Ryan Burns

From: Ryan Burns
Sent: Tuesday, November 10, 2026 2:35 PM
To: 'McCormick - DNR, Brian'; 'dwrpermitsonline@state.co.us'
Cc: Kallie.Bauer@state.co.us; Jim.Kirch@state.co.us; Nicholas.Stafford@state.co.us; John Batka - DNR
Subject: RE: - Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure (Schmidt Pond E)
Attachments: NOI to Construct a Non-Jurisdictional Water Impoundment Structure_COMPILED.pdf

Brian,

I've got one more NOI for you. I suspect this one will no longer be required once the new policy outlined below takes effect, however, we are submitting to the County this week and are required to provide the notice to you/the DWR.

Thanks,

ALL TERRAIN ENGINEERING

RYAN BURNS
Co-Founder
E: rburns@allterraineng.com
P: 203.577.8656

From: McCormick - DNR, Brian <brian.c.mccormick@state.co.us>
Sent: Thursday, November 5, 2026 10:56 AM
To: Ryan Burns <rburns@allterraineng.com>
Cc: Kallie.Bauer@state.co.us; Jim.Kirch@state.co.us; Nicholas.Stafford@state.co.us; John Batka - DNR <john.batka@state.co.us>
Subject: Re: FW: Iron Ridge Filing No. 1 & 2 - Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure

Thanks Ryan - I'll work with the Division 1 Engineer to get these processed.

Brian McCormick, PE
Dam Safety Engineer

719.248.3876
4255 Sinton Road, Colorado Springs, CO 80907
brian.c.mccormick@state.co.us
https://dwr.colorado.gov/services/dam-safety

On Tue, Nov 3, 2026 at 2:52 PM Ryan Burns <rburns@allterraineng.com> wrote:

Thanks for the information Brian, I'll save this for future work!

We are hoping that our plans will be approved by El Paso County in the coming weeks, and therefore, I agree that to avoid confusion with the new policy and potential delays to our approval, it may be best to just process these as a "wet pond". I believe our correspondence today may suffice our requirements with El Paso County, as we normally just upload an email showing that your department has received and accepted the NOI, but will confirm and reach out if anything else is needed.

Thanks,

RYAN BURNS

Co-Founder

E: rburns@allterraineng.com

P: 203.577.8656

From: McCormick - DNR, Brian <brian.c.mccormick@state.co.us>
Sent: Tuesday, November 3, 2026 2:43 PM
To: Ryan Burns <rburns@allterraineng.com>
Cc: Kallie.Bauer@state.co.us; Jim.Kirch@state.co.us; Nicholas.Stafford@state.co.us; John Batka - DNR <john.batka@state.co.us>
Subject: Re: FW: Iron Ridge Filing No. 1 & 2 - Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure

Ryan,

Thanks for your patience with our processing of these NOIs. There are two major moving parts that have delayed formal response. First, staff changes delayed processing of these. On behalf of DWR, I apologize. As these dams fall in El Paso County, they're in my region, and I'll be the prime point of contact and will ensure that these don't get dropped again.

Second, we're working to streamline requirements for small, dry, flood control dams such as the two submitted for Iron Ridge. Basically, dry stormwater facilities under a certain size and meeting certain conditions will not require an NOI. Applicants are required to notice downstream properties, and demonstrate that water is not detained long enough to injure downstream water rights. There is a portal that can be used to meet this requirement. We have an administrative statement that is being revised to clearly address this topic. We are working to clarify the language in the administrative statement for when an NOI is not required. There are some nuances in the Arkansas River Basin which will affect you as your firm works in that basin as well.

While we are working to streamline and communicate these requirements, I want to determine what you need at this time. I recognize that El Paso County typically requires proof of NOI submission for ponds prior to development approval. As such we can process these NOIs as we would for a wet pond. Alternatively, we can give this a few weeks to work out and confirm that NOIs are not required per the administrative statement. As this may initially cause confusion with El Paso County, I'll give you the option of having these processed now. Please let me know.

I am available Thursday and Friday this week if a brief call to explain would be helpful. These changes are not yet completely clear in my mind so it is possible that something was lost in communicating this to you by email.

Administrative
statement: https://dnrweblink.state.co.us/dwr/ElectronicFile.aspx?docid=3576581&dbid=0
Portal: https://experience.arcgis.com/experience/f27741befbcb432d90f4b872c8ed4634

Brian McCormick, PE

Dam Safety Engineer

719.248.3876

4255 Sinton Road, Colorado Springs, CO 80907

brian.c.mccormick@state.co.us

https://dwr.colorado.gov/services/dam-safety

On Thu, Oct 29, 2026 at 11:45 AM Ryan Burns <rburns@allterraineng.com> wrote:

Hello,

I am just following up on the below request to ensure our notice/forms have been accepted/processed. It seems the people who they were originally forwarded to are not responsive or no longer with the DWR and I just want to make sure the documents found there way to the correct place/people.

Thanks,

RYAN BURNS

Co-Founder

E: rburns@allterraineng.com

P: 203.577.8656

From: erica.gutierrez@state.co.us <erica.gutierrez@state.co.us> **On Behalf Of** DWR - DNR, Permitsonline
Sent: Thursday, October 29, 2026 10:59 AM
To: Ryan Burns <rburns@allterraineng.com>
Cc: Cheryl Cabaruvias - DNR <cheryl.cabaruvias@state.co.us>; Crystal Kerby - DNR <crystal.kerby@state.co.us>
Subject: Re: Iron Ridge Filing No. 1 & 2 - Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure

Hello,

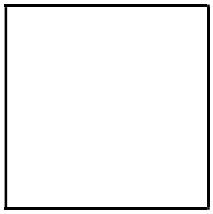
these forms were submitted to the Division 1 office for processing. Please follow up with Division 1 team as the processing happens in the Division office.

DWR forms are available via the eForms Dashboard.

Questions can be submitted through our DWR AskDWR Information Request**.**

Thank You,

The Records Team



P 303.866.3581x0
DWRPermitsOnline@state.co.us | dwr.colorado.gov/

On Wed, Oct 28, 2026 at 7:27 PM Ryan Burns <rburns@allterraineng.com> wrote:

Hello,

I am just following up on this to make sure we are good to go and that you all agree with the forms submitted. We are nearing County approval on this project.

Thanks,

RYAN BURNS

Co-Founder

E: rburns@allterraineng.com

P: 203.577.8656

From: melissa.schneider@state.co.us <melissa.schneider@state.co.us> **On Behalf Of** DWR - DNR, Permitsonline
Sent: Friday, September 11, 2026 12:53 PM
To: Ryan Burns <rburns@allterraineng.com>; Cheryl Cabaruvias - DNR <cheryl.cabaruvias@state.co.us>; Crystal Kerby - DNR <crystal.kerby@state.co.us>
Subject: Re: Iron Ridge Filing No. 1 & 2 - Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure

Thank you for your submission.

I have cc'd the Division 1 team as the processing happens in the Division office.

Cheryl and Crystal, can you take the processing from here? I also attached a location converter printout with the basic address search.

Thanks, Melissa

DWR forms are available via the eForms Dashboard.

Questions can be submitted through our DWR AskDWR Information Request**.**

Thank You,

The Records Team

P 303.866.3581x0
DWRPermitsOnline@state.co.us | dwr.colorado.gov/

On Thu, Sep 10, 2026 at 8:26 PM Ryan Burns <rburns@allterraineng.com> wrote:

Hello,

Please find the attached “Notice of Intent to Construct a Non-Jurisdictional Water Impoundment Structure”. Please note this subdivision will construct (2) ponds, so I have attached 2 separate forms.

Let me know if you have any comments, questions, or concerns.

RYAN BURNS

Co-Founder

E: rburns@allterraineng.com

P: 203.577.8656

COLORADO
Division of Water Resources
Department of Natural Resources
dwr.colorado.gov P 303.866.3581

NON-JURISDICTIONAL WATER IMPOUNDMENT STRUCTURE[1]

This notice is required per Section 37-87-125, C.R.S. (1998) and
must be submitted to the Division Engineer's Office a minimum of 45 days prior to construction.

OWNER INFORMATION

Name: JIM MORLEY Telephone/E-Mail: (719) 491-3024 / jmorley.morleycos@gmail.com

Address: 20 BOULDER CRESECENT ST, SUITE 200 COLORADO SPRINGS CO 80903
Street / P.O. Box/ Rural Route | City | State | Zip Code

Responsible Person: JIM MORLEY - SEE ABOVE Telephone/E-Mail: (____)_____/_____

Address: _____
Street / P.O. Box/ Rural Route | City | State | Zip Code

Contractor: TBD Telephone/E-Mail: (____)_____/_____

STRUCTURE INFORMATION

Name of Dam: SCHMIDT - POND E Water Division: N/A Water District: N/A

Location: *(Provide Section, Township, Range, **and** GPS Point taken at crest of dam above streamline/outlet)*

- Section: 32, Township: 12S, Range: 65W, 6th P.M.

- Northing 38°57'18.23"N meters, Easting 104°41'30.14"W meters (*Datum should be UTM, NAD 83)*

Dam Dimensions:

- Vertical Height[2]: 8.9 ft., Length: 500 ft., Crest Width: 10 ft., Slopes: U/S: 4:1 (H:1V), D/S 4:1 (H:1V)

Reservoir:

- Surface Area[1]: 1.58 acres, Capacity[1]: 6.68 acre-feet, Drainage Area*: 34 acres
**(If drainage area is unknown leave blank and a spillway size will be assigned):*

Emergency Spillway: *(See Table 1, Spillway Sizing Guidelines)*

- Bottom Width: 30 ft., Side Slopes: 4:1 H:1V, Freeboard[3]: 1.5 ft

Outlet Conduit Type: RCP, Size: 30" inches, Location: WESTERN EMBANKMENT

Stream Name or Water Source[4]: SAND CREEK Proposed Water Use: STORM WATER

Water Court Case ***or*** WDID : _____
(Water District Identification Number)

4/27/2026
Signature of Owner Date

Office Use Only

DIVISION ENGINEER'S REQUIREMENTS: _____

_____

_____

Dam I.D. _____ Signature of Division Engineer Date

[1] A "Non-Jurisdictional Structure" is a dam creating a reservoir with a capacity of 100 acre-feet or less *and* a surface area of 20 acres or less *and* a vertical height (footnote 2) of 10 feet or less. Non-jurisdictional size dams are regulated and subject to the authority of the State Engineer consistent with sections 37-87-102 and 37-87-105 C.R.S.

