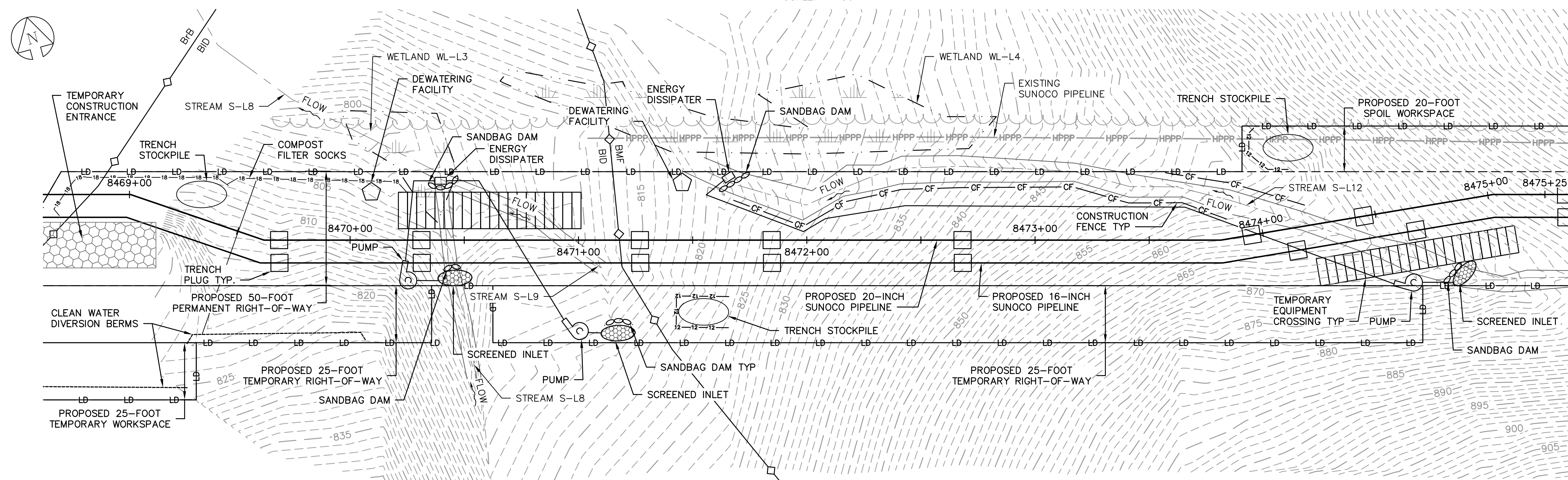
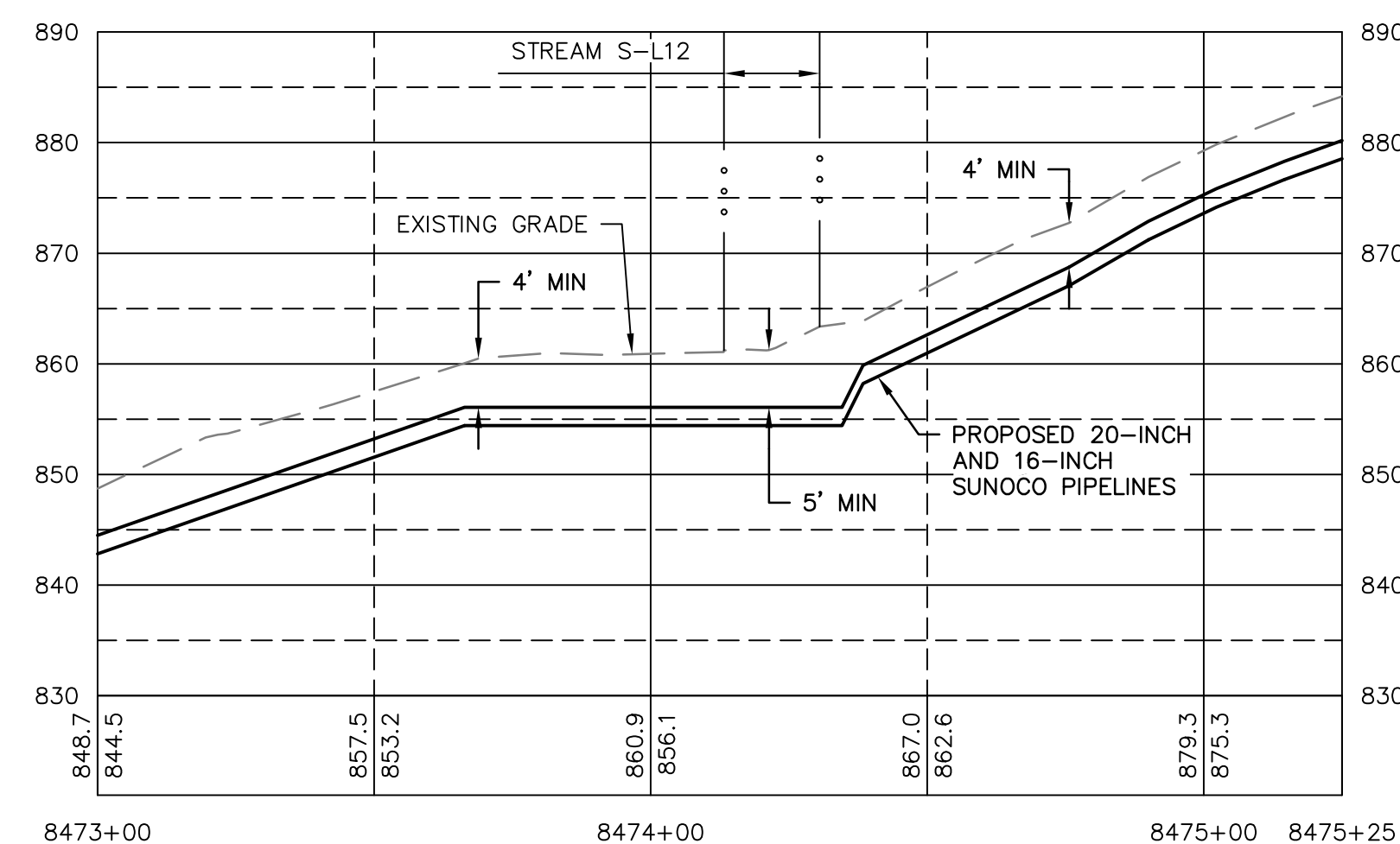




SCALE: 1"=30'

SCALE: 1"=30'



HORZ SCALE: 1"=30'
VERT SCALE: 1"=15'

 $1'' = 15'$

15' 0 15' 30'

EXISTING GRADE ELEV.
PROPOSED TOP OF
PIPE ELEV.

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.

	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	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
	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



**Sunoco Logistics
Partners L.P.**

JUNIATA COUNTY, PA

S-L8-A

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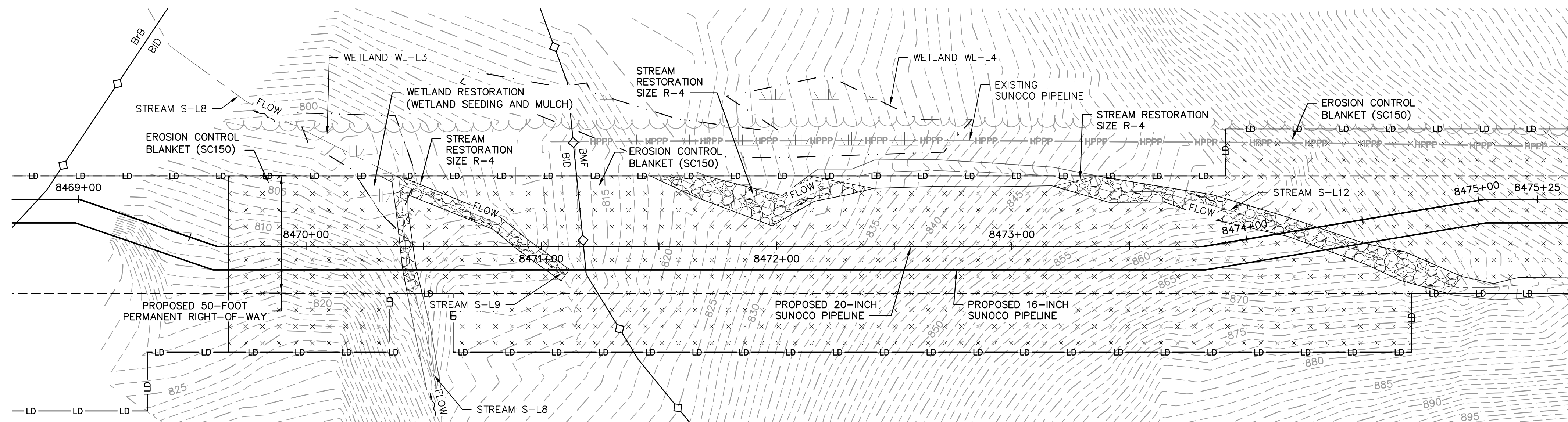
OLD DRAWING NO.

11/30/16

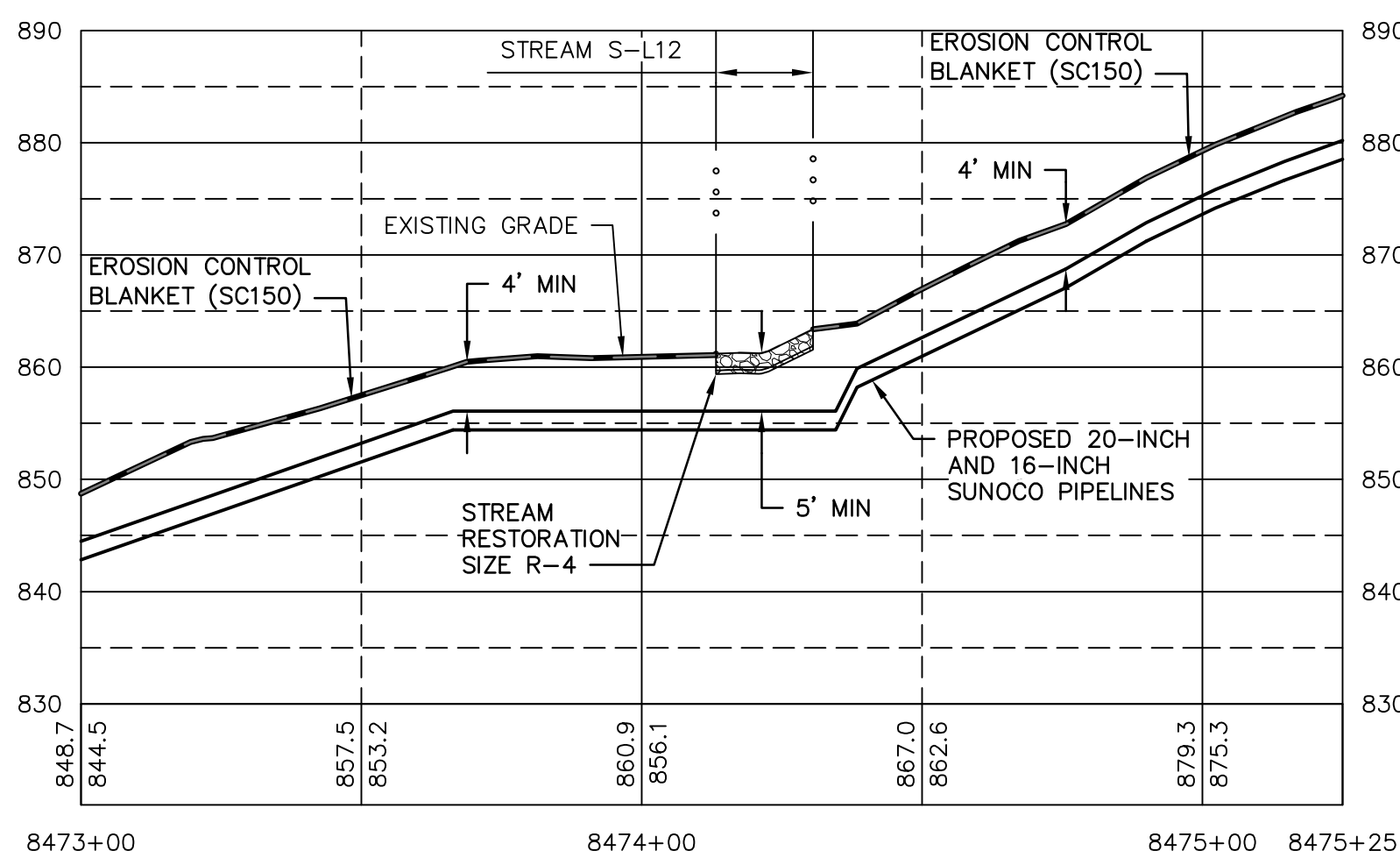
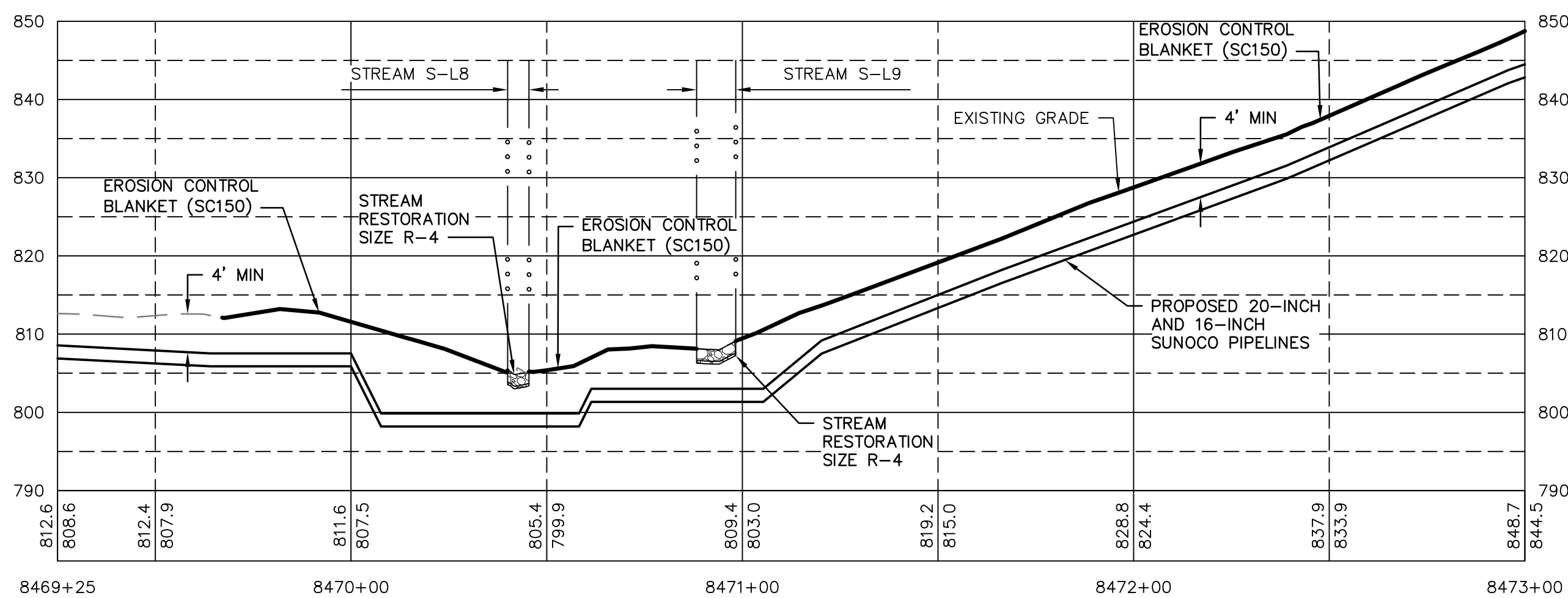
CHRISTOPHER D. ANTON
PF-057385-F

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.

