

October 16, 2024

Brady Shyrock, on Behalf of Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920

RE: Constitution Storage Development; Full Spectrum Detention Pond Certification

Dear Natasha Grimaldo,

Please accept this letter as formal documentation of conformance of the Full Spectrum Detention Pond (Pr. FSD-1) for stormwater quality and detention at the Constitution Storage Development. The Constitution Storage Development (Site) is located at 2460 Canada Drive, Colorado Springs within El Paso County, Colorado. The project site is located south of Constitution Avenue, west of Canada Drive, & east of Peterson Road. The site is located in a portion of Section 05, Township 14 South, Range 65 West of the 6th Principal Meridian, County of El Paso, State of Colorado.

Survey data detailing the Water Quality Detention Pond at the site was provided to Galloway & Company, Inc. on October 03, 2024 and updated October 14, 2024 by R & R Engineers-Surveyors, Inc., dated 09/18/2024. The pond was constructed based on the pond design prepared by Galloway, Inc. in the approved Constitution Storage Development Final Drainage Report dated July 21, 2023; Revised November 10, 2023.

WQCV Design

The WQCV has a volume of 0.074-acre feet and a depth of 2.50 feet. The WQCV has a 99% drain time of 39 hours which is slightly out of conformance with MHFD Criteria and City of Colorado Springs Criteria.

EURV, 5-Year, & 100-Year Design

Per the approved FDR, the EURV and 100-year volumes will be conveyed via the Modified CDOT Type C Outlet structure to the proposed chase outfall (S-40) located at the southeast corner of the site at the Canada Drive ROW (curb & gutter). The proposed development does not increase runoff being discharged from the site, therefore the pond release flows can sufficiently be handled by the proposed conveyance system as designed. Treated / detained runoff is then directed to the existing western curb & gutter within the Canada Drive. Storm events larger than the 100-year storm will overtop the emergency overflow weir and free release into the proposed access drive and southeasterly towards Canada Drive.



The water quality volume release will be controlled with an orifice plate that will release over a period of 39 hours. The full spectrum detention pond will release treated flows into the proposed chase outfall (S-40) within the Constitution Storage Development to the proposed chase outfall (S-40) located at the southeast corner of the site at the Canada Drive ROW (curb & gutter).

Total area which will not be treated via the on-site facility is less than 1.0 acre and less than 20%, which of the total site, as required.

Miscellaneous

As-builts were also conducted to verify the construction of the overall pond volume / capacity. The required overall pond volume is 0.416 ac-ft. The as-built pond volume is 0.453 ac-ft, therefore it stands in substantial conformance with the approved plans.

One item to note as an exclusion to this overall pond certification, there are two portions of the concrete trickle channel that were constructed below the minimum slope of 0.40% per the County DCM as reflected on the R & R Engineers-Surveyors, Inc. as-built survey (attached) shown in blue arrows. These two areas still have positive drainage and could be attributed to construction tolerances.

Conclusion

In summary I, Brady Shyrock, a registered professional engineer in the State of Colorado, do hereby affirm, to the best of my knowledge, based on the as-built survey provided by R & R Engineers-Surveyors, Inc. and information provided to date by the general contractor, the Full Spectrum Detention Pond for Constitution Storage Development and associated drainage facilities were constructed in accordance with the design intent of the approved drainage report and construction drawings, and in accordance with local standards and specifications, regional jurisdictional design criteria and state statutes.

The site and adjacent properties (as affected by work performed under the County permit) are stable with respect to settlement and subsidence, sloughing of cut and fill slopes, revegetation or other ground cover, and that the improvements (public improvements, common improvements, site grading and paving) meet or exceed the minimum design requirements.

The facilities outlined in this certification letter provide the required WQCV, EURV, 5-Year, & 100-Year detention volumes and will meet the required release rates (as documented by the attached MHFD design form), the stage areas, elevations, and outlet dimensions.

Constitution Storage Development
Full Spectrum Detention Pond Certification
October 16, 2024

Should you have any further questions, or require additional information, please do not hesitate to contact me at (719) 900-7220.

GALLOWAY

Brady Shyrock, PE
Project Manager
BradyShyrock@GallowayUS.com

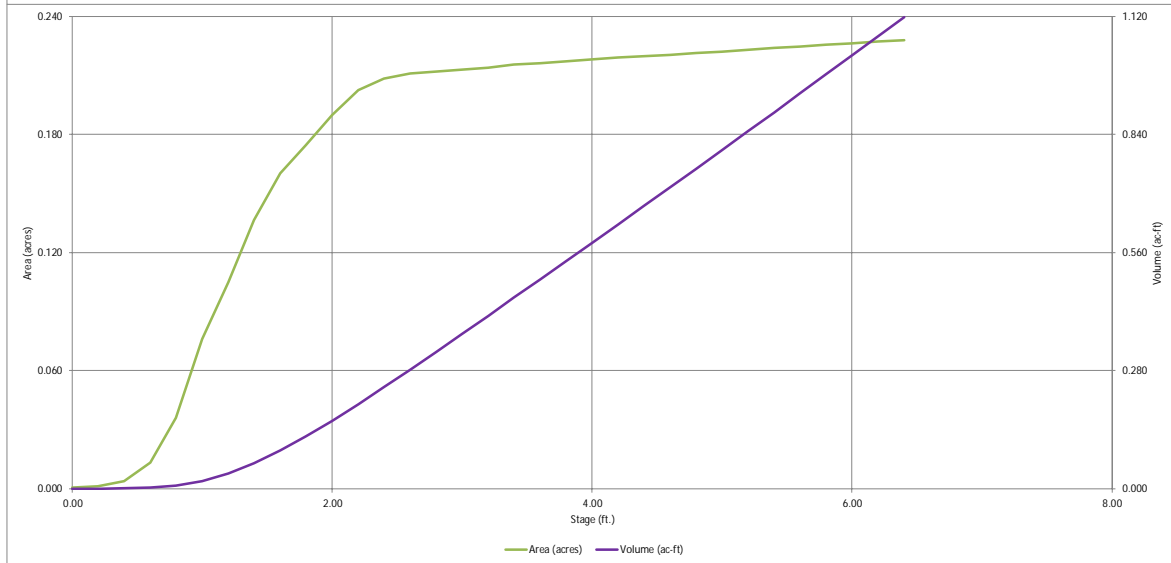
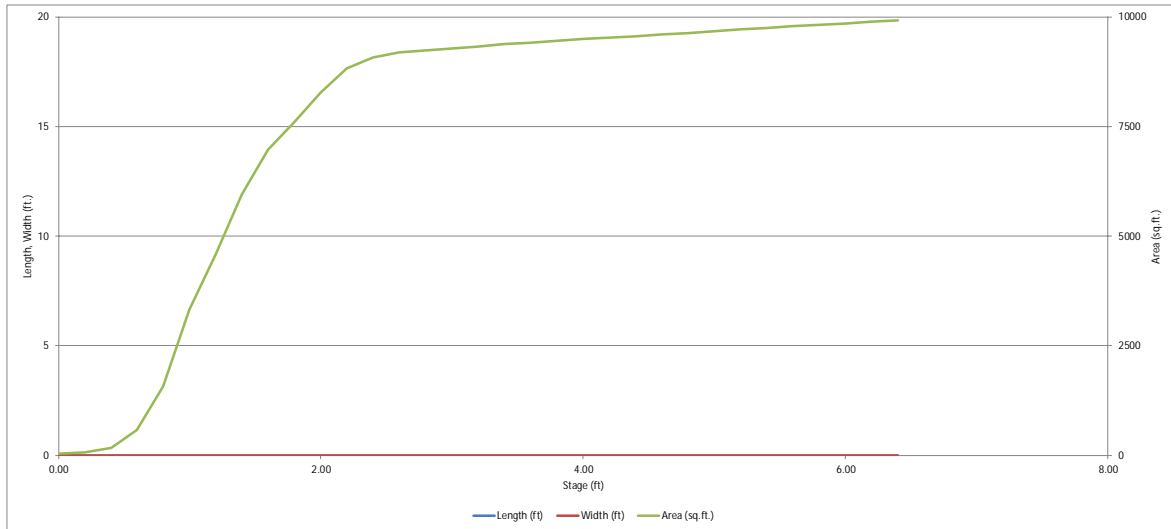
cc: John Radcliffe, PE
Principal & Regional Office Manager
JohnRadcliffe@GallowayUS.com

Attached Documents:

- MHFD WQ Detention Pond Calculations
- Approved FDR Drainage Map
- R & R Engineers-Surveyors, Inc. As-Built Survey
- As-Built Drawings

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

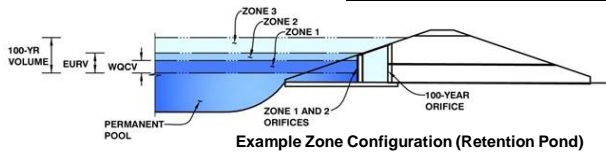
MHFD-Detention, Version 4.05 (January 2022)



DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-*Detention*, Version 4.05 (January 2022)

Project: 6855 Constitution Ave Self Storage
Basin ID: FSD-1



	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WOCV)	1.50	0.074	Orifice Plate
Zone 2 (EURV)	2.63	0.213	Orifice Plate
Zone 3 (100-year)	3.23	0.129	Weir&Pipe (Restrict)
Total (all zones)		0.416	

