



NON-JURISDICTIONAL WATER IMPOUNDMENT STRUCTURE¹

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: J. RYAN WATSON Telephone/E-Mail: 719 392-0194 / ryan@widefieldinvestmentgroup.com

Address: 3 WIDEFIELD BOULEVARD, COLORADO SPRINGS, CO 80911
 Street / P.O. Box/ Rural Route City State Zip Code

Responsible Person: J. RYAN WATSON Telephone/E-Mail: 719 392-0194 / ryan@widefieldinvestmentgroup.com

Address: 3 WIDEFIELD BOULEVARD, COLORADO SPRINGS, CO 80911
 Street / P.O. Box/ Rural Route City State Zip Code

Contractor: TY RICE Telephone/E-Mail: (719)392-5311 / trice@riceandriceinc.com

STRUCTURE INFORMATION

Name of Dam: EDB AT PEACEFUL RIDGE AT FOUNTAIN VALLEY SUBDIVISION Water Division: _____ Water District: _____

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

- Section: 15, Township: 15, Range: 65, 6 P.M.

- Northing 1307055 meters, Easting 161698.2 meters (Datum should be UTM, NAD 83)

Dam Dimensions:

- Vertical Height²: 9' ft., Length: 650' ft., Crest Width: 10' ft., Slopes: U/S: 3 (H:1V), D/S 4 (H:1V)

Reservoir:

- Surface Area¹: 1.11 acres, Capacity¹: 4.303 acre-feet, Drainage Area*: 52.29 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: 100' ft., Side Slopes: 4:1 H:1V, Freeboard³: 1.0 ft

Outlet Conduit Type: HERCP, Size: 48" x 63" inches, Location: ALONG EASTERN SIDE OF POND

Stream Name or Water Source⁴: JIMMY CAMP CREEK Proposed Water Use: DETENTION & WATER QUALITY TREATMENT

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

 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.

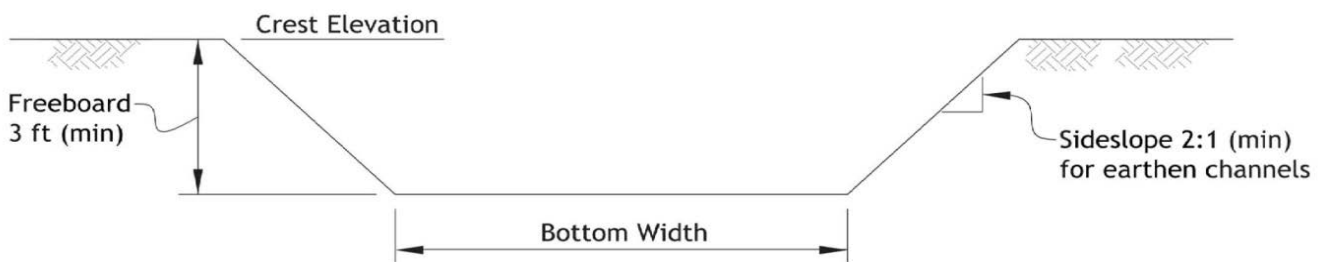
⁴ If construction in reservoir intercepts groundwater, a well permit is required. (Well permit applications can be found at dwr.colorado.gov)



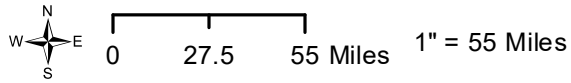
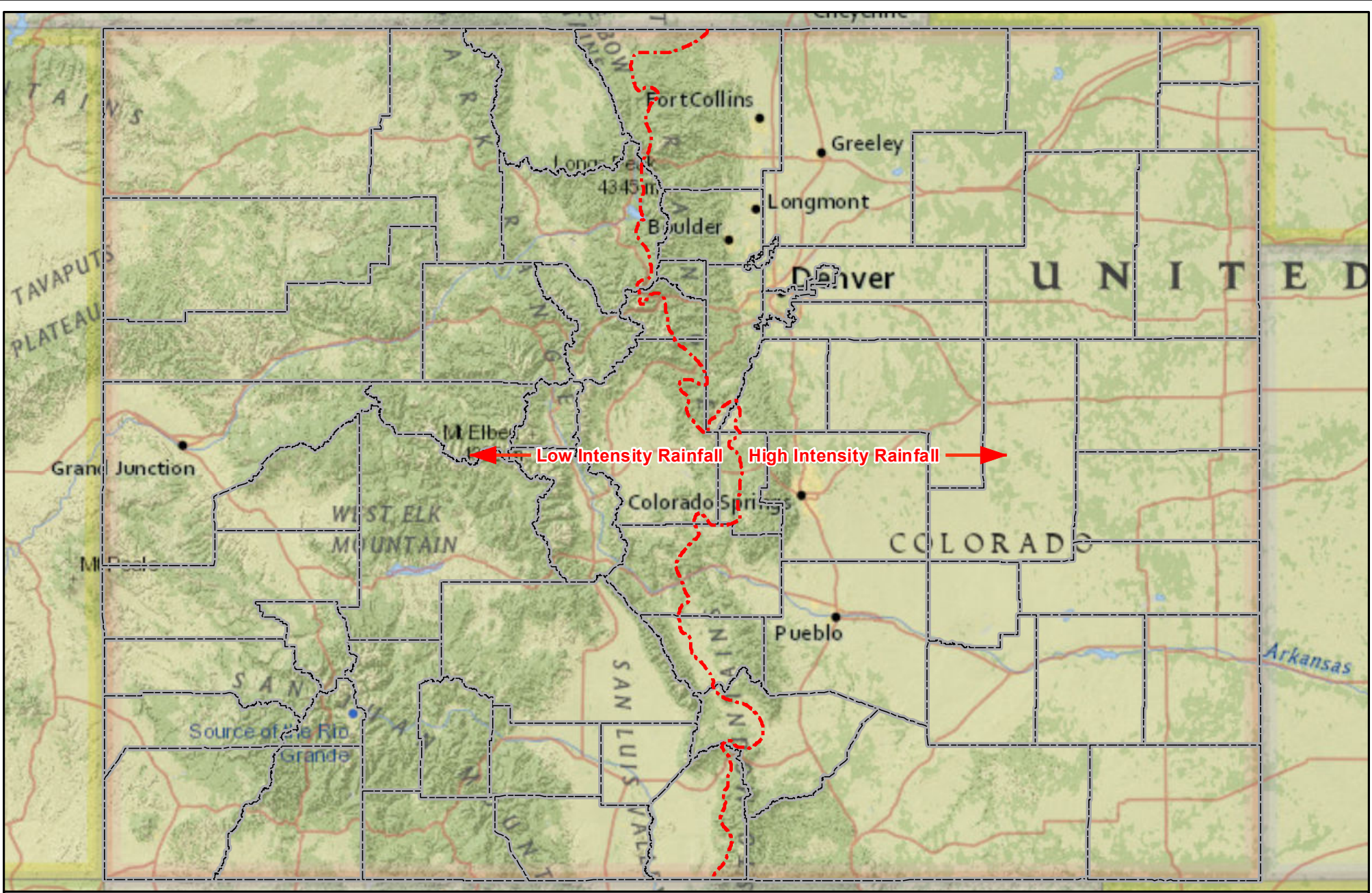
Table 1 DAM SAFETY BRANCH Spillway Sizing Guidelines for Non-Jurisdictional Dams

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

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



Spillway Section



Map Key - - - - - Rainfall Divide Line

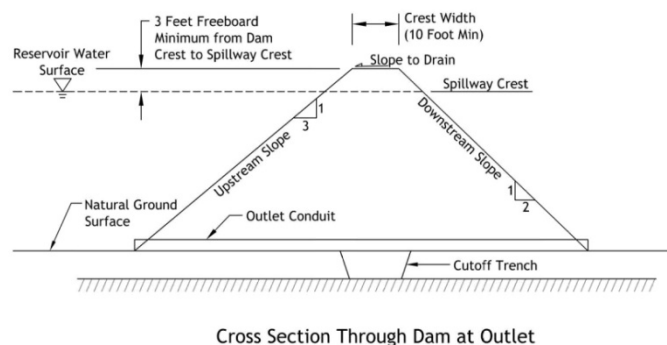
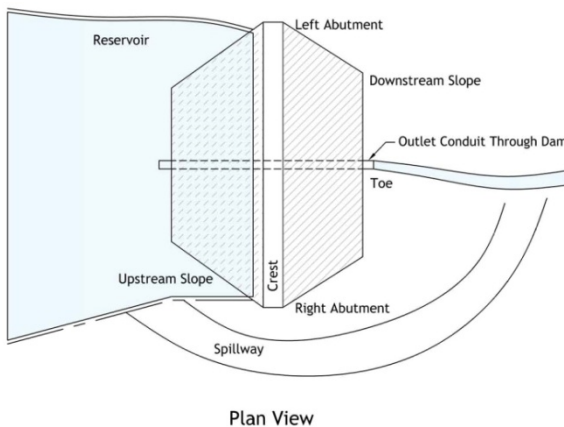


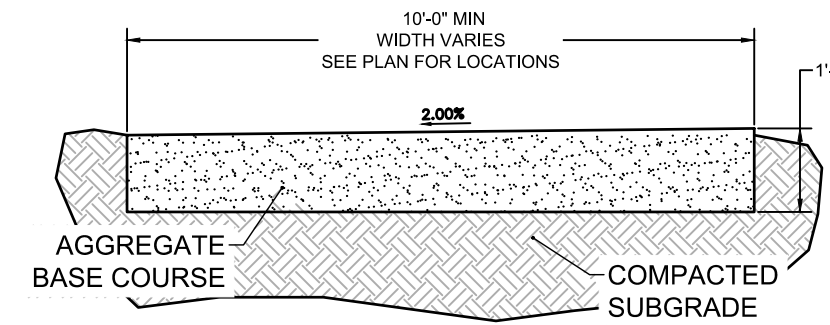
COLORADO
 Division of Water Resources
 Department of Natural Resources

Rainfall Intensity Zones for Non-Jurisdictional Dam Spillway Sizing

DAM SAFETY BRANCH Specifications for Construction of Non-Jurisdictional Dams

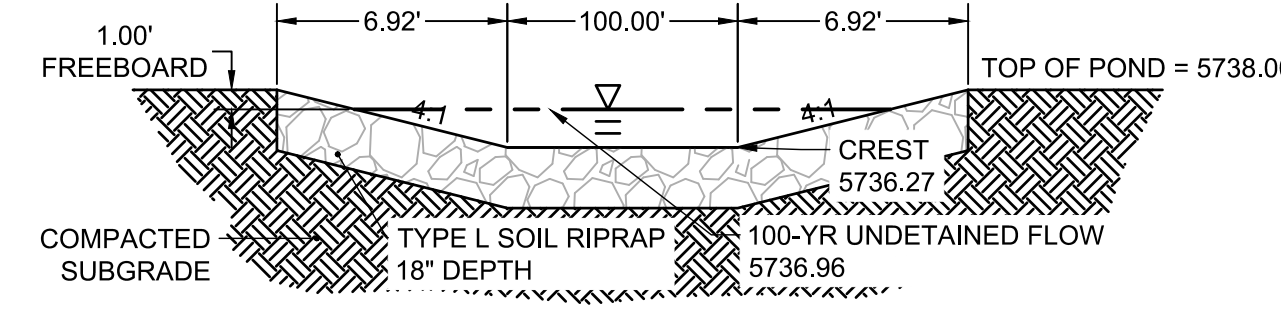
- Site Selection:
 - Foundation soils should be firm to provide adequate support for the embankment and should have low permeability to allow for water retention. Site selection should consider potential downstream property damage in the event of a dam failure. Construction of dams in boggy areas, areas 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





