1.37	Open
P-661		Red		J78	P2	100.00	12	120	0.00	0	0	0	Open
P-67		Red	1	J92	J140	2,723.50	20	120	-2,286.18	2.33	3.08	1.13	Open
P-68		Red	1	J78	J100	2,188.12	16	120	2,308.00	3.68	7.46	3.41	Open
P-69		Red	1	J10	J15	546.44	24	120	-99.44	0.07	0	0	Open
P-70		Blue		J12	J88	1,592.12	12	120	-16.87	0.05	0	0	Open
P-71		Red	1	J15	J92	570.16	24	120	-652.02	0.46	0.03	0.05	Open
P-72		Red	1	J161	J14	526.76	12	120	3.80	0.01	0	0	Open
P-74		Red	1	J14	J50	503.93	12	120	-99.44	0.28	0.02	0.04	Open
P-75		Red	1	J94	J161	1,617.47	12	120	-548.78	1.56	1.56	0.97	Open
SUPPLY1	Supply 1	Blue	1	FEED1	J86	1.00	16	120	31.01	0.05	0	0	Open
SUPPLY2	Supply 2	Blue		FEED2	J17	887.22	24	120	120.81	0.09	0	0	Open
SUPPLY3	Supply 3	Red	1	FEED3	J76	1	24	120	4,842.16	3.43	0	1.95	Open

WESTSIDE PROPERTY

Dawson Trails Scenario #12A - Buildout, SS, MDD+FF, PS OFF

Water Model Fire Flow Report

Model Run Date: Oct 7, 2023

Table B2-4A: Water Model Fire Flow Report

ID	Description (Char)	Junction of Interest	Zone (Char)	Elevation (ft)	Static Demand (gpm)	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)	Hydrant Pressure at Available Flow (psi)	Pass /Fail
J102	FH	no	Red	6,498.44	99.38	69.71	6,659.32	3,000	61.23	9,186.04	20	Pass
J106	FH	no	Red	6,492.07	46.93	72.42	6,659.22	1,500	69.16	9,382.15	20	Pass
J108	FH	no	Red	6,496.31	7.82	70.51	6,659.04	3,000	58.93	7,400.16	20	Pass
J110	FH	no	Red	6,432.18	31.28	98.17	6,658.75	3,000	87.95	10,721.67	20	Pass
J112	FH	no	Red	6,433.00	237.86	97.82	6,658.76	3,000	88.49	11,704.87	20	Pass
J114	FH	no	Red	6,460.00	316.53	85.92	6,658.30	3,000	70.55	7,791.38	20	Pass
J116	FH	no	Red	6,452.69	46.47	89.09	6,658.30	3,000	73.04	7,498.99	20	Pass
J118	FH	no	Red	6,450.00	87.87	90.26	6,658.30	3,000	74.17	7,602.40	20	Pass
J12	FH	no	Blue	6,370.48	9.2	53.09	6,493.00	3,000	48.21	8,476.02	20	Pass
J120	FH	no	Red	6,458.83	0.92	86.43	6,658.31	3,000	69.21	6,910.41	20	Pass
J122	FH	no	Red	6,440.00	2.3	94.61	6,658.35	3,000	74.56	6,631.02	20	Pass
J124	FH	no	Red	6,515.38	86.95	62.02	6,658.51	1,500	55.41	5,026.19	20	Pass
J126	FH	no	Red	6,528.47	52.45	56.34	6,658.51	1,500	48.8	4,123.66	20	Pass
J14	FH	yes	Red	6,381.00	46.93	120.93	6,660.08	2,000	116.26	13,354.38	20	Pass
J140	FH	no	Red	6,467.50	112.72	83.77	6,660.82	1,500	82.05	17,367.59	20	Pass
J18	FH	no	Blue	6,370.48	1.84	53.09	6,493.00	3,000	51.79	17,494.22	20	Pass
J20	FH	no	Blue	6,352.61	16.56	60.83	6,493.00	3,000	59.85	22,881.48	20	Pass
J24	FH	no	Red	6,471.80	68.09	81.07	6,658.88	3,000	70.02	8,675.38	20	Pass
J26	FH	no	Blue	6,320.51	0	74.74	6,493.00	3,000	71.45	13,814.73	20	Pass
J28	FH	no	Blue	6,341.09	41.41	65.82	6,493.00	3,000	62.95	13,591.76	20	Pass
J58	FH	no	Red	6,471.27	176.67	81.05	6,658.31	3,000	63.34	6,625.10	20	Pass
J64	FH	no	Red	6,430.00	5.98	98.96	6,658.39	3,000	77.74	6,596.53	20	Pass
J66	FH	no	Red	6,492.95	11.5	71.73	6,658.51	3,000	53.92	5,794.89	20	Pass
J94	FH	no	Red	6,395.02	234.18	114.69	6,659.72	3,000	108.37	16,845.66	20	Pass
J96	FH	no	Red	6,444.45	311.93	92.94	6,658.94	3,000	85.03	12,731.34	20	Pass
J98	FH	no	Red	6,443.18	216.23	93.47	6,658.90	3,000	85.43	12,555.35	20	Pass

WESTSIDE PROPERTY

Dawson Trails Scenario #12B - Buildout, SS, MDD+FF, Costco FF Alternative

Water Model Junction Report

Model Run Date: Oct 7, 2023

Table B2-2: Water Model Junction Report

[Scenario #12B Results]

MDD DMD = 4,270.0 gpm

ID	Description (Char)	SFE	Zone (Char)	Phase (Int)	Elevation (ft)	Demand (gpm)	Head (ft)	Pressure (psi)
J10			Red	1	6,381.00	0.00	6,652.30	117.55
J100			Red	1	6,549.09	0.00	6,657.09	46.8
J102	FH	216.0	Red	1	6,498.44	99.38	6,654.49	67.62
J106	FH	102.0	Red	1	6,492.07	46.93	6,654.18	70.24
J108	FH	17.0	Red	1	6,496.31	7.82	6,653.40	68.07
J110	FH	68.0	Red		6,432.18	31.28	6,652.47	95.45
J112	FH	517.0	Red		6,433.00	237.86	6,652.35	95.04
J114	FH	688.0	Red		6,460.00	316.53	6,652.80	83.54
J116	FH	101.0	Red		6,452.69	46.47	6,652.95	86.77
J118	FH	191.0	Red		6,450.00	87.87	6,653.00	87.96
J12	FH	20.0	Blue	1	6,370.48	9.20	6,493.00	53.09
J120	FH	2.0	Red		6,458.83	0.92	6,653.06	84.16
J122	FH	5.0	Red		6,440.00	2.30	6,653.14	92.36
J124	FH	189.0	Red		6,515.38	86.95	6,653.62	59.9
J126	FH	114.0	Red		6,528.47	52.45	6,653.62	54.23
J14	FH	102.0	Red	1	6,381.00	2046.93	6,649.31	116.26
J140	FH	245.0	Red	1	6,467.50	112.72	6,655.94	81.65
J15		0.0	Red	1	6,381.00	0.00	6,652.33	117.57
J16			Red	1	6,350.00	0.00	6,652.21	130.95
J161			Red	1	6,386.00	0.00	6,652.01	115.26
J17			Blue		6,351.40	0.00	6,493.00	61.35
J18	FH	4.0	Blue	1	6,370.48	1.84	6,493.00	53.09
J20	FH	36.0	Blue		6,352.61	16.56	6,493.00	60.83
J22			Red	1	6,433.62	0.00	6,652.35	94.78
J24	FH	148.0	Red	1	6,471.80	68.09	6,652.64	78.36
J26	FH		Blue		6,320.51	0.00	6,493.00	74.74
J28	FH	90.0	Blue		6,341.09	41.41	6,493.00	65.82
J50			Red	1	6,377.00	0.00	6,650.07	118.32
J52			Red		6,398.96	0.00	6,650.07	108.8
J54			Red	1	6,425.00	0.00	6,652.23	98.46
J56			Red		6,500.00	0.00	6,653.65	66.58
J58	FH	384.0	Red		6,471.27	176.67	6,653.12	78.8
J64	FH	13.0	Red		6,430.00	5.98	6,653.26	96.74
J66	FH	25.0	Red		6,492.95	11.50	6,653.57	69.6
J68			Red		6,440.00	0.00	6,652.84	92.22
J70			Red	1	6,490.00	0.00	6,654.00	71.06
J84			Blue	1	6,339.66	0.00	6,493.00	66.44
J86			Blue	1	6,286.00	0.00	6,493.00	89.69
J88	RZBPS		Blue		6,350.00	0.00	6,493.00	61.96
J90			Blue	1	6,346.49	0.00	6,493.00	63.48
J92			Red	1	6,380.00	0.00	6,652.50	118.08
J94	FH	509.0	Red	1	6,395.02	234.18	6,652.25	111.46
J96	FH	678.0	Red	1	6,444.45	311.93	6,652.22	90.03
J98	FH	470.0	Red	1	6,443.18	216.23	6,652.22	90.58
		6,875.0				5,162.98		

WESTSIDE PROPERTY

Dawson Trails Scenario #12B - Buildout, SS, MDD+FF, Costco FF Alternative

Water Model Pipe Report

Model Run Date: Oct 7, 2023

Max Velocity Criteria =	5	ft/sec
Max Velocity =	3.83	ft/sec
Criteria met?	yes	

Table B2-3: Water Model Pipe Report

[Scenario #12B Results]

ID	Description (Char)	Zone (Char)	Phase (Int)	From Node	To Node	Length (ft)	Diameter (in)	Roughness	MDD+FF OUTPUT Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
P-1		Red	1	J15	J161	83.66	12	120	1,148.09	3.26	0.32	3.79	Open
P-11		Red	1	J50	J16	1,423.65	12	120	-696.65	1.98	2.14	1.51	Open
P-12		Red		J52	J54	1,023.71	16	120	0.00	0	0	0	Closed
P-13		Red		J56	J58	1,156.14	12	120	366.50	1.04	0.53	0.46	Open
P-15		Red		J64	J66	2,301.39	12	120	-189.73	0.54	0.31	0.14	Open
P-16		Red		J68	J70	2,127.41	12	120	-402.54	1.14	1.16	0.54	Open
P-18		Red	1	J76	J78	879.01	24	120	4,201.01	2.98	1.26	1.43	Open
P-181	Supply 3	Red		T1-RZ	J76	1.00	24	120	0.00	0	0	0	Closed
P-2		Red	1	J16	J10	1,728.80	24	120	-696.66	0.49	0.09	0.05	Open
P-20		Blue	1	J84	J86	6,218.83	16	120	-14.10	0.02	0	0	Open
P-21		Blue		J26	J88	1,436.03	12	120	-14.74	0.04	0	0	Open
P-22		Blue		J28	J90	342.27	12	120	-26.67	0.08	0	0	Open
P-23		Blue	1	J90	J84	1,172.78	16	120	-14.10	0.02	0	0	Open
P-24		Blue	1	J18	J90	1,011.16	16	120	12.57	0.02	0	0	Open
P-25		Blue		J17	J88	1,707.01	24	120	54.91	0.04	0	0	Open
P-26		Blue		J88	J20	253.09	16	120	32.50	0.05	0	0	Open
P-27		Blue	1	J12	J18	1,454.96	12	120	-1.53	0	0	0	Open
P-28		Red		J50	J52	2,860.32	16	120	0.00	0	0	0	Open
P-29	Zone Bndy (RZ	Red	1	J88	J16	126.82	24	120	0.00	0	0	0	Closed
P-291	Zone Bndy	Blue		J88	P1	68.07	24	120	0.00	0	0	0	Open
P-292	Zone Bndy	Red		P1	J16	61.69	24	120	0.00	0	0	0	Open
P-293	Zone Bndy	Blue	1	J88	P1_PH1	64.87	24	120	0.00	0	0	0	Open
P-294	Zone Bndy	Red	1	P1_PH1	J16	64.44	24	120	0.00	0	0	0	Open
P-3		Blue		J18	J20	646.08	16	120	-15.94	0.03	0	0	Open
P-30		Red	1	J94	J92	930.51	16	120	-584.71	0.93	0.25	0.27	Open
P-31		Red	1	J54	J94	1,101.20	16	120	-148.33	0.24	0.02	0.02	Open
P-32		Red	1	J96	J54	685.74	16	120	-148.33	0.24	0.01	0.02	Open
P-33		Red	1	J98	J96	257.42	16	120	163.60	0.26	0.01	0.02	Open
P-34		Red		J100	J56	2,226.75	12	120	707.13	2.01	3.45	1.55	Open
P-35		Red	1	J102	J100	970.07	12	120	-951.70	2.7	2.6	2.68	Open
P-36		Red	1	J106	J102	144.99	12	120	-852.32	2.42	0.32	2.19	Open
P-37		Red	1	J70	J106	87.97	12	120	-805.39	2.28	0.17	1.97	Open
P-38		Red	1	J108	J70	1,096.69	12	120	-402.85	1.14	0.6	0.55	Open
P-39		Red	1	J24	J108	1,454.20	12	120	-395.03	1.12	0.77	0.53	Open
P-4		Red	1	J22	J24	781.22	12	120	-326.94	0.93	0.29	0.37	Open
P-40		Red	1	J22	J98	1,043.14	16	120	379.83	0.61	0.13	0.12	Open
P-41		Red		J110	J112	393.61	12	120	290.75	0.82	0.12	0.3	Open
P-42		Red		J112	J22	233.82	12	120	52.89	0.15	0	0.01	Open
P-43		Red		J68	J110	1,036.73	12	120	322.03	0.91	0.37	0.36	Open
P-44		Red		J114	J68	1,405.64	12	120	-80.51	0.23	0.04	0.03	Open
P-45		Red		J116	J114	738.3	12	120	236.02	0.67	0.15	0.2	Open
P-46		Red		J118	J116	148.99	12	120	282.49	0.8	0.04	0.28	Open
P-47		Red		J120	J118	481.07	12	120	188.91	0.54	0.06	0.13	Open
P-48		Red		J58	J120	435.82	12	120	189.83	0.54	0.06	0.14	Open
P-49		Red		J122	J118	1,191.76	12	120	181.45	0.51	0.15	0.12	Open
P-5		Blue		J26	J28	227.24	12	120	14.74	0.04	0	0	Open
P-50		Red		J64	J122	917.58	12	120	183.75	0.52	0.12	0.13	Open
P-51		Red		J66	J56	505.3	12	120	-201.23	0.57	0.08	0.15	Open
P-52		Red		J56	J124	323.43	12	120	139.40	0.4	0.02	0.08	Open
P-53	Zone Bndy	Red		J126	J72	384.78	12	120	0.00	0	0	0	Closed
P-54		Red		J124	J126	327.74	12	120	52.45	0.15	0	0.01	Open
P-66		Red	1	J140	J78	3,778.95	20	120	-2,542.18	2.6	5.19	1.37	Open
P-661		Red		J78	P2	100.00	12	120	0.00	0	0	0	Open
P-67		Red	1	J92	J140	2,723.50	20	120	-2,429.46	2.48	3.44	1.26	Open
P-68		Red	1	J78	J100	2,188.12	16	120	1,658.83	2.65	4.04	1.85	Open
P-69		Red	1	J10	J15	546.44	24	120	-696.66	0.49	0.03	0.05	Open
P-70		Blue		J12	J88	1,592.12	12	120	-7.67	0.02	0	0	Open
P-71		Red	1	J15	J92	570.16	24	120	-1,844.75	1.31	0.18	0.31	Open
P-72		Red	1	J161	J14	526.76	12	120	1,350.29	3.83	2.7	5.13	Open
P-74		Red	1	J14	J50	503.93	12	120	-696.64	1.98	0.76	1.5	Open
P-75		Red	1	J94	J161	1,617.47	12	120	202.20	0.57	0.25	0.15	Open
SUPPLY1	Supply 1	Blue	1	FEED1	J86	1.00	16	120	14.10	0.02	0	0	Open
SUPPLY2	Supply 2	Blue		FEED2	J17	887.22	24	120	54.91	0.04	0	0	Open
SUPPLY3	Supply 3	Red	1	FEED3	J76	1	24	120	4,201.01	2.98	0	1.46	Open

WESTSIDE PROPERTY

Dawson Trails Scenario #13 - Buildout, SS, RZBPS ON

Water Model Junction Report

Model Run Date: Oct 7, 2023

ADD:	265.0	gpd/SFE
MDD:	2.5	x ADD
PHD	5.5	x ADD

Table B2-2: Water Model Junction Report

ID	Description (Char)	SFE	Zone (Char)	Phase (Int)	Elevation (ft)	RZ BPS = 6,200.0 gpm Demand (gpm)	Head (ft)	Pressure (psi)
J10			Red	1	6,381.00	0.00	6,723.13	148.24
J100			Red	1	6,549.09	0.00	6,701.12	65.87
J102	FH		Red	1	6,498.44	0.00	6,705.26	89.61
J106	FH		Red	1	6,492.07	0.00	6,705.87	92.64
J108	FH		Red	1	6,496.31	0.00	6,708.39	91.89
J110	FH		Red		6,432.18	0.00	6,710.77	120.71
J112	FH		Red		6,433.00	0.00	6,712.01	120.89
J114	FH		Red		6,460.00	0.00	6,705.84	106.52
J116	FH		Red		6,452.69	0.00	6,704.96	109.31
J118	FH		Red		6,450.00	0.00	6,704.78	110.40
J12	FH		Blue	1	6,370.48	0.00	6,487.52	50.71
J120	FH		Red		6,458.83	0.00	6,704.55	106.47
J122	FH		Red		6,440.00	0.00	6,704.54	114.62
J124	FH		Red		6,515.38	0.00	6,703.77	81.63
J126	FH		Red		6,528.47	0.00	6,703.77	75.96
J14	FH		Red	1	6,381.00	0.00	6,723.00	148.19
J140	FH		Red	1	6,467.50	0.00	6,710.35	105.23
J15			Red	1	6,381.00	0.00	6,721.89	147.71
J16			Red	1	6,350.00	0.00	6,727.03	163.37
J161			Red	1	6,386.00	0.00	6,721.90	145.55
J17			Blue		6,351.40	0.00	6,491.09	60.53
J18	FH		Blue	1	6,370.48	0.00	6,487.63	50.76
J20	FH		Blue		6,352.61	0.00	6,487.47	58.44
J22			Red	1	6,433.62	0.00	6,712.74	120.95
J24	FH		Red	1	6,471.80	0.00	6,711.22	103.74
J26	FH		Blue		6,320.51	0.00	6,487.82	72.49
J28	FH		Blue		6,341.09	0.00	6,487.89	63.61
J50			Red	1	6,377.00	0.00	6,724.05	150.38
J52			Red		6,398.96	0.00	6,724.05	140.86
J54			Red	1	6,425.00	0.00	6,717.18	126.60
J56			Red		6,500.00	0.00	6,703.77	88.30
J58	FH		Red		6,471.27	0.00	6,704.33	100.99
J64	FH		Red		6,430.00	0.00	6,704.35	118.88
J66	FH		Red		6,492.95	0.00	6,703.88	91.39
J68			Red		6,440.00	0.00	6,707.51	115.91
J70			Red	1	6,490.00	0.00	6,706.25	93.70
J76	RZ Tank		Red	1	6,646.85	0.00	6,696.23	21.40
J78	GZBPS		Red	1	6,607.50	6200.00	6,696.23	38.45
J84			Blue	1	6,339.66	0.00	6,488.78	64.61
J86			Blue	1	6,286.00	0.00	6,493.00	89.69
J88	RZBPS		Blue		6,350.00	0.00	6,487.41	59.54
J90			Blue	1	6,346.49	0.00	6,487.98	61.31
J92			Red	1	6,380.00	0.00	6,720.53	147.55
J94	FH		Red	1	6,395.02	0.00	6,719.64	140.66
J96	FH		Red	1	6,444.45	0.00	6,715.64	117.51
J98	FH		Red	1	6,443.18	0.00	6,715.07	117.81
		0.0				6,200.00		

Appendix C

Excerpts

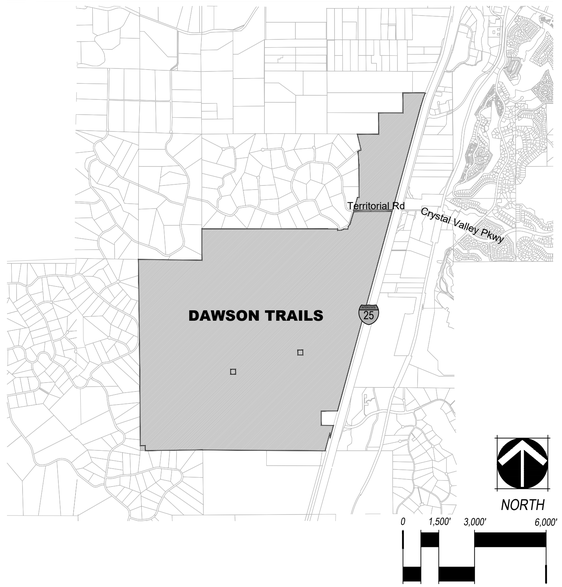
DAWSON TRAILS

PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS

(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PRELIMINARY P.U.D. SITE PLAN)

TWO PARCELS OF LAND BEING ALL OF SECTION 28 AND PORTIONS OF SECTIONS 15, 21, 22, 27, 29, 32, 33 & 34, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

VICINITY MAP



SHEET INDEX

SHEET 1.....COVER
SHEET 2.....OWNERSHIP CERTIFICATION
SHEET 3-8.....PLANNED DEVELOPMENT PLAN
SHEET 9.....OPEN SPACE, PUBLIC LAND, AND TRAILS PLAN
SHEET 10.....NATURAL FEATURES MAP
SHEET 11.....PHASING PLAN
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SHEET 13.....WILDLAND MANAGEMENT PLAN
SHEET 14-18.....PD ZONING REGULATIONS
SHEET 19.....ARCHITECTURAL DESIGN STANDARDS
SHEET 20.....SIGN DESIGN STANDARDS

PURPOSE STATEMENT

THE DAWSON TRAILS PDP IS AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PRELIMINARY P.U.D. SITE PLAN TO ZONE THE PROPERTY FOR RESIDENTIAL, MIXED USE, COMMERCIAL, INDUSTRIAL, OPEN SPACE, AND PLD.

VESTING

THIS DAWSON TRAILS PLANNED DEVELOPMENT PLAN INCLUSIVE OF THE EMBEDDED PD ZONING REGULATIONS CONSTITUTES A SITE SPECIFIC DEVELOPMENT PLAN PURSUANT TO CHAPTER 17.08 OF THE CASTLE ROCK MUNICIPAL CODE AND §24-68-101, *ET SEQ.*, C.R.S., AND ESTABLISHES VESTED PROPERTY RIGHTS THROUGH DECEMBER 31, 2052, TO UNDERTAKE AND COMPLETE THE DEVELOPMENT AND USE OF THE PROPERTY IN ACCORDANCE WITH THIS PLAN. TOWN COUNCIL MAY APPROVE A ONE TIME TEN-YEAR EXTENSION OF THE VESTING PERIOD, NOT TO EXCEED DECEMBER 31, 2062.

TECHNICAL CRITERIA VARIANCE APPROVAL

TCV22-0031
APPROVED 5/11/2022
APPROVAL ALLOWS FOR REDUCED INTERSECTION SPACING BETWEEN FULL MOVEMENT INTERSECTIONS ALONG DAWSON TRAIL BLVD/PRAIRIE HAWK DR.

LEGAL DESCRIPTION

TWO (2) PARCELS OF LAND IN PORTIONS OF SECTIONS 15, 21, 22, 27, 28, 29, 32, 33 & 34, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE BEARINGS FOR THIS DESCRIPTION ARE BASED ON THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SECTION 21, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH P.M., BEING ASSUMED TO BEAR S89°55'56"E, FROM THE SOUTH 1/16TH CORNER OF SAID SECTIONS 21 & 22, BEING MONUMENTED BY A 1" DIAMETER PIPE WITH A 2" DIAMETER ALUMINUM CAP STAMPED "LS 6935" TO THE SOUTH 1/16TH CORNER OF SAID SECTIONS 20 & 21, BEING MONUMENTED BY A 1" DIAMETER PIPE WITH A 2" DIAMETER ALUMINUM CAP, STAMPED "LS 6935", WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

PARCEL 1:
BEGINNING AT THE SOUTH 1/16TH CORNER OF SAID SECTIONS 21 & 22, ALSO BEING A POINT ON THE SOUTH LINE OF TWIN OAKS, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 161972, IN THE RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE;
THENCE S 89°28'35" E, ALONG THE SOUTH LINE OF SAID TWIN OAKS SUBDIVISION AND ALONG THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 22, A DISTANCE OF 404.37 FEET TO A POINT ON THE WEST LINE OF THE TWIN OAKS ROAD RIGHT-OF-WAY, AS DEDICATED BY SAID TWIN OAKS SUBDIVISION;
THENCE ALONG THE WEST LINE OF SAID TWIN OAKS DRIVE RIGHT-OF-WAY AND ALONG THE SOUTH LINE OF THE TERRITORIAL ROAD RIGHT-OF-WAY, AS DEDICATED BY SAID TWIN OAKS SUBDIVISION, THE FOLLOWING FOUR (4) COURSES:
1. S 02°01'48" E, A DISTANCE OF 52.10 FEET TO THE SOUTH LINE OF SAID TERRITORIAL ROAD RIGHT-OF-WAY;
2. N 87°58'41" E, A DISTANCE OF 109.24 FEET TO A POINT OF CURVATURE;
3. ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 245.68 FEET, A CENTRAL ANGLE OF 28°36'44" AND AN ARC LENGTH OF 122.69 FEET;
4. N 59°21'57" E, A DISTANCE OF 23.19 FEET TO A POINT ON THE SOUTH LINE OF SAID TWIN OAKS SUBDIVISION;

THENCE S 89°28'35" E, ALONG SAID SOUTH LINE, A DISTANCE OF 174.31 FEET TO THE SOUTHEAST CORNER OF SAID TWIN OAKS SUBDIVISION;
THENCE N 17°17'13" E, ALONG THE EAST LINE OF SAID TWIN OAKS SUBDIVISION, A DISTANCE OF 139.27 FEET TO A POINT ON THE EAST LINE OF SAID TERRITORIAL ROAD RIGHT-OF-WAY AND A POINT OF NON-TANGENT CURVATURE;
THENCE ALONG THE EAST LINE OF SAID TERRITORIAL ROAD RIGHT-OF-WAY THE FOLLOWING TWO (2) COURSES:
1. ALONG THE ARC OF A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 198.98 FEET, A CENTRAL ANGLE OF 31°52'19" AND AN ARC LENGTH OF 110.69 FEET, SUBTENDED BY A CHORD OF WHICH BEARS N 33°13'23" E, A DISTANCE OF 109.26 FEET;
2. N 17°17'13" E, A DISTANCE OF 534.55 FEET TO A POINT ON THE SOUTH LINE OF THE TERRITORIAL ROAD RIGHT-OF-WAY AS DEDICATED BY THAT DEED RECORDED AT RECEPTION NO. 8816440, SAID DOUGLAS COUNTY RECORDS;

THENCE N 89°40'41" E, ALONG SAID SOUTH LINE, A DISTANCE OF 1599.61 FEET TO A POINT ON THE WEST LINE OF THE BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT-OF-WAY;
THENCE S 15°17'57" W, ALONG SAID WEST LINE, A DISTANCE OF 8675.32 FEET TO THE NORTHEAST CORNER OF THAT PARCEL OF LAND DESCRIBED IN THAT DEED RECORDED AT RECEPTION NO. 2004131453, SAID DOUGLAS COUNTY RECORDS;
THENCE ALONG THE NORTH, WEST AND SOUTH LINES OF SAID PARCEL, THE FOLLOWING THREE (3) COURSES:
1. S 89°46'16" W, A DISTANCE OF 678.73 FEET;
2. S 00°19'26" W, A DISTANCE OF 600.54 FEET;
3. S 89°29'06" E, A DISTANCE OF 515.85 FEET TO A POINT ON THE WEST LINE OF SAID BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT OF WAY;

THENCE S 15°17'57" W, ALONG SAID WEST LINE, A DISTANCE OF 547.53 FEET TO A POINT ON THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 33; THENCE N 00°02'14" W, ALONG SAID EAST LINE, A DISTANCE OF 226.55 FEET TO A POINT ON THE WEST LINE OF SAID BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT-OF-WAY;
THENCE S 15°19'54" W, ALONG SAID WEST LINE, A DISTANCE OF 789.53 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH HALF OF SAID SECTION 33;
THENCE N 89°35'18" W, ALONG SAID SOUTH LINE, A DISTANCE OF 5123.28 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 32, ALSO BEING THE NORTHEAST CORNER OF KEENE RANCH FILING NO. 1, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 9523375, SAID DOUGLAS COUNTY RECORDS;
THENCE S 89°21'58" W, ALONG THE NORTH LINE OF SAID KEENE RANCH FILING NO. 1 AND ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 2414.66 FEET TO THE SOUTHEAST CORNER OF THAT PARCEL OF LAND DESCRIBED IN THAT DEED RECORDED AT RECEPTION NO. 2004051359, SAID DOUGLAS COUNTY RECORDS; THENCE ALONG THE EAST AND NORTH LINES OF SAID PARCEL OF LAND, THE FOLLOWING TWO (2) COURSES:
1. N 00°23'12" W, A DISTANCE OF 208.86 FEET TO THE NORTHEAST CORNER OF SAID DEED;
2. S 89°18'57" W, A DISTANCE OF 208.54 FEET TO A POINT ON THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, ALSO BEING A POINT ON THE EAST LINE OF SAID KEENE RANCH FILING NO. 1;

THENCE N 00°19'46 W, ALONG THE EAST LINE OF SAID KEENE RANCH FILING NO. 1, ALONG THE EAST LINE OF KEENE RANCH FILING NO. 2, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 9639479, SAID DOUGLAS COUNTY RECORDS, AND ALONG THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 2505.77 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 32;
THENCE N 00°39'34" W, ALONG THE EAST LINE OF SAID KEENE RANCH FILING NO. 2 AND ALONG THE WEST LINE OF THE EAST HALF OF SAID SECTION 29, A DISTANCE OF 5308.62 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 29, BEING THE NORTHEAST CORNER OF SAID KEENE RANCH FILING NO. 2 PLAT, AND THE SOUTHWEST CORNER OF CASTLE MESA SOUTH, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 145078, SAID DOUGLAS COUNTY RECORDS;
THENCE S 89°02'42" E, ALONG THE NORTH LINE OF THE EAST HALF OF SAID SECTION 29 AND ALONG THE SOUTH LINE OF SAID CASTLE MESA SOUTH SUBDIVISION, A DISTANCE OF 2661.01 FEET TO THE SOUTHEAST CORNER OF SAID CASTLE MESA SOUTH SUBDIVISION, BEING THE SOUTHWEST CORNER OF SAID SECTION 21;
THENCE N 00°02'04" W, ALONG THE EAST LINE OF SAID CASTLE MESA SOUTH SUBDIVISION AND ALONG THE WEST LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 21, A DISTANCE OF 1322.70 FEET TO THE SOUTH 1/16TH CORNER OF SAID SECTIONS 20 & 21, BEING THE SOUTHWEST CORNER OF SAID TWIN OAKS SUBDIVISION;
THENCE S 89°55'56" E, ALONG THE SOUTH LINE OF SAID TWIN OAKS SUBDIVISION AND ALONG THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 21, A DISTANCE OF 5286.17 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE FOLLOWING THREE (3) PARCELS OF LAND:

TWO (2) PARCELS OF LAND, AS DESCRIBED IN SAID DEED RECORDED AT RECEPTION NO. 2004051359, SAID DOUGLAS COUNTY RECORDS, BEING A PORTION OF THE SOUTH HALF OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE BEARINGS FOR THESE EXCEPTION PARCELS ARE BASED ON THE SOUTH LINE OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH P.M., BEING ASSUMED TO BEAR S89°47'47"E, FROM THE SOUTHWEST CORNER OF SAID SECTION 28, BEING MONUMENTED BY A 1" PIPE WITH A 2-1/2" ALUMINUM CAP STAMPED "LS 6935" TO THE SOUTHEAST CORNER OF SAID SECTIONS 28, BEING MONUMENTED BY #6 REBAR WITH A 2-1/2" ALUMINUM CAP, STAMPED "LS 6935", WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 28, THENCE N 65°29'53" E, A DISTANCE OF 1262.04 FEET TO THE POINT OF BEGINNING;
THENCE N 00°37'44" W, A DISTANCE OF 208.93 FEET;
THENCE S 89°47'24" E, A DISTANCE OF 208.72 FEET;
THENCE S 00°40'40" E, A DISTANCE OF 208.93 FEET;
THENCE N 89°47'27" W, A DISTANCE OF 208.90 FEET TO THE POINT OF BEGINNING;

ALSO EXCEPTING THE FOLLOWING PARCEL

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 28, THENCE N 40°06'19" W, A DISTANCE OF 1765.57 FEET TO THE POINT OF BEGINNING;
THENCE N 89°46'42" W, A DISTANCE OF 208.73 FEET;
THENCE N 00°45'11" W, A DISTANCE OF 208.19 FEET;
THENCE S 89°55'33" E, A DISTANCE OF 208.72 FEET;
THENCE S 00°45'12" E, A DISTANCE OF 208.73 FEET TO THE POINT OF BEGINNING;

LESS AND EXCEPT THE FOLLOWING PARCEL OF LAND:

A TRACT OR PARCEL OF LAND NO. RW-20 OF THE DEPARTMENT OF TRANSPORTATION, STATE OF COLORADO PROJECT NO. 17638 CONTAINING 8,259 SQ. FT. (0.190 ACRES), MORE OR LESS, BEING PART OF TRACT A OF DAWSON RIDGE FILING A, LOCATED IN THE NE 1/4 OF THE SW 1/4 AND SE 1/4 OF THE SW 1/4 IN SECTION 22, TOWNSHIP 8 SOUTH, RANGE 67 WEST, OF THE SIXTH PRINCIPAL MERIDIAN, IN DOUGLAS COUNTY, COLORADO, SAID TRACT OR PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 22, THENCE N. 49°50'55" E., A DISTANCE OF 1,964.79 FEET TO THE WEST LINE OF SAID TRACT A, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING;

1. THENCE, ALONG SAID WEST LINE, ON THE ARC OF A CURVE TO THE LEFT, A RADIUS OF 1,730.00 FEET, A CENTRAL ANGLE OF 21°44'56", A DISTANCE OF 656.69 FEET, (A CHORD BEARING OF N. 10°32'52" E., A DISTANCE OF 652.76 FEET);
2. THENCE, CONTINUING ALONG SAID WEST LINE, N. 00°17'07" W., A DISTANCE OF 114.23 FEET;
3. THENCE, CONTINUING ALONG SAID WEST LINE, ON THE ARC OF A CURVE TO THE LEFT, A RADIUS OF 31.00 FEET, A CENTRAL ANGLE OF 86°19'08", A DISTANCE OF 46.71 FEET, (A CHORD BEARING OF N. 47°10'54" W., A DISTANCE OF 42.41 FEET);
4. THENCE, CONTINUING ALONG SAID WEST LINE, N. 00°17'07" W., A DISTANCE OF 10.00 FEET TO THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF TERRITORIAL ROAD AND THE WEST RIGHT-OF-WAY LINE OF DAWSON RIDGE BOULEVARD;
5. THENCE, ALONG SAID WEST RIGHT-OF-WAY LINE, ON THE ARC OF A CURVE TO THE RIGHT, A RADIUS OF 41.00 FEET, A CENTRAL ANGLE OF 86°47'35", A DISTANCE OF 62.11 FEET, (A CHORD BEARING S. 46°55'52" E., A DISTANCE OF 56.34 FEET);
6. THENCE, CONTINUING ALONG SAID WEST RIGHT-OF-WAY LINE, S. 00°17'07" E., A DISTANCE OF 114.52 FEET;
7. THENCE, CONTINUING ALONG SAID WEST RIGHT-OF-WAY LINE, ON THE ARC OF A CURVE TO THE RIGHT, A RADIUS OF 1,740.00 FEET, A CENTRAL ANGLE OF 21°39'02", A DISTANCE OF 657.50 FEET, (A CHORD BEARING S. 10°29'54" W., A DISTANCE OF 653.59 FEET);
8. THENCE N. 85°14'11" W., A DISTANCE OF 10.44 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

BASIS OF BEARINGS: ALL BEARINGS ARE BASED ON A LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 22, (BEING A 2.5" ALUMINUM CAP STAMPED "LS 6935 1988") AND THE WEST 1/4 CORNER OF SECTION 22 (BEING A SET 2.5" ALUMINUM CAP STAMPED "WOOLPERT T8S-R67W 1/4 S21 S22 PLS 38486 2018") AS BEING N. 02°26'33" W.

AND LESS AND EXCEPT THAT RETAINED RIGHT- OF-WAY OVER A PORTION OF DAWSON RIDGE BOULEVARD AS DESCRIBED IN ORDINANCE NO. 2021-020 RECORDED OCTOBER 6, 2021 AT RECEPTION NO. 2021114404 .