[2] "Vertical Height" is measured from the elevation of the lowest point of the natural surface of the ground or the invert of the outlet conduit (whichever is lower) where that point occurs along the longitudinal centerline of the dam up to the crest of the emergency spillway of the dam.

[3] "Freeboard" is the vertical distance from the bottom of spillway to the crest of the dam. Minimum Freeboard is 3 feet.

[4] If construction in reservoir intercepts groundwater, a well permit is required. (Well permit applications can be found at dwr.colorado.gov)

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Division of Water Resources
Department of Natural Resources

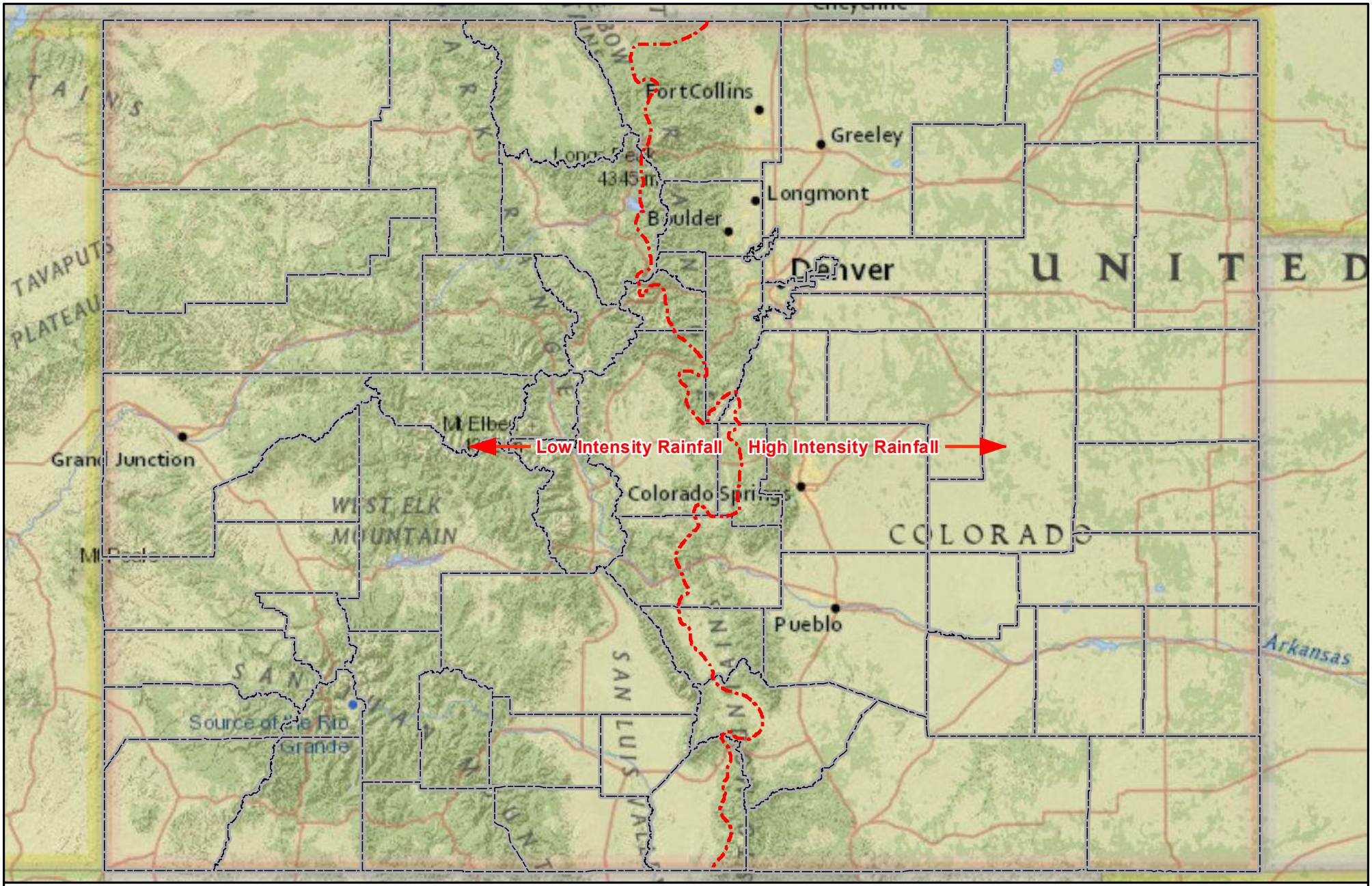
Table 1 DAM SAFETY BRANCH Spillway Sizing Guidelines for Non-Jurisdictional Dams

Drainage Area (Acres)	Minimum Recommended Bottom Width[1] (Feet) Low Intensity Rainfall Zone	Minimum Recommended Bottom Width[1] (Feet) High Intensity Rainfall Zone
175	8	8
225	8	10
275	8	12
325	8	15
375	10	17
425	11	19
475	12	21
525	13	24
575	15	26
625	16	28
675	17	30
725	19	33
775	20	35
825	21	37
875	22	39
925	24	42
975	25	44
1025	26	46
1075	28	48
1125	29	51
1175	30	53
1225	31	55
1275	33	57
1325	34	59
1375	35	62
1425	37	64
1475	38	66

[1]Minimum recommended bottom width for drainage areas less than 175 acres is 8 feet



Spillway Section



COLORADO
Division of Water Resources
Department of Natural Resources

Rainfall Intensity Zones for Non-Jurisdictional Dam Spillway Sizing

COLORADO
Division of Water Resources
Department of Natural Resources

DAM SAFETY BRANCH Specifications for Construction of Non-Jurisdictional Dams

- Site Selection:
  - Foundation soils should be firm to provide adequate support for the embankment and should have low permeability to allow for water retention. Site selection should consider potential downstream property damage in the event of a dam failure. Construction of dams in boggy areas, areas with non-uniform fractured rock, or sands/gravels is not recommended and an engineer should be hired to evaluate the site conditions. Any part of the reservoir basin excavated below grade cannot expose groundwater.

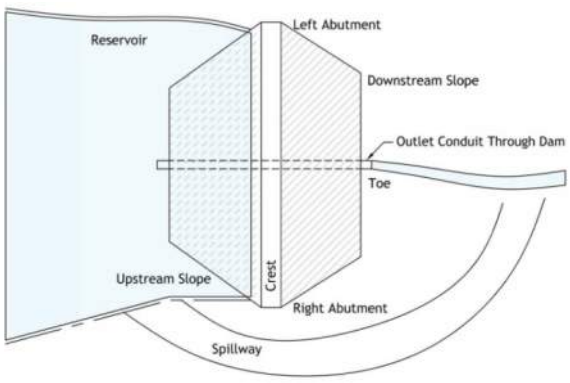
- Embankment Design:
  - Backfill material to be used for construction of the cutoff trench and embankment should be a suitable clay material and contain no material larger than 6 inches in diameter.
  - The upstream slope should be constructed with a slope no steeper than 3:1, and the downstream slope should be no steeper than 2:1 (see cross section below). The dam crest should have a minimum width of 10 feet and the surface should be graded with positive drainage toward the reservoir basin.
  - It is recommended that rock rip rap or other suitable material be placed on the upstream slope of the embankment to protect it from wave action. A suitable gravel or geosynthetic material should be placed under the rip rap to prevent fine material from washing out from behind the larger rock.
  - The embankment should be fenced to restrict livestock from accessing the dam since they damage the protective vegetation and increase erosion.

- Embankment Construction
  - The topsoil and all organic material should be removed from the foundation of the proposed dam site. Organic soil should only be reused for placement on the completed embankment to promote the re-growth of vegetation.
  - A cutoff trench should be excavated under the full length of the centerline of the dam with sloping sides (1:1 min.), a minimum bottom width of 3 feet and a depth of 3 feet.
  - The foundation of the dam should be scarified/ripped to a depth of 6-inches to provide proper contact between the native foundation and embankment. This surface should then be moisture treated before placement of fill.
  - Fill material should be placed in layers not exceeding 12 inches in thickness prior to compaction. Suitable backfill material should have enough clay and moisture content to roll a small ball by hand. If this cannot be done, the soil is likely too dry or does not have adequate clay content.
  - Each lift should be thoroughly compacted using a sheeps foot compactor. Care should be taken not to allow the top layers of the soil to dry out between placement of lifts.
  - Fill should be placed in uniform lifts that cover the entire embankment length and width.

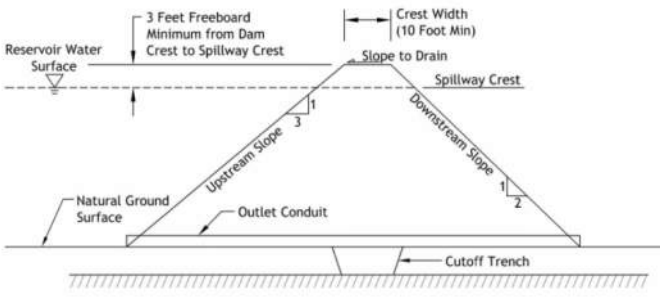
- Outlet
  - Unless a waiver is granted in writing by the Division Engineer, all non-jurisdictional dams require an outlet conduit positioned at the natural low point of the reservoir basin. A minimum diameter of 12 inches is recommended and should be controlled at the upstream end by a valve and trash rack.

- Emergency Spillway
  - The spillway should have sufficient width to provide capacity to route the runoff from the drainage basin above the dam during rainfall/runoff events.
  - The emergency spillway should be located on natural ground far enough away to prevent erosion of the dam embankment. A spillway over the dam embankment is not acceptable.
  - A minimum of 3 feet of freeboard is required from the bottom of the emergency spillway to the top of the dam.
  - To determine the minimum spillway width, see the attached table for your area and drainage basin size.

