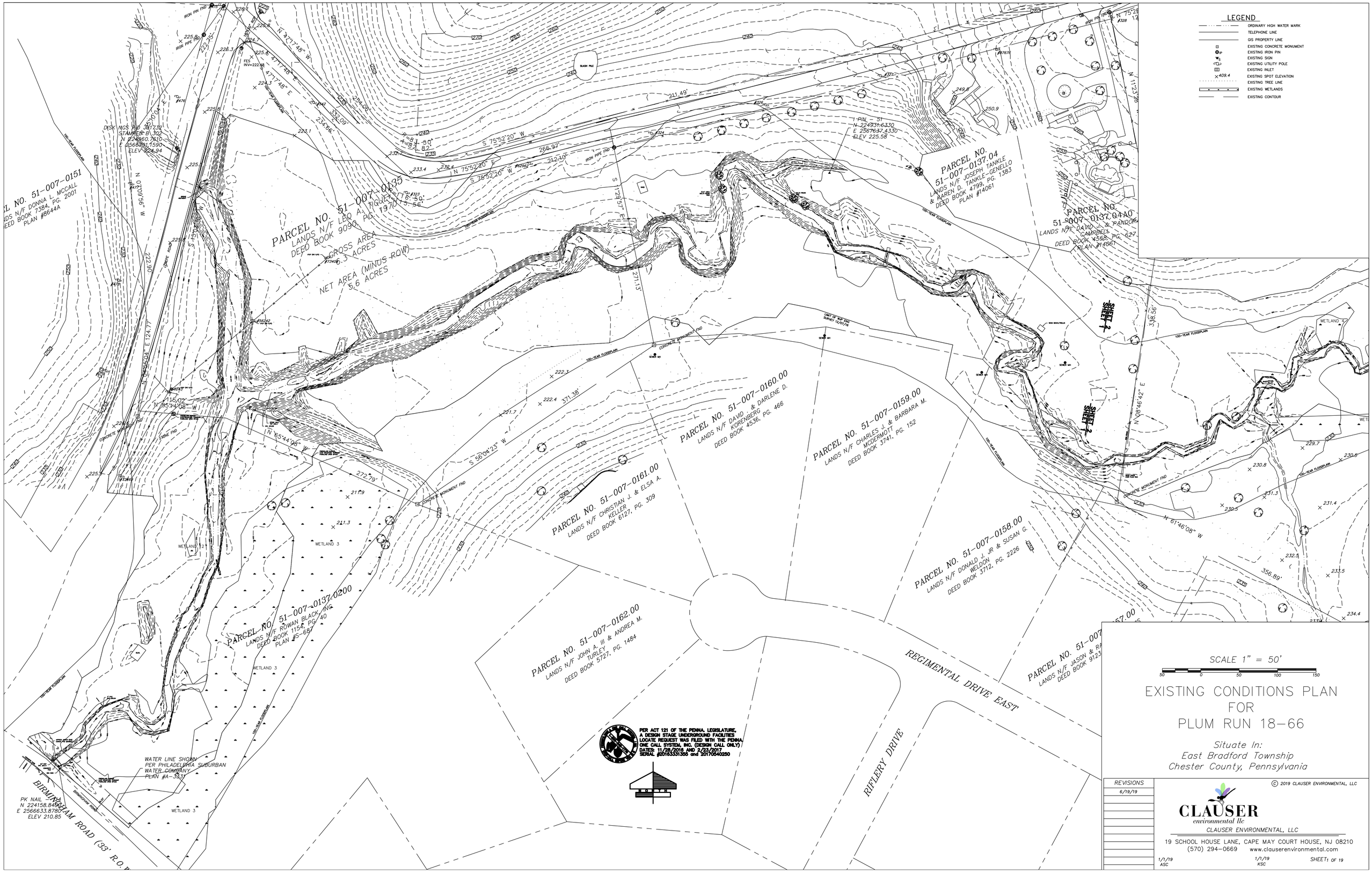
LEGEND
ORDINARY HIGH WATER MARK
TELEPHONE LINE
GIS PROPERTY LINE
EXISTING CONCRETE MONUMENT
EXISTING IRON PIN
EXISTING SIGN
EXISTING UTILITY POLE
EXISTING INLET
EXISTING SPOT ELEVATION
EXISTING TREE LINE
EXISTING WETLANDS
EXISTING CONTOUR
PARCEL NO. 51-007-0135
LANDS N/F LEO A. TIGUE
DEED BOOK 9090, PG. 1970
GROSS AREA
6.3 ACRES
NET AREA (MINUS ROW)
5.6 ACRES
PARCEL NO. 51-007-0137.04
LANDS N/F JOSEPH TANKLE & KAREN D. TANKLE-GENELLO
DEED BOOK 4799, PG. 1383
PLAN #14061
PARCEL NO. 51-007-0137.04A0
LANDS N/F DAVID J. & PANDORA CAMPBELL
DEED BOOK 4558, PG. 627
PLAN #14061
PARCEL NO. 51-007-0160.00
LANDS N/F DAVID & DARLENE D. KORENBERG
DEED BOOK 4536, PG. 466
PARCEL NO. 51-007-0159.00
LANDS N/F CHARLES J. & BARBARA M. MCDERMOTT
DEED BOOK 3741, PG. 152
PARCEL NO. 51-007-0161.00
LANDS N/F CHRISTIAN J. & ELSA A. KELLER
DEED BOOK 6127, PG. 309
PARCEL NO. 51-007-0158.00
LANDS N/F DONALD J. JR & SUSAN G. WELDON
DEED BOOK 3712, PG. 2226
PARCEL NO. 51-007-0162.00
LANDS N/F JOHN A. III & ANDREA M. TURLEY
DEED BOOK 5727, PG. 1484
PARCEL NO. 51-007-0137.0200
LANDS N/F ROWAN BLACK, INC.
DEED BOOK 1154, PG. 40
PLAN #S-687
PARCEL NO. 51-007-0151
LANDS N/F DONNA L. MCCALL
DEED BOOK 7384, PG. 2001
PLAN #8644A
PARCEL NO. 51-007-0157.00
LANDS N/F JASON & RA
DEED BOOK 9123
REGIMENTAL DRIVE EAST
RIFLERY DRIVE
BIRMINGHAM ROAD (33' R.O.W.)
WATER LINE SHOWN PER PHILADELPHIA SUBURBAN WATER COMPANY PLAN #A-3331
PK NAIL - 114
N 224158.8460
E 2566633.8780
ELEV 210.85
WETLAND 3
WETLAND 4
100-YEAR FLOODPLAIN
CONCRETE MONUMENT FND
SLASH PILE
SHEET 2
SHEET 1
PER ACT 121 OF THE PENNA. LEGISLATURE, A DESIGN STAGE UNDERGROUND FACILITIES LOCATE REQUEST WAS FILED WITH THE PENNA. ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250
NORTH
SCALE 1" = 50'
50 0 50 100 150
EXISTING CONDITIONS PLAN
FOR
PLUM RUN 18-66
Situate In:
East Bradford Township
Chester County, Pennsylvania
REVISIONS
6/19/19
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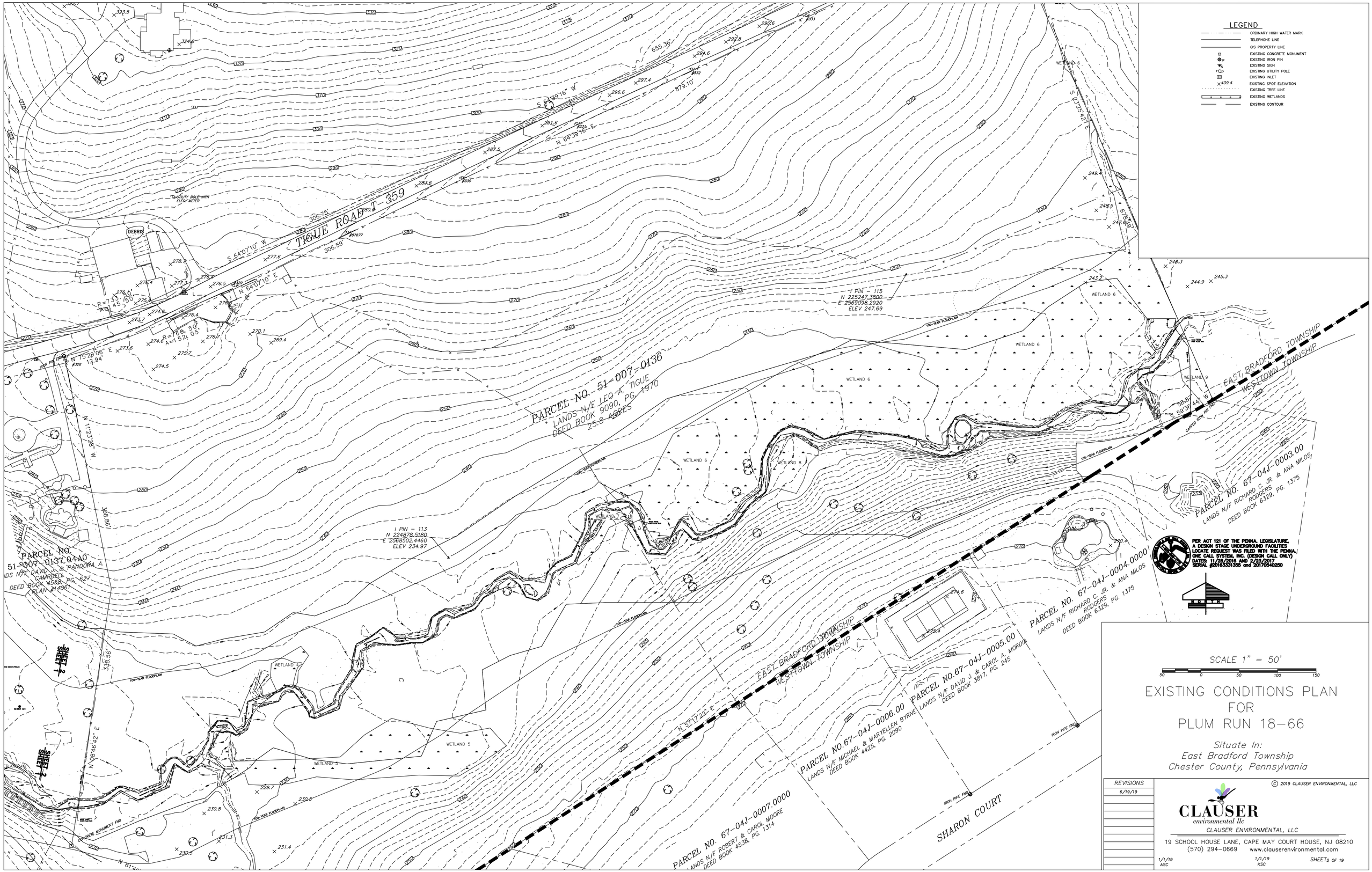
1/1/19 KSC
SHEET 1 OF 19




# EXISTING CONDITIONS PLAN FOR PLUM RUN 18-66

*Situate In:*
*East Bradford Township*
*Chester County, Pennsylvania*

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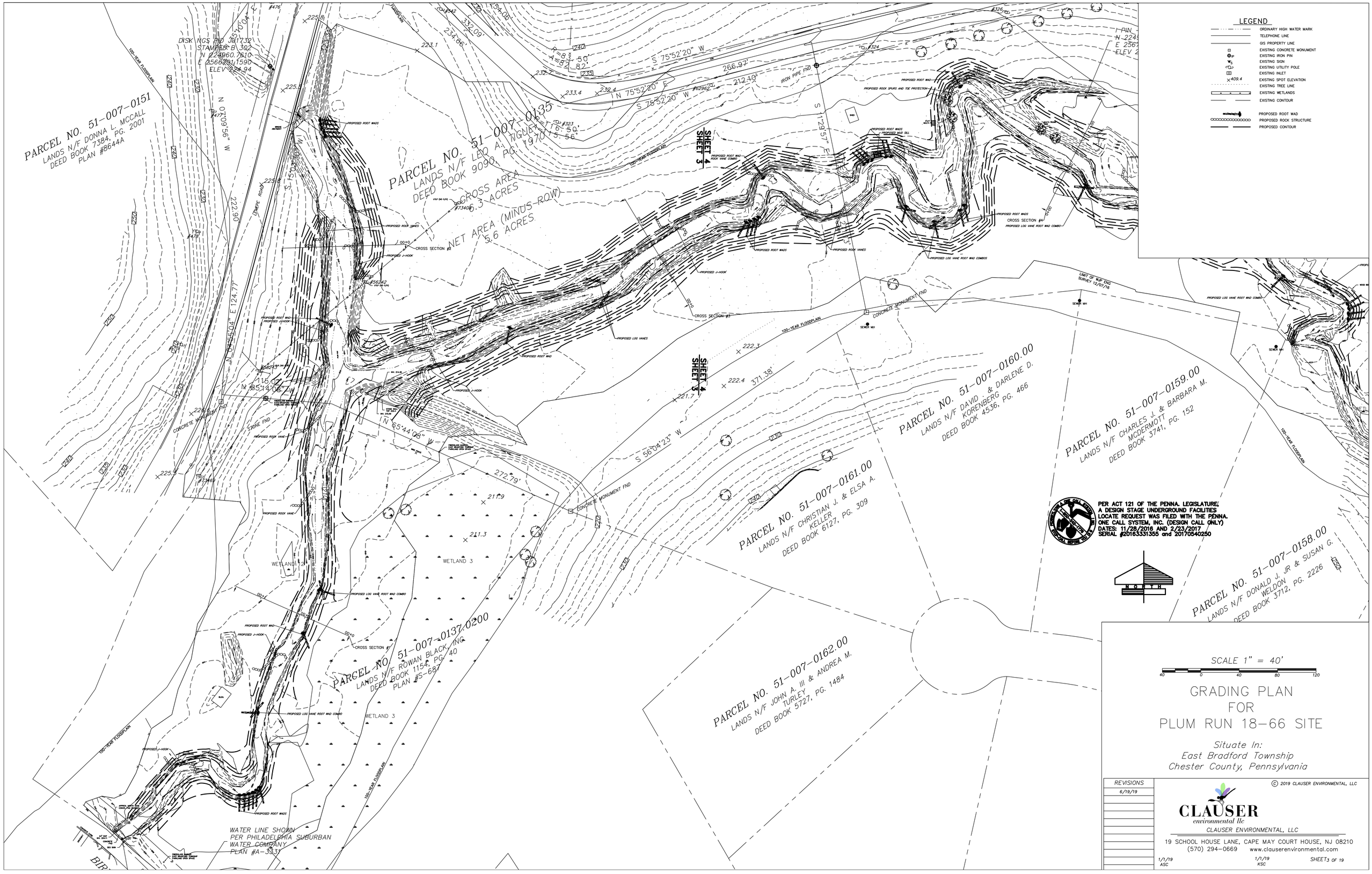
LEGEND
ORDINARY HIGH WATER MARK
TELEPHONE LINE
GIS PROPERTY LINE
EXISTING CONCRETE MONUMENT
EXISTING IRON PIN
EXISTING SIGN
EXISTING UTILITY POLE
EXISTING INLET
EXISTING SPOT ELEVATION
EXISTING TREE LINE
EXISTING WETLANDS
EXISTING CONTOUR
PROPOSED ROOT WAD
PROPOSED ROCK STRUCTURE
PROPOSED CONTOUR
PARCEL NO. 51-007-0151
LANDS N/F DONNA L. MCCALL
DEED BOOK 7384, PG. 2001
PLAN #8644A
PARCEL NO. 51-007-0135
LANDS N/F LEO A. TIGUET
DEED BOOK 9090, PG. 1970
GROSS AREA
6.3 ACRES
NET AREA (MINUS ROW)
5.6 ACRES
PARCEL NO. 51-007-0160.00
LANDS N/F DAVID . & DARLENE D. KORENBERG
DEED BOOK 4536, PG. 466
PARCEL NO. 51-007-0159.00
LANDS N/F CHARLES J. & BARBARA M. MCDERMOTT
DEED BOOK 3741, PG. 152
PARCEL NO. 51-007-0161.00
LANDS N/F CHRISTIAN J. & ELSA A. KELLER
DEED BOOK 6127, PG. 309
PARCEL NO. 51-007-0158.00
LANDS N/F DONALD J. JR & SUSAN G. WELDON
DEED BOOK 3712, PG. 2226
PARCEL NO. 51-007-0162.00
LANDS N/F JOHN A. III & ANDREA M. TURLEY
DEED BOOK 5727, PG. 1484
PARCEL NO. 51-007-0137.0200
LANDS N/F ROWAN BLACK, INC.
DEED BOOK 1154, PG. 40
PLAN #S-687
WETLAND 3
WATER LINE SHOWN
PER PHILADELPHIA SUBURBAN
WATER COMPANY
PLAN #A-3331
PER ACT 121 OF THE PENNA. LEGISLATURE,
A DESIGN STAGE UNDERGROUND FACILITIES
LOCATE REQUEST WAS FILED WITH THE PENNA.
ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250
NORTH
SCALE 1" = 40'
40 0 40 80 120
GRADING PLAN
FOR
PLUM RUN 18-66 SITE
Situate In:
East Bradford Township
Chester County, Pennsylvania
REVISIONS
6/19/19
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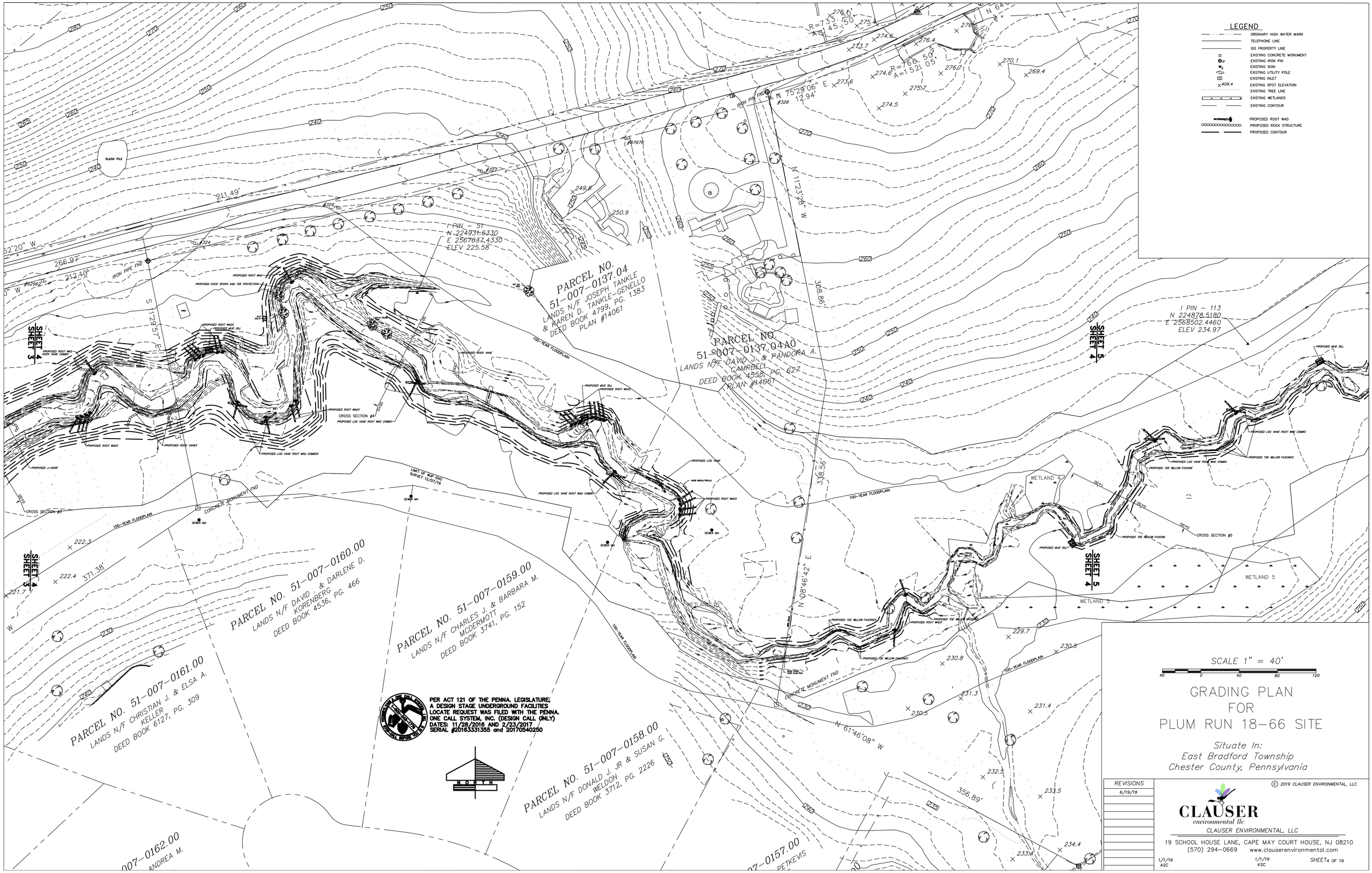
SHEET 3 OF 19