AND LESS AND EXCEPT THOSE RIGHTS-OF-WAY DEDICATED TO THE TOWN OF CASTLE ROCK DESCRIBED IN THOSE DEEDS RECORDED AT RECEPTION NO. 2022020177 AND 2022020178, SAID DOUGLAS COUNTY RECORDS;

PARCEL 2:
COMMENCING AT THE SOUTH 1/16TH CORNER OF SAID SECTIONS 21 & 22, ALSO BEING A POINT ON THE SOUTH LINE OF TWIN OAKS, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 161972, IN THE RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE;
THENCE N 53°44'53" E, A DISTANCE OF 1331.13 FEET TO A POINT ON THE EAST LINE OF SAID TWIN OAKS PLAT AND A POINT ON THE NORTH LINE OF THE TERRITORIAL ROAD RIGHT-OF-WAY, AS DEDICATED BY THAT DEED RECORDED AT RECEPTION NO. 8816440, SAID DOUGLAS COUNTY RECORDS AND THE POINT OF BEGINNING;

THENCE ALONG THE EAST LINE OF SAID TWIN OAKS PLAT, THE FOLLOWING THREE (3) COURSES:
1. N 17°17'13" E, A DISTANCE OF 557.93 FEET;
2. S 89°27'27" E, A DISTANCE OF 65.00 FEET;
3. N 00°22'15" W, A DISTANCE OF 1329.37 FEET TO THE SOUTHWEST CORNER OF LOT 3, SAID TWIN OAKS PLAT;

THENCE N 03°03'12" W, ALONG THE WEST LINE OF SAID LOT 3, A DISTANCE OF 567.45 FEET TO THE NORTHWEST CORNER OF SAID LOT 3, BEING A POINT OF CURVATURE ON THE SOUTH LINE OF THE BRISCOE LANE RIGHT-OF-WAY, AS DEDICATED BY SAID TWIN OAKS PLAT;
THENCE ALONG THE PORTIONS OF BRISCOE LANE VACATED BY ORDINANCE NO. 86-24, RECORDED IN BOOK 680 AT PAGE 920, SAID DOUGLAS COUNTY RECORDS THE FOLLOWING TWO (2) COURSES:
1. N 39°55'38" W, A DISTANCE OF 30.00 FEET TO A POINT OF NON-TANGENT CURVATURE;
2. ALONG THE ARC OF A NON-TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 329.30 FEET, A CENTRAL ANGLE OF 27°16'16" AND AN ARC LENGTH OF 156.74 FEET, SUBTENDED BY A CHORD OF WHICH BEARS N 63°42'30" E, A DISTANCE OF 155.26 FEET;

THENCE N 12°39'22" W, ALONG THE WEST LINE OF LOT 4, SAID TWIN OAKS PLAT, A DISTANCE OF 687.67 FEET TO THE NORTHWEST CORNER OF SAID LOT 4 ALSO BEING THE WEST 1/16TH CORNER OF SAID SECTIONS 15 & 22;
THENCE S 89°31'22" E, ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 15, A DISTANCE OF 890.07 FEET TO THE SOUTHWEST CORNER OF THAT PARCEL OF LAND DESCRIBED AS PARCEL E IN THAT DEED RECORDED AT RECEPTION NO. 2019088324, SAID DOUGLAS COUNTY RECORDS;
THENCE ALONG THE WEST AND NORTH LINES OF PARCELS E, F & G THE FOLLOWING FOUR (4) COURSES:
1. N 00°11'34" E, A DISTANCE OF 900.14 FEET;
2. S 89°48'26" E, ALONG THE NORTH LINES OF PARCELS E AND F, A DISTANCE OF 1014.77 FEET TO THE SOUTHWEST CORNER OF THAT PARCEL OF LAND DESCRIBED AS PARCEL G;
3. N 00°11'34" E, A DISTANCE OF 842.72 FEET;
4. S 89°48'26" E, A DISTANCE OF 928.55 FEET TO A POINT ON THE WEST LINE OF THE BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT OF WAY AND A POINT OF NON-TANGENT CURVATURE;

THENCE ALONG THE WEST LINE OF SAID BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT-OF-WAY THE FOLLOWING TWO (2) COURSES:
1. ALONG THE ARC OF A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 5779.58 FEET, A CENTRAL ANGLE OF 05°35'04" AND AN ARC LENGTH OF 563.33 FEET, SUBTENDED BY A CHORD OF WHICH BEARS S 18°04'54" W, A DISTANCE OF 563.11 FEET;
2. S 15°17'57" W, A DISTANCE OF 4536.04 FEET TO A POINT ON THE NORTH LINE OF SAID TERRITORIAL ROAD RIGHT-OF-WAY;

THENCE S 89°40'41" W, ALONG SAID NORTH LINE, A DISTANCE OF 1628.83 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THOSE PARCELS OF LAND DESCRIBED AS RW-18 AND RW-18A IN THAT DEED RECORDED AT RECEPTION NO. 2021056802.

SUMMARY TABLE

CHARACTER AREA	PLANNING AREA	LAND USE TYPE	ACREAGE	MAX. DWELLING UNITS	MIN TRANSITION LOT SIZE	MIN. NON-RES AREA (AC)	% OF PROPERTY	MAX BUILDING HEIGHT (1)
WEST	A	SFD	236.5	471	7,700 sf	N/A	11.5%	35'
	B-1	SFD	124.4	484	6,600 sf	N/A	6.0%	35'
	B-2	SFD	58.9	228	6,600 sf	N/A	2.9%	35'
	Totals	N/A	419.8	1,183	N/A	N/A	20.3%	
CENTRAL	C-1	SFD, SFA, MF	151.9	481	N/A	N/A	7.4%	45'
	C-2	SFD, SFA, MF	187.4	908	N/A	N/A	9.1%	50'
	D	SFD, SFA, MF, Non-Res	206.2	1,938	N/A	N/A	10.0%	60'
	Totals	N/A	545.5	3,327	N/A	N/A	26.4%	
EAST	E-1	Non-Res	6.5	N/A	N/A	6.5	0.3%	50'
	E-2	SFD, SFA, MF, Non-Res	62.4	400	N/A	N/A	3.0%	60'
	F-1	SFA, MF, Non-Res	41.0	940	N/A	45	2.0%	75'/90' (1)
	F-2	SFA, MF, Non-Res	33.4		N/A		1.6%	75'/90' (1)
	F-3	SFA, MF, Non-Res	81.9		N/A		4.0%	75'/90' (1)
	G-1	Non-Res	62.6	0	N/A	66.9	3.0%	75'/90' (1)
	G-2	Non-Res	4.3	0	N/A		0.2%	75'/90' (1)
	Totals	N/A	292.1	1,340	N/A	118.4	14.2%	

MAX. DWELLING UNITS - ALL 3 CHARACTER AREAS COMBINED (NOT TO EXCEED)	5,850
MAX. MULTI FAMILY DWELLING UNITS (LOCATED IN C-1, C-2, D, E-2, F-1, F-2, F-3)	2,400
MAX. COMM./NON-RES. SQ. FT. - EAST & CENTRAL CHARACTER AREAS	3,200,000

PLANNING AREAS	1,257.4	60.9%
OPEN SPACE (PL-2 & OS)	533.0	25.8%
PUBLIC LAND DEDICATION (PL-1)	227.6	11.0%
ROW (ARTERIAL)	45.7	2.2%
TOTAL PROPERTY (APPROXIMATELY)	2,063.7	100.0%

LAND USE SUMMARY NOTE:
1.) FOR PLANNING AREAS F AND G, VERTICAL MIXED-USE, HOSPITALITY, MEDICAL, OFFICE, AND MULTI-FAMILY RESIDENTIAL USES ARE ALLOWED TO HAVE A MAXIMUM HEIGHT OF 90 FEET PER SECTION 6.11 ON SHEET 17.

PDP STANDARD NOTES

1. A SMALL PORTION OF THE MINERAL RIGHTS ASSOCIATED WITH THIS PROPERTY HAVE BEEN SEVERED. FOR THE SMALL PORTION OF SEVERED MINERAL RIGHTS, A WAIVER OF NOTICE BY SUCH HOLDER HAS BEEN RECEIVED AS A PART OF THE AMENDMENT.
2. THIS PROPERTY LIES WITHIN FEMA ZONE X, THE UNSHADED AREA OF FIRM MAPS NO. 08035C0282G, 08035C0301G, 08035C0283F, 08035C0284G, AND 08035C0292F, REVISED MARCH 16, 2016. NO STRUCTURES SHALL BE PERMITTED IN THE APPROVED 100-YEAR FLOOD PLAIN. THE SITE ALSO HAS MAJOR DRAINAGEWAYS WITH BASIN AREAS GREATER THAN 130 ACRES ONSITE.
3. THIS PROPERTY IS WITHIN THE TOWN OF CASTLE ROCK BLUE, RED AND GREEN WATER PRESSURE ZONES.
4. ALL-WEATHER (CONCRETE OR ASPHALT) SURFACED ACCESS ROADS CAPABLE OF WITHSTANDING THE IMPOSED LOADS OF FIRE APPARATUS (75,000 LBS.) AND ALL REQUIRED FIRE HYDRANTS SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING ALL VERTICAL CONSTRUCTION.
5. RIGHT-OF-WAY FOR INGRESS AND EGRESS FOR EMERGENCY VEHICLES IS GRANTED OVER, ACROSS, ON AND THROUGH ANY AND ALL PRIVATE ROADS AND DRIVES.

GENERAL NOTES

1. ALL DEVELOPMENT ASSOCIATED WITH THE DAWSON TRAILS PDP SHALL COMPLY WITH ALL FEDERAL, STATE AND TOWN REGULATIONS REGARDING WILDLIFE INCLUDING THE MIGRATORY BIRD ACT AND BURROWING OWL SURVEY IF REQUIRED.
2. UPDATED SOILS REPORTS SHALL BE SUBMITTED WITH EACH SITE DEVELOPMENT PLAN AND/OR PLAT.
3. ALL EVA ACCESS GATES WILL INCLUDE AN OPTICOM SYSTEM OR OTHER SYSTEM APPROVED BY THE TOWN OF CASTLE ROCK FIRE DEPARTMENT.
4. A WILDLAND/URBAN INTERFACE WILDFIRE VEGETATION MANAGEMENT PLAN (PLAN), OR COMPLIANCE LETTER, IS REQUIRED TO BE SUBMITTED FOR EACH PHASE OF THE PLANNED DEVELOPMENT WITH THE FIRST SDP OR CONSTRUCTION DRAWINGS FOR EVALUATION AND APPROVAL BY THE TOWN OF CASTLE ROCK FIRE DEPARTMENT. THE PLAN SHALL BE DEVELOPED BY A DESIGN PROFESSIONAL FAMILIAR WITH WILDFIRE MITIGATION TECHNIQUES AND STANDARDS. REFER TO SHEET 13 AND THE TOWN OF CASTLE ROCK COMMUNITY WILDFIRE PROTECTION PLAN.

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DAWSON — TRAILS

DAWSON TRAILS
PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS
(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PERLIMINARY P.U.D. SITE PLAN)

DATE:
PDP-01 07/08/2021
PDP-02 12/03/2021
PDP-03 04/13/2022
PDP-04 05/27/2022
PDP-05 06/09/2022

SHEET TITLE:
COVER

CHECKED BY: MB, SW
DRAWN BY: DJ, JR

DAWSON TRAILS

PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS

(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PRELIMINARY P.U.D. SITE PLAN)

TWO PARCELS OF LAND BEING ALL OF SECTION 28 AND PORTIONS OF SECTIONS 15, 21, 22, 27, 29, 32, 33 & 34, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

GENERAL NOTES:

- PHASES MAY BE DEVELOPED IN ANY SEQUENCE OR CONCURRENTLY PROVIDED THAT ALL IMPROVEMENTS ASSIGNED TO OTHER PHASES WHICH ARE NECESSARY TO SERVE THE PHASE(S) WITHIN WHICH DEVELOPMENT IS COMMENCING HAVE EITHER BEEN PREVIOUSLY CONSTRUCTED AND ACCEPTED PER TOWN CRITERIA, OR WILL BE CONSTRUCTED BY THE DEVELOPER OF THE PHASE(S) UNDERGOING DEVELOPMENT. ALL IMPROVEMENTS INCLUDING BUT NOT LIMITED TO ROADWAY, LIGHTING, WATER, SANITARY SEWER, PARKS, TRAILS, ADJACENT DOWNSTREAM DRAINAGE CHANNEL IMPROVEMENTS AND STORMWATER MANAGEMENT FACILITIES MUST BE BUILT.
- THE INTERCHANGE AT TERRITORIAL ROAD, CRYSTAL VALLEY PARKWAY, AND I-25 (CVI) IS A SEPARATE TOWN, COUNTY AND STATE PROJECT. CHANNEL IMPROVEMENTS FOR THE GAMBLE RIDGE MAJOR DRAINAGEWAY ADJACENT TO THE INTERCHANGE WILL BE PART OF THE CVI PROJECT.
- PHASES BEING DEVELOPED IN ANY SEQUENCE OR CONCURRENTLY MAY REQUIRE ADJACENT OR UPSTREAM DRAINAGE CHANNEL IMPROVEMENTS. THIS IS TO BE DETERMINED BY PHASE AND PER THE TOWN'S CRITERIA.
- EASTERN ½ OF DAWSON TRAILS BLVD SOUTH OF THE CVI TO BE CONSTRUCTED BY THE TOWN OF CASTLE ROCK TO THE SOUTHERN LIMIT OF THE PROJECT/ TOWN AS PART OF CVI INTERCHANGE PROJECT.
- DEVELOPER TO CONSTRUCT EASTERN ½ OF DAWSON TRAILS BLVD, AND GRADE THE FULL SECTION, FROM THE NORTHERN PROJECT BOUNDARY TO PLUM CREEK PWKY WHEN TRAFFIC VOLUMES ON CRYSTAL VALLEY PARKWAY, WEST OF THE INTERCHANGE REACH 25,000 VP, PURSUANT AND SUBJECT TO THE TERMS OF THE DEVELOPMENT AGREEMENT.
- DEVELOPER TO CONSTRUCT WESTERN ½ OF DAWSON TRAILS BLVD TO COMPLETE ROADWAY SECTION, WHEN TRAFFIC VOLUMES ON DAWSON TRAILS BLVD NORTH OF THE PROJECT BOUNDARY REACH 12,000 VEHICLES PER DAY PURSUANT AND SUBJECT TO THE TERMS OF THE DEVELOPMENT AGREEMENT.
- TURNAROUND AREAS PER TOWN CRITERIA SHALL BE PROVIDED WHEN ROADS TERMINATE AT A PHASE LINE OR INTERIM TERMINUS.
- AMENDMENTS TO THIS PHASING PLAN MAY BE APPROVED ADMINISTRATIVELY AS DETERMINED BY THE DEVELOPMENT SERVICES DIRECTOR.
- THE FIRE DEPARTMENT SHALL REVIEW ALL ELEMENTS OF THE EMERGENCY VEHICLE ACCESS ROUTES DURING SITE PLANNING STAGES.
- DEVELOPER SHALL CONSTRUCT THE WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD PER THE PHASING PLAN. IF PHASE(S) ARE NOT BUILT SEQUENTIALLY, THE FULL SECTION OF DAWSON TRAILS BLVD SHALL BE CONSTRUCTED TO THE LIMITS OF THE PHASE OR SUB-PHASE LEAVING NO PARTIAL ROADWAY SECTIONS BETWEEN THE DEVELOPED AREAS.
- THE FULL ROADWAY SECTION FOR DAWSON TRAILS BLVD, INCLUDING NUMBER OF LANES, TURN LANES, AND LENGTHS SHALL BE DETERMINED BY THE DETAILED TRAFFIC STUDIES FOR THE PROJECT.
- DEVELOPER SHALL CONSTRUCT THE WEST ½ OF DAWSON TRAILS BLVD BETWEEN THE NORTHERN PROJECT BOUNDARY AND PLUM CREEK PARKWAY WHEN TRAFFIC VOLUMES ON THIS SECTION REACH 12,000 VPD.
- BASED ON INDIVIDUAL SITE CONFIGURATION OF THE PLANNING AREAS, A PORTION OF A PHASE, OR SUB-PHASE, MAY BE CONSTRUCTED AND DEVELOPED INDEPENDENT OF ALL THE PHASE REQUIREMENTS IF ADEQUATE ROADWAY, DOMESTIC WATER, AND SANITARY SEWER INFRASTRUCTURE ARE PROVIDED.
- REGIONAL PONDS WILL BE CONSTRUCTED PRIOR TO ANY UPSTREAM DEVELOPMENT THAT UTILIZES THE REGIONAL POND FOR WATER QUALITY AND/OR FULL SPECTRUM DETENTION.
- GRADE SEPARATED CROSSING SHALL BE PROVIDED AS SHOWN ON THE PHASING PLAN FOR REGIONAL/ SIGNIFICANT TRAIL CROSSINGS OF ARTERIAL AND MAJOR-COLLECTOR CLASS STREETS.
- ALL ROADWAYS SHALL BE CONSTRUCTED TO THE TOWN STANDARDS.
- THE GREEN/ RED WATER ZONE BOUNDARY SHOWN IS APPROXIMATE AND SUBJECT TO ADJUSTMENTS DETERMINED BY FINAL ENGINEERING AND GRADING OF THE VARIOUS PLANNING AREAS.
- PL-1 & PL-2 AREAS DESIGNATED ON THE PD PLAN SHALL BE DEDICATED WITH EACH SITE DEVELOPMENT PLAN/ PLAT AS PHASED DEVELOPMENT OCCURS WITH THE EXCEPTION OF PL-1.7 & PL1.10 THAT WILL BE DEDICATED AT TIME OF RECORDING OF THE DEVELOPMENT AGREEMENT.
- TRAILS DEPICTED ON THE PD PLAN THAT ARE DESIGNATED FOR CONSTRUCTION BY THE DEVELOPER SHALL BE DESIGNED, ENGINEERED AND CONSTRUCTED WHEN INCLUDED WITHIN EACH SITE DEVELOPMENT PLAN/ PLAT AREA.

PHASE 1A:

- PHASE 1A SHALL BE CONSTRUCTED PRIOR TO ANY OTHER PHASE
- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD SOUTH OF CVI TO END OF PHASE OR SUBPHASE
- DEVELOPER TO CONSTRUCT FULL ROADWAY SECTION OF DAWSON TRAILS BLVD NORTH OF CVI TO THE NORTHERN PROJECT BOUNDARY
- SANITARY SEWER CONNECTION TO PLUM CREEK PKWY NORTH OF CVI WITH PROPOSED NEW SANITARY INTERCEPTOR
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- WATER MAIN (BLUE ZONE) MINIMUM 2 POINTS OF CONNECTION TO TOWN'S EXISTING SYSTEM
- WATER BOOSTER PUMP TO RED ZONE
- WATER MAIN (RED ZONE) ALONG DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- WATER MAIN (RED ZONE) TO ONSITE RED ZONE WATER TANK 19
- RED ZONE WATER TANK 19
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE INCLUDING REGIONAL POND A AND B
- A PORTION OF GAMBLE RIDGE TRIBUTARY CHANNEL WEST OF DAWSON TRAILS BLVD & NORTH OF CRYSTAL VALLEY PWKY.
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- CRYSTAL VALLEY PARKWAY/TERRITORIAL ROADWAY AND INTERCHANGE, INCLUDING A PORTION OF GAMBLE RIDGE TRIBUTARY, SHALL BE CONSTRUCTED BY OTHERS
- CHANNEL IMPROVEMENTS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS

PHASE 1B:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- WATER MAIN (RED ZONE) ALONG DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- NORTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 1B IF NOT PREVIOUSLY IMPROVED
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS

PHASE 2A:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- SANITARY & STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

PHASE 2B:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- NORTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 2B IF NOT PREVIOUSLY IMPROVED
- CHANNEL IMPROVEMENTS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS

PHASE 2C:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD. TO END OF PHASE OR SUBPHASE
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- NORTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 2B IF NOT PREVIOUSLY IMPROVED
- CHANNEL IMPROVEMENTS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS

PHASE 3A:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- GAMBLE RIDGE TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 3A & ASSOCIATED TRIBUTARIES IF NOT PREVIOUSLY IMPROVED
- GAMBLE RIDGE NORTH TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 3A IF NOT PREVIOUSLY IMPROVED

PHASE 3B:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- GAMBLE RIDGE NORTH TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 3B IF NOT PREVIOUSLY IMPROVED

PHASE 3C:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY CONSTRUCTED IN PHASE 3B
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- PUBLIC LAND IMPROVEMENTS BY THE TOWN OF CASTLE ROCK
- NORTH GAMBLE RIDGE TRIBUTARY CHANNEL IMPROVEMENTS EAST OF DAWSON TRAILS BLVD

PHASE 4A:

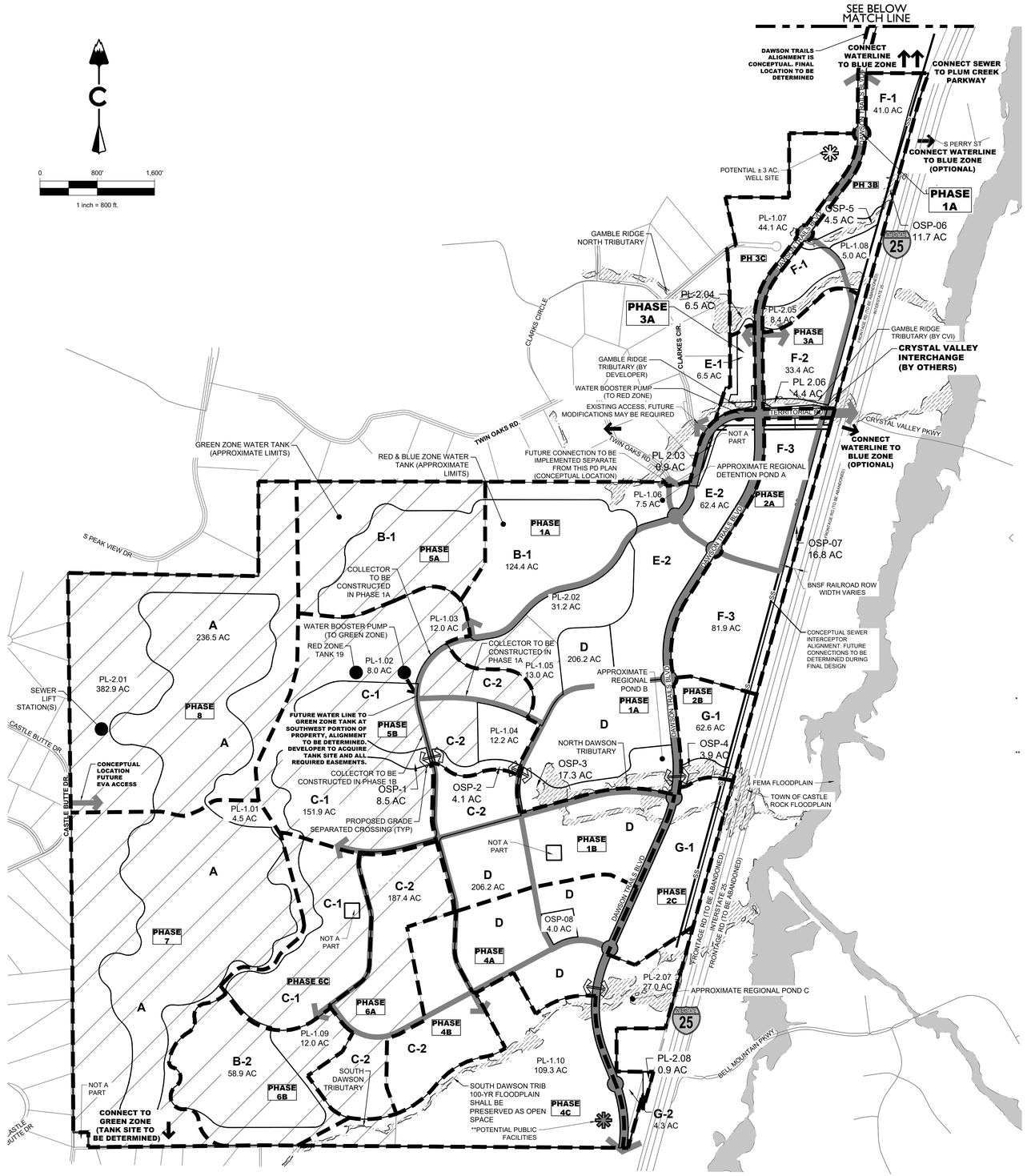
- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- WATER MAIN (RED ZONE) ALONG DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE REGIONAL POND C
- SOUTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 4A IF NOT PREVIOUSLY IMPROVED

PHASE 4B:

- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- SOUTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS ADJACENT TO PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS.
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- GAMBLE RIDGE TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 4B & ASSOCIATED TRIBUTARIES IF NOT PREVIOUSLY IMPROVED

PHASE 4C:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- SOUTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SOUTH DAWSON TRIBUTARY 100-YEAR FLOODPLAIN SHALL BE PRESERVED AS OPEN SPACE



MATCH LINE SEE ABOVE

LEGEND

- PLANNING AREA BOUNDARY
- PHASE BOUNDARY
- MAJOR DRAINAGEWAY
- SEWER INTERTCEPTOR
- GREEN ZONE WATER TANK (APPROXIMATE LIMITS)
- RED & BLUE ZONE WATER TANK (APPROXIMATE LIMITS)
- UTILITY ARROW
- PROPOSED REGIONAL POND
- PROPOSED GRADE SEPARATED CROSSING AREA
- POTENTIAL ±3 AC. WELL SITE
- **POTENTIAL PUBLIC FACILITIES
- 100-YEAR FEMA FLOODPLAIN
- 100-YEAR TOWN FLOODPLAIN
- TRAFFIC LIGHT CONTROLLED INTERSECTION
- ROUNDABOUT INTERSECTION

*PHASE 5A:

- WATER CONNECTION TO OFFSITE GREEN ZONE TANK 21
- WATER MAIN (GREEN ZONE) FROM TANK 21 TO PHASE 5A
- WATER BOOSTER PUMP (GREEN ZONE)
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

*PHASE 5B:

- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS.
- GREEN PRESSURE ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

*PHASE 6A:

- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- GREEN ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

*PHASE 6B:

- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- GREEN ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- SOUTH DAWSON CHANNEL IMPROVEMENTS ADJACENT TO PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED.

*PHASE 7:

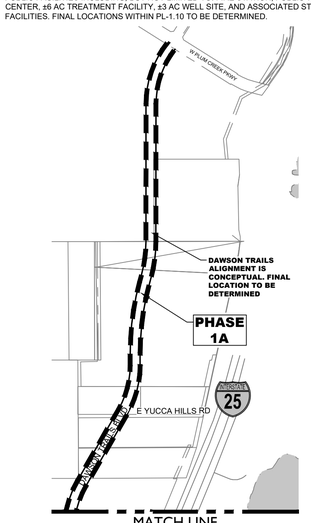
- SANITARY SEWER LIFT STATIONS (IF REQUIRED)
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- GREEN ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

*PHASE 8:

- SANITARY SEWER LIFT STATION(S) (IF REQUIRED)
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- GREEN ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- EMERGENCY VEHICLE ACCESS (EVA) CONNECTION TO CASTLE BUTTE DRIVE IF NOT PREVIOUSLY CONSTRUCTED

* IF IT IS DETERMINED THAT A GREEN ZONE TANK IS NEEDED, OTHER THAN PHASE 1A AND PLANNING AREA C-2, NO OVERLOT GRADING AND ASSOCIATED INFRASTRUCTURE, PERMITS FOR DEVELOPMENT WITHIN THE AREA TO BE SERVED BY THE GREEN ZONE TANK WILL BE ISSUED UNTIL SUCH TIME AS THE OWNER PURCHASES ANY NECESSARY LAND AND/OR EASEMENTS FOR THE POTENTIAL GREEN ZONE TANK & ASSOCIATED TRANSMISSION LINE(S), & BEGINS CONSTRUCTION OF THE GREEN ZONE TANK.

** PUBLIC FACILITIES INCLUDING, BUT NOT LIMITED TO: FIRE STATION, PUBLIC WORKS SERVICE CENTER, ±6 AC TREATMENT FACILITY, ±3 AC WELL SITE, AND ASSOCIATED STORM WATER FACILITIES. FINAL LOCATIONS WITHIN PL-1.10 TO BE DETERMINED.



MATCH LINE SEE ABOVE

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ENGINEER & SURVEYOR:
CORE CONSULTANTS, INC.
LIVEYOURCORE.COM
CORE CONSULTANTS
3473 S. BROADWAY
ENGLEWOOD, CO 80113
303-730-5960

DAWSON — TRAILS

DAWSON TRAILS
PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS
(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PERLIMINARY P.U.D. SITE PLAN)

NOT FOR CONSTRUCTION

DATE:
PDP-01 07/08/2021
PDP-02 12/03/2021
PDP-03 04/13/2022
PDP-04 05/27/2022
PDP-05 06/09/2022

SHEET TITLE:
PHASING PLAN

SHEET 11 OF 20

CHECKED BY: MB, SW
DRAWN BY: DJ, JR

Water Master Plan
2017

Engineering Division

Excerpts from "Water Master Plan 2017"
Prepared by Castle Rock Water

Water Storage Tanks

Red Zone Tank
Tank 14
Tank 11B
Tank 11
Tank 18
Tank 12B
Tank 12A
Tank 17A
Tank 17B
Tank 8
Tank 5
Tank 9
Tank 3
Tank 3 Replacement
Tank 16
Tank 4
Tank 15
Tank 19
Tank 6C
Tank 6B
Tank 6A
Tank 21

Blue Zone Connection to Plum Creek Pkwy (Tank 8)

Blue Zone booster pump to Tank 19

Red Zone booster pump to Tank 21

Blue Zone Connection at Perry St (Tank 4)

Red Zone (Tank 19) to be replaced

Blue Zone Connection at Crystal Valley Pkwy (Tank 4)

Green Zone Connection (Tank 21)

Name	Size, MG	Time Frame
Tank 6C	2.0	EX
Tank 11	1.0	EX
Tank 9	1.0	EX
Tank 14	2.0	EX
Tank 6A	2.0	EX
Tank 6B	2.0	EX
Tank 17A	2.24	EX
Tank 12A	3.94	EX
Tank 15	4.0	EX
Tank 4	1.5	EX
Tank 16	3.1	EX
Tank 3	1.0	EX
Tank 5	0.5	EX
Tank 17B	2.26	EX
Tank 8	3.13	EX
Tank 12B	6.13	EX
Tank 18	2.2	5
Tank 19	TBD	DEV
Tank 21	TBD	DEV
Red Zone Tank	2.0	BO
Tank 3 Replacement	1.0	BO
Tank 11B	2.3	BO

Figure 3.1

Build-out Planning Numbers

Figure 4.4b

Data through June 30, 2017, please note that these are estimates, and numbers are subject to change

7/27/2017

		MAXIMUM ZONED UNITS			PLATTED (SF) SDP (MF)			Full Growth @100% Build Out			
PD #	Planned Developments (year zoned)	SF	MF	Total	SF	MF*	Total	SF	MF	Total	COMMENTS
56	Arbors (2002)	38	80	118	0	0	0	38	80	118	Undeveloped, proposed to be developed in conjunction with Hillside
81	Auburn Ridge (2013)	0	289	289	0	289	289	0	289	289	Full development is expected in 2018, pending approved zoning & SDP recordation
2	Brookwood (2003)	72	0	72	72	0	72	72	0	72	Full development is expected
4	Cambridge Heights (2003)	0	100	100	0	0	0	0	100	100	Undeveloped, no dates for activity
5	Castle Highlands (1984)	132	358	490	131	200	331	132	358	490	Project completed, no additional lots are platted.
6	Castle Meadows (1989)	70	218	288	0	0	0	70	218	288	Full development is expected
7, 75, 80, 85, 93	Castle Oaks /Terrain (2002)	1992	775	2767	1696	0	1696	1992	775	2767	Full development is expected
8, 9, 10, 43, 91	Castle Pines Commercial / Promenade (1987)	0	1550	1550	0	1062	1062	0	1550	1550	Project re-entitled by Alberta Corporation. Total MF build-out equals 1018 MF units, not the previously-entitled 1550 MF units.
11	Castle Ridge East (1996)	30	0	30	28	0	28	30	0	30	Project is complete
12 & 53	Castle Rock Estates - Diamond Ridge (1995)	126	0	126	126	0	126	126	0	126	Project is complete
27 & 71 & 74 & 28	CastleviewEstates - The Oaks of Castle Rock (1985)	248	326	574	239	0	239	248	326	574	Full development is expected
62	Castlewood Ranch (1998)	1300	0	1300	1288	0	1288	1300	0	1300	Remaining lots platted for sale, most will be custom homes, full development expecte
straight zones, downtown	Central Castle Rock (varies)	1538	883	2421	1522	791	2313	1538	883	2421	Development nearly complete, approximately 20 SF units remaining
88	Covenant At Castle Rock (2014)	58	0	58	58	0	58	58	0	58	Full development is expected
55, 70	Crystal Valley Ranch (2000)	2722	753	3475	1306	0	1306	2722	753	3475	Full development is expected
54	Dawson Ridge (1986)	2447	5453	7900	0	0	0	2447	5453	7900	Project was entitled in the late 1980's. The property has bee vacant since the early 1990's with no specific plans for improvement. All involved with property ownership and development discussions agree that a new land use plan, infrastructure plan, Development Agreement and service plans need to be submitted and approved by Council prior to any development of the site no matter what decision are made on the vesting question.
63, 92	Founders Village - Inc. Founders 24 and Bella Mesa (1985)	1754	3667	5421	2634	0	2634	1754	3667	5421	Project is approximately ½ built with the expectation of the entitled 5421 residential units will be constructed.
45, 86	Hazen Moore (2000)	243	0	243	161	0	161	243	0	243	Full development is expected
17	Heckendorf Ranch (1985)	406	224	630	301	0	301	406	224	630	A portion of the property is developed. Full development expected.
90	Hillside (2009)	120	0	120	0	0	0	120	0	120	Full development is expected
19	Lanterns (2003)	1200	0	1200	0	0	0	1200	0	1200	The property was recently entitled for an increase from 548 units to 1200 homes
41	Liberty Village (2004)	1245	0	1245	1212	0	1212	1245	0	1245	Full development is expected
20, 46, 68	Maher Ranch (1988)	2309	100	2409	761	96	857	2309	100	2409	Full development is expected
37, 38, 82, 89	Meadows (1985)	6642	4002	10644	7188	240	7428	6642	4002	10644	The developer consistently states the intent to build the entitled number of lots.
22	Memmen Young Infill (1985)	559	476	1035	0	0	0	559	476	1035	The property is entitled and undeveloped but questions remain whether the entitled density can be reached due to topography, skyline / Ridgeline and presence of cap rock throughout the property.
23 & 24 & 25	Metzler Ranch (1996)	1056	660	1716	727	683	1410	1056	660	1716	It is uncertain at this time if the property will develop to the entitled number of residential homes.
49, 50, 65	Plum Creek (1983)	3025		3025	1177	360	1537	3025	0	3025	There are areas remaining where additional lots could be platt and homes constructed. It is uncertain at this time if or when the remaining lots will be buil
no PD number, downtown map	Plum Creek Ridge (2006)	92	70	162	65	45	110	92	70	162	Full development is expected, MF are Townhomes
29	Plum Creek South (1985)	307	198	505	140	0	140	307	198	505	They are close to completion, approx. 3.5 acres remaining undeveloped on north side of Emerald Drive. Full development is not expecte
60	Red Hawk (1996)	658	268	926	887	0	887	658	268	926	Full development is expected
47, 48	Scott II (1987)	85	220	305	78	220	298	85	220	305	This project is complete
42	Stanbro PD (1987)	32	92	124	0	0	0	32	92	124	Full development is expected
34	Villages at Castle Rock (1981	0	626	626	0	0	0	0	626	626	Full development is expected
58	Wolfensberger - formerly Graham PD (1996)	0	56	56	0	56	56	0	56	56	Full development is expected
40, 33, and 35	Woodlands - Inc. Scott Ranch (1983)	1160	0	1160	551	0	551	1160	0	1160	Lots platted, but not all built Full development is expected
36	Young American (1983)	78	1128	1206	375	186	561	78	1128	1206	Full development is expected
		ZONED UNITS			PLATTED (SF) SDP (MF)						
					* MF counts shows approved by SDF						
		SF	MF	Total	SF	MF*	Total				
	TOTAL UNITS	31,744	22,572	54,316	22,723	4,228	26,951	31,744	22,572	54,316	approximately 1,725 SFA units within SF tots
	POPULATION ESTIMATES	96,502	45,144	141,646	69,078	8,456	77,534	95,294	45,144	140,438	Persons Per Household (3.04-SFD, 2.34-SFA, 2.00-MF)

Tank 6 to Crystal Valley Ranch Transmission

Transmission main from Tank 6 to Crystal Valley Ranch. The project consists of approximately 4,055 feet of 24 inch pipe. The estimated cost for the project is $1,004,000.

Blue Zone - Plum Creek to Frontage Road Transmission

Blue zone transmission main to loop blue zone in I-25 Frontage Rd. The project consists of approximately 5,000 feet of 24 inch pipe. The estimated cost for the project is $1,500,000.

Plum Creek WPF to Tank 12 Transmission

Transmission main from Plum Creek WTP to Tank 12 to accommodate plant expansion. The project consists of approximately 9,700 feet of 12" pipe. The estimated cost for the project is $1,601,000.

