

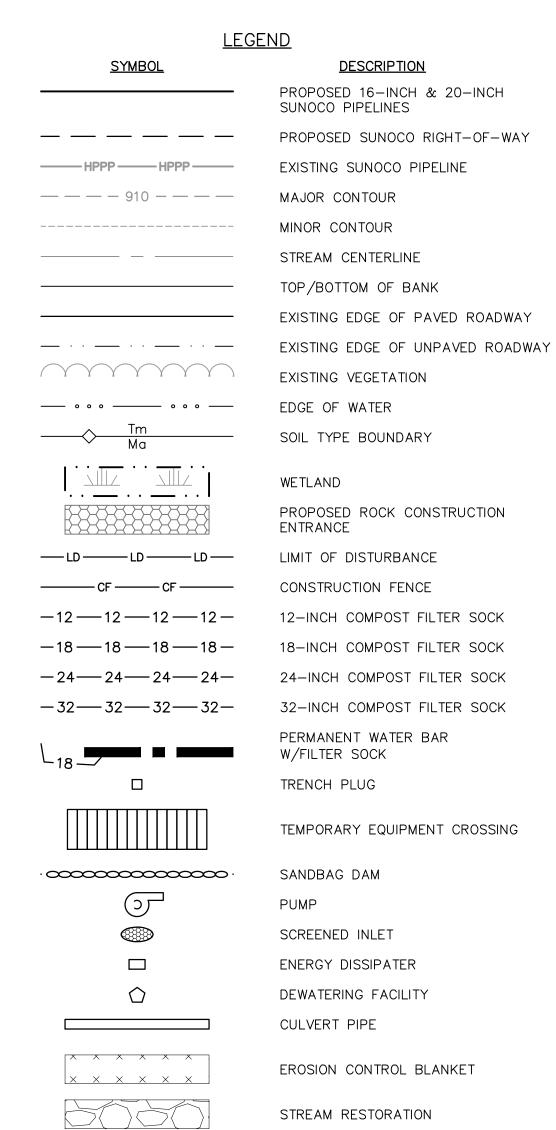
PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

— — — EXISTING GRADE



GENERAL NOTES:

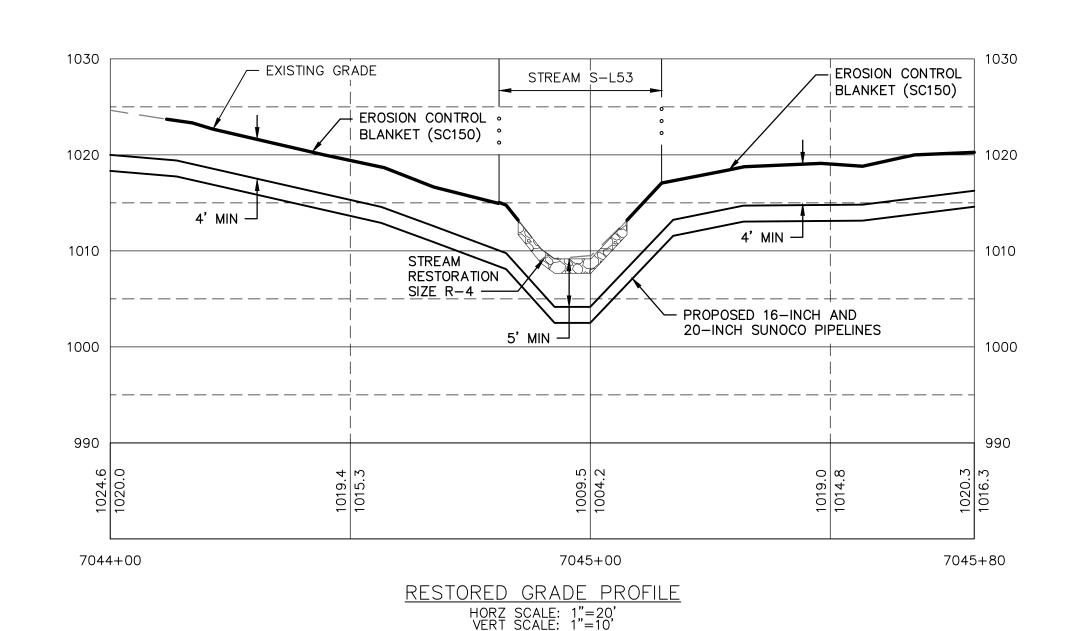
- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.

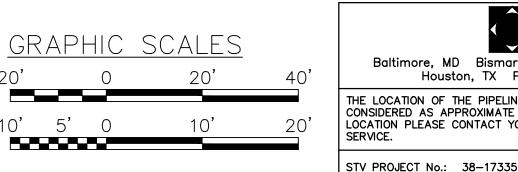
WETLAND CROSSING NOTES:

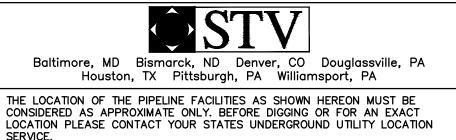
- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

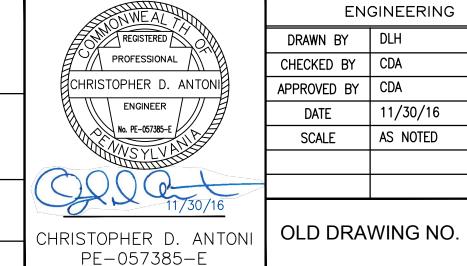
STREAM CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.









ENGINEERING RECORD DRAWN BY DLH CHECKED BY CDA APPROVED BY CDA 11/30/16 DATE AS NOTED SCALE

REV. DATE APP# DESCRIPTION **Sunoco Logistics** Partners L.P.

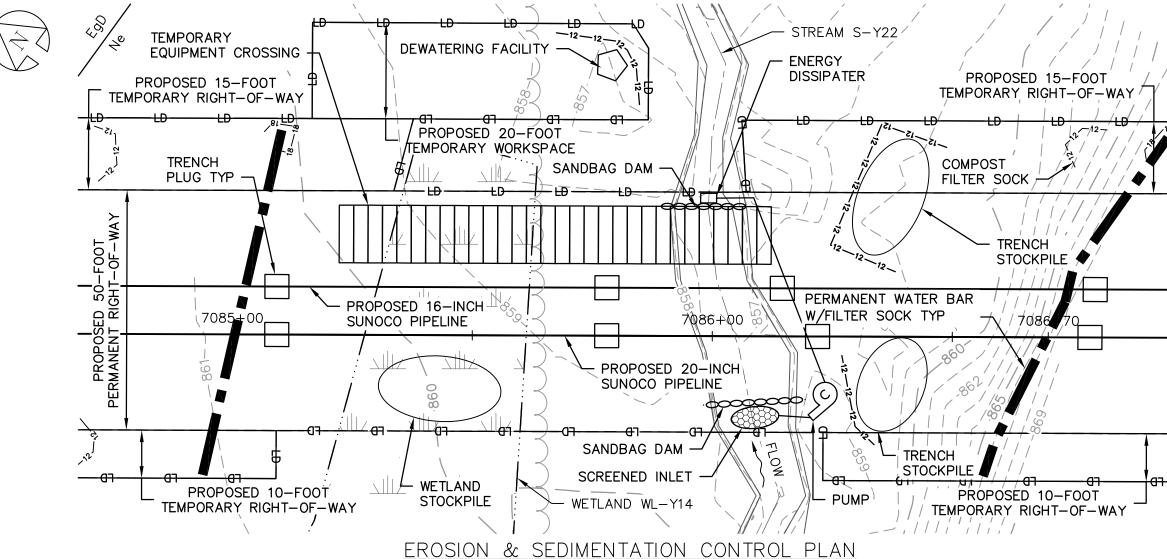
PENNSYLVANIA PIPELINE PROJECT STREAMS S-L52 AND S-L53 **RESTORATION PLAN**

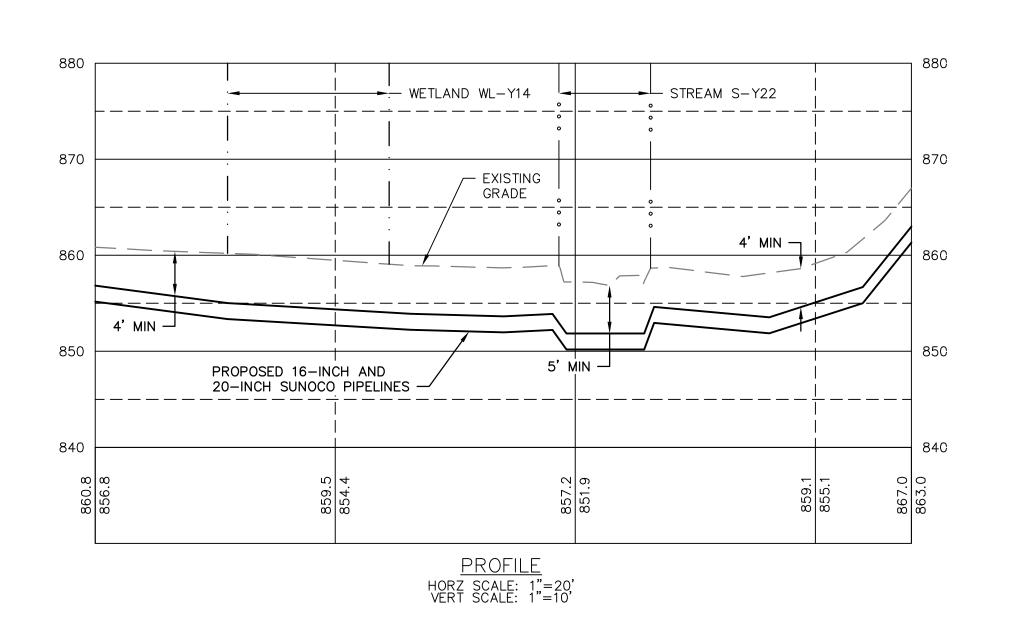
HUNTINGDON COUNTY, PA

REV. NO.

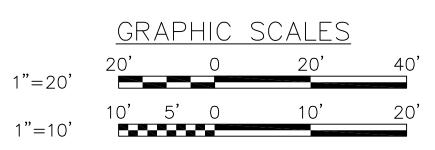
APPROVAL

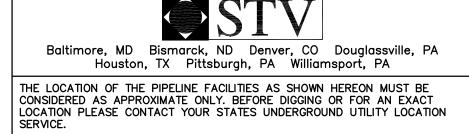
DWG. NO. WL-L32-B





SCALE: 1"=20'





STV PROJECT No.: 38-17335

GENERAL NOTES:

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.

2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.

5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.

WETLAND CROSSING NOTES:

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01–ES-0.17).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

LEGEND

<u>SYMBOL</u>

DESCRIPTION

PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES

PROPOSED SUNOCO RIGHT-OF-WAY _ _ _ _ _ _ _

EXISTING SUNOCO PIPELINE

— — — — 910 — — — — MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

TOP/BOTTOM OF BANK

EXISTING EDGE OF PAVED ROADWAY

EXISTING EDGE OF UNPAVED ROADWAY

EXISTING VEGETATION

EDGE OF WATER

SOIL TYPE BOUNDARY

WETLAND

PROPOSED ROCK CONSTRUCTION ENTRANCE

LIMIT OF DISTURBANCE —LD——LD——LD—

CONSTRUCTION FENCE

-12 --- 12 --- 12 --- 12 ---12-INCH COMPOST FILTER SOCK

-18 - 18 - 18 - 18 - 18 -18-INCH COMPOST FILTER SOCK

24-INCH COMPOST FILTER SOCK -24—24—24—24—

-32—32—32—3232-INCH COMPOST FILTER SOCK

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

TEMPORARY EQUIPMENT CROSSING

SANDBAG DAM •

PUMP

SCREENED INLET ENERGY DISSIPATER

 \bigcirc DEWATERING FACILITY

CULVERT PIPE \times \times \times \times \times

EROSION CONTROL BLANKET

STREAM RESTORATION

REV. DATE APP#

Sunoco Logistics Partners L.P.

DWG. NO.

PENNSYLVANIA PIPELINE PROJECT STREAM S-Y22 **EXISTING CONDITIONS/EROSION &**

DESCRIPTION

HUNTINGDON COUNTY, PA

SEDIMENTATION CONTROL PLANS

OLD DRAWING NO.

DRAWN BY DLH

CHECKED BY | CDA

APPROVED BY | CDA

SCALE

REGISTERED

PROFESSIONAL

CHRISTOPHER D. ANTON

ENGINEER

√ No. PE-057385-E

CHRISTOPHER D. ANTONI

PE-057385-E

PROFILE LEGEND:

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

EXISTING GRADE

PIPE ELEV.

ENGINEERING RECORD

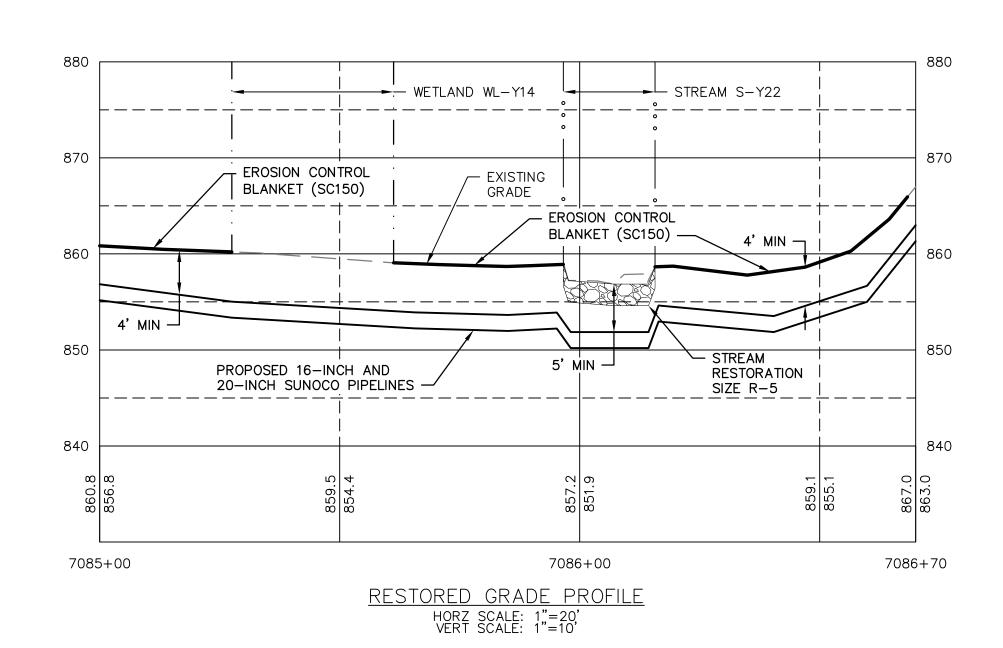
11/30/16

AS NOTED

S-Y22-A

APPROVAL

REV. NO.



- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
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- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
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WETLAND CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

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<u>LEGEND</u>

DESCRIPTION <u>SYMBOL</u> PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES

PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE

— — — — 910 — — — — MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

TOP/BOTTOM OF BANK

EXISTING EDGE OF PAVED ROADWAY

EXISTING EDGE OF UNPAVED ROADWAY

EXISTING VEGETATION

EDGE OF WATER

SOIL TYPE BOUNDARY

WETLAND

PROPOSED ROCK CONSTRUCTION ENTRANCE

LIMIT OF DISTURBANCE —LD——LD——LD—

CONSTRUCTION FENCE

12-INCH COMPOST FILTER SOCK -18 - 18 - 18 - 18 - 18 -18-INCH COMPOST FILTER SOCK

-24--24--24--24-24-INCH COMPOST FILTER SOCK

-32—32—32—32— 32-INCH COMPOST FILTER SOCK

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

TEMPORARY EQUIPMENT CROSSING

•

 \bigcirc

SANDBAG DAM

PUMP

SCREENED INLET

ENERGY DISSIPATER DEWATERING FACILITY

CULVERT PIPE

 \times \times \times \times \times EROSION CONTROL BLANKET

STREAM RESTORATION

DESCRIPTION



Sunoco Logistics Partners L.P.

REV. DATE APP#

PENNSYLVANIA PIPELINE PROJECT STREAM S-Y22 RESTORATION PLAN

HUNTINGDON COUNTY, PA

APPROVAL

REV. NO.

GRAPHIC SCALES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION

STV PROJECT No.: 38-17335

REGISTERED PROFESSIONAL CHRISTOPHER D. ANTON ENGINEER √ No. PE-057385-E

CHRISTOPHER D. ANTONI PE-057385-E

OLD DRAWING NO.

DRAWN BY DLH

CHECKED BY CDA

APPROVED BY CDA

SCALE

PROFILE LEGEND:

— — EXISTING GRADE

ENGINEERING RECORD

11/30/16

AS NOTED

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

DWG. NO. S-Y22-B

- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND
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- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
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WETLAND CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

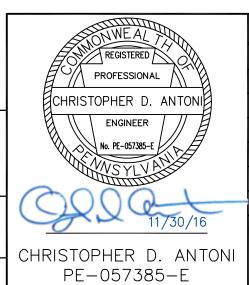
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LEGEND

| <u>LEGE</u> <u>SYMBOL</u> | <u>DESCRIPTION</u> |
|--|---|
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES |
| | PROPOSED SUNOCO RIGHT-OF-WAY |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE |
| — — — 910 — — — — | MAJOR CONTOUR |
| | MINOR CONTOUR |
| | STREAM CENTERLINE |
| | TOP/BOTTOM OF BANK |
| | EXISTING EDGE OF PAVED ROADWAY |
| | EXISTING EDGE OF UNPAVED ROADWA |
| | EXISTING VEGETATION |
| · · · · · · · · | EDGE OF WATER |
| ————————————————————————————————————— | SOIL TYPE BOUNDARY |
| | WETLAND |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| —_LD —LD — | LIMIT OF DISTURBANCE |
| CFCF | CONSTRUCTION FENCE |
| -12 12 12 12 | 12-INCH COMPOST FILTER SOCK |
| —18 ——18 ——18 — | 18-INCH COMPOST FILTER SOCK |
| -24242424- | 24-INCH COMPOST FILTER SOCK |
| -32-32-32-32- | 32-INCH COMPOST FILTER SOCK |
| | PERMANENT WATER BAR W/FILTER SOCK |
| | TRENCH PLUG |
| | TEMPORARY EQUIPMENT CROSSING |
| | SANDBAG DAM |
| | PUMP |
| | SCREENED INLET |
| | ENERGY DISSIPATER |
| A | |

Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION SERVICE. STV PROJECT No.: 38-17335



ENGINEERING RECORD DRAWN BY CNN CHECKED BY CDA APPROVED BY CDA 11/30/16 SCALE AS NOTED

OLD DRAWING NO.

Sunoco Logistics Partners L.P.

DWG. NO.

REV. DATE APP#

PENNSYLVANIA PIPELINE PROJECT STREAM S-Y3 **EXISTING CONDITIONS PLAN**

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

CULVERT PIPE

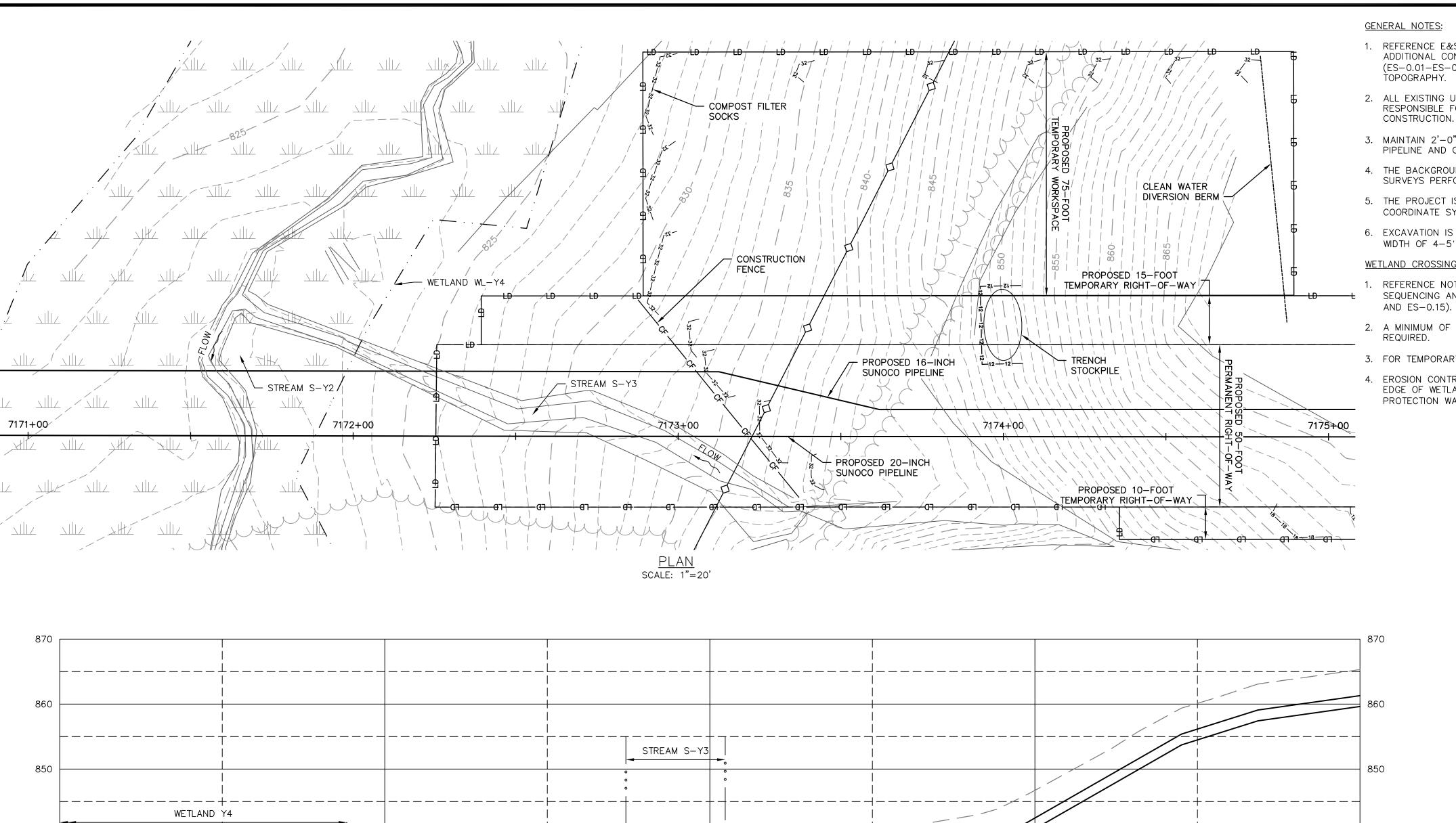
DESCRIPTION

HUNTINGDON COUNTY, PA

APPROVAL

REV. NO. S-Y3-C-A

GRAPHIC SCALE



STREAM S-Y2 →

7172+00

7171+00

- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
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WETLAND CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10,
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
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 - STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF
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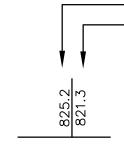
LEGEND

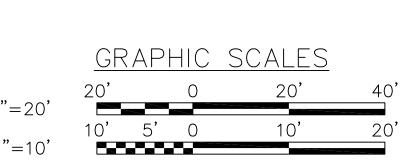
<u>SYMBOL</u> **DESCRIPTION** PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE MAJOR CONTOUR — — — — 910 — — — — MINOR CONTOUR STREAM CENTERLINE TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY EXISTING VEGETATION EDGE OF WATER SOIL TYPE BOUNDARY WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK 18-INCH COMPOST FILTER SOCK 24-INCH COMPOST FILTER SOCK 32-INCH COMPOST FILTER SOCK PERMANENT WATER BAR W/FILTER SOCK TRENCH PLUG TEMPORARY EQUIPMENT CROSSING SANDBAG DAM • \mathcal{I} PUMP SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY CULVERT PIPE EROSION CONTROL BLANKET STREAM RESTORATION

PROPOSED PIPELINE — — EXISTING GRADE EXISTING GRADE ELEV.

PROFILE LEGEND:

PROPOSED TOP OF PIPE ELEV.





PROPOSED 16-INCH AND

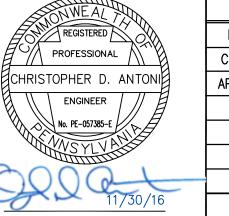
7173+00

20-INCH SUNOCO PIPELINES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION CHRISTOPHER D. ANTONI

7174+00

STV PROJECT No.: 38-17335



PE-057385-E

7175+00

ENGINEERING RECORD DRAWN BY | CNN CHECKED BY | CDA APPROVED BY | CDA 11/30/16 AS NOTED SCALE

OLD DRAWING NO.

Sunoco Logistics Partners L.P.

DWG. NO.

REV. DATE APP#

PENNSYLVANIA PIPELINE PROJECT STREAM S-Y3 **EROSION & SEDIMENTATION** CONTROL PLAN AND PROFILE

DESCRIPTION

HUNTINGDON COUNTY, PA

APPROVA

REV. NO. S-Y3-C-B

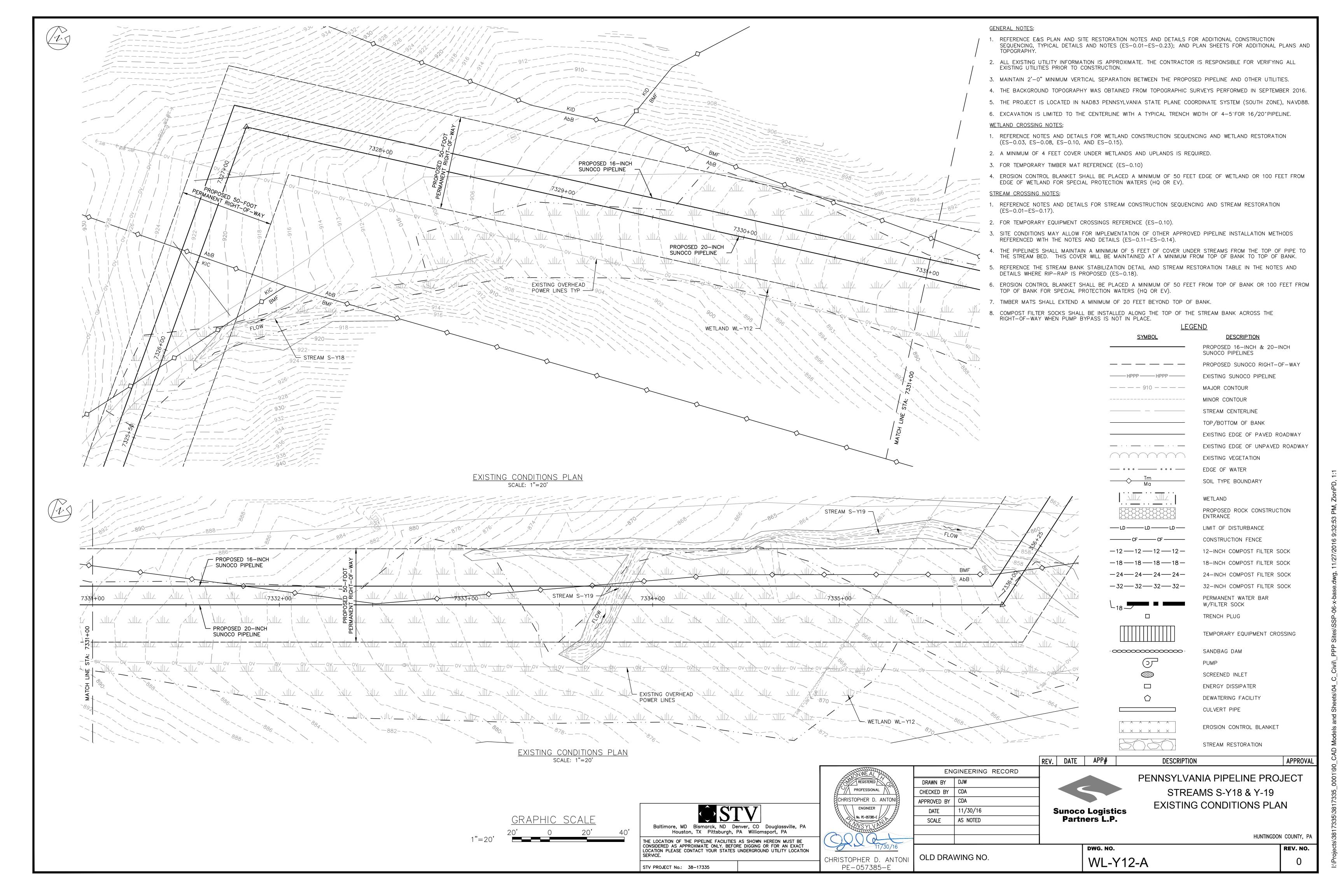
STV PROJECT No.: 38-17335

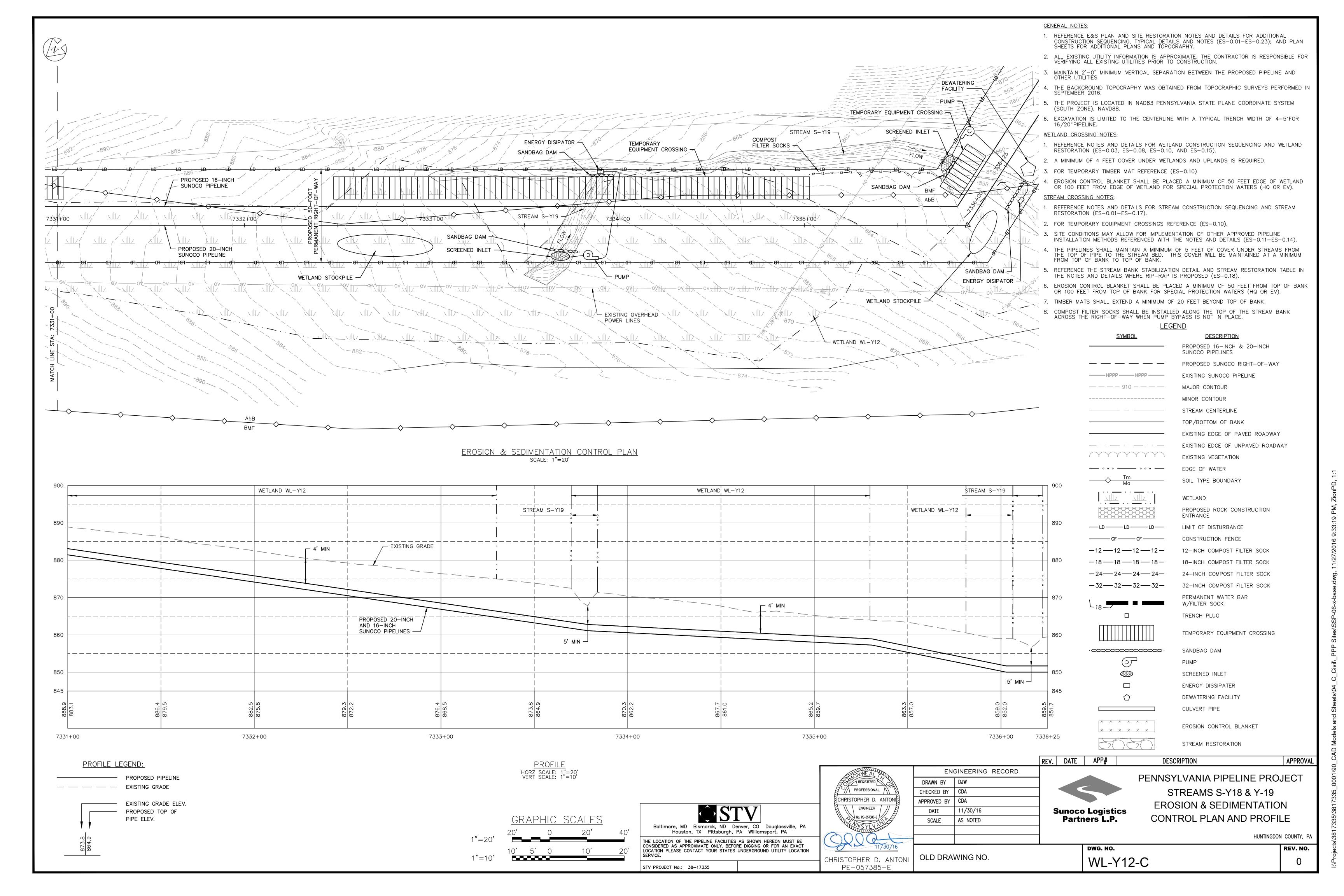
REV. NO.