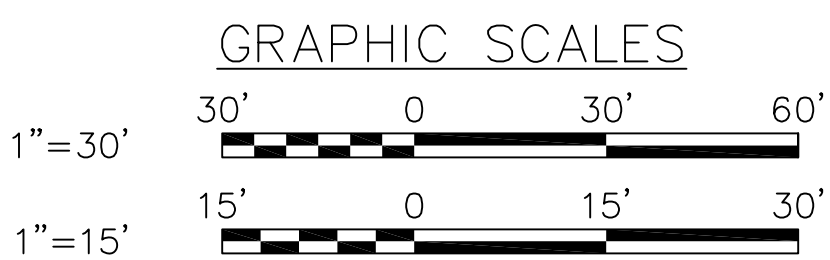
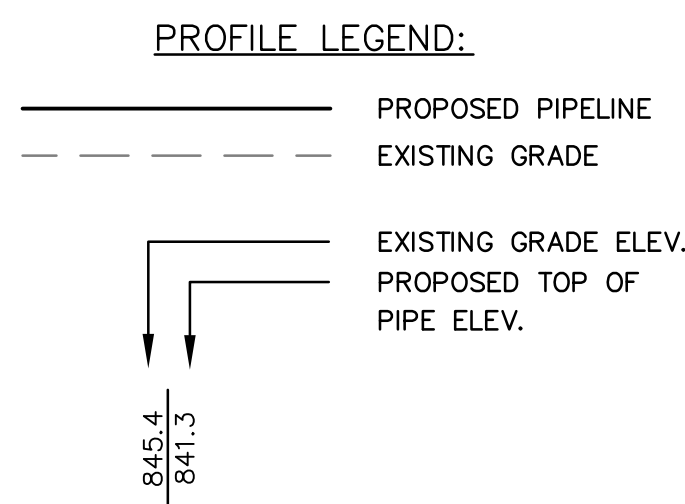
STV PROJECT No.: 38-17335



RESTORATION PLAN
SCALE: 1"=30'



RESTORED GRADE PROFILES
HORIZ SCALE: 1"=30'
VERT SCALE: 1"=15'



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

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	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
	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	APPROVAL
PENNSYLVANIA PIPELINE PROJECT STREAMS S-L-8, S-L-9, & S-L12 RESTORATION PLAN				
JUNIATA COUNTY, PA				
DWG. NO. S-L8-B			REV. NO. 0	

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

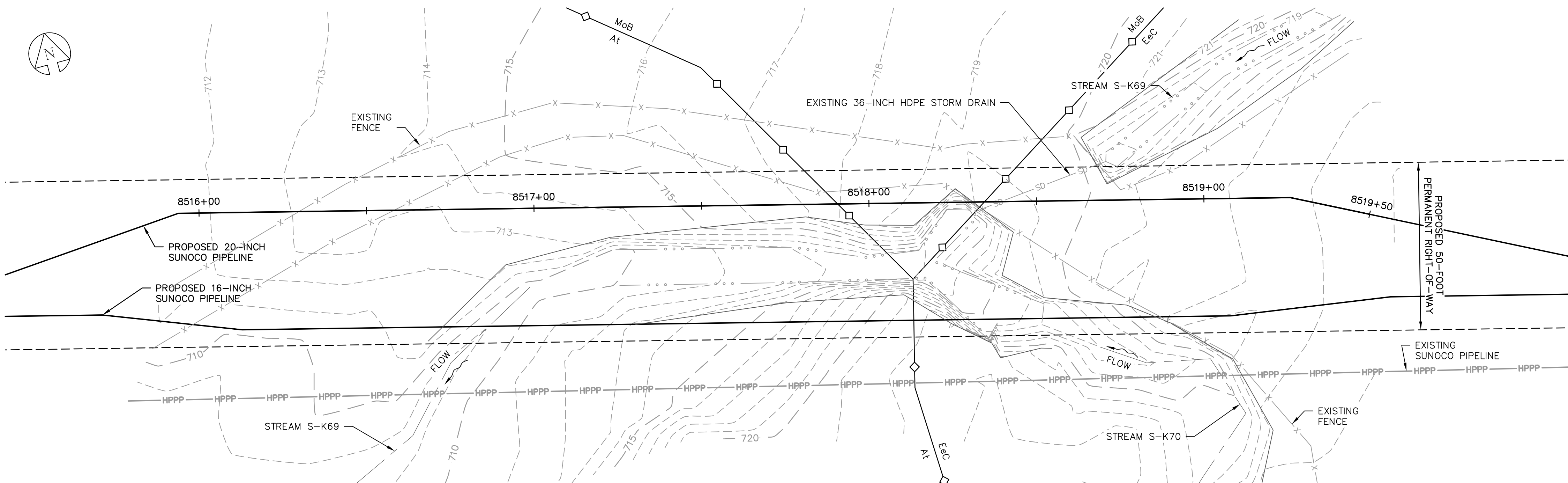
THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE
CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT
LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION
SERVICE.

STV PROJECT No.: 38-17335

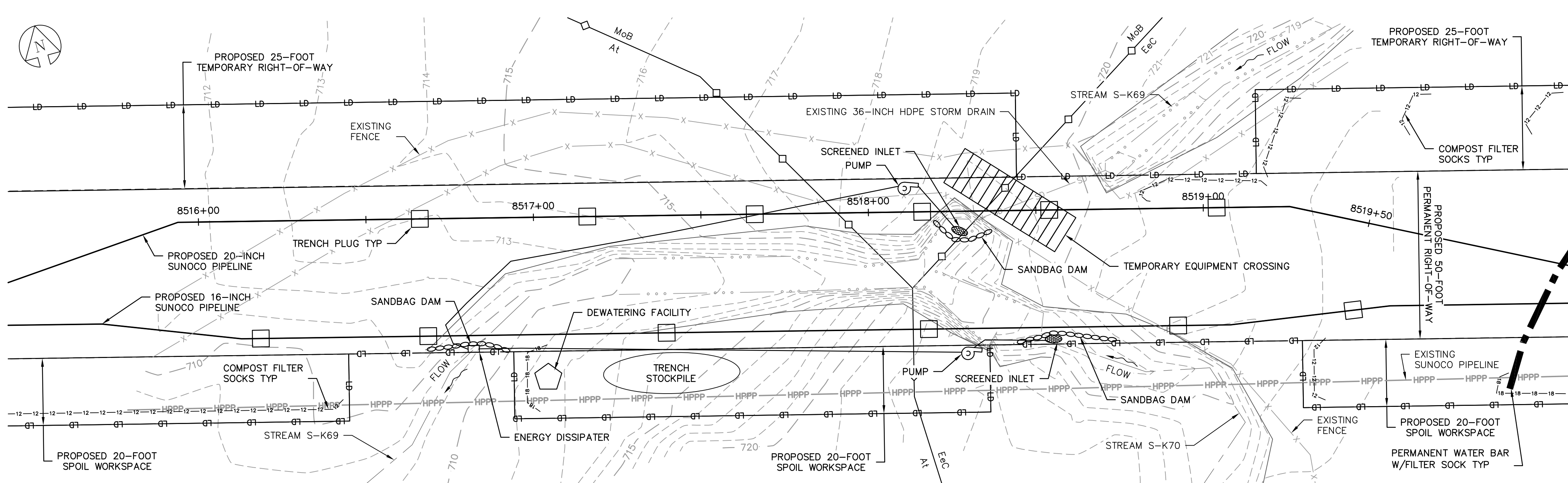
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CHRISTOPHER D. ANTONI
PE-057385-E

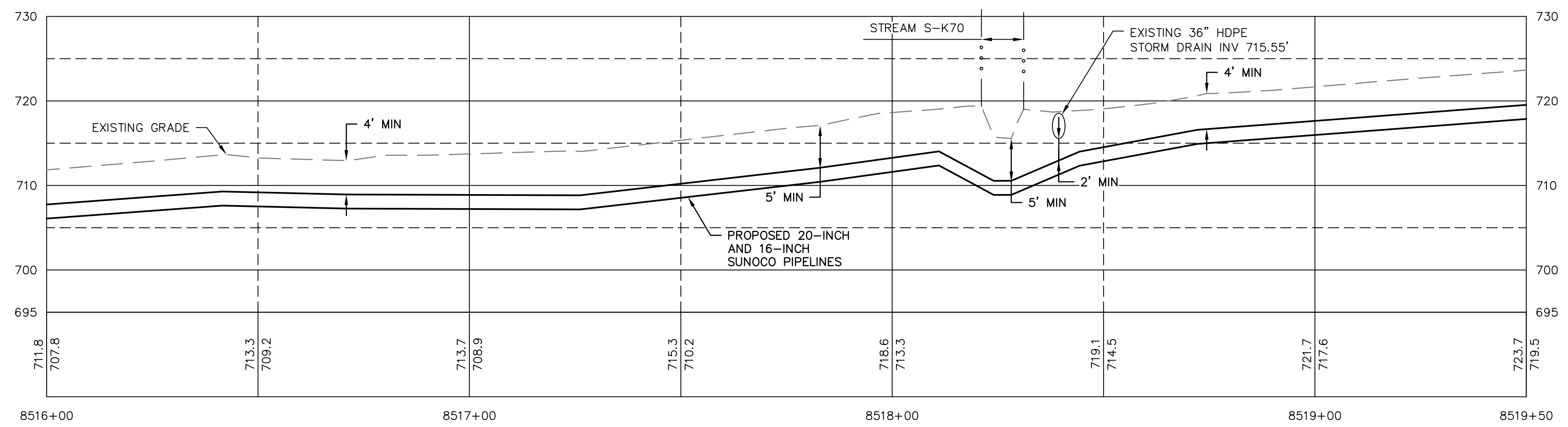
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DRAWN BY	PDZ
CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED
OLD DRAWING NO.	



EXISTING CONDITIONS PLAN
SCALE: 1"=20'

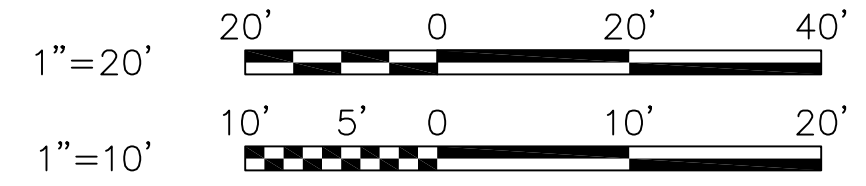


EROSION & SEDIMENTATION CONTROL PLAN
SCALE: 1"=20'



PROFILE
HORIZ SCALE: 1"=20'
VERT SCALE: 1"=10'

GRAPHIC SCALES



GENERAL NOTES:

- 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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- THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
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WETLAND CROSSING NOTES:

- REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 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:

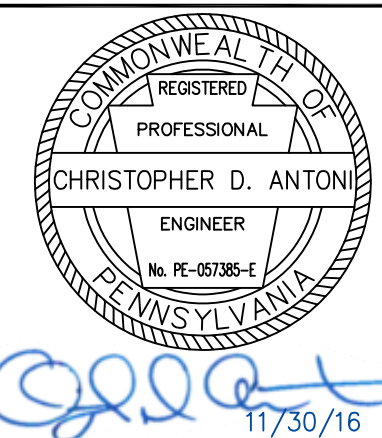
- REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
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LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	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
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	24-INCH COMPOST FILTER SOCK
	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

PROFILE LEGEND:

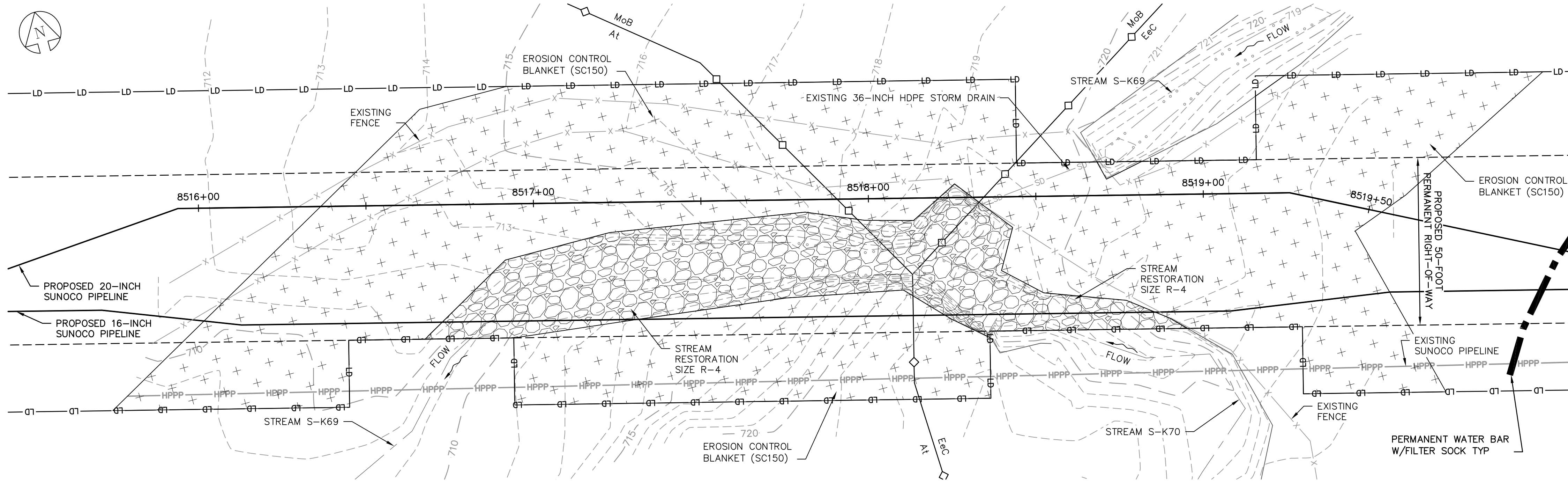
	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.



