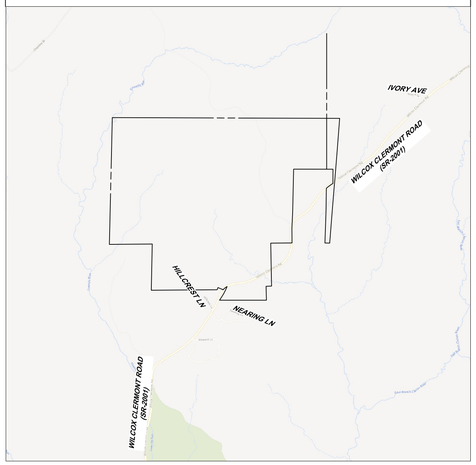
EROSION AND SEDIMENT POLLUTION CONTROL PLAN

CLERMONT SOLAR PROJECT

MCKEAN COUNTY, PA

VICINITY MAP



GRAPHIC SCALE

3000' 1500' 0 3000'

SCALE IN FEET

1" = 3000'

OVERALL SITE MAP



GRAPHIC SCALE

1000' 500' 0 1000'

SCALE IN FEET

1" = 1000'

TABLE OF DRAWINGS		
PAGE NO.	Sheet Number	Sheet Title
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3	101	GRADING DRAINAGE AND E&S PLAN 1
4	102	GRADING DRAINAGE AND E&S PLAN 2
5	103	GRADING DRAINAGE AND E&S PLAN 3
6	104	GRADING DRAINAGE AND E&S PLAN 4
7	105	GRADING DRAINAGE AND E&S PLAN 5
8	106	GRADING DRAINAGE AND E&S PLAN 6
9	107	GRADING DRAINAGE AND E&S PLAN 7
10	108	GRADING DRAINAGE AND E&S PLAN 8
11	109	PLAN AND PROFILE 1
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21	119	EROSION CONTROL NOTES 4

NO.	DATE	REVISION
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1	10-16-20	REV PER MCCD 10-06-20 COMMENTS

OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER PE085120

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

SCALE: AS SHOWN

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: COVER SHEET

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	001	1 OF 21

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

New Shawmut Timber Company, Inc.
29-004-400
DB 946 PG 733
(Parcel First)

Kocjancic Family Limited Partnership
c/o Edward F. Kocjancic
29-004-400.1
DB 954 PG 1147
(Sixth)

KWJ Holdings, LLC
part of
29-004-400.2
DB 571 PG 700
(First)

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

Christine M. Imbrogno, et.al.
29-004-400.3
DB 922 PG 828
(Sixth)

N/F
Clarion Junction, LLC
c/o The Conservation Fund
29-008-200.1
DB 899 PG 427

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

New Shawmut Timber Company, Inc.
29-009-101
DB 946 PG 733
(Parcel Third)

Tank storage area

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

N/F
John Finley Fitzroy V
29-009-105
DB 669 PG 937

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

N/F
Rosalie I. Bishop
29-009-109
DB 432 PG 661

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

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

N/F
W. Kahle Johnson, Jr.
29-004-403
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 420 PG 449

KWJ Holdings, LLC
part of
29-004-400.2
DB 571 PG 700
(Second)

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

Christine M. Imbrogno, et.al.
29-004-400.5
DB 922 PG 828
(Second)

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 845 PG 36

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

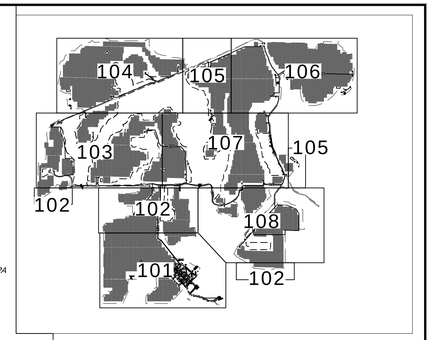
N/F
Brenda J. Walker
29-004-401.1
DB 824 PG 211

N/F
John & Debra Maria Walker
29-004-401.6
DB 197 PG 1137

N/F
Commonwealth of PA
Elk State Forest
29-009-200
DB 815 PG 721

WILCOX CLERMONT ROAD (SR 2007)

CLERMONT RD (SR 2007)



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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOSEPH C. SCOTT
ENGINEER
PE085120

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

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: OVERALL GRADING, DRAINAGE, AND E&S PLAN

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

MATCHLINE – SEE SHEET 102

MATCHLINE – SEE SHEET 108

PROPOSED LAYDOWN AREA 5.0 AC.

PROPOSED CHANNEL 2 1' BOTTOM, 2' DEPTH, 2:1 SIDE SLOPE

PROPOSED SUBSTATION

FIRSTENERGY SWITCH YARD BY OTHERS

PROPOSED CHANNEL 1 2' BOTTOM, 2' DEPTH, 2:1 SIDE SLOPE

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

PROPOSED UNLOADING AREA

150' STREAM BUFFER

New Shawmut Timber Company, Inc. 23-009-101 DB 949 PG 233 (Parcel Third)

EDGE WOODS

EXISTING STRUCTURE(S)(TYP.)

INFILTRATION BASIN 15

ES-15.1

STRUCTURE AND ASSOCIATED CHIE LINE - NO LONGER EXIST

N

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

420 INDEX CONTOUR LINE
421 INTERMEDIATE CONTOUR LINE
BUILDING
CONCRETE SURFACE
OE OVERHEAD ELECTRIC LINES
UE UNDERGROUND ELECTRIC LINES
UTILITY POLE
DRAINAGE PIPE
G UNDERGROUND NATURAL GAS LINE
TREELINE

Well WELL
RIPARIAN BUFFER
WETLAND
100 YEAR FLOODPLAIN BOUNDARY
CENTER LINE
CONCRETE SURFACE
EDGE OF ROADWAY SHOULDER
LIMIT OF DISTURBANCE
NPDES NPDES PERMIT BOUNDARY
CRUSHED STONE OR GRAVEL SURFACE

421 INTERMEDIATE CONTOUR LINES
420 INDEX CONTOUR LINES
422.53 SPOT ELEVATIONS
CS SEDIMENT TRAP OR BASIN CLEANOUT STAKE
522 TEMPORARY INTERMEDIATE CONTOUR LINE
520 TEMPORARY INDEX CONTOUR LINE
STABILIZED ROCK CONSTRUCTION ENTRANCE
SOIL MATERIAL STOCKPILE
SS 18" SILT SOCK (UNLESS STATED OTHERWISE)

FENCE GATE
X FENCE
SOLAR PANEL
INVERTER
UE UNDERGROUND ELECTRIC LINE
FLARED END SECTION WITH RIPRAP APRON
DRAINAGE CULVERT OR PIPE
ES-12 DRAINAGE STRUCTURE NUMBER
RIPRAP INFILTRATION TRENCH
TIMBERMAT
ROCK FILTER

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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

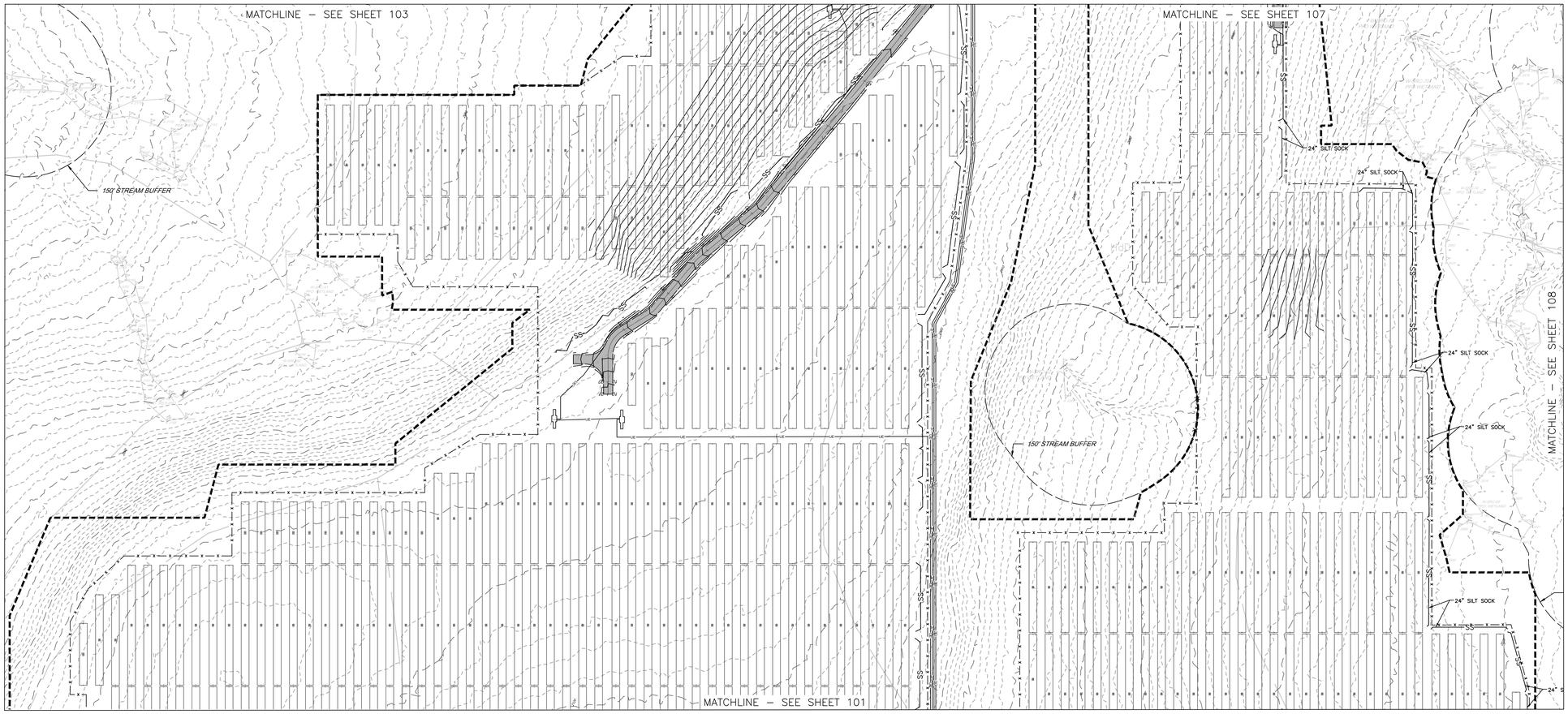
COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL ENGINEER – JOSEPH C. SCOTT – ENGINEER PE085120

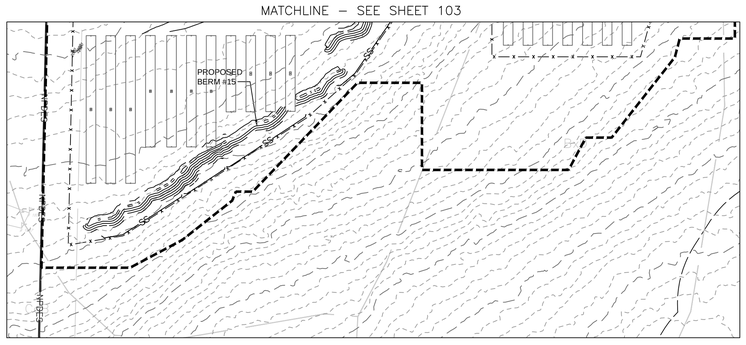
SCALE: 100 0 100 200 scale feet
1" = 100'

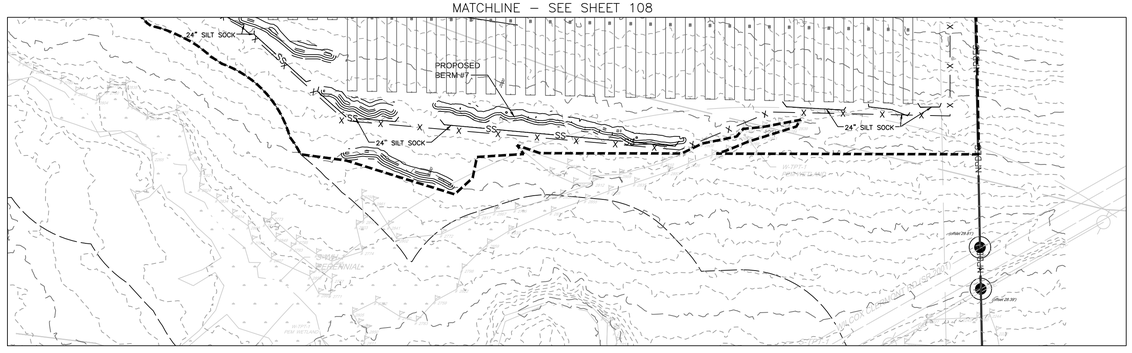
PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING DRAINAGE AND E&S PLAN 1

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	101	3 OF 21







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

420 INDEX CONTOUR LINE
421 INTERMEDIATE CONTOUR LINE
BUILDING
CONCRETE SURFACE
OE OVERHEAD ELECTRIC LINES
UE UNDERGROUND ELECTRIC LINES
UTILITY POLE
DRAINAGE PIPE
G UNDERGROUND NATURAL GAS LINE
TREELINE

Well WELL
RIPARIAN BUFFER
WETLAND
100 YEAR FLOODPLAIN BOUNDARY
CENTER LINE
CONCRETE SURFACE
EDGE OF ROADWAY SHOULDER
LIMIT OF DISTURBANCE
NPDES PERMIT BOUNDARY
CRUSHED STONE OR GRAVEL SURFACE

421 INTERMEDIATE CONTOUR LINES
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CS SEDIMENT TRAP OR BASIN CLEANOUT STAKE
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STABILIZED ROCK CONSTRUCTION ENTRANCE
SOIL MATERIAL STOCKPILE
SS 18" SILT SOCK (UNLESS STATED OTHERWISE)

FENCE GATE
X FENCE X
SOLAR PANEL
INVERTER
UE UNDERGROUND ELECTRIC LINE
FLARED END SECTION WITH RIPRAP APRON
DRAINAGE CULVERT OR PIPE
ES-12 DRAINAGE STRUCTURE NUMBER
RIPRAP INFILTRATION TRENCH
TIMBERMAT
ROCK FILTER

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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JOSEPH C. SCOTT ENGINEER PE085120

SCALE: 100 0 100 200 scale feet
1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING DRAINAGE AND E&S PLAN 2

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	102	4 OF 21

MATCHLINE – SEE SHEET 104

MATCHLINE – SEE SHEET 107

MATCHLINE – SEE SHEET 102

PROPOSED BERM #16

PROPOSED BERM #15

PROPOSED BERM #12

PROPOSED BERM #9

PROPOSED BERM #10

150' STREAM BUFFER

24" SILT SOCK

SS

ES-3

ES-4

EXISTING DRIVE WAY

N

EDGE OF PAVED BITUMINOUS SURFACE	420	INDEX CONTOUR LINE
EDGE OF GRAVEL OR CRUSHED STONE SURFACE	421	INTERMEDIATE CONTOUR LINE
PROPERTY BOUNDARY LINE		BUILDING
EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)		CONCRETE SURFACE
ADJOINING PROPERTY BOUNDARY LINE	OE	OVERHEAD ELECTRIC LINES
EASEMENT LINE	UE	UNDERGROUND ELECTRIC LINES
LEGAL RIGHT OF WAY LINE		UTILITY POLE
MINIMUM BUILDING SETBACK LINE		DRAINAGE PIPE
EDGE OF EXISTING SURFACE WATERCOURSE	G	UNDERGROUND NATURAL GAS LINE
		TREELINE

Well	WELL
	RIPARIAN BUFFER
	WETLAND
	100 YEAR FLOODPLAIN BOUNDARY
	CENTER LINE
	CONCRETE SURFACE
	EDGE OF ROADWAY SHOULDER
	LIMIT OF DISTURBANCE
	NPDES PERMIT BOUNDARY
	CRUSHED STONE OR GRAVEL SURFACE

421	INTERMEDIATE CONTOUR LINES
420	INDEX CONTOUR LINES
422.53	SPOT ELEVATIONS
CS	SEDIMENT TRAP OR BASIN CLEANOUT STAKE
522	TEMPORARY INTERMEDIATE CONTOUR LINE
520	TEMPORARY INDEX CONTOUR LINE
	STABILIZED ROCK CONSTRUCTION ENTRANCE
	SOIL MATERIAL STOCKPILE
SS	18" SILT SOCK (UNLESS STATED OTHERWISE)

	FENCE GATE
X X	FENCE
	SOLAR PANEL
	INVERTER
UE	UNDERGROUND ELECTRIC LINE
	FLARED END SECTION WITH RIPRAP APRON
	DRAINAGE CULVERT OR PIPE
ES-12	DRAINAGE STRUCTURE NUMBER
	RIPRAP INFILTRATION TRENCH
	TIMBERMAT
	ROCK FILTER

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OWNER:

ENERGIX RENEWABLES

PLAN PREPARER:

wsp

PLAN:
EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION:
MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JOSEPH C. SCOTT
ENGINEER
PE085120

SCALE:
100 0 100 200
scale feet
1" = 100'