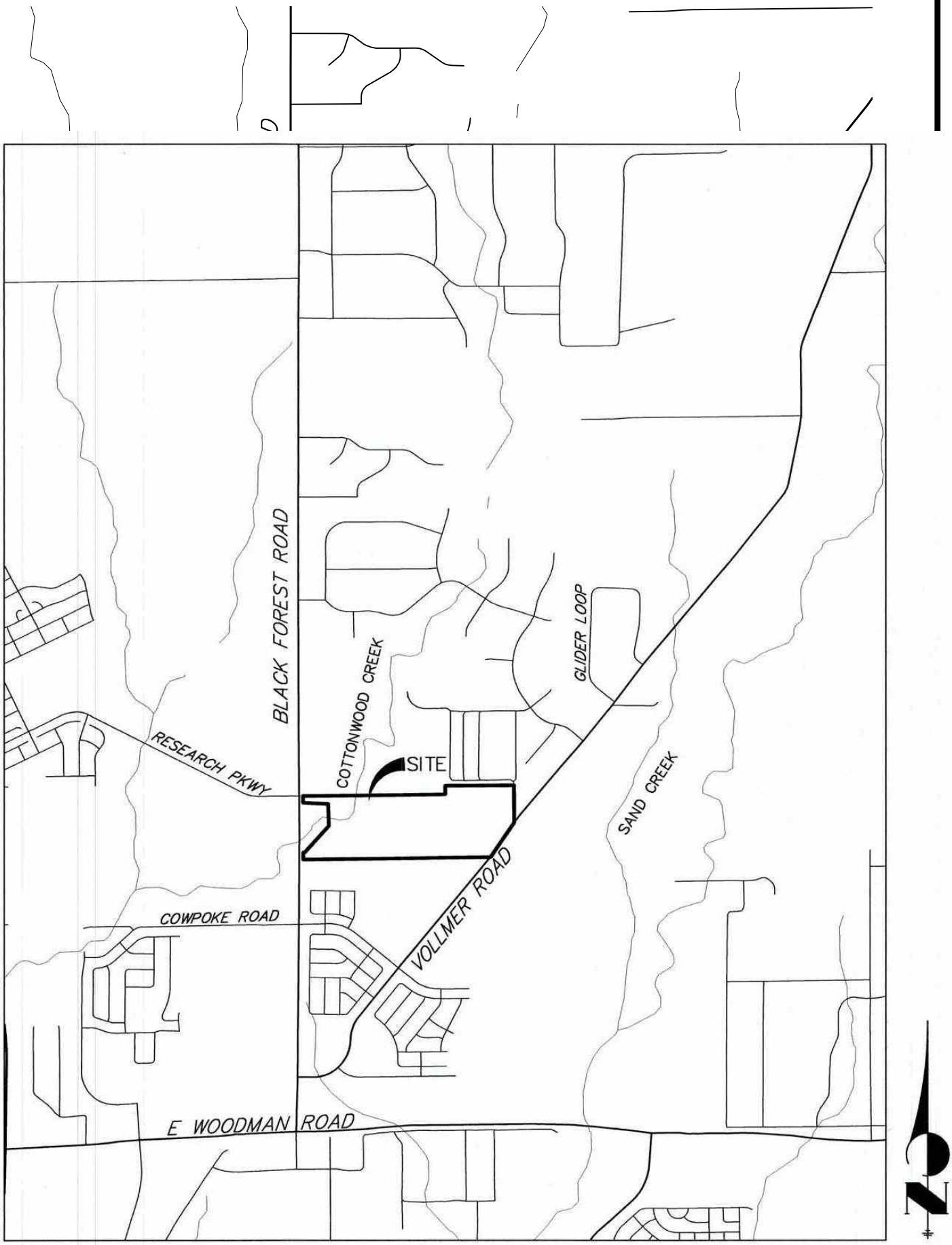
- Example Plan View and Cross Section



Plan View



Cross Section Through Dam at Outlet



VICINITY MAP

SCALE: 1"=2000'

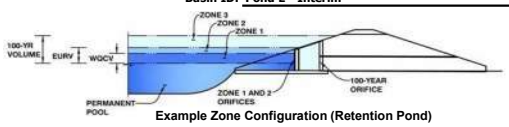
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DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.06 (July 2022)

Project: Schmidt CDRs

Basin ID: Pond E - Interim



Example Zone Configuration (Retention Pond)

Watershed Information

Selected BMP Type =	EDB	
Watershed Area =	33.56	acres
Watershed Length =	1,400	ft
Watershed Length to Centroid =	600	ft
Watershed Slope =	0.022	ft/ft
Watershed Imperviousness =	10.10%	percent
Percentage Hydrologic Soil Group A =	100.0%	percent
Percentage Hydrologic Soil Group B =	0.0%	percent
Percentage Hydrologic Soil Groups C/D =	0.0%	percent
Target WQCV Drain Time =	40.0	hours
Location for 1-hr Rainfall Depths =	User Input	

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

			Optional User Overrides	
Water Quality Capture Volume (WQCV) =	0.189	acre-feet		acre-feet
Excess Urban Runoff Volume (EURV) =	0.250	acre-feet		acre-feet
2-yr Runoff Volume (P1 = 1.19 in.) =	0.123	acre-feet	1.19	inches
5-yr Runoff Volume (P1 = 1.5 in.) =	0.209	acre-feet	1.50	inches
10-yr Runoff Volume (P1 = 1.75 in.) =	0.281	acre-feet	1.75	inches
25-yr Runoff Volume (P1 = 2 in.) =	0.733	acre-feet	2.00	inches
50-yr Runoff Volume (P1 = 2.25 in.) =	1.188	acre-feet	2.25	inches
100-yr Runoff Volume (P1 = 2.52 in.) =	1.828	acre-feet	2.52	inches
500-yr Runoff Volume (P1 = 3.14 in.) =	3.238	acre-feet		inches
Approximate 2-yr Detention Volume =	0.150	acre-feet		
Approximate 5-yr Detention Volume =	0.205	acre-feet		
Approximate 10-yr Detention Volume =	0.270	acre-feet		
Approximate 25-yr Detention Volume =	0.366	acre-feet		
Approximate 50-yr Detention Volume =	0.491	acre-feet		
Approximate 100-yr Detention Volume =	0.796	acre-feet		

Define Zones and Basin Geometry

Zone 1 Volume (WQCV) =	0.189	acre-feet
Zone 2 Volume (EURV - Zone 1) =	0.061	acre-feet
Zone 3 Volume (100-year - Zones 1 & 2) =	0.546	acre-feet
Total Detention Basin Volume =	0.796	acre-feet
Initial Surcharge Volume (ISV) =	user	ft^3
Initial Surcharge Depth (ISD) =	user	ft
Total Available Detention Depth (H_{total}) =	user	ft
Depth of Trickle Channel (H_{TC}) =	user	ft
Slope of Trickle Channel (S_{TC}) =	user	ft/ft
Slopes of Main Basin Sides (S_{main}) =	user	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	user	
Initial Surcharge Area (A_{ISV}) =	user	ft^2
Surcharge Volume Length (L_{ISV}) =	user	ft
Surcharge Volume Width (W_{ISV}) =	user	ft
Depth of Basin Floor (H_{FLOOR}) =	user	ft
Length of Basin Floor (L_{FLOOR}) =	user	ft
Width of Basin Floor (W_{FLOOR}) =	user	ft
Area of Basin Floor (A_{FLOOR}) =	user	ft^2
Volume of Basin Floor (V_{FLOOR}) =	user	ft^3
Depth of Main Basin (H_{MAIN}) =	user	ft
Length of Main Basin (L_{MAIN}) =	user	ft
Width of Main Basin (W_{MAIN}) =	user	ft
Area of Main Basin (A_{MAIN}) =	user	ft^2
Volume of Main Basin (V_{MAIN}) =	user	ft^3
Calculated Total Basin Volume (V_{total}) =	**user**	acre-feet

Depth Increment = ft

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Top of Micropool	--	0.00	--	--	--	10	0.000		
6995	--	0.40	--	--	--	61	0.001	14	0.000
6996	--	1.40	--	--	--	2,633	0.060	1,361	0.031
6997	--	2.40	--	--	--	16,290	0.374	10,823	0.248
6998	--	3.40	--	--	--	38,266	0.878	38,100	0.875
6999	--	4.40	--	--	--	48,963	1.124	81,715	1.876
7000	--	5.40	--	--	--	56,521	1.298	134,457	3.087
7001	--	6.40	--	--	--	61,281	1.407	193,358	4.439
7002	--	7.40	--	--	--	66,302	1.522	257,149	5.903
7002.5	--	7.90	--	--	--	68,867	1.581	290,942	6.679
7003	--	8.50	--	--	--	71,303	1.637	332,993	7.644
7004	--	9.50	--	--	--	76,557	1.758	406,923	9.342
7004.5	--	10.00	--	--	--	79,051	1.815	445,825	10.235

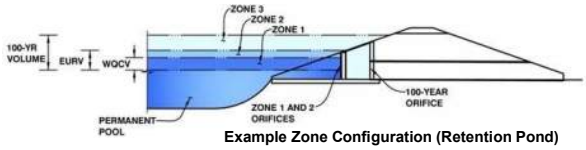
6994.6 Spillway

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.06 (July 2022)

Project: **Schmidt CDRs**

Basin ID: **Pond E - Interim**



Example Zone Configuration (Retention Pond)

	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	2.23	0.189	Orifice Plate
Zone 2 (EURV)	2.41	0.061	Orifice Plate
Zone 3 (100-year)	3.31	0.546	Rectangular Orifice
Total (all zones)		0.796	

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

Underdrain Orifice Invert Depth =	N/A	ft (distance below the filtration media surface)	Underdrain Orifice Area =	N/A	ft^2
Underdrain Orifice Diameter =	N/A	inches	Underdrain Orifice Centroid =	N/A	feet

Calculated Parameters for Underdrain

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 =	0.00	ft (relative to basin bottom at Stage = 0 ft)	WQ Orifice Area per Row =	N/A	ft^2
Depth at top of Zone using Orifice Plate =	2.39	ft (relative to basin bottom at Stage = 0 ft)	Elliptical Half-Width =	N/A	feet
Orifice Plate: Orifice Vertical Spacing =	N/A	inches	Elliptical Slot Centroid =	N/A	feet
Orifice Plate: Orifice Area per Row =	N/A	sq. inches	Elliptical Slot Area =	N/A	ft^2