LEGEND
ORDINARY HIGH WATER MARK
TELEPHONE LINE
GIS PROPERTY LINE
EXISTING CONCRETE MONUMENT
EXISTING IRON PIN
EXISTING SIGN
EXISTING UTILITY POLE
EXISTING INLET
EXISTING SPOT ELEVATION
EXISTING TREE LINE
EXISTING WETLANDS
EXISTING CONTOUR
PROPOSED ROOT WAD
PROPOSED ROCK STRUCTURE
PROPOSED CONTOUR
PARCEL NO. 51-007-0137.04
LANDS N/F JOSEPH TANKLE & KAREN D. TANKLE-GENELLO
DEED BOOK 4799, PG. 1383
PLAN #14061
PARCEL NO. 51-007-0137.04A0
LANDS N/F DAVID J. & PANDORA A. CAMPBELL
DEED BOOK 4558, PG. 627
PLAN #14061
PARCEL NO. 51-007-0160.00
LANDS N/F DAVID . & DARLENE D. KORENBERG
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PARCEL NO. 51-007-0159.00
LANDS N/F CHARLES J. & BARBARA M. MCDERMOTT
DEED BOOK 3741, PG. 152
PARCEL NO. 51-007-0161.00
LANDS N/F CHRISTIAN J. & ELSA A. KELLER
DEED BOOK 6127, PG. 309
PARCEL NO. 51-007-0158.00
LANDS N/F DONALD J. JR & SUSAN G. WELDON
DEED BOOK 3712, PG. 2226
I PIN - 51
N 224931.6330
E 2567637.4330
ELEV 225.58
I PIN - 113
N 224878.5180
E 2568502.4460
ELEV 234.97
SLASH PILE
IRON PIPE FND
CONCRETE MONUMENT FND
100-YEAR FLOODPLAIN
WETLAND 4
WETLAND 5
CROSS SECTION #4
CROSS SECTION #5
SHEET 3
SHEET 4
SHEET 5
N 75°29'06" E
12.94'
N 11°23'28" W
308.86'
338.56'
N 08°46'42" E
N 61°46'08" W
356.89'
371.38'
211.49'
266.97'
212.40'
PER ACT 121 OF THE PENNA. LEGISLATURE, A DESIGN STAGE UNDERGROUND FACILITIES LOCATE REQUEST WAS FILED WITH THE PENNA. ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250
NORTH
SCALE 1" = 40'
40 0 40 80 120
GRADING PLAN
FOR
PLUM RUN 18-66 SITE
Situate In:
East Bradford Township
Chester County, Pennsylvania
REVISIONS
6/19/19
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1/1/19 ASC
1/1/19 KSC
SHEET 4 OF 19

## LEGEND

- ORDINARY HIGH WATER MARK
- TELEPHONE LINE
- GIS PROPERTY LINE
- EXISTING CONCRETE MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING INLET
- EXISTING SPOT ELEVATION
- EXISTING TREE LINE
- EXISTING WETLANDS
- EXISTING CONTOUR
- PROPOSED ROOT WAD
- PROPOSED ROCK STRUCTURE
- PROPOSED CONTOUR

T PIN – 115
N 225247.3800
E 2569098.2920
ELEV 247.69

I PIN – 113
N 224878.5180
E 2568502.4460
ELEV 234.97

PARCEL NO. 51-007-0136
LANDS N/F LEO A. TIGUE
DEED BOOK 9090, PG. 1970
25.8 ACRES

PARCEL NO. 67-04J-0003.00
LANDS N/F RICHARD C. JR. & ANA MILOS RODGERS
DEED BOOK 6329, PG. 1375

PARCEL NO. 67-04J-0004.0000
LANDS N/F RICHARD C. JR. & ANA MILOS RODGERS
DEED BOOK 6329, PG. 1375

PARCEL NO.67-04J-0005.00
LANDS N/F DAVID J. & CAROL A. MORDIA
DEED BOOK 3817, PG. 245

PARCEL NO.67-04J-0006.00
LANDS N/F MICHAEL & MARYELLEN BYRNE
DEED BOOK 4425, PG. 2090

EAST BRADFORD TOWNSHIP
WEST TOWN TOWNSHIP

TIGUE ROAD T-359

WETLAND 5
WETLAND 6
WETLAND 7
WETLAND 8
WETLAND 9

100-YEAR FLOODPLAIN

PROPOSED ROOT WAD
PROPOSED TOE WILLOW FASCINES
PROPOSED ROCK SPURS AND TOE PROTECTION
PROPOSED LIVE STAKE PLANTING BY BID
PROPOSED ROCK VANE
PROPOSED LOG VANE
PROPOSED LOG VANE ROOT WAD COMBO
PROPOSED MUD SILL
REMOVE EXISTING LOG FENCE STRUCTURE

CROSS SECTION #5
CROSS SECTION #6

IRON PIPE FND
CONCRETE MONUMENT FND
CAPPED IRON PIN FND

SHEET 5
SHEET 4

PER ACT 121 OF THE PENNA. LEGISLATURE, A DESIGN STAGE UNDERGROUND FACILITIES LOCATE REQUEST WAS FILED WITH THE PENNA. ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250

NORTH

SCALE 1" = 40'

40 0 40 80 120

# GRADING PLAN FOR PLUM RUN 18-66 SITE

*Situate In:*
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*Chester County, Pennsylvania*

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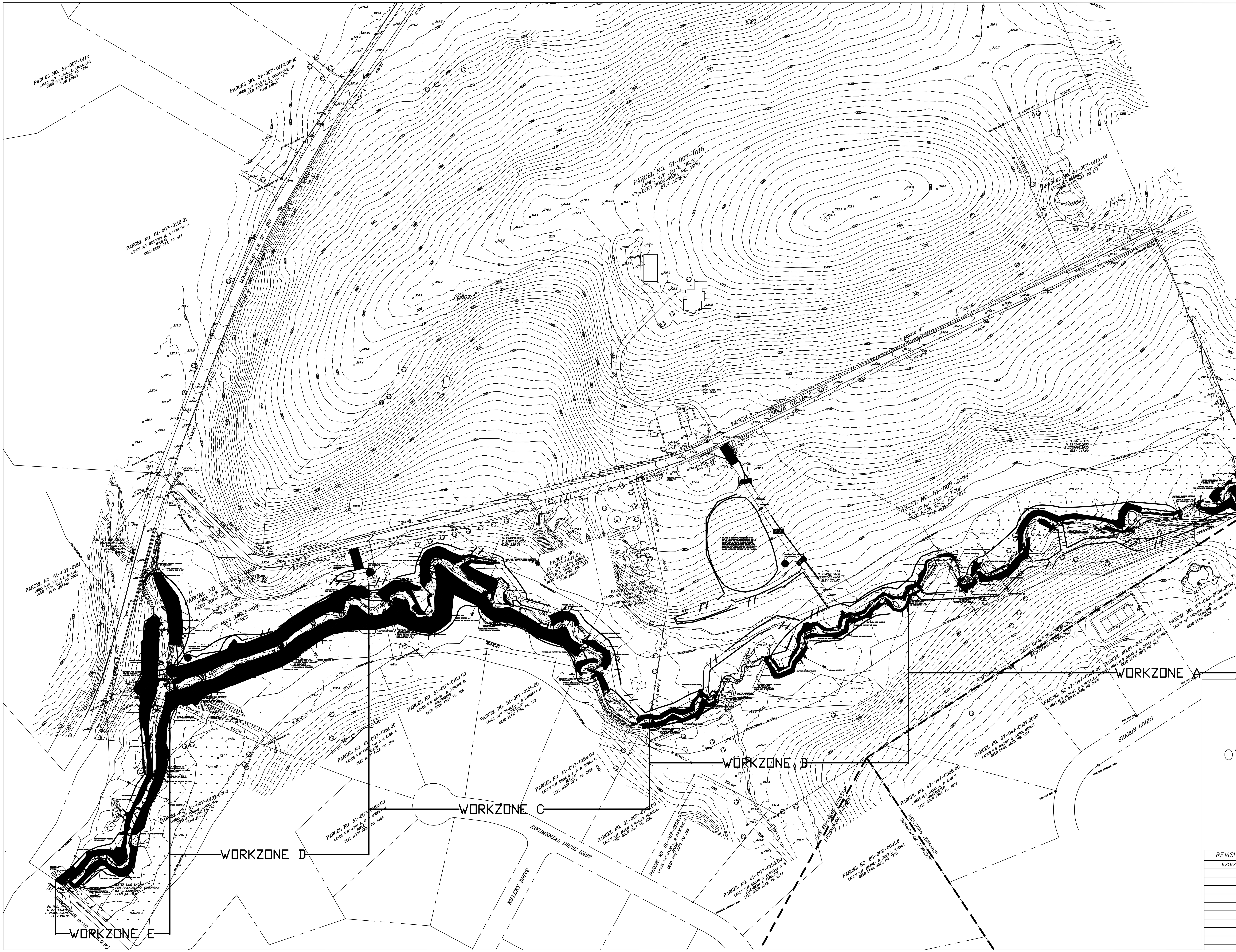


## LEGEND

- ORDINARY HIGH WATER MARK
- TELEPHONE LINE
- GIS PROPERTY LINE
- EXISTING CONCRETE MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING INLET
- EXISTING SPOT ELEVATION
- EXISTING TREE LINE
- EXISTING WETLANDS
- EXISTING CONTOUR
- LIMIT OF DISTURBANCE (LOD) (APPROX. 1.04 ACRES)
- PROPOSED ROOT WAD
- PROPOSED ROCK STRUCTURE
- PROPOSED CONTOUR
- PROPOSED EROSION CONTROL MATTING
- PROPOSED 12" COMPOST FILTER SOCK
- PROPOSED CONSTRUCTION ACCESS
- PROPOSED WATERBAR

**PER ACT 121 OF THE PENNA. LEGISLATURE, A DESIGN STAGE UNDERGROUND FACILITIES LOCATE REQUEST WAS FILED WITH THE PENNA. ONE CALL SYSTEM, INC. (DESIGN CALL ONLY) DATES: 11/28/2016 AND 2/23/2017 SERIAL #20163331355 and 20170540250**

SCALE 1" = 100'