PROJECT:
CLERMONT SOLAR PROJECT

SHEET TITLE:
GRADING DRAINAGE AND E&S PLAN 3

DATE:	PROJECT NO:	SHEET:	PAGE:
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PROPOSED BERM # 13

PROPOSED BERM # 13

PROPOSED BERM # 12

PROPOSED BERM # 10

PROPOSED BERM # 11

24" SILT SOCK

24" SILT SOCK

24" SILT SOCK

24" SILT SOCK

24" SILT SOCK

24" SILT SOCK

24" SILT SOCK

150' STREAM BUFFER

150' STREAM BUFFER

150' STREAM BUFFER

150' STREAM BUFFER

ES-1

ES-7

ES-20.1

ES-20.1

MATCHLINE – SEE SHEET 103

MATCHLINE – SEE SHEET 105

EXISTING DRIVE

EXISTING DRIVE

Tennessee Gas Transmission Co

PERENNIAL

INTERMITTENT

- 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
- 420 INDEX CONTOUR LINE
- 421 INTERMEDIATE CONTOUR LINE
- BUILDING
- CONCRETE SURFACE
- OE OVERHEAD ELECTRIC LINES
- UE UNDERGROUND ELECTRIC LINES
- UTILITY POLE
- DRAINAGE PIPE
- G UNDERGROUND NATURAL GAS LINE
- TREELINE
- WELL
- RIPARIAN BUFFER
- WETLAND
- 100 YEAR FLOODPLAIN BOUNDARY
- CENTER LINE
- CONCRETE SURFACE
- EDGE OF ROADWAY SHOULDER
- LIMIT OF DISTURBANCE
- NPDES PERMIT BOUNDARY
- CRUSHED STONE OR GRAVEL SURFACE
- 421 INTERMEDIATE CONTOUR LINES
- 420 INDEX CONTOUR LINES
- 422.53 SPOT ELEVATIONS
- CS SEDIMENT TRAP OR BASIN CLEANOUT STAKE
- 522 TEMPORARY INTERMEDIATE CONTOUR LINE
- 520 TEMPORARY INDEX CONTOUR LINE
- STABILIZED ROCK CONSTRUCTION ENTRANCE
- SOIL MATERIAL STOCKPILE
- SS 18" SILT SOCK (UNLESS STATED OTHERWISE)
- FENCE GATE
- X X FENCE
- SOLAR PANEL
- INVERTER
- UE UNDERGROUND ELECTRIC LINE
- FLARED END SECTION WITH RIPRAP APRON
- DRAINAGE CULVERT OR PIPE
- ES-12 DRAINAGE STRUCTURE NUMBER
- RIPRAP INFILTRATION TRENCH
- TIMBERMAT
- ROCK FILTER

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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER PE085120

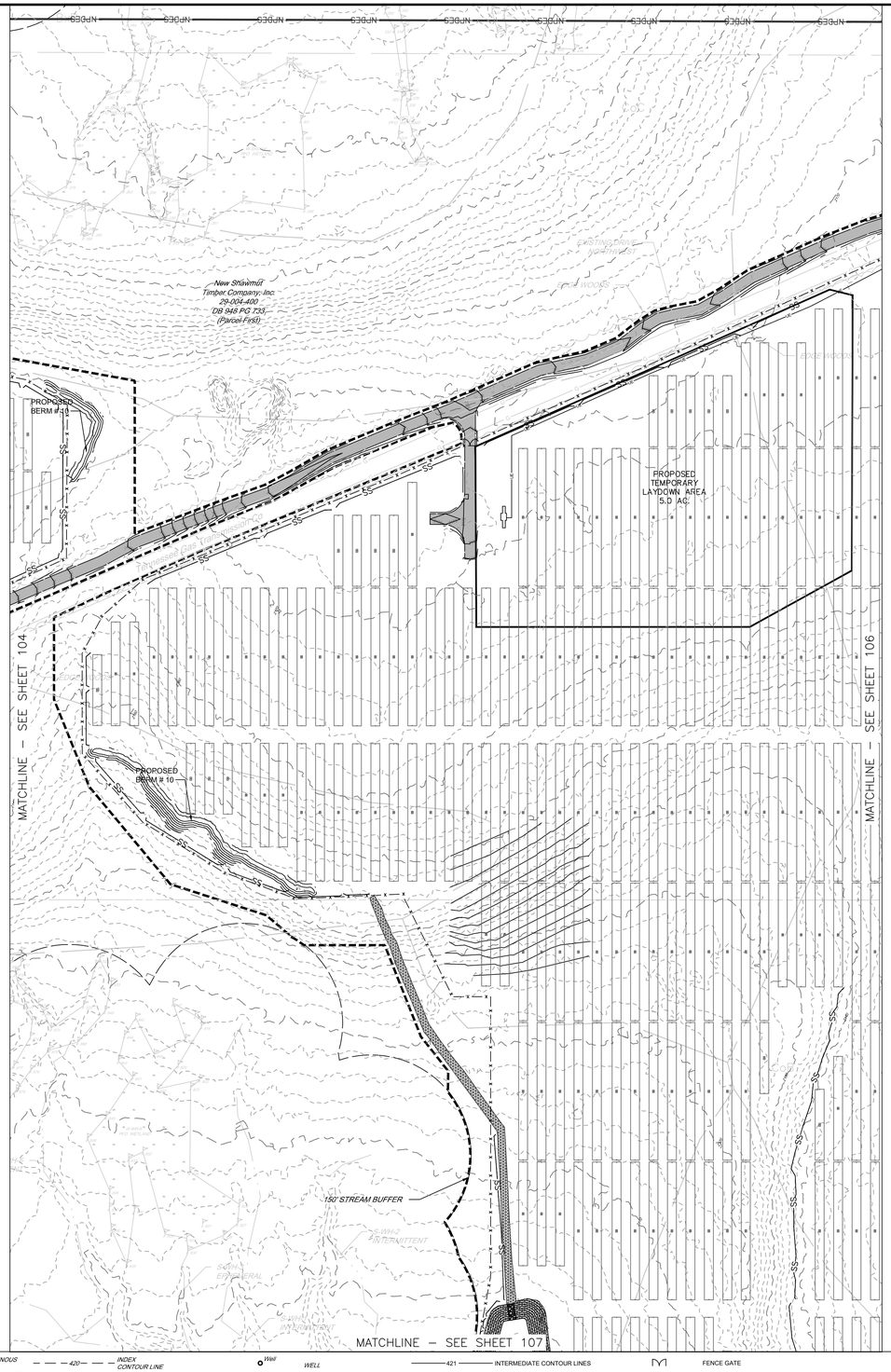
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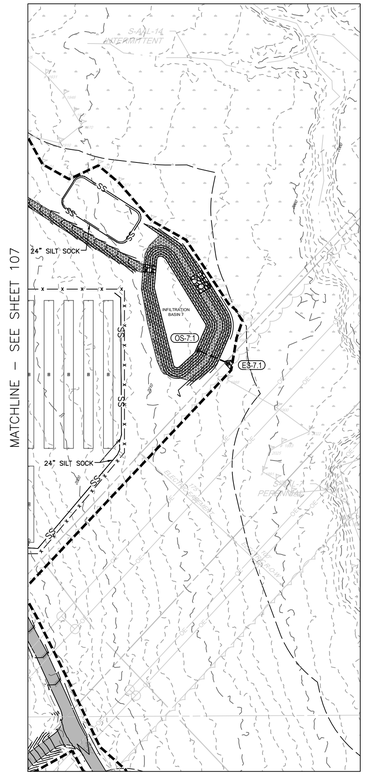
1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING DRAINAGE AND E&S PLAN 4

DATE:	PROJECT NO:	SHEET:	PAGE:
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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

420 INDEX CONTOUR LINE
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CONCRETE SURFACE
OE OVERHEAD ELECTRIC LINES
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DRAINAGE PIPE
G UNDERGROUND NATURAL GAS LINE
TREELINE

Well WELL
RIPARIAN BUFFER
WETLAND
100 YEAR FLOODPLAIN BOUNDARY
CENTER LINE
CONCRETE SURFACE
EDGE OF ROADWAY SHOULDER
LIMIT OF DISTURBANCE
NPDES PERMIT BOUNDARY
CRUSHED STONE OR GRAVEL SURFACE

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420 INDEX CONTOUR LINES
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522 TEMPORARY INTERMEDIATE CONTOUR LINE
520 TEMPORARY INDEX CONTOUR LINE
STABILIZED ROCK CONSTRUCTION ENTRANCE
SOIL MATERIAL STOCKPILE
SS 18" SILT SOCK (UNLESS STATED OTHERWISE)

FENCE GATE
FENCE
SOLAR PANEL
INVERTER
UE UNDERGROUND ELECTRIC LINE
FLARED END SECTION WITH RIPRAP APRON
DRAINAGE CULVERT OR PIPE
ES-12 DRAINAGE STRUCTURE NUMBER
RIPRAP INFILTRATION TRENCH
TIMBERMAT
ROCK FILTER

NO.	DATE	REVISION
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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: WSP

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JOSEPH C. SCOTT ENGINEER PE085120

SCALE: 100 0 100 200 scale feet
1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING DRAINAGE AND E&S PLAN 5

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	105	7 OF 21

MATCHLINE – SEE SHEET 105

MATCHLINE – SEE SHEET 107

PROPOSED BERM # 1

PROPOSED BERM # 2

PROPOSED BERM # 3

PROPOSED BERM #4

PROPOSED BERM #4

150' STREAM BUFFER

150' STREAM BUFFER

INTERMITTENT

INTERMITTENT

ES-12

INFILTRATION BASIN 1

INFILTRATION BASIN 2

INFILTRATION BASIN 3

EXISTING DRIVE NORTH

EXISTING DRIVE SOUTH

N

150'

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
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CONCRETE SURFACE
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CENTER LINE
CONCRETE SURFACE
EDGE OF ROADWAY SHOULDER
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STABILIZED ROCK CONSTRUCTION ENTRANCE
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SS 18" SILT SOCK (UNLESS STATED OTHERWISE)

FENCE GATE
X X FENCE
SOLAR PANEL
INVERTER
UE UNDERGROUND ELECTRIC LINE
FLARED END SECTION WITH RIPRAP APRON
DRAINAGE CULVERT OR PIPE
ES-12 DRAINAGE STRUCTURE NUMBER
RIPRAP INFILTRATION TRENCH
TIMBERMAT
ROCK FILTER

NO.	DATE	REVISION
4	04-28-25	REV PER NEW TOPOGRAPHY, POI, RCE, AND ELECTRICAL LAYOUT
3	10-31-24	CFS, SWITCH YARD, GATES, ROAD GRADING, RCE & CWO REMOVALS
2	8-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-16-20	REV PER MCCD 10-06-20 COMMENTS

OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JOSEPH C. SCOTT ENGINEER PE085120

SCALE: 100 0 100 200 scale feet
1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING DRAINAGE AND E&S PLAN 6

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	106	8 OF 21

MATCHLINE – SEE SHEET 105

MATCHLINE – SEE SHEET 106

MATCHLINE – SEE SHEET 103

MATCHLINE – SEE SHEET 105

MATCHLINE – SEE SHEET 108

Kocjancic Family Limited Partnership c/o Edward F. Kocjancic 29-004-400.1 DB 534 PG 1447 (Sixth)

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

PROPOSED BERM #4

24" SILT SOCK

150' STREAM BUFFER

ES-10

ES-9

ES-8

ES-7

ES-6

ES-5

ES-4

ES-3

ES-2

ES-1

VS-6.1

S-WH-I INTERMITTEN

S-WH-I PERENNIAL

S-WH-I INTERMITTENT

S-WH-I PERENNIAL

S-WH-I INTERMITTENT

S-WH-I PERENNIAL

S-WH-I INTERMITTENT

MATCHLINE – SEE SHEET 106

MATCHLINE – SEE SHEET 102

MATCHLINE – SEE SHEET 101

MATCHLINE – SEE SHEET 102

150' STREAM BUFFER

150' STREAM BUFFER

PROPOSED BERM #7

PROPOSED LAYDOWN AREA 16.0 AC.

PROPOSED BERM #8

PROPOSED BERM #9

24" SILT SOCK

SILT SOCK

NPDES

SS

S-WH-1 PERENNIAL

Note: There are multiple inlet protection measures not shown for clarity.

EDGE OF PAVED BITUMINOUS SURFACE	INDEX CONTOUR LINE
EDGE OF GRAVEL OR CRUSHED STONE SURFACE	INTERMEDIATE CONTOUR LINE
PROPERTY BOUNDARY LINE	BUILDING
EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)	CONCRETE SURFACE
ADJOINING PROPERTY BOUNDARY LINE	OVERHEAD ELECTRIC LINES
EASEMENT LINE	UNDERGROUND ELECTRIC LINES
LEGAL RIGHT OF WAY LINE	UTILITY POLE
MINIMUM BUILDING SETBACK LINE	DRAINAGE PIPE
EDGE OF EXISTING SURFACE WATERCOURSE	UNDERGROUND NATURAL GAS LINE
	TREELINE

WELL	INTERMEDIATE CONTOUR LINES
RIPARIAN BUFFER	INDEX CONTOUR LINES
WETLAND	SPOT ELEVATIONS
100 YEAR FLOODPLAIN BOUNDARY	SEDIMENT TRAP OR BASIN CLEANOUT STAKE
CENTER LINE	TEMPORARY INTERMEDIATE CONTOUR LINE
CONCRETE SURFACE	TEMPORARY INDEX CONTOUR LINE
EDGE OF ROADWAY SHOULDER	STABILIZED ROCK CONSTRUCTION ENTRANCE
LIMIT OF DISTURBANCE	SOIL MATERIAL STOCKPILE
NPDES PERMIT BOUNDARY	18" SILT SOCK (UNLESS STATED OTHERWISE)
CRUSHED STONE OR GRAVEL SURFACE	

FENCE GATE	
FENCE	
SOLAR PANEL	
INVERTER	
UNDERGROUND ELECTRIC LINE	
FLARED END SECTION WITH RIPRAP APRON	
DRAINAGE CULVERT OR PIPE	
ES-12 DRAINAGE STRUCTURE NUMBER	
RIPRAP INFILTRATION TRENCH	
TIMBERMAT	
ROCK FILTER	

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PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER PE085120

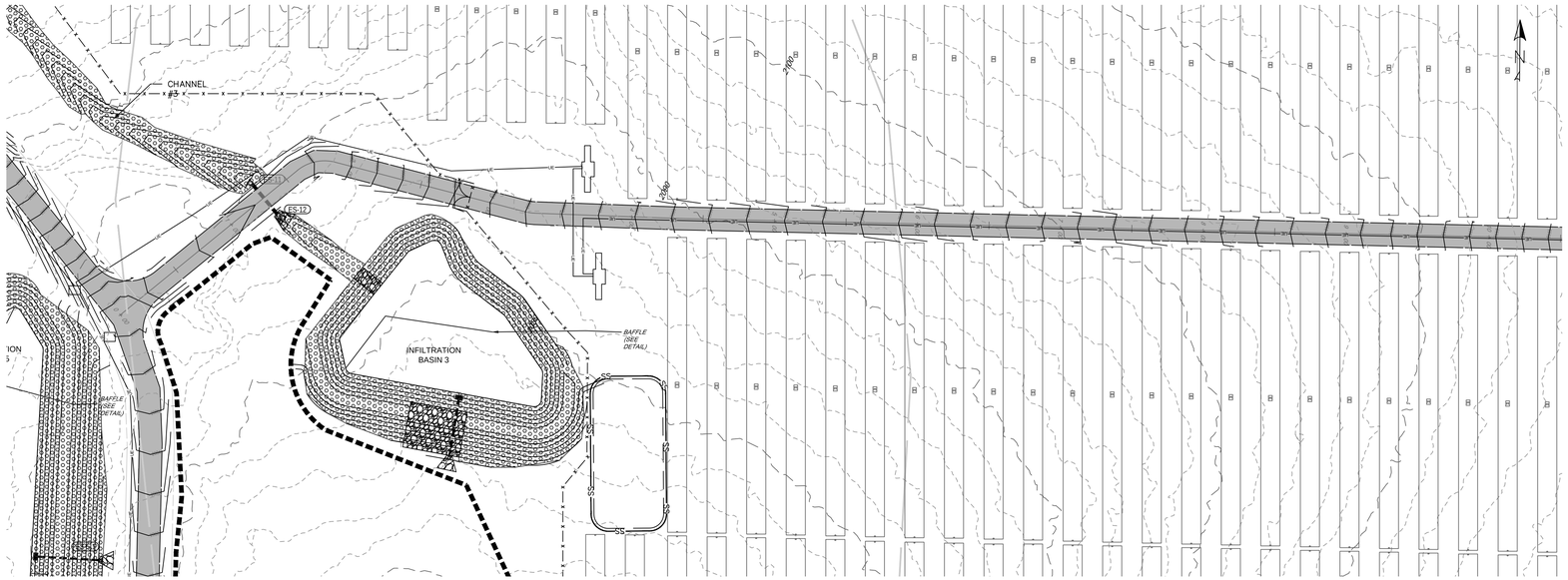
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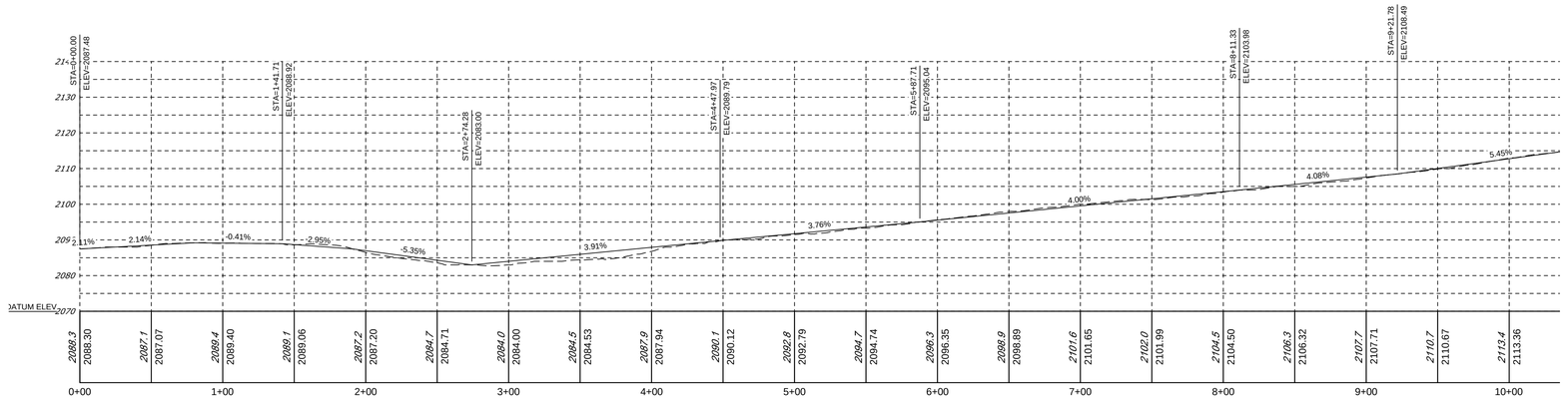
1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: GRADING DRAINAGE AND E&S PLAN 8

