

NOTES:

1. COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US SURVEY FOOT, CENTRAL MERIDIAN 81° W.
2. CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED FROM LIDAR DATA AND GPS SUB-METER GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC FROM 7-23-2014 TO 10-16-2014.
3. IMAGERY DERIVED FROM GOOGLE MAPS.
4. THE PROPERTY LINES SHOWN ARE BASED ON GIS & TAX ASSESSMENT RECORDS (PROVIDED BY OTHERS). GAI CONSULTANTS MAKE NO GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ACCURACY OF THE RECORDS AS SHOWN ON THESE DRAWINGS.
5. STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
6. ALL STATIONING SHOWN IS SLOPE STATIONING.
7. ERM AND DANIEL R. GOLDSTEIN, VA P.E. NO. 047436 (HEREAFTER COLLECTIVELY REFERRED TO AS ERM) HAVE DEPICTED EROSION AND SEDIMENTATION CONTROL (E&S) BEST MANAGEMENT PRACTICES (BMPs) ON THESE ALIGNMENT PLAN SHEETS PREPARED BY GAI CONSULTANTS, INC. FOR USE BY CONTRACTOR TO CONTROL EROSION AND SEDIMENTATION DURING CONSTRUCTION OF THIS PROJECT. ERM IS SOLELY RESPONSIBLE FOR THE NATURE AND LOCATION OF THE DEPICTED BMPs AS OF THE DATE SIGNED AND SEALED BASED ON THE SOURCE DATA PROVIDED AND AS DESCRIBED IN THE GENERAL NOTES SECTION OF THIS PLAN SET. NO RESPONSIBILITY IS ASSUMED FOR INACCURACIES OF SOURCE DATA PROVIDED BY OTHERS. ERM RETAINS NO RESPONSIBILITY OF LIABILITY FOR INFORMATION DEVELOPED, PREPARED OR OTHERWISE PROVIDED BY OTHER, OR FOR INACCURACIES OF SOURCE DATA PROVIDED BY OTHER. ERM ASSUMES NO RESPONSIBILITY OR LIABILITY FOR DESIGNS OR WORK PRODUCTS OF ANY TYPE TO THE EXTENT THAT THEY ARE BASED UPON OR DERIVED FROM SUCH INCORRECT INFORMATION OR DATA.

ONE CALL INFO

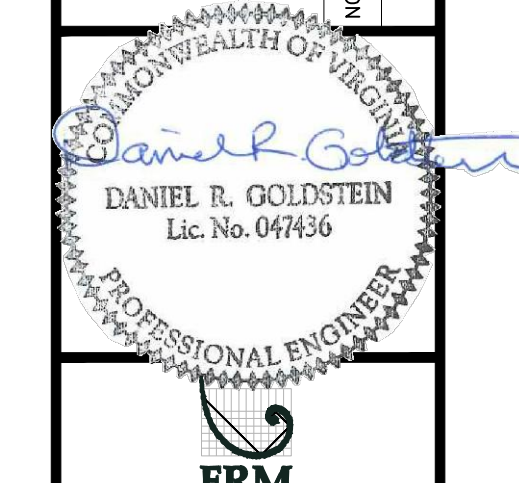


LEGEND

- PROPOSED GAS PIPELINE
- - - PROPOSED GAS PIPELINE (NO GROUND SURVEY)
- - - PROPOSED ACCESS ROAD
- COUNTY LINES
- USGS 7.5 MINUTE TOPOGRAPHICAL BOUNDARIES
- (XX) ALIGNMENT SHEET NUMBER
- AR-XXX ACCESS ROAD SHEET NUMBER