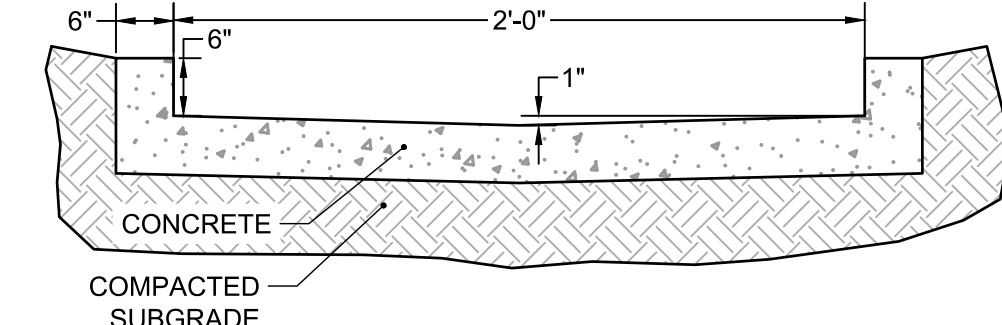
TYPICAL SECTION - MAINTENANCE ROAD

SCALE: NTS



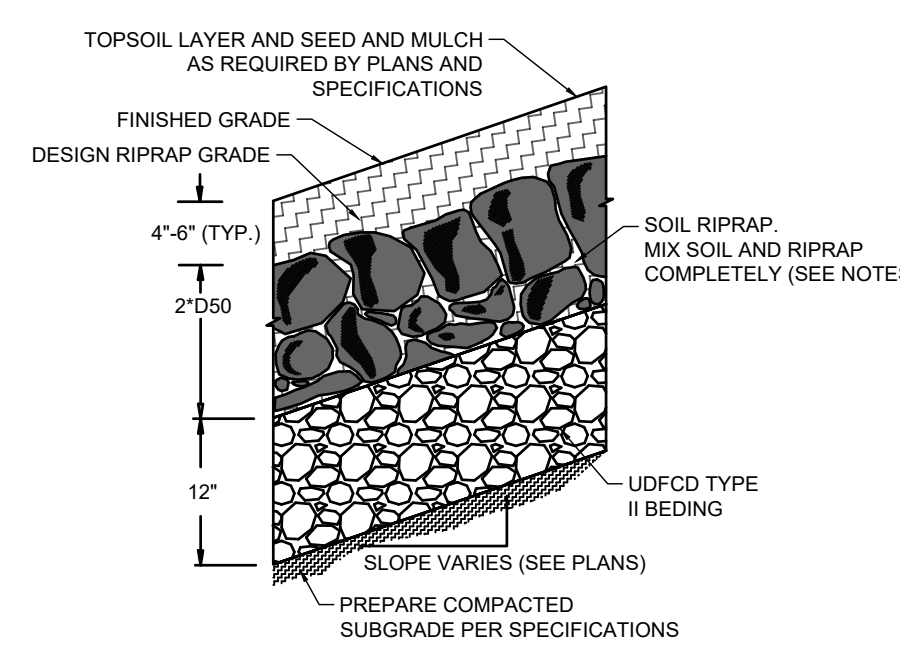
SECTION VIEW - EMERGENCY SPILLWAY

SCALE: NTS



TYPICAL DETAIL - 2.0' TRICKLE CHANNEL

SCALE: NTS



SOIL RIPRAP EMBANKMENT PROTECTION WITH BEDDING TYP. SECTION

N.T.S

TYPE L RIPRAP	
INTERMEDIATE ROCK DIMENSION (IN.)	PERCENT PASSING (%)
15	70-100
12	50-70
9	35-50
3	2-10

*TYPE L RIPRAP D50=9": D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

TYPE VL RIPRAP	
INTERMEDIATE ROCK DIMENSION (IN.)	PERCENT PASSING (%)
12	70-100
9	50-70
6	35-50
2	2-10

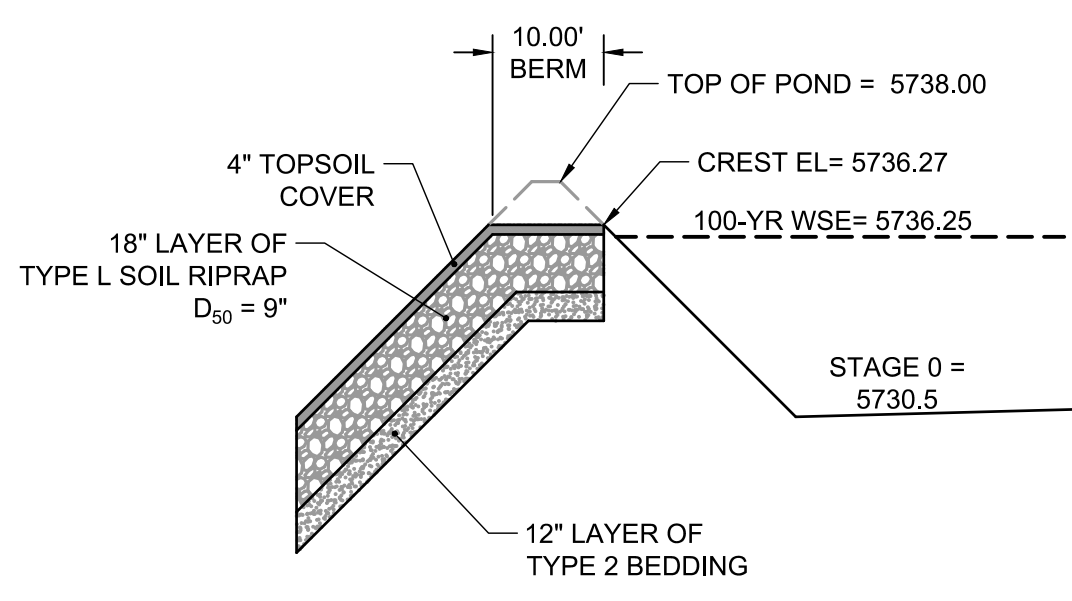
*TYPE L RIPRAP D50=9": D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

TYPE M RIPRAP	
INTERMEDIATE ROCK DIMENSION (IN.)	PERCENT PASSING (%)
21	70-100
18	50-70
12	35-50
4	2-10

*TYPE L RIPRAP D50=9": D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT

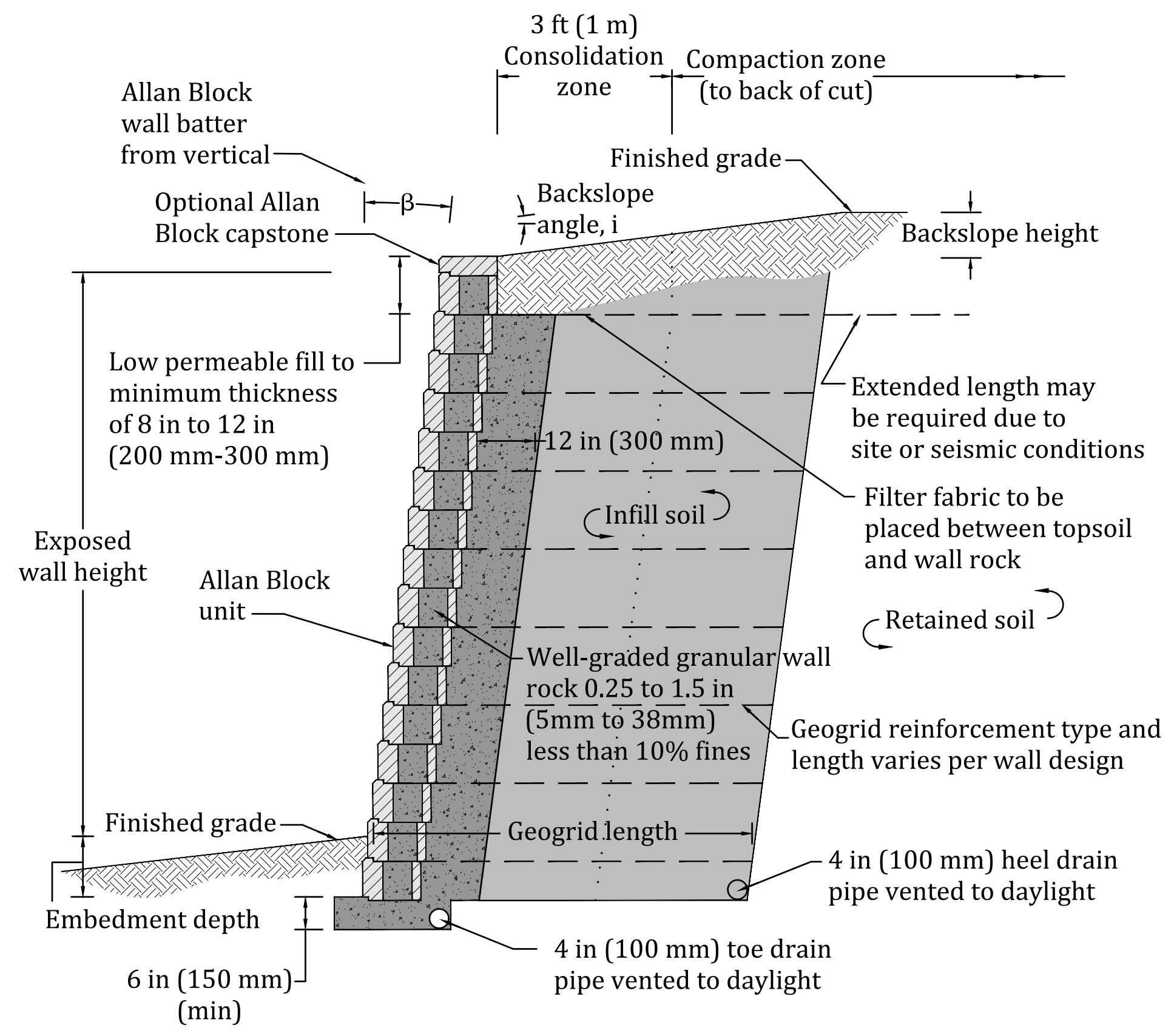
TYPE H RIPRAP	
INTERMEDIATE ROCK DIMENSION (IN.)	PERCENT PASSING (%)
30	70-100
24	50-70
18	35-50
6	2-10

