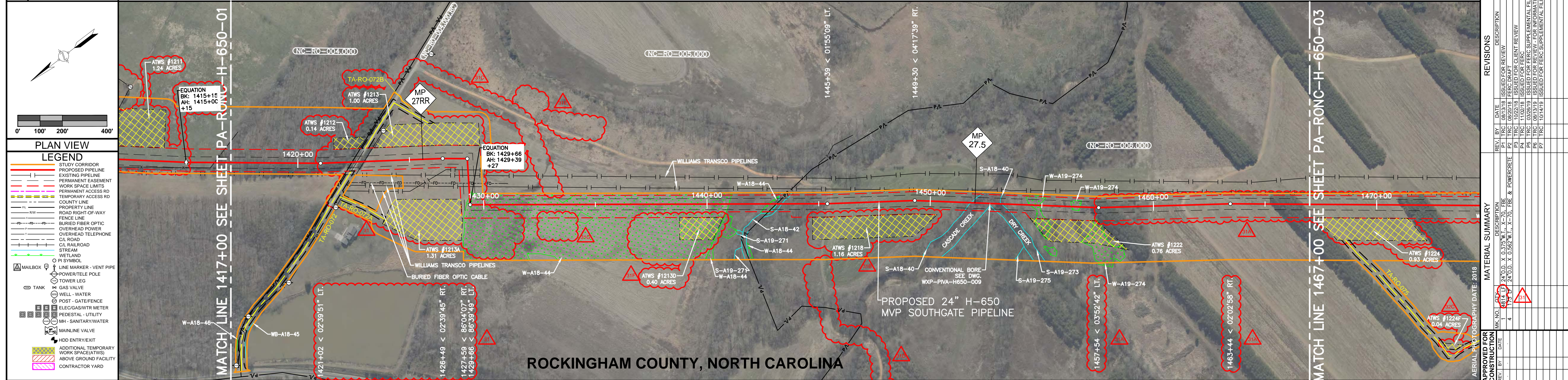




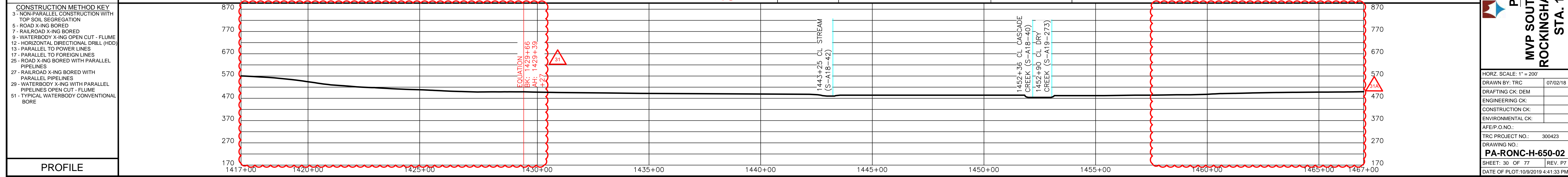
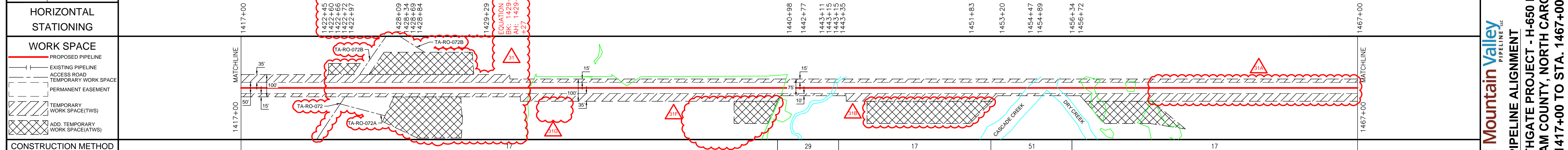


RIGHT-OF-WAY & OWNERSHIP DATA		1417+00	NC-RO-004.000	1422+45	NC-RO-005.000	1443+11	NC-RO-006.000	1467+00						
			545 LF		2093 LF		2389 LF							
DESIGN	PIPE / COATING	1417+00		1422+45	1	1443+11	4	1467+00						
	SLOPE DISTANCE													
	CLASS LOCATION / HCA				1									
ENVIRONMENTAL	CONSTRUCTION EXCLUSION													
	WETLAND / STREAM		W-A18-44	1197 LF	W-A18-44	S-A18-42	S-A18-40	S-A19-273	W-A19-274	W-A19-274	38 LF	20 LF	137 LF	42 LF



