



Know what's below.
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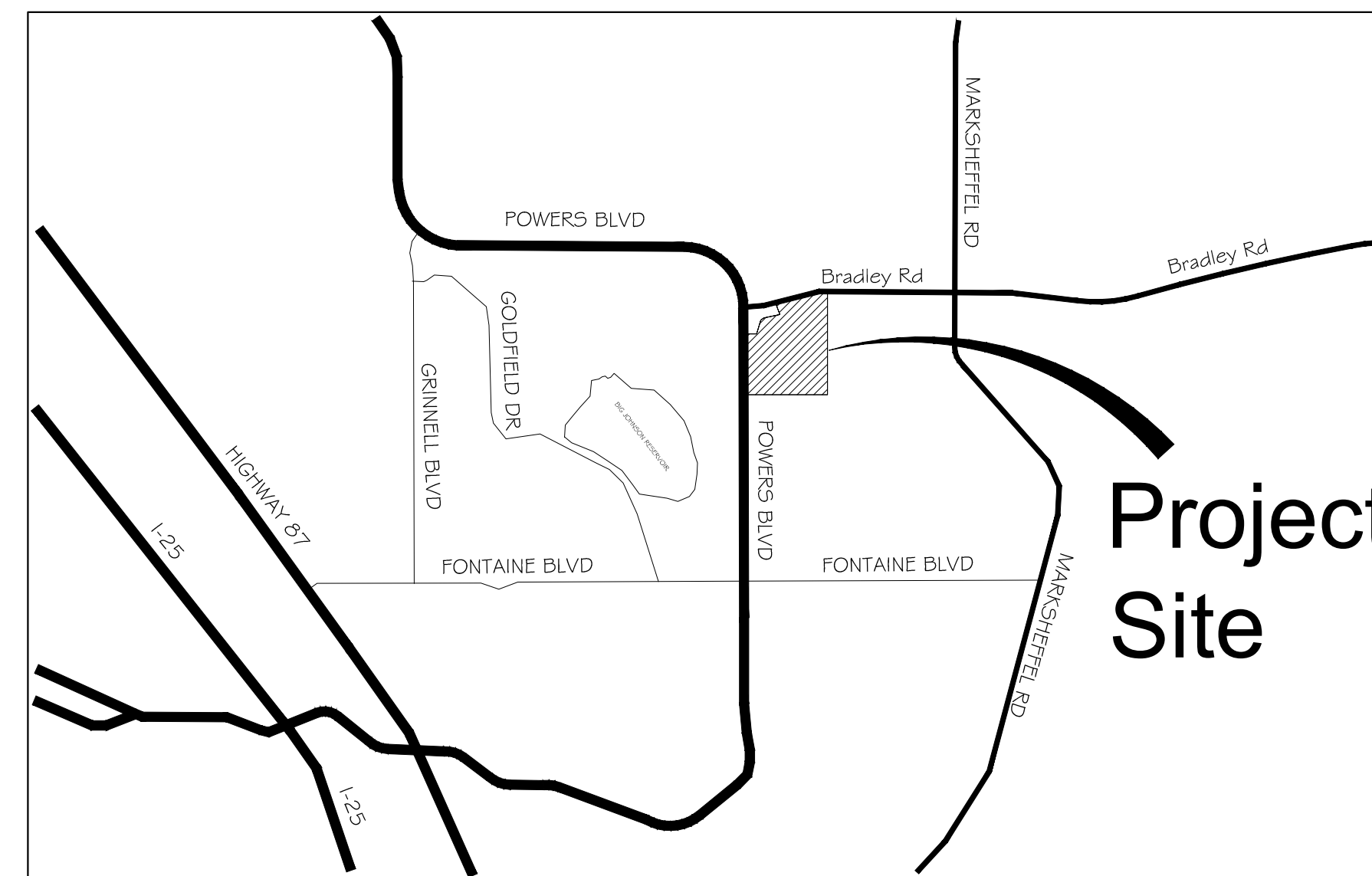
TRAILS AT ASPEN RIDGE FILING NO.1

EL PASO COUNTY, CO

ROADWAY & STORM IMPROVEMENT PLANS

DECEMBER, 2019

SHEET NAME		SHEET No.
TS01	TITLE SHEET	1
DT08-DT09	POND DETAILS	72-73



VICINITY MAP
N.T.S.

ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERION ESTABLISHED BY THE CITY FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSE FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED DRAINAGE PLANS AND SPECIFICATIONS.

By: _____ Date: _____

NICOLE SCHANEL, PE #52434
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

EL PASO COUNTY:

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

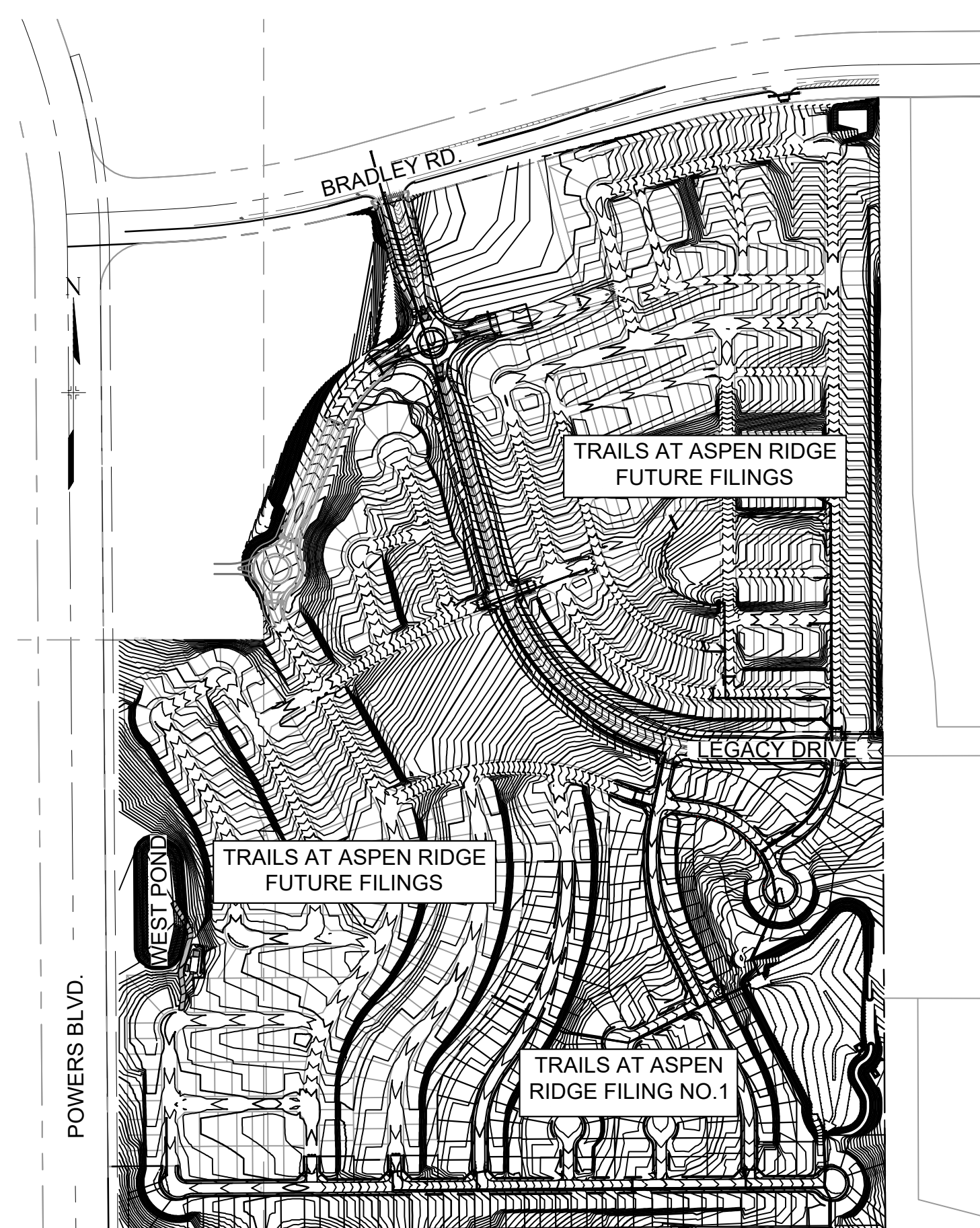
IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. _____ DATE _____
COUNTY ENGINEER / ECM ADMINISTRATOR

OWNER/DEVELOPER:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

COLA, LLC
555 MIDDLE PARKWAY
COLORADO SPRINGS, CO 80921
DATE _____



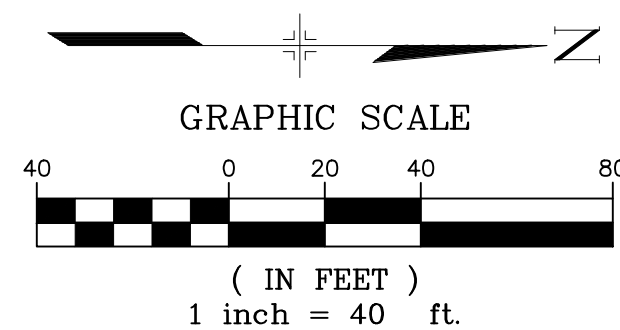
SITE MAP
N.T.S.