*TYPE L RIPRAP D50=9": D50=MEAN PARTICLE SIZE (INTERMEDIATE DIMENSION) BY WEIGHT



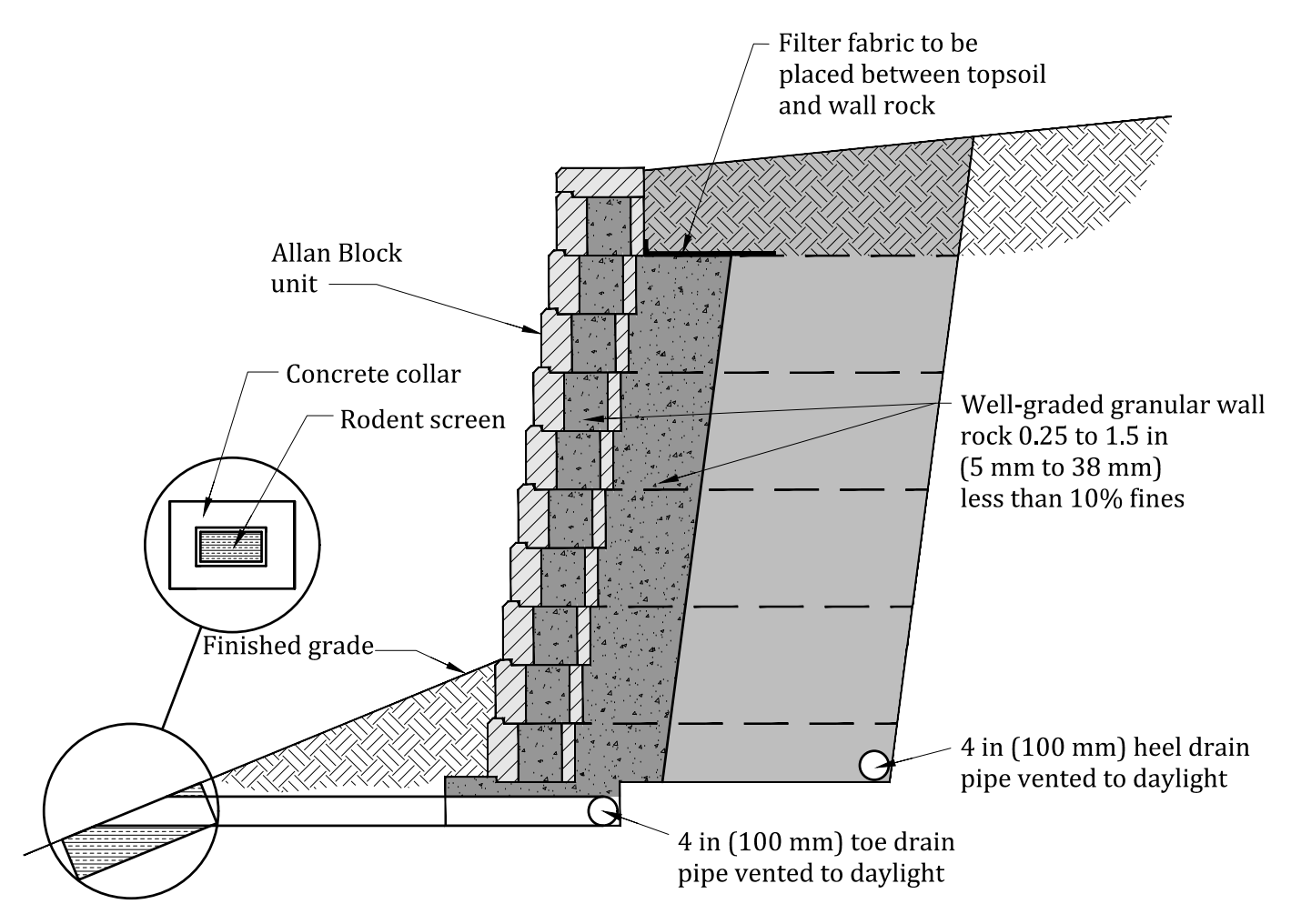
PROFILE VIEW - EMERGENCY OVERFLOW SPILLWAY

SCALE: NTS



SECTION VIEW TYPICAL RETAINING WALL W/ GEOGRID

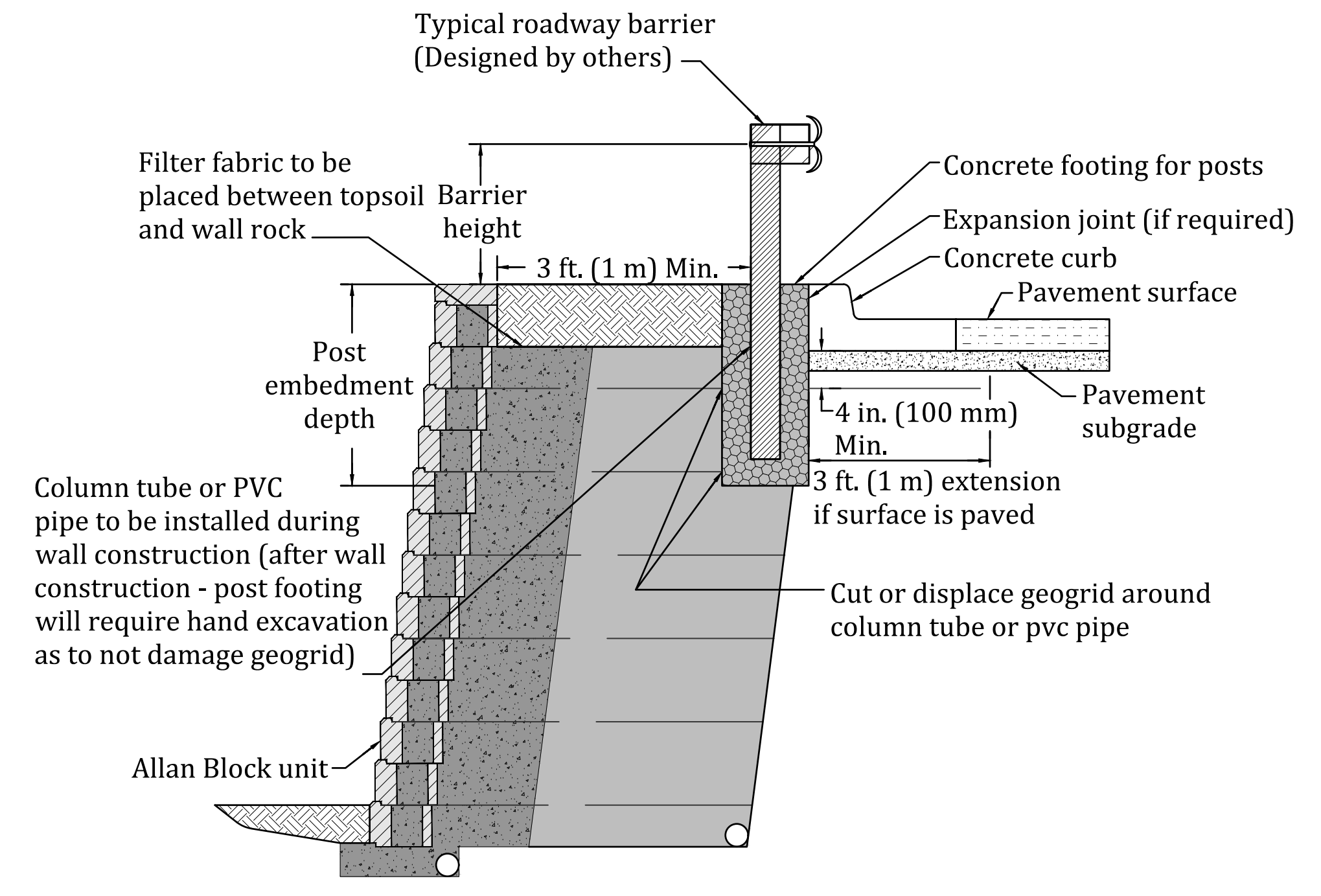
SCALE: NTS



SECTION VIEW TYPICAL RETAINING WALL W/ GUARD RAIL

SCALE: NTS

* Refer to design details: Allan Block typical reinforced wall application for all other notes, details and specifications.



SECTION VIEW TYPICAL RETAINING WALL DRAINAGE

SCALE: NTS

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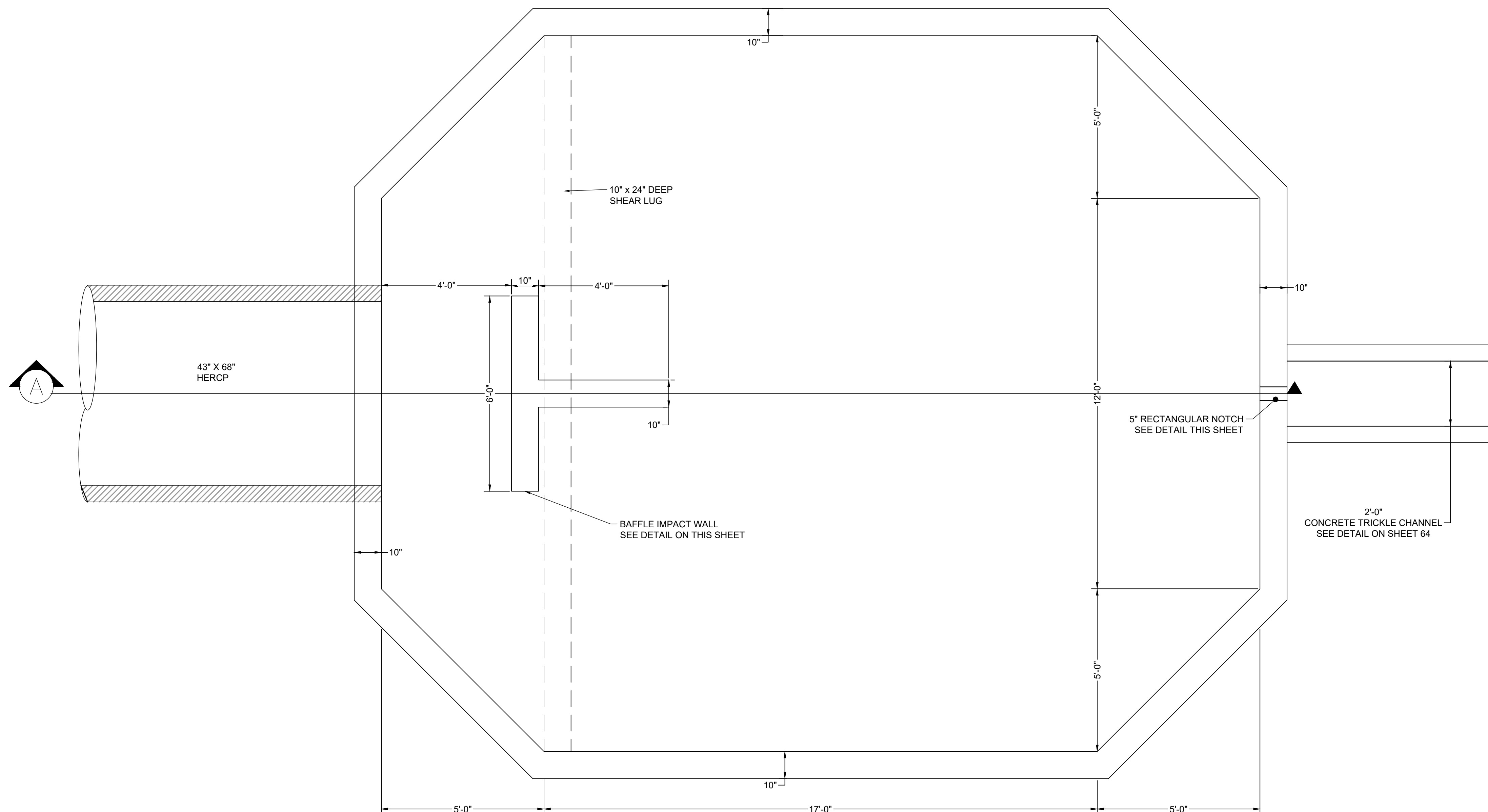
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HRGreen
 HR GREEN - COLORADO SPRINGS
 1975 RESEARCH PARKWAY SUITE 230
 COLORADO SPRINGS, CO 80920
 PHONE: 719.384.2440
 FAX: 713.965.0044