100 0 100 200 300

# OVERALL EROSION AND SEDIMENT CONTROL PLAN FOR PLUM RUN 18-66 SITE

*Situate In:*
*East Bradford Township*
*Chester County, Pennsylvania*

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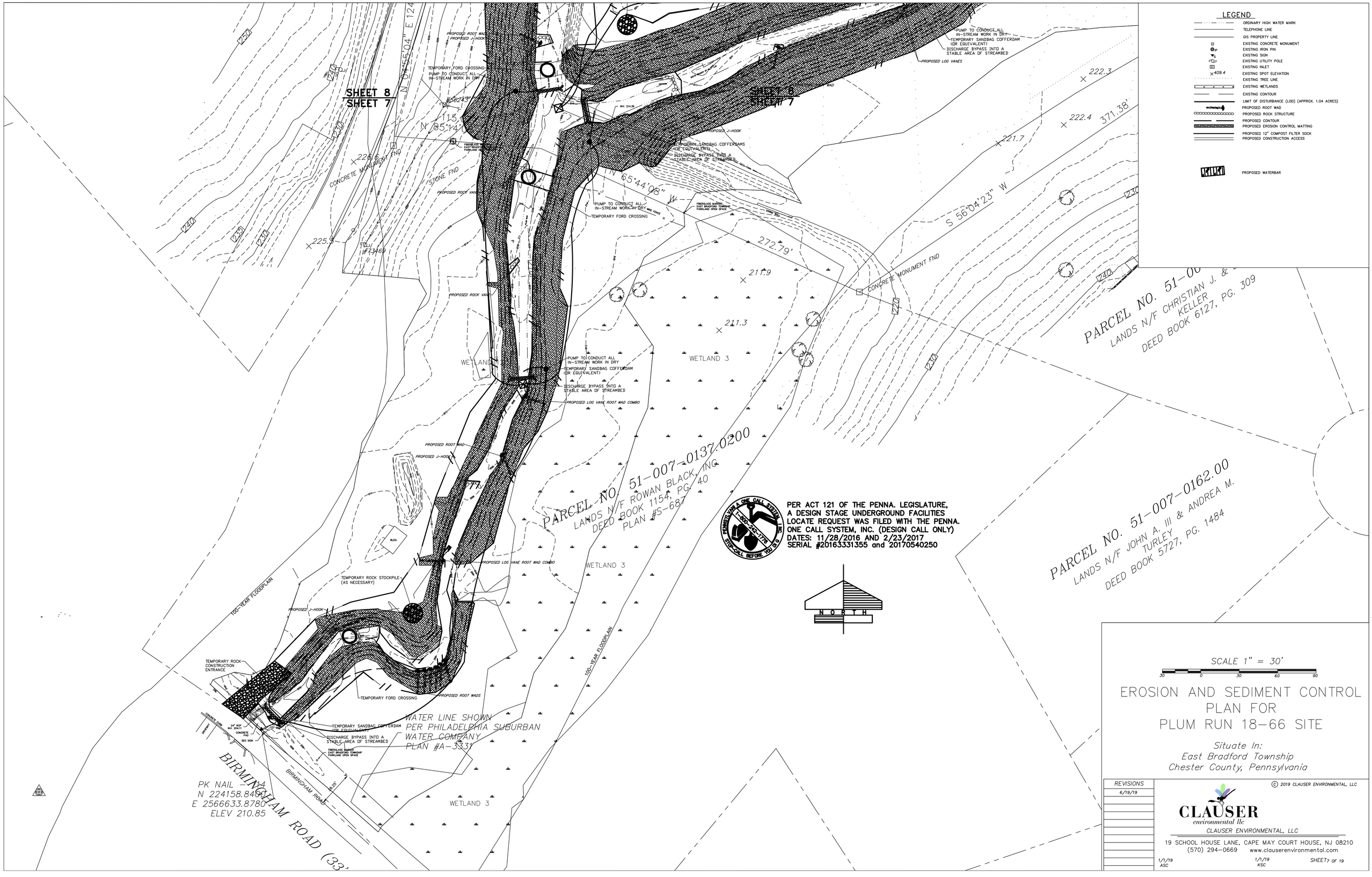
LEGEND
ORDINARY HIGH WATER MARK
TELEPHONE LINE
GIS PROPERTY LINE
EXISTING CONCRETE MONUMENT
EXISTING IRON PIN
EXISTING SIGN
EXISTING UTILITY POLE
EXISTING INLET
EXISTING SPOT ELEVATION
EXISTING TREE LINE
EXISTING WETLANDS
EXISTING CONTOUR
LIMIT OF DISTURBANCE (LOD) (APPROX. 1.04 ACRES)
PROPOSED ROOT WAD
PROPOSED ROCK STRUCTURE
PROPOSED CONTOUR
PROPOSED EROSION CONTROL MATTING
PROPOSED 12" COMPOST FILTER SOCK
PROPOSED CONSTRUCTION ACCESS
PROPOSED WATERBAR
SHEET 8
SHEET 7
N 04°55'04" E 124
N 85°14'
N 65°44'08" W
S 56°04'23" W
272.79'
371.38'
PARCEL NO. 51-007-0137.0200
LANDS N/F ROWAN BLACK, INC.
DEED BOOK 1154, PG. 40
PLAN #S-687
PARCEL NO. 51-007-0162.00
LANDS N/F JOHN A. III & ANDREA M. TURLEY
DEED BOOK 5727, PG. 1484
PARCEL NO. 51-00
LANDS N/F CHRISTIAN J. & KELLER
DEED BOOK 6127, PG. 309
WETLAND 3
WETLAND 3
WETLAND 3
100-YEAR FLOODPLAIN
100-YEAR FLOODPLAIN
PROPOSED ROOT WAD
PROPOSED J-HOOK
PROPOSED LOG VANE ROOT WAD COMBO
PROPOSED ROCK VANE
PROPOSED ROOT WADS
TEMPORARY FORD CROSSING
PUMP TO CONDUCT ALL IN-STREAM WORK IN DRY
TEMPORARY SANDBAG COFFERDAM (OR EQUIVALENT)
DISCHARGE BYPASS INTO A STABLE AREA OF STREAMBED
TEMPORARY ROCK STOCKPILE (AS NECESSARY)
TEMPORARY ROCK CONSTRUCTION ENTRANCE
CONCRETE MONUMENT FND
STONE FND
BIRMINGHAM ROAD
BIRMINGHAM ROAD (33'
WATER LINE SHOWN PER PHILADELPHIA SUBURBAN WATER COMPANY PLAN #A-3331
PK NAIL
N 224158.8400
E 2566633.8780
ELEV 210.85
PER ACT 121 OF THE PENNA. LEGISLATURE, A DESIGN STAGE UNDERGROUND FACILITIES LOCATE REQUEST WAS FILED WITH THE PENNA. ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250
NORTH
SCALE 1" = 30'
30 0 30 60 90
EROSION AND SEDIMENT CONTROL PLAN FOR PLUM RUN 18-66 SITE
Situate In:
East Bradford Township
Chester County, Pennsylvania
REVISIONS
6/19/19
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1/1/19 KSC
SHEET 7 OF 19

PER ACT 121 OF THE PENNA. LEGISLATURE,
A DESIGN STAGE UNDERGROUND FACILITIES
LOCATE REQUEST WAS FILED WITH THE PENNA.
ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP - CALL BEFORE YOU DIG

## LEGEND

- ORDINARY HIGH WATER MARK
- TELEPHONE LINE
- GIS PROPERTY LINE
- EXISTING CONCRETE MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING INLET
- EXISTING SPOT ELEVATION
- EXISTING TREE LINE
- EXISTING WETLANDS
- EXISTING CONTOUR
- LIMIT OF DISTURBANCE (LOD) (APPROX. 1.04 ACRES)
- PROPOSED ROOT WAD
- PROPOSED ROCK STRUCTURE
- PROPOSED CONTOUR
- PROPOSED EROSION CONTROL MATTING
- PROPOSED 12" COMPOST FILTER SOCK
- PROPOSED CONSTRUCTION ACCESS
- PROPOSED WATERBAR

N O R T H

MARBLE MONUMENT FND

IRON PIN FND #475

IRON PIPE FND

HEADWALL
INVERT=222.95

18"x40" RCP

FES
INV=222.48

100-YEAR FLOODPLAIN

DISK NGS PID JD1732
STAMPED B 302
N 224960.7610
E 2566791.1590
ELEV 274.94

N 21°05'29" E

N 47°17'48" W

S 47°17'48" E

N 75°52'20" E

S 75°52'20" W

N 75°52'20" E

N 07°09'56" W

N 01°55'04" E 124.77'

N 85°14'0

S 15°0

PARCEL NO. 51-007-0135
LANDS N/F LEO A. TIGUE
DEED BOOK 9090, PG. 1970

GROSS AREA
6.3 ACRES

NET AREA (MINUS ROW)
5.6 ACRES

SLASH PILE

PIN = 51
N 224931.6330
E 2567637.4330
ELEV 225.58

PLACE TREE PROTECTIVE FENCE ALONG DRIP-LINE OF THIS TREE TO MINIMIZE COMPACTION

TEMPORARY SANDBAG COFFERDAM (OR EQUIVALENT)
PUMP TO CONDUCT ALL IN-STREAM WORK IN DRY
PROPOSED ROOT WADS
PROPOSED ROCK VANES
PROPOSED J-HOOK
TEMPORARY ROCK STOCKPILE (AS NECESSARY)
TEMPORARY FORD CROSSING
PUMP TO CONDUCT ALL IN-STREAM WORK IN DRY
TEMPORARY SANDBAG COFFERDAM (OR EQUIVALENT)
DISCHARGE BYPASS INTO A STABLE AREA OF STREAMBED
PROPOSED LOG VANES
TEMPORARY ROCK CONSTRUCTION ENTRANCE
TEMPORARY ROCK STOCKPILE (AS NECESSARY)
PROPOSED ROCK SPURS AND TOE PROTECTION
PROPOSED MUD-SILL
PROPOSED ROCK VANE
PROPOSED ROOT WAD/ROCK VANE COMBO
CONCRETE MONUMENT FND
SEWER MH
100-YEAR FLOODPLAIN

SHEET 8 / SHEET 7
SHEET 9 / SHEET 8

SCALE 1" = 30'
30 0 30 60 90

# EROSION AND SEDIMENT CONTROL PLAN FOR PLUM RUN 18-66 SITE

*Situate In:*
*East Bradford Township*
*Chester County, Pennsylvania*

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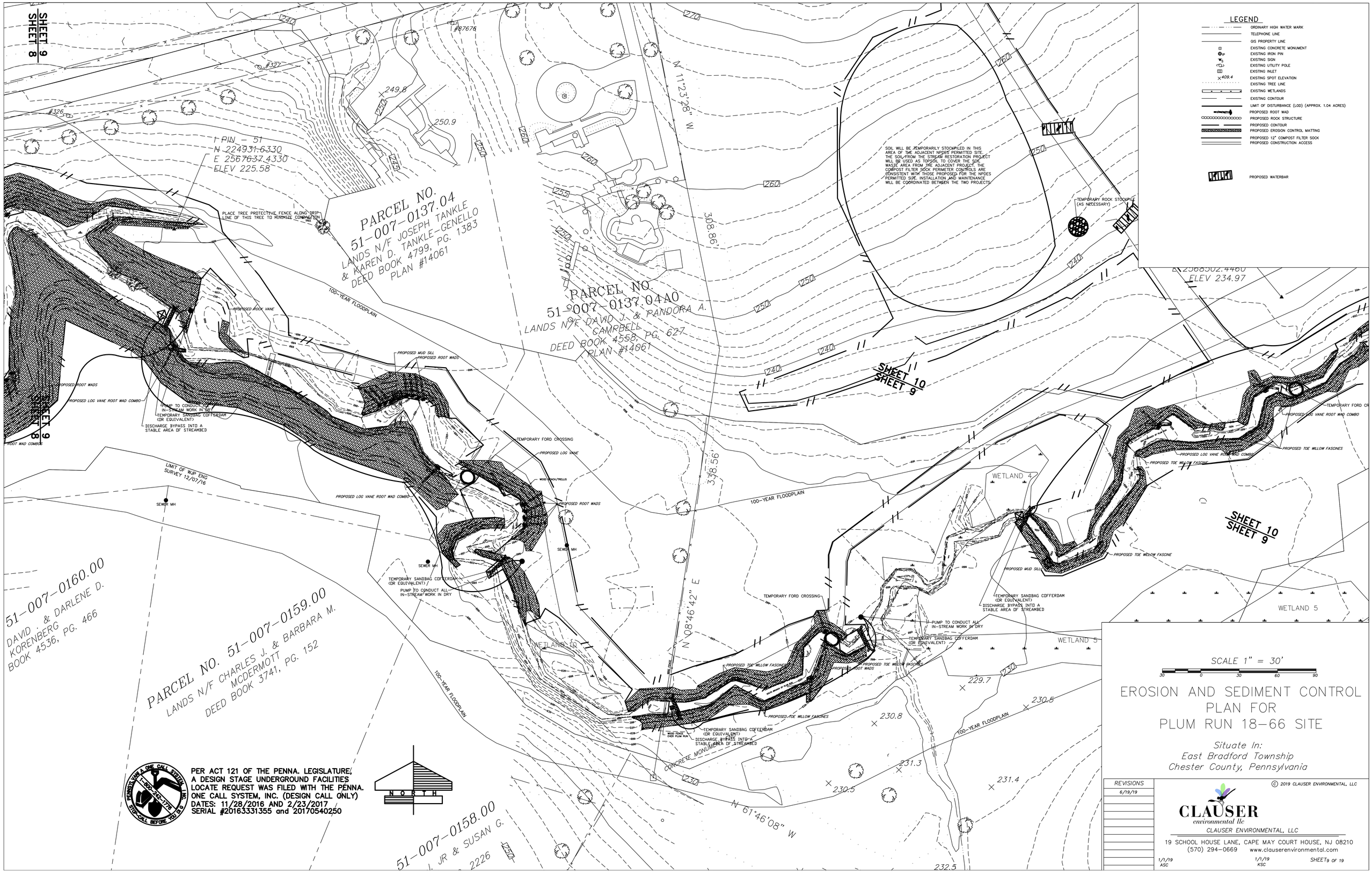


PER ACT 121 OF THE PENNA. LEGISLATURE, A DESIGN STAGE UNDERGROUND FACILITIES LOCATE REQUEST WAS FILED WITH THE PENNA. ONE CALL SYSTEM, INC. (DESIGN CALL ONLY) DATES: 11/28/2016 AND 2/23/2017 SERIAL #20163331355 and 20170540250

# EROSION AND SEDIMENT CONTROL PLAN FOR PLUM RUN 18-66 SITE

*Situate In:*
*East Bradford Township*
*Chester County, Pennsylvania*

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1/1/19 ASC | 1/1/19 KSC | SHEET 9 OF 19

TIGUE ROAD T-359

UTILITY POLE WITH ELEC. METER

DEBRIS

S 64°07'10" W 306.75'

N 64°07'10" E 306.59'

#87677

#328

R=733.50'
A=145.50'

R=166.50'
A=152.05'

TEMPORARY ROCK CONSTRUCTION ENTRANCE

IRON PIN FND

N 75°28'06" E 12.94'

N 11°23'28" W 368.86'

S 11°23'28" E 368.59'

SOIL WILL BE TEMPORARILY STOCKPILED IN THIS AREA OF THE ADJACENT NPDES PERMITTED SITE. THE SOIL FROM THE STREAM RESTORATION PROJECT WILL BE USED AS TOPSOIL TO COVER THE SOIL WASTE AREA FROM THE ADJACENT PROJECT. THE COMPOST FILTER SOCK PERIMETER CONTROLS ARE CONSISTENT WITH THOSE PROPOSED FOR THE NPDES PERMITTED SITE. INSTALLATION AND MAINTENANCE WILL BE COORDINATED BETWEEN THE TWO PROJECTS.

TEMPORARY ROCK STOCKPILE (AS NECESSARY)

I PIN – 113
N 224878.5180
E 2568502.4460
ELEV 234.97

PARCEL NO. 51-007-0137.04A0
LANDS N/E DAVID J. & PANDORA A. CAMPBELL PG. 627
DEED BOOK 4558, PLAN #4061

PARCEL NO. 51-007-0136
LANDS N/E LEO A. TIGUE
DEED BOOK 9090, PG. 1970
25.8 ACRES

PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776
STOP-CALL BEFORE YOU DIG

PER ACT 121 OF THE PENNA. LEGISLATURE, A DESIGN STAGE UNDERGROUND FACILITIES LOCATE REQUEST WAS FILED WITH THE PENNA. ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250

N O R T H

LEGEND

- ORDINARY HIGH WATER MARK
- TELEPHONE LINE
- GIS PROPERTY LINE
- EXISTING CONCRETE MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING INLET
- 409.4 EXISTING SPOT ELEVATION
- EXISTING TREE LINE
- EXISTING WETLANDS
- EXISTING CONTOUR
- LIMIT OF DISTURBANCE (LOD) (APPROX. 1.04 ACRES)
- PROPOSED ROOT WAD
- PROPOSED ROCK STRUCTURE
- PROPOSED CONTOUR
- PROPOSED EROSION CONTROL MATTING
- PROPOSED 12" COMPOST FILTER SOCK
- PROPOSED CONSTRUCTION ACCESS
- PROPOSED WATERBAR

WETLAND 4

WETLAND 6

WETLAND 7

100-YEAR FLOODPLAIN

TEMPORARY FORD CROSSING

PROPOSED LOG VANE

WOOD BRANCH/TRELLIS

PROPOSED ROOT WADS

PROPOSED LOG VANE ROOT WAD COMBO

PROPOSED TOE WILLOW FASCINES

REMOVE EXISTING LOG FENCE STRUCTURE

WOOD FENCE TO BE PLUM RUN

PROPOSED ROCK VANE

TEMPORARY SANDBAG COFFERDAM (OR EQUIVALENT) PUMP TO CONDUCT ALL IN-STREAM WORK IN DRY

SHEET 11
SHEET 10

SHEET 10
SHEET 9

SCALE 1" = 30'