ACCEPTED for FILE
Engineering Review
11/30/2022 7:46:20 AM
dsd/afrc
EPC Planning & Community
Development Department

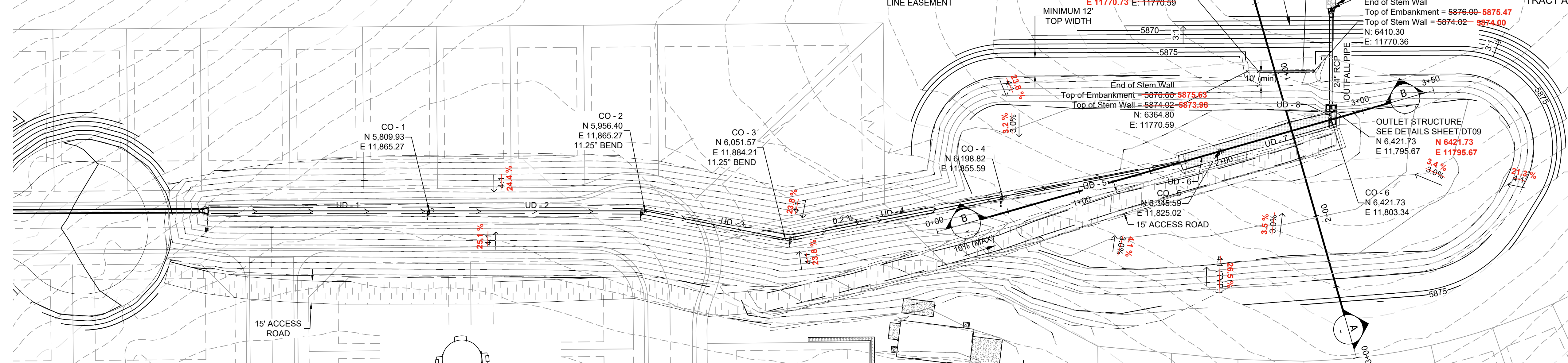
<p>REFERENCE DRAWINGS</p> <p>THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION, TYPE OF COMPONENT NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS. REFER TO ORIGINAL DRAWINGS FOR SIGNATURES AND SEALS.</p>	<p>ENGINEERING RECORD DRAWINGS</p> <p>Date: 10/31/2022</p> <p>JESSE SULLIVAN, PE #55600 FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.</p>	<p>SHEET KEY</p>	<p>BENCHMARK</p> <p>COLORADO SPRINGS UTILITIES (FIMS) MONUMENT F206 A BERNTSEN TOP SECURITY MONUMENT SYSTEM WITH A 3.5-INCH DIAMETER ALUMINUM CAP IN A ROAD BOX, LOCATED ON THE NORTHWEST CORNER OF FONTAINE BOULEVARD AND POWERS BOULEVARD. ELEVATION - 5897.89' U.S. SURVEY FT</p>	<p>BASIS OF BEARING</p> <p>BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 9, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M. SAID LINE BEARS S89°51'23"E FROM THE NORTHWEST CORNER OF SAID SECTION 9 (2 1/2' AULM. CAP PLS 17664) TO THE N 1/4 CORNER OF SAID SECTION 9 (3 3/4' AULM. CAP PLS 10377)</p>	<p>PREPARED BY:</p>	<p>SEAL</p>	<p>TRAILS AT ASPEN RIDGE</p>			
	<p>FILING NO. 1 ROADWAY & STORM IMPROVEMENT PLANS</p>						<p>TITLE SHEET</p>			
<p>FILE NAME: S:\19.886.011 (Trails at Aspen Ridge - F1)\100 Dwg\104 Plan Sets\As-Built\TS01-as-built.dwg</p> <p>CTB FILE: ---</p> <p>PLOT DATE: October 31, 2022 2:53:54 PM</p> <p>THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.</p>		<p>FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 19.886.011</p>		<p>DESIGNED BY: NMS</p> <p>DRAWN BY: TJC</p> <p>CHECKED BY: NMS</p>	<p>SCALE</p> <p>HORIZ N.A.</p> <p>VERT. N.A.</p>	<p>DATE ISSUED: SEPTEMBER, 2019</p> <p>SHEET 1 OF 73</p>	<p>DRAWING No. TS01</p>			



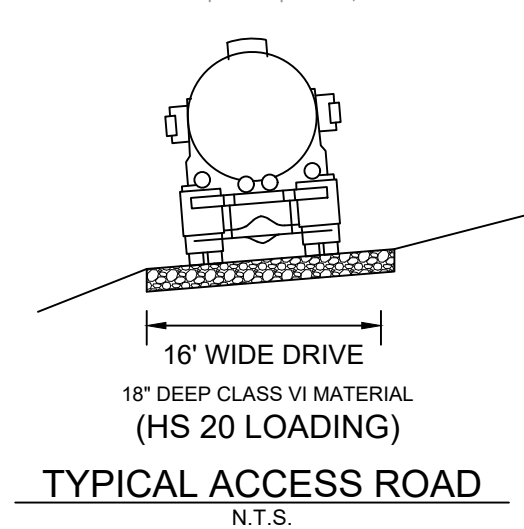
Know what's below.
Call before you dig.



- NOTES:**
1. ALL STATION, OFFSET, AND NORTHING/EASTING VALUES ARE TO THE CENTER OF ALL STRUCTURES UNLESS OTHERWISE NOTED.
 2. PIPE LENGTHS ARE MEASURED FROM THE OUTSIDE FACE OF ALL STRUCTURES.
 3. ALL PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.
 4. ALL PIPE BEND ANGLES ARE MEASURED FROM THE CENTER OF PIPE.
 5. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING STRUCTURES.
 6. UNDERDRAIN AND SAND FILTER SHALL BE INSTALLED IN ACCORDANCE WITH UDFCD T-06 (SAND FILTER) AND T-02 (GRASS SWALE) RECOMMENDATIONS