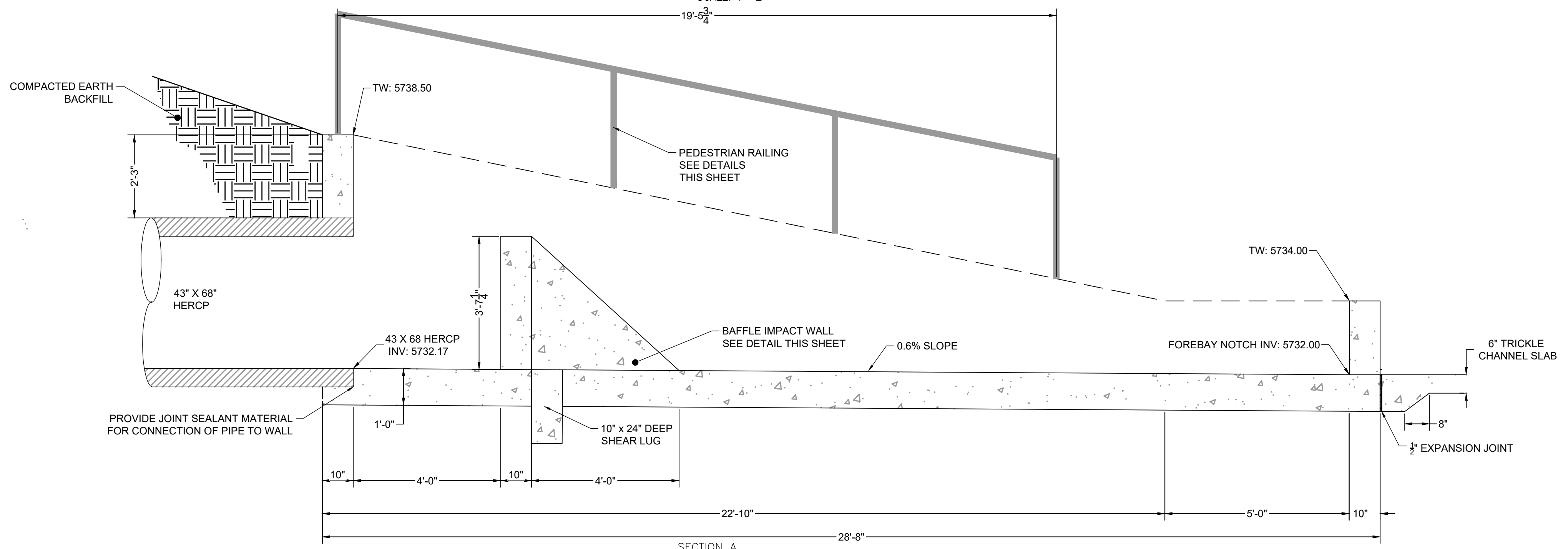
PEACEFUL RIDGE AT FOUNTAIN VALLEY
 PEACEFUL RIDGE DEVELOPMENT COMPANY
 EL PASO COUNTY, CO

CONSTRUCTION DOCUMENTS
 POND DETAILS

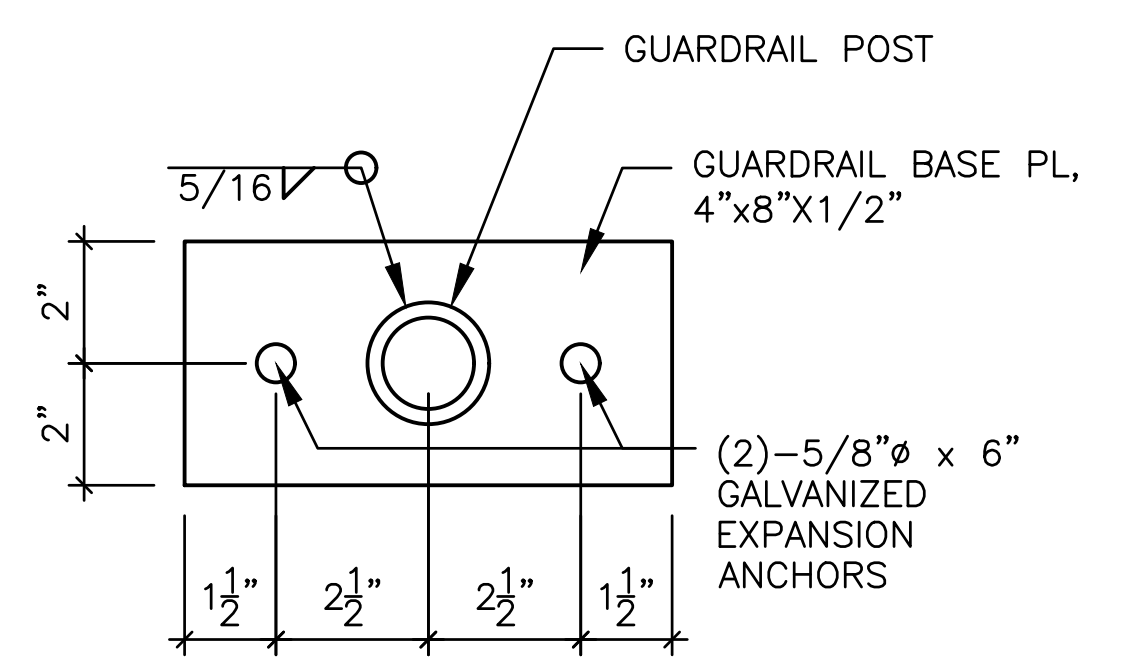
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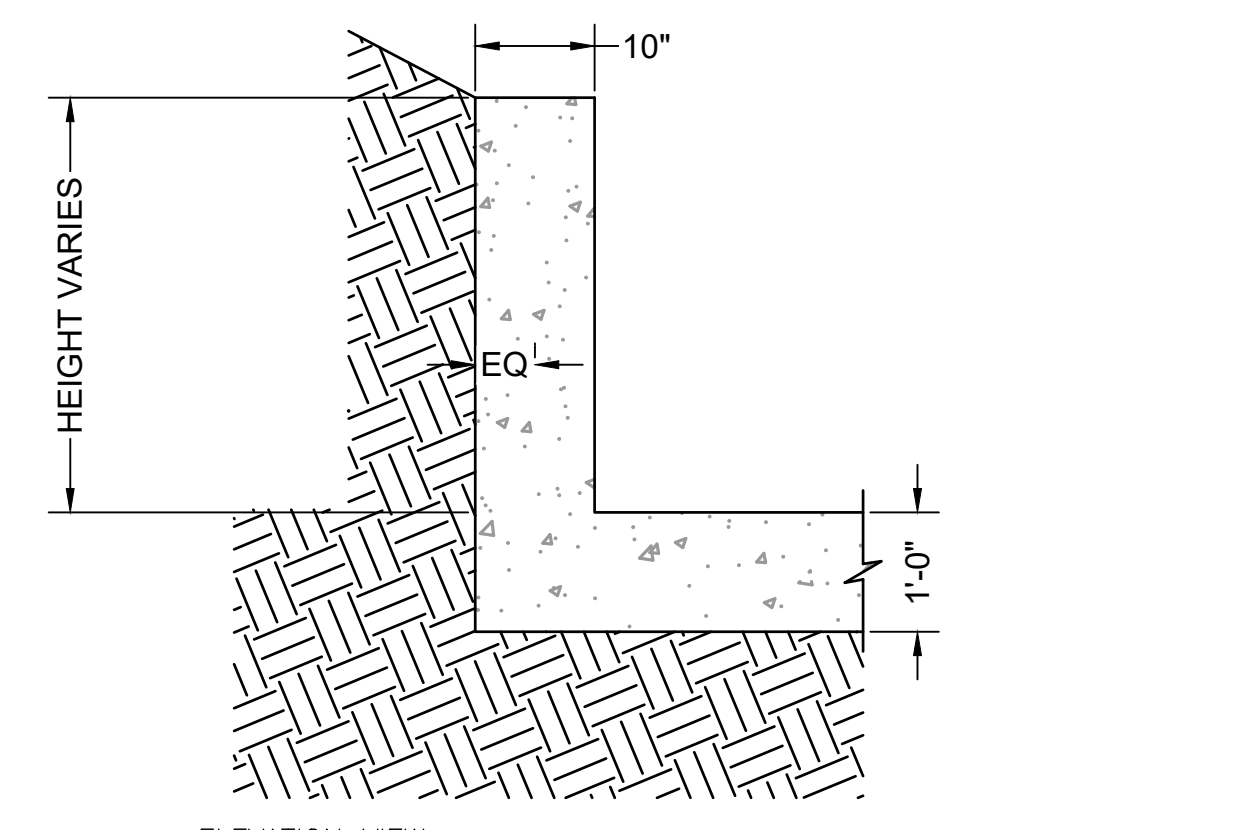
PLAN VIEW
FOREBAY #1
SCALE: 1"=2'