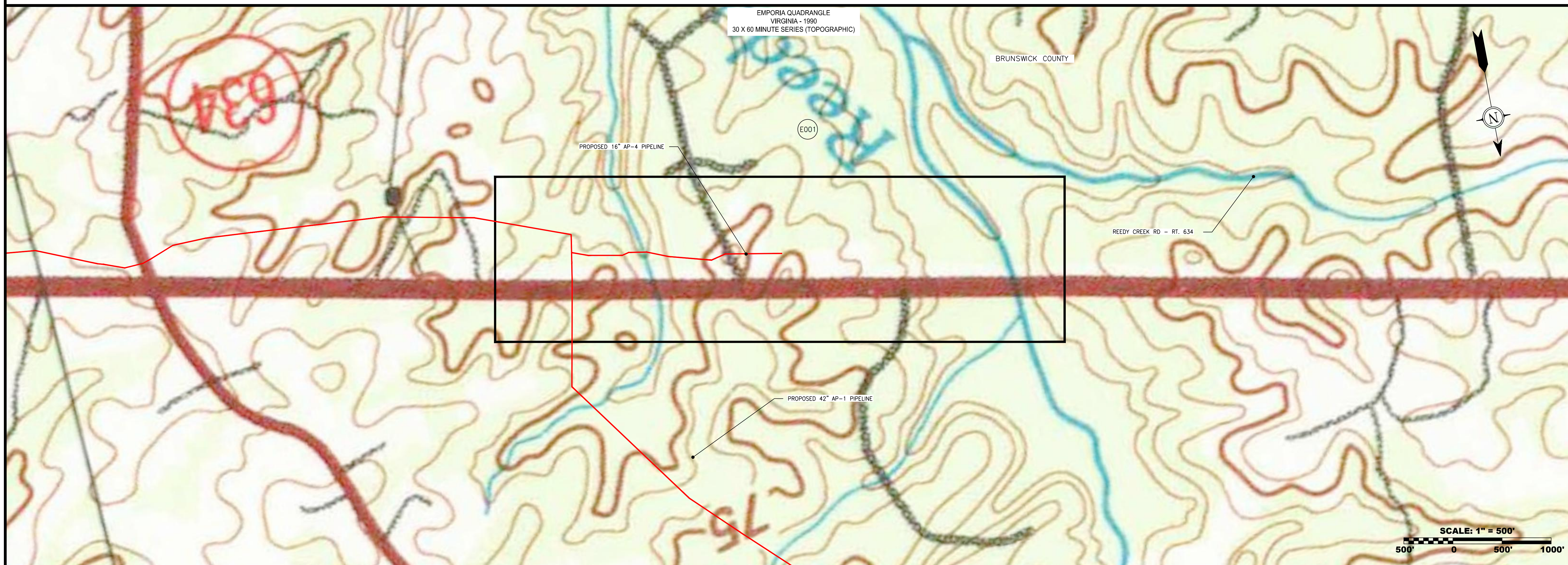
SUPPLY HEADER (WEST VIRGINIA) DRAWING INDEX		
SHEET NO.	REV.	SHEET TITLE
1		COVER SHEET
E001		CONSTRUCTION ALIGNMENT (STA 0+00 TO 22+01)

NO.	DATE	DWN.	CHKD.	APPRD.	DESCRIPTION



ERM
 16" AP-4 PIPELINE
 E & S CONTROLS COVER SHEET
 BRUNSWICK COUNTY, VIRGINIA
 ATLANTIC COAST PIPELINE, LLC
 C/O DOMINION TRANSMISSION, INC.
 925 WHITE OAKS BOULEVARD, BRIDGEPORT, WY 26330

ATLANTIC COAST PIPELINE PROJECT - 16" AP-4 PIPELINE



SCALE: AS SHOWN
 DATE: 3/23/17
 DRAWN: EEA
 CHECKED: DLH
 APPROVED: NET



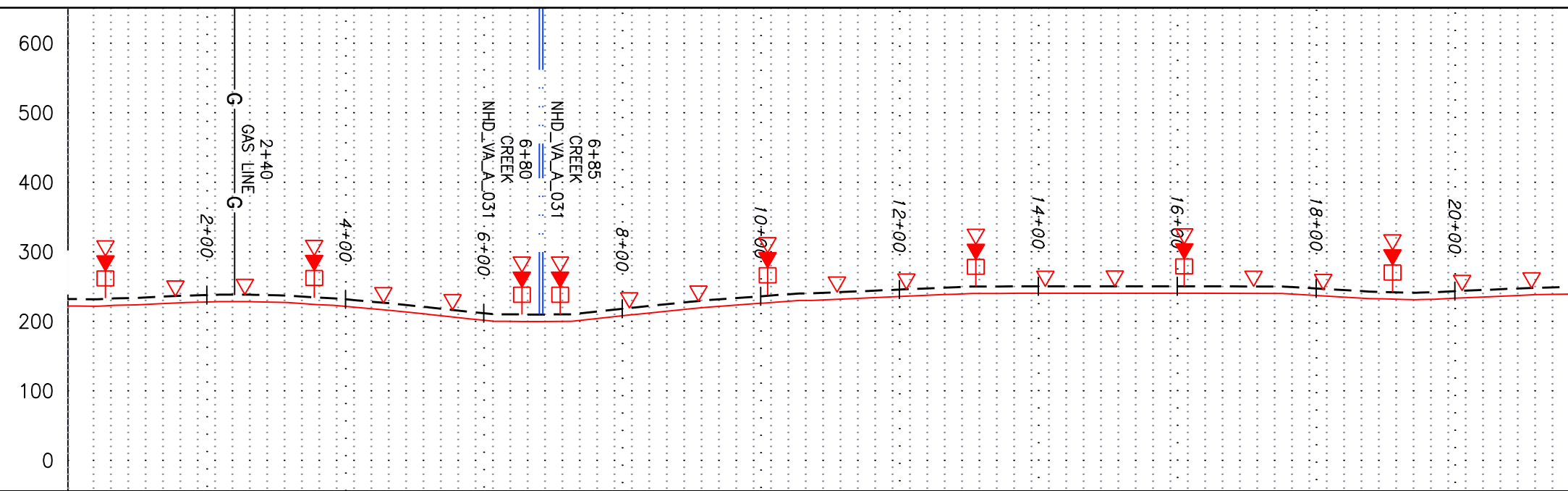
PROJECT NO./DASH NO.
 C140468
 TASK NO. SUB TASK NO.
 003 00
 GROUP ID DRAWING NO.
 D E001
 SHEET 1 OF 2