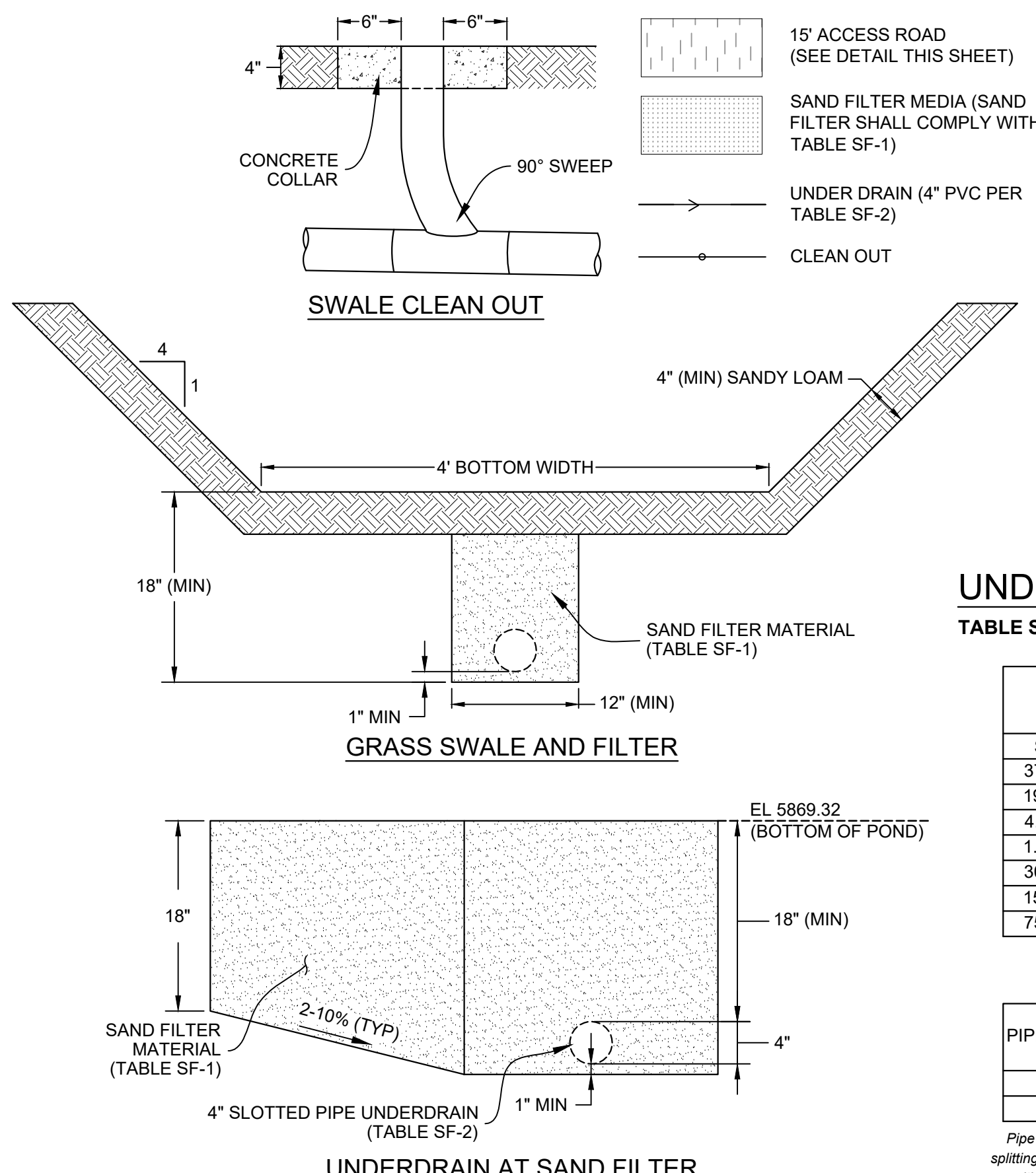
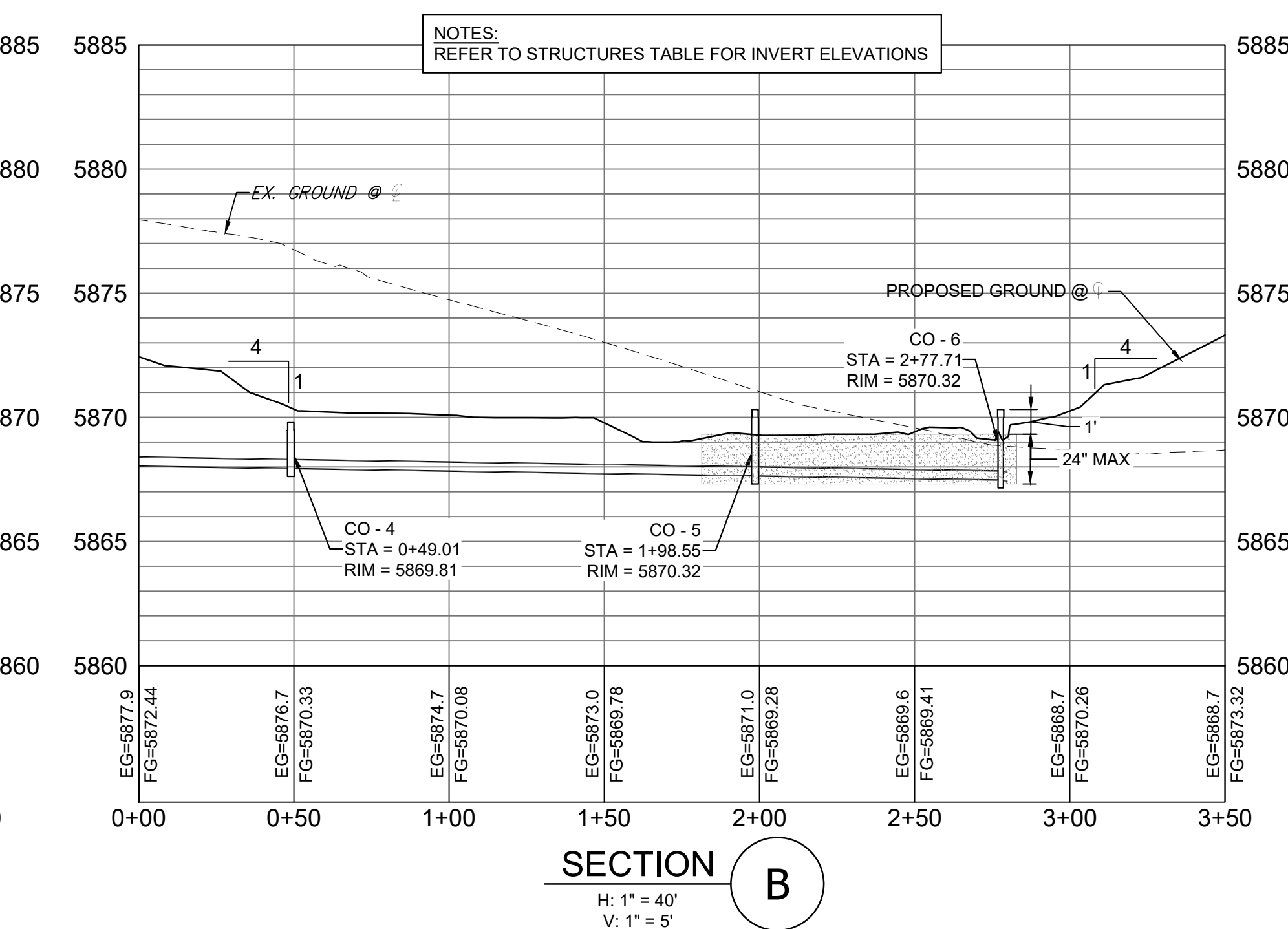
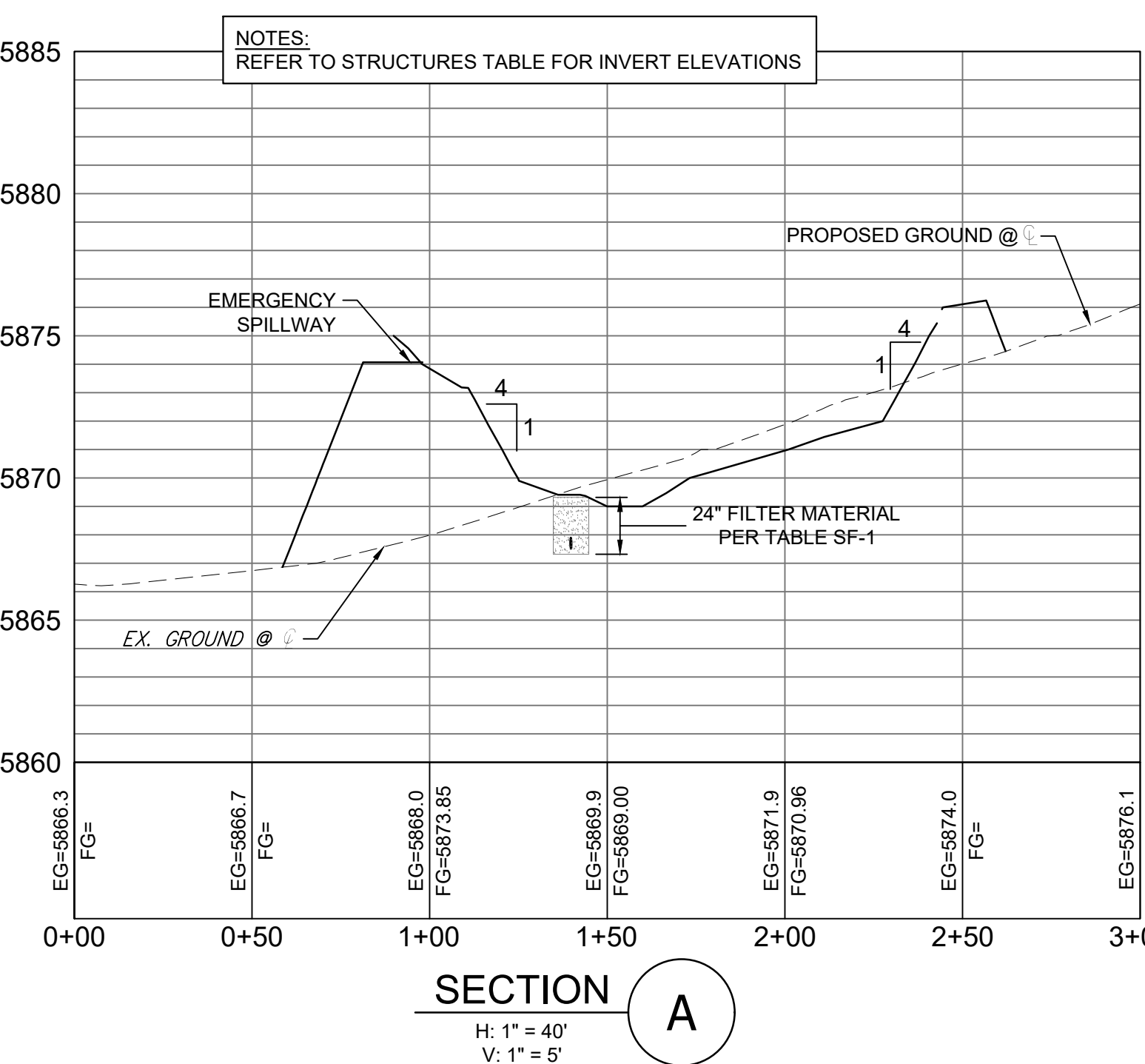