REFERENCE DRAWINGS	DRAWING NO. DESCRIPTION PA-RONC-H-650-02A ACCESS ROAD ALIGNMENT SHEET WXP-RONC-H-650-003 CASCADE CREEK CONVENTIONAL BORE MVP-32 PARALLEL PIPELINE BORED WATERBODY
HORIZONTAL STATIONING	1422+45 PROPERTY LINE 1422+66 CL ROAD (GRAVEL) 1422+72 EDGE OF ROAD 1422+97 OVERHEAD POWER LINE 1428+09 WILLIAMS TRANSCO PIPELINE 1428+34 WILLIAMS TRANSCO PIPELINE 1428+69 BURIED FIBER OPTIC CABLE 1428+84 WILLIAMS TRANSCO PIPELINE 1429+29 BEGIN WETLAND (W-A18-44) EQUATION BK: 1429+66 AH: 1429+39 +27 1440+98 END WETLAND (W-A18-44) 1442+77 BEGIN WETLAND (W-A18-44) 1443+11 PROPERTY LINE 1443+15 END WETLAND (W-A18-44) 1443+15 BEGIN STREAM (S-A18-42) 1443+35 END STREAM (S-A18-42) 1451+83 BEGIN CASCADE CREEK (S-A18-40) 1453+20 END DRY CREEK (S-A19-273) 1454+47 BEGIN WETLAND (W-A19-274) 1454+89 END WETLAND (W-A19-274) 1456+34 BEGIN WETLAND (W-A19-274) 1456+72 END WETLAND (W-A19-274)

ISSUED FOR FERC SUPPLEMENTAL FILING



REVISIONS		MATERIAL SUMMARY	
REV. NO.	DATE	DESCRIPTION	DATE
P1	08/13/18	ISSUED FOR REVIEW	
P2	08/20/18	FERC DRAFT COMMENT REVIEW	
P3	11/02/18	ISSUED FOR FERC	
P4	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING	
P5	08/13/19	ISSUED FOR REVIEW FOR INFORMATION ONLY	
P6	08/13/19	ISSUED FOR REVIEW FOR INFORMATION ONLY	
P7	10/14/19	ISSUED FOR FERC SUPPLEMENTAL FILING	

**Mountain Valley**  
PIPELINE LLC

**PIPELINE ALIGNMENT**  
MVP SOUTHGATE PROJECT - H-650 LINE  
ROCKINGHAM COUNTY, NORTH CAROLINA  
STA. 1417+00 TO STA. 1467+00

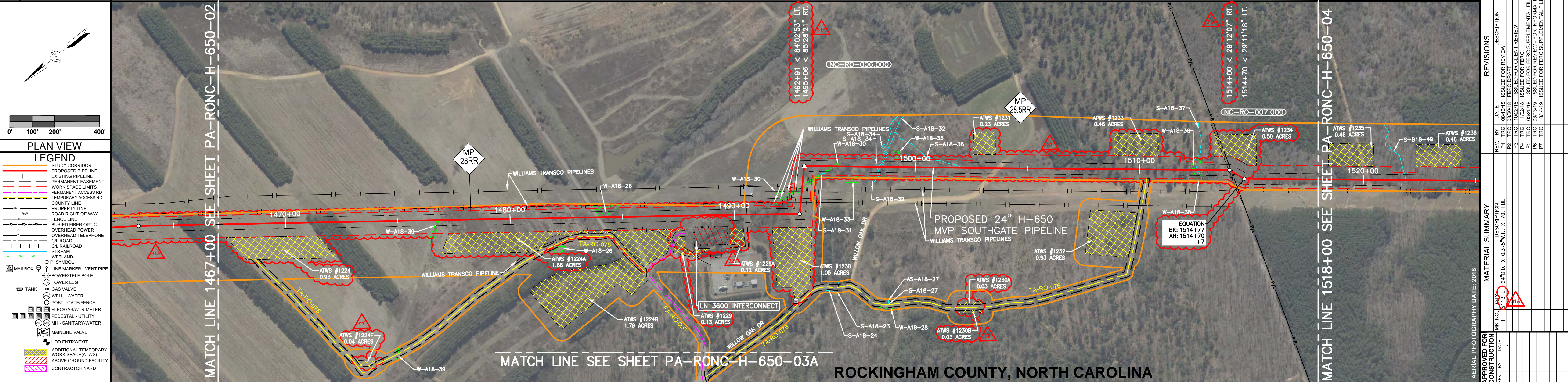
HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18  
 DRAFTING CK: DEM  
 ENGINEERING CK:  
 CONSTRUCTION CK:  
 ENVIRONMENTAL CK:

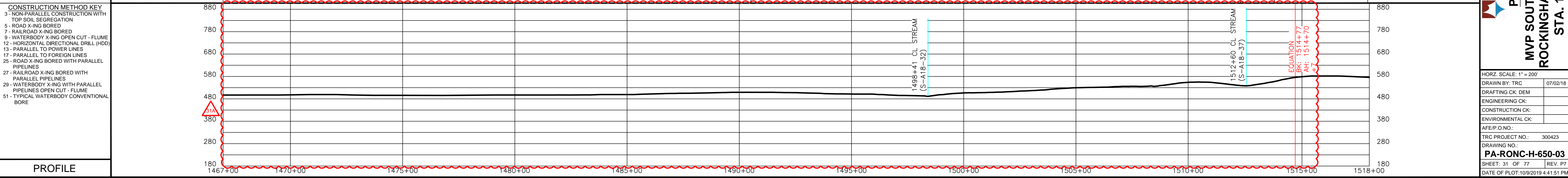
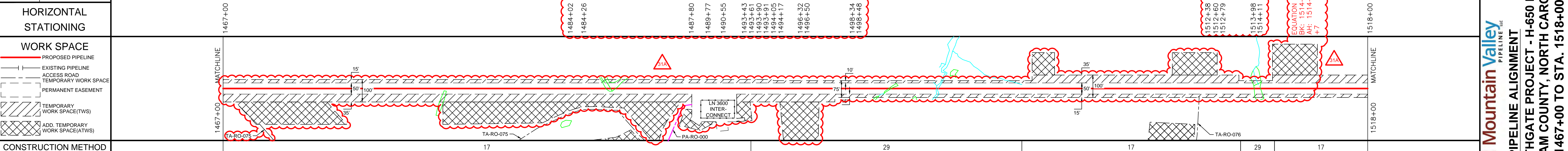
TRC PROJECT NO.: 300423  
 DRAWING NO.: PA-RONC-H-650-02  
 SHEET: 30 OF 77 REV. 07  
 DATE OF PLOT: 10/29/2019 4:41:33 PM



RIGHT-OF-WAY & OWNERSHIP DATA	1467+00	1466+87	1467+00	1518+00	1518+00
DESIGN	PIPE / COATING				
	SLOPE DISTANCE				
	CLASS LOCATION / HCA		1		
ENVIRONMENTAL	CONSTRUCTION EXCLUSION				
	WETLAND / STREAM	W-A18-26 24 LF	W-A18-30 26 LF	W-A18-30 18 LF	S-A18-32 14 LF
				W-A18-38 22 LF	S-A18-37 2 LF
				W-A18-38 19 LF	



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	XX-1A3600-1100-01	PROPOSED LN3600 ENTG MS
	PA-RONC-H-650-03A	ACCESS ROAD ALIGNMENT SHEET
HORIZONTAL STATIONING	1467+00 MATCH LINE	1518+00 MATCH LINE



REV. BY	DATE	DESCRIPTION
P1	08/13/18	ISSUED FOR REVIEW
P2	09/20/18	FERC DRAFT COMMENT REVIEW
P3	11/02/18	ISSUED FOR FERC
P4	03/06/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	08/13/19	ISSUED FOR REVIEW FOR INFORMATION ONLY
P6	08/13/19	ISSUED FOR REVIEW FOR INFORMATION ONLY
P7	10/14/19	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	DATE
APPROVED FOR BIDDING	DATE

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 1467+00 TO STA. 1518+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

A/E/P O.N.O.:

TRC PROJECT NO.: 300423

DRAWING NO.:

**PA-RONC-H-650-03**

SHEET: 31 OF 77 REV. P7

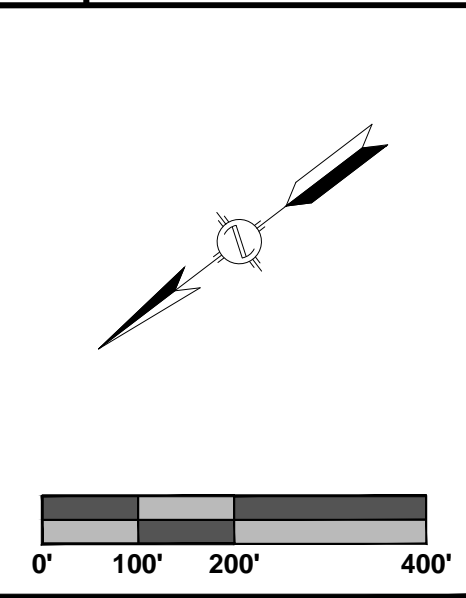
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**RIGHT-OF-WAY & OWNERSHIP DATA**