30 0 30 60 90

# EROSION AND SEDIMENT CONTROL PLAN FOR PLUM RUN 18-66 SITE

*Situate In:*
*East Bradford Township*
*Chester County, Pennsylvania*

| REVISIONS |
|---|
| 6/19/19 |

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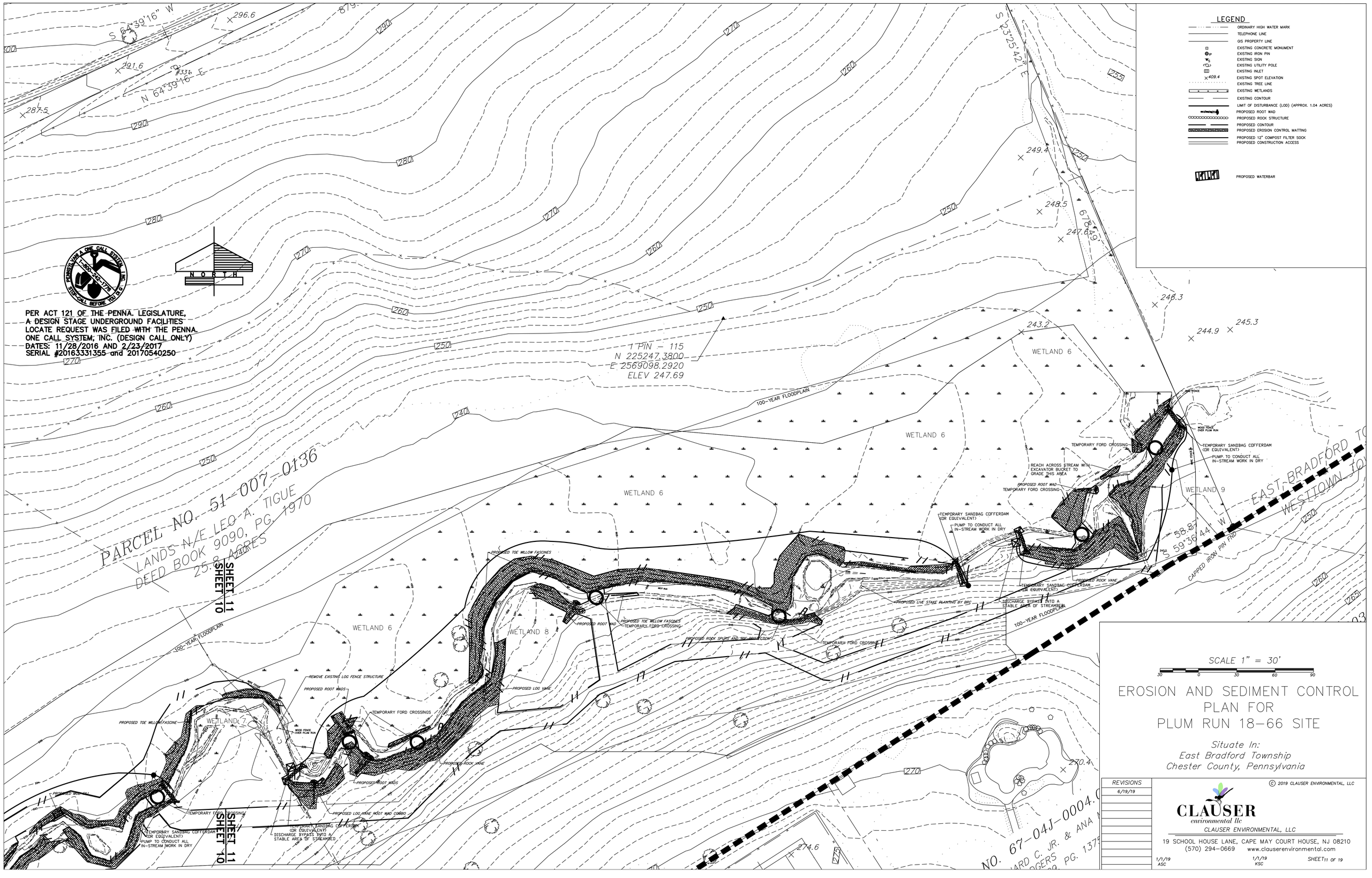
LEGEND
ORDINARY HIGH WATER MARK
TELEPHONE LINE
GIS PROPERTY LINE
EXISTING CONCRETE MONUMENT
EXISTING IRON PIN
EXISTING SIGN
EXISTING UTILITY POLE
EXISTING INLET
EXISTING SPOT ELEVATION
EXISTING TREE LINE
EXISTING WETLANDS
EXISTING CONTOUR
LIMIT OF DISTURBANCE (LOD) (APPROX. 1.04 ACRES)
PROPOSED ROOT WAD
PROPOSED ROCK STRUCTURE
PROPOSED CONTOUR
PROPOSED EROSION CONTROL MATTING
PROPOSED 12" COMPOST FILTER SOCK
PROPOSED CONSTRUCTION ACCESS
PROPOSED WATERBAR
PER ACT 121 OF THE PENNA. LEGISLATURE,
A DESIGN STAGE UNDERGROUND FACILITIES
LOCATE REQUEST WAS FILED WITH THE PENNA.
ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250
NORTH
PARCEL NO. 51-007-0136
LANDS N/E LEO A. TIGUE
DEED BOOK 9090, PG. 1970
25.8 ACRES
1 PIN - 115
N 225247.3800
E 2569098.2920
ELEV 247.69
WETLAND 6
WETLAND 7
WETLAND 8
WETLAND 9
100-YEAR FLOODPLAIN
EAST BRADFORD TO
WESTTOWN TO
SHEET 11
SHEET 10
SCALE 1" = 30'
30 0 30 60 90
EROSION AND SEDIMENT CONTROL
PLAN FOR
PLUM RUN 18-66 SITE
Situate In:
East Bradford Township
Chester County, Pennsylvania
REVISIONS
6/19/19
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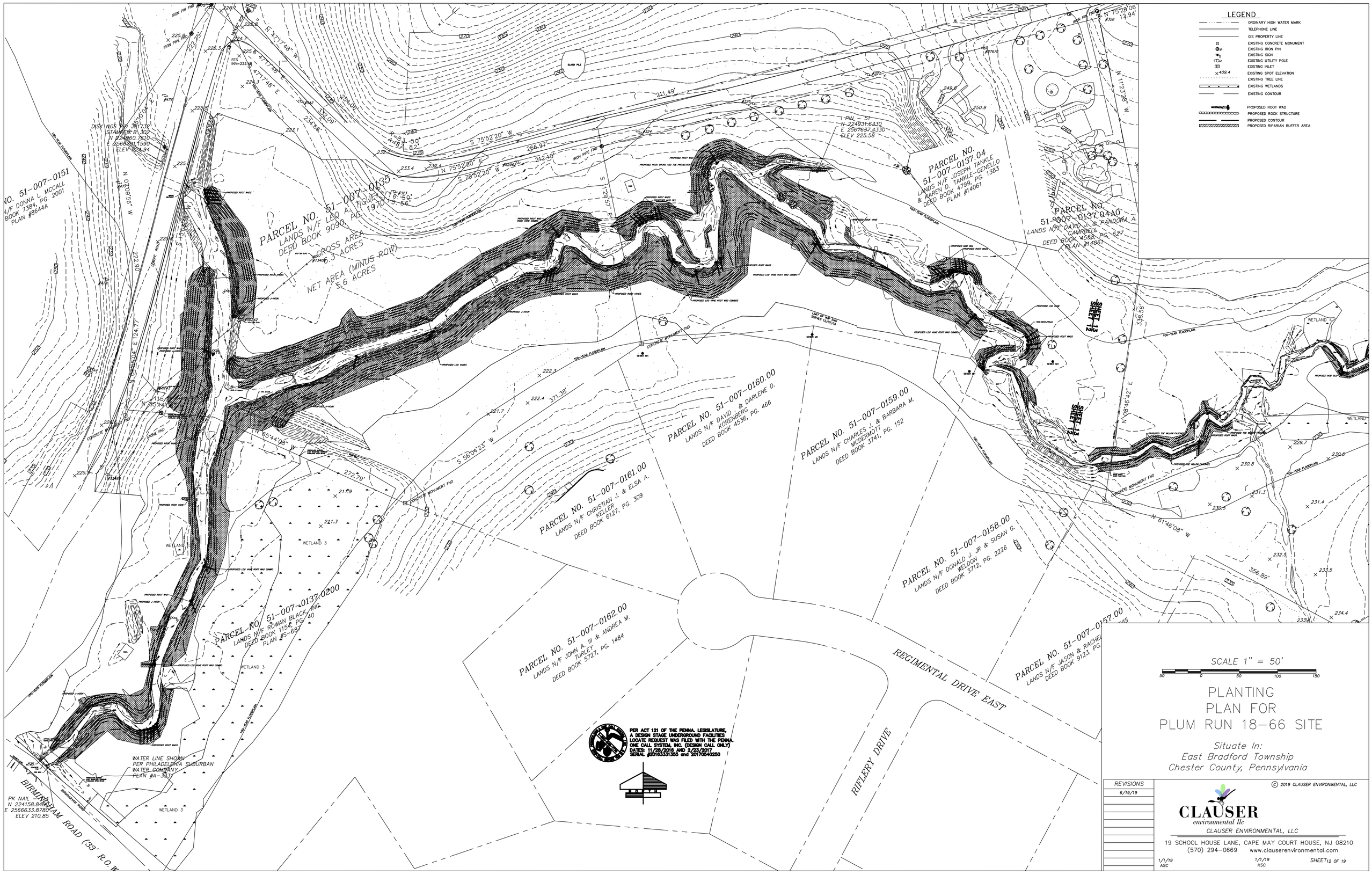
1/1/19 KSC
SHEET 11 OF 19




# PLANTING PLAN FOR PLUM RUN 18-66 SITE

*Situate In:*
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*Chester County, Pennsylvania*

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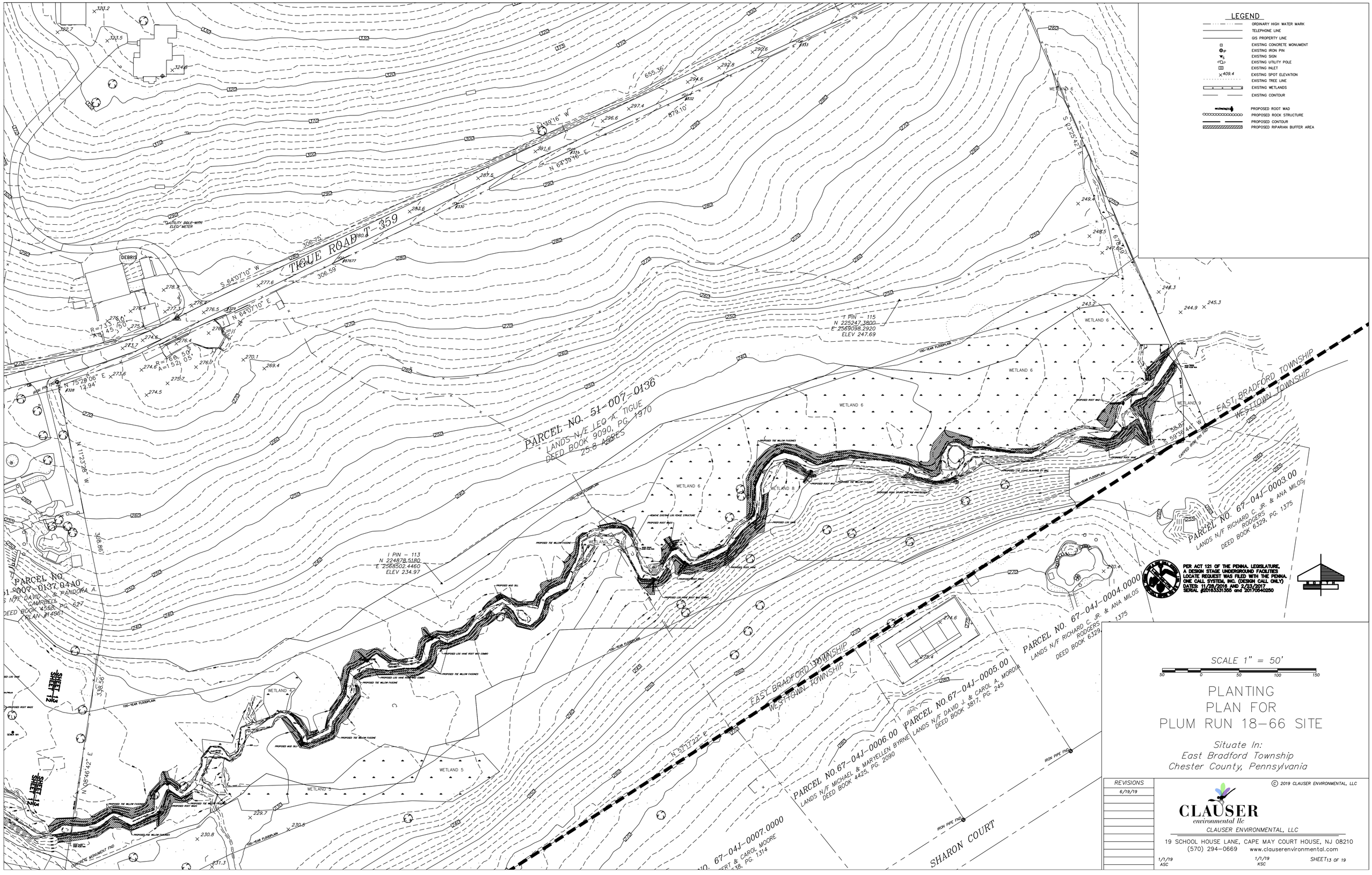


# PLANTING PLAN FOR PLUM RUN 18-66 SITE

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## LEGEND

- ORDINARY HIGH WATER MARK
- TELEPHONE LINE
- GIS PROPERTY LINE
- EXISTING CONCRETE MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- EXISTING INLET
- 409.4 EXISTING SPOT ELEVATION
- EXISTING TREE LINE
- EXISTING WETLANDS
- EXISTING CONTOUR
- LIMIT OF DISTURBANCE (LOD) (APPROX. 1.04 ACRES)
- PROPOSED ROOT WAD
- PROPOSED ROCK STRUCTURE
- PROPOSED CONTOUR
- PROPOSED EROSION CONTROL MATTING
- PROPOSED CONSTRUCTION ACCESS
- PROPOSED 12" COMPOST FILTER SOCK
- TEMPORARY WETLAND IMPACT
- PERMANENT WETLAND IMPACT
- TEMPORARY STREAM IMPACT
- PERMANENT STREAM IMPACT
- PROPOSED WATERBAR

PER ACT 121 OF THE PENNA. LEGISLATURE, A DESIGN STAGE UNDERGROUND FACILITIES LOCATE REQUEST WAS FILED WITH THE PENNA. ONE CALL SYSTEM, INC. (DESIGN CALL ONLY)
DATES: 11/28/2016 AND 2/23/2017
SERIAL #20163331355 and 20170540250

SCALE 1" = 50'

50 0 50 100 150

# IMPACT PLAN FOR PLUM RUN 18-66 SITE

*Situate In:*
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*Chester County, Pennsylvania*

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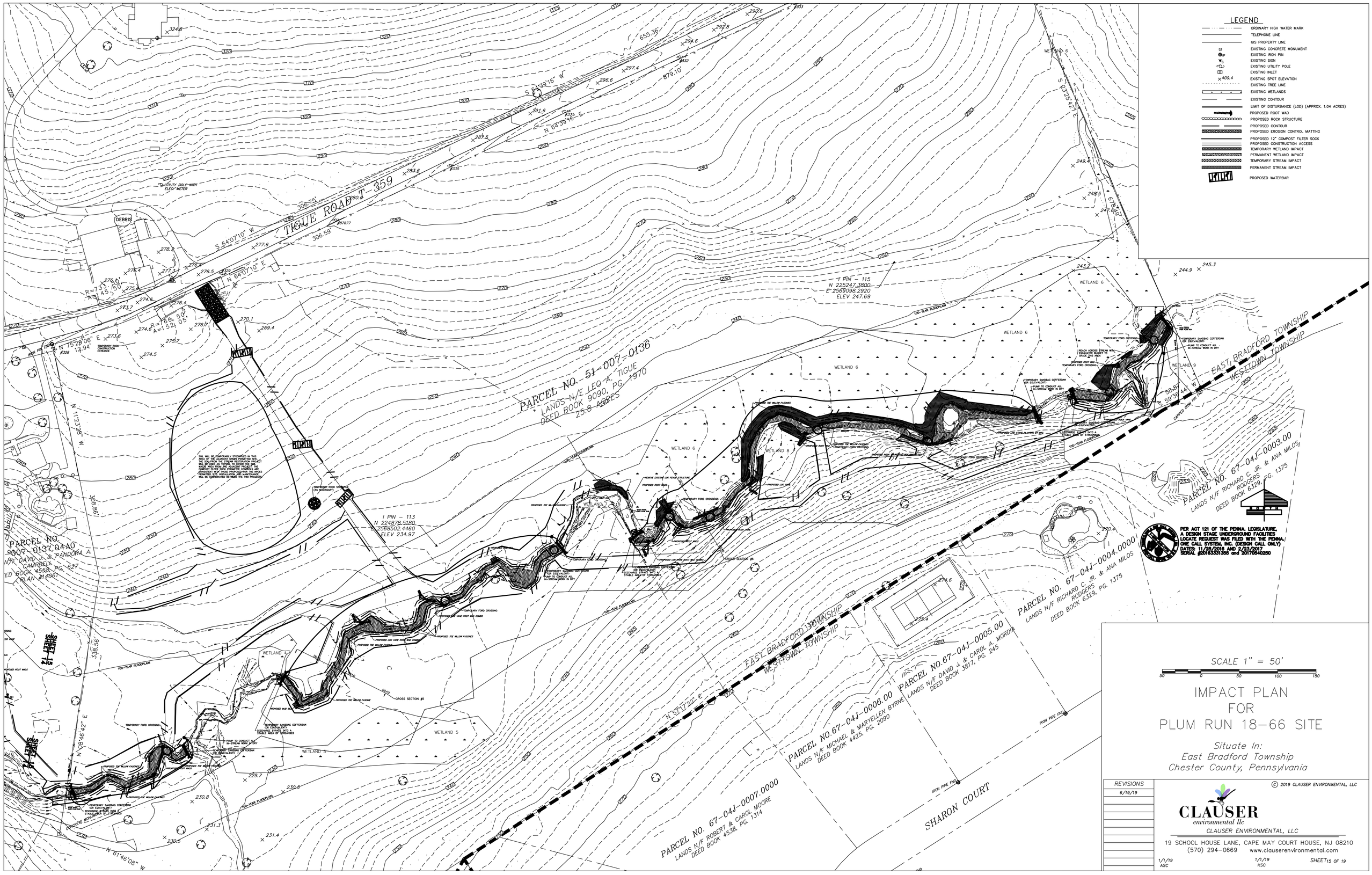