Calculated Parameters for Plate

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	1.25						
Orifice Area (sq. inches)	0.79	1.23						

	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)

	Zone 3 Rectangular	Not Selected		Zone 3 Rectangular	Not Selected	
Invert of Vertical Orifice =	2.45	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Area =	3.00	N/A	ft^2
Depth at top of Zone using Vertical Orifice =	3.31	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Centroid =	0.75	N/A	feet
Vertical Orifice Height =	18.00	N/A	inches				
Vertical Orifice Width =	24.00		inches				

Calculated Parameters for Vertical Orifice

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

	Not Selected	Not Selected			Not Selected	Not Selected	
Overflow Weir Front Edge Height, Ho =	5.50	N/A	ft (relative to basin bottom at Stage = 0 ft)	Height of Grate Upper Edge, H_t =	5.50	N/A	feet
Overflow Weir Front Edge Length =	4.00	N/A	feet	Overflow Weir Slope Length =	7.00	N/A	feet
Overflow Weir Grate Slope =	0.00	N/A	H:V	Grate Open Area / 100-yr Orifice Area =	3.97	N/A	
Horiz. Length of Weir Sides =	7.00	N/A	feet	Overflow Grate Open Area w/o Debris =	19.49	N/A	ft^2
Overflow Grate Type =	Type C Grate	N/A		Overflow Grate Open Area w/ Debris =	9.74	N/A	ft^2
Debris Clogging % =	50%	N/A	%				

Calculated Parameters for Overflow Weir

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

	Not Selected	Not Selected			Not Selected	Not Selected	
Depth to Invert of Outlet Pipe =	1.00	N/A	ft (distance below basin bottom at Stage = 0 ft)	Outlet Orifice Area =	4.91	N/A	ft^2
Circular Orifice Diameter =	30.00	N/A	inches	Outlet Orifice Centroid =	1.25	N/A	feet
				Half-Central Angle of Restrictor Plate on Pipe =	N/A	N/A	radians

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage=	7.90	ft (relative to basin bottom at Stage = 0 ft)	Spillway Design Flow Depth=	0.46	feet
Spillway Crest Length =	30.00	feet	Stage at Top of Freeboard =	9.36	feet
Spillway End Slopes =	4.00	H:V	Basin Area at Top of Freeboard =	1.74	acres
Freeboard above Max Water Surface =	1.00	feet	Basin Volume at Top of Freeboard =	9.10	acre-ft

Calculated Parameters for Spillway

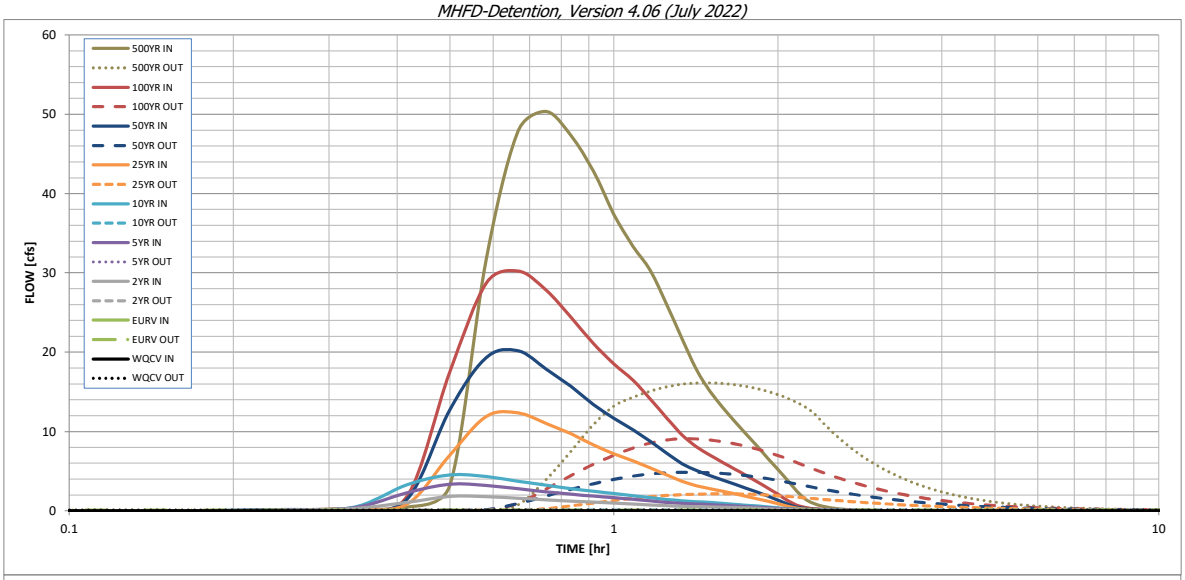
Routed Hydrograph Results

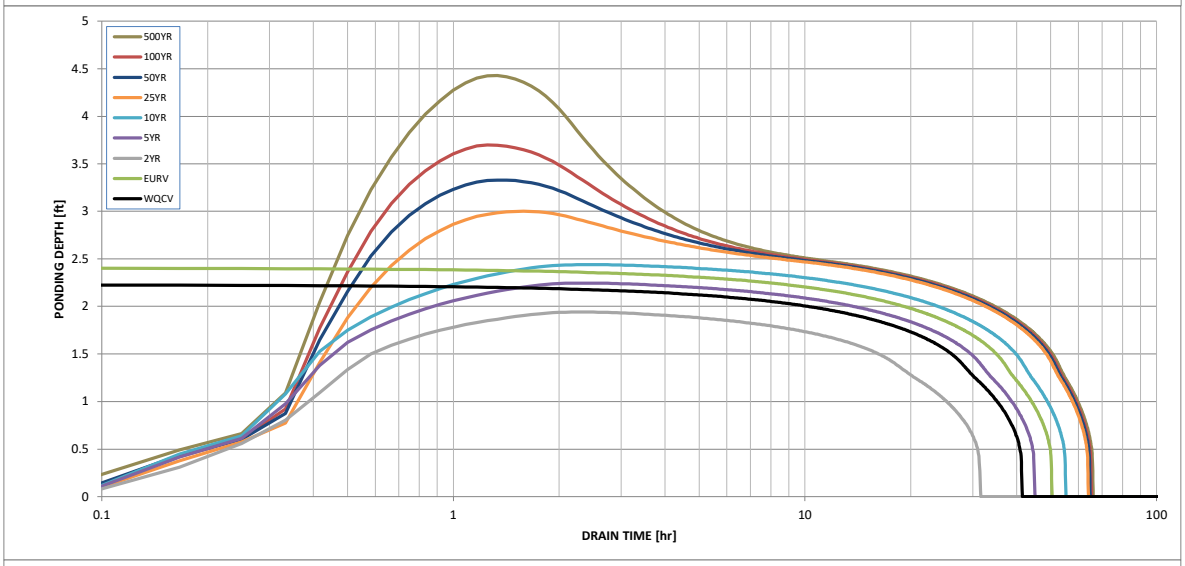
The user can override the default CUHP hydrographs and runoff volumes by entering new values in the Inflow Hydrographs table (Columns W through AF).

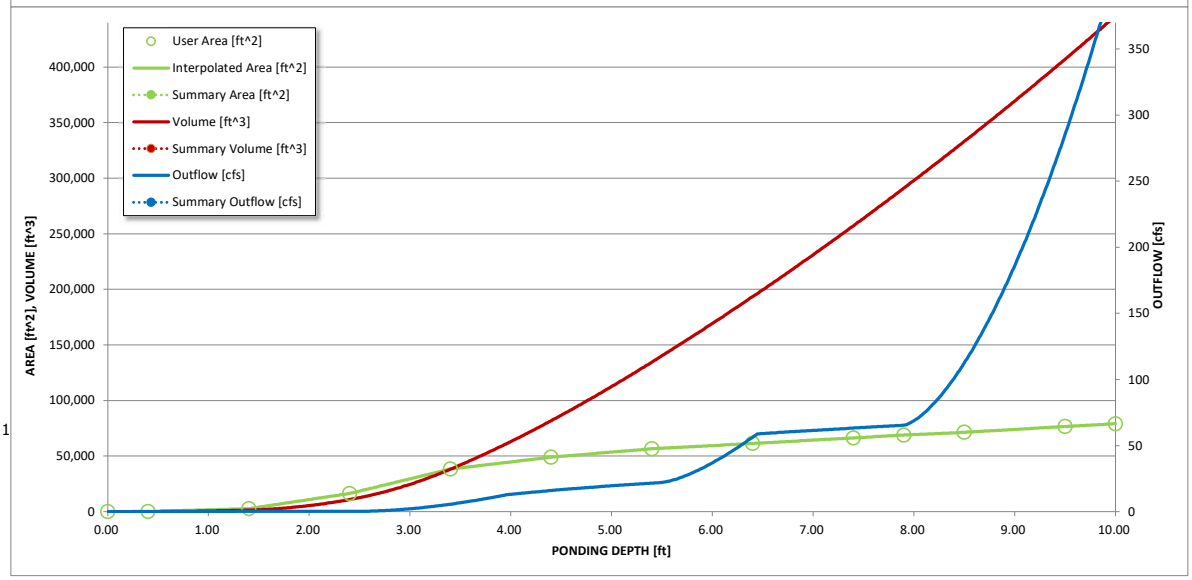
Design Storm Return Period =	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	500 Year
One-Hour Rainfall Depth (in) =	N/A	N/A	1.19	1.50	1.75	2.00	2.25	2.52	3.14
CUHP Runoff Volume (acre-ft) =	0.189	0.250	0.123	0.209	0.281	0.733	1.188	1.828	3.238
Inflow Hydrograph Volume (acre-ft) =	N/A	N/A	0.123	0.209	0.281	0.733	1.188	1.828	3.238
CUHP Predevelopment Peak Q (cfs) =	N/A	N/A	0.3	0.6	0.9	7.8	15.5	25.5	45.3
OPTIONAL Override Predevelopment Peak Q (cfs) =	N/A	N/A							
Predevelopment Unit Peak Flow, q (cfs/acre) =	N/A	N/A	0.01	0.02	0.03	0.23	0.46	0.76	1.35
Peak Inflow Q (cfs) =	N/A	N/A	1.8	3.3	4.5	12.3	20.2	30.2	50.4
Peak Outflow Q (cfs) =	0.1	0.1	0.1	0.1	0.1	2.1	4.9	9.1	16.1
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	0.1	0.1	0.3	0.3	0.4	0.4
Structure Controlling Flow =	Plate	Plate	Plate	Plate	Plate	Vertical Orifice 1	Vertical Orifice 1	Vertical Orifice 1	Vertical Orifice
Max Velocity through Grate 1 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max Velocity through Grate 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) =	38	46	29	41	51	53	50	47	39
Time to Drain 99% of Inflow Volume (hours) =	**40**	49	31	44	54	60	59	56	52
Maximum Ponding Depth (ft) =	2.23	2.41	1.94	2.25	2.44	3.00	3.33	3.70	4.43
Area at Maximum Ponding Depth (acres) =	0.32	0.38	0.23	0.32	0.39	0.68	0.84	0.95	1.13
Maximum Volume Stored (acre-ft) =	0.189	0.252	0.110	0.193	0.264	0.564	0.806	1.140	1.898