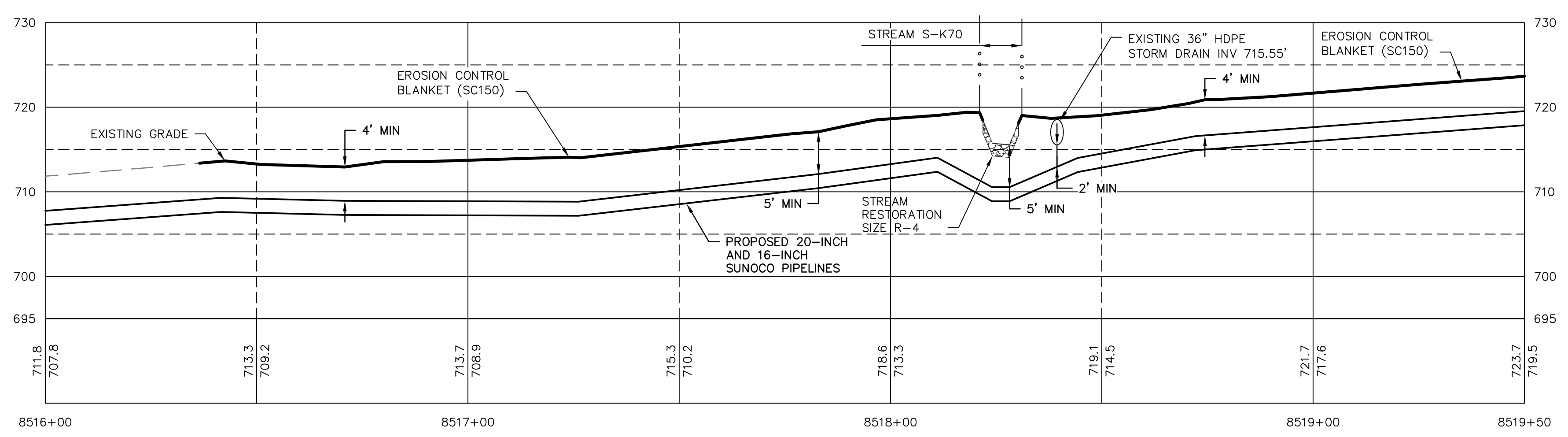
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DATE	11/30/16
SCALE	AS NOTED

CHRISTOPHER D. ANTONI
PE-057385-E

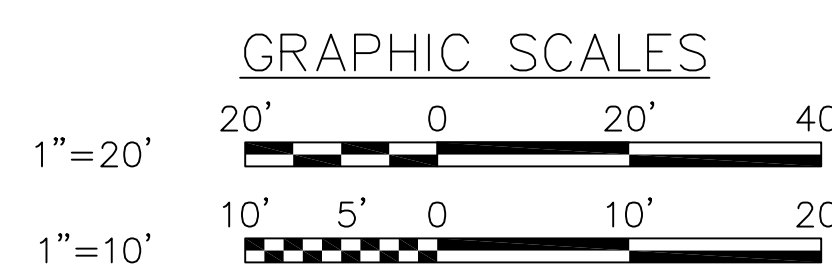
REV.	DATE	APP#	DESCRIPTION	APPROVAL
PENNSYLVANIA PIPELINE PROJECT				
STREAMS S-K69 & S-K70				
EXISTING CONDITIONS/EROSION & SEDIMENTATION CONTROL PLANS				
JUNIATA COUNTY, PA				
DWG. NO. S-K69-A				REV. NO. 0



RESTORATION PLAN
SCALE: 1"=20'



RESTORED GRADE PROFILE
HORIZ SCALE: 1"=20'
VERT SCALE: 1"=10'



GENERAL NOTES:

- 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:

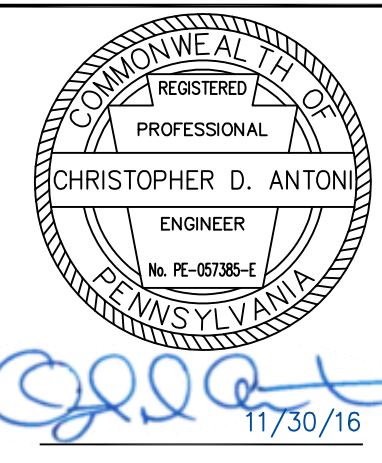
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- TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

LEGEND

SYMBOL	DESCRIPTION
---	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
- - - -	PROPOSED SUNOCO RIGHT-OF-WAY
—HPPP—HPPP—	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
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— — — — —	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

PROFILE LEGEND:

— — — — —	PROPOSED PIPELINE
- - - - -	EXISTING GRADE
— — — — —	EXISTING GRADE ELEV.
— — — — —	PROPOSED TOP OF PIPE ELEV.



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

OLD DRAWING NO.

REV.	DATE	APP#	DESCRIPTION	APPROVAL
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PENNSYLVANIA PIPELINE PROJECT
STREAMS S-K69 & S-K70
RESTORATION PLAN

JUNIATA COUNTY, PA

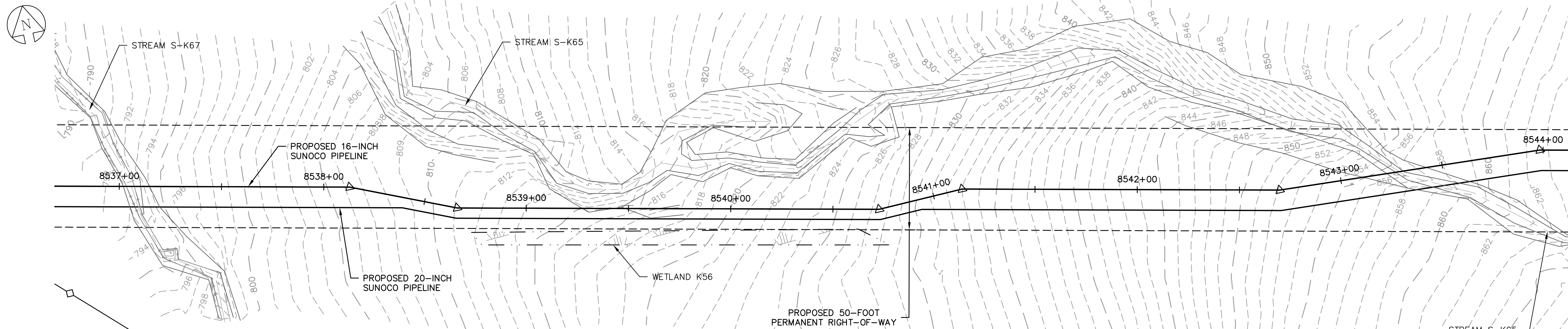
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S-K69-B

REV. NO.
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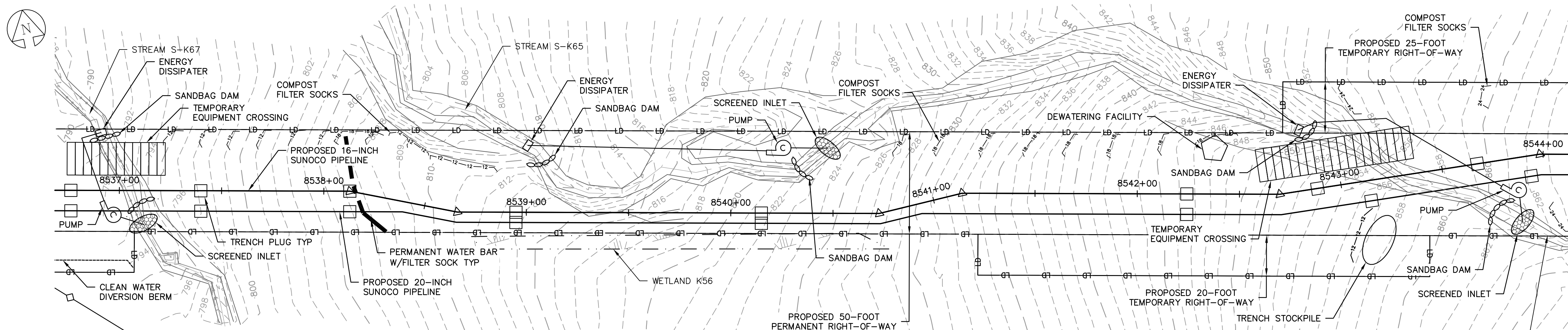
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX
Pittsburgh, PA Williamsport, PA

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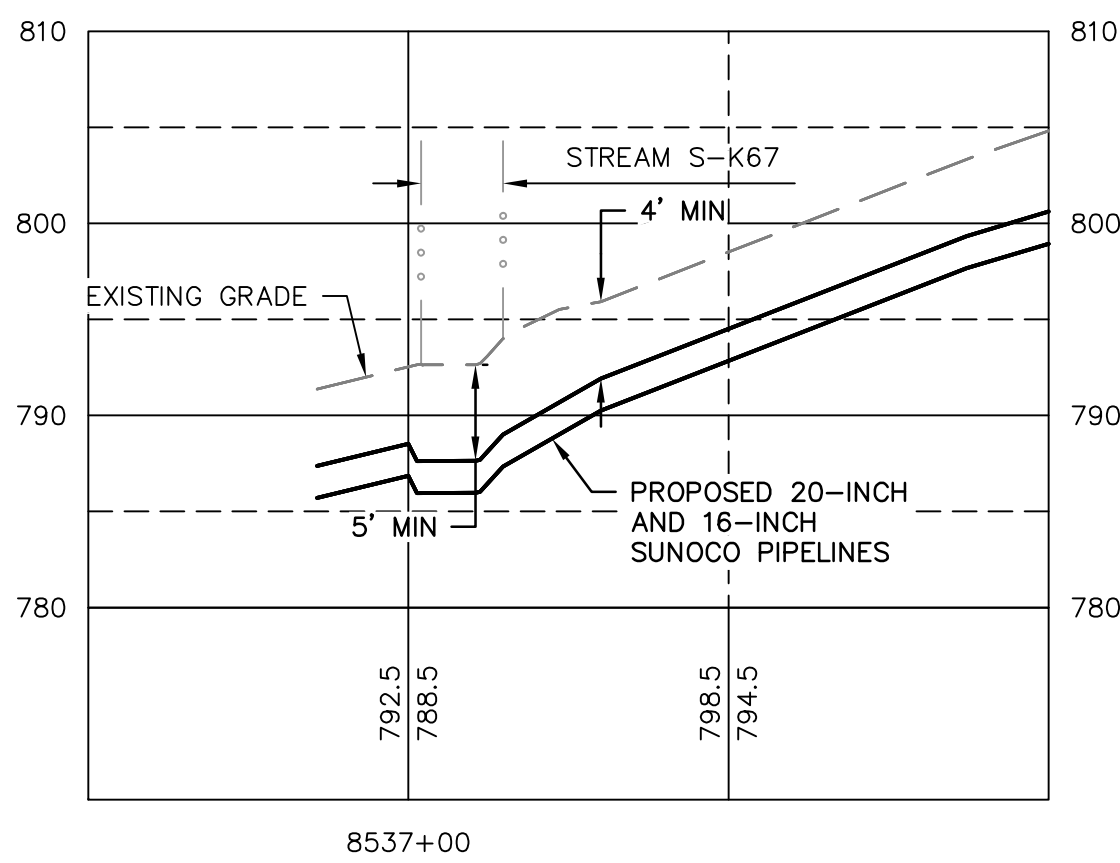
STV PROJECT No.: 38-17335



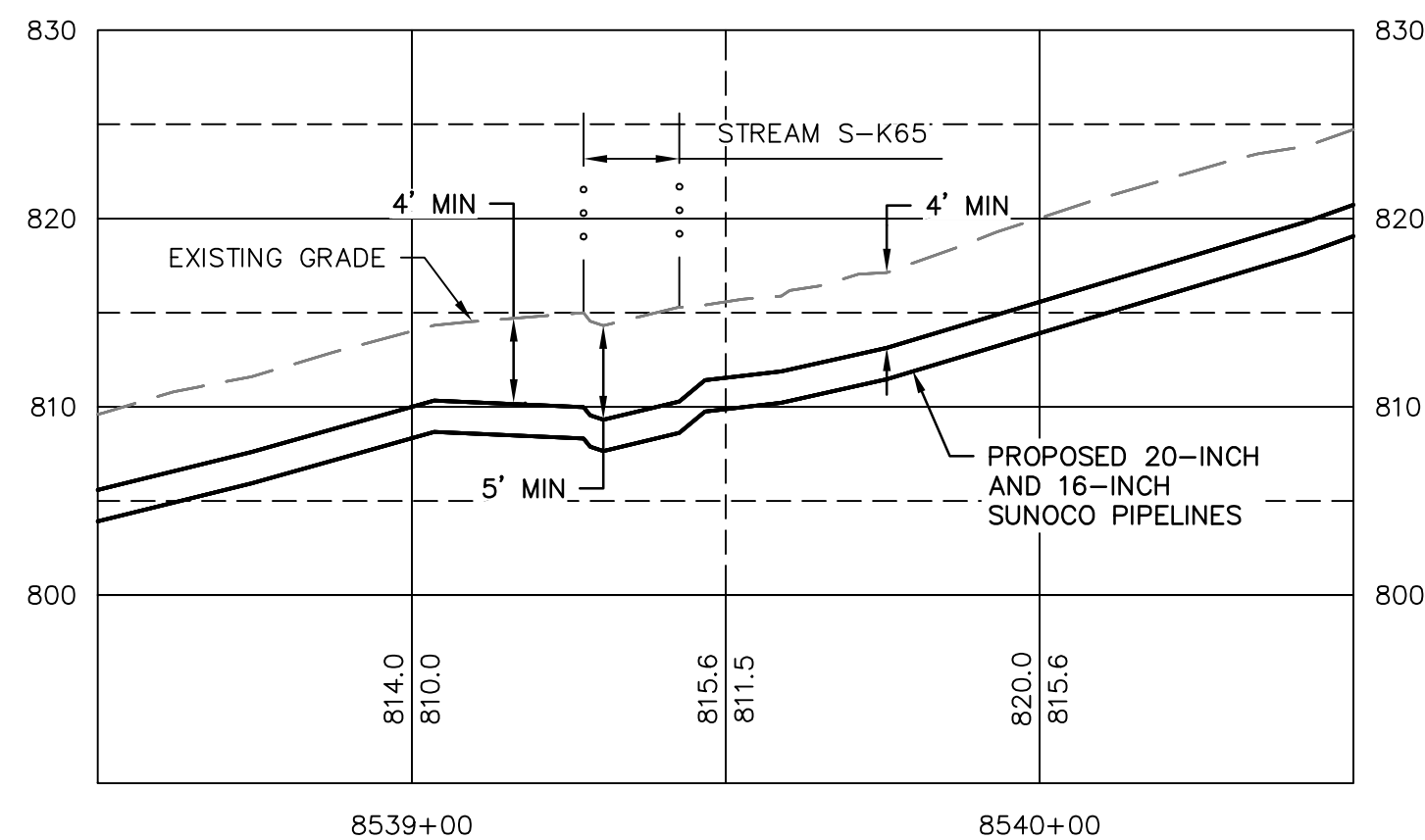
EXISTING CONDITIONS PLAN
SCALE: 1"=30'