User Input: Orifice at Underdrain Outlet (typically used to drain WOCV in a Filtration BMP)

Underdrain Orifice Invert Depth = ft (distance below the filtration media surface)
Underdrain Orifice Diameter = inches

Calculated Parameters for Underdrain
Underdrain Orifice Area = ft²
Underdrain Orifice Centroid = feet

User Input: Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WOCV and/or EURV in a sedimentation BMP)

Centroid of Lowest Orifice = ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Orifice Plate = ft (relative to basin bottom at Stage = 0 ft)
Orifice Plate: Orifice Vertical Spacing = inches
Orifice Plate: Orifice Area per Row = sq. inches

Calculated Parameters for Plate
WQ Orifice Area per Row = ft²
Elliptical Half-Width = feet
Elliptical Slot Centroid = feet
Elliptical Slot Area = ft²

User Input: Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.00	0.91	1.58	2.45				
Orifice Area (sq. inches)	0.44	0.60	0.79	0.44				

	Row 9 (optional)	Row 10 (optional)	Row 11 (optional)	Row 12 (optional)	Row 13 (optional)	Row 14 (optional)	Row 15 (optional)	Row 16 (optional)
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

User Input: Vertical Orifice (Circular or Rectangular)

	Not Selected	Not Selected	
Invert of Vertical Orifice =	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>	ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Vertical Orifice =	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>	ft (relative to basin bottom at Stage = 0 ft)
Vertical Orifice Diameter =	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>	inches

Calculated Parameters for Vertical Orif

	Not Selected	Not Selected
Vertical Orifice Area =	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>
Vertical Orifice Centroid =	<input type="text" value="N/A"/>	<input type="text" value="N/A"/>

User Input: Overflow Weir (Dropbox with Flat or Sloped Gate and Outlet Pipe OR Rectangular/Trapezoidal Weir and No Outlet Pipe)

	Zone 3 Weir	Not Selected	
Overflow Weir Front Edge Height, Ho =	3.44	N/A	ft (relative to basin bottom at Stage = 0 ft)
Overflow Weir Front Edge Length =	2.92	N/A	feet
Overflow Weir Gate Slope =	0.00	N/A	H:V
Horiz. Length of Weir Sides =	2.92	N/A	feet
Overflow Gate Type =	Type C Gate	N/A	
Debris Clogging % =	50%	N/A	%

Calculated Parameters for Overflow W

	Zone 3 Weir	Not Selected
Height of Gate Upper Edge, H ₁ =	3.44	N/A
Overflow Weir Slope Length =	2.92	N/A
Gate Open Area / 100-yr Orifice Area =	36.57	N/A
Overflow Gate Open Area w/o Debris =	5.93	N/A
Overflow Gate Open Area w/ Debris =	2.97	N/A

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 3 Restrictor	Not Selected	
Depth to Invert of Outlet Pipe =	0.00	N/A	ft (distance below basin bottom at Stage = 0 ft)
Outlet Pipe Diameter =	12.00	N/A	inches
Restrictor Plate Height Above Pipe Invert =	3.12		inches

Calculated Parameters for Outlet Pipe w/ Flow Restriction Pl

	Zone 3 Restrictor	Not Selected
Outlet Orifice Area =	0.16	N/A
Outlet Orifice Centroid =	0.15	N/A
Half-Central Angle of Restrictor Plate on Pipe =	1.07	N/A

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage = ft (relative to basin bottom at Stage = 0 ft)
Spillway Crest Length = feet
Spillway End Slopes = H:V
Freeboard above Max Water Surface = feet

Calculated Parameters for Spillway

Spillway Design Flow Depth =	0.29	feet
Stage at Top of Freeboard =	4.97	feet
Basin Area at Top of Freeboard =	0.22	acres
Basin Volume at Top of Freeboard =	0.80	acre-ft

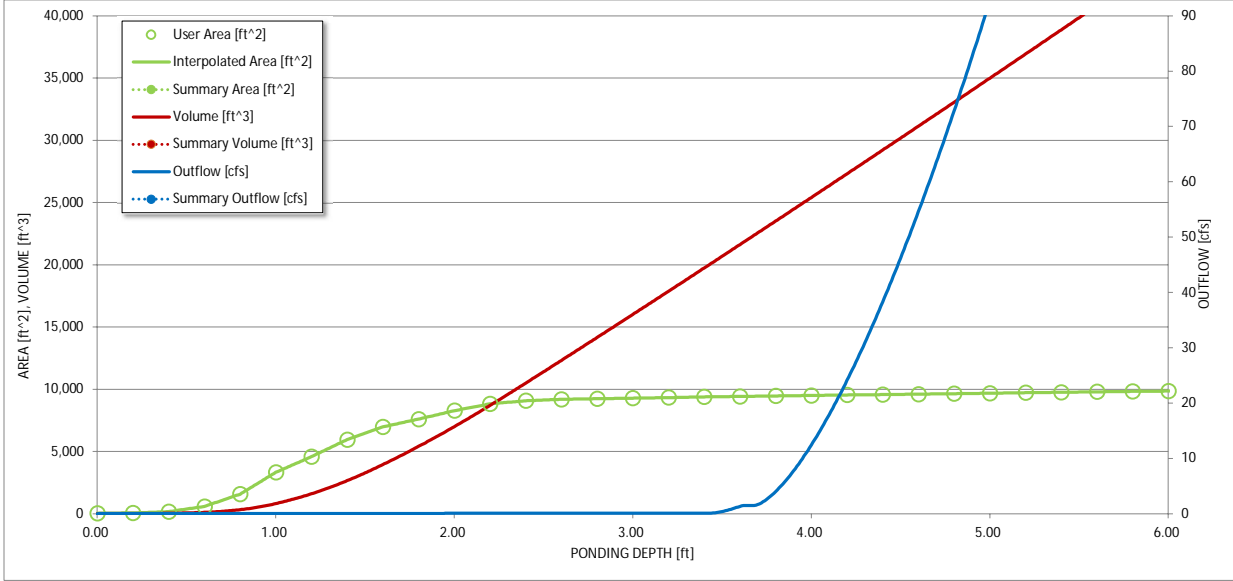
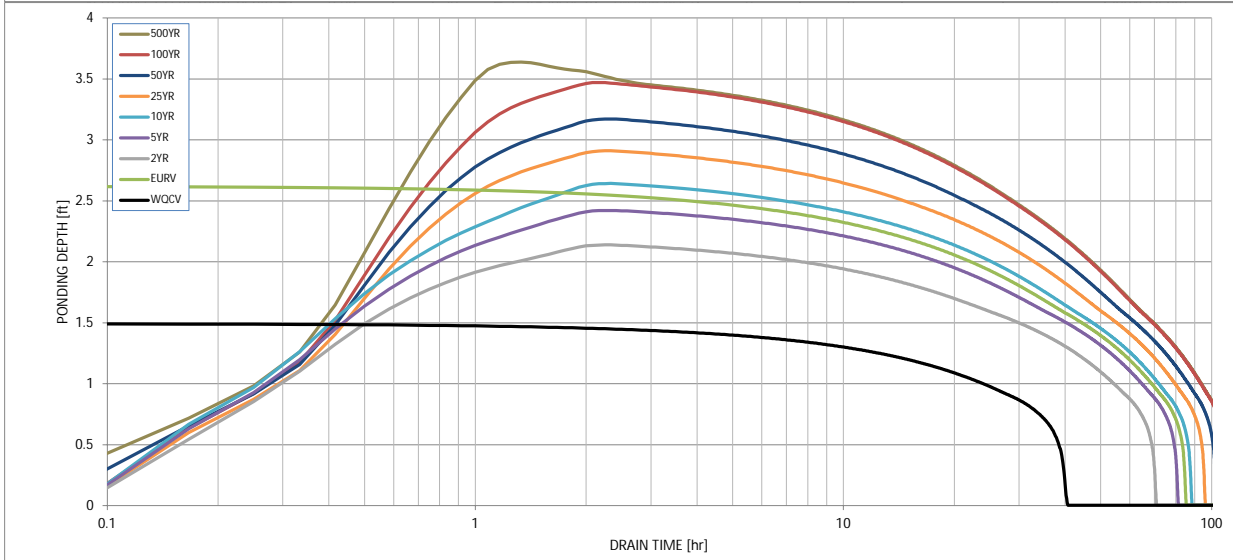
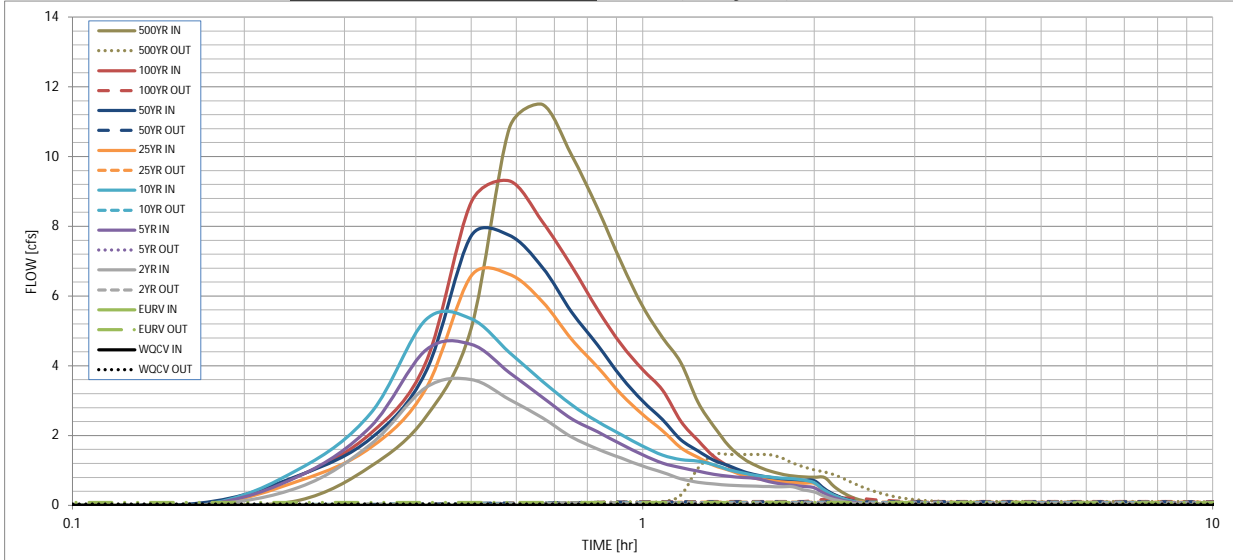
Routed Hydrograph Results