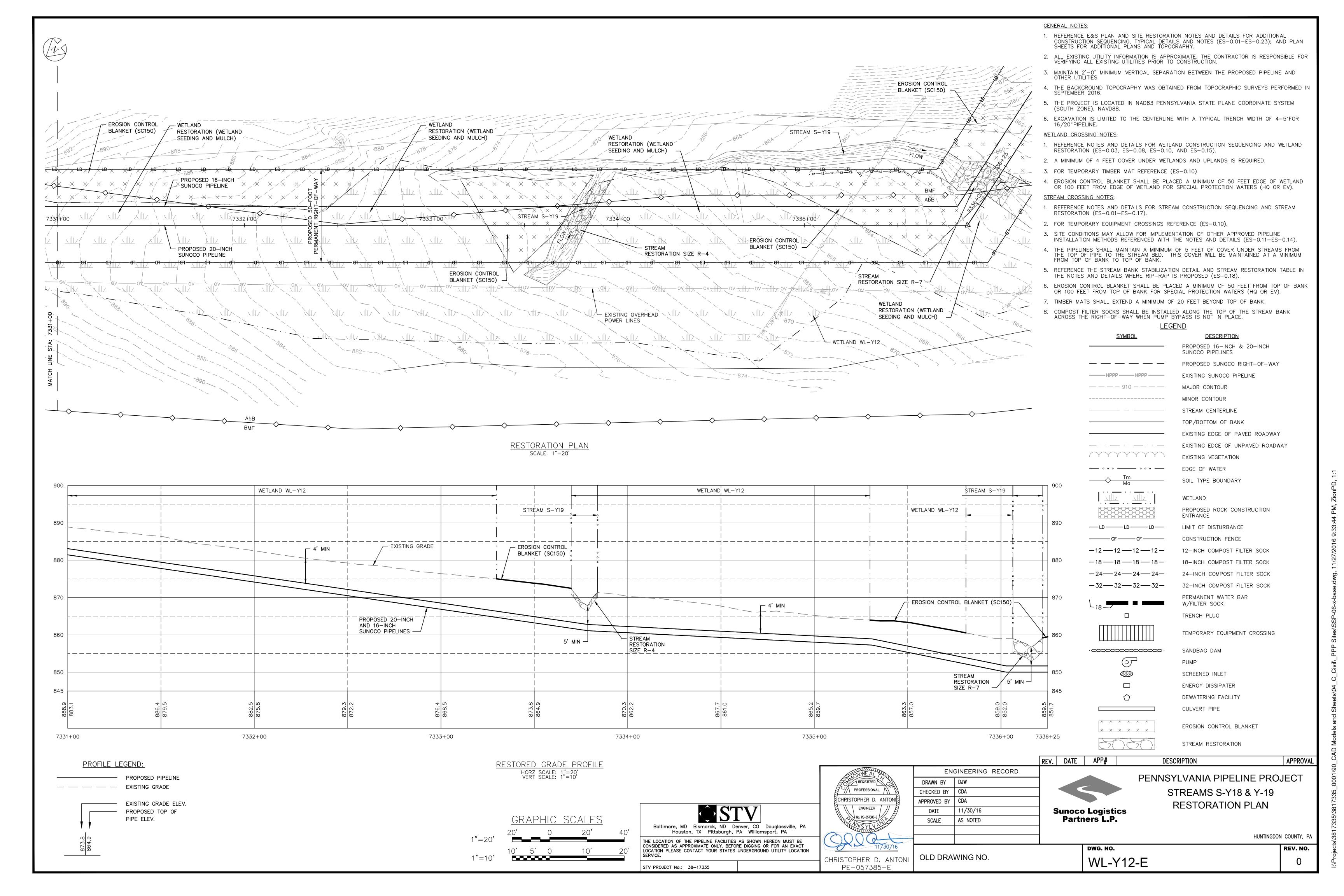
OLD DRAWING NO.

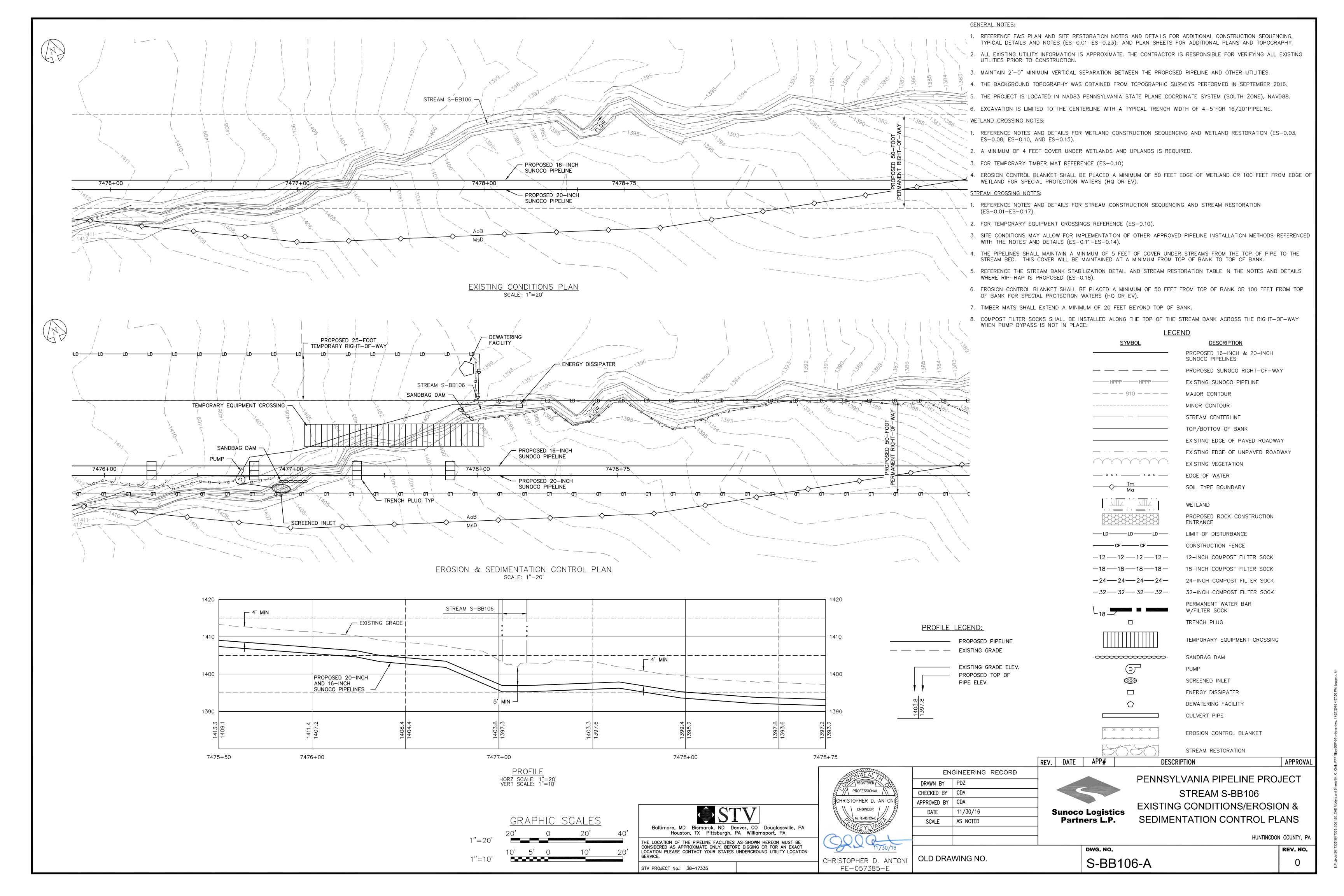
CHRISTOPHER D. ANTONI PE-057385-E

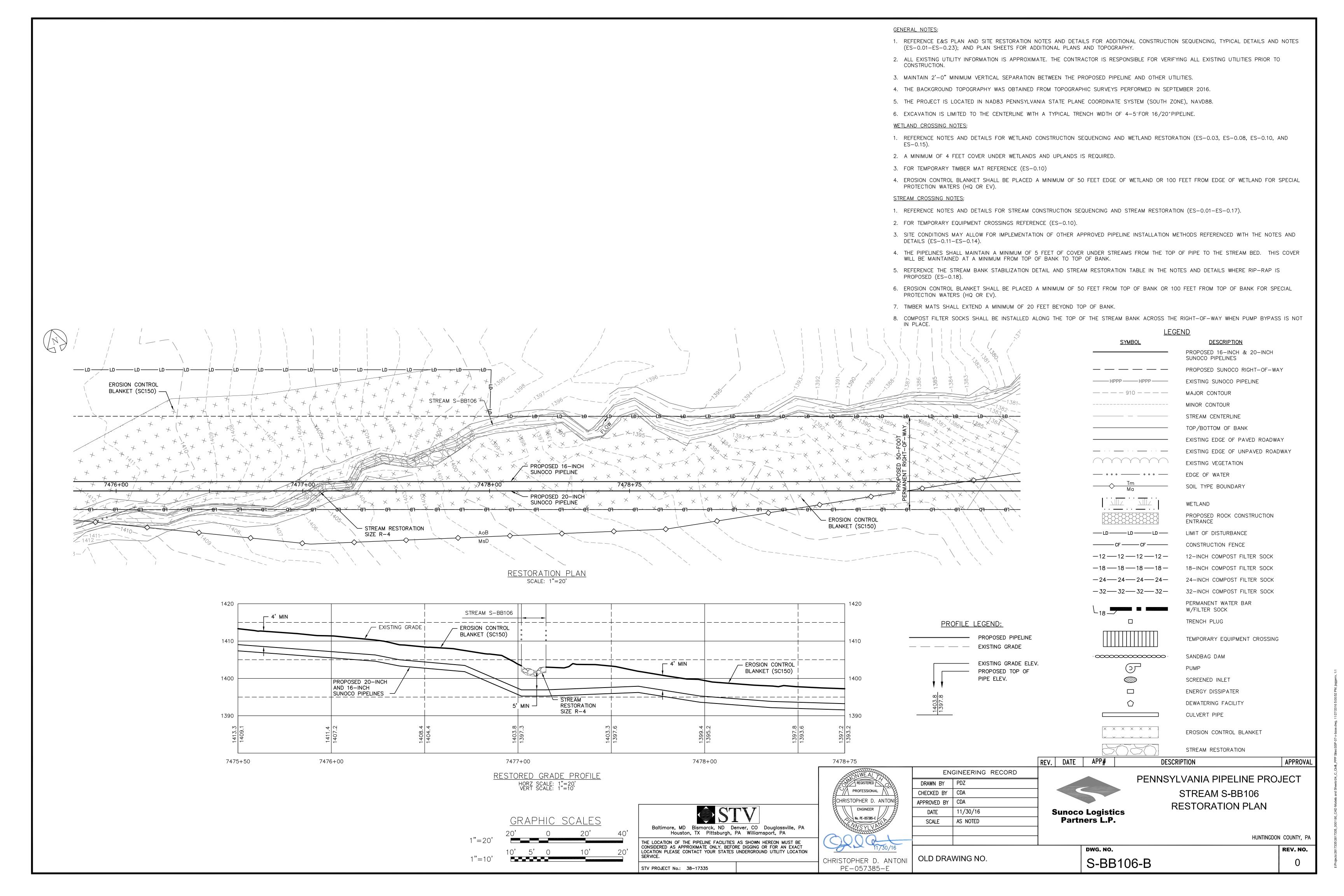
S-Y3-C-C











WETLAND CROSSING NOTES:

UTILITIES PRIOR TO CONSTRUCTION.

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL

2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING

DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.

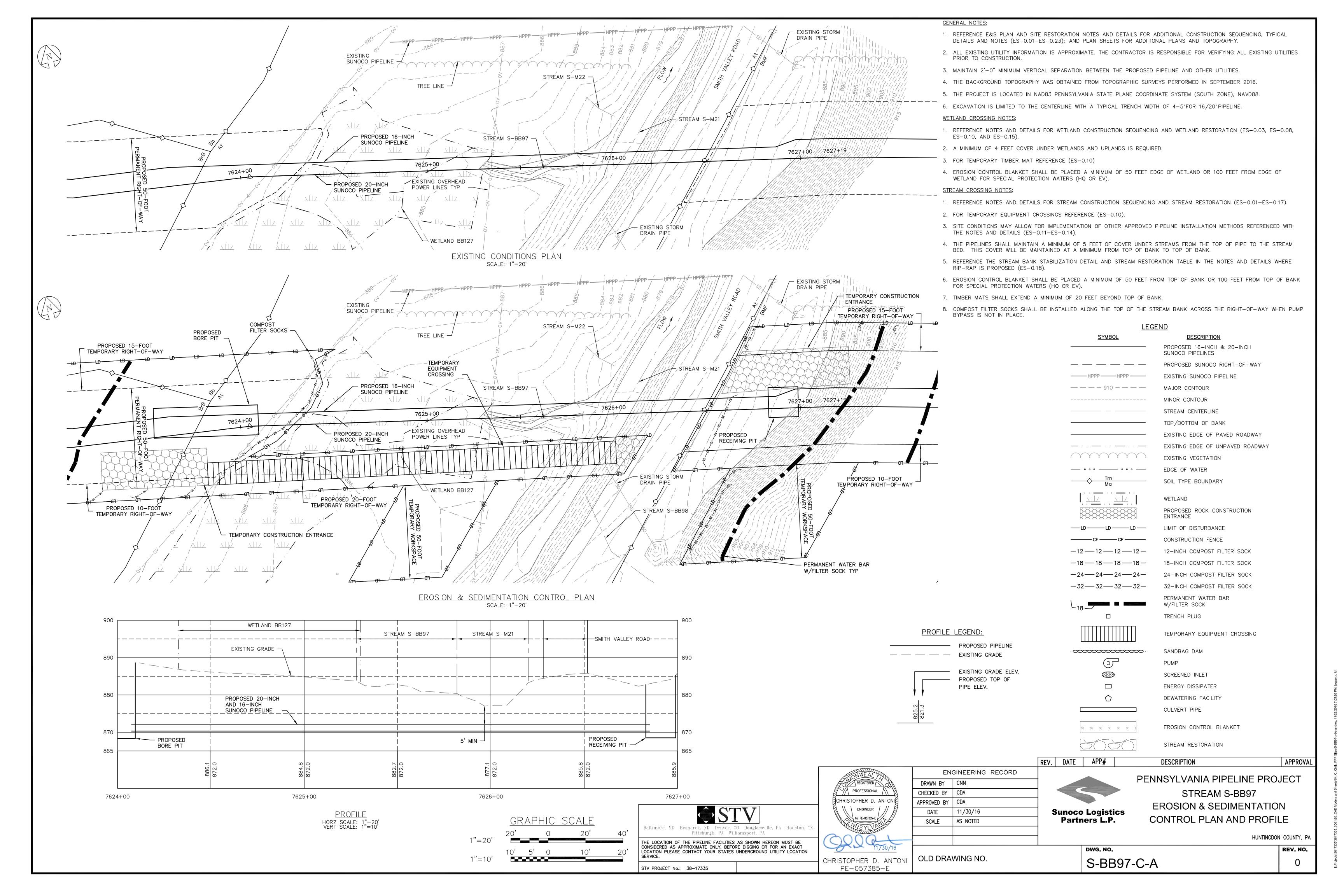
3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

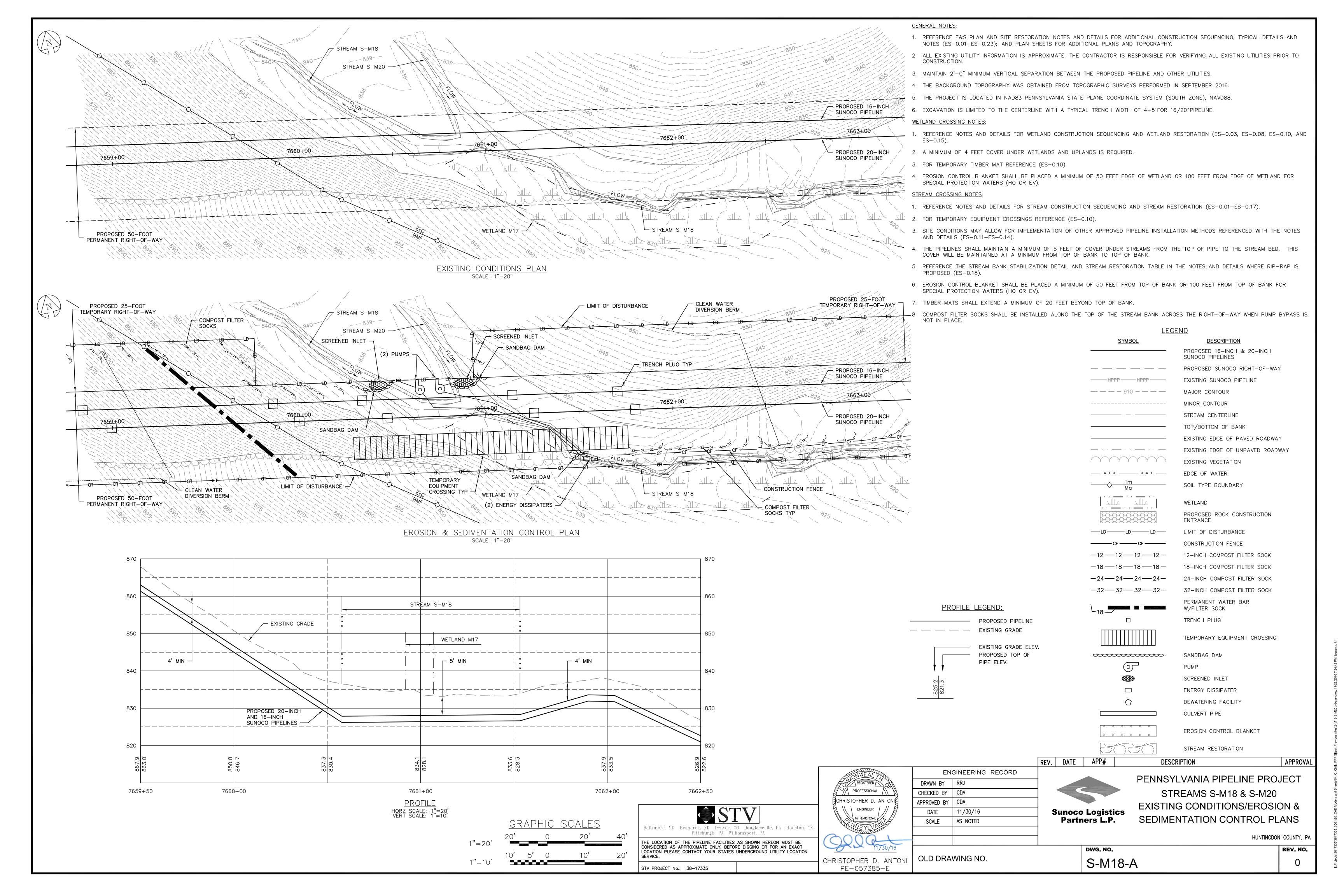
6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

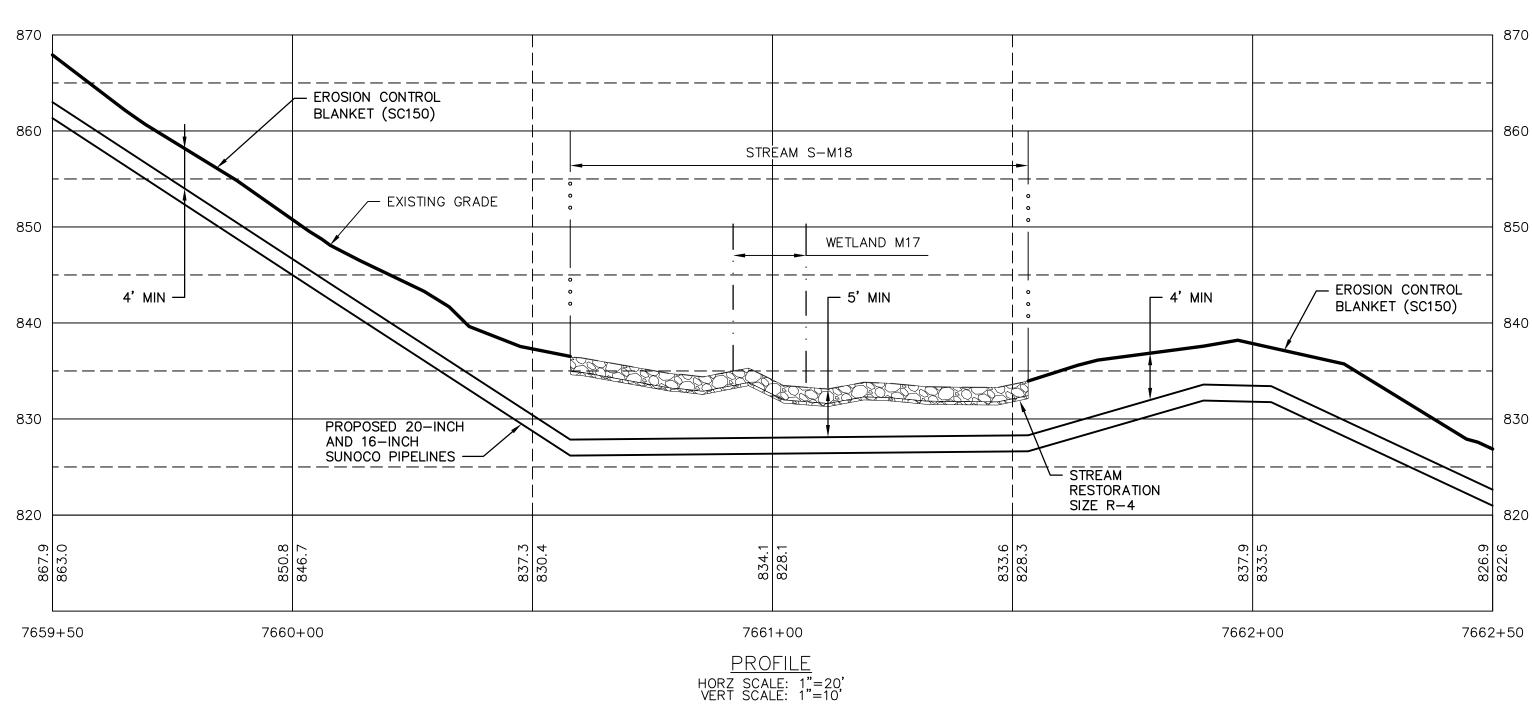
4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.

5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.

817335\3817335_0001\90_CAD Models and Sheets\04_C_Civil_PPP Sites\SSP-09-x-base.dwg, 11/27/2016 9:45:49 PM, ZionPD, 1:1







1"=10'

GENERAL NOTES:

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.

2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.

5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

WETLAND CROSSING NOTES:

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.

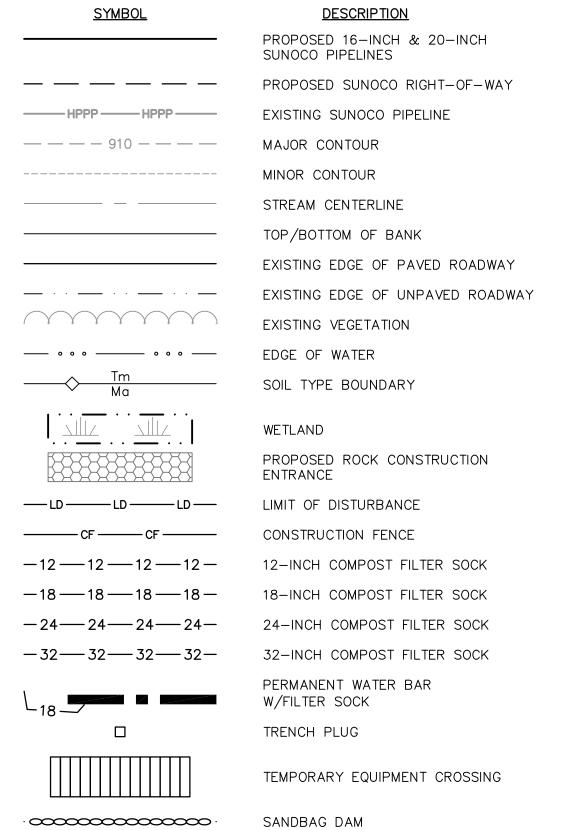
5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).

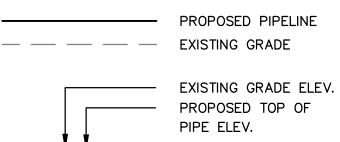
6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

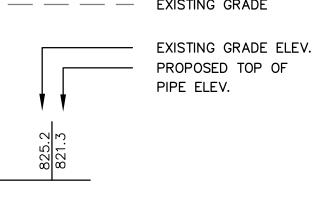
8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

<u>LEGEND</u>





PROFILE LEGEND:



ENGINEERING RECORD

11/30/16

AS NOTED

DRAWN BY RRJ

CHECKED BY | CDA

APPROVED BY | CDA

DATE

SCALE

REGISTERED

PROFESSIONAL

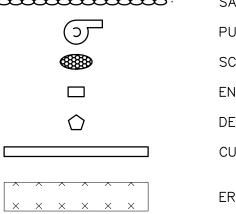
CHRISTOPHER D. ANTONI

ENGINEER

No. PE-057385-E

CHRISTOPHER D. ANTONI

PE-057385-E



PUMP SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY CULVERT PIPE

EROSION CONTROL BLANKET

STREAM RESTORATION DESCRIPTION

REV. DATE APP#

Sunoco Logistics Partners L.P.

PENNSYLVANIA PIPELINE PROJECT STREAMS S-M18 & S-M20 RESTORATION PLAN

HUNTINGDON COUNTY, PA

DWG. NO. OLD DRAWING NO.