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	108	10 OF 21





PROPOSED ACCESS NORTH-D PROFILE

HORIZONTAL SCALE: 1' = 50', VERTICAL SCALE: 1" = 50'

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

420 INDEX CONTOUR LINE
421 INTERMEDIATE CONTOUR LINE
BUILDING
CONCRETE SURFACE
OE OVERHEAD ELECTRIC LINES
UE UNDERGROUND ELECTRIC LINES
UTILITY POLE
DRAINAGE PIPE
G UNDERGROUND NATURAL GAS LINE
TREELINE

Well WELL
RIPARIAN BUFFER
WETLAND
100 YEAR FLOODPLAIN BOUNDARY
CENTER LINE
CONCRETE SURFACE
EDGE OF ROADWAY SHOULDER
LIMIT OF DISTURBANCE
NPDES PERMIT BOUNDARY
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421 INTERMEDIATE CONTOUR LINES
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422.53 SPOT ELEVATIONS
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522 TEMPORARY INTERMEDIATE CONTOUR LINE
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STABILIZED ROCK CONSTRUCTION ENTRANCE
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SS 18" SILT SOCK (UNLESS STATED OTHERWISE)

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X X FENCE
SOLAR PANEL
INVERTER
UE UNDERGROUND ELECTRIC LINE
FLARED END SECTION WITH RIPRAP APRON
DRAINAGE CULVERT OR PIPE
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RIPRAP INFILTRATION TRENCH
TIMBERMAT
ROCK FILTER

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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

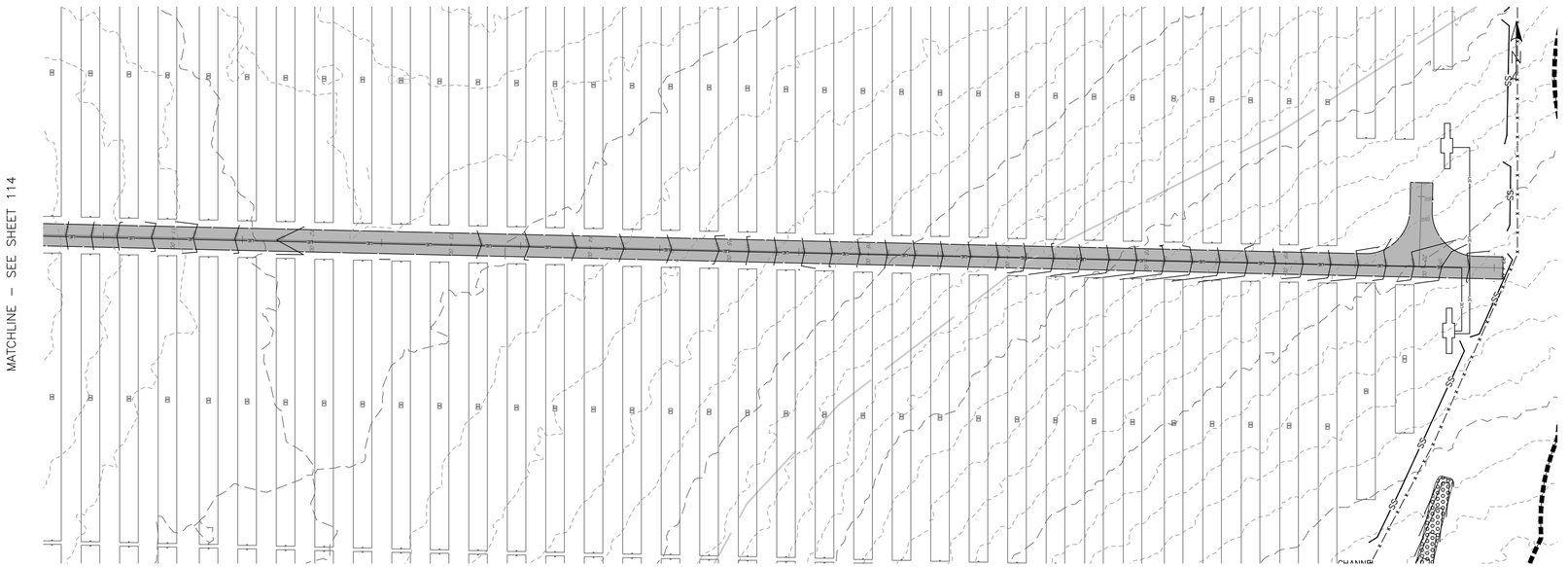
COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JOSEPH C. SCOTT ENGINEER PE085120

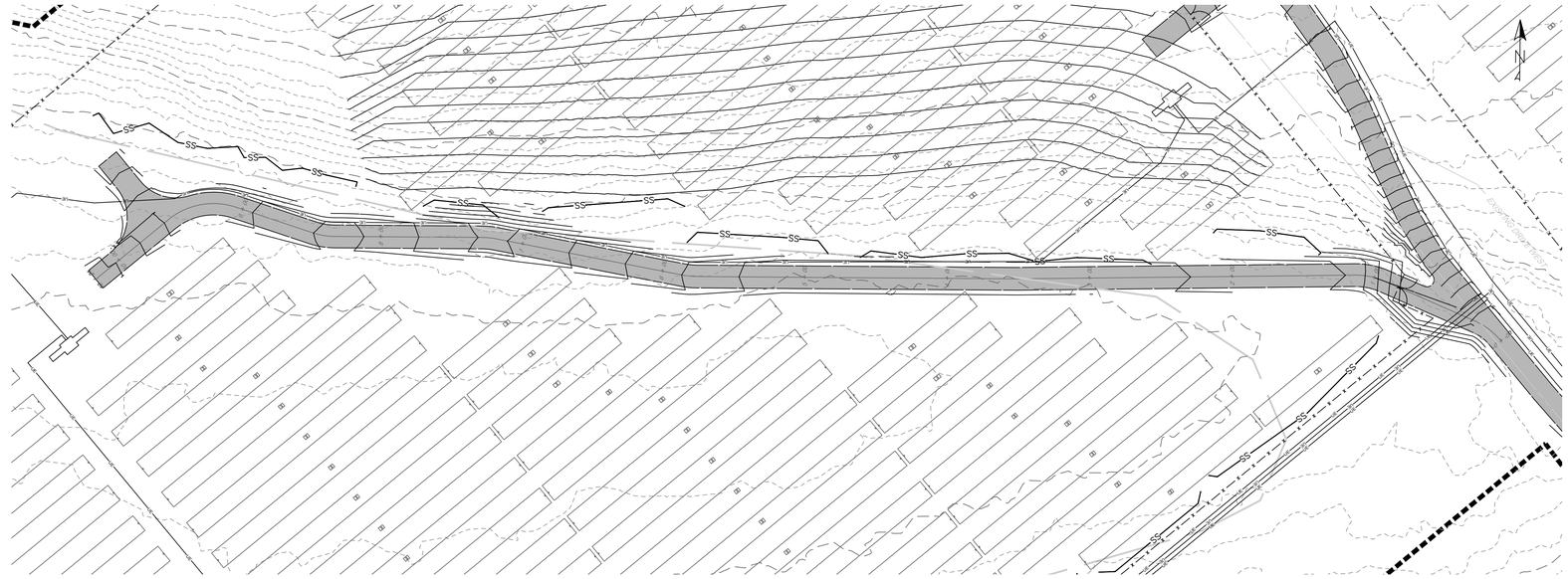
SCALE: 50 0 50 100 scale feet
1" = 50'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: PLAN AND PROFILE 1

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	109	11 OF 21


MATCHLINE – SEE SHEET 114
SS
SS
SS



PROPOSED ACCESS WEST-I PROFILE

HORIZONTAL SCALE: 1' = 50', VERTICAL SCALE: 1" = 50'

EDGE OF PAVED BITUMINOUS SURFACE
EDGE OF GRAVEL OR CRUSHED STONE SURFACE
PROPERTY BOUNDARY LINE
EXISTING 1" PIPE (UNLESS NOTED OTHERWISE)
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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

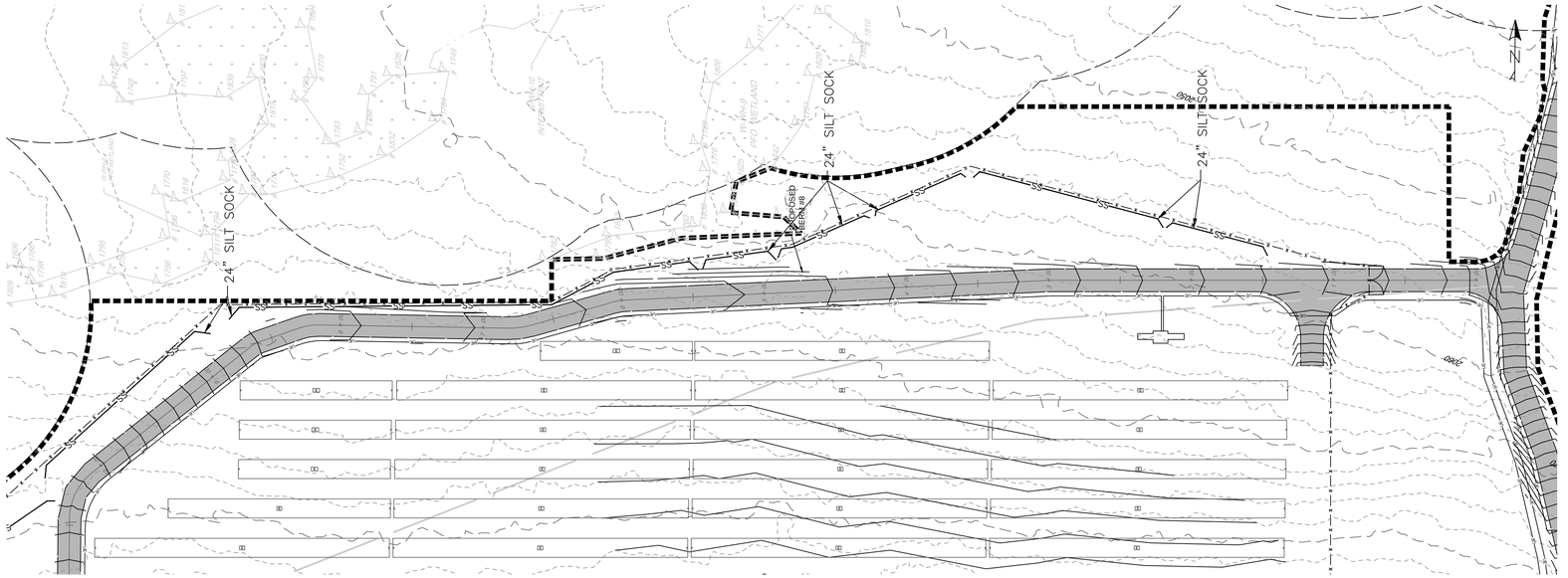
COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER PE085120

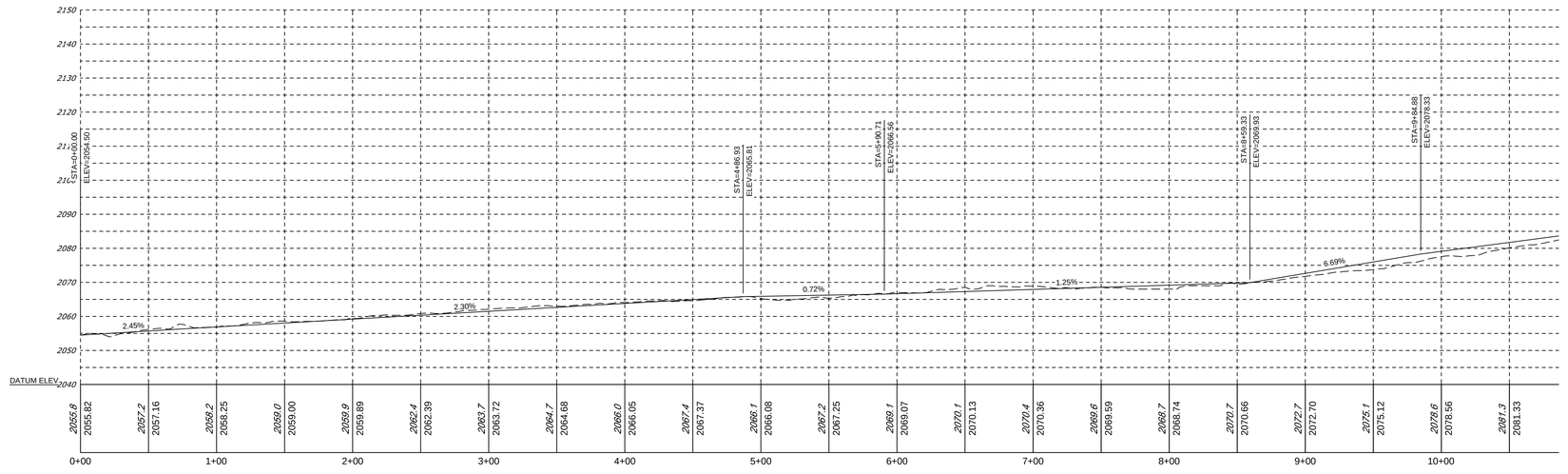
SCALE: 50 0 50 100 scale feet
1" = 50'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: PLAN AND PROFILE 3

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	111	13 OF 21





PROPOSED ACCESS NORTH-D PROFILE

HORIZONTAL SCALE: 1' = 50', VERTICAL SCALE: 1" = 50'

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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

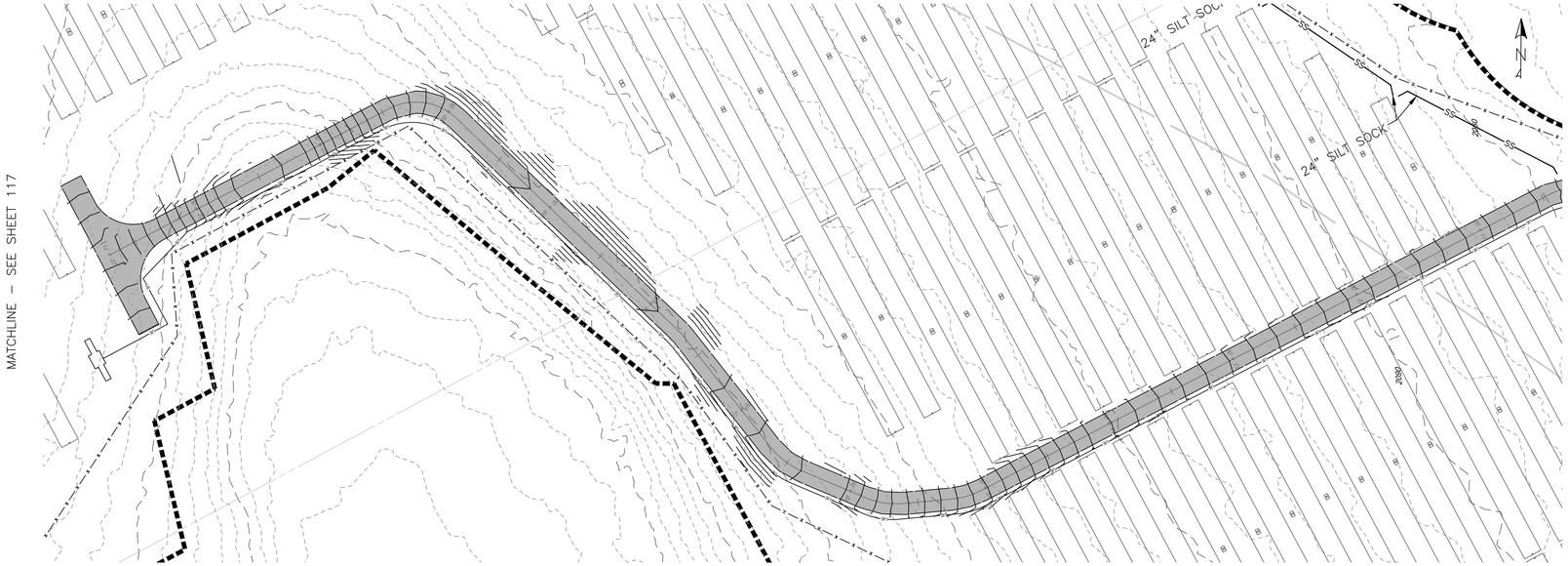
COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL LICENSE JOSEPH C. SCOTT ENGINEER PE085120

