1. 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 7-23-2014 TO 10-16-2014. **IMAGERY DERIVED FROM GOOGLE MAPS.**
- 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
- STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
- ALL STATIONING SHOWN IS SLOPE STATIONING.

SHEET NO. REV.

COVER SHEET

COVER SHEET

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INTENTIONALLY LEFT BLANK

CONSTRUCTION ALIGNMENT (STA. 0+00 TO 57+00)

CONSTRUCTION ALIGNMENT (STA. 57+00 TO 114+00)

CONSTRUCTION ALIGNMENT (STA. 114+00 TO 166+00)

CONSTRUCTION ALIGNMENT (STA. 166+00 TO 216+00)

ONE CALL INFO

ERM AND JAMES HEMME, WV P. E. NO. 12195 (HEREAFTER COLLECTIVELY REFERRED TO AS ERM) HAVE DEPICTED EROSION AN 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 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.

AP-2 PIPELINE DRAWING INDEX



SHEET NO. | REV. |

AP-2 PIPELINE DRAWING INDEX

CONSTRUCTION ALIGNMENT (STA. 821+00 TO 873+00)

CONSTRUCTION ALIGNMENT (STA. 873+00 TO 927+00)

CONSTRUCTION ALIGNMENT (STA. 927+00 TO 981+00)

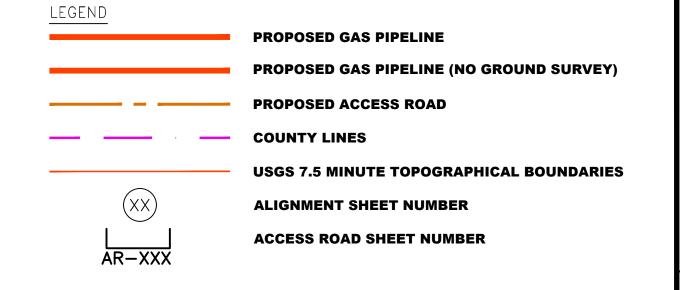
CONSTRUCTION ALIGNMENT (STA. 1035+00 TO 1089+00)

CONSTRUCTION ALIGNMENT (STA. 1089+00 TO 1143+00)

CONSTRUCTION ALIGNMENT (STA. 1143+00 TO 1197+00)

CONSTRUCTION ALIGNMENT (STA. 1197+00 TO 1251+00)

CONSTRUCTION ALIGNMENT (STA. 1251+00 TO 1305+00)



AP-2 PIPELINE DRAWING INDEX

CONSTRUCTION ALIGNMENT (STA. 1467+00 TO 1521+00)

CONSTRUCTION ALIGNMENT (STA. 1575+00 TO 1629+00)

CONSTRUCTION ALIGNMENT (STA. 1683+00 TO 1737+00)

CONSTRUCTION ALIGNMENT (STA. 1737+00 TO 1791+00)

CONSTRUCTION ALIGNMENT (STA. 1791+00 TO 1845+00)

CONSTRUCTION ALIGNMENT (STA. 1845+00 TO 1899+00)

SHEET NO. REV.





LICENSE #F-1223	
ERM NC, INC. 15729 REQUIREMENT AVENUE SUITE 129 CHARLOTTE NORTH CAROLINA 20277 (704) 541-6445	

LICENSE #F-1223 ERM NC, INC. INC.				

CONSTRUCTION ALIGNMENT (STA. 216+00 TO 225+00) CONSTRUCTION ALIGNMENT (STA. 727+00 TO 783+00) CONSTRUCTION ALIGNMENT (STA. 1305+00 TO 1359+00) CONSTRUCTION ALIGNMENT (STA. 225+00 TO 279+00) CONSTRUCTION ALIGNMENT (STA. 783+00 TO 787+00) CONSTRUCTION ALIGNMENT (STA. 1359+00 TO 1413+00 CONSTRUCTION ALIGNMENT (STA. 1413+00 TO 1467+00) CONSTRUCTION ALIGNMENT (STA. 279+00 TO 333+00) CONSTRUCTION ALIGNMENT (STA. 787+00 TO 821+00)

AP-2 PIPELINE DRAWING INDEX

CONSTRUCTION ALIGNMENT (STA. 333+00 TO 385+00)

