

# POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

# CLERMONT SOLAR PROJECT

## MCKEAN COUNTY, PA

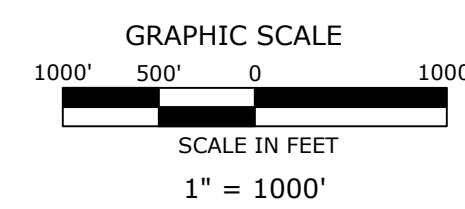
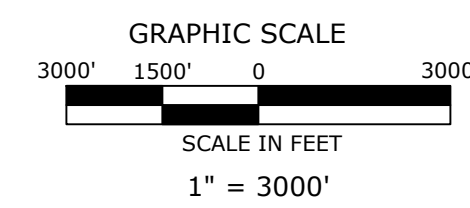
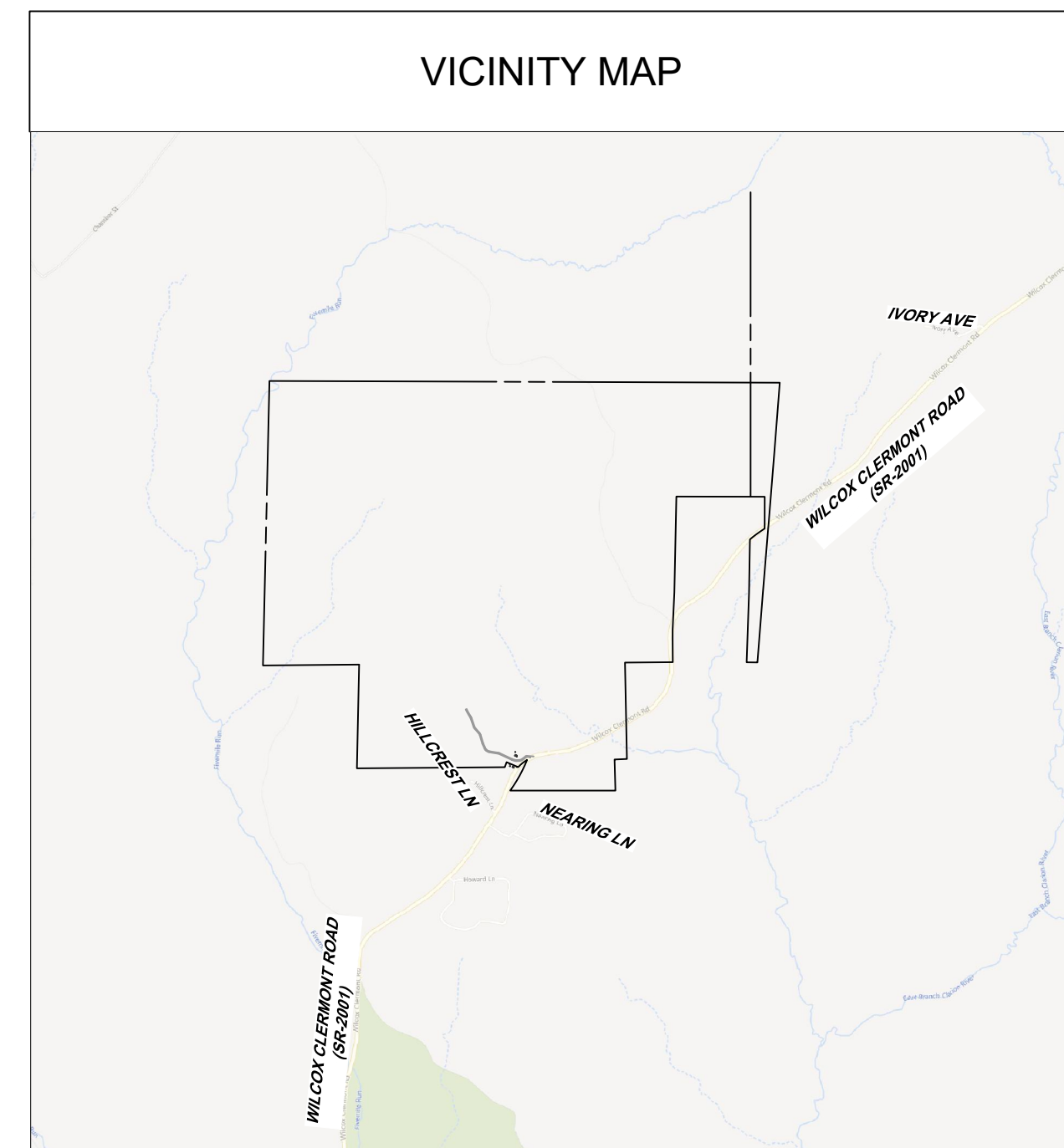
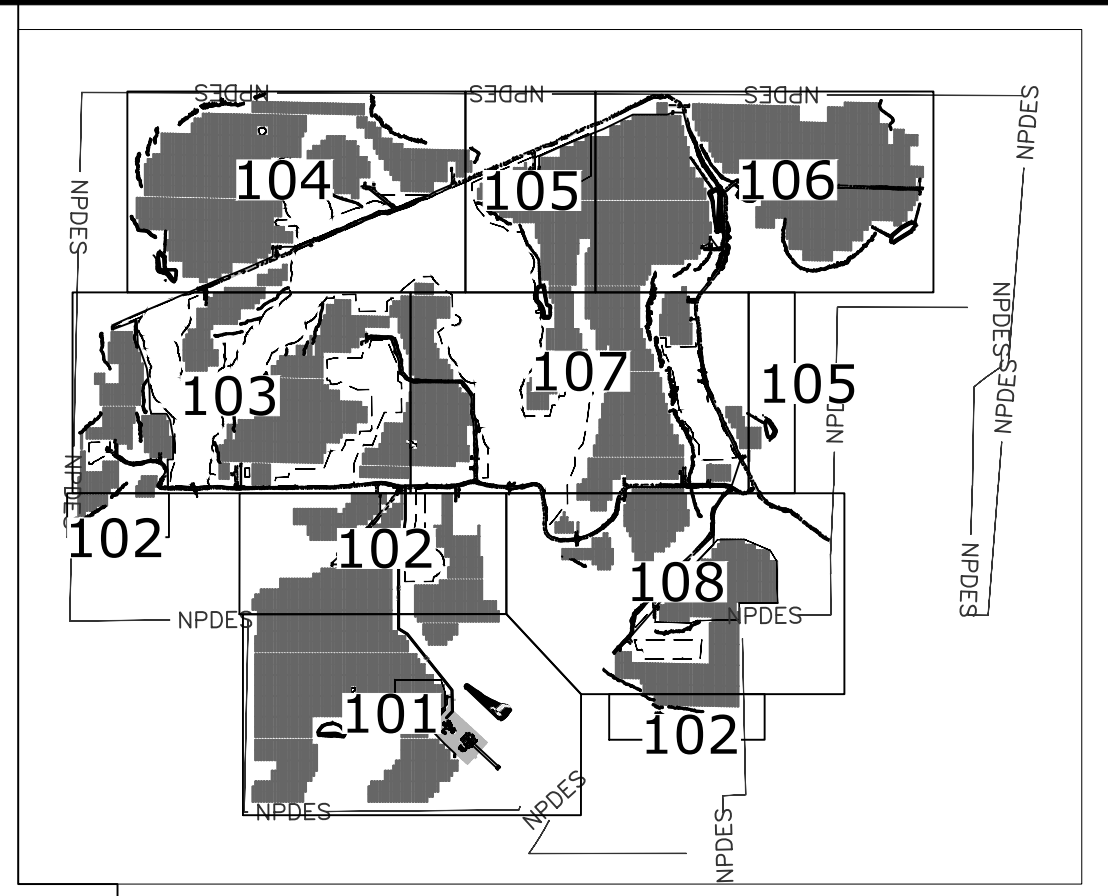


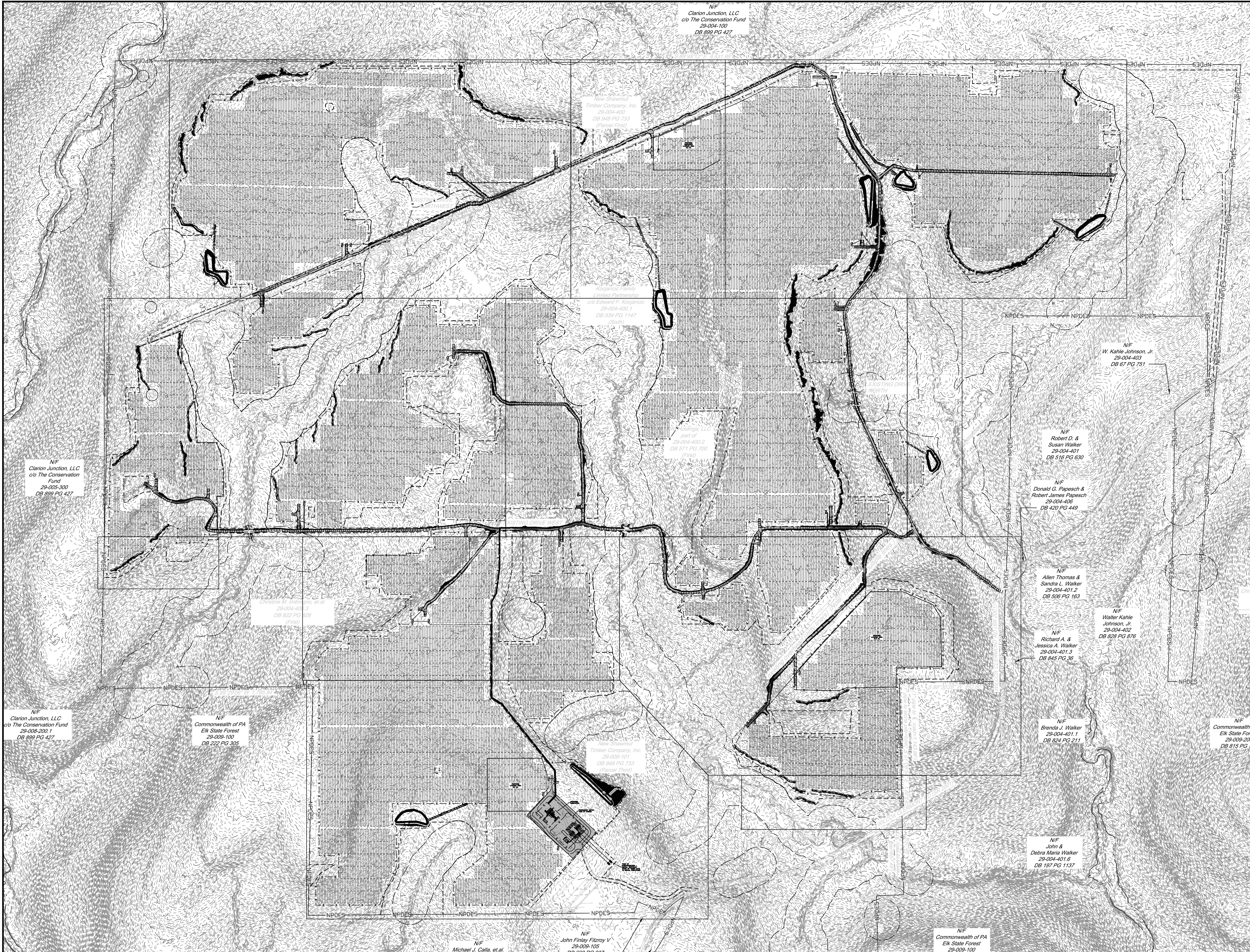
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5	103	GRADING & STORMWATER MANAGEMENT PLAN 3
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		OWNER: 	PLAN: PCSM PLAN	SCALE: AS SHOWN
		PLAN PREPARER: 	LOCATION: MCKEAN COUNTY, PA	PROJECT: CLERMONT SOLAR PROJECT
				SHEET TITLE: COVER SHEET
2	08-21-24	REV PER NEW SOLAR EQUIPMENT	DATE:	PROJECT NO.:
1	10-15-20	REV PER MCKD 10-06-20 COMMENTS	08/21/24	US0024243.7390
NO.	DATE	REVISION	SHEET:	PAGE:
			001	1 OF 17

N/F  
Clarion Junction, LLC  
c/o The Conservation Fund  
29-004-100  
DB 899 PG 427



N/F  
Commonwealth of PA  
Eik State Forest  
29-004-200  
DB 815 PG 721



N/F  
Clarion Junction, LLC  
c/o The Conservation Fund  
29-005-300  
DB 899 PG 427

N/F  
Timber Company, Inc.  
29-004-400  
DB 899 PG 733  
(Forest Fund)

N/F  
Erikson, Inc.  
29-004-400 /  
DB 534 PG 1147  
(Forest Fund)

N/F  
part of  
29-004-400.2  
DB 571 PG 700  
(Forest Fund)

N/F  
W. Kahle Johnson, Jr.  
29-004-402  
DB 67 PG 751

N/F  
Robert D. &  
Susan Walker  
29-004-401  
DB 516 PG 630

N/F  
Donald G. Papesch &  
Robert James Papesch  
29-004-406  
DB 423 PG 440

N/F  
Allen Thomas &  
Sandra L. Walker  
29-004-401.2  
DB 506 PG 163

N/F  
Richard A. &  
Jessica A. Walker  
29-004-401.3  
DB 646 PG 30

N/F  
Walter Kahle  
Johnson, Jr.  
29-004-402  
DB 828 PG 876

N/F  
Brenda J. Walker  
29-004-401.1  
DB 824 PG 211

N/F  
Commonwealth of PA  
Eik State Forest  
29-004-300  
DB 815 PG 721

N/F  
Clarion Junction, LLC  
c/o The Conservation Fund  
29-008-300.1  
DB 899 PG 427

N/F  
Commonwealth of PA  
Eik State Forest  
29-009-100  
DB 222 PG 305

N/F  
Timber Company, Inc.  
29-009-101  
DB 940 PG 733  
(Forest Fund)

N/F  
John &  
Debra Marie Walker  
29-004-401.6  
DB 187 PG 1137

N/F  
Michael J. Calko, et al.  
29-009-102  
DB 909 PG 295

N/F  
John Finlay Fitzroy V  
29-009-105  
DB 689 PG 937

N/F  
Barbara A. Bishop  
29-009-106  
DB 240 PG 622

N/F  
Rosalee I. Bishop  
29-009-109  
DB 432 PG 691

N/F  
Commonwealth of PA  
Eik State Forest  
29-009-100  
DB 222 PG 305

NO.	DATE	REVISION
2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-16-20	REV PER MCCD 19-06-20 COMMENTS

OWNER:  
**ENERGIX RENEWABLES**

PLAN PREPARER:  
**wsp**

PLAN:  
EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION:  
MCKEAN COUNTY, PA

SCALE:  
0 400 800  
feet  
**1" = 400'**

PROJECT:  
CLERMONT SOLAR PROJECT

SHEET TITLE:  
OVERALL GRADING & STORMWATER MANAGEMENT PLAN

DATE: 08/21/24 PROJECT NO: US0024243.7390 SHEET: 002 PAGE: 2 OF 17

MATCHLINE - SEE SHEET 102

MATCHLINE - SEE SHEET 108



New Shawmut  
Timber Company, Inc.  
29-009-101  
DB 948 PG 733  
(Parcel Third)

PROPOSED  
LAYDOWN AREA  
5.0 AC.

PROPOSED  
SUBSTATION

FIRSTENERGY SWITCH  
YARD BY OTHERS

POINT OF  
INTERCONNECTION -  
INSTALL TEMPORARY  
STONE OR TIMBER MATS  
TO INSTALL STRUCTURES

150' STREAM BUFFER

150' STREAM BUFFER

150' STREAM BUFFER

- EDGE OF PAVED BITUMINOUS SURFACE
- EDGE OF GRAVEL OR CRUSHED STONE SURFACE
- PROPERTY BOUNDARY LINE
- EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)
- ADJOINING PROPERTY BOUNDARY LINE
- EASEMENT LINE
- LEGAL RIGHT OF WAY LINE
- MINIMUM BUILDING SETBACK LINE
- EDGE OF EXISTING SURFACE WATERCOURSE
- INDEX CONTOUR LINE
- INTERMEDIATE CONTOUR LINE
- SPOT ELEVATION
- BENCHMARK LABEL
- BUILDING
- CONCRETE SURFACE
- OVERHEAD ELECTRIC LINES
- UNDERGROUND ELECTRIC LINES
- UTILITY POLE
- DRAINAGE PIPE
- UNDERGROUND NATURAL GAS LINE
- TREELINE
- WELL
- RIPARIAN BUFFER
- WETLAND
- SOIL TYPE BOUNDARY LINE
- SOIL TYPE
- CeC

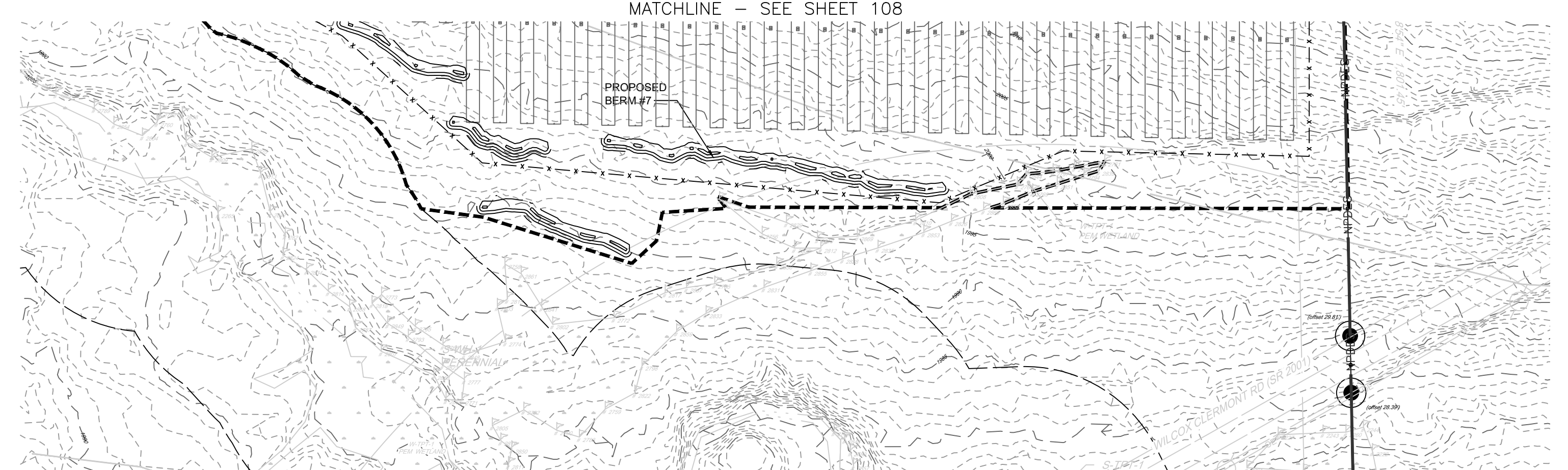
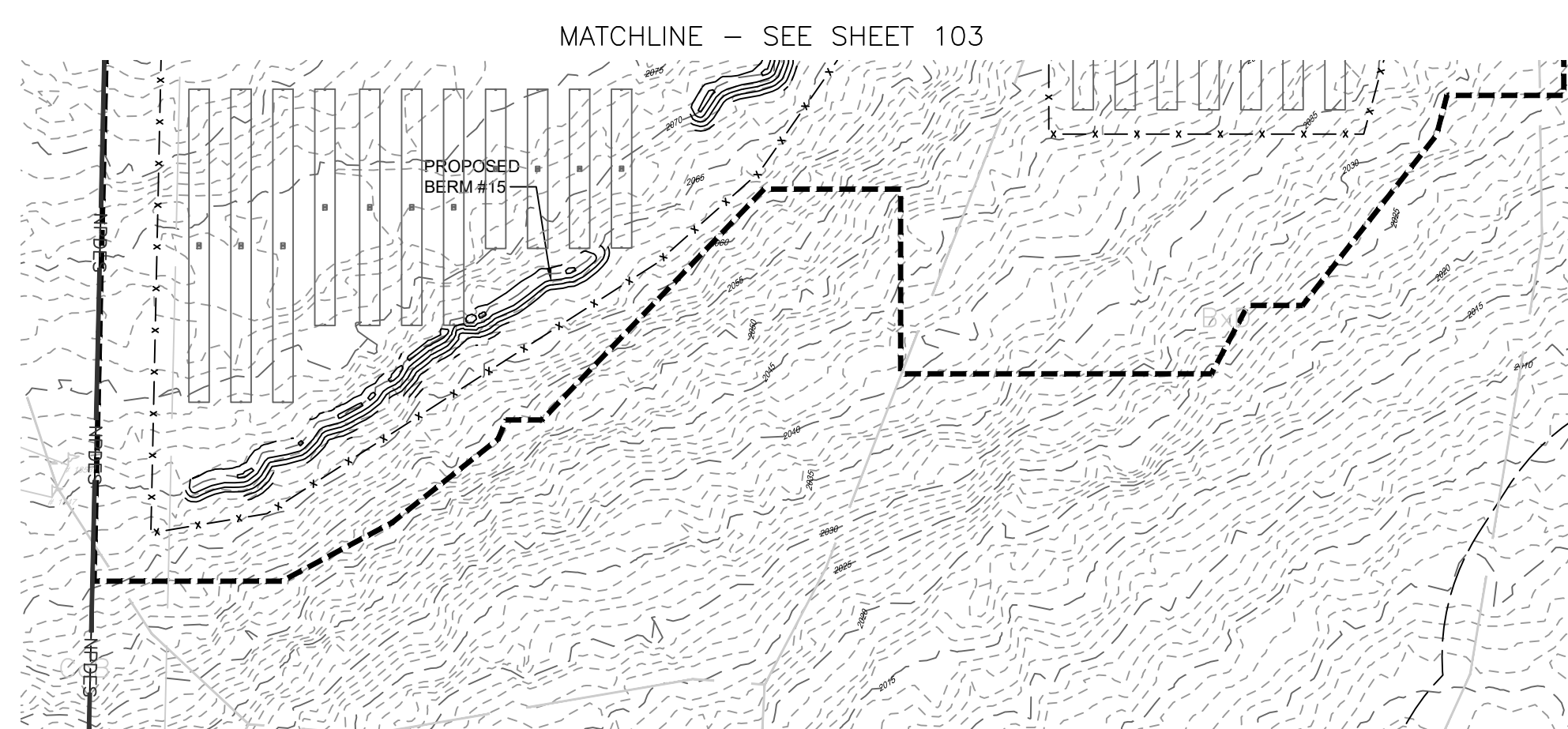
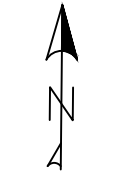
- CENTER LINE
- CONCRETE SURFACE
- EDGE OF ROADWAY SHOULDER
- CRUSHED STONE OR GRAVEL SURFACE
- INTERMEDIATE CONTOUR LINES
- INDEX CONTOUR LINES
- SPOT ELEVATIONS
- DRAINAGE STRUCTURE NUMBER
- DRAINAGE CULVERT OR PIPE
- FLARED END SECTION
- FENCE
- SOLAR ARRAY
- INVERTER
- UNDERGROUND ELECTRIC LINE
- RIPRAP INFILTRATION TRENCH

2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-15-20	REV PER MDCD 19-06-20 COMMENTS
NO.	DATE	REVISION

OWNER:	ENERGIX RENEWABLES
PLAN PREPARER:	WSP

PLAN: PCSI PLAN  
 LOCATION: MCKEAN COUNTY, PA  
 REGISTERED PROFESSIONAL ENGINEER  
 JOSEPH C. SCOTT  
 PE085120

SCALE: 1" = 100'  
 PROJECT: CLERMONT SOLAR PROJECT  
 SHEET TITLE: GRADING & STORMWATER MANAGEMENT PLAN 1  
 DATE: 08/21/24  
 PROJECT NO.: US0024243.7390  
 SHEET: 101  
 PAGE: 3 OF 17



---	EDGE OF PAVED BITUMINOUS SURFACE	---	INDEX CONTOUR LINE	---	DRAINAGE PIPE	---	CENTER LINE	---	FENCE
---	EDGE OF GRAVEL OR CRUSHED STONE SURFACE	---	INTERMEDIATE CONTOUR LINE	---	UNDERGROUND NATURAL GAS LINE	---	CONCRETE SURFACE	---	SOLAR ARRAY
---	PROPERTY BOUNDARY LINE	---	SPOT ELEVATION	---	TREELINE	---	EDGE OF ROADWAY SHOULDER	---	INVERTER
---	EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)	---	BENCHMARK LABEL	---	WELL	---	CRUSHED STONE OR GRAVEL SURFACE	---	UNDERGROUND ELECTRIC LINE
---	ADJOINING PROPERTY BOUNDARY LINE	---	BUILDING	---	RIPARIAN BUFFER	---	INTERMEDIATE CONTOUR LINES	---	RIPRAP INFILTRATION TRENCH
---	EASEMENT LINE	---	CONCRETE SURFACE	---	WETLAND	---	INDEX CONTOUR LINES	---	
---	LEGAL RIGHT OF WAY LINE	---	OVERHEAD ELECTRIC LINES	---	SOIL TYPE BOUNDARY LINE	---	SPOT ELEVATIONS	---	
---	MINIMUM BUILDING SETBACK LINE	---	UNDERGROUND ELECTRIC LINES	---	UTILITY POLE	---	ES-12 DRAINAGE STRUCTURE NUMBER	---	
---	EDGE OF EXISTING SURFACE	---		---		---	FLARED END SECTION	---	
---	WATERCOURSE	---		---		---		---	

NO.	DATE	REVISION
2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-15-20	REV PER MCCD 10-06-20 COMMENTS

OWNER:  
**ENERGIX RENEWABLES**

PLAN PREPARER:  
**wsp**

PLAN: PCSM PLAN  
LOCATION: MCKEAN COUNTY, PA

SCALE: 1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING & STORMWATER MANAGEMENT PLAN 2

DATE: 08/21/24	PROJECT NO: US0024243.7390	SHEET: 102	PAGE: 4 OF 17
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MATCHLINE - SEE SHEET 104

MATCHLINE - SEE SHEET 107

MATCHLINE - SEE SHEET 102



<ul style="list-style-type: none"> <li>EDGE OF PAVED BITUMINOUS SURFACE</li> <li>EDGE OF GRAVEL OR CRUSHED STONE SURFACE</li> <li>PROPERTY BOUNDARY LINE</li> <li>EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)</li> <li>ADJOINING PROPERTY BOUNDARY LINE</li> <li>EASEMENT LINE</li> <li>LEGAL RIGHT OF WAY LINE</li> <li>MINIMUM BUILDING SETBACK LINE</li> <li>EDGE OF EXISTING SURFACE</li> <li>WATERCOURSE</li> </ul>	<ul style="list-style-type: none"> <li>INDEX CONTOUR LINE</li> <li>INTERMEDIATE CONTOUR LINE</li> <li>SPOT ELEVATION</li> <li>BENCHMARK LABEL</li> <li>BUILDING</li> <li>CONCRETE SURFACE</li> <li>OVERHEAD ELECTRIC LINES</li> <li>UNDERGROUND ELECTRIC LINES</li> <li>UTILITY POLE</li> </ul>	<ul style="list-style-type: none"> <li>DRAINAGE PIPE</li> <li>UNDERGROUND NATURAL GAS LINE</li> <li>TREELINE</li> <li>WELL</li> <li>RIPARIAN BUFFER</li> <li>WETLAND</li> <li>SOIL TYPE BOUNDARY LINE</li> <li>SOIL TYPE</li> </ul>	<ul style="list-style-type: none"> <li>CENTER LINE</li> <li>CONCRETE SURFACE</li> <li>EDGE OF ROADWAY SHOULDER</li> <li>CRUSHED STONE OR GRAVEL SURFACE</li> <li>INTERMEDIATE CONTOUR LINES</li> <li>INDEX CONTOUR LINES</li> <li>SPOT ELEVATIONS</li> <li>DRAINAGE STRUCTURE NUMBER</li> <li>DRAINAGE CULVERT OR PIPE</li> <li>FLARED END SECTION</li> </ul>	<ul style="list-style-type: none"> <li>FENCE</li> <li>SOLAR ARRAY</li> <li>INVERTER</li> <li>UNDERGROUND ELECTRIC LINE</li> <li>RIPRAP INFILTRATION TRENCH</li> </ul>
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NO.	DATE	REVISION
2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-15-20	REV PER MCOCD 10-06-20 COMMENTS