DESIGN  
PIPE / COATING  
SLOPE DISTANCE  
CLASS LOCATION / HCA

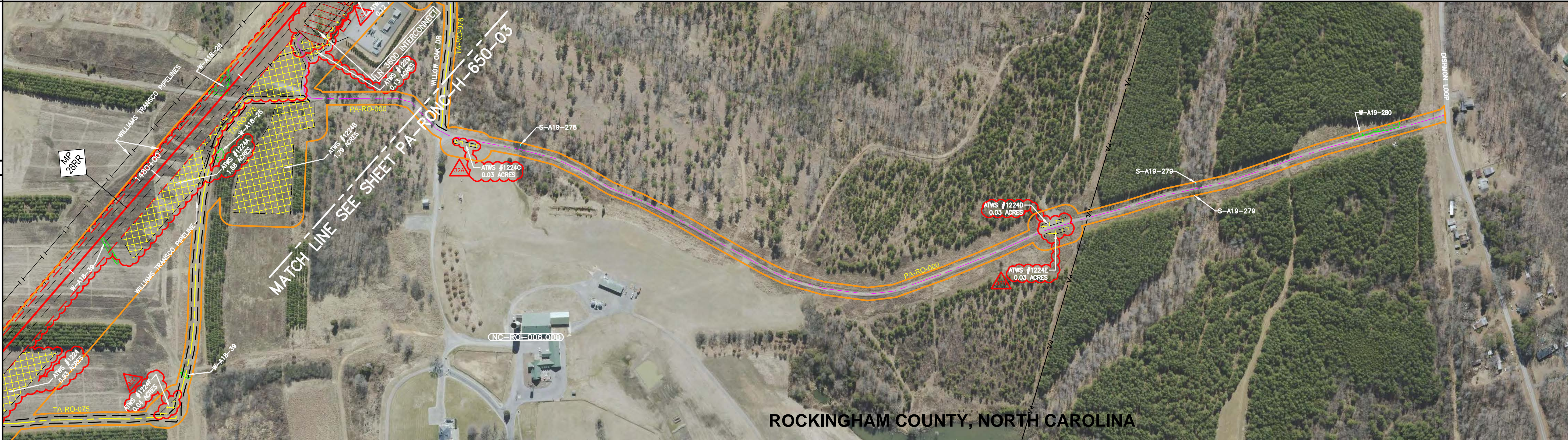
ENVIRONMENTAL  
CONSTRUCTION EXCLUSION  
WETLAND / STREAM



**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD



ROCKINGHAM COUNTY, NORTH CAROLINA

**ISSUED FOR FERC SUPPLEMENTAL FILING**

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-03	ALIGNMENT SHEET

**HORIZONTAL STATIONING**

**WORK SPACE**

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

**CONSTRUCTION METHOD**

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

**PROFILE**



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	10/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

DESCRIPTION	QTY.

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR BIDDING**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

**Mountain Valley PIPELINE LLC**

**ACCESS ROAD**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**ACCESS ROAD PA-RO-000**

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PO NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: **PA-RONC-H-650-03A**

REV. P1

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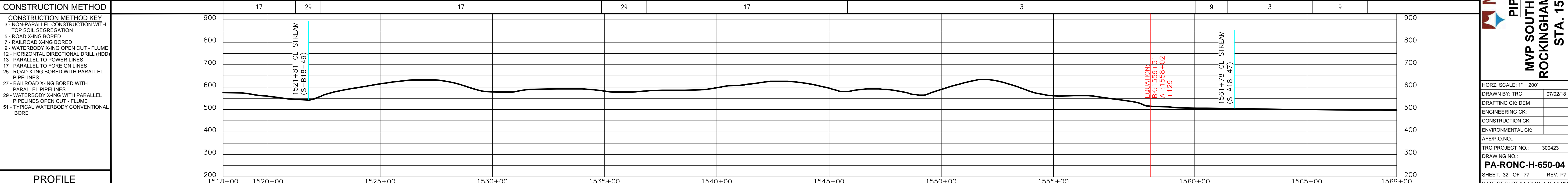
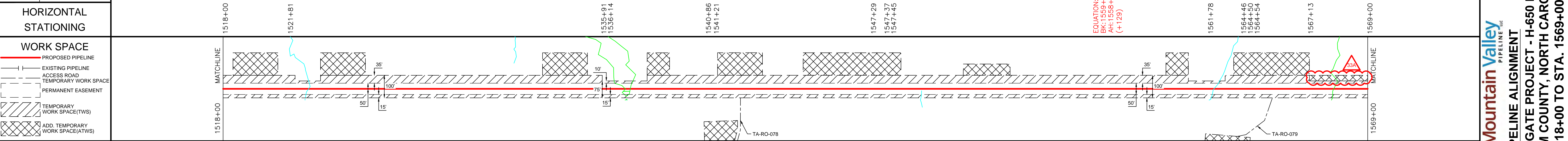


RIGHT-OF-WAY & OWNERSHIP DATA		5229 LF		
DESIGN	PIPE / COATING	1		
	SLOPE DISTANCE			
	CLASS LOCATION / HCA	1		
ENVIRONMENTAL	CONSTRUCTION EXCLUSION			
	WETLAND / STREAM	S-B18-49 3 LF	W-B18-48 23 LF	S-A18-47 3 LF



**ISSUED FOR FERC SUPPLEMENTAL FILING**

REFERENCE DRAWINGS	DESCRIPTION
PA-RONC-H-650-04A	ACCESS ROAD ALIGNMENT SHEET



PROFILE	1518+00	1520+00	1525+00	1530+00	1535+00	1540+00	1545+00	1550+00	1555+00	1560+00	1565+00	1569+00
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**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE (ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-04A	ACCESS ROAD ALIGNMENT SHEET

**HORIZONTAL STATIONING**

**WORK SPACE**

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE (TWS)
- ADD. TEMPORARY WORK SPACE (ATWS)

**CONSTRUCTION METHOD**

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 17 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME
- 51 - TYPICAL WATERBODY CONVENTIONAL BORE

**PROFILE**

**TRC**  
Results you can rely on

**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	TRC 08/03/18	ISSUED FOR REVIEW
P2	TRC 08/03/18	FERC DRAWT CLIENT REVIEW
P3	TRC 11/02/18	ISSUED FOR FERC
P4	TRC 03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	TRC 08/03/19	ISSUED FOR REVIEW FOR INFORMATION ONLY
P6	TRC 08/03/19	ISSUED FOR REVIEW FOR INFORMATION ONLY
P7	TRC 10/14/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