3/23/2017 3:01 PM

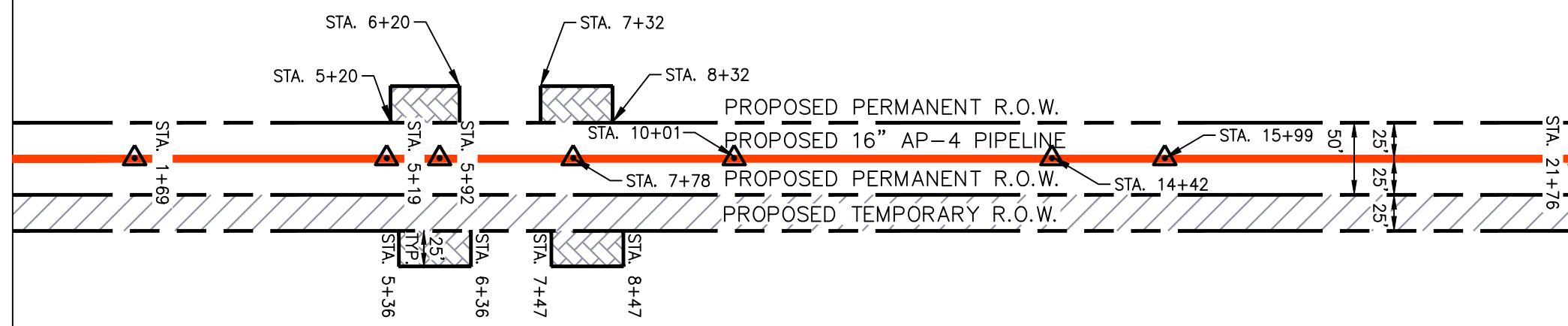
GAI CAD FILE NO. C:\GSP\KEYSTONE\DOMINION_AP-4\AP-4_COVER_ESC.DWG

NOTE: STATIONING SHOWN ON THE DRAWING IS BASED ON SLOPE MEASUREMENTS.

PROFILE VIEW
 HORZ: 1" = 200'
 VERT: 1" = 200'