CONSTRUCTION ALIGNMENT (STA. 387+00 TO 441+00)

CONSTRUCTION ALIGNMENT (STA. 441+00 TO 495+00) CONSTRUCTION ALIGNMENT (STA. 495+00 TO 549+00)

CONSTRUCTION ALIGNMENT (STA. 549+00 TO 603+00)

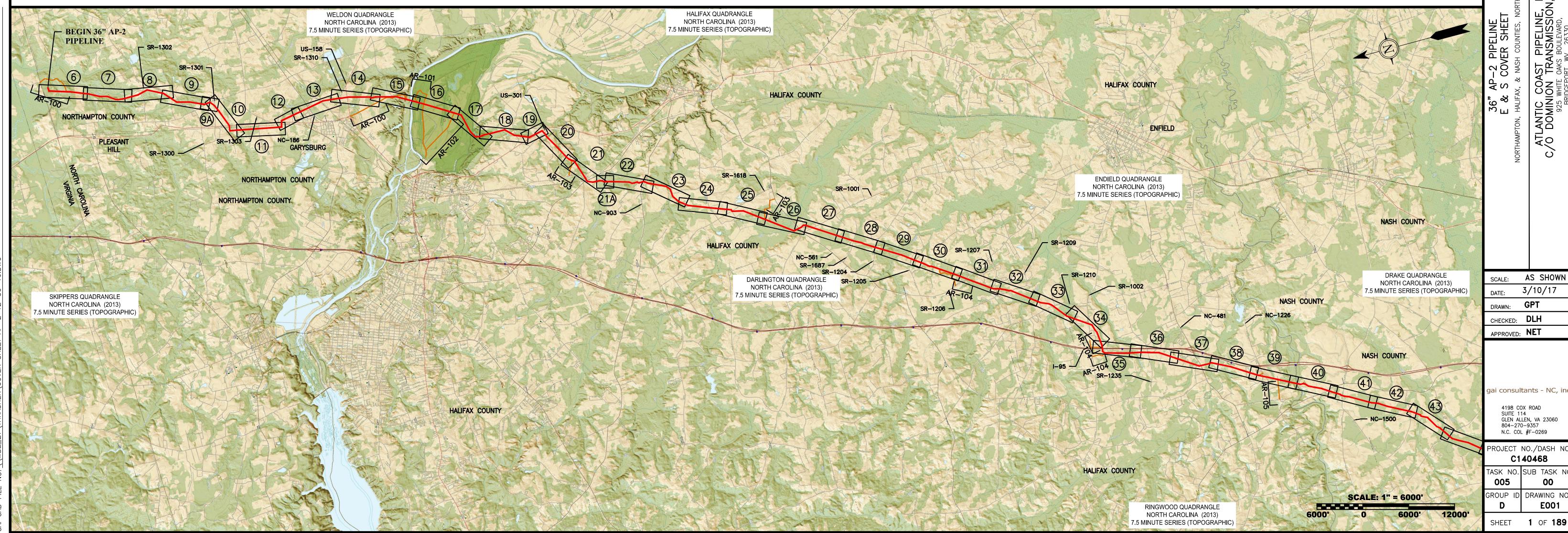
CONSTRUCTION ALIGNMENT (STA. 603+00 TO 657+00)

CONSTRUCTION ALIGNMENT (STA. 657+00 TO 671+00)

CONSTRUCTION ALIGNMENT (STA. 671+00 TO 727+00)

SHEET NO. | REV. |

ATLANTIC COAST PIPELINE PROJECT - 36" AP-2 PIPELINE



- 1. 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 7-23-2014 TO 10-16-2014.
- **IMAGERY DERIVED FROM GOOGLE MAPS.**
- 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
- STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
- ALL STATIONING SHOWN IS SLOPE STATIONING.

ERM AND JAMES HEMME, WV P. E. NO. 12195 (HEREAFTER COLLECTIVELY REFERRED TO AS ERM) HAVE DEPICTED EROSION AN SEDIMENTATION CONTROL (E&SC) BEST MANAGEMENT PRACTICES (BMPS) ON THESE ALIGNMENT PLAN SHEETS PREPARED BY GAI CONSULTANTS, INC. FOR USE BY CONTRACTOR TO CONTROL 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.