MATERIAL	QTY.	DESCRIPTION
1	5100 LF	24" O.D. X 0.375 W.T. X-70 FBE

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE	DESCRIPTION

**APPROVED FOR BIDDING**

REV. BY	DATE	DESCRIPTION

**APPROVED FOR FERC**

REV. BY	DATE	DESCRIPTION

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 1518+00 TO STA. 1569+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/P.O. NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: **PA-RONC-H-650-04**

SHEET: 32 OF 77 REV. P7

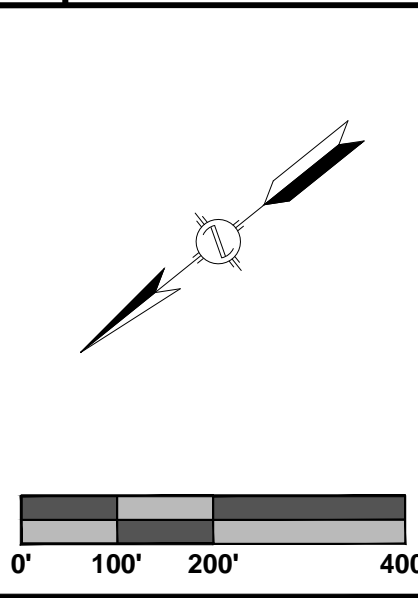
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**RIGHT-OF-WAY & OWNERSHIP DATA**

DESIGN  
PIPE / COATING  
SLOPE DISTANCE  
CLASS LOCATION / HCA

ENVIRONMENTAL  
CONSTRUCTION EXCLUSION  
WETLAND / STREAM



**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- PS SYMBOL
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD



ROCKINGHAM COUNTY, NORTH CAROLINA

**ISSUED FOR FERC SUPPLEMENTAL FILING**

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
X-X-1-000-1100-01	PROPOSED LN3600 ENTG MS
PA-RONC-H-650-04	ALIGNMENT SHEET
PA-RONC-H-650-05	ALIGNMENT SHEET
RSS-H650-030	RESIDENTIAL SITE SPECIFIC

**HORIZONTAL STATIONING**

**WORK SPACE**

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

**CONSTRUCTION METHOD**

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

**PROFILE**



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	TRC 03/20/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P2	TRC 08/20/18	FERC DRAFT COMMENT REVIEW
P4	TRC 11/02/18	ISSUED FOR FERC

**MATERIAL SUMMARY**

MARK NO.	QTY.	DESCRIPTION
1	5100 LF	24" O.D. X 0.375 W.T. X-70 FBE

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**Mountain Valley PIPELINE LLC**  
ACCESS ROAD  
MVP SOUTHGATE PROJECT - H-650 LINE  
ROCKINGHAM COUNTY, NORTH CAROLINA  
ACCESS ROADS TA-RO-078 & 079A

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

A/E/P.O.NO.:

TRC PROJECT NO.: 300423

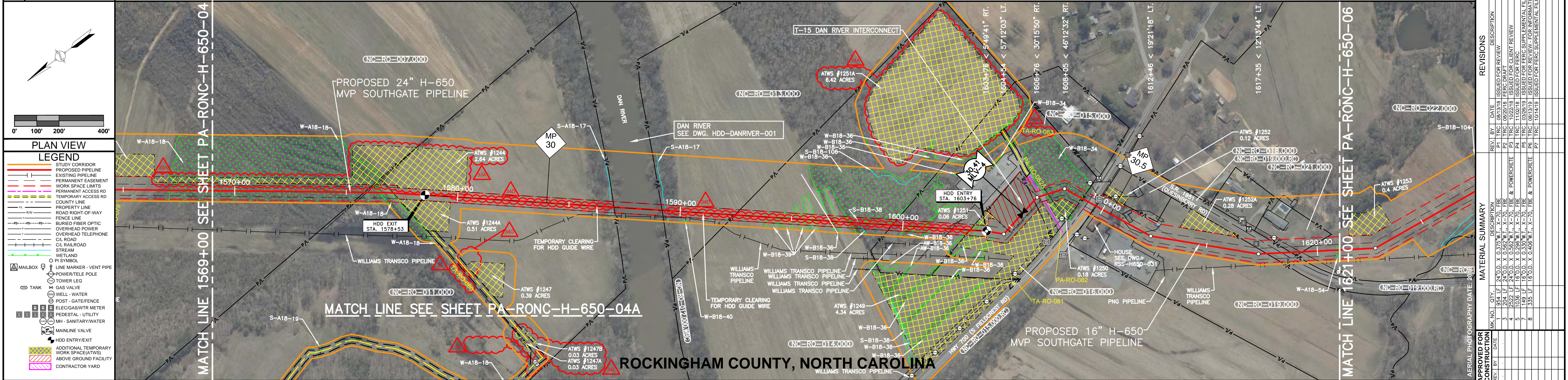
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REV. P1