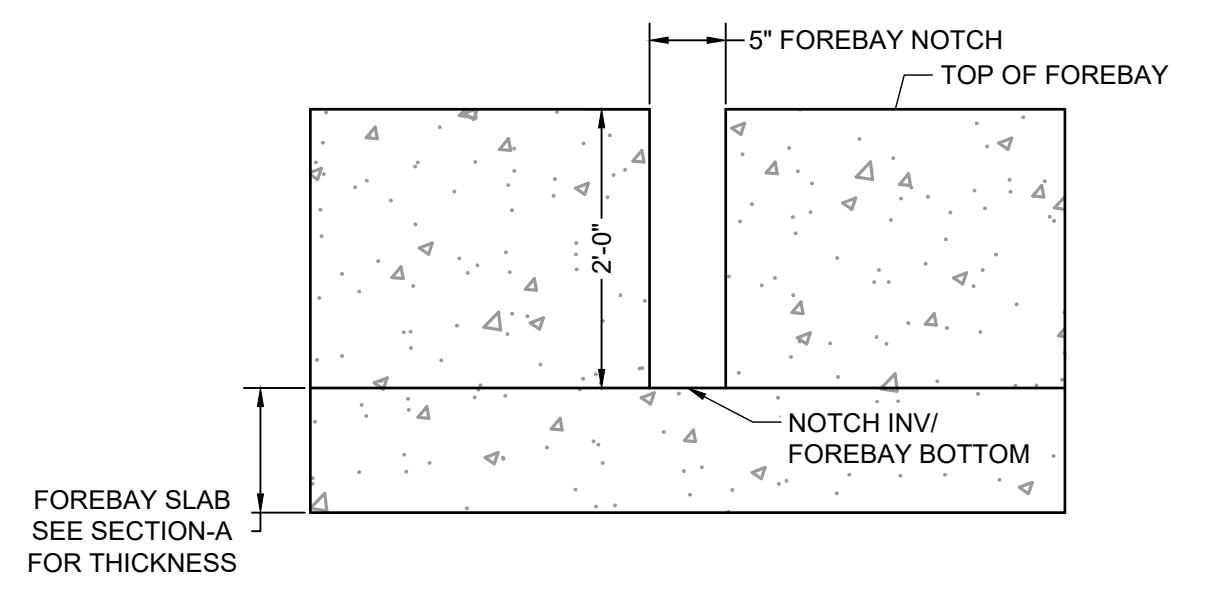
SECTION A
FOREBAY #1
SCALE: 1"=2'



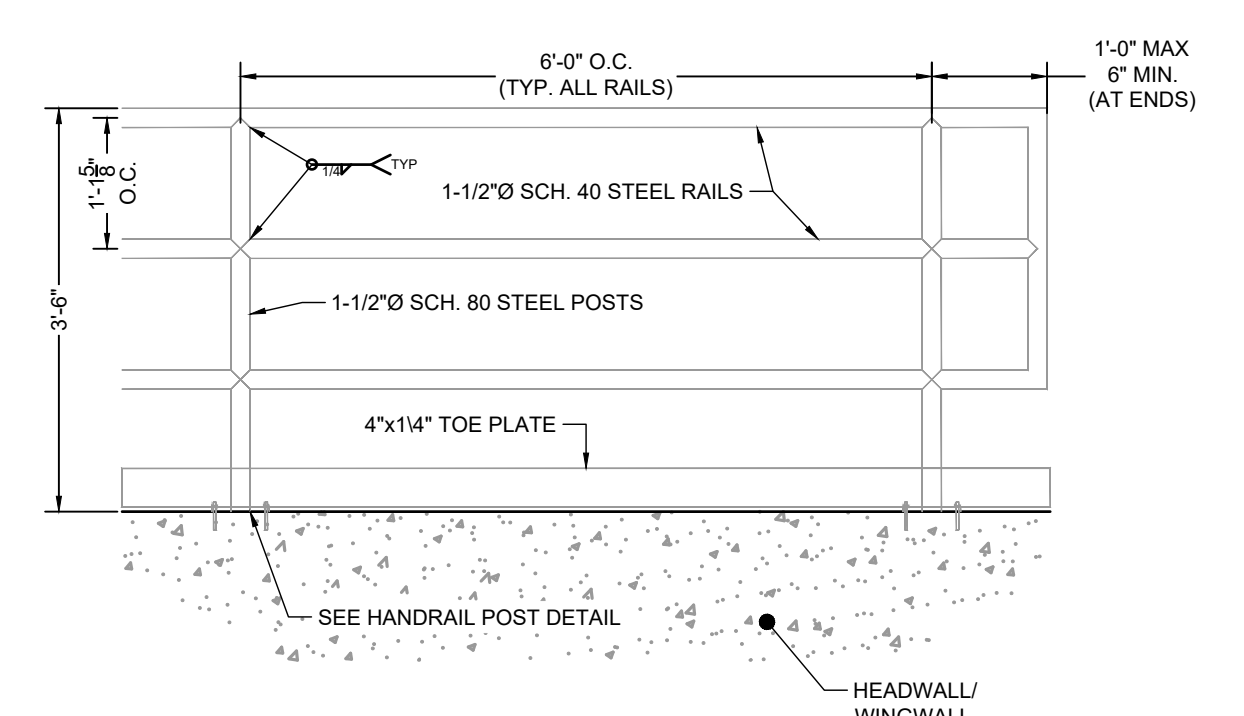
ELEVATION VIEW
HANDRAIL POST DETAIL
SCALE: NTS



ELEVATION VIEW
FOREBAY WINGWALL REINFORCEMENT DETAIL
SCALE: NTS



ELEVATION VIEW
FOREBAY NOTCH DETAIL
SCALE: NTS



ELEVATION VIEW
HANDRAIL POST DETAIL
SCALE: NTS

FOREBAY NOTES:

- SEE SHEET 65 FOR STRUCTURAL NOTES AND DETAILS.
- PEDESTRIAN RAILING IS NOT SHOWN IN PLAN VIEW DETAILS. SEE SECTION A FOR RAILING LOCATION.