OWNER:  
**ENERGIX RENEWABLES**

PLAN PREPARER:  
**wsp**

PLAN: PCSM PLAN  
LOCATION: MCKEAN COUNTY, PA

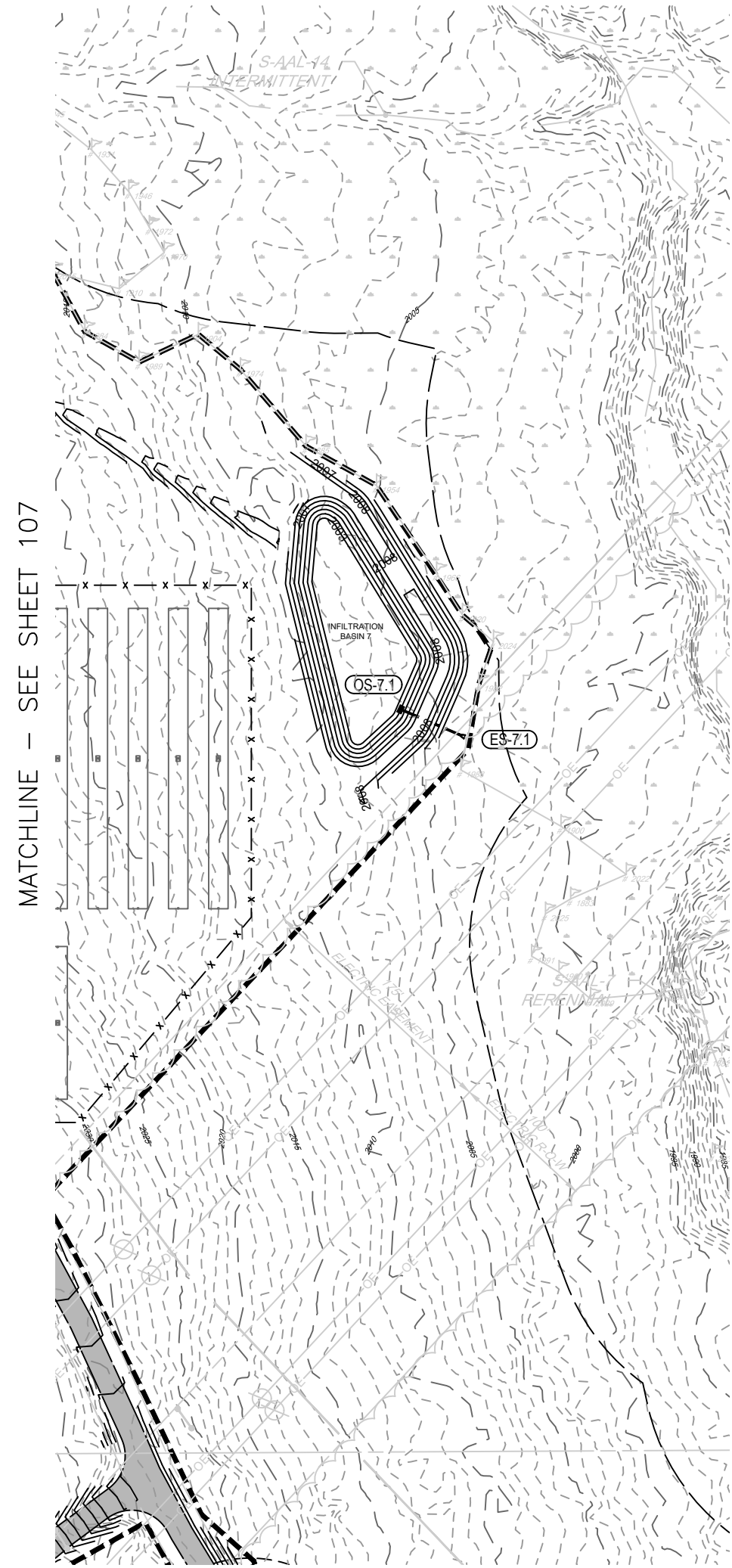
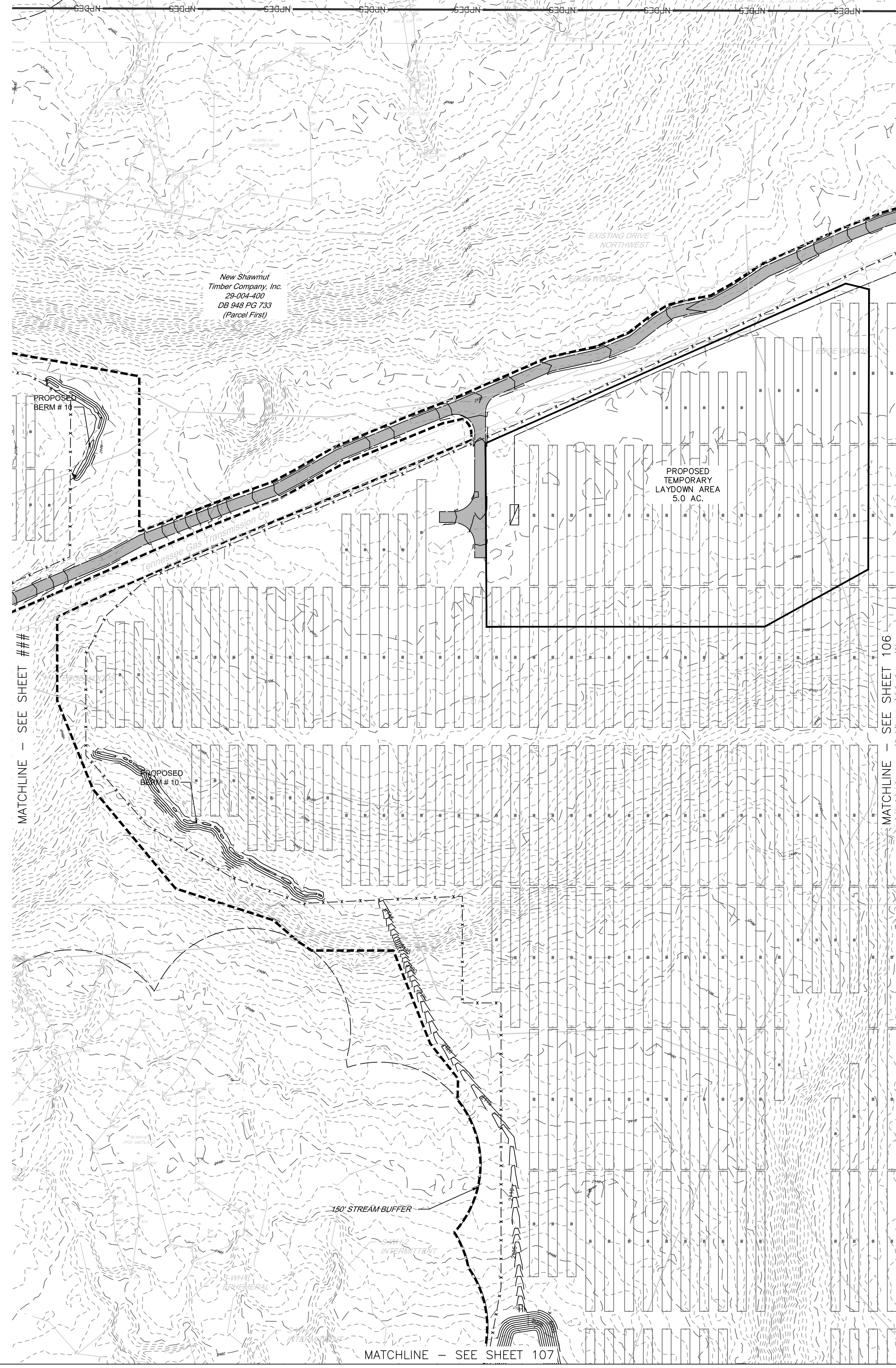
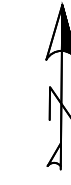
SCALE: 1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING & STORMWATER MANAGEMENT PLAN 3

DATE: 08/21/24 PROJECT NO: US0024243.7390 SHEET: 103 PAGE: 5 OF 17





EDGE OF PAVED BITUMINOUS SURFACE	INDEX CONTOUR LINE	DRAINAGE PIPE	CENTER LINE	X X FENCE
EDGE OF GRAVEL OR CRUSHED STONE SURFACE	INTERMEDIATE CONTOUR LINE	UNDERGROUND NATURAL GAS LINE	CONCRETE SURFACE	SOLAR ARRAY
PROPERTY BOUNDARY LINE	SPOT ELEVATION	TREELINE	EDGE OF ROADWAY SHOULDER	INVERTER
EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)	BENCHMARK LABEL	WELL	CRUSHED STONE OR GRAVEL SURFACE	UNDERGROUND ELECTRIC LINE
ADJOINING PROPERTY BOUNDARY LINE	BUILDING	RIPARIAN BUFFER	INTERMEDIATE CONTOUR LINES	RIPRAP INFILTRATION TRENCH
EASEMENT LINE	CONCRETE SURFACE	WETLAND	INDEX CONTOUR LINES	
LEGAL RIGHT OF WAY LINE	OVERHEAD ELECTRIC LINES	SOIL TYPE BOUNDARY LINE	SPOT ELEVATIONS	
MINIMUM BUILDING SETBACK LINE	UNDERGROUND ELECTRIC LINES	Soil Type	ES-12 DRAINAGE STRUCTURE NUMBER	
EDGE OF EXISTING SURFACE WATERCOURSE	UTILITY POLE	CeC	DRAINAGE CULVERT OR PIPE	
			FLARED END SECTION	

NO.	DATE	REVISION
2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-15-20	REV PER MCD 10-06-20 COMMENTS

OWNER:  
**ENERGIX RENEWABLES**

PLAN PREPARER:  
**wsp**

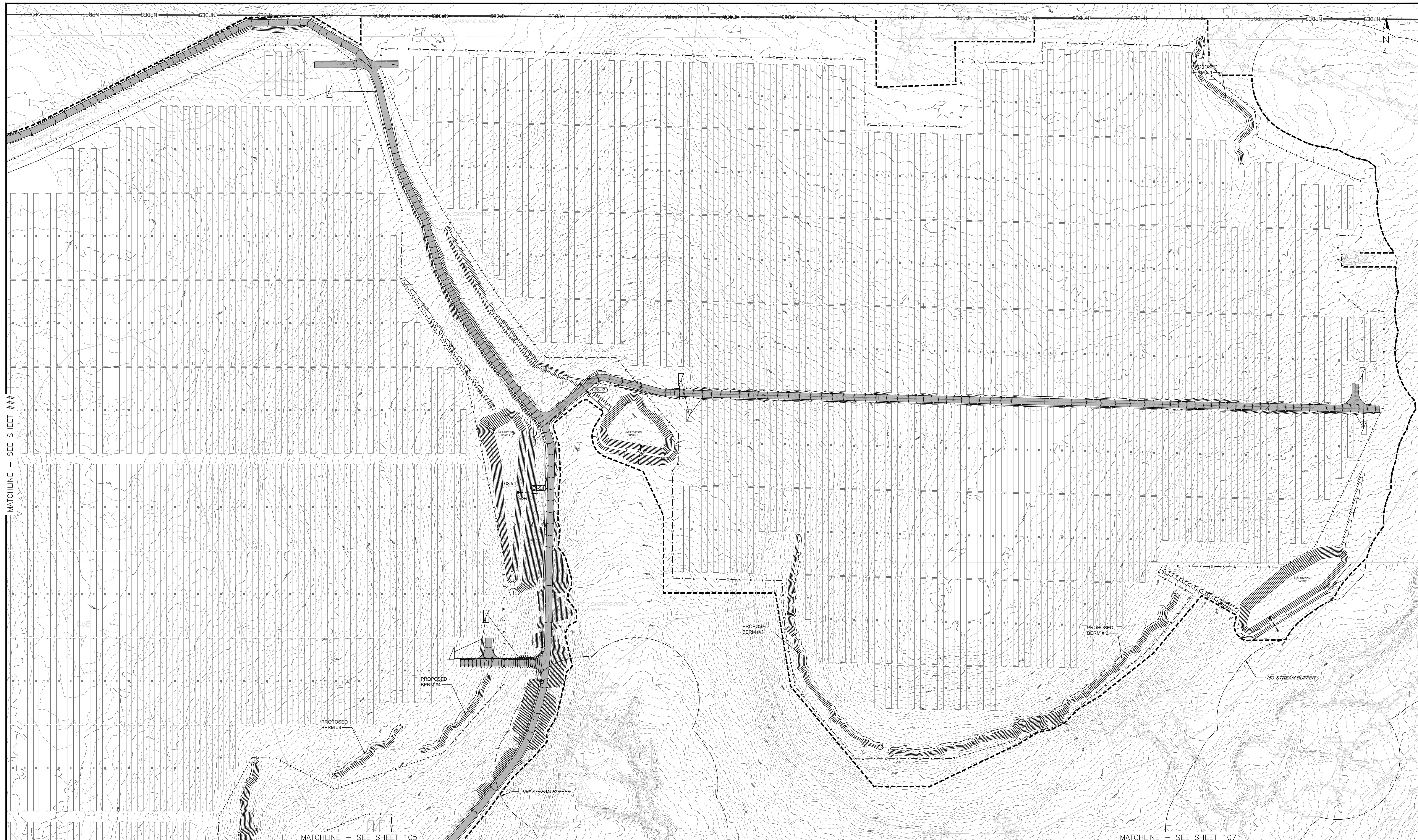
PLAN: PCSM PLAN  
LOCATION: MCKEAN COUNTY, PA

SCALE: 1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING & STORMWATER MANAGEMENT PLAN 5

DATE: 08/21/24	PROJECT NO: US0024243.7390	SHEET: 105	PAGE: 7 OF 17
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<ul style="list-style-type: none"> <li>EDGE OF PAVED BITUMINOUS SURFACE</li> <li>EDGE OF GRAVEL OR CRUSHED STONE SURFACE</li> <li>PROPERTY BOUNDARY LINE</li> <li>EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)</li> <li>ADJOINING PROPERTY BOUNDARY LINE</li> <li>EASEMENT LINE</li> <li>LEGAL RIGHT OF WAY LINE</li> <li>MINIMUM BUILDING SETBACK LINE</li> <li>EDGE OF EXISTING SURFACE</li> <li>WATERCOURSE</li> </ul>	<ul style="list-style-type: none"> <li>INDEX CONTOUR LINE</li> <li>INTERMEDIATE CONTOUR LINE</li> <li>SPOT ELEVATION</li> <li>BENCHMARK LABEL</li> <li>BUILDING</li> <li>CONCRETE SURFACE</li> <li>OVERHEAD ELECTRIC LINES</li> <li>UNDERGROUND ELECTRIC LINES</li> <li>UTILITY POLE</li> </ul>	<ul style="list-style-type: none"> <li>DRAINAGE PIPE</li> <li>UNDERGROUND NATURAL GAS LINE</li> <li>TREELINE</li> <li>WELL</li> <li>RIPARIAN BUFFER</li> <li>WETLAND</li> <li>SOIL TYPE BOUNDARY LINE</li> <li>SOIL TYPE</li> </ul>	<ul style="list-style-type: none"> <li>CENTER LINE</li> <li>CONCRETE SURFACE</li> <li>EDGE OF ROADWAY SHOULDER</li> <li>CRUSHED STONE OR GRAVEL SURFACE</li> <li>INTERMEDIATE CONTOUR LINES</li> <li>INDEX CONTOUR LINES</li> <li>SPOT ELEVATIONS</li> <li>DRAINAGE STRUCTURE NUMBER</li> <li>DRAINAGE CULVERT OR PIPE</li> <li>FLARED END SECTION</li> </ul>	<ul style="list-style-type: none"> <li>FENCE</li> <li>SOLAR ARRAY</li> <li>INVERTER</li> <li>UNDERGROUND ELECTRIC LINE</li> <li>RIPRAP INFILTRATION TRENCH</li> </ul>
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OWNER:  
  
 PLAN PREPARER:

PLAN: PCSM PLAN  
 LOCATION: MCKEAN COUNTY, PA

SCALE: 1" = 100'  
  
 PROJECT: CLERMONT SOLAR PROJECT  
 SHEET TITLE: GRADING & STORMWATER MANAGEMENT PLAN 6  
 DATE: 08/21/24 PROJECT NO: US0024243.7390 SHEET: 106 PAGE: 8 OF 17

NO.	DATE	REVISION
2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-15-20	REV PER MCCD 10-06-20 COMMENTS

Kojanic Family  
Limited Partnership  
of Edward F. Kojanic  
29-004-400.1  
DB 534 PG 1147  
(2009)

MATCHLINE - SEE SHEET 105

MATCHLINE - SEE SHEET 106

KWI Holdings, LLC  
Part of  
29-004-400.2  
DB 571 PG 700  
(First)

MATCHLINE - SEE SHEET 108

MATCHLINE - SEE SHEET 103

MATCHLINE - SEE SHEET 105

- EDGE OF PAVED BITUMINOUS SURFACE
- EDGE OF GRAVEL OR CRUSHED STONE SURFACE
- PROPERTY BOUNDARY LINE
- ⊙ EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)
- ADDING PROPERTY BOUNDARY LINE
- EASEMENT LINE
- LEGAL RIGHT OF WAY LINE
- MINIMUM BUILDING SETBACK LINE
- EDGE OF EXISTING SURFACE
- WATERCOURSE
- INDEX CONTOUR LINE
- INTERMEDIATE CONTOUR LINE
- 421.00 SPOT ELEVATION
- ⊕ BENCHMARK LABEL
- BUILDING
- CONCRETE SURFACE
- OVERHEAD ELECTRIC LINES
- UNDERGROUND ELECTRIC LINES
- UTILITY POLE
- DRAINAGE PIPE
- UNDERGROUND NATURAL GAS LINE
- TREE LINE
- ⊕ WELL
- RIPARIAN BUFFER
- WETLAND
- SOIL TYPE BOUNDARY LINE
- CeC SOIL TYPE

- CENTER LINE
- CONCRETE SURFACE
- EDGE OF ROADWAY SHOULDER
- CRUSHED STONE OR GRAVEL SURFACE
- INTERMEDIATE CONTOUR LINES
- INDEX CONTOUR LINES
- 421.00 SPOT ELEVATIONS
- ES-12 DRAINAGE STRUCTURE NUMBER
- DRAINAGE CULVERT OR PIPE
- △ FLARED END SECTION
- FENCE
- SOLAR ARRAY
- INVERTER
- UNDERGROUND ELECTRIC LINE
- RIPRAP INFILTRATION TRENCH

NO.	DATE	REVISION
2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-15-20	REV PER MDCD 10-06-20 COMMENTS

OWNER:  
**ENERGIX RENEWABLES**

PLAN PREPARER:  
**wsp**

PLAN: PCSM PLAN  
LOCATION: MCKEAN COUNTY, PA

REGISTERED PROFESSIONAL ENGINEER  
JOSEPH C. SCOTT  
PE085120

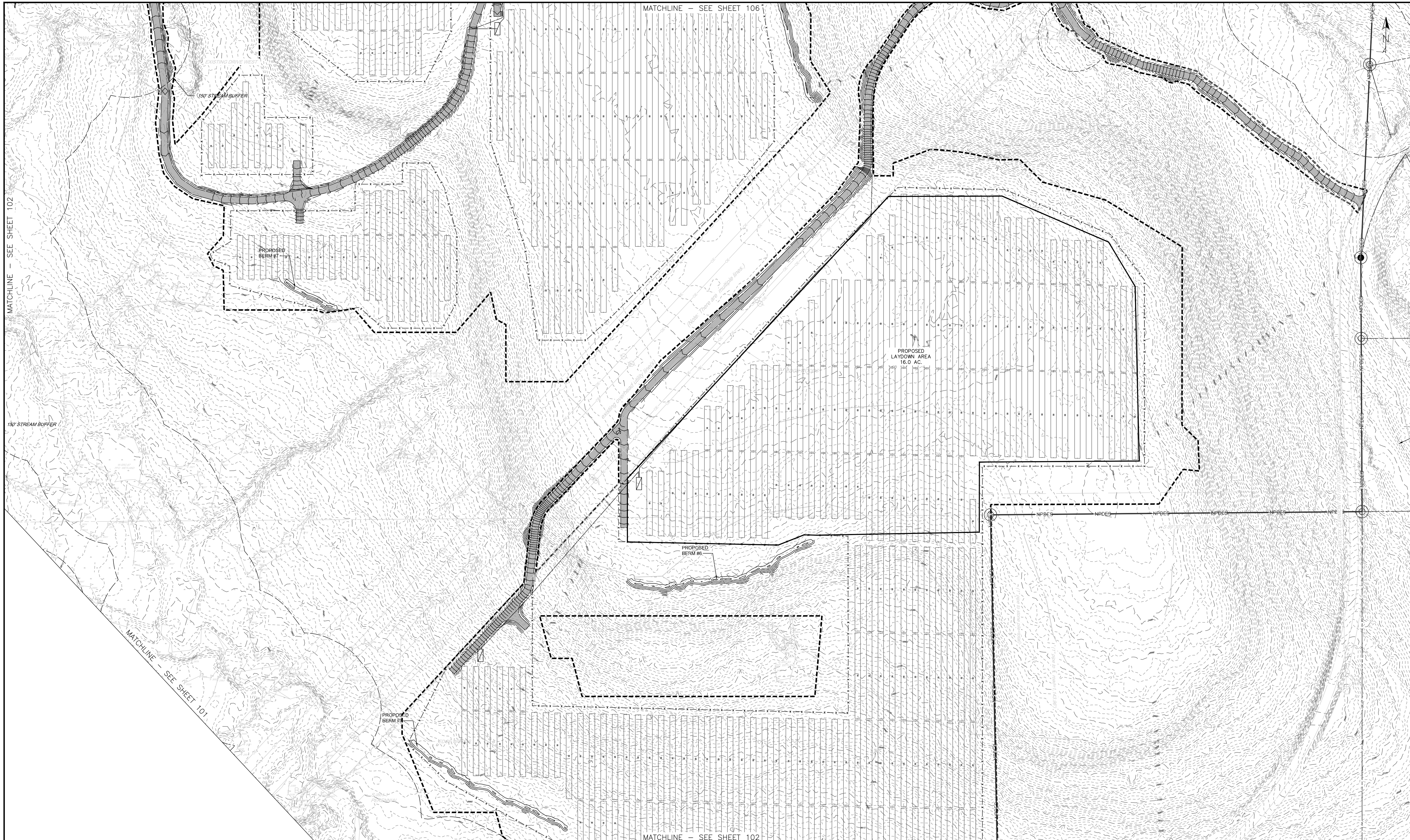
SCALE: 1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING & STORMWATER MANAGEMENT PLAN 7

DATE: 08/21/24	PROJECT NO: US0024243.7390	SHEET: 107	PAGE: 9 OF 17
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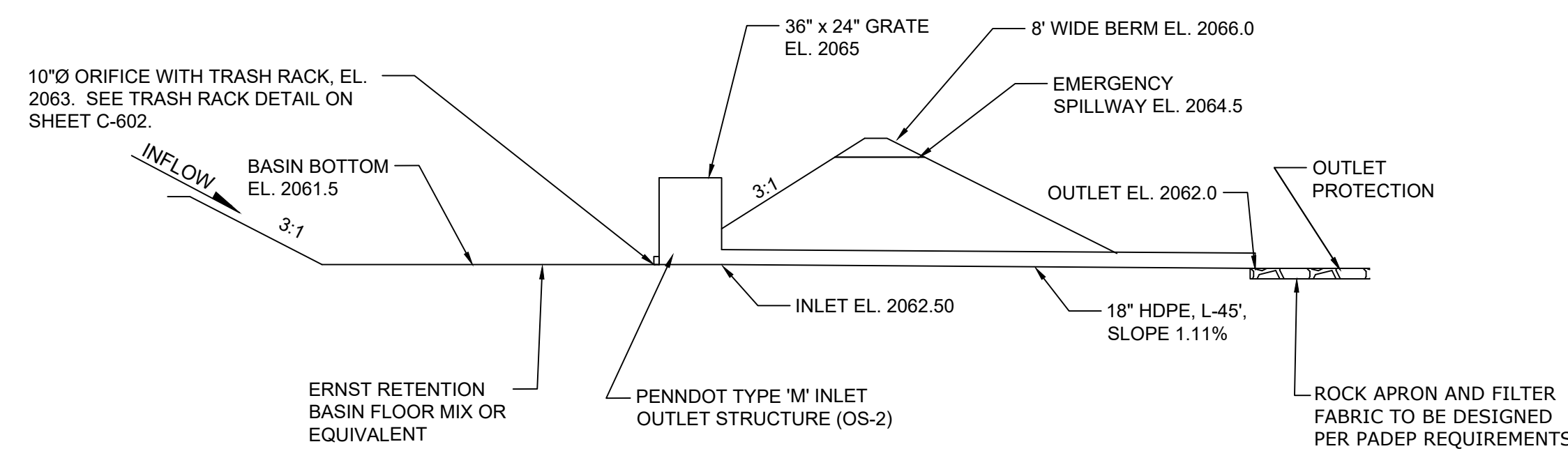
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NO.	DATE	REVISION
2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-15-20	REV PER MCD 10-06-20 COMMENTS

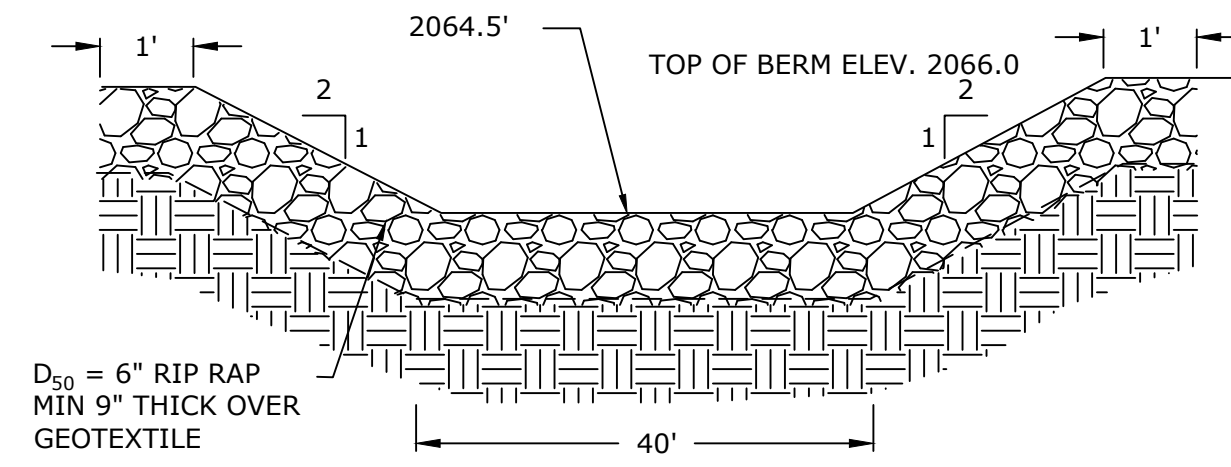
OWNER:  
  
 PLAN PREPARER:

PLAN: PCSM PLAN  
 LOCATION: MCKEAN COUNTY, PA

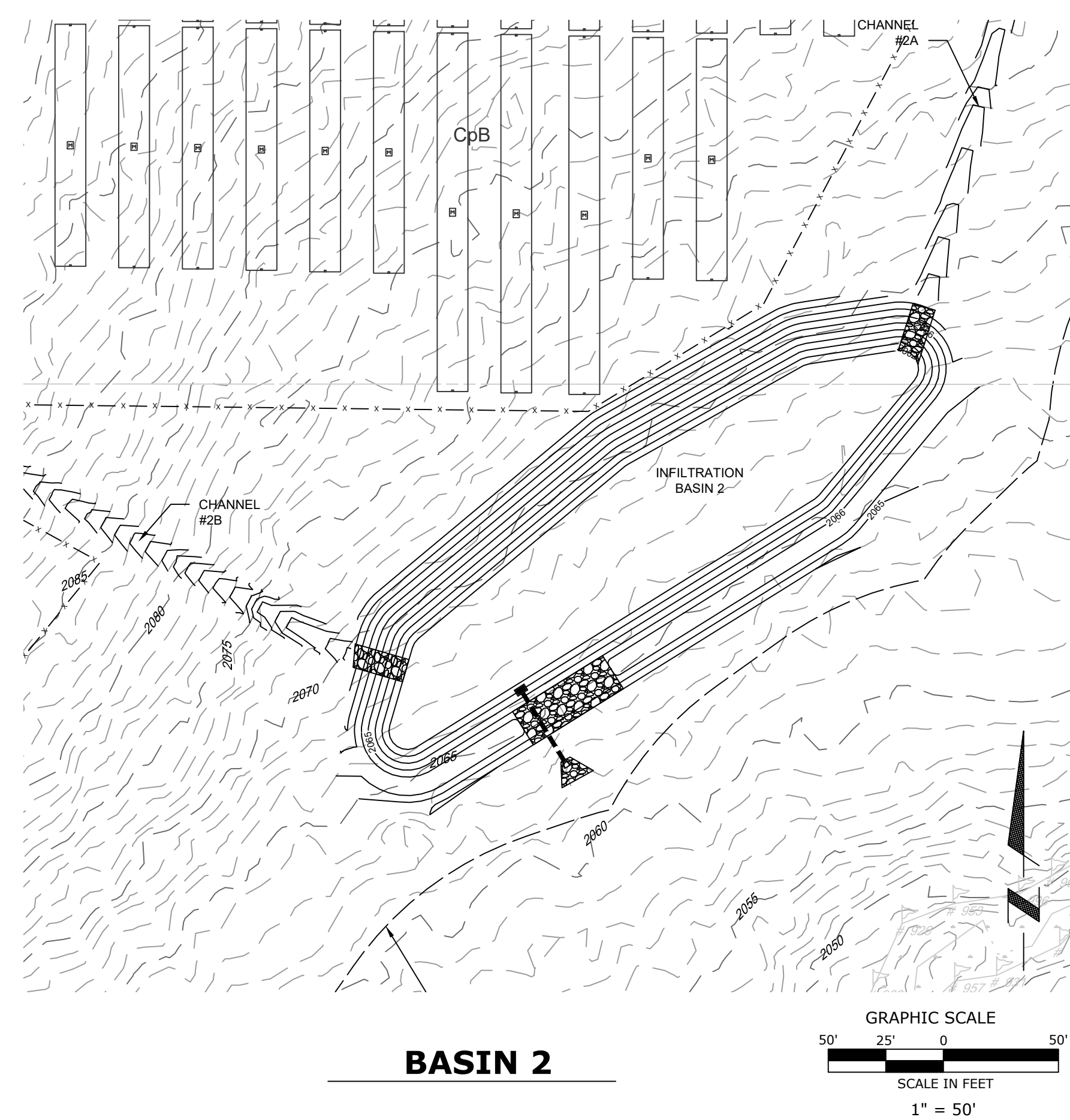
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 SHEET TITLE: GRADING & STORMWATER MANAGEMENT PLAN 8  
 DATE: 08/21/24 PROJECT NO: US0024243.7390 SHEET: 108 PAGE: 10 OF 17