WISE Local Infrastructure Phase 1 – Horizontal Directional Drilling (HDD) installation of 36-inch pipeline

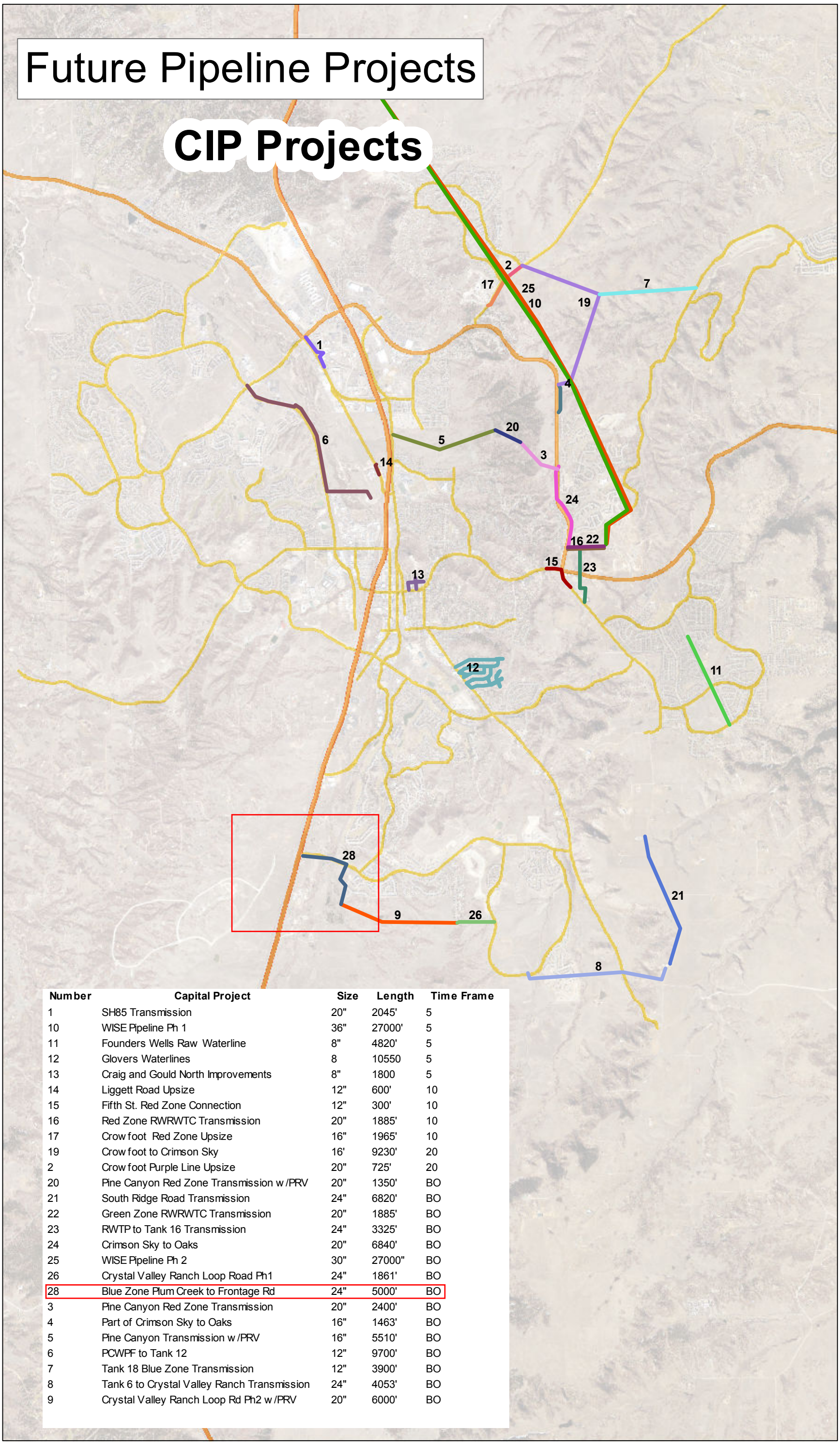
WISE Phase 2 Pipeline

27,000 linear feet of 30-36 inch parallel transmission main to move future water supplies. Will parallel the 36-inch WISE Local Infrastructure Phase 1 pipeline being constructed in 2017. Estimated future cost: $16-20 Million.

Table 5-1

	D	P	T	U	V	W	Z	AA
1		2018-2022	2023 - 2025	2026 - 2050	2051-2055			
2	**Water Fund Capital Improvement Program**	Total	Total	Total	Total	Total 2018 - 2055	Total Capacity	Cost Justification
3								
4	**Water Supply Wells**							
5	Well Redrill	$ 6,000,000	2000000	$ 26,000,000	$ 4,000,000	$ 38,000,000		
6	Repair & Maint Wells (Well Rehab/Replacement)	$4,000,000	$2,400,000	$20,000,000	$4,000,000	$30,400,000		ensure reliability of supply
7	Well Equipment Replacement	$500,000	$300,000	$2,500,000	$500,000	$3,800,000		ensure reliability of supply
8	Building 204 Improvements	$35,000	$0		$0	$35,000		27 year old buildling
10	Crystal Valley Ranch Wells - 1300 GPM ph1	$0	$0	$2,500,000	$0	$2,500,000	1300 gpm	ensure reliability of supply
11	Crystal Valley Ranch Wells - 1250 GPM ph2	$0	$0	$2,500,000	$0	$2,500,000	1250 gpm	ensure reliability of supply
12	Crystal Valley Ranch Wells - 1175 GPM ph3	$0	$0	$2,500,000	$0	$2,500,000	1175 gpm	ensure reliability of supply
13	Lanterns Wells 1500 gpm (raw line?; treat where?)	$3,938,007	$0		$0	$3,938,007	1500 gpm	ensure reliability of supply
15	VFD replacement (Well/ps/tmt plant)	$625,000	$375,000	$3,125,000	$625,000	$4,750,000	NA-no new	replace old, failing VFDs at wells/plant/pumpstations
16	**Treatment**							
18	Meadows Valves and Actuators Filter 5-8	$200,000	$0			$200,000	NC	replacing end of useful life
19	WTP Facility Upgrades	$250,000	$150,000	$1,250,000	$250,000	$1,900,000	NC	ensure reliability of treatment processes
20	WTP Equipment replacement	$500,000	$300,000	$2,500,000	$500,000	$3,800,000	NC	
23	Water Tmt Plant media replacement	$105,000	$105,000	$630,000		$840,000	no change	media has finite life, must be replaced/replenished
24	**Water Storage**							
25	Tank Rehab	$250,000	$150,000	$1,375,000	$250,000	$2,025,000	NC	ensure reliability of storage
26	Liberty Village Yellow Zone Tank (Tank 18) Liberty Village	$3,425,609	$0			$3,425,609	2.2 MG	ensure fire flow storage is in the zone
27	Tank 11B (was Tank 14B) 2.3 MG (Tower Rd)	$0	$0	$3,000,000		$3,000,000	2.3 MG	driven partly by WISE water/Pine Canyons
28	Tank (2.0 MG) Red Zone	$0	$0	$2,800,000		$2,800,000	2.0 MG	driven partly by WISe/future demands
29	Tank 6B Demolition	$250,000	$0			$250,000	-2.0 MG	tank is a liability
30	Tank 3 demolition	$0	$0	$150,000		$150,000	-1.0 MG	demolish old tank; build new
31	Tank 3 Replacement (Reservoir Road)	$0	$0	$1,500,000		$1,500,000	1.0 MG	tank built 1960; end of life
32	Add stairs to Tanks	$60,000	$0			$60,000		safety issue
35	Storage Tank Replacement	$0	$0	$1,500,000	$ 1,500,000	$3,000,000	replace: no net chang	replace aging tank
36	**Water Pumping**							
37	Green Zone Pumping Upgrades Ph1, Phase I (2100 gpm; 45 HP)	$0	$1,000,000			$1,000,000	2100 gpm (phase 1)	move WISE supplies
38	PS Equipment Replacement	$250,000	$150,000	$1,375,000	$275,000	$2,050,000	NC	ensure distribution reliability
39	Blue Zone PS Upsize (replace mid-duty pump, inc 1000 gpm)	$0	$75,000			$75,000	1000 gpm	meet demands
40	Red Zone Pumping Upsize, Ph1 (2245 gpm) 75 HP	$550,000	$0			$550,000	2245 gpm	move WISE supplies
41	Red Zone Pumping Upsize, Ph2 (4170 gpm) 125 HP	$0	$1,000,000			$1,000,000	4170 gpm (2000 addi	move WISE supplies
42	Red Zone Pumping Upsize,Ph3 (14,000 gpm) 425 HP	$0	$0	$1,000,000		$1,000,000	14,000 gpm (10,000 (	move WISE supplies
43	Milestone Pump Statlon PRV Valve	$75,000	$0			$75,000	NC	move WISE supplies
44	Green Zone Pumping Upgrades Phase II (9205 gpm)	$0	$0	$1,500,000		$1,500,000	9205 gpm (additional	move future renewable waters
47	**Transmission & Distribution**							
48	Young American Valve Replacement Program	$160,000	$0			$160,000	NC	
49	Waterline Rehab/Replacement	$1,250,000	$900,000	$7,500,000	$1,500,000	$11,150,000	NC	ensure reliability of distribution
50	Distribution System Upgrades (PRVs, pipelines, etc)	$1,250,000	$750,000	$6,250,000	$1,250,000	$9,500,000	NC	ensure reliability of distribution
51	Craig & Gould North Infrastructure Improvements (FF Issue)	$535,000	$0			$535,000	NC	fire flow issues; aging infrastructure
53	Electric Actuated Valves at Tanks	$225,000	$0			$225,000	NC	improve response to emergency
54	Tank Mixers	$50,000	$0			$50,000	NC	improve water quality
55	Facilitiies Paving Program	$250,000	$150,000	$1,375,000	$275,000	$2,050,000	NC	improve site access
56	Diamond Ridge Pump Station Control Valve	$75,000	$0			$75,000	NC	required to control WISE deliveries
57	Glovers Waterline Replacement phase 1	$374,000	$0			$374,000	NC	replace old pipe
58	Glovers Waterline Replacement phase 2	$363,000	$0			$363,000	NC	replace old pipe
59	Glovers Waterline Replacement phase 2	$594,000	$0			$594,000	NC	replace old pipe
60	Crowfoot Purple Line Upsize	$0	$0	$151,000		$151,000	3133 gpm	required to move WISE waters
61	Canyons South Red Zone Extension	$110,000	$0			$110,000	3133 gpm	Our commitment due to development agreement
62	Crowfoot Red Zone Upsize	$0	$0	$330,000		$330,000	3133 gpm	required to move WISE waters
63	Crowfoot to Crimson Sky (developer 16" or town build 16")	$0	$0	$1,812,000		$1,812,000	11,015 gpm	required to move WISE waters
64	Crimson Sky to Oaks Valve	$0	$0	$1,709,000		$1,709,000	7,050 gpm	required to move WISE waters
65	RWRWTC Tank 16 Transmission Line	$0	$0	$898,000		$898,000	7,050 gpm	required to move future supplies
66	Liggett Rd Upsize	$0	$120,000			$120,000	1371 gpm	required to move future treated water from PCWPF
68	5th Street Red Zone Connection	$0	$150,000			$150,000	1700 gpm	provide red zone surface to area
69	Tank 18 Blue Zone Transmission	$0	$0	$576,000		$576,000	1700 gpm	provide a second loop to Liberty Village
70	South Ridge Rd Transmission, 24"	$0	$0	$1,688,000		$1,688,000	7,050 gpm (10.15 MGD	required to move future supplies
71	Tank 6 to CVR Transmission, 24"	$0	$0	$1,004,000		$1,004,000	7,050 gpm	required to move future supplies
72	Cyrstal Valley Ranch Loop Rd Ph1, 24"	$0	$0	$559,000		$559,000	7,050 gpm	required to move future supplies
73	Crystal Valley Ranch Loop Rd Ph2, 20"	$0	$0	$2,109,000		$2,109,000	4,900 gpm	required to move future supplies
74	Blue Zone - Plum Creek to Frontage Road Transmission, 24"	$0	$0	$1,500,000		$1,500,000	7,050 gpm	required to move future supplies
75	costs could be sooner; dev at least 12")	$0	$0	$1,002,000		$1,002,000	3133 gpm	required to move future supplies
76	Tank 11 to Pine Canyon 20" Pipe (developer 16")	$325,000	$0			$325,000	4900 gpm	required to move future supplies
77	Pine Canyon Red Zone Transmission	$0	$0	$868,000		$868,000	4900 gpm	move WISE/Dominion flows
78	RWTP Red Zone Transmission	$0	$0	$392,000		$392,000	4900 gpm	move WISE/Dominion flows
79	RWTP Green Zone Transmission	$0	$0	$392,000		$392,000	4900 gpm	move WISE/Dominion flows
80	Plum Creek WTP to Tank 12 Transmission	$0	$0	$1,601,000		$1,601,000	1762 gpm	move future treated water to service area
82	Highway 85 Transmission	$703,000	$0			$703,000	4900 gpm	move WISE/Dominion flows
86	Woodlands Founders PRV	$0	$0	$94,000		$94,000	NA	upsize/replace to move more water
87	**Other Projects**							
88	Security Improvements	$200,000	$75,000	$875,000	$175,000	$1,325,000	NA	as needed for security
89	General Facility Upgrades	$375,000	$225,000	$1,875,000	$375,000	$2,850,000	NA	maintain assets
90	SCADA System Capital Improvements	$125,000	$75,000	$750,000	$125,000	$1,075,000	NA	keep up with technology
91	Facilities Capital Replacements (bldg components)	$375,000	$225,000	$1,875,000	$375,000	$2,850,000	NA	maintain assets
96	Admin/Customer Service Building	$1,403,641	$0			$1,403,641	NA	space issues
99	**Total Water Fund**	$29,756,257	$10,675,000	$114,890,000	$15,975,000	$171,296,257		

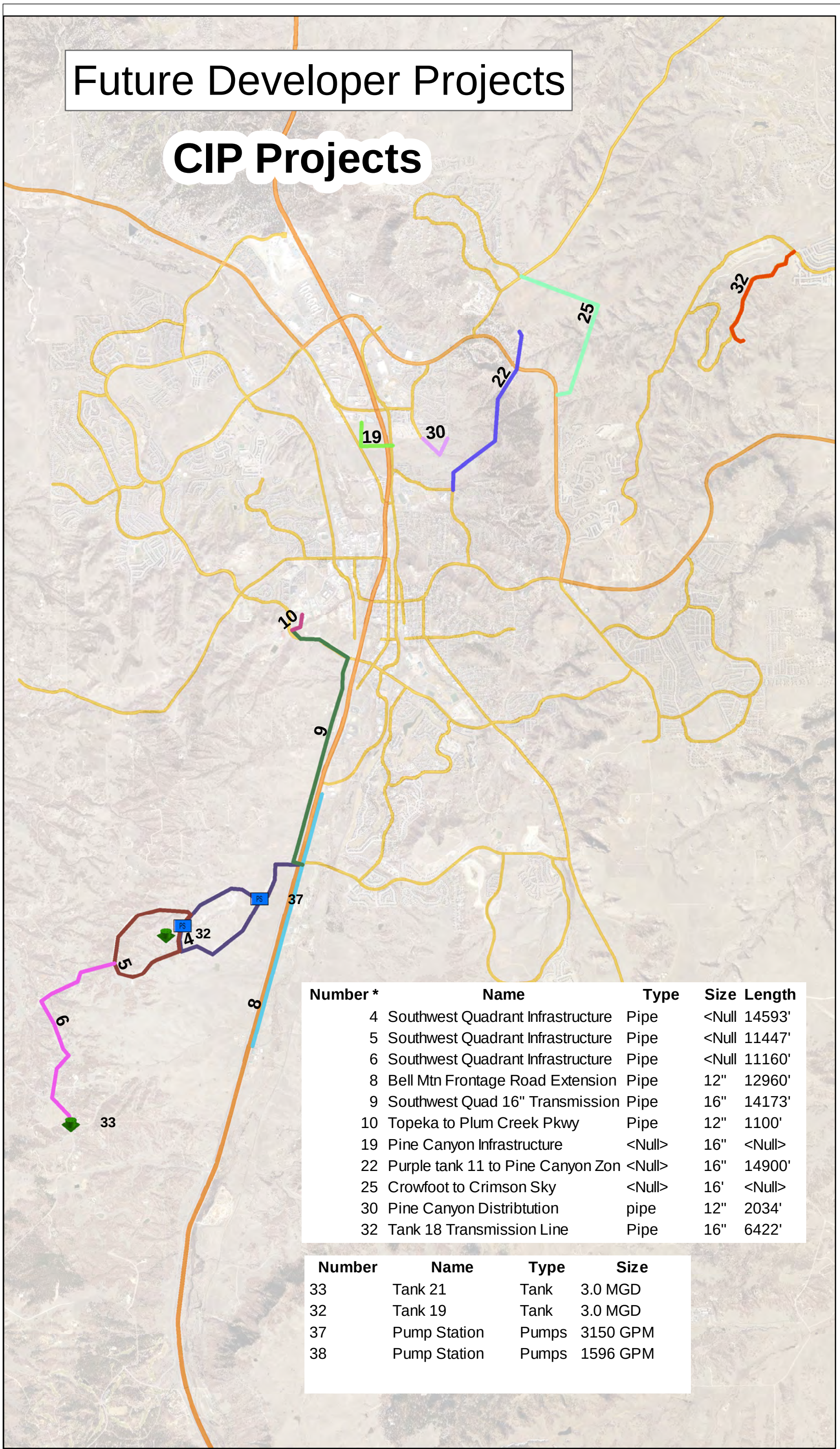
Excerpts from "Water Master Plan 2017"
Prepared by Castle Rock Water



Number	Capital Project	Size	Length	Time Frame
1	SH85 Transmission	20"	2045'	5
10	WISE Pipeline Ph 1	36"	27000'	5
11	Founders Wells Raw Waterline	8"	4820'	5
12	Glovers Waterlines	8	10550	5
13	Craig and Gould North Improvements	8"	1800	5
14	Liggett Road Upsize	12"	600'	10
15	Fifth St. Red Zone Connection	12"	300'	10
16	Red Zone RWRWTC Transmission	20"	1885'	10
17	Crow foot Red Zone Upsize	16"	1965'	10
19	Crow foot to Crimson Sky	16'	9230'	20
2	Crow foot Purple Line Upsize	20"	725'	20
20	Pine Canyon Red Zone Transmission w/PRV	20"	1350'	BO
21	South Ridge Road Transmission	24"	6820'	BO
22	Green Zone RWRWTC Transmission	20"	1885'	BO
23	RWTP to Tank 16 Transmission	24"	3325'	BO
24	Crimson Sky to Oaks	20"	6840'	BO
25	WISE Pipeline Ph 2	30"	27000"	BO
26	Crystal Valley Ranch Loop Road Ph1	24"	1861'	BO
28	Blue Zone Plum Creek to Frontage Rd	24"	5000'	BO
3	Pine Canyon Red Zone Transmission	20"	2400'	BO
4	Part of Crimson Sky to Oaks	16"	1463'	BO
5	Pine Canyon Transmission w/PRV	16"	5510'	BO
6	PCWPF to Tank 12	12"	9700'	BO
7	Tank 18 Blue Zone Transmission	12"	3900'	BO
8	Tank 6 to Crystal Valley Ranch Transmission	24"	4053'	BO
9	Crystal Valley Ranch Loop Rd Ph2 w/PRV	20"	6000'	BO

Excerpts from "Water Master Plan 2017"
Prepared by Castle Rock Water

Figure 5.1



Number *	Name	Type	Size	Length
4	Southwest Quadrant Infrastructure	Pipe	<Null	14593'
5	Southwest Quadrant Infrastructure	Pipe	<Null	11447'
6	Southwest Quadrant Infrastructure	Pipe	<Null	11160'
8	Bell Mtn Frontage Road Extension	Pipe	12"	12960'
9	Southwest Quad 16" Transmission	Pipe	16"	14173'
10	Topeka to Plum Creek Pkwy	Pipe	12"	1100'
19	Pine Canyon Infrastructure	<Null>	16"	<Null>
22	Purple tank 11 to Pine Canyon Zon	<Null>	16"	14900'
25	Crowfoot to Crimson Sky	<Null>	16'	<Null>
30	Pine Canyon Distribtution	pipe	12"	2034'
32	Tank 18 Transmission Line	Pipe	16"	6422'

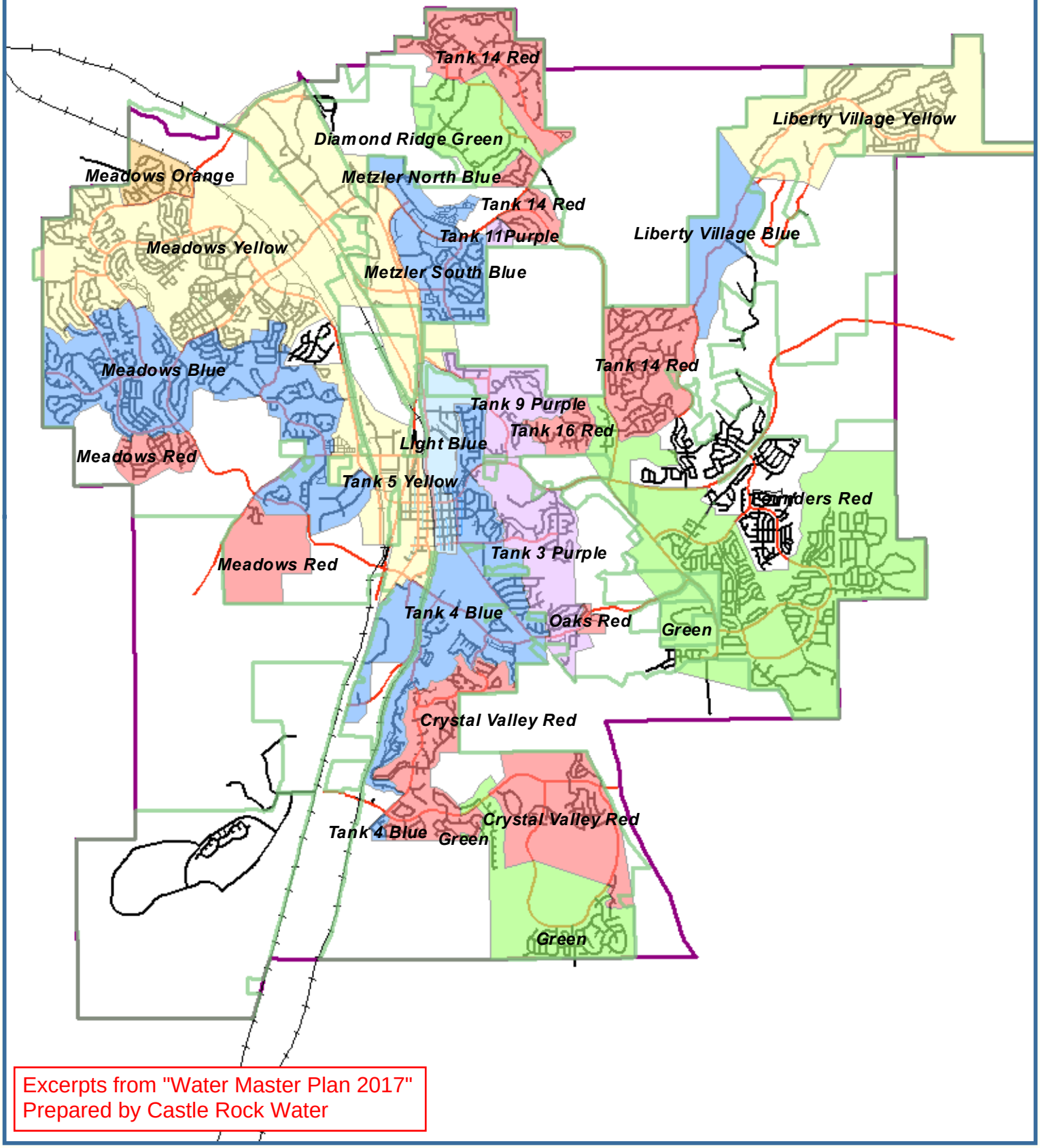
Number	Name	Type	Size
33	Tank 21	Tank	3.0 MGD
32	Tank 19	Tank	3.0 MGD
37	Pump Station	Pumps	3150 GPM
38	Pump Station	Pumps	1596 GPM

Excerpts from "Water Master Plan 2017"
Prepared by Castle Rock Water

Figure 5.3

Pressure Zones

Figure 7.1



Excerpts from "Water Master Plan 2017"
Prepared by Castle Rock Water

CASTLE ROCK WATER
DISTRIBUTION SYSTEM
PRESSURE ZONES

Excerpts from "Costco Wholesale Development Requirements" Prepared by Costco Wholesale Dated December 18, 2020

DEVELOPMENT REQUIREMENTS

Version 2020
December 18, 2020

SUMMARY OF CHANGES
(Highlighted)

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Excerpts from "Costco Wholesale Development Requirements" Prepared by Costco Wholesale Dated December 18, 2020

a) At the latest, dry utilities shall be in service by the required racking date, or Day sixty-five (65) of the project schedule, whichever is earlier.

b) For Building Only Projects (Site Delivery Option #4), wet utilities shall be installed by the Developer and ready for use at the time Costco Wholesale General Contractor mobilizes onto the site.

c) Required wet utilities include water (potable, irrigation and fire protection), sanitary sewer, and storm drainage.

d) Minimum pipe slope for gravity piping is one-half (0.5%) percent.

e) At a minimum, pipe invert elevations shall be set at a depth that provides frost cover protection equal to the local frost depth, as determined by the Costco Wholesale Geotechnical Engineer. See Detail: 06_03 Typical Utility Inverts.

f) Gravity service connections must pass beneath the structural footings and provide a minimum six (6”) inch separation between the bottom of the footing and the outer wall of the pipe. Coordinate final invert elevations with the Costco Wholesale Mechanical Engineer and Structural Engineer. See Detail: 06_03 Typical Utility Inverts.

2) Sanitary Sewer

a) Sanitary sewer laterals shall be a minimum of six (6) inches (152 mm).

b) Sanitary sewer design shall be in accordance with the authority having jurisdiction, including provisions for oil / water separation, effluent concentrations, flow velocity, and maintenance/operations provisions.

c) Confirm depth downstream connection to existing system is at an adequate depth to allow sewer service connections to pass beneath structural footings (below frost).

- Line inverts shall be sufficiently deep as to receive all building flow by gravity (without pumping).
- All gravity sanitary sewer conveyance lines serving the Costco Wholesale facilities must have a gradient of one-half (0.5%) percent or greater.

d) NO PUMP STATIONS – unless prior approval is received from Costco Wholesale.

e) At a minimum, provide nine (9) six (6) inch (152 mm) waste connections along the Warehouse exterior. Refer to the utility plan for specific locations. Provide for a Sewer flow range of five

Excerpts from "Costco Wholesale Development Requirements" Prepared by Costco Wholesale Dated December 18, 2020

Castle Rock Requires 600 GPD/ AC for Industrial/ Other Commercial. With Costco being about 150,000 SF of retail/office space (15,000 GPD) ToCR is more conservative and therefore utilized in the calculations.

thousand and five hundred (5,500) gallons (20,814 L) to eight thousand and five hundred (8,500) gallons (32,173 l) per day of waste.

- See Detail: 06_01 Typical Utility Plan, 06_06 Sewer and Water Service Availability Letter, 06_13 Typical Sanitary Sewer Point of Connection Plan, and 06_13A Typical Sanitary Sewer Point of Connection Plan – with Liquor Sales

f) Provide two (2) grease interceptors. One minimum volume of one thousand fifteen (1,500) gallons (5,676 L) at the Fresh Line and the second minimum volume of one thousand (1,000) gallons (3,785 L) at the Food Service. Verify with minimum size and acceptable manufacturer and obtain final approval from AHJ prior to installation.

g) Provide one (1) oil and sand separator capable of handling a load of approximately eight hundred (800) gallons (3,027 L).

h) Provide one (1) oil / water separator, waste oil storage tank and associated piping for the Tire Installation bays in accordance with the local jurisdiction's requirement, where required.

i) Evaluate requirements for sanitary sewer service to the Fuel Facility and / or the compactor drain and provide sewer service as required by the jurisdiction.

j) Verify with the architect if a sanitary sewer connection needs to be provided to the sprinkler riser room.

3) Water – Domestic Service

a) Provide a Domestic Water service to the Warehouse at the location shown on the Utility Plan, or as determined by Costco Wholesale. Clearly identify the location and type of the Domestic water meter.

b) The Domestic water service shall be connected directly to the local public water system infrastructure or onsite (public) water system and shall be metered separately from irrigation and fire service connections and Fuel Facility. Connection of the Costco Wholesale domestic water service to a closed (stagnant) system, with backflow preventing free-flowing circulation with the adjacent public water system is not allowed.

c) Clarify whether the Onsite Water System is public (with easements) or private (with backflow at property line).

d) Confirm backflow and metering requirements.

Excerpts from "Costco Wholesale Development Requirements" Prepared by Costco Wholesale Dated December 18, 2020

e) The Domestic water service shall be a minimum size of three (3) inch (76.2 mm) and have minimum static pressure of seventy (70) pounds per sq. inch (482.6 kPa) downstream of backflow prevention.

- See Detail: 06_01 Typical Utility Plan, 06_07 Water Service Availability Letter, 06_12 Typical Water System Point of Connection Plan, and 06_12A Typical Water System Point of Connection Plan- with Liquor Sales.
- For Canada projects, domestic water supply is typically provided by a sixty-five (65) mm service delivering three hundred and eighty (380) liters per minute at 5.2 bar.
- For all other countries, verify availability.

f) Approval from Costco Wholesale is required for lower pressure service.

g) Provide a pressure reducing valve (PRV) if required due to high system pressures.

h) Provide backflow prevention as required by the authority having jurisdiction.

- Identify available water pressure after applying required backflow protection device losses.
- Coordinate with the Costco Wholesale Architect and Mechanical Engineer.

4) Water – Irrigation Service

a) Provide irrigation water service (separate from domestic service) at a location as determined by Costco Wholesale. Irrigation service is to be metered separately from Domestic and Fire Protection services. Clearly identify the location and type of Irrigation water meter.

b) The irrigation water service shall be as recommended by the Landscape Architect and approved by Costco Wholesale. Confirm backflow and metering requirements.

c) Identify anticipated water pressure at the Irrigation System connection and coordinate with the Landscape Architect. Provide a pressure reducing valve (PRV) if required due to high pressure systems. Coordinate with landscape architect for project-specific requirements.

d) Provide necessary water meter (separate from domestic) and backflow prevention device as required by the authority having jurisdiction. Verify that the irrigation water usage does not impact the sanitary sewer billing.

5) Water – Fire Protection Service

Excerpts from "Costco Wholesale Development Requirements" Prepared by Costco Wholesale Dated December 18, 2020

COSTCO WHOLESALE DEVELOPMENT REQUIREMENTS

SECTION 06 SITE UTILITIES (WET AND DRY)

a) Verify availability of fire protection water service capable of providing a minimum delivery pressure of seventy-five (75) pounds per square inch (517.11 kPa).

b) For a non-boosted system, provide a minimum of two thousand one hundred and fifty (2,150) gallons per minute (8,138 Lpm) at a residual pressure of sixty-five (65) pounds per square inch (448 kPa) and a general firefighting flow of four thousand (4,000) gallons per minute (15,142 Lpm) at a residual pressure of twenty (20) pounds per square inch (137.95 kPa), or as required by the jurisdiction.

c) Verify that a pump is not required.

d) Verify connection and impact fees and provide a detailed and itemized breakdown to the Costco Wholesale Development Director.

e) The below referenced criteria shall be conducted by an Engineer certified in the state in which the project is sited. The hydrant flow test information shall be accompanied by the stamp and signature of the professional Engineer certifying that the water flow test has been completed in accordance with NFPA 291.

f) A hydraulic analysis of the Onsite Water system and corresponding connections to the adjacent water system(s) shall be completed by both the Civil Engineer responsible for onsite water system design and Costco Wholesale Fire Protection consultant to determine the available water pressure at base of riser (BOR).

- The analysis should clearly identify if the onsite water system is public or private.
- Hydraulic modeling for design of the onsite water system and determining the available water pressure at the base of riser shall account for required back flow protection location and type, and water meter (if required for Fire flows).

g) All fire protection designs, plans and Specifications shall be reviewed and approved by the Costco Wholesale Fire Protection Consultant.

h) Complete all designs in accordance with the Costco Wholesale design criteria and the requirements of the authority having jurisdiction. Where discrepancies occur between the standards, the more restrictive shall apply. For any location where an ESFR Fire System will be installed, Costco Wholesale Risk Management Department is to be notified.

i) Adequacy of service, site piping design, pressure and flow shall be verified with the regulating authority and these requirements. Provide water mains of sufficient size to adequately supply

Excerpts from "Costco Wholesale Development Requirements" Prepared by Costco Wholesale Dated December 18, 2020

both fire protection and domestic demands simultaneously, or separate lines, if required by local authorities.

j) Provide an eight (8) inch (203 mm) minimum onsite water system, with sufficient isolation valves to facilitate maintenance/operations. Include an appropriately sized connection to the fire protection system riser and onsite fire hydrants. The location of the fire protection stub connection and base of riser shall be at a location and elevation specified per Costco Wholesale requirements.

k) Hydraulic analysis design of the onsite water system shall evaluate the hydraulic benefits of looping the system around the Warehouse, upsizing of the connections to the existing system and/or onsite water system piping.

- All available water system design configurations shall be evaluated prior to proposing a pump.
- Provide a separate meter for the fire protection water service only if required.

l) Confirm whether a water meter is required on the Fire Protection service. If required, clearly identify the location and type of the Fire Protection water meter.

m) Design Water system so that the fire sprinkler system does not require a pump or onsite storage tank. Any design requiring a pump and/or storage tank must be accepted in writing by Costco Wholesale.

6) Water – Fire Hydrants

a) Provide fire hydrants at a maximum of three hundred (300) foot, (91.44 m) intervals around the building, or as required by the authority having jurisdiction. Confirm whether there is also a minimum distance from the Warehouse.

b) Provide one (1) fire hydrant within one hundred (100) feet (30.48 m) of the Costco Wholesale Fire Department Connection (FDC) or as required by the authority having jurisdiction. Verify location of FDC and nearest hydrant with the local fire official.

- Where a Fuel Facility is included, provide one (1) fire hydrant within one hundred (100) feet (30.48 m) of the Fuel Facility. Verify exact location with Costco Wholesale.
- Verify with the local fire official if additional hydrants are required. If additional hydrants are required, identify their location and coordinate with Site Utility Plan.

Excerpts from "Costco Wholesale Development Requirements" Prepared by Costco Wholesale Dated December 18, 2020

c) Verify with the local fire official if a Post Indicator Valve (PIV) is required, and the type of Fire Hydrant connection(s).

- Confirm local Fire Protection standards for hydrant nuts and valve.
- Provide copy of local Fire Hydrant standards and details.

7) Water – Fire Backflow Protection

a) Provide backflow protection in accordance with the authority having jurisdiction. Identify the size, type, manufacturer and model for the backflow protection device(s) proposed for use.

b) Verify if location of backflow is inside Warehouse, or out at property line, and whether the unit is to be installed below grade (in buried vault) or above grade.

- If above grade, confirm if screening is required.
- If installed outside of Warehouse, confirm whether frost-protection is required. Identify necessary provisions for an insulated “Hot-Box” structure, and coordinate other utilities (drains, electric power, etc.) as required.
- The location of the backflow protection device is typically dependent on whether the onsite water system is private, or public (with easements).

c) Based on this, it should be determined early in the process whether the onsite water system is to be private or public, so that the appropriate backflow protection and metering can be designed.

8) Storm Drainage - See Section 07 Site Storm Drainage for requirements.

D. Dry Utilities

1) Dry utilities are necessary to operate a Costco Wholesale Warehouse and Fuel Facility (where included). The responsibility of providing these utility services may involve several different consultants; therefore, documentation of all correspondence with utility providers is essential. See Detail: 06_10 Dry Utility Matrix for purposes of tracking permits and approvals.

a) Required dry utilities include electric power, telephone/computer and natural gas. When a Fuel Facility is to be constructed, Communications Conduits between the Controller Enclosure and the Warehouse EDP Room are also required.