AP-2 PIPELINE DRAWING INDEX

CONSTRUCTION ALIGNMENT (STA. 1953+00 TO 2007+00)

CONSTRUCTION ALIGNMENT (STA. 2007+00 TO 2061+00)

CONSTRUCTION ALIGNMENT (STA. 2061+00 TO 2115+00)

CONSTRUCTION ALIGNMENT (STA. 2115+00 TO 2169+00)

CONSTRUCTION ALIGNMENT (STA. 2169+00 TO 2213+00)

CONSTRUCTION ALIGNMENT (STA. 2213+00 TO 2267+00)

CONSTRUCTION ALIGNMENT (STA. 2267+00 TO 2321+00)

CONSTRUCTION ALIGNMENT (STA. 2321+00 TO 2374+00)

CONSTRUCTION ALIGNMENT (STA. 2374+00 TO 2331+00)

CONSTRUCTION ALIGNMENT (STA. 2385+00 TO 2439+00)

ONE CALL INFO



AP-2 PIPELINE DRAWING INDEX

CONSTRUCTION ALIGNMENT (STA. 2439+00 TO 2493+00)

CONSTRUCTION ALIGNMENT (STA. 2493+00 TO 2547+00)

CONSTRUCTION ALIGNMENT (STA. 2547+00 TO 2601+00)

CONSTRUCTION ALIGNMENT (STA. 2601+00 TO 2655+00)

CONSTRUCTION ALIGNMENT (STA. 2655+00 TO 2709+00)

CONSTRUCTION ALIGNMENT (STA. 2709+00 TO 2763+00)

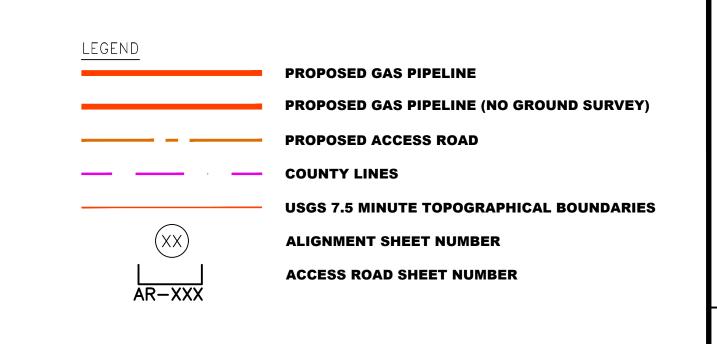
CONSTRUCTION ALIGNMENT (STA. 2763+00 TO 2817+00)

CONSTRUCTION ALIGNMENT (STA. 2817+00 TO 2871+00)

CONSTRUCTION ALIGNMENT (STA. 2871+00 TO 2925+00)

CONSTRUCTION ALIGNMENT (STA. 2945+14 TO 3000+00)





AP-2 PIPELINE DRAWING INDEX

CONSTRUCTION ALIGNMENT (STA. 3000+00 TO 3054+00)

CONSTRUCTION ALIGNMENT (STA. 3054+00 TO 3108+00)

CONSTRUCTION ALIGNMENT (STA. 3108+00 TO 3162+00)

SHEET NO. | REV.