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

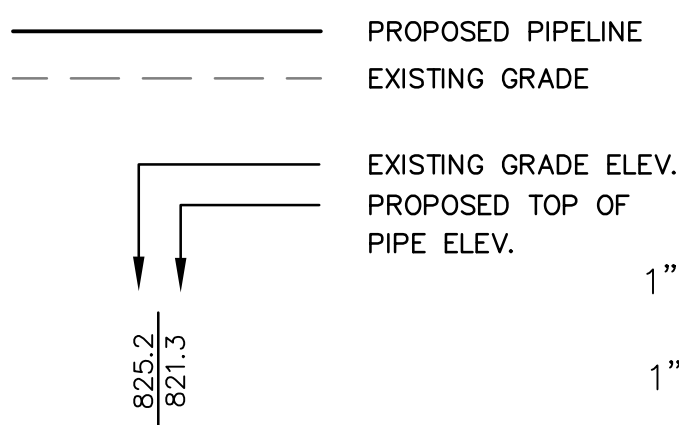


PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'

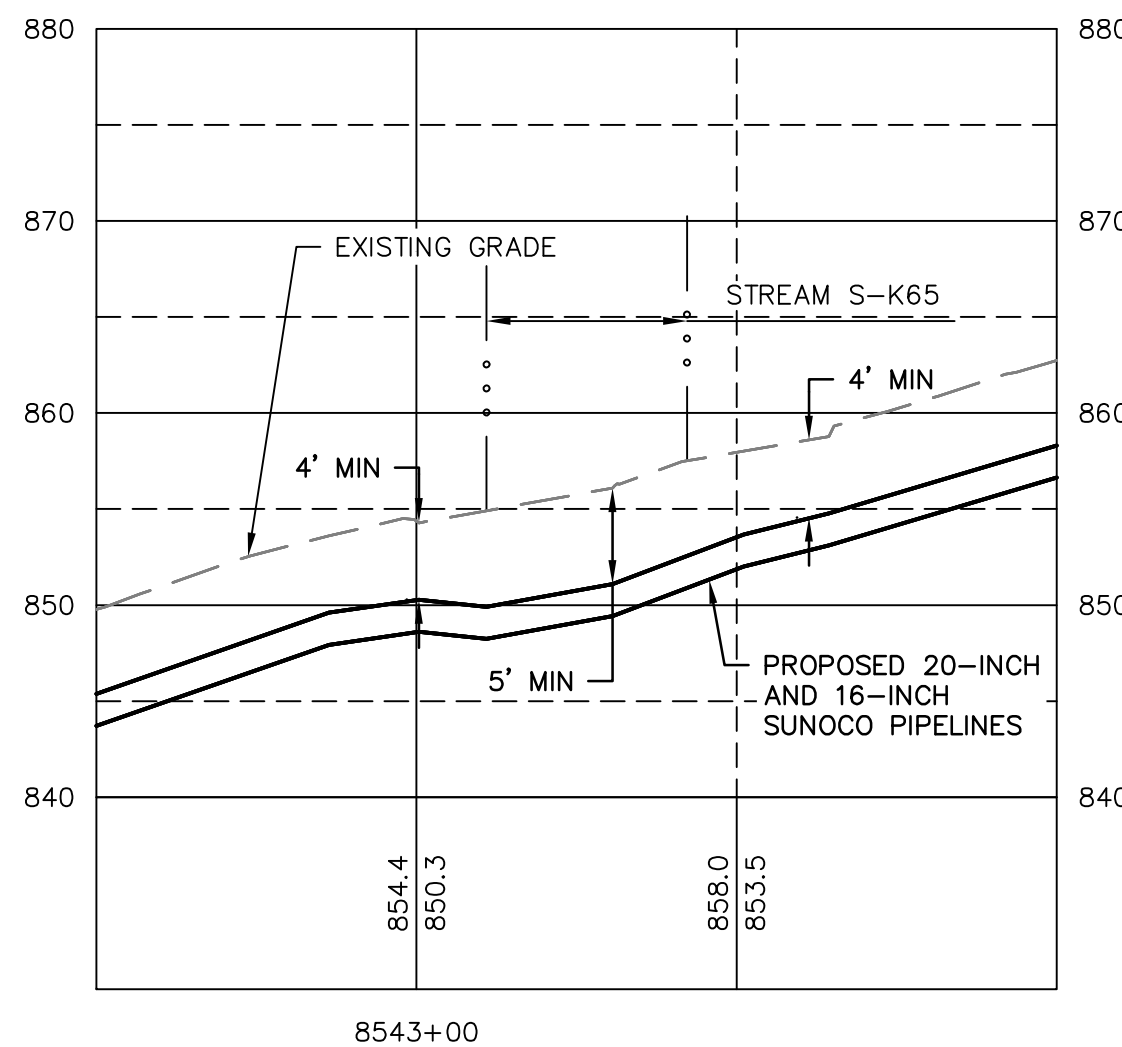
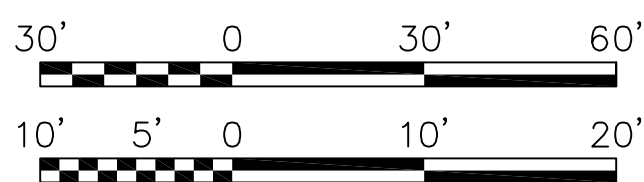


PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'

PROFILE LEGEND:



GRAPHIC SCALE



PROFILE
HORZ SCALE: 1"=30'
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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STREAM CROSSING NOTES:

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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.
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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

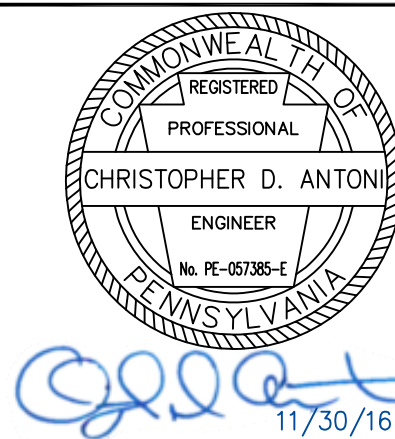
SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE 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
	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	APPROVAL
PENNSYLVANIA PIPELINE PROJECT				
STREAMS S-K67 TO S-K55				
EXISTING CONDITIONS/EROSION & SEDIMENTATION CONTROL PLANS				
JUNIATA COUNTY, PA				
DWG. NO.			REV. NO.	
S-K56A			0	

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

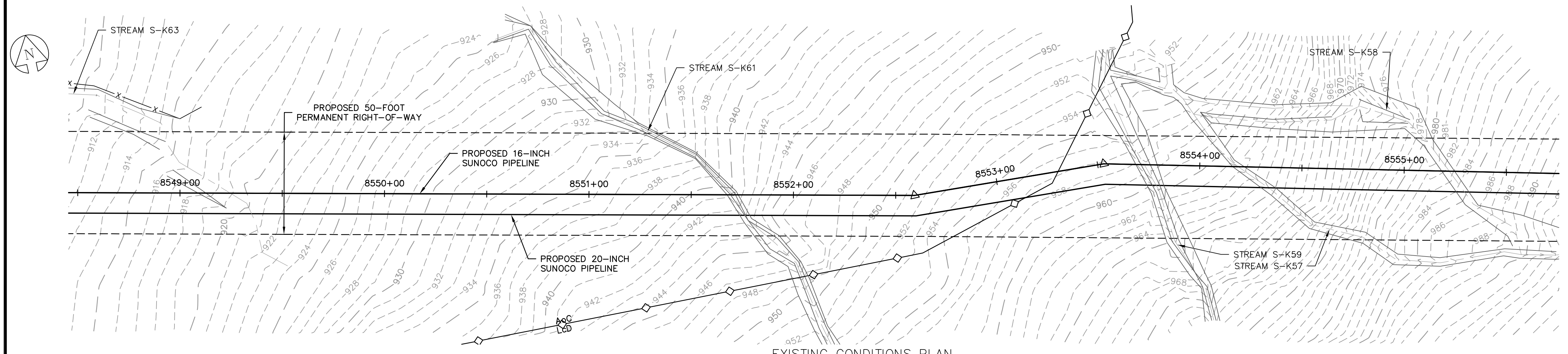
THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION SERVICE.

STV PROJECT No.: 38-17335

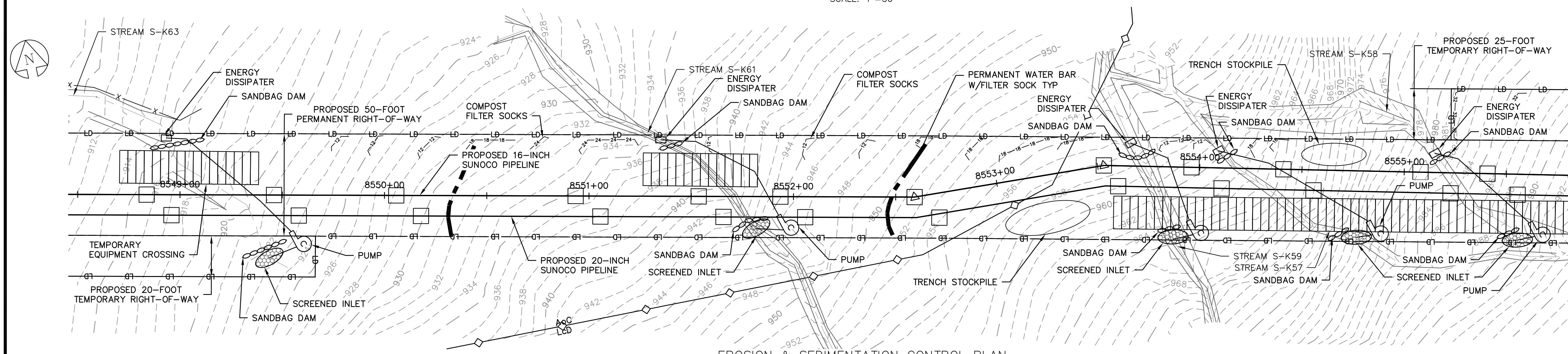


CHRISTOPHER D. ANTONI
PE-057385-E

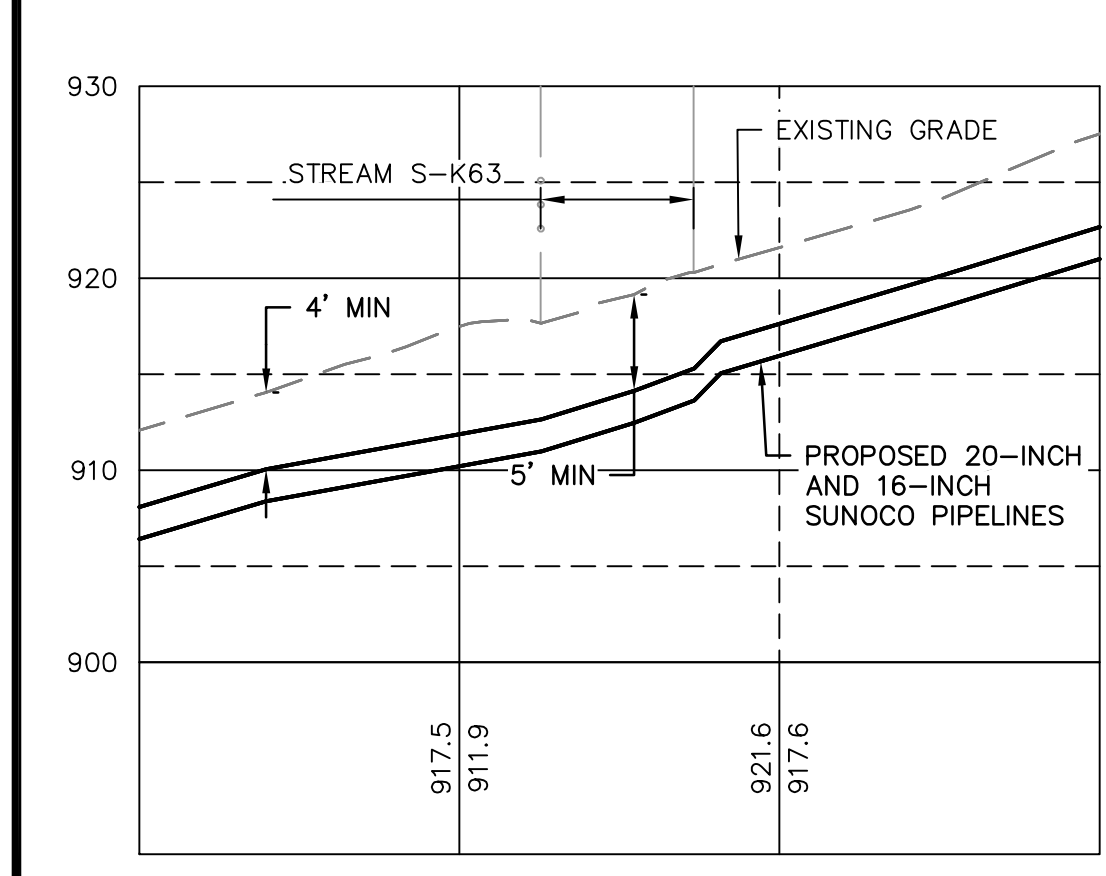
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DATE	11/30/16
SCALE	AS NOTED
OLD DRAWING NO.	