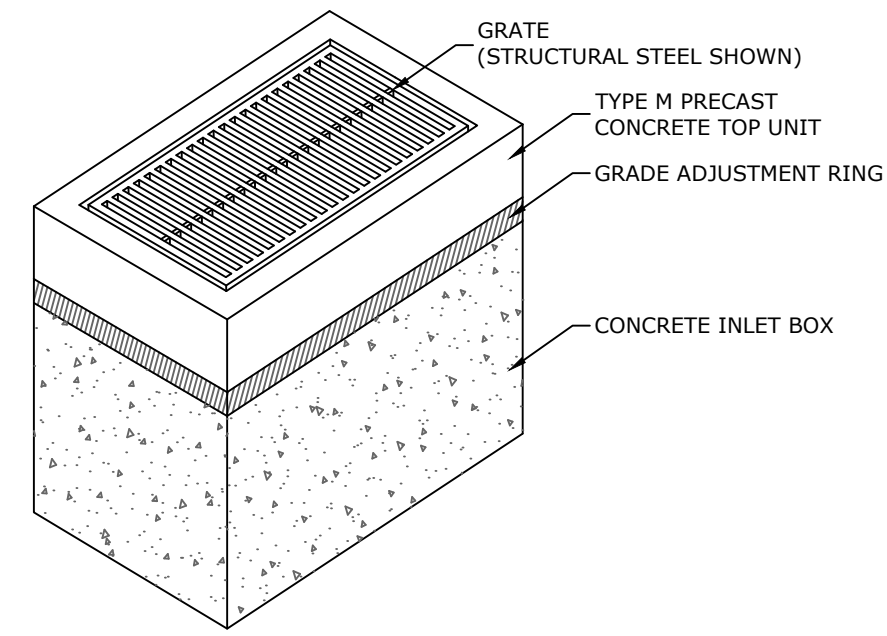
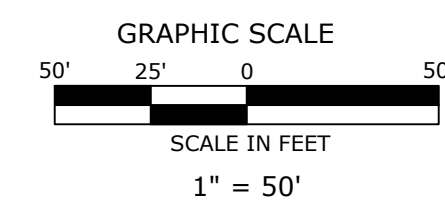
**INFILTRATION BASIN 2 DETAIL**  
NOT TO SCALE



**SPILLWAY DETAIL BASIN 2**  
NOT TO SCALE

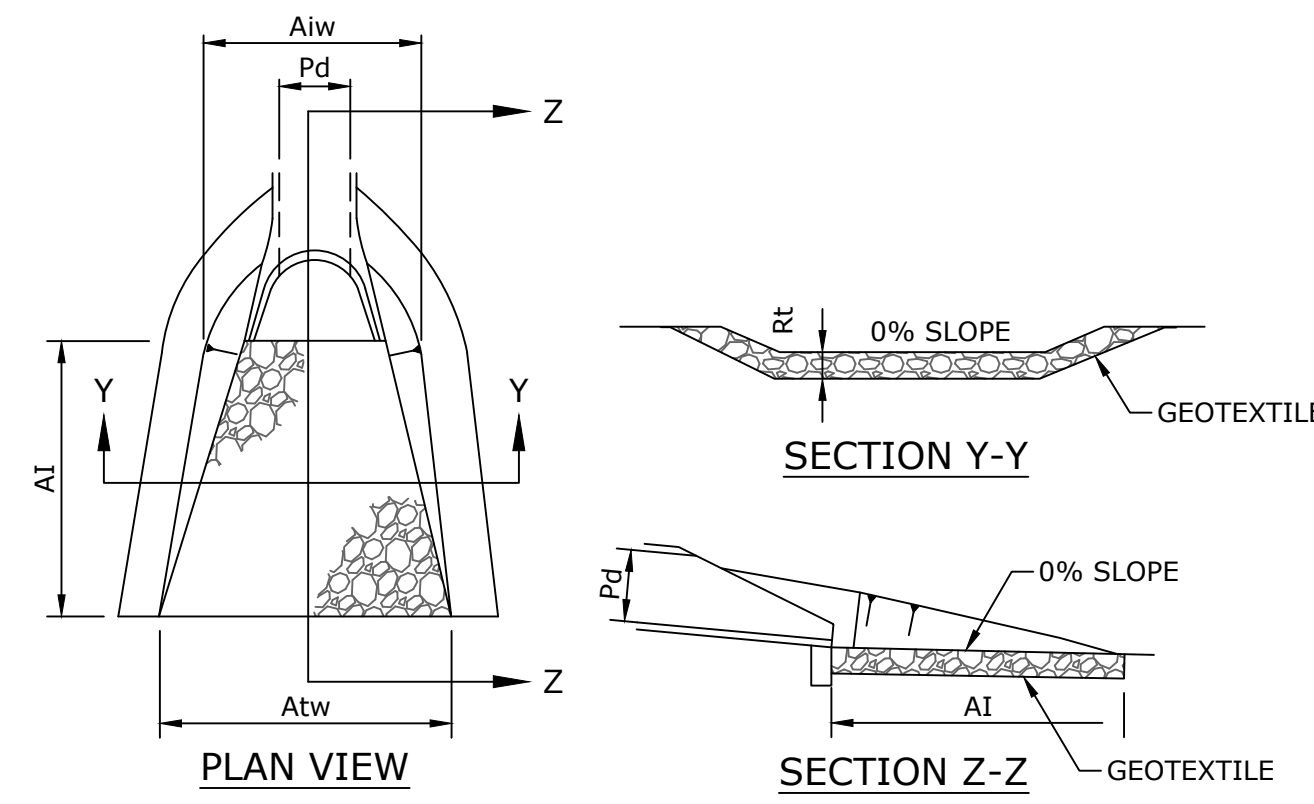


**BASIN 2**



- NOTES:**
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENN DOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34. CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES. STRUCTURE SHALL BE CERTIFIED FOR H20 LOADING.
  2. ALL DRAINAGE STRUCTURES SHALL HAVE POURED-IN-PLACE CONCRETE CHANNEL BOTTOMS.
  3. USE PRECAST CONCRETE OR STEEL GRADE ADJUSTMENT RINGS WHEN REQUIRED.

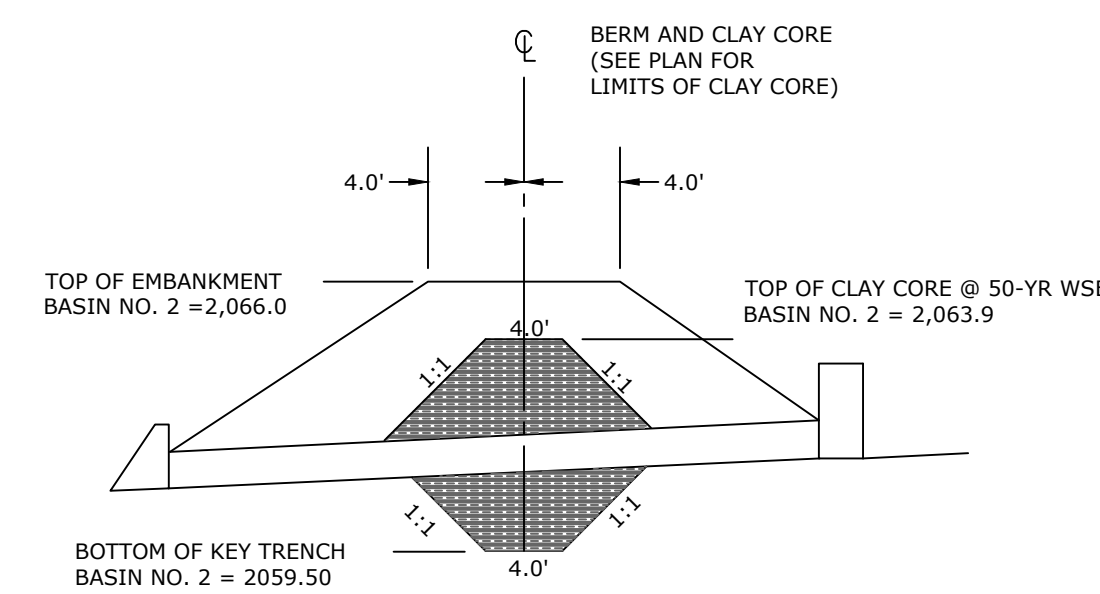
**TYPE 'M' INLET**  
NOT TO SCALE



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		APRON	
		SIZE R <sub>-</sub>	THICK. Rt (IN)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
BASIN 2	18	R-3	9	10	14.5

- NOTES:**
- ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. APRONS SHALL BE CONSTRUCTED TO RHODE ISLAND STATE REGULATIONS.

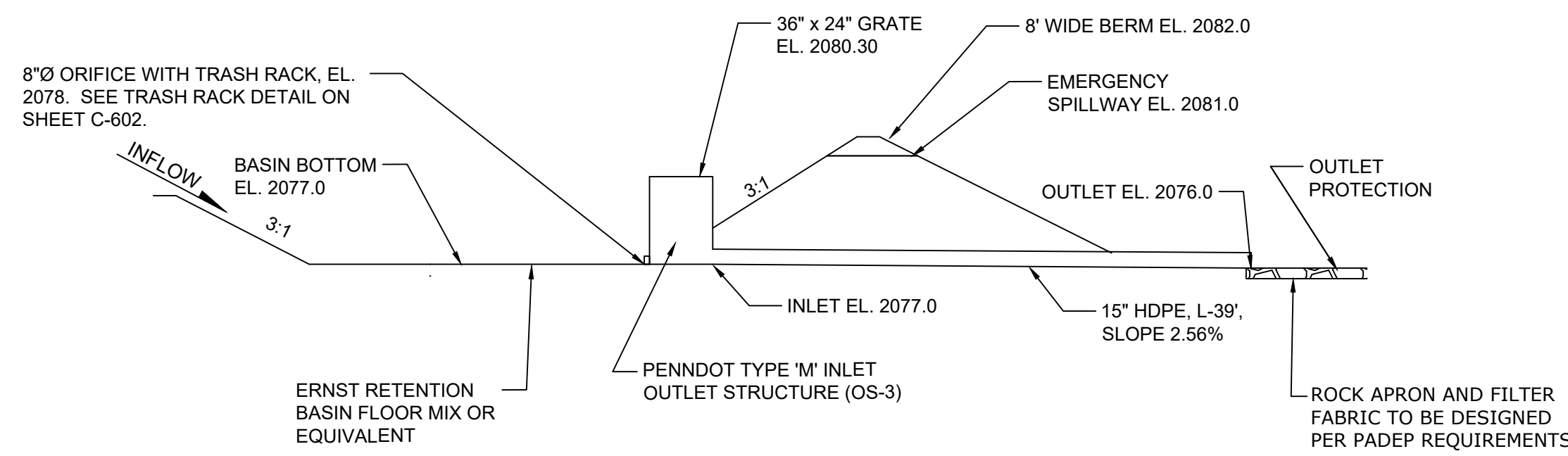
**RIP-RAP APRON DETAIL**



- NOTE:**
1. CLAY CORE SHALL BE COMPOSED OF IMPORTED CL, CH, MH OR CL-ML SOILS WITH A PERMEABILITY LESS THAN OR EQUAL TO  $1.0 \times 10^{-6}$  CM/S. MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM-D 1557; WITHIN  $\pm$  3% OPTIMUM MOISTURE CONTENT.

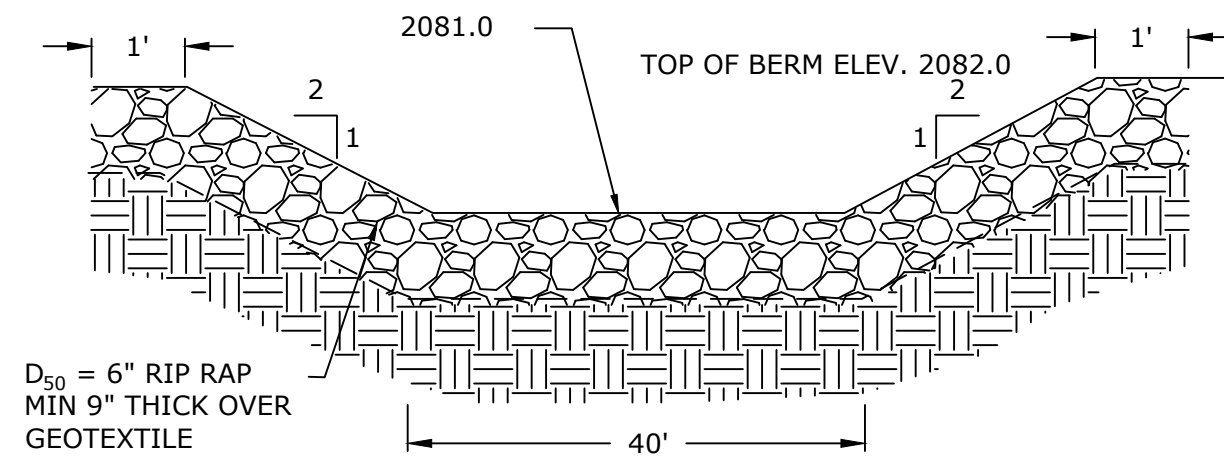
**INFILTRATION BASIN 2 CLAY CORE**  
NOT TO SCALE

OWNER: 		PLAN: PCSM PLAN		SCALE: AS SHOWN	
LOCATION: MCKEAN COUNTY, PA		PROJECT: CLERMONT SOLAR PROJECT		SHEET TITLE: BASIN GRADING DETAILS 1	
PLAN PREPARER: 		REGISTERED PROFESSIONAL ENGINEER JOSEPH C. SCOTT PC085120		DATE: 08/21/24	PROJECT NO: US0024243.7390
NO.	DATE	REVISION	SHEET: 109	PAGE: 11 OF 17	



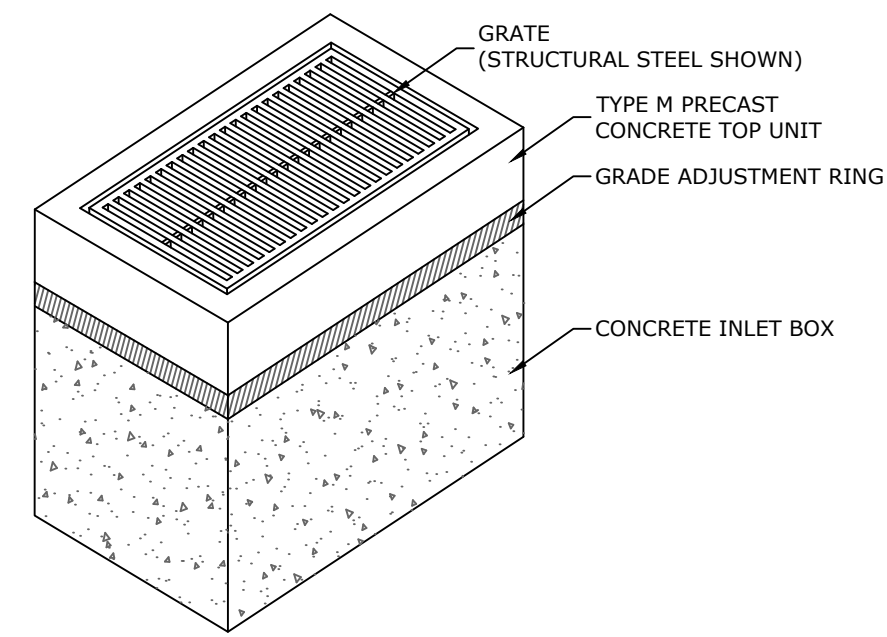
**INFILTRATION BASIN 3 DETAIL**

NOT TO SCALE



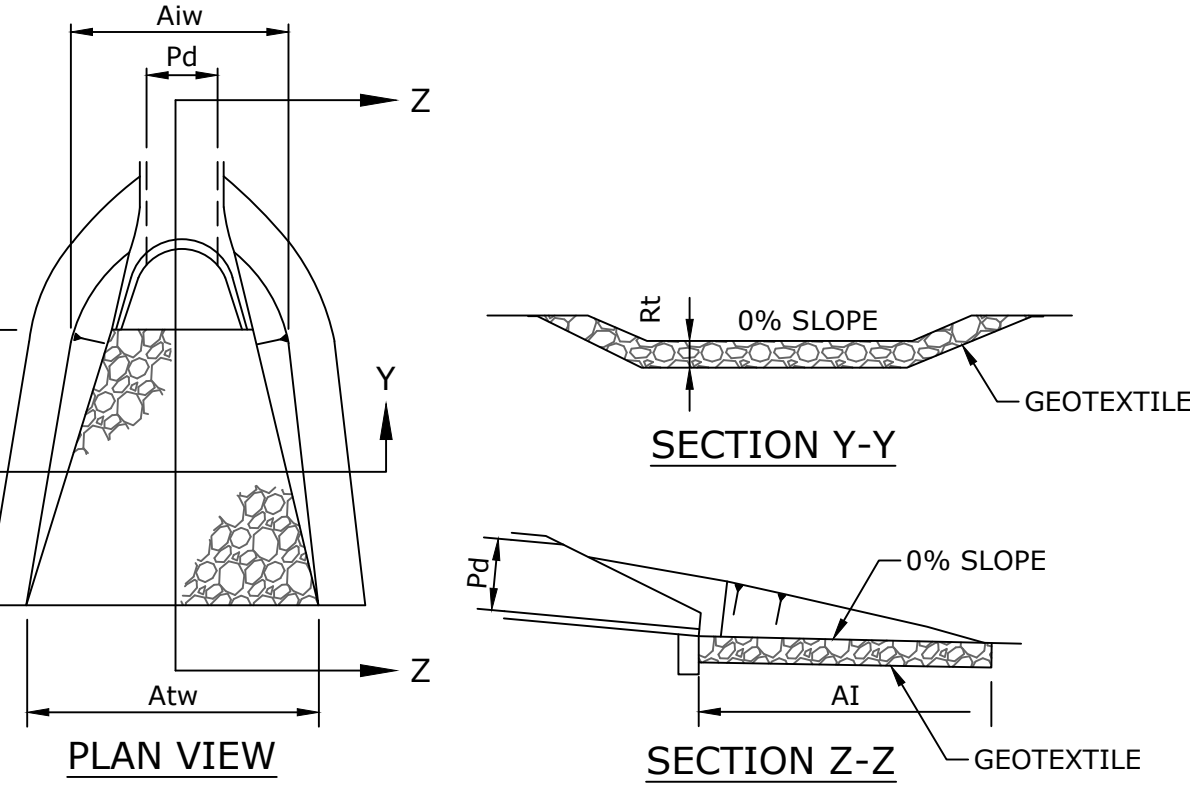
**SPILLWAY DETAIL BASIN 3**

NOT TO SCALE



**TYPE 'M' INLET**

NOT TO SCALE

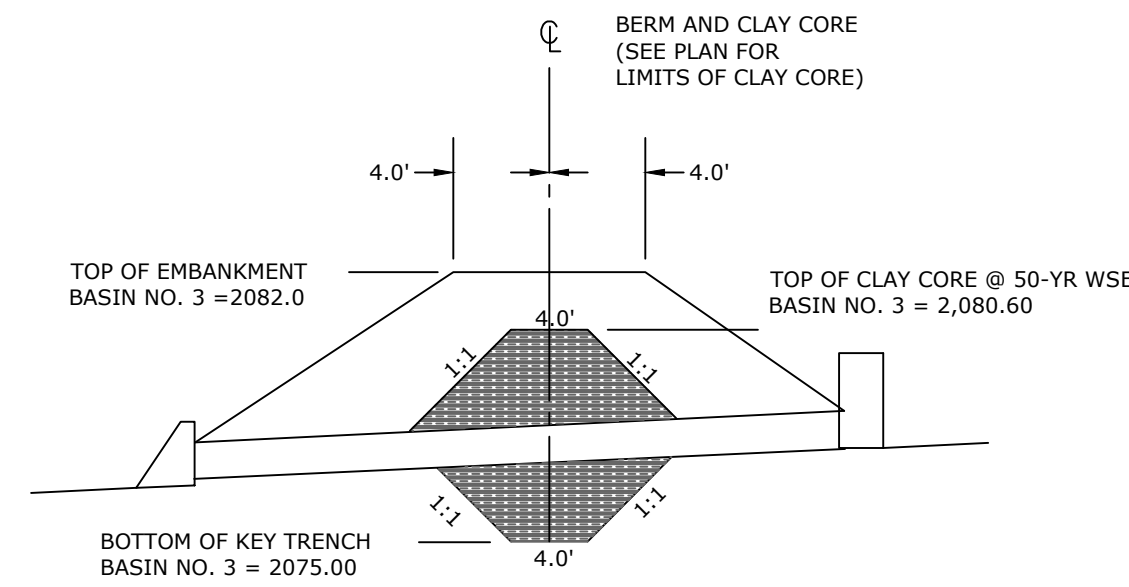


OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP			APRON	
		SIZE R-	THICK Rt (IN)	LENGTH Al (FT)	INITIAL WIDTH Ai (FT)	TERMINAL WIDTH Atw (FT)
BASIN 3	15	R-4	18	10	3.75	13.75
BASIN 5	12	R-3	9	10	3	13

NOTES:  
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. APRONS SHALL BE CONSTRUCTED TO RHODE ISLAND STATE REGULATIONS.