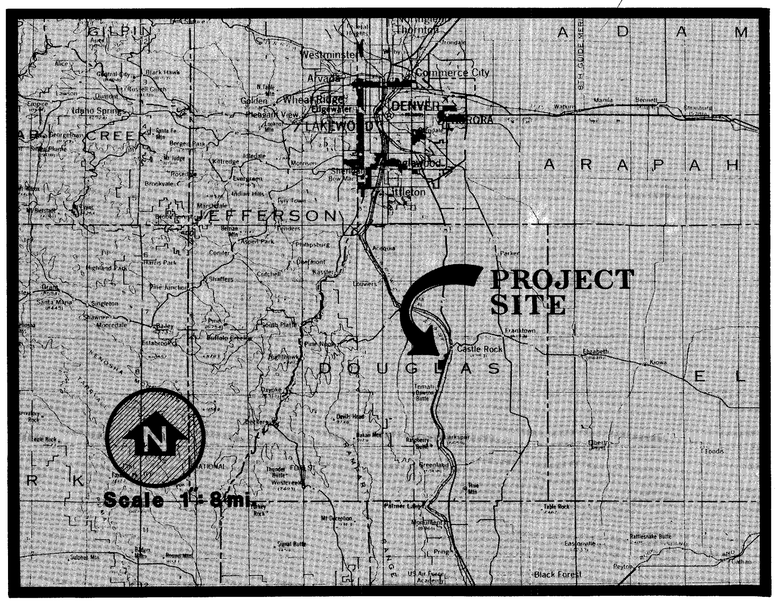
Received 10/20/86

DAWSON RIDGE

CONSTRUCTION DRAWINGS

SANITARY SEWER TRUNK LINE

WELL WATER LINES



VICINITY MAP

DEVELOPER

Bellamah Community Development

Telephone 303/799-1919
9085 E. Mineral Circle
Suite 330
Englewood, Colorado 80112

ENGINEER

MERRICK

Tele[illegible]
(10[illegible]
Post [illegible]
Denver [illegible] 30

Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

#C04U017
Dawson Ridge
Sanitary Sewer Trunk Line & Well Water
Merrick
10/20/86
167

GENERAL NOTES

1. TOWN OF CASTLE ROCK PLAN REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH TOWN OF CASTLE ROCK DESIGN CRITERIA AND THE TOWN CODE. THE TOWN IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, OF DIMENSIONS, AND ELEVATIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. THE TOWN OF CASTLE ROCK THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY OTHER THAN AS STATED ABOVE FOR THE COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

2. ALL MATERIALS, WORKMANSHIP, CONSTRUCTION DETAILS, AND TESTING FOR THE WATER LINE, SANITARY SEWER LINE, AND STORM SEWER LINE CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS SET FORTH BY THE MOST RECENT STANDARD CONSTRUCTION SPECIFICATIONS FOR THE TOWN OF CASTLE ROCK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE CODES, LICENSES, AND PERMITS AS REQUIRED BY THE TOWN OF CASTLE ROCK, COLORADO, AND OTHER AGENCIES.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING STREET CUTTING PERMITS AND FOR RESTORATION OF SURFACING AS REQUIRED BY THE GOVERNING AUTHORITY. THIS SHALL INCLUDE RESTORATION OF EXISTING CONDITIONS ON PRIVATE PROPERTY (IF ANY).

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THOSE ASSOCIATED WITH THE WORK AND THE GENERAL PUBLIC THROUGHOUT THE DURATION OF THE CONTRACT.

6. THE CONTACTOR SHALL NOTIFY THE TOWN OF CASTLE ROCK, 688-9785, TWENTY-FOUR (24) HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.

7. THE CONTRACTOR SHALL CALL FOR LOCATION OF ANY EXISTING UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES, INCLUDING ANY UTILITIES NOT SHOWN ON THE CONTRACT DRAWINGS.

9. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.

10. ALL ELEVATIONS ARE FLOWLINE UNLESS OTHERWISE NOTED.

11. STANDARD HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT ALL "T" INTERSECTIONS.

WATER LINE AND SANITARY SEWER GENERAL NOTES

1. ALL FIRE HYDRANTS WILL BE LOCATED NOT LESS THAN 3 FEET NOR MORE THAN 8 FEET FROM CURB AND BE UNOBSTRUCTED ON THE STREET SIDE. MINIMUM CLEARANCE ON ALL OTHER SIDES WILL BE 5 FEET.

2. ALL FIRE HYDRANTS MUST BE GRADE STAKED IN THE FIELD, WHENEVER CURB AND GUTTER HAS NOT BEEN INSTALLED.

3. DUCTILE IRON PIPE (CLASS 52 FOR 4" AND 6" AND CLASS 50 FOR 8" AND LARGER) SHALL BE USED FOR WATER LINES.

4. ALL WATER PIPE SHALL BE BEDDED IN CLASS "B" BEDDING

5. A MINIMUM COVER OF 4-1/2 FEET BELOW FINAL GRADE SHALL BE MAINTAINED OVER ALL WATER LINES.

6. WATER LINE MEASUREMENTS ARE FROM CENTER OF APPURTENANCE TO CENTER OF APPURTENANCE.

7. WHEN A WATER MAIN IS DIPPED UNDER A STORM SEWER, PROVIDE A MINIMUM CLEARANCE OF 6" BETWEEN PIPES AND PROVIDE A CONCRETE CRADLE. WHEN A WATER MAIN IS DIPPED UNDER A SANITARY SEWER, PROVIDE A MINIMUM CLEARANCE OF 24" BETWEEN PIPES AND USE CONCRETE ENCASEMENT OF SANITARY SEWER LINE FOR 10' EACH SIDE OF WATER LINE.

8. GATE VALVES AS SHOWN HEREON SHALL BE PLACED WITHIN PAVED AREAS AND SHALL IN NO CASE BE LOCATED WITHIN CONCRETE GUTTERS OR CROSS PANS. ALL VALVES SHALL OPEN BY TURNING RIGHT (CLOCKWISE). TOPS OF VALVE BOXES TO BE ADJUSTED TO FINISH GRADE.

9. POLYVINYL CHLORIDE (PVC) PLASTIC GRAVITY SEWER PIPE CONFORMING TO THE REQUIREMENTS OF ASTM SPECIFICATION D3034-SDR 35 SHALL BE USED FOR ALL SANITARY SEWER MAINS. J-M MANUFACTURING, CERTAINTEED, DIAMOND PLASTICS, VINYL-TECH OR CONTINENTAL PLASTICS ARE APPROVED MANUFACTURERS.

10. ALL PVC JOINTS SHALL BE WATER TIGHT BELL AND SPIGOT TYPE.

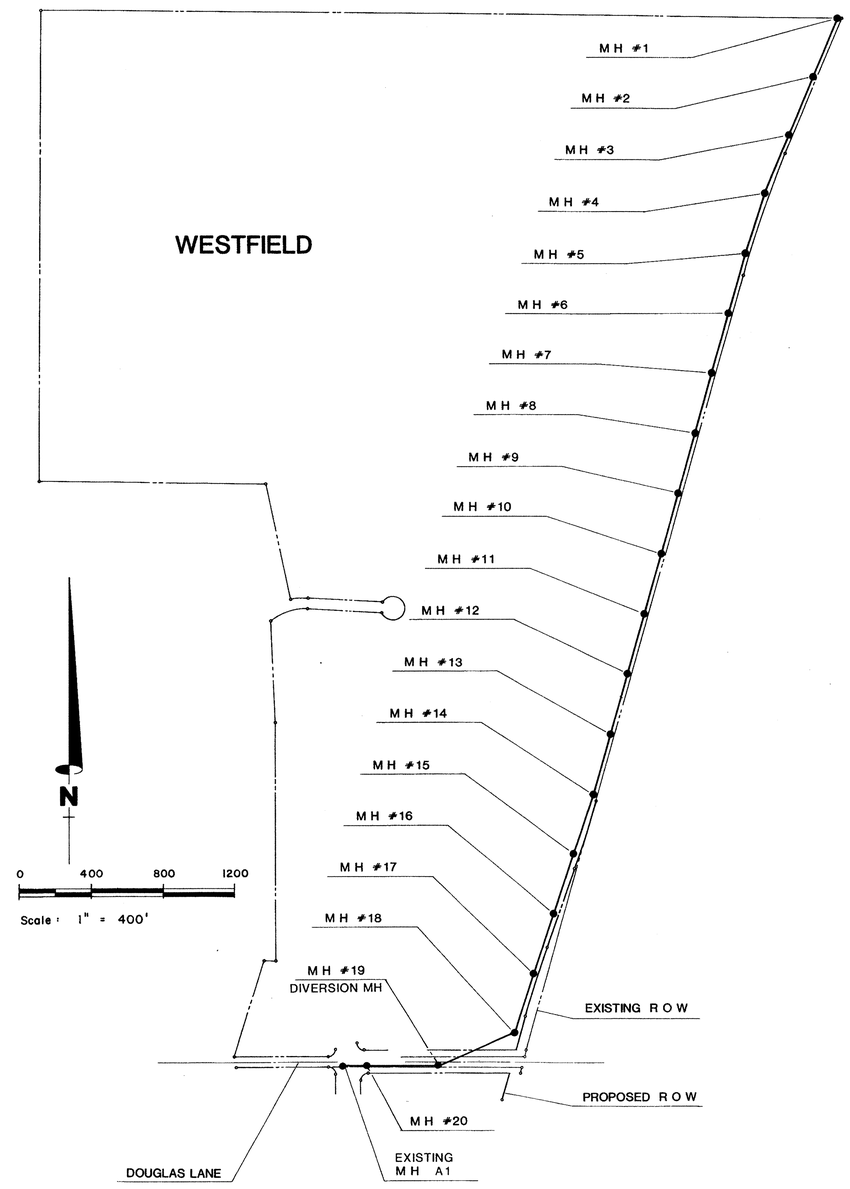
11. ALL SANITARY SEWER PIPE SHALL BE BEDDED IN CLASS "B" BEDDING.

12. SANITARY SEWER MEASUREMENTS ARE FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.

13. MANHOLE CONES SHALL BE ECCENTRIC.

14. MANHOLE RIMS SHALL BE SET 1.0 FOOT BELOW FINISHED RIM ELEVATION AND SHALL BE RAISED TO FINAL GRADE PRIOR TO PAVING, WITH 0-3 BRICK COURSES.

OVERALL SANITARY SEWER



DAWSON RIDGE

S H E E T I N D E X

SHEET	TITLE
A1	COVER SHEET
A2	GENERAL NOTES, OVERALL SANITARY SEWER, & SHEET INDEX
A3	OVERALL WELL WATER LINES
U1	SANITARY SEWER TRUNK LINE Sta. 0+00 to 10+75
U2	SANITARY SEWER TRUNK LINE Sta.10+75 to 24+55
U3	SANITARY SEWER TRUNK LINE Sta.24+55 to 38+28
U4	SANITARY SEWER TRUNK LINE Sta.38+28 to 52+12
U5	SANITARY SEWER TRUNK LINE Sta.52+12 to 61+25
U6	SANITARY SEWER TRUNK LINE Sta.61+25 to 6[illegible]
W1	WELL WATER LINE TO LARAMIE FOX HILLS [illegible]
W2	WELL WATER LINE TO LARAMIE FOX HILLS [illegible]
W3	WELL WATER LINE TO LARAMIE FOX HILLS [illegible]
W4	WELL WATER LINE TO DAWSON WELL
M1	SANITARY SEWER DETAILS
M2	WATER LINE DETAILS

APPROVED FOR ONE YEAR FROM THIS DATE

Director of [illegible] — Date 3-26-87

[illegible] — Date 3-26-87

Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

MERRICK — Merrick & Company, 10855 East Bethany Drive, Denver, CO 303/751-0741

SCALE

Bellamah Community Development — 9085 E. Mineral Circle, Suite 250, Englewood, Colorado 80112

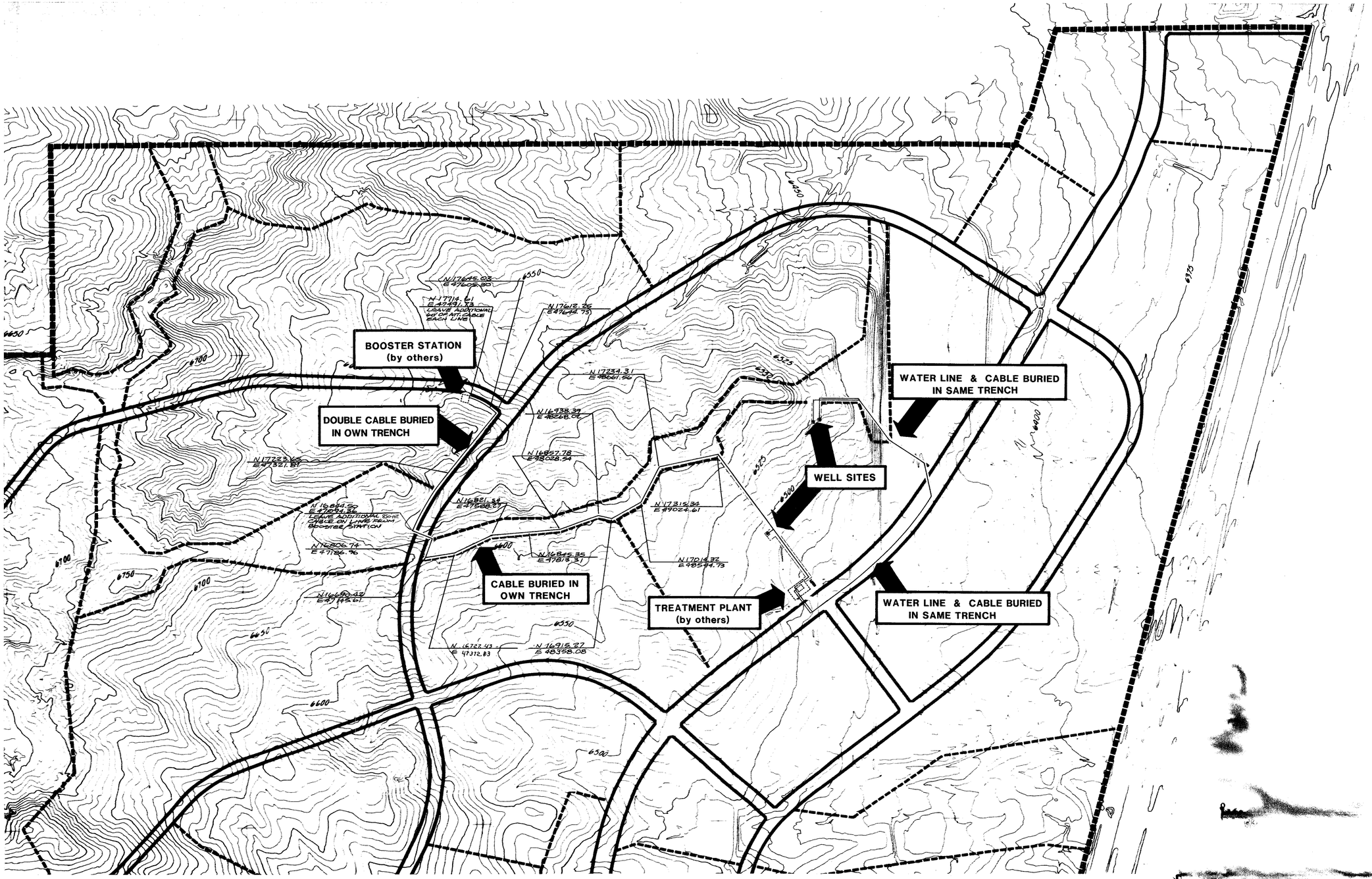
DAWSON RIDGE

REVISION | DATE | REVISION

DESIGN'D
DRAWN Penny
CHECKED
JOB NO 126-5220
DATE

GENERAL NOTES, SHEET INDEX, OVERALL SANITARY SEWER

SHEET A2 OF 15



Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

MERRICK
Merrick & Company
10855 East Bethany Drive
Denver, CO 303/751-0741

SCALE 1" = 300'

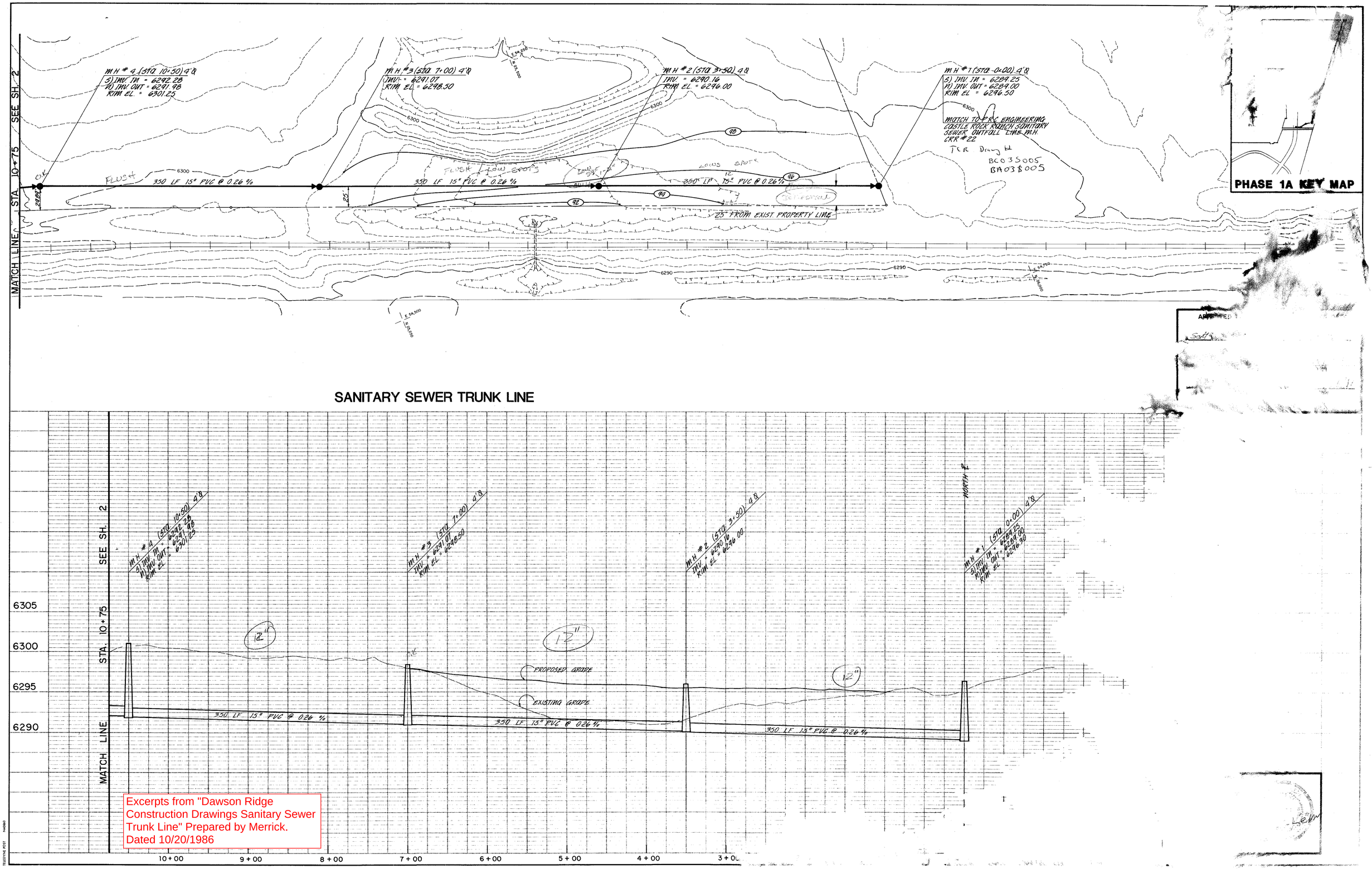
Bellamah Community Development
9065 E. Nineth Circle
Suite 230
Englewood, Colorado 80112

DAWSON RIDGE

DESIGNED
DRAWN
CHECKED
JOB NO. 126.3229

OVERALL WATER LINES

SHEET A3
OF 15



Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

MERRICK
Merrick & Company
10855 East Bethany Drive
Denver, CO 303/751-0741

SCALE VERT. 1" = 5'
HORIZ. 1" = 50'

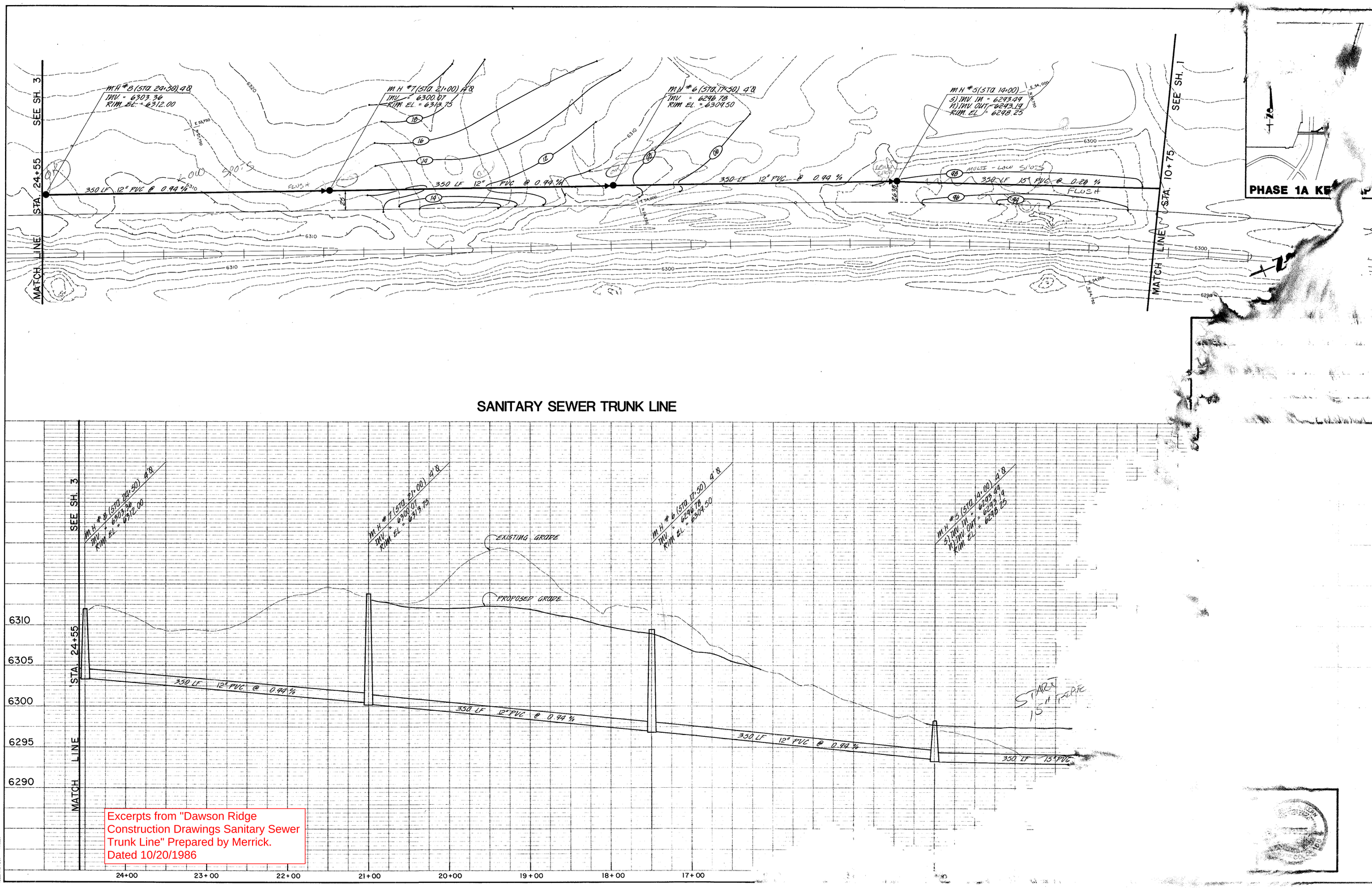
Bellamah Community Development
9083 E. Mineral Circle
Suite 230
Englewood, Colorado 80112

DAWSON RIDGE

DESIGN
DRAWN
CHECKED
JOB NO. 86-3229
DATE

SANITARY SEWER TRUNK LINE
Sta. 10+75 to 10+75

SHEET U1
OF 15



Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

MERRICK
Merrick & Company
10855 East Bethany Drive
Denver, CO 303/751-0741

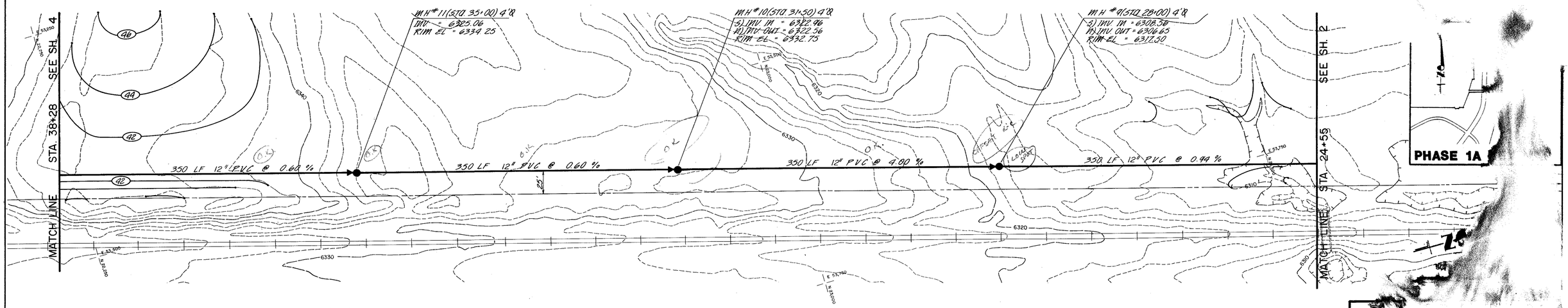
SCALE VERT. 1" = 5'
HORIZ. 1" = 50'

Bellamah Community Development
3003 E. Mineral Circle
Suite 230
Englewood, Colorado 80112

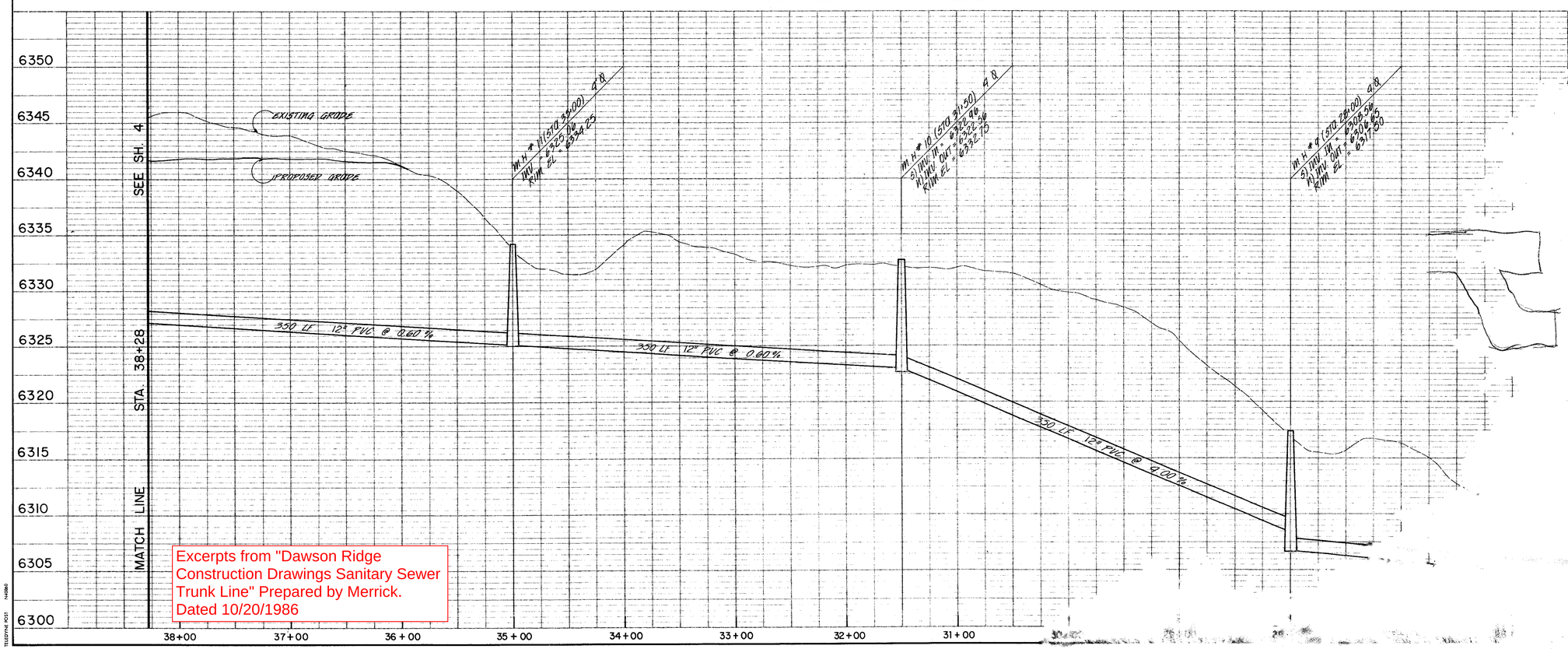
DAWSON RIDGE

DRAWN
CHECK
JOB NO. 722-5224
DATE

SHEET U2
OF 15



SANITARY SEWER TRUNK LINE



Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

MERRICK
Merrick & Company
10855 East Bethany Drive
Denver, CO 303/751-0741

SCALE VERT. 1" = 5'
HORIZ. 1" = 50"

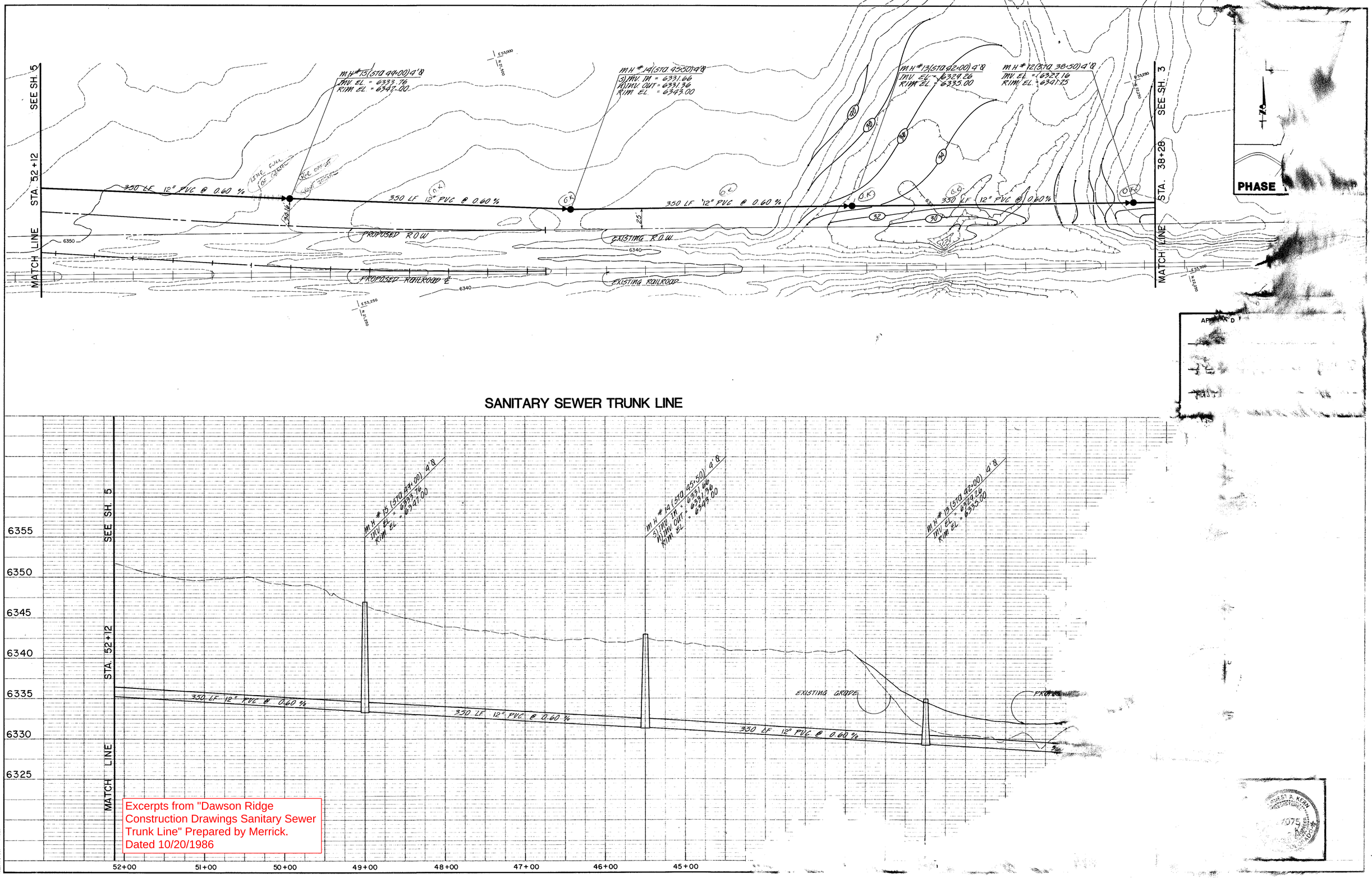
Bellamah Community Development
9085 E. Mineral Ave.
Suite 230
Englewood, Colorado 80112

DAWSON RIDGE

REVISION	DATE	REVISION	DATE

DRAWN
DESIGNED
JOB NO. 126.5229
DATE

SHEET U3
OF 15



Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

MERRICK
Merrick & Company
10855 East Bethany Drive
Denver, CO 303/751-0741

SCALE VERT. 1" = 5'
HORIZ. 1" = 50'

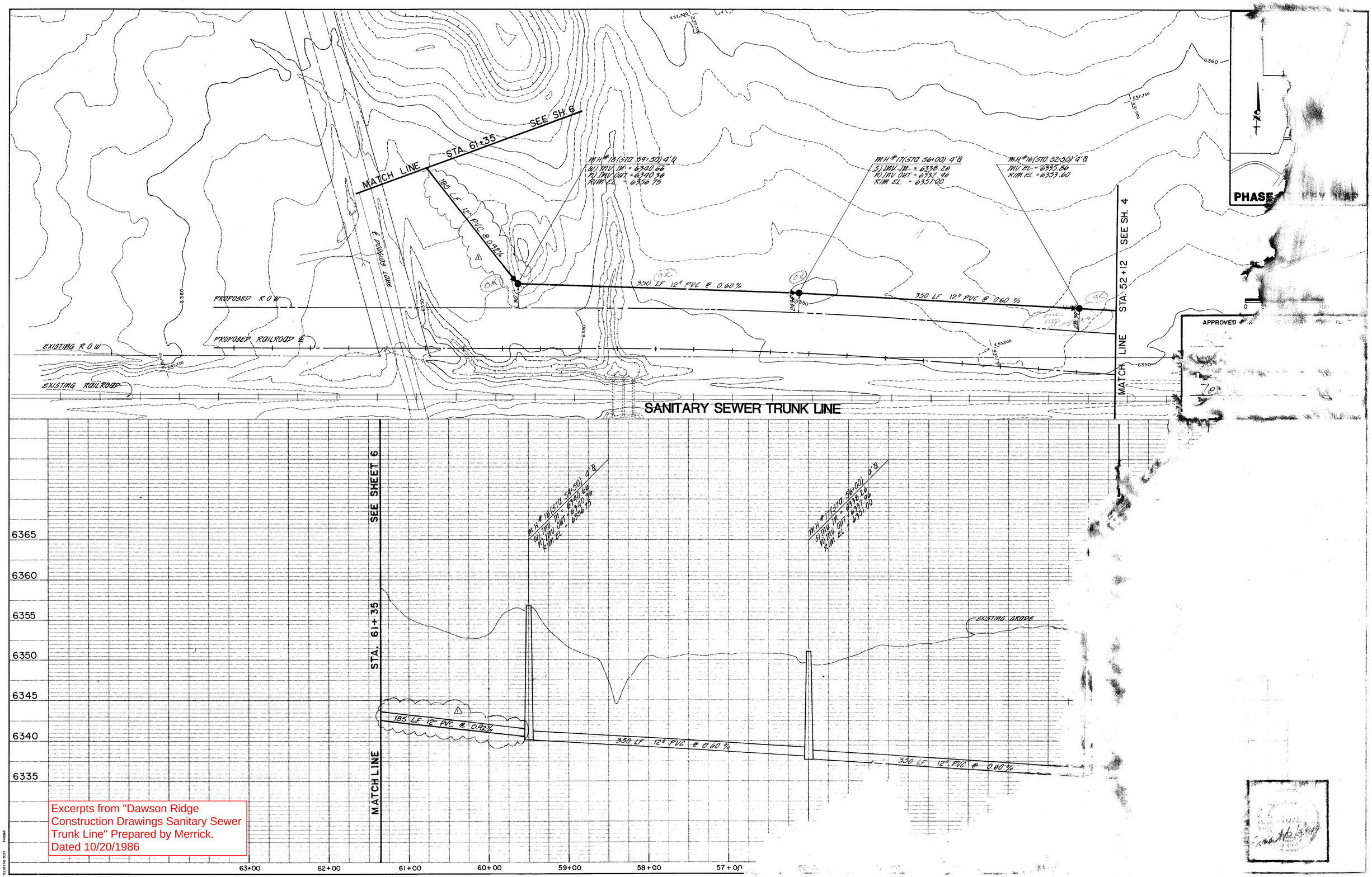
Bellamah Community Development
Mineral Circle
Suite 230
Englewood, Colorado 80112