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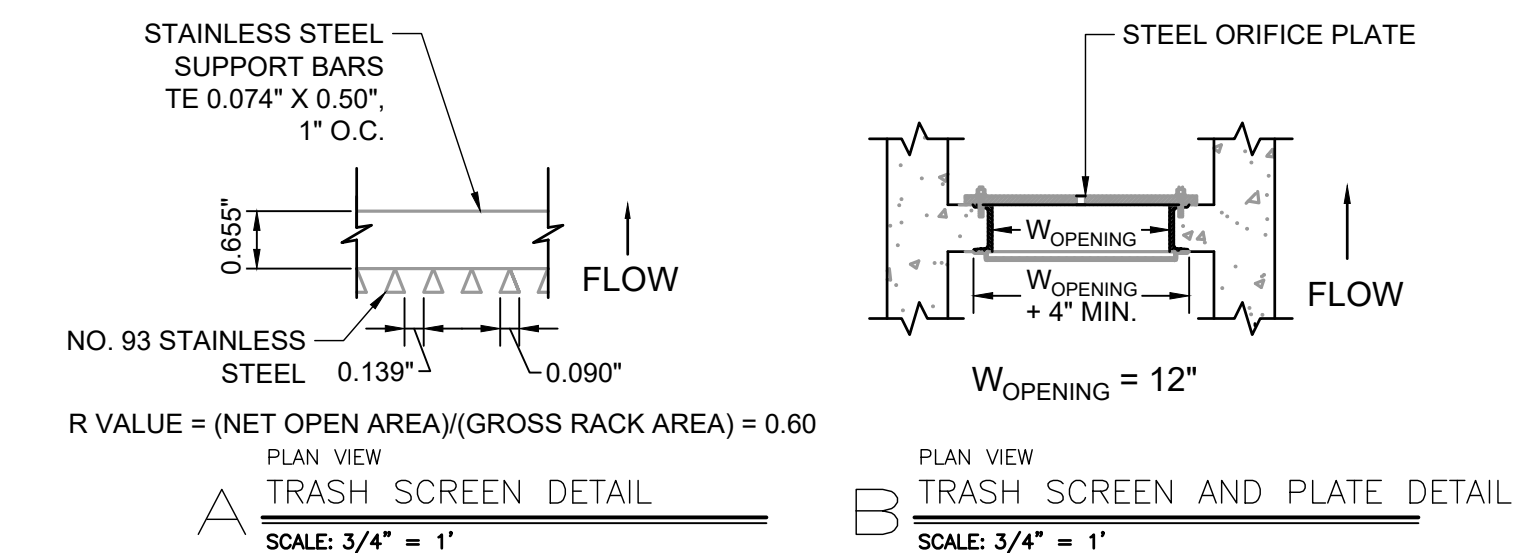
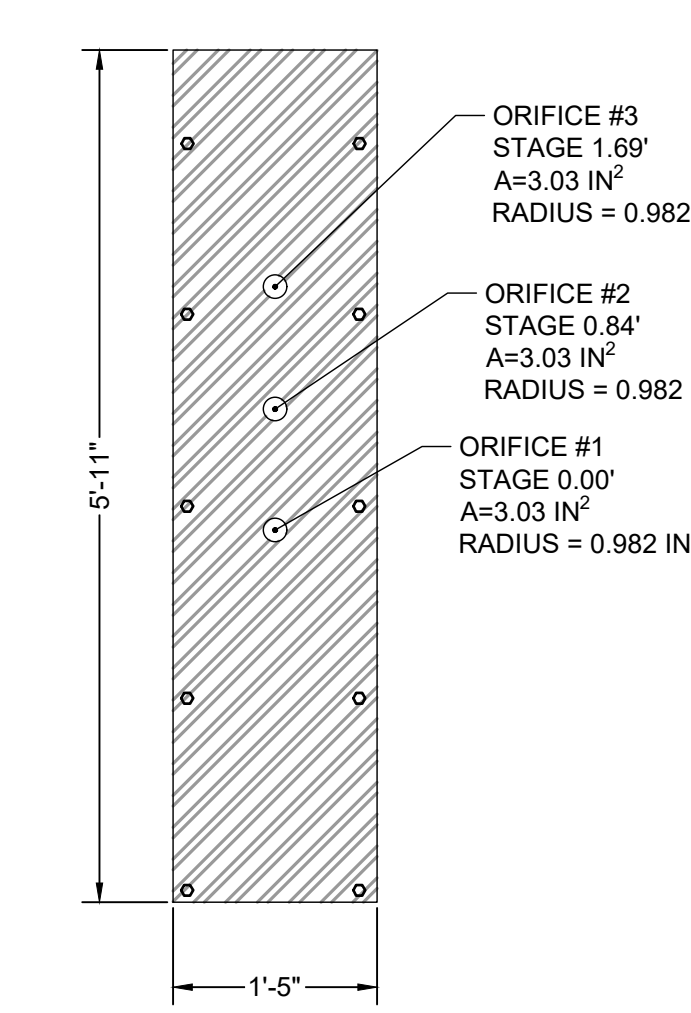
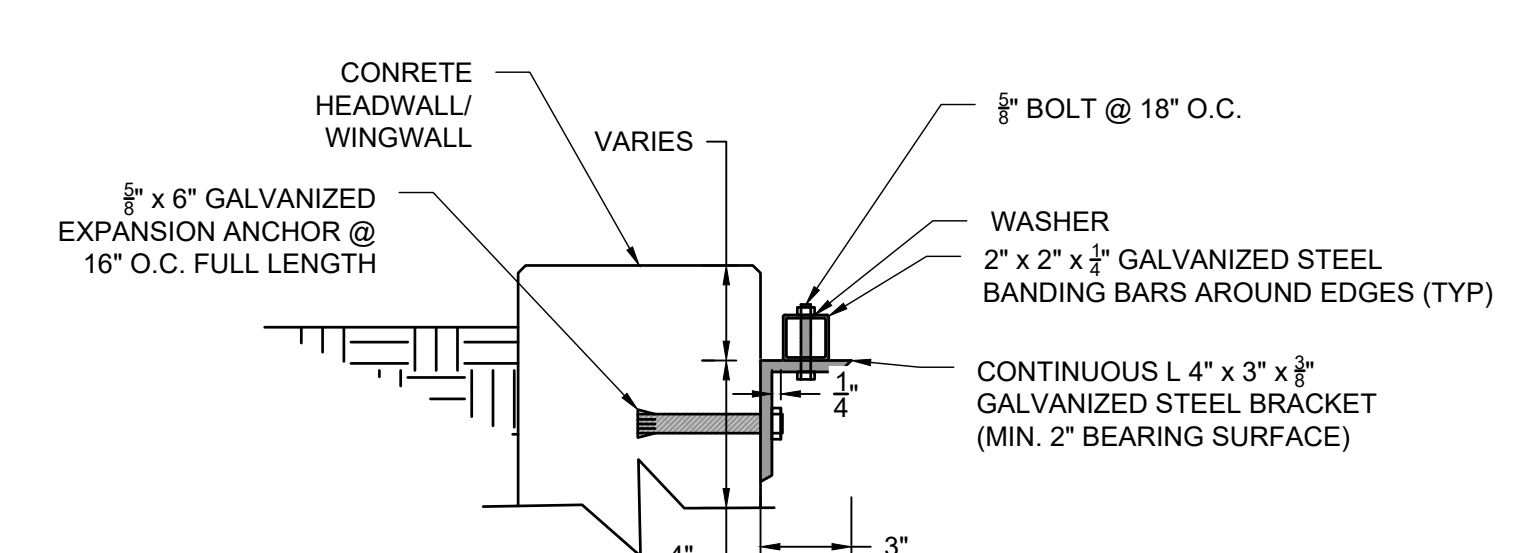
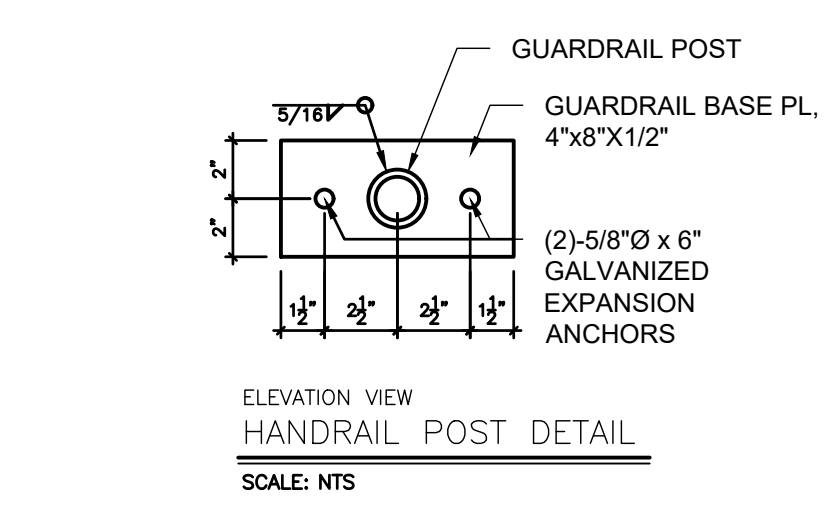
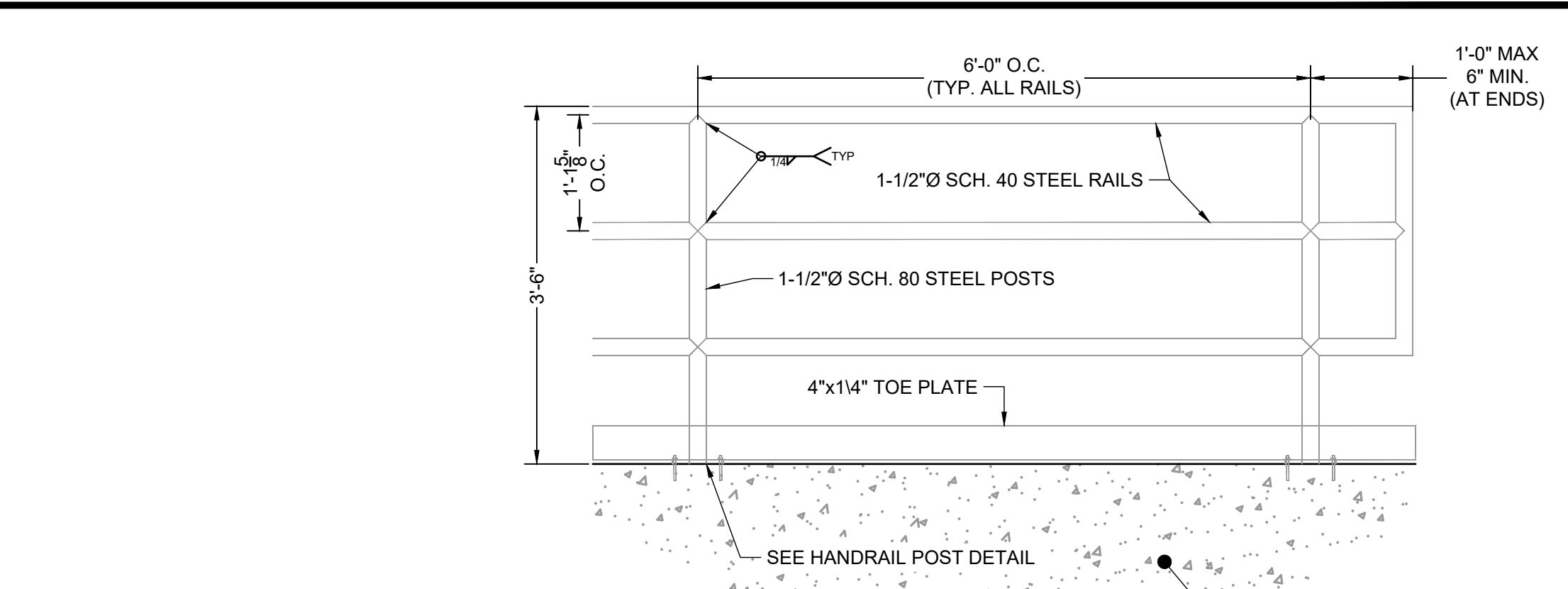
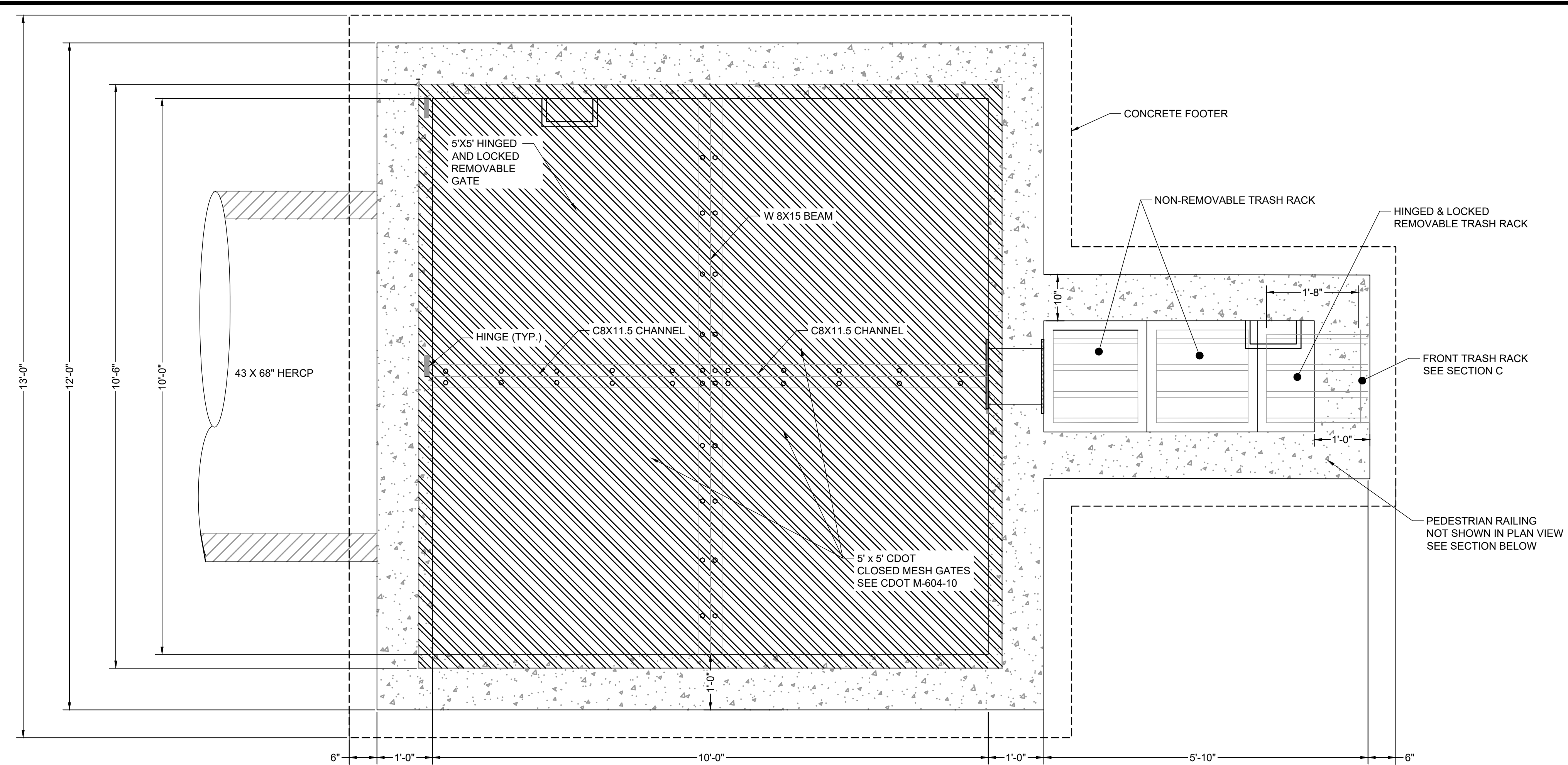
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PEACEFUL RIDGE AT FOUNTAIN VALLEY
 PEACEFUL RIDGE DEVELOPMENT COMPANY
 EL PASO COUNTY, CO

CONSTRUCTION DOCUMENTS
 FOREBAY DETAILS

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*REINFORCEMENT DESIGN WILL BE PROVIDED PRIOR TO APPROVAL BY CITY OF COLORADO SPRINGS