# IMPACT PLAN FOR PLUM RUN 18-66 SITE

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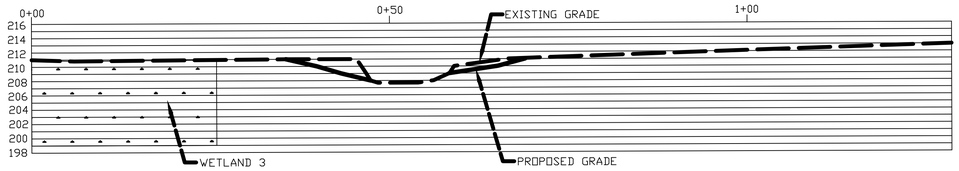
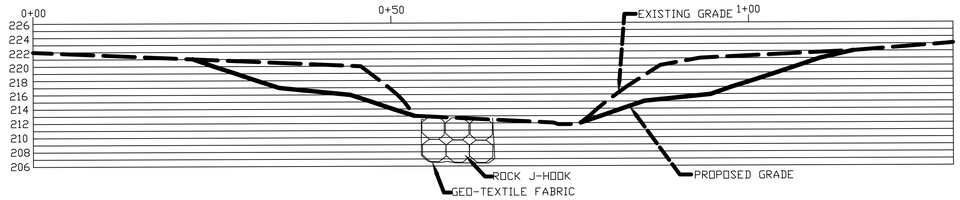
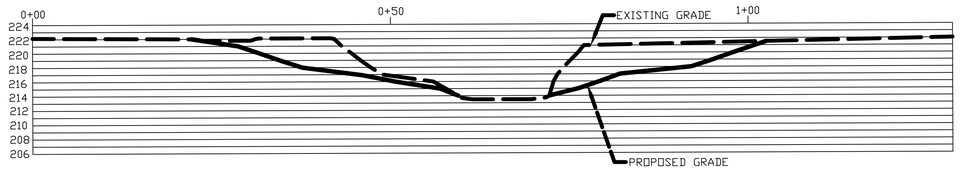
## CROSS SECTION #1




## CROSS SECTION #2




## CROSS SECTION #3

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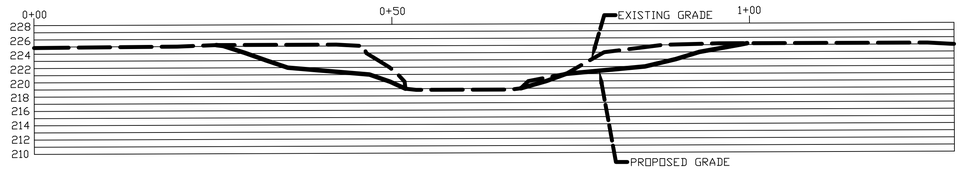
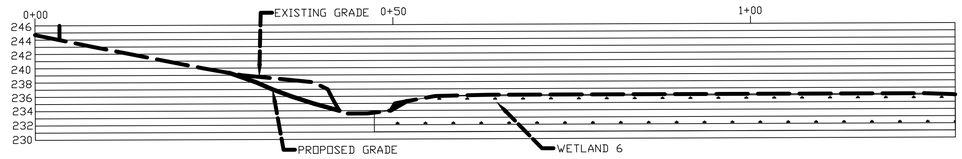



## CROSS SECTION #5

## CROSS SECTION #6




SCALE 1" = 5'

5 0 5 10 15

# CROSS SECTIONS FOR PLUM RUN 18-66 SITE

*Situate In:*
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## CONSTRUCTION SEQUENCE NOTES

THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.

THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED BY THE APPLICANT, SUBMITTED TO AND APPROVED BY THE CHESTER COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.

BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT.

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.

EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS.

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND THE CHESTER CONSERVATION DISTRICT TO AN ON-SITE MEETING. ALSO, AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.

## CONSTRUCTION SEQUENCE

1. INSTALL ROCK CONSTRUCTION ENTRANCES, TREE PROTECTIVE FENCE, AND COMPOST FILTER SOCK AT ALL PROPOSED LOCATIONS.
2. STAKE/FLAG ALL LIMIT OF DISTURBANCE (LOD) LINES FOR THE PROJECT.
3. INSTALL THE TEMPORARY FORD CROSSINGS AS SHOWN ON THE PROJECT PLANS BEFORE CROSSING STREAMBEDS.
4. WHEN WORKING WITHIN THE STREAM TO INSTALL IN-STREAM STRUCTURES, WORK IN THE DEWATERED STREAMBED THROUGH THE USE OF TEMPORARY COFFERDAMS (OR EQUIVALENT) AND PUMP BYPASS AND IN ACCORDANCE WITH THE SEQUENCE FOR WORKING WITHIN THE STREAM CHANNEL. LOCATIONS OF TEMPORARY COFFERDAMS AND PUMP BY-PASS SETUPS CAN BE DETERMINED BY THE CONTRACTOR IN THE FIELD. USE SEDIMENT FILTER BAGS AS NEEDED TO MINIMIZE SEDIMENTATION FROM THE DEWATERED ZONE.
5. PRE-POSITION MATERIALS ON-SITE FOR EACH WORKZONE SO THAT STABILIZATION MAY OCCUR IMMEDIATELY FOLLOWING GRADING OF EACH WORKZONE. GRADING OF STREAM BANKS SHOULD OCCUR ONE WORKZONE AT A TIME. IT IS ANTICIPATED THAT GRADING AND STABILIZATION OF THE WORKZONES WILL BE COMPLETED ONE AT A TIME AND IN ALPHABETICAL ORDER (UPSTREAM TO DOWNSTREAM), BUT CONSTRUCTION CONDITIONS SHOULD BE TAKEN INTO ACCOUNT TO PROVIDE THE LEAST IMPACT TO THE SITE. IF WEATHER AND CONSTRUCTION CONDITIONS WARRANT, THE ON-SITE INSPECTOR OR CHESTER COUNTY CONSERVATION DISTRICT MAY AUTHORIZE A REQUEST BY THE CONTRACTOR TO BEGIN WORK IN MORE THAN ONE WORKZONE AT A TIME.
6. WHEN THE TEMPORARY COFFERDAMS AND PUMP BYPASS IS REMOVED, INSPECT ALL IN-STREAM STRUCTURES FOR FUNCTION. REPAIR ANY DEFICIENCIES.
7. AS WORK PROCEEDS, PROGRESSIVELY SEED AND MULCH FRESHLY GRADED AREAS AND REMOVE ANY CONSTRUCTION DEBRIS. ALL STREAMBANKS SHOULD BE COMPACTED SO THAT THE SOIL IS NOT LOOSE BEFORE MATTING. REFER TO THE ATTACHED PLANTING PLAN FOR THE PROPOSED RIPARIAN BUFFER PLANTING AREAS AND THE SEEDING SPECIFICATIONS NOTE ON THIS PAGE. EROSION CONTROL MATTING SHOULD BE INSTALLED IMMEDIATELY FOLLOWING GRADING OF EACH SECTION. THE EROSION CONTROL MATTING SHOULD BE INSTALLED SO THAT THE DOWNSLOPE EDGE IS JUST ABOVE THE NORMAL FLOW LEVEL OF THE STREAM.
8. REMOVE THE ROCK CONSTRUCTION ENTRANCE.
9. STABILIZE ALL DISTURBED AREAS WITH SEED, FERTILIZE , LIME, AND MULCH AS REQUIRED.
10. WHEN VEGETATION REACHES AT LEAST 70% UNIFORM, PERENNIAL COVER, REMOVE THE SILT FENCE. STABILIZE ANY AREAS DISTURBED DURING REMOVAL OF THE TEMPORARY BMPS.

## SOILS

ChC2 – CHROME SILT LOAM, 8 TO 15 PERCENT SLOPES
ChD2 – CHROME SILT LOAM, 15 TO 25 PERCENT SLOPES
Co – CODORUS SILT LOAM
CpA – COKESBURY SILT LOAM, 0 TO 3 PERCENT SLOPES
GeD – GLADSTONE- PARKER GRAVELLY LOAMS 15 TO 25 PERCENT SLOPES
GgC – GLENELG SILT LOAM, 8 TO 15 PERCENT SLOPES
Ha – HATBORO SILT LOAM
NvC – NESHAMINY SILT LOAM,VERY DEEP OVER MAFIC GNEISS, 8 TO 15 PERCENT SLOPES
PaB – PARKER GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES
PaC – PARKER GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES
PaD – PARKER GRAVELLY LOAM, 15 TO 25 PERCENT SLOPES
PaE – PARKER GRAVELLY LOAM, 25 TO 35 PERCENT SLOPES
UuG – URBAN LAND- UDORTHENTS, SCHIST AND GNEISS COMPLEX, 9 TO 25 PERCENT SLOPES

## SURVEY INFORMATION

1. ELEVATIONS AND CONTOURS SHOWN ARE FROM ACTUAL FIELD SURVEY PERFORMED ON DECEMBER 07, 2016 BY WJP ENGINEERS. ELEVATION DATUM IS NAVD88. BENCHMARK DISK NGS PID JU1732, STAMPED B 302, LOCATED IN THE NORTHWEST WINGWALL OF LENAPE ROAD BRIDGE OVER SMALL STREAM, BEING LOCATED 186' SOUTH OF THE INTERSECTION OF TIGUE ROAD AND LENAPE ROAD, ELEVATION 224.94'.

2. COORDINATES SHOWN ARE NAD83 PA SPC (SOUTH ZONE). NORTH ESTABLISHED BY GPS.

3. THE PROPERTY IS LOCATED WITHIN SPECIAL FLOOD HAZARD AREA (SFHA) ZONE A, AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP (FIRM), CHESTER COUNTY, PA, COMMUNITY EAST BRADFORD TOWNSHIP, MAP NUMBER 42029C0260F, MAP REVISED SEPTEMBER 29, 2006.

4. SFHA ZONE A – NO BASE FLOOD ELEVATIONS (BFE'S) DETERMINED.

5. THE PROPERTY LINES WERE TAKEN FROM CHESTER COUNTY GIS. THIS PLAN DOES NOT REPRESENT AN ACTUAL BOUNDARY SURVEY.

6. UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE LOCATION, PA ONE CALL UTILITY RESPONSES AND/OR BEST AVAILABLE PLAN INFORMATION.

7. RESIDENTIAL LOT IMPROVEMENTS (DWELLINGS, OUT-BUILDINGS, WELLS & SEPTIC SYSTEMS ARE NOT SHOWN.

8. RESIDENTIAL SERVICE UTILITY LOCATIONS (ELECTRIC, GAS, CABLE & TELEPHONE) ARE PARTIALLY SHOWN BASED ON PLANS PROVIDED BY UTILITY SERVICE PROVIDERS AND MUST BE FIELD VERIFIED.

9. AREA SHOWN OUTSIDE OF WJP ENGINEERS LIMIT OF SURVEY IS FROM A PLAN PREPARED BY ESE CONSULTANTS: WETLANDS PLAN, TIGUE PROPERTY, JOB NUMBER 3895.

## WETLANDS

WETLAND DELINEATION WAS CONDUCTED BY CLAUSER ENVIRONEMENTAL, LLC IN MARCH 2017 AND DELVAL SOIL & ENVIRONMENTAL CONSULTANTS, INC. IN NOVEMBER 2015.WETLAND BOUNDARIES ARE SHOWN IN ACCORDANCE WITH A PRELIMINARY JD ISSUED BY THE USACE ON MARCH 18, 2016 OR GPS LOCATIONS PREPARED BY CLAUSER ENVIRONMENTAL, LLC IN MARCH 2017.

## ENVIRONMENTAL DUE DILLIGENCE

ENVIRONMENTAL DUE DILLIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILLEGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILLEGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILLIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

## LIABILITY NOTE

FAILURE TO CORRECTLY INSTALL SEDIMENT CONTROL FACILITIES OR FAILURE TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE CORRECTIVE ACTIONS TO IMMEDIATELY RESOLVE FAILURES OF SEDIMENT CONTROL FACILITIES MAY RESULT IN ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AS DEFINED IN SECTION 602 OF THE CLEAN STREAMS LAW OF PENNSYLVANIA. 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.

THIS PLAN IS NOT TO BE CONSTRUED AS AN ENVIRONMENTAL AUDIT/ASSESSMENT PLAN. THIS SURVEY MAKES NO WARRANTY OR GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ENVIRONMENTAL CONDITIONS OF THE PREMISES HEREON DESCRIBED I.E., THE DETECTION OF SUBSURFACE CONTAMINANTS AS DEFINED IN D.E.P. TITLE 25-PA CODES.

## PLAN NOTES

A. GENERAL EROSION AND SEDIMENT CONTROL GUIDELINES:

1. SPOIL MATERIALS ARE NOT TO BE DISPOSED OF IN FLOODPLAINS, FLOODWAYS, OR REGULATED WATERS OF THE COMMONWEALTH AND UNITED STATES INCLUDING RIVERS, LAKES AND WETLANDS.
2. ALL DISTURBED SOILS SHOULD BE SEEDED AND/OR PLANTED WITH RIPARIAN VEGETATION IMMEDIATELY AFTER ACHIEVING FINAL GRADE.
3. UPON PROJECT COMMENCEMENT, ALL EARTHWORK ASSOCIATED WITH THIS PROJECT, WITH THE EXCEPTION OF ADDITIONAL TREE AND SHRUB PLANTING, SHOULD BE COMPLETED IMMEDIATELY.
4. A COPY OF THIS E&S CONTROL PLAN SHALL BE KEPT AVAILABLE FOR INSPECTION ON THE CONSTRUCTION SITE AT ALL TIMES THROUGH THE TERMS OF THE PROJECT.
5. THE INTENT OF THIS PLAN/NARRATIVE IS TO INDICATE GENERAL MEANS OF COMPLIANCE WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS OF CHAPTER 102 OF THE PENNSYLVANIA CLEAN STREAMS LAW. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT THESE METHODS PLUS ADDITIONAL METHODS AS MAY BE NECESSARY BECAUSE OF THE CONDITIONS CREATED BY LOCALIZED SITE CONDITIONS, AND/OR CONSTRUCTION PROCEDURES IN ORDER TO ASSURE COMPLIANCE WITH APPLICABLE LAW. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SEDIMENT AND EROSION CONTROL FACILITIES SO THAT THEY PERFORM AS REQUIRED BY LAW.