DAWSON RIDGE

REVISION	DATE	BY

JOB NO. 328-5000

SHEET U4
OF 15



Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

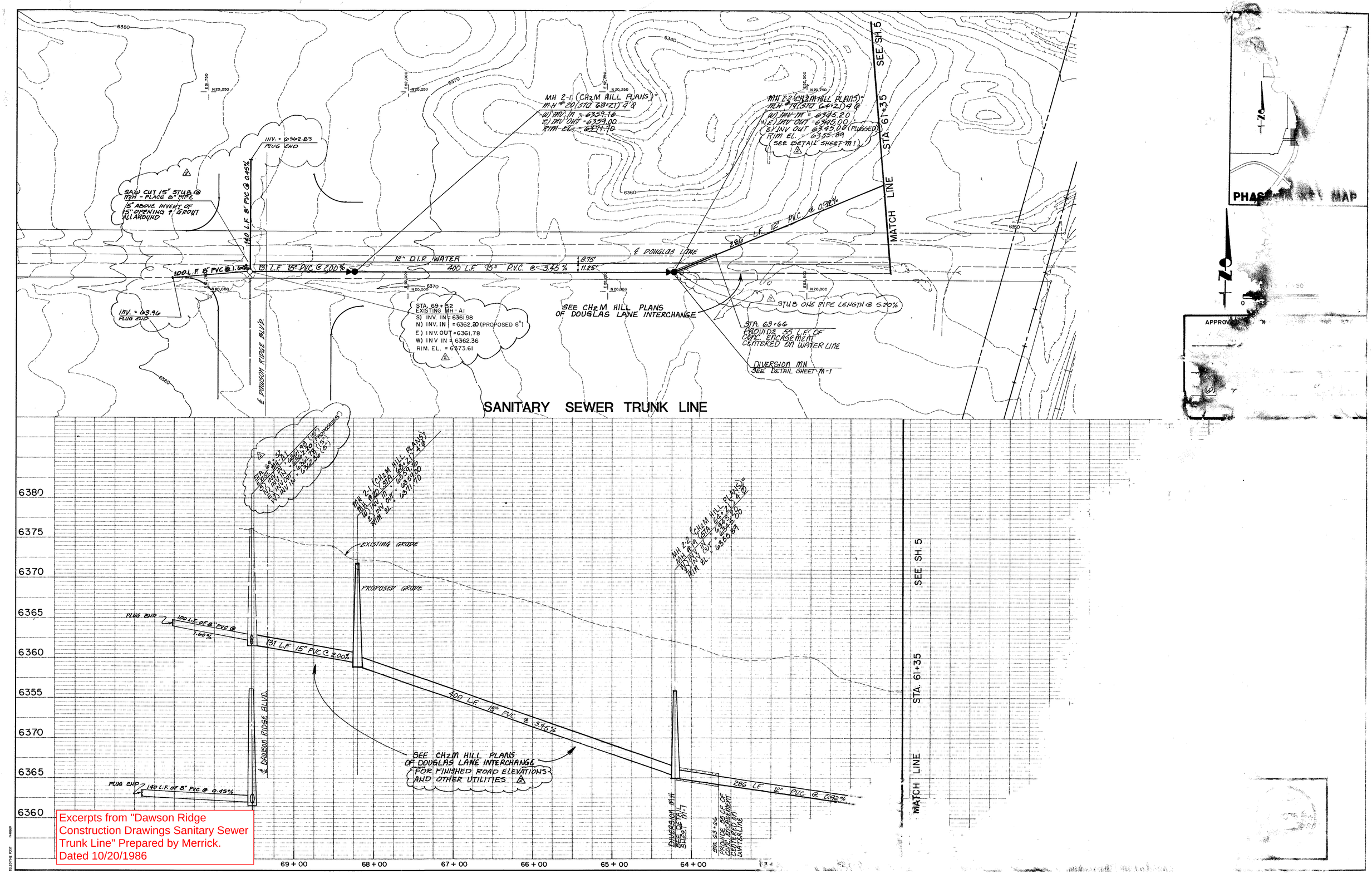
MERRICK
Merrick & Company
10855 East Bethany Drive
Denver, CO 303/751-0741

SCALE VERT. 1" = 5'
HORIZ. 1" = 50'

Bellamah Community Development
9085 E. Mineral Circle
Suite 230
Englewood, Colorado 80112

DAWSON RIDGE

SHEET U5
15



Excerpts from "Dawson Ridge Construction Drawings Sanitary Sewer Trunk Line" Prepared by Merrick. Dated 10/20/1986

MERRICK
Merrick & Company
10855 East Bethany Drive
Denver, CO 303/751-0741

SCALE VERT. 1" = 5'
HORIZ. 1" = 50'

Bellamah Community Development
9085 E. Mineral Circle
Suite 230
Englewood, Colorado 80112

DAWSON RIDGE

	DATE	REVISION
CITY FILE SHEET	11-7-86	
DAWSON RIDGE BLVD.	7-7-86	

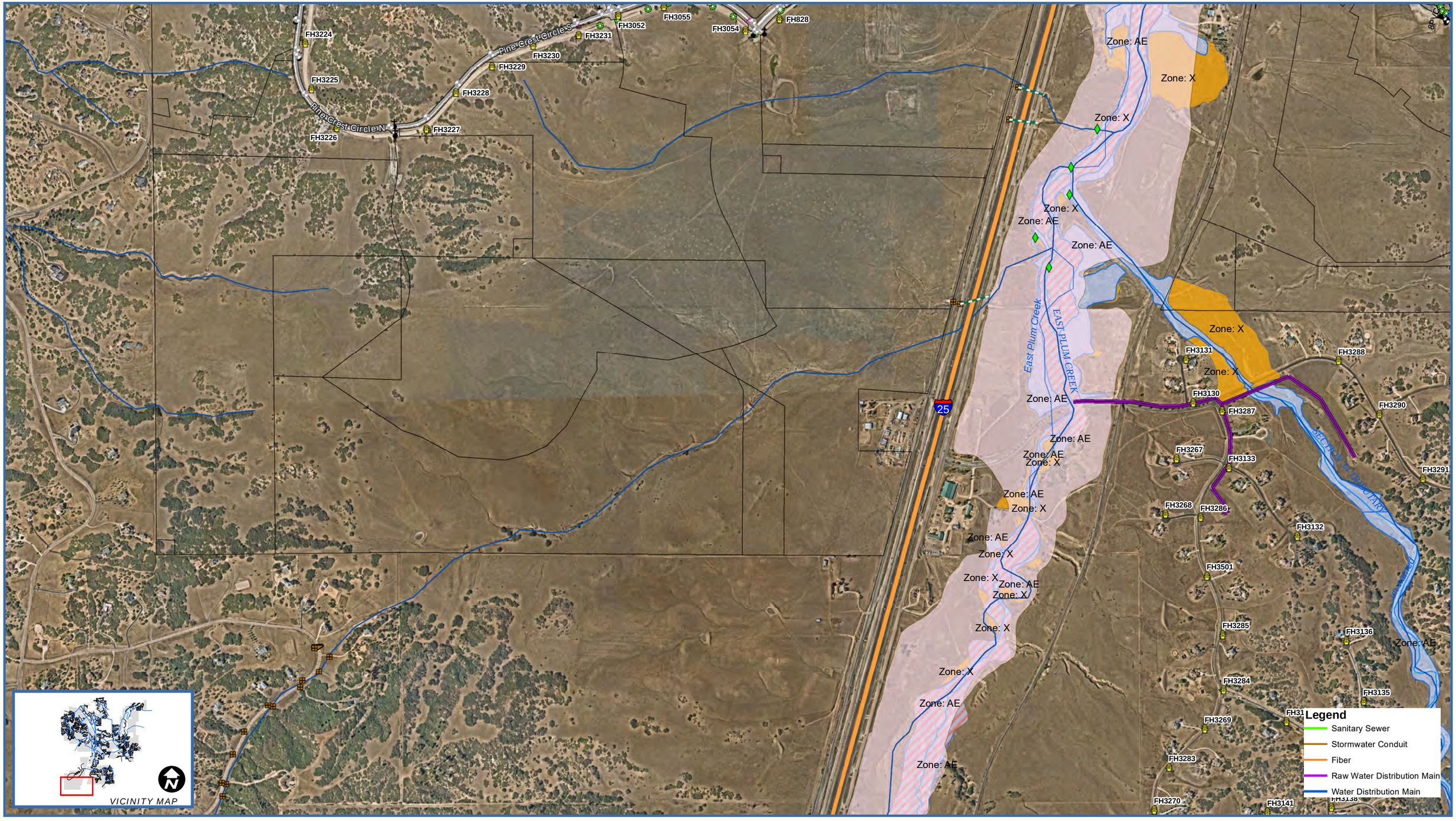
JOB NO. 1265224

SANITARY SEWER
Sta. 61+35 to 69+5

SHEET U6
OF 15

Town of Castle Rock Utility Maps

Attachment F



CASTLE ROCK water
Securing our future drop by drop

0 487.5 975 1,950 2,925 Feet

1 inch = 964 feet

Disclaimer: The data presented has been compiled from various sources, each of which introduces varying degrees of inaccuracies or inconsistencies. Such discrepancies in data are inherent and in supplying this product the Town of Castle Rock assumes no liability for it's use or accuracy. Questions or comments regarding the cartographic composition of this map including, but not limited to, errors, omissions, corrections, and/or updates, should be directed to the Utilities Department, Town of Castle Rock, (720) 733-6087. Copyright 2019, Town of Castle Rock Utilities Mapping.

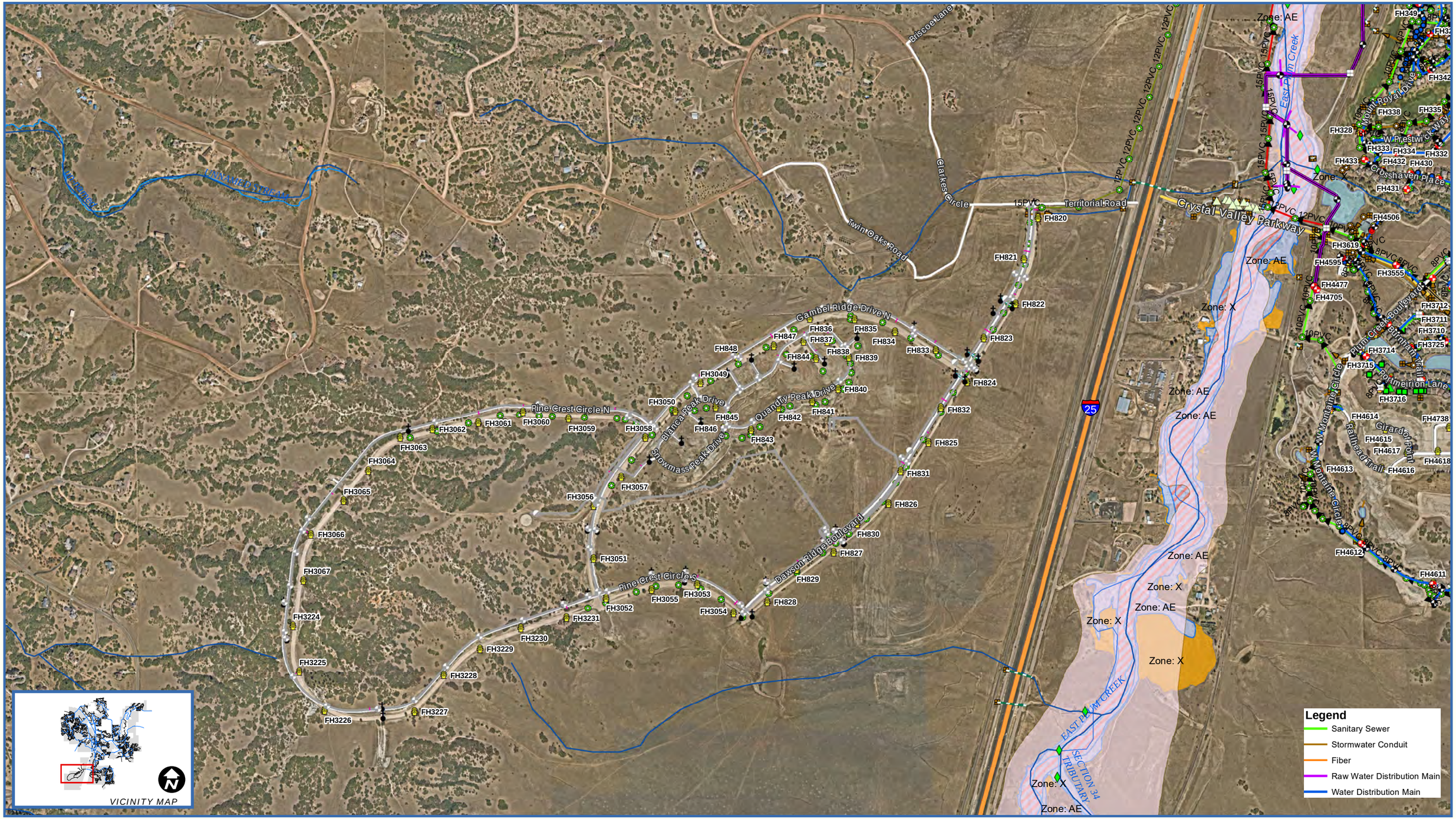
CASTLE ROCK UTILITIES MAP (INTERNAL USE ONLY)

Date: 3/24/2021

Document Path: \\CRSAN1\UTUsers\tclose\Desktop\11x17 LndScp_10.6.mxd

Town of Castle Rock Utility Maps

Attachment G



CASTLE ROCK Qwater
Securing our future drop by drop

0 487.5 975 1,950 2,925 Feet

1 inch = 964 feet

Disclaimer: The data presented has been compiled from various sources, each of which introduces varying degrees of inaccuracies or inconsistencies. Such discrepancies in data are inherent and in supplying this product the Town of Castle Rock assumes no liability for it's use or accuracy. Questions or comments regarding the cartographic composition of this map including, but not limited to, errors, omissions, corrections, and/or updates, should be directed to the Utilities Department, Town of Castle Rock, (720) 733-6087. Copyright 2019, Town of Castle Rock Utilities Mapping.

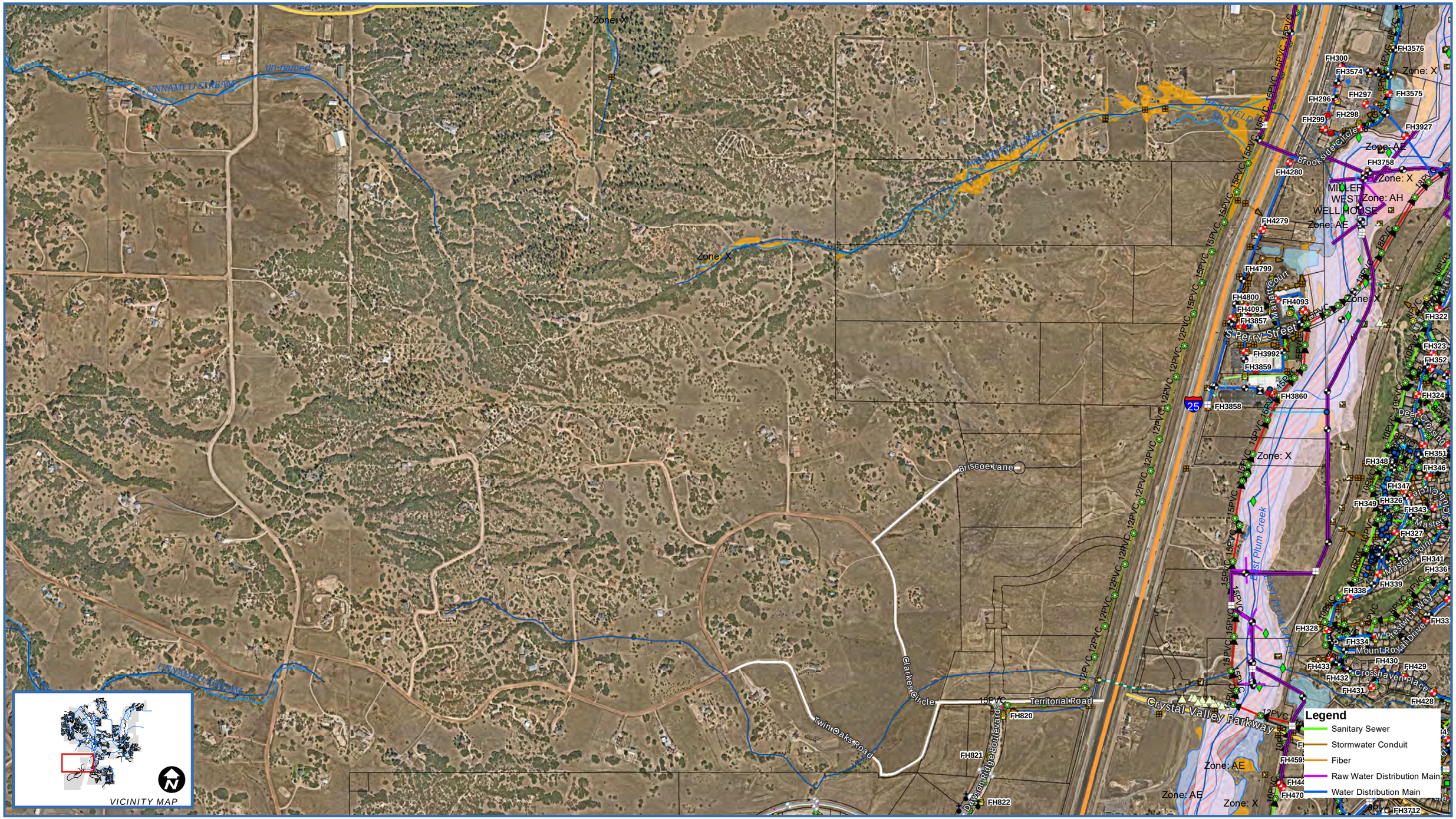
CASTLE ROCK UTILITIES MAP (INTERNAL USE ONLY)

Date: 3/24/2021

Document Path: \\CRSAN1\UTUsers\tclose\Desktop\11x17 LndScp_10.6.mxd

Town of Castle Rock Utility Maps

Attachment H



CASTLE ROCK Qwater
Securing our future drop by drop

0 487.5 975 1,950 2,925 Feet

1 inch = 964 feet

Disclaimer: The data presented has been compiled from various sources, each of which introduces varying degrees of inaccuracies or inconsistencies. Such discrepancies in data are inherent and in supplying this product the Town of Castle Rock assumes no liability for it's use or accuracy. Questions or comments regarding the cartographic composition of this map including, but not limited to, errors, omissions, corrections, and/or updates, should be directed to the Utilities Department, Town of Castle Rock, (720) 733-6087. Copyright 2019, Town of Castle Rock Utilities Mapping.

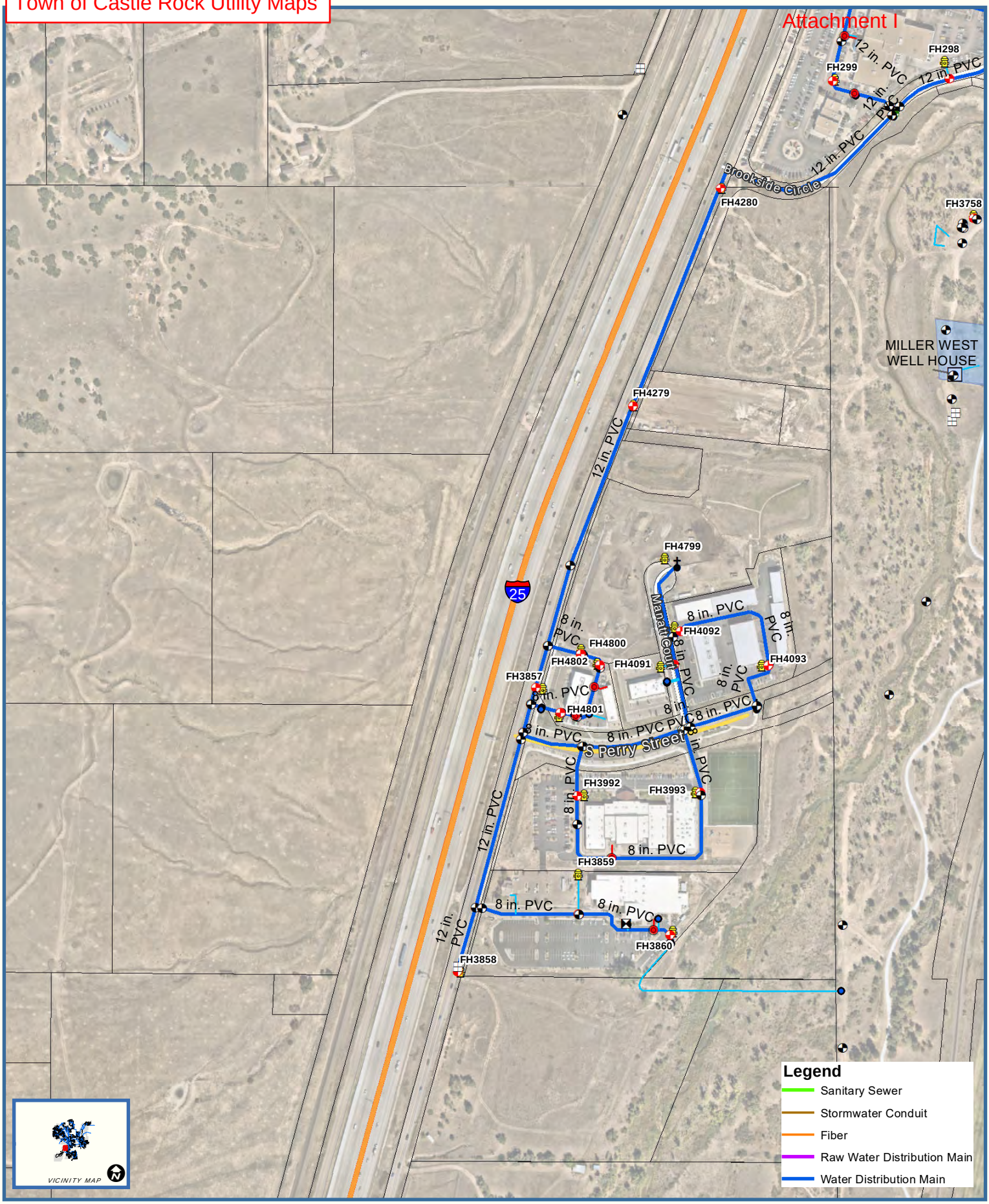
CASTLE ROCK UTILITIES MAP (INTERNAL USE ONLY)

Date: 3/24/2021

Document Path: \\CRSAN1\UTUsers\tclose\Desktop\11x17 LndScp_10.6.mxd

Town of Castle Rock Utility Maps

Attachment I



CASTLE ROCK Qwater
Securing our future drop by drop

0 210 420 840 Feet

Date: 3/24/2021 1 inch = 417 feet

Document Path: J:\GIS\Standard Maps\10.6\Letter Portrait_10.6.mxd

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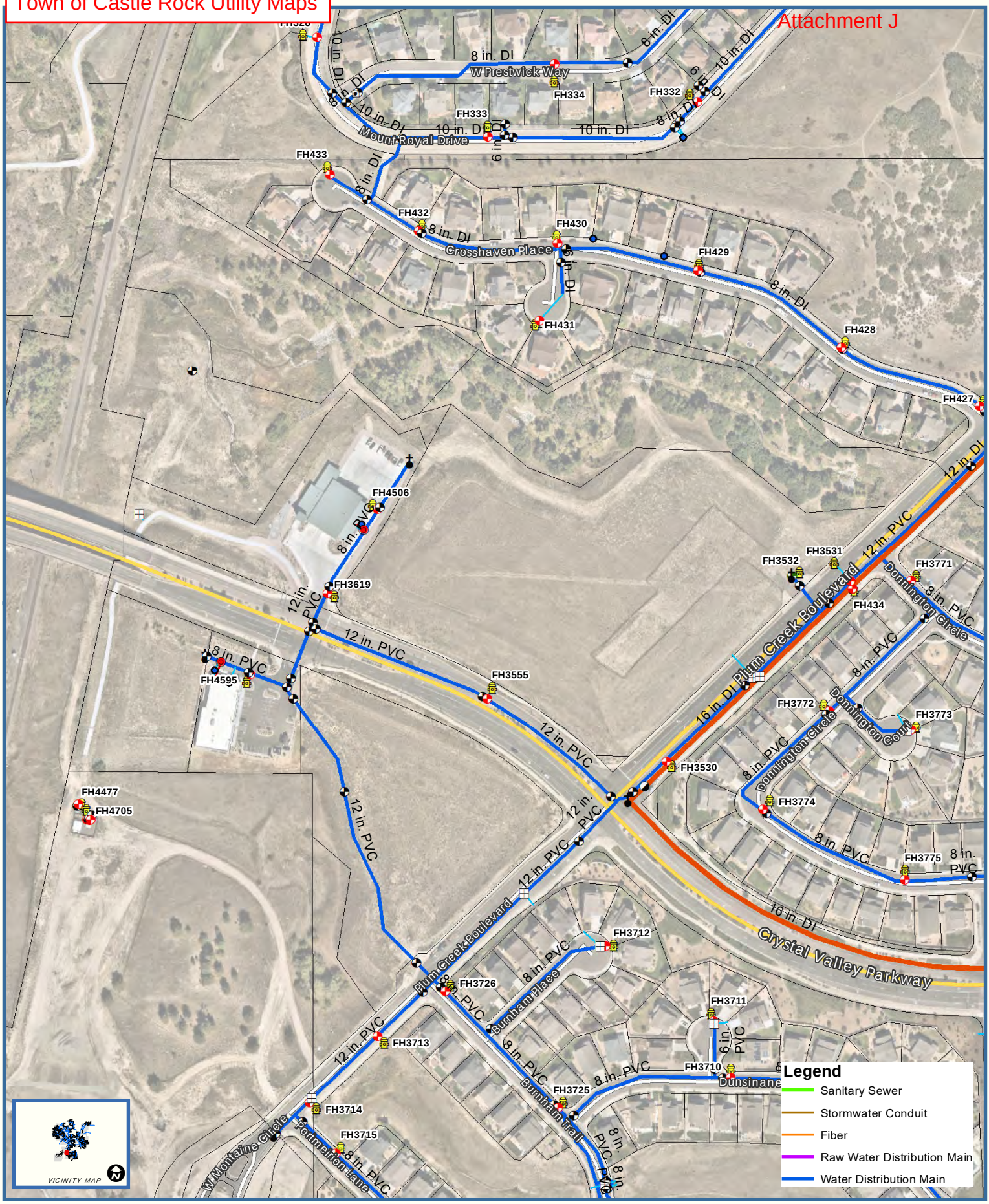
CASTLE ROCK UTILITIES MAP (INTERNAL USE ONLY)

Town of Castle Rock Utility Maps

Attachment J



CASTLE ROCK Qwater
Securing our future drop by drop

0 135 270 540 Feet

Date: 3/24/2021 1 inch = 269 feet

Document Path: J:\GIS\Standard Maps\10.6\Letter Portrait_10.6.mxd

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CASTLE ROCK UTILITIES MAP (INTERNAL USE ONLY)

CONCEPTUAL UTILITY LETTER

FOR

DAWSON TRAILS
TOWN OF CASTE ROCK, COLORADO
PROJECT NO. PDP21-0001

Prepared for:

Dawson Trails I LLC
Dawson Trails II LLC
Westside Property Investment Company, Inc.
4100 E Mississippi Ave, Ste 500
Glendale, CO 80246
Contact: Lawrence Jacobson
Phone: 303-984-9800

Prepared by:

CORE Consultants, Inc.
3473 South Broadway
Englewood, CO 80113
Contact: Kevin Rohrbough, PE
Phone: 303-703-4444
CORE Project Number: 20-224

May 2022

Excerpts from "Concept Utility Letter for Dawson Trails"
Prepared by CORE
Dated May 2022

I. PROJECT LOCATION AND DESCRIPTION

This Conceptual Utility Letter analyzes the existing and proposed utility infrastructure associated with the development of the Dawson Trails Master Planned Community. Dawson Trails is a proposed Planned Development (PD), consisting of single-family homes, multi-family homes, commercial development, community parks and school sites on approximately 2,061 +/- acres in Castle Rock, Colorado.

Site Location

This Conceptual Utility Letter is prepared for Dawson Trails, hereon referred to as the "Site". The Site is in a part of Sections 15, 21, 22, 27, 28, 29, 32, 33 & 34 of Township 8 South, Range 67 West of the Sixth Principal Meridian, Town of Castle Rock, Douglas County, State of Colorado. The Site is bounded by Interstate 25 to the east, Keene Ranch Filing No. 1 to the west, an undeveloped Douglas County parcel to the south, and the Twin Oaks subdivision to the north. See Appendix B for Vicinity Map.

Description of Property and Land Use

The Site is 2,063.7 ± acres and is generally undeveloped; however, there were previous infrastructure improvements constructed and abandoned in the 1980s. These abandoned improvements include concrete roads, water lines, sanitary sewer lines, storm sewer, and water distribution infrastructure including wells and a tank, all of which may be abandoned in place or removed as part of the proposed development of the Site.

The proposed development of the Site will consist of single-family homes, multi-family homes, commercial use, parks, open space, fire station, school sites and associated infrastructure. Based on Section 4.4.1 of the Town's Water System Design Criteria Manual, the water demand for the entire development will be approximately 7,500 SFE. This number is approximate and may be lower as the project will be developed under a Water Efficiency Plan (WEP).

II. EXISTING WATER SYSTEM

The Site does not currently have an active and operational domestic water system. Portions of an old water system were constructed in the 1980s; however, this infrastructure was never accepted by the Town or put into use. It was abandoned in place and will not be utilized to provide domestic water to the Site.

The Site is included in the Town's water system build-out planning. The Town's Water Master Plan designates the site as PD #54, which accounted for approximately 7,900 residential units. See Figures 4.4a and 4.4b in Appendix A. The proposed development will consist of less units than previously zoned and is in conformance with the Town's Master Plan.

The Site will provide a minimum of two (2) connection points to the Town's existing Water System for the required redundancy and looping. See Appendix A for the Concept Utility Map. The potential connection locations are as follows:

1. A connection to the 12" Blue Zone water main located within Crystal Valley Pkwy on the east side of I-25. This connection may require an extension of the existing 12" water main

Excerpts from "Concept Utility Letter for Dawson Trails" Prepared by CORE Dated May 2022

within Crystal Valley Parkway to the west, below Plum Creek and across the interchange and to provide a future connection on the west side of I-25.

2. A connection to the 12" Blue Zone water main at Perry St. on the east side of I-25. This connection may require a directional bore below the existing railroad tracks and I-25.
3. A connection to the 16" proposed Blue Zone water main in Plum Creek Parkway. Meadows Blue Zone has a slightly higher HGL which will necessitate a PRV along Prairie Hawk to match the Tank 4 Blue Zone HGL. It is anticipated this water line will be constructed within Plum Creek Parkway as part of the Miller's Landing project.

Connections 1 and 2 as identified above are both gravity fed by Tank 4. Tank 4 has limited capacity to serve the development and the capacity will be analyzed during final engineering designs to determine the number of units (SFE's) that can be served by this connection. Connection 3, fed by Tank 8, along with either Connection 1 or 2 will provide the necessary looping to service the buildout of the development.

Water Tanks and Booster Pumps

Tank 4: The Crystal Valley Parkway connection (#1 See above) will utilize Tank 4 (1.51 MG, Blue Zone).

Tank 4: The Perry St. connection (#2 See above) will utilize Tank 4 (1.51 MG, Blue Zone).

Tank 8 & Tank 4: The Plum Creek Parkway connection (#3 See above) will utilize Tank 8 (3.13 MG, Blue Zone) & Tank 4 (1.51 MG, Blue Zone).

Tank 19: Will be reconstructed as part of the proposed development to provide water supply to the proposed Red Zone portions of the Site.

Tank 21: Will be constructed as part of the proposed development to provide water supply to the Green Zone portions of the Site.

Booster Pump 37: Will be relocated and reconstructed as part of the proposed development to boost water from the Blue Zone up to service the Red Zone portions of the development. The developer will coordinate the operation and maintenance costs for this pump station relocation with the Town of Castle Rock.

III. PROPOSED WATER SYSTEM

The Site is generally located within three (3) water pressure zones: Blue, Red, and Green. A portion of the Site is located above the Green Zone within the Tan Zone; however, no development is anticipated in that portion of the Site and no water service will be provided to the Tan Zone. See Appendix A for Concept Utility Map.

As mentioned in Section II, it is anticipated that the proposed water system will make a minimum of two (2) connections to the Town's system to provide looping of the main lines and adequate redundancy. Internal looping within each Planning Area will also be provided with the final design. Due to the geographic location of the Site relative to the Town's adjacent water system, it is anticipated that both connections will be made to the Town's Blue Zone. These connections and proposed water system will generally serve the eastern portion of the Site located in the Blue Zone. The water will be treated by either Meadows WTP, PS Miller WTP, Plum Creek Water Purification Facility, and/or Ray Waterman WTP.

Excerpts from "Concept Utility Letter for Dawson Trails" Prepared by CORE Dated May 2022

The anticipated water demand for the entire development is approximately 7,500 SFE (includes irrigation demand), based on land use demands provided in section 4.4.1 of the Town's Water System Design Criteria Manual. Based on the various land uses and expected SFE's in the three water pressure zones, efforts will be made to reduce the number of booster pumps and Pressure Reducing Valves (PRV) between the different water pressure zones. Infrastructure sizes may need to be increased due to transmission and tank piping alignments during final design. Each planning area will be expected to provide internal looping connections to the backbone water main infrastructure within each pressure zone.

A Water Efficiency Program (WEP) Report has been prepared by AquaSan Network for the development. The Program will provide various efficiencies of the water used on the project. The Program will reduce water demands throughout the project in a manner that is acceptable to the Town as well as the commercial and residential housing industries, while achieving benchmark water use goals in determination of impact fee assessments.

Red Zone
A new Red Zone Water Tank, adjacent to the existing abandoned Tank 19, will be constructed to provide a gravity feed to the Red Zone portions of the Site. The tank will be fed by a proposed Red Zone Booster Pump that will provide redundancy to the Red Zone and interconnect with the Town's Blue Zone through a Pressure Reducing Valve.

Green Zone
The Green Zone, western portion of the Site, will be serviced by an off-site Green Zone Tank, Tank 21, as identified on the Town's Water Master Plan. Due to the required hydraulic water surface elevation required to provide service to the Green Zone, the tank will need to be constructed off-site, to the southwest, so that it has the necessary elevation to serve the Green Zone. The location of the Green Zone tank will be determined during final designs. A water quality analysis will be provided for the green zone tank per Town of Castle Rock's Criteria.

It is anticipated that a booster pump will be constructed near the Red Zone water tank noted above. This will boost the water supply up to the Green Zone and a PRV will connect to the Red Zone to provide additional redundancy.

Any future development of the existing water infrastructure needed to serve this site is the responsibility of the developer. A well site and water treatment facility may be required for this development, based on Town of Castle Rock Water Resources requirements. See the Concept Utility Map for locations in Appendix A. Two ±3 acre well sites and one 6 acre water treatment facility may be required for this development.

IV. EXISTING WASTEWATER SYSTEM

The Site does not currently have an active or operational sanitary sewer wastewater collection system. Portions of an old sanitary system were constructed in the 1980s; however, this infrastructure was never accepted by the Town or put into use. It was abandoned in place and is not anticipated to be utilized to provide wastewater collection to the Site.

An existing 12" Off-Site Sewer Main, upsized to a 15" west of Perry Street and I-25 were constructed to convey flows north of the Site and ultimately connect to the Town's Wastewater collections system near Plum Creek Parkway and the Interstate 25 Interchange.

Excerpts from "Concept Utility Letter for Dawson Trails" Prepared by CORE Dated May 2022

This sewer main was not previously accepted by the Town and has never been utilized. It is anticipated that the off-site sewer main will be inspected and tested to see if it could be restored and accepted by the Town as it is currently constructed. If the main, or portions of the main, are deemed unusable then a new sewer main, or portions of the sewer main will be reconstructed within the existing easement to convey wastewater flows to the north and connect to the Town's collection system.

It is understood that during a part of the Plum Creek Parkway interchange project that the off-site sewer main was temporarily disconnected at Plum Creek Parkway. It is the responsibility of the Town to reconnect this line across Plum Creek Parkway and tie it into the existing downstream wastewater collection system.

Per coordination with the Town, it is noted that the existing wastewater collection system downstream from Plum Creek Parkway will be at or near capacity with the buildout of the development. The Town currently plans to upsize these downstream sanitary sewer mains to provide the additional capacity to serve this region of the Town.