		REVIS
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	CHKD. APPVD.	
	DWN.	
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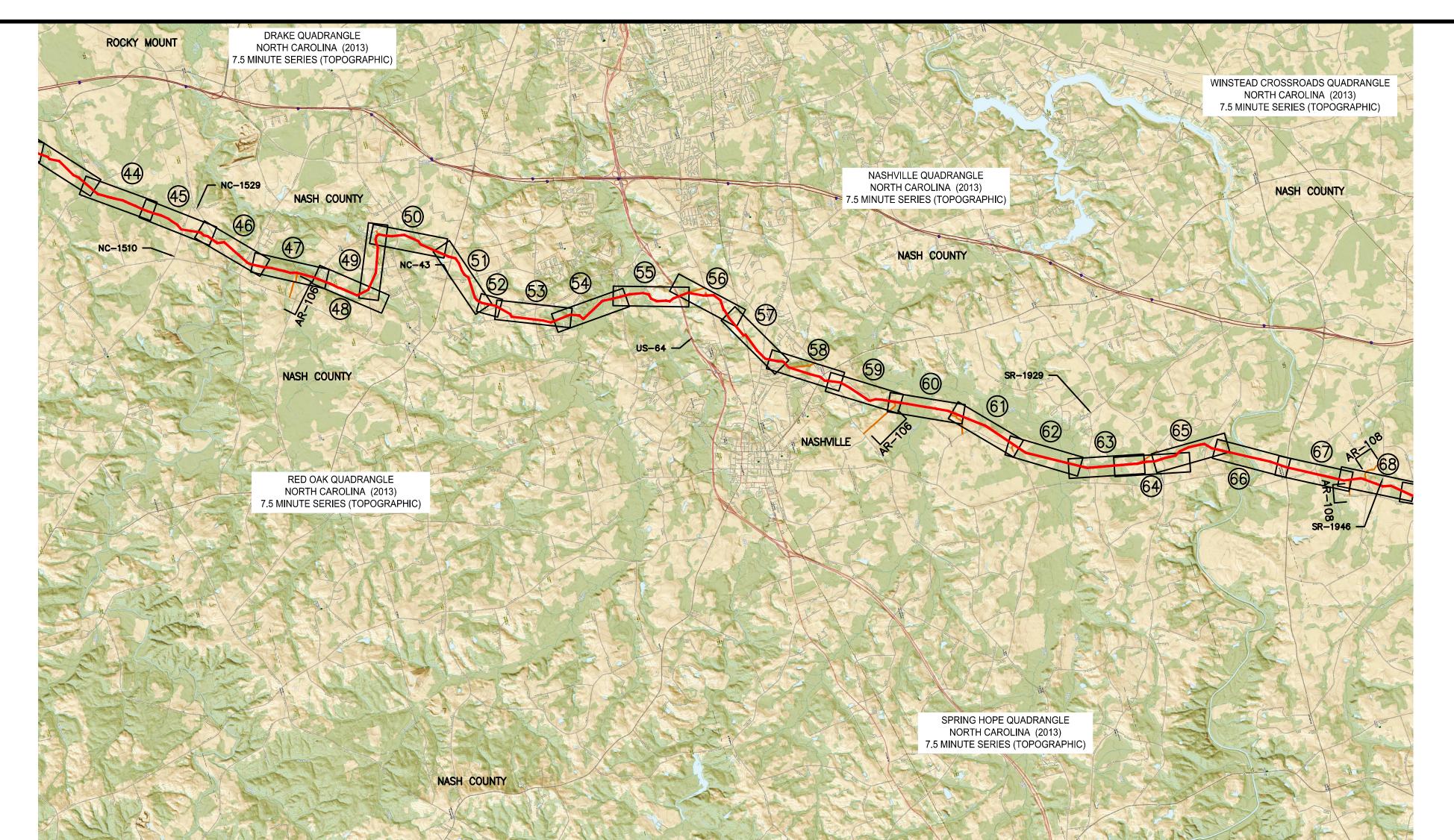


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LIG	ENSE #F-1	1223	
ERN ENTER PROPERTY OF THE PROP	I NC,	INC. NUE SUITE 120 HOLINA 28277	

SCALE: 1" = 6000"

ATLANTIC COAST PIPELINE PROJECT - 36" AP-2 PIPELINE

SHEET NO. REV.



SCALE: AS SHOWN 3/12/17 DRAWN: **GPT** CHECKED: DLH

APPROVED: **NET**

jai consultants - NC, inc GLEN ALLEN, VA 23060 804-270-9357 N.C. COL #F-0269

PROJECT NO./DASH N C140468 TASK NO. SUB TASK I

GROUP ID DRAWING NO

- 1. COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY UTM WITH NAD83 DATUM, ZONE 17, US
- 2. CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED BY AN ON THE GROUND SURVEY PERFORMED BY
- THE THRASHER GROUP, INC. ON 06-25-2014 THRU 08-26-2014 GPS SUB-METER ACCURACY.
- 3. AERIAL IMAGERY IS TAKEN FROM A SPRING 2015 FLIGHT BY KUCERA INTERNATIONAL INC. 4. THE PROPERTY LINES SHOWN ARE BASED ON GIS & TAX ASSEMENT RECORDS (PROVIDED BY OTHERS). GAI & THE THRASHER GROUP 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 NRG.
- 6. ALL STATIONING SHOWN IS SLOPE STATIONING.
- DEPICTED EROSION AND SEDIMENTATION CONTROL (E&SC) BEST MANAGEMENT PRACTICES (BMPS) ON THIS ALIGNMENT PLAN SHEET 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 NOTES SECTION OF THIS PLAN SET.