DETENTION BASIN OUTLET STRUCTURE DESIGN

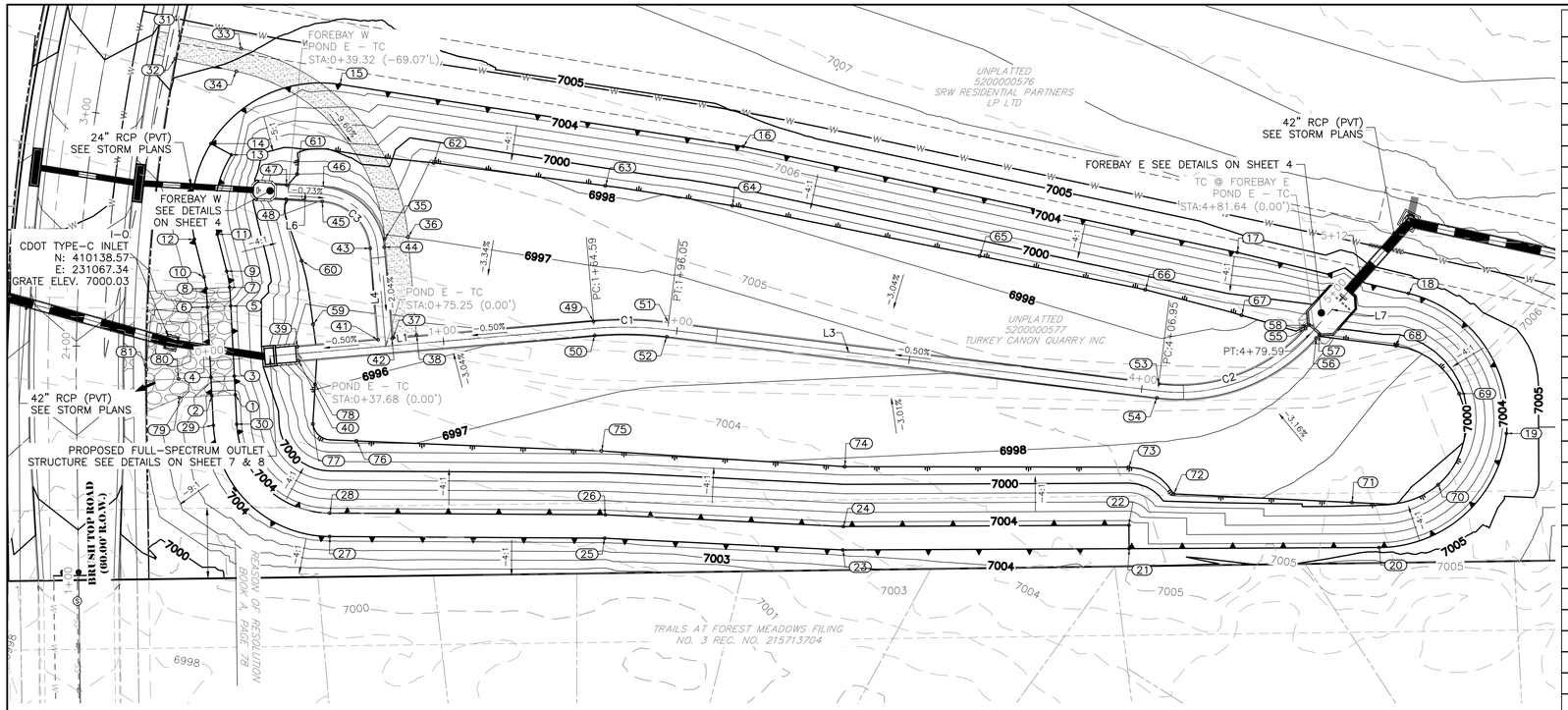
MHFD-Detention, Version 4.06 (July 2022)



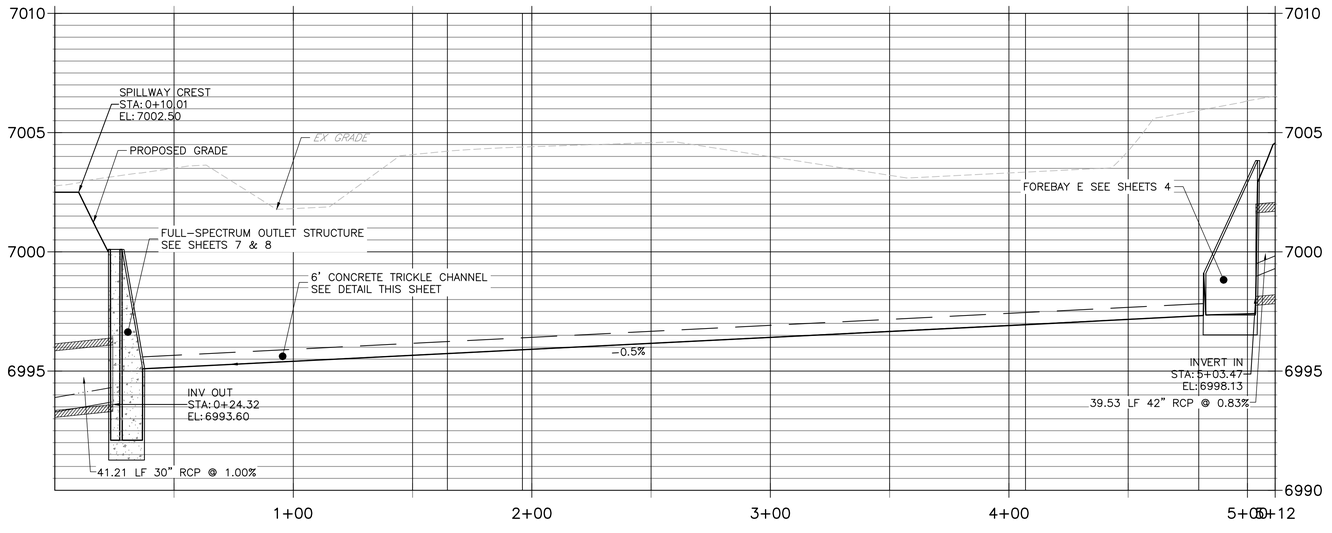




S-A-V-D Chart Axis Override	X-axis	Left Y-Axis	Right Y-Axis
minimum bound			
maximum bound			

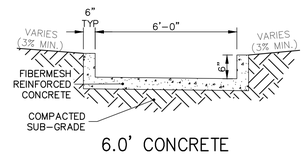


POND E - TC
STA 0+00.00 TO 5+11.64



Structure Table				
#	DESC.	NORTHING	EASTING	ELEVATION
1	SPILLWAY TOP	410116.3	231094.60	7004.50
2	SPILLWAY TOP	410115.8	231084.61	7004.50
3	SPILLWAY CREST	410124.3	231094.19	7002.50
4	SPILLWAY CREST	410123.8	231084.21	7002.50
5	SPILLWAY CREST	410154.3	231092.68	7002.50
6	SPILLWAY CREST	410153.8	231082.69	7002.50
7	SPILLWAY	410162.3	231092.18	7004.50
8	SPILLWAY	410161.8	231082.17	7004.50
9	TOP BERM	410169.1	231090.93	7004.50
10	TOP BERM	410166.7	231081.24	7004.50
11	TOP BERM	410184.9	231086.90	7004.50
12	TOP BERM	410182.8	231077.16	7004.50
13	TOP BERM	410218.8	231093.00	7004.50
14	TOP BERM	410223.6	231084.18	7004.50
15	TOP POND	410248.9	231139.24	7004.51
16	TOP POND	410222.4	231311.47	7004.50
17	TOP POND	410177.1	231522.46	7004.50
18	TOP POND	410159.6	231595.55	7004.50
19	SPILLWAY	410099.8	231637.39	7004.50
20	TOP POND	410051.2	231583.01	7004.50
21	TOP BERM	410050.7	231476.23	7004.50
22	TOP BERM	410060.7	231476.19	7004.50
23	TOP BERM	410050.1	231354.03	7004.50
24	TOP BERM	410060.1	231354.25	7004.50
25	TOP BERM	410055.1	231252.35	7004.50
26	TOP BERM	410065.1	231252.63	7004.50
27	TOP BERM	410055.8	231134.88	7004.50
28	TOP BERM	410065.8	231134.94	7004.50
29	TOP BERM	410103.3	231085.24	7004.50
30	TOP BERM	410103.8	231095.23	7004.50
31	MAINT. ROAD @ SW	410269.7	231070.95	7005.61
32	MAINT. ROAD @ SW	410259.9	231068.98	7005.35
33	MAINT. ROAD PC	410264.3	231097.07	7005.08
34	MAINT. ROAD PC	410254.5	231095.03	7004.88
35	MAINT. ROAD PT	410183.0	231158.43	6996.82
36	MAINT. ROAD PT	410183.8	231168.39	6997.02
37	MAINT. ROAD @ TC	410140.9	231162.03	6995.80
38	MAINT. ROAD @ TC	410141.8	231171.98	6995.85
39	BEGIN T.C. FL	410136.9	231121.15	6995.10
40	BEGIN T.C. FL	410130.9	231121.66	6995.10
41	T.C. FL PI	410139.8	231155.59	6995.27