- NOTES:**
1. ALL CLEAN OUTS (C/O) TO BE INSTALLED WITH 90° SWEEP AND WATERTIGHT CAPS.
 2. ALL CLEAN OUT RIM ELEVATIONS WITHIN SWALE TO MATCH FINISHED GRADE.
 3. ALL CLEAN OUT RIM ELEVATIONS WITHIN SAND FILTER MEDIA TO BE 1" HIGHER THAN BOTTOM OF POND ELEVATION 5869.32.



Pipe Table				
Pipe Name	Size	Bearing	Length	Slope
OUTFALL PIPE	24"	N89°51'42"W	62.02	1.08%
UD - 1	4"	N00°00'00"E	150.00	0.20%
UD - 2	4"	N00°00'00"E	146.46	0.20%
UD - 3	4"	N11°15'00"E	97.04	0.20%
UD - 4	4"	N10°59'51"W	150.00	0.20%
UD - 5	4"	N10°59'51"W	126.45	0.20%
UD - 6	4"	N15°53'42"W	23.55	0.20%
UD - 7	4"	N15°53'42"W	79.16	0.20%
UD - 8	4"	N89°57'54"W	7.67	0.40%

Structure Table	
Structure Name	Structure Details
CO - 1	RIM = 5870.390 SUMP = 5868.730 UD - 1 INV IN = 5868.730 UD - 2 INV OUT = 5868.733
CO - 2	RIM = 5870.103 SUMP = 5868.440 UD - 2 INV IN = 5868.440 UD - 3 INV OUT = 5868.440
CO - 3	RIM = 5869.912 SUMP = 5868.246 UD - 3 INV IN = 5868.246 UD - 4 INV OUT = 5868.250
CO - 4	RIM = 5869.806 SUMP = 5867.950 UD - 4 INV IN = 5867.950 UD - 5 INV OUT = 5867.950
CO - 5	RIM = 5870.320 SUMP = 5867.650 UD - 6 INV IN = 5867.653 UD - 7 INV OUT = 5867.650
CO - 6	RIM = 5870.320 SUMP = 5867.490 UD - 7 INV IN = 5867.492 UD - 8 INV OUT = 5867.490
OUTLET STRUCTURE	RIM = 5872.550 — 5872.67 SUMP = 5867.210 — 5864.88 UD - 8 INV IN = 5867.459 — 5867.11 OUTFALL PIPE INV OUT = 5867.210



UNDERDRAIN
TABLE SF-1 Gradation specifications for CDOT Class B or C filter material (Source: CDOT Table 703-7)

SIEVE SIZE	CDOT CLASS B FILTER MATERIAL		CDOT CLASS C FILTER MATERIAL	
	MASS PERCENT	PASSING SQUARE MESH SIEVES	MASS PERCENT	PASSING SQUARE MESH SIEVES
37.5mm (1.5")	100		100	
19.0mm (0.75")		100		100
4.75mm (No. 4)	20-60		20-60	60-100
1.18mm (No. 16)	10-30		10-30	
300um (No. 50)	0-10		0-10	
150um (No. 100)		0-10		0-10
75um (No. 200)	0-3		0-3	

TABLE SF-2 Dimensions for slotted pipe

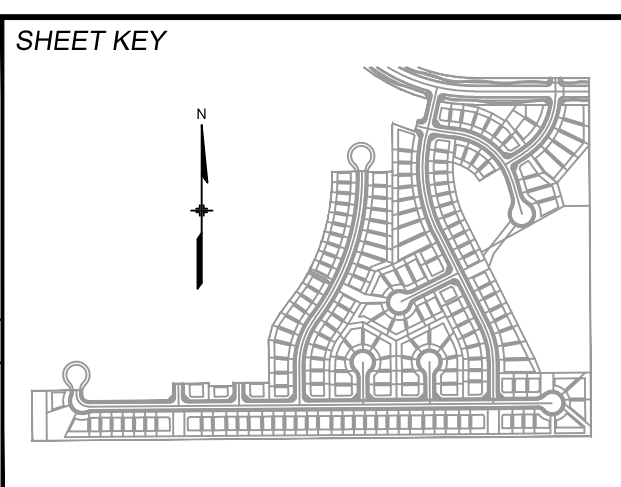
PIPE SIZE	SLOT LENGTH	MAXIMUM SLOT WIDTH	SLOT CENTERS	OPEN AREA (per foot)
4"	1-1/16"	0.032"	0.413"	1.90 sq-in
6"	1-3/8"	0.032"	0.516"	1.98 sq-in

ENGINEERING RECORD DRAWINGS

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Date: 10/31/2022
JESSE SULLIVAN, PE #55600 FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

FILE NAME: S:\19.886.011 (Trails at Aspen Ridge - F1)\100 Dwg\104 Plan Sets\As-Built\SD19.dwg
CTB FILE: ---
PLOT DATE: October 31, 2022 2:07:04 PM
THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.



BENCHMARK
COLORADO SPRINGS UTILITIES (FIMS) MONUMENT F206
A BERTSEN TOP SECURITY MONUMENT SYSTEM WITH A 3.5-INCH DIAMETER ALUMINUM CAP IN A ROAD BOX, LOCATED ON THE NORTHWEST CORNER OF FONTAINE BOULEVARD AND POWERS BOULEVARD.
ELEVATION - 5897.89' U.S. SURVEY FT

BASIS OF BEARING
BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 9, NORTHWEST CORNER OF SAID SECTION 9 (2 1/2' AULM. CAP PLS 17664) TO THE N 1/4 CORNER OF SAID SECTION 9 (3 1/2' AULM. CAP PLS 10377)

PREPARED BY:

SEAL

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 19.886.011

TRAILS AT ASPEN RIDGE

FILING NO. 1
ROADWAY & STORM IMPROVEMENT PLANS

WEST POND LAYOUT, PROFILES,
SECTIONS, DETAILS, AND TABLES

DESIGNED BY: WME
DRAWN BY: WME
CHECKED BY: JTS

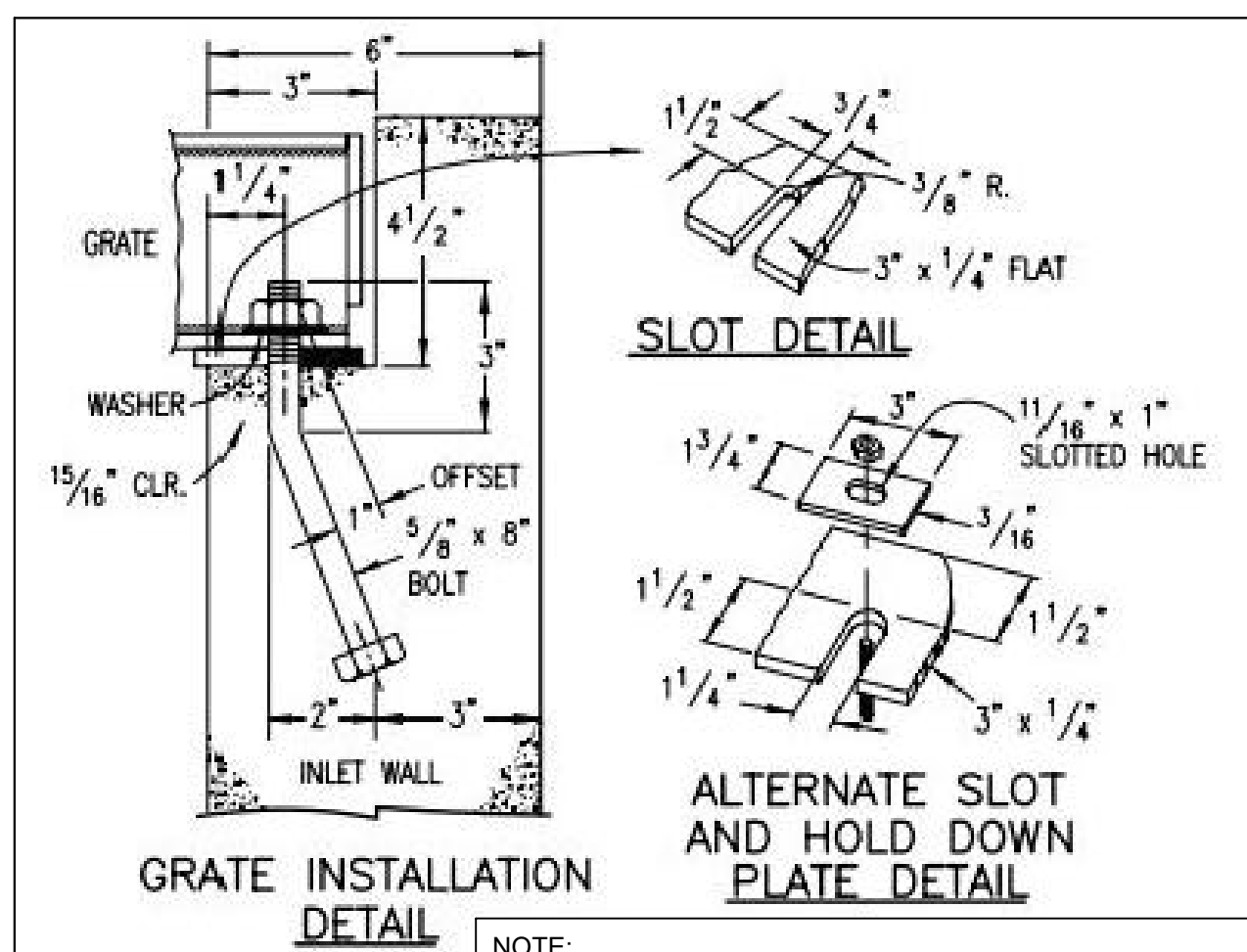