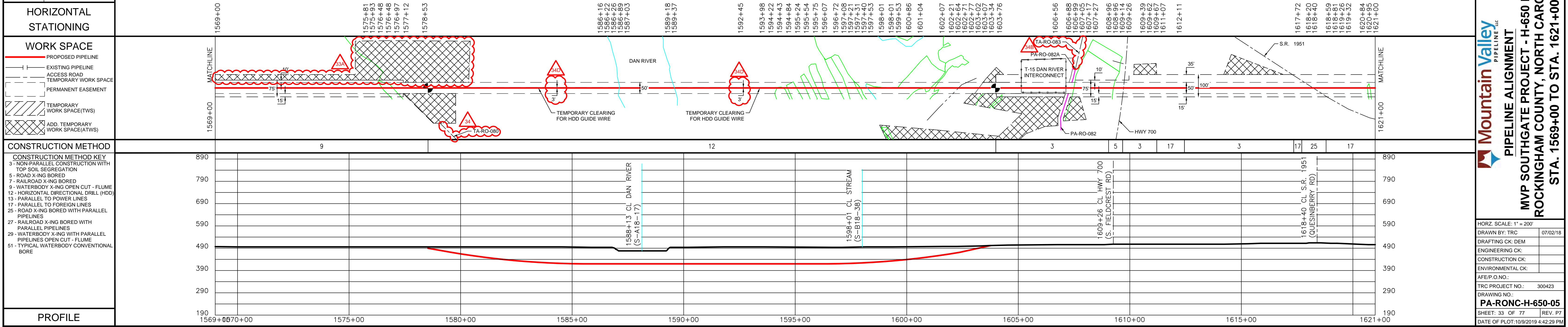
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RIGHT-OF-WAY & OWNERSHIP DATA		1569+00	1575+81	1122 LF	1587+03	1589+18	327 LF	1592+45	708 LF	1599+53	1603+02	1606+56	240 LF	1608+69	1609+67	805 LF	1617+72	1619+32	1619+32	168 LF	1621+00	
DESIGN	PIPE / COATING	1	34C		4						34C		7	5		5		8			5	
DESIGN	SLOPE DISTANCE																					
DESIGN	CLASS LOCATION / HCA				1											2						
ENVIRONMENTAL	CONSTRUCTION EXCLUSION																					
ENVIRONMENTAL	WETLAND / STREAM		W-A18-18 748 LF		W-A18-18 50 LF			S-A18-17 248 LF			W-B18-39 25 LF	W-B18-39 40 LF	W-B18-39 30 LF	W-B18-39 32 LF	W-B18-36 36 LF	W-B18-36 48 LF	S-B18-38 3 LF	W-B18-36 18 LF	W-B18-36 27 LF	W-B18-34 180 LF	W-A18-54 11 LF	



REV. NO.	DATE	DESCRIPTION
1	08/13/18	ISSUED FOR REVIEW
2	09/20/18	FERC DRAFT ALIGNMENT REVIEW
3	10/26/18	POWERGRAB & POWERGRAB
4	11/02/18	ISSUED FOR FERC
5	10/26/18	ISSUED FOR FERC SUPPLEMENTAL FILING
6	10/26/18	ISSUED FOR FERC SUPPLEMENTAL FILING
7	10/26/18	ISSUED FOR FERC SUPPLEMENTAL FILING
8	10/26/18	ISSUED FOR FERC SUPPLEMENTAL FILING



CONSTRUCTION METHOD KEY	CONSTRUCTION METHOD
5	NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
5	ROAD X-ING BORED
7	RAILROAD X-ING BORED
9	WATERBODY X-ING OPEN CUT - FLUME
12	HORIZONTAL DIRECTIONAL DRILL (HDD)
17	PARALLEL TO POWER LINES
17	PARALLEL TO FOREIGN LINES
25	ROAD X-ING BORED WITH PARALLEL PIPELINES
27	RAILROAD X-ING BORED WITH PARALLEL PIPELINES
29	WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME
51	TYPICAL WATERBODY CONVENTIONAL BORE

**ISSUED FOR FERC SUPPLEMENTAL FILING**



REV. NO.	DATE	DESCRIPTION
1	08/13/18	ISSUED FOR REVIEW
2	09/20/18	FERC DRAFT ALIGNMENT REVIEW
3	10/26/18	POWERGRAB & POWERGRAB
4	11/02/18	ISSUED FOR FERC
5	10/26/18	ISSUED FOR FERC SUPPLEMENTAL FILING
6	10/26/18	ISSUED FOR FERC SUPPLEMENTAL FILING
7	10/26/18	ISSUED FOR FERC SUPPLEMENTAL FILING
8	10/26/18	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	DATE

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 1569+00 TO STA. 1621+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/P.O. NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: **PA-RONC-H-650-05**