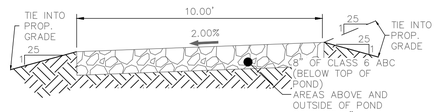
Structure Table				
#	DESC.	NORTHING	EASTING	ELEVATION
42	T.C. FL PI	410140.4	231161.57	6995.30
43	T.C. FL PC	410178.9	231152.25	6996.09
44	T.C. FL PC	410179.4	231158.23	6996.09
45	T.C. FL PT	410199.0	231131.67	6996.49
46	T.C. FL PT	410205.0	231132.03	6996.49
47	END T.C. FL	410205.9	231116.68	6996.60
48	END T.C. FL	410199.9	231116.31	6996.60
49	T.C. FL PC	410147.7	231247.60	6995.73
50	T.C. FL PC	410141.7	231248.11	6995.73
51	T.C. FL PT	410147.1	231279.61	6995.89
52	T.C. FL PT	410141.1	231278.87	6995.89
53	T.C. FL PC	410121.0	231488.90	6996.94
54	T.C. FL PC	410115.0	231488.15	6996.94
55	T.C. FL PT	410144.6	231551.64	6997.32
56	T.C. FL PT	410140.6	231556.12	6997.32
57	END T.C. FL	410142.0	231557.42	6997.33
58	END T.C. FL	410146.0	231552.93	6997.33
59	TOE SLOPE	410146.5	231127.83	6995.82
60	TOE SLOPE	410173.6	231122.91	6996.46
61	TOE SLOPE	410210.6	231121.03	6997.99
62	TOE SLOPE	410215.4	231179.34	6997.75
63	TOE SLOPE	410205.6	231252.62	6998.16
64	TOE SLOPE	410197.1	231306.82	6998.07
65	TOE SLOPE	410175.6	231412.44	6998.36
66	TOE SLOPE	410161.2	231483.17	6998.55
67	TOE SLOPE	410150.3	231524.23	6998.08
68	TOE SLOPE	410137.2	231590.19	6998.74
69	TOE SLOPE	410116.8	231617.20	6999.54
70	TOE SLOPE	410077.9	231608.21	7000.23
71	TOE SLOPE	410070.4	231571.41	6999.63
72	TOE SLOPE	410074.0	231495.24	6998.68
73	TOE SLOPE	410085.5	231476.07	6998.30
74	TOE SLOPE	410085.7	231354.83	6998.11
75	TOE SLOPE	410092.4	231250.96	6997.70
76	TOE SLOPE	410096.6	231146.35	6996.78
77	TOE SLOPE	410103.9	231127.72	6996.43
78	TOE SLOPE	410120.8	231128.73	6995.94
79	RIPRAP	410115.1	231070.83	7001.78
80	RIPRAP	410123.1	231070.43	7001.78
81	RIPRAP	410127.1	231056.72	7001.78



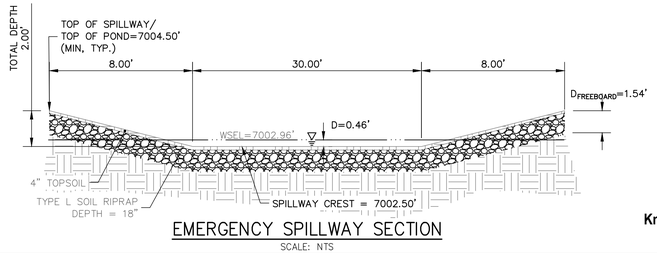
6.0' CONCRETE TRICKLE CHANNEL
SCALE: NTS

LINE TABLE		
LINE	BEARING	DISTANCE
L4	N4°53'40.71"W	42.19
L6	N86°31'03.49"W	14.73
L1	N85°06'19.29"E	164.59
L3	S82°52'51.16"E	210.91
L7	N41°37'35.21"E	32.05

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C3	35.61	25.00	81.62
C1	31.45	150.00	12.01
C2	72.64	75.00	55.49



10' ACCESS ROAD TYPICAL SECTION
N.T.S.



EMERGENCY SPILLWAY SECTION
SCALE: NTS

30 15 0 30 60
ORIGINAL SCALE: 1" = 30'

POND GRADING NOTES:

1. POND WARNING SIGNS TO BE INSTALLED AT LOCATIONS IDENTIFIED ABOVE. POND WARNING SIGNS SHALL BE 3 SQ. FT. AND SHALL READ:

WARNING
THIS AREA IS A STORMWATER FACILITY
AND IS SUBJECT TO PERIODIC FLOODING

THE LOCATIONS OF EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND UTILITIES.

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

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF ALL TERRAIN ENGINEERING

RYAN E. BURNS, P.E.
COLORADO P.E. 54412
FOR AND ON BEHALF OF ALL TERRAIN ENGINEERING LLC

DATE

ALL TERRAIN ENGINEERING

RYAN E. BURNS, P.E.
555 PARK STREET, SUITE 3 - BOULDER, CO 80302
PHONE: 303.327.8668 - EMAIL: RYAN@ALLTERRAINENG.COM

PREPARED FOR:
TURKEY CANON QUARRY INC.
20 BOULDER CRESCENT STREET, SUITE 100
COLORADO SPRINGS, CO 80903
ATTN: JIM MORLEY
(719) 491-3024
JMORLEY73870@AOL.COM

UNTIL SUCH TIME AS THESE DRAWIGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, ALL TERRAIN ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