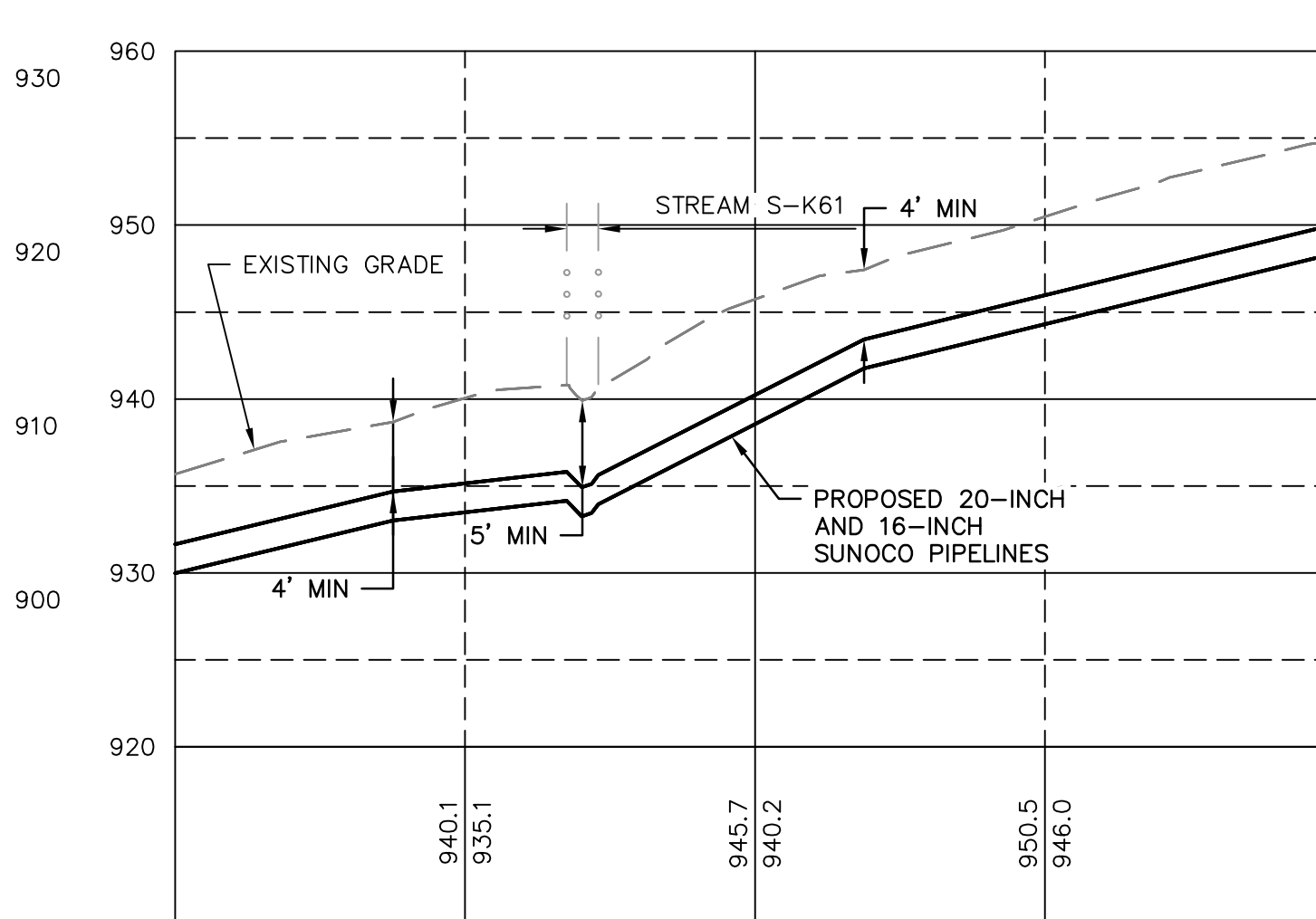
EXISTING CONDITIONS PLAN
SCALE: 1"=30'



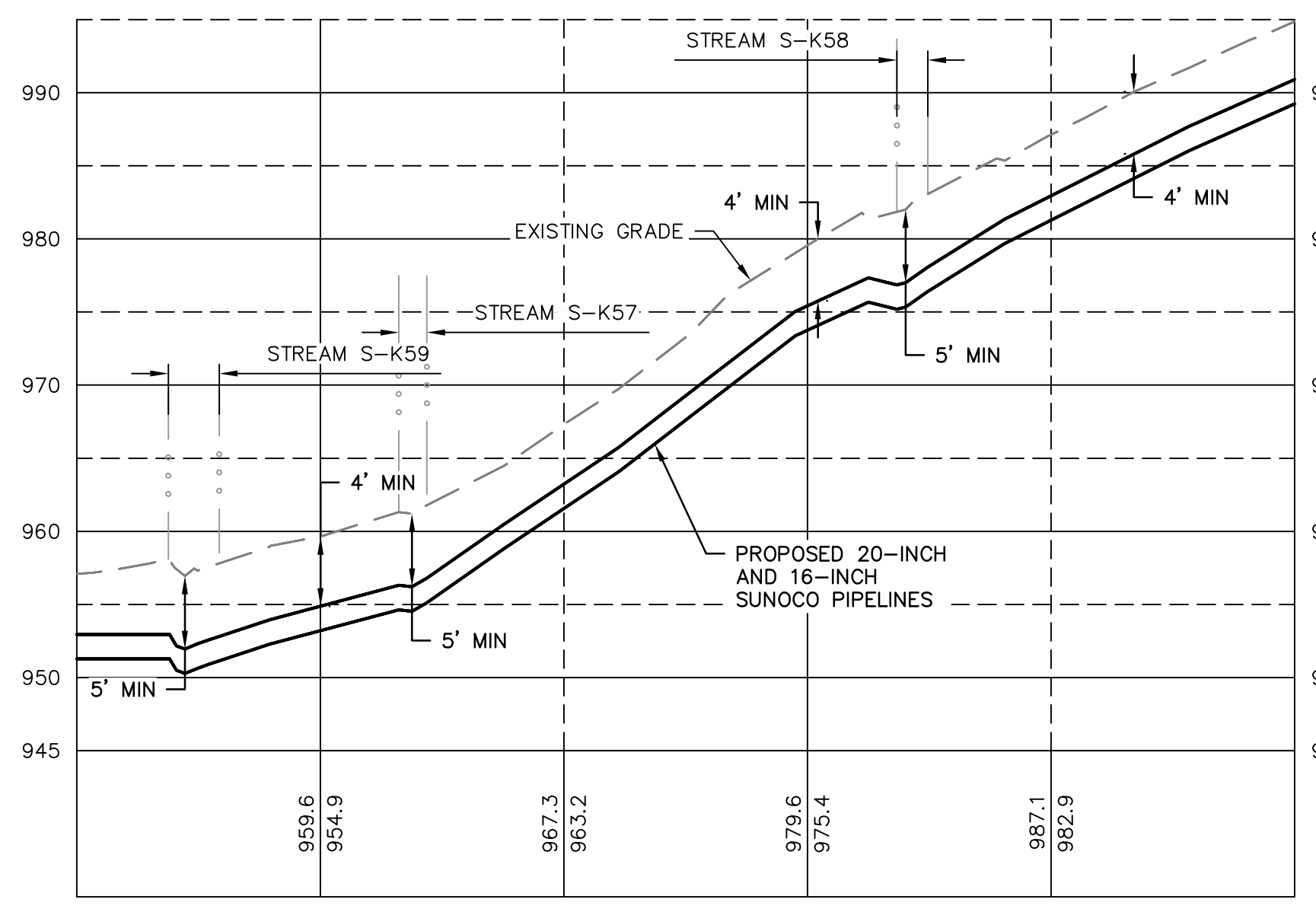
EROSION & SEDIMENTATION CONTROL PLAN
SCALE: 1"=30'



PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'

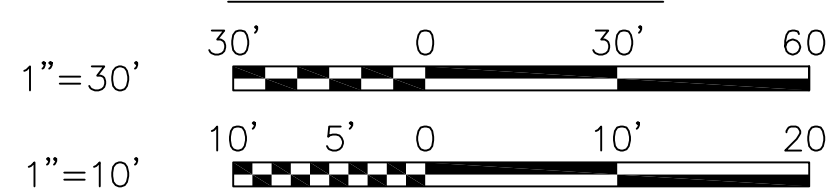


PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'



PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'

GRAPHIC SCALE



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.

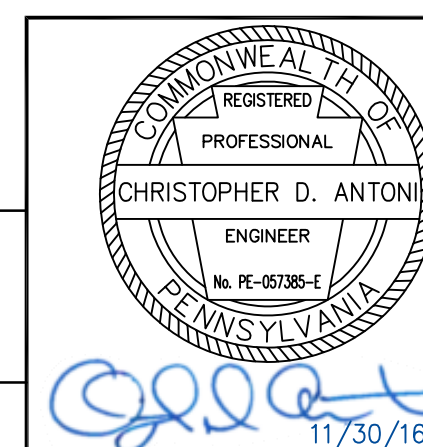
LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	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
	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

PROFILE LEGEND:

	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.

REV.	DATE	APP#	DESCRIPTION	APPROVAL
PENNSYLVANIA PIPELINE PROJECT				
STREAMS S-K67 TO S-K55				
EXISTING CONDITIONS/EROSION & SEDIMENTATION CONTROL PLANS				
JUNIATA COUNTY, PA				
DWG. NO.			REV. NO.	
S-K56B			0	



CHRISTOPHER D. ANTONI
PE-057385-E

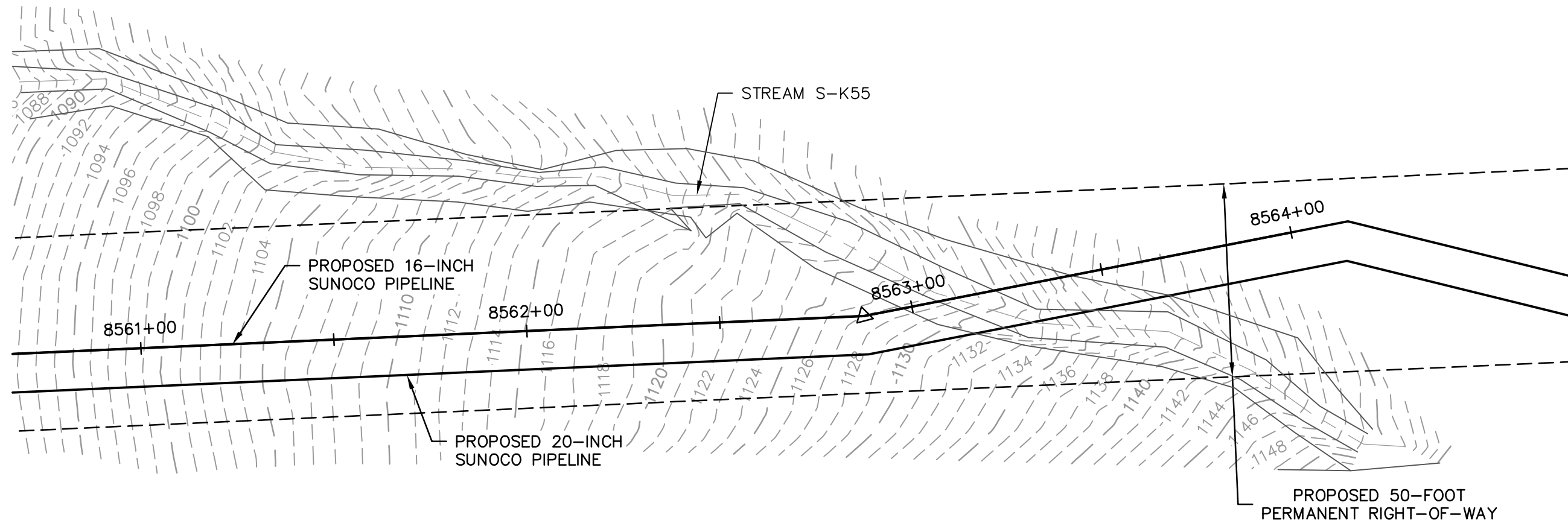
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DRAWN BY	RFG
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APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED

OLD DRAWING NO.

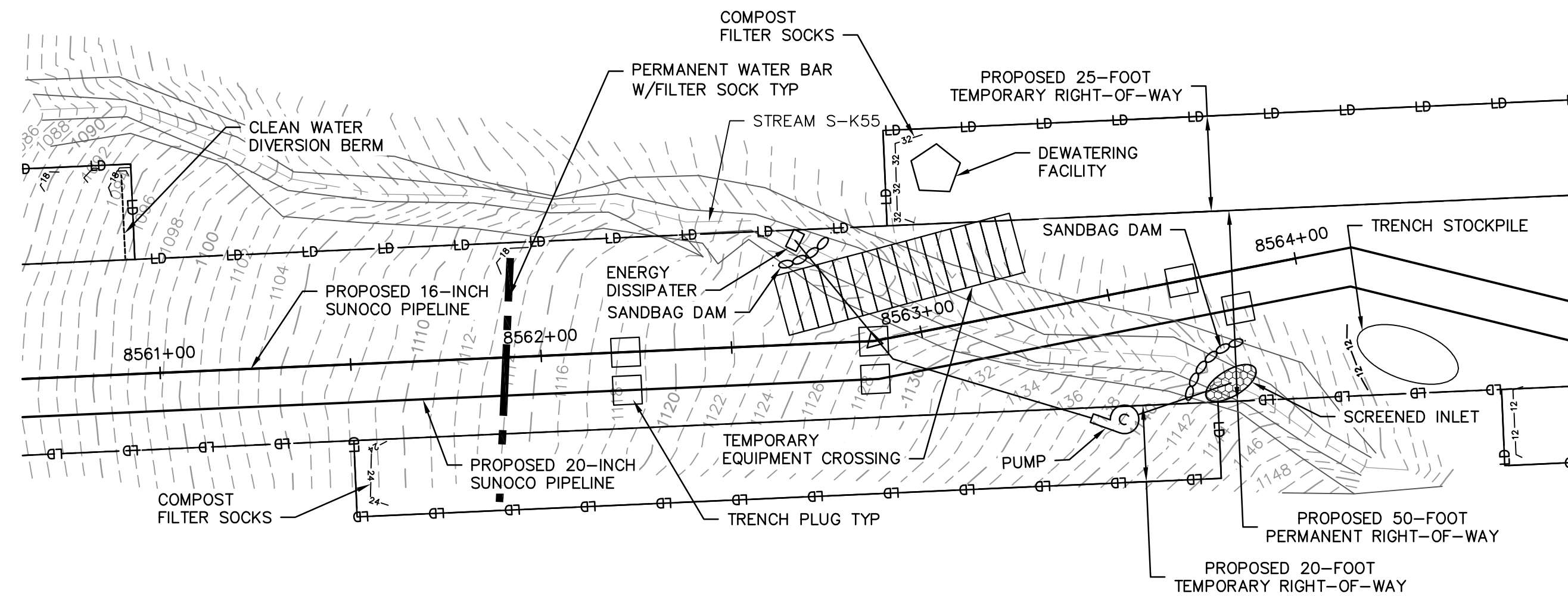
STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA
Houston, TX Pittsburgh, PA Williamsport, PA

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 SERVICE.