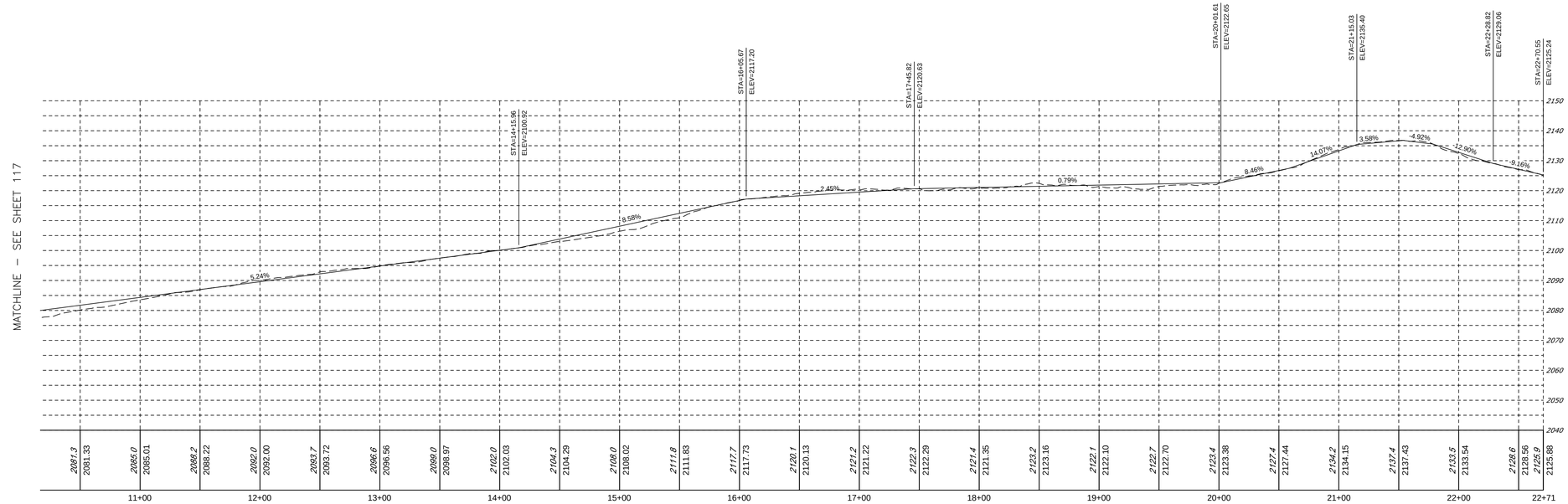
SCALE: 50 0 50 100 scale feet
1" = 50'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: PLAN AND PROFILE 4

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	112	14 OF 21





PROPOSED ACCESS NORTH-D PROFILE

HORIZONTAL SCALE: 1' = 50', VERTICAL SCALE: 1" = 50'

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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

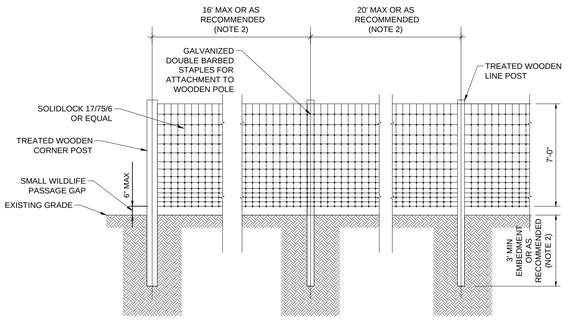
COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
JOSEPH C. SCOTT
ENGINEER
PE085120

SCALE: 50 0 50 100 scale feet
1" = 50'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: PLAN AND PROFILE 5

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	113	15 OF 21

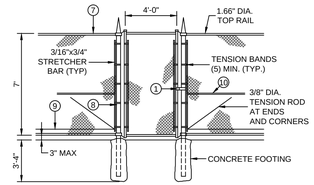


NOTES:
1. BRACE ASSEMBLY REQUIRED AT CORNER OR CHANGE IN DIRECTION.
2. DEPENDING ON LOCAL SOIL CONDITIONS.

PERIMETER SECURITY FENCE - ELEVATION VIEW

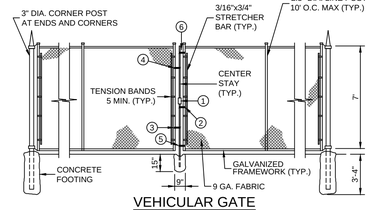
NOT TO SCALE

CUT/FILL TABLE			
SURFACE	CUT (CU. YD.)	FILL (CU. YD.)	NET (CU. YD.)
SUBSTATION PAD & ROAD	7,069	7,209	139 (FILL)
ROADS	13,220	13,806	586 (CUT)
BERMS	191	12,325	12,134 (FILL)
ARRAYS	16,925	34,017	17,092 (FILL)



PERSONNEL GATE

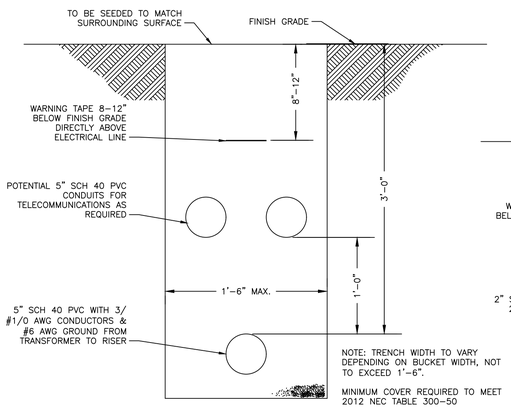
LABEL LEGEND			
1	LOCK KEEPER	6	6 UPPER GUIDE
2	LOCK KEEPER GUIDE	7	9 GA. TIE WIRES @ 12" SPACING ON TOP RAIL & TENSION WIRE
3	LOWER FORKS	8	9 GA. WIRE TIES ON LINE POSTS SHALL BE @ 15" SPACING
4	UPPER FORKS	9	7 GA. TENSION WIRE 6" ABOVE BOTTOM SELVAGE
5	LOWER GUIDE	10	1.66" DIA. BRACE RAIL AT ENDS AND CORNERS



VEHICULAR GATE

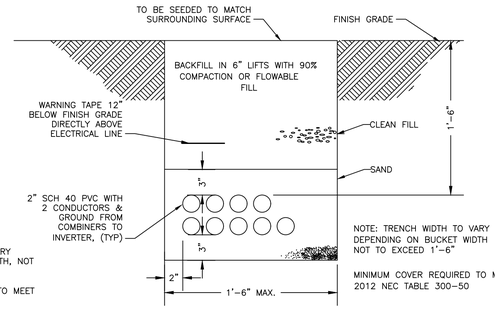
CHAIN LINK FENCE GATES

NOT TO SCALE



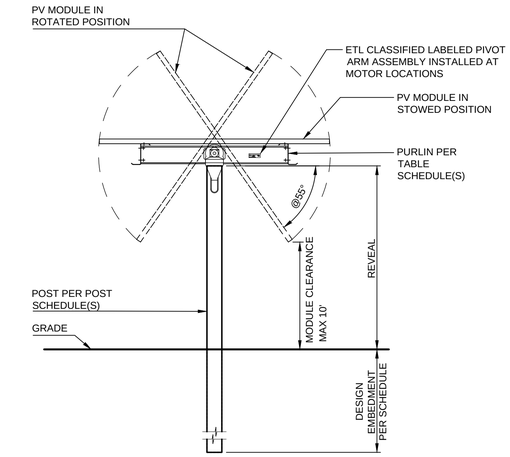
AC CONDUIT TRENCH DETAIL

NOT TO SCALE



DC CONDUIT TRENCH DETAIL

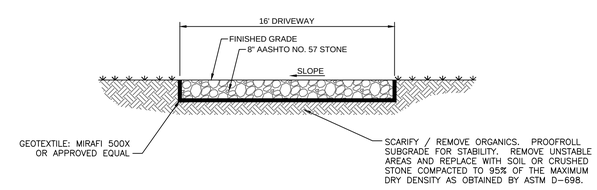
NOT TO SCALE



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.



STONE ACCESS DRIVE SECTION

NOT TO SCALE

NO.	DATE	REVISION
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OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

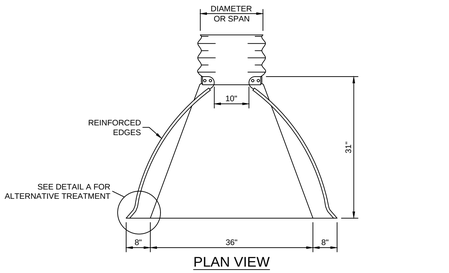
COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER — PE085120

SCALE: 100 0 100 200 scale feet — 1" = 100'

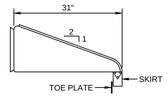
PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: SITE DETAILS 1

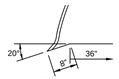
DATE:	PROJECT NO:	SHEET:	PAGE:
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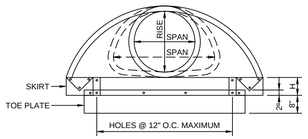
PLAN VIEW



TYPICAL PROFILE VIEW



DETAIL A



TYPICAL ELEVATION VIEW

END SECTION

NOT TO SCALE

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.

SOIL AMENDMENT SPECIFICATIONS

THE FOLLOWING SPECIFICATIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. THESE SPECIFICATIONS INCLUDE INFORMATION ON ACCEPTABLE MATERIALS FOR TYPICAL APPLICATIONS, BUT ARE BY NO MEANS EXCLUSIVE OR LIMITING. THE DESIGNER IS RESPONSIBLE FOR DEVELOPING DETAILED SPECIFICATIONS FOR INDIVIDUAL DESIGN PROJECTS IN ACCORDANCE WITH THE PROJECT CONDITIONS.

1. SCOPE

A. THIS SPECIFICATION COVERS THE USE OF COMPOST FOR SOIL AMENDMENT AND THE MECHANICAL RESTORATION OF COMPACTED, ERODED AND NON-VEGETATED SOILS. SOIL AMENDMENT AND RESTORATION IS NECESSARY WHERE EXISTING SOIL HAS BEEN DEEMED UNHEALTHY IN ORDER TO RESTORE SOIL STRUCTURE AND FUNCTION, INCREASE INFILTRATION POTENTIAL AND SUPPORT HEALTHY VEGETATIVE COMMUNITIES.

B. SOIL AMENDMENT PREVENTS AND CONTROLS EROSION BY ENHANCING THE SOIL SURFACE TO PREVENT THE INITIAL DETACHMENT AND TRANSPORT OF SOIL PARTICLES.

2. COMPOST MATERIALS

ONLY COMPOST PRODUCTS THAT MEET ALL APPLICABLE STATE AND FEDERAL REGULATIONS PERTAINING TO ITS PRODUCTION AND DISTRIBUTION MAY BE USED IN THIS APPLICATION. APPROVED COMPOST PRODUCTS MUST MEET RELATED STATE AND FEDERAL CHEMICAL CONTAMINANT (E.G., HEAVY METALS, PESTICIDES, ETC.) AND PATHOGEN LIMIT STANDARDS PERTAINING TO THE FEEDSTOCKS (SOURCE MATERIALS) IN WHICH IT IS DERIVED. VERY COARSE COMPOST SHOULD BE AVOIDED FOR SOIL AMENDMENT AS IT WILL AS WILL MAKE PLANTING AND CROP ESTABLISHMENT MORE DIFFICULT.

3. SUB-SOILING TO RELIEVE COMPACTION

BEFORE COMPOST IS PLACED AND PREFERABLY WHEN EXCAVATION IS COMPLETED, THE SUBSOIL SHALL BE IN A LOOSE, FRIABLE CONDITION TO A DEPTH OF 20" BELOW FINAL TOPSOIL GRADE. TO ACHIEVE THIS CONDITION SUBSOILING, RIPPING OR SCARIFICATION OF THE SUBSOIL WILL BE REQUIRED. SUBSOILING SHALL BE COMPLETED IN AREAS SPECIFIED FOR SOIL AMENDMENTS.

4. COMPOST SOIL AMENDMENTS

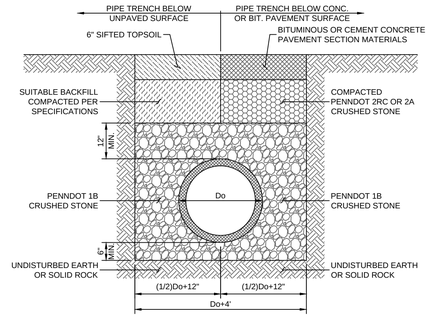
A. COMPOST MUST MEET SPECIFICATIONS INCLUDED ON PAGE 226 OF THE PENNSYLVANIA STORMWATER MANUAL.

5. COMPOST & SOIL AMENDMENT

SPREAD 2-3" OF COMPOST ON EXISTING SOIL. TILL ADDED COM[POST INTO EXISTING SOIL.THEN ADD ADDITIONAL 4" OF COMPOST TO FINAL 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.

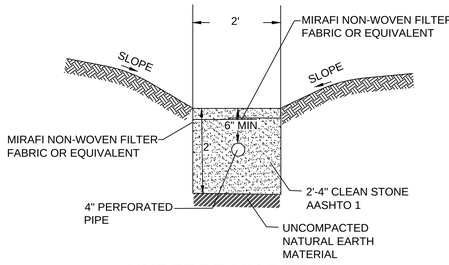


STORM PIPE TRENCH SECTION

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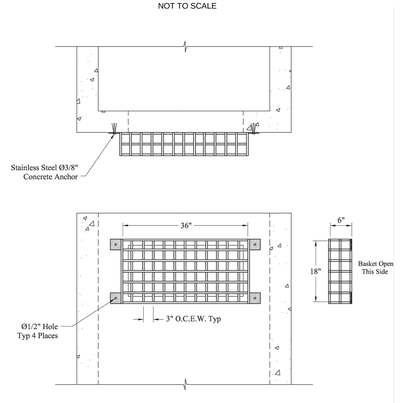
MAINTENANCE REQUIRED ELEMENTS:

- MAINTENANCE RESPONSIBILITY FOR A BASIN AND ITS SETBACK SHALL BE VESTED WITH A RESPONSIBILITY AUTHORITY BY MEANS OF A LEGAL BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT THAT IS EXECUTED AS A CONDITION OF PLAN APPROVAL.
- THE PRINCIPAL SPILLWAY SHALL BE EQUIPPED WITH A REMOVABLE TRASH RACK, AND GENERALLY ACCESSIBLE FROM DRY LAND.
- A MAINTENANCE RIGHT-OF-WAY IS ASSUMED FROM THE NEAREST PUBLIC OR PRIVATE ROAD.
- SEDIMENT SHALL BE REMOVED FROM THE STORMWATER BASINS WHEN THE SEDIMENT VOLUME EXCEEDS 10% OF THE TOTAL BASIN VOLUME AND SHOULD BE DISPOSED OF ACCORDING TO AN APPROVED COMPREHENSIVE OPERATION AND MAINTENANCE PLAN.
- OUTLET SHALL BE INSPECTED AFTER EVERY STORM EVENT FOR THE FIRST 3 MONTHS OF OPERATION TO ENSURE PROPER FUNCTION, THEREAFTER EVERY 6 MONTHS. INSPECTION SHALL CONSIST OF VERIFYING THAT THE BASIN IS DRAINING AS DESIGNED. IF CLOGGING IS OBSERVED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER.
- ANNUAL MOWING OF THE BASIN SHOULD BE COMPLETED.



UNDERDRAIN DETAIL

NOT TO SCALE



OUTLET STRUCTURE TRASH RACK DETAIL

SPECIALLY PROTECTED WATERSHEDS

1. THIS PROJECT IS LOCATED IN THE SMITH RUN AND FIVEMILE RUN 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.

2. 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.

3. 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 BMPS AND FURTHER GUIDANCE CAN BE FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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.