SCALE: HORIZ 1" = 40'
VERT. 1" = 5'

DATE ISSUED: OCTOBER, 2022
SHEET 72 OF 73

DRAWING No. DT08

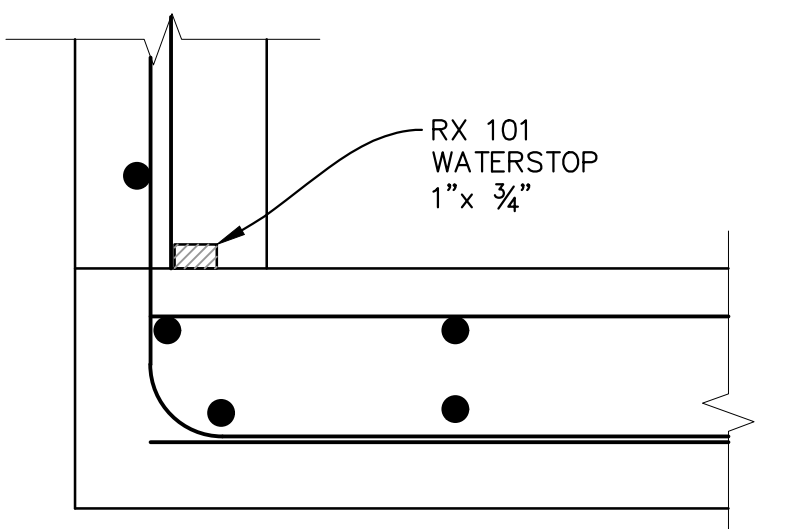
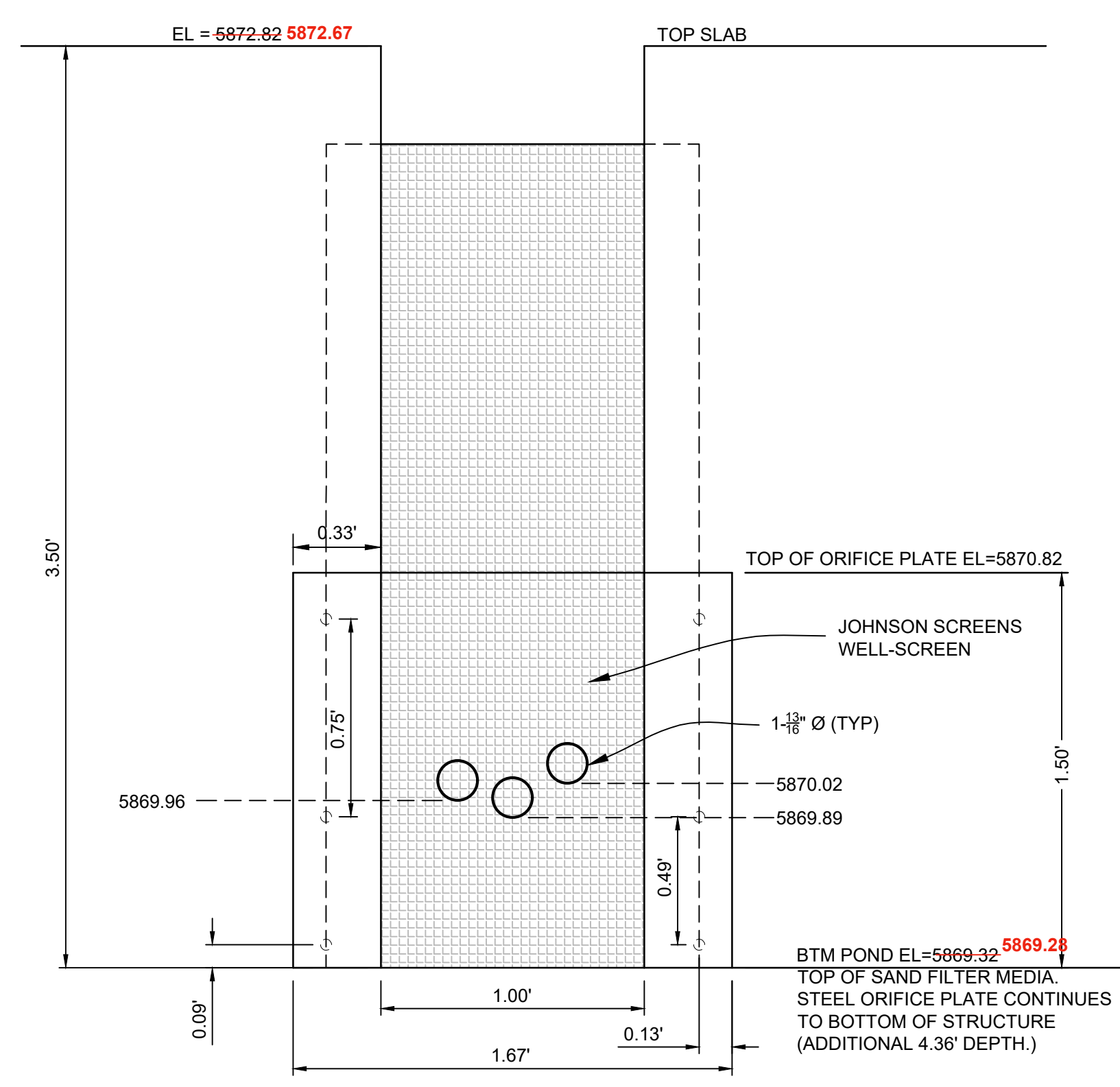
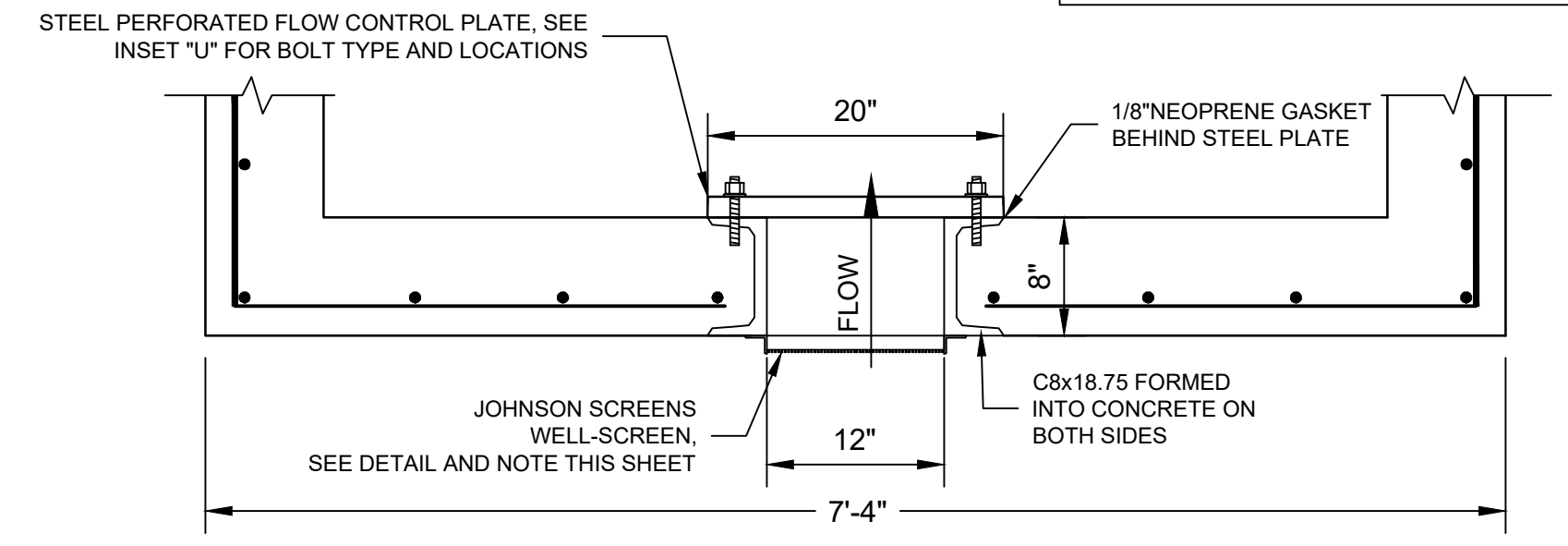
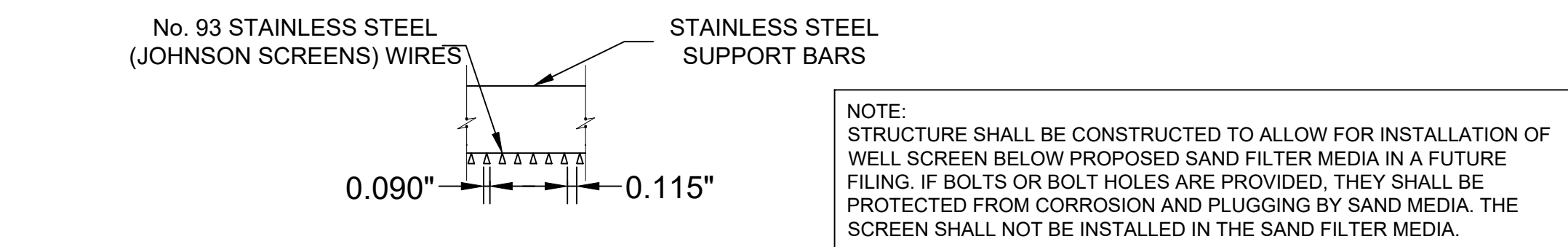