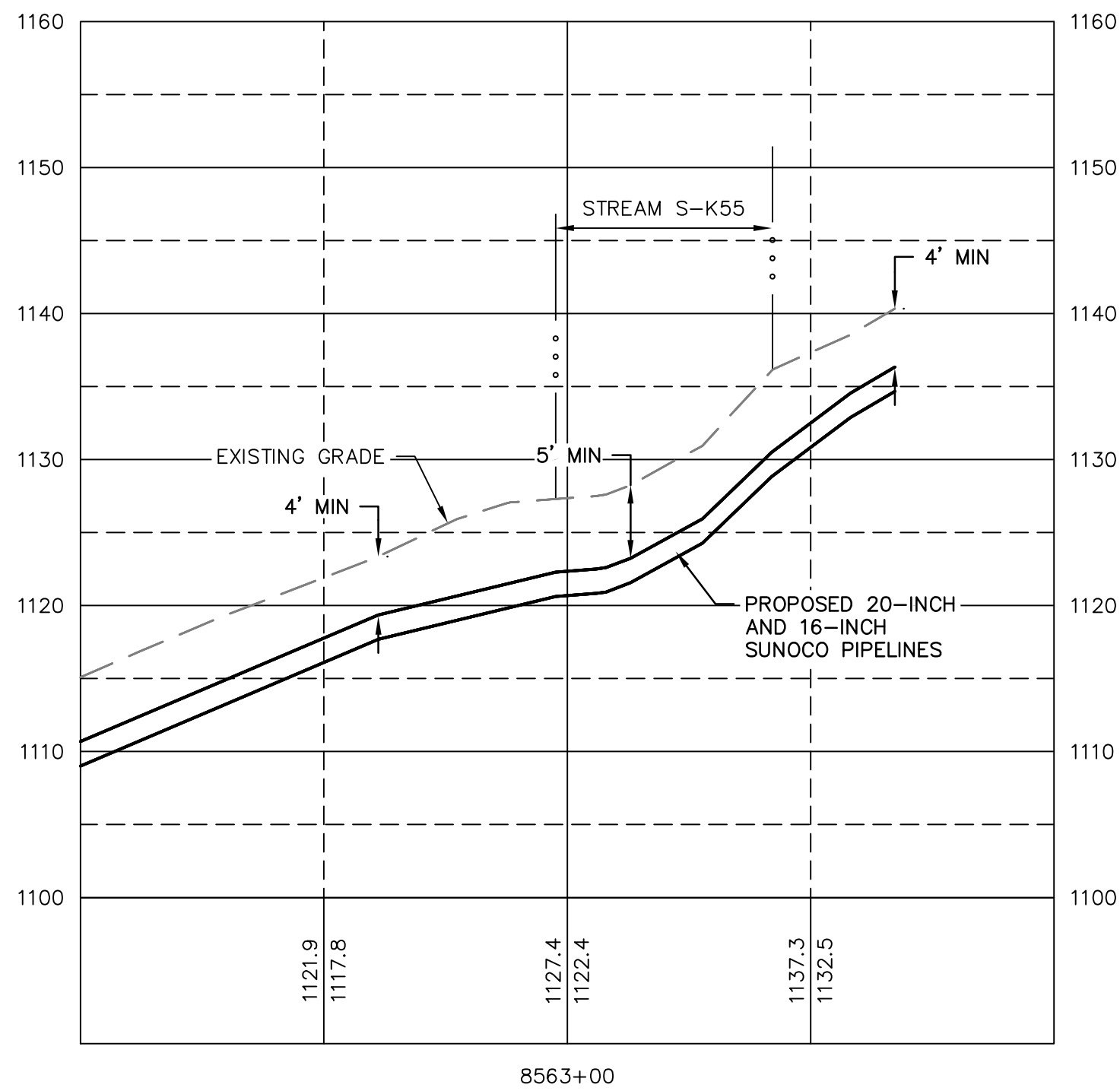
STV PROJECT No.: 38-17335



EXISTING CONDITIONS PLAN
SCALE: 1"=30'



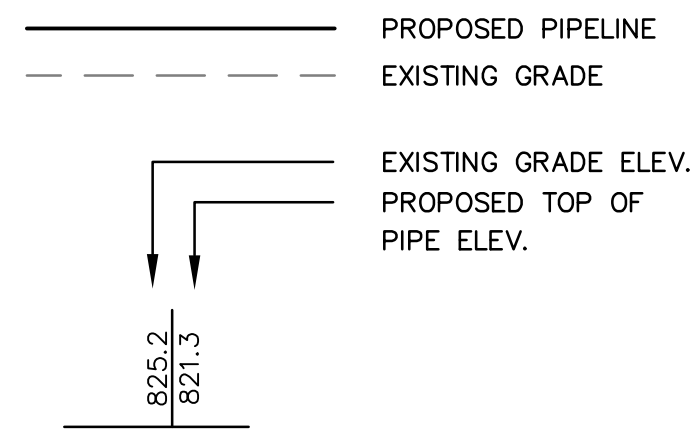
EROSION & SEDIMENTATION CONTROL PLAN
SCALE: 1"=30'



PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'
1"=30'
1"=10'



PROFILE LEGEND:



LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	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
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	24-INCH COMPOST FILTER SOCK
	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

GENERAL NOTES:

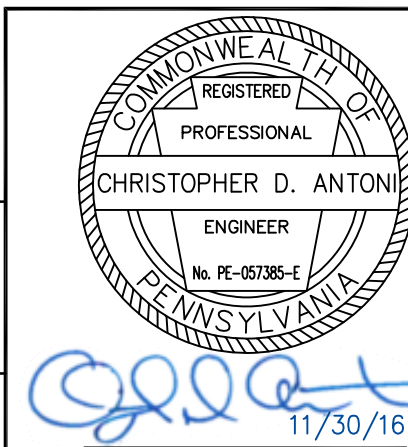
- REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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- MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
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- EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4'-5' FOR 16/20" PIPELINE.

WETLAND CROSSING NOTES:

- REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 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:

- REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
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- REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 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).
- TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 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.

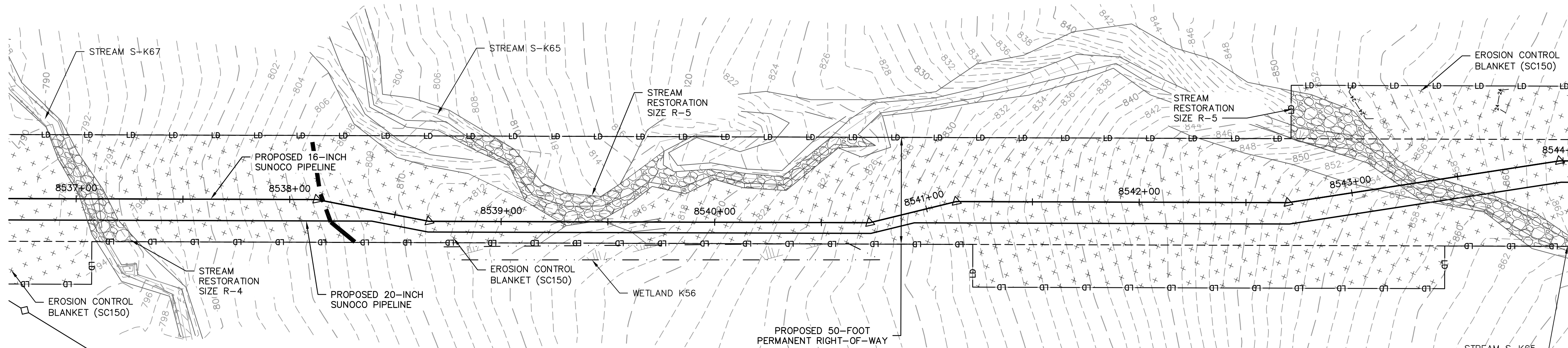


CHRISTOPHER D. ANTONI
PE-057385-E

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

OLD DRAWING NO.

REV.	DATE	APP#	DESCRIPTION	APPROVAL
 PENNSYLVANIA PIPELINE PROJECT STREAMS S-K67 TO S-K55 EXISTING CONDITIONS/EROSION & SEDIMENTATION CONTROL PLANS				
JUNIATA COUNTY, PA				
DWG. NO.			REV. NO.	
S-K56C			0	



PLAN
SCALE: 1"=30'

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. 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:

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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:

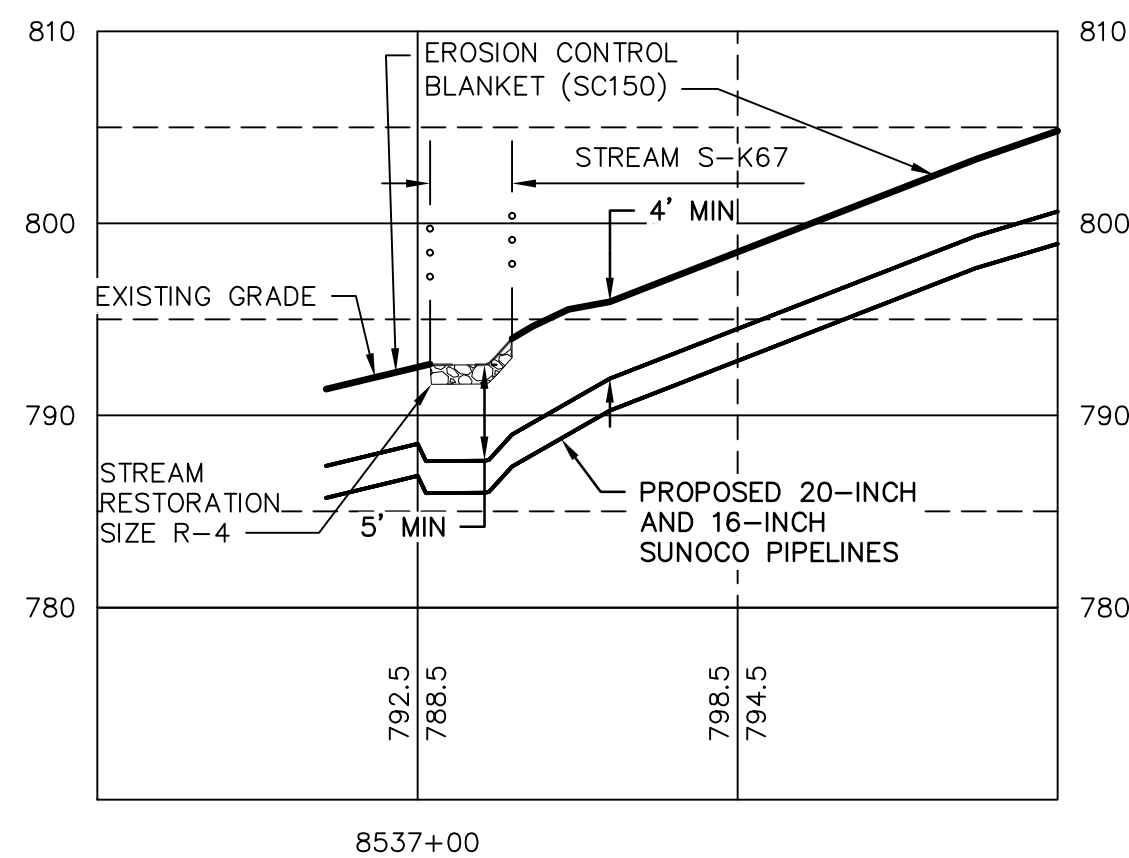
1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
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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).
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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.

LEGEND

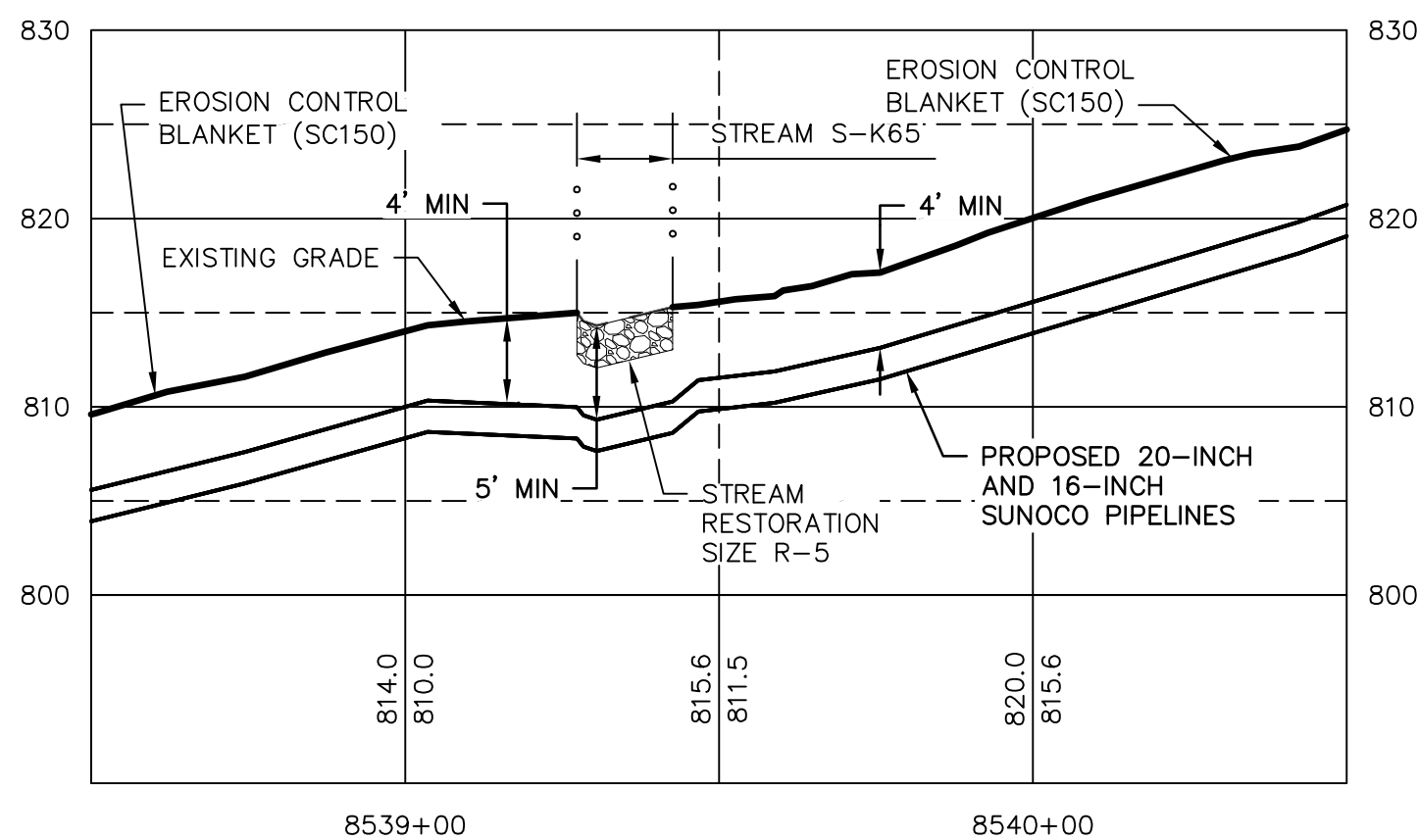
SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
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	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