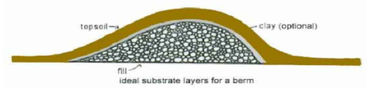
INFILTRATION BERM 6.4.10:

1. INSTALL INFILTRATION BERMS PER THE PENNSYLVANIA EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL.
2. COMPLETE SITE GRADING AND STABILIZE WITHIN THE LIMIT OF DISTURBANCE EXCEPT WHERE INFILTRATION BERMS WILL BE CONSTRUCTED; MAKE EVERY EFFORT TO MINIMIZE BERM FOOTPRINT AND NECESSARY ZONE OF DISTURBANCE (INCLUDING BOTH REMOVAL OF EXISTING VEGETATION AND DISTURBANCE OF EMPTY SOIL) IN ORDER TO MAXIMIZE INFILTRATION.
3. LIGHTLY SCARIFY THE SOIL IN THE AREA OF THE PROPOSED BERM BEFORE DELIVERING SOIL TO SITE.
4. BRING IN FILL MATERIAL TO MAKE UP THE MAJOR PORTION OF THE BERM. SOIL SHOULD BE ADDED IN 8-INCH LIFTS AND COMPACTED AFTER EACH ADDITION ACCORDING TO DESIGN SPECIFICATIONS. THE SLOPE AND SHAPE OF THE BERM SHOULD BE GRADED OUT AS SOIL IS ADDED.
5. PROTECT THE SURFACE PONDING AREA AT THE BASE OF TEH BERM FROM COMPACTION. IF COMPACTION OF THIS AREA DOES OCCUR, SCARIFY SOIL TO A DEPTH OF AT LEAST 8 INCHES.
6. COMPLETE FINAL GRADING OF THE BERM AFTER THE TOP LAYER OF SOIL IS ADDED. TAMP SOIL DOWN LIGHTLY AND SMOOTH SIDES OF THE BERM. THE CREST AND BASE OF THE BERM SHOULD BE AT LEVEL GRADE.SHOULD BE AT LEVEL GRADE.
7. PLANT BERM WITH TURF, MEADOW PLANTS, SHRUBS OR TREES, AS DESIRED.
8. MULCH PLANTED AND DISTURBED AREAS WITH COMPOST MULCH TO PREVENT EROSION WHILE PLANTS BECOME ESTABLISHED.

SOIL AMENDMENTS 6.7.3:

1. PROTECT AREA FROM HEAVY EQUIPMENT COMPACTION PRIOR TO INSTALLATION.
2. TO THE EXTENT POSSIBLE CONSTRUCTION SHOULD BE COMPLETED PRIOR TO BEGINNING SOILS RESTORATION.

BMP 6.4.10: Infiltration Berm & Retentive Grading



An Infiltration Berm is a mound of compacted earth with sloping sides that is usually located along a contour on relatively gently sloping sites. Berms can also be created through excavation/removal of upslope material, effectively creating a Berm with the original grade. Berms may serve various stormwater drainage functions including: creating a barrier to flow, retaining flow and allowing infiltration for volume control, and directing flows. Grading may be designed in some cases to prevent rather than promote stormwater flows, through creation of "saucers" or "lips" in site yard areas where temporary retention of stormwater does not interfere with use.

Key Design Elements

* Maintain a minimum 2-foot separation to bedrock and seasonally high water table, provide distributed infiltration area (5:1 impervious area to infiltration area - maximum), site on natural, uncompacted soils with acceptable infiltration capacity, and follow other guidelines described in Protocol 2: Infiltration Systems Guidelines
* Berms should be relatively low, preferably no more than 24 inches in height.
* If berms are to be mowed, the berm side slopes should not exceed a ratio of 4:1 to avoid "scalping" by mower blades.
* The crest of the berm should be located near one edge of the berm, rather than in the middle, to allow for a more natural, asymmetrical shape.
* Berms should be vegetated with turf grass at a minimum, however more substantial plantings such as meadow vegetation, shrubs and trees are recommended.

Potential Applications

Residential: Yes
Commercial: Yes
Ultra Urban: Limited
Industrial: Yes
Retrofit: Yes
Highway/Road: Yes

Stormwater Functions

Volume Reduction: Low/Med.
Recharge: Low
Peak Rate Control: Medium
Water Quality: Med./High

Water Quality Functions

TSS: 60%
TP: 50%
NO3: 40%

NO.	DATE	REVISION
4	04-26-25	REV PER NEW TOPOGRAPHY, POI, RCE, AND ELECTRICAL LAYOUT
3	10-31-24	CFS, SWITCH YARD, GATES, ROAD GRADING, RCE & CWO REMOVALS
2	8-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-16-20	REV PER MCCD 10-06-20 COMMENTS

OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER — PE085120

SCALE: 100 0 100 200 scale feet — 1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: SITE DETAILS 2

DATE:	PROJECT NO:	SHEET:	PAGE:
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STANDARD E&S 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. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.

3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.

5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.

6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.

7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.

9. 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.

10. 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.

11. 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.

12. 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.

13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.

14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS (SPECIFY LOT NUMBERS) ONTO (SPECIFY ROAD NAMES).

15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

17. SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY, OR AS NEEDED OR AS DIRECTED BY THE CONSERVATION DISTRICT OR MUNICIPALITY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.

18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.

24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE, CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.

27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS, DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.

28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.

30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.

31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY, IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.

33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

34. ALL STEEP SLOPES GREATER THAN 3:1 SHALL UTILIZE EROSION CONTROL BLANKETS.

MAINTENANCE PROGRAM

1. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY.

2. A ROCK CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE POINT OF CONSTRUCTION INGRESS AND EGRESS AS NOTED ON THE PLAN. THE STRUCTURE WILL PREVENT TRACKING AND FLOWING OF SEDIMENT ONTO EXISTING STABILIZED AREAS, CLEAN AND REDRESS THE ROCK CONSTRUCTION ENTRANCE WHEN THE VOIDS BECOME CHOKED WITH MUD AND SEDIMENT. THE ENTRANCE SHALL REMAIN FUNCTIONAL FOR THE DURATION OF THE PROJECT.

3. WHERE DUST OR WIND EROSION IS A PROBLEM, THE UNSTABLE SURFACE(S) SHALL BE SPRINKLED WITH WATER OR OTHER SUITABLE DUST SUPPRESSER.

4. ANY TEMPORARY EROSION CONTROL MEASURE APPLIED TO EXPOSED SOIL SURFACES SHALL REMAIN FUNCTIONAL UNTIL VEGETATIVE COVER IS SUFFICIENTLY ESTABLISHED.

5. PERMANENT SOIL PROTECTION WILL BE COMPLETED AS EARLY AS PRACTICAL.

6. ANY DEBRIS ACCUMULATED AT SILT BARRIERS SHALL BE REMOVED AND PROPERLY DISPOSED. BARRIERS SHALL BE CHECKED DAILY AND REALIGNED OR RESET AS REQUIRED. REMOVE SEDIMENT WHEN IT REACHES ONE HALF OF FENCE HEIGHT.

7. VEGETATIVE STABILIZATION SHALL BE PERIODICALLY INSPECTED FOR PROPER GROWTH. ANY AREAS NOT RESPONDING SHALL BE PROMPTLY RESEEDED. AREAS WHICH SHOW SIGNS OF EROSION PRIOR TO STABILIZATION SHALL BE GRADED, RESEEDED AND RE-MULCHED AS SOON AS POSSIBLE. SOD SHALL BE UTILIZED AT AREAS WHERE SEEDING DOES NOT APPEAR TO BE PROPERLY STABILIZING AN AREA.

8. CLEAN AND REDRESS THE ROCK FILTER BERMS WHEN THE VOIDS BECOME CHOKED WITH MUD AND SEDIMENT. ROCK FILTER BERMS SHALL REMAIN FUNCTIONAL FOR THE DURATION OF THE PROJECT.

9. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.

10. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

11. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 10" LAYERED LIFTS AT 95% MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557.

TABLE 11.2

SOIL AMENDMENT APPLICATION RATE EQUIVALENTS

SOIL AMENDMENT	PERMANENT SEEDING APPLICATION RATE			NOTES
	PER ACRE	PER 1,000 SQ.FT.	PER 1,000 SQ. YD.	
AGRICULTURAL LIME	6 TONS	240 LB.	2,480 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
10-20-20 FERTILIZER	1,000 LB.	25 LB.	210 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
TEMPORARY SEEDING APPLICATION RATE				
AGRICULTURAL LIME	1 TON	40 LB.	410 LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES
10-10-10 FERTILIZER	500 LB.	12.5 LB.	100 LB.	TYPICALLY NOT REQUIRED FOR TOPSOIL STOCKPILES

NOTE: A COMPOST BLANKET WHICH MEETS THE STANDARDS OF THIS CHAPTER MAY BE SUBSTITUTED FOR THE SOIL AMENDMENTS SHOWN IN TABLE 11.2.

TABLE 11.3

PLANT TOLERANCES OF SOIL LIMITATION FACTORS

SPECIES	GROWTH HABIT[1]	TOLERATES				MINIMUM SEED SPECIFICATIONS [3]				
		WET SOIL	DRY SITE	LOW FERTILITY	ACID SOIL (ph 5-5.5)[2]	PURITY (%)	READY GERM (%)	HARD SEED (%)	TOTAL GERM (%)	SEEDS/LB (1,000s)
WARM-SEASON GRASSES										
DEERTONGUE	BUNCH	YES	YES	YES	YES	95	75		75	250
WEEPING LOVEGRASS	BUNCH	NO	YES	YES	YES	97	75		75	1,500
SWITCHGRASS[4]	BUNCH	YES	YES	YES	YES	60(PLS)				390
BIG BLUESTEM	BUNCH	NO	YES	YES	YES	60(PLS)				150
COOL-SEASON GRASSES										
TALL FESCUE	BUNCH	YES	NO	YES	NO	95	80		80	227
REDTOP	SOD	YES	YES	YES	YES	92	80		80	5,000
FINE FESCUES	SOD	NO	NO	YES	NO	95	80		80	400
PERENNIAL RYEGRASS	BUNCH	YES	NO	NO	NO	95	85		85	227
ANNUAL RYEGRASS	BUNCH	YES	NO	YES	NO	95	85		85	227
KENTUCKY BLUEGRASS	SOD	NO	NO	NO	NO	85	75		75	2,200
REED CANARYGRASS	SOD	YES	YES	YES	NO	95	70		70	520
ORCHARDGRASS	BUNCH	YES	YES	YES	YES	95	80		80	654
TIMOTHY	BUNCH	YES	NO	YES	YES	95	80		80	1,230
SMOOTH BROMEGRASS	SOD	NO	YES	YES	NO	95	80		80	136
LEGUMES[5]										
CROWNVETCH	SOD	NO	YES	YES	NO	98	40	30	65	120
BIRDSFOOT TREFOIL[6]	BUNCH	YES	NO	YES	YES	98	60	20	80	400
FLATPEA	SOD	NO	NO	YES	YES	98	55	20	75	10
SERECIA LESPEDEZA	BUNCH	NO	YES	YES	YES	98	60	20	80	335
CEREALS										
WINTER WHEAT	BUNCH	NO	NO	NO	NO	98	85		85	15
WINTER RYE	BUNCH	NO	NO	YES	YES	98	85		85	18
SPRING OATS	BUNCH	NO	NO	NO	NO	98	85		85	13
SUNDANGRASS	BUNCH	NO	YES	NO	NO	98	85		85	55
JAPANESE MILLET	BUNCH	YES	NO	YES	YES	98	80		80	155

1 GROWTH HABIT REFERS TO THE ABILITY OF THE SPECIES TO EITHER FORM A DENSE SOD BY VEGETATIVE MEANS (STOLONS, RHIZOMES, OR ROOTS) OR REMAIN IN A BUNCH OR SINGLE PLANT FORM. IF SEEDED HEAVILY ENOUGH, EVEN BUNCH FORMERS CAN PRODUCE A VERY DENSE STAND. THIS IS SOMETIMES CALLED A SOD, BUT NOT IN THE SENSE OF A SOD FORMED BY VEGETATIVE MEANS.

2 ONCE ESTABLISHED, PLANTS MAY GROW AT A SOMEWHAT LOWER PH, BUT COVER GENERALLY IS ONLY ADEQUATE AT PH 6.0 OR ABOVE.

3 MINIMUM SEED LOTS ARE TRULY MINIMUM, AND SEED LOTS TO BE USED FOR REVEGETATION PURPOSES SHOULD EQUAL OR EXCEED THESE STANDARDS. THUS, DEERTONGUE GRASS SHOULD GERMINATE 75% OR BETTER. CROWNVETCH SHOULD HAVE AT LEAST 40% READILY GERMINABLE SEED AND 30% HARD SEED. COMMONLY, SEED LOTS ARE AVAILABLE THAT EQUAL OR EXCEED MINIMUM SPECIFICATIONS. REMEMBER THAT DISTURBED SITES ARE ADVERSE FOR PLANT ESTABLISHMENT. READY GERMINATION REFERS TO SEED THAT GERMINATES DURING THE PERIOD OF THE GERMINATION TEST AND THAT WOULD BE EXPECTED, IF CONDITIONS ARE FAVORABLE, TO GERMINATE RAPIDLY WHEN PLANTED. THE OPPOSITE OF READY GERMINATION IS DORMANT SEED, OF WHICH HARD SEED IS ONE TYPE.

4 SWITCHGRASS SEED IS SOLD ONLY ON THE BASIS OF PLS (PURE LIVE SEED).

5 NEED SPECIFIC LEGUME INOCULANT. INOCULANT SUITABLE FOR GARDEN PEAS AND SWEETPEAS USUALLY IS SATISFACTORY FOR FLATPEA.

6 BIRDSFOOT TREFOIL IS ADAPTED OVER THE ENTIRE STATE, EXCEPT IN THE EXTREME SOUTHEAST WHERE CROWN AND ROOT ROTS MAY INJURE STANDS.

TABLE 11.6

MULCH APPLICATION RATES

MULCH TYPE	APPLICATION RATE (MIN.)			NOTES
	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	
STRAW	3 TONS	140 LB.	1,240 LB.	EITHER WHEAT OR OAT STRAW FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 LB.	1,240 LB.	TIMOTHY, MIXED CLOVER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES
WOOD CHIPS	4 - 6 TONS	185 - 275 LB.	1,650 - 2500 LB.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES
HYDROMULCH	1 TON	47 LB.	415 LB.	SEE LIMITATIONS ABOVE

THERMAL IMPACTS:

THERMAL IMPACTS WILL BE MINIMIZED AND/OR MITIGATED TO AVOID AND MINIMIZE POTENTIAL THERMAL POLLUTION. THERMAL IMPACTS WILL BE MINIMIZED BY THE LIMIT OF IMPERVIOUS SURFACES, THE OVERLAND RUNOFF THROUGH VEGETATIVE AREAS ALONG WITH THE INFILTRATION BASIN, BERMS AND VEGETATED SWALE BMP'S. DURING CONSTRUCTION ACTIVITIES THERMAL IMPACTS WILL BE MINIMIZED VIA ABACT APPROVED SEDIMENT CONTROL BMP'S.

SPECIALLY PROTECTED WATERSHEDS

1. THIS PROJECT IS IN THE SMITH RUN & FIVEMILE RUN WATERSHEDS WHICH WHICH ARE DESIGNATED BY PA CHAPTER 93 AS A SPECIALLY PROTECTED HIGH QUALITY WATERSHED. EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH.

2. BECAUSE THIS PROJECT IS IN A SPECIALLY PROTECTED HIGH QUALITY WATERSHEDS, UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

3. 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 BMPS AND FURTHER GUIDANCE CAN BE FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

TABLE 11.4

RECOMMENDED SEED MIXTURES

MIXTURE NUMBER	SPECIES	SEEDING RATE - PURE LIVE SEED [1]	
		MOST SITES	ADVERSE SITES
1 [2]	SPRING OATS (SPRING), OR ANNUAL RYEGRASS (SPRING OR FALL), OR WINTER WHEAT (FALL), OR WINTER RYE (FALL)	64 10 90 56	96 15 120 112
2 [3]	TALL FESCUE, OR FINE FESCUE, OR KENTUCKY BLUEGRASS, PLUS REDTOP [4], OR PERENNIAL RYEGRASS	60 35 25 3 15	75 40 30 3 20
3	BIRDSFOOT TREFOIL, PLUS TALL FESCUE	6 30	10 35
4	BIRDSFOOT TREFOIL, PLUS REED CANARYGRASS	6 10	10 15
5 [8]	CROWNVETCH, PLUS TALL FESCUE, OR PERENNIAL RYEGRASS	10 20 20	15 25 25
6 [5,8]	CROWNVETCH, PLUS ANNUAL RYEGRASS	10 20	15 25
7 [8]	BIRDSFOOT TREFOIL, PLUS CROWNVETCH, PLUS TALL FESCUE	6 10 20	10 15 30
8	FLATPEA, PLUS TALL FESCUE, OR PERENNIAL RYEGRASS	20 20 20	30 30 25
9 [6]	SERECIA LESPEDEZA, PLUS TALL FESCUE, PLUS REDTOP [4]	10 20 3	20 25 3
10	TALL FESCUE, PLUS FINE FESCUE	40 10	60 15
11	DEERTONGUE, PLUS BIRDSFOOT TREFOIL	15 6	20 10
12 [7]	SWITCHGRASS, OR BIG BLUESTEM, PLUS BIRDSFOOT TREFOIL	15 15 6	20 20 10
13	ORCHARDGRASS, OR SMOOTH BROMEGRASS, PLUS BIRDSFOOT TREFOIL	20 25 6	30 35 10

1. PLS IS THE PRODUCT OF THE PERCENTAGE OF PURE SEED TIMES PERCENTAGE GERMINATION DIVIDED BY 100. FOR EXAMPLE, TO SECURE THE ACTUAL PLANTING RATE FOR SWITCHGRASS, DIVIDE 12 POUNDS PLS SHOWN ON THE SEED TAG. THUS, IF THE PLS CONTENT OF A GIVEN SEED LOT IS 35%, DIVIDE 12 PLS BY 0.35 TO OBTAIN 34.3 POUNDS OF SEED REQUIRED TO PLANT ONE ACRE. ALL MIXTURES IN THIS TABLE ARE SHOWN IN TERMS OF PLS.