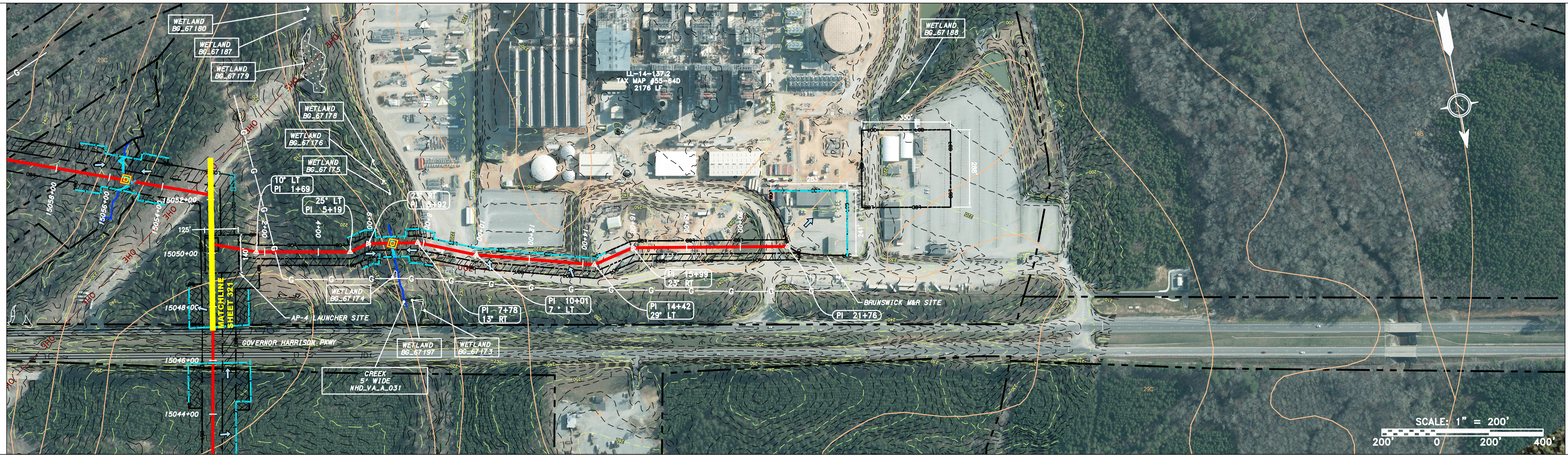


STATIONING & CONSTRUCTION LIMITS



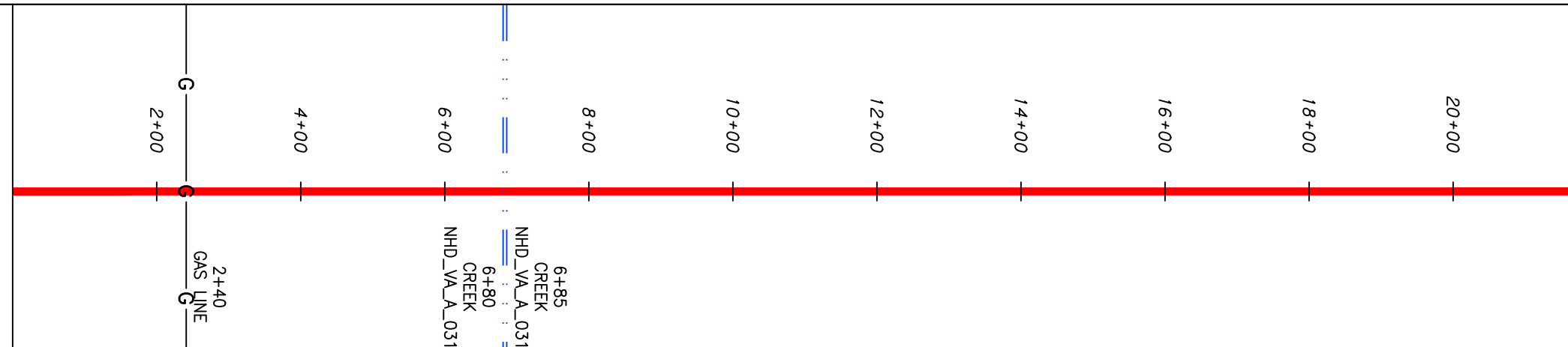
PROPERTY OWNERSHIP

LL-14-137.2
 TAX MAP #55-64D
 2176 LF



SCALE: 1" = 200'
 200' 0 200' 400'

STRING VIEW BAND

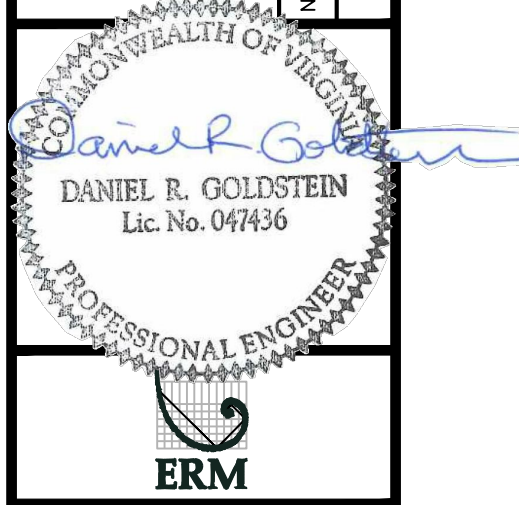


LEGEND

- PROPERTY LINE
- X X FENCE
- STREAM
- G G EXISTING GAS PIPELINE
- OH OVERHEAD UTILITY LINES
- ACCESS ROAD
- PROPOSED GAS PIPELINE
- STORM SEWER
- E UNDERGROUND ELECTRIC
- W WATER LINE
- SAN
- SANITARY SEWER
- EDGE OF GRAVEL
- PROPOSED PERMANENT EASEMENT
- PROPOSED GAS PIPELINE (NO GROUND SURVEY)
- EXTRA WORK SPACE
- AREA OF NO DISTURBANCE
- WETLAND (COLOR SHOWN TO PROVIDE CLARITY ONLY)
- TOPSOIL SEGREGATION AREA
- PROPOSED TEMPORARY R.O.W.
- UTILITY POLE
- PERMANENT WATERBAR/SLOPE BREAKER
- TEMPORARY WATERBAR/SLOPE BREAKER
- TRENCH BREAKER/PLUG
- STREAM CROSSING
- USFWS STREAM CROSSING WITH ENHANCED CONTROLS
- SEEP
- SLOPE DIRECTION
- CONSTRUCTION ENTRANCE WITH DITCH
- CULVERT AS NEEDED
- CULVERT/ WATERBAR
- LOD LIMIT OF DISTURBANCE
- BSRF BELTED SILT RETENTION FENCE (BSRF)
- 111.03 CULVERT IDENTIFICATION
- 111.001 ORANGE SAFETY FENCE
- X ROADSIDE DITCH
- CuB SOIL TYPE
- A1 (E) TYPICAL BIC SLOPE CATEGORY
- 30-58% SLOPE INCLINATION