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	——————————————————————————————————————	EXISTING GAS PIF
		PROPOSED PERM
		PROPOSED ACCES
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anud		EDGE OF GRAVEL
		EDGE OF PAVEME
		CULVERT
	———— OHE ————	OVERHEAD UTILIT
		STREAM
	— · · · — · · · —	DITCH
•		€ ROAD
		COUNTY LINE
	SM	

<u>LEGEND</u>					
	PROPOSED GAS PIPELINE PROPOSED GAS PIPELINE (NO GROUND SURVEY)		EXTRA WORK SPACE		
——————————————————————————————————————	EXISTING GAS PIPELINE		WETLAND		
	PROPOSED PERMANENT EASEMENT		PROPOSED TEMPORARY		
	PROPOSED ACCESS ROAD		R.O.W.	z	
	PROPERTY LINE	Ø	UTILITY POLE	DESCRIPTION	
— X —— X —— X —	FENCE	0	WELL	DESC	
	EDGE OF GRAVEL	0	TANK		
	EDGE OF PAVEMENT	(CM)	GAS MARKER		SZ
	CULVERT	lacktriangle	TEST STATION		$ \overline{\subseteq}$
———— OHE ————	OVERHEAD UTILITY LINES				REVISION
	STREAM				
	DITCH			<u>٥</u>	الد
	€ ROAD			APPVD.	
	COUNTY LINE			_	
				CHKD.	
				DWN.	
				OATE	