V. PROPOSED WASTEWATER SYSTEM

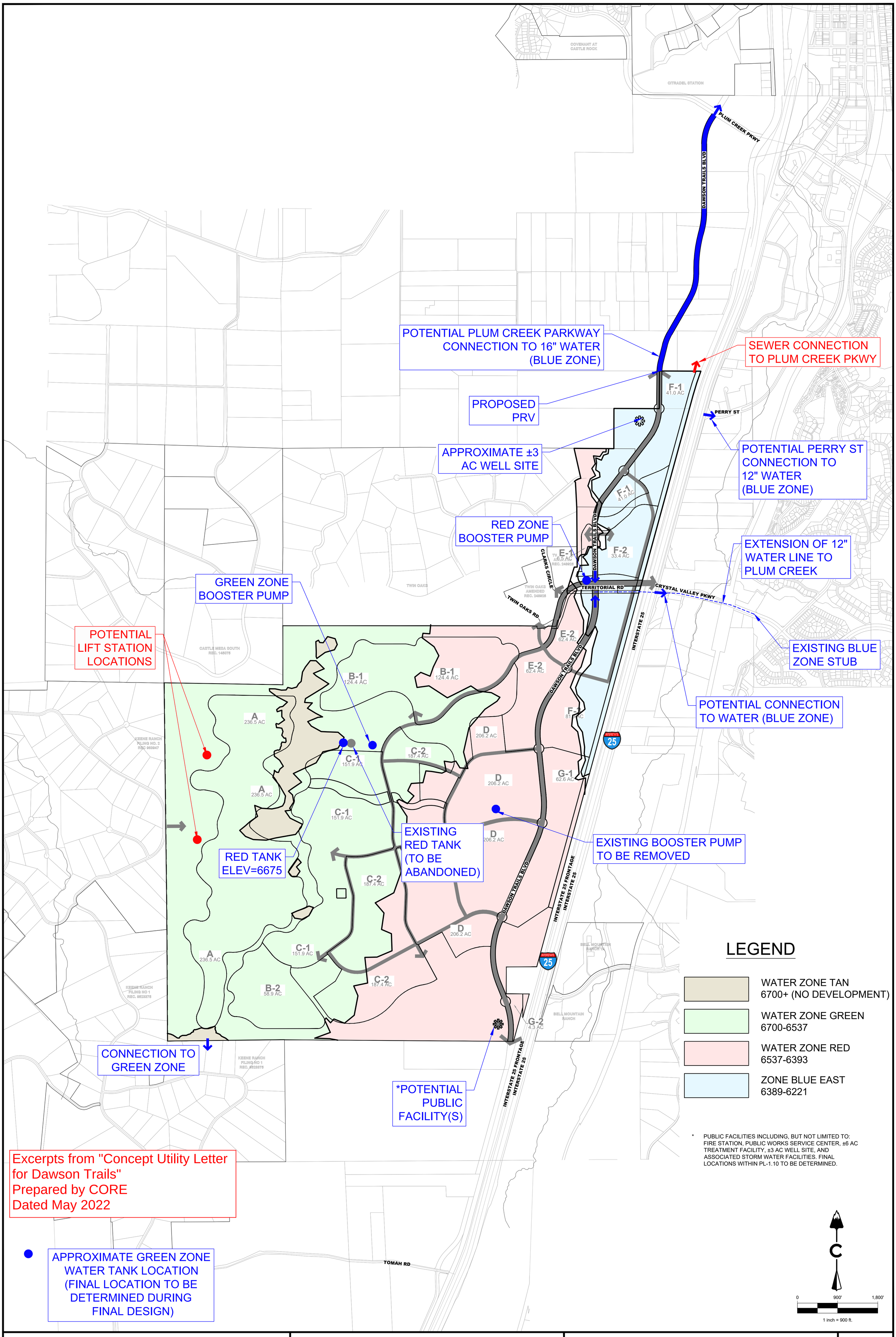
The Site will be generally served by gravity sanitary sewer mains that will convey the wastewater flows from the west to east and from south to north See Appendix A for Concept Utility Map. The ultimate outfall of the Site is to the North with a connection to the Town's wastewater conveyance system near the Plum Creek Parkway and I-25 Interchange. The anticipated wastewater demand for the entire development is 7,000 SFE, based on land use demands provided in section 4.4.1 of the Town's Wastewater System Design Criteria Manual.

The western portion of the Site slopes from east to west and sanitary sewer flows will not be conveyed via gravity to the main wastewater collection system of the Site. It is anticipated that either one (1) or two (2) sanitary sewer lift stations will be required to serve this portion of the Site. Efforts will be made to minimize the number of Lift Stations required to service the development as operation and maintenance costs will be assessed for lift stations.

The sanitary sewer demands, both on-site and off-site, will be analyzed for the new zoning established with the Planned Development Plan Amendment and sewer mains will be sized according to the Town's standards and criteria.

A Master Utility Study will ultimately be prepared for the development to analyze the various land uses and their locations on the Site to ensure that the backbone infrastructure is sized to handle the build out of the development. Any future development of the existing wastewater infrastructure needed to serve this site is the responsibility of the developer.

Excerpts from "Concept Utility Letter for Dawson Trails" Prepared by CORE Dated May 2022



Excerpts from "Concept Utility Letter for Dawson Trails"
Prepared by CORE
Dated May 2022

CORE

CORE CONSULTANTS. INC.
3473 S. BROADWAY
ENGLEWOOD, CO 80113
303.703.4444
LIVEYOURCORE.COM

LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTUCTURE

DAWSON RIDGE

CONCEPT UTILITY MAP

DATE: 05/27/22
CREATED BY: JRF
JOB NO. 20-224
SHEET 1

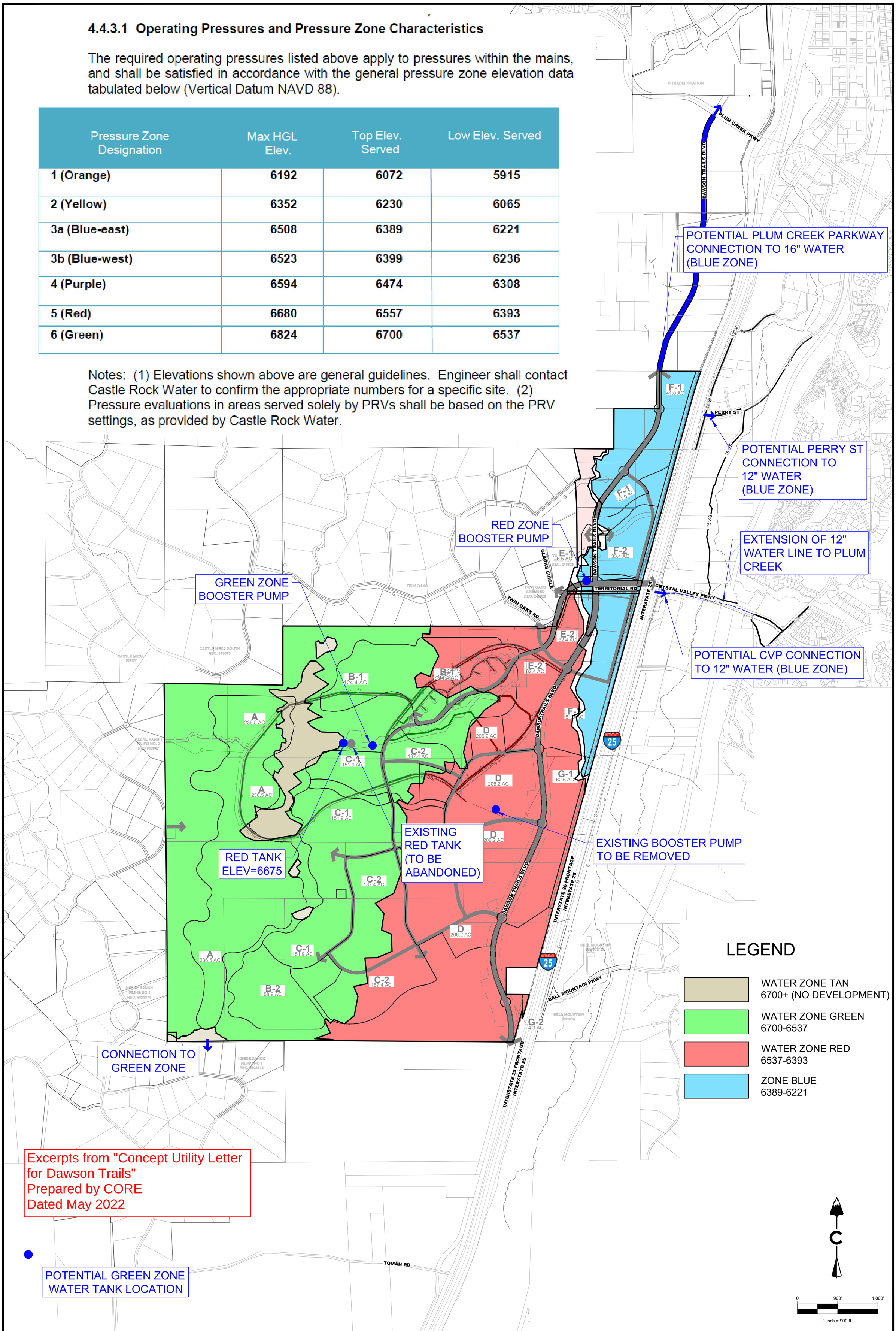
5/27/2022 5:00 PM ; X:\20-224 DAWSON\CIVIL\CAD\EXHIBITS\OVERALL\2021-06-02 - CONCEPT UTILITY LETTER MAP\CONCEPT UTILITY MAP.DWG;

4.4.3.1 Operating Pressures and Pressure Zone Characteristics

The required operating pressures listed above apply to pressures within the mains, and shall be satisfied in accordance with the general pressure zone elevation data tabulated below (Vertical Datum NAVD 88).

Pressure Zone Designation	Max HGL Elev.	Top Elev. Served	Low Elev. Served
1 (Orange)	6192	6072	5915
2 (Yellow)	6352	6230	6065
3a (Blue-east)	6508	6389	6221
3b (Blue-west)	6523	6399	6236
4 (Purple)	6594	6474	6308
5 (Red)	6680	6557	6393
6 (Green)	6824	6700	6537

Notes: (1) Elevations shown above are general guidelines. Engineer shall contact Castle Rock Water to confirm the appropriate numbers for a specific site. (2) Pressure evaluations in areas served solely by PRVs shall be based on the PRV settings, as provided by Castle Rock Water.



Excerpts from "Concept Utility Letter for Dawson Trails"
Prepared by CORE
Dated May 2022

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ENGLEWOOD, CO 80113
303.703.4444
LIVEYOURCORE.COM

LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTUCTURE

DAWSON RIDGE

WATER SUPPLY ZONES

DATE: 05/27/22
CREATED BY: AM
JOB NO. 20-224
SHEET 1

5/27/2022 4:52 PM : X:\20-224 DAWSON\CIVIL\CAD\EXHIBITS\OVERALL\2021-06-29 - WATER SUPPLY ZONES EXHIBIT.DWG;

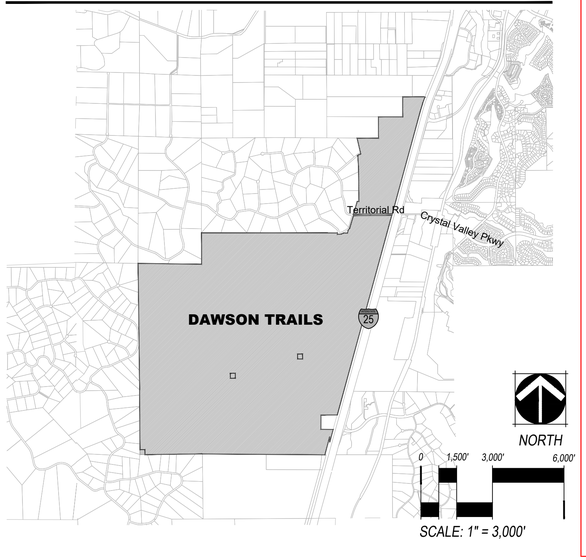
DAWSON TRAILS

PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS

(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PRELIMINARY P.U.D. SITE PLAN)

TWO PARCELS OF LAND BEING ALL OF SECTION 28 AND PORTIONS OF SECTIONS 15, 21, 22, 27, 29, 32, 33 & 34, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

VICINITY MAP



SUMMARY TABLE

CHARACTER AREA	PLANNING AREA (6)	LAND USE TYPE (2)	ACREAGE	MAX. DWELLING UNITS	MIN TRANISTION LOT SIZE	MIN. NON-RES AREA (AC)	% OF PROPERTY	MAX BUILDING HEIGHT
WEST	A	SFD	236.5	471	7,700 sf	N/A	11.5%	35'
	B-1	SFD	124.4	484	6,600 sf	N/A	6.0%	35'
	B-2	SFD	58.9	228	6,600 sf	N/A	2.9%	35'
	Totals	N/A	419.8	1,183	N/A	N/A	20.3%	
CENTRAL	C-1	SFD, SFA, MF	151.9	481	N/A	N/A	7.4%	45'
	C-2	SFD, SFA, MF	187.4	908	N/A	N/A	9.1%	50'
	D	SFD, SFA, MF, Non-Res	206.2	1,938	N/A	N/A	10.0%	60'
	Totals	N/A	545.5	3,327	N/A	N/A	26.4%	
EAST	E-1	Non-Res	6.5	N/A	N/A	6.5	0.3%	50'
	E-2	SFD, SFA, MF, Non-Res	62.4	400	N/A	N/A	3.0%	60'
	F-1	SFA, MF, Non-Res	41.0	940	N/A	45	2.0%	75'/90'
	F-2	SFA, MF, Non-Res	33.4		N/A		1.6%	75'/90'
	F-3	SFA, MF, Non-Res	81.9		N/A		4.0%	75'/90'
	G-1	Non-Res	62.6	0	N/A	66.9	3.0%	75'/90'
	G-2	Non-Res	4.3	0	N/A		0.2%	75'/90'
	Totals	N/A	292.1	1,340	N/A	118.4	14.2%	

MAX. DWELLING UNITS - ALL 3 CHARACTER AREAS COMBINED (NOT TO EXCEED)	5,850
MAX. MULTI FAMILY DWELLING UNITS (LOCATED IN C-1, C-2, D, E-2, F-1, F-2, F-3)	2,400
MAX. COMM./NON-RES. SQ. FT. - EAST & CENTRAL CHARACTER AREAS	3,200,000

Planning Areas	1,257.4	60.9%
Open Space (PL-2 & OS)	532.9	25.8%
Public Land Dedication (PL-1)	227.6	11.0%
ROW (Arterial)	45.8	2.2%
TOTAL PROPERTY (Approximately)	2,063.7	100.0%

LEGAL DESCRIPTION

TWO (2) PARCELS OF LAND PORTIONS OF SECTIONS 15, 21, 22, 27, 28, 29, 32, 33 & 34, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE BEARINGS FOR THIS DESCRIPTION ARE BASED ON THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SECTION 21, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH P.M., BEING ASSUMED TO BEAR S89°55'56"E, FROM THE SOUTH 1/16TH CORNER OF SAID SECTIONS 21 & 22, BEING MONUMENTED BY A PIPE WITH A 2" ALUMINUM CAP STAMPED "LS 6935" TO THE SOUTH 1/16TH CORNER OF SAID SECTIONS 20 & 21, BEING MONUMENTED BY A PIPE WITH A 2 INCH ALUMINUM CAP, STAMPED "LS 6935", WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

PARCEL 1:

BEGINNING AT THE SOUTH 1/16TH CORNER OF SAID SECTIONS 21 & 22, ALSO BEING A POINT ON THE SOUTH LINE OF TWIN OAKS, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 161972, IN THE RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE;
THENCE S 89°28'35" E, ALONG THE SOUTH LINE OF SAID TWIN OAKS SUBDIVISION AND ALONG THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 22, A DISTANCE OF 404.37 FEET TO A POINT ON THE WEST LINE OF THE TWIN OAKS ROAD RIGHT-OF-WAY, AS DEDICATED BY SAID TWIN OAKS SUBDIVISION;
THENCE ALONG THE WEST LINE OF SAID TWIN OAKS DRIVE RIGHT-OF-WAY AND ALONG THE SOUTH LINE OF THE TERRITORIAL ROAD RIGHT-OF-WAY, AS DEDICATED BY SAID TWIN OAKS SUBDIVISION, THE FOLLOWING FOUR (4) COURSES:

1. S 02°01'48" E, A DISTANCE OF 52.10 FEET TO THE SOUTH LINE OF SAID TERRITORIAL ROAD RIGHT-OF-WAY;
2. N 87°58'41" E, A DISTANCE OF 109.24 FEET TO A POINT OF CURVATURE;
3. ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 245.68 FEET, A CENTRAL ANGLE OF 28°36'44" AND AN ARC LENGTH OF 122.69 FEET;
4. N 59°21'57" E, A DISTANCE OF 23.19 FEET TO A POINT ON THE SOUTH LINE OF SAID TWIN OAKS SUBDIVISION;

THENCE S 89°28'35" E, ALONG SAID SOUTH LINE, A DISTANCE OF 174.31 FEET TO THE SOUTHEAST CORNER OF SAID TWIN OAKS SUBDIVISION;
THENCE N 17°17'13" E, ALONG THE EAST LINE OF SAID TWIN OAKS SUBDIVISION, A DISTANCE OF 139.27 FEET TO A POINT ON THE EAST LINE OF SAID TERRITORIAL ROAD RIGHT-OF-WAY AND A POINT OF NON-TANGENT CURVATURE;
THENCE ALONG THE EAST LINE OF SAID TERRITORIAL ROAD RIGHT-OF-WAY THE FOLLOWING TWO (2) COURSES:

1. ALONG THE ARC OF A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 198.98 FEET, A CENTRAL ANGLE OF 31°52'19" AND AN ARC LENGTH OF 110.69 FEET, SUBTENDED BY A CHORD OF WHICH BEARS N 33°13'23" E, A DISTANCE OF 109.26 FEET;
2. N 17°17'13" E, A DISTANCE OF 534.55 FEET TO A POINT ON THE SOUTH LINE OF THE TERRITORIAL ROAD RIGHT-OF-WAY AS DEDICATED BY THAT DEED RECORDED AT RECEPTION NO. 8816440, SAID DOUGLAS COUNTY RECORDS;

THENCE N 89°40'41" E, ALONG SAID SOUTH LINE, A DISTANCE OF 1599.61 FEET TO A POINT ON THE WEST LINE OF THE BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT-OF-WAY;
THENCE S 15°17'57" W, ALONG SAID WEST LINE, A DISTANCE OF 8675.32 FEET TO THE NORTHEAST CORNER OF THAT PARCEL OF LAND DESCRIBED IN THAT DEED RECORDED AT RECEPTION NO. 2004131453, SAID DOUGLAS COUNTY RECORDS;
THENCE ALONG THE NORTH, WEST AND SOUTH LINES OF SAID PARCEL, THE FOLLOWING THREE (3) COURSES:

1. S 89°46'16" W, A DISTANCE OF 678.73 FEET;
2. S 00°19'26" W, A DISTANCE OF 600.54 FEET;
3. S 89°29'06" E, A DISTANCE OF 515.85 FEET TO A POINT ON THE WEST LINE OF SAID BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT OF WAY;

THENCE S 15°17'57" W, ALONG SAID WEST LINE, A DISTANCE OF 547.53 FEET TO A POINT ON THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 33; THENCE N 00°02'14" W, ALONG SAID EAST LINE, A DISTANCE OF 226.55 FEET TO A POINT ON THE WEST LINE OF SAID BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT-OF-WAY;
THENCE S 15°19'54" W, ALONG SAID WEST LINE, A DISTANCE OF 789.53 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH HALF OF SAID SECTION 33;
THENCE N 89°35'18" W, ALONG SAID SOUTH LINE, A DISTANCE OF 5123.28 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 32, ALSO BEING THE NORTHEAST CORNER OF KEENE RANCH FILING NO. 1, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 9523375, SAID DOUGLAS COUNTY RECORDS;
THENCE S 89°21'58" W, ALONG THE NORTH LINE OF SAID KEENE RANCH FILING NO. 1 AND ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 2414.68 FEET TO THE SOUTHEAST CORNER OF THAT PARCEL OF LAND DESCRIBED IN THAT DEED RECORDED AT RECEPTION NO. 2004051359, SAID DOUGLAS COUNTY RECORDS; THENCE ALONG THE EAST AND NORTH LINES OF SAID PARCEL OF LAND, THE FOLLOWING TWO (2) COURSES:

1. N 00°19'46" W, A DISTANCE OF 208.73 FEET TO THE NORTHEAST CORNER OF SAID DEED;
2. S 89°21'58" W, A DISTANCE OF 208.73 FEET TO A POINT ON THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, ALSO BEING A POINT ON THE EAST LINE OF SAID KEENE RANCH FILING NO. 1;

THENCE N 00°19'46 W, ALONG THE EAST LINE OF SAID KEENE RANCH FILING NO. 1, ALONG THE EAST LINE OF KEENE RANCH FILING NO. 2, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 9639479, SAID DOUGLAS COUNTY RECORDS, AND ALONG THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, A DISTANCE OF 2505.72 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 32;
THENCE N 00°39'34" W, ALONG THE EAST LINE OF SAID KEENE RANCH FILING NO. 2 AND ALONG THE WEST LINE OF THE EAST HALF OF SAID SECTION 29, A DISTANCE OF 5308.62 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 29, BEING THE NORTHEAST CORNER OF SAID KEENE RANCH FILING NO. 2 PLAT, AND THE SOUTHWEST CORNER OF CASTLE MESA SOUTH, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 145078, SAID DOUGLAS COUNTY RECORDS;
THENCE S 89°02'42" E, ALONG THE NORTH LINE OF THE EAST HALF OF SAID SECTION 29 AND ALONG THE SOUTH LINE OF SAID CASTLE MESA SOUTH SUBDIVISION, A DISTANCE OF 2661.01 FEET TO THE SOUTHEAST CORNER OF SAID CASTLE MESA SOUTH SUBDIVISION, BEING THE SOUTHWEST CORNER OF SAID SECTION 21;
THENCE N 00°02'04" W, ALONG THE EAST LINE OF SAID CASTLE MESA SOUTH SUBDIVISION AND ALONG THE WEST LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 21, A DISTANCE OF 1322.70 FEET TO THE SOUTH 1/16TH CORNER OF SAID SECTIONS 20 & 21, BEING THE SOUTHWEST CORNER OF SAID TWIN OAKS SUBDIVISION;
THENCE S 89°55'56" E, ALONG THE SOUTH LINE OF SAID TWIN OAKS SUBDIVISION AND ALONG THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 21, A DISTANCE OF 5286.17 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE FOLLOWING TWO (2) PARCELS OF LAND;

TWO (2) PARCELS OF LAND, AS DESCRIBED IN SAID DEED RECORDED AT RECEPTION NO. 2004051359, SAID DOUGLAS COUNTY RECORDS, BEING A PORTION OF THE SOUTH HALF OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE BEARINGS FOR THESE EXCEPTION PARCELS ARE BASED ON THE SOUTH LINE OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH P.M., BEING ASSUMED TO BEAR S89°47'47"E, FROM THE SOUTHWEST CORNER OF SAID SECTION 28, BEING MONUMENTED BY A 1" PIPE WITH A 2-1/2" ALUMINUM CAP STAMPED "LS 6935" TO THE SOUTHEAST CORNER OF SAID SECTIONS 28, BEING MONUMENTED BY #6 REBAR WITH A 2-1/2" ALUMINUM CAP, STAMPED "LS 6935", WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 28, THENCE N 65°29'17" E, A DISTANCE OF 1262.53 FEET TO THE POINT OF BEGINNING;
THENCE N 00°45'02" W, A DISTANCE OF 208.73 FEET;
THENCE S 89°47'38" E, A DISTANCE OF 208.73 FEET;
THENCE S 00°45'02" E, A DISTANCE OF 208.73 FEET;
THENCE N 89°47'38" W, A DISTANCE OF 208.73 FEET TO THE POINT OF BEGINNING;

ALSO EXCEPTING THE FOLLOWING PARCEL

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 28, THENCE N 40°06'49" E, A DISTANCE OF 1765.27 FEET TO THE POINT OF BEGINNING;
THENCE N 89°47'47" W, A DISTANCE OF 208.73 FEET;
THENCE N 00°45'11" W, A DISTANCE OF 208.73 FEET;
THENCE S 89°47'47" E, A DISTANCE OF 208.73 FEET;
THENCE S 00°45'11" E, A DISTANCE OF 208.73 FEET TO THE POINT OF BEGINNING;

CONTAINING A NET AREA OF 81,902,811 SQUARE FEET OR 1,880.230 ACRES, MORE OR LESS.

PARCEL 2:

COMMENCING AT THE SOUTH 1/16TH CORNER OF SAID SECTIONS 21 & 22, ALSO BEING A POINT ON THE SOUTH LINE OF TWIN OAKS, A SUBDIVISION PLAT RECORDED AT RECEPTION NO. 161972, IN THE RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE;
THENCE N 53°44'53" E, A DISTANCE OF 1331.13 FEET TO A POINT ON THE EAST LINE OF SAID TWIN OAKS PLAT AND A POINT ON THE NORTH LINE OF THE TERRITORIAL ROAD RIGHT-OF-WAY, AS DEDICATED BY THAT DEED RECORDED AT RECEPTION NO. 8816440, SAID DOUGLAS COUNTY RECORDS AND THE POINT OF BEGINNING;
THENCE ALONG THE EAST LINE OF SAID TWIN OAKS PLAT, THE FOLLOWING THREE (3) COURSES:

1. N 17°17'13" E, A DISTANCE OF 557.93 FEET;
2. S 89°27'27" E, A DISTANCE OF 65.00 FEET;
3. N 00°22'15" W, A DISTANCE OF 1329.37 FEET TO THE SOUTHWEST CORNER OF LOT 3, SAID TWIN OAKS PLAT;

THENCE N 03°03'12" W, ALONG THE WEST LINE OF SAID LOT 3, A DISTANCE OF 567.45 FEET TO THE NORTHWEST CORNER OF SAID LOT 3, BEING A POINT OF CURVATURE ON THE SOUTH LINE OF THE BRISCOE LANE RIGHT-OF-WAY, AS DEDICATED BE SAID TWIN OAKS PLAT;
THENCE ALONG THE PORTIONS OF BRISCOE LANE VACATED BY ORDINANCE NO. 86-24, RECORDED IN BOOK 680 AT PAGE 920, SAID DOUGLAS COUNTY RECORDS THE FOLLOWING TWO (2) COURSES:

1. N 39°55'38" W, A DISTANCE OF 30.00 FEET TO A POINT OF NON-TANGENT CURVATURE;
2. ALONG THE ARC OF A NON-TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 329.30 FEET, A CENTRAL ANGLE OF 27°16'16" AND AN ARC LENGTH OF 156.74 FEET, SUBTENDED BY A CHORD OF WHICH BEARS N 63°42'30" E, A DISTANCE OF 155.26 FEET;

THENCE N 12°39'22" W, ALONG THE WEST LINE OF LOT 4, SAID TWIN OAKS PLAT, A DISTANCE OF 687.67 FEET TO THE NORTHWEST CORNER OF SAID LOT 4 ALSO BEING THE WEST 1/16TH CORNER OF SAID SECTIONS 15 & 22;
THENCE S 89°31'22" E, ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 15, A DISTANCE OF 890.07 FEET TO THE SOUTHWEST CORNER OF THAT PARCEL OF LAND DESCRIBED AS PARCEL E IN THAT DEED RECORDED AT RECEPTION NO. 2019088324, SAID DOUGLAS COUNTY RECORDS;
THENCE ALONG THE WEST AND NORTH LINES OF PARCELS E, F & G THE FOLLOWING FOUR (4) COURSES:

1. N 00°11'34" E, A DISTANCE OF 900.14 FEET;
2. S 89°48'26" E, ALONG THE NORTH LINES OF PARCELS E AND F, A DISTANCE OF 1014.77 FEET TO THE SOUTHWEST CORNER OF THAT PARCEL OF LAND DESCRIBED AS PARCEL G;
3. N 00°11'34" E, A DISTANCE OF 842.72 FEET;
4. S 89°48'26" E, A DISTANCE OF 928.55 FEET TO A POINT ON THE WEST LINE OF THE BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT OF WAY AND A POINT OF NON-TANGENT CURVATURE;

THENCE ALONG THE WEST LINE OF SAID BURLINGTON NORTHERN SANTA FE RAILROAD RIGHT-OF-WAY THE FOLLOWING TWO (2) COURSES:

1. ALONG THE ARC OF A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 5779.58 FEET, A CENTRAL ANGLE OF 05°35'04" AND AN ARC LENGTH OF 563.33 FEET, SUBTENDED BY A CHORD OF WHICH BEARS S 18°04'54" W, A DISTANCE OF 563.11 FEET;
2. S 15°17'57" W, A DISTANCE OF 4536.04 FEET TO A POINT ON THE NORTH LINE OF SAID TERRITORIAL ROAD RIGHT-OF-WAY;

THENCE S 89°40'41" W, ALONG SAID NORTH LINE, A DISTANCE OF 1628.83 FEET TO THE POINT OF BEGINNING.

CONTAINING AN AREA OF 7,993,235 SQUARE FEET OR 183.499 ACRES, MORE OR LESS.

OVERALL DAWSON RIDGE PROJECT PERIMETER DESCRIPTION CONTAINS AN AREA OF 89,896,046 SQUARE FEET OR 2,063.729 ACRES, MORE OR LESS.

SHEET INDEX

SHEET 1.....COVER
SHEET 2.....OWNERSHIP CERTIFICATION
SHEET 3-8.....PLANNED DEVELOPMENT PLAN
SHEET 9.....OPEN SPACE, PUBLIC LAND, AND TRAILS PLAN
SHEET 10.....NATURAL FEATURES MAP
SHEET 11.....PHASING PLAN
SHEET 12.....GRADING & DRAINAGE PLAN
SHEET 13.....WILDLAND MANAGEMENT PLAN
SHEET 14-18.....PD ZONING REGULATIONS
SHEET 19.....PD ZONING REGULATION APPENDIX

PURPOSE STATEMENT

THE DAWSON TRAILS PDP IS AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PRELIMINARY P.U.D. SITE PLAN TO ZONE THE PROPERTY FOR RESIDENTIAL, MIXED USE, COMMERCIAL, INDUSTRIAL, OPEN SPACE, AND PLD.

VESTING

THIS DAWSON TRAILS PLANNED DEVELOPMENT PLAN INCLUSIVE OF THE EMBEDDED PD ZONING REGULATIONS CONSTITUTES A SITE SPECIFIC DEVELOPMENT PLAN PURSUANT TO CHAPTER 17.08 OF THE CASTLE ROCK MUNICIPAL CODE AND §24-68-101, *ET SEQ.*, C.R.S., AND ESTABLISHES VESTED PROPERTY RIGHTS THROUGH DECEMBER 31, 2052, TO UNDERTAKE AND COMPLETE THE DEVELOPMENT AND USE OF THE PROPERTY IN ACCORDANCE WITH THIS PLAN. TOWN COUNCIL MAP APPROVE A ONE TIME TEN-YEAR EXTENSION OF THE VESTING PERIOD, NOT TO EXCEED DECEMBER 31, 2062.

TECHNICAL CRIERIA VARIANCE APPROVAL

TCV22-0031
APPROVED 5/11/2022
APPROVAL ALLOWS FOR REDUCED INTERSECTION SPACING BETWEEN FULL MOVEMENT INTERSECTIONS ALONG DAWSON TRAIL BLVD/PRAIRIE HAWK DR.

PDP STANDARD NOTES

1. THE MINERAL RIGHTS ASSOCIATED WITH THIS PROPERTY HAVE NOT BEEN SEVERED. FOR ANY PORTION THAT HAS BEEN SEVERED, NOTIFICATION OF DEVELOPMENT HEARINGS BEFORE PLANNING COMMISSION AND TOWN COUNCIL MUST BE PROVIDED TO OWNERS OF MINERALS ESTATES.
2. THIS PROPERTY LIES WITHIN FEMA ZONE X, THE UNSHADED AREA OF FIRM MAPS NO. 08035C0282G, 08035C0301G, 08035C0283F, 08035C0284G, AND 08035C0292F, REVISED MARCH 16, 2016. NO STRUCTURES SHALL BE PERMITTED IN THE APPROVED 100-YEAR FLOOD PLAIN. THE SITE ALSO HAS MAJOR DRAINAGEWAYS WITH BASIN AREAS GREATER THAN 130 ACRES ONSITE.
3. THIS PROPERTY IS WITHIN THE TOWN OF CASTLE ROCK BLUE, RED AND GREEN WATER PRESSURE ZONES.
4. ALL-WEATHER (CONCRETE OR ASPHALT) SURFACED ACCESS ROADS CAPABLE OF WITHSTANDING THE IMPOSED LOADS OF FIRE APPARATUS (75,000 LBS.) AND ALL REQUIRED FIRE HYDRANTS SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING ALL VERTICAL CONSTRUCTION.
5. RIGHT-OF-WAY FOR INGRESS AND EGRESS FOR EMERGENCY VEHICLES IS GRANTED OVER, ACROSS, ON AND THROUGH ANY AND ALL PRIVATE ROADS AND DRIVES.

GENERAL NOTES

1. ALL DEVELOPMENT ASSOCIATED WITH THE DAWSON TRAILS PDP SHALL COMPLY WITH ALL FEDERAL, STATE AND TOWN REGULATIONS REGARDING WILDLIFE INCLUDING THE MIGRATORY BIRD ACT AND BURROWING OWL SURVEY IF REQUIRED.
2. UPDATED SOILS REPORTS SHALL BE SUBMITTED WITH EACH SITE DEVELOPMENT PLAN AND/OR PLAT.
3. ALL EVA ACCESS GATES WILL INCLUDE AN OPTICOM SYSTEM OR OTHER SYSTEM APPROVED BY THE TOWN OF CASTLE ROCK FIRE DEPARTMENT.
4. A WILDLAND/URBAN INTERFACE WILDFIRE VEGETATION MANAGEMENT PLAN (PLAN), OR COMPLIANCE LETTER, IS REQUIRED TO BE SUBMITTED FOR EACH PHASE OF THE PLANNED DEVELOPMENT WITH THE FIRST SDP OR CONSTRUCTION DRAWINGS FOR EVALUATION AND APPROVAL BY THE TOWN OF CASTLE ROCK FIRE DEPARTMENT. THE PLAN SHALL BE DEVELOPED BY A DESIGN PROFESSIONAL FAMILIAR WITH WILDFIRE MITIGATION TECHNIQUES AND STANDARDS. REFER TO SHEET 13 AND THE TOWN OF CASTLE ROCK COMMUNITY WILDFIRE PROTECTION PLAN.
5. FOR PLANNING AREAS F AND G, VERTICAL MIXED-USE, HOSPITALITY, MEDICAL, OFFICE, AND MULTI-FAMILY RESIDENTIAL USES ARE ALLOWED TO HAVE A MAXIMUM HEIGHT OF 90 FEET PER SECTION 6.11 ON SHEET 17.

Excerpts from "Concept Utility Letter for Dawson Trails"
Prepared by CORE
Dated May 2022

CHECKED BY: MB, SW
DRAWN BY: DJ, JR

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DAWSON TRAILS

DAWSON TRAILS
PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS
(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PERLIMINARY P.U.D. SITE PLAN)

DATE:
PDP-01 07/08/2021
PDP-02 12/03/2021
PDP-03 04/13/2022
PDP-04 05/27/2022

SHEET TITLE:
COVER

DAWSON TRAILS

PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS

(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PRELIMINARY P.U.D. SITE PLAN)

TWO PARCELS OF LAND BEING ALL OF SECTION 28 AND PORTIONS OF SECTIONS 15, 21, 22, 27, 29, 32, 33 & 34, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO

SUMMARY TABLE

CHARACTER AREA	PLANNING AREA (6)	LAND USE TYPE (2)	ACREAGE	MAX. DWELLING UNITS	MIN TRANISTION LOT SIZE	MIN. NON-RES AREA (AC)	% OF PROPERTY	MAX BUILDING HEIGHT
WEST	A	SFD	236.5	471	7,700 sf	N/A	11.5%	35'
	B-1	SFD	124.4	484	6,600 sf	N/A	6.0%	35'
	B-2	SFD	58.9	228	6,600 sf	N/A	2.9%	35'
	Totals	N/A	419.8	1,183	N/A	N/A	20.3%	
CENTRAL	C-1	SFD, SFA, MF	151.9	481	N/A	N/A	7.4%	45'
	C-2	SFD, SFA, MF	187.4	908	N/A	N/A	9.1%	50'
	D	SFD, SFA, MF, Non-Res	206.2	1,938	N/A	N/A	10.0%	60'
	Totals	N/A	545.5	3,327	N/A	N/A	26.4%	
EAST	E-1	Non-Res	6.5	N/A	N/A	6.5	0.3%	50'
	E-2	SFD, SFA, MF, Non-Res	62.4	400	N/A	N/A	3.0%	60'
	F-1	SFA, MF, Non-Res	41.0	940	N/A	45	2.0%	75'/90'
	F-2	SFA, MF, Non-Res	33.4		N/A		1.6%	75'/90'
	F-3	SFA, MF, Non-Res	81.9		N/A		4.0%	75'/90'
	G-1	Non-Res	62.6	0	N/A	66.9	3.0%	75'/90'
	G-2	Non-Res	4.3	0	N/A		0.2%	75'/90'
	Totals	N/A	292.1	1,340	N/A	118.4	14.2%	

MAX. DWELLING UNITS - ALL 3 CHARACTER AREAS COMBINED (NOT TO EXCEED)	5,850
MAX. MULTI FAMILY DWELLING UNITS (LOCATED IN C-1, C-2, D, E-2, F-1, F-2, F-3)	2,400
MAX. COMM./NON-RES. SQ. FT. - EAST & CENTRAL CHARACTER AREAS	3,200,000

Planning Areas	1,257.4	60.9%
Open Space (PL-2 & OS)	532.9	25.8%
Public Land Dedication (PL-1)	227.6	11.0%
ROW (Arterial)	45.8	2.2%
TOTAL PROPERTY (Approximately)	2,063.7	100.0%

OPEN SPACE AND PUBLIC LAND SUMMARY

	ACREAGE	% OF TOTAL
PUBLIC LAND		
PL-1 (DEDICATED TO TOWN)	227.6	11.0%
OPEN SPACE		
PL-2 (DEDICATED TO TOWN)	462.1	22.4%
OSP (PRIVATE)	70.8	25.8%
SUBTOTAL	*532.9*	*25.8%*
FUTURE OPEN SPACE (1)	215.0	10.4%
OPEN SPACE TOTAL	747.9	36.2%
OPEN SPACE AND PUBLIC LAND TOTAL	975.5	47.3%

NOTE: (1) FUTURE OPEN SPACE DESIGNATION (PL-1, PL-2, OSP) TO BE DETERMINED AT TIME OF PLAT.