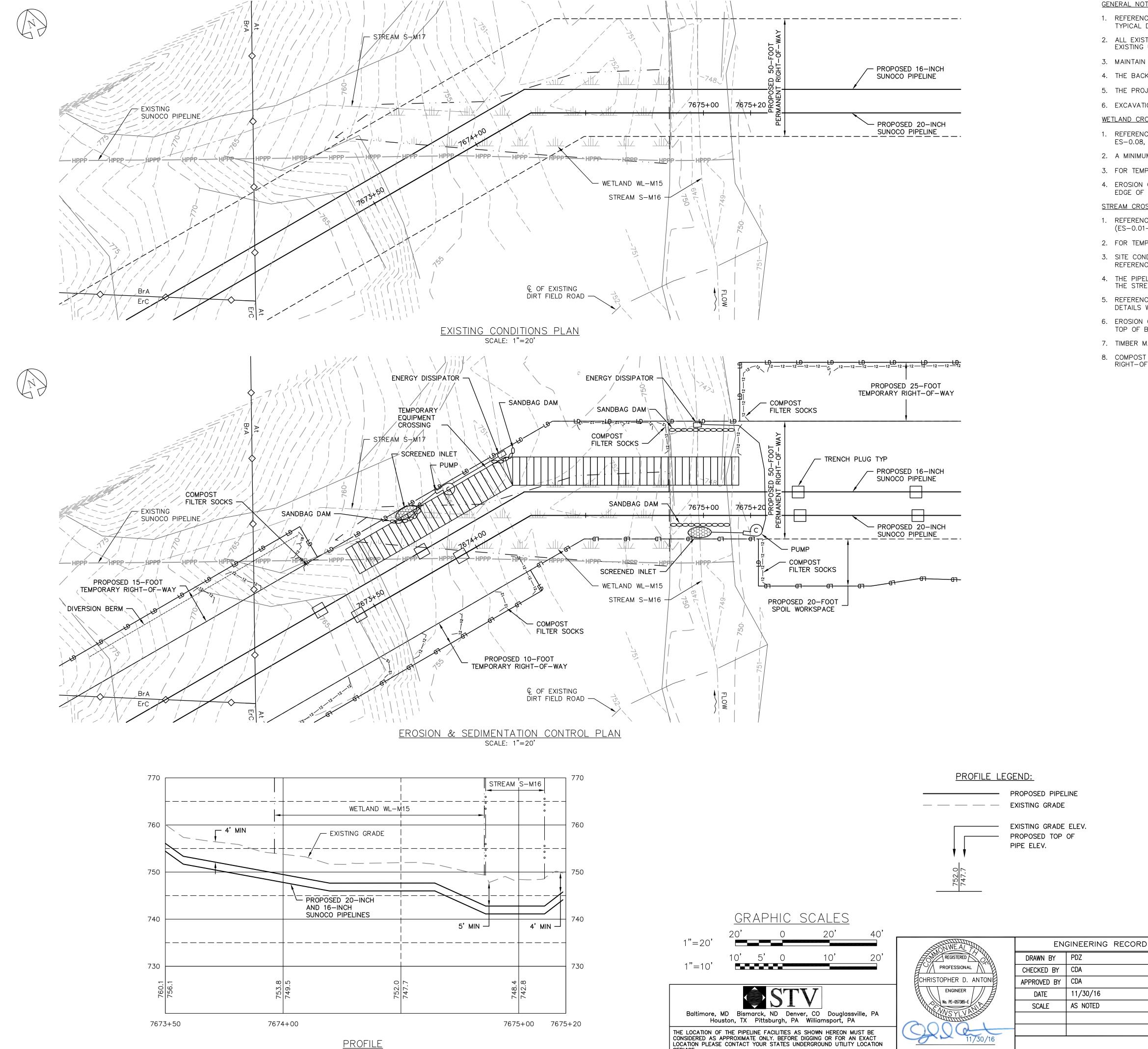
GRAPHIC SCALES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION SERVICE. STV PROJECT No.: 38-17335

S-M18-B

REV. NO.

APPROVA



- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

WETLAND CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

<u>LEGEND</u>

| <u>SYMBOL</u> | DESCRIPTION |
|--|---|
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES |
| | PROPOSED SUNOCO RIGHT-OF-WAY |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE |
| — — — 910 — — — | MAJOR CONTOUR |
| | MINOR CONTOUR |
| | STREAM CENTERLINE |
| | TOP/BOTTOM OF BANK |
| | EXISTING EDGE OF PAVED ROADWAY |
| | EXISTING EDGE OF UNPAVED ROADWAY |
| | EXISTING VEGETATION |
| | EDGE OF WATER |
| ——— | SOIL TYPE BOUNDARY |
| | WETLAND |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| — | LIMIT OF DISTURBANCE |
| | CONSTRUCTION FENCE |
| —12 ——12 ——12 — | 12-INCH COMPOST FILTER SOCK |
| —18 ——18 ——18 — | 18-INCH COMPOST FILTER SOCK |
| -24242424 | 24-INCH COMPOST FILTER SOCK |
| -32 32 32 | 32-INCH COMPOST FILTER SOCK |
| | PERMANENT WATER BAR W/FILTER SOCK |
| | TRENCH PLUG |
| | TEMPORARY EQUIPMENT CROSSING |
| | SANDBAG DAM |
| <u></u> | PUMP |
| | SCREENED INLET |
| | ENERGY DISSIPATER |
| \bigcirc | DEWATERING FACILITY |
| | CULVERT PIPE |
| × × × × × × × × × × × × × × × × × × × | EROSION CONTROL BLANKET |
| | STREAM RESTORATION |



REV. DATE APP#

Sunoco Logistics Partners L.P.

PENNSYLVANIA PIPELINE PROJECT STREAM S-M16 AND S-M17 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

DESCRIPTION

HUNTINGDON COUNTY, PA

REV. NO.

DWG. NO. OLD DRAWING NO.

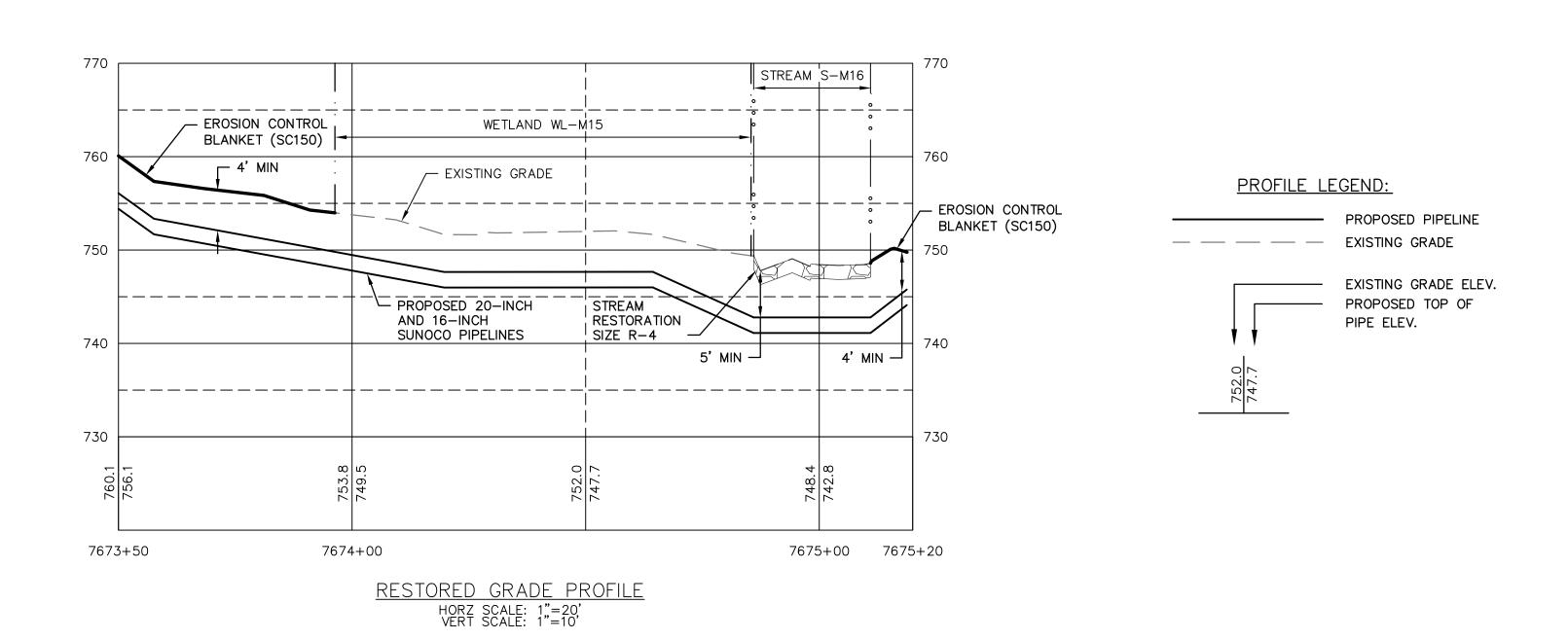
CHRISTOPHER D. ANTONI

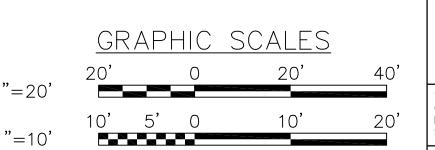
PE-057385-E

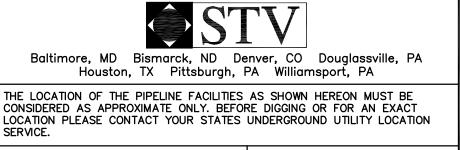
STV PROJECT No.: 38-17335

S-M17-A

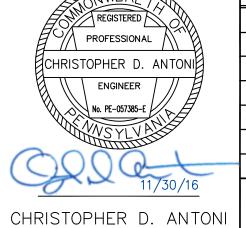
APPROVAL







STV PROJECT No.: 38-17335



| 1 | |
|---------------------|-----|
| ENGINEER // A | DA |
| No. PE-057385-E | SCA |
| ANS ALALIES | |
| 20,0 Q | |
| 11/30/16 | |
| RISTOPHER D. ANTONI | OLD |
| PE-057385-E | |

CHECKED BY CDA APPROVED BY CDA 11/30/16 AS NOTED CALE

DRAWN BY PDZ

Sunoco Logistics Partners L.P.

REV. DATE APP#

PENNSYLVANIA PIPELINE PROJECT STREAM S-M16 AND S-M17 RESTORATION PLAN

HUNTINGDON COUNTY, PA

D DRAWING NO.

ENGINEERING RECORD

GENERAL NOTES:

WETLAND CROSSING NOTES:

STREAM CROSSING NOTES:

(ES-0.01-ES-0.17).

ES-0.08, ES-0.10, AND ES-0.15).

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

EXISTING UTILITIES PRIOR TO CONSTRUCTION.

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.

4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.

5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03,

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS

4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO

THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM

<u>LEGEND</u>

DESCRIPTION

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

TOP/BOTTOM OF BANK

EXISTING VEGETATION

SOIL TYPE BOUNDARY

LIMIT OF DISTURBANCE

CONSTRUCTION FENCE

EDGE OF WATER

WETLAND

ENTRANCE

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

PROPOSED ROCK CONSTRUCTION

12-INCH COMPOST FILTER SOCK

18-INCH COMPOST FILTER SOCK

24-INCH COMPOST FILTER SOCK

32-INCH COMPOST FILTER SOCK

TEMPORARY EQUIPMENT CROSSING

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

SANDBAG DAM

SCREENED INLET

CULVERT PIPE

ENERGY DISSIPATER

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

PUMP

DESCRIPTION

EXISTING EDGE OF UNPAVED ROADWAY

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND

8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE

<u>SYMBOL</u>

— — — — 910 — — — —

— · · · · — · · · —

—LD——LD——LD—

-24—24—24—24—

-32—32—32—32—

 $\overline{\mathcal{O}}$

2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).

RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

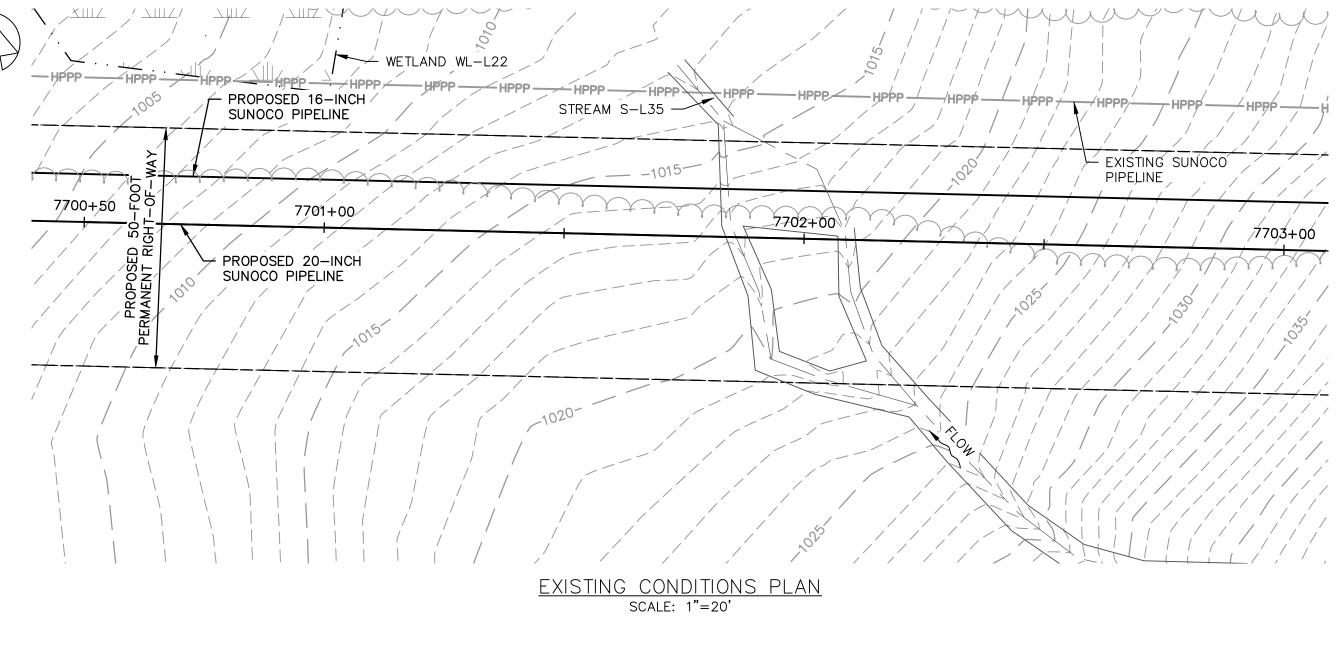
TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

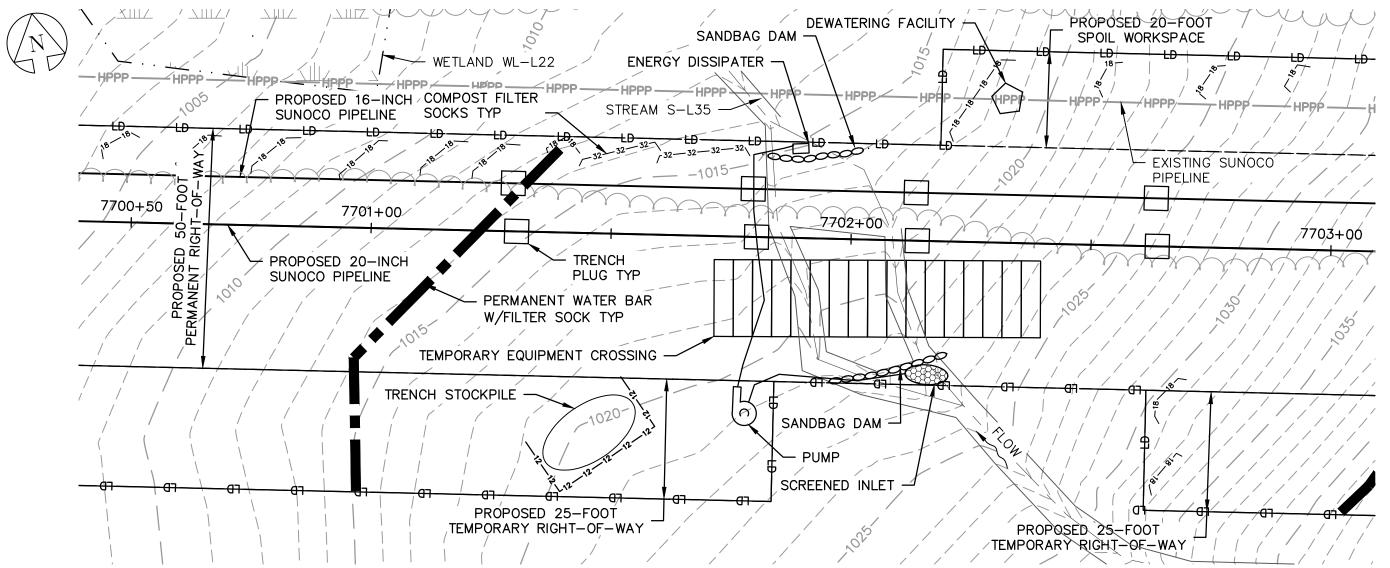
7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

DWG. NO. S-M17-B

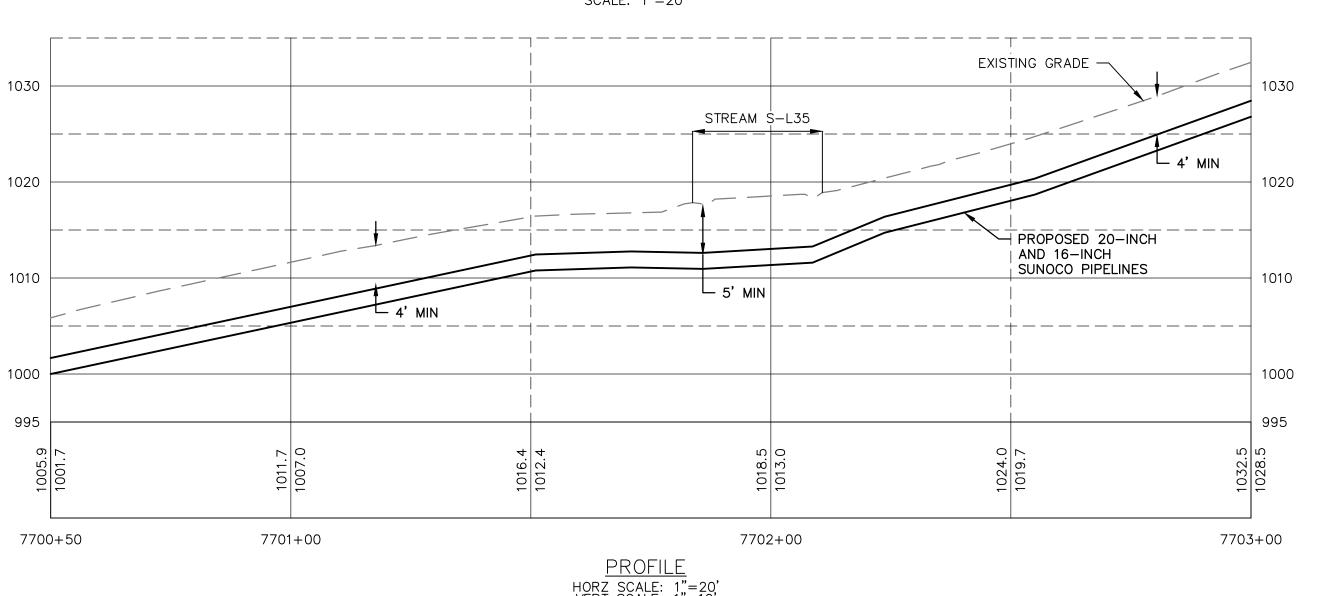
REV. NO.

APPROVAL





SCALE: 1"=20'



- REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.

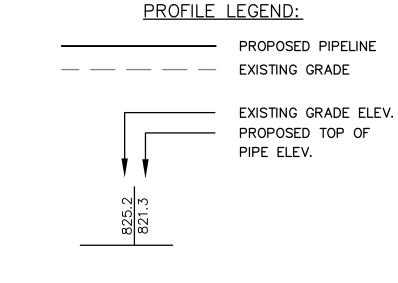
WETLAND CROSSING NOTES:

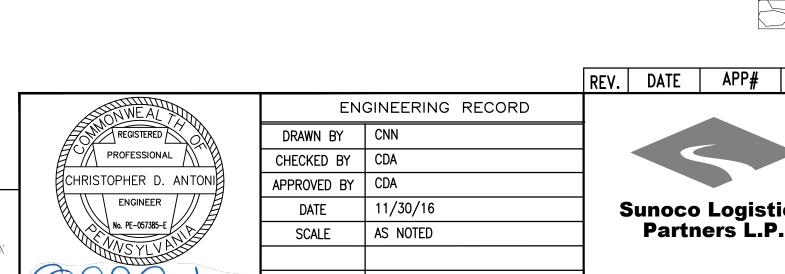
- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

| <u>LEGEND</u> | |
|--|---|
| <u>SYMBOL</u> | <u>DESCRIPTION</u> |
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES |
| | PROPOSED SUNOCO RIGHT-OF-WAY |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE |
| — — — 910 — — — — | MAJOR CONTOUR |
| | MINOR CONTOUR |
| | STREAM CENTERLINE |
| | TOP/BOTTOM OF BANK |
| | EXISTING EDGE OF PAVED ROADWAY |
| | EXISTING EDGE OF UNPAVED ROADWAY |
| | EXISTING VEGETATION |
| o o o | EDGE OF WATER |
| ————————————————————————————————————— | SOIL TYPE BOUNDARY |
| | WETLAND |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| —_LD —LD —LD —_ | LIMIT OF DISTURBANCE |
| | CONSTRUCTION FENCE |
| -12 12 12 12 | 12-INCH COMPOST FILTER SOCK |
| -18 18 18 18 | 18-INCH COMPOST FILTER SOCK |
| -24242424- | 24-INCH COMPOST FILTER SOCK |
| -32-32-32-32- | 32-INCH COMPOST FILTER SOCK |
| L ₁₈ | PERMANENT WATER BAR W/FILTER SOCK |
| | TRENCH PLUG |
| | TEMPORARY EQUIPMENT CROSSING |
| | SANDBAG DAM |
| <u></u> | PUMP |
| | SCREENED INLET |





OLD DRAWING NO.

DESCRIPTION APPROVAL PENNSYLVANIA PIPELINE PROJECT STREAM S-L35 **EXISTING CONDITIONS/EROSION &** Sunoco Logistics SEDIMENTATION CONTROL PLANS

ENERGY DISSIPATER

CULVERT PIPE

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

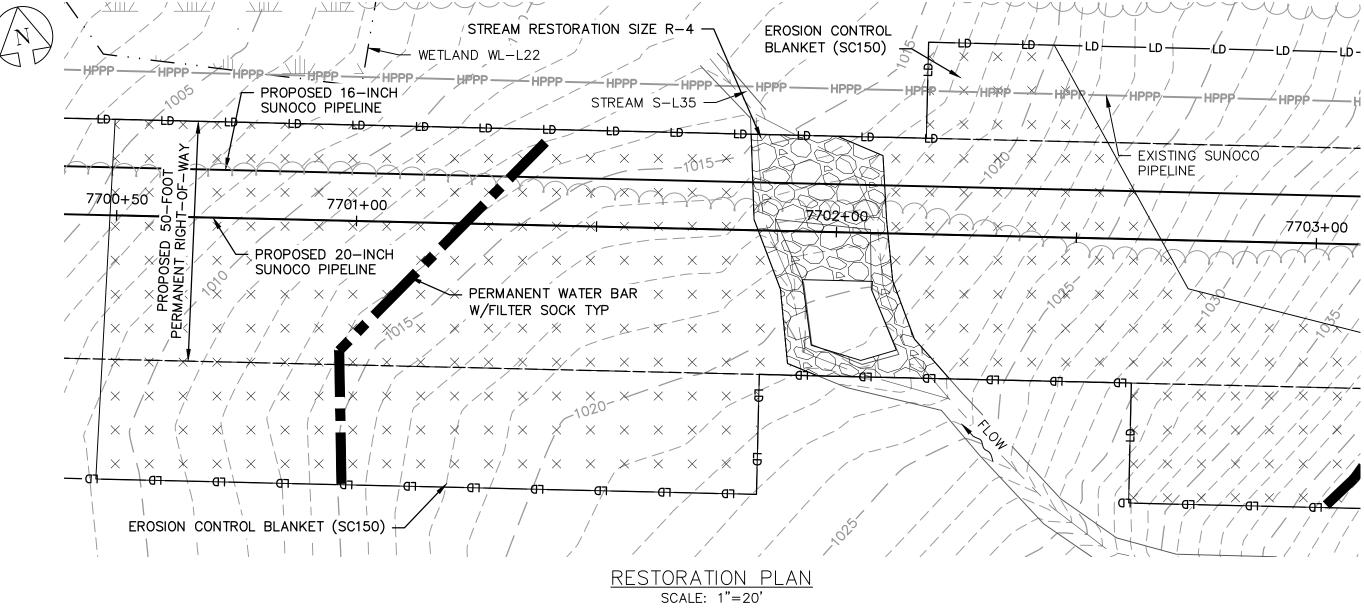
HUNTINGDON COUNTY, PA

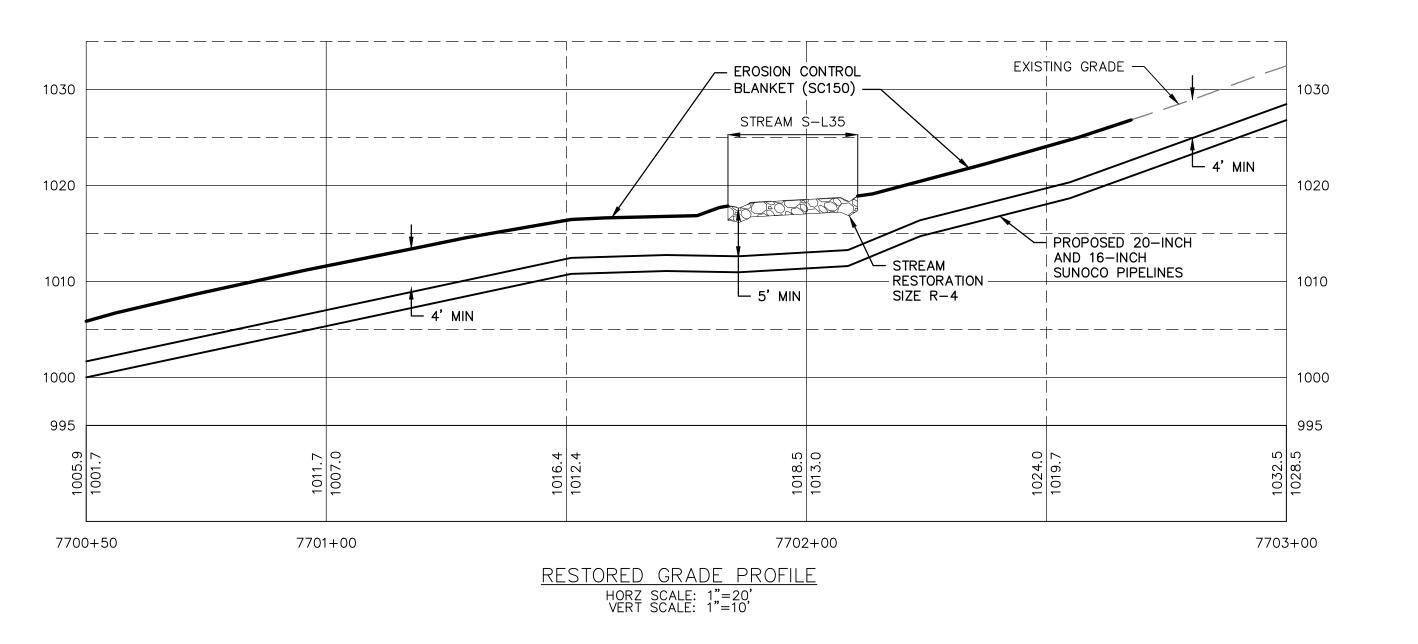
DWG. NO. REV. NO. S-L35-A

GRAPHIC SCALES

\$STV Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335

CHRISTOPHER D. ANTONI PE-057385-E

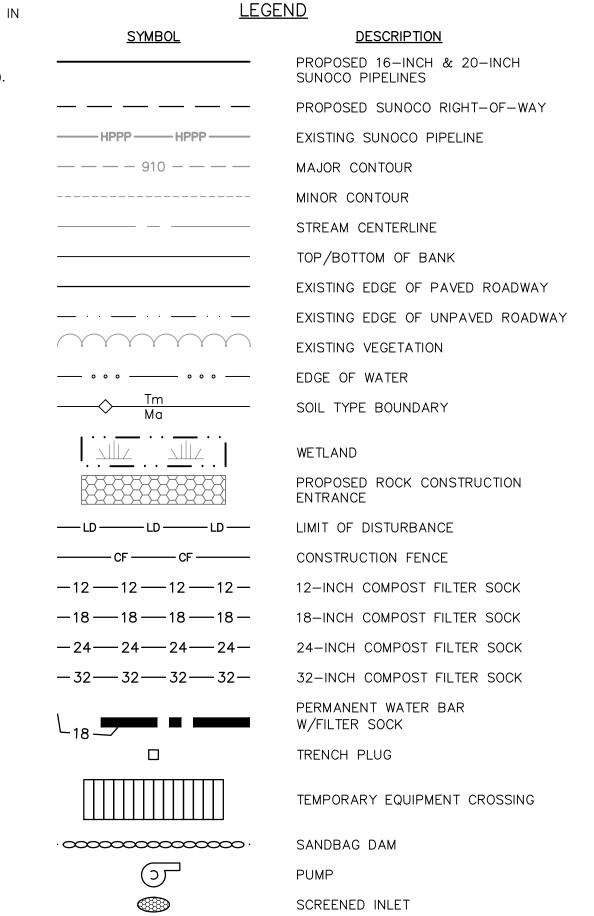


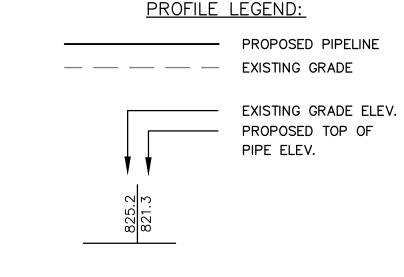


- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.