2. IF HIGH-QUAILTY SEED IS USED, FOR MOST SITES SEED SPRING OATS AT A RATE OF 2 BUSHELS PER ACRE, WINTER WHEAT AT 1.5 BUSHELS PER ACRE, AND WINTER RYE AT 1 BUSHEL PER ACRE. IF GERMINATION IS BELOW 90%, INCREASE THESE SUGGESTED SEEDING RATES BY 0.5 BUSHEL PER ACRE.

3. THIS MIXTURE IS SUITABLE FOR FREQUENT MOWING. DO NOT CUT SHORTER THAN 4 INCHES.

4. KEEP SEEDING RATE TO THAT RECOMMENDED IN TABLE. THESE SPECIES HAVE MANY SEEDS PER POUND AND ARE VERY COMPETITIVE. TO SEED SMALL QUANTITIES OF SMALL SEEDS SUCH AS WEEPING LOVEGRASS AND REDTOP, DILUTE WITH DRY SAWDUST, SAND, RICE HULLS, BUCKWHEAT HULLS, ETC.

5. USE FOR HIGHWAY SLOPES AND SIMILAR SITES WHERE THE DESIRED SPECIES AFTER ESTABLISHMENT IS CROWNVETCH.

6. USE ONLY IN EXTREME SOUTHEASTERN OR EXTREME SOUTHWESTERN PENNSYLVANIA. SERECIA LESPEDEZA IS NOT WELL ADAPTED TO MOST OF PA.

7. DO NOT MOW SHORTER THAN 9 TO 10 INCHES.

8. SEED MIXTURES CONTAINING CROWN VETCH SHOULD NOT BE USED IN AREAS ADJACENT TO WETLANDS OR STREAM CHANNELS DUE TO THE INVASIVE NATURE OF THIS SPECIES.

TABLE 11.5

RECOMMENDED SEED MIXTURES FOR STABILIZING DISTURBED AREAS

SITE CONDITION	NURSE CROP	SEED MIXTURE (SELECT ONE MIXTURE)
SLOPES AND BANKS (NOT MOWED)		
WELL-DRAINED	1 PLUS	3, 5, 8, OR 12[1]
VARIABLE DRAINAGE	1 PLUS	3 OR 7
SLOPES AND BANKS (MOWED)		
WELL- DRAINED	1PLUS	2 OR 10
SLOPES AND BANKS (GRAZED/HAY)		
WELL- DRAINED	1PLUS	2, 3, OR 13
GULLIES AND ERODED AREAS	1 PLUS	3, 5, 7, OR 12[3]
EROSION CONTROL FACILITIES (BMPs)		
SOD WATERWAYS, SPILLWAYS, FREQUENT WATER FLOW AREAS	1 PLUS	2, 3, OR 4
DRAINAGE DITCHES		
SHALLOW, LESS THAN 3 FEET DEEP	1 PLUS	2, 3, OR 4
DEEP, NOT MOWED	1 PLUS	5 OR 7
POND BANKS, DIKES, LEVEES, DAMS, DIVERSION CHANNELS, AND OCCASIONAL WATER FLOW AREAS		
MOWED AREAS	1 PLUS	2 OR 3
NON-MOWED AREAS	1 PLUS	5 OR 7
FOR HAY OR SILAGE ON DIVERSION CHANNELS AND OCCASIONAL WATER FLOW AREAS	1 PLUS	3 OR 13
HIGHWAYS [2]		
NON-MOWED AREAS		
PURE CROWNVETCH [3]	1 PLUS	5 OR 6
WELL-DRAINED	1 PLUS	5, 7, 8, 9, OR 10
VARIABLE DRAINED	1 PLUS	3 OR 7
POORLY DRAINED	1 PLUS	3 OR 4
AREAS MOWED SEVERAL TIMES PER YEAR	1 PLUS	2, 3, OR 10
UTILITY RIGHT-OF-WAY		
WELL-DRAINED	1 PLUS	5, 8, OR 12[1]
VARIABLE DRAINED	1 PLUS	3 OR 7
WELL-DRAINED AREAS FOR GRAZING/HAY	1 PLUS	2, 3, OR 13
EFFLUENT DISPOSAL AREAS	1 PLUS	3 OR 4
SANITARY LANDFILLS	1 PLUS	3, 5, 7, 11[1], OR 12[1]
SURFACE MINES		
SPOILS, MINE WASTES, FLY ASH, SLAG, SETTLING BASIN RESIDUES AND OTHER SEVERELY DISTURBED AREAS (LIME TO SOIL TEST)	1 PLUS	3, 4, 5, 7, 8, 9, 11[1] or 12[1]
SEVERELY DISTURBED AREAS FOR GRAZING/HAY	1 PLUS	3 OR 13

1. FOR SEED MIXTURES 11 AND 12, ONLY USE SPRING OATS OR WEEPING LOVEGRASS (INCLUDED IN MIX) AS NURSE CROP.

2. CONTACT THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION DISTRICT ROADSIDE SPECIALIST FOR SPECIFIC SUGGESTIONS ON TREATMENT TECHNIQUES AND MANAGEMENT PRACTICES.

3. SEED MIXTURES CONTAINING CROWNVETCH SHOULD NOT BE USED IN AREAS ADJACENT TO WETLANDS OR STREAM CHANNELS DUE TO THE INVASIVE NATURE OF THIS SPECIES.

SYNTHETIC BINDERS, OR CHEMICAL BINDERS, MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.

MULCH ON SLOPES OF 8% OR STEEPER SHOULD B

CONSTRUCTION SEQUENCES

CONTACT THE MCKEAN COUNTY CONSERVATION DISTRICT (MCCD) A MINIMUM OF SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF EARTH DISTURBANCE ACTIVITIES TO SET UP A PRECONSTRUCTION MEETING ON THE SITE. THE PERMITTEE SHALL INVITE THE MCCD, PERMITTEES, CO-PERMITTEES, OPERATORS, AND LICENSED PROFESSIONALS OR DESIGNEES RESPONSIBLE FOR THE EARTH DISTURBANCE ACTIVITY, INCLUDING IMPLEMENTATION OF E&S PLAN.

ANY MODIFICATION(S) TO THE APPROVED PLANS MUST BE SUBMITTED TO THE MCCD PRIOR TO IMPLEMENTING THE CHANGE, UNLESS IMPLEMENTING ADDITIONAL E&S BMPS TO PROVIDE IMMEDIATE PROTECTION FROM ENVIRONMENTAL DEGRADATION.

ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.

ALL BEST MANAGEMENT PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS AND LOCATIONS SHOWN ON THE PLANS.

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION (HYDROSEED IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.) HAY OR STRAW MUST BE APPLIED AT 3.0 TONS PER ACRE.

THE ORDER OF THE FOLLOWING SEQUENCE IS SUBJECT TO CHANGE DUE TO SITE SPECIFIC CONDITIONS AND CONSTRUCTION METHODS. ALL CHANGES SHALL BE APPROVED BY THE PADEP:

INDIVIDUAL ARRAY SECTIONS:

1. FIELD LOCATE AND DELINEATE THE PROPOSED LIMITS OF DISTURBANCE. FLAG LIMITS OF THE PROPOSED INFILTRATION BASIN BMP LOCATIONS. CONTRACTOR SHALL LIMIT COMPACTION AND SEDIMENT DISPERSAL OF THESE AREAS TO THE GREATEST EXTENT POSSIBLE.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT THE INTERFACE OF THE PROPOSED ACCESS DRIVES WITH EXISTING ROADS OR ON SITE ACCESS DRIVES AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAIL PROVIDED ON THE PLAN.
3. INSTALL APPROPRIATELY SIZED COMPOST FILTER SOCKS AT THE LOCATIONS PROVIDED ON THE PLAN AND IN ACCORDANCE WITH THE DETAIL PROVIDED ON THE PLAN.
4. INSTALL ALL SEDIMENT BASINS (#1-7) AND SEDIMENT TRAP #1 ACCORDING TO EACH WORK AREA, PER THE PROVIDED GRADING AND DETAILS WITHIN THE APPROVED EROSION AND SEDIMENTATION PLAN. LOCALIZED SILT SOCK AND OTHER REQUIRED SEDIMENT CONTROLS SHOULD BE INSTALLED IN CONJUNCTION WITH THE SEDIMENT BASIN AND SEDIMENT TRAP INSTALLATION. IF PERMANENT OUTLET STRUCTURES ARE INSTALLED AT THIS TIME, ORIFICES SHOULD BE PLUGGED AND MADE WATERTIGHT DURING THE CONSTRUCTION PROCESS.
5. STOCKPILE TOPSOIL AND EXCESS SOIL IN THE IMMEDIATE AREA OF THESE BMPS. PLACE 12" COMPOST FILTER SOCK OR APPROVED EQUAL DOWNSLOPE OF THE TEMPORARY TOPSOIL STOCKPILE. SEED THE STOCKPILE WITH A TEMPORARY SEEDING MIXTURE. ALL STOCKPILES SHALL BE A MAXIMUM OF 35 FEET IN HEIGHT WITH SIDE SLOPES OF 2H:1V OR FLATTER.
6. INSTALL VEGETATED CHANNELS #1, 2A, 2B, 5, 6, 7, AND 20 INCLUDING EROSION CONTROL LINING AS SPECIFIED. CHANNEL #15 WILL BE INSTALLED DURING THE SEDIMENT BASIN TO INFILTRATION BASIN CONVERSION SEQUENCE.
7. PERFORM TREE REMOVAL AND DEMOLITION OPERATIONS AS REQUIRED IN EACH WORK AREA.
8. STRIP AND STOCKPILE TOPSOIL FOR GRADING OPERATIONS NECESSARY TO INSTALL THE GRAVEL ACCESS DRIVES THAT ACCESS EACH WORK AREA.
9. INSTALL GRAVEL ACCESS DRIVES TO EACH WORK AREA AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE PLAN.
10. WIDENING OF SOME OF THE EXISTING ACCESS DRIVES AND CULVERT UPGRADES ARE REQUIRED. FOLLOW THE SEQUENCE ON THIS SHEET.
11. BEGIN INSTALLATION OF SOLAR MODULES AND PERIMETER SECURITY FENCE IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE PLAN.
12. INSTALL CONCRETE WASHOUT AREAS ADJACENT TO EACH PROPOSED EQUIPMENT PAD.
13. PERFORM GRADING OPERATIONS NECESSARY TO CONSTRUCT THE CONCRETE EQUIPMENT PADS. INSTALL EACH EQUIPMENT PAD AND IMMEDIATELY STABILIZE THE AREA WITH TEMPORARY EROSION CONTROL MATTING (IF NEEDED), SEED AND MULCH AS INDICATED ON THE PLAN.
14. COMPLETE ALL ELECTRICAL WORK PER THE ELECTRICAL PLANS. TRENCHING SHALL BE MINIMIZED TO THE GREATEST EXTENT POSSIBLE. APPROPRIATE EROSION CONTROL SHALL BE UTILIZED ON THE DOWNSLOPE SIDE OF ALL TRENCHING. TRENCHING SHALL BE LIMITED TO THE LENGTH THAT CAN BE COMPLETED DURING A TYPICAL WORK DAY. ALL TRENCHING SHALL BE CLOSED AND TEMPORARILY STABILIZED AT THE END OF THE WORK DAY.
15. IMMEDIATELY STABILIZE ANY AREAS ASSOCIATED WITH THE ABOVE REFERENCED CONSTRUCTION THAT ARE AT FINAL GRADE.
16. REMOVE THE TEMPORARY GRAVEL LAYDOWN AREA AND TEMPORARY CONSTRUCTION ENTRANCES. UPON REMOVAL OF GRAVEL IN LAYDOWN AREA, SHOULD BE SCARIFIED TO DE-COMPACT AND PROMOTE INFILTRATION WITHIN THIS AREA PRIOR TO RE-SEEDING. ONCE SCARIFIED CONTRACTOR SHALL SPREAD TOPSOIL, SEED AND MULCH IN ACCORDANCE WITH THE SEEDING AND RESTORATION TABLES PROVIDED ON THE PLAN. TOPSOIL SHALL BE PLACED TO A MINIMUM DEPTH OF SIX (6) INCHES. THIS SHOULD BE INITIATED NO LATER THAN 7 DAYS AFTER REACHING FINAL GRADE.
17. UPON UPSLOPE STABILIZATION THE CONTRACTOR SHALL INSTALL THE INFILTRATION BERMS PER THE PROVIDED PLANS AND DETAILS. CARE SHOULD BE TAKEN WHEN INSTALLING BERMS TO ENSURE PROPER FUTURE FUNCTION. INSTALL BERMS PER THE SPECIFIC CONSTRUCTION SEQUENCE PROVIDED WITH THE DETAIL. (NOTE THIS IS A CRITICAL STAGE OF CONSTRUCTION AND REQUIRES ENGINEERING OVERSIGHT AND INSPECTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER 72 HOURS PRIOR TO THIS STAGE OF CONSTRUCTION COMMENCING.).
18. UPON STABILIZATION OF UPSLOPE DRAINAGE AREA ALL OTHER SEDIMENT BASINS AND SEDIMENT TRAPS SHALL BE CONVERTED TO THE FINAL INFILTRATION BASINS PER THE CONVERSION SEQUENCE PROVIDED ON THIS SHEET. GRADING SHALL BE COMPLETED TO CONVERT TEMPORARY BASINS AND TRAPS TO FINALE INFILTRATION BASIN DESIGN GRADING. ANY SEDIMENT DEPOSITED DURING CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF APPROPRIATELY. CARE SHALL BE TAKEN TO PREVENT COMPACTION WHEN BRINGING THE BASIN BOTTOM TO FINAL DESIGN ELEVATION. CONTRACTOR SHALL INSTALL STORMWATER INFILTRATION BASIN, AND STORMWATER INFILTRATION TRENCHES IN ACCORDANCE WITH THE SPECIFIC CONSTRUCTION SEQUENCE PROVIDED ON THE PLAN. (NOTE THIS IS A CRITICAL STAGE OF CONSTRUCTION AND REQUIRES ENGINEERING OVERSIGHT AND INSPECTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER 72 HOURS PRIOR TO THIS STAGE OF CONSTRUCTION COMMENCING.).
19. IN CONJUNCTION WITH THE INFILTRATION BASIN THE CONTRIBUTING VEGETATED SWALES SHALL ALSO BE CONSTRUCTED. VEGETATED SWALE CONSTRUCTION IS S CRITICAL STAGE. THE CONTRACTOR SHALL UTILIZE THE PROVIDED DETAILS AND CONSTRUCTION NOTES PROVIDED. (NOTE THIS IS A CRITICAL STAGE OF CONSTRUCTION AND REQUIRES ENGINEERING OVERSIGHT AND INSPECTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER 72 HOURS PRIOR TO THIS STAGE OF CONSTRUCTION COMMENCING.).
20. UPON FINAL STABILIZATION OF THE SITE (UNIFORM, PERENNIAL 90% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION), AND APPROVAL BY THE MCCD, REMOVE ALL REMAINING TEMPORARY EROSION CONTROLS, INCLUDING CONCRETE WASHOUTS, STABILIZED ROCK CONSTRUCTION ENTRANCES AND COMPOST FILTER SOCKS.
21. A FINAL CRITICAL STAGE INSPECTION MUST BE COMPLETED BY THE SITE ENGINEER TO VERIFY PREVIOUSLY INSTALLED PCSM BMPs ARE STILL IN GOOD WORKING ORDER.
22. A NOTICE OF TERMINATION MUST BE COMPLETED AFTER ALL CONSTRUCTION STABILIZATION AND INSPECTIONS ARE COMPLETED.

EXISTING ACCESS DRIVE WIDENING AND CULVERT REPLACEMENTS

ACCESS TO THIS SITE WILL UTILIZE SOME EXISTING GRAVEL ACCESS DRIVES. WHERE THESE ACCESS DRIVES ARE NOT 16' WIDE, THEY SHOULD BE WIDENED TO 16' IN ACCORDANCE WITH THE GRAVEL ACCESS DRIVE DETAIL PROVIDED ON THE PLANS PER THE SEQUENCE PROVIDED BELOW.