The user can override the default CUHP hydrographs and runoff volumes by entering new values in the Inflow Hydrographs table (Columns W through AI)

	WOCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year
Design Storm Return Period								
One-Hour Rainfall Depth (in)	N/A	N/A	1.19	1.50	1.75	2.00	2.25	2.52
CUHP Runoff Volume (acre-ft)	0.074	0.287	0.197	0.256	0.304	0.362	0.419	0.487
Inflow Hydrograph Volume (acre-ft)	N/A	N/A	0.197	0.256	0.304	0.362	0.419	0.487
CUHP Predevelopment Peak Q (cfs)	N/A	N/A	0.0	0.0	0.1	0.6	1.2	2.0
OPTIONAL Override Predevelopment Peak Q (cfs)	N/A	N/A						
Predevelopment Unit Peak Flow, q (cfs/acre)	N/A	N/A	0.01	0.016	0.022	0.20	0.40	0.65
Peak Inflow Q (cfs)	N/A	N/A	3.6	4.6	5.3	6.6	7.7	9.3
Peak Outflow Q (cfs)	0.033	0.083	0.063	0.072	0.084	0.094	0.102	0.209
Ratio Peak Outflow to Predevelopment Q	N/A	N/A	N/A	1.5	1.3	0.2	0.1	0.1
Structure Controlling Flow	Plate	Plate	Plate	Plate	Plate	Plate	Plate	Overflow Weir 1
Max Velocity through Gate 1 (fps)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0
Max Velocity through Gate 2 (fps)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours)	38	76	64	73	79	85	91	96
Time to Drain 99% of Inflow Volume (hours)	39	82	68	78	85	92	98	105
Maximum Ponding Depth (ft)	1.50	2.63	2.14	2.42	2.64	2.91	3.17	3.47
Area at Maximum Ponding Depth (acres)	0.15	0.21	0.20	0.21	0.21	0.21	0.21	0.22
Maximum Volume Stored (acre-ft)	0.075	0.289	0.186	0.245	0.291	0.346	0.404	0.468

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.05 (January 2022)



S-A-V-D Chart Axis Override	X-axis	Left Y-Axis	Right Y-Axis
minimum bound			
maximum bound			

DETENTION BASIN OUTLET STRUCTURE DESIGN

Outflow Hydrograph Workbook Filename: _____

Inflow Hydrographs

The user can override the calculated inflow hydrographs from this workbook with inflow hydrographs developed in a separate program.

Time Interval	SOURCE	CUHP	CUHP	CUHP	CUHP	CUHP	CUHP	CUHP	CUHP	CUHP
	TIME	WQCV [cfs]	EURV [cfs]	2 Year [cfs]	5 Year [cfs]	10 Year [cfs]	25 Year [cfs]	50 Year [cfs]	100 Year [cfs]	500 Year [cfs]
5.00 min	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0:05:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0:10:00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.15
	0:15:00	0.00	0.00	0.52	0.85	1.05	0.70	0.86	0.85	1.11
	0:20:00	0.00	0.00	1.75	2.26	2.64	1.65	1.91	2.07	2.53
	0:25:00	0.00	0.00	3.37	4.45	5.32	3.34	3.82	4.09	5.07
	0:30:00	0.00	0.00	3.61	4.62	5.35	6.57	7.72	8.69	10.80
	0:35:00	0.00	0.00	3.03	3.81	4.39	6.62	7.74	9.30	11.49
	0:40:00	0.00	0.00	2.51	3.10	3.56	5.84	6.83	8.13	10.06
	0:45:00	0.00	0.00	1.96	2.48	2.88	4.76	5.55	6.87	8.51
	0:50:00	0.00	0.00	1.61	2.11	2.40	3.96	4.60	5.61	6.96
	0:55:00	0.00	0.00	1.35	1.75	2.02	3.18	3.68	4.61	5.70
	1:00:00	0.00	0.00	1.12	1.45	1.70	2.60	2.99	3.89	4.81
	1:05:00	0.00	0.00	0.95	1.21	1.44	2.14	2.45	3.30	4.09
	1:10:00	0.00	0.00	0.76	1.08	1.31	1.65	1.88	2.41	2.96
	1:15:00	0.00	0.00	0.66	0.98	1.27	1.37	1.56	1.86	2.27
	1:20:00	0.00	0.00	0.61	0.89	1.16	1.14	1.29	1.40	1.70
	1:25:00	0.00	0.00	0.58	0.83	1.02	1.00	1.13	1.11	1.34
	1:30:00	0.00	0.00	0.56	0.79	0.92	0.86	0.97	0.94	1.13
	1:35:00	0.00	0.00	0.55	0.77	0.86	0.77	0.87	0.83	0.99
	1:40:00	0.00	0.00	0.54	0.68	0.81	0.71	0.80	0.75	0.90
	1:45:00	0.00	0.00	0.53	0.61	0.78	0.67	0.76	0.70	0.84
	1:50:00	0.00	0.00	0.53	0.57	0.76	0.65	0.73	0.68	0.81
	1:55:00	0.00	0.00	0.44	0.54	0.72	0.63	0.71	0.67	0.80
	2:00:00	0.00	0.00	0.38	0.50	0.65	0.63	0.71	0.67	0.80
	2:05:00	0.00	0.00	0.25	0.34	0.43	0.42	0.47	0.45	0.54
	2:10:00	0.00	0.00	0.17	0.22	0.28	0.28	0.31	0.30	0.35
	2:15:00	0.00	0.00	0.11	0.14	0.18	0.18	0.20	0.19	0.23
	2:20:00	0.00	0.00	0.06	0.09	0.11	0.11	0.12	0.12	0.14
	2:25:00	0.00	0.00	0.04	0.05	0.07	0.07	0.08	0.07	0.09
	2:30:00	0.00	0.00	0.02	0.03	0.04	0.04	0.04	0.04	0.05
	2:35:00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02
	2:40:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2:45:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2:50:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	3:10:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	3:20:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:25:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:30:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	5:05:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:10:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:15:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:20:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:25:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:30:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:35:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:40:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:45:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:50:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:55:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6:00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