REV	DESCRIPTION	DATE

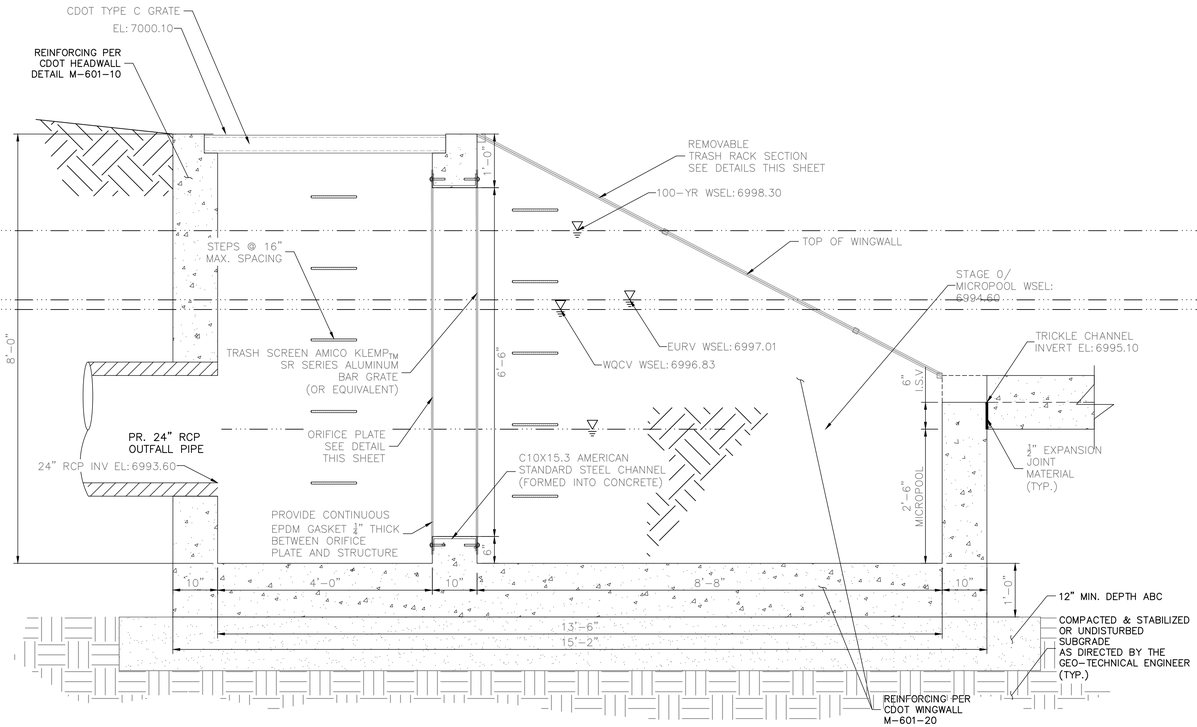
JOB NO: 24013
LOCATION: EPC

MARKSHEFFEL ROAD - SEGMENT 3 CD

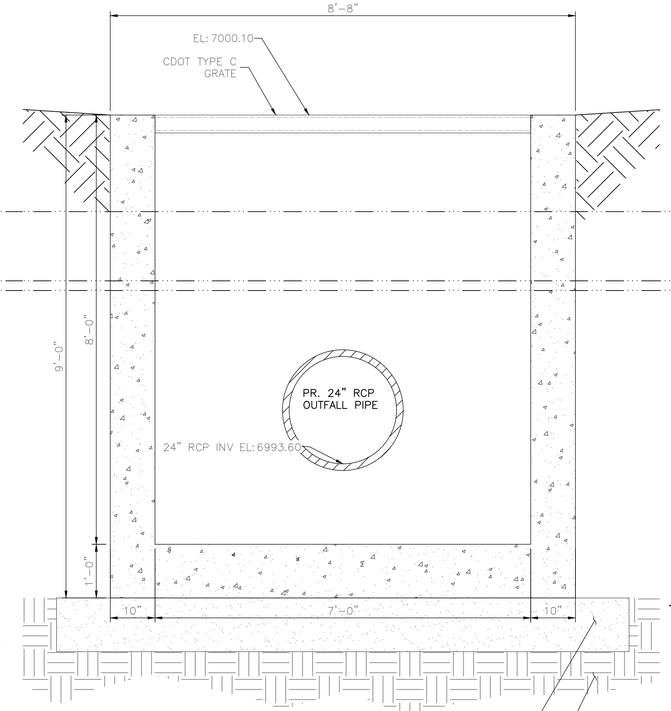
POND GRADING

DESIGN: REB
REVIEW: NQJ
DATE: 10/29/2026
H-SCALE: 1" = 20'
V-SCALE: NA

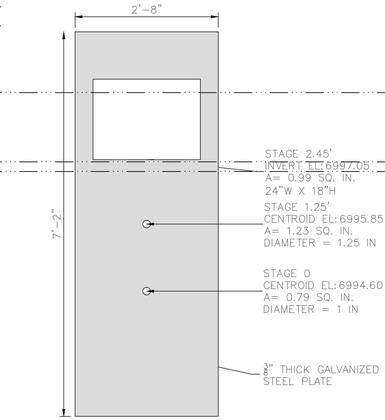
SHEET
3 OF 8



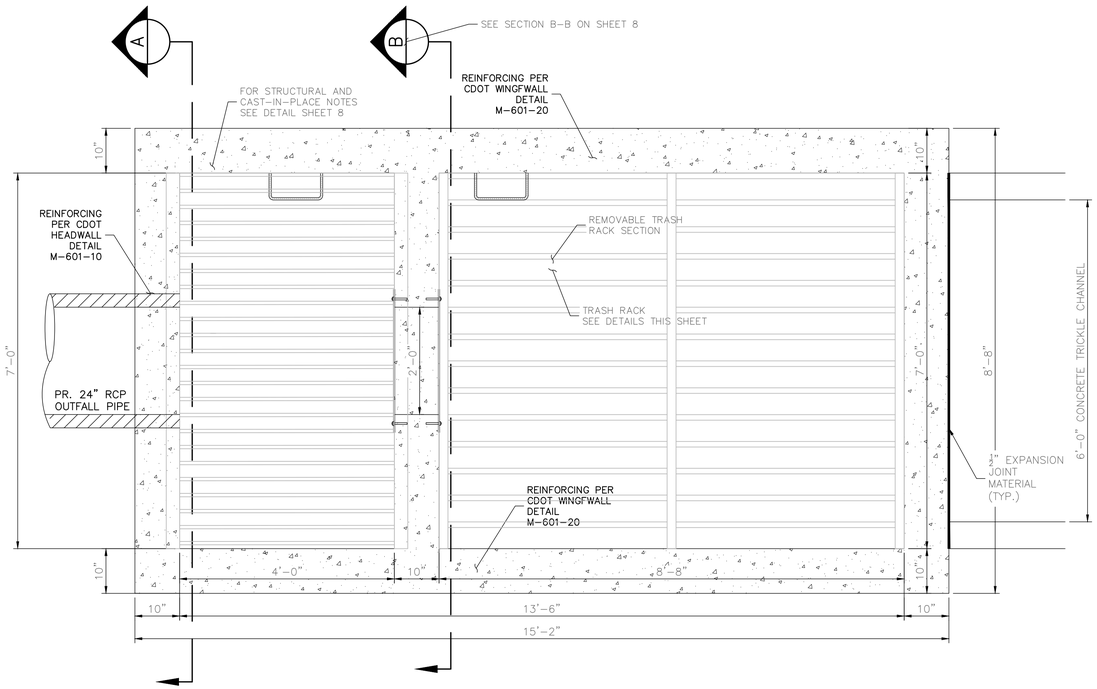
POND
OUTLET STRUCTURE PROFILE
SCALE: 3/4"=1'



A A-A SECTION
SCALE: 3/4"=1'



ORIFICE PLATE DETAIL
SCALE: 3/4"=1'



POND
OUTLET STRUCTURE PLAN
SCALE: 3/4"=1'

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF ALL TERRAIN ENGINEERING

RYAN E. BURNS, P.E.
COLORADO P.E. 54412
FOR AND ON BEHALF OF ALL TERRAIN ENGINEERING LLC

DATE

ALL TERRAIN ENGINEERING

RYAN E. BURNS, P.E.
970.927.8668 - RBURNS@ALLTERRAINENG.COM

NICHOLAS Q. JOVICEVIC, P.E.
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PREPARED FOR:
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COLORADO SPRINGS, CO 80903
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JOB NO: 24013 LOCATION: EPC

REV	DESCRIPTION	DATE

MARKSHEFFEL ROAD - SEGMENT 3 CD

OUTLET STRUCTURE DETAILS

DESIGN: REB
REVIEW: NQJ
DATE: 10/29/2026
H-SCALE: 3/4" = 1'
V-SCALE: 3/4" = 1'

SHEET
7 OF 8

GENERAL STRUCTURE NOTES:

ALL WORK SHALL BE DONE IN ACCORDANCE WITH CITY OR COUNTY STANDARD CONSTRUCTION SPECIFICATIONS.
EXCEPT AS SHOWN IN THE PLANS, STRUCTURE EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH CDOT M-206-1, AND M-206-2 EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M-213

THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO A 1-800-922-1987 AT LEAST 2 DAYS (NOT INCLUDING THE DAY OF NOTIFICATION) PRIOR TO ANY EXCAVATION OF OTHER.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGNING AND PROVIDING ALL BRACING AND SHORING AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE EXCAVATION PROCEDURES INCLUDING ANY SHORING REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL METHODS AND MEANS OF CONSTRUCTION AS WELL AS ALL JOB SITE SAFETY & HEALTH PRECAUTIONS.

ALL SOILS WORK INCLUDING (BUT NOT LIMITED TO) PIER DRILLING AND CONSTRUCTION, SOILS EXCAVATION, FILL PLACEMENT, AND STRUCTURE BACKFILL SHALL BE IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT, UNLESS MORE STRINGENT REQUIREMENTS ARE PRINTED ON THE "IRRIGATION NOTES".

BACKFILL SHALL NOT BEGIN UNTIL CONCRETE WALLS REACH COMPRESSION STRENGTH AT LEAST 80 PERCENT OF THE REQUIRED 28 DAY STRENGTH, 0.8fc'.

REINFORCED CONCRETE:
CLASS D CONCRETE: fc'=4,500 psi
REINFORCING STEEL: fy=60,000 psi
ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS D UNLESS NOTED OTHERWISE.

REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 U.N.O.
REINFORCING BARS TO BE WELDED SHALL CONFORM TO ASTM A706, GRADE 60.
ALL REINFORCING, EXCEPT PIER REINFORCING, SHALL BE EPOXY COATED AND SHALL CONFORM TO ASTM A775.
ALL REINFORCING SHALL HAVE 2" CONCRETE COVER, U.N.O. ON PLANS, 3" AGAINST GROUND (BOTTOM SLAB)
ALL REINFORCING SHALL BE HOOKED AROUND CORNERS AND LAPPED, SEE DETAILS.
ALL LAP SPLICE LOCATIONS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

THE FOLLOWING TABLE GIVES THE MINIMUM CLASS B (STAGGERED) LAP SPLICE LENGTH FOR EPOXY COATED REINFORCING BARS PLACE IN ACCORDANCE WITH SUBSECTION 602.06. THESE SPLICE LENGTHS SHALL BE INCREASED BY 25% FOR BARS SPACED AT LESS THAN 6" ON CENTER, INCREASED BY 40% FOR HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE BELOW (TOP BARS.), AND INCREASED BY 75% IF BOTH CONDITIONS EXIST. THE INCREASES ABOVE FOR #6 THRU #11 BARS MAY BE 25%, 13%, AND 42% RESPECTIVELY.

#4	1'-3"	#5	1'-7"
#6	2'-5"	#7	2'-10"
#8	3'-8"	#9	4'-8"
#10	5'-11"	#11	7'-3"

WHEN THE CONTRACTOR ELECTS TO SUBSTITUTE EPOXY COATED REINFORCEMENT FOR BLACK REINFORCING BARS. THE MINIMUM LAP SPLICE SHALL BE AS DESCRIBED ABOVE.

STATIONS, ELEVATIONS, AND DIMENSIONS CONTAINED IN THESE PLANS ARE CALCULATED FROM A RECENT FIELD SURVEY. THE CONTRACTOR SHALL VERIFY ALL DEPENDENT DIMENSIONS IN THE FIELD BEFORE ORDERING OR FABRICATING ANY MATERIAL.

THE CONTRACTOR SHALL SUBMIT REINFORCING STEEL PLACING DRAWINGS (PRIOR TO CONSTRUCTION) TO THE ENGINEER FOR REVIEW FOR CONFORMANCE WITH THE DESIGN DRAWINGS. THE DESIGN DRAWINGS SHALL GOVERN OVER PLACING DRAWINGS IN ALL CASES UNLESS MODIFICATIONS ARE APPROVED IN WRITING BY ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION.

E.F. =	EACH FACE	O.F. =	OUTSIDE FACE
F.E. =	FAR FACE	T.&B. =	TOP AND BOTTOM
N.F. =	NEAR FACE	T.F. =	TOP FACE
I.F. =	INSIDE FACE	B.F. =	BOTTOM FACE
T.W. =	TWO WAY	T.F. =	TWO FACES
E.S. =	EACH SIDE	Lp =	LAP LENGTH

OUTLET STRUCTURE PLATE, GRATE, AND RAIL NOTES:

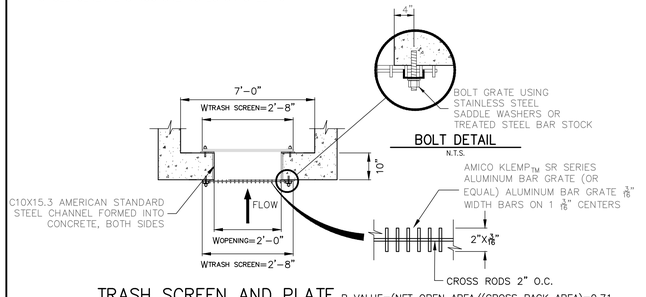
ORIFICE PLATE:
1. PROVIDE CONTINUOUS EPDM GASKET ¼" THICK BETWEEN ORIFICE PLATE AND STRUCTURE.
2. THE GASKET SHALL BE MADE OF 1/4-INCH THICK, 60 DUROMETER EPDM RUBBER IN A CONTINUOUS SHEET THE SIZE OF THE ORIFICE PLATE. THE SHEET SHALL BE PLACED BETWEEN THE ORIFICE PLATE AND THE CONCRETE WALL WITH THE WIDTH OF THE OVERLAP BETWEEN THE PLATE AND THE CONCRETE. OPENINGS SHALL BE CUT INTO THE SHEET CORRESPONDING TO THE PLATE BOLT HOLES AND THE CONCRETE WALL OPENING, CUTS MADE EITHER BY THE CONTRACTOR IN THE FIELD OR BY THE MANUFACTURER. OR EQUIVALENT APPROVED BY EPC.
3. BOLT PLATE TO CONCRETE 12" MAX. ON CENTER.