WETLAND CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV). STREAM CROSSING NOTES:
- I. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.





REV. DATE ENGINEERING RECORD DRAWN BY CNN PROFESSIONAL CHECKED BY CDA CHRISTOPHER D. ANTONI APPROVED BY CDA ENGINEER 11/30/16 DATE No. PE-057385-E / AS NOTED SCALE

PENNSYLVANIA PIPELINE PROJECT STREAM S-L35 **RESTORATION PLAN Sunoco Logistics** Partners L.P.

DESCRIPTION

APP#

DWG. NO.

ENERGY DISSIPATER

CULVERT PIPE

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

HUNTINGDON COUNTY, PA

APPROVAL

GRAPHIC SCALES 1"=10'

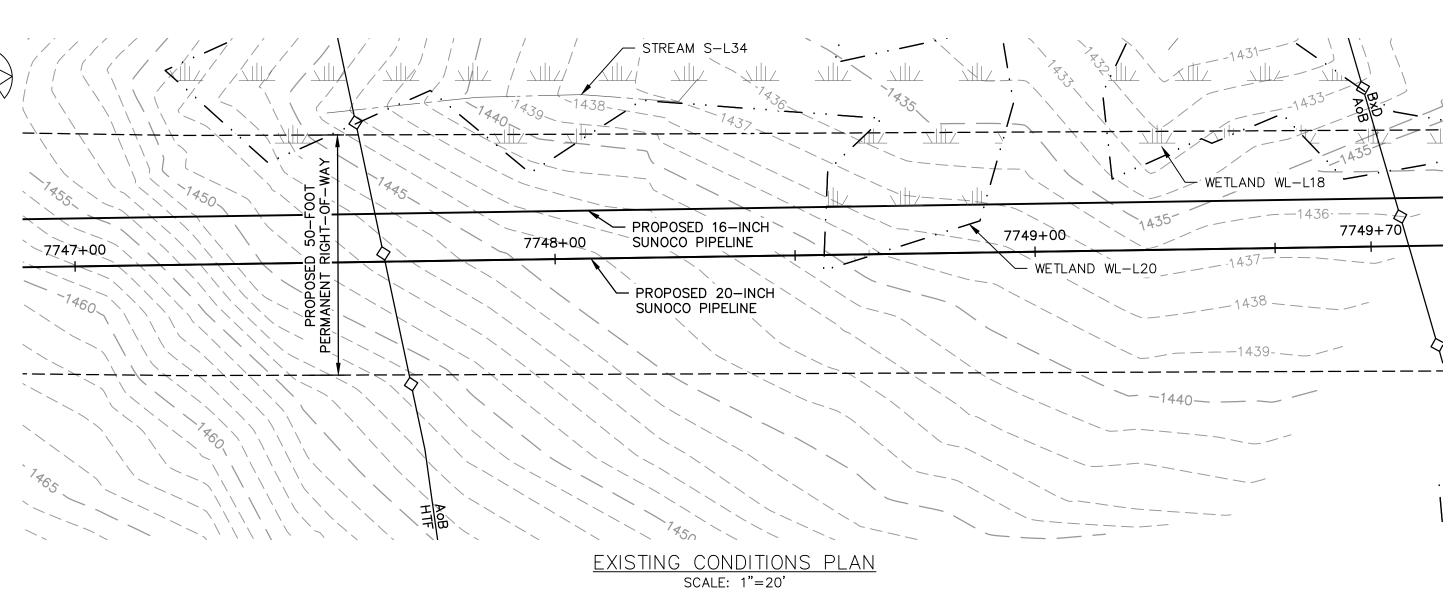
\$STV Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335

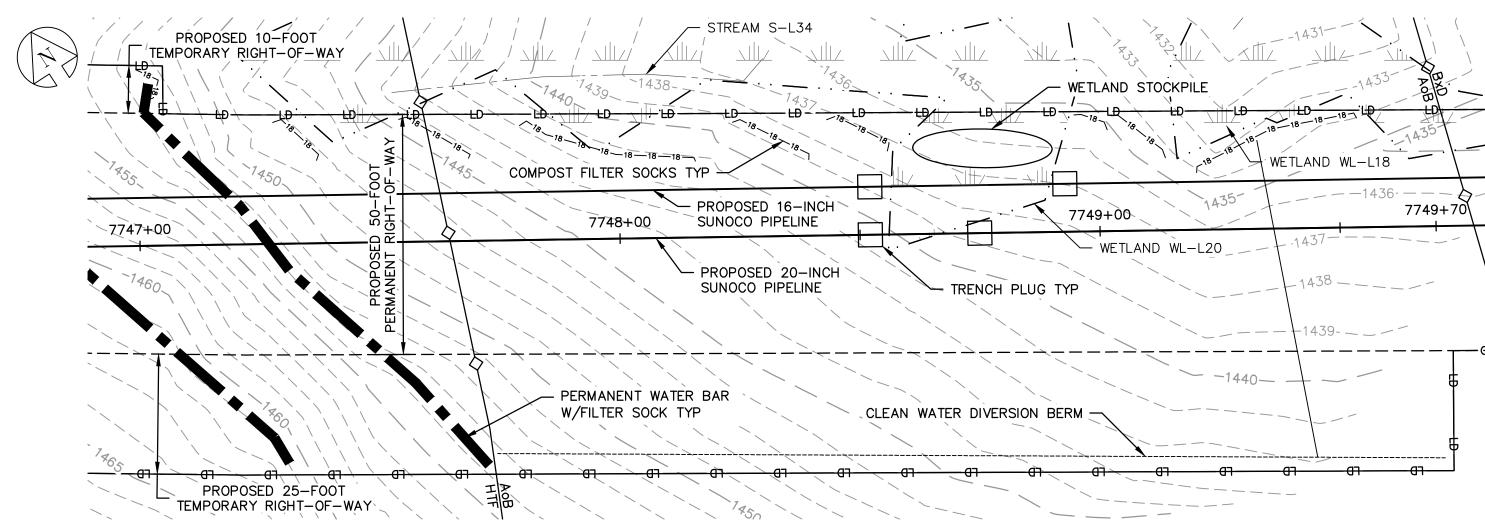
CHRISTOPHER D. ANTONI PE-057385-E

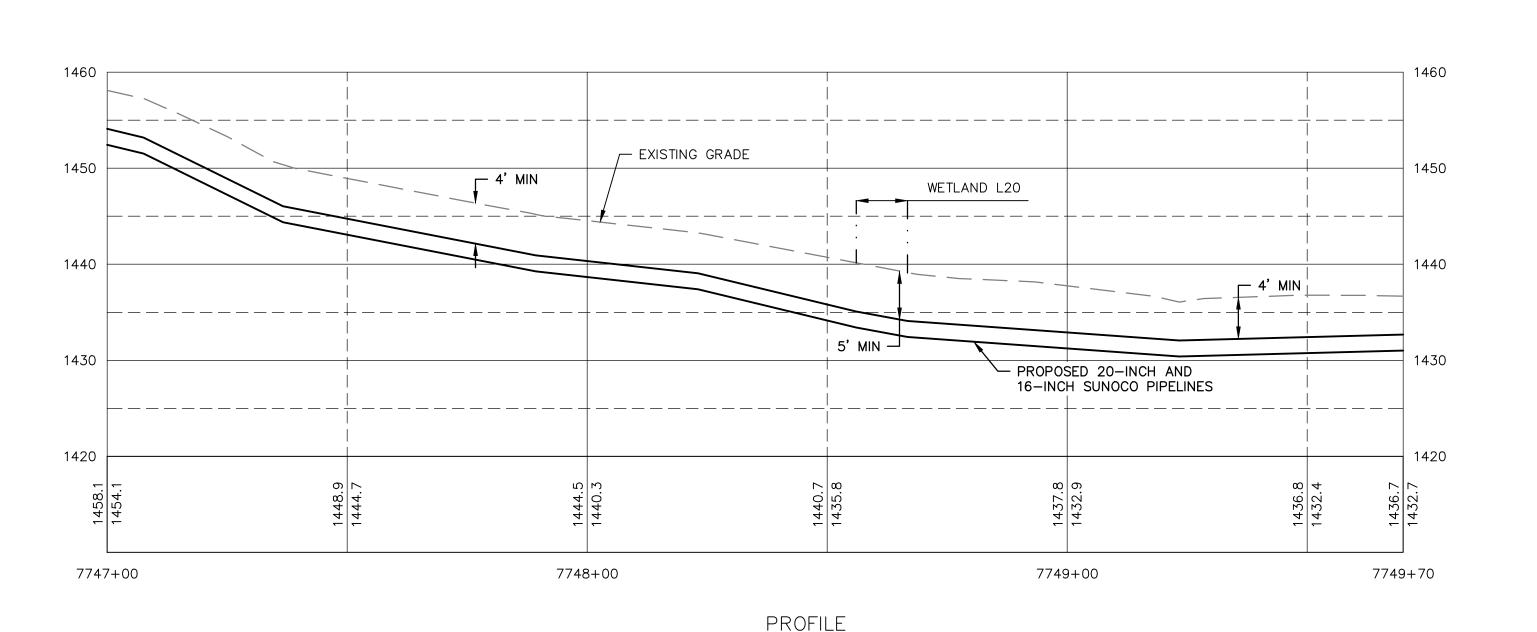
OLD DRAWING NO.

S-L35-B

REV. NO.







GRAPHIC SCALES

EROSION & SEDIMENTATION CONTROL PLAN

GENERAL NOTES:

- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.
- WETLAND CROSSING NOTES:
- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01–ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

| 1505 | ·ND |
|--|---|
| <u>LEGE</u> SYMBOL | <u>DESCRIPTION</u> |
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES |
| | PROPOSED SUNOCO RIGHT-OF-WAY |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE |
| — — — — 910 — — — — | MAJOR CONTOUR |
| | MINOR CONTOUR |
| | STREAM CENTERLINE |
| | TOP/BOTTOM OF BANK |
| | EXISTING EDGE OF PAVED ROADWAY |
| | EXISTING EDGE OF UNPAVED ROADWAY |
| | EXISTING VEGETATION |
| | EDGE OF WATER |
| ——— | SOIL TYPE BOUNDARY |
| | WETLAND |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| —LD——LD——LD— | LIMIT OF DISTURBANCE |
| ——— CF ——— CF ——— | CONSTRUCTION FENCE |
| -12 12 12 12 | 12-INCH COMPOST FILTER SOCK |
| -18 18 18 18 | 18-INCH COMPOST FILTER SOCK |
| -24242424- | 24-INCH COMPOST FILTER SOCK |
| -32—32—32—32— | 32-INCH COMPOST FILTER SOCK |
| L ₁₈ | PERMANENT WATER BAR W/FILTER SOCK |
| | TRENCH PLUG |
| | TEMPORARY EQUIPMENT CROSSING |
| • | SANDBAG DAM |
| デ | PUMP |

PROFILE LEGEND: — PROPOSED PIPELINE — — — EXISTING GRADE EXISTING GRADE ELEV. PROPOSED TOP OF PIPE ELEV.

SCREENED INLET ENERGY DISSIPATER

DEWATERING FACILITY CULVERT PIPE

EROSION CONTROL BLANKET \times \times \times \times \times

STREAM RESTORATION

DESCRIPTION

REV. DATE APP#

Sunoco Logistics Partners L.P.

PENNSYLVANIA PIPELINE PROJECT STREAM S-L34 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

APPROVA

ENGINEER No. PE-057385-E Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335

PROFESSIONAL HRISTOPHER D. ANTONI

CHRISTOPHER D. ANTONI PE-057385-E

OLD DRAWING NO.

DRAWN BY CNN

CHECKED BY CDA APPROVED BY CDA

DATE

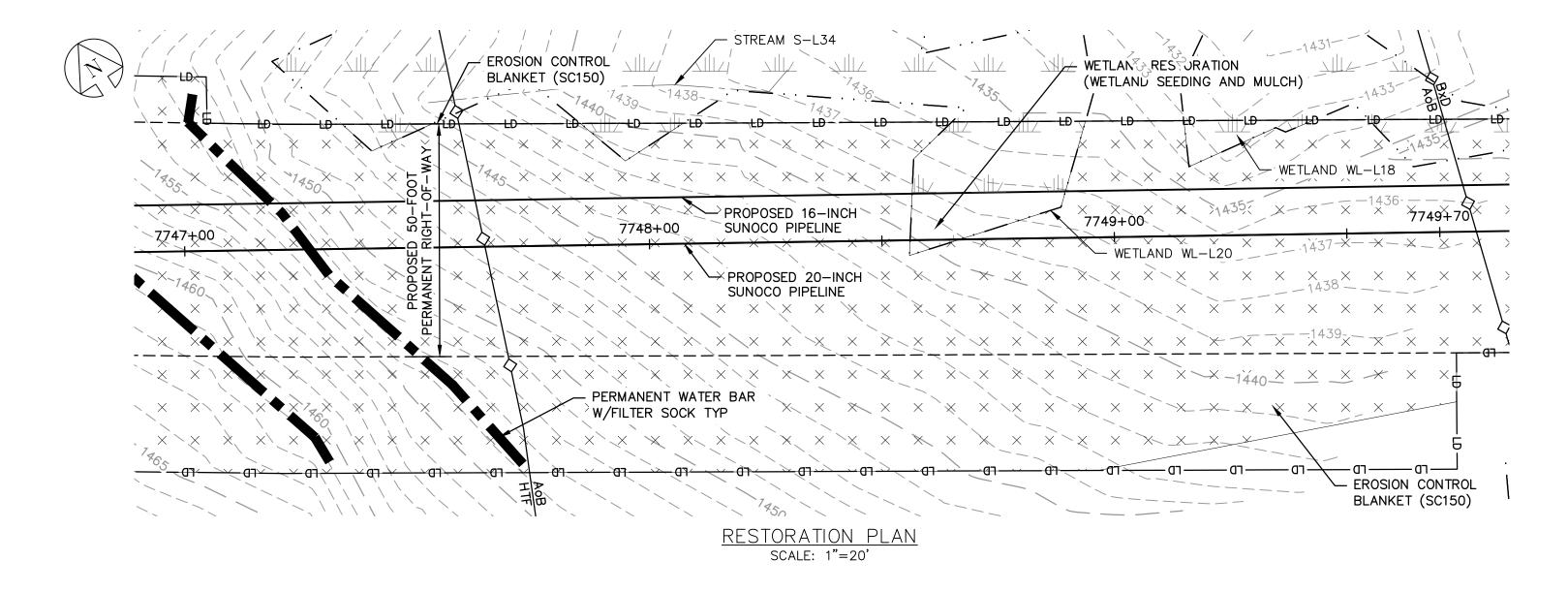
SCALE

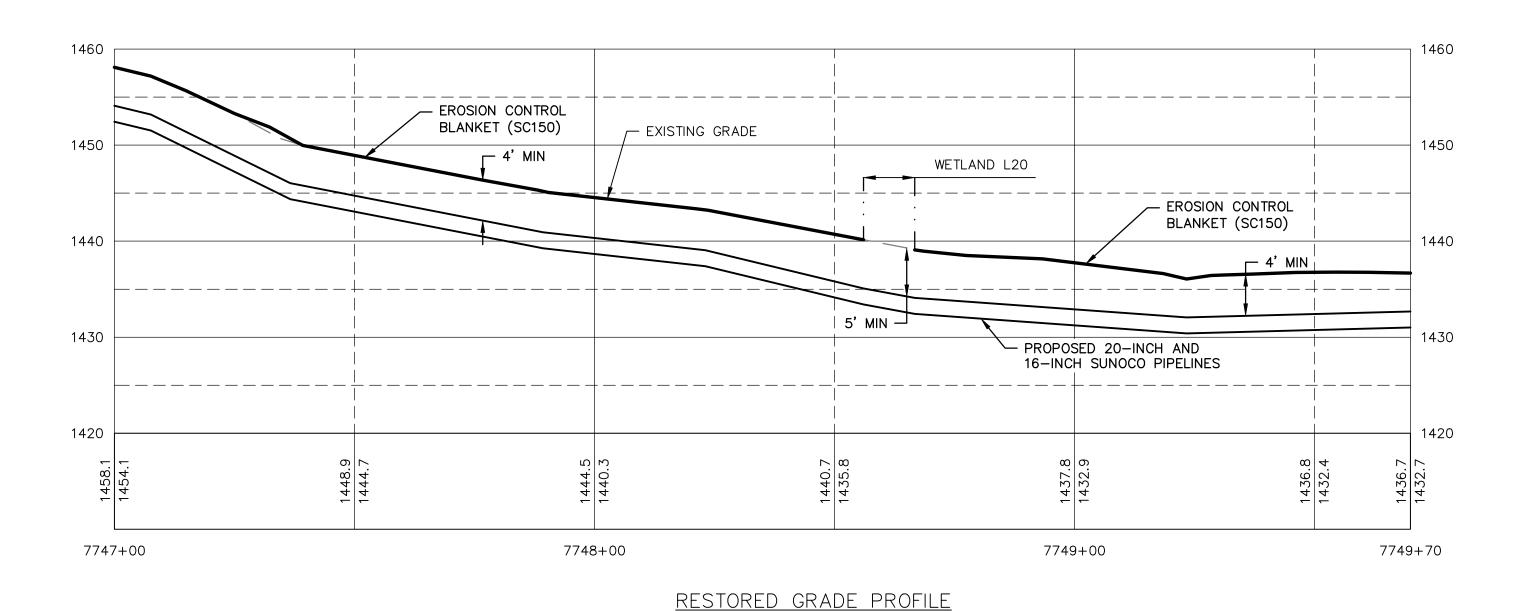
ENGINEERING RECORD

11/30/16

AS NOTED

DWG. NO. S-L34-A HUNTINGDON COUNTY, PA REV. NO.





HORZ SCALE: 1"=20' VERT SCALE: 1"=10'

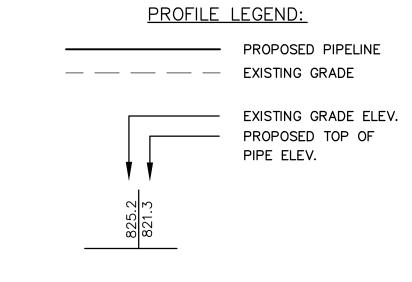
GENERAL NOTES:

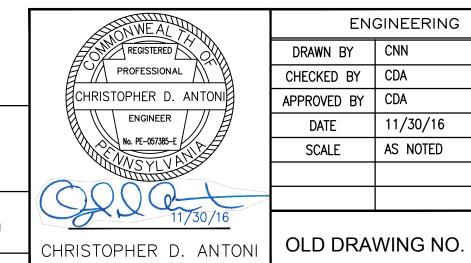
- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
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- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

<u>LEGEND</u> **DESCRIPTION** <u>SYMBOL</u> PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE — — — — 910 — — — — MAJOR CONTOUR MINOR CONTOUR STREAM CENTERLINE TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY EXISTING VEGETATION ---- · · · · --- EDGE OF WATER SOIL TYPE BOUNDARY WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK —18 ——18 ——18 — 18-INCH COMPOST FILTER SOCK -24—24—24—24— 24-INCH COMPOST FILTER SOCK -32—32—32—32— 32-INCH COMPOST FILTER SOCK PERMANENT WATER BAR W/FILTER SOCK TRENCH PLUG TEMPORARY EQUIPMENT CROSSING SANDBAG DAM PUMP SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY





PE-057385-E

ENGINEERING RECORD DRAWN BY | CNN CHECKED BY CDA APPROVED BY CDA 11/30/16 DATE AS NOTED SCALE

REV. DATE APP# **Sunoco Logistics** Partners L.P.

DWG. NO.

S-L34-B

 \times \times \times \times \times

APPROVA DESCRIPTION PENNSYLVANIA PIPELINE PROJECT STREAM S-L34 **RESTORATION PLAN**

EROSION CONTROL BLANKET

STREAM RESTORATION

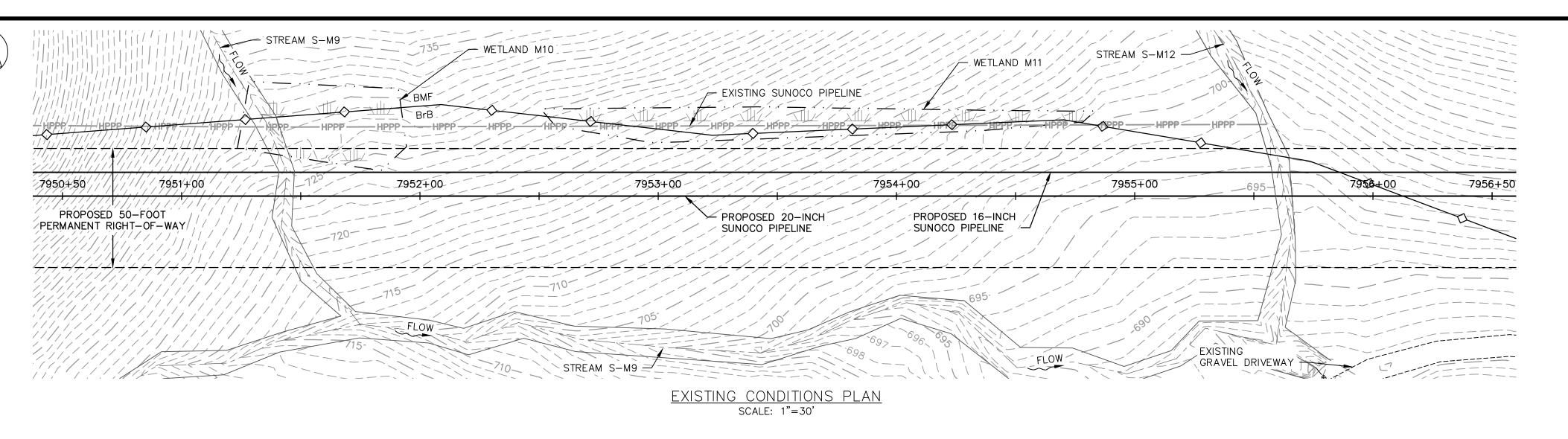
CULVERT PIPE

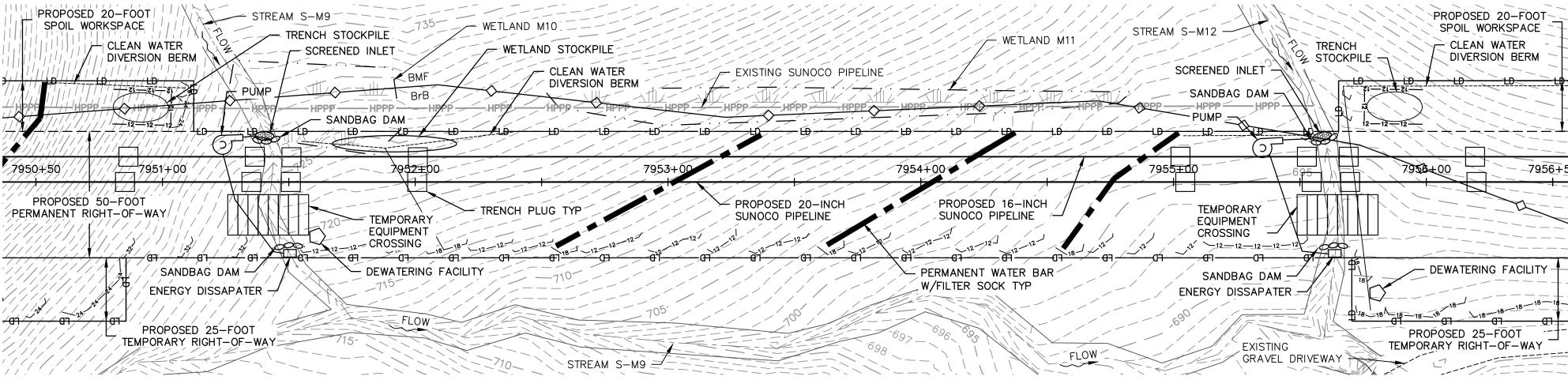
HUNTINGDON COUNTY, PA

REV. NO.

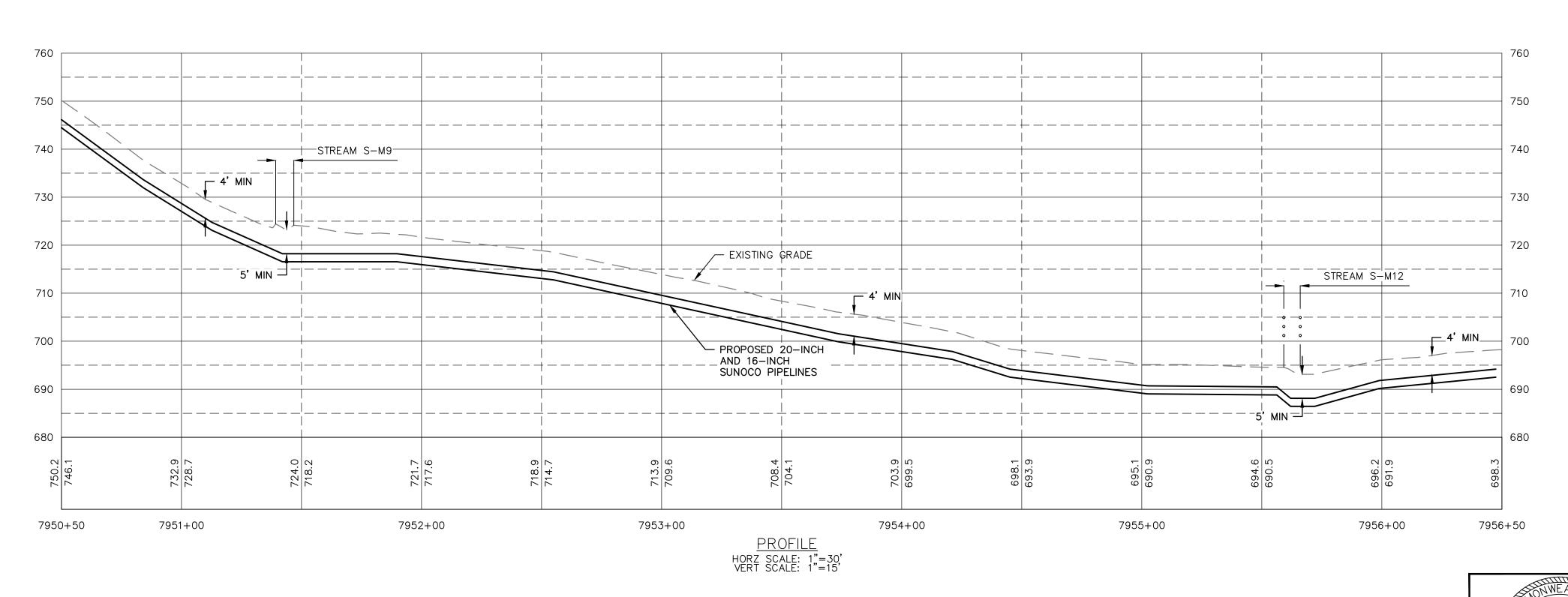
GRAPHIC SCALES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335





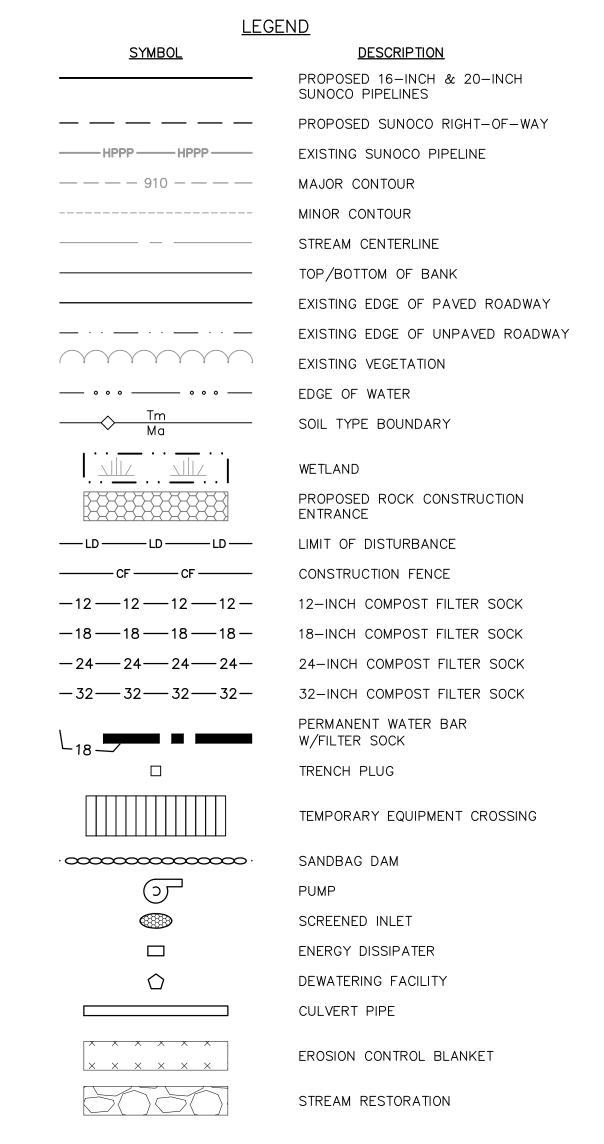
EROSION & SEDIMENTATION CONTROL PLAN SCALE: 1"=30'

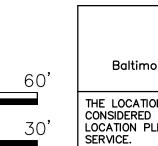


- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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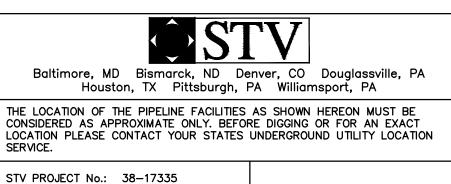
STREAM CROSSING NOTES:

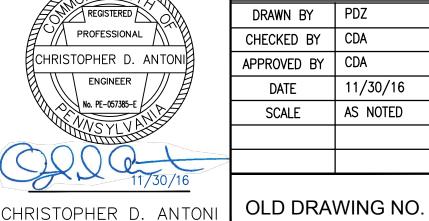
- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
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GRAPHIC SCALES





PE-057385-E

DRAWN BY PDZ CHECKED BY CDA APPROVED BY | CDA 11/30/16 DATE AS NOTED SCALE

ENGINEERING RECORD

PROFILE LEGEND:

— — EXISTING GRADE

— PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

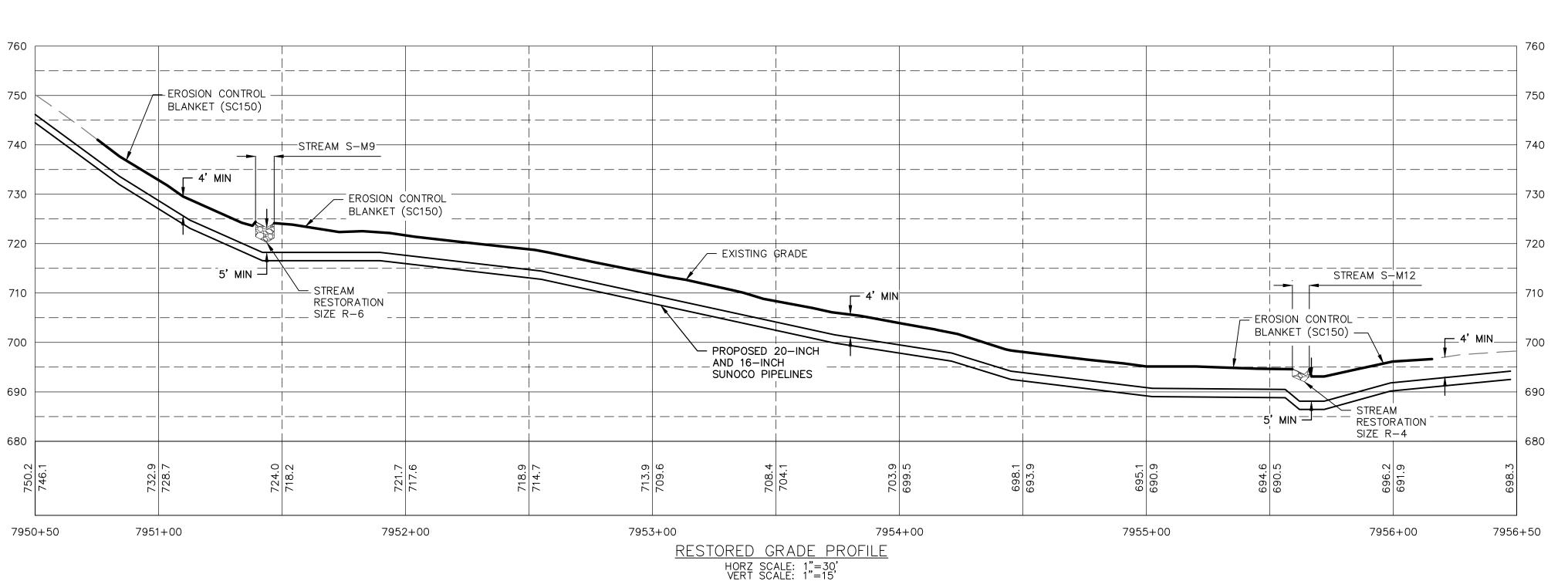


PENNSYLVANIA PIPELINE PROJECT STREAMS S-M9, S-M11, & S-M12 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS Partners L.P.