DETENTION POND - GRADING EXHIBIT

CONSTITUTION STORAGE - 2460 CANADA DRIVE

LOCATED IN THE NW1/4 OF SECTION 5, T.14S, R.65W, 6TH P.M.
CITY OF COLORADO SPRINGS, EL PASO COUNTY, COLORADO

LEGEND

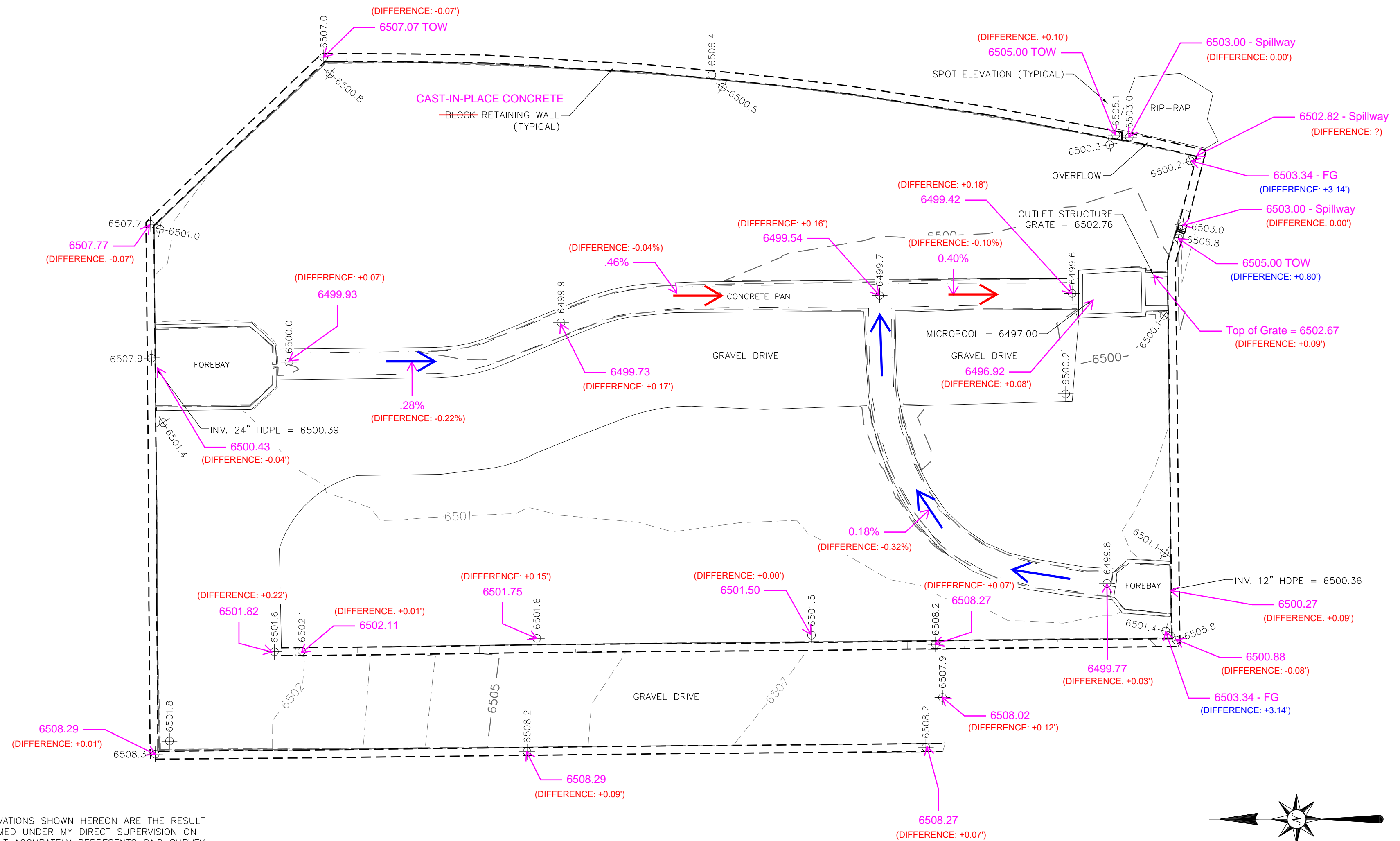
DESIGN ELEVATION

ELEVATION DIFFERENCE < 0.50'

ELEVATION DIFFERENCE >= 0.50'

ADEQUATE SLOPE →

INADEQUATE SLOPE →



SURVEY CERTIFICATION

I HEREBY CERTIFY THAT THE ELEVATIONS SHOWN HEREON ARE THE RESULT OF SURVEY FIELD WORK PERFORMED UNDER MY DIRECT SUPERVISION ON SEPTEMBER 12, 2024 AND THAT IT ACCURATELY REPRESENTS SAID SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND IS IN ACCORDANCE WITH THE APPLICABLE STANDARDS OF PRACTICE. THIS CERTIFICATION IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED.



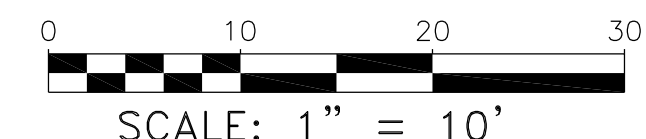
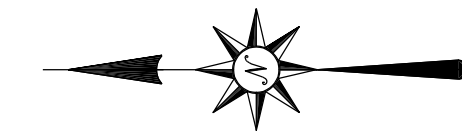
JEFFREY WEYGANDT, P.L.S.
COLORADO REG. NO. 38872
FOR, AND ON BEHALF OF:
R&R ENGINEERS-SURVEYORS, INC.

NOTES

1. BENCHMARK: COLORADO SPRINGS FACILITY INFORMATION MANAGEMENT SYSTEM (FIMS)
MONUMENT #SR07.
ELEVATION = 6534.61 FEET (NAVD88 DATUM)

2. POND VOLUMES:
18,900 CU.FT. TO ELEVATION 6502.75 (GRATE)
21,650 CU.FT. TO ELEVATION 6503.00 (OVERFLOW)

Total Pond Detention Volume = 18120.93 Cu Ft = .416 Ac Ft
100 Year Volume = 21213.69 Cu Ft = .487 Ac Ft



R&R ENGINEERS-SURVEYORS, INC.
1635 W. 13TH AVENUE, SUITE 310
DENVER, COLORADO 80204
PH: 303-753-6730
WWW.RRENGINEERS.COM

REVISIONS	File No. DC23140 POND
	Date Drawn 9/18/24
	Drawn By TPF
	Checked By JDW
	Job No. DC23140

JOHNSON DEVELOPMENT ASSOCIATES

CONSTITUTION STORAGE

LOT 1, EIGHT LINE SUBDIVISION LOCATED IN THE NORTHWEST QUARTER OF SECTION 5,
TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
COUNTY OF EL PASO, STATE OF COLORADO

PERMANENT CONTROL MEASURE PLAN

ENGINEERING RECORD DRAWINGS AS-BUILT DRAWINGS

PROJECT CONTACTS

PROPERTY OWNER

JASPERCO, LLC
5532 SADDLE ROCK TRAIL
COLORADO SPRINGS, CO 80918
ATTN: TONY COLON
EMAIL: TONY@COLONFAM.COM

APPLICANT

JOHNSON DEVELOPMENT ASSOCIATES, INC.
100 DUNBAR STREET, SUITE 400
SPARTANBURG, SC 29306
TELE: (864) 529-1297
ATTN: BRIAN KEARNEY
EMAIL: BKEARNEY@JOHNSONDEVELOPMENT.NET

CIVIL ENGINEER

GALLOWAY & CO., INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
TELE: (719) 900-7220
ATTN: BRADY SHYROCK, P.E.
EMAIL: BRADYSHYROCK@GALLOWAYUS.COM

GEOTECHNICAL ENGINEER

ROCKY MOUNTAIN GEOTECHNICAL, INC.
555 E PINEA PINE AVE, SUITE 107
COLORADO SPRINGS, CO 80903
TELE: (303) 634-1999
ATTN: KENNETH L. MEYERS, PE

TRAFFIC ENGINEER

GALLOWAY & CO., INC.
5500 GREENWOOD PLAZA BLVD, SUITE 200
GREENWOOD VILLAGE, CO 80111
TELE: (303) 770-8884
ATTN: BRIAN HORAN, P.E.
EMAIL: BRIANHORAN@GALLOWAYUS.COM

SURVEYOR

GALLOWAY & CO., INC.
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO 80920
TELE: (719) 337-1282
ATTN: BRIAN DOWNS
EMAIL: BRIANDOWNS@GALLOWAYUS.COM

STANDARD PCM NOTES

- NO CLEARING, GRADING, EXCAVATION, FILLING, OR OTHER LAND DISTURBING ACTIVITIES SHALL BE PERMITTED PRIOR TO APPROVAL OF THE SITE GRADING AND EROSION CONTROL (GEC) PLAN. REFERENCE THE CITY OF COLORADO SPRINGS DRAINAGE CRITERIA MANUAL (DCM) VOLUME 2, CHAPTER 7 FOR MORE INFORMATION.
- ANY LAND DISTURBANCE BY ANY OWNER, DEVELOPER, BUILDER, CONTRACTOR, OR OTHER PERSON SHALL COMPLY WITH THE POLICES AND PROCEDURES OUTLINED IN THE CITY DCM, AND THE APPROVED GEC PLAN.
- THIS PERMANENT BMP PLAN WILL BE SUBJECT TO RE-EVALUATE AND RE-ACCEPTANCE BY THE CITY OF COLORADO SPRINGS IF WORK ON THE PERMANENT BMP DOES NOT COMMENCE WITHIN 12 MONTHS OF PLAN APPROVAL, OR SHOULD ANY OF THE FOLLOWING OCCUR: A CHANGE IN OWNERSHIP, A CHANGE IN THE PROPOSED DEVELOPMENT, OR CHANGES TO THE DESIGN OF THE BMP.
- CONTACT CITY GEC INSPECTIONS, 719-385-5918, AND THE CITY ENGINEERING INSPECTIONS, 719-385-5977, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- ACCEPTANCE OF THIS PLAN DOES NOT CONSTITUTE APPROVAL TO GRADE OR CAUSE ANY DISTURBANCE WITHIN ANY UTILITY EASEMENT OR RIGHT-OF-WAY. APPROVALS TO WORK WITHIN UTILITY EASEMENTS MUST BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY UTILITY EASEMENT OR RIGHT-OF-WAY WITHOUT THE APPROPRIATE WRITTEN APPROVAL. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE APPLICANT IS RESPONSIBLE FOR THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS.
- A PROFESSIONAL ENGINEER (PE) CERTIFICATION THAT THE BMP HAS BEEN INSTALLED AND CONSTRUCTED IN GENERAL CONFORMANCE WITH THESE PLANS WILL BE REQUIRED ONCE THE BMP IS FULLY CONSTRUCTED. AN AS-BUILT SURVEY MUST BE COMPLETED TO VERIFY FACILITY VOLUMES AND ELEVATIONS. THE AS-BUILT DRAWINGS MUST BE SUBMITTED ALONG WITH THE PE CERTIFICATION. A PE CERTIFICATION REQUIRES PERIODIC ON-SITE OBSERVATIONS BY THE ENGINEER OF RECORD OR A PERSON UNDER THEIR RESPONSIBLE CHARGE. COORDINATION WITH THE ENGINEER OF RECORD TO ENSURE THAT THE NECESSARY ON-SITE OBSERVATIONS ARE COMPLETED IS THE RESPONSIBILITY OF THE APPLICANT.
- THE CONTRACTOR SHOULD CONTACT THE ENGINEER OF RECORD AND GEC INSPECTOR IMMEDIATELY SHOULD CONSTRUCTION OF THE BMP VARY IN ANY WAY FROM THE PLANS.
- RETAINING WALLS WILL BE DESIGNED FOR ADDITIONAL LOADING SUCH AS FOOTINGS BELOW ELEV. ETC.