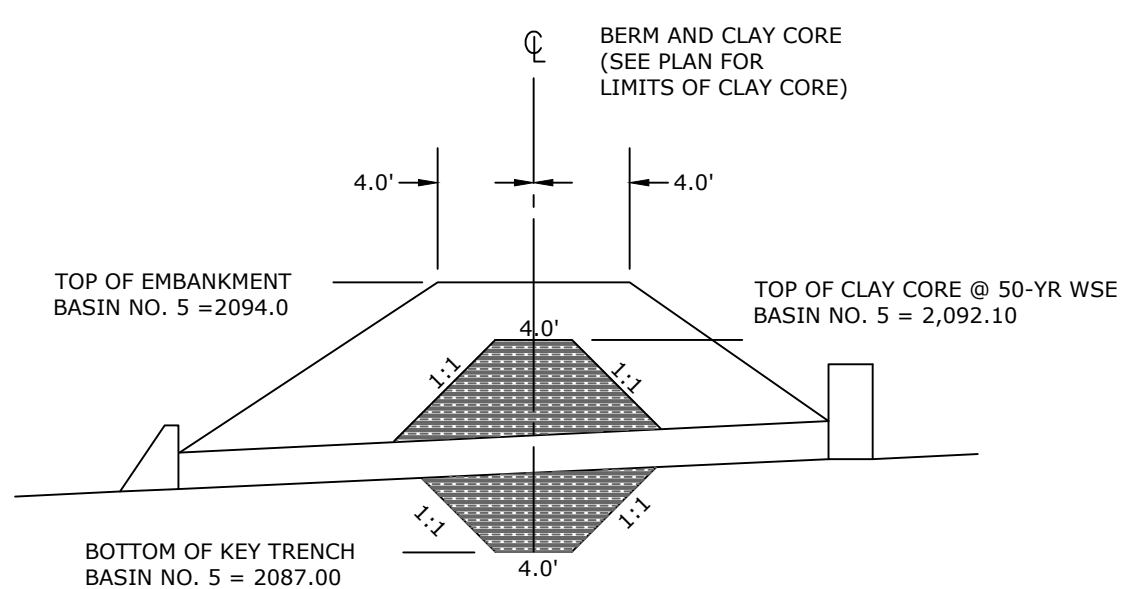
**RIP-RAP APRON DETAIL**

NOT TO SCALE



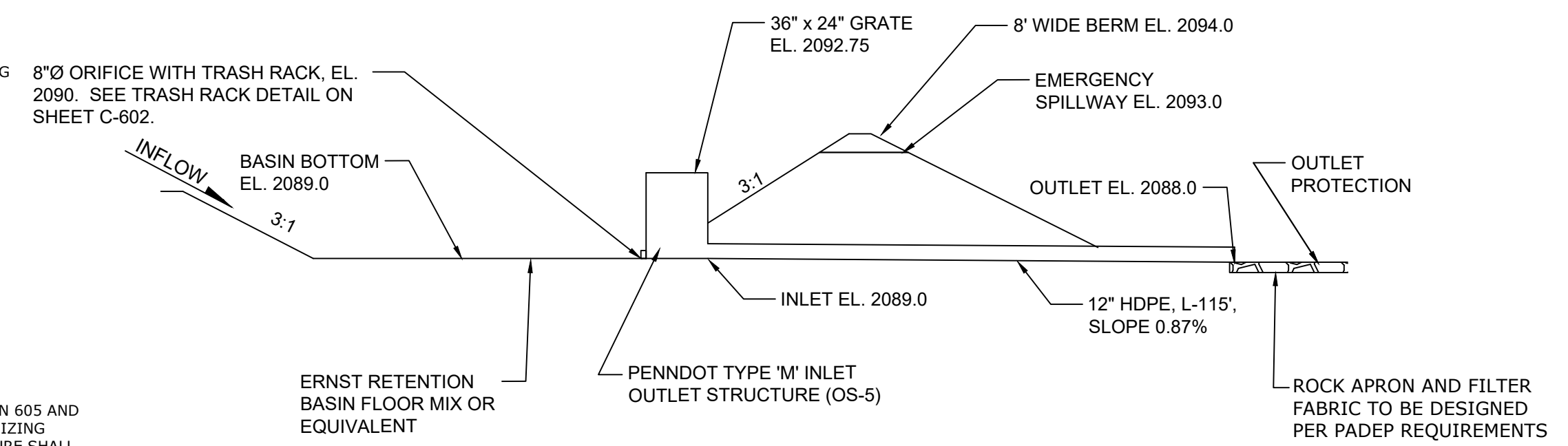
**INFILTRATION BASIN 3 CLAY CORE**

NOT TO SCALE



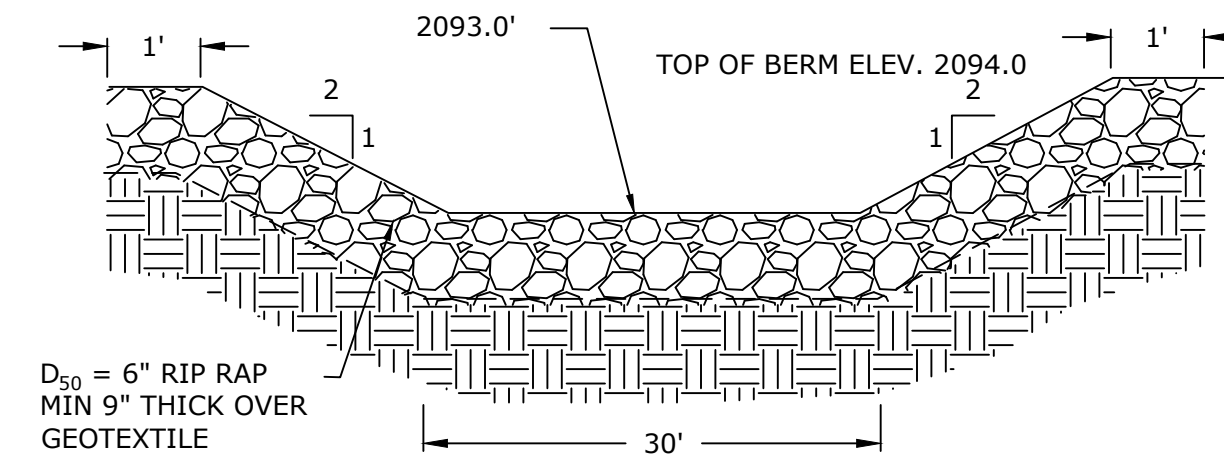
**INFILTRATION BASIN 5 CLAY CORE**

NOT TO SCALE



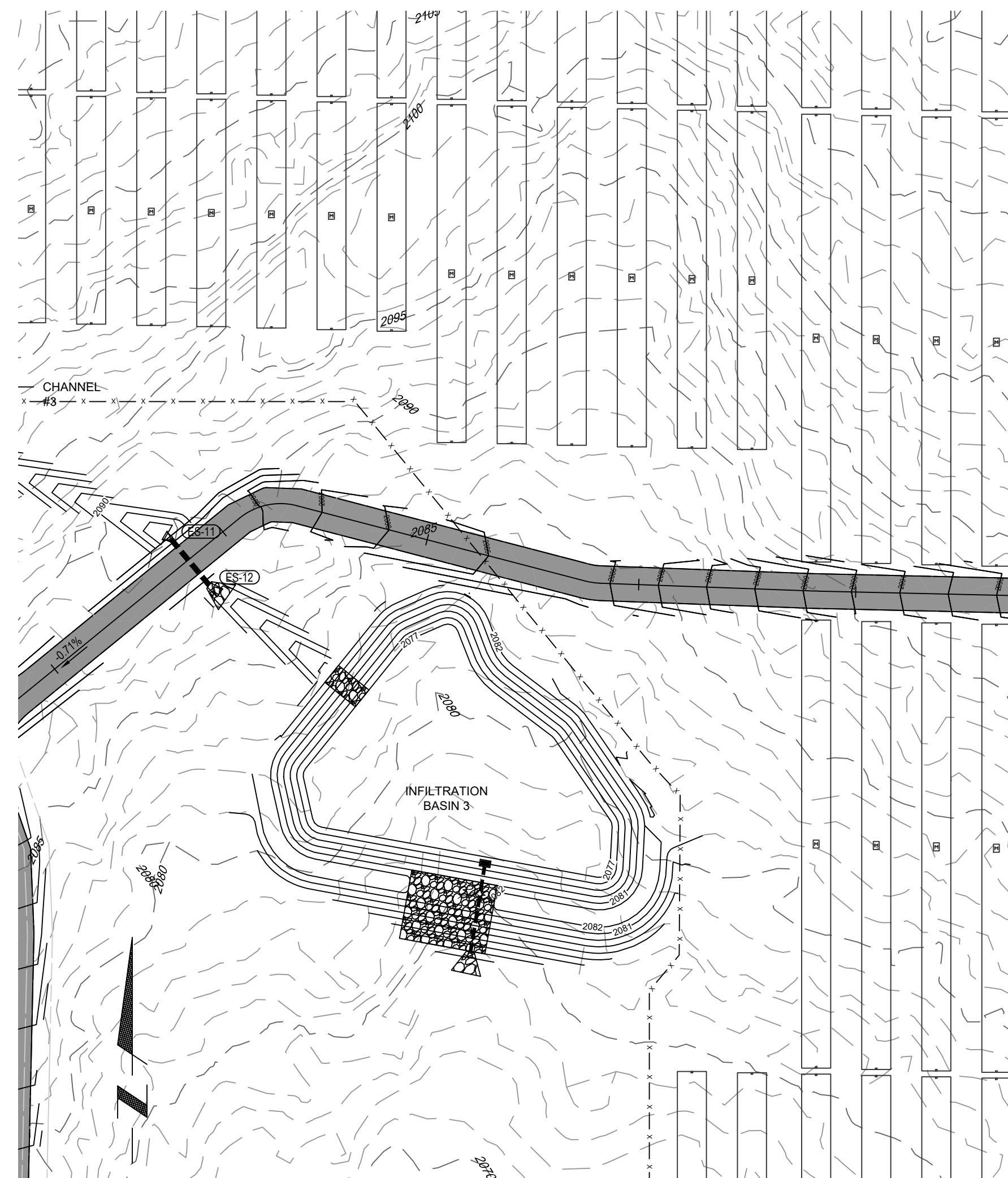
**INFILTRATION BASIN 5 DETAIL**

NOT TO SCALE

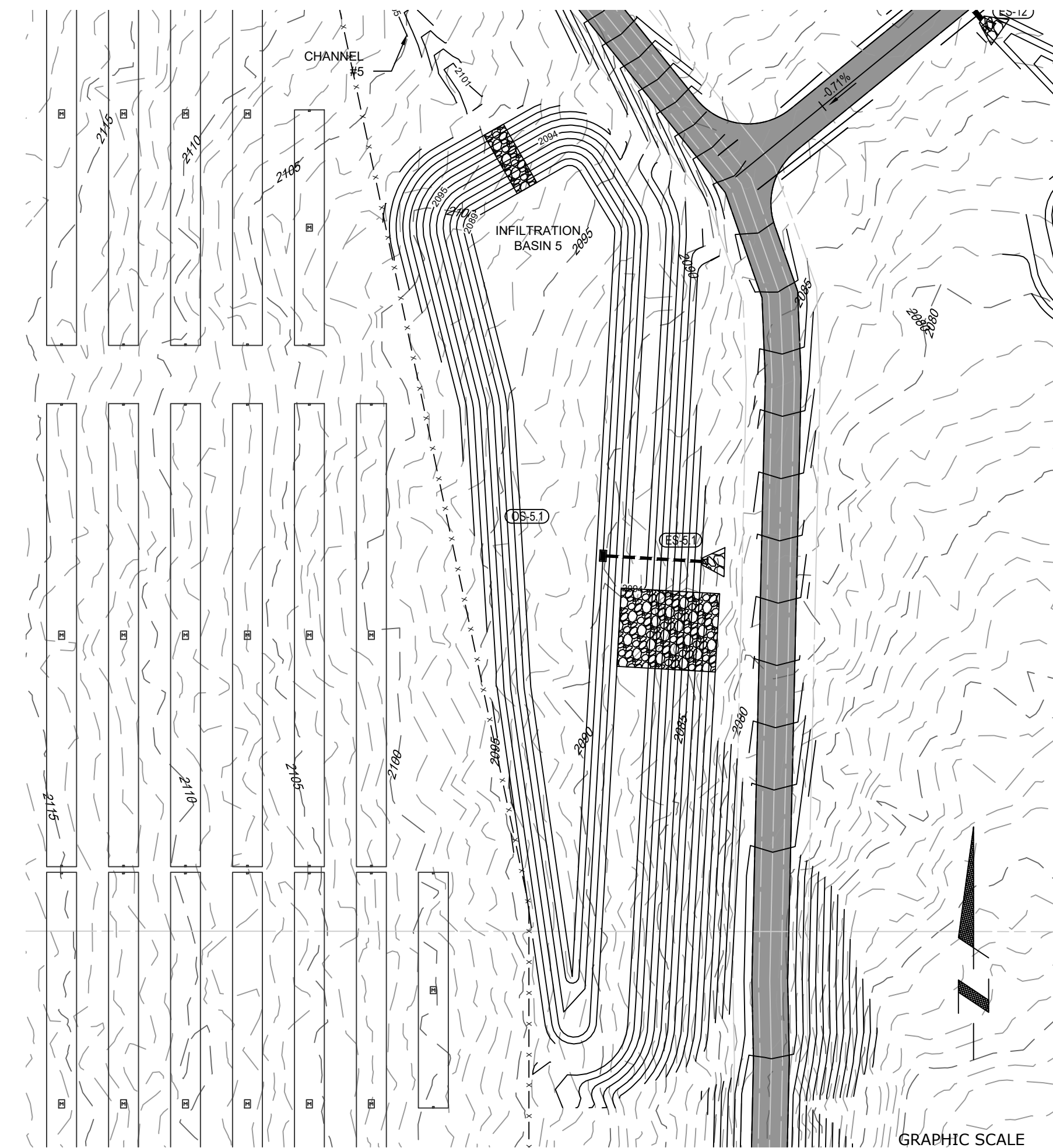
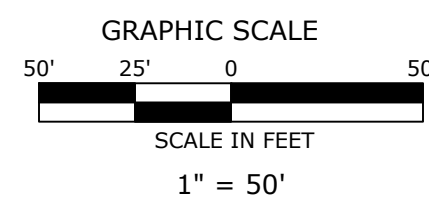


**SPILLWAY DETAIL BASIN 5**

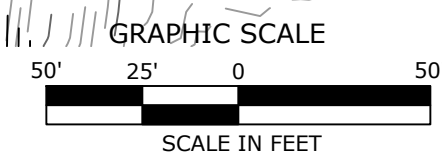
NOT TO SCALE



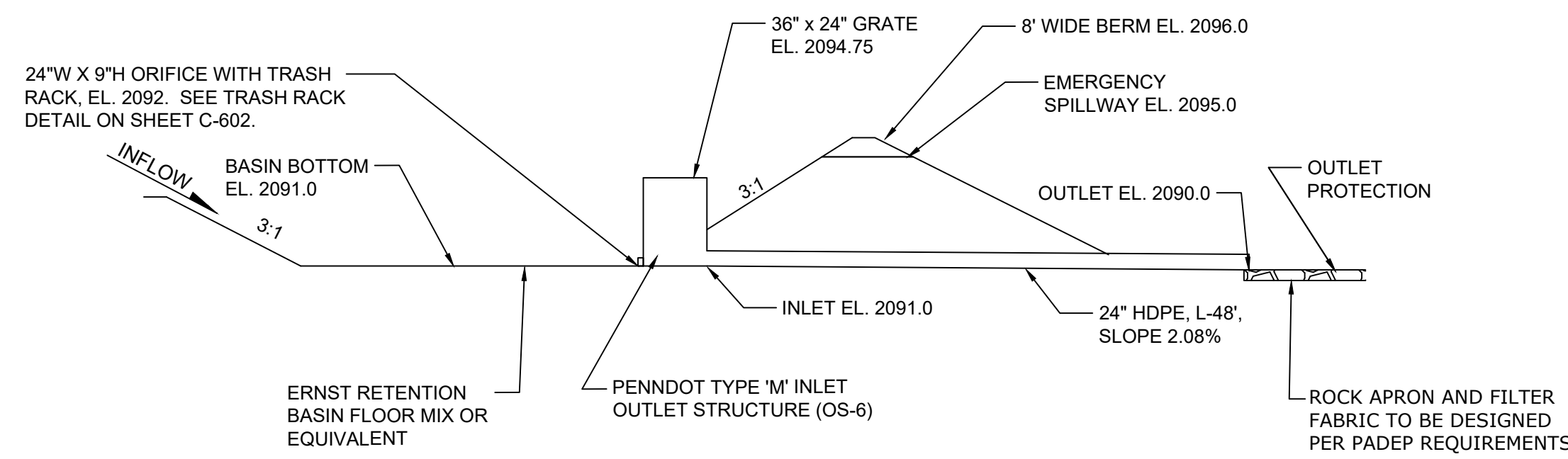
**BASIN 3**



**BASIN 5**

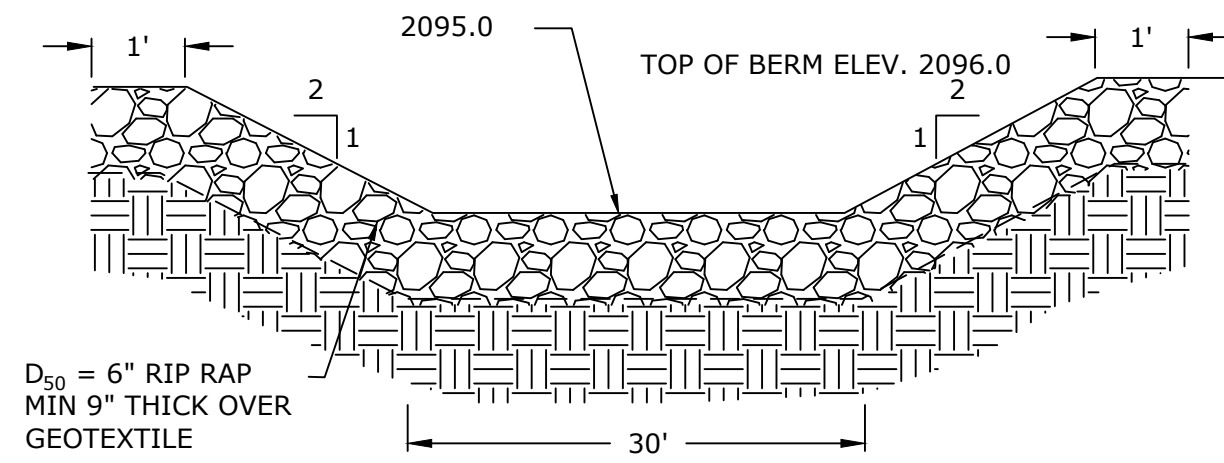


OWNER: <b>ENERGIX RENEWABLES</b> PLAN PREPARER: <b>WSP</b>		PLAN: PCSM PLAN LOCATION: MCKEAN COUNTY, PA	SCALE: AS SHOWN
PROJECT: CLERMONT SOLAR PROJECT SHEET TITLE: BASIN GRADING DETAILS 2		PROJECT NO: US0024243.7390 DATE: 08/21/24	SHEET: 110 PAGE: 12 OF 17



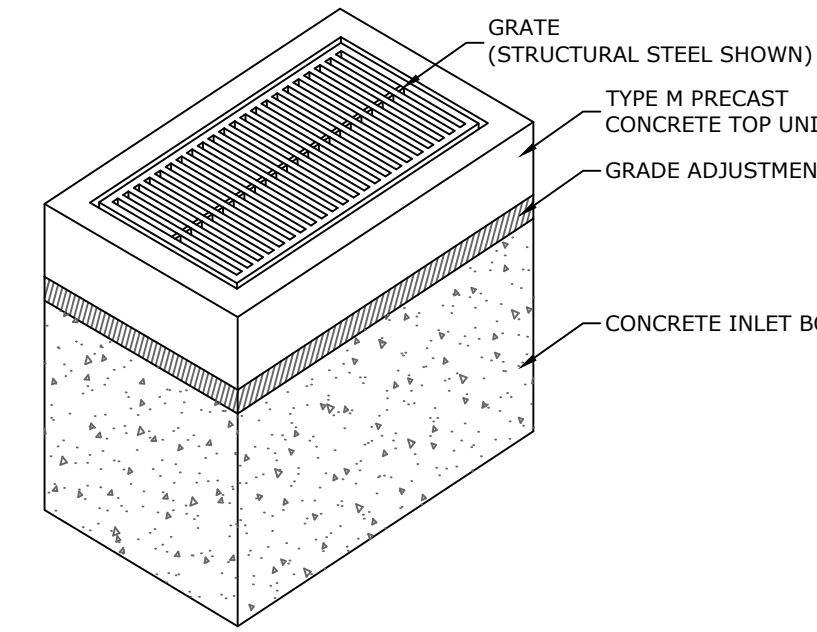
**INFILTRATION BASIN 6 DETAIL**

NOT TO SCALE



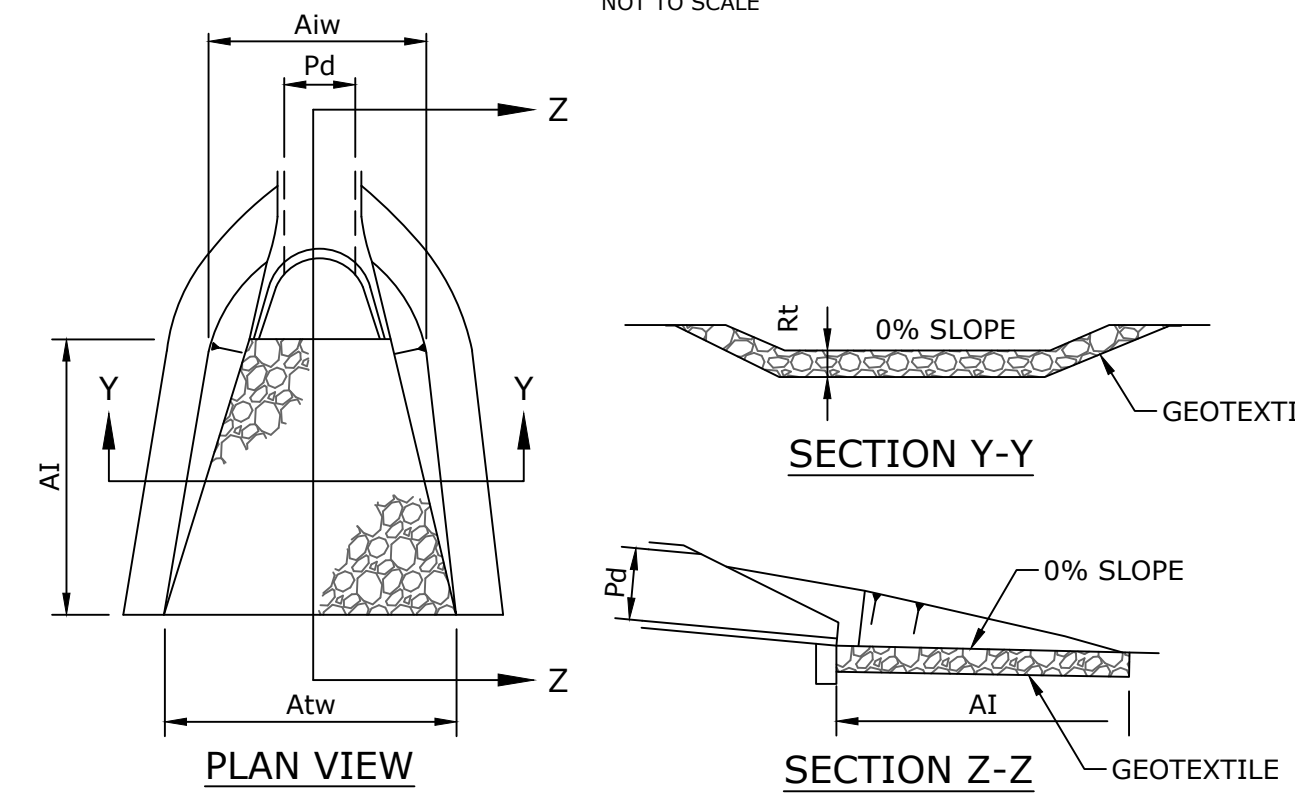
**SPILLWAY DETAIL BASIN 6**

NOT TO SCALE



**TYPE 'M' INLET**

NOT TO SCALE

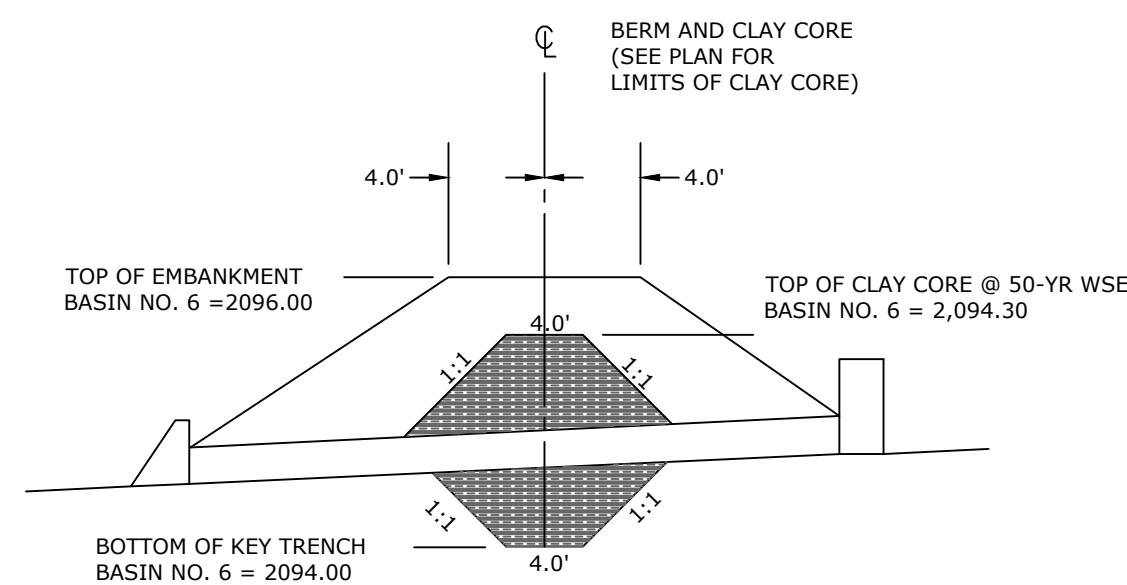


OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		APRON	
		SIZE R-	THICK. Rt (IN)	INITIAL WIDTH AiW (FT)	TERMINAL WIDTH Atw (FT)
BASIN 6	24	R-5	27	14	20
BASIN 7	15	R-3	9	10	13.75

**NOTES:**  
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 APRONS SHALL BE CONSTRUCTED TO RHODE ISLAND STATE REGULATIONS.

**RIP-RAP APRON DETAIL**

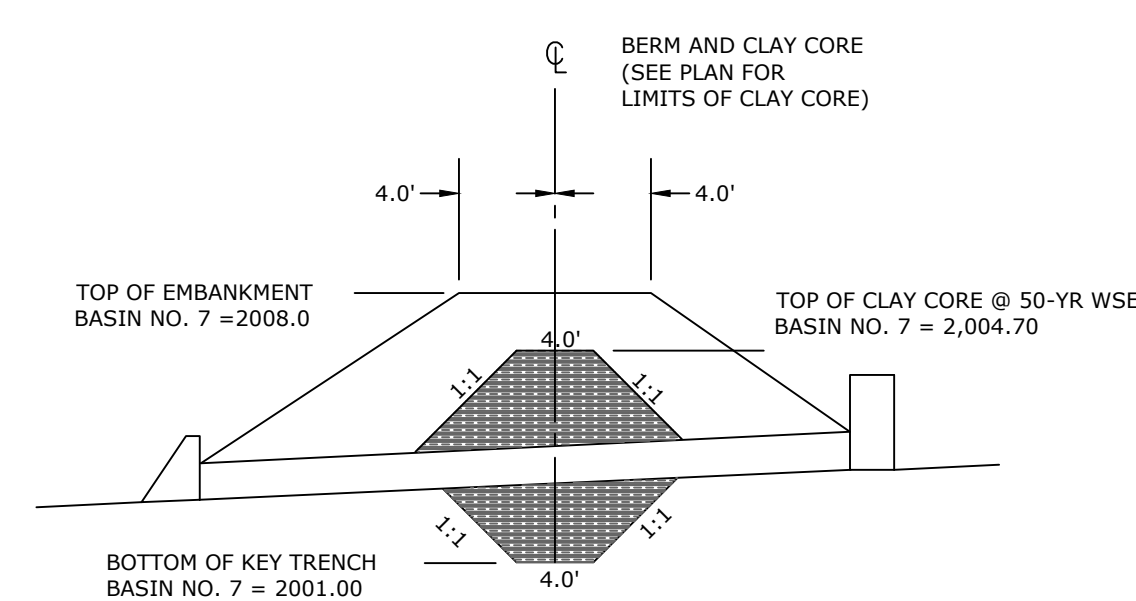
NOT TO SCALE



**NOTE:**  
 1. CLAY CORE SHALL BE COMPOSED OF IMPORTED CL, CH, MH OR CL-ML SOILS WITH A PERMEABILITY LESS THAN OR EQUAL TO  $1.0 \times 10^{-6}$  CM/S. MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM-D 1557; WITHIN  $\pm$  3% OPTIMUM MOISTURE CONTENT.

**INFILTRATION BASIN 6 CLAY CORE**

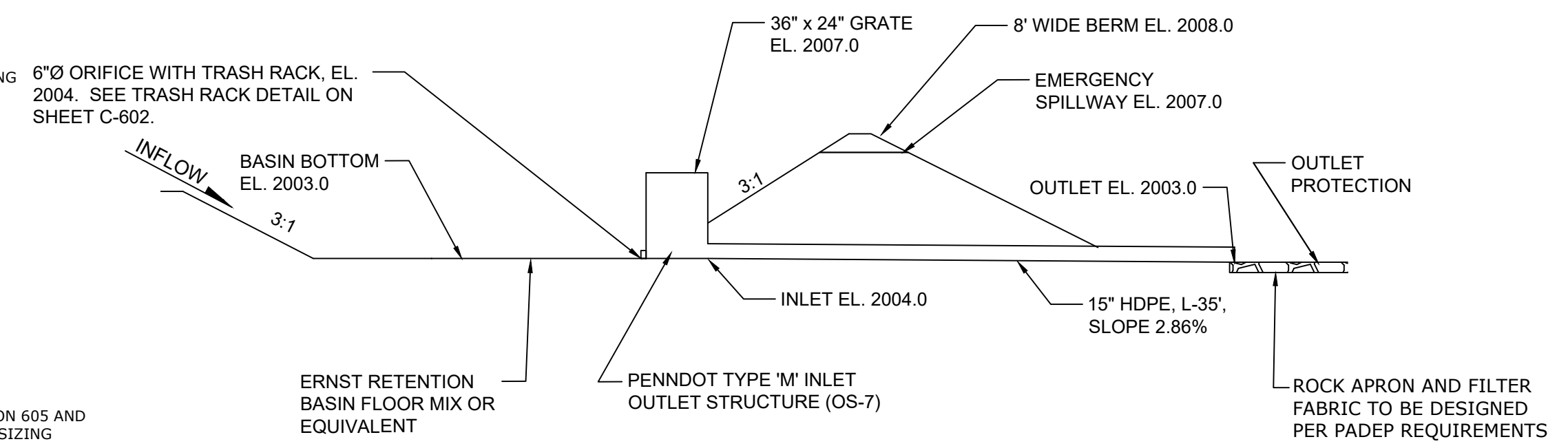
NOT TO SCALE



**NOTE:**  
 1. CLAY CORE SHALL BE COMPOSED OF IMPORTED CL, CH, MH OR CL-ML SOILS WITH A PERMEABILITY LESS THAN OR EQUAL TO  $1.0 \times 10^{-6}$  CM/S. MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM-D 1557; WITHIN  $\pm$  3% OPTIMUM MOISTURE CONTENT.

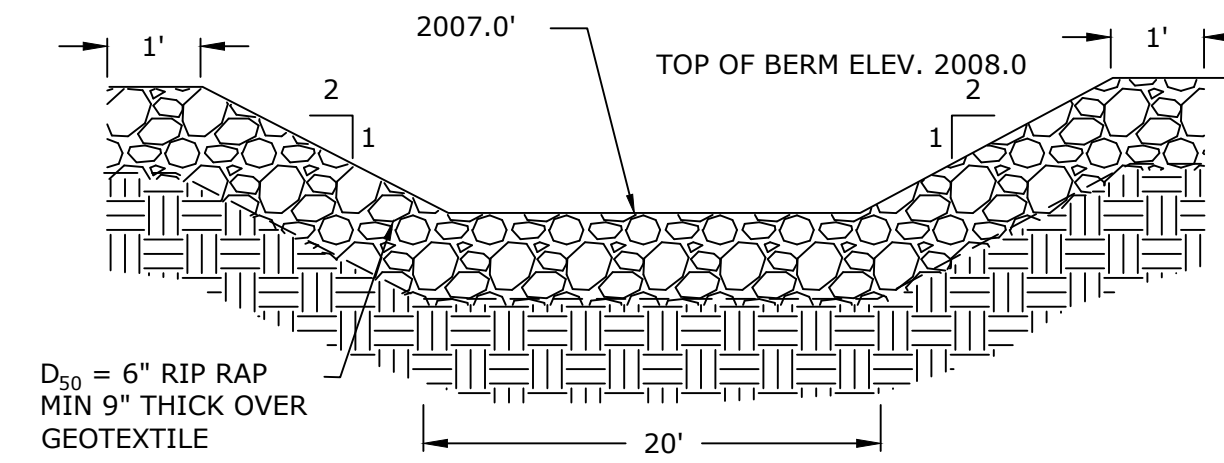
**INFILTRATION BASIN 7 CLAY CORE**

NOT TO SCALE



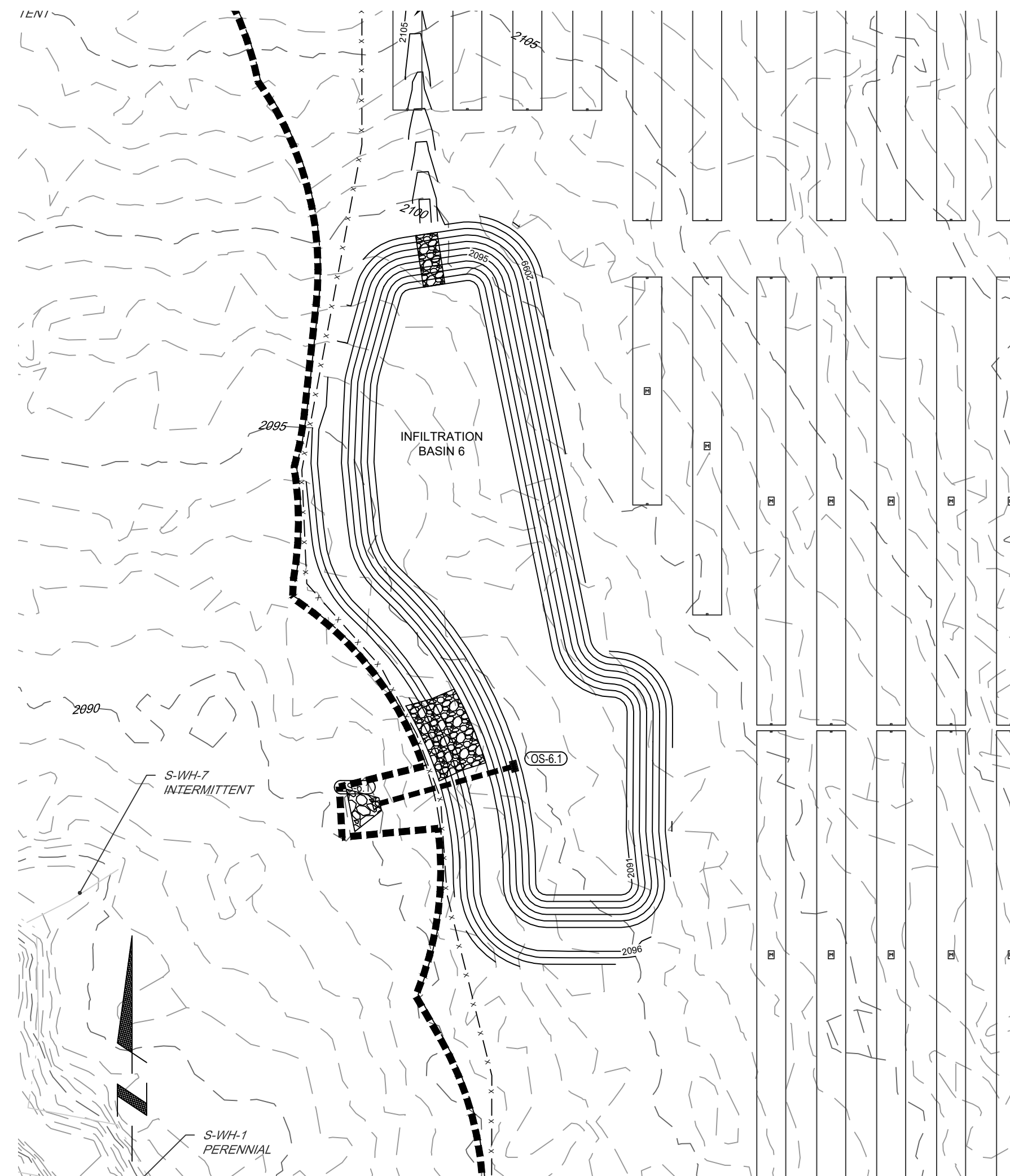
**INFILTRATION BASIN 7 DETAIL**

NOT TO SCALE

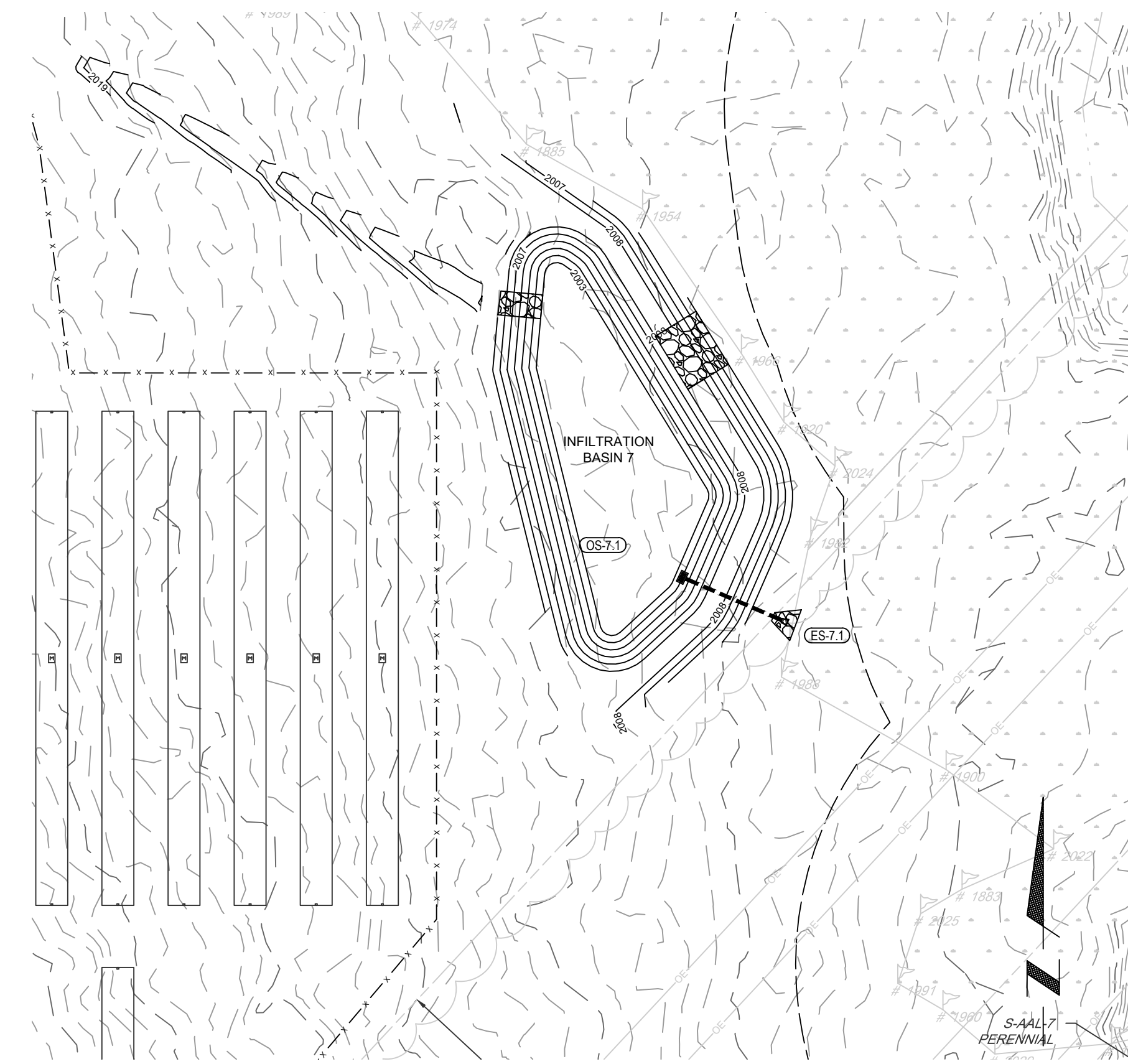
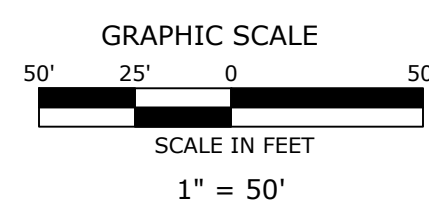


