



see my comment on
page 4 of 5 below.

March 10, 2026

El Paso County
Department of Public Works
2880 International Circle, Suite 110
Colorado Springs, CO 80910

Attn.: Project Manager

RE: Claremont Business Park 2, Filing No. 2
Private Detention/Stormwater Quality Pond

Dear Project Manager:

Per the approved construction drawings for "Claremont Business Park 2, Filing No. 2" improvements were made to construct a water quality facility in compliance with the current El Paso County Drainage Criteria and with the approved Final Drainage Report for this project. The provided as-builts reflect the "field changes" associated with the revision. It should be noted that modification of the outlet works do not affect the intended functionality of the facility nor do they negatively affect downstream facilities and or water quality.

Based upon this information and periodic site visits to the project during significant/key phases of the stormwater BMP installation, M&S Civil Consultants, Inc. is of the opinion that the stormwater BMPs have been constructed in general compliance with the approved design plans, and specifications as filed with El Paso County.

Statement Of Engineer In Responsible Charge

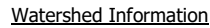
To the best of my knowledge, information and belief, for the referenced project above, the improvements have been constructed in general compliance with the approved design plans and specifications as filed with El Paso County to provide the required storage volume and meet the required release rates documented by the SDI design form, the stage areas, elevations and outlet dimensions. In addition, to the best of my knowledge, information and belief, for the referenced project above, 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 development improvements, site grading and paving) meet or exceed the minimum design requirements.

Virgil A. Sanchez
Colorado P.E. No.37160
For and on behalf of M&S Civil
Consultants, Inc.



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Basin ID: Lot 2 - Pond 3 (ASBUILT)



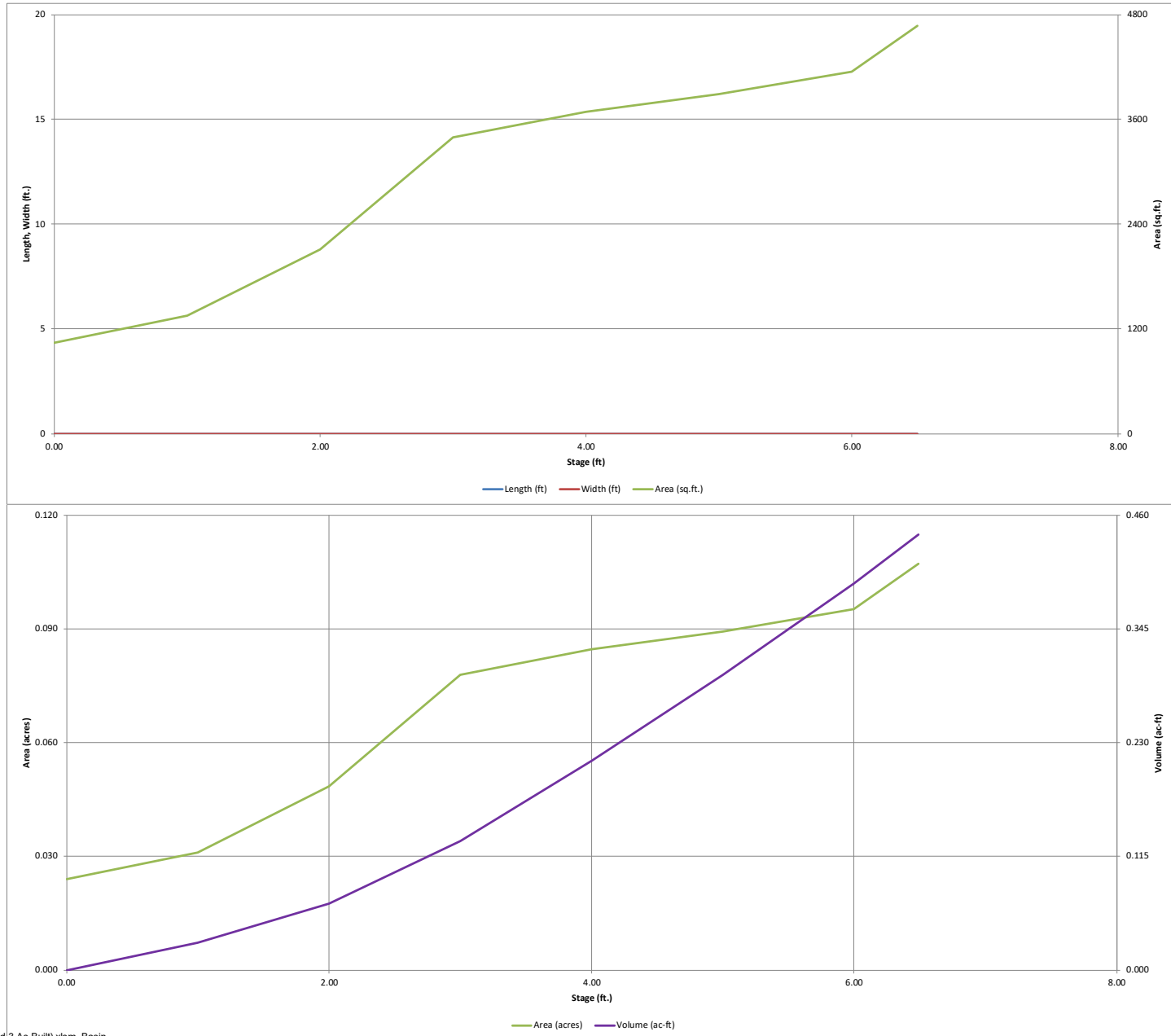
Water Quality Capture Volume (WQCV) =	0.051	acre-feet
Excess Urban Runoff Volume (EURV) =	0.234	acre-feet
2-yr Runoff Volume (P1 = 1.19 in.) =	0.161	acre-feet
5-yr Runoff Volume (P1 = 1.5 in.) =	0.208	acre-feet
10-yr Runoff Volume (P1 = 1.75 in.) =	0.249	acre-feet
25-yr Runoff Volume (P1 = 2 in.) =	0.297	acre-feet
50-yr Runoff Volume (P1 = 2.25 in.) =	0.341	acre-feet
100-yr Runoff Volume (P1 = 2.52 in.) =	0.393	acre-feet
500-yr Runoff Volume (P1 = 3.14 in.) =	0.506	acre-feet
Approximate 2-yr Detention Volume =	0.162	acre-feet
Approximate 5-yr Detention Volume =	0.211	acre-feet
Approximate 10-yr Detention Volume =	0.255	acre-feet
Approximate 25-yr Detention Volume =	0.294	acre-feet
Approximate 50-yr Detention Volume =	0.316	acre-feet
Approximate 100-yr Detention Volume =	0.339	acre-feet