3/13/17

GLEN ALLEN, VA 23060 804-270-9357 N.C. COL #F-0269

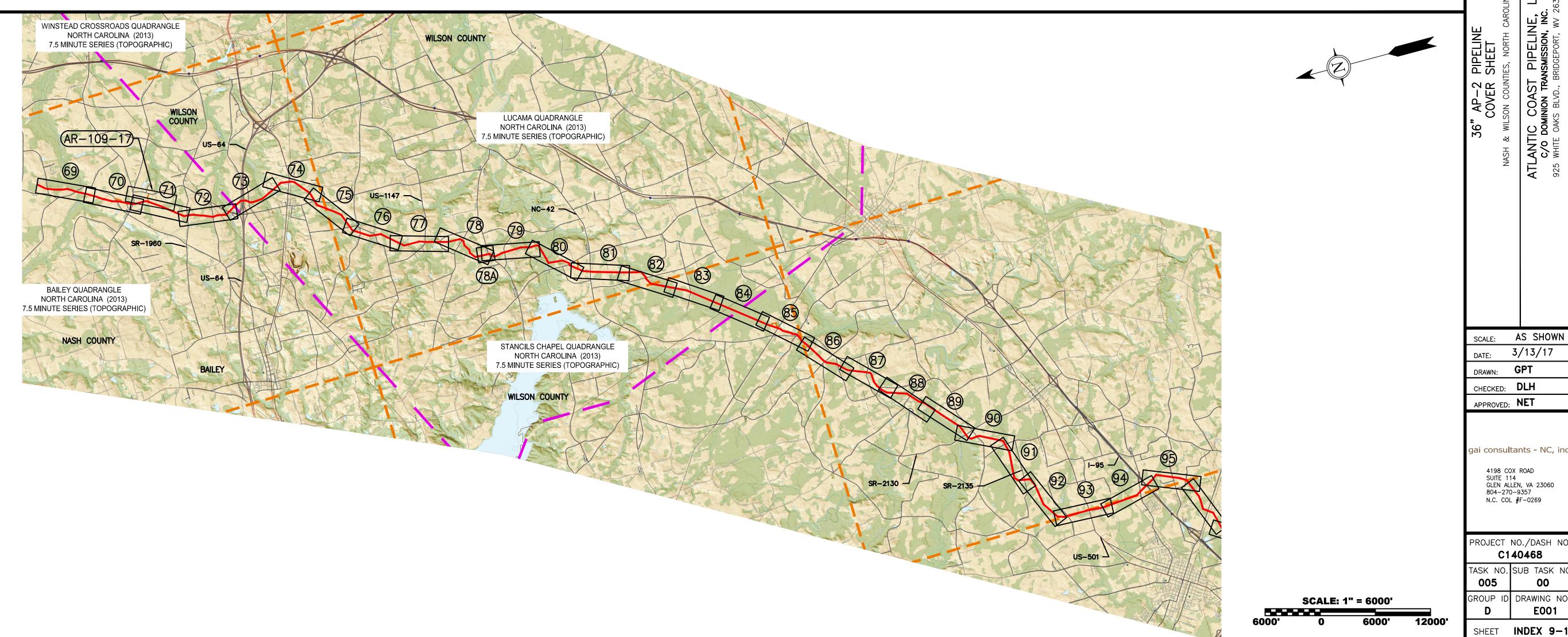
C140468

		AP-2 PIPELINE DRAWING INDEX
SHEET NO.	REV.	SHEET TITLE
66		CONSTRUCTION ALIGNMENT (STA. 3000+00 TO 3054+00)
67		CONSTRUCTION ALIGNMENT (STA. 3054+00 TO 3108+00)
68		CONSTRUCTION ALIGNMENT (STA. 3108+00 TO 3162+00)
69		CONSTRUCTION ALIGNMENT (STA. 3162+00 TO 3216+00)
70		CONSTRUCTION ALIGNMENT (STA. 3216+00 TO 3270+00)
71		CONSTRUCTION ALIGNMENT (STA. 3270+00 TO 3324+00)
72		CONSTRUCTION ALIGNMENT (STA. 3324+00 TO 3378+00)
73		CONSTRUCTION ALIGNMENT (STA. 3378+00 TO 3432+00)
74		CONSTRUCTION ALIGNMENT (STA. 3432+00 TO 3486+00)
75		CONSTRUCTION ALIGNMENT (STA. 3486+00 TO 3540+00)
76		CONSTRUCTION ALIGNMENT (STA. 3540+00 TO 3594+00)

		AP-2 PIPELINE DRAWING INDEX
SHEET NO.	REV.	SHEET TITLE
77		CONSTRUCTION ALIGNMENT (STA. 3594+00 TO 3648+00)
78		CONSTRUCTION ALIGNMENT (STA. 3648+00 TO 3700+00)
78A		CONSTRUCTION ALIGNMENT (STA. 3700+00 TO 3702+00)
79		CONSTRUCTION ALIGNMENT (STA. 3702+00 TO 3756+00)
80		CONSTRUCTION ALIGNMENT (STA. 3756+00 TO 3810+00)
81		CONSTRUCTION ALIGNMENT (STA. 3810+00 TO 3864+00)
82		CONSTRUCTION ALIGNMENT (STA. 3864+00 TO 3918+00)
83		CONSTRUCTION ALIGNMENT (STA. 3918+00 TO 3972+00)
84		CONSTRUCTION ALIGNMENT (STA. 3972+00 TO 4026+00)
85		CONSTRUCTION ALIGNMENT (STA. 4026+00 TO 4080+00)
86		CONSTRUCTION ALIGNMENT (STA. 4080+00 TO 4134+00)

		AP-2 PIPELINE DRAWING INDEX
SHEET NO.	REV.	SHEET TITLE
87		CONSTRUCTION ALIGNMENT (STA. 4134+00 TO 4188+00)
88		CONSTRUCTION ALIGNMENT (STA. 4188+00 TO 4242+00)
89		CONSTRUCTION ALIGNMENT (STA. 4242+00 TO 4304+00)
90		CONSTRUCTION ALIGNMENT (STA. 4304+00 TO 4350+00)
91		CONSTRUCTION ALIGNMENT (STA. 4350+00 TO 4404+00)
92		CONSTRUCTION ALIGNMENT (STA. 4404+00 TO 4458+00)
93		CONSTRUCTION ALIGNMENT (STA. 4458+00 TO 4512+00)
94		CONSTRUCTION ALIGNMENT (STA. 4512+00 TO 4566+00)
95		CONSTRUCTION ALIGNMENT (STA. 4566+00 TO 4620+00)