UTILITY CONTACTS

WATER & WASTEWATER

CHEROKEE METROPOLITAN DISTRICT
6250 PALMER PARK BLVD.
COLORADO SPRINGS, CO 80915
TELE: (719) 597-5280
ATTN: KEVIN BROWN
EMAIL: KBROWN@CHEROKEEMETROPOLITAN.ORG

ELECTRIC

MOUNTAIN VIEW ELECTRIC
1140 E WOODMEN RD
FALCON, CO 80831
TELE: (719) 495-2283
CATHY HANSEN-LEE
EMAIL: CATHY.HANSEN@COOP

NATURAL GAS

COLORADO SPRINGS UTILITIES (CSU)
7710 DURANT DRIVE, P.O. BOX 11030, MAIL CODE 2150
COLORADO SPRINGS, CO 80947-2150
TELE: (719) 668-5573
AARON CASSIO
EMAIL: ACASSIO@CSU.ORG

FIRE

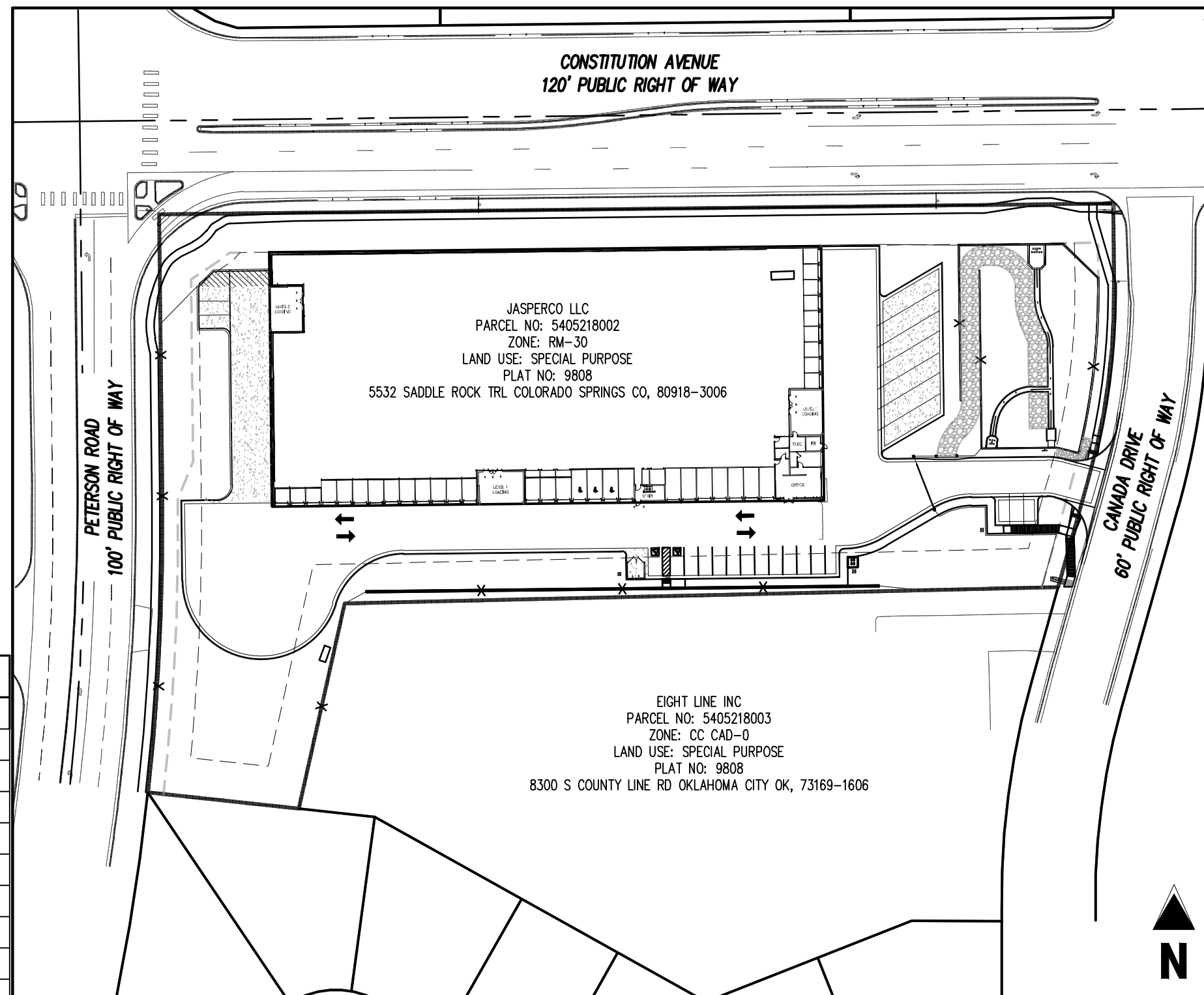
CIMARRON HILLS FIRE PROTECTION DISTRICT
1835 TUSKIEE PL
COLORADO SPRINGS, CO 80915
TELE: (719) 591-0960
EMAIL: JMCLEOD@CIMARRON



VICINITY MAP
SCALE: 1"=400'

PROJECT DATA	
PARCEL NUMBER	5532 SADDLE ROCK TRAIL
BMP CALCULATIONS	FINAL DRAINAGE REPORT CONSTITUTION STORAGE DEVELOPMENT
GRADING, EROSION & STORMWATER QUALITY CONTROL PLAN	GRADING & EROSION CONTROL PLANS IN PROGRESS
FUNCTIONAL MAINTENANCE OF THE PCM STRUCTURES WILL BE COMPLETED BY:	JOHNSON DEVELOPMENT ASSOCIATES, INC.
AESTHETIC MAINTENANCE OF THE PCM WILL BE COMPLETED BY:	JOHNSON DEVELOPMENT ASSOCIATES, INC.
100-YEAR WATER SURFACE ELEVATION	6502.79
EURY WATER SURFACE ELEVATION	6502.14
WQCY WATER SURFACE ELEVATION	6500.98
SOIL DATA	SOIL DATA FOR CONSTITUTION STORAGE WAS OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE (NRCS) WEB SOIL SURVEY. SOILS WITHIN THE SITE ARE PREDOMINATELY TRUCKTON SANDY LOAM, SOIL CLASSIFICATION A GEOTECH PER KUMAR & ASSOCIATES, INC., REPORT AND AMENDMENT #21-2-272
VEGETATION	SITE DEVELOPMENT PLAN IN PROGRESS
FEMA FLOOD INSURANCE RATE MAP	ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM NUMBER 0804107526), EFFECTIVE DATE DECEMBER 7, 2018, THE PROJECT SITE LIES OUTSIDE OF THE 100-YEAR AND 500-YEAR FLOODPLANS. THE PROJECT SITE IS LOCATED IN ZONE X DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

POND COST ESTIMATE					
ITEM	JOB TOTAL	UNIT	UNIT PRICE	TOTAL	
1	SOIL RIP RAP TRICKLE CHANNEL	158	LF	\$306.00	\$48,350.00
2	FOREBAY W/ T-BATTLE	2	EA	\$15,000.00	\$30,000.00
3	OUTLET STRUCTURE	1	EA	\$20,000.00	\$20,000.00
4	MICROPOOL	1	EA	\$5,000.00	\$5,000.00
5	POND ACCESS ROAD (GRAVEL)	299	SY	\$7.87	\$17,300.00
6	GRADING (NOT PART OF GEC)	0.24	AC	\$12,283.00	\$2,950.00
7	SPILLWAY	30.5	LF	\$526.00	\$16,043.00
8	PERMANENT SEEDING	1	LS	\$3,000.00	\$3,000.00
	SUBTOTAL =				\$142,643.00
	CONTINGENCY (10%)				\$14,264.30
	GRAND TOTAL =				\$156,907.30



SITE MAP
SCALE: 1"=80'

SHEET INDEX		
SHEET DESCRIPTION	SHEET TITLE	SHEET NUMBER
PCM0.0	COVER SHEET	1
PCM1.0	OVERALL PCM PLAN	2
PCM1.1	POND PLAN	3
PCM1.2	FOREBAY DETAILS	4
PCM1.3	MICROPOOL & OUTLET STRUCTURE DETAILS	5
PCM1.4	RETAINING WALL DETAILS	6

LEGAL DESCRIPTION

LOT 1, EIGHT LINE SUBDIVISION LOCATED IN THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO.