1. WHEN EARTH DISTURBANCE FOR GRADING IS REQUIRED, INSTALL 18" COMPOST FILTER SOCK DOWNSLOPE OF GRADING OPERATIONS.
2. INSTALL GRAVEL DRIVE PER THE STONE ACCESS DRIVE DETAIL PROVIDED ON THE PLAN.
3. WHERE CULVERT REPLACEMENTS ARE PROPOSED: EXISTING DRIVE NORTHWEST STRUCTURES ES-1 TO ES-2, EXISTING DRIVE NORTH STRUCTURES ES-7 TO ES-8 AND ES-9 TO ES-10, AND EXISTING DRIVE WEST, STRUCTURES ES-3 TO ES-4 AND ES-5 TO ES-6, REMOVE EXISTING CULVERTS AND REPLACE WITH NEW CULVERTS IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE PLAN.
4. WHERE THERE IS FLOW IN THE CHANNELS, UTILIZE THE TEMPORARY COFFERDAM AND PUMP BYPASS AROUND IN-CHANNEL WORK AREAS DETAIL DURING REMOVAL AND INSTALLATION PROCEDURES.
5. INSTALL RIP RAP APRONS IN ACCORDANCE WITH THE DETAIL PROVIDED ON THE PLAN.

LOCALIZED SEDIMENT AND EROSION CONTROLS SHALL BE UTILIZED AS REQUIRED PER THE PENNSYLVANIA SEDIMENT AND EROSION CONTROL MANUAL. THE DESIGN ENGINEER SHALL BE NOTIFIED SHOULD ANY UNFORESEEN EROSION ISSUE OCCUR.

SPECIALLY PROTECTED WATERSHEDS

1. THIS PROJECT DRAINS TO SMITH RUN AND FIVEMILE RUN WHICH ARE BOTH DESIGNATED BY PA CHAPTER 93 AS SPECIALLY PROTECTED HIGH QUALITY WATERSHED. EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH.
2. BECAUSE THIS PROJECT IS IN A SPECIALLY PROTECTED HIGH QUALITY, UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
3. 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 BMPS AND FURTHER GUIDANCE CAN BE FOUND IN THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

RIPARIAN BUFFERS / FOREST MANAGEMENT PLAN

THERE ARE NO AREAS THAT QUALIFY AS A RIPARIAN BUFFERS UNDER CHAPTER 102.14. THEREFORE NO FOREST MANAGEMENT PLAN IS BEING PROPOSED.

Soil Series	Soil ID	Slope (%)	Hydrologic Soil Group (HSG)	Depth to Bedrock (in)	Seasonal-High Water Table Depth (in)
At	Atkins silt loam	0-3	B	80"	0-6
BrA	Brinkerton soils	0-3	D	17"-30"	0-2
BrB	Brinkerton soils	3-8	D	17"-30"	0-2
BsB	Brinkerton mucky silt loam	0-8	D	17"-30"	0-2
BuB	Buchanan silt loam	3-8	C	18-30	14-24
BuC	Buchanan silt loam	8-15	C	21-33	16-27
BxB	Buchanan silt loam stony	0-8	C	21-33	16-27
BxD	Buchanan silt loam stony	8-25	C	21-33	16-27
ClB	Clymer loam	3-8	B	40-60	80"
CoA	Cookport loam	0-3	C	18-32	15-21
CoB	Cookport loam	3-8	C	40-78	15-21
CoC	Cookport loam	8-15	C	40-78	15-21
CpB	Cookport loam very stony	0-8	C	40-78	15-21
CpD	Cookport loam very stony	8-25	C	40-78	15-21
HaB	Harleton channery silt loam	3-8	A	40-60	80
HaC	Harleton channery silt loam	8-15	A	40-60	80
HaD	Harleton channery silt loam	15-25	A	40-60	80
HbB	Hazelton channery silt loam	3-8	A	40-60	80
HbC	Hazelton channery silt loam	8-15	A	40-60	80
HdB	Hazelton channery loam	3-8	A	40-60	80
HdC	Hazelton channery loam	8-15	A	40-60	80
HdD	Hazelton channery loam	8-25	A	40-60	80
HeF	Hartelton & Buchanan Soils	25-60	A	40-60	80

SOIL LIMITATIONS	RESOLUTION
Steep Slopes	Temporarily grade steep slopes to allow equipment safe access and operation. Return slopes to preconstruction grades and stabilize with erosion control matting, seed and mulch.
Presence of Bedrock	Remove rock to a depth that allows installation of the entire thickness of pipe beading.
High Water Table	Pump water into a pumped water filter bag.
Erodible Soils	Stabilize final grade with seed and mulch. Install erosion control matting on slopes of 3:1 and greater.
Poor Topsoil	Separate and store existing topsoil for re-use.
Frost Action	Perform construction during time periods when frost action will not occur.
Corrosion to Steel	Steel pipes should be coated with corrosion resistant material.
Corrosion to Concrete	Concrete should be coated with corrosion resistant material.

CONVERSION SEQUENCE FROM SEDIMENT BASINS TO PERMANENT INFILTRATION BASINS:

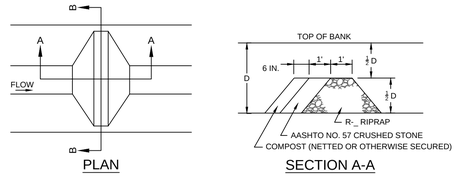
UPON STABILIZATION OF UPSLOPE DRAINAGE AREA ALL OTHER SEDIMENT BASINS AND SEDIMENT TRAPS SHALL BE CONVERTED TO THE FINAL INFILTRATION BASINS PER THIS SEQUENCE.

1. ANY SEDIMENT DEPOSITED DURING CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF APPROPRIATELY.
2. PERFORM GRADING OPERATIONS TO RESTORE THE BASINS TO PROPOSED FINAL ELEVATIONS. CARE SHALL BE TAKEN TO PREVENT COMPACTION DURING THIS PROCESS.
3. THE TEMPORARY RISER PIPE AND SKIMMER SHALL BE REMOVED AND THE PERMANENT OUTLET STRUCTURE INSTALLED.
4. IF THE PERMANENT OUTLET STRUCTURE IS ALREADY IN PLACE, ANY PLUGS OR WATERTIGHT FEATURES SHOULD BE REMOVED TO ALLOW THE OUTLET STRUCTURE TO FUNCTION AS DESIGNED UNDER PERMANENT CONDITIONS.
5. ONCE SEDIMENT BASIN 6 IS FILLED IN TO DESIGN ELEVATIONS FOR INFILTRATION BASIN 15, PERMANENT CHANNEL #15 SHALL BE INSTALLED PER THE DETAIL PROVIDED ON THE PLAN.
6. STABILIZE WITH PERMANENT SEED AND MULCH PER THE SEEDING AND RESTORATION TABLES PROVIDED ON THE PLAN.

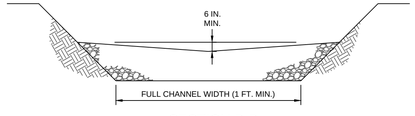
(NOTE THIS IS A CRITICAL STAGE OF CONSTRUCTION AND REQUIRES ENGINEERING OVERSIGHT AND INSPECTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER 72 HOURS PRIOR TO THIS STAGE OF CONSTRUCTION COMMENCING.).

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.



PLAN SECTION A-A



SECTION B-B

ROCK FILTER NO.	LOCATION	D (FT)	RIPRAP SIZE (R-_)

FOR D ≥ 3 FT. - USE R-4
FOR D ≥ 2 FT. TO D < 3 FT. - USE R-3
NOT APPLICABLE FOR D < 2 FT.

NOTES:

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS.

IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.

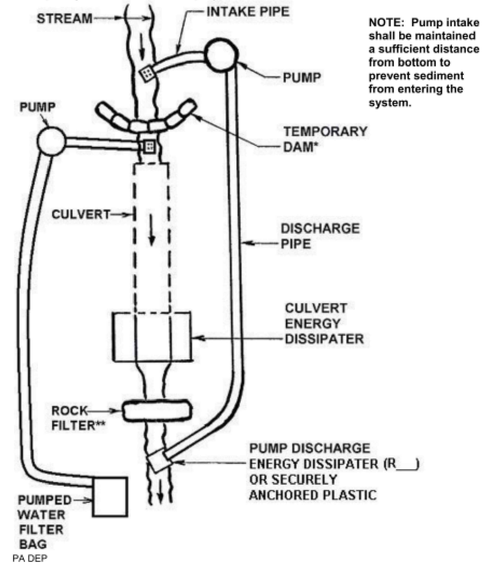
TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED.

STANDARD CONSTRUCTION DETAIL #4-14

ROCK FILTER

NOT TO SCALE

FIGURE 3.11
Temporary Cofferdam and Pump Bypass Around In-channel Work Areas

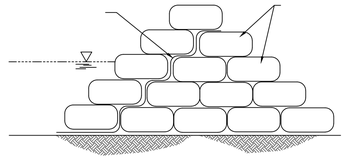


PA DEP

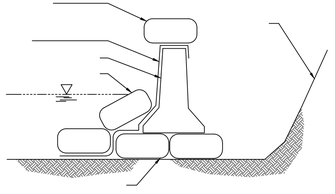
NOTE: Pump intake shall be maintained a sufficient distance from bottom to prevent sediment from entering the system.

* **Sandbags (Standard Construction Detail #3-15), Jersey barriers (Figure 3.13) or other non-erosive material, no earth fill. Do not excavate a sump for the pump intake.**

** **See Standard Construction Detail # 4-14. For low gradient channels, the rock filter may be replaced by an impervious cofferdam to prevent backflow into the work area.**



STACKED SANDBAGS OPTION



JERSEY BARRIER OPTION

NOTES:

TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED.

STANDARD CONSTRUCTION DETAIL #3-15

SANDBAG DIVERSION DAM OR COFFERDAM

NOT TO SCALE

##	##	##
##	##	##
##	##	##
##	##	##
##	##	##
##	##	##

NO.	DATE	REVISION
4	04-28-25	REV PER NEW TOPOGRAPHY, POI, RCE, AND ELECTRICAL LAYOUT
3	10-31-24	CFS, SWITCH YARD, GATES, ROAD GRADING, RCE & CWO REMOVALS
2	8-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-16-20	REV PER MCCD 10-06-20 COMMENTS

OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

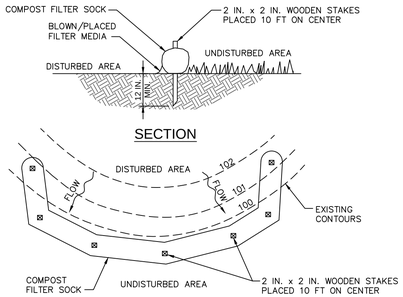
COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER PE085120

SCALE: 100 0 100 200 scale feet — 1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: EROSION CONTROL DETAILS 2

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US0024243.7390	117	19 OF 21



PLAN VIEW

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

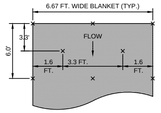
BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

NOT TO SCALE

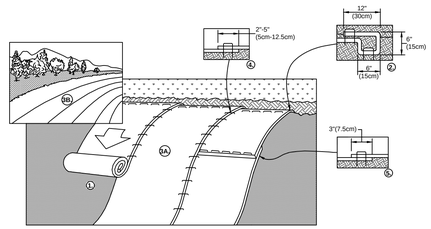


STAPLE PATTERN "C"
USE 1.15 STAPLES/YD^2 (2.0 STAPLES/m^2), 6x2x6 11 ga. WIRE, "U" SHAPED STAPLES). LONGER STAPLES MAY BE REQUIRED FOR LOOSE SOIL CONDITIONS. LARGER GAUGE STAPLES MAY BE NEEDED OFR COMPACTED OR ROCKY SOILS. SECURE R.E.C.P.S BY PLACING STAPLES/STAKES USING THE NOTED SPACING OR PLACING A STAPLE/STAKE THROUGH EACH "X" SHOWN.

NOTE: THE MANUFACTURER'S INSTRUCTIONS SUPERSEDE THOSE SHOWN IN THIS DETAIL.

TYPICAL ON-SLOPE MATTING FASTENER INSTALLATION PATTERN

NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6"(15cm) DEEP X 6"(15cm) WIDE TRENCH WITH APPROXIMATELY 12"(30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"(30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12"(30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12"(30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5"(5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3"(7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12"(30cm) APART ACROSS ENTIRE BLANKET WIDTH.

NOTES: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

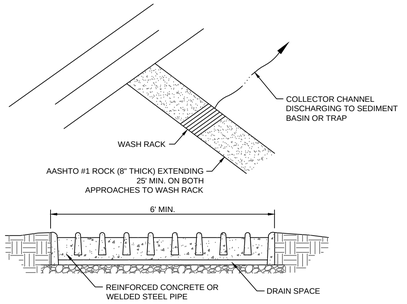
THE MANUFACTURER'S INSTRUCTIONS SUPERSEDE THOSE SHOWN IN THIS DETAIL.

SEE SPECIFICATIONS FOR MATTING MATERIALS.

TYPICAL EROSION CONTROL BLANKET ON-SLOPE INSTALLATION DETAIL

NOT TO SCALE

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	MULTI-FILAMENT POLYPROPYLENE (HDMEPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	% AT 1000 HR.	23% AT 1000 HR.		100 % AT 1000 HR.	100 % AT 1000 HR.
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET				
	CONTINUOUSLY WOUND				
	FUSION-WELDED JUNCTURES				
	3/4" x 3/4" MAX. APERTURE SIZE				
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER & NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)				
	3/16" MAX. APERTURE SIZE				
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.					



NOTES:

WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.

WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.

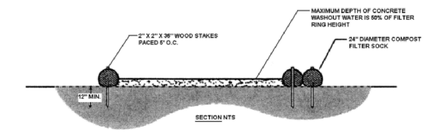
A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

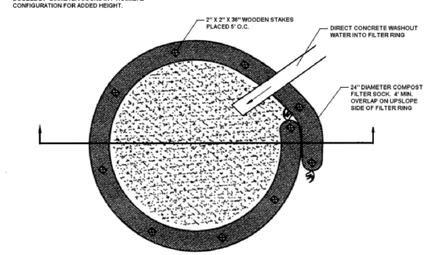
TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED

STANDARD CONSTRUCTION DETAIL #3-2
ROCK CONSTRUCTION ACCESS WITH WASH RACK

NOT TO SCALE



NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

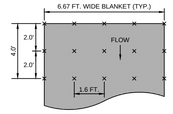


A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks.
Adapted from Filtrexx

CONCRETE WASHOUT

NOT TO SCALE

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
PH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 DS MAXIMUM

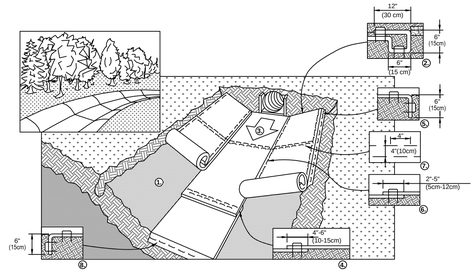


STAPLE PATTERN "D"
USE 3.4 STAPLES/YD^2 (4.1 STAPLES/m^2), 6x2x6 11 ga. WIRE, "U" SHAPED STAPLES). LONGER STAPLES MAY BE REQUIRED FOR LOOSE SOIL CONDITIONS. LARGER GAUGE STAPLES MAY BE NEEDED OFR COMPACTED OR ROCKY SOILS. SECURE R.E.C.P.S BY PLACING STAPLES/STAKES USING THE NOTED SPACING OR PLACING A STAPLE/STAKE THROUGH EACH "X" SHOWN.

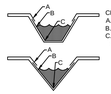
NOTE: THE MANUFACTURER'S INSTRUCTIONS SUPERSEDE THOSE SHOWN IN THIS DETAIL.

TYPICAL IN-CHANNEL MATTING FASTENER INSTALLATION PATTERN

NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6"(15cm) DEEP X 6"(15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12"(30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12"(30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12"(30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6"(10cm-15cm) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4"(10cm) APART AND 4"(10cm) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"(30cm) APART IN A 6"(15cm) DEEP X 6"(15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5"(5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT(9m-12m) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4"(10cm) APART AND 4"(10cm) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"(30cm) APART IN A 6"(15cm) DEEP X 6"(15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

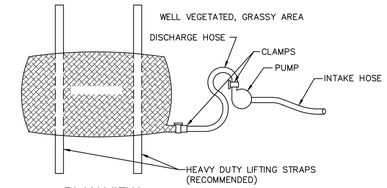
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

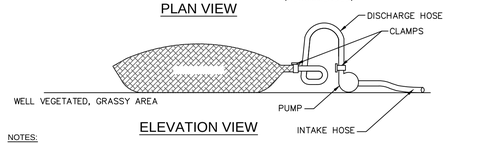
NOTES: THE MANUFACTURER'S INSTRUCTIONS SUPERSEDE THOSE SHOWN IN THIS DETAIL.