**SPILLWAY DETAIL BASIN 7**

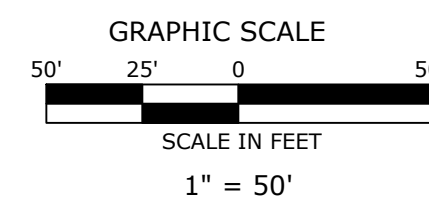
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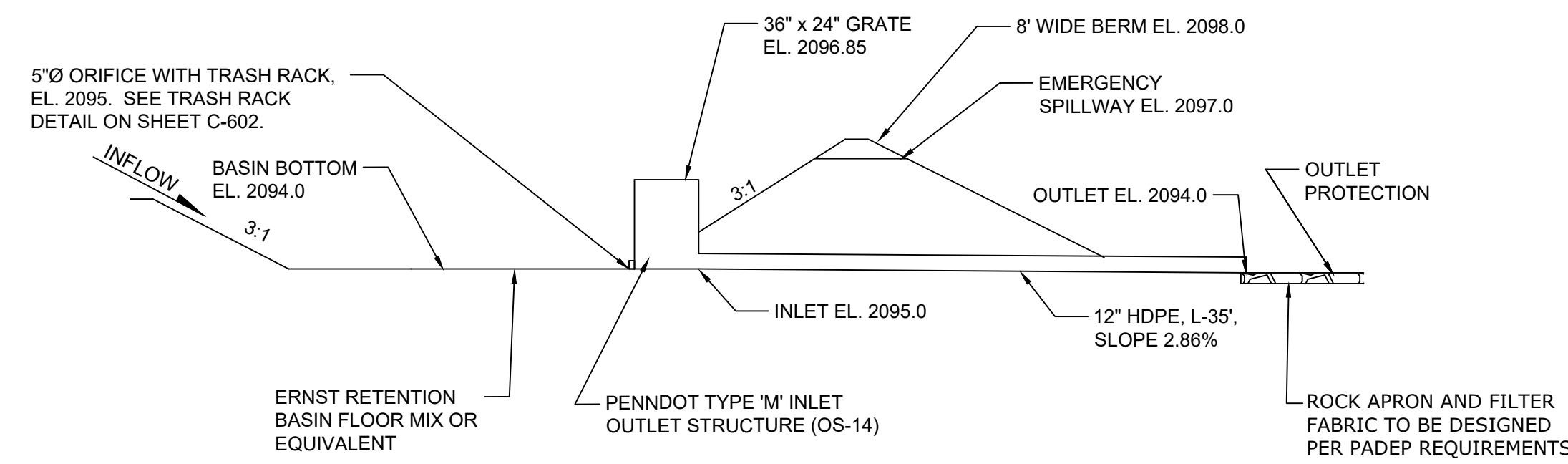
**BASIN 6**



**BASIN 7**

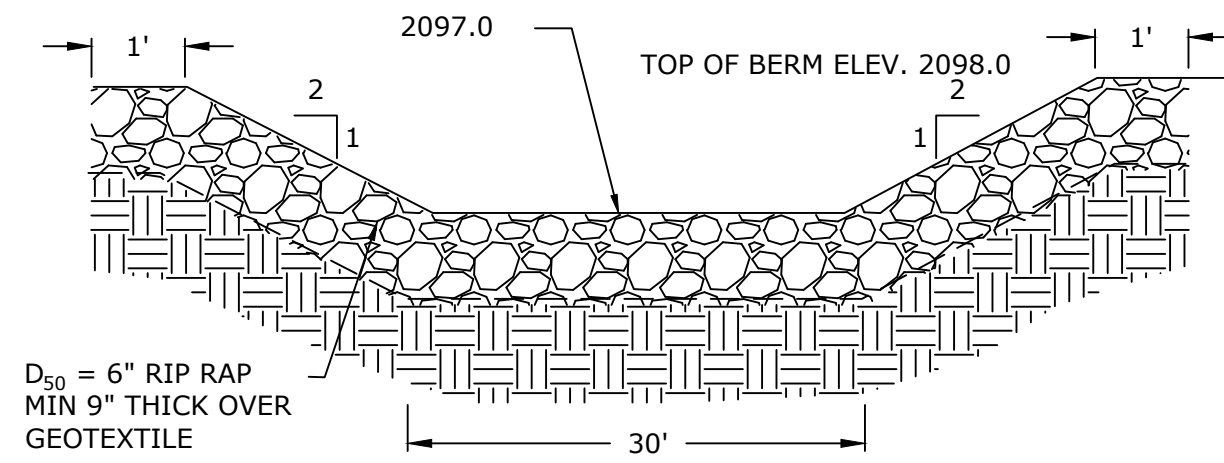


OWNER: <b>ENERGIX RENEWABLES</b>		PLAN: PCSM PLAN	SCALE: AS SHOWN
LOCATION: MCKEAN COUNTY, PA		PROJECT: CLERMONT SOLAR PROJECT	SHEET TITLE: BASIN GRADING DETAILS 3
DATE: 08/21/24	PROJECT NO: US0024243.7390	SHEET: 111	PAGE: 13 OF 17



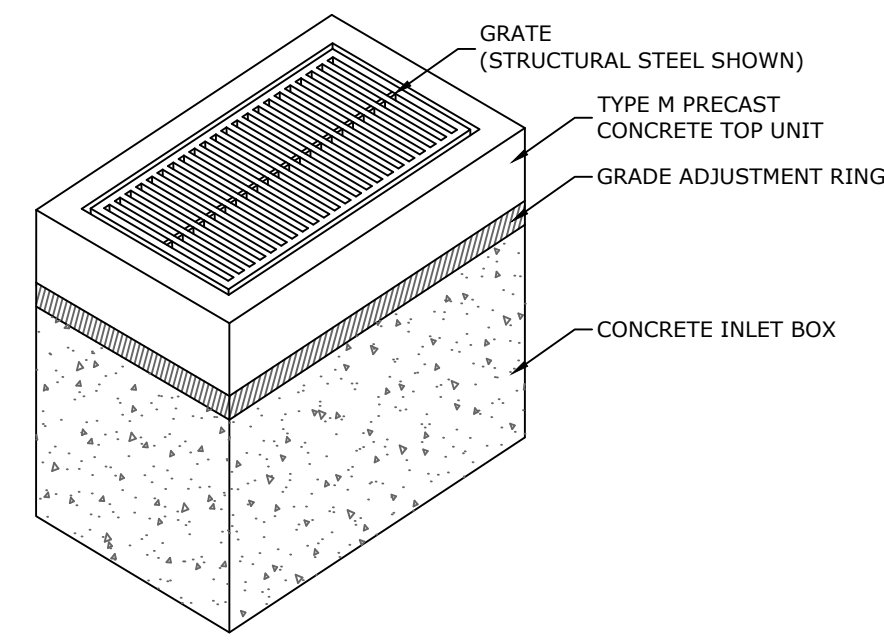
**INFILTRATION BASIN 14 DETAIL**

NOT TO SCALE



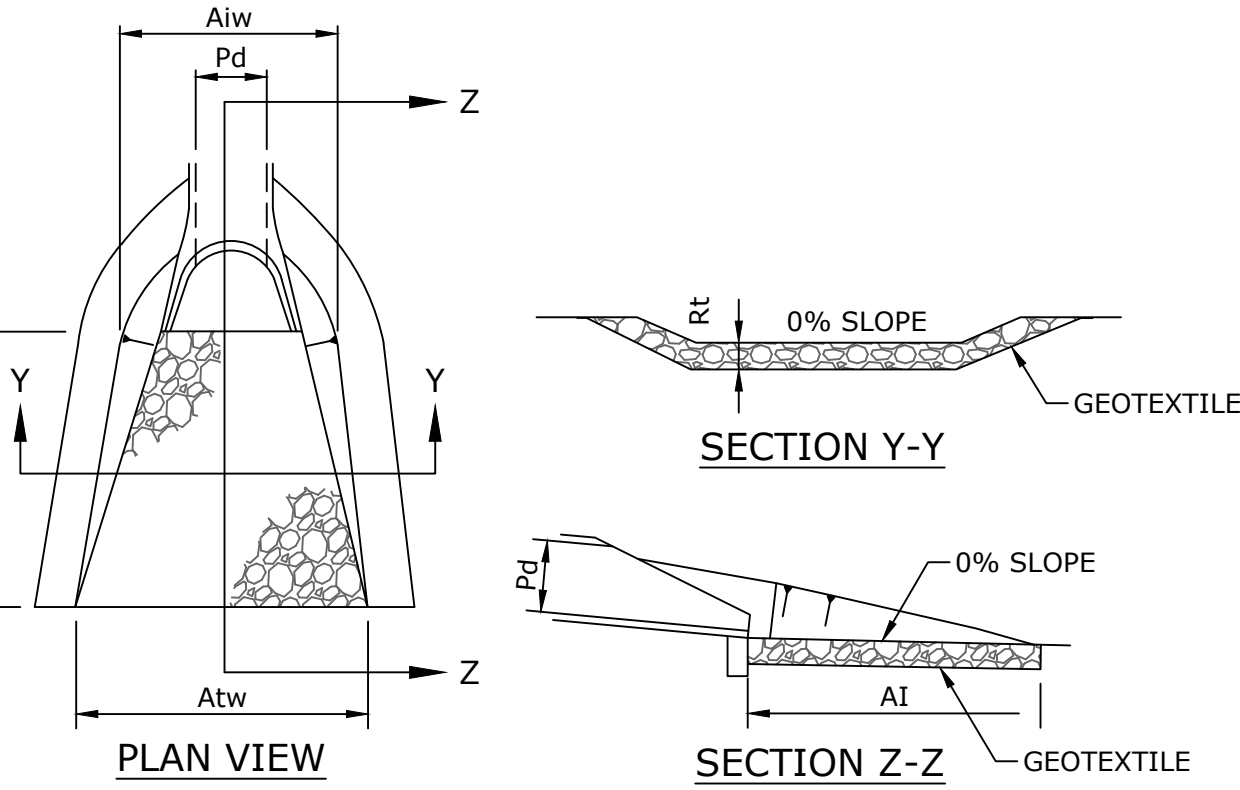
**SPILLWAY DETAIL BASIN 14**

NOT TO SCALE



**TYPE 'M' INLET**

NOT TO SCALE



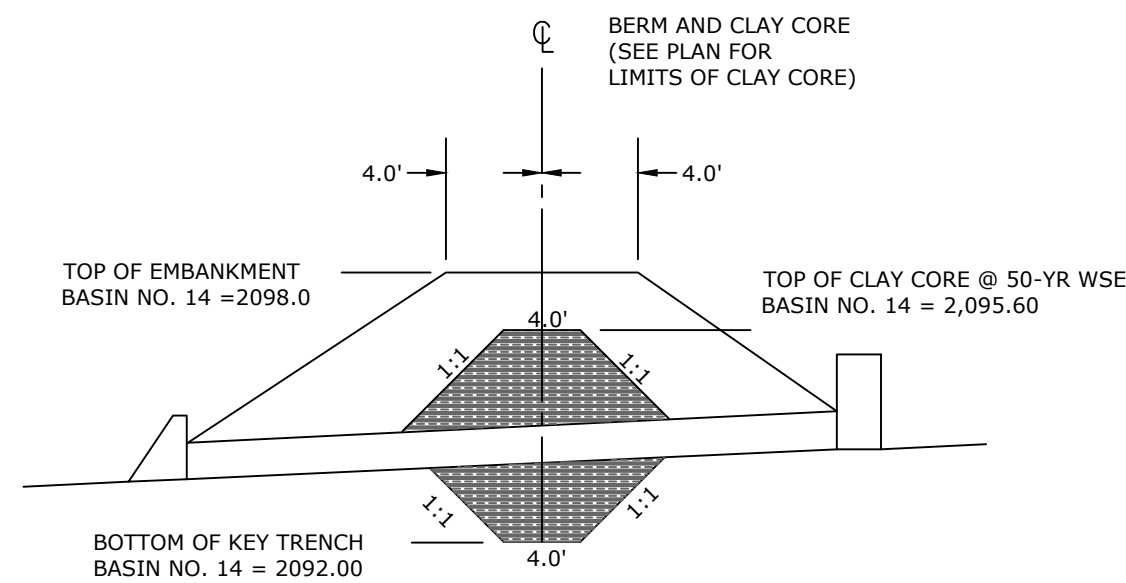
OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP			APRON	
		SIZE R-	THICK. Rt (IN)	LENGTH AI (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
BASIN 14	12	R-3	9	10	3	13
BASIN 15	12	R-3	9	10	3	13

**NOTES:**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENN DOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34. CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES. STRUCTURE SHALL BE CERTIFIED FOR H2O LOADING.  
 2. ALL DRAINAGE STRUCTURES SHALL HAVE POURED-IN-PLACE CONCRETE CHANNEL BOTTOMS.  
 3. USE PRECAST CONCRETE OR STEEL GRADE ADJUSTMENT RINGS WHEN REQUIRED.

**RIP-RAP APRON DETAIL**

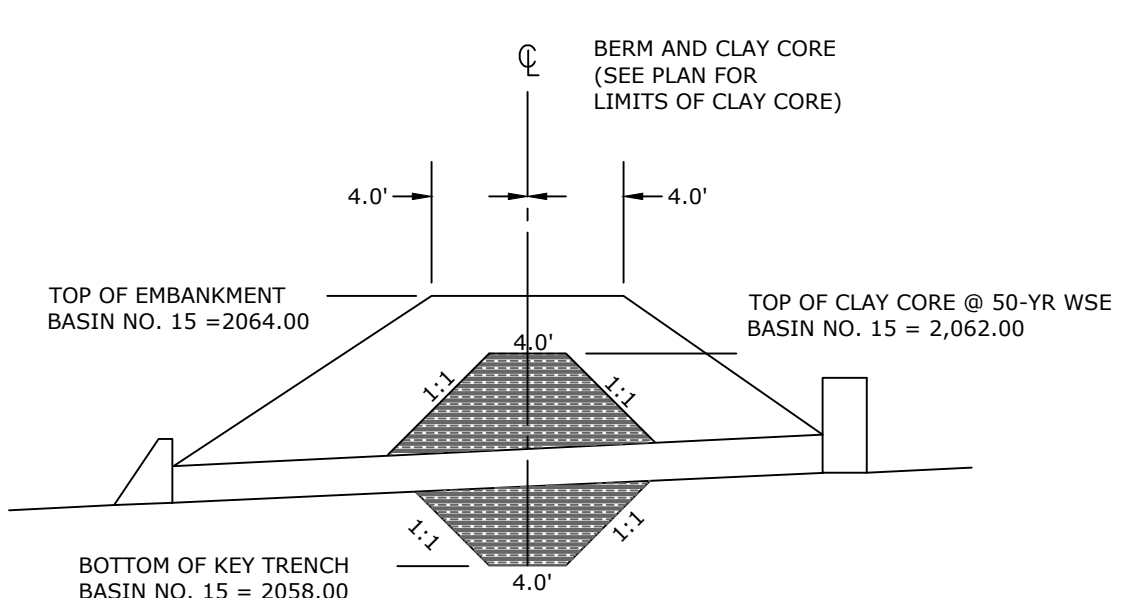
NOT TO SCALE



**NOTE:**  
 1. CLAY CORE SHALL BE COMPOSED OF IMPORTED CL, CH, MH OR CL-ML SOILS WITH A PERMEABILITY LESS THAN OR EQUAL TO  $1.0 \times 10^{-8}$  CM/S. MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM-D 1557; WITHIN  $\pm$  3% OPTIMUM MOISTURE CONTENT.

**INFILTRATION BASIN 14 CLAY CORE**

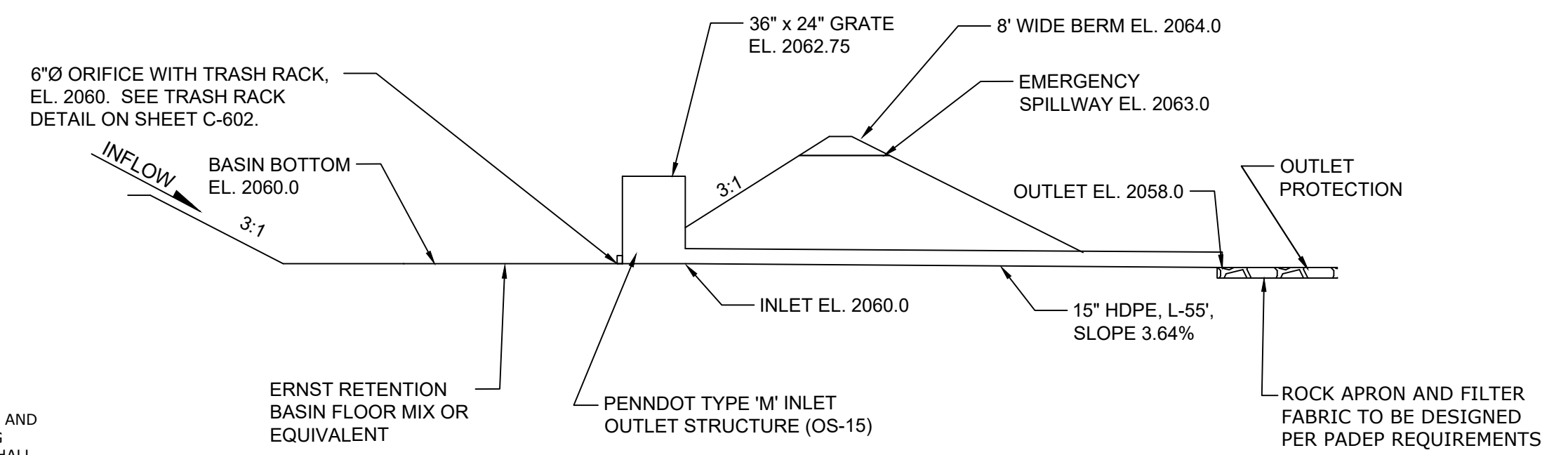
NOT TO SCALE



**NOTE:**  
 1. CLAY CORE SHALL BE COMPOSED OF IMPORTED CL, CH, MH OR CL-ML SOILS WITH A PERMEABILITY LESS THAN OR EQUAL TO  $1.0 \times 10^{-8}$  CM/S. MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM-D 1557; WITHIN  $\pm$  3% OPTIMUM MOISTURE CONTENT.

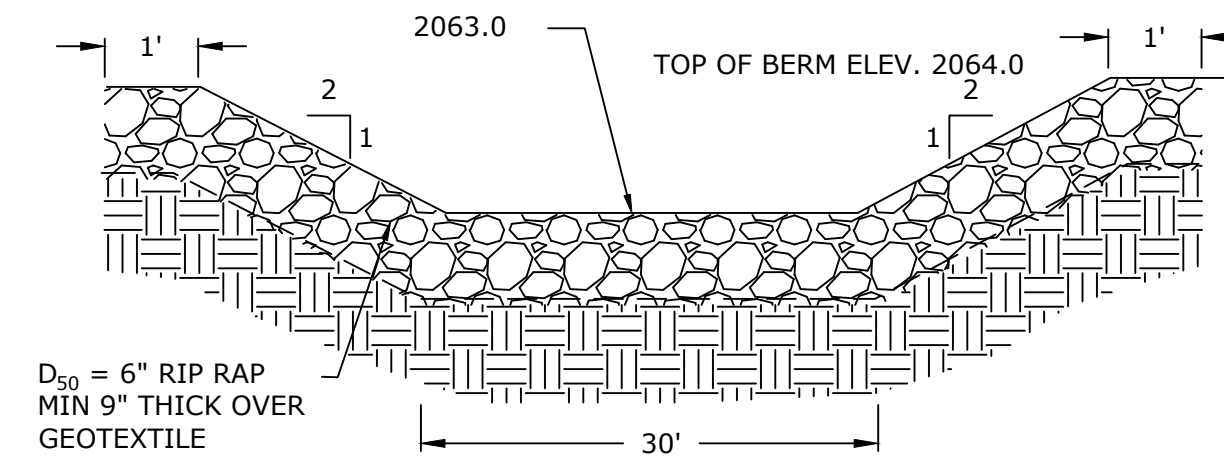
**INFILTRATION BASIN 15 CLAY CORE**

NOT TO SCALE



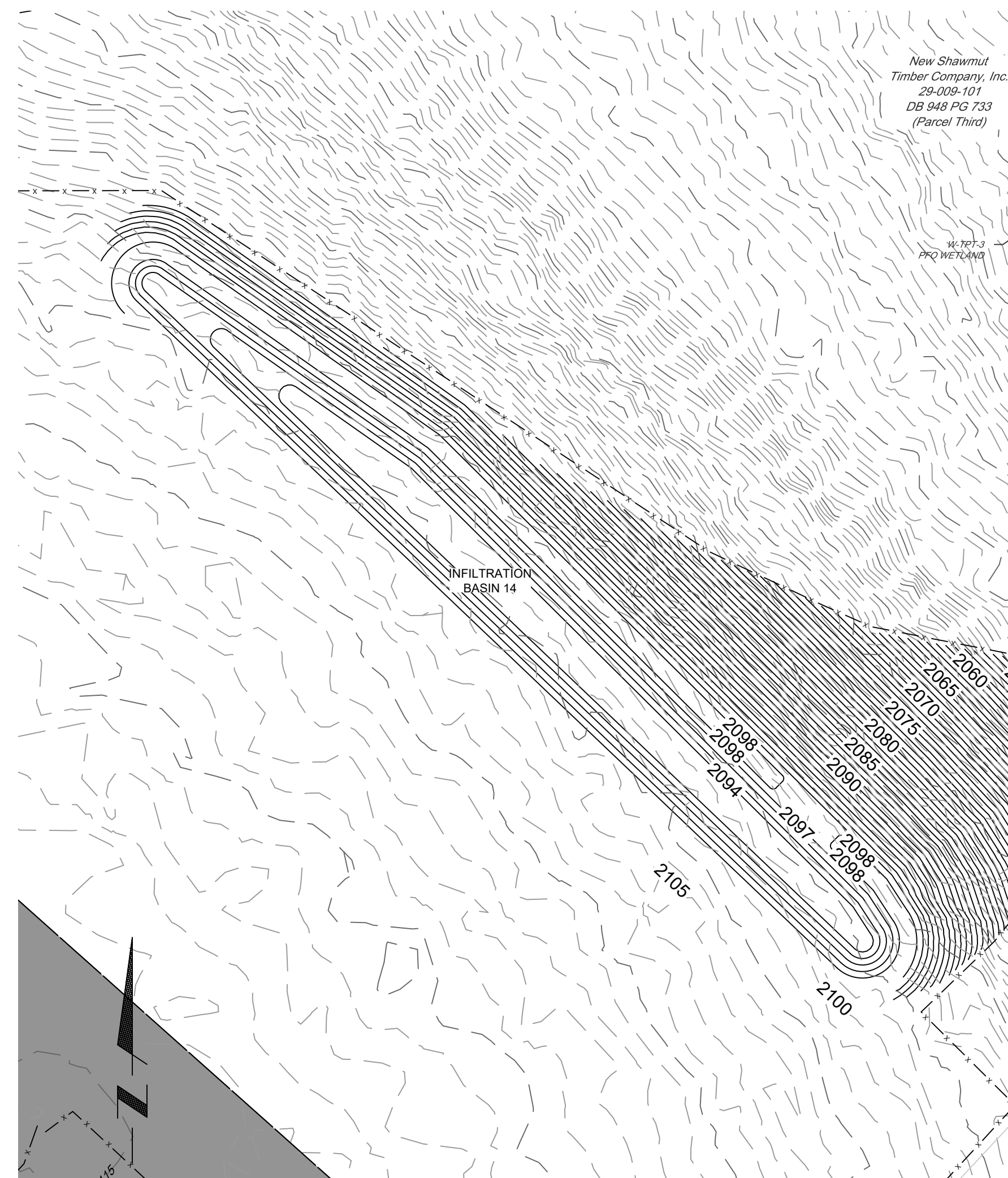
**INFILTRATION BASIN 15 DETAIL**

NOT TO SCALE

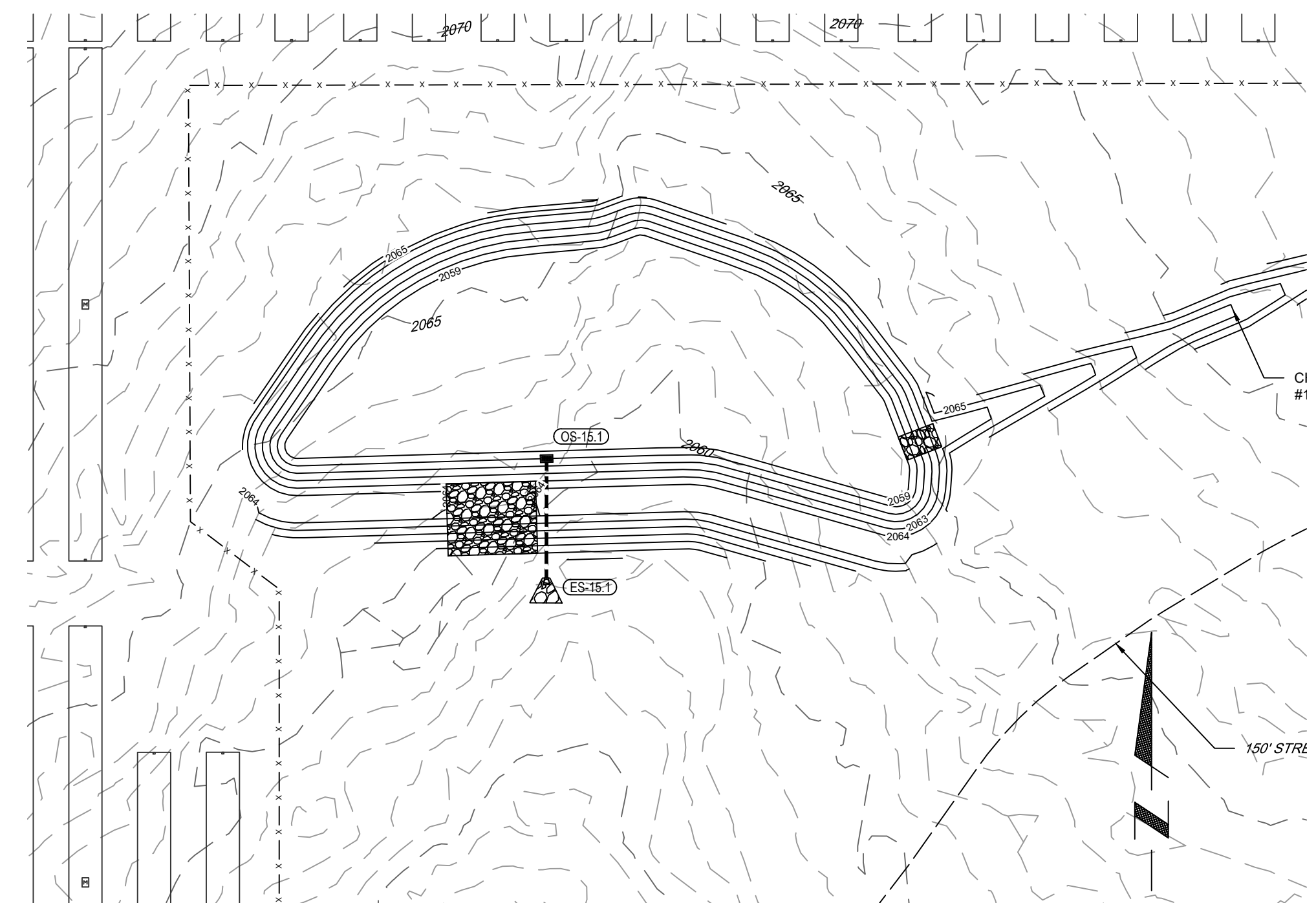
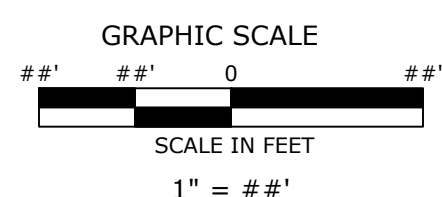