- NOTES:
- COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US SURVEY FOOT, CENTRAL MERIDIAN 81° W.
 - CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED FROM LIDAR DATA AND GPS SUB-METER GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC FROM 11-03-2014 THRU 11-07-2014.
 - IMAGERY TAKEN FROM GOOGLE EARTH.
 - THE PROPERTY LINES SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
 - ACCURACY OF THE RECORDS AS SHOWN ON THESE DRAWINGS.
 - EROSION AND SEDIMENTATION CONTROL ELEMENTS MAY BE SHOWN OUTSIDE OF THE WORK AREAS FOR CLARITY ONLY. ACTUAL INSTALLATION SHALL BE WITHIN THE WORK AREAS.
 - STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
 - EROSION AND SEDIMENTATION CONTROL ELEMENTS SHALL BE INSTALLED PARALLEL TO CONTOUR TO EXTENT PRACTICABLE IN ACCORDANCE WITH STANDARD DETAIL. SEDIMENT BELTED SILT RETENTION FENCE AND COMPOST FILTER SOCK SHALL BE INSTALLED PARALLEL TO CONTOUR TO EXTENT PRACTICABLE IN ACCORDANCE WITH STANDARD DETAIL. SEDIMENT BARRIERS LOCATIONS ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS WITH APPROVAL FROM THE PROJECT ENVIRONMENTAL INSPECTOR.
 - BEST IN CLASS (BIC) STEEP SLOPE CATEGORY INFORMATION CAN BE FOUND IN THE APPENDIX OF THE STORMWATER POLLUTION PREVENTION PLAN.
 - EROSION CONTROL MATING SHALL BE PLACED IN AREAS OF 30% SLOPE AND GREATER, WHICH ARE INDICATED ON THE BEST IN CLASS STEEP SLOPES BAND.
 - ACCESS ROADS HAVE BEEN GROUPED INTO FOUR CATEGORIES - 1) EXISTING ROADS NO IMPROVEMENTS, 2) EXISTING ROADS MINOR IMPROVEMENTS, 3) EXISTING ROADS MAJOR IMPROVEMENTS AND 4) NEW ROADS. APPROPRIATE EROSION AND SEDIMENT CONTROLS WILL BE PROVIDED FOR ROADS IN CATEGORIES 2, 3 AND 4. ROADS IN CATEGORIES 1 AND 2 HAVE ADEQUATE EXISTING DRAINAGE. DRAINAGE FEATURES WILL BE PROVIDED FOR ROADS IN CATEGORIES 3 AND 4.
 - ERM IS SOLELY RESPONSIBLE FOR THE NATURE AND LOCATION OF THE DEPICTED BMPs AS OF THE DATE SIGNED AND SEALED BASED ON THE SOURCE DATA PROVIDED AND AS DESCRIBED IN THE NOTES SECTION OF THE INDEX SHEET OF THIS PLAN SET.
 - THE CONSTRUCTION RIGHT-OF-WAY (ROW) WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH SECTION V.A.5 FEDERAL ENERGY REGULATORY COMMISSION (FERC) UPLAND EROSION CONTROL, REVEGETATION, AND MAINTENANCE PLAN, SECTION V.A.5. IN ADDITION, WETLAND AND WATERBODY CROSSINGS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH NATIONWIDE PERMIT 12 (NWP) ISSUED BY THE U.S. CORPS OF ENGINEERS.

NO.	DATE	BY	CHKD.	APPD.	DESCRIPTION



16" AP-4 PIPELINE
 CONSTRUCTION ALIGNMENT STA. 0+00 TO 21+76
 BRUNSWICK COUNTY, VIRGINIA

ATLANTIC COAST PIPELINE, LLC
 C/O DOMINION TRANSMISSION, INC.
 925 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330

SCALE: AS SHOWN
 DATE: 11/23/2016
 DRAWN: JFS
 CHECKED: DLH
 APPROVED: NET



PROJECT NO./DASH NO.	C140468	
TASK NO.	005	00
GROUP ID	D	E1
2 OF 2		

NOTES:

1. COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US SURVEY FOOT, CENTRAL MERIDIAN 81° W.
2. CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED FROM LIDAR DATA AND GPS SUB-METER GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC FROM 7-23-2014 TO 10-16-2014.
3. IMAGERY DERIVED FROM GOOGLE MAPS.
4. THE PROPERTY LINES SHOWN ARE BASED ON GIS & TAX ASSESSMENT RECORDS (PROVIDED BY OTHERS). GAI CONSULTANTS MAKE NO GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ACCURACY OF THE RECORDS AS SHOWN ON THESE DRAWINGS.
5. STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
6. ALL STATIONING SHOWN IS SLOPE STATIONING.
7. ERM AND DANIEL R. GOLDSTEIN, VA P.E. NO. 047436 (HEREAFTER COLLECTIVELY REFERRED TO AS ERM) HAVE DEPICTED EROSION AND SEDIMENTATION CONTROL (E&SC) BEST MANAGEMENT PRACTICES (BMPs) ON THESE ALIGNMENT PLAN SHEETS PREPARED BY GAI CONSULTANTS, INC. FOR USE BY CONTRACTOR TO CONTROL EROSION AND SEDIMENTATION DURING CONSTRUCTION OF THIS PROJECT. ERM IS SOLELY RESPONSIBLE FOR THE NATURE AND LOCATION OF THE DEPICTED BMPs AS OF THE DATE SIGNED AND SEALED BASED ON THE SOURCE DATA PROVIDED AND AS DESCRIBED IN THE GENERAL NOTES SECTION OF THIS PLAN SET. NO RESPONSIBILITY IS ASSUMED FOR INACCURACIES OF SOURCE DATA PROVIDED BY OTHERS. ERM RETAINS NO RESPONSIBILITY OF LIABILITY FOR INFORMATION DEVELOPED, PREPARED OR OTHERWISE PROVIDED BY OTHER, OR FOR INACCURACIES OF SOURCE DATA PROVIDED BY OTHER. ERM ASSUMES NO RESPONSIBILITY OR LIABILITY FOR DESIGNS OR WORK PRODUCTS OF ANY TYPE TO THE EXTENT THAT THEY ARE BASED UPON OR DERIVED FROM SUCH INCORRECT INFORMATION OR DATA.