PROFILE LEGEND:

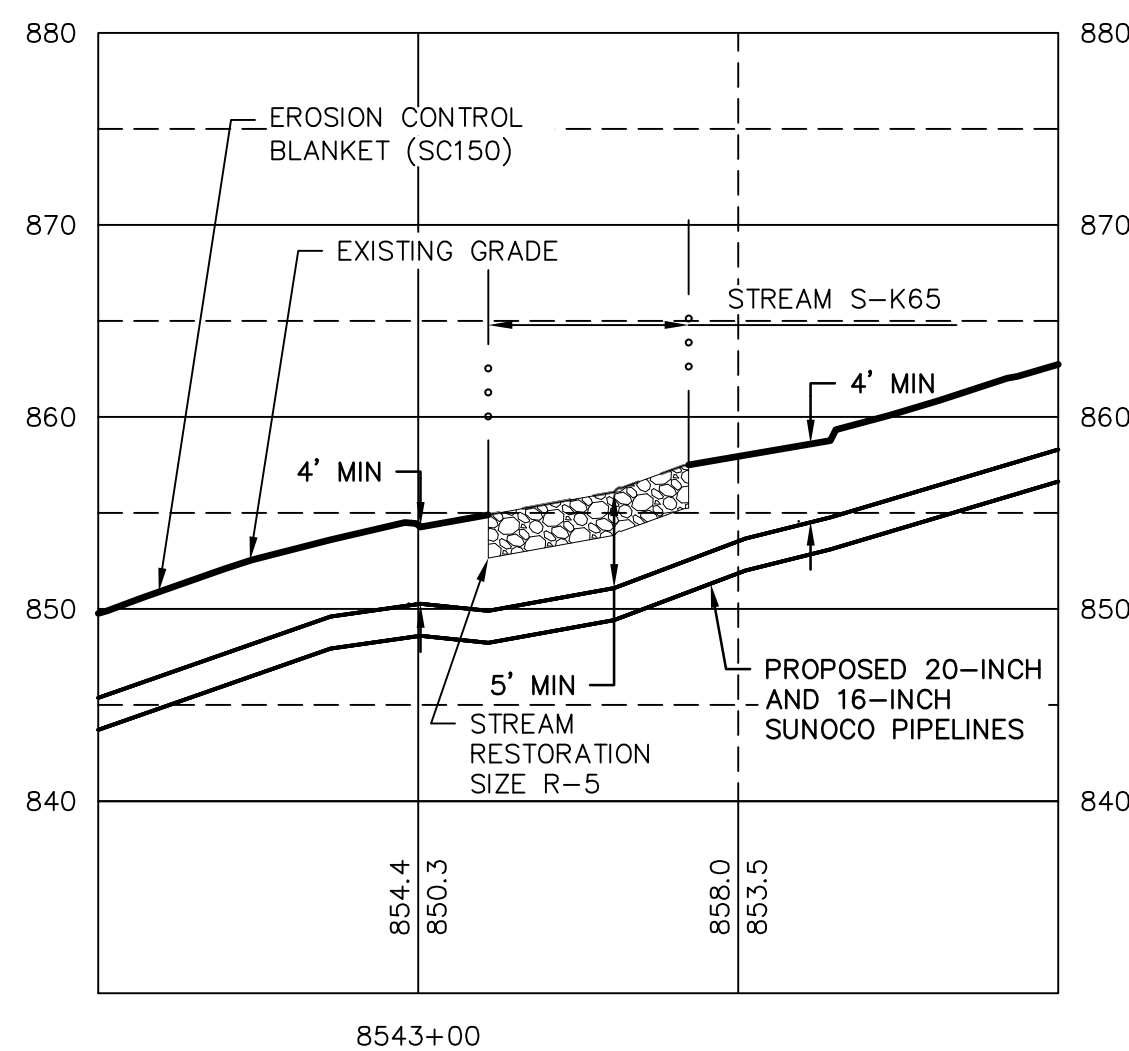
	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.



RESTORED GRADE PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'

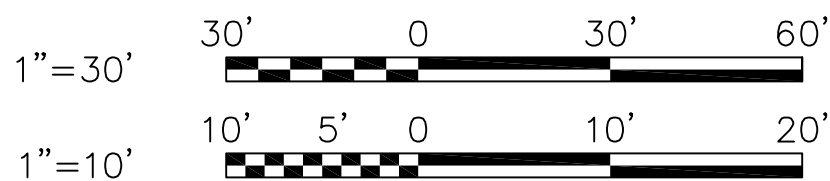


RESTORED GRADE PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'



RESTORED GRADE PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'

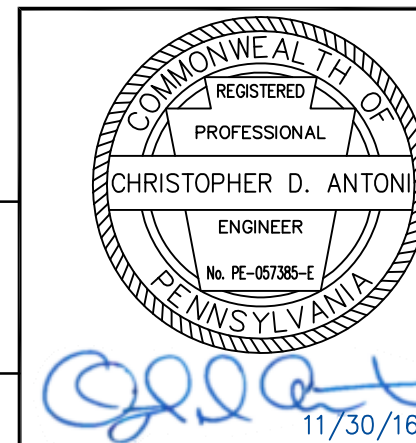
GRAPHIC SCALES



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

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STV PROJECT No.: 38-17335

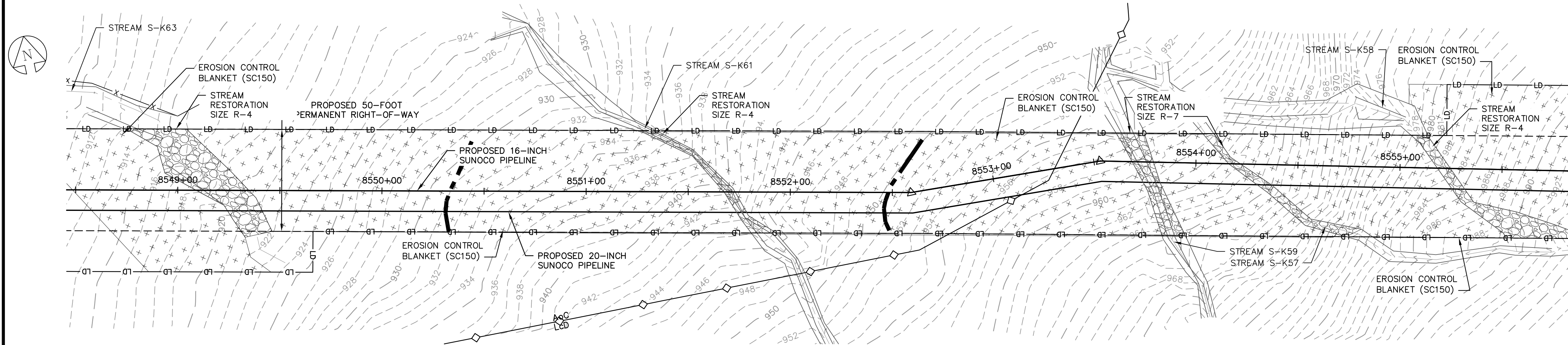


CHRISTOPHER D. ANTONI
PE-057385-E

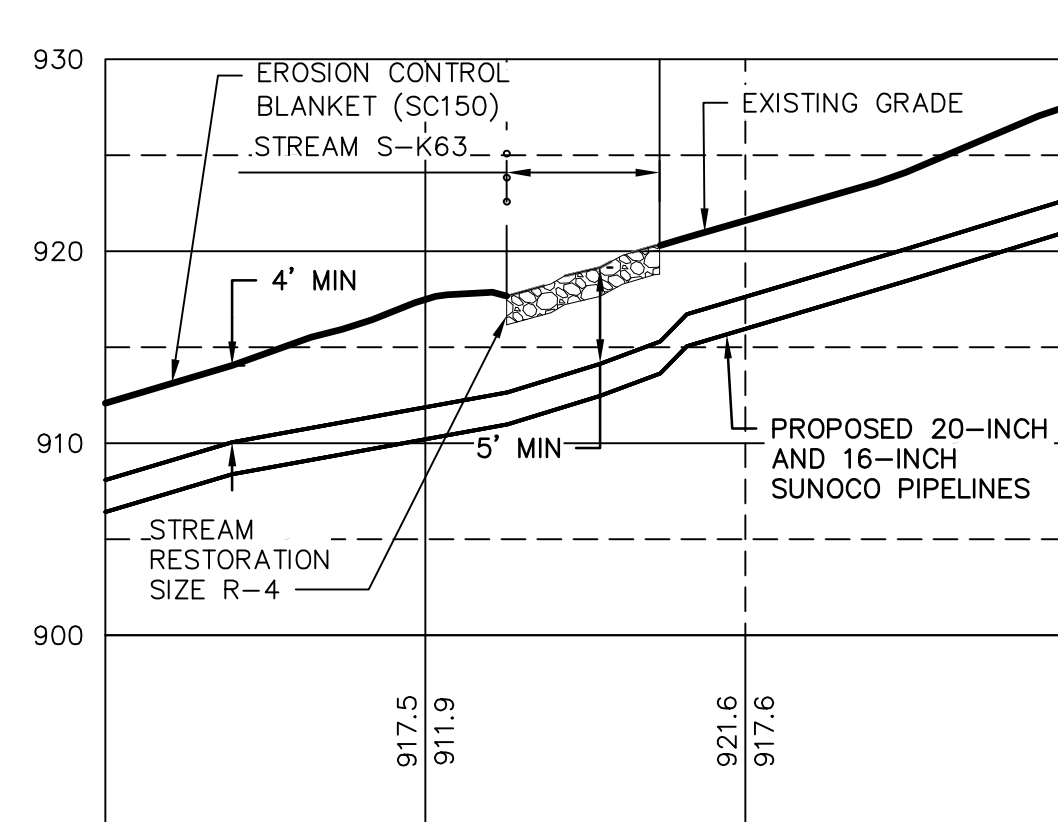
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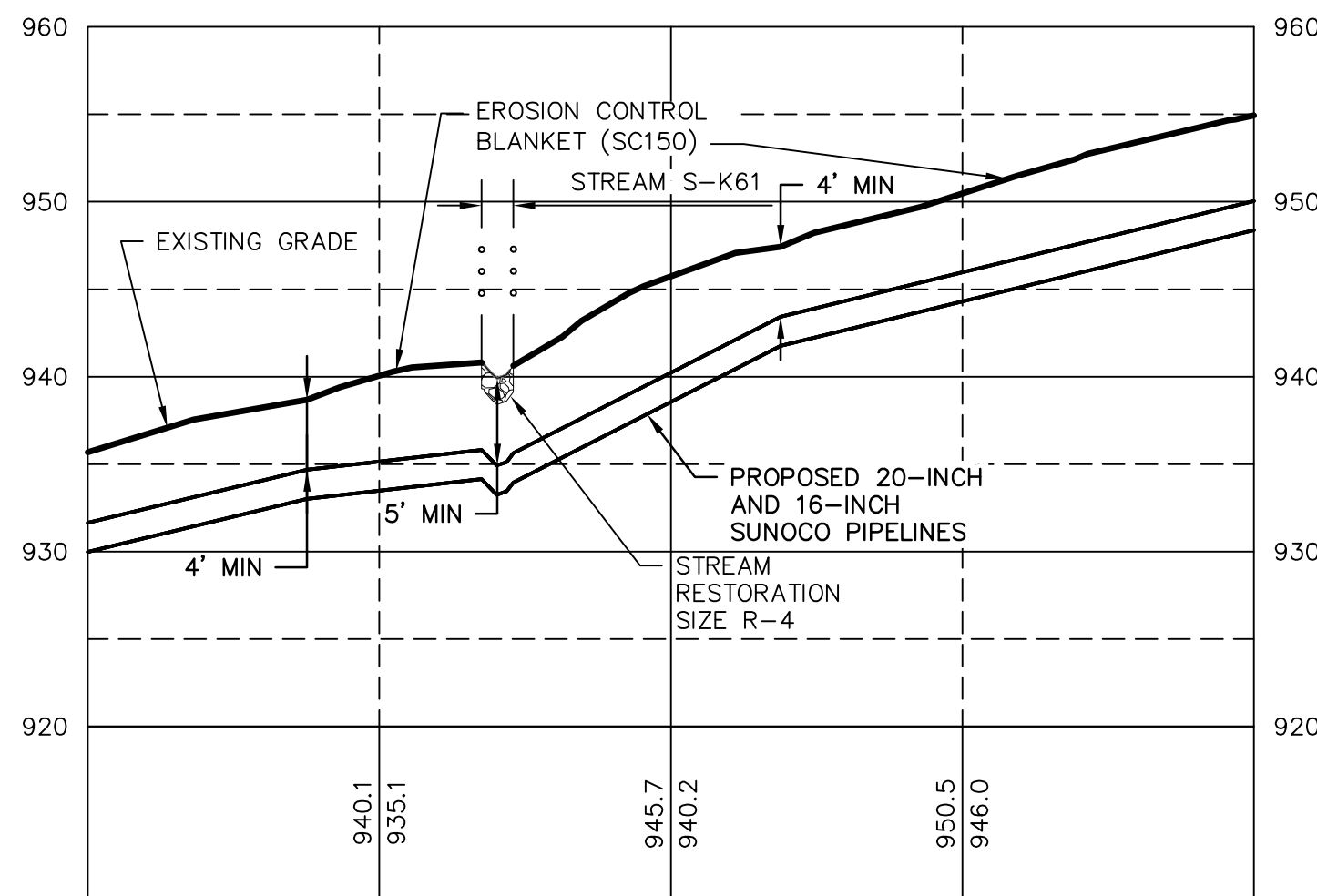
REV.	DATE	APP#	DESCRIPTION	APPROVAL
Sunoco Logistics Partners L.P. PENNSYLVANIA PIPELINE PROJECT STREAMS S-K67 TO S-K55 RESTORATION PLAN				
JUNIATA COUNTY, PA				REV. NO. 0
DWG. NO. S-K56D				