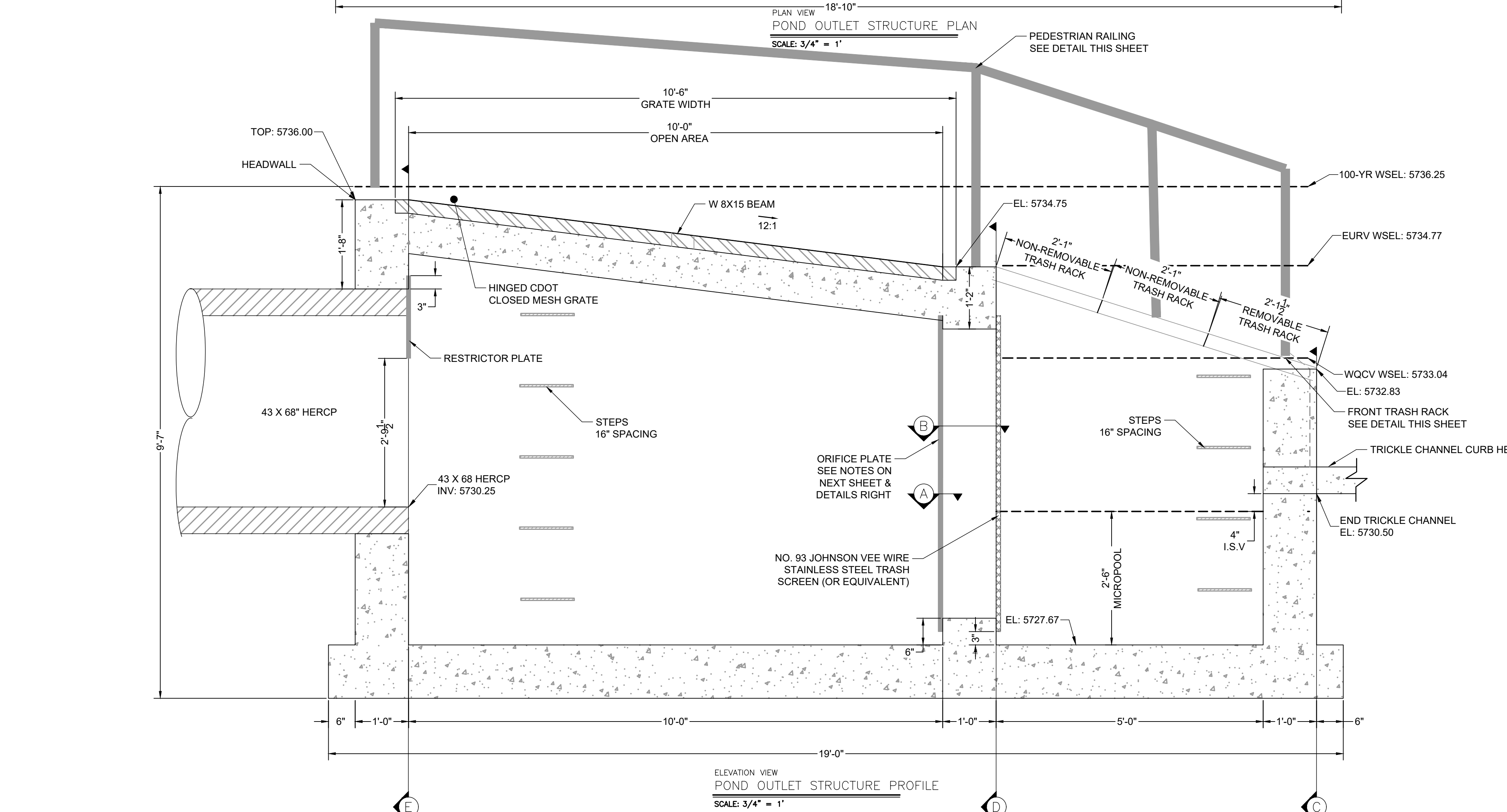
ORIFICE PLATE NOTES:

1. PLATE TO BE 3/8" THICK GALVANIZED STEEL.
2. BOLT PLATE TO CONCRETE 16" O.C. MAX.
3. PROVIDE CONTINUOUS NEOPRENE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE

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

POND WARNING SIGN
SCALE: NTS
MINIMUM SIGN AREA = 3 FT²
SIGNS SHALL BE FABRICATED OF DURABLE MATERIALS, SUCH AS METAL OR PLASTIC, USING RED LETTERING ON A WHITE BACKGROUND

TWO SIGNS, EACH WITH A MINIMUM AREA OF 3 SQUARE FEET, SHALL BE PROVIDED AROUND THE PERIMETER OF ALL DETENTION FACILITIES. THE SIGNS SHALL BE FABRICATED OF DURABLE MATERIALS, SUCH AS METAL OR PLASTIC, USING RED LETTERING ON A WHITE BACKGROUND WITH THE ABOVE MESSAGE



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NO.	DATE	BY	REVISION DESCRIPTION

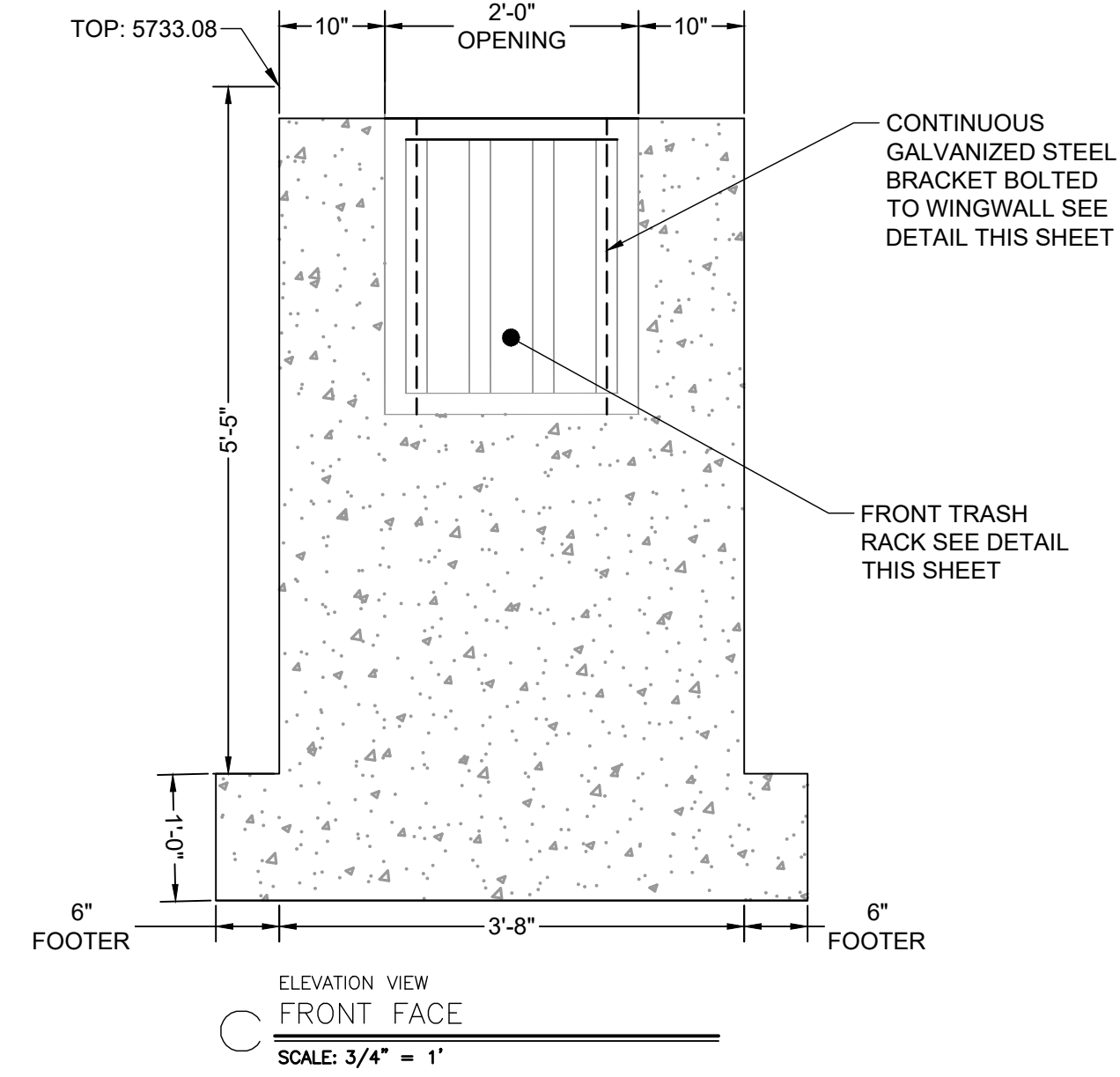
HRGreen
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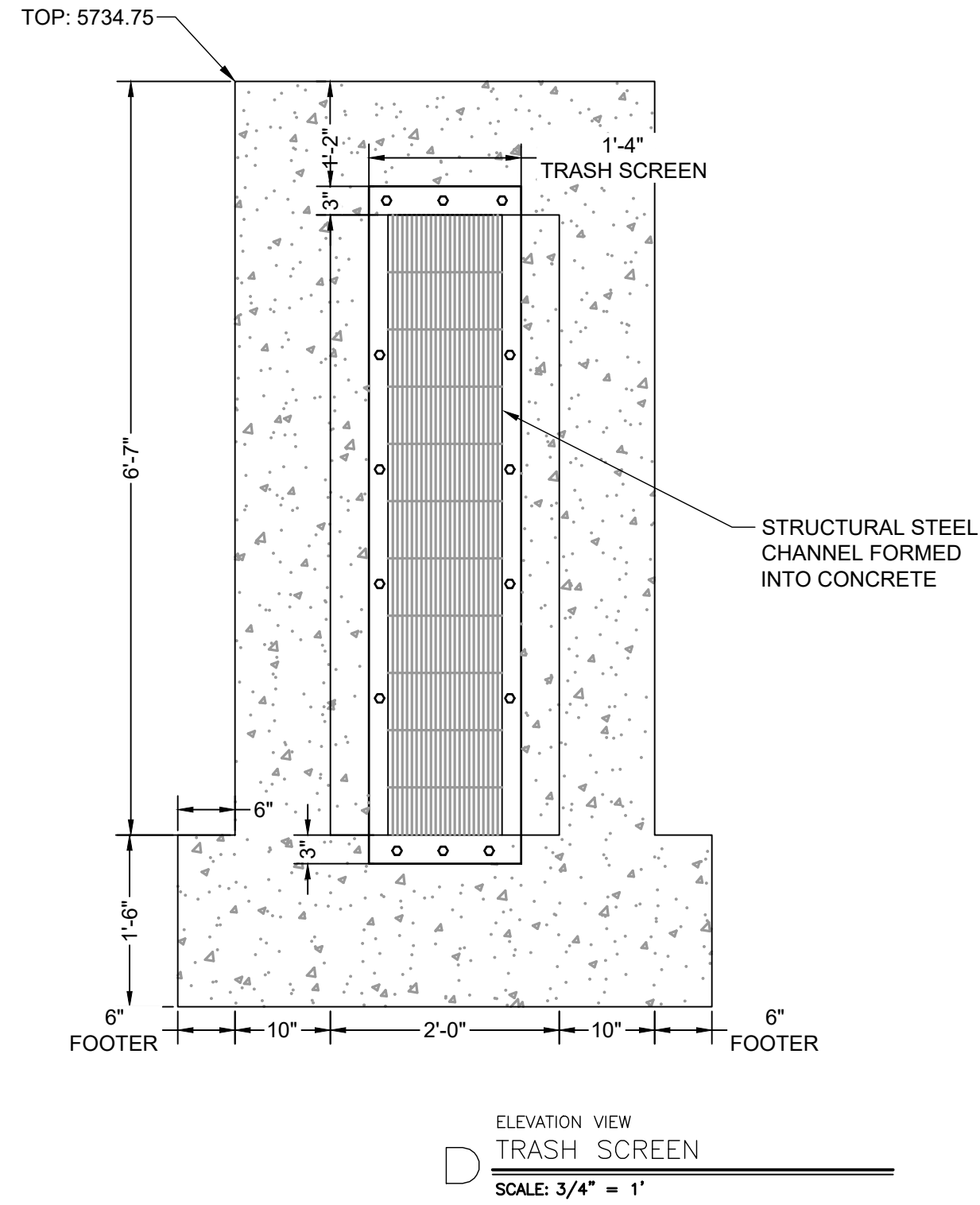
CONSTRUCTION DOCUMENTS
OUTLET STRUCTURE DETAILS