DESCRIPTION

HUNTINGDON COUNTY, PA

DWG. NO. S-M9-A



- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.
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- REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
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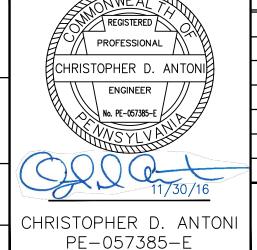
STREAM CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
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- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

<u>LEGEND</u> <u>SYMBOL</u> **DESCRIPTION** PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE — — — — 910 — — — — MAJOR CONTOUR MINOR CONTOUR STREAM CENTERLINE TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY EXISTING VEGETATION ___ 。。。____ 。。。___ EDGE OF WATER SOIL TYPE BOUNDARY WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE CONSTRUCTION FENCE —12 ——12 ——12 — 12-INCH COMPOST FILTER SOCK -18 --- 18 --- 18 --- 18 --- 18 ---18-INCH COMPOST FILTER SOCK -24-24-24-24-24-INCH COMPOST FILTER SOCK -32—32—32—32— 32-INCH COMPOST FILTER SOCK PERMANENT WATER BAR W/FILTER SOCK TRENCH PLUG TEMPORARY EQUIPMENT CROSSING SANDBAG DAM PUMP SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY CULVERT PIPE EROSION CONTROL BLANKET \times \times \times \times \times STREAM RESTORATION

GRAPHIC SCALES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335



ENGINEERING RECORD DRAWN BY PDZ CHECKED BY CDA APPROVED BY | CDA 11/30/16 DATE AS NOTED SCALE

PROFILE LEGEND:

— — — EXISTING GRADE

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV.

PROPOSED TOP OF

REV. DATE APP# **Sunoco Logistics**

Partners L.P.

PENNSYLVANIA PIPELINE PROJECT STREAMS S-M9, S-M11, & S-M12 **RESTORATION PLAN**

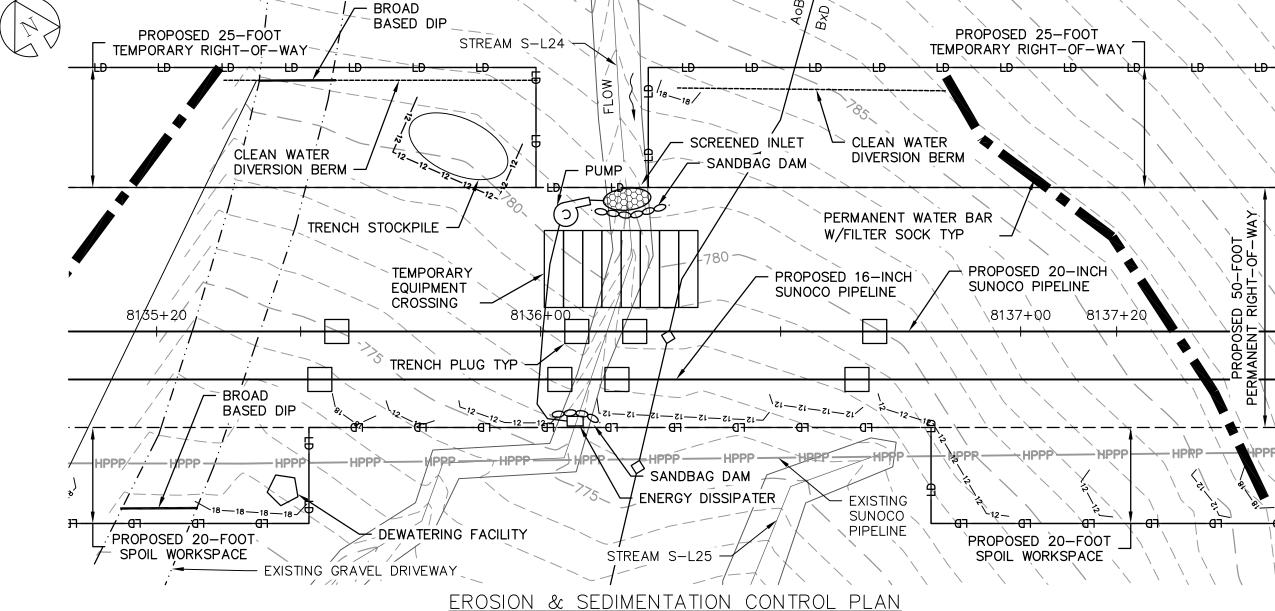
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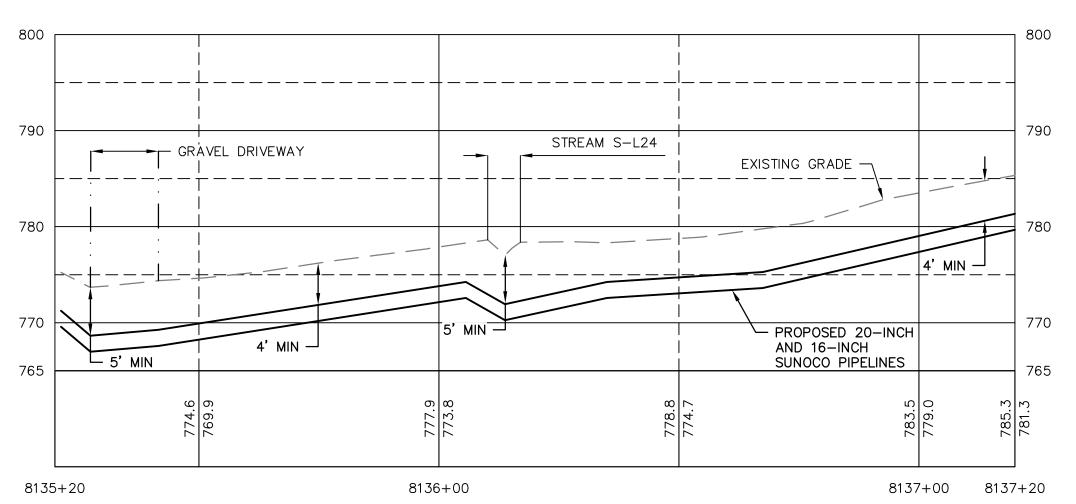
HUNTINGDON COUNTY, PA

APPROVA

REV. NO.

DWG. NO. OLD DRAWING NO. S-M9-B





<u>PROFILE</u>

GRAPHIC SCALES

SCALE: 1"=20'

Pittsburgh, PA Williamsport, PA

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION SERVICE. STV PROJECT No.: 38-17335

GENERAL NOTES:

- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.

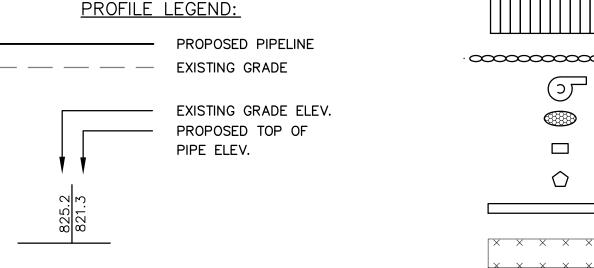
WETLAND CROSSING NOTES:

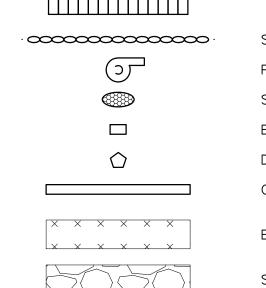
- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

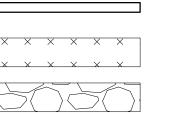
- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01–ES-0.17).
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- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

LEGEND <u>SYMBOL</u> **DESCRIPTION** PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE — — — — 910 — — — — MAJOR CONTOUR MINOR CONTOUR STREAM CENTERLINE TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY EXISTING VEGETATION EDGE OF WATER SOIL TYPE BOUNDARY WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK 18-INCH COMPOST FILTER SOCK 24-INCH COMPOST FILTER SOCK -24-24-24-24--32—32—32—32— 32-INCH COMPOST FILTER SOCK PERMANENT WATER BAR W/FILTER SOCK TRENCH PLUG TEMPORARY EQUIPMENT CROSSING





SANDBAG DAM PUMP SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY CULVERT PIPE



EROSION CONTROL BLANKET

STREAM RESTORATION

REV. DATE APP# DESCRIPTION

Sunoco Logistics Partners L.P.

PENNSYLVANIA PIPELINE PROJECT STREAMS S-L24 AND S-L25 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

HUNTINGDON COUNTY, PA

APPROVA

REV. NO.

REGISTERED PROFESSIONAL CHRISTOPHER D. ANTONI ENGINEER No. PE-057385-E

SCALE CHRISTOPHER D. ANTONI

PE-057385-E

OLD DRAWING NO.

DRAWN BY | CNN

CHECKED BY | CDA

APPROVED BY | CDA

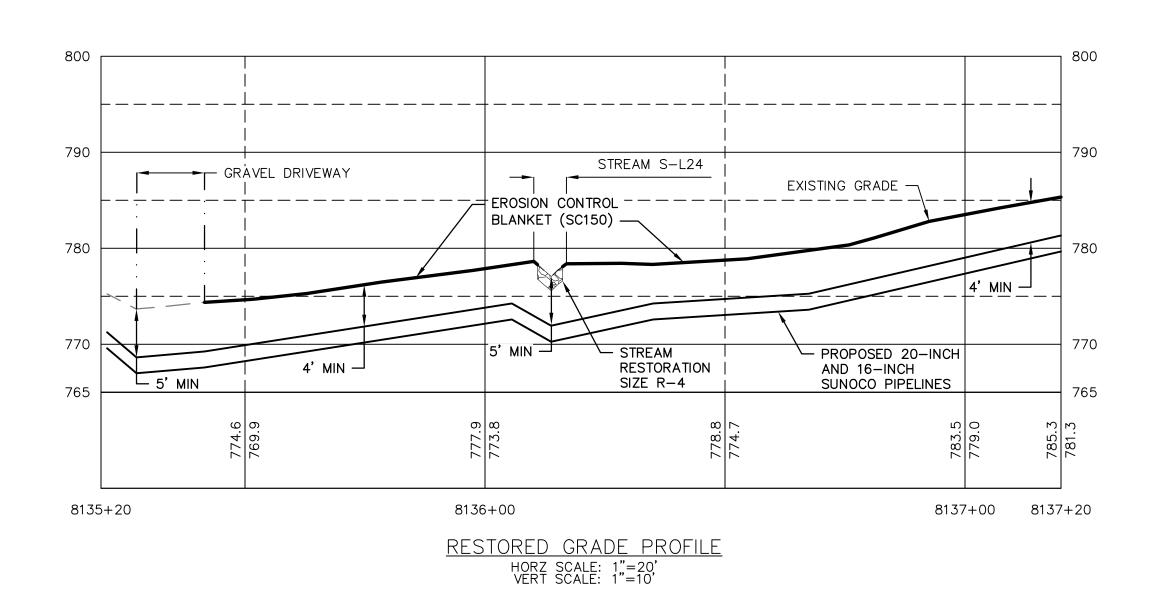
DATE

ENGINEERING RECORD

11/30/16

AS NOTED

DWG. NO. S-L25-A



- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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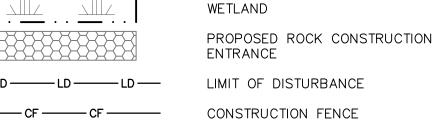
<u>LEGEND</u>

<u>SYMBOL</u> <u>DESCRIPTION</u> PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE — — — — 910 — — — — MAJOR CONTOUR MINOR CONTOUR

STREAM CENTERLINE TOP/BOTTOM OF BANK

EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY EXISTING VEGETATION

EDGE OF WATER SOIL TYPE BOUNDARY



-12 - 12 - 12 - 12 - 12 -12-INCH COMPOST FILTER SOCK 18-INCH COMPOST FILTER SOCK

-24--24--24--24-24-INCH COMPOST FILTER SOCK -32—32—32—32— 32-INCH COMPOST FILTER SOCK

PERMANENT WATER BAR W/FILTER SOCK

TEMPORARY EQUIPMENT CROSSING

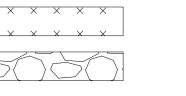
• SANDBAG DAM \mathcal{I}

PUMP SCREENED INLET ENERGY DISSIPATER

TRENCH PLUG

DEWATERING FACILITY CULVERT PIPE

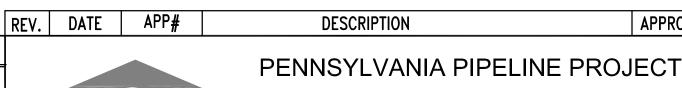
EROSION CONTROL BLANKET



STREAM RESTORATION



DESCRIPTION



STREAMS S-L24 AND S-L25 RESTORATION PLAN **Sunoco Logistics**

APPROVAL

REV. NO.

GRAPHIC SCALES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION SERVICE.

STV PROJECT No.: 38-17335

CHRISTOPHER D. ANTONI ENGINEER No. PE-057385-E CHRISTOPHER D. ANTONI

PE-057385-E

REGISTERED

PROFESSIONAL

OLD DRAWING NO.

DRAWN BY DJW

CHECKED BY | CDA

APPROVED BY CDA

SCALE AS NOTED

DATE

11/30/16

PROFILE LEGEND:

— — — EXISTING GRADE

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

ENGINEERING RECORD

DWG. NO. S-L25-B

Partners L.P.

HUNTINGDON COUNTY, PA

STV PROJECT No.: 38-17335

PE-057385-E

GRAPHIC SCALES

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<u>LEGEND</u>

<u>SYMBOL</u> **DESCRIPTION** PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE — — — — 910 — — — — MAJOR CONTOUR

> STREAM CENTERLINE TOP/BOTTOM OF BANK

MINOR CONTOUR

EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY

EXISTING VEGETATION EDGE OF WATER — · · · · — · · · · —

SOIL TYPE BOUNDARY WETLAND

PROPOSED ROCK CONSTRUCTION

ENTRANCE LIMIT OF DISTURBANCE

CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK

18-INCH COMPOST FILTER SOCK 24-INCH COMPOST FILTER SOCK

32-INCH COMPOST FILTER SOCK PERMANENT WATER BAR

W/FILTER SOCK TRENCH PLUG

TEMPORARY EQUIPMENT CROSSING

 \cdot

PUMP SCREENED INLET

SANDBAG DAM

ENERGY DISSIPATER DEWATERING FACILITY

CULVERT PIPE

EROSION CONTROL BLANKET

STREAM RESTORATION

DESCRIPTION

Sunoco Logistics

REV. DATE APP#

PENNSYLVANIA PIPELINE PROJECT STREAM S-M4 **EXISTING CONDITIONS/EROSION &**

SEDIMENTATION CONTROL PLANS

HUNTINGDON COUNTY, PA

APPROVA

REV. NO.

REGISTERED PROFESSIONAL CHRISTOPHER D. ANTONI ENGINEER No. PE−057385−E

CHRISTOPHER D. ANTONI

PE-057385-I

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA

THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT

STV PROJECT No.: 38-17335

LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION

ENGINEERING RECORD DRAWN BY PDZ CHECKED BY | CDA APPROVED BY | CDA 11/30/16 AS NOTED SCALE

PROFILE LEGEND:

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

EXISTING GRADE

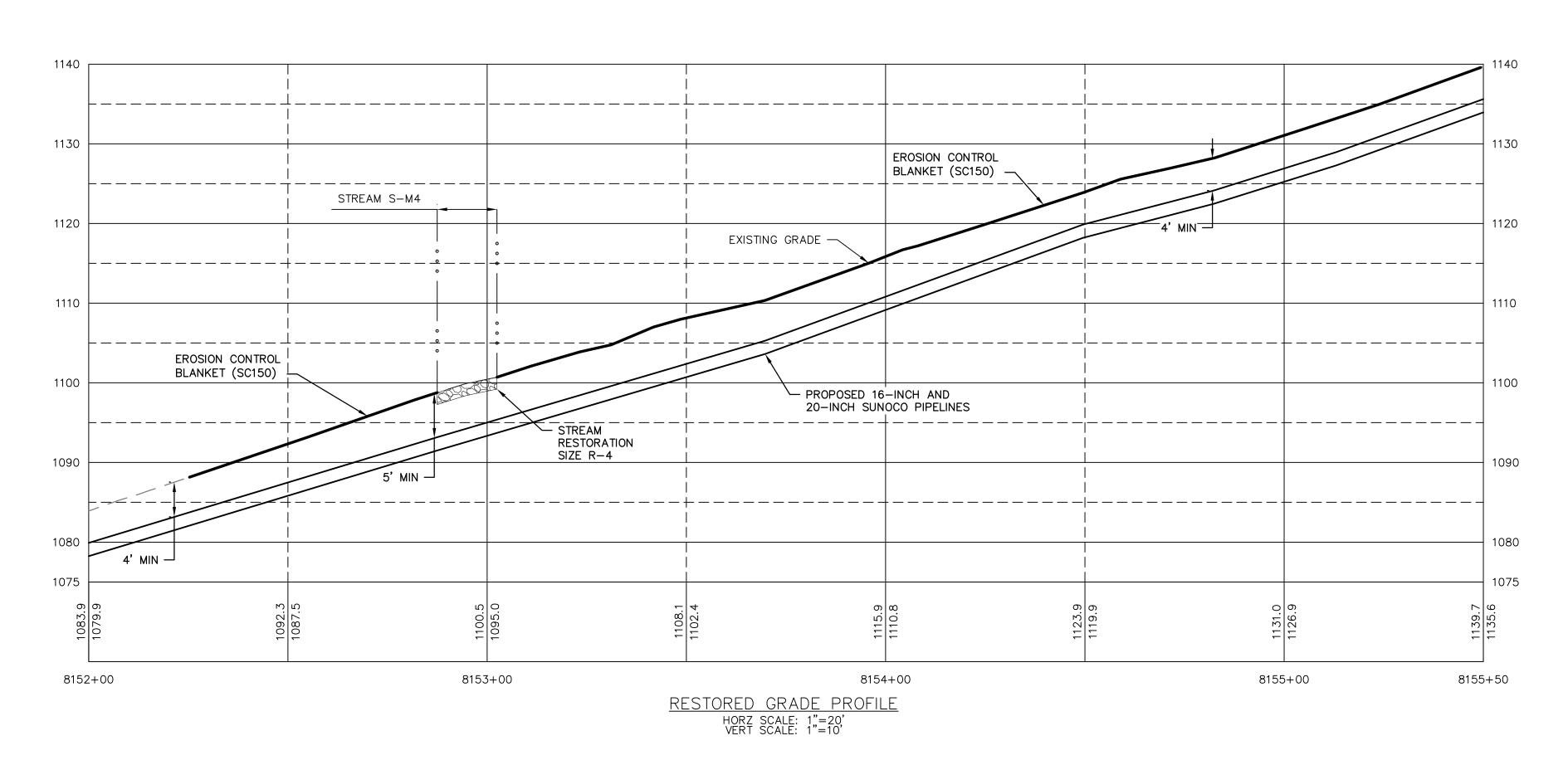
PIPE ELEV.

Partners L.P.

OLD DRAWING NO.

DWG. NO. S-M4-A

SCALE: 1"=20'



GENERAL NOTES:

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| <u>LEGEND</u> | |
|--|---|
| <u>SYMBOL</u> | <u>DESCRIPTION</u> |
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES |
| | PROPOSED SUNOCO RIGHT-OF-WAY |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE |
| — — — 910 — — — | MAJOR CONTOUR |
| | MINOR CONTOUR |
| | STREAM CENTERLINE |
| | TOP/BOTTOM OF BANK |
| | EXISTING EDGE OF PAVED ROADWAY |
| | EXISTING EDGE OF UNPAVED ROADWAY |
| | EXISTING VEGETATION |
| · · · · · · · · | EDGE OF WATER |
| → Tm Ma | SOIL TYPE BOUNDARY |
| | WETLAND |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| —LD——LD—— | LIMIT OF DISTURBANCE |
| CFCF | CONSTRUCTION FENCE |
| -12 12 12 12 | 12-INCH COMPOST FILTER SOCK |
| —18 ——18 ——18 — | 18-INCH COMPOST FILTER SOCK |
| -24242424- | 24-INCH COMPOST FILTER SOCK |
| 32 | 32-INCH COMPOST FILTER SOCK |
| | PERMANENT WATER BAR W/FILTER SOCK |
| | TRENCH PLUG |
| | TEMPORARY EQUIPMENT CROSSING |
| - | SANDBAG DAM |
| J | PUMP |
| | SCREENED INLET |
| | ENERGY DISSIPATER |
| \bigcirc | DEWATERING FACILITY |

GRAPHIC SCALES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335

PROFESSIONAL CHRISTOPHER D. ANTONI ENGINEER No. PE-057385-E

CHRISTOPHER D. ANTONI

PE-057385-E

ENGINEERING RECORD DRAWN BY PDZ CHECKED BY | CDA APPROVED BY | CDA 11/30/16 AS NOTED SCALE

OLD DRAWING NO.

PROFILE LEGEND:

— — EXISTING GRADE

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV. PROPOSED TOP OF

> REV. DATE APP# **Sunoco Logistics** Partners L.P.

> > DWG. NO.

PENNSYLVANIA PIPELINE PROJECT STREAM S-M4 RESTORATION PLAN

EROSION CONTROL BLANKET

STREAM RESTORATION

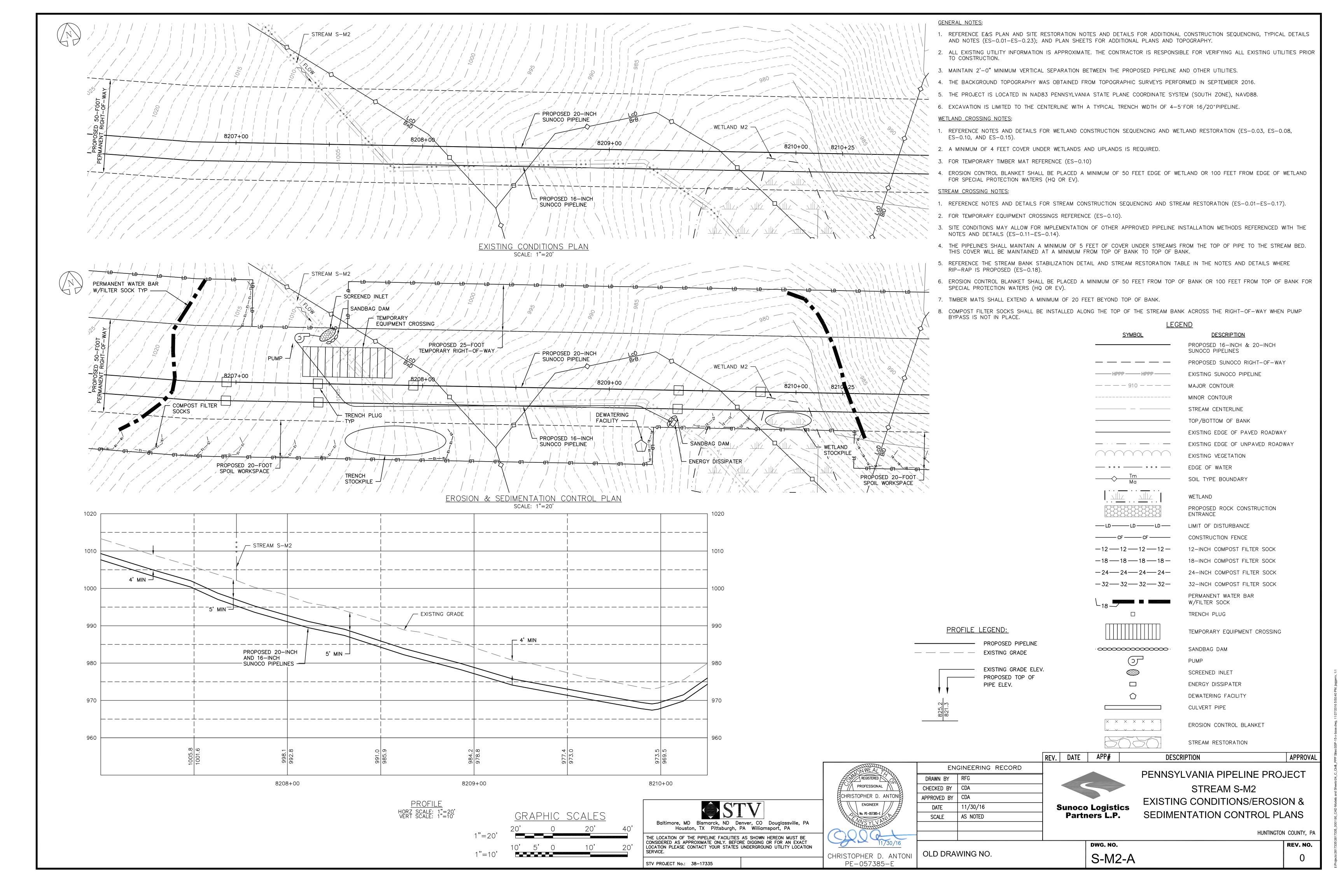
CULVERT PIPE

DESCRIPTION

HUNTINGDON COUNTY, PA

APPROVAL

REV. NO. S-M4-B



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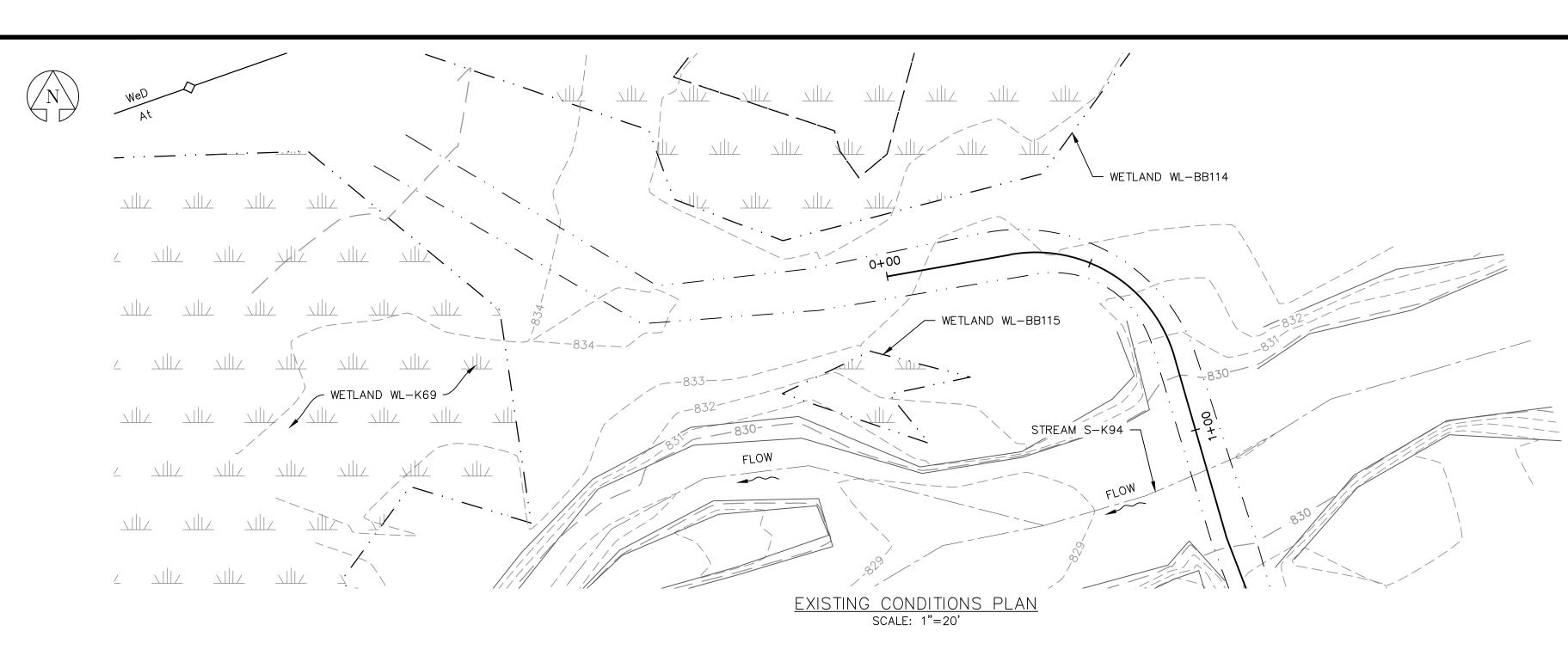
<u>LEGEND</u> **DESCRIPTION** PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE — — — — 910 — — — — MAJOR CONTOUR MINOR CONTOUR STREAM CENTERLINE TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY EXISTING VEGETATION SOIL TYPE BOUNDARY WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE —LD——LD——LD— CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK -18 --- 18 --- 18 --- 18 ---18-INCH COMPOST FILTER SOCK 24-INCH COMPOST FILTER SOCK -24--24--24--24--32—32—32—32— 32-INCH COMPOST FILTER SOCK PERMANENT WATER BAR W/FILTER SOCK TRENCH PLUG TEMPORARY EQUIPMENT CROSSING • SANDBAG DAM PUMP SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY CULVERT PIPE EROSION CONTROL BLANKET STREAM RESTORATION DESCRIPTION APPROVAL