	acre-feet
	acre-feet
1.19	inches
1.50	inches
1.75	inches
2.00	inches
2.25	inches
2.52	inches
	inches

3/9/2026, 9:31 AM

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

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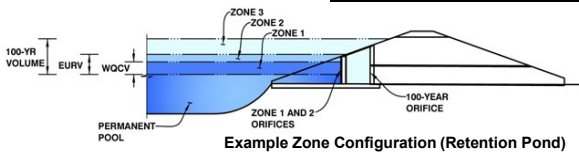


DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.06 (July 2022)

Project: Claremont Business Park 2 Filing No. 2

Basin ID: Lot 2 - Pond 3 (ASBUILT)



Example Zone Configuration (Retention Pond)

	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	1.65	0.051	Filtration Media
Zone 2 (100-year)	5.45	0.288	Weir&Pipe (Restrict)
Zone 3			
Total (all zones)		0.339	

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

Underdrain Orifice Invert Depth = 1.90 ft (distance below the filtration media surface)
Underdrain Orifice Diameter = 0.84 inches

Calculated Parameters for Underdrain
Underdrain Orifice Area = 0.0 ft²
Underdrain Orifice Centroid = 0.04 feet

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

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

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

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

	Row 1 (optional)	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)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Orifice Area (sq. inches)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

	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)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Orifice Area (sq. inches)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

User Input: Vertical Orifice (Circular or Rectangular)

Invert of Vertical Orifice = Not Selected ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Vertical Orifice = Not Selected ft (relative to basin bottom at Stage = 0 ft)
Vertical Orifice Diameter = Not Selected inches