BASIS OF BEARINGS

BASIS OF BEARINGS: ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 14 SOUTH, RANGE 65 WEST BEARS N89°20'41"E, MONUMENTED BY THE NORTHWEST CORNER OF SAID SECTION 5, BEING A 3-1/4" ALUMINUM CAP STAMPED "PLS 4842 1985" IN RANGE BOOK, AND BY THE NORTH QUARTER CORNER OF SAID SECTION 5, BEING A 3-1/4" ALUMINUM CAP STAMPED "PLS 30829 2003", AS SHOWN HEREON.

BENCHMARK

COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS) BENCHMARK SR07 BEING A 2" ALUMINUM CAP STAMPED "CSU FIMS CONTROL SR07" AT THE SOUTHEAST CORNER OF THE CONCRETE BASE FOR AN ELECTRIC VAULT ON THE WEST SIDE OF PETERSON ROAD, ABOUT 360' SOUTH OF THE CENTER LINE OF LEOTI DRIVE.
FIMS DATUM ELEVATION = 6534.61

DESCRIPTION OF CONSTRUCTION ACTIVITIES

ALL DATES ARE SUBJECT TO CHANGE. CONSTRUCTION IS ANTICIPATED TO COMMENCE IN NOVEMBER OF 2021 AND BE COMPLETED BY MARCH OF 2022. FINAL STABILIZATION IS EXPECTED TO BE COMPLETED BY JULY OF 2022.

RECEIVING WATERS

INDIAN HILLS VILLAGE IS LOCATED WITHIN THE MESA DRAINAGE BASIN AS DESCRIBED IN THE "MASTER PLAN FOR MESA DRAINAGE BASIN," PREPARED BY GILBERT, MEYER & SAMS, INC. DATED AUGUST 10, 1989.

ENGINEER'S STATEMENT

THIS PERMANENT CONTROL MEASURE (PCM) PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION, WAS DESIGNED IN ACCORDANCE WITH THE CITY OF COLORADO SPRINGS DRAINAGE CRITERIA MANUAL (MAY 2014), AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THIS PERMANENT BMP PLAN.

SIGNATURE: DATE: 11/14/2023

DEVELOPER'S/OWNER'S STATEMENT

JOHNSON DEVELOPMENT ASSOCIATES HEREBY CERTIFIES THAT THE PCM FOR CONSTITUTION STORAGE SHALL BE CONSTRUCTED ACCORDING TO THE DESIGN PRESENTED IN THIS PLAN. I UNDERSTAND THAT EL PASO COUNTY DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE DRAINAGE FACILITIES DESIGNED AND/OR CERTIFIED BY MY ENGINEER AND THAT ARE SUBMITTED TO EL PASO COUNTY; AND CANNOT, ON BEHALF OF JOHNSON DEVELOPMENT ASSOCIATES, GUARANTEE THAT THE FINAL DRAINAGE DESIGN REVIEW WILL RESOLVE JOHNSON DEVELOPMENT ASSOCIATES AND/OR THEIR SUCCESSORS AND/OR ASSIGNS OF FUTURE LIABILITY FOR IMPROPER DESIGN.

DEVELOPER/OWNER SIGNATURE: DATE: 11/10/2023

NAME OF DEVELOPER/OWNER: JSF Constitution, LLC

DBA: JOHNSON DEVELOPMENT ASSOCIATES, INC. PHONE: 303-656-6387

TITLE: Development Associate EMAIL: JasSherman@JohnsonDevelopment.net

ADDRESS: 100 Saint Paul Street, Suite 310, Denver, CO FAX:

CAUTION - NOTICE TO CONTRACTOR

- ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.



Know what's below.
Call before you dig.

- WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POT-HOLES OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

Galloway

1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com



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PRIVATE PERMANENT CONTROL MEASURE PLAN
CONSTITUTION STORAGE

JOHNSON DEVELOPMENT ASSOCIATES

2460 CANADA DRIVE
COLORADO SPRINGS, CO 80915

#	Date	Issue / Description	Init.
1	11/10/2023	GRADING & DRAINAGE UPDATES	JDM

Project No: JDA02
Drawn By: ASA/MRK
Checked By: BAS
Date: 10/15/2024

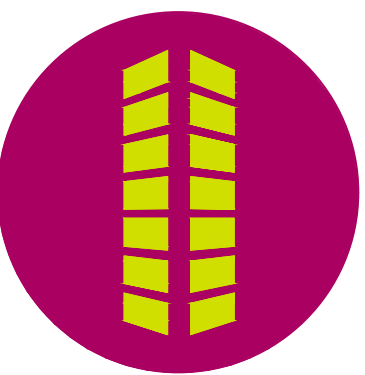
COVER SHEET

PCM0.0

Sheet 1 of 6



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PRIVATE PERMANENT CONTROL MEASURE PLAN
CONSTITUTION STORAGE
JOHNSON DEVELOPMENT ASSOCIATES
2460 CANADA DRIVE
COLORADO SPRINGS, CO 80915

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1	11/10/2023	GRADING & DRAINAGE UPDATES	JDM

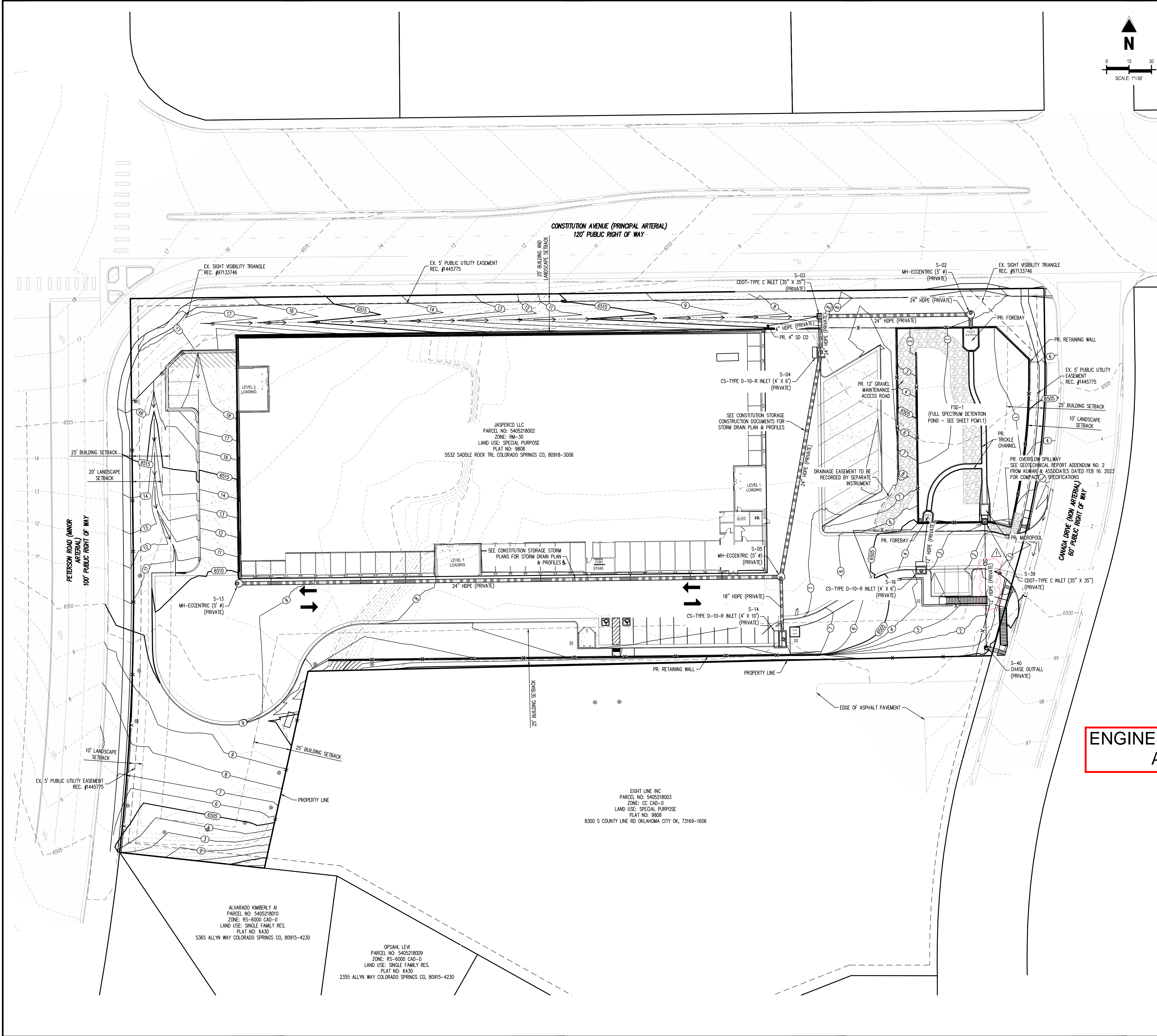
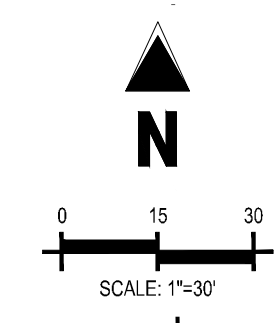
Project No:	JDA02
Drawn By:	ASA/MRK
Checked By:	ASA
Date:	10/15/2024

OVERALL PCM PLAN

PCM1.0
Sheet 2 of 6

LEGEND

	PROPERTY LINE
	PROPOSED EASEMENT
	EXISTING EASEMENT
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED OPAQUE LANDSCAPE FENCE
	PROPOSED SPLIT RAIL FENCE
	PROPOSED BUILDING OUTLINE
	PROPOSED CROSS PAN
	PROPOSED SIDEWALK
	PROPOSED HEAVY DUTY CONCRETE
	PROPOSED DETECTABLE WARNING SURFACE
	PROPOSED GRAVEL MAINTENANCE ACCESS
	PROPOSED RETAINING WALL
	EXISTING SIDEWALK
	EXISTING FENCE
	PROPOSED STORM PIPE
	PROPOSED STORM PIPE <12"
	EXISTING STORM PIPE
	EXISTING CURB & GUTTER
	PROPOSED CURB & GUTTER
	PROPOSED STORM DRAIN STRUCTURES
	EXISTING STORM DRAIN STRUCTURES



ENGINEERING RECORD DRAWINGS AS-BUILT DRAWINGS

BASIS OF BEARINGS
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COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS)
BENCHMARK SHOT BEING A 2" ALUMINUM CAP STAMPED "CSU FIMS CONTROL SHOT" AT THE SOUTHEAST CORNER OF THE CONCRETE BASE FOR AN ELECTRIC VAULT ON THE WEST SIDE OF PETERSON ROAD, ABOUT 360' SOUTH OF THE CENTER LINE OF LEOTI DRIVE.