SHEET: 33 OF 77 REV. 07

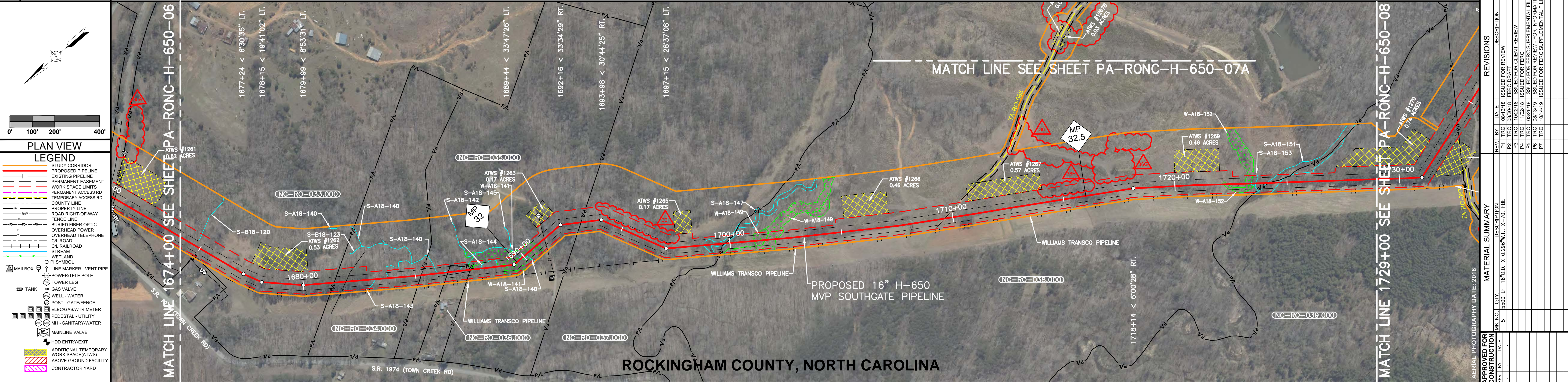
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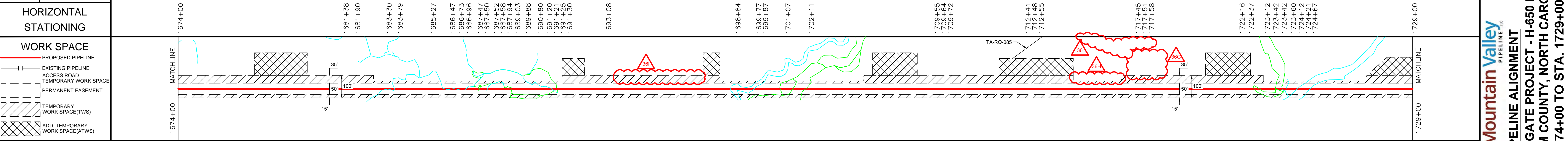


<b>RIGHT-OF-WAY &amp; OWNERSHIP DATA</b>	1674+00	NC-RO-033.000	NC-RO-034.000	NC-RO-035.000	NC-RO-036.000	NC-RO-035.000	NC-RO-037.000	NC-RO-038.000	NC-RO-039.000	1729+00						
	738 LF	1681+38	389 LF	1685+27	120 LF	1686+47	100 LF	1687+47	561 LF	1693+08	669 LF	1699+77	2444 LF	1724+21	479 LF	1729+00
<b>DESIGN</b>	PIPE / COATING	5														
	SLOPE DISTANCE															
	CLASS LOCATION / HCA	2														
<b>ENVIRONMENTAL</b>	CONSTRUCTION EXCLUSION															
	WETLAND / STREAM	S-A18-143	S-A18-140	W-A18-141	S-A18-144	W-A18-141	S-A18-140	S-A18-147	W-A18-149	W-A18-152	W-A18-152	S-A18-153	S-A18-151			
		2 LF	4 LF	6 LF	2 LF	177 LF	4 LF	20 LF	103 LF	21 LF	29 LF	2 LF	55 LF			



<b>REFERENCE DRAWINGS</b>	DRAWING NO.	DESCRIPTION
	PA-RONC-H-650-07A	ACCESS ROAD ALIGNMENT SHEET
<b>HORIZONTAL STATIONING</b>	1674+00 MATCH LINE	1729+00 MATCH LINE
<b>WORK SPACE</b>	1681+38 PROPERTY LINE	1681+90 FENCE, 4' BARBED WIRE
	1683+30 BEGIN STREAM (S-A18-143)	1683+79 END STREAM (S-A18-143)
	1685+27 PROPERTY LINE	1686+47 PROPERTY LINE
	1686+73 BEGIN STREAM (S-A18-140)	1686+96 END STREAM (S-A18-140)
	1687+47 PROPERTY LINE	1687+50 FENCE, 4' CHAIN LINK
	1687+52 BEGIN WETLAND (W-A18-141)	1687+94 CL. STREAM (S-A18-144)
	1689+03 BEGIN WETLAND (W-A18-141)	1689+88 CL. STREAM (S-A18-140)
	1690+80 END WETLAND (W-A18-141)	1691+20 EDGE OF ROAD
	1691+21 OVERHEAD POWER LINE	1691+30 EDGE OF ROAD (GRAVEL)
	1693+08 PROPERTY LINE	1698+84 BEGIN MACHINE CREEK (S-A18-147)
	1699+77 PROPERTY LINE	1699+87 END MACHINE CREEK (S-A18-147)
	1701+07 BEGIN WETLAND (W-A18-149)	1702+11 END WETLAND (W-A18-149)
	1709+55 EDGE OF ROAD	1709+64 CL. TALL TIMBER RD (GRAVEL)
	1709+72 EDGE OF ROAD	1712+41 EDGE OF ROAD
	1712+48 CL. ACCESS RD (GRASS)	1712+55 EDGE OF ROAD
	1717+45 EDGE OF ROAD	1717+51 CL. ROAD (GRASS)
	1717+58 EDGE OF ROAD	1722+16 BEGIN WETLAND (W-A18-152)
	1722+37 END WETLAND (W-A18-152)	1723+12 BEGIN WETLAND (W-A18-152)
	1723+42 END WETLAND (W-A18-152)	1723+42 BEGIN STREAM (S-A18-153)
	1723+60 END STREAM (S-A18-153)	1724+12 BEGIN STREAM (S-A18-151)
	1724+21 PROPERTY LINE	1724+67 END STREAM (S-A18-151)