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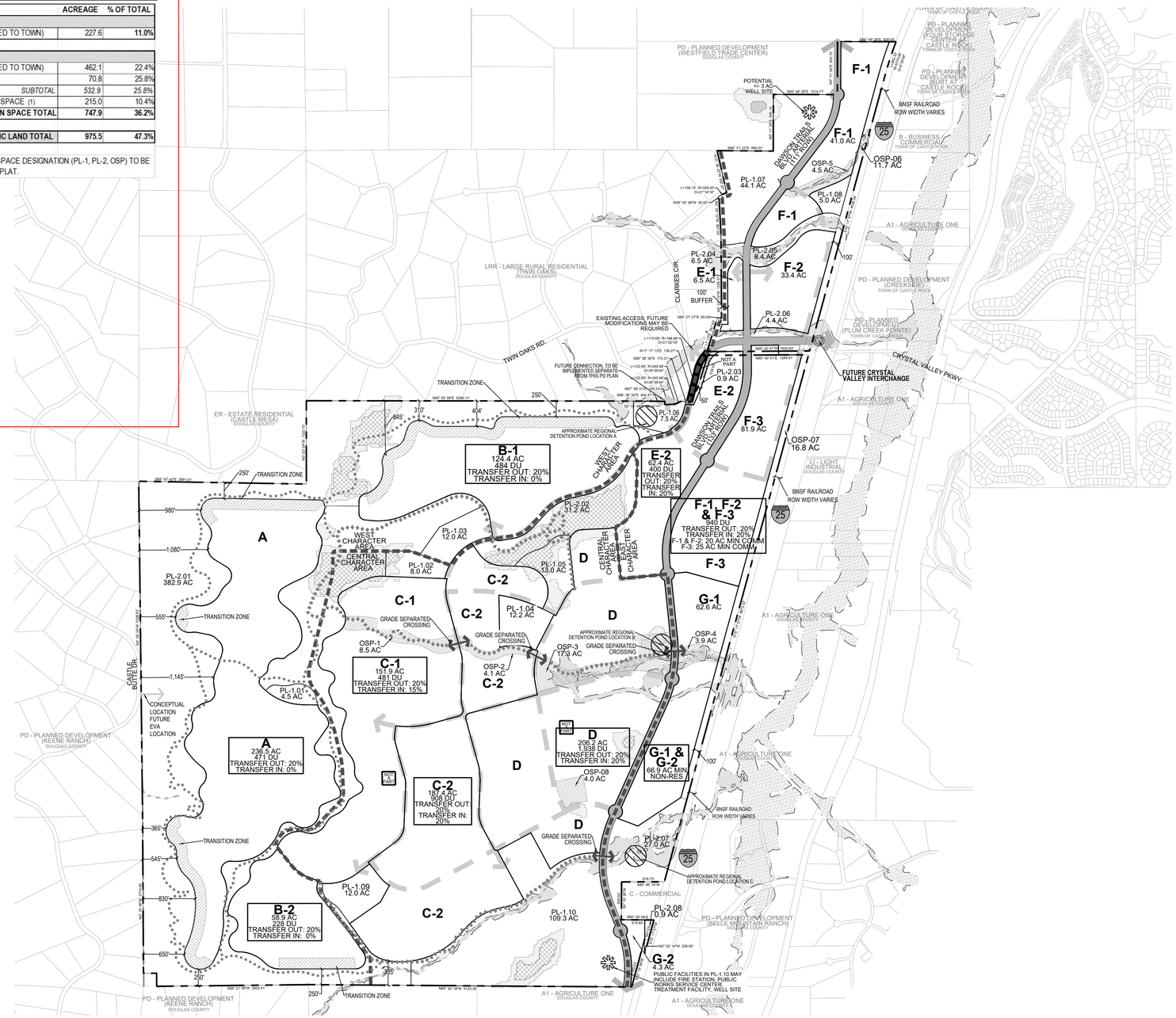

LEGEND

- PROPERTY BOUNDARY
- PLANNING AREA BOUNDARY
- CHARACTER AREA BOUNDARY
- MAJOR DRAINAGEWAY
- TRANSITION ZONE
- MODERATE SKYLINE
- MINOR SKYLINE
- 100 YEAR FLOODPLAIN (TOWN OF CASTLE ROCK)
- PROPOSED ARTERIAL RIGHT OF WAY
- FUTURE COLLECTOR RIGHT OF WAY
- 5' NATURAL SURFACE TRAIL
- 10' HARD SURFACE TRAIL
- 100 YEAR FLOODPLAIN (FEMA)

NORTH — SCALE 1" = 900' (0 450 900 1,800)

Excerpts from "Concept Utility Letter for Dawson Trails"
Prepared by CORE
Dated May 2022

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DATE:
PDP-01 07/08/2021
PDP-02 12/03/2021
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PDP-04 05/27/2022

SHEET TITLE:
OVERALL PD PLAN

DAWSON TRAILS

PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS

(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PRELIMINARY P.U.D. SITE PLAN)

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GENERAL NOTES:

- PHASES MAY BE DEVELOPED IN ANY SEQUENCE OR CONCURRENTLY PROVIDED THAT ALL IMPROVEMENTS ASSIGNED TO OTHER PHASES WHICH ARE NECESSARY TO SERVE THE PHASE(S) WITHIN WHICH DEVELOPMENT IS COMMENCING HAVE EITHER BEEN PREVIOUSLY CONSTRUCTED AND ACCEPTED PER TOWN CRITERIA, OR WILL BE CONSTRUCTED BY THE DEVELOPER OF THE PHASE(S) UNDERGOING DEVELOPMENT. ALL IMPROVEMENTS INCLUDING BUT NOT LIMITED TO ROADWAY, LIGHTING, WATER, SANITARY SEWER, PARKS, TRAILS, ADJACENT DOWNSTREAM DRAINAGE CHANNEL IMPROVEMENTS AND STORMWATER MANAGEMENT FACILITIES MUST BE BUILT.
- THE INTERCHANGE AT TERRITORIAL ROAD, CRYSTAL VALLEY PARKWAY, AND I-25 (CVI) IS A SEPARATE TOWN, COUNTY AND STATE PROJECT. CHANNEL IMPROVEMENTS FOR THE GAMBLE RIDGE MAJOR DRAINAGEWAY ADJACENT TO THE INTERCHANGE WILL BE PART OF THE CVI PROJECT.
- PHASES BEING DEVELOPED IN ANY SEQUENCE OR CONCURRENTLY MAY REQUIRE ADJACENT OR UPSTREAM DRAINAGE CHANNEL IMPROVEMENTS. THIS IS TO BE DETERMINED BY PHASE AND PER THE TOWN'S CRITERIA.
- EASTERN ½ OF DAWSON TRAILS BLVD SOUTH OF THE CVI TO BE CONSTRUCTED BY THE TOWN OF CASTLE ROCK TO THE SOUTHERN LIMIT OF THE PROJECT/ TOWN AS PART OF CVI INTERCHANGE PROJECT.
- DEVELOPER SHALL CONSTRUCT THE WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD PER THE PHASING PLAN. IF PHASE(S) ARE NOT BUILT SEQUENTIALLY, THE FULL SECTION OF DAWSON TRAILS BLVD SHALL BE CONSTRUCTED TO THE LIMITS OF THE PHASE OR SUB-PHASE LEAVING NO PARTIAL ROADWAY SECTIONS BETWEEN THE DEVELOPED AREAS.
- THE FULL ROADWAY SECTION FOR DAWSON TRAILS BLVD, INCLUDING NUMBER OF LANES, TURN LANES, AND LENGTHS SHALL BE DETERMINED BY THE DETAILED TRAFFIC STUDIES FOR THE PROJECT.
- TURNAROUND AREAS PER TOWN CRITERIA SHALL BE PROVIDED WHEN ROADS TERMINATE AT A PHASE LINE OR INTERIM TERMINUS.
- AMENDMENTS TO THIS PHASING PLAN MAY BE APPROVED ADMINISTRATIVELY AS DETERMINED BY THE DEVELOPMENT SERVICES DIRECTOR.
- THE FIRE DEPARTMENT SHALL REVIEW ALL ELEMENTS OF THE EMERGENCY VEHICLE ACCESS ROUTES DURING SITE PLANNING STAGES.
- BASED ON INDIVIDUAL SITE CONFIGURATION OF THE PLANNING AREAS, A PORTION OF A PHASE, OR SUB-PHASE, MAY BE CONSTRUCTED AND DEVELOPED INDEPENDENT OF ALL THE PHASE REQUIREMENTS IF ADEQUATE ROADWAY, DOMESTIC WATER, AND SANITARY SEWER INFRASTRUCTURE ARE PROVIDED.
- REGIONAL PONDS WILL BE CONSTRUCTED PRIOR TO ANY UPSTREAM DEVELOPMENT THAT UTILIZES THE REGIONAL POND FOR WATER QUALITY AND/OR FULL SPECTRUM DETENTION.
- GRADE SEPARATED CROSSING SHALL BE PROVIDED AS SHOWN ON THE PHASING PLAN FOR REGIONAL/ SIGNIFICANT TRAIL CROSSINGS OF ARTERIAL AND MAJOR-COLLECTOR CLASS STREETS.
- ALL ROADWAYS SHALL BE CONSTRUCTED TO THE TOWN STANDARDS.
- THE GREEN/ RED WATER ZONE BOUNDARY SHOWN IS APPROXIMATE AND SUBJECT TO ADJUSTMENTS DETERMINED BY FINAL ENGINEERING AND GRADING OF THE VARIOUS PLANNING AREAS.
- PL-1 & PL-2 AREAS DESIGNATED ON THE PD PLAN SHALL BE DEDICATED WITH EACH SITE DEVELOPMENT PLAN/ PLAT AS PHASED DEVELOPMENT OCCURS WITH THE EXCEPTION OF PL-1.7 & PL1.10 THAT WILL BE DEDICATED AT TIME OF RECORDING OF THE DEVELOPMENT AGREEMENT.
- TRAILS DEPICTED ON THE PD PLAN THAT ARE DESIGNATED FOR CONSTRUCTION BY THE DEVELOPER SHALL BE DESIGNED, ENGINEERED AND CONSTRUCTED WHEN INCLUDED WITHIN EACH SITE DEVELOPMENT PLAN/ PLAT AREA.

PHASE 1A:

- PHASE 1A SHALL BE CONSTRUCTED PRIOR TO ANY OTHER PHASE
- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- DEVELOPER TO CONSTRUCT EASTERN ½ OF DAWSON TRAILS BLVD, AND GRADE THE FULL SECTION, FROM NORTH OF CVI TO PLUM CREEK PWKY PURSUANT AND SUBJECT TO THE TERMS OF THE DEVELOPMENT AGREEMENT
- SANITARY SEWER CONNECTION TO PLUM CREEK PKWY NORTH OF CVI WITH PROPOSED NEW SANITARY INTERCEPTOR
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- WATER MAIN (BLUE ZONE) MINIMUM 2 POINTS OF CONNECTION TO TOWN'S EXISTING SYSTEM
- WATER BOOSTER PUMP TO RED ZONE
- WATER MAIN (RED ZONE) ALONG DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- WATER MAIN (RED ZONE) TO ONSITE RED ZONE WATER TANK 19
- RED ZONE WATER TANK 19
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE INCLUDING REGIONAL POND A AND B
- A PORTION OF GAMBLE RIDGE TRIBUTARY CHANNEL WEST OF DAWSON TRAILS BLVD & NORTH OF CRYSTAL VALLEY PWKY.
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- CRYSTAL VALLEY PARKWAY/TERRITORIAL ROADWAY AND INTERCHANGE, INCLUDING A PORTION OF GAMBLE RIDGE TRIBUTARY, SHALL BE CONSTRUCTED BY OTHERS
- CHANNEL IMPROVEMENTS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS

PHASE 1B:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- WATER MAIN (RED ZONE) ALONG DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- NORTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 1B IF NOT PREVIOUSLY IMPROVED
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS

PHASE 2A:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- SANITARY & STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

PHASE 2B:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- NORTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 2B IF NOT PREVIOUSLY IMPROVED
- CHANNEL IMPROVEMENTS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS

PHASE 2C:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD. TO END OF PHASE OR SUBPHASE
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- NORTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 2B IF NOT PREVIOUSLY IMPROVED
- CHANNEL IMPROVEMENTS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS

PHASE 3A:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- GAMBLE RIDGE TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 3A & ASSOCIATED TRIBUTARIES IF NOT PREVIOUSLY IMPROVED

PHASE 3B:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- GAMBLE RIDGE NORTH TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 3B IF NOT PREVIOUSLY IMPROVED

PHASE 3C:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- IF NOT PREVIOUSLY IMPROVED
- DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY CONSTRUCTED IN PHASE 3B
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- PUBLIC LAND IMPROVEMENTS BY THE TOWN OF CASTLE ROCK
- NORTH GAMBLE RIDGE TRIBUTARY CHANNEL IMPROVEMENTS EAST OF DAWSON TRAILS BLVD

PHASE 4A:

- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SANITARY & STORM WITHIN DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- SANITARY SEWER INTERCEPTOR ALONG EASTERN PROPERTY LINE TO THE LIMITS REQUIRED TO SERVE PHASE OR SUBPHASE
- WATER MAIN (RED ZONE) ALONG DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE REGIONAL POND C
- SOUTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 4A IF NOT PREVIOUSLY IMPROVED

PHASE 4B:

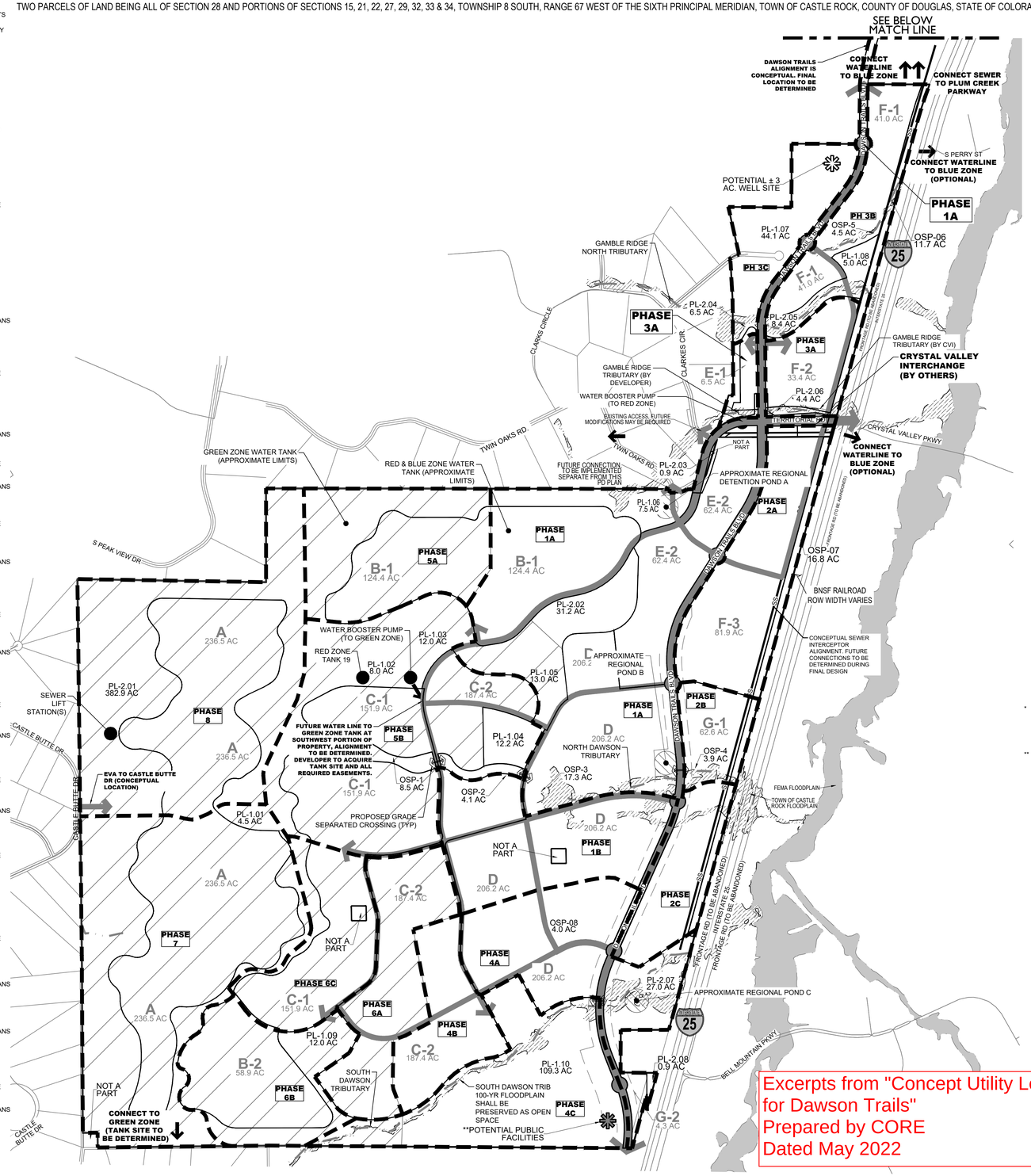
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- SOUTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS ADJACENT TO PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS.
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- TRAILS WITHIN PHASE OR SUBPHASE
- GAMBLE RIDGE TRIBUTARY CHANNEL IMPROVEMENTS WITHIN LIMITS OF PHASE 4B & ASSOCIATED TRIBUTARIES IF NOT PREVIOUSLY IMPROVED

PHASE 4C:

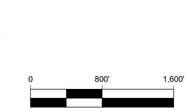
- DEVELOPER TO CONSTRUCT WESTERN ½ (AND ANY OTHER NECESSARY ROADWAY IMPROVEMENTS) OF DAWSON TRAILS BLVD TO END OF PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- SOUTH DAWSON TRIBUTARY CHANNEL IMPROVEMENTS WITHIN PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED
- SOUTH DAWSON TRIBUTARY 100-YEAR FLOODPLAIN SHALL BE PRESERVED AS OPEN SPACE

*PHASE 5A:

- WATER CONNECTION TO OFFSITE GREEN ZONE TANK 21
- WATER MAIN (GREEN ZONE) FROM TANK 21 TO PHASE 5A
- WATER BOOSTER PUMP (GREEN ZONE)
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE



Excerpts from "Concept Utility Letter for Dawson Trails" Prepared by CORE Dated May 2022



LEGEND

- PLANNING AREA BOUNDARY
- PHASE BOUNDARY
- MAJOR DRAINAGEWAY
- SS SEWER INTERTCEPTOR
- GREEN ZONE WATER TANK (APPROXIMATE LIMITS)
- RED & BLUE ZONE WATER TANK (APPROXIMATE LIMITS)
- UTILITY ARROW
- PROPOSED REGIONAL POND
- PROPOSED GRADE SEPARATED CROSSING AREA
- POTENTIAL ±3 AC. WELL SITE
- **POTENTIAL PUBLIC FACILITIES
- 100-YEAR FEMA FLOODPLAIN
- 100-YEAR TOWN FLOODPLAIN
- TRAFFIC LIGHT CONTROLLED INTERSECTION
- ROUNDABOUT INTERSECTION

*PHASE 5B:

- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS.
- GREEN PRESSURE ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

*PHASE 6A:

- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- GREEN ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

*PHASE 6B:

- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- GREEN ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- SOUTH DAWSON CHANNEL IMPROVEMENTS ADJACENT TO PHASE OR SUBPHASE IF NOT PREVIOUSLY IMPROVED.

*PHASE 7:

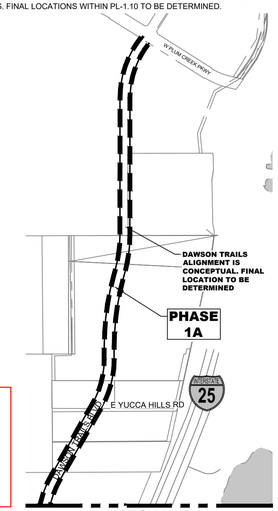
- SANITARY SEWER LIFT STATIONS (IF REQUIRED)
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- GREEN ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE

*PHASE 8:

- SANITARY SEWER LIFT STATION(S) (IF REQUIRED)
- TRAILS WITHIN PHASE OR SUBPHASE
- COMPLETE THE INTERNAL STREET, STORM, SANITARY, & WATER SYSTEMS WITHIN PHASE OR SUBPHASE AS SHOWN ON THE CONSTRUCTION PLANS
- GREEN ZONE WATER TANK AND BOOSTER PUMPS NOTED IN PHASE 5A WILL BE REQUIRED TO BE CONSTRUCTED
- STORM FACILITIES ASSOCIATED WITH PHASE OR SUBPHASE
- EMERGENCY VEHICLE ACCESS (EVA) CONNECTION TO CASTLE BUTTE DRIVE IF NOT PREVIOUSLY CONSTRUCTED

* IF IT IS DETERMINED THAT A GREEN ZONE TANK IS NEEDED, OTHER THAN PLANNING AREAS B-1 AND C-2, NO OVERLOT GRADING PERMITS FOR DEVELOPMENT WITHIN THE AREA TO BE SERVED BY THE GREEN ZONE TANK WILL BE ISSUED UNTIL SUCH TIME AS THE OWNER PURCHASES ANY NECESSARY LAND AND/OR EASEMENTS FOR THE POTENTIAL GREEN ZONE TANK & ASSOCIATED TRANSMISSION LINE(S), & BEGINS CONSTRUCTION OF THE GREEN ZONE TANK.

** PUBLIC FACILITIES INCLUDING, BUT NOT LIMITED TO: FIRE STATION, PUBLIC WORKS SERVICE CENTER, ±6 AC TREATMENT FACILITY, ±3 AC WELL SITE, AND ASSOCIATED STORM WATER FACILITIES. FINAL LOCATIONS WITHIN PL-1.10 TO BE DETERMINED.



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DENVER, CO 80246
303-984-9800

ENGINEER & SURVEYOR:
CORE CONSULTANTS
3473 S. BROADWAY
ENGLEWOOD, CO 80113
303-730-5960

DAWSON TRAILS

DAWSON TRAILS
PLANNED DEVELOPMENT PLAN AND ZONING REGULATIONS
(AN AMENDMENT TO THE DAWSON RIDGE PRELIMINARY P.U.D SITE PLAN AND A PORTION OF THE WESTFIELD TRADE CENTER PERLIMINARY P.U.D. SITE PLAN)

NOT FOR CONSTRUCTION

DATE:
PDP-01 07/08/2021
PDP-02 12/03/2021
PDP-03 04/13/2022
PDP-04 05/27/2022

DRAFT

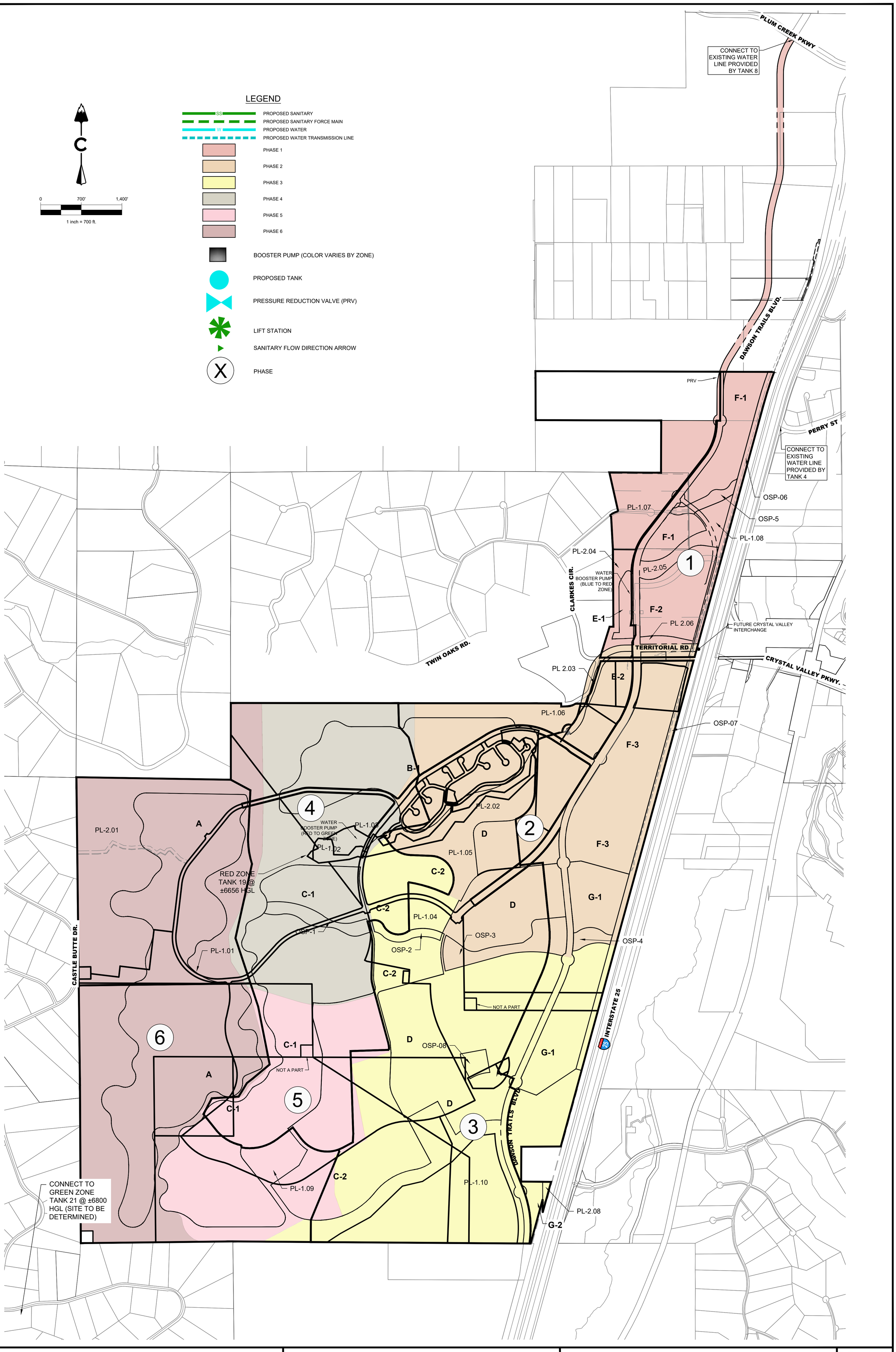
SHEET TITLE:
PHASING PLAN

SHEET 11 OF 18

CHECKED BY: MB, SW
DRAWN BY: DJ, JR

Appendix D

Maps



Caroline Van Horn X:\20-224 Dawson\Civil\Reports_Overall\Utility\Master Utility ReportE - Utility Maps PHASING MAP.dwg 2022-08-15 (9:38 AM)

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303.703.4444
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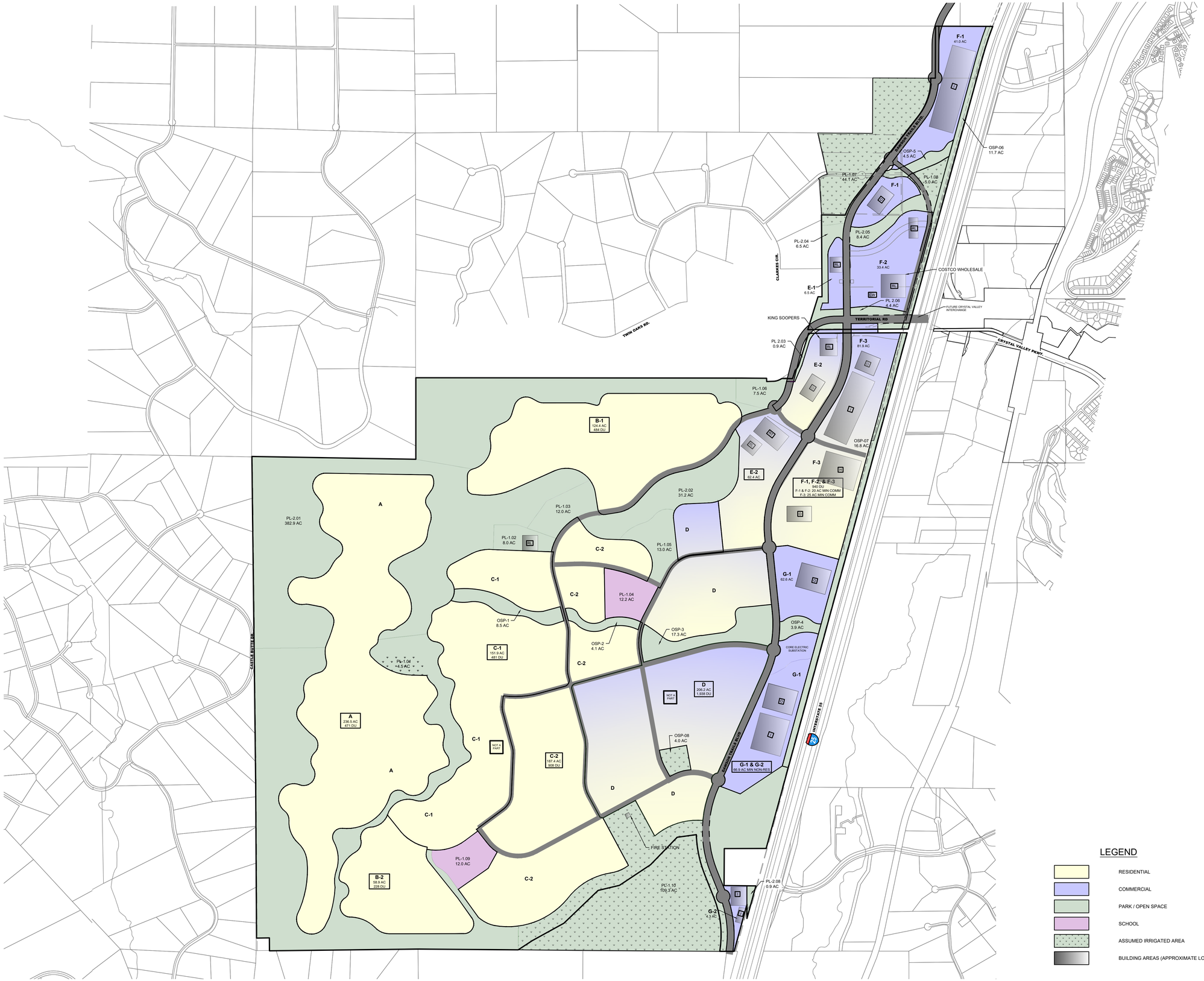
LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTUCTURE

DAWSON TRAILS

OVERALL UTILITY & PHASING MAP

DATE: 3/22/2023
CREATED BY: CGV
JOB NO. 20-224
SHEET 1 OF 5



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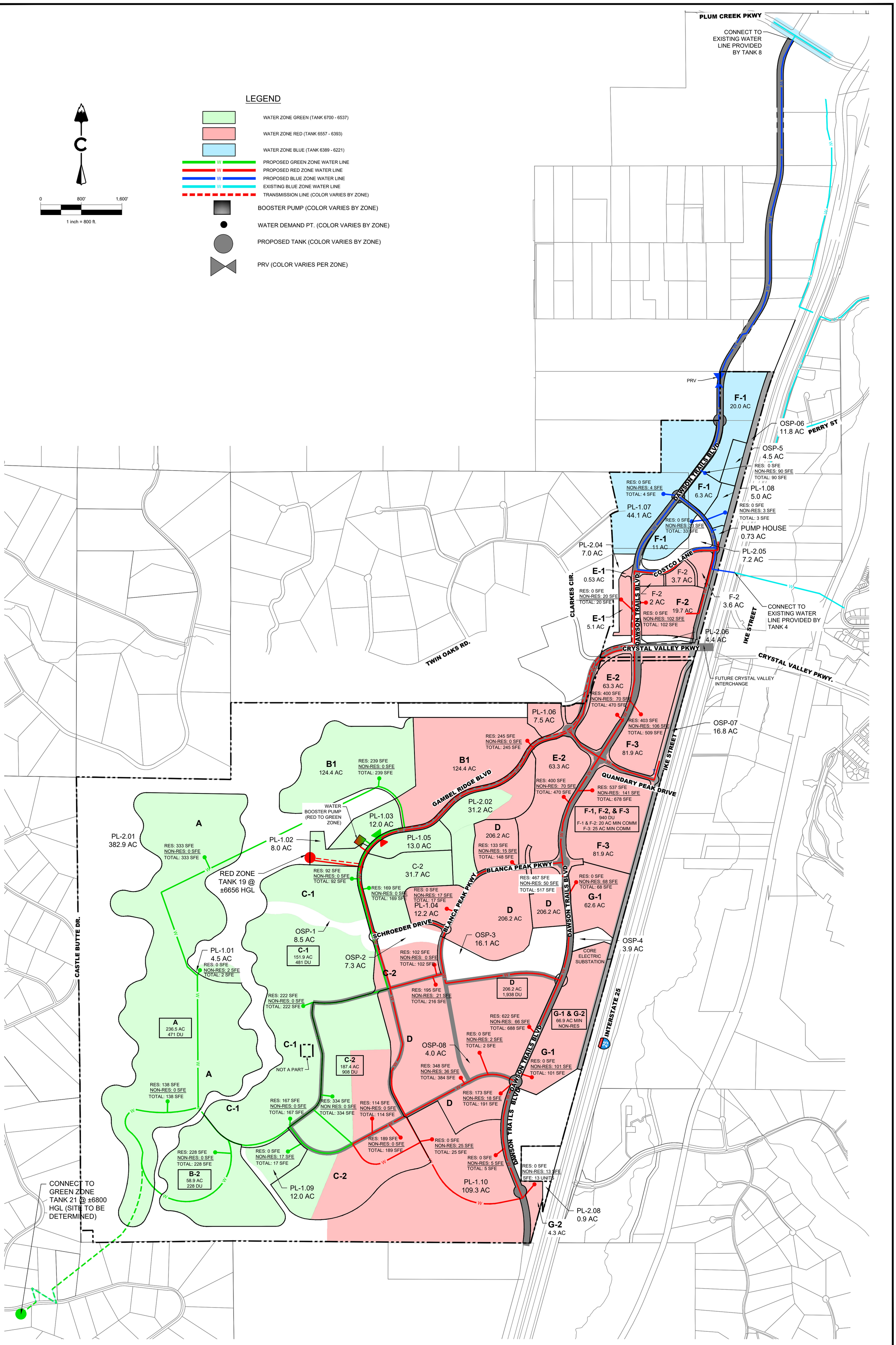
LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTUCTURE

LAND USE MAP

DAWSON TRAILS

DATE: 3/22/2023
CREATED BY: CV
JOB NO. 20-224
SHEET 2 OF 5

2021-09-11 (4:25 PM) Caroline Van Horn X:\20-224 Dawson\Civil\Reports_Overall\Utility\Master Utility Report\E - Utility Maps LAND USE MAP.dwg



Tony Yuan X:\20-224 Dawson\Civil\Reports_Overall\Utility\Master Utility Report\E - Utility Maps OVERALL WATER MAP.dwg

2021-09-11 (4:36 PM)

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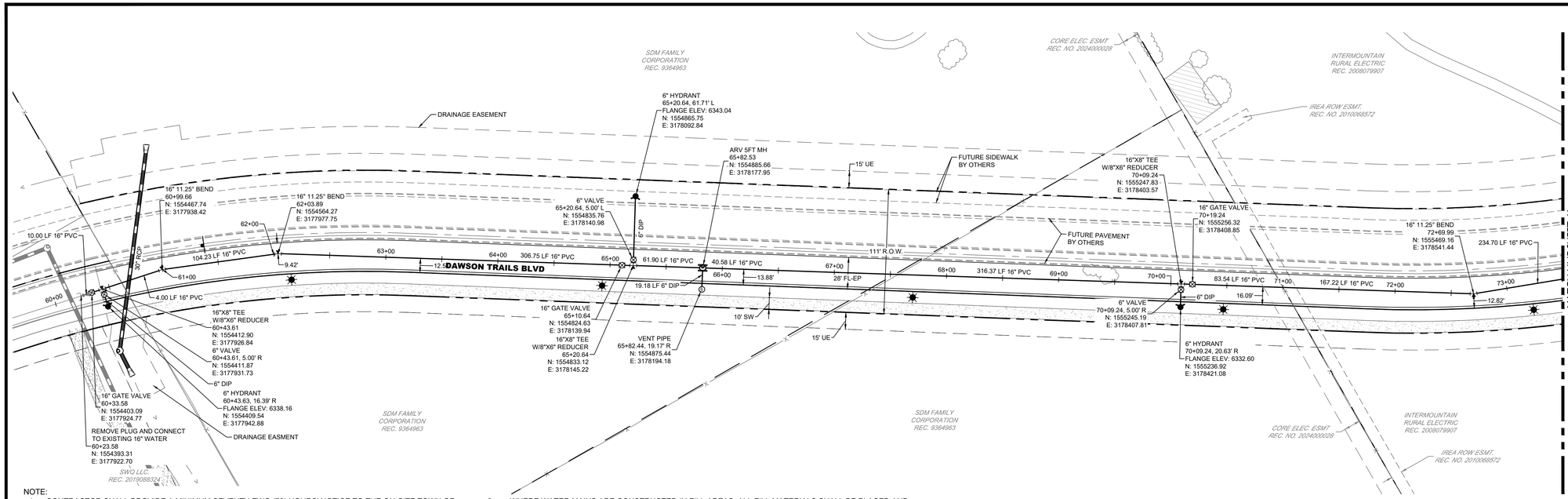
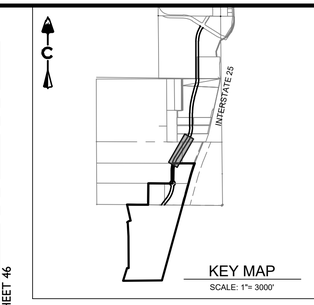
LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTUCTURE

DAWSON TRAILS

OVERALL WATER MAP

DATE: 9/18/2024
CREATED BY: CGV
JOB NO. 20-224
SHEET 3 OF 5





KEY MAP
SCALE: 1"= 3000'

0 50' 100'
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PROFILE
HORIZ: 1" = 50'
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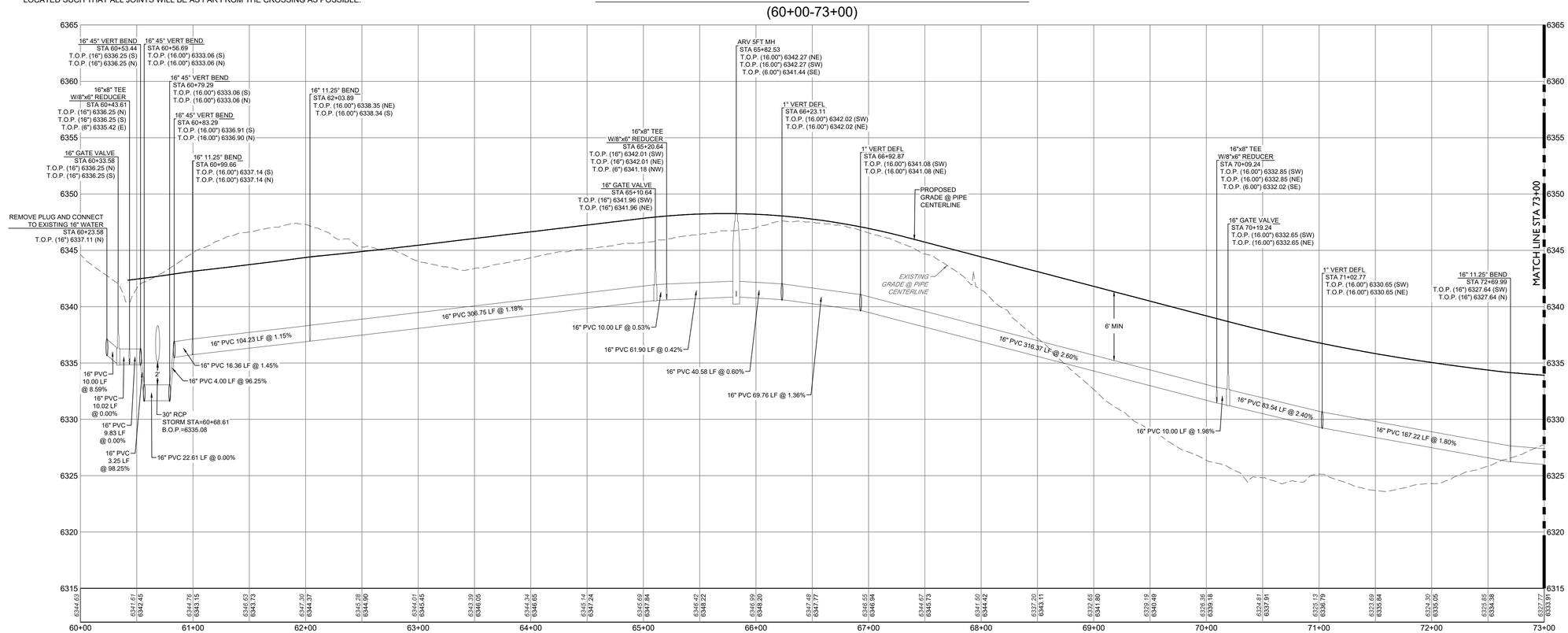
DAWSON TRAILS BLVD - WATER MAIN

(60+00-73+00)

DAWSON TRAILS BLVD
CONSTRUCTION DOCUMENTS
PROJECT NO. CD 23-0020



LEGEND

- EASEMENT
- RIGHT OF WAY (R.O.W.)
- CENTERLINE
- PROJECT BOUNDARY
- PROPOSED CURB & GUTTER
- PROPOSED SANITARY & STUB OUT
- SS — EXISTING SANITARY & STUB OUT
- S — SANITARY SERVICE
- W — WATER SERVICE
- PROPOSED WATER & STUB OUT
- W — EXISTING WATER & STUB OUT
- PROPOSED STORM & STUB OUT
- EXISTING STORM & STUB OUT

EXISTING / PROPOSED

- WATER VALVES
- BEND AND THRUST BLOCK
- FIRE HYDRANTS
- WATERLINE REDUCER
- WATER STUB WITH BLOW OFF
- AIR RELEASE VALVE MH & VENT PIPE
- STREET LIGHT POLES
- BLOCK NUMBER

PROFESSIONAL ENGINEER 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.