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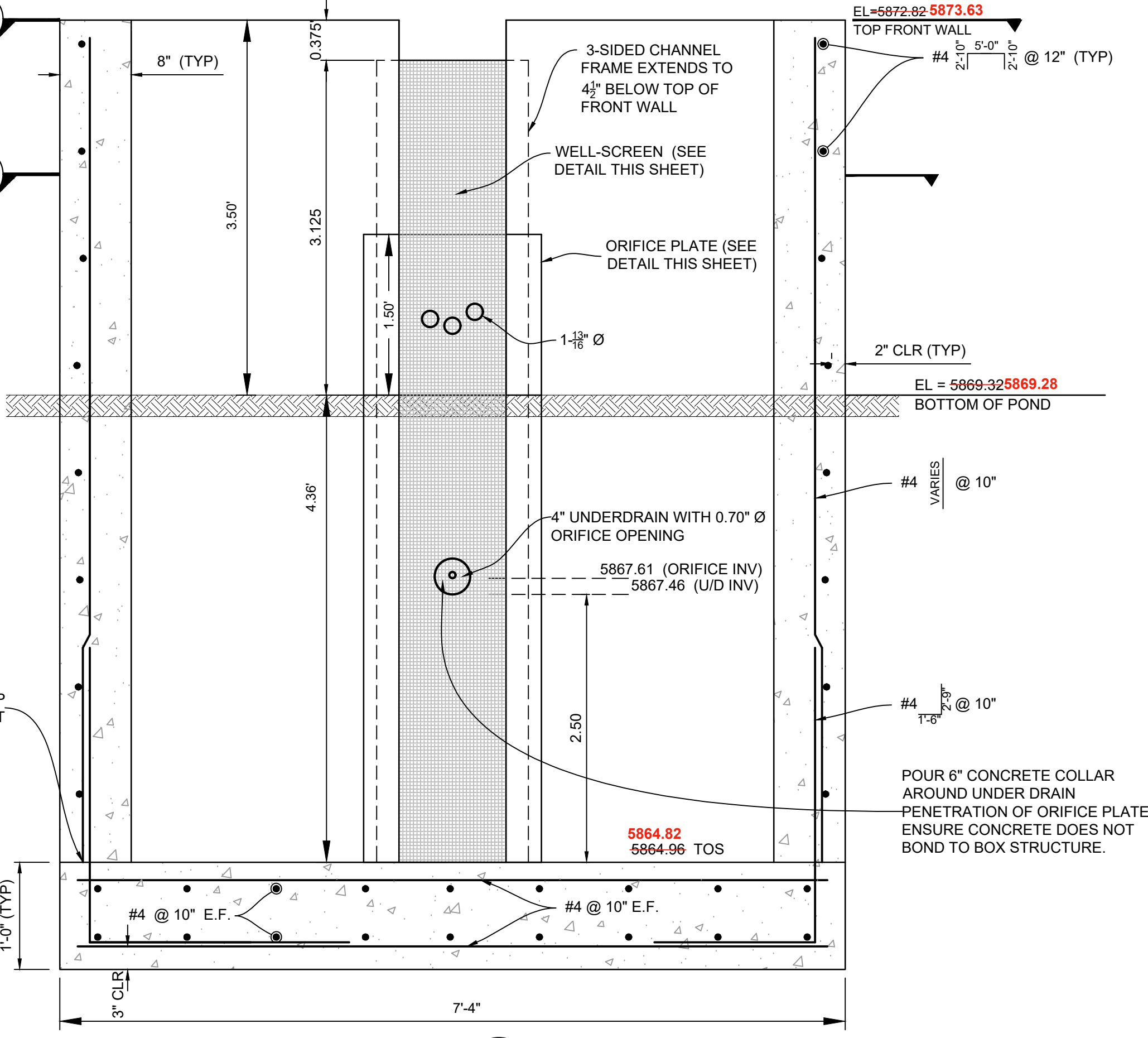
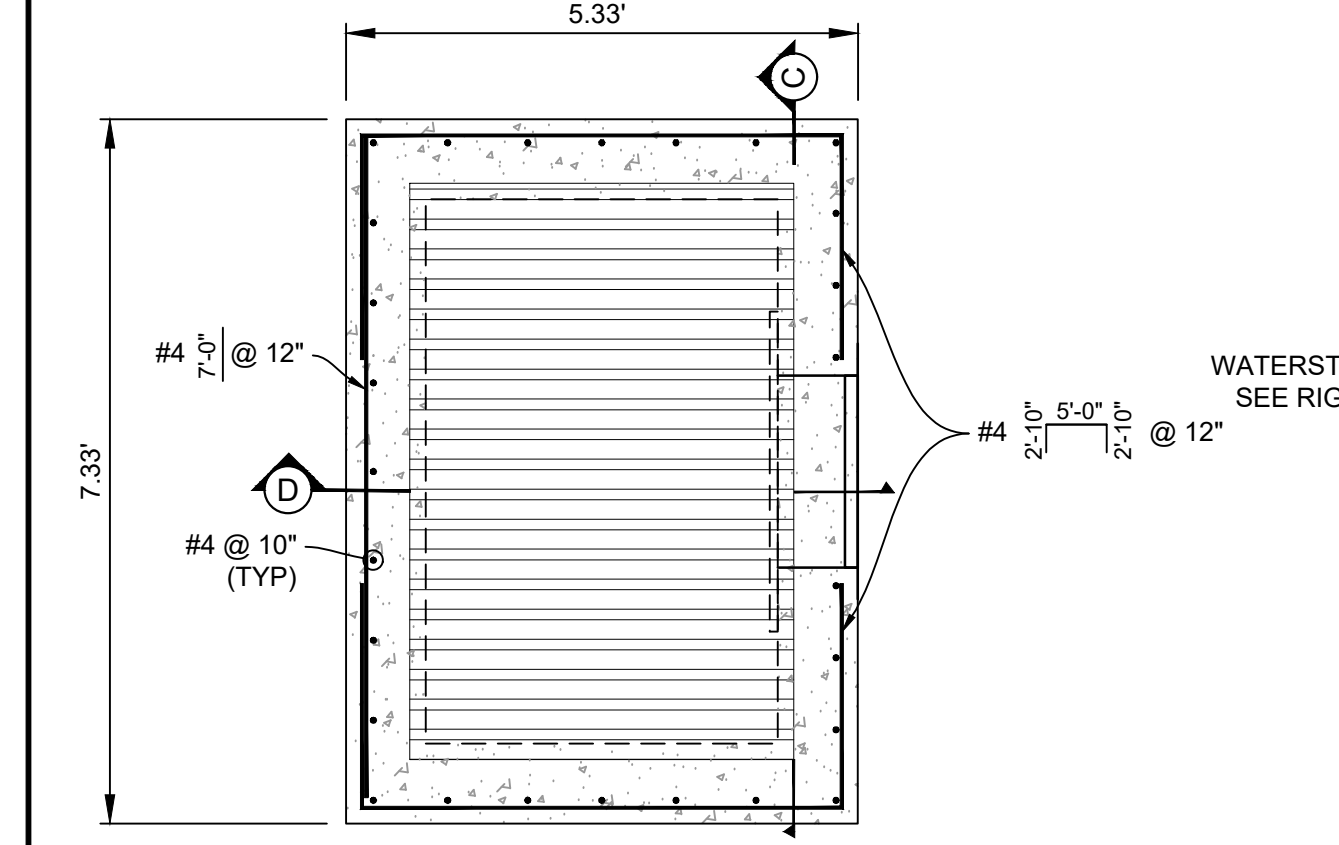
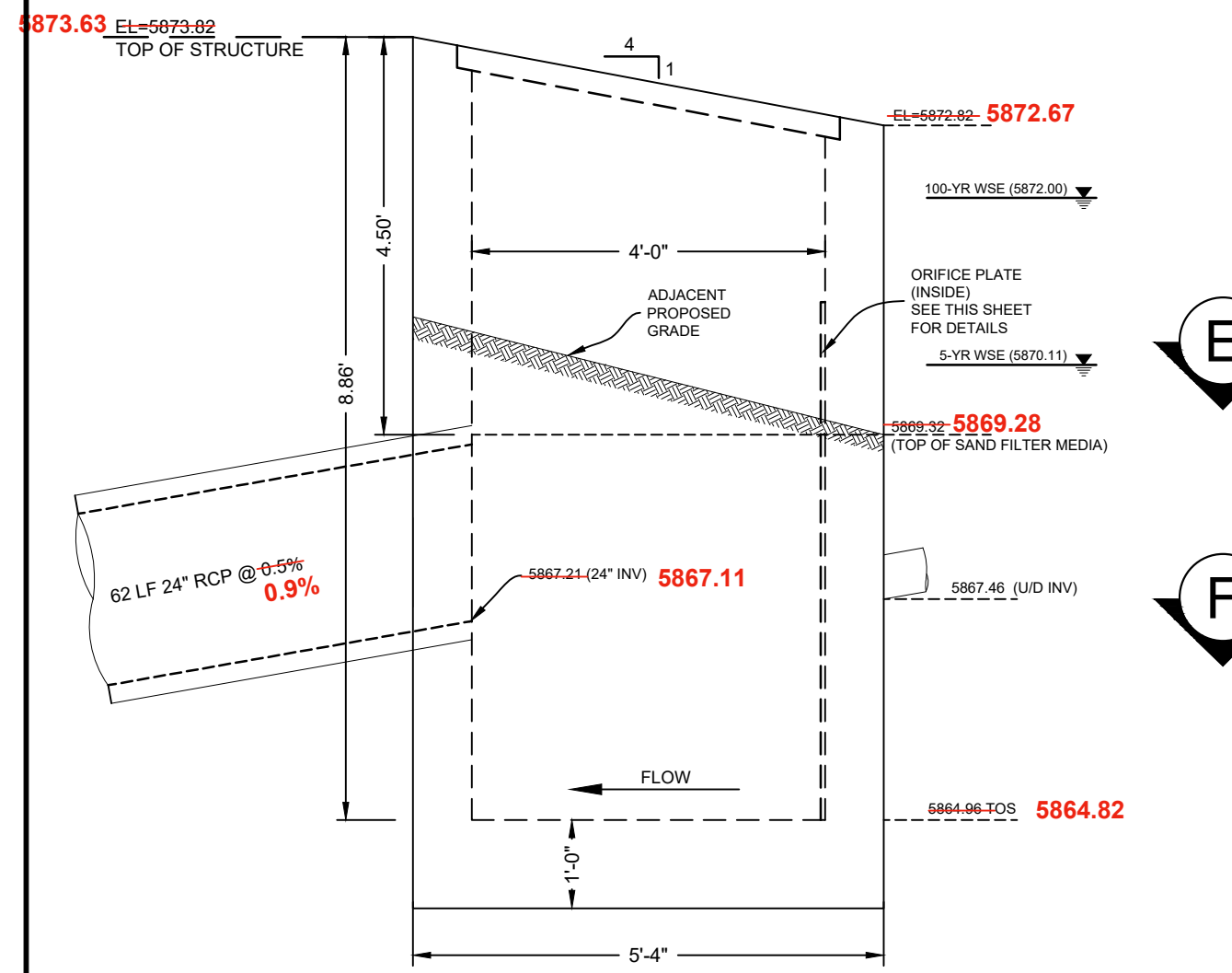