**ISSUED FOR FERC SUPPLEMENTAL FILING**



<b>CONSTRUCTION METHOD</b>	3	17	29	9	3	29	17	29	17			
<b>CONSTRUCTION METHOD KEY</b>	910	810	710	610	510	410	310	210	910			
5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION												
5 - ROAD X-ING BORED												
7 - RAILROAD X-ING BORED												
9 - WATERBODY X-ING OPEN CUT - FLUME												
12 - HORIZONTAL DIRECTIONAL DRILL (HDD)												
17 - PARALLEL TO POWER LINES												
17 - PARALLEL TO FOREIGN LINES												
25 - ROAD X-ING BORED WITH PARALLEL PIPELINES												
27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES												
29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME												
51 - TYPICAL WATERBODY CONVENTIONAL BORE												
<b>PROFILE</b>	1674+00	1680+00	1685+00	1690+00	1695+00	1700+00	1705+00	1710+00	1715+00	1720+00	1725+00	1729+00



REV. BY	DATE	DESCRIPTION
P1	08/03/18	ISSUED FOR REVIEW
P2	08/20/18	FERC DRAFT COMMENT REVIEW
P3	09/07/18	ISSUED FOR FERC
P4	11/02/18	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P6	08/31/19	ISSUED FOR REVIEW FOR INFORMATION ONLY
P7	10/14/19	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	APPROVED FOR BIDDING	APPROVED FOR FERC
REV. BY	REV. BY	REV. BY
DATE	DATE	DATE

APPROVED FOR CONSTRUCTION	APPROVED FOR BIDDING	APPROVED FOR FERC
REV. BY	REV. BY	REV. BY
DATE	DATE	DATE

APPROVED FOR CONSTRUCTION	APPROVED FOR BIDDING	APPROVED FOR FERC
REV. BY	REV. BY	REV. BY
DATE	DATE	DATE

**Mountain Valley PIPELINE LLC**  
**PIPELINE ALIGNMENT**  
**MVP SOUTHGATE PROJECT - H-650 LINE**  
**ROCKINGHAM COUNTY, NORTH CAROLINA**  
**STA. 1674+00 TO STA. 1729+00**

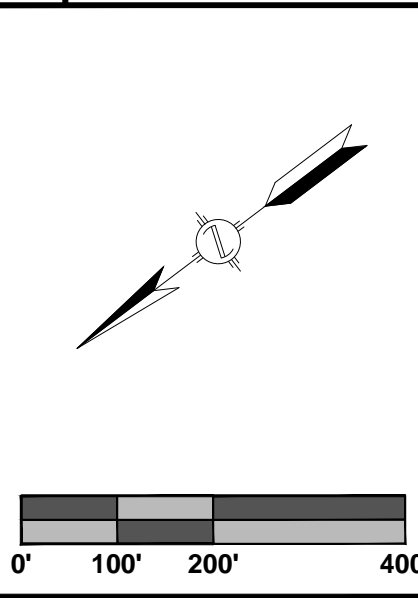
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 DRAFTING CK: DEM  
 ENGINEERING CK:  
 CONSTRUCTION CK:  
 ENVIRONMENTAL CK:  
 AFE/P.O. NO.:  
 TRC PROJECT NO.: 300423  
 DRAWING NO.:  
**PA-RONC-H-650-07**  
 SHEET: 35 OF 77 REV. P7  
 DATE OF PLOT: 10/29/2019 4:43:02 PM



RIGHT-OF-WAY & OWNERSHIP DATA

DESIGN  
PIPE / COATING  
SLOPE DISTANCE  
CLASS LOCATION / HCA

ENVIRONMENTAL  
CONSTRUCTION EXCLUSION  
WETLAND / STREAM



PLAN VIEW

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATEFENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
HDD-DANR068-01	DAN RIVER HDD
X-X-T15-1100-01	PROPOSED T-15 DAN RIVER MS
PA-RONC-H-650-07	ALIGNMENT SHEET
PA-RONC-H-650-08	ALIGNMENT SHEET
RSS-H650-025	RESIDENTIAL SITE SPECIFIC

HORIZONTAL STATIONING

WORK SPACE