B. GENERAL EROSION AND SEDIMENT CONTROL METHODS/PROCEDURES

1. IN ALL CASES, THE SMALLEST PRACTICAL AREA OF STABLE LAND SURFACE SHALL BE DISTURBED.
2. ALL RELATED SEDIMENT AND EROSION CONTROL FACILITIES SHALL BE IN PLACE AND CAPABLE OF FUNCTIONING AS INTENDED PRIOR TO EARTHMOVING ACTIVITY.
3. BACKFILLED EXCAVATIONS SHALL BE RESTORED TO ORIGINAL TYPE OF COVER AND GRADE AS PER SPECIFICATIONS. SEEDING SHALL BE DONE ACCORDING TO SCHEDULE FOR PERMANENT SEEDING. TEMPORARY STABILIZATION IS REQUIRED OF ANY AND ALL ERODIBLE/SOLUBLE AREAS AND MATERIALS IMMEDIATELY.
4. CONSTRUCTION ACCESS INTO UNPAVED AREAS FROM PAVED AREAS OR STREETS (PUBLIC OR PRIVATE) SHALL BE VIA A ROCK CONSTRUCTION ENTRANCE.
5. SEDIMENT SPILLED, DROPPED OR TRACKED ONTO PAVED SURFACES SHALL BE REMOVED IMMEDIATELY.
6. ALL SLOPES 3:1 OR STEEPER WILL UTILIZE EROSION CONTROL MATTING.
7. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
8. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING BUT NOT LIMITED TO: THE LANDOWNER AND ALL APPROPRIATE MUNICIPAL OFFICIALS, A REPRESENTATIVE FROM THE CHESTER COUNTY CONSERVATION DISTRICT FOR AN ON SITE PRE-CONSTRUCTION MEETING.
9. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

   ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND REMATTING, MUST BE PREFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

   WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
   A. THE LOCATION AND SEVERITY OF THE BMPS FAILURE AND ANY POLLUTION EVENTS.
   B. ALL STEPS TAKEN TO, REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
   C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

   AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.
10. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
11. ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
12. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
13. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
14. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
15. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
16. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

## DEFINITION OF CLEAN FILL

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESS FOR RE-USE).

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

## SEEDING SPECIFICATIONS

A. SEEDING FOR RIPARIAN BUFFER AREAS
RIPARIAN BUFFER MIX (ERNMX-178)

| % OF MIX | LATIN NAME | COMMON NAME |
|---|---|---|
| 5 | ANDROPOGON GERARDII | BIG BLUESTEM |
| 2 | ASCLEPIAS SYRIACA | COMMON MILKWEED |
| 1 | BAPTISIA AUSTRALIS | BLUE FALSE INDIGO |
| 10 | CAREX VULPINOIDEA | FOX SEDGE |
| 6 | CHAMAECRISTA FASCICULATA | PARTRIDGE PEA |
| 4 | CORNUS AMOMUM | SILKY DOGWOOD |
| 1 | HELENIUM AUTUMNALE | COMMON SNEEZEWEED |
| 8 | ELYMUS RIPARIUS | RIVERBANK WILD RYE |
| 8 | ELYMUS VIRGINICUS | VIRGINIA WILD RYE |
| 2 | EUPATORIUM FISTULOSUM | JOE PYE WEED |
| 2 | EUPATORIUM MACULATUM | SPOTTED JOE PYE WEED |
| 2 | EUPATORIUM PERFOLIATUM | BONESET |
| 2 | EUTHAMIA GRAMINFOLIA | GRASS LEAVED GOLDENROD |
| 2 | HELIOPSIS HELIANTHOIDES | OX EYE SUNFLOWER |
| 2 | JUNCUS EFFUSUS | SOFT RUSH |
| 2 | MONARDA FISTULOSA | WILD BERGAMOT |
| 8 | PANICUM CLANDESTINUM | TIOGA DEER TONGUE |
| 4 | PANICUM VIRGATUM | SWITCH GRASS |
| 2 | PENSTEMON DIGITALIS | TALL WHITE BEARD TONGUE |
| 2 | RHUS TYPHINA | STAGHORN SUMAC |
| 2 | RUDBECKIA HIRTA | BLACK EYED SUSAN |
| 8 | SCHIZACHYRIUM SCOPARIUM | LITTLE BLUESTEM |
| 7 | SORGHASTRUM NUTANS | INDIAN GRASS |
| 5 | VERBENA HASTATA | BLUE VERVAIN |
| 1 | VERONIA GIGANTEA | GIANT IRONWEED |
| 2 | VIBURNUM DENTATUM | ARROW WOOD |

1. SEED THIS MIX AT A RATE OF 15 BULK LBS PER ACRE OR ⅓ TO ½ LB. PER 1,000 SQ. FT.
2. SEED OATS (AVENA SATIVA) AS A COMPANION CROP AND FOR EROSION CONTROL AT 30 LBS PER ACRE.

B. SEEDING FOR ANY DISTURBED LAWN AREAS
COMMERCIAL CONSERVATION MIX (ERNMX-113)

| % OF MIX | LATIN NAME | COMMON NAME |
|---|---|---|
| 25 | FESTUCA RUBRA | CREEPING RED FESCUE, "PENNLAWN" |
| 25 | LOLIUM MULTIFLORUM | ANNUAL RYEGRASS |
| 25 | LOLIUM PERENNE | PERENNIAL RYEGRASS, "NOBILITY" |
| 25 | LOLIUM PERENNE | PERENNIAL RYEGRASS, "AMAZING" |

1.SEED THIS MIX AT A RATE OF 75-150 BULK LBS PER ACRE.

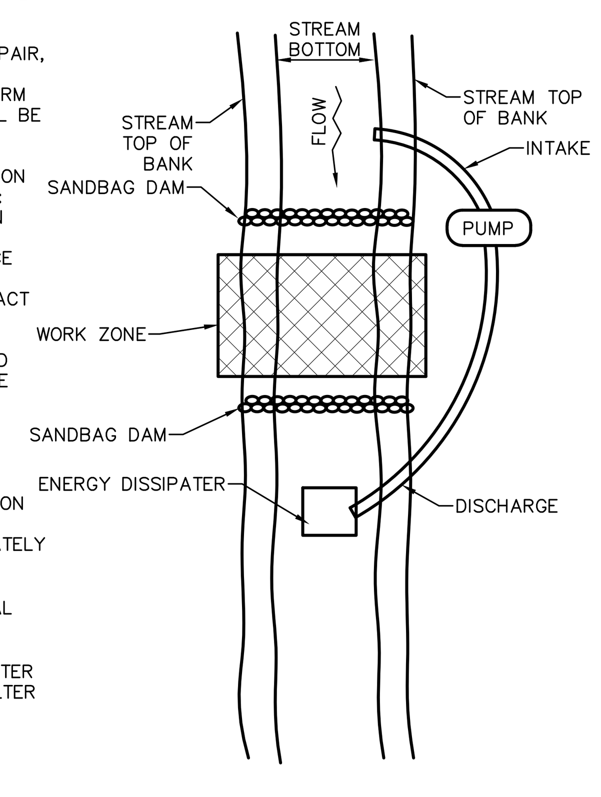
C. SEEDING FOR ANY DISTURBED PASTURE AREAS
MULTI-FUNCTIONAL NATIVE PASTURE MIX (ERNMX-124)

| % OF MIX | LATIN NAME | COMMON NAME |
|---|---|---|
| 40 | ANDROPOGON GERARDII | BIG BLUESTEM |
| 15 | ELYMUS VIRGINICUS | VIRGINIA WILDRYE |
| 14.5 | PANICUM VIRGATUM | SWITCHGRASS |
| 10 | PANICUM AMARUM | COASTAL PANICGRASS |
| 10 | SORGHASTRUM NUTANS | INDIANGRASS |
| 3 | CHAMAECRISTA FASCICULATA | PARTRIDGE PEA |
| 2.2 | HELIOPSIS HELIANTHOIDES | OXEYE SUNFLOWER |
| 1.5 | DESMODIUM CANADENSE | SHOWY TICKTREFOIL |
| 1 | SILPHIUM PERFOLIATUM | CUP PLANT |
| 0.5 | ASTER NOVAE-ANGLIAE | NEW ENGLAND ASTER |
| 0.5 | DESMODIUM PANICULATUM | PANICLEDLEAF TICKTREFOIL |
| 0.5 | MONARDA FISTULOSA | WILD BERGAMOT |
| 0.5 | SENNA HEBECARPA | WILD SENNA |
| 0.5 | SENNA MARILANDICA | MARYLAND SENNA |
| 0.3 | PYCNANTHEMUM TENUIFOLIUM | NARROWLEAF MOUNTAINMINT |

1.SEED THIS MIX AT A RATE OF 10 LBS. PLS PER ACRE.

D. MULCH APPLICATION
1. HAY OR STRAW AT 3 TONS PER ACRE OR 140 LBS PER 1,000 SQ.FT.

E. AVAILABILITY
1. SEED MIXES ARE AVAILABLE FROM ERNST CONSERVATION SEEDS, 9006 MERCER PIKE, MEADVILLE, PA 16335, PHONE: (800) 873-3321.




SEQUENCE FOR WORKING WITHIN THE STREAM CHANNEL:

1. INSTALL SANDBAG DAM AT THE UPSTREAM END OF THE WORKZONE.
2. PUMP WATER AROUND THE PROPOSED WORKZONE. THE DISCHARGE SHALL BE LOCATED IN A STABLE AREA OF THE STREAMBED AND AN ENERGY DISSIPATER MUST BE INSTALLED.
3. INSTALL THE DOWNSTREAM SANDBAG DAM AS NEEDED TO MINIMIZE BACK FLOW INTO THE WORKZONE.
4. DEWATER THE WORKZONE AS NEEDED WITH A PUMPED WATER FILTER BAG PER DETAIL.
5. COMPLETE WORK FROM THE TOP OF BANK WHEREVER POSSIBLE. WHERE IT IS NOT POSSIBLE TO WORK FROM THE TOP OF BANK, A TEMPORARY CROSSING OR CAUSEWAY MAY BE USED TO PROVIDE A WORKING PAD FOR ANY EQUIPMENT IN THE STREAM CHANNEL.
6. ALL EXCAVATED CHANNEL MATERIALS SHALL BE PLACED OUTSIDE OF THE FLOODWAY/FLOODPLAIN OR ANY WETLAND AREAS AND IMMEDIATELY REMOVED TO A DISPOSAL SITE HAVING AN E&S PLAN.
7. AT THE END OF EACH WORKING DAY, THE CHANNEL, STREAMBANKS, AND SURROUNDING AREAS WILL BE STABILIZED AND THE PUMPS WILL BE TURNED OFF. ANY DEFICIENCIES OBSERVED IN THE FUNCTION OF THE INSTALLED STRUCTURES SHALL BE REMEDIED.
8. UPON COMPLETION, ALL SANBAG DAMS, CROSSINGS, CAUSEWAYS, AND CHANNEL ENTRANCES SHALL BE REMOVED/RESTORED TO PRE-CONSTRUCTION CONDITIONS OR THE TYPICAL BANKFULL STREAM CHANNEL SIZING DETAIL (IF PREVIOUSLY UNSTABLE).

NOTES:

GRUBBING SHALL NOT TAKE PLACE WITHIN 50 FEET OF TOP-OF-BANK UNTIL ALL MATERIALS REQUIRED TO COMPLETE WORK WITHIN THE STREAM CHANNEL ARE ON SITE AND READY FOR INSTALLATION.

BYPASS PUMP INTAKE SHALL BE MAINTAINED A SUFFICIENT DISTANCE FROM THE BOTTOM TO PREVENT PUMPING OF CHANNEL BOTTOM MATERIALS.

WATER ACCUMULATING WITHIN THE WORK AREA SHALL BE PUMPED TO A PUMPED WATER FILTER BAG OR SEDIMENT TRAP PRIOR TO DISCHARGING INTO ANY SURFACE WATER.

HAZARDOUS OR POLLUTANT MATERIAL STORAGE AREAS SHALL BE LOCATED AT LEAST 100 FEET BACK FROM THE TOP OF STREAMBANK.

ALL EXCESS EXCAVATED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE STREAM CROSSING AREA.

ALL DISTURBED AREAS WITHIN 50 FEET OF TOP-OF-BANK SHALL BE BLANKETED OR MATTED WITHIN 24 HOURS OF INITIAL DISTURBANCE FOR MINOR STREAMS OR 48 HOURS OF INITIAL DISTURBANCE FOR MAJOR STREAMS UNLESS OTHERWISE AUTHORIZED.

APPROPRIATE STREAMBANK PROTECTION SHALL BE PROVIDED WITHIN THE CHANNEL.

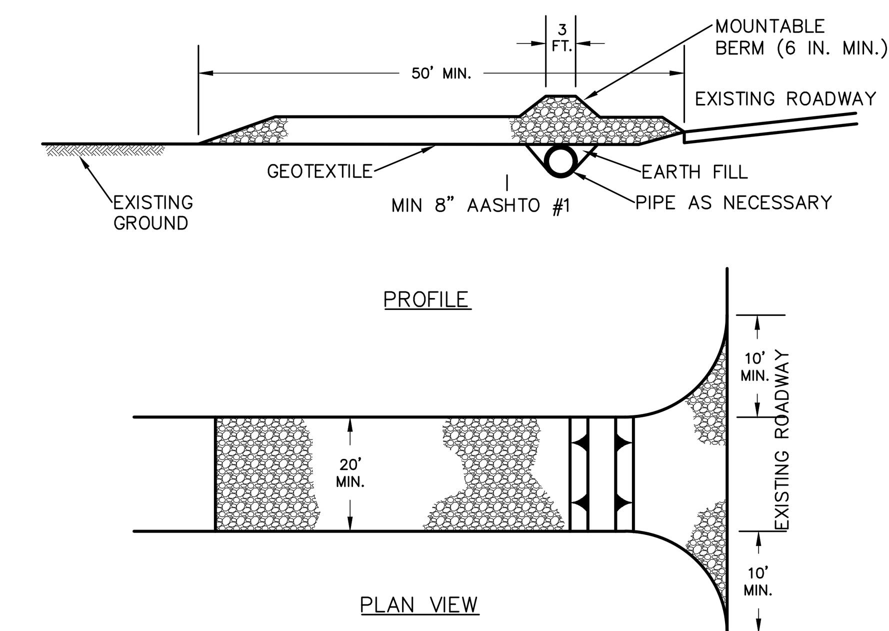
### WORKING WITHIN THE STREAM CHANNEL WITH PUMP BYPASS TYPICAL DETAIL

*NOT TO SCALE*

**STOP-CALL BEFORE YOU DIG!**
**Pennsylvania One Call System, Inc.**
**1-800-242-1776**

**WJP Engineers has notified the Pennsylvania One Call System, Inc**
**DESIGN ONE CALL ONLY**
**Date: 11/28/2016 and 2/23/17**
**Serial #20163331355 and 20170540250**

USERS OF THIS PLAN ARE HEREBY CAUTIONED THAT THIS ONE CALL NOTICE IS FOR DESIGN PURPOSES ONLY AND THAT PRIOR TO ANY EXCAVATION OR EARTHMOVING ACTIVIES, IT SHALL BE THE CONTRACTOR'S/DEVELOPER'S RESPONSIBILITY TO RECONTACT THE PENNA. ONE CALL SYSTEM FOR UNDERGROUND FACILITY LOCATION AND MARKING.




* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

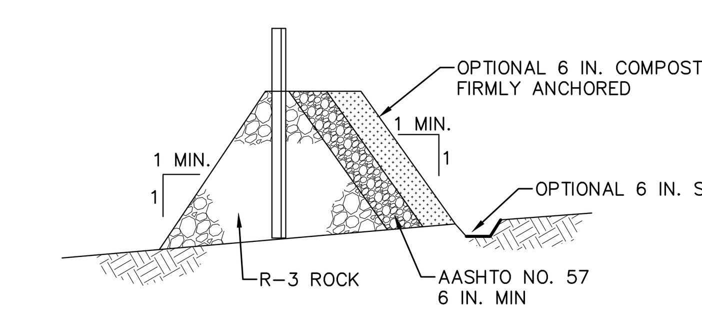
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

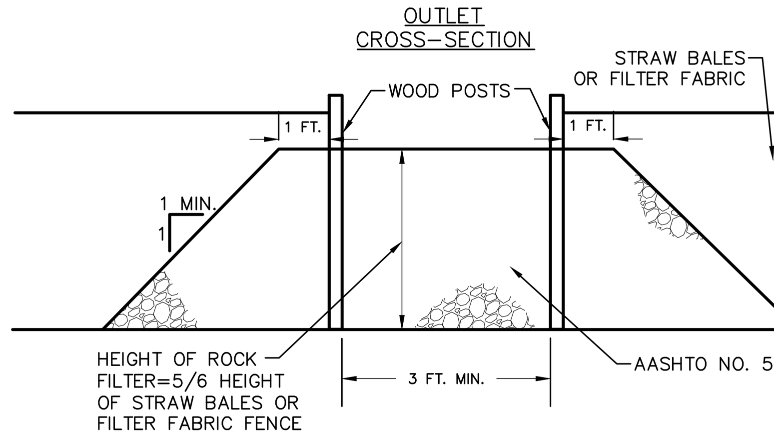
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

### STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE

*NOT TO SCALE*




OUTLET CROSS-SECTION




UP-SLOPE FACE

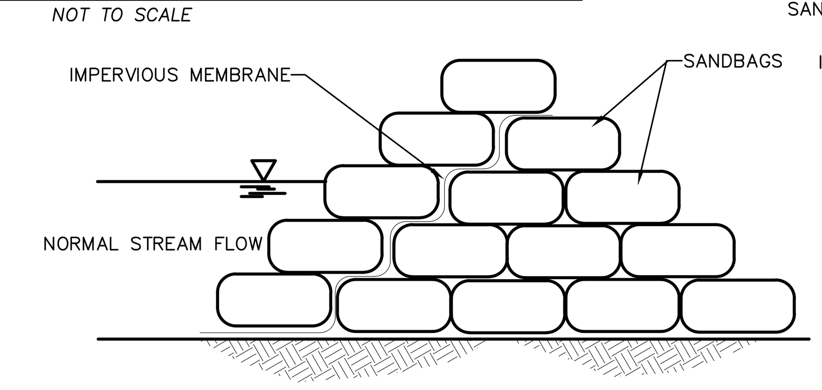
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

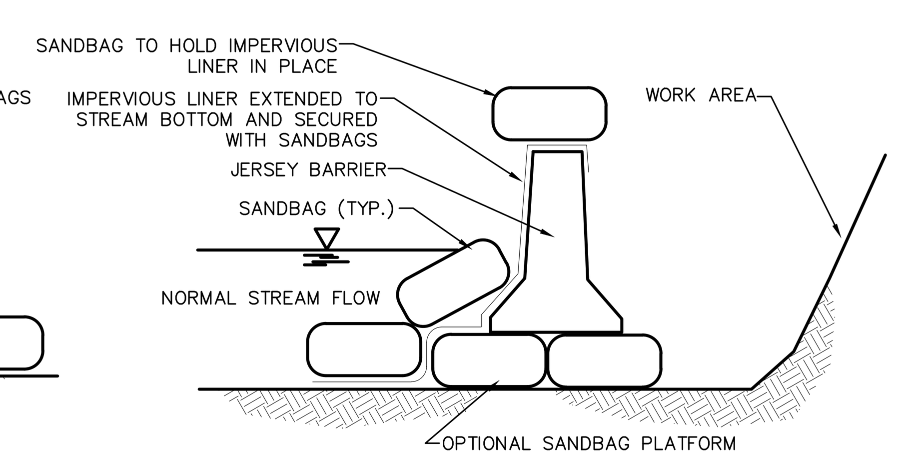
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

### STANDARD CONSTRUCTION DETAIL #4-6 ROCK FILTER OUTLET

*NOT TO SCALE*



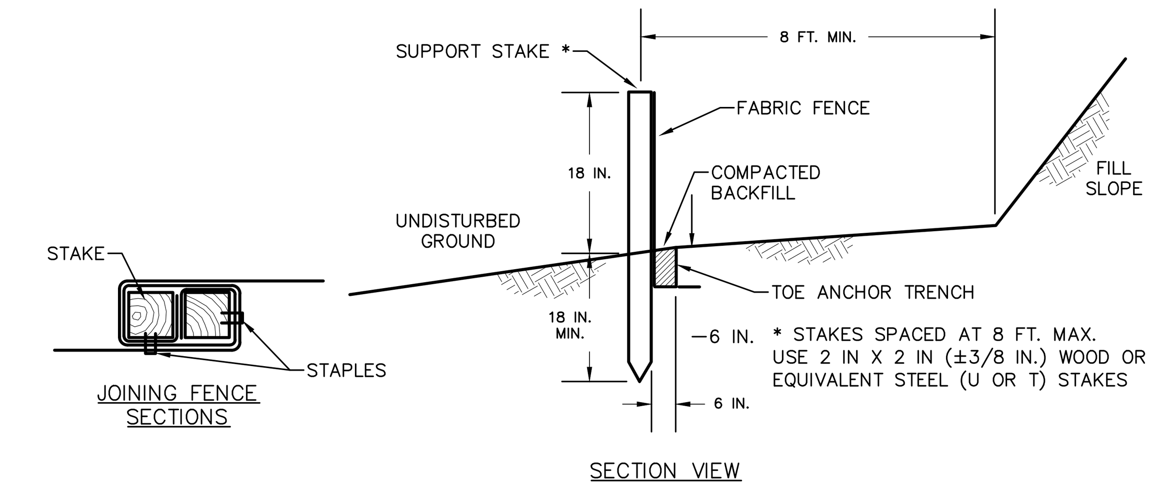

STACKED SANDBAGS OPTION




JERSEY BARRIER OPTION

### STANDARD CONSTRUCTION DETAIL #3-15 SANDBAG DIVERSION DAM OR COFFERDAM

*NOT TO SCALE*




NOTES:

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.

FABRIC WIDTH SHALL BE 30 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.

SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.

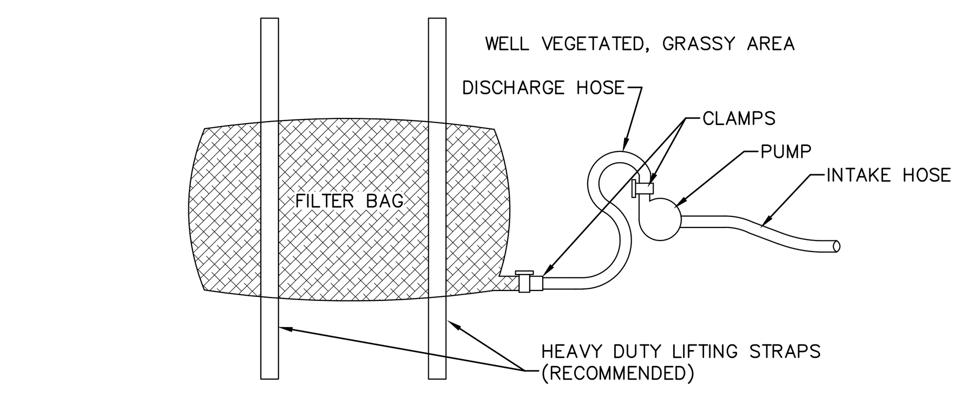
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION DETAIL # 4-6).

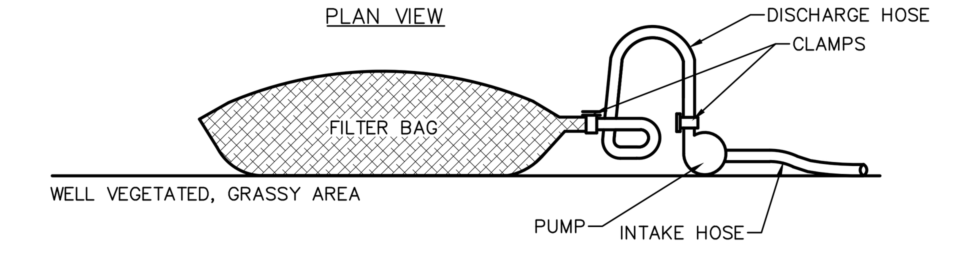
FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

### STANDARD CONSTRUCTION DETAIL #4-7 STANDARD SILT FENCE (18" HIGH)

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.

### STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG

*NOT TO SCALE*

*REVISIONS*
*6/19/19*

# PLUM RUN 18-66 SITE EROSION AND SEDIMENT CONTROL DETAILS


CLAUSER environmental llc

*CLAUSER ENVIRONMENTAL, LLC*

19 SCHOOL HOUSE LANE, CAPE MAY COURT HOUSE, NJ 08210
(570) 294-0669 www.clauserenvironmental.com


*DRAWN* 1/1/19 ASC
*CHECK* 1/1/19 KSC

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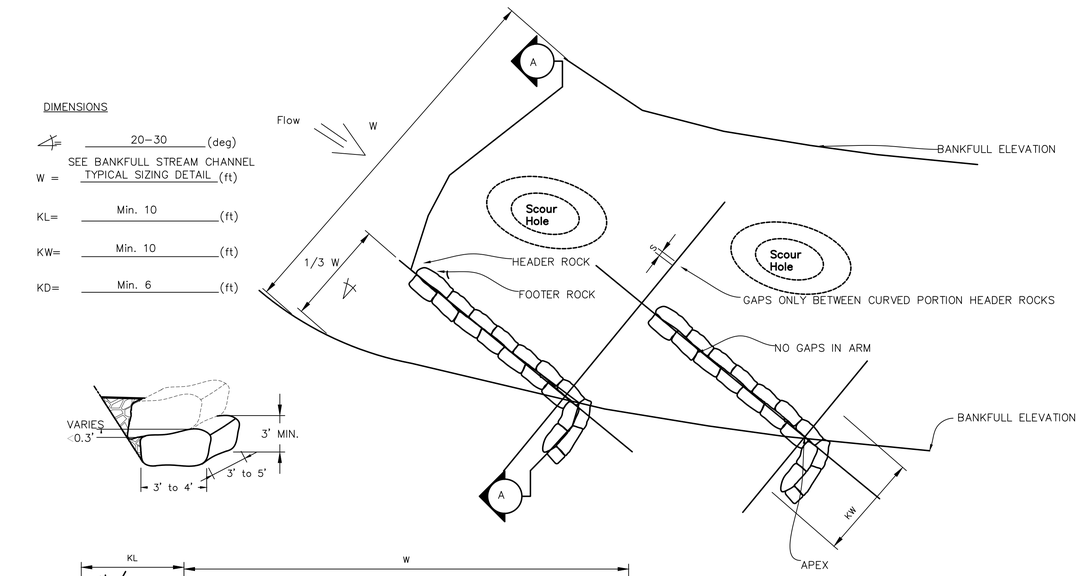
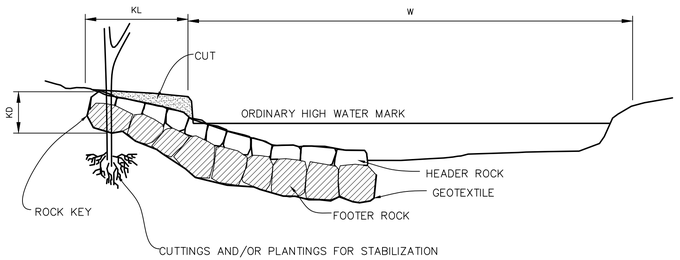



SECTION A

## ROCK VANE NOTES

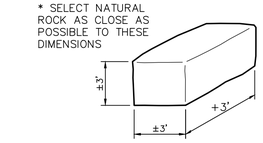
1. THE VANE WILL EXTEND INTO THE CHANNEL A TOTAL OF ⅓ OF THE BANKFULL WIDTH AND WILL BE ANGLED FROM THE STREAMBANK BETWEEN 20° AND 30°.

2. THE ROCKS SHOULD BE RECTANGULAR OR NEARLY SO AT THE ROCK TO ROCK CONTACT. THE ROCK TO ROCK CONTACT SHOULD BE SOLID. IF ROCKS ARE NOT PERFECTLY FLAT, THE THICKER END SHOULD BE PLACED DOWNSTREAM.

3. FOOTER ROCKS SHOULD BE ABOUT 50% LARGER THAN OTHER ROCKS AND EXTEND DOWNSTREAM OF HEADER ROCKS.

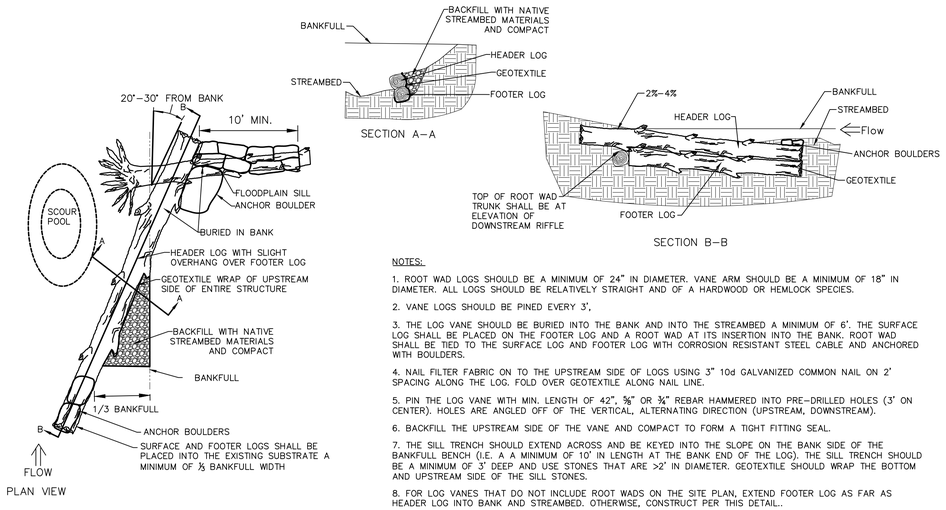
4. THE TOP OF THE VANE SHALL HAVE A SLOPE BETWEEN 4° AND 7°.

## ROCK VANE DETAIL
NOT TO SCALE




NOTES:
1. USE THIS SIZE ROCK (R–8; QUARRY SHOT ROCK) FOR IN–STREAM STRUCTURES UNLESS OTHERWISE NOTED.
2. ROCK SHOULD BE HAND SELECTED BY CONTRACTOR.
3. ROCK SHOULD BE AS BLOCKY AS POSSIBLE TO ALLOW FOR EASIER CONSTRUCTION OF IN–STREAM STRUCTURES.

## DESIRABLE ROCK SIZES FOR IN–STREAM STRUCTURES
NOT TO SCALE




NOTES:

1. ROOT WAD LOGS SHOULD BE A MINIMUM OF 24" IN DIAMETER. VANE ARM SHOULD BE A MINIMUM OF 18" IN DIAMETER. ALL LOGS SHOULD BE RELATIVELY STRAIGHT AND OF A HARDWOOD OR HEMLOCK SPECIES.

2. VANE LOGS SHOULD BE PINED EVERY 3',

3. THE LOG VANE SHOULD BE BURIED INTO THE BANK AND INTO THE STREAMBED A MINIMUM OF 6'. THE SURFACE LOG SHALL BE PLACED ON THE FOOTER LOG AND A ROOT WAD AT ITS INSERTION INTO THE BANK. ROOT WAD SHALL BE TIED TO THE SURFACE LOG AND FOOTER LOG WITH CORROSION RESISTANT STEEL CABLE AND ANCHORED WITH BOULDERS.

4. NAIL FILTER FABRIC ON TO THE UPSTREAM SIDE OF LOGS USING 3" 10d GALVANIZED COMMON NAIL ON 2' SPACING ALONG THE LOG. FOLD OVER GEOTEXTILE ALONG NAIL LINE.

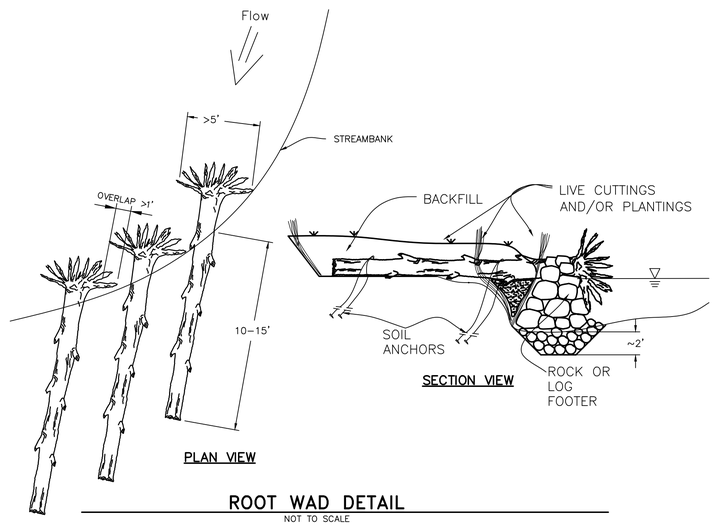
5. PIN THE LOG VANE WITH MIN. LENGTH OF 42", ⅝" OR ¾" REBAR HAMMERED INTO PRE–DRILLED HOLES (3' ON CENTER). HOLES ARE ANGLED OFF OF THE VERTICAL, ALTERNATING DIRECTION (UPSTREAM, DOWNSTREAM).