**SPILLWAY DETAIL BASIN 15**

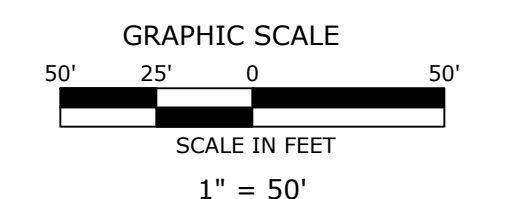
NOT TO SCALE



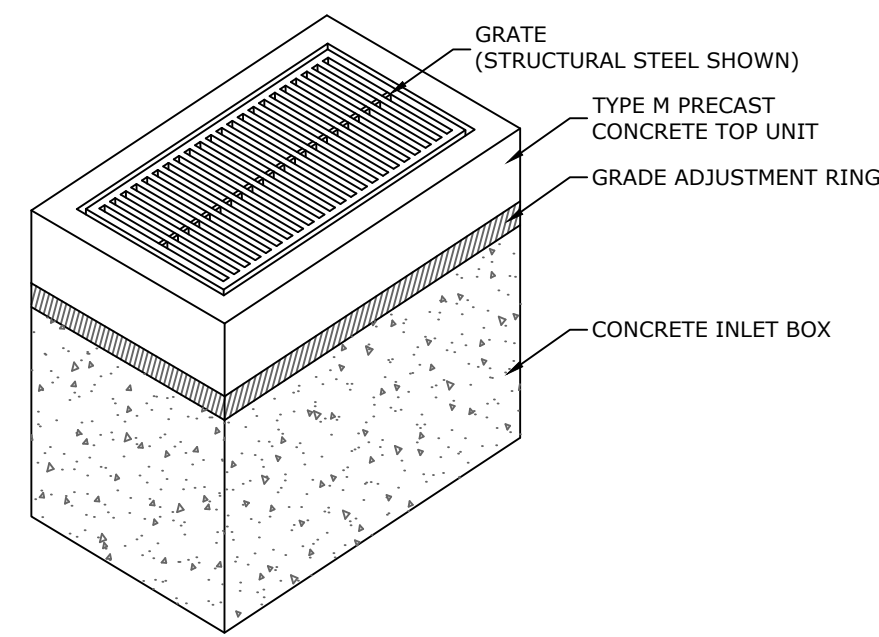
**BASIN 14**



**BASIN 15**



OWNER: 		PLAN: PCSM PLAN		SCALE: AS SHOWN		
LOCATION: MCKEAN COUNTY, PA		PROJECT: CLERMONT SOLAR PROJECT		SHEET TITLE: BASIN GRADING DETAILS 4		
PLAN PREPARER: 		REGISTERED PROFESSIONAL ENGINEER JOSEPH C. SCOTT P.E. 085120		DATE: 08/21/24		
PROJECT NO: US0024243.7390		SHEET: 112		PAGE: 14 OF 17		
NO.	DATE	REVISION				
2	08-21-24	REV PER NEW SOLAR EQUIPMENT				
1	10-15-20	REV PER MCD 19-06-20 COMMENTS				

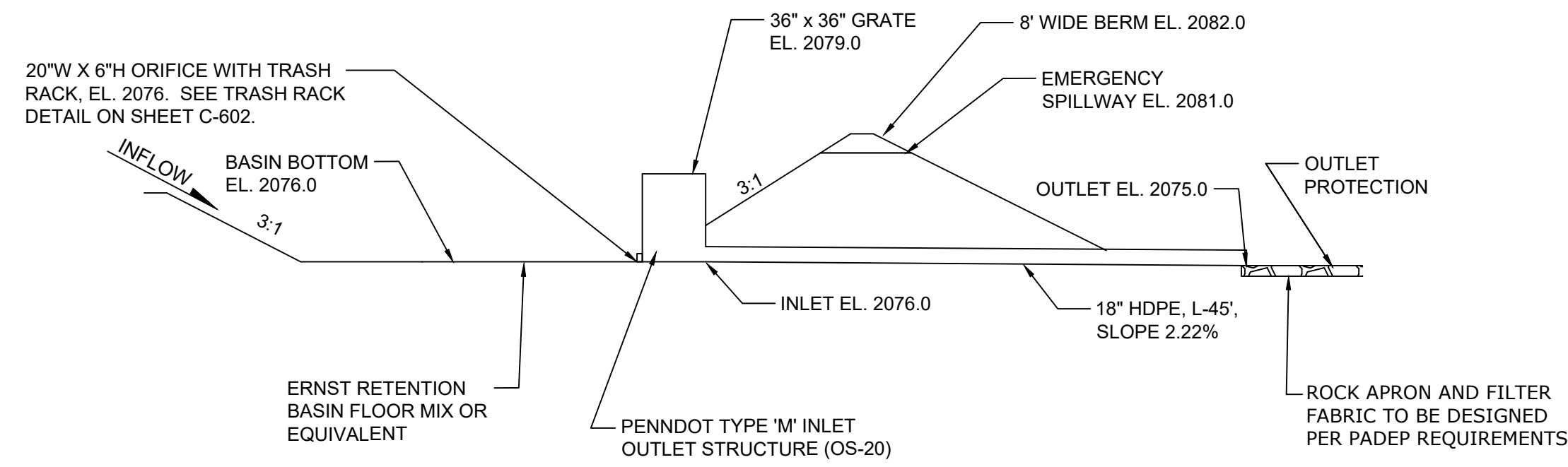


**NOTES:**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENN DOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34. CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES. STRUCTURE SHALL BE CERTIFIED FOR H2O LOADING.
2. ALL DRAINAGE STRUCTURES SHALL HAVE POURED-IN-PLACE CONCRETE CHANNEL BOTTOMS.
3. USE PRECAST CONCRETE OR STEEL GRADE ADJUSTMENT RINGS WHEN REQUIRED.

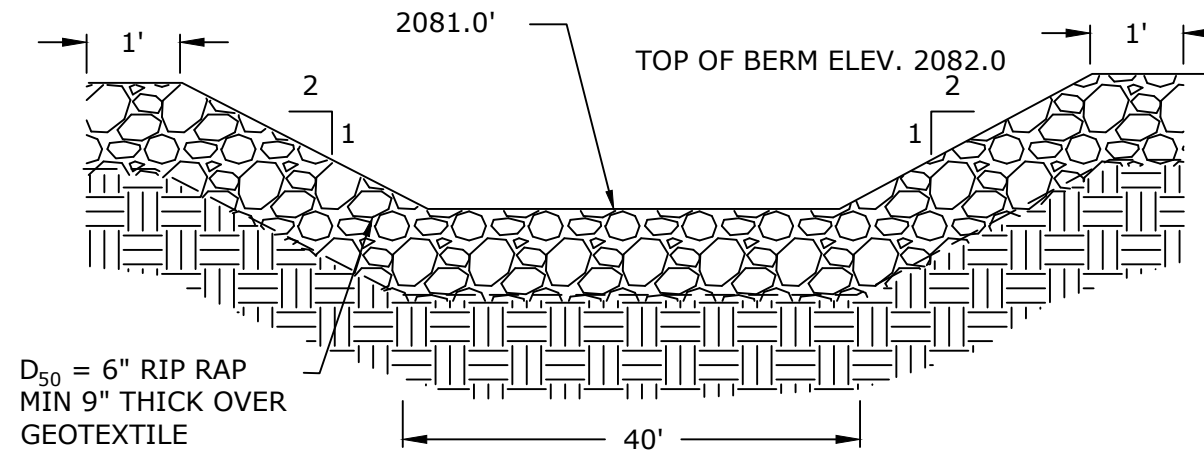
**TYPE 'M' INLET**

NOT TO SCALE



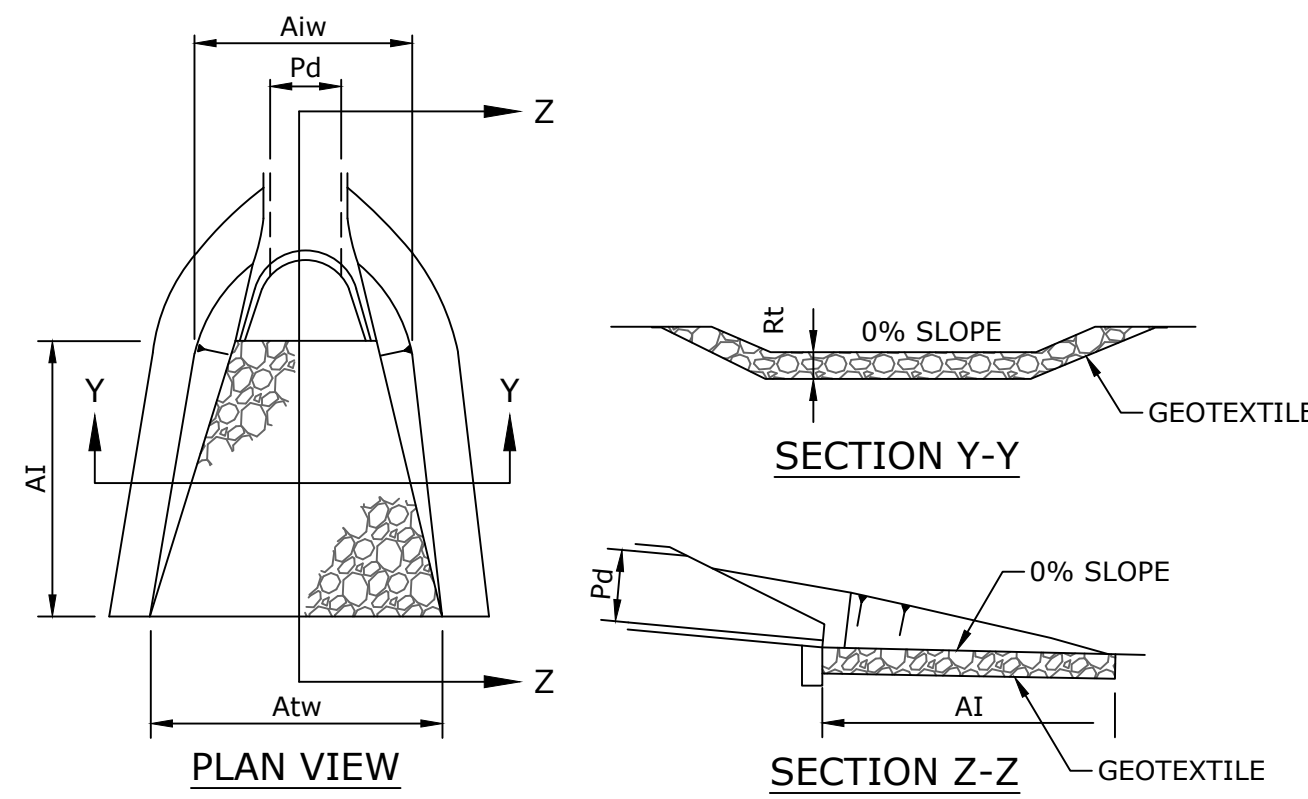
**INFILTRATION BASIN 20 DETAIL**

NOT TO SCALE



**SPILLWAY DETAIL BASIN 20**

NOT TO SCALE



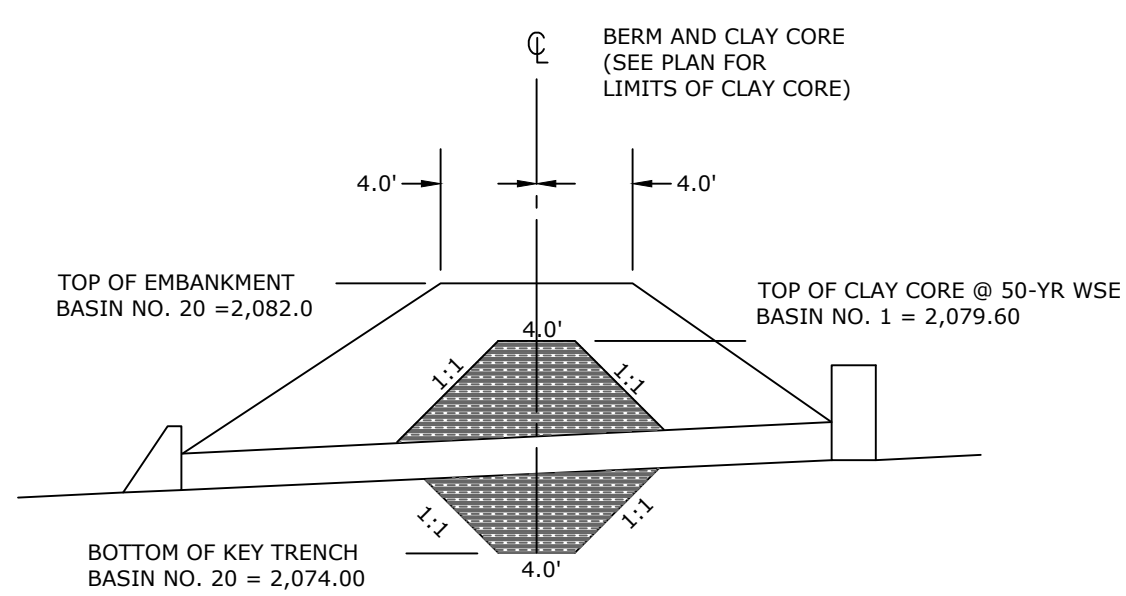
OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP			APRON	
		SIZE R <sub>50</sub>	THICK. Rt (IN)	LENGTH A <sub>i</sub> (FT)	INITIAL WIDTH A <sub>iw</sub> (FT)	TERMINAL WIDTH A <sub>tw</sub> (FT)
BASIN 20	18	R-5	27	14	4.5	18.5

**NOTES:**

- ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. APRONS SHALL BE CONSTRUCTED TO RHODE ISLAND STATE REGULATIONS.

**RIP-RAP APRON DETAIL**

NOT TO SCALE

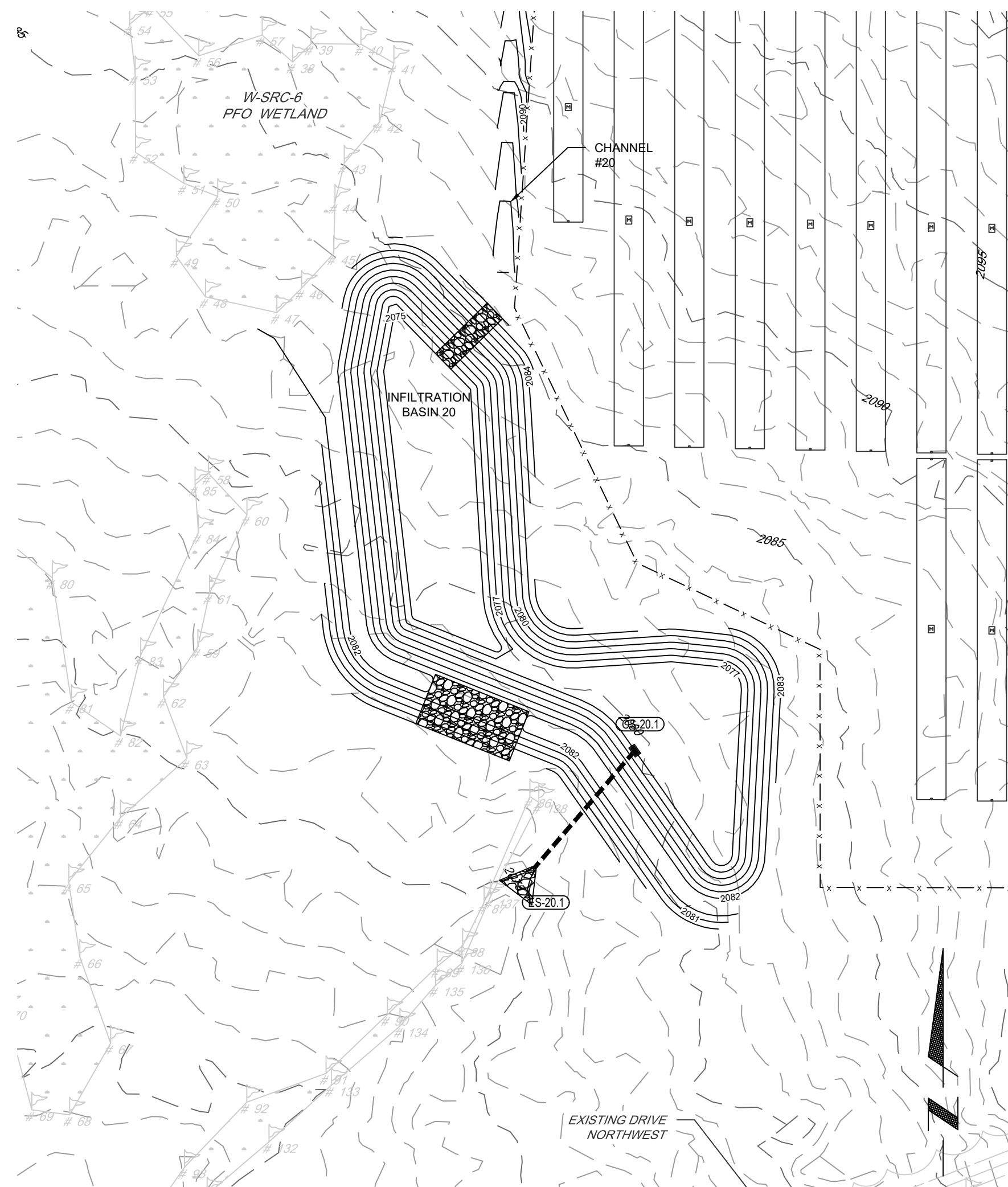


**NOTE:**

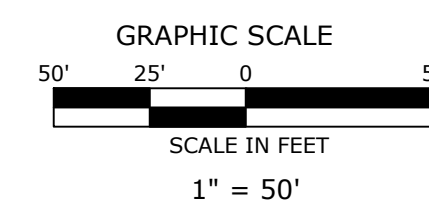
1. CLAY CORE SHALL BE COMPOSED OF IMPORTED CL, CH, MH OR CL-ML SOILS WITH A PERMEABILITY LESS THAN OR EQUAL TO  $1.0 \times 10^{-6}$  CM/S. MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY PER ASTM-D 1557; WITHIN  $\pm 3\%$  OPTIMUM MOISTURE CONTENT.

**INFILTRATION BASIN 20 CLAY CORE**

NOT TO SCALE



**BASIN 20**



NO.	DATE	REVISION
2	08-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-15-20	REV PER MDCD 10-06-20 COMMENTS

OWNER: **ENERGIX RENEWABLES**

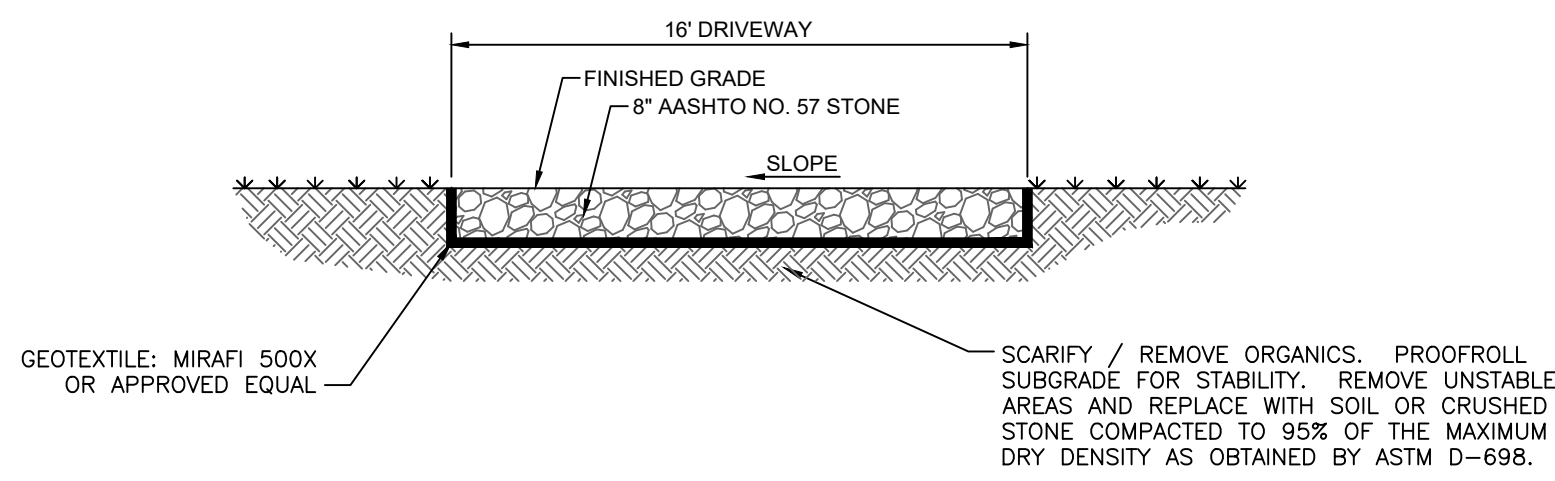
PLAN PREPARER: **wsp**

PLAN: PCSM PLAN

LOCATION: MCKEAN COUNTY, PA

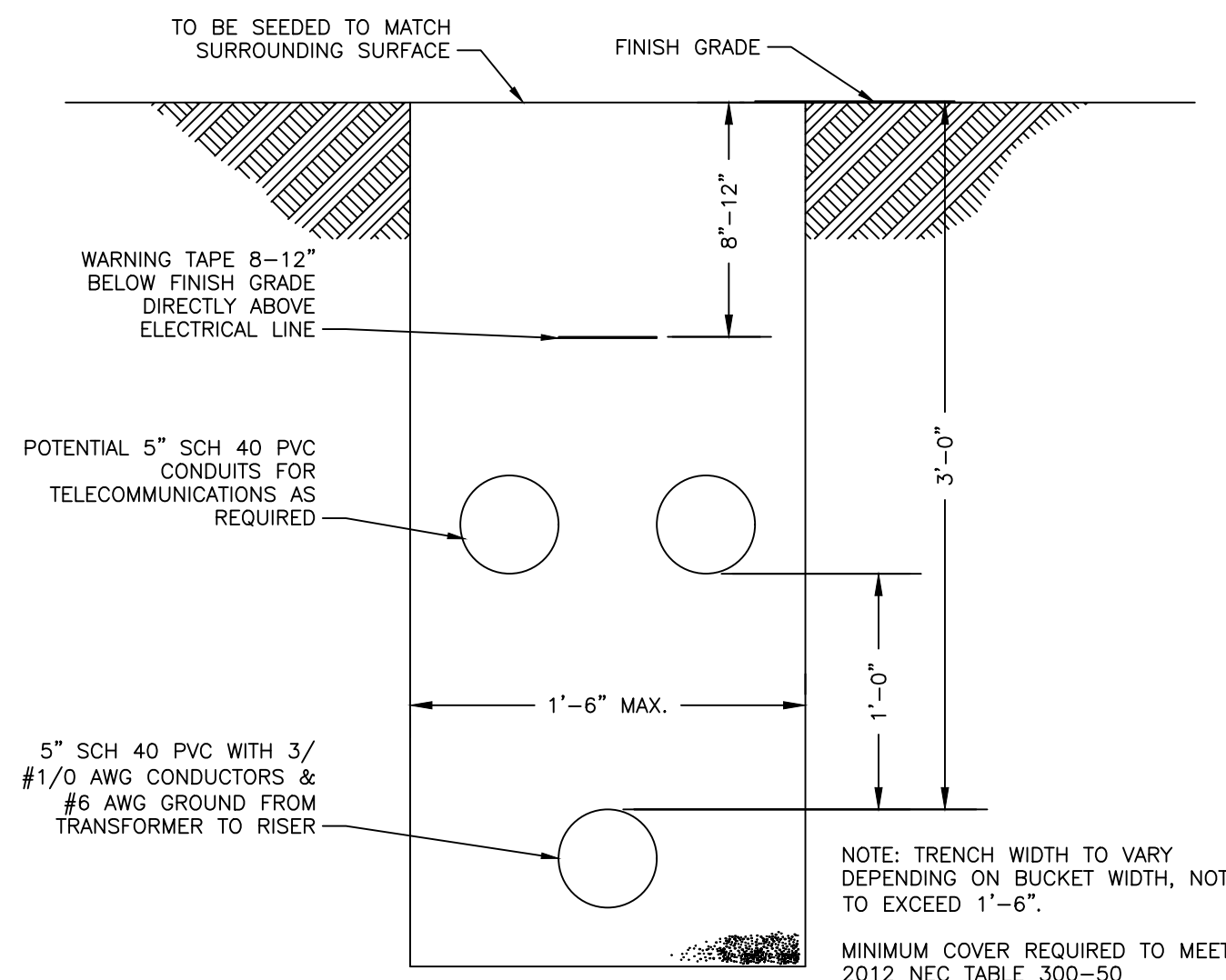
REGISTERED PROFESSIONAL ENGINEER  
JOSEPH C. SCOTT  
P.E. LICENSE NO. FC085120

SCALE: AS SHOWN			
PROJECT: CLERMONT SOLAR PROJECT			
SHEET TITLE: BASIN GRADING DETAILS 5			
DATE: 08/21/24	PROJECT NO: US0024243.7390	SHEET: 113	PAGE: 15 OF 17