ONE CALL INFO

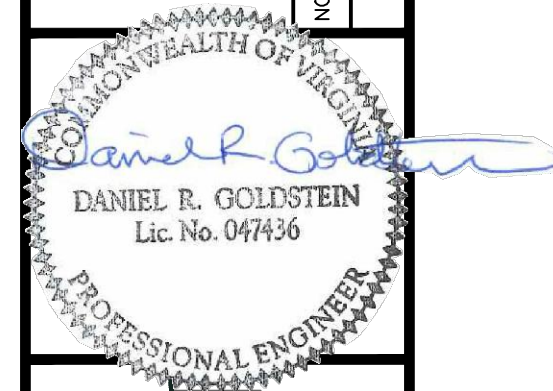


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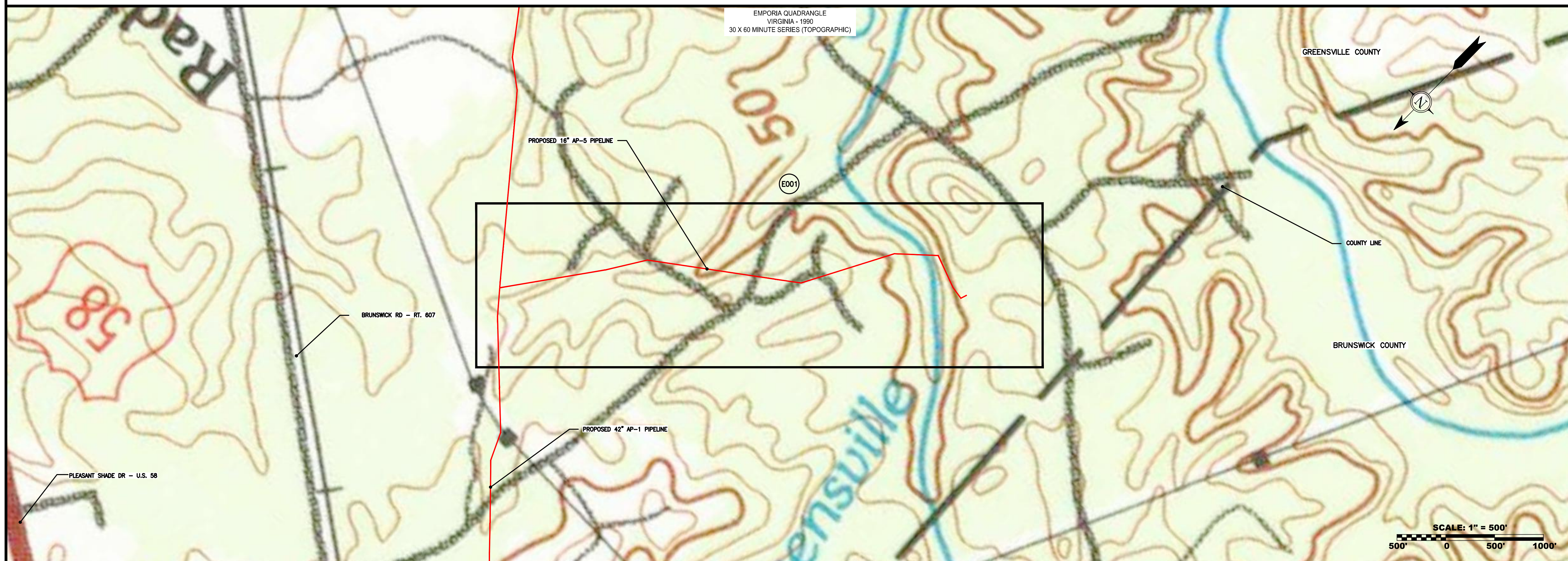
- PROPOSED GAS PIPELINE
- - - PROPOSED GAS PIPELINE (NO GROUND SURVEY)
- - - PROPOSED ACCESS ROAD
- COUNTY LINES
- XX USGS 7.5 MINUTE TOPOGRAPHICAL BOUNDARIES
- AR-XXX ALIGNMENT SHEET NUMBER
- AR-XXX ACCESS ROAD SHEET NUMBER

SUPPLY HEADER (WEST VIRGINIA) DRAWING INDEX		
SHEET NO.	REV.	SHEET TITLE
1		COVER SHEET
E001		CONSTRUCTION ALIGNMENT (STA 0+00 TO 55+98)