MICHAEL GOODHUE, P.E. DATE
STATE OF COLORADO # 48230

TOWN OF CASTLE ROCK APPROVAL

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

DEVELOPMENT SERVICES DATE

LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTRUCTURE

CORE CONSULTANTS, INC.
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#	REVISION DESCRIPTION	DATE	BY
1	1ST SUBMITTAL	06/29/23	JFF
2	2ND SUBMITTAL	10/09/23	JFF
3	3RD SUBMITTAL	06/25/25	MG

DAWSON TRAILS BLVD (NORTH)
CASTLE ROCK, COLORADO
CONSTRUCTION DOCUMENTS
WATER P&P (1 OF 5)

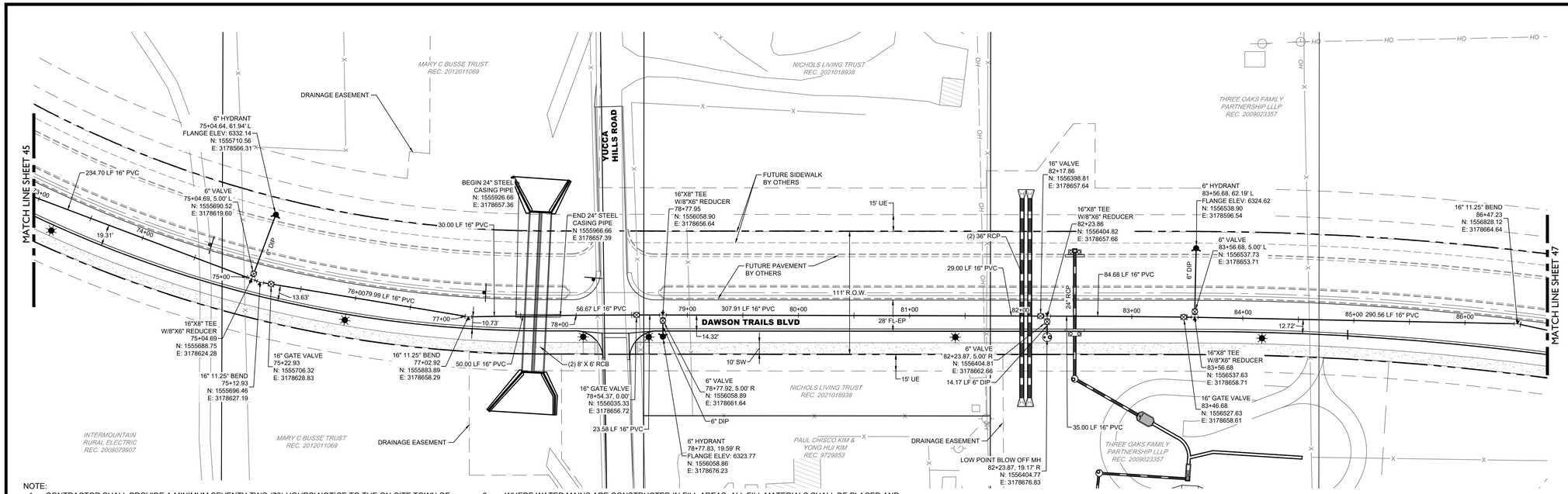
WESTSIDE

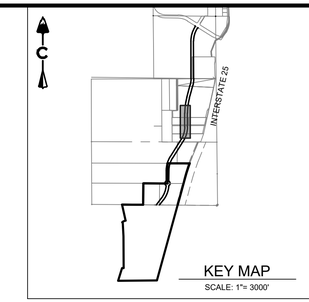
DESIGNED BY: MG
DRAWN BY: CT
CHECKED BY: MG

JOB NO. 20-224

SHEET 45 OF 70

2025-10-01 (6:43 PM) X:\20-224 Dawson\Civil\CAD\Plans\Prairie Hawk\Prairie Hawk North\CDs WATER P&P.dwg





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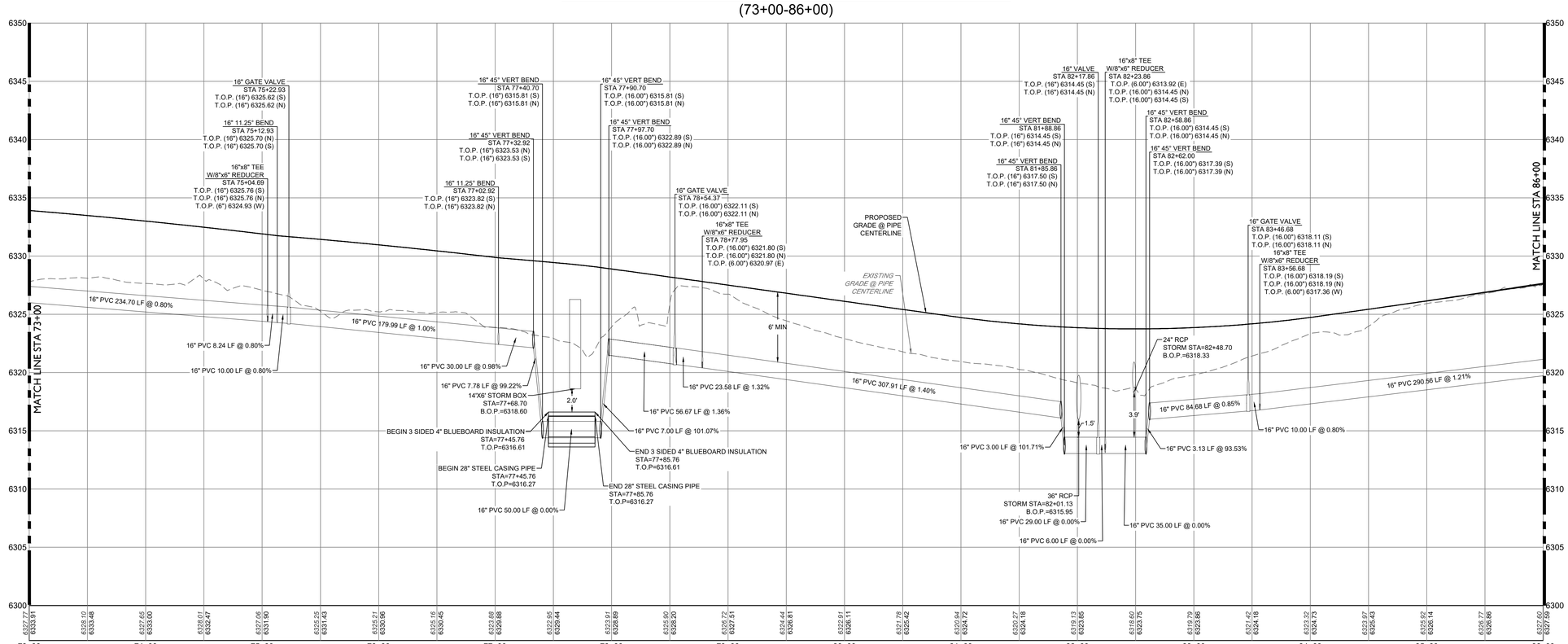
DAWSON TRAILS BLVD - WATER MAIN

(73+00-86+00)



DAWSON TRAILS BLVD
CONSTRUCTION DOCUMENTS
PROJECT NO. CD 23-0020

LEGEND

- EASEMENT
- RIGHT OF WAY (R.O.W.)
- CENTERLINE
- PROJECT BOUNDARY
- PROPOSED CURB & GUTTER
- PROPOSED SANITARY & STUB OUT
- SS — EXISTING SANITARY & STUB OUT
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- PROPOSED STORM & STUB OUT
- EXISTING STORM & STUB OUT

EXISTING PROPOSED

- WATER VALVES
- BEND AND THRUST BLOCK
- FIRE HYDRANTS
- WATERLINE REDUCER
- WATER STUB WITH BLOW OFF
- AIR RELEASE VALVE MH & VENT PIPE
- STREET LIGHT POLES
- BLOCK NUMBER

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DEVELOPMENT SERVICES DATE

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ENGLEWOOD, CO 80113
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PUBLIC INFRASTRUCTURE

Know what's below. Call before you dig. 811

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DAWSON TRAILS BLVD (NORTH)

CASTLE ROCK, COLORADO

CONSTRUCTION DOCUMENTS
WATER P&P (2 OF 5)

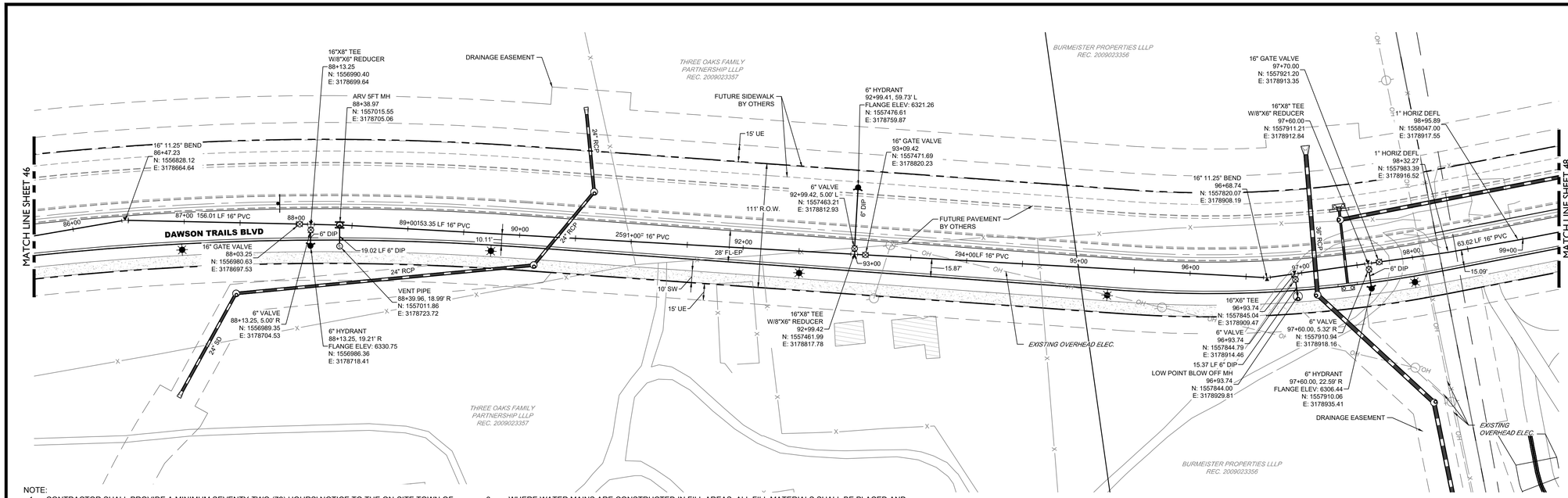
WESTSIDE

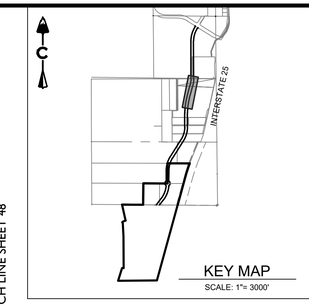
DESIGNED BY: MG
DRAWN BY: CT
CHECKED BY: MG

JOB NO. 20-224

SHEET 46 OF 70

2025-10-01 (6:43 PM) X:\20-224 Dawson\Civil\CAD\Plans\Prairie Hawk\Prairie Hawk North\CDs WATER P&P.dwg





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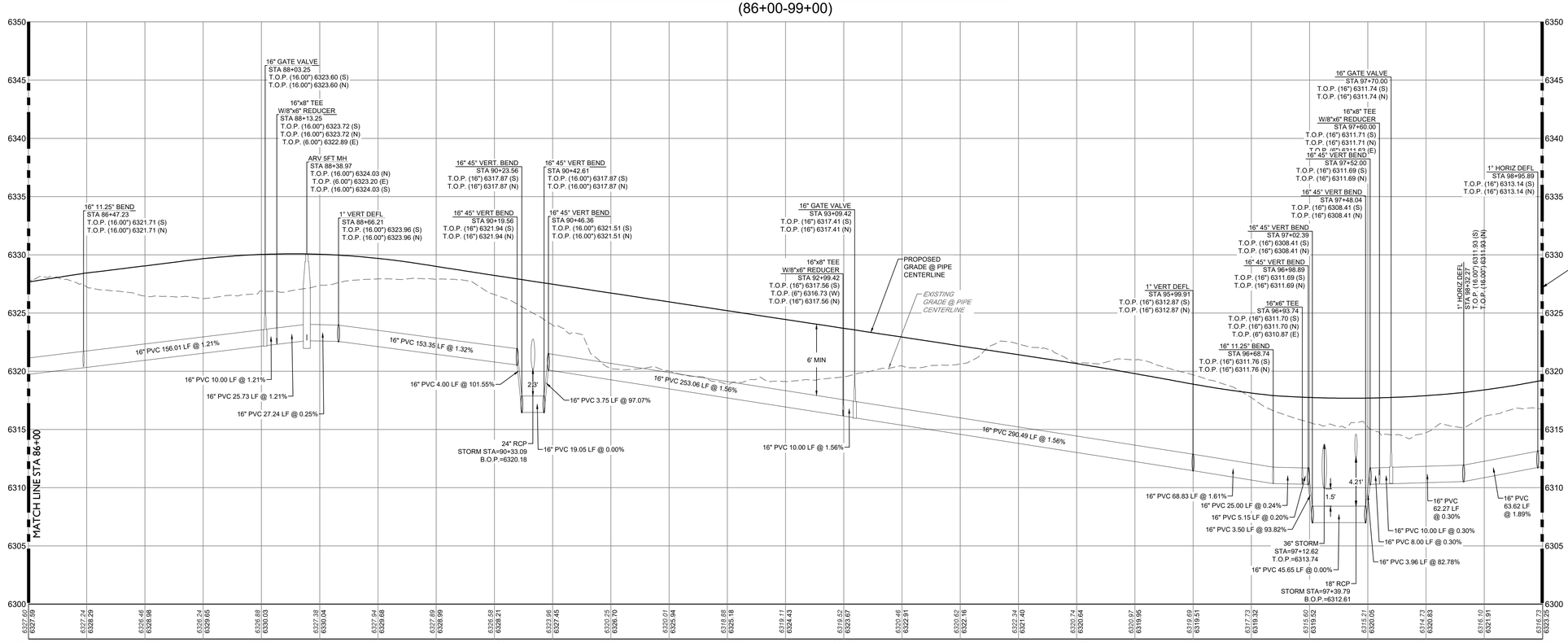
DAWSON TRAILS BLVD - WATER MAIN

(86+00-99+00)

DAWSON TRAILS BLVD
CONSTRUCTION DOCUMENTS
PROJECT NO. CD 23-0020



LEGEND

- EASEMENT
- RIGHT OF WAY (R.O.W.)
- CENTERLINE
- PROJECT BOUNDARY
- PROPOSED CURB & GUTTER
- PROPOSED SANITARY & STUB OUT
- SS — EXISTING SANITARY & STUB OUT
- S — SANITARY SERVICE
- W — WATER SERVICE
- PROPOSED WATER & STUB OUT
- W — EXISTING WATER & STUB OUT
- PROPOSED STORM & STUB OUT
- EXISTING STORM & STUB OUT

EXISTING / PROPOSED

- WATER VALVES
- BEND AND THRUST BLOCK
- FIRE HYDRANTS
- WATERLINE REDUCER
- WATER STUB WITH BLOW OFF
- AIR RELEASE VALVE MH & VENT PIPE
- STREET LIGHT POLES
- BLOCK NUMBER

PROFESSIONAL ENGINEER CERTIFICATION

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MICHAEL GOODHUE, P.E. DATE
STATE OF COLORADO # 48230

TOWN OF CASTLE ROCK APPROVAL

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DEVELOPMENT SERVICES DATE

CORE CONSULTANTS, INC.
3473 S. BROADWAY
ENGLEWOOD, CO 80113
303.703.4444
LIVEYOURCORE.COM

LAND DEVELOPMENT
ENERGY
PUBLIC INFRASTRUCTURE

Know what's below. Call before you dig. 811

#	REVISION DESCRIPTION	DATE	BY
1	1ST SUBMITTAL	06/29/23	JFF
2	2ND SUBMITTAL	10/09/23	JFF
3	3RD SUBMITTAL	06/25/25	MG

DAWSON TRAILS BLVD (NORTH)

CASTLE ROCK, COLORADO

CONSTRUCTION DOCUMENTS
WATER P&P (3 OF 5)

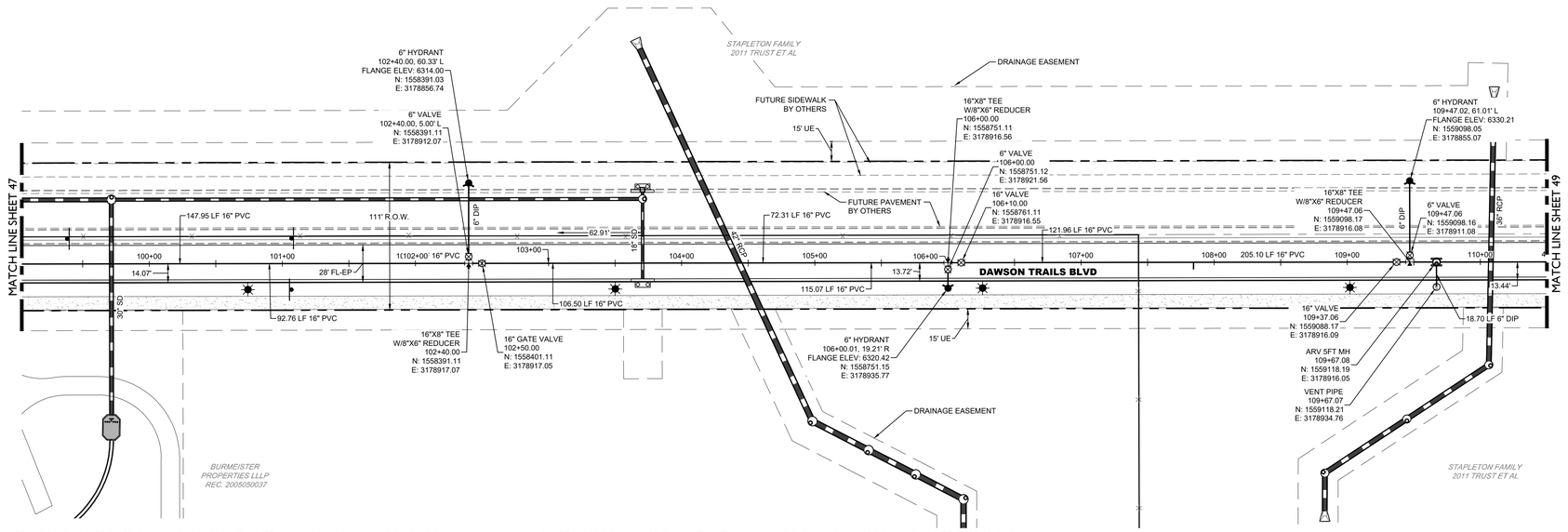
WESTSIDE

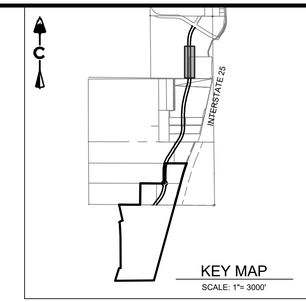
DESIGNED BY: MG
DRAWN BY: CT
CHECKED BY: MG

JOB NO. 20-224

SHEET 47 OF 70

2025-10-01 (6:43 PM) X:\20-224 Dawson\Civil\CAD\Plans\Prairie Hawk\Prairie Hawk North\CDs WATER P&P.dwg





KEY MAP
SCALE: 1"= 3000'

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PROFILE
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NOTE:

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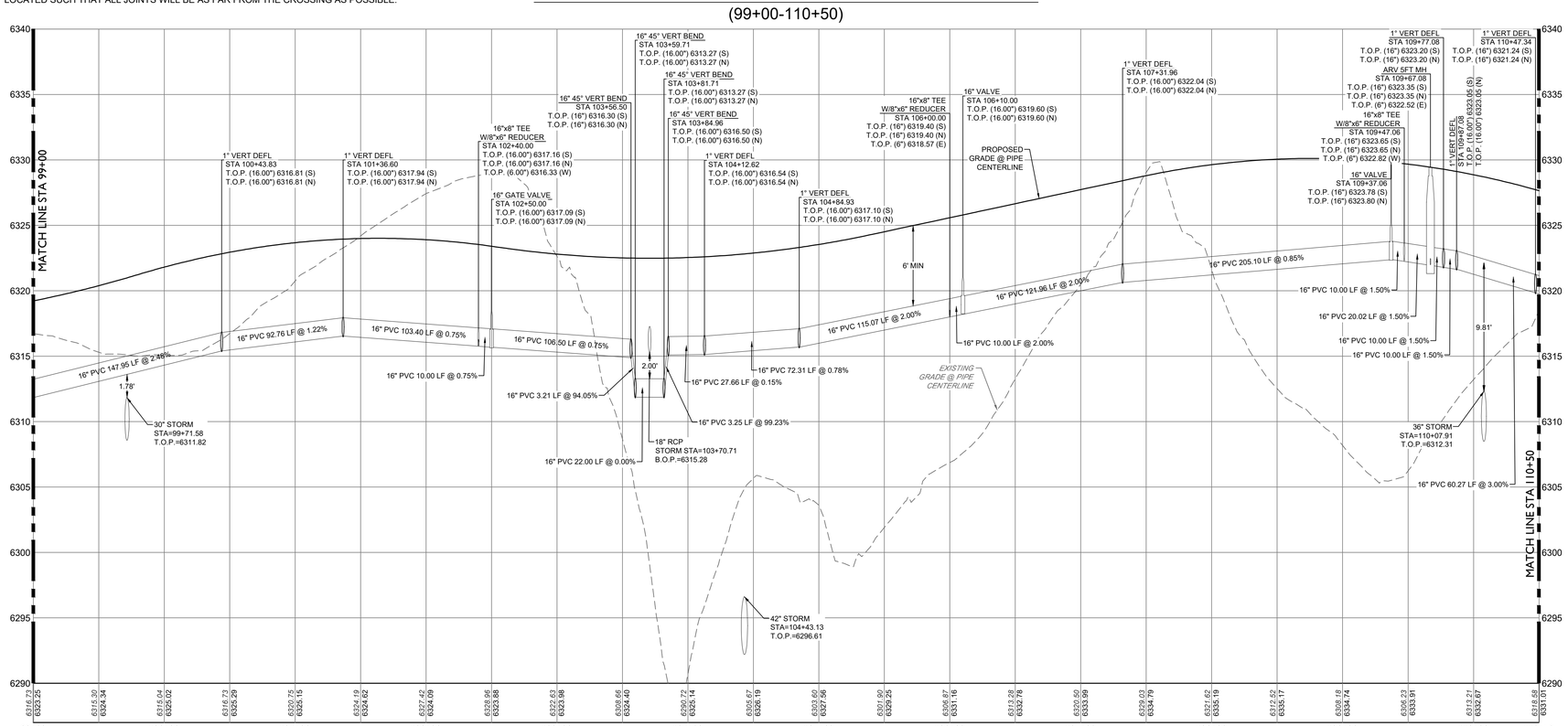
DAWSON TRAILS BLVD - WATER MAIN

(99+00-110+50)



DAWSON TRAILS BLVD
CONSTRUCTION DOCUMENTS
PROJECT NO. CD 23-0020

LEGEND

- EASEMENT
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DAWSON TRAILS BLVD (NORTH)
CASTLE ROCK, COLORADO
CONSTRUCTION DOCUMENTS
WATER P&P (4 OF 5)

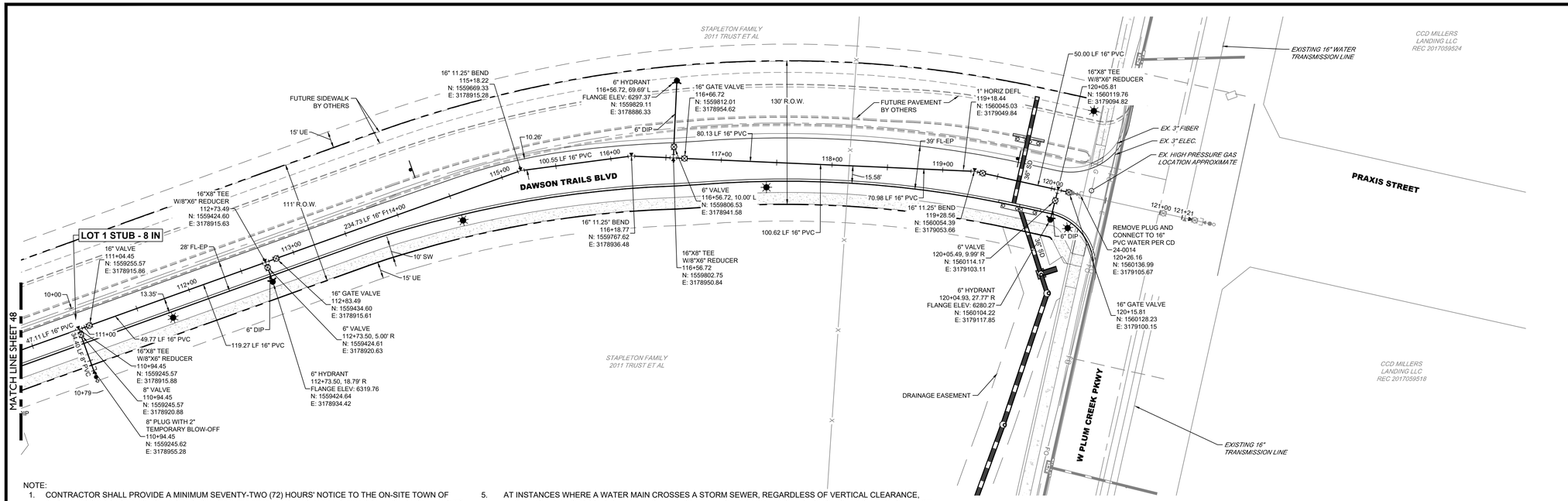
WESTSIDE

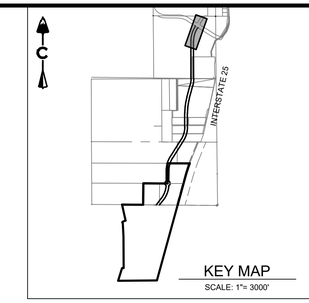
DESIGNED BY: MG
DRAWN BY: CT
CHECKED BY: MG

JOB NO. 20-224

SHEET 48 OF 70

2025-10-01 (6:43 PM) X:\20-224 Dawson\Civil\CAD\Plans\Prairie Hawk\Prairie Hawk North\CDs WATER P&P.dwg





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DAWSON TRAILS BLVD
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PROJECT NO. CD 23-0020

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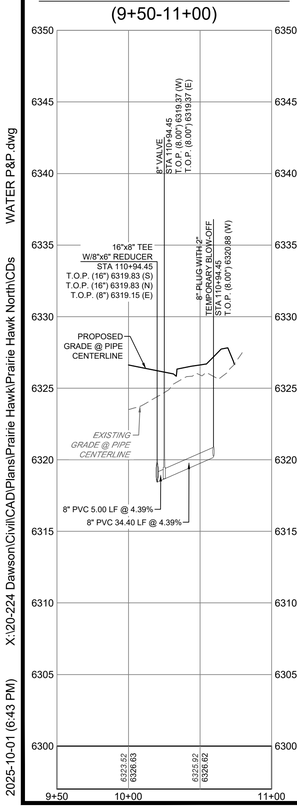
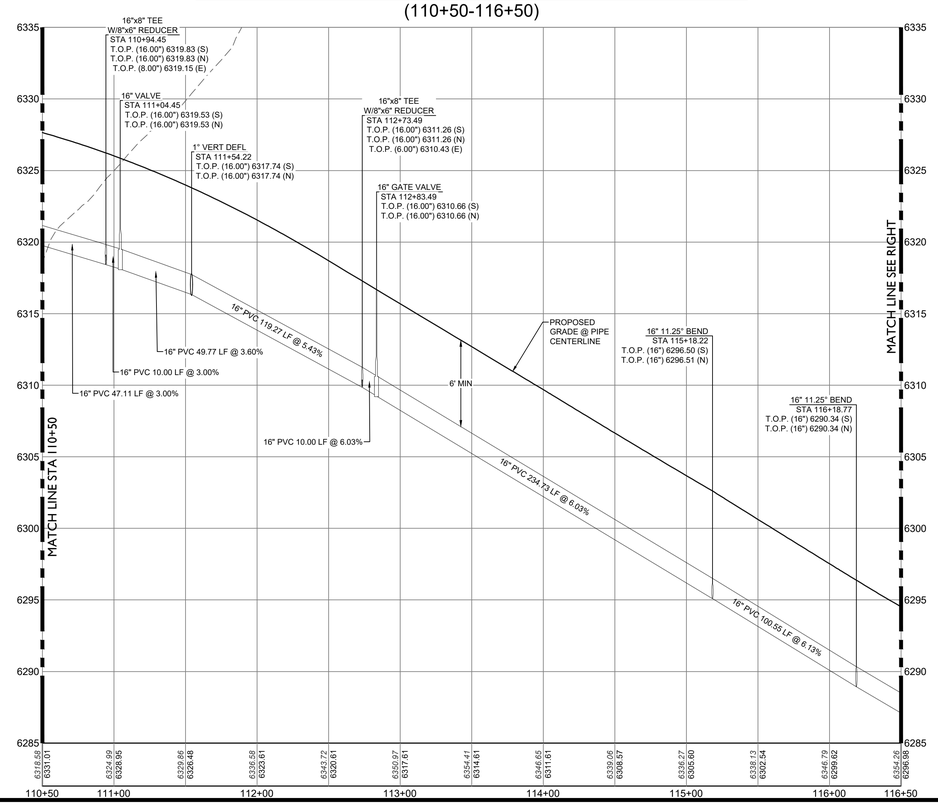
LOT 1 STUB - 8 IN

(9+50-11+00)



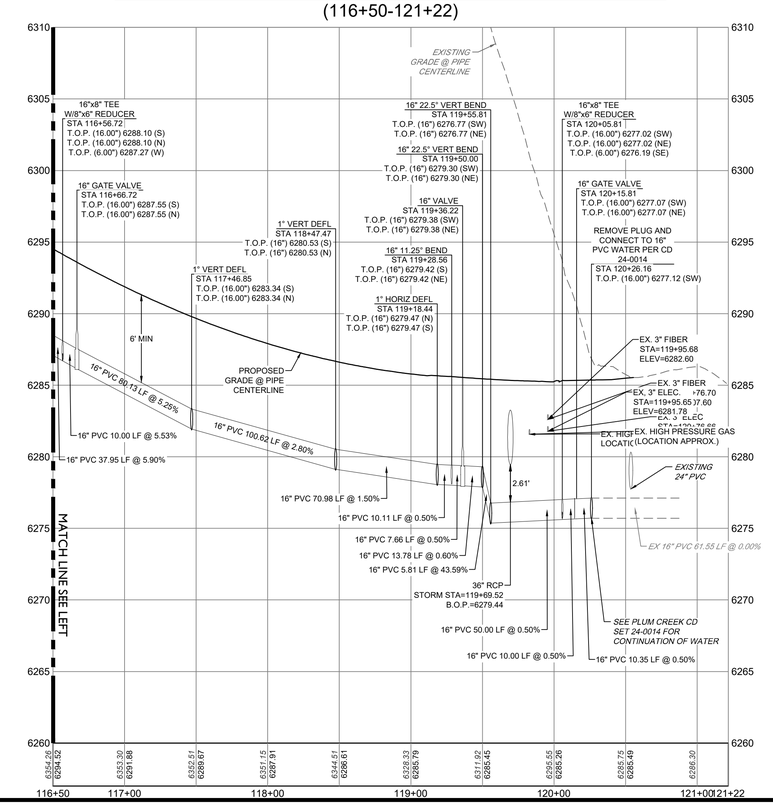
DAWSON TRAILS BLVD - WATER MAIN

(110+50-116+50)



DAWSON TRAILS BLVD - WATER MAIN

(116+50-121+22)



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DAWSON TRAILS BLVD (NORTH)

CASTLE ROCK, COLORADO

CONSTRUCTION DOCUMENTS
WATER P&P (5 OF 5)

DESIGNED BY: MG
DRAWN BY: CT
CHECKED BY: MG

JOB NO. 20-224

SHEET 49 OF 70

2025-10-01 (6:43 PM) X:\20-224 Dawson\Civil\CAD\Plans\Prairie Hawk\Prairie Hawk North\CDs WATER P&P.dwg