Calculated Parameters for Vertical Orifice
Vertical Orifice Area = Not Selected ft²
Vertical Orifice Centroid = Not Selected feet

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

Overflow Weir Front Edge Height, H_o = 2.08 ft (relative to basin bottom at Stage = 0 ft)
Overflow Weir Front Edge Length = 3.00 feet
Overflow Weir Gate Slope = 0.00 H:V
Horiz. Length of Weir Sides = 3.00 feet
Overflow Gate Type = Type C Gate
Debris Clogging % = 70%

Calculated Parameters for Overflow Weir
Height of Gate Upper Edge, H_u = 2.08 feet
Overflow Weir Slope Length = 3.00 feet
Gate Open Area / 100-yr Orifice Area = 16.56
Overflow Gate Open Area w/o Debris = 6.26 ft²
Overflow Gate Open Area w/ Debris = 1.88 ft²

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

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate

Depth to Invert of Outlet Pipe = 1.97 ft (distance below basin bottom at Stage = 0 ft)
Outlet Pipe Diameter = 18.00 inches
Restrictor Plate Height Above Pipe Invert = 4.80 inches

Outlet Orifice Area = 0.38 ft²
Outlet Orifice Centroid = 0.24 feet
Half-Central Angle of Restrictor Plate on Pipe = 1.00 radians

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage = 5.90 ft (relative to basin bottom at Stage = 0 ft)
Spillway Crest Length = 18.00 feet
Spillway End Slopes = 4.00 H:V
Freeboard above Max Water Surface = 1.00 feet

Calculated Parameters for Spillway
Spillway Design Flow Depth = 0.29 feet
Stage at Top of Freeboard = 7.19 feet
Basin Area at Top of Freeboard = 0.11 acres
Basin Volume at Top of Freeboard = 0.44 acre-ft

this is correctly shown as the BW elevation for the notch in the wall, so dont change this.

still doesnt match plans

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 AF).

	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	500 Year
Design Storm Return Period =	N/A	N/A	1.19	1.50	1.75	2.00	2.25	2.52	3.14
One-Hour Rainfall Depth (in) =	N/A	N/A	0.161	0.208	0.249	0.297	0.341	0.393	0.506
CUHP Runoff Volume (acre-ft) =	0.051	0.234	0.161	0.208	0.249	0.297	0.341	0.393	0.506
Inflow Hydrograph Volume (acre-ft) =	N/A	N/A	0.161	0.208	0.249	0.297	0.341	0.393	0.506
CUHP Predevelopment Peak Q (cfs) =	N/A	N/A	0.0	0.1	0.5	1.4	2.0	2.8	4.4
OPTIONAL Override Predevelopment Peak Q (cfs) =	N/A	N/A							
Predevelopment Unit Peak Flow, q (cfs/acre) =	N/A	N/A	0.02	0.03	0.20	0.61	0.86	1.20	1.92
Peak Inflow Q (cfs) =	N/A	N/A	3.7	4.8	5.7	7.0	8.1	9.0	11.7
Peak Outflow Q (cfs) =	0.0	4.4	1.5	2.6	3.4	3.9	4.0	4.1	4.4
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	38.5	7.4	2.7	2.0	1.5	1.0
Structure Controlling Flow =	Filtration Media	Outlet Plate 1	Overflow Weir 1	Overflow Weir 1	Overflow Weir 1	Outlet Plate 1	Outlet Plate 1	Outlet Plate 1	Outlet Plate 1
Max Velocity through Gate 1 (fps) =	N/A	0.71	0.25	0.4	0.5	0.6	0.6	0.7	0.7
Max Velocity through Gate 2 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours) =	20	25	28	27	26	26	25	25	23
Time to Drain 99% of Inflow Volume (hours) =	20	27	29	29	29	28	28	28	28
Maximum Ponding Depth (ft) =	1.65	4.27	2.34	2.44	2.52	2.78	3.09	3.44	4.11
Area at Maximum Ponding Depth (acres) =	0.04	0.09	0.06	0.06	0.06	0.07	0.08	0.08	0.09
Maximum Volume Stored (acre-ft) =	0.051	0.235	0.085	0.091	0.096	0.113	0.137	0.165	0.220

DETENTION BASIN OUTLET STRUCTURE DESIGN

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