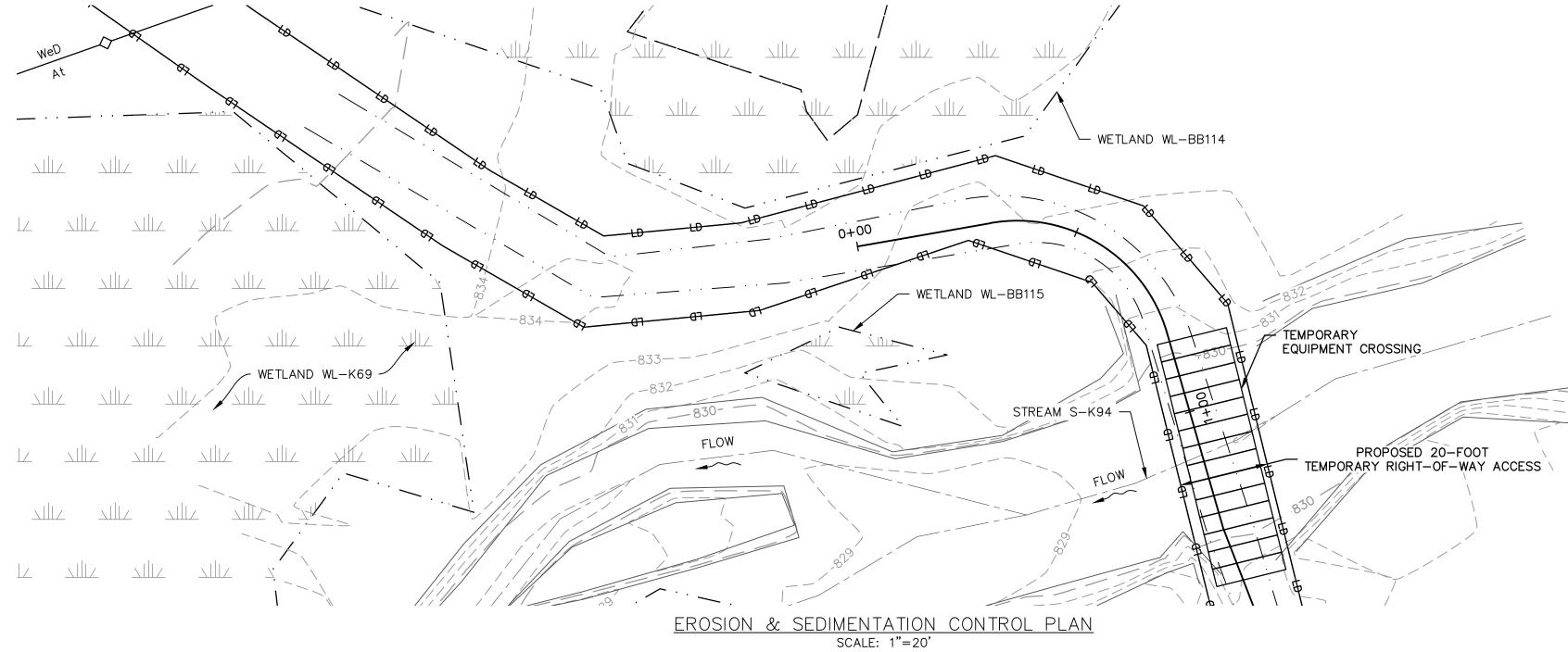
STREAM S-M2

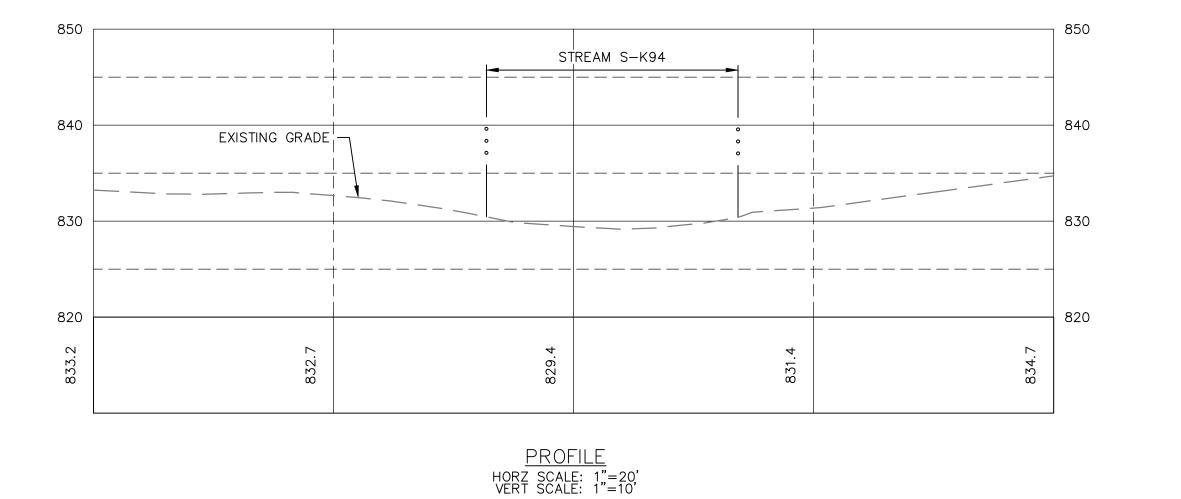
RESTORATION PLAN

HUNTINGTON COUNTY, PA

REV. NO.







GRAPHIC SCALES STV PROJECT No.: 38-17335

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- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED

5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM

- (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.

WETLAND CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01–ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

PROFILE LEGEND:

— — — EXISTING GRADE

ENGINEERING RECORD

11/30/16

AS NOTED

DRAWN BY DLH CHECKED BY CDA

APPROVED BY CDA

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV. PROPOSED TOP OF

| <u>LEGEND</u> | |
|--|---|
| <u>SYMBOL</u> | DESCRIPTION |
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES |
| | PROPOSED SUNOCO RIGHT-OF-WAY |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE |
| — — — 910 — — — — | MAJOR CONTOUR |
| | MINOR CONTOUR |
| | STREAM CENTERLINE |
| | TOP/BOTTOM OF BANK |
| | EXISTING EDGE OF PAVED ROADWAY |
| | EXISTING EDGE OF UNPAVED ROADWAY |
| | EXISTING VEGETATION |
| · · · · · · · · | EDGE OF WATER |
| ———— <u>Tm</u> Ma | SOIL TYPE BOUNDARY |
| | WETLAND |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| —_LDLDLD | LIMIT OF DISTURBANCE |
| | CONSTRUCTION FENCE |
| -12 12 12 12 | 12-INCH COMPOST FILTER SOCK |
| -18 18 18 18 | 18-INCH COMPOST FILTER SOCK |
| -24242424- | 24-INCH COMPOST FILTER SOCK |
| -32—32—32—32— | 32-INCH COMPOST FILTER SOCK |
| 18 ■ | PERMANENT WATER BAR W/FILTER SOCK |
| | TRENCH PLUG |
| | TEMPORARY EQUIPMENT CROSSING |
| - | SANDBAG DAM |
| (ک) | PUMP |
| | SCREENED INLET |
| | ENERGY DISSIPATER |
| \bigcirc | DEWATERING FACILITY |
| | CULVERT PIPE |
| [X X X X X X] | EDOCIONI CONTROL DI ANIVET |



DESCRIPTION PENNSYLVANIA PIPELINE PROJECT

STREAM S-K94 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

EROSION CONTROL BLANKET

STREAM RESTORATION

HUNTINGDON COUNTY, PA

DWG. NO. S-L21-A

CHRISTOPHER D. ANTONI PE-057385-E

CHRISTOPHER D. ANTONI

No. PE-057385-E

OLD DRAWING NO.

REV. DATE

ENGINEERING RECORD

11/30/16

AS NOTED

DRAWN BY DLH

CHECKED BY | CDA

APPROVED BY CDA

OLD DRAWING NO.

PROFESSIONAL

CHRISTOPHER D. ANTONI

ENGINEER

CHRISTOPHER D. ANTONI

PE-057385-E

No. PE-057385-E

♦ STV

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA

THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION

STV PROJECT No.: 38-17335

APP#

DWG. NO.

S-L21-B

Sunoco Logistics Partners L.P.

DESCRIPTION

PENNSYLVANIA PIPELINE PROJECT

STREAM S-K94

RESTORATION PLAN

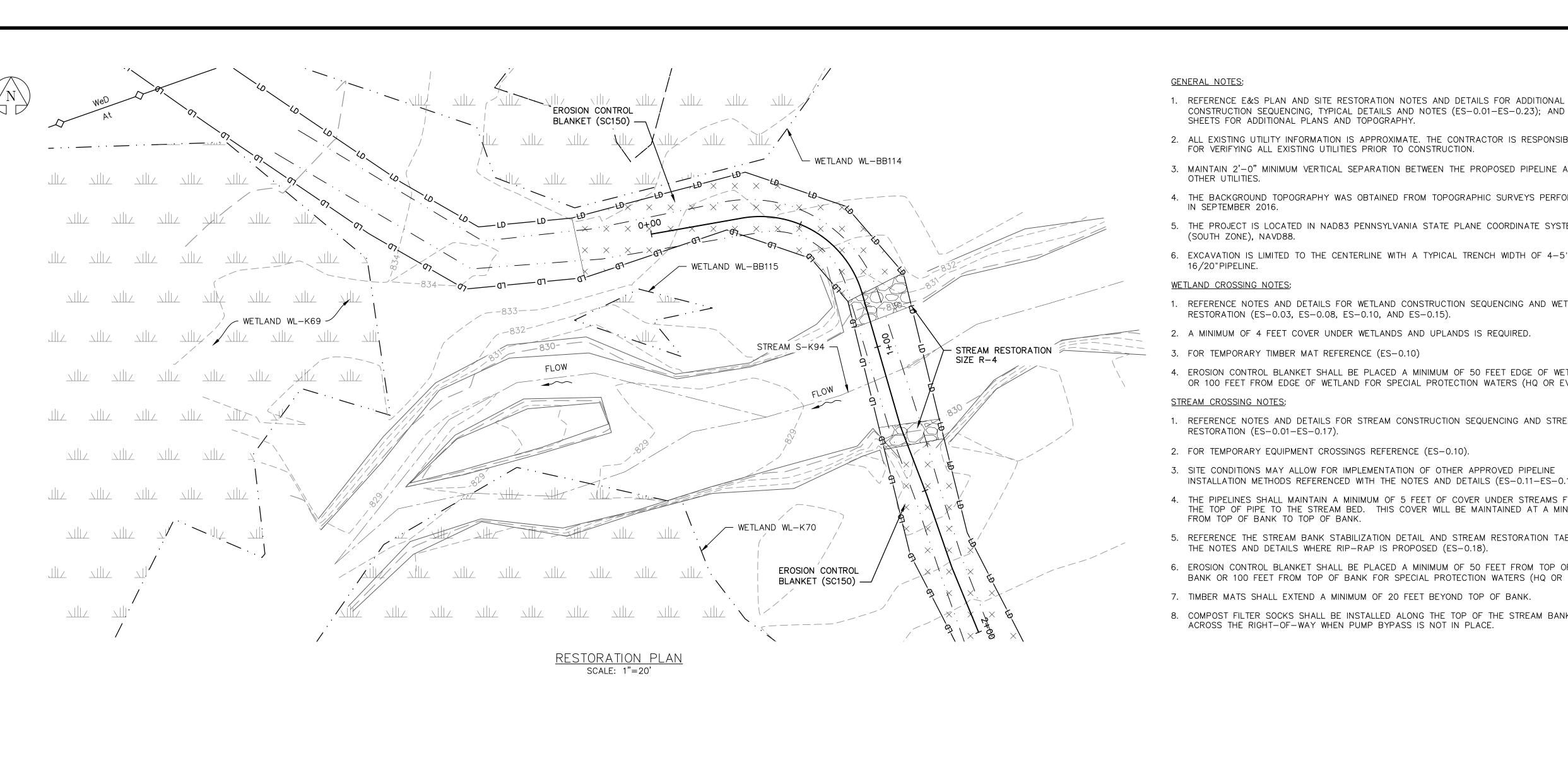
APPROVAL

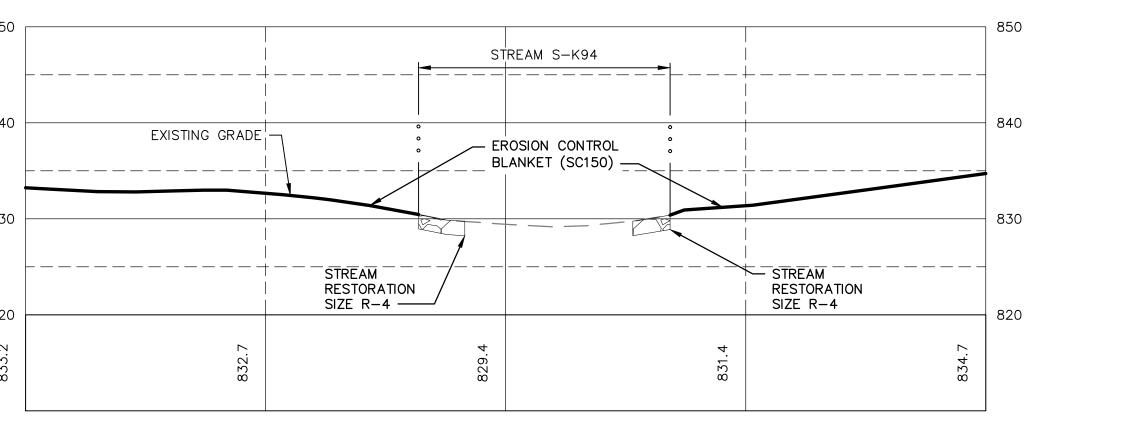
HUNTINGDON COUNTY, PA

REV. NO.

CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN

SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.

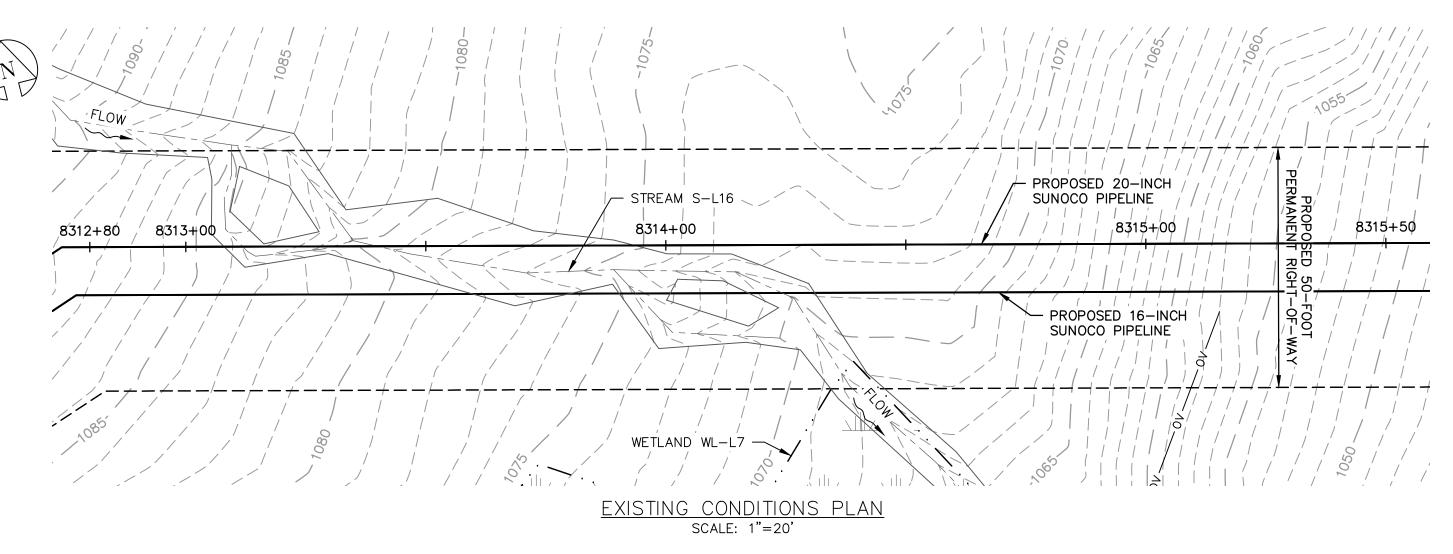


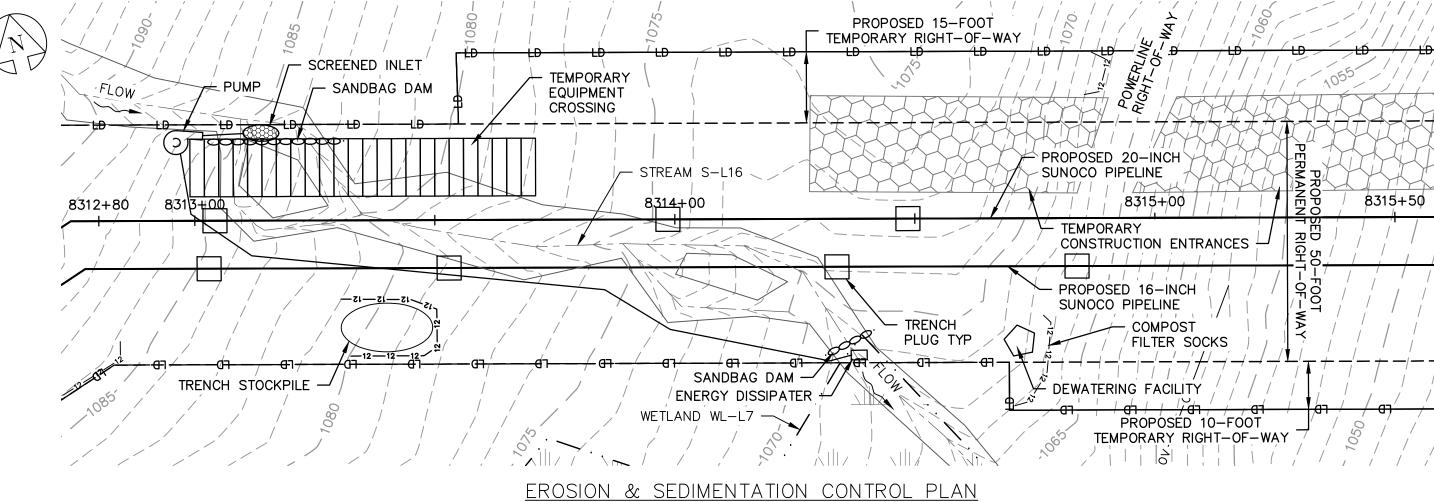


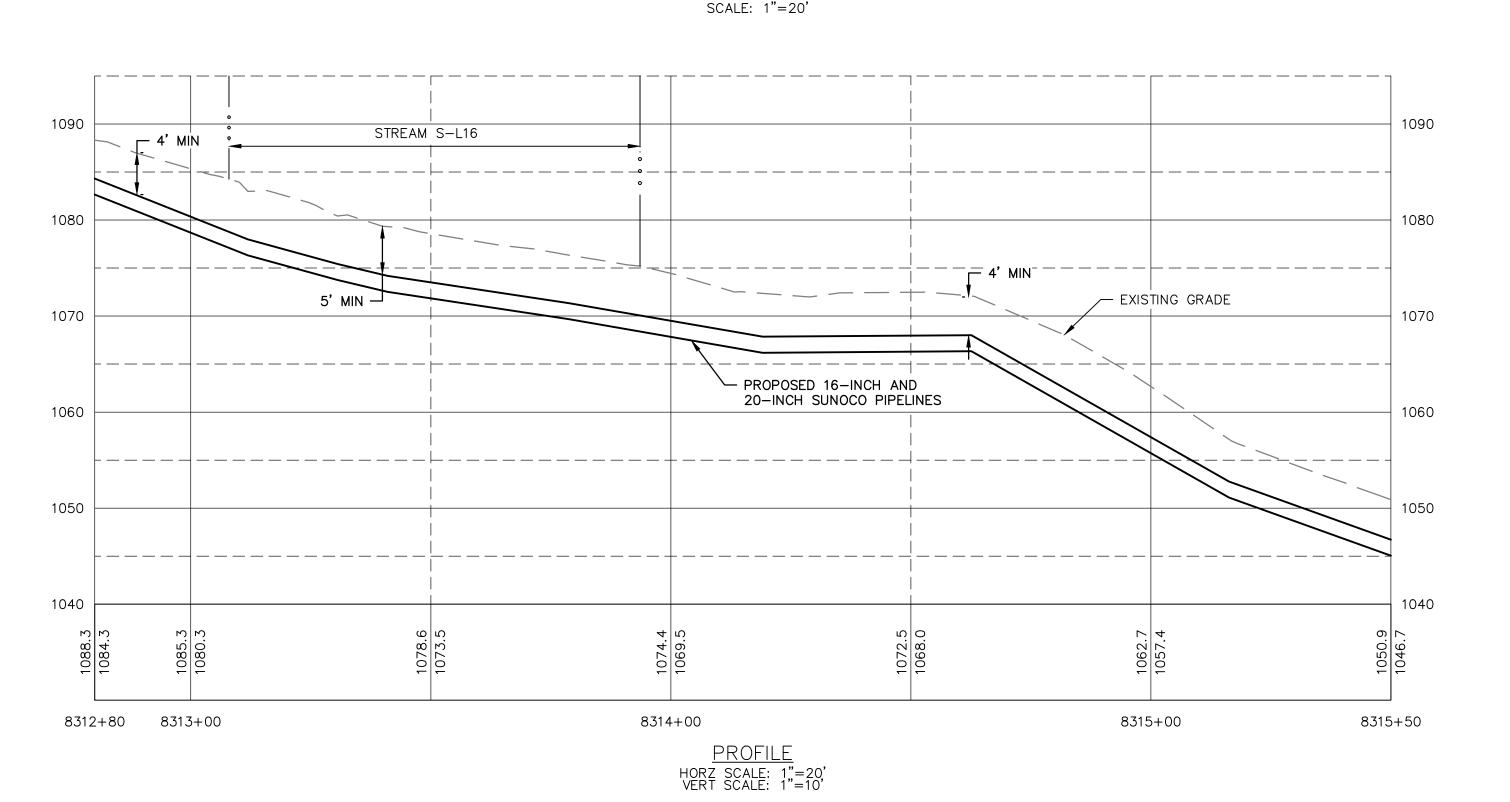
RESTORED GRADE PROFILE

HORZ SCALE: 1"=20'
VERT SCALE: 1"=10'

GRAPHIC SCALES







- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

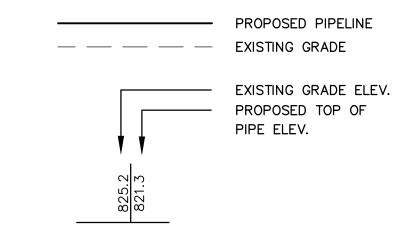
FROM TOP OF BANK TO TOP OF BANK.

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

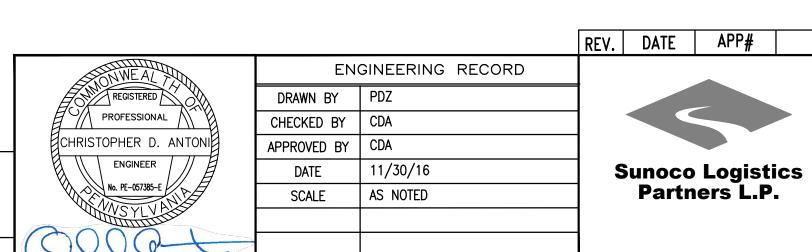
STREAM CROSSING NOTES:

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| <u>LEGE</u> | <u>LEGEND</u> | |
|--|---|--|
| <u>SYMBOL</u> | <u>DESCRIPTION</u> | |
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES | |
| | PROPOSED SUNOCO RIGHT-OF-WAY | |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE | |
| — — — 910 — — — | MAJOR CONTOUR | |
| | MINOR CONTOUR | |
| | STREAM CENTERLINE | |
| | TOP/BOTTOM OF BANK | |
| | EXISTING EDGE OF PAVED ROADWAY | |
| | EXISTING EDGE OF UNPAVED ROADWAY | |
| | EXISTING VEGETATION | |
| | EDGE OF WATER | |
| ———— | SOIL TYPE BOUNDARY | |
| | WETLAND | |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE | |
| —_LDLDLD | LIMIT OF DISTURBANCE | |
| ——— CF ——— CF ——— | CONSTRUCTION FENCE | |
| —12 ——12 ——12 — | 12-INCH COMPOST FILTER SOCK | |
| —18 ——18 ——18 — | 18-INCH COMPOST FILTER SOCK | |
| -24242424- | 24-INCH COMPOST FILTER SOCK | |
| -32-32-32-32- | 32-INCH COMPOST FILTER SOCK | |
| 18 ■ | PERMANENT WATER BAR W/FILTER SOCK | |
| | TRENCH PLUG | |
| | TEMPORARY EQUIPMENT CROSSING | |
| - | SANDBAG DAM | |
| (J) | PUMP | |
| | SCREENED INLET | |
| | ENERGY DISSIPATER | |
| \bigcirc | DEWATERING FACILITY | |
| | CULVERT PIPE | |
| | | |



PROFILE LEGEND:



OLD DRAWING NO.