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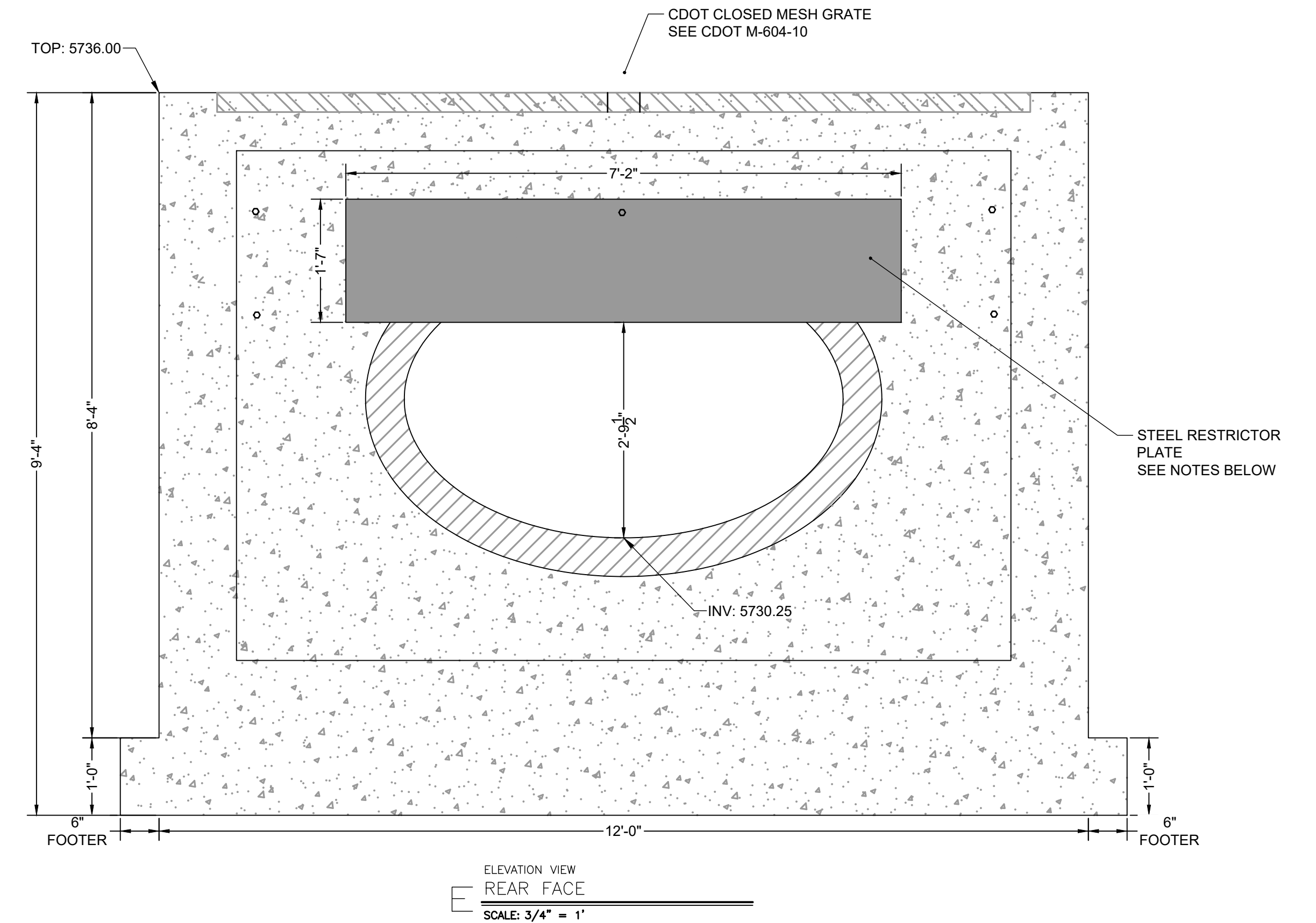
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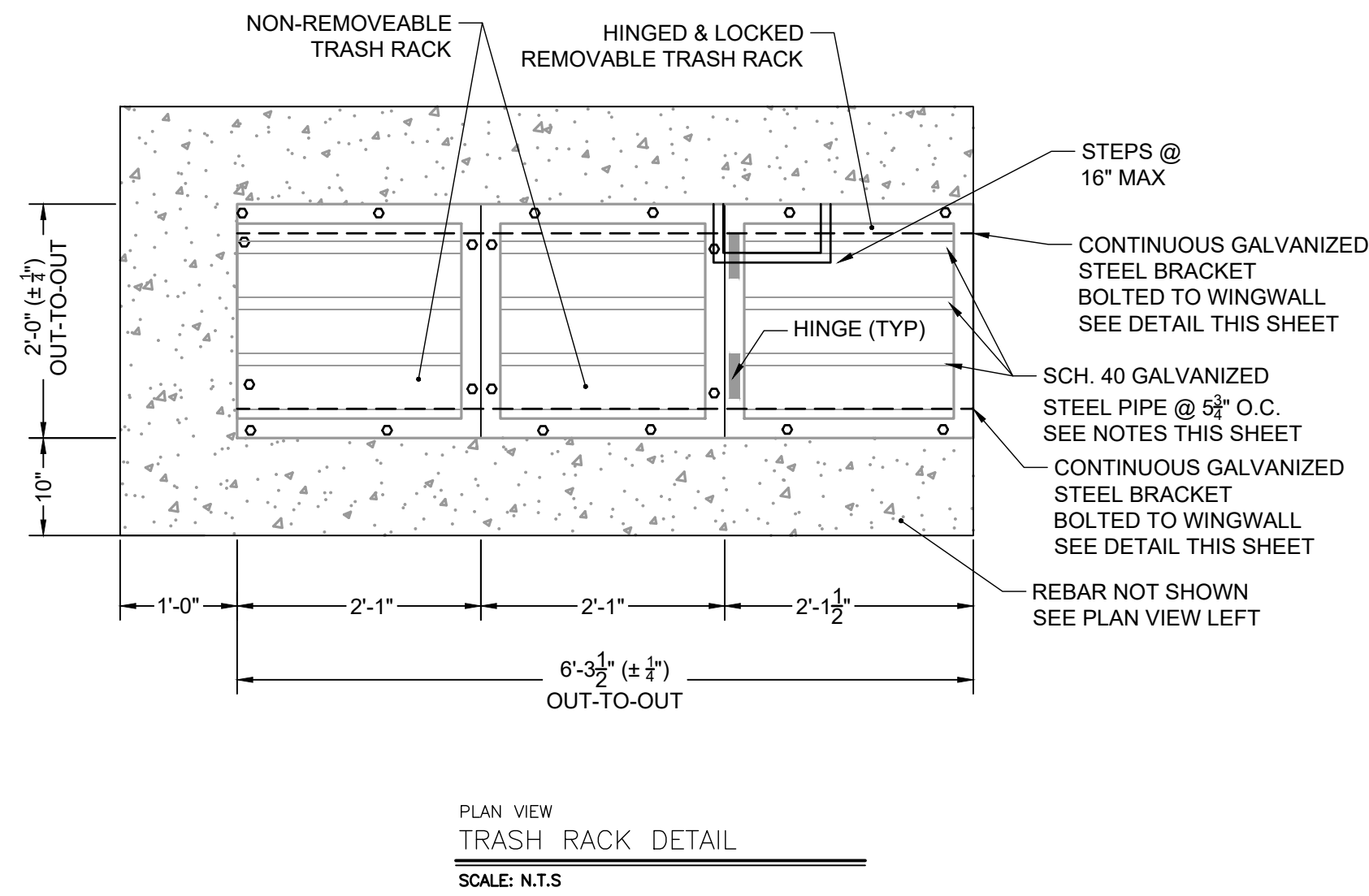
ELEVATION VIEW
FRONT FACE
SCALE: 3/4" = 1'



ELEVATION VIEW
TRASH SCREEN
SCALE: 3/4" = 1'



ELEVATION VIEW
REAR FACE
SCALE: 3/4" = 1'



PLAN VIEW
TRASH RACK DETAIL
SCALE: N.T.S.

TRASH SCREEN NOTES:

1. WELL-SCREEN TRASH RACKS SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
2. BAR GATE TRASH RACKS SHALL BE ALUMINUM AND SHALL BE BOLTED USING STAINLESS STEEL HARDWARE.
3. TRASH RACK OPEN AREAS ARE FOR SPECIFIED TRASH RACK MATERIALS. TOTAL TRASH RACK SIZE MAY NEED TO BE ADJUSTED FOR MATERIALS HAVING DIFFERENT OPEN AREA/GROSS AREA RATIO (R VALUE).
4. STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

TRASH RACK NOTES:

1. TRASH RACKS SHALL BE 1 1/2" SCH. 40 STEEL PIPE, GALVANIZED, @ 6" CENTERS. SUPPORT BARS SHALL BE 1/2" x 2" STEEL RECTANGULAR BARS, GALVANIZED @ 36". ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE.
2. 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.
3. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
4. STRUCTURAL STEEL FOR GRATES, ORIFICE PLATES, AND BARS SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH CDOT STANDARD SPECIFICATIONS, SUBSECTION 712.06.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL PLATES AND GRATING FOR ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION.

RESTRICTOR PLATE NOTES:

1. 3/8" THICK RESTRICTOR PLATE, GALVANIZED STEEL.
2. BOLT PLATE TO CONCRETE @ 12" O.C. MAX
3. PROVIDE CONTINUOUS NEOPRENE GASKET MATERIAL BETWEEN PLATE AND CONCRETE

NO.	DATE	BY	REVISION DESCRIPTION