TRASH RACKS & GRATES:
4. RACKS AND GRATE OPEN AREAS ARE FOR THE SPECIFIED MATERIALS/MANUFACTURERS. ALTERNATIVE MANUFACTURERS AND MATERIALS WITH DIFFERING DIMENSIONS ARE ACCEPTABLE PROVIDED THEY MEET THE THE GROSS OPEN AREA RATIO (R VALUE) AND ARE CONSIDERED EQUAL BY THE ENGINEER AND EPC. SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PROCUREMENT.
5. TRASH RACKS SHALL BE 1¼" SCH.40 STEEL PIPE, GALVANIZED, @ 6" CENTERS. SUPPORT BARS SHALL BE ¼"x2" STEEL RECTANGULAR BARS, GALVANIZED, @ 36". ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE.
6. REMOVABLE TRASH RACK SECTIONS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED & LOCKABLE OR BOLTABLE ACCESS PANELS AS SHOWN ON THE PLANS.
7. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
8. STRUCTURAL STEEL FOR GRATES, ORIFICE PLATES, AND BARS SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH CDOT STANDARD SPECIFICATIONS, SUBSECTION 712.06.
9. ALL HARDWARE, BOLTS, AND FASTENERS SHALL BE STAINLESS STEEL.
10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PLATES AND GRATING FOR ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION.

HAND RAILS:
11. WELD PLATES MAY BE SUBSTITUTED FOR PIPE EMBEDMENT.
12. STRUCTURES THAT CREATE A 30" OR GREATER DROP HEIGHT REQUIRE HAND RAILS FOR FALL PROTECTION.
13. CONTRACTOR TO ENSURE HANDRAIL DESIGN AND MOUNTING SYSTEM IS COMPATBLE WITH HW/WW DESIGN AND REINFORCING.
14. DESIGN CRITERIA SHALL BE ACCORDANCE W/ AASHTO

CAST-IN-PLACE STRUCTURAL NOTES:

1. ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED BEFORE FRESH CONCRETE IS POURED.
2. ALL CONSTRUCTION JOINTS NOT SHOWN ON THE PLANS SHALL BE APPROVED BY THE ENGINEER.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION.
4. DO NOT BACKFILL UNTIL CONCRETE HAS REACHED DESIGN STRENGTH, F'c.
5. ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾".
6. CONTRACTOR SHALL SUBMIT STEEL REINFORCING SHOP DRAWINGS FOR ALL CAST-IN-PLACE STRUCTURES FOR ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION. REINFORCING SHOWN IS FOR INFORMATION ONLY.
7. REINFORCING AND WALLS SHALL BE PER CDOT-M-604-10.
8. WALLS AND FLOOR TO BE POURED MONOLITHICALLY.
9. REINFORCING STEEL SHALL BE GRADE 60 & MIN. SLICE LENGTHS PER CDOT STANDARDS AND APPLICABLE M-STANDARD DRAWINGS FOR HEADWALLS AND WINGWALLS
10. SEE GENERAL STRUCTURE NOTES ON SHEET 6.

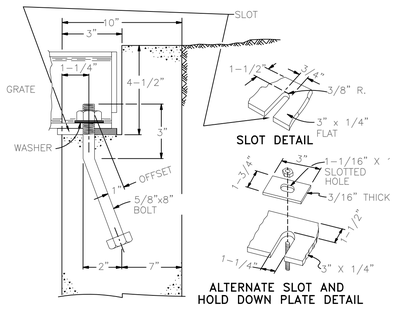


BOLT DETAIL
N.T.S.

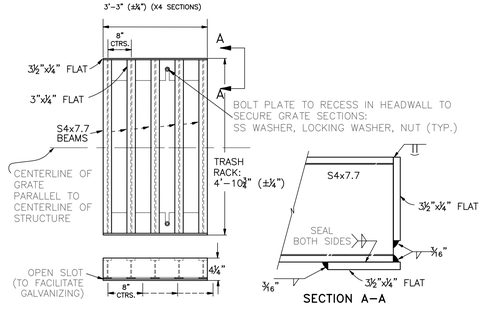
TRASH SCREEN AND PLATE DETAIL (PLAN)
N.T.S.

TRASH SCREEN DETAIL
N.T.S.

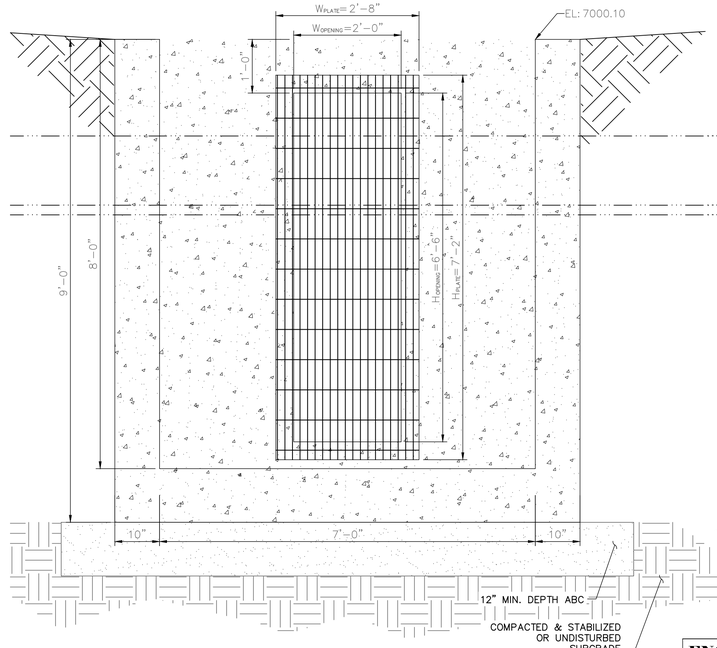
R VALUE=(NET OPEN AREA/(GROSS RACK AREA)=0.71



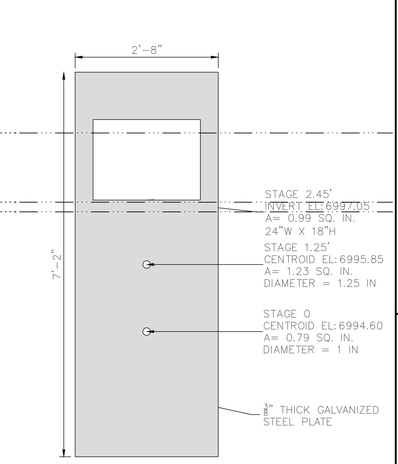
OVERFLOW GRATE/TRASH RACK INSTALLATION DETAIL
N.T.S.



TRASH RACK DETAILS
N.T.S.



B B-B SECTION
SCALE: 3/4"=1'



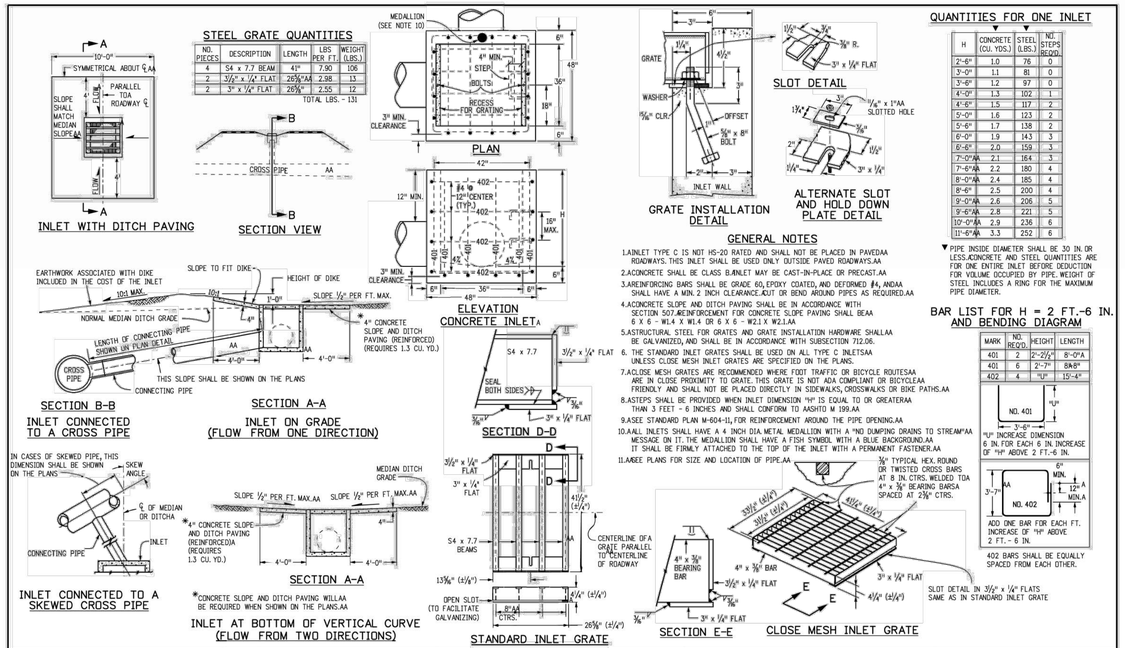
ORIFICE PLATE DETAIL
SCALE: 3/4"=1'

ENGINEER'S STATEMENT

PREPARED UNDER MY DIRECT SUPERVISION AND ON BEHALF OF ALL TERRAIN ENGINEERING

RYAN E. BURNS, P.E.
COLORADO P.E. 54412
FOR AND ON BEHALF OF ALL TERRAIN ENGINEERING LLC

DATE


A
10'-0"
SYMMETRICAL ABOUT ℄AA
PARALLEL TOA ROADWAY ℄
SLOPE SHALL MATCH MEDIAN SLOPE
4'
FLOW LINE
4"
INLET WITH DITCH PAVING
B
CROSS PIPE
AA
B
SECTION VIEW
MEDALLION (SEE NOTE 10)
4" MIN. STEP
BOLTS
RECESS FOR GRATING
3" MIN. CLEARANCE
6"
45°
36"
18"
6"
PLAN
42"
12" MIN.
#4 @ 12" CENTER (TYP.)
402
402
402