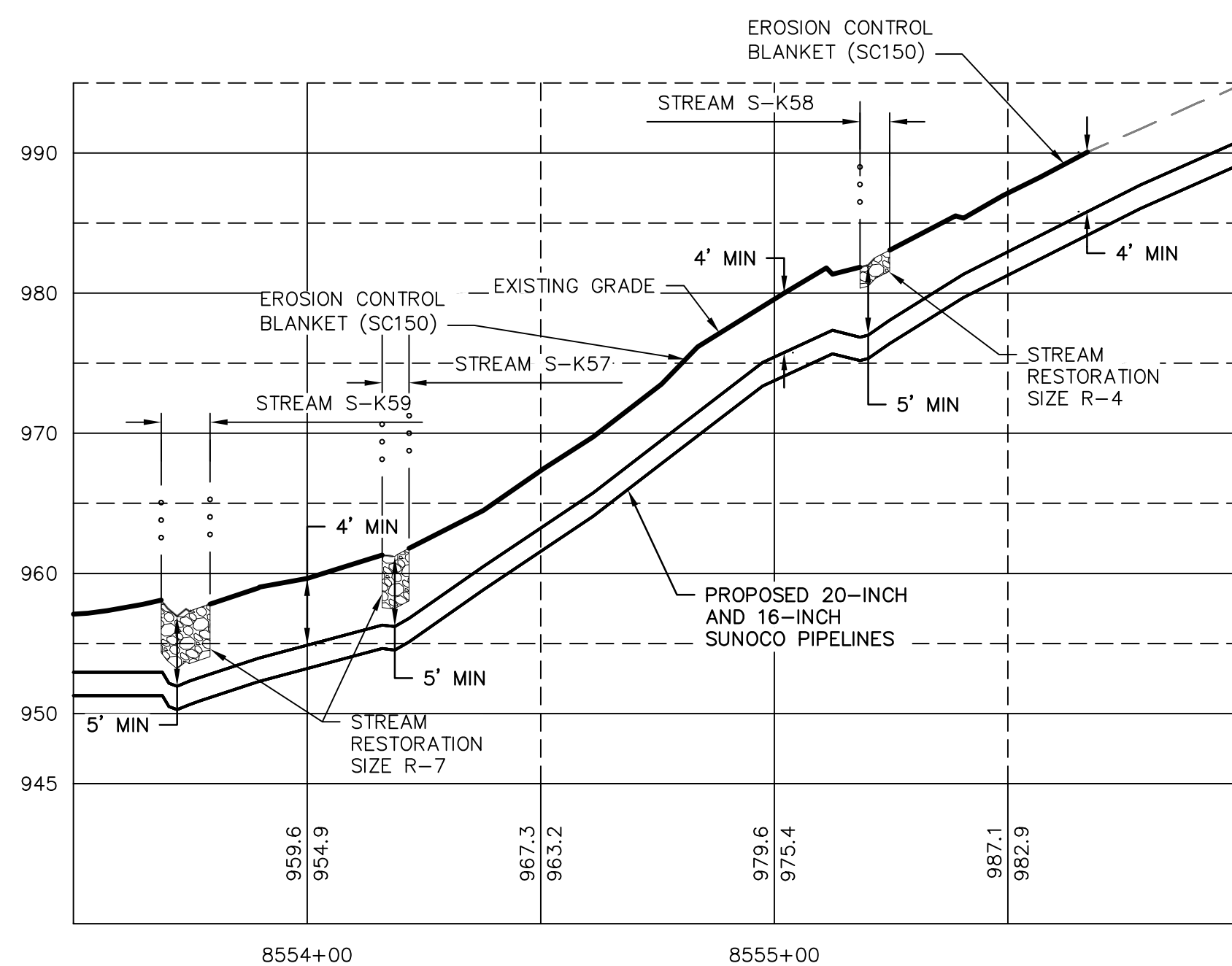
PLAN
SCALE: 1"=30'



RESTORED GRADE PROFILE
HORIZ SCALE: 1"=30'
VERT SCALE: 1"=10'



RESTORED GRADE PROFILE
HORIZ SCALE: 1"=30'
VERT SCALE: 1"=10'



RESTORED GRADE PROFILE
HORIZ SCALE: 1"=30'
VERT SCALE: 1"=10'

GENERAL NOTES:

- 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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- THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4'-5' FOR 16/20" PIPELINE.

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STREAM CROSSING NOTES:

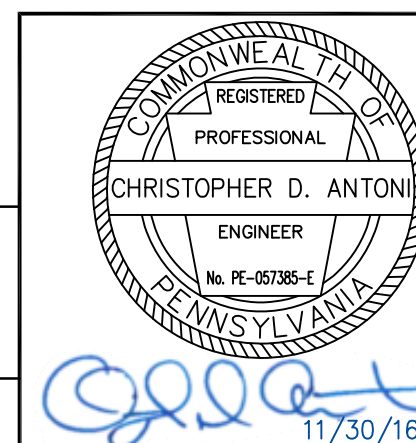
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- FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- THE PIPELINES SHALL MAINTAIN A MINIMUM 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.
- REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- 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).
- TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- 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

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	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
	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

PROFILE LEGEND:

	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.



CHRISTOPHER D. ANTONI
PE-057385-E

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

OLD DRAWING NO.

REV.	DATE	APP#	DESCRIPTION	APPROVAL
Sunoco Logistics Partners L.P. PENNSYLVANIA PIPELINE PROJECT STREAMS S-K67 TO S-K55 RESTORATION PLAN				
JUNIATA COUNTY, PA				
DWG. NO. S-K56E				REV. NO. 0

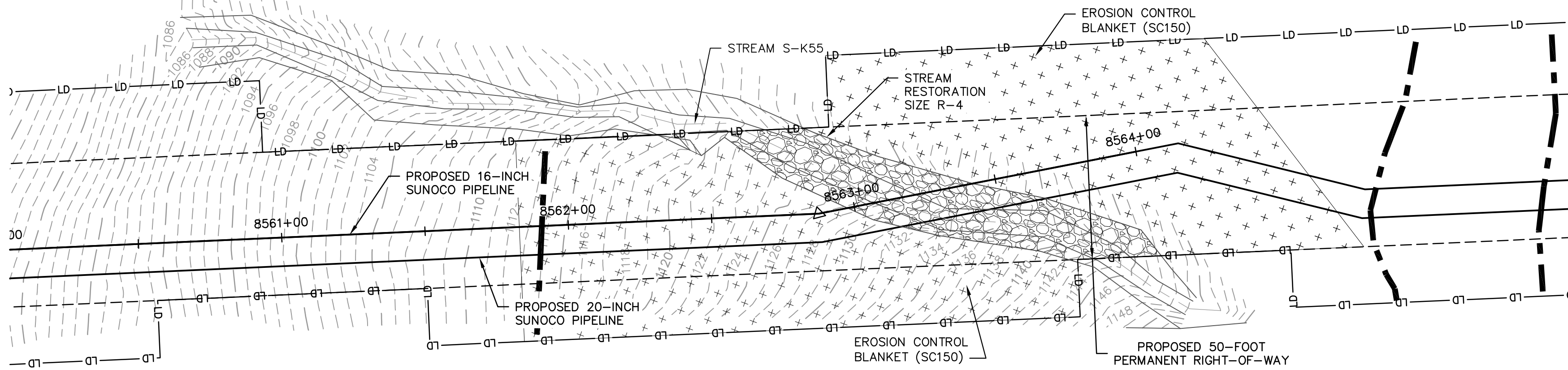
GRAPHIC SCALE



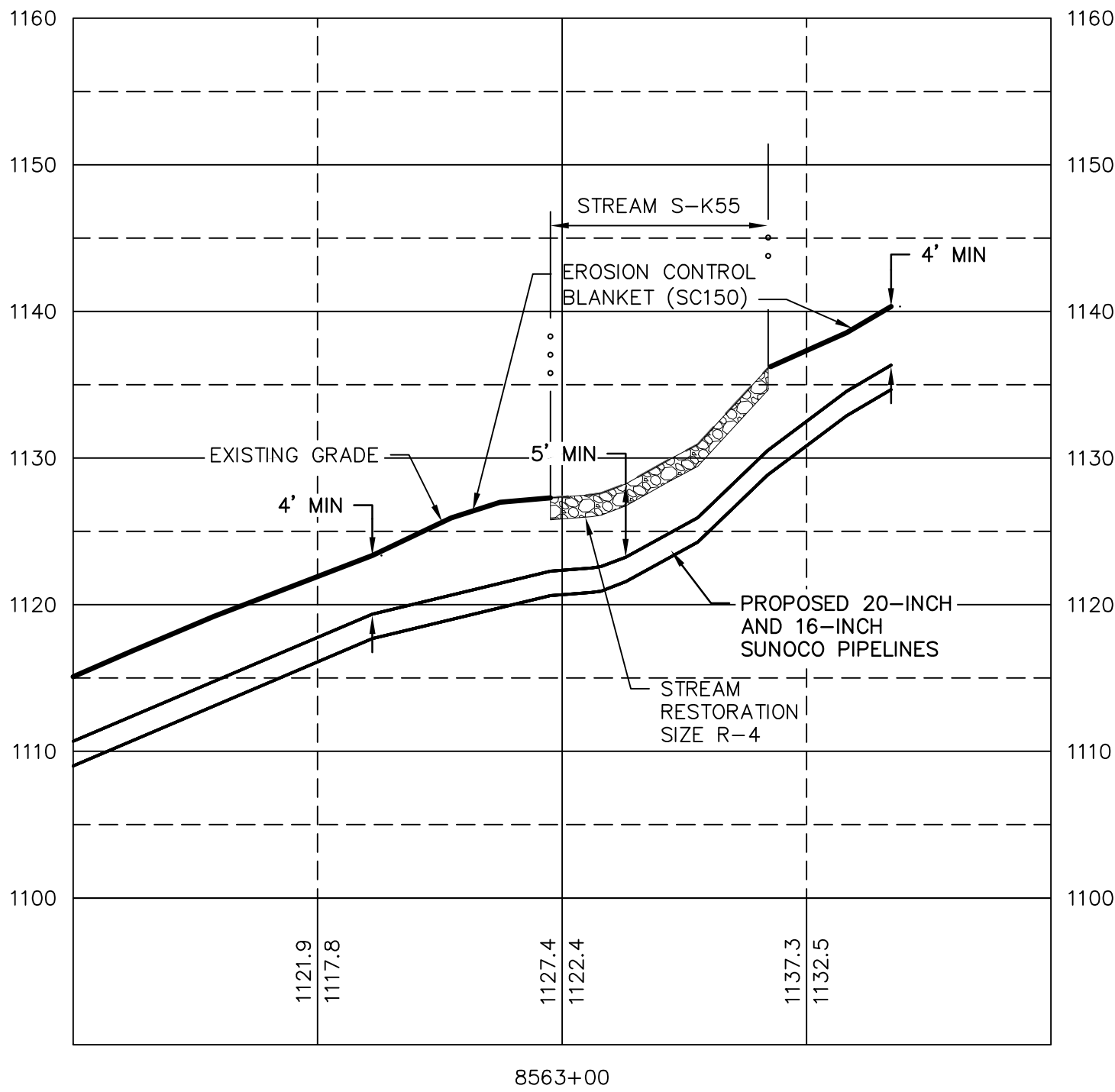
STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA
Houston, TX Pittsburgh, PA Williamsport, PA

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 SERVICE.

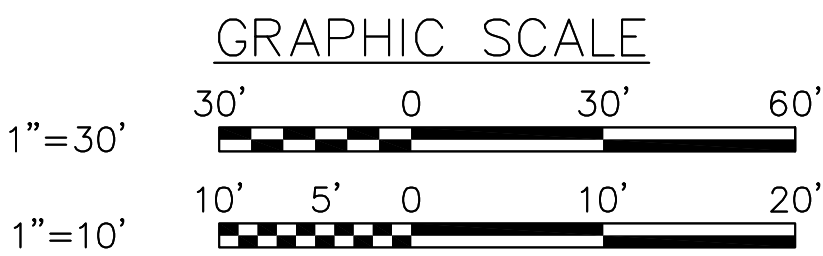
STV PROJECT No.: 38-17335



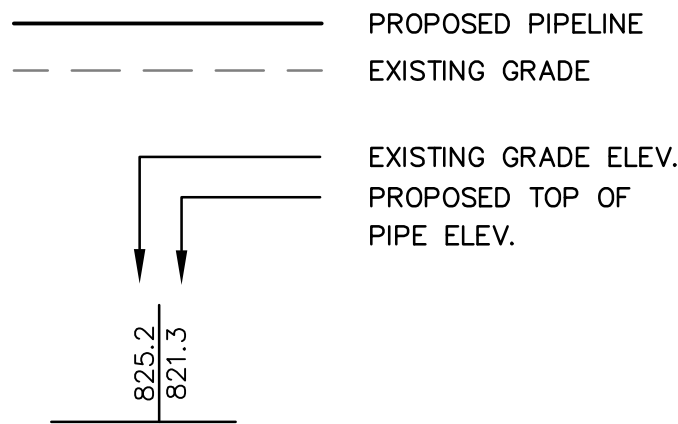
PLAN
SCALE: 1"=30'



RESTORED GRADE PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'



PROFILE LEGEND:



LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	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
	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

GENERAL NOTES:

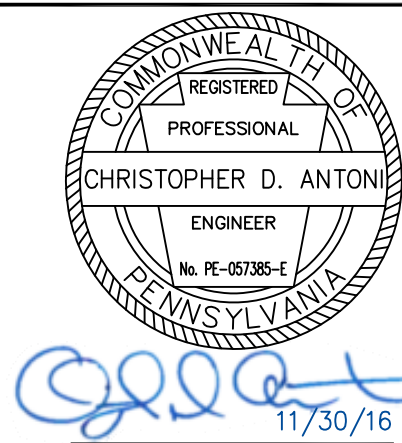
- REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING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

WETLAND CROSSING NOTES:

- REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 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:

- REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
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- 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.



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JUNIATA COUNTY, PA				
DWG. NO.			REV. NO.	
S-K56F			0	