6. BACKFILL THE UPSTREAM SIDE OF THE VANE AND COMPACT TO FORM A TIGHT FITTING SEAL.

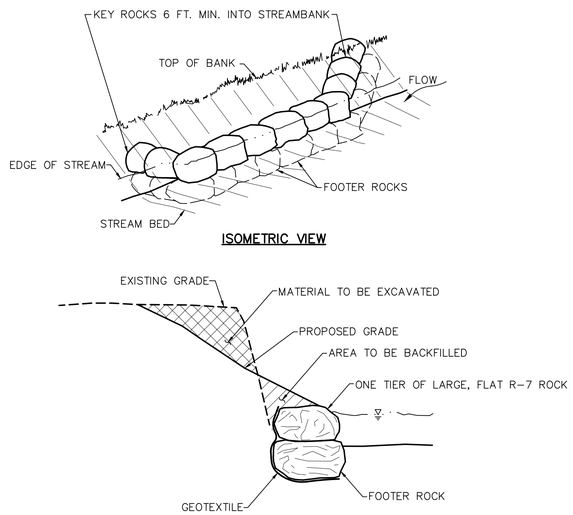
7. THE SILL TRENCH SHOULD EXTEND ACROSS AND BE KEYED INTO THE SLOPE ON THE BANK SIDE OF THE BANKFULL BENCH (I.E. A A MINIMUM OF 10' IN LENGTH AT THE BANK END OF THE LOG). THE SILL TRENCH SHOULD BE A MINIMUM OF 3' DEEP AND USE STONES THAT ARE >2' IN DIAMETER. GEOTEXTILE SHOULD WRAP THE BOTTOM AND UPSTREAM SIDE OF THE SILL STONES.

8. FOR LOG VANES THAT DO NOT INCLUDE ROOT WADS ON THE SITE PLAN, EXTEND FOOTER LOG AS FAR AS HEADER LOG INTO BANK AND STREAMBED. OTHERWISE, CONSTRUCT PER THIS DETAIL..

## LOG VANE ROOT WAD COMBO DETAIL
NOT TO SCALE



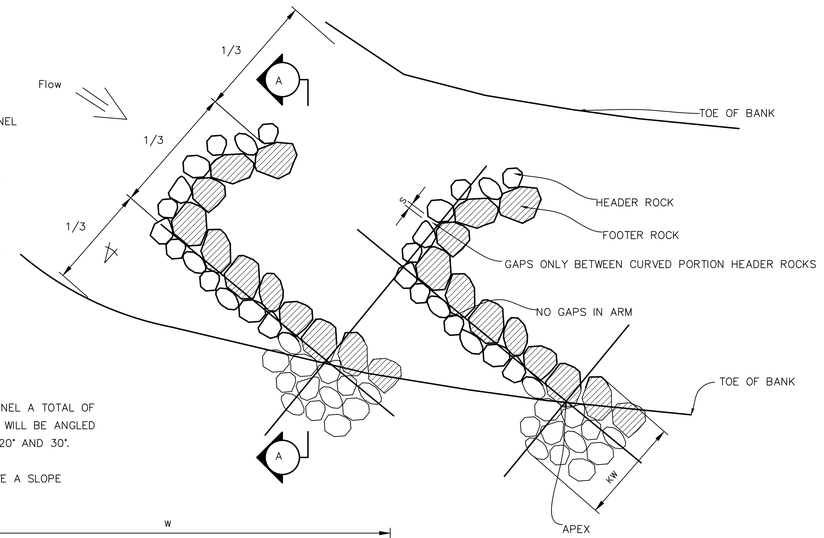

## ROOT WAD DETAIL
NOT TO SCALE




## TOE RIP–RAP DETAIL
NOT TO SCALE

DIMENSIONS

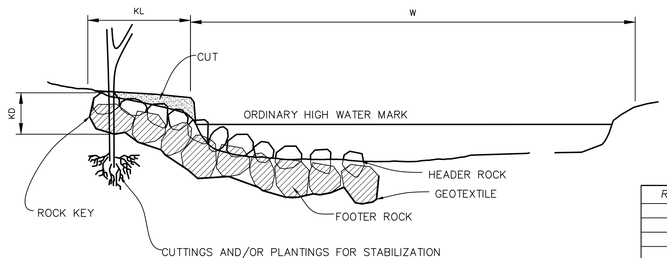
20–30 (deg)
SEE BANKFULL STREAM CHANNEL TYPICAL SIZING DETAIL
W = (ft)
KL= Min. 6 (ft)
KW= Min. 6 (ft)
KD= Min. 4 (ft)
S = 0.3 (ft)




## J–HOOK NOTES

1. VANE WILL EXTEND INTO THE CHANNEL A TOTAL OF 1/3 OF THE BANKFULL WIDTH AND WILL BE ANGLED FROM THE STREAMBANK BETWEEN 20° AND 30°.

2. THE TOP OF THE VANE SHALL HAVE A SLOPE BETWEEN 4° AND 7°.




SECTION A

## J–HOOK DETAIL
NOT TO SCALE

| REVISIONS |
|---|
| 6/19/19 |

# PLUM RUN 18–66 SITE IN–STREAM STRUCTURE DETAILS

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DRAWN 1/1/19 ASC | CHECK 1/1/19 KSC

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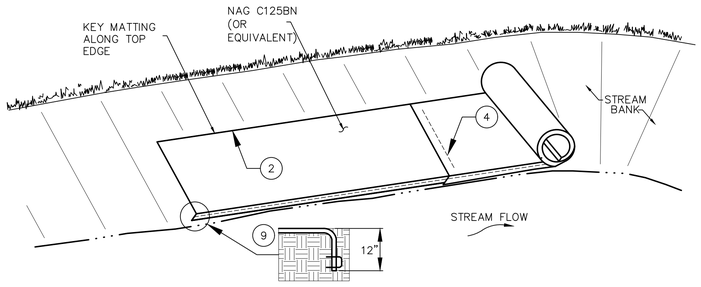
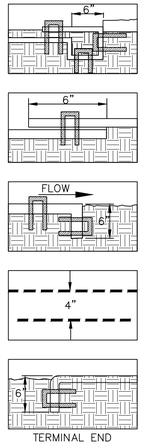


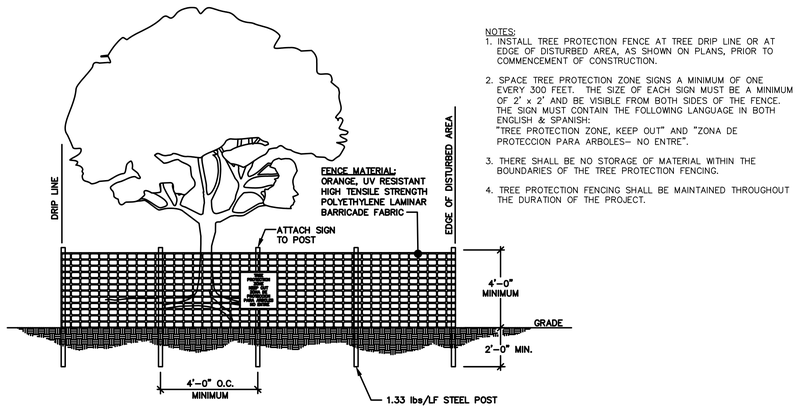

STAPLING SPECIFICATIONS:




NOTE: THE USE OF EROSION CONTROL MATTING IS REQUIRED ALONG RESTORED STREAM BANKS AND ON ALL SLOPES GREATER THAN 3:1 OR WHERE SHOWN ON PLAN

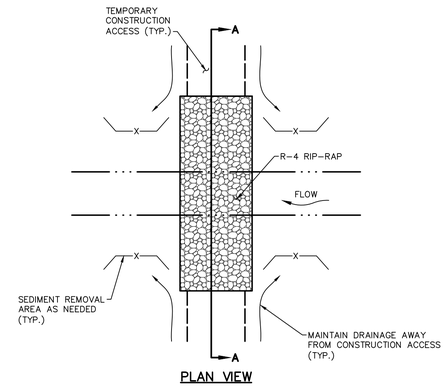
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP x 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW HORIZONTALLY ACROSS SHORELINE SLOPE.
4. PLACE BLANKET END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP x 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP x 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
9. THE EDGE OF ALL HORIZONTAL BLANKETS AT OR BELOW NORMAL WATER LEVEL MUST BE ANCHORED BY PLACING THE BLANKET IN A 6" DEEP x 6" WIDE ANCHOR TRENCH. ANCHOR BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 4" APART IN TRENCH. BACKFILL AND COMPACT TRENCH. AN ACCEPTABLE ALTERNATE IS TO ANCHOR THE EDGE WITH LIVE STAKES CUT FROM NATIVE VEGETATION AT 3 FOOT INTERVALS.

## EROSION CONTROL MATTING DETAIL
NOT TO SCALE

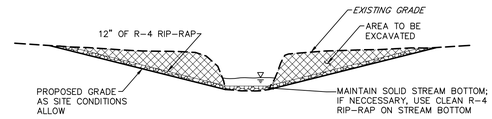



NOTES:
1. INSTALL TREE PROTECTION FENCE AT TREE DRIP LINE OR AT EDGE OF DISTURBED AREA, AS SHOWN ON PLANS, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. SPACE TREE PROTECTION ZONE SIGNS A MINIMUM OF ONE EVERY 300 FEET. THE SIZE OF EACH SIGN MUST BE A MINIMUM OF 2' x 2' AND BE VISIBLE FROM BOTH SIDES OF THE FENCE. THE SIGN MUST CONTAIN THE FOLLOWING LANGUAGE IN BOTH ENGLISH & SPANISH: "TREE PROTECTION ZONE, KEEP OUT" AND "ZONA DE PROTECCION PARA ARBOLES– NO ENTRE".
3. THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION FENCING.
4. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

## TREE PROTECTIVE FENCE DETAIL
NOT TO SCALE

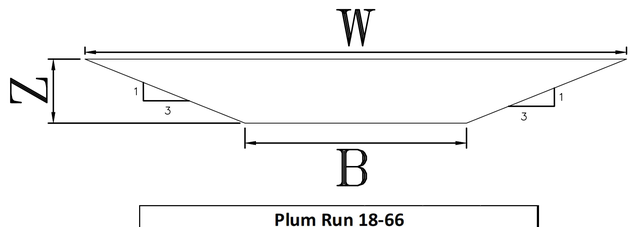



PLAN VIEW



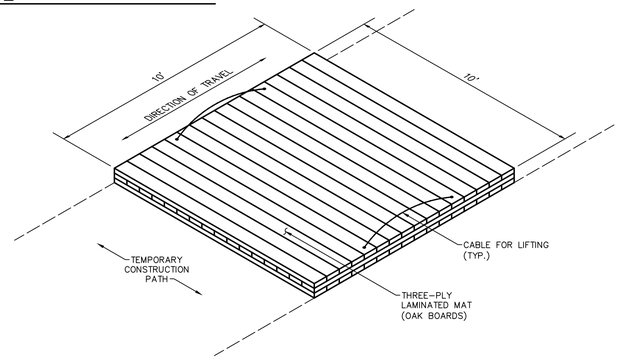

SECTION A–A

## TEMPORARY CONSTRUCTION FORD CROSSING DETAIL
NOT TO SCALE




| Plum Run 18-66 | | | |
|---|---|---|---|
| LOCATION | W (ft) | Z (ft) | B (ft) |
| Upstream South Branch | 26.8 | 3.8 | 4 |
| Downstream South Branch | 30.6 | 2.6 | 15 |
| North Branch | 31.8 | 2.8 | 15 |
| Mainstem Downstream | 37.2 | 3.7 | 15 |

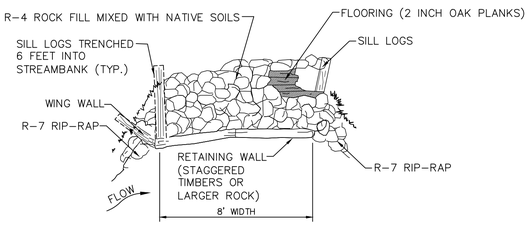
## BANKFULL STREAM CHANNEL TYPICAL SIZING DETAIL
NOT TO SCALE



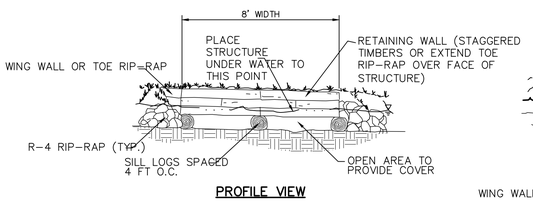

ISOMETRIC VIEW

PROTECTIVE MAT NOTE:
1. USE PROTECTIVE MATS OVER ANY WET AREAS, DRIVEWAYS WHEN METAL TRACKED VEHICLES ARE CROSSING, UTILITY LINES, OR DRAIN PIPES.

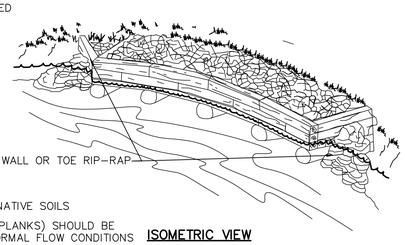
## PROTECTIVE MAT DETAIL (AS NEEDED)
NOT TO SCALE



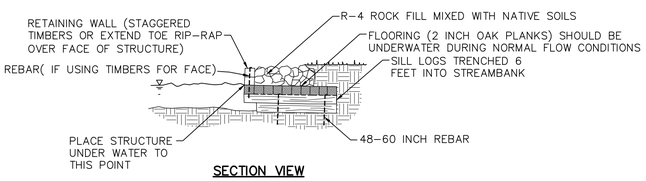

PLAN VIEW




PROFILE VIEW

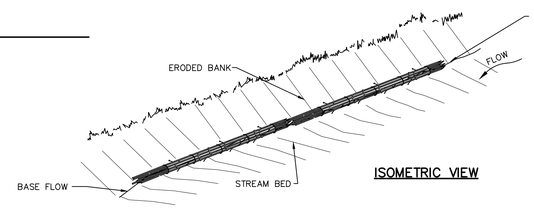



ISOMETRIC VIEW

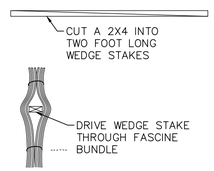



SECTION VIEW

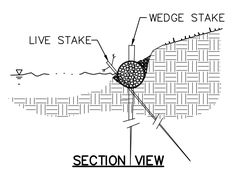
## MUD–SILL DETAIL
NOT TO SCALE




ISOMETRIC VIEW



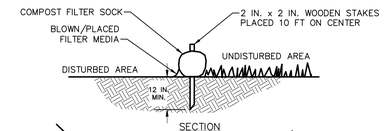

STAKE DETAIL VIEW



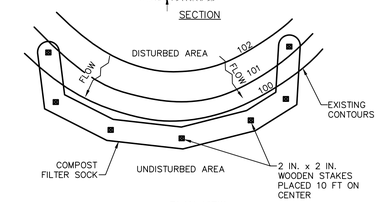

SECTION VIEW

NOTES:
- OBTAIN WILLOW OR SIMILAR ADVENTITIOUSLY ROOTABLE NATIVE STOCK. ½ TO 2 INCH DIAMETER, 5 TO 10 FEET LONG.
- MATERIAL SHOULD BE FROM AN AREA WITH SIMILAR SOIL, CLIMATE, AND LOCATION RELATIVE TO THE STREAM. THE MATERIAL SHALL BE FREE OF DISEASE, ROT, OR INSECT INFESTATION.
- MATERIAL SHALL BE HARVESTED WHILE DORMANT AND SOAKED (1 TO 14 DAYS) BEFORE INSTALLATION.
- SIDE BRANCHES CAN BE LEFT INTACT
- STAGGER CUTTINGS IN A UNIFORM BUNDLE THAT IS 6–12 INCHES THICK AND 5–15 FEET LONG.
- TIE BUNDLE WITH STRING OR NON–GALVANIZED WIRE AT 1.5–2 FEET INTERVALS
- EXCAVATE TRENCH (BY HAND WORK ONLY) APPROXIMATELY ⅔ BUNDLE DIAMETER.
- PLACE AND STAKE FASCINE BUNDLE IN TRENCH. STAKES SHOULD BE PLACED NO MORE THAN 1.5 FEET APART AND SHOULD BE A MINIMUM OF 2 FEET LONG. AT EACH STAKE LOCATION, A WEDGE STAKE AND A LIVE STAKE SHOULD BE INSTALLED.
- WASH LOOSE SOIL INTO TRENCH AND AROUND CUTTINGS TO GET GOOD SOIL TO STEM CONTACT.

## TOE WILLOW FASCINE DETAIL
NOT TO SCALE




SECTION




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.

## STANDARD CONSTRUCTION DETAIL #4–1
## COMPOST FILTER SOCK
*NOT TO SCALE*

| REVISIONS |
|---|
| 6/19/19 |

PLUM RUN 18–66 SITE STABILIZATION DETAILS

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