FIMS DATUM ELEVATION = 6534.61

CAUTION - NOTICE TO CONTRACTOR

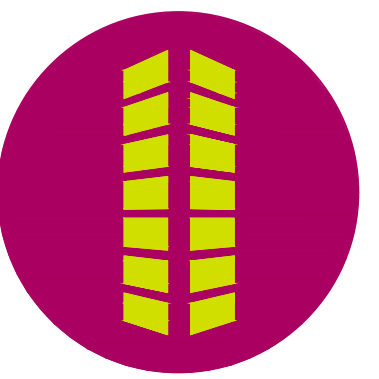
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Know what's below. Call before you dig.

Galloway Development Associates, Colorado Springs, Colorado. File No. 20230000020000020001. 11/10/2023



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**PRIVATE PERMANENT CONTROL MEASURE PLAN
 CONSTITUTION STORAGE**

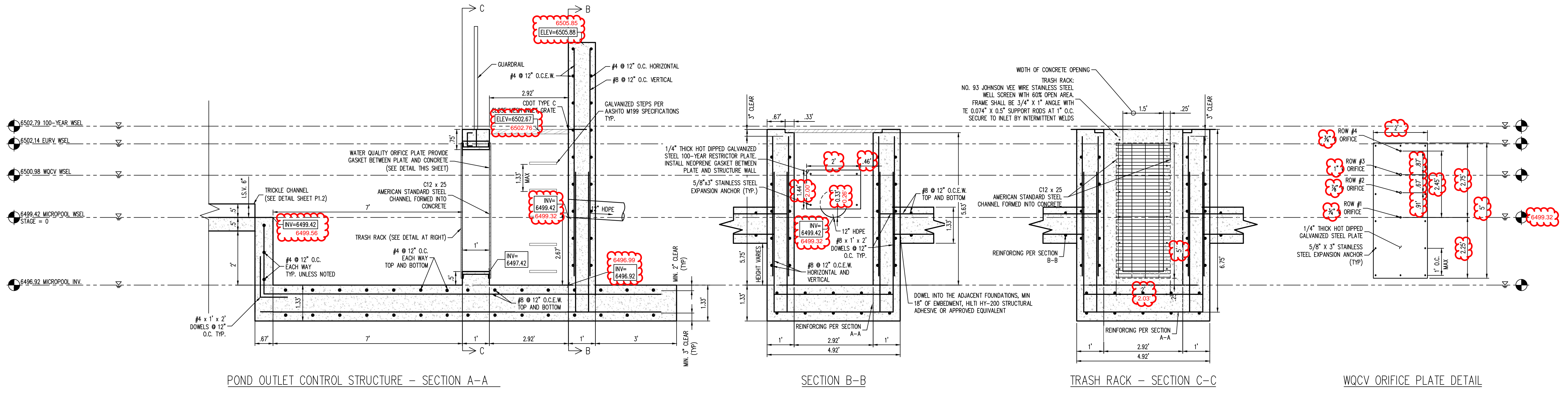
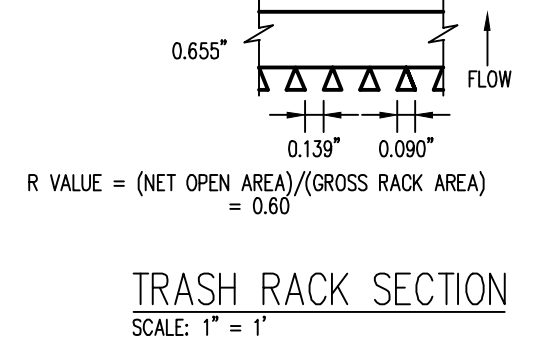
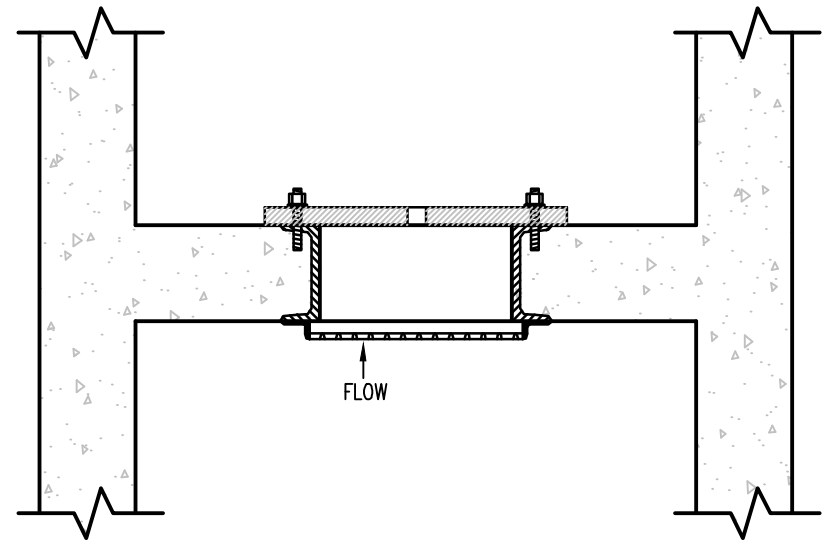
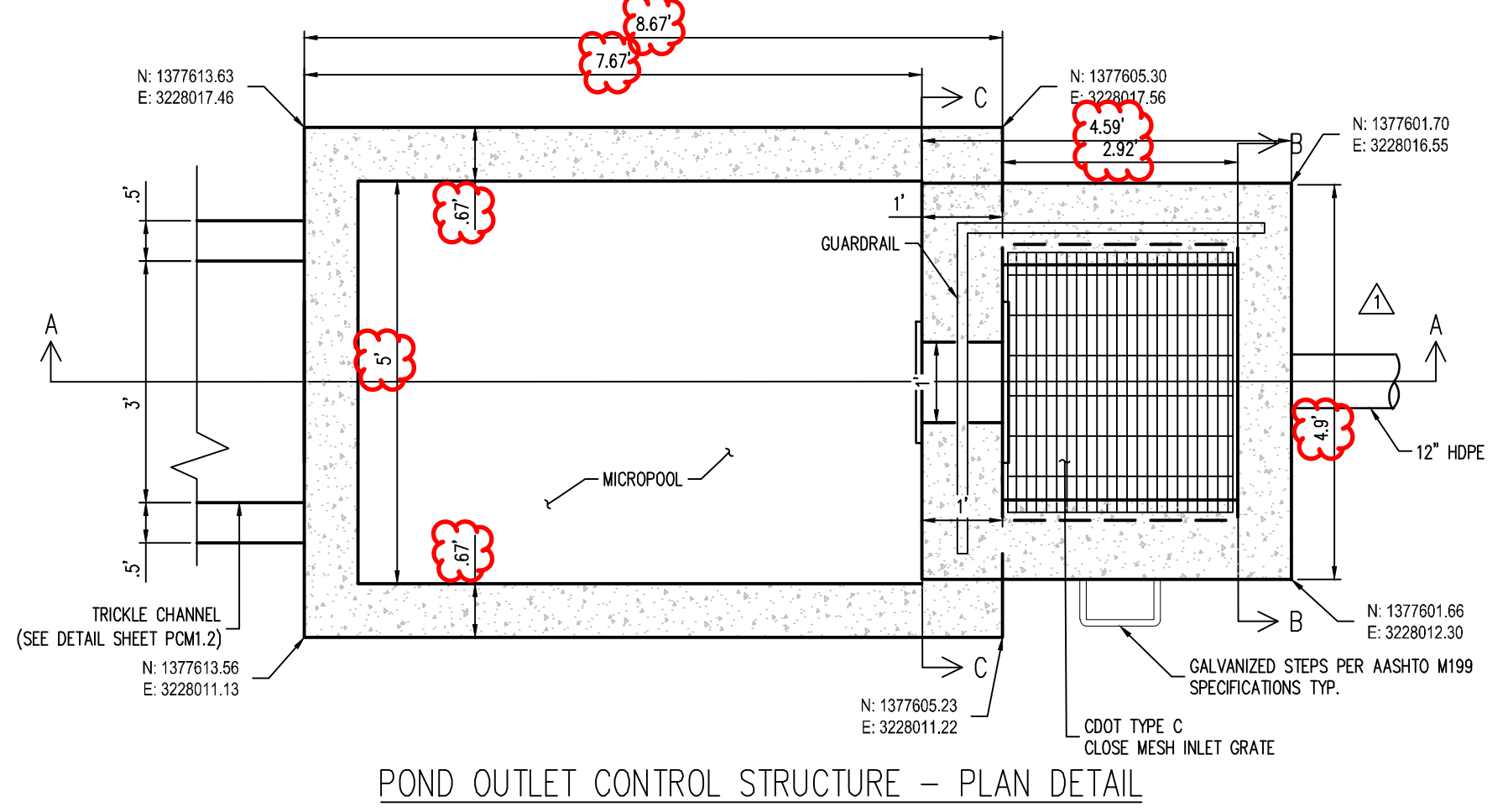
JOHNSON DEVELOPMENT ASSOCIATES
 2460 CANADA DRIVE
 COLORADO SPRINGS, CO 80915