JOHNSON SCREENS STAINLESS STEEL VEE WIRE FILTERS WELL-SCREEN (OR EQUAL)

STRUCTURE	SCREEN #93 VEE WIRE SLOT OPENING	SUPPORT ROD TYPE & SPACING	TOTAL SCREEN THICKNESS	CARBON STEEL FRAME TYPE
OUTLET STRUCTURES	0.139	#156 VEE @ 3/4" O.C.	0.31"	3/8" x 1" BAR

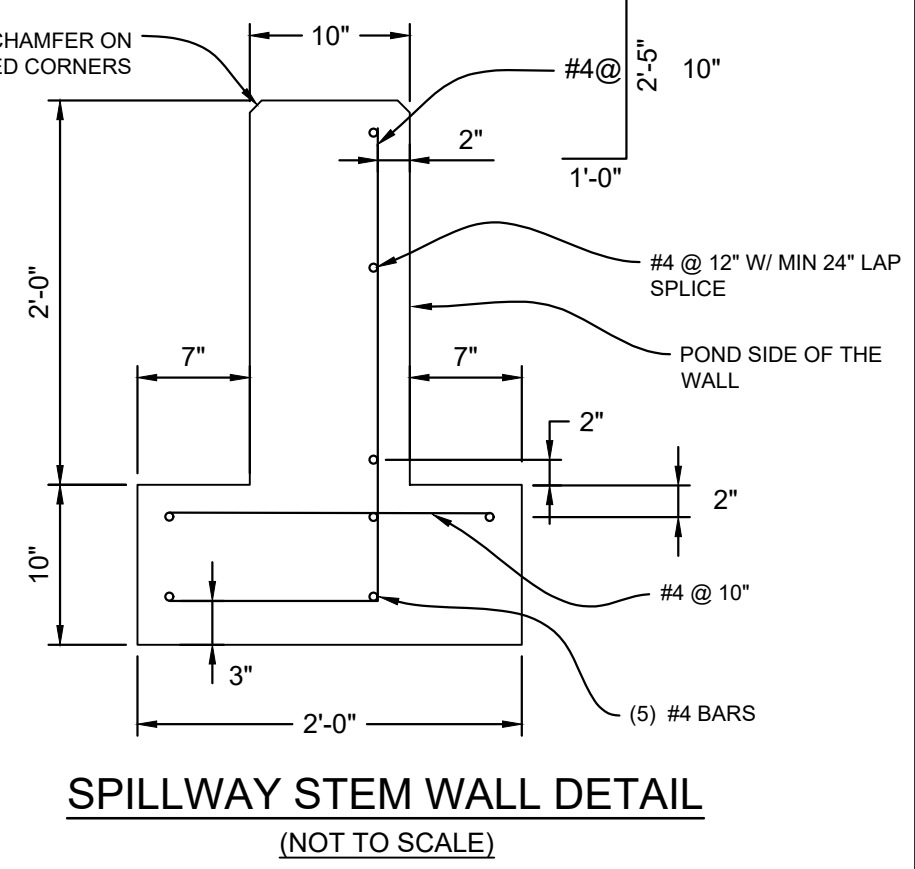
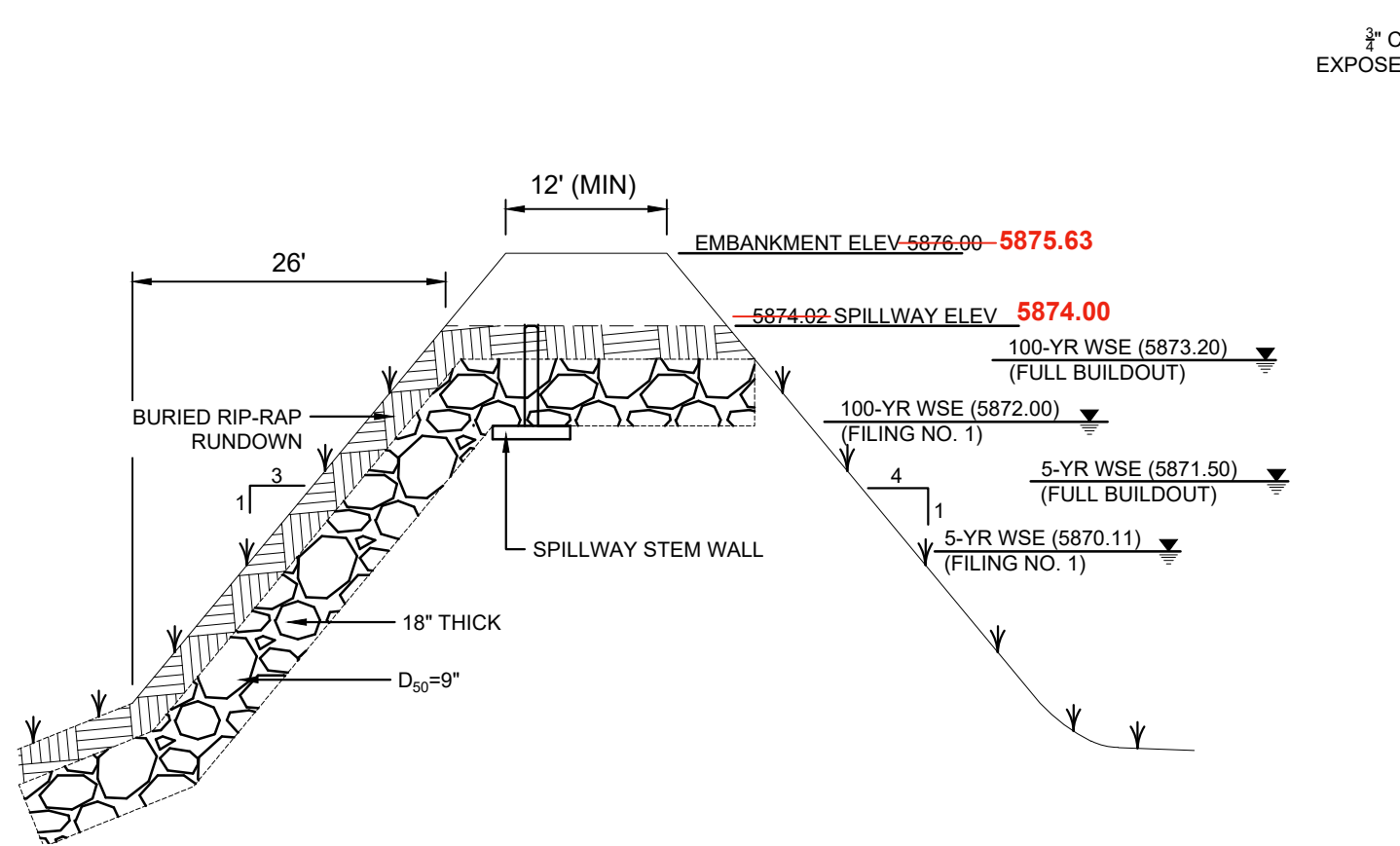
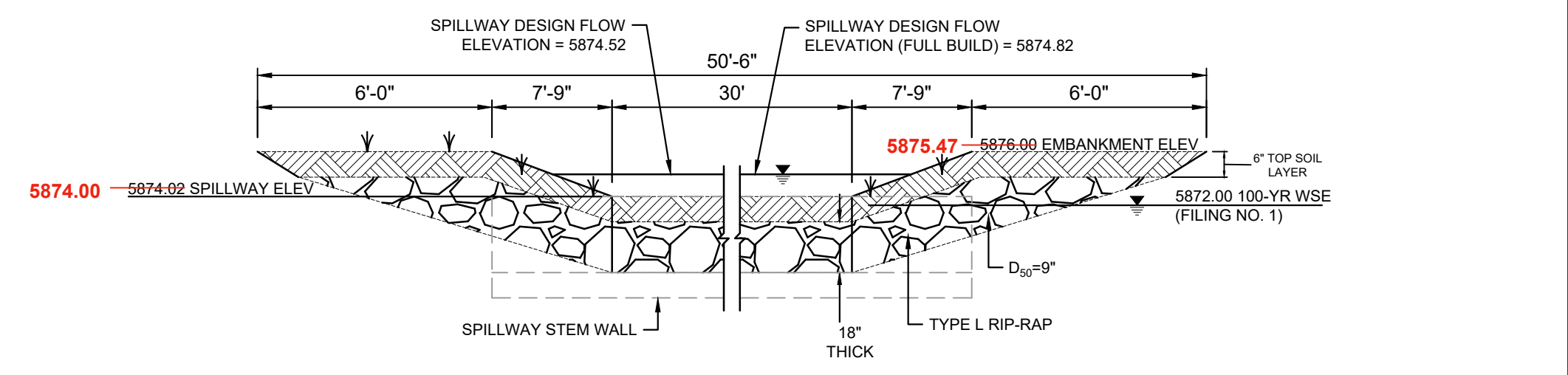


NOTES:
WATERSTOP SHALL BE VOLCLAY WATERSTOP RX 101 OR EARTHSHIELD JP 648 OR APPROVED EQUAL.
PLACE WATERSTOP FOR ENTIRETY OF EACH HORIZONTAL & VERTICAL CONSTRUCTION JOINT.
FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.



INSET U/ ORIFICE PLATE DETAIL
H: 2"=1"

NOTE:
ORIFICE PLATE WILL BE REPLACED OR MODIFIED BY FUTURE FILINGS.



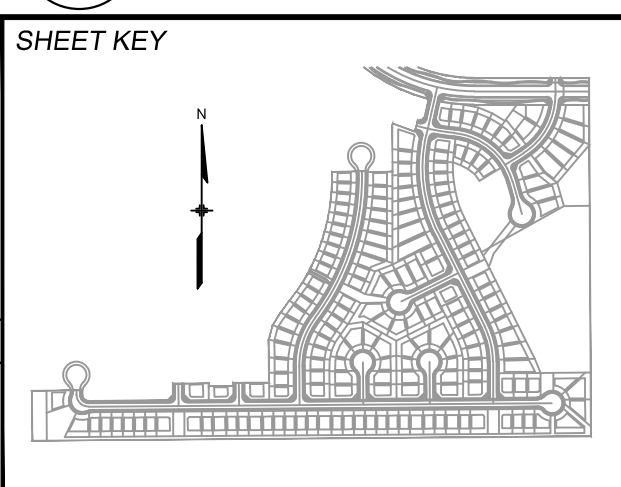
EMERGENCY SPILLWAY DETAILS
(NTS)

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FILE NAME: S:\19.886.011 (Trails at Aspen Ridge - F1)\100 Dwg\104 Plan Sets\As-Built\West Pond Structures.dwg
CTB FILE: ---
PLOT DATE: October 31, 2022 2:21:17 PM
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BENCHMARK
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PREPARED BY:
Matrix DESIGN GROUP

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 19.886.011

TRAILS AT ASPEN RIDGE

FILING NO. 1
ROADWAY & STORM IMPROVEMENT PLANS

WEST POND SECTIONS AND DETAILS

DESIGNED BY: WME	SCALE: N/A	DATE ISSUED: OCTOBER 2022	DRAWING No. DT09
DRAWN BY: WME	HORIZ: N/A	SHEET 73 OF 73	
CHECKED BY: JTS	VERT: N/A		