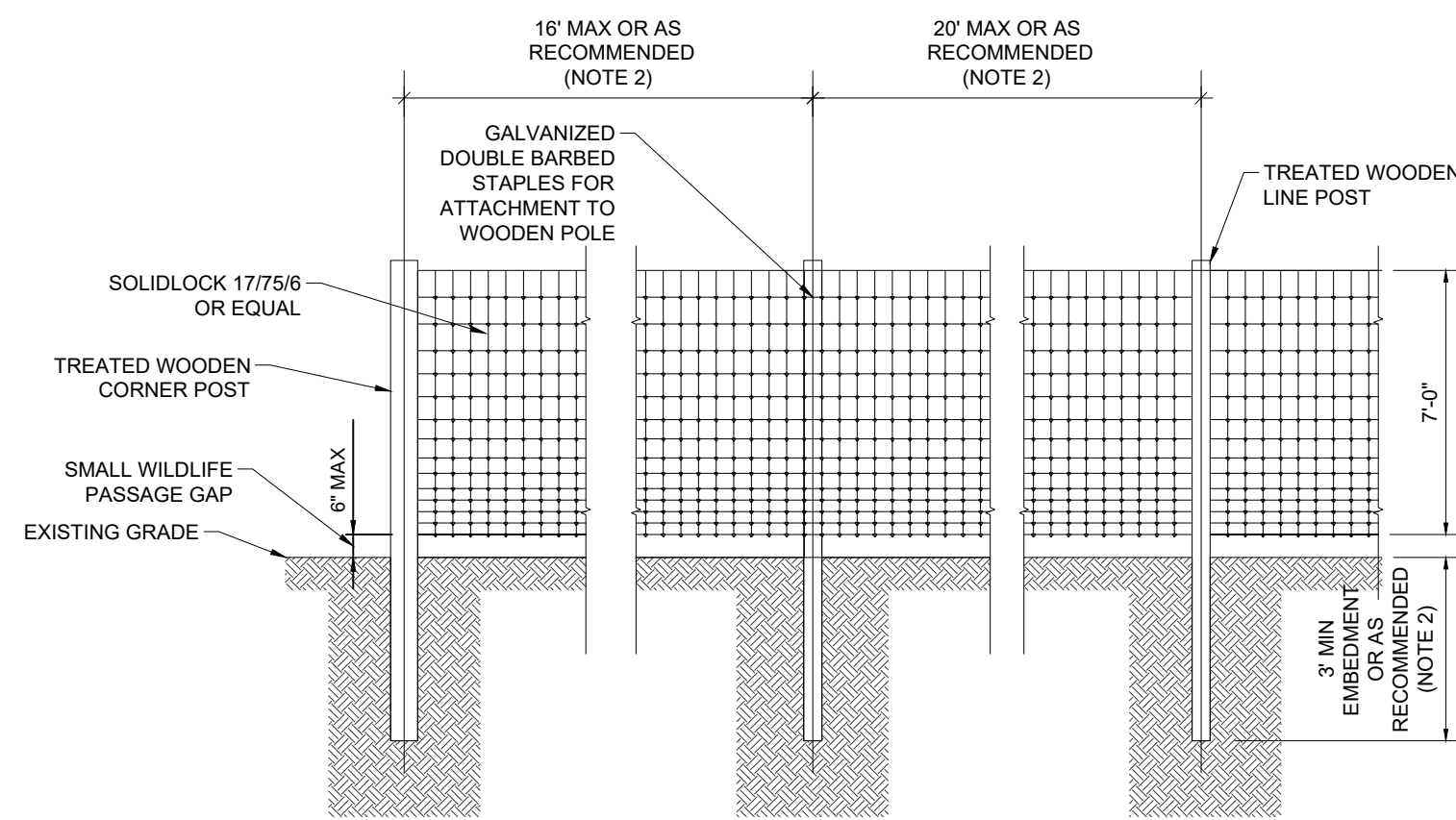
**STONE ACCESS DRIVE SECTION**

NOT TO SCALE



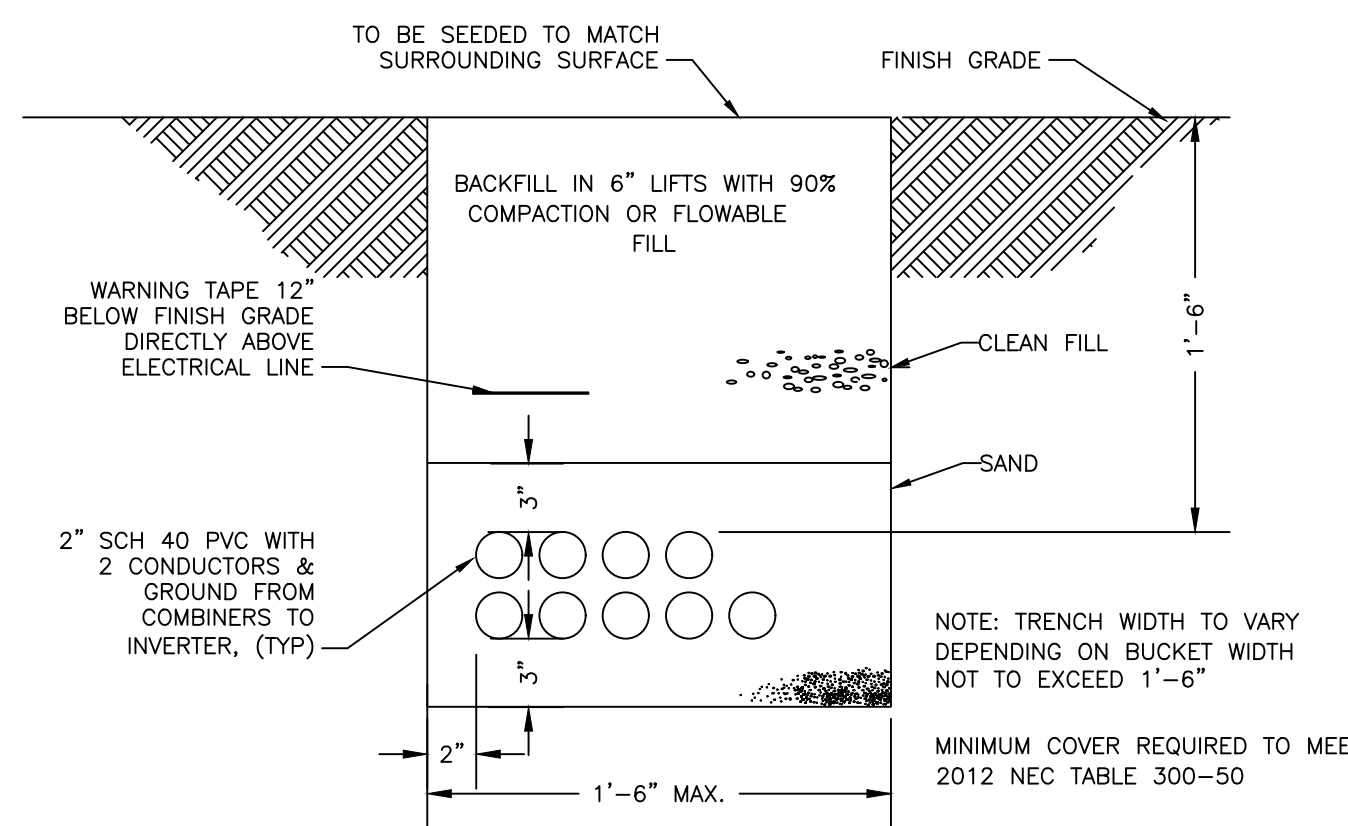
**AC CONDUIT TRENCH DETAIL**

NOT TO SCALE



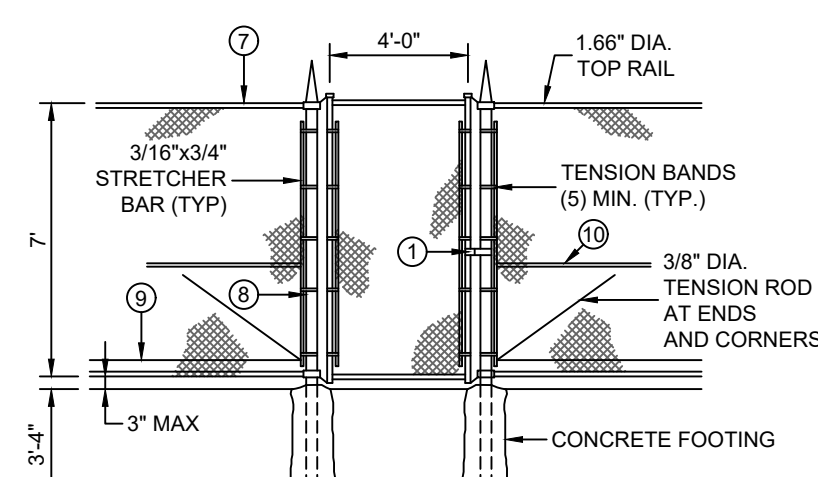
**PERIMETER SECURITY FENCE - ELEVATION VIEW**

NOT TO SCALE



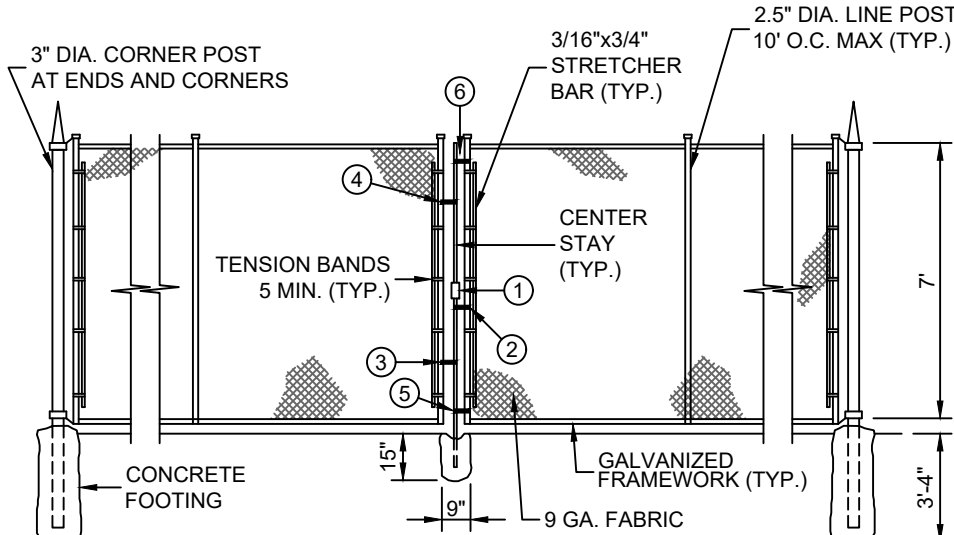
**DC CONDUIT TRENCH DETAIL**

NOT TO SCALE



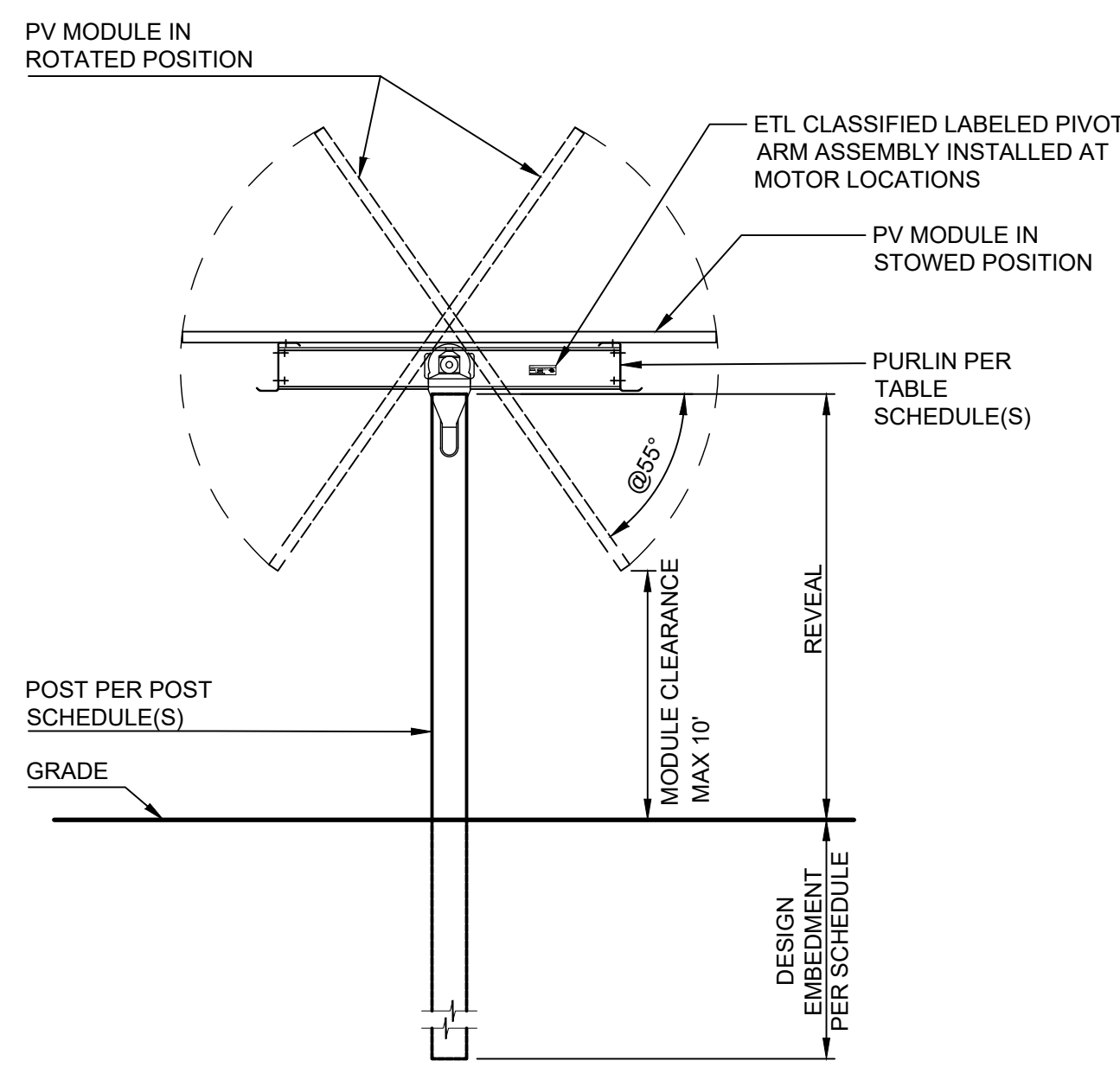
**PERSONNEL GATE**

LABEL LEGEND	
①	LOCK KEEPER
②	LOCK KEEPER GUIDE
③	LOWER FORKS
④	UPPER FORKS
⑤	LOWER GUIDE
⑥	6 UPPER GUIDE
⑦	9 GA. TIE WIRES @ 12\"/>
⑧	9 GA. WIRE TIES ON LINE POSTS SHALL BE @ 15\"/>
⑨	7 GA. TENSION WIRE 6\"/>
⑩	1.66\"/>



**CHAIN LINK FENCE GATES**

NOT TO SCALE



**TRACKER RACK SECTION AND POST DETAIL**

NOT TO SCALE

NOTE: THIS DETAIL IS A GENERIC DETAIL OF A TRACKER TYPE SOLAR MODULE. THE ACTUAL MODULE TYPE HAS NOT BEEN CHOSEN AT THIS TIME.

**STRUCTURAL BMP CONSTRUCTION SEQUENCE**

**INFILTRATION BASIN 6.4.2**

1. PROTECT INFILTRATION BASIN AREA FROM COMPACTION PRIOR TO INSTALLATION.
2. IF POSSIBLE, INSTALL INFILTRATION BASIN DURING LATER PHASES OF SITE CONSTRUCTION TO PREVENT SEDIMENTATION AND/OR DAMAGE FROM CONSTRUCTION ACTIVITY. AFTER INSTALLATION, PREVENT SEDIMENT LADED WASTER ENTERING BASIN AND OUTFALL STRUCTURE.
3. INSTALL AND MAINTAIN PROPER EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
4. DO NOT EXCAVATE BASIN TILL CONTRIBUTING DRAINAGE AREA HAS BEEN CONSTRUCTED AND STABILIZED.
5. INSTALL OUTLET CONTROL STRUCTURE.
6. SEED AND STABILIZE.
7. DO NOT REMOVE EROSION CONTROL MEASURES TILL SITE AND BASIN ARE FULLY STABILIZED.

**VEGETATIVE SWALES 6.4.8**

1. BEGIN VEGETATED SWALE CONSTRUCTION ONLY WHEN UPGRADIENT TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. VEGETATIVE SWALES SHALL BE CONSTRUCTED EARLY IN THE CONSTRUCTION SEQUENCE BEFORE ANY MASS EARTHWORK.
2. ROUGH GRADE THE VEGETATIVE SWALE. EQUIPMENT SHOULD AVOID EXCESSIVE COMPACTION AND/OR LAND DISTURBANCE. EXCAVATING EQUIPMENT SHOULD OPERATE FROM THE SIDE OF THE SWALE AND NEVER ON THE BOTTOM. AT THE VERY LEAST, TOPSOIL SHALL BE DEEP PLOWED INTO SUBGRADE IN ORDER TO PENETRATE THE COMPACTED ZONE. SALE AREA SHOULD BE DISKED PRIOR TO FINAL GRADING AND SEEDING.
3. FINE GRADE THE VEGETATED SWALE. SEED SWALE, PLANT THE SWALE DURING A GOOD GROWING SEASON PER SEEDING SPECIFICATIONS AND WEATHER CONDITIONS.
4. ONCE A TRIBUTARY AREAS ARE SUFFICIENTLY STABILIZED, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS. IT IS VERY IMPORTANT THAT THE SWALE BE STABILIZED BEFORE RECEIVING SUBSTANTIAL UPLAND FLOWS.

**INFILTRATION BERMS 6.4.10**

THE FOLLOWING IS A TYPICAL CONSTRUCTION SEQUENCE FOR AN INFILTRATION BERM WITHOUT A SUBSURFACE INFILTRATION TRENCH. ALTERATIONS MAY BE REQUIRED BASED ON DESIGN VARIATIONS.

1. INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL BMP'S PER PENNSYLVANIA EROSION AND SEDIMENT CONTROL MANUAL.
2. COMPLETE SITE GRADING AND STABILIZE WITHIN THE LIMITS OF DISTURBANCE WHERE INFILTRATION BERMS WILL BE CONSTRUCTED. MAKE EVER EFFORT TO MINIMIZE BERM FOOTPRINT AND TO MAXIMIZE INFILTRATION.
3. LIGHTLY SCARIFY THE SOIL IN THE AREA THE BERM BEFORE DELIVERING SOIL TO SITE.
4. BRING IN FILL MATERIAL TO MAKE UP THE MAJORITY OF THE BERM. SOIL SHOULD BE ADDED IN 8 INCH LIFTS AND COMPACTED AFTER EACH ADDITION. SEE BERM DETAIL.
5. PROTECT THE SURFACE FROM PONDING AT THE BASE OF THE BERM FROM COMPACTION.
6. COMPLETE FINAL GRADING OF THE BERM AFTER TOP SOIL LAYER IS ADDED. TAMP SOIL DOWN LIGHTLY AND SMOOTH SIDES OF THE BERM.
7. PLANT BERM WITH TURF, AND MEADOW SEEDING.
8. MULCH PLANTED AREAS WITH COMPOST MULCH TO PREVENT EROSION WHILE VEGETATION BECOMES ESTABLISHED.

**STRUCTURAL BMP MAINTENANCE NOTES**

**VEGETATIVE SWALES 6.4.8**

- INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED TO GRADE.
- MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS. INSPECT FOR LITTER; REMOVE PRIOR TO MOWING.
- INSPECT FOR UNIFORMITY IN CROSS-SECTION AND LONGITUDINAL SLOPE, CORRECT AS NEEDED.
- INSPECT SWALE INLET (CURB CUTS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE, CORRECT AS MAINTENANCE ACTIVITIES TO BE DONE AS NEEDED. TO BE DONE ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (RAINFALL DEPTH); INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION).
- INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE.
- REMOVE WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY.
- MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING NEEDED

**INFILTRATION BASIN 6.4.2**

VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON THE INFILTRATION BASIN, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.

- VEGETATION ALONG THE SURFACE OF THE INFILTRATION BASIN SHOULD BE MAINTAINED IN GOOD CONDITION, ANY BARE SPOTS SHOULD BE REVEGETATED AS SOON AS POSSIBLE.
- DURING THE FIRST TWO YEARS, THE BASIN SHOULD BE INSPECTED AT LEAST 4 TIMES PER YEAR AND AFTER MAJOR STORM EVENTS (GREATER THAN 2 INCHES OF RAINFALL IN ANY 24-HOUR PERIOD).
- THERE AFTER THE FACILITIES SHALL BE INSPECTED SEMIANNUALLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (GREATER THAN 2 INCHES OF RAINFALL IN ANY 24-HOUR PERIOD.)
- INSPECTION SHOULD INCLUDE MAKING SURE THE BASIN DRAINS WITHIN 72 HOURS. ALSO INSPECT FOR ACCUMULATED SEDIMENT.
- EROSION CONTROL, SLOPE STABILITY OF THE BERMS.
- MOW ANNUALLY OR AS APPROPRIATE FOR VEGETATIVE SPECIES.
- REMOVE ACCUMULATED SEDIMENT FROM BASIN. RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE. DISPOSE OF SEDIMENT PROPERLY.

**INFILTRATION BERMS 6.4.10**

VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON THE INFILTRATION BERMS.

- DURING THE FIRST TWO YEARS, BERMS SHOULD BE INSPECTED AT LEAST 4 TIMES PER YEAR AND AFTER MAJOR STORM EVENTS (GREATER THAN 2 INCHES OF RAINFALL IN ANY 24-HOUR PERIOD).
- THERE AFTER THE FACILITIES SHALL BE INSPECTED SEMIANNUALLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (GREATER THAN 2 INCHES OF RAINFALL IN ANY 24-HOUR PERIOD.)
- INSPECTION SHOULD INCLUDE ASSURING THAT INFILTRATION BERM IS FREE OF EROSION AND RUTS IS VEGETATED AND IS DRAINING PROPERLY. THERE SHOULD BE NO STANDING WATER IN FRONT OF BERM 48 HOURS AFTER RAIN EVENTS. ALL DEBRIS AND SEDIMENT SHOULD BE REMOVED FROM TRENCH SURFACE AREA.

**STANDARD STORMWATER PLAN NOTES**

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
3. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
4. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
5. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
6. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
7. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
8. ANY DISTURBANCE CAUSED BY THE INSTALLATION OF THE PROPOSED STORMWATER BMP'S SHALL BE IMMEDIATELY STABILIZED AT THE COMPLETION OF BMP CONSTRUCTION ACTIVITIES.
9. GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE.

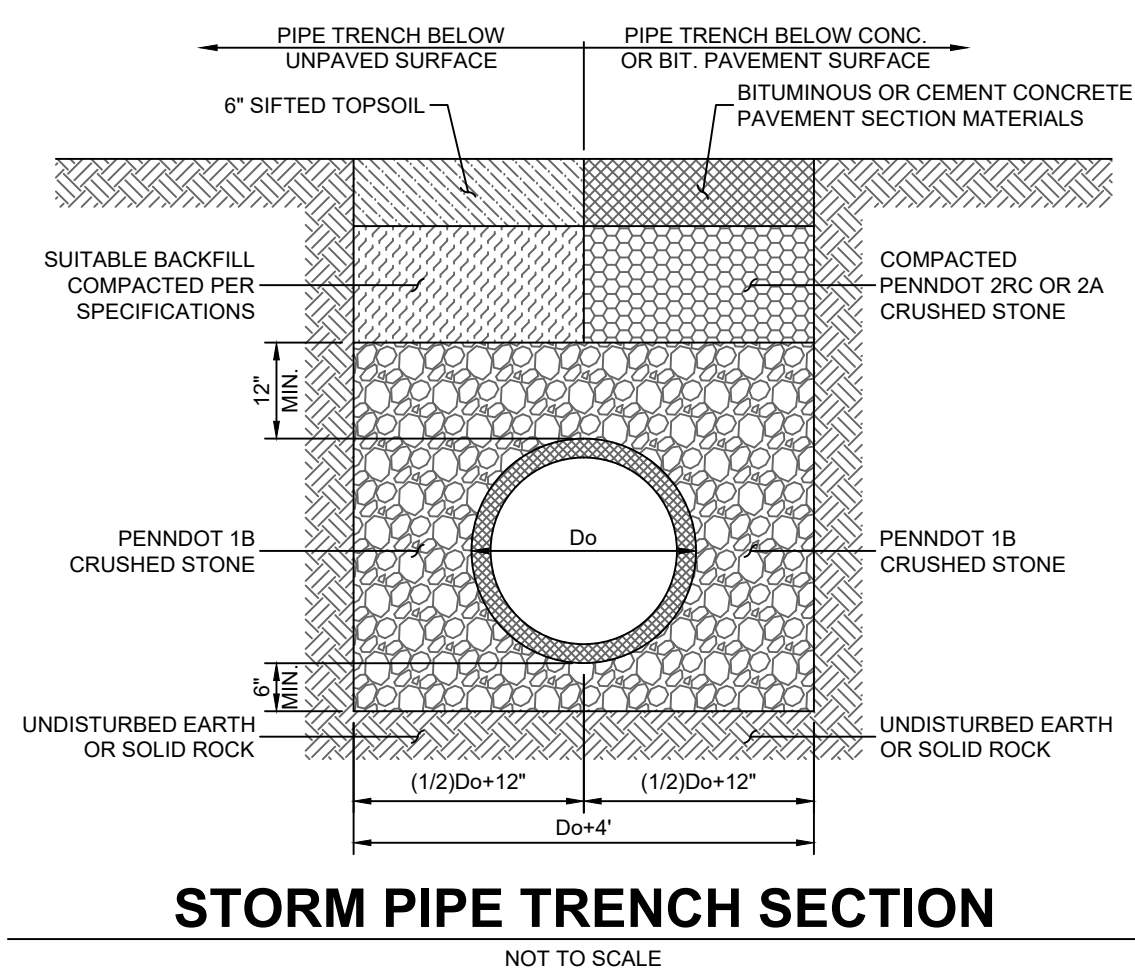
**THERMAL IMPACTS:**

THERMAL IMPACTS WILL BE MINIMIZED AND/OR MITIGATED TO AVOID AND MINIMIZE POTENTIAL THERMAL POLLUTION. THERMAL IMPACTS WILL BE MINIMIZED BY MINIMIZING OF IMPERVIOUS SURFACES. THE INFILTRATION TRENCHES AND THE INFILTRATION BASIN BMP WILL INFILTRATE STORMWATER PRIOR TO DISCHARGING FROM THE SITE.

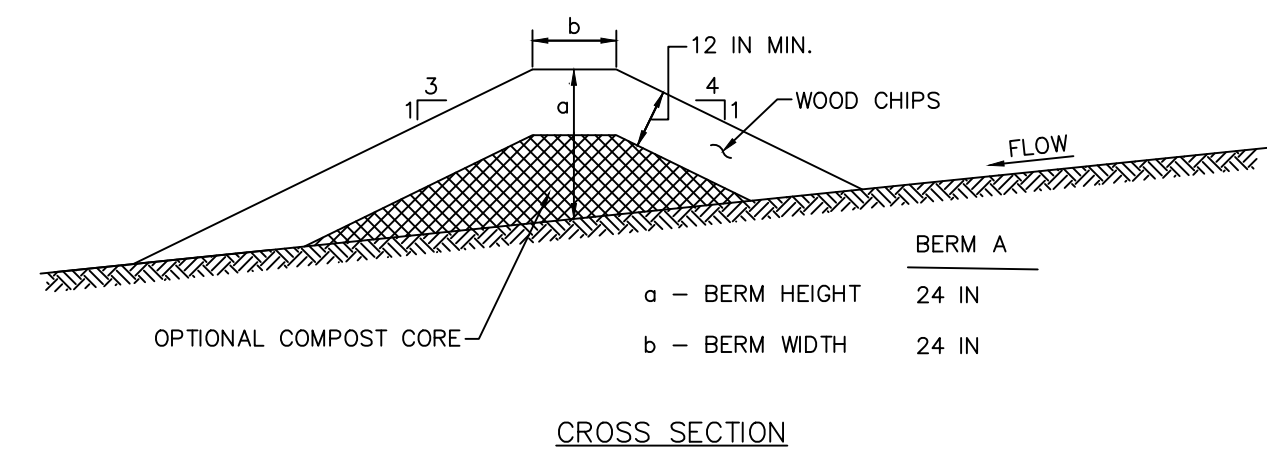
**CRITICAL STAGES OF CONSTRUCTION:**

THE INFILTRATION BASINS, INFILTRATION BERMS AND VEGETATED SWALES ARE CONSIDERED CRITICAL STAGES OF CONSTRUCTION AS SUCH, INSTALLATION REQUIRES ENGINEERING OVERSIGHT AND INSPECTION. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER 72 HOURS PRIOR TO THIS STAGE OF CONSTRUCTION COMMENCING.

OWNER: <b>ENERGIX RENEWABLES</b>		PLAN: PCSM PLAN		SCALE: AS SHOWN										
PLAN PREPARER: <b>WSP</b>		LOCATION: MCKEAN COUNTY, PA		PROJECT: CLERMONT SOLAR PROJECT										
REGISTERED PROFESSIONAL ENGINEER JOSEPH C. SCOTT PE085120		SHEET TITLE: STORMWATER NOTES & DETAILS		DATE: 08/21/24										
PROJECT NO. US0024243.7390		SHEET: 114		PAGE: 16 OF 17										
<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>08-21-24</td> <td>REV PER NEW SOLAR EQUIPMENT</td> </tr> <tr> <td>1</td> <td>10-15-20</td> <td>REV PER MCKD 10-06-20 COMMENTS</td> </tr> </tbody> </table>						NO.	DATE	REVISION	2	08-21-24	REV PER NEW SOLAR EQUIPMENT	1	10-15-20	REV PER MCKD 10-06-20 COMMENTS
NO.	DATE	REVISION												
2	08-21-24	REV PER NEW SOLAR EQUIPMENT												
1	10-15-20	REV PER MCKD 10-06-20 COMMENTS												



**STORM PIPE TRENCH SECTION**  
NOT TO SCALE

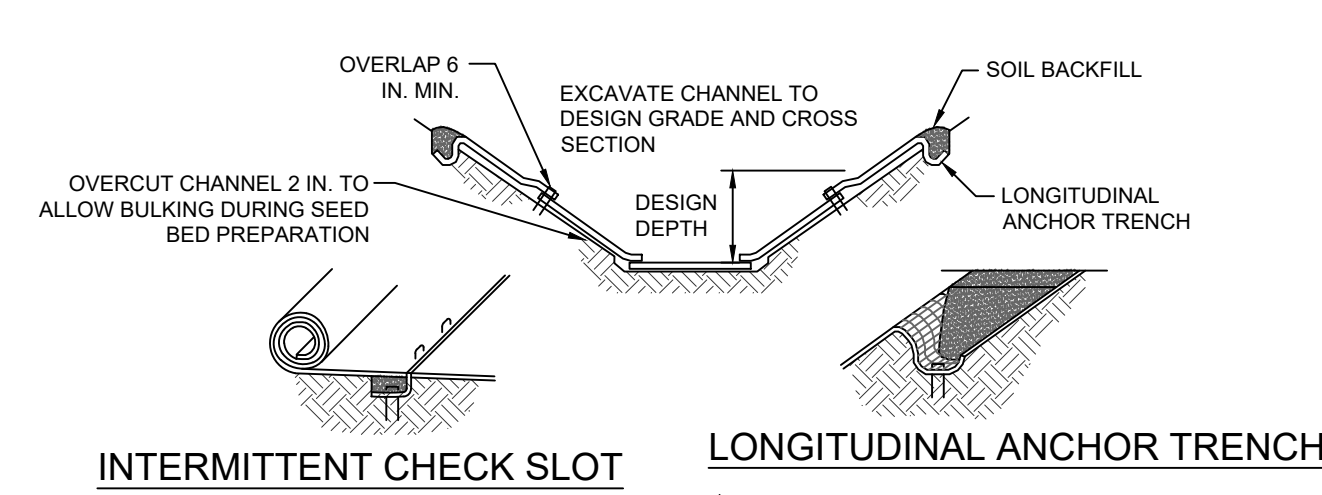


**CROSS SECTION**

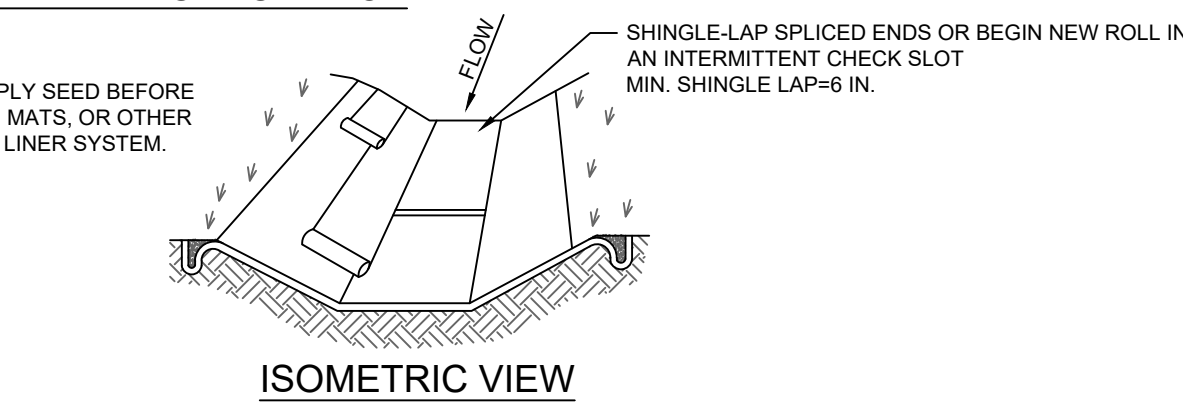
**CONSTRUCTION SPECIFICATIONS**

- PLACE BERM ON THE CONTOUR WITH ENDS TURNED UPGRADE TO PREVENT BYPASS.
- CONSTRUCT BERM OF COMPACTED EARTH. STABILIZE BERM WITH GRASS AND MULCH IMMEDIATELY.
- COMPACT AND SHAPE MATERIAL TO CONFORM TO DIMENSIONS SPECIFIED ON THE APPROVED PLAN.
- DO NOT PLACE UN-CHIPPED TREE PIECES, BRUSH, OR STUMPS IN THE BERM. BERM MUST BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES.
- THE BERM MAY CONTAIN UP TO 50% COMPOST MATERIAL.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN THEY REACH 25% OF BERM HEIGHT.