NO.	DATE	DWN.	CHKD.	APPVD.	DESCRIPTION



ATLANTIC COAST PIPELINE PROJECT - 16" AP-5 PIPELINE



16" AP-5 PIPELINE
 E & S CONTROLS COVER SHEET
 GREENSVILLE COUNTY, VIRGINIA
 ATLANTIC COAST PIPELINE, LLC
 C/O DOMINION TRANSMISSION, INC.
 925 WHITE OAKS BOULEVARD, BRIDGEFORD, WV 26330

SCALE: AS SHOWN
 DATE: 3/23/17
 DRAWN: EEA
 CHECKED: DLH
 APPROVED: NET

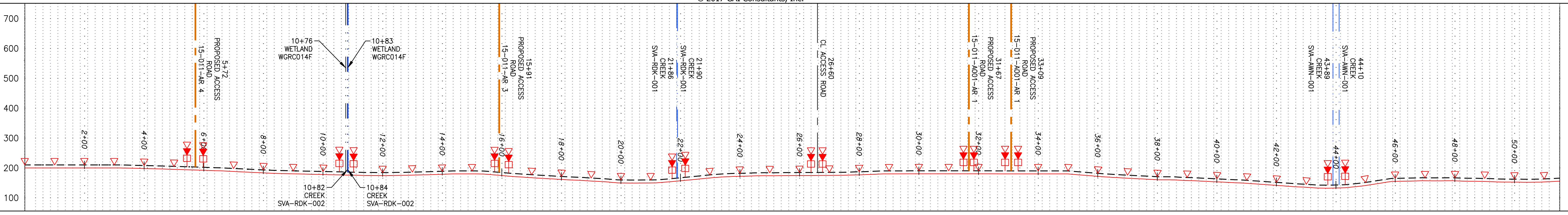


PROJECT NO./DASH NO.
C140468
 TASK NO. SUB TASK NO.
003 00
 GROUP ID DRAWING NO.
D E001
 SHEET 1 OF 2

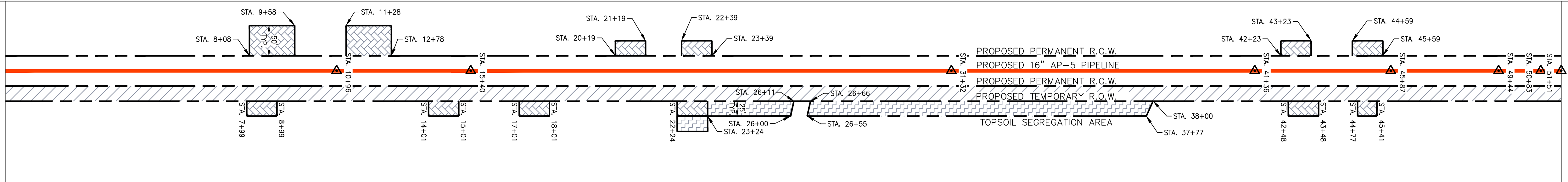
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NOTE: STATIONING SHOWN ON THE DRAWING IS BASED ON SLOPE MEASUREMENTS.

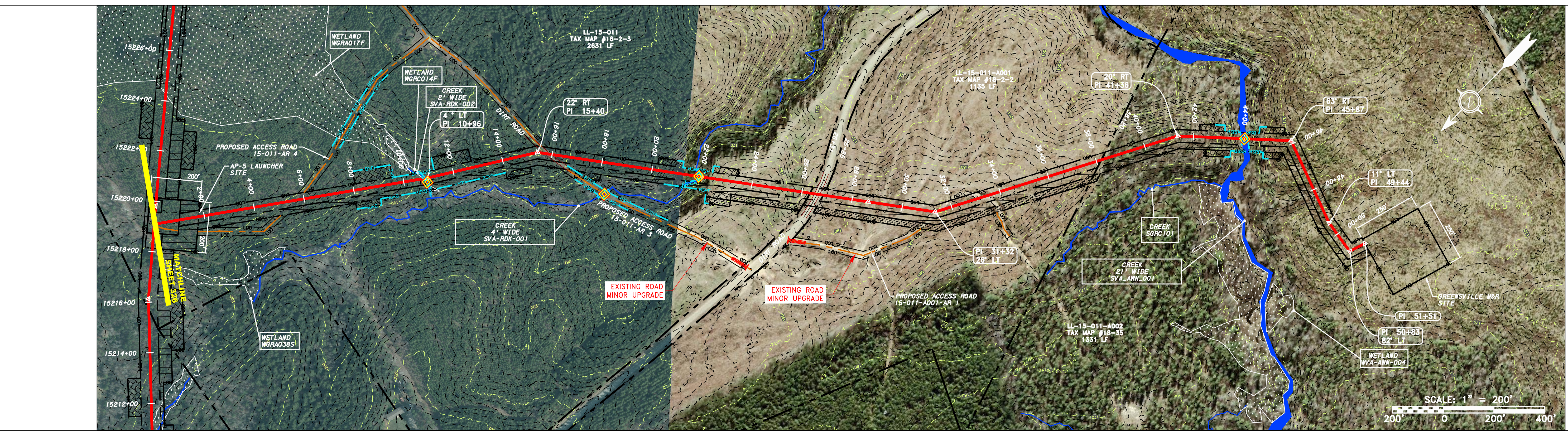
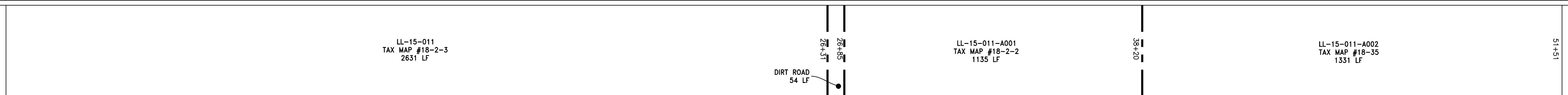
PROFILE VIEW
 HORZ: 1" = 200'
 VERT: 1" = 200'