TYPICAL EROSION CONTROL BLANKET IN-CHANNEL INSTALLATION DETAIL

NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

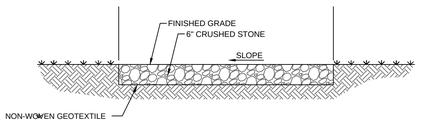
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

TO BE CONSTRUCTED WITH MATERIALS AND TECHNIQUES IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL EFFECTIVE DATE MARCH 31, 2012 AS AMENDED.

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG

NOT TO SCALE



STONE YARD SECTION

NOT TO SCALE

NO.	DATE	REVISION
4	04-28-25	REV PER NEW TOPOGRAPHY, POI, RCE, AND ELECTRICAL LAYOUT
3	10-31-24	CFS, SWITCH YARD, GATES, ROAD GRADING, RCE & CWO REMOVALS
2	8-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-16-20	REV PER MCCD 10-06-20 COMMENTS

OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

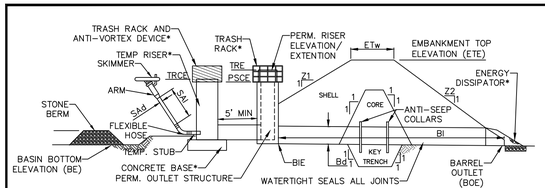
COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER — PE085120

SCALE: 100 0 100 200 scale feet — 1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: EROSION CONTROL DETAILS 3

DATE:	PROJECT NO:	SHEET:	PAGE:
08/21/24	US002243.7390	118	20 OF 21



* ALSO REFER TO SEDIMENT BASIN TEMPORARY RISER, EMERGENCY SPILLWAY, ENERGY DISSIPATER, TRASH RACK AND ANTI-VORTEX DEVICE, AND SEDIMENT STORAGE DEWATERING FACILITY DETAILS.

EMBANKMENT SECTION ALONG PRINCIPAL SPILLWAY

BASIN NO.	Z1 (FT)	Z2 (FT)	TEMPORARY RISER				BARREL					
			DIA TRd (IN)	CREST ELEV TRCE (FT)	MAT'L	PERM. RISER EL/EXTENTION TRE (FT)	DIA Bd (IN)	INLET ELEV BIE (FT)	MAT'L	LENGTH Bl (FT)	OUTLET ELEV BOE (FT)	
1	3	3	24	2063.85	CMP	2065.00	18	2062.50	HDPE	45	2062.00	
2	3	3	30 x 30	2080.20	CMP	2080.65	15	2077.00	HDPE	39	2076.00	
3	3	3	30 x 30	2092.25	CMP	2092.40	15	2089.00	HDPE	115	2088.00	
4	3	3	30	2094.25	CMP	2094.50	24	2091.00	HDPE	48	2090.00	
5	3	3	30 x 30	N/A	N/A	2091.75	18	2089.00	HDPE	29	2088.00	
6	3	3	30	2062.00	CMP	2062.75	15	2060.00	HDPE	55	2058.00	
7	3	3	30	2080.25	CMP	2081.00	18	2076.00	HDPE	45	2075.00	

SEDIMENT BASIN #	EMBANKMENT				CLEANOUT ELEV COE (FT)	BOTTOM ELEV BE (FT)
	TOP ELEV ETE (FT)	TOP WIDTH ETw (FT)	KEY TRENCH DEPTH (FT)	KEY TRENCH WIDTH (FT)		
1	2066.00	8	2	4	2062.50	2061.50
2	2082.00	8	2	6	2078.00	2077.00
3	2094.00	8	2	6	2090.00	2089.00
4	2096.00	8	2	6	2092.00	2091.00
5	2094.00	8	2	8	2090.00	2089.00
6	2064.00	8	2	5	2061.00	2060.00
7	2082.00	8	2	4	2077.25	2076.00

NOTES:

SEDIMENT BASINS, INCLUDING ALL APPURTENANT WORKS, SHALL BE CONSTRUCTED TO THE DETAIL AND DIMENSIONS SHOWN ON THE E&S PLAN DRAWINGS.

AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO A DEPTH OF TWO FEET PRIOR TO ANY PLACEMENT AND COMPACTION OF EARTHEN FILL. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6 TO 9 IN. THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS. UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS. TREES SHALL NOT BE PLANTED ON THE EMBANKMENT.

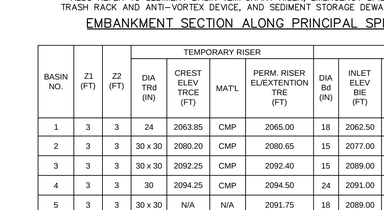
ALL SEDIMENT BASINS SHALL BE INSPECTED ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.

ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES SHALL BE PROVIDED.

A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN BY SPREADING IT BACK ON SITE. THE AREAS WHERE THE SEDIMENT IS SPREAD OUT SHALL BE STABILIZED BY SEEDING AND MULCHING.

BASIN EMBANKMENTS, SPILLWAYS, AND OUTLETS SHALL BE CHECKED FOR EROSION, PIPING AND SETTLEMENT. NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY. DISPLACED RIPRAP WITHIN THE OUTLET ENERGY DISSIPATER SHALL BE REPLACED IMMEDIATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS INSIDE THE BASIN STABILIZED BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. THE DEVICE SHOWN IN STANDARD CONSTRUCTION DETAIL #7-16 MAY BE USED TO DEWATER SATURATED SEDIMENT PRIOR TO ITS REMOVAL. ROCK FILTERS SHALL BE ADDED AS NECESSARY.

NOT TO SCALE



BASIN NO.	PIPE SIZE (IN)	S (IN)	NO. OF COLLARS	RISER TO FIRST COLLAR (FT)	COLLAR SPACING (FT)
1	18	35.00	1	5	N/A
2	15	30.00	2	5	3.5
3	15	30.00	2	5	3.5
4	24	40.00	2	5	3.25
5	18	38.00	2	5	6.15
6	15	30.00	1	5	N/A
7	18	31.00	1	5	N/A

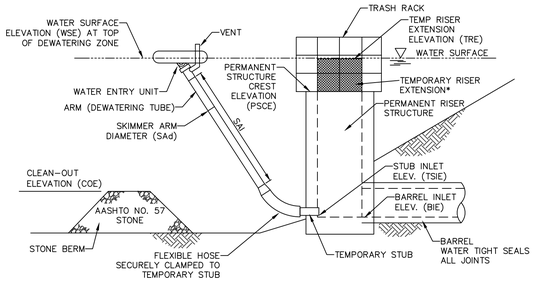
NOTES:

ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT.

COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS

NOT TO SCALE



SECTION VIEW

BASIN NO.	WATER SURFACE ELEV. WSE (FT)	SKIMMER							
		ORIFICE		ARM			FLEXIBLE HOSE		
		DIA. (IN)	HEAD (FT)	DIA. SAd (IN)	LENGTH SAL (FT)	MAT'L	DIA. (IN)	LENGTH (IN)	MAT'L
1	2065.00	2.4	1.35	2.5	4	Sch 40 pvc	2.5	12	Sch 40
2	2081.00	2.6	1.20	3.0	4	Sch 40 pvc	3.0	12	Sch 40
3	2093.00	2.8	2.25	5.0	4	Sch 40 pvc	5.0	12	Sch 40
4	2095.00	3.4	2.25	4.0	4	Sch 40 pvc	4.0	12	Sch 40
5	2093.00	3.1	3.00	4.0	5	Sch 40 pvc	4.0	12	Sch 40
6	2062.75	4.2	3.00	5.0	5	Sch 40 pvc	5.0	12	Sch 40
7	2081.00	3.7	3.00	1.5	5	Sch 40 pvc	5	12	Sch40

NOTES:

ALL ORIFICES ON PERMANENT RISER BELOW TEMPORARY RISER EXTENSION SHALL HAVE WATER-TIGHT TEMPORARY SEALS PROVIDED. TEMPORARY STUB INVERT ELEVATION SHALL BE SET AT OR BELOW SEDIMENT CLEAN-OUT ELEVATION.

A ROPE SHALL BE ATTACHED TO THE SKIMMER ARM TO FACILITATE ACCESS TO THE SKIMMER ONCE INSTALLED.

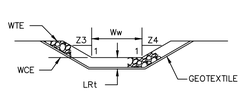
SKIMMER SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ANY MALFUNCTIONING SKIMMER SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.

ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED SO AS TO ALLOW THE SKIMMER TO RESPOND TO FLUCTUATING WATER ELEVATIONS.

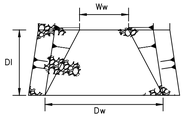
SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE OR THE TOP OF THE STONE BERM. SEE STANDARD CONSTRUCTION DETAIL #7-3 FOR CONFIGURATION OF STONE BERM.

SKIMMER ATTACHED TO PERMANENT RISER

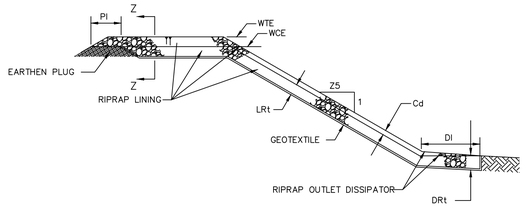
NOT TO SCALE



WEIR
SECTION Z-Z



RIPRAP OUTLET DISSIPATOR
PLAN VIEW



EMBANKMENT SECTION ALONG EMERGENCY SPILLWAY

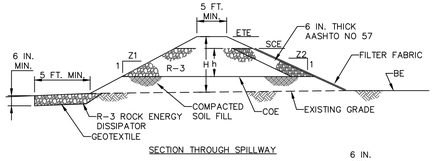
BASIN/ TRAP NO.	WEIR					LINING		CHANNEL		DISSIPATOR			
	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	RIPRAP SIZE (R-_)	RIPRAP THICK. LRt (IN)	Z5 (FT)	DEPTH Cd (FT)	LENGTH Dl (FT)	WIDTH Dw (FT)	RIPRAP SIZE (R-_)	RIPRAP THICK. DRt (IN)
TRAP-1	3	3	2100.00	2098.50	10	3	9	3	3	5	12	3	5
BASIN-1	3	3	2066.00	2064.50	10	3	9	3	3	5	12	3	5
BASIN-2	3	3	2082.00	2080.75	51	3	9	3	3	5	55	3	5
BASIN-3	3	3	2094.00	2092.75	75	3	9	3	3	5	80	3	5
BASIN-4	3	3	2096.00	2094.25	55	3	9	3	3	5	60	3	5
BASIN-5	3	3	2094.00	2092.75	35	3	9	3	3	5	40	3	5
BASIN-6	3	3	2064.00	2062.50	45	3	9	3	3	5	50	3	5

NOTES:

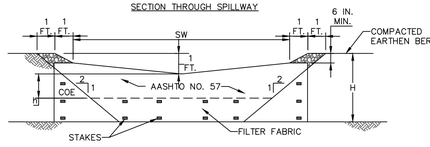
DIMENSION Pl SHALL BE 5' MINIMUM.
DISPLACED RIPRAP WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.

SEDIMENT BASIN EMERGENCY SPILLWAY WITH RIPRAP LINING

NOT TO SCALE



SECTION THROUGH SPILLWAY



INSIDE FACE

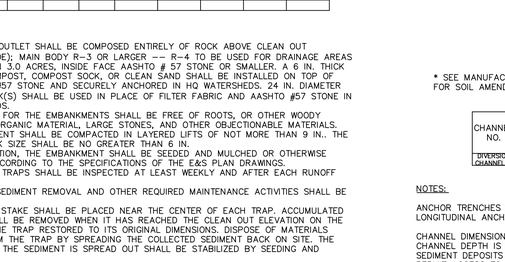
TRAP NO.	Z1 (FT)	Z2 (FT)	H (FT)	h (FT)	EMBANK. TOP ELEV. ETE (FT)	SPILLWAY CREST ELEV. SCE (FT)	CLEAN OUT ELEV. COE (FT)	BOTTOM ELEV. BE (FT)	SPILLWAY WIDTH SW (FT)
1	3	3	2.5	1.5	2100	2098.50	2098	2097.50	10

NOTES:

1. EMBANKMENT OUTLET SHALL BE COMPOSED ENTIRELY OF ROCK ABOVE CLEAN OUT ELEVATION (COE); MAIN BODY R-3 OR LARGER -- R-4 TO BE USED FOR DRAINAGE AREAS GREATER THAN 3.0 ACRES, INSIDE FACE AASHTO # 57 STONE OR SMALLER. A 6 IN. THICK LAYER OF COMPOST, COMPOST SOCK, OR CLEAN SAND SHALL BE INSTALLED ON TOP OF THE AASHTO #57 STONE AND SECURELY ANCHORED IN HQ WATERSHEDS. 24 IN. DIAMETER COMPOST SOCK(S) SHALL BE USED IN PLACE OF FILTER FABRIC AND AASHTO #57 STONE IN EV WATERSHEDS.
2. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 9 IN., THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 6 IN.
3. UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS.
4. ALL SEDIMENT TRAPS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT.
5. ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES SHALL BE PROVIDED.
6. A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH TRAP. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE TRAP BY SPREADING THE COLLECTED SEDIMENT BACK ON SITE. THE AREAS WHERE THE SEDIMENT IS SPREAD OUT SHALL BE STABILIZED BY SEEDING AND MULCHING.
7. CHECK EMBANKMENTS, SPILLWAYS, AND OUTLETS FOR EROSION, PIPING AND SETTLEMENT. CLOGGED OR DAMAGED SPILLWAYS AND/OR EMBANKMENTS SHALL BE IMMEDIATELY RESTORED TO THE DESIGN SPECIFICATIONS.
8. DISPLACED RIPRAP WITHIN THE SPILLWAY OR OUTLET PROTECTION SHALL BE REPLACED IMMEDIATELY.
9. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS INSIDE THE TRAP SHALL BE STABILIZED BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. TO ASSIST IN REMOVING SEDIMENT, WHICH MAY BE SATURATED, A DEVICE SUCH AS IS SHOWN IN STANDARD CONSTRUCTION DETAIL #7-18 MAY BE USED TO DEWATER THE SEDIMENT PRIOR TO ITS REMOVAL.

EMBANKMENT SEDIMENT TRAPS

NOT TO SCALE



BASIN OR TRAP NO.	BAFFLE		TEMPORARY RISER	BOTTOM
	OVERALL LENGTH Bal (FT)	HEIGHT Bah (FT)	CREST ELEV. TRCE (FT)	BOTTOM ELEV BE (FT)
TRAP-1	150	1.75	N/A	2097.50
BASIN-1	269	2.75	2064.00	2061.50
BASIN-2	200	4.25	2080.64	2077.00
BASIN-3	250	3.50	2092.25	2089.00
BASIN-4	250	3.50	2094.25	2091.00
BASIN-5	196	3	2091.75	2089.00
BASIN-6	155	4	2062.00	2059.00
BASIN-7	N/A	N/A	N/A	N/A

NOTES:

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

AN ACCEPTABLE ALTERNATIVE IS TO INSTALL A SUPER SILT FENCE AT THE BAFFLE LOCATION

IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.

BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS.

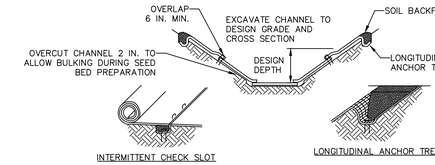
SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

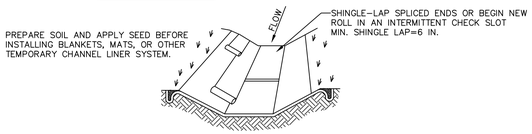
DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION.

BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

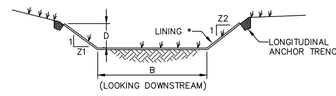
BAFFLE

NOT TO SCALE





ISOMETRIC VIEW



CHANNEL CROSS-SECTION

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

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
DIVERSION CHANNEL-1	OVERALL	1.5	1.0	7.5	3	3	VEGETATION

NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

VEGETATED CHANNEL

NOT TO SCALE

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	2.64
20	5	3:1	5.19	3.78

PERMANENT SWALE TABLE

NOT TO SCALE

NO.	DATE	REVISION
4	04-28-25	REV PER NEW TOPOGRAPHY, POI, RCE, AND ELECTRICAL LAYOUT
3	10-31-24	CFS, SWITCH YARD, GATES, ROAD GRADING, RCE & CWO REMOVALS
2	8-21-24	REV PER NEW SOLAR EQUIPMENT
1	10-16-20	REV PER MCCD 10-06-20 COMMENTS

OWNER: ENERGIX RENEWABLES

PLAN PREPARER: wsp

PLAN: EROSION AND SEDIMENT POLLUTION CONTROL PLAN

LOCATION: MCKEAN COUNTY, PA

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH C. SCOTT — ENGINEER — PE085120

SCALE: 100 0 100 200 scale feet — 1" = 100'

PROJECT: CLERMONT SOLAR PROJECT

SHEET TITLE: EROSION CONTROL DETAILS 4

DATE:	PROJECT NO:	SHEET:	PAGE:
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