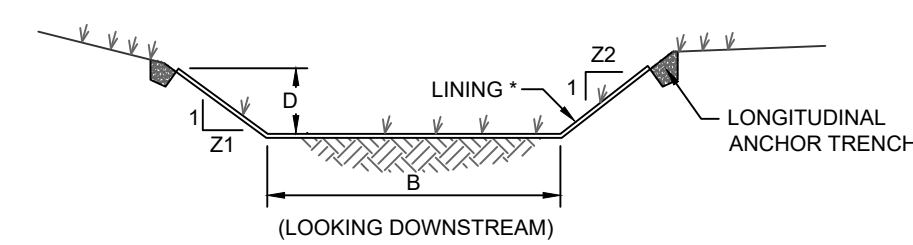
**BERM DETAIL**  
NOT TO SCALE



PREPARE SOIL AND APPLY SEED BEFORE INSTALLING BLANKETS, MATS, OR OTHER TEMPORARY CHANNEL LINER SYSTEM.



**ISOMETRIC VIEW**



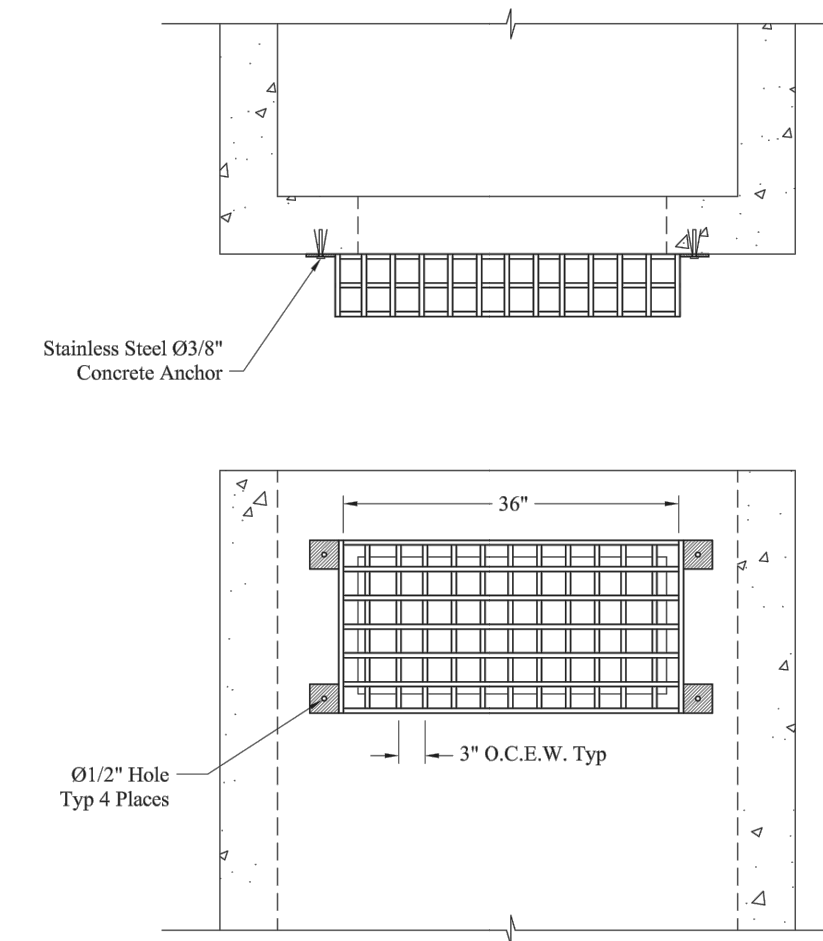
**CHANNEL CROSS-SECTION**  
(LOOKING DOWNSTREAM)

\* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

SWALE #	BOTTOM WIDTH	SIDE SLOPES	10-YEAR FLOW (CFS)	10-YEAR VELOCITY (FPS)
1	5	3:1	2.09	2.56
2A	5	3:1	1.99	2.62
2B	5	3:1	1.59	3.00
5	5	3:1	2.09	3.25
6	5	3:1	8.77	4.95
7	5	3:1	1.15	2.17
15	5	3:1	2.47	2.84
20	5	3:1	5.19	3.78

**SWALE TABLE**  
NOT TO SCALE

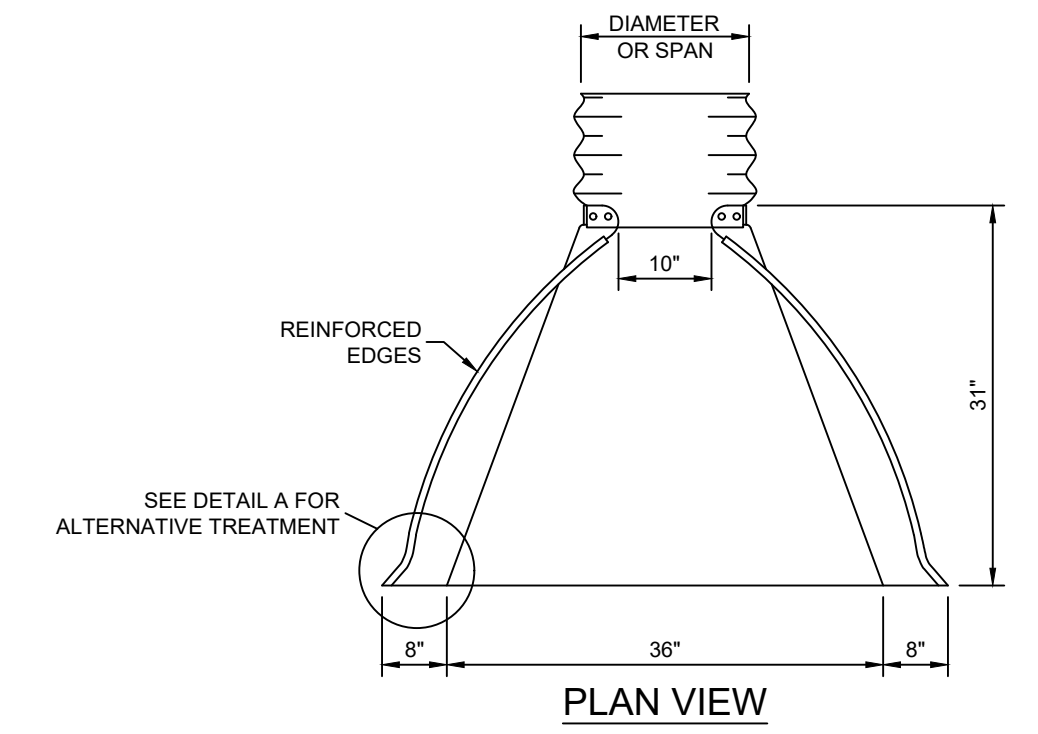
**VEGETATED CHANNEL**  
NOT TO SCALE



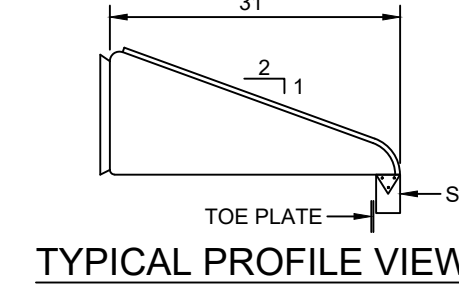
**OUTLET STRUCTURE TRASH RACK DETAIL**

**SPECIALLY PROTECTED WATERSHEDS**

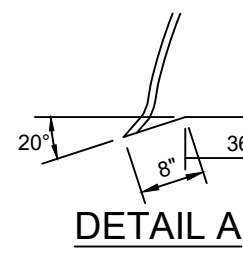
- THIS PROJECT IS LOCATED IN BOTH IN THE WHITNEY CREEK BIG ELK CREEK WATERSHED, WHICH IS DESIGNATED BY PA CHAPTER 93 AS A SPECIALLY PROTECTED EXCEPTIONAL VALUE WATERSHED AS WELL AS THE STEER RUN WATERSHED DESIGNATED AS A HIGH QUALITY COLD WATER FISHERY. EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THESE WATERS OF THE COMMONWEALTH.
- BECAUSE THIS PROJECT IS IN A SPECIALLY PROTECTED HIGH QUALITY AND EXCEPTION VALUE WATERS, UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
- ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT) BMP'S SHOULD BE UTILIZED FOR THIS PROJECT AS THEY PROVIDE HIGH SEDIMENT REMOVAL. A LIST OF ABACT BMP'S AND FURTHER GUIDANCE CAN BE FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION



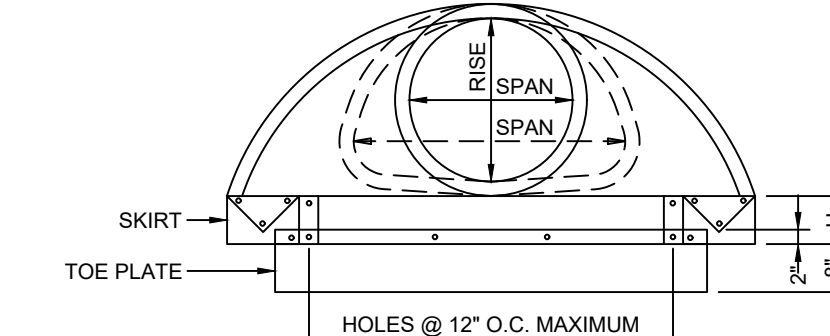
**PLAN VIEW**



**TYPICAL PROFILE VIEW**

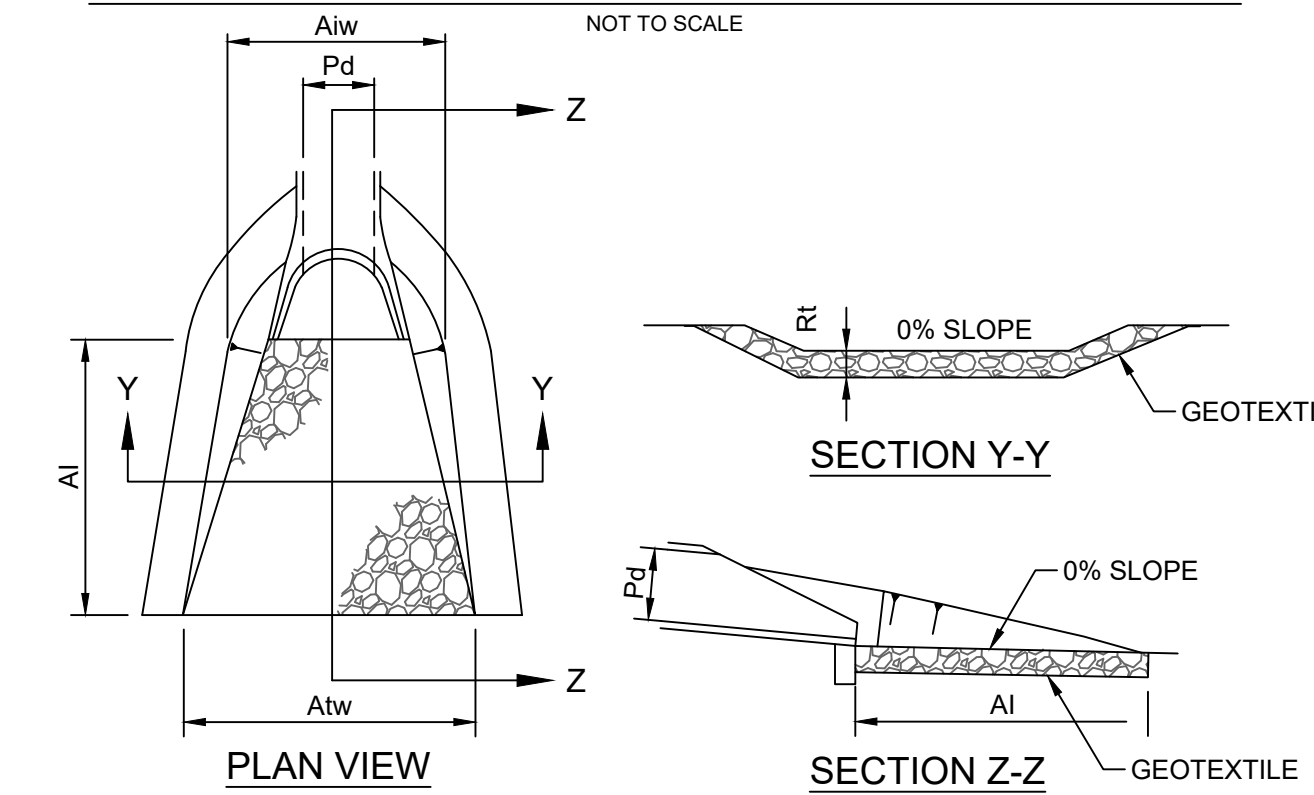


**DETAIL A**



**TYPICAL ELEVATION VIEW**

**END SECTION**  
NOT TO SCALE



**PLAN VIEW**

**SECTION Z-Z**  
GEOTEXTILE

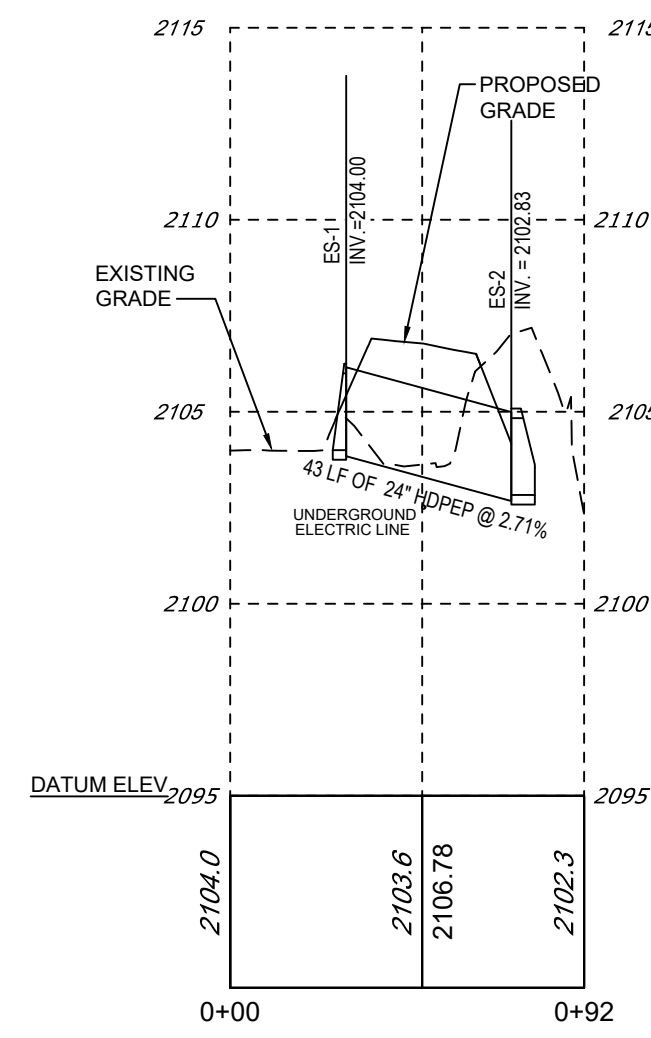
OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP			APRON	
		SIZE R-	THICK. Ft (IN)	LENGTH Ai (FT)	INITIAL WIDTH Aw (FT)	TERMINAL WIDTH Atw (FT)
ES1-ES2	24	R-4	18	12	6	18
ES3-ES4	36	R-6	36	20	9	29
ES5-ES6	30	R-6	36	18	7.5	25.5
ES7-ES8	15	R-3	9	6	3.75	9.75
ES9-ES10	15	R-3	9	6	3.75	9.75
ES11-ES12	24	R-4	18	12	6	18

**NOTES:**

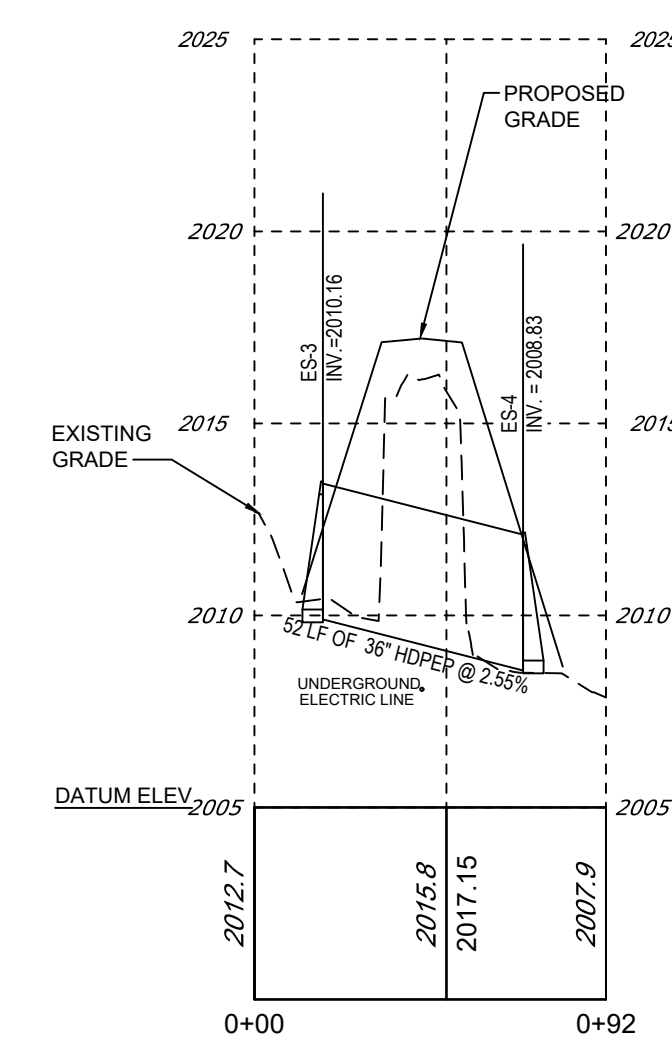
- ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN.
- APRONS SHALL BE CONSTRUCTED TO RHODE ISLAND STATE REGULATIONS.

**RIP-RAP APRON DETAIL**

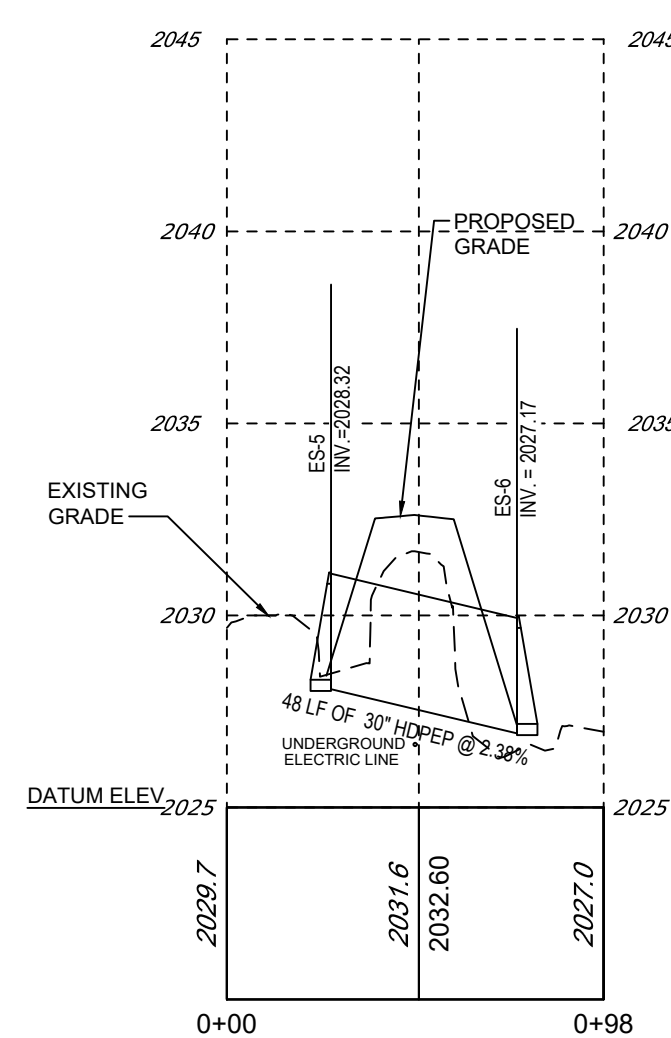
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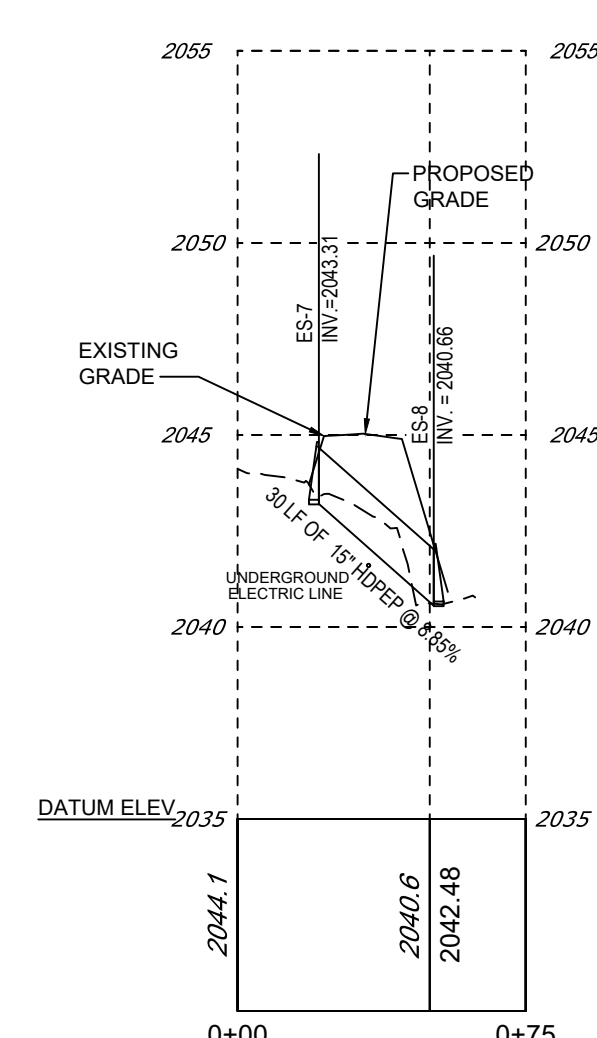
**ES-1 to ES-2**  
HORZ. SCALE: 1"=100'  
VERT. SCALE: 1"=10'



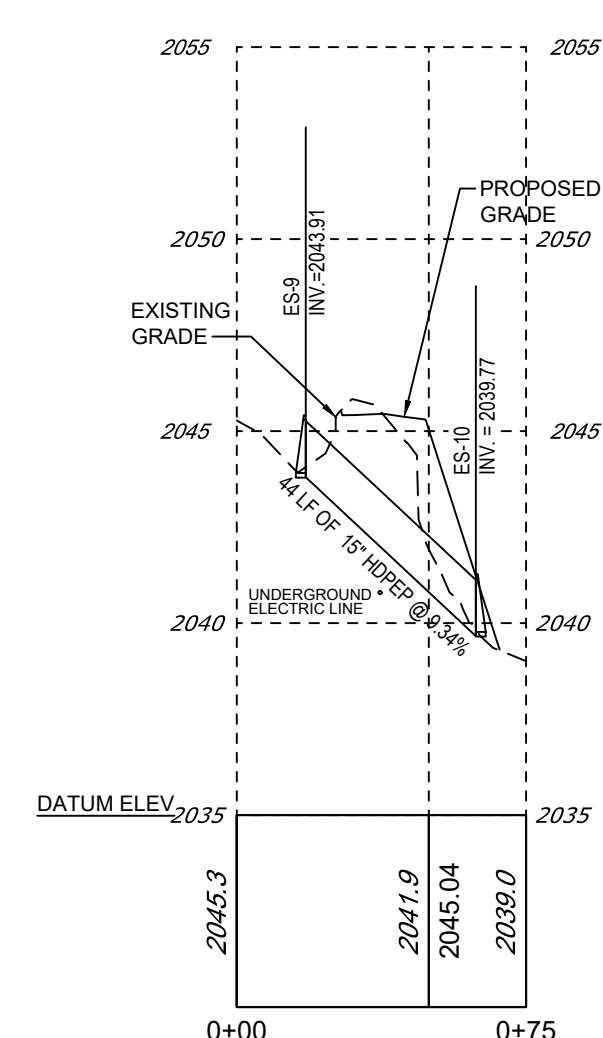
**ES-3 to ES-4**  
HORZ. SCALE: 1"=100'  
VERT. SCALE: 1"=10'



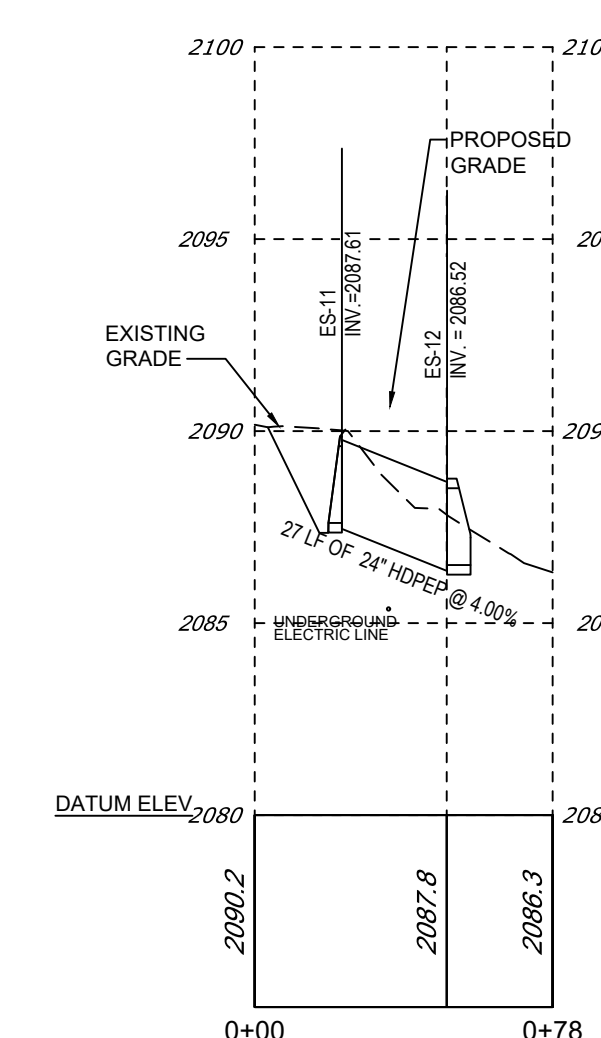
**ES-5 to ES-6**  
HORZ. SCALE: 1"=100'  
VERT. SCALE: 1"=10'



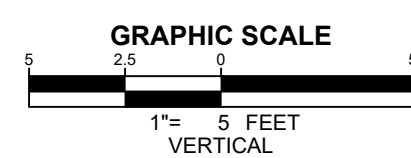
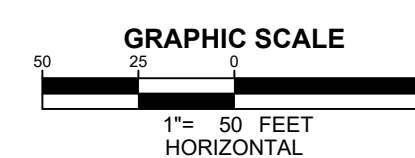
**ES-7 to ES-8**  
HORZ. SCALE: 1"=100'  
VERT. SCALE: 1"=10'



**ES-9 to ES-10**  
HORZ. SCALE: 1"=100'  
VERT. SCALE: 1"=10'



**ES-11 to ES-12**  
HORZ. SCALE: 1"=100'  
VERT. SCALE: 1"=10'



OWNER: <b>ENERGIX RENEWABLES</b>		PLAN: PCSM PLAN	SCALE: AS SHOWN
PLAN PREPARER: <b>wsp</b>		LOCATION: MCKEAN COUNTY, PA	PROJECT: CLERMONT SOLAR PROJECT
REGISTERED PROFESSIONAL ENGINEER JOSEPH C. SCOTT FE085120		SHEET TITLE: STORM SEWER PROFILES & DETAILS	
DATE: 08/21/24	PROJECT NO: US0024243.7390	SHEET: 115	PAGE: 17 OF 17
NO.	DATE	REVISION	
2	08-21-24	REV PER NEW SOLAR EQUIPMENT	
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