APPROVAL DESCRIPTION PENNSYLVANIA PIPELINE PROJECT STREAM S-L16 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

EROSION CONTROL BLANKET

STREAM RESTORATION

HUNTINGDON COUNTY, PA

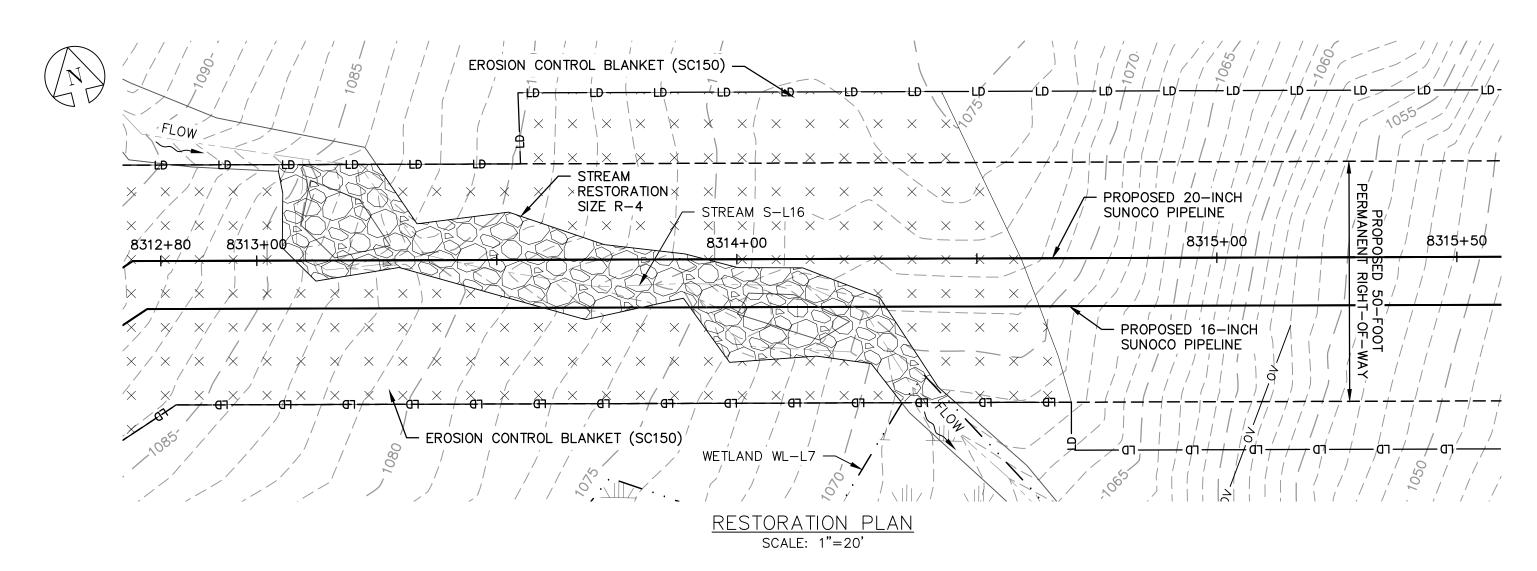
DWG. NO. REV. NO. S-L16-A

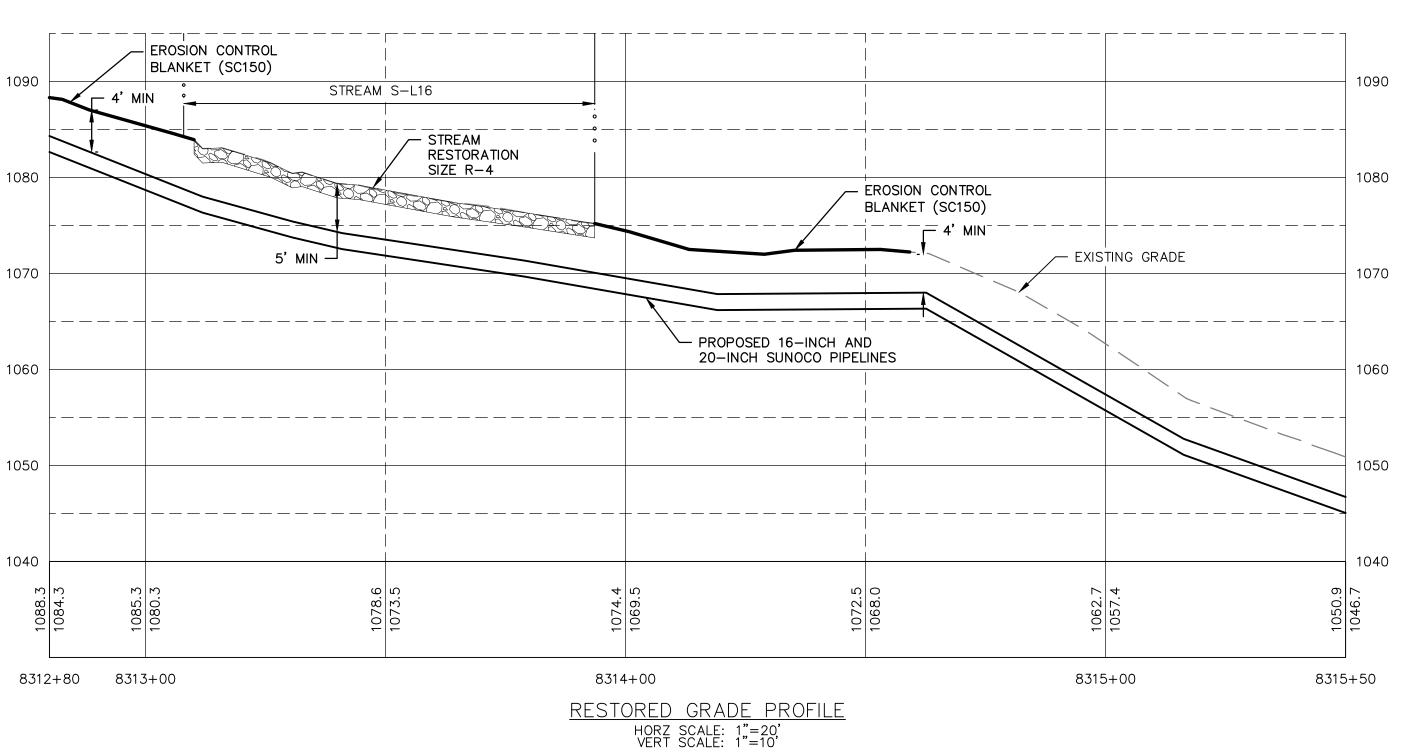
APP#

GRAPHIC SCALES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE ONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT OCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION

CHRISTOPHER D. ANTONI PE-057385-E STV PROJECT No.: 38-17335





- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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WETLAND CROSSING NOTES:

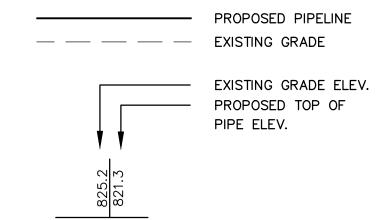
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STREAM CROSSING NOTES:

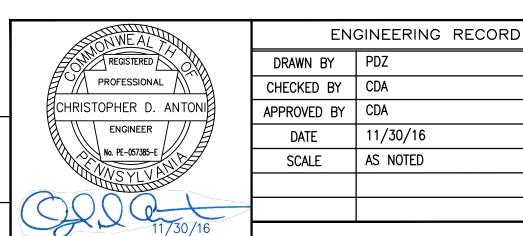
- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
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LEGEND

| <u>LEGEND</u> | |
|--|---|
| SYMBOL | <u>DESCRIPTION</u> |
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES |
| | PROPOSED SUNOCO RIGHT-OF-WAY |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE |
| — — — — 910 — — — — | MAJOR CONTOUR |
| | MINOR CONTOUR |
| | STREAM CENTERLINE |
| | TOP/BOTTOM OF BANK |
| | EXISTING EDGE OF PAVED ROADWAY |
| | EXISTING EDGE OF UNPAVED ROADWAY |
| | EXISTING VEGETATION |
| o o o | EDGE OF WATER |
| —— | SOIL TYPE BOUNDARY |
| | WETLAND |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| —_LDLDLD | LIMIT OF DISTURBANCE |
| ——— CF ——— CF ——— | CONSTRUCTION FENCE |
| -12 12 12 12 | 12-INCH COMPOST FILTER SOCK |
| —18 ——18 ——18 — | 18-INCH COMPOST FILTER SOCK |
| -24242424- | 24-INCH COMPOST FILTER SOCK |
| -32-32-32-32- | 32-INCH COMPOST FILTER SOCK |
| L ₁₈ | PERMANENT WATER BAR W/FILTER SOCK |
| | TRENCH PLUG |
| | TEMPORARY EQUIPMENT CROSSING |
| - | SANDBAG DAM |
| () | PUMP |
| | SCREENED INLET |
| | ENERGY DISSIPATER |
| ^ | |



PROFILE LEGEND:



CHRISTOPHER D. ANTONI

PE-057385-E

OLD DRAWING NO.

Sunoco Logistics Partners L.P.

APP#

REV. DATE

PENNSYLVANIA PIPELINE PROJECT STREAM S-L16 **RESTORATION PLAN**

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

CULVERT PIPE

DESCRIPTION

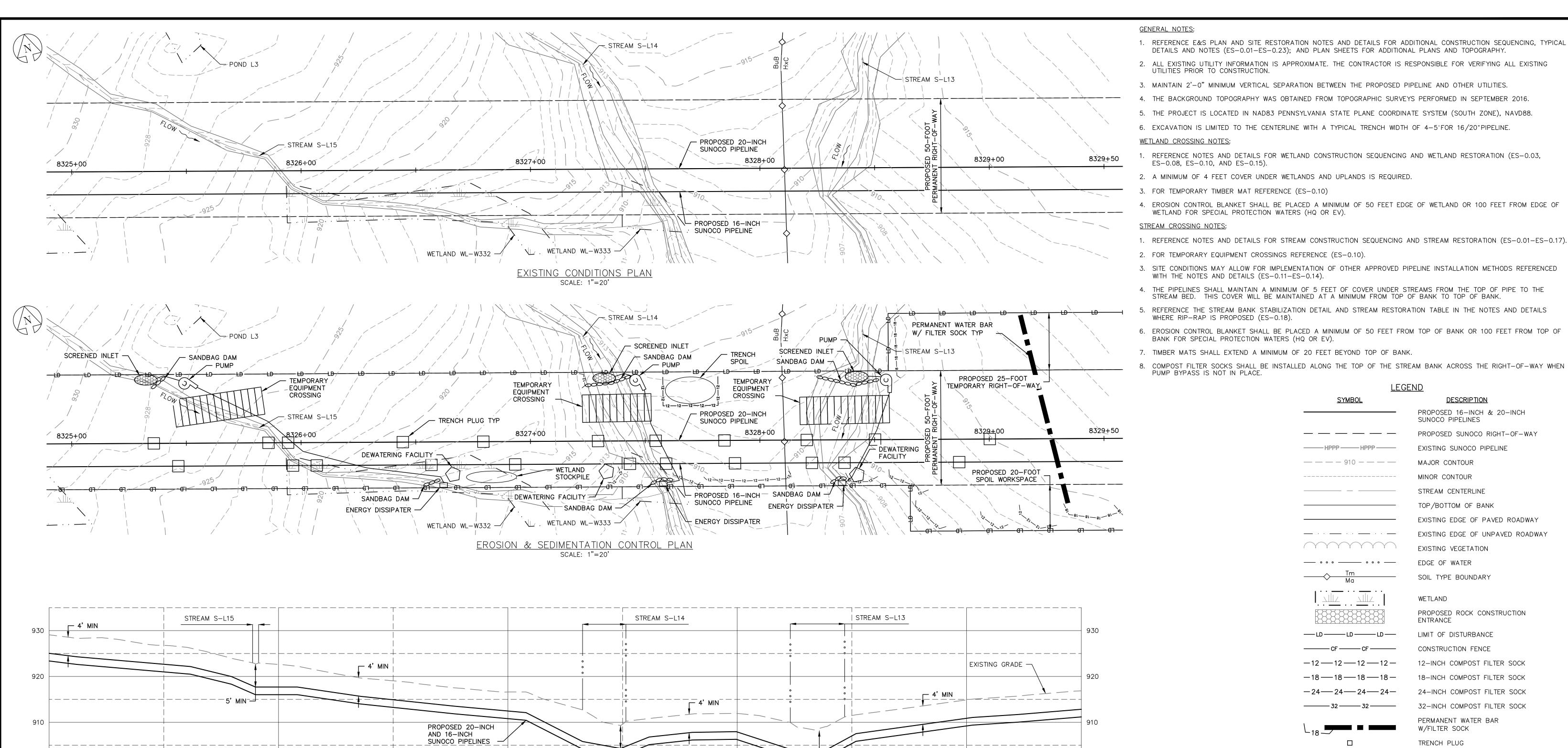
HUNTINGDON COUNTY, PA

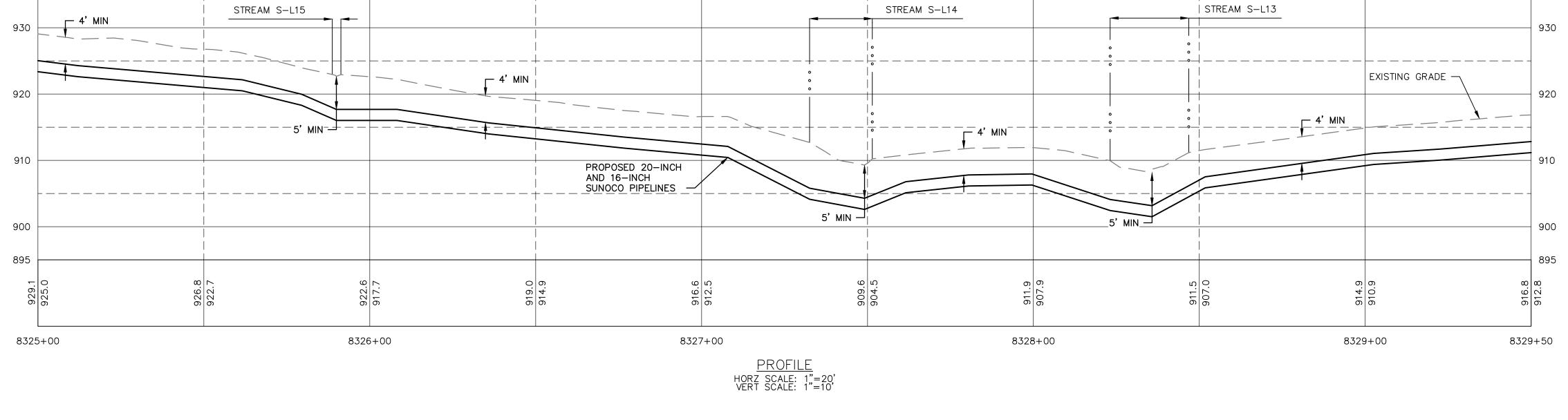
APPROVAL

DWG. NO. REV. NO. S-L16-B

GRAPHIC SCALES

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335



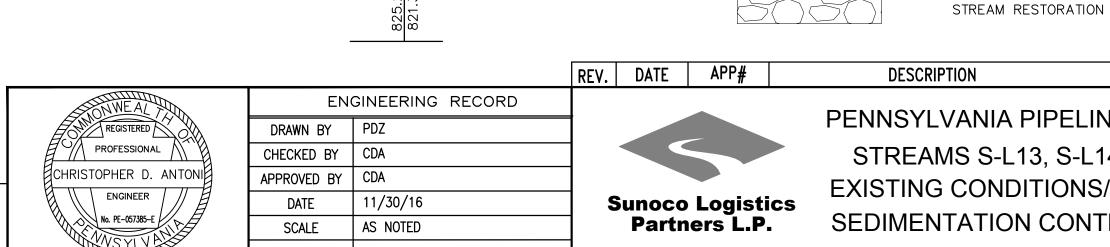


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STV PROJECT No.: 38-17335



PROFILE LEGEND:

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

EXISTING GRADE

PIPE ELEV.

PENNSYLVANIA PIPELINE PROJECT STREAMS S-L13, S-L14, & S-L15 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

LEGEND

DESCRIPTION

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

TOP/BOTTOM OF BANK

EXISTING VEGETATION

SOIL TYPE BOUNDARY

LIMIT OF DISTURBANCE

CONSTRUCTION FENCE

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

SANDBAG DAM

SCREENED INLET

CULVERT PIPE

ENERGY DISSIPATER

DEWATERING FACILITY

PUMP

EDGE OF WATER

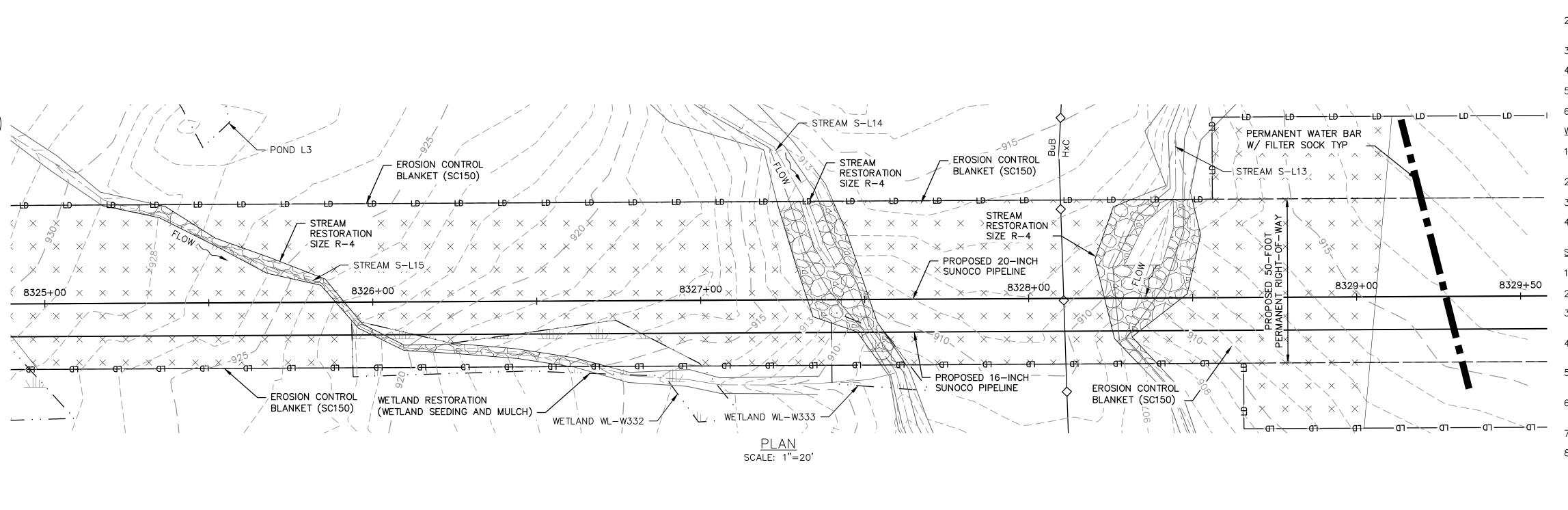
WETLAND

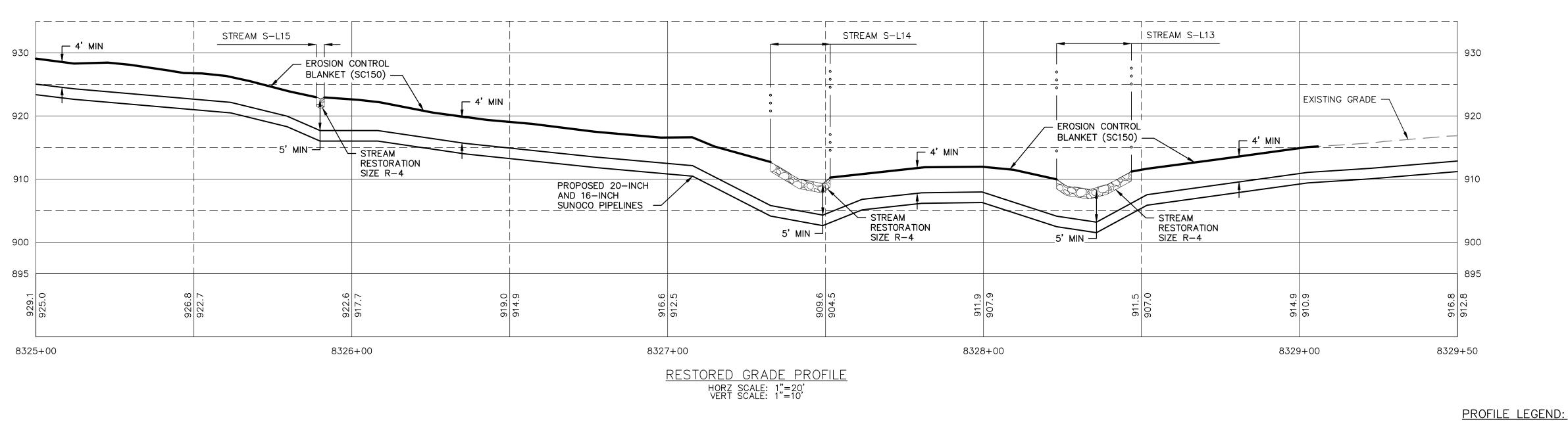
ENTRANCE

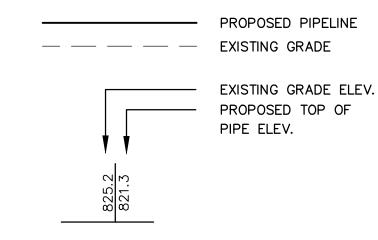
OLD DRAWING NO. CHRISTOPHER D. ANTONI PE-057385-E

DWG. NO. S-L13-A

 \times \times \times \times \times







- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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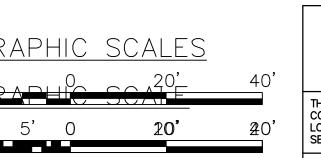
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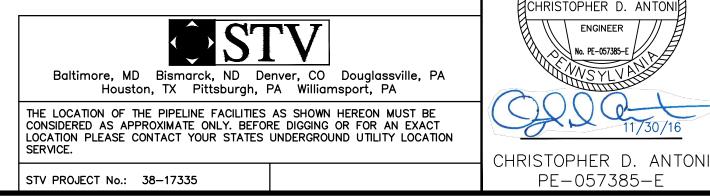
STREAM CROSSING NOTES:

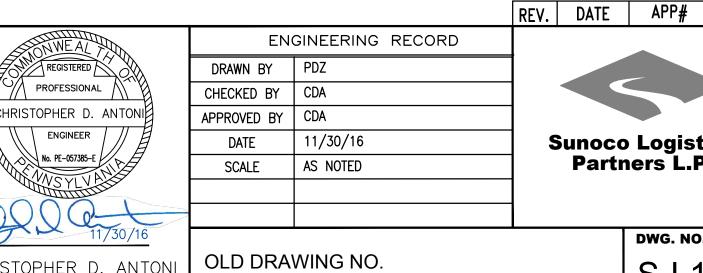
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| <u>LEG</u> | <u>END</u> |
|--|---|
| <u>SYMBOL</u> | DESCRIPTION |
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| | PROPOSED SUNOCO RIGHT-OF-WAY |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE |
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| | MINOR CONTOUR |
| | STREAM CENTERLINE |
| | TOP/BOTTOM OF BANK |
| | EXISTING EDGE OF PAVED ROADWAY |
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| | WETLAND |
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| CFCF | CONSTRUCTION FENCE |
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| —18 ——18 ——18 — | 18-INCH COMPOST FILTER SOCK |
| -24242424- | 24-INCH COMPOST FILTER SOCK |
| 32 32 | 32-INCH COMPOST FILTER SOCK |
| | PERMANENT WATER BAR W/FILTER SOCK |
| | TRENCH PLUG |
| | TEMPORARY EQUIPMENT CROSSING |
| | SANDBAG DAM |
| ₽ | PUMP |
| | SCREENED INLET |
| | ENERGY DISSIPATER |
| \bigcirc | DEWATERING FACILITY |
| | CULVERT PIPE |
| $\begin{bmatrix} \times & \times & \times & \times & \times & \times \\ \times & \times & \times & \times &$ | EROSION CONTROL BLANKET |
| 5050 | STREAM RESTORATION |
| | |



11""=210'





PROFESSIONAL

ENGINEER

√ No. PE-057385-E

PE-057385-E

Sunoco Logistics Partners L.P.

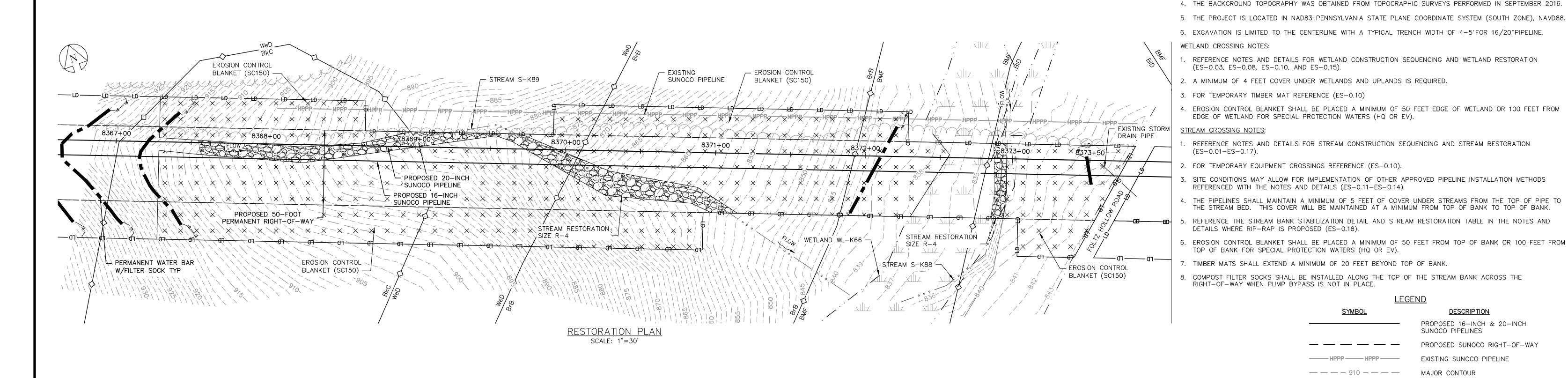
PENNSYLVANIA PIPELINE PROJECT STREAMS S-L13, S-L14, & S-L15 **RESTORATION PLAN**

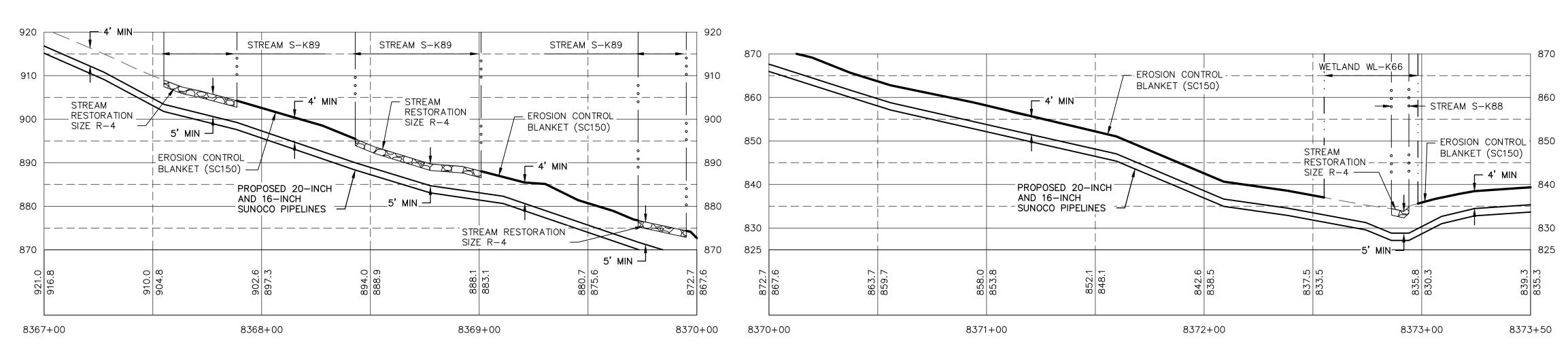
HUNTINGDON COUNTY, PA

APPROVAL

DWG. NO. REV. NO. S-L13-B

DESCRIPTION





RESTORED GRADE PROFILE HORZ SCALE: 1"=30' VERT SCALE: 1"=15'

PROFILE LEGEND:

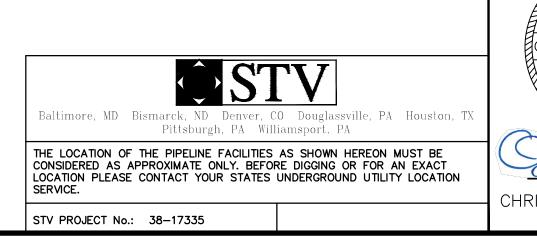
— — — EXISTING GRADE

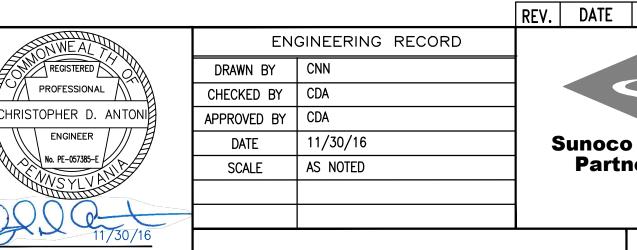
— PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV.

PROPOSED TOP OF





PENNSYLVANIA PIPELINE PROJECT STREAMS S-K88 & S-K89 **RESTORATION PLAN Sunoco Logistics**

HUNTINGDON COUNTY, PA

APPROVAL

REV. NO.

GRAPHIC SCALE 1"=15'

OLD DRAWING NO. CHRISTOPHER D. ANTONI PE-057385-E

REGISTERED

PROFESSIONAL

ENGINEER

No. PE-057385-E /

GENERAL NOTES:

EXISTING UTILITIES PRIOR TO CONSTRUCTION.

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.