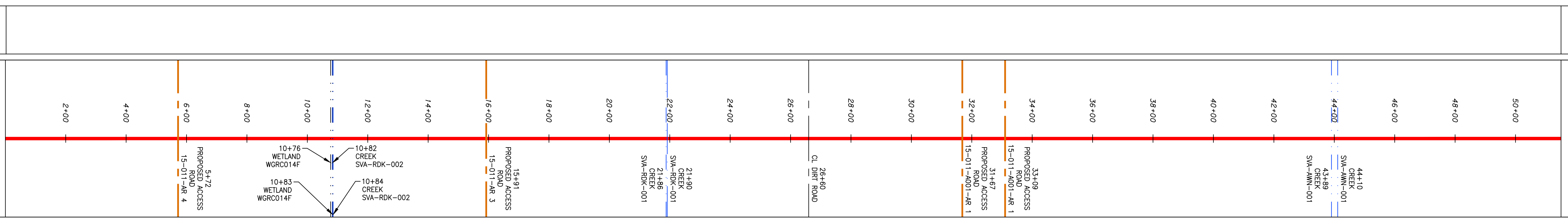
STATIONING & CONSTRUCTION LIMITS



PROPERTY OWNERSHIP



STRING VIEW BAND



LEGEND

—	PROPERTY LINE	—	STORM SEWER	□	EXTRA WORK SPACE	□	TOPSOIL SEGREGATION AREA
X X	FENCE	E	UNDERGROUND ELECTRIC	□	AREA OF NO DISTURBANCE	□	PROPOSED TEMPORARY R.O.W.
—	STREAM	W	WATER LINE	□	WETLAND	□	UTILITY POLE
G G	EXISTING GAS PIPELINE	SAN	SANITARY SEWER	□	WETLAND	□	UTILITY POLE
OH	OVERHEAD UTILITY LINES	—	EDGE OF GRAVEL	□	WETLAND	□	UTILITY POLE
—	ACCESS ROAD	—	PROPOSED PERMANENT EASEMENT	□	WETLAND	□	UTILITY POLE
—	PROPOSED GAS PIPELINE	—	PROPOSED GAS PIPELINE (NO GROUND SURVEY)	□	WETLAND	□	UTILITY POLE

▲	PERMANENT WATERBAR/SLOPE BREAKER	—	LOD	—	LIMIT OF DISTURBANCE
▲	TEMPORARY WATERBAR/SLOPE BREAKER	—	BSRF	—	BELTED SILT RETENTION FENCE (BSRF)
▲	TRENCH BREAKER/PLUG	—	111.03	—	COMPOST FILTER SOCK
▲	STREAM CROSSING	—	C 111.001	—	SEDIMENT BARRIER IDENTIFICATION
▲	USPWS STREAM CROSSING WITH ENHANCED CONTROLS	—	X	—	ORANGE SAFETY FENCE
▲	SEEP	—	—	—	ROADSIDE DITCH
▲	SLOPE DIRECTION	—	—	—	SOIL TYPE
▲	CONSTRUCTION ENTRANCE WITH DITCH	—	—	—	A1 (5) 30-58%
▲	CULVERT AS NEEDED	—	—	—	TYPICAL BIC SLOPE CATEGORY SLOPE INCLINATION
▲	CULVERT/WATERBAR	—	—	—	

- NOTES:**
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NO.	DATE	BY	CHKD.	APPD.	DESCRIPTION

REVISIONS

Daniel R. Goldstein
 DANIEL R. GOLDSTEIN
 Lic. No. 047436
 PROFESSIONAL ENGINEER

ERM

16" AP-5 PIPELINE
 CONSTRUCTION ALIGNMENT STA. 0+00 TO 51+51
 GREENSVILLE COUNTY, VIRGINIA

ATLANTIC COAST PIPELINE, LLC
 C/O DOMINION TRANSMISSION, INC.
 925 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330

SCALE:	AS SHOWN
DATE:	11/23/2016
DRAWN:	JFS
CHECKED:	DLH
APPROVED:	NET

gai consultants

SOUTHPOINTE OFFICE
 6000 TOWN CENTER BLVD.
 CANONSBURG, PA 15317
 724-873-3545

PROJECT NO./DASH NO.	C140468
TASK NO.	005
SUB TASK NO.	00
GROUP ID	D
DRAWING NO.	E001
2	OF 2