ATLANTIC COAST PIPELINE PROJECT - 36" SPREAD 9



1. COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US **SURVEY FOOT, CENTRAL MERIDAN 81° W**

- 2. CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED BY AN ON THE GROUND SURVEY PERFORMED BY
- THE THRASHER GROUP, INC. ON 06-25-2014 THRU 08-26-2014 GPS SUB-METER ACCURACY. 3. AERIAL IMAGERY IS TAKEN FROM A SPRING 2015 FLIGHT BY KUCERA INTERNATIONAL INC.
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- 5. STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY NRG.
- 6. ALL STATIONING SHOWN IS SLOPE STATIONING.
- DEPICTED EROSION AND SEDIMENTATION CONTROL (E&SC) BEST MANAGEMENT PRACTICES (BMPS) ON THIS ALIGNMENT PLAN SHEET 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 NOTES SECTION OF THIS PLAN SET.







	PROPOSED GAS PIPELIN
———G————G———	EXISTING GAS PIPELINI
	PROPOSED PERMANENT
	PROPOSED ACCESS ROA
	PROPERTY LINE
— x — x — x —	FENCE
	EDGE OF GRAVEL
	EDGE OF PAVEMENT
	CULVERT
OHE	OVERHEAD UTILITY LIN
	STREAM
- + + + + 	DITCH
	€ ROAD
	COUNTY LINE

PROPOSED GAS PIPELINE

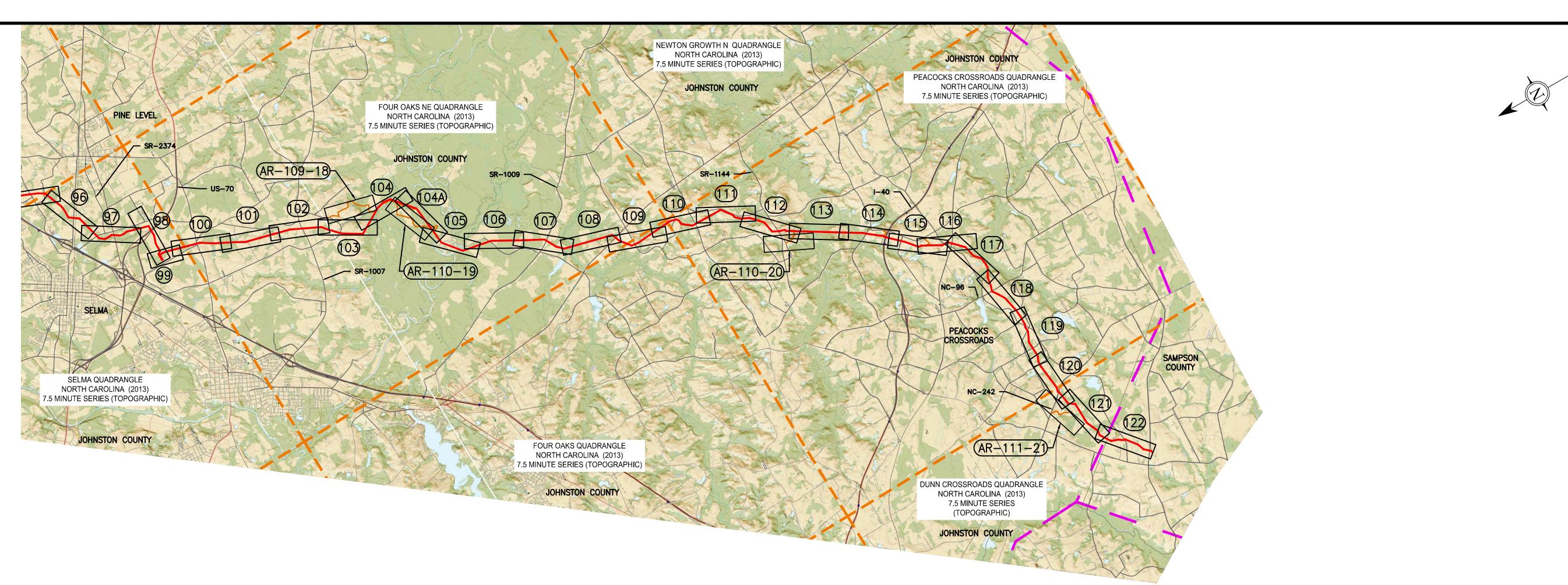
EY)	Ø <p< th=""><th>EXTRA WORK SPACE WETLAND PROPOSED TEMPORARY R.O.W. UTILITY POLE WELL TANK GAS MARKER TEST STATION</th><th>DESCRIPTION</th><th>REVISIONS</th></p<>	EXTRA WORK SPACE WETLAND PROPOSED TEMPORARY R.O.W. UTILITY POLE WELL TANK GAS MARKER TEST STATION	DESCRIPTION	REVISIONS
			APPVD.	
			CHKD.	
			DWN.	