LEGEND

DESCRIPTION

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

TOP/BOTTOM OF BANK

EXISTING VEGETATION

SOIL TYPE BOUNDARY

LIMIT OF DISTURBANCE

CONSTRUCTION FENCE

EDGE OF WATER

WETLAND

ENTRANCE

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

PROPOSED ROCK CONSTRUCTION

12-INCH COMPOST FILTER SOCK

18-INCH COMPOST FILTER SOCK

24-INCH COMPOST FILTER SOCK

32-INCH COMPOST FILTER SOCK

TEMPORARY EQUIPMENT CROSSING

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

SANDBAG DAM

SCREENED INLET

CULVERT PIPE

DESCRIPTION

ENERGY DISSIPATER

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

EXISTING EDGE OF UNPAVED ROADWAY

SYMBOL

——— HPPP ——— HPPP ———

— — — — 910 — — — —

_____ CF ____ CF ____

-24--24--24--24-

 \times \times \times \times \times

APP#

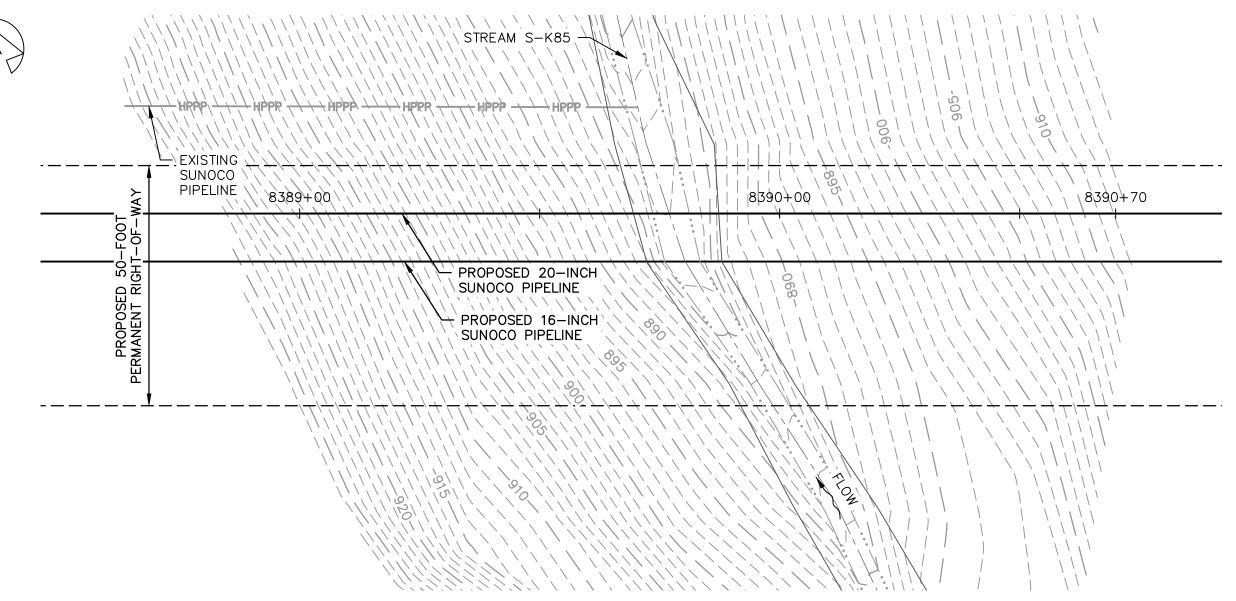
Partners L.P.

DWG. NO.

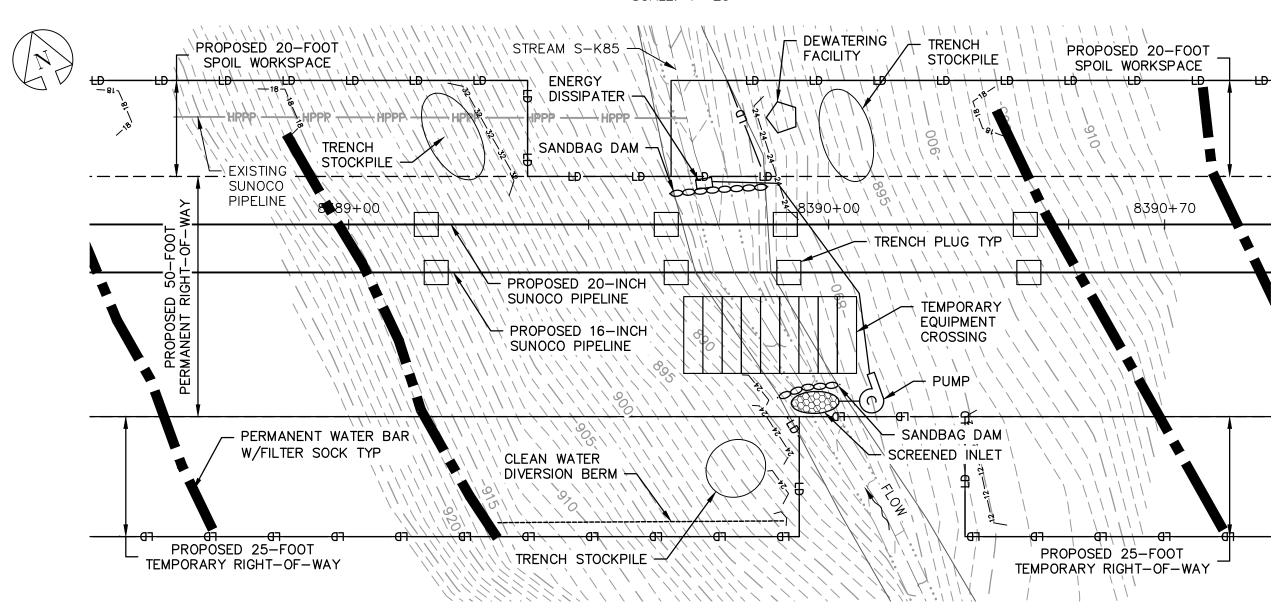
2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

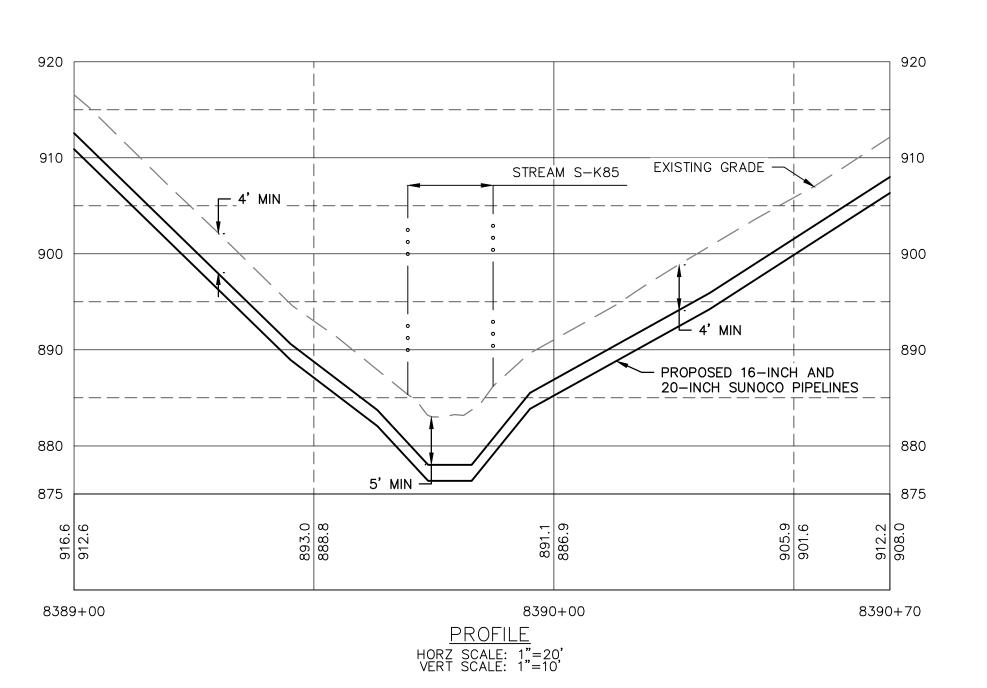
S-K89-B



EXISTING CONDITIONS PLAN SCALE: 1"=20'



EROSION & SEDIMENTATION CONTROL PLAN SCALE: 1"=20'



GRAPHIC SCALES 1"=10'

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT OCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335

GENERAL NOTES:

- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.

WETLAND CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01–ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

REGISTERED

PROFESSIONAL

HRISTOPHER D. ANTONI

ENGINEER

√ No. PE-057385-E

CHRISTOPHER D. ANTONI

PE-057385-E

- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

PROFILE LEGEND:

— — — EXISTING GRADE

DRAWN BY DJW

CHECKED BY CDA

APPROVED BY | CDA

OLD DRAWING NO.

DATE

SCALE

11/30/16

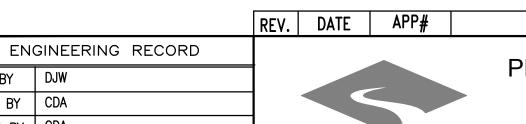
AS NOTED

PROPOSED PIPELINE

EXISTING GRADE ELEV. PROPOSED TOP OF

PIPE ELEV.

| <u>LEGE1</u> | <u>LEGEND</u> | |
|--|---|--|
| <u>SYMBOL</u> | <u>DESCRIPTION</u> | |
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES | |
| | PROPOSED SUNOCO RIGHT-OF-WAY | |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE | |
| — — — 910 — — — | MAJOR CONTOUR | |
| | MINOR CONTOUR | |
| | STREAM CENTERLINE | |
| | TOP/BOTTOM OF BANK | |
| | EXISTING EDGE OF PAVED ROADWAY | |
| · · · · · · | EXISTING EDGE OF UNPAVED ROADWAY | |
| | EXISTING VEGETATION | |
| o o o | EDGE OF WATER | |
| ——— | SOIL TYPE BOUNDARY | |
| | WETLAND | |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE | |
| —_LDLDLD | LIMIT OF DISTURBANCE | |
| | CONSTRUCTION FENCE | |
| —12 ——12 ——12 — | 12-INCH COMPOST FILTER SOCK | |
| —18 ——18 ——18 — | 18-INCH COMPOST FILTER SOCK | |
| -24242424- | 24-INCH COMPOST FILTER SOCK | |
| -32-32-32-32- | 32-INCH COMPOST FILTER SOCK | |
| | PERMANENT WATER BAR W/FILTER SOCK | |
| | TRENCH PLUG | |
| | TEMPORARY EQUIPMENT CROSSING | |
| - 0000000000000000000000000000000000000 | SANDBAG DAM | |
| (၁) | PUMP | |
| | SCREENED INLET | |
| | ENERGY DISSIPATER | |
| \bigcirc | DEWATERING FACILITY | |
| | CULVERT PIPE | |
| $\begin{bmatrix} \times & \times & \times & \times & \times & \times \\ \times & \times & \times & \times &$ | EROSION CONTROL BLANKET | |
| | STREAM RESTORATION | |



Sunoco Logistics Partners L.P.

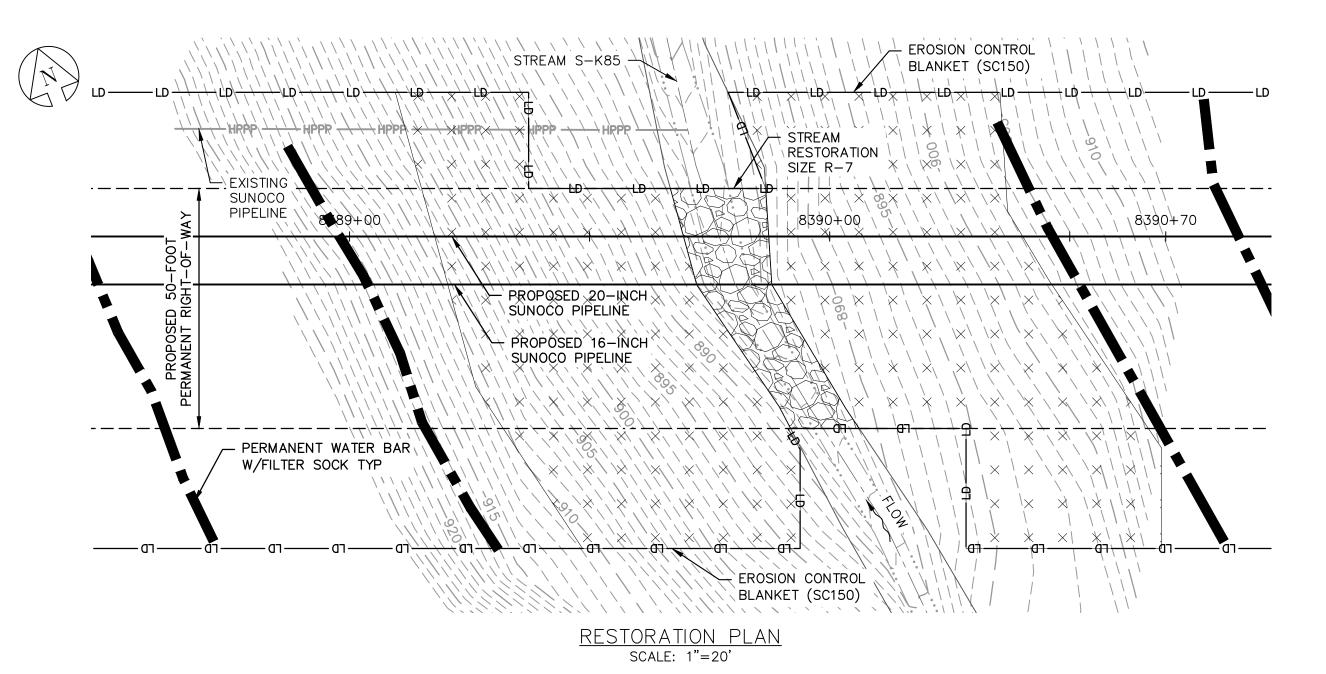
PENNSYLVANIA PIPELINE PROJECT STREAM S-K85 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

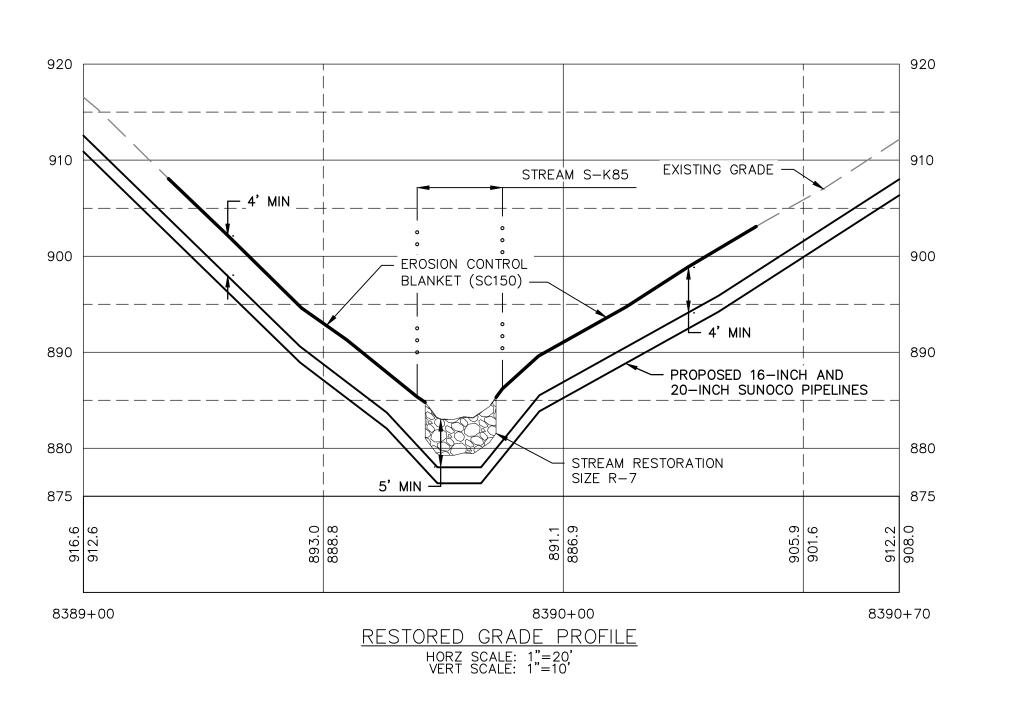
HUNTINGDON COUNTY, PA

APPROVAL

DWG. NO. REV. NO. S-K85-A

DESCRIPTION





- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20" PIPELINE.

WETLAND CROSSING NOTES:

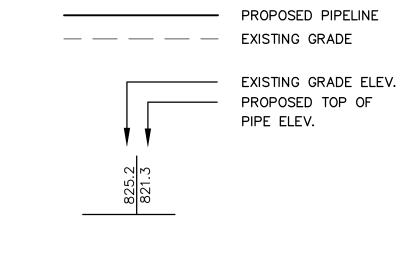
- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

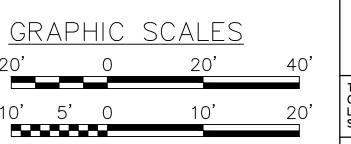
- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01–ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

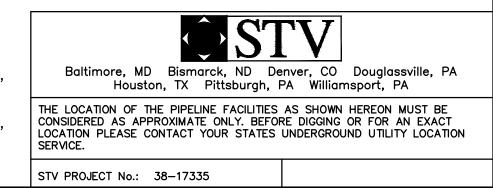
LEGEND

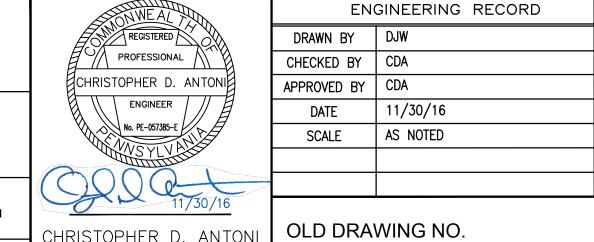
| <u>LEGE</u> | <u>LEGEND</u> | |
|--|---|--|
| <u>SYMBOL</u> | DESCRIPTION | |
| | PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES | |
| | PROPOSED SUNOCO RIGHT-OF-WAY | |
| —————————————————————————————————————— | EXISTING SUNOCO PIPELINE | |
| — — — 910 — — — | MAJOR CONTOUR | |
| | MINOR CONTOUR | |
| | STREAM CENTERLINE | |
| | TOP/BOTTOM OF BANK | |
| | EXISTING EDGE OF PAVED ROADWAY | |
| | EXISTING EDGE OF UNPAVED ROADWAY | |
| | EXISTING VEGETATION | |
| o o o | EDGE OF WATER | |
| <u> </u> | SOIL TYPE BOUNDARY | |
| | WETLAND | |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE | |
| —_LD —LD — | LIMIT OF DISTURBANCE | |
| | CONSTRUCTION FENCE | |
| —12 ——12 ——12 — | 12-INCH COMPOST FILTER SOCK | |
| —18 ——18 ——18 — | 18-INCH COMPOST FILTER SOCK | |
| -24242424- | 24-INCH COMPOST FILTER SOCK | |
| -32—32—32—32— | 32-INCH COMPOST FILTER SOCK | |
| | PERMANENT WATER BAR W/FILTER SOCK | |
| | TRENCH PLUG | |
| | TEMPORARY EQUIPMENT CROSSING | |
| | SANDBAG DAM | |
| () | PUMP | |
| | SCREENED INLET | |
| | ENERGY DISSIPATER | |
| \bigcirc | DEWATERING FACILITY | |
| | CULVERT PIPE | |
| $\begin{bmatrix} \times & \times & \times & \times & \times & \times \\ \times & \times & \times & \times &$ | EROSION CONTROL BLANKET | |
| | OTDE III DEGTOD I TION | |



PROFILE LEGEND:







CHRISTOPHER D. ANTONI

PE-057385-E

Sunoco Logistics Partners L.P.

REV. DATE APP#

PENNSYLVANIA PIPELINE PROJECT STREAM S-K85 **RESTORATION PLAN**

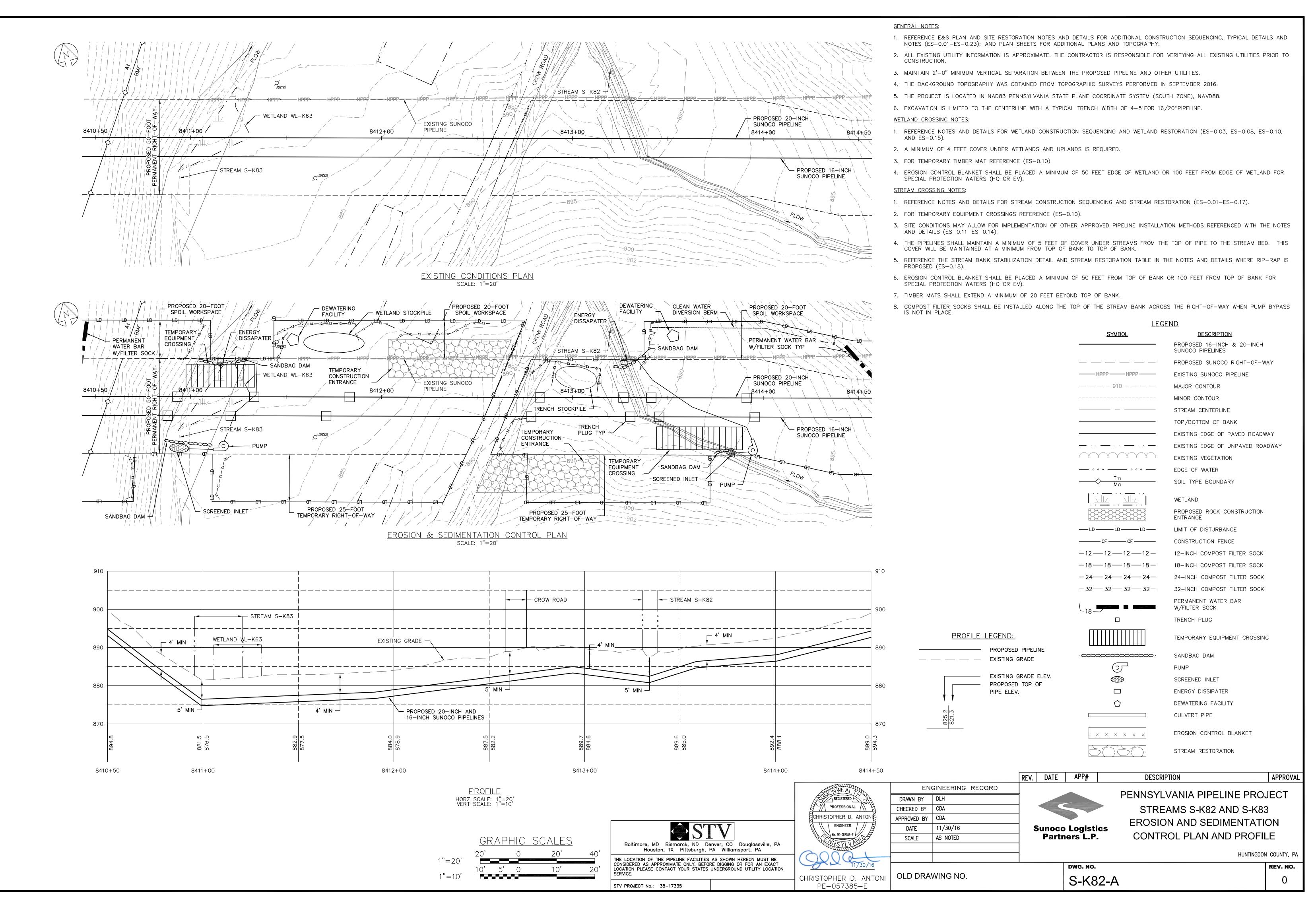
STREAM RESTORATION

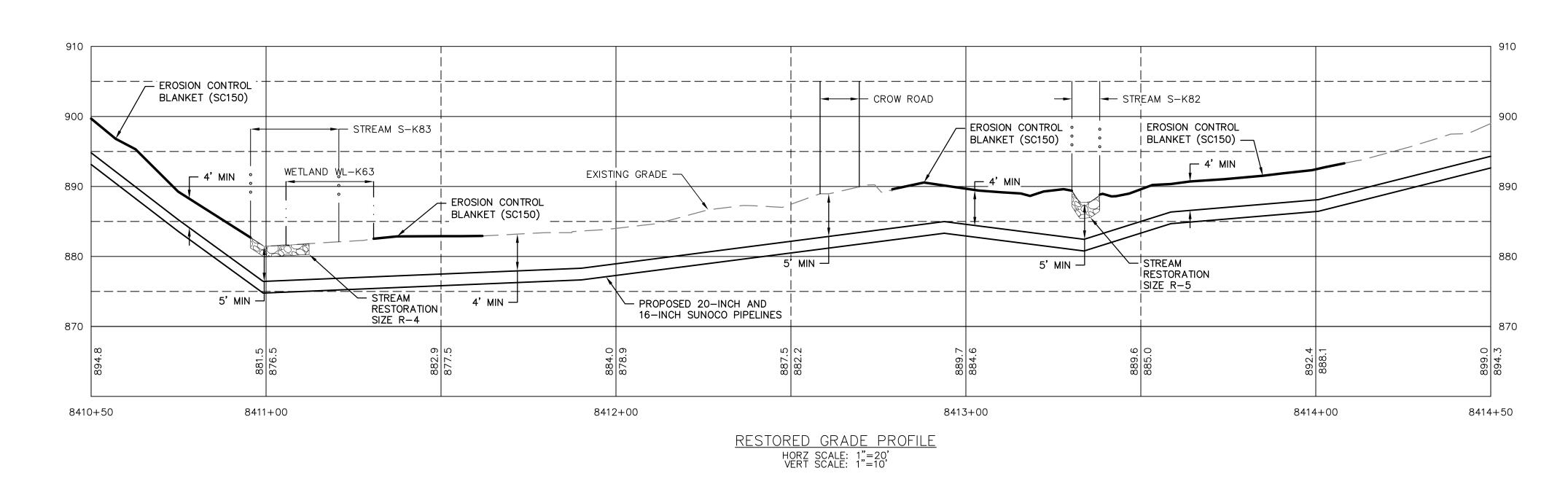
HUNTINGDON COUNTY, PA

APPROVAL

DWG. NO. REV. NO. S-K85-B

DESCRIPTION





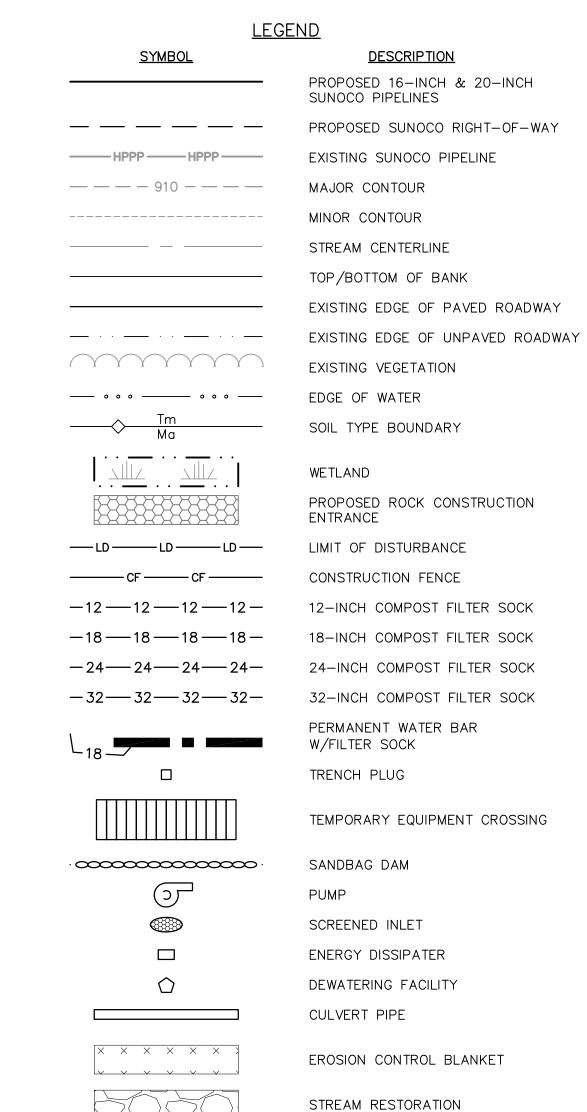
- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

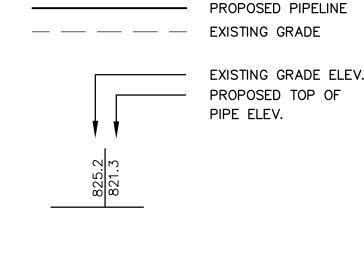
WETLAND CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

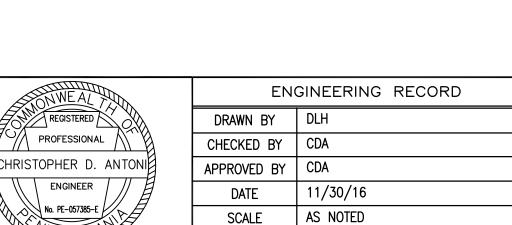
STREAM CROSSING NOTES:

- 1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.





PROFILE LEGEND:



REV. DATE APP# **Sunoco Logistics**

Partners L.P.

PENNSYLVANIA PIPELINE PROJECT STREAMS S-K82 AND S-K83 **RESTORATION PLAN**

DESCRIPTION

HUNTINGDON COUNTY, PA

APPROVAL

GRAPHIC SCALES 1"=10'

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION STV PROJECT No.: 38-17335

OLD DRAWING NO. CHRISTOPHER D. ANTONI PE-057385-E

ENGINEER

DWG. NO. S-K82-B REV. NO.