#	Date	Issue / Description	Init.
1	11/10/2023	GRADING & DRAINAGE UPDATES	JDM
2	01/31/2024	GRADING LABEL UPDATES	CRD

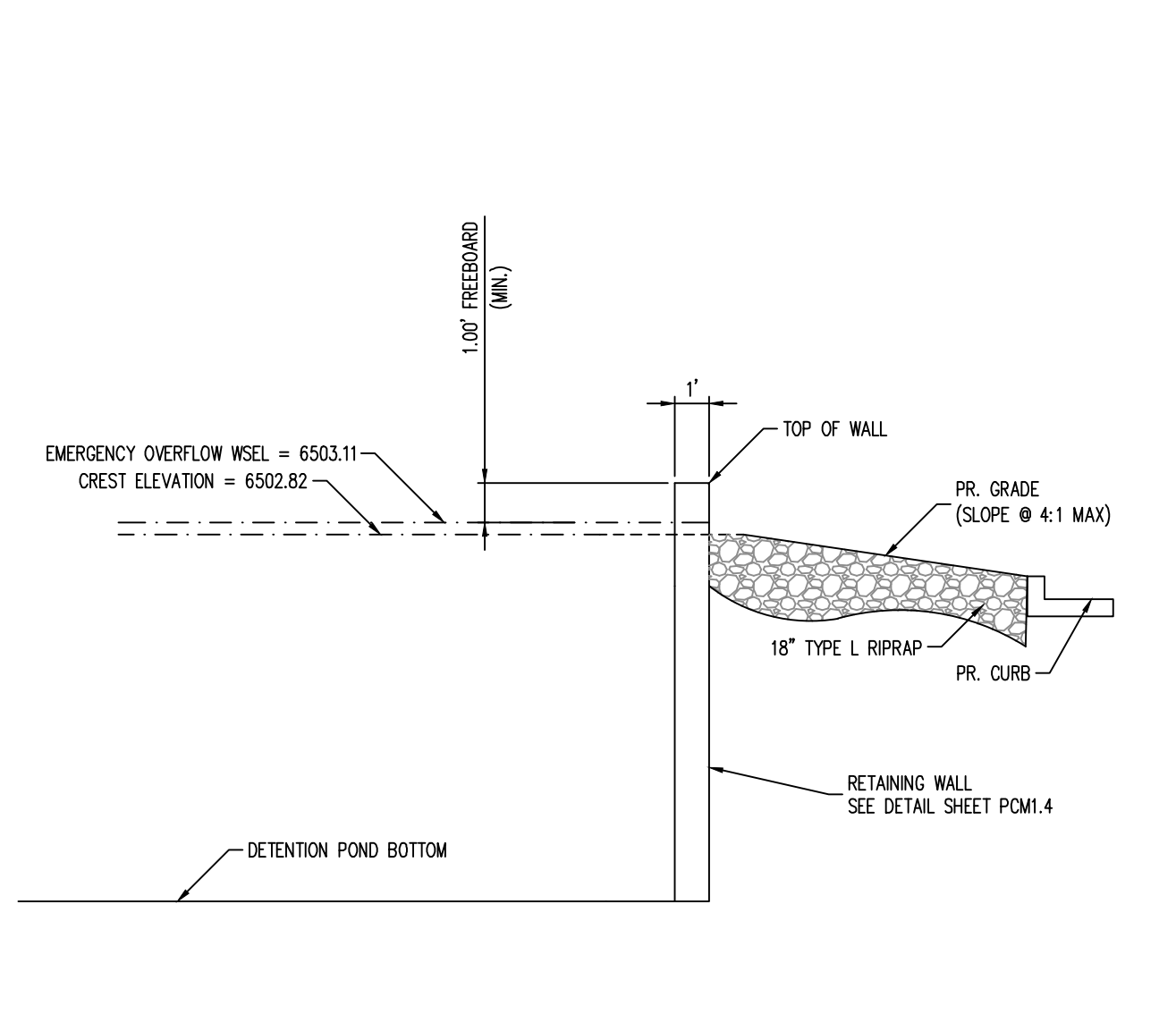
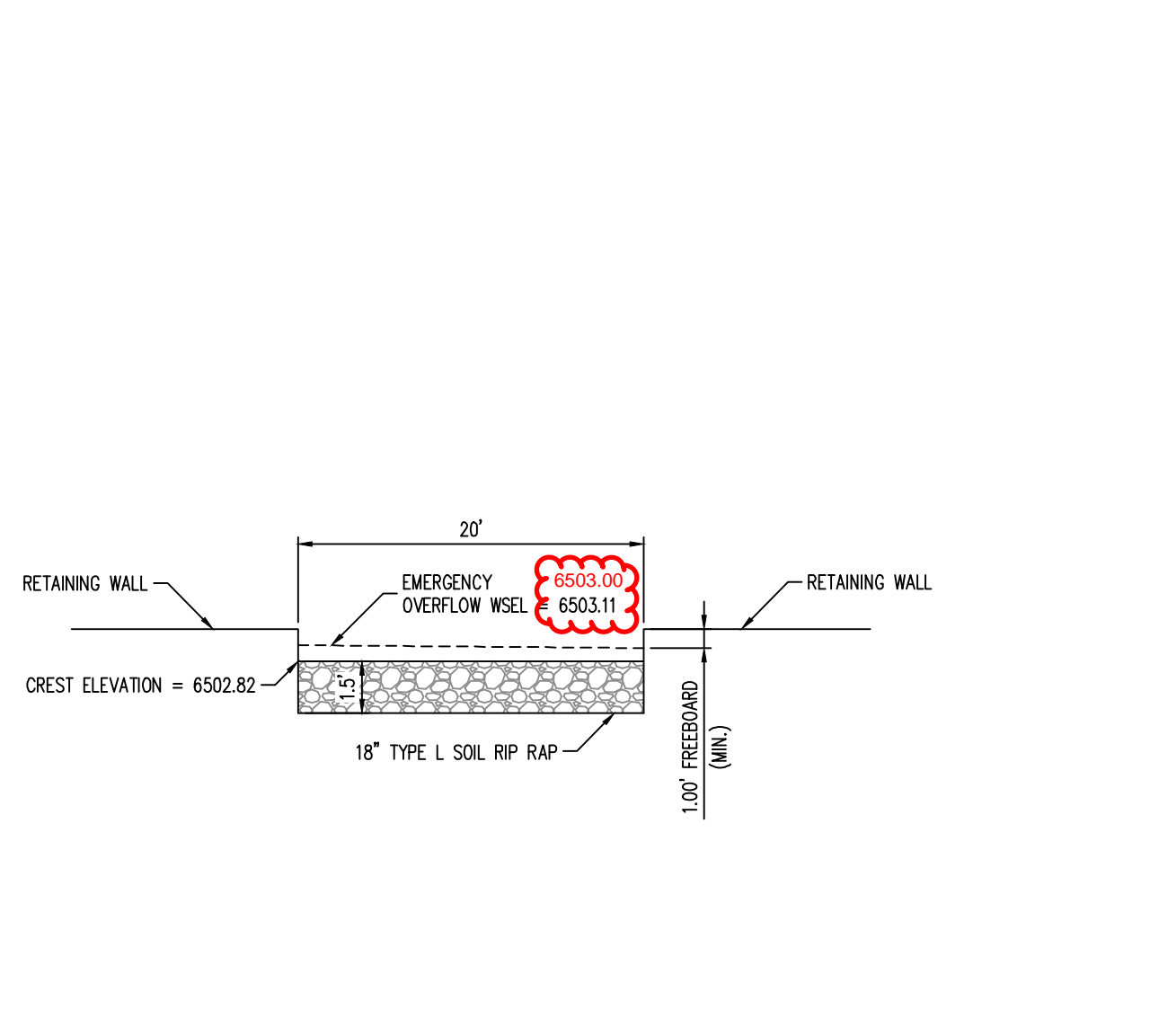
Project No: JDA02
 Drawn By: ASA/MRK
 Checked By: BAS
 Date: 10/15/2024

MICROPOL & OUTLET STRUCTURE DETAILS

PCM1.3
 Sheet 5 of 6



1 POND OUTLET STRUCTURE
 SCALE: 1" = 2'



**ENGINEERING RECORD DRAWINGS
 AS-BUILT DRAWINGS**