		AP-2 PIPELINE DRAWING INDEX
SHEET NO.	REV.	SHEET TITLE
96		CONSTRUCTION ALIGNMENT (STA. 4620+00 TO 4674+00)
97		CONSTRUCTION ALIGNMENT (STA. 4674+00 TO 4728+00)
98		CONSTRUCTION ALIGNMENT (STA. 4728+00 TO 4774+00)
99		CONSTRUCTION ALIGNMENT (STA. 4774+00 TO 4788+00)
100		CONSTRUCTION ALIGNMENT (STA. 4788+00 TO 4836+00)
101		CONSTRUCTION ALIGNMENT (STA. 4836+00 TO 4890+00)
102		CONSTRUCTION ALIGNMENT (STA. 4890+00 TO 4944+00)
103		CONSTRUCTION ALIGNMENT (STA. 4944+00 TO 4998+00)
104		CONSTRUCTION ALIGNMENT (STA. 4998+00 TO 5052+00)
104A		CONSTRUCTION ALIGNMENT (STA. 5052+00 TO 5094+00)
105		CONSTRUCTION ALIGNMENT (STA. 5094+00 TO 5112+00)

		AP-2 PIPELINE DRAWING INDEX
SHEET NO.	REV.	SHEET TITLE
106		CONSTRUCTION ALIGNMENT (STA. 5112+00 TO 5160+00)
107		CONSTRUCTION ALIGNMENT (STA. 5160+00 TO 5214+00)
108		CONSTRUCTION ALIGNMENT (STA. 5214+00 TO 5268+00)
109		CONSTRUCTION ALIGNMENT (STA. 5268+00 TO 5322+00)
110		CONSTRUCTION ALIGNMENT (STA. 5322+00 TO 5376+00)
111		CONSTRUCTION ALIGNMENT (STA. 5376+00 TO 5430+00)
112		CONSTRUCTION ALIGNMENT (STA. 5430+00 TO 5484+00)
113		CONSTRUCTION ALIGNMENT (STA. 5484+00 TO 5538+00)
114		CONSTRUCTION ALIGNMENT (STA. 5538+00 TO 5592+00)
115		CONSTRUCTION ALIGNMENT (STA. 5592+00 TO 5646+00)
116		CONSTRUCTION ALIGNMENT (STA. 5646+00 TO 5657+11)

		AP-2 PIPELINE DRAWING INDEX
SHEET NO.	REV.	SHEET TITLE
117		CONSTRUCTION ALIGNMENT (STA. 5657+11 TO 5712+00)
118		CONSTRUCTION ALIGNMENT (STA. 5712+00 TO 5766+00)
119		CONSTRUCTION ALIGNMENT (STA. 5766+00 TO 5820+00)
120		CONSTRUCTION ALIGNMENT (STA. 5820+00 TO 5874+00)
121		CONSTRUCTION ALIGNMENT (STA. 5874+00 TO 5928+00)
122		CONSTRUCTION ALIGNMENT (STA. 5928+00 TO 5982+00)

ATLANTIC COAST PIPELINE PROJECT - 36" SPREAD 9



SCALE: 1" = 6000'

SCALE: AS SHOWN

gai consultants - NC, inc

GLEN ALLEN, VA 23060 804-270-9357 N.C. COL #F-0269

PROJECT NO./DASH NO C140468

TASK NO. SUB TASK N

GROUP ID DRAWING NO

SHEET INDEX 9-2

E002

DRAWN: **GPT**

CHECKED: DLH

APPROVED: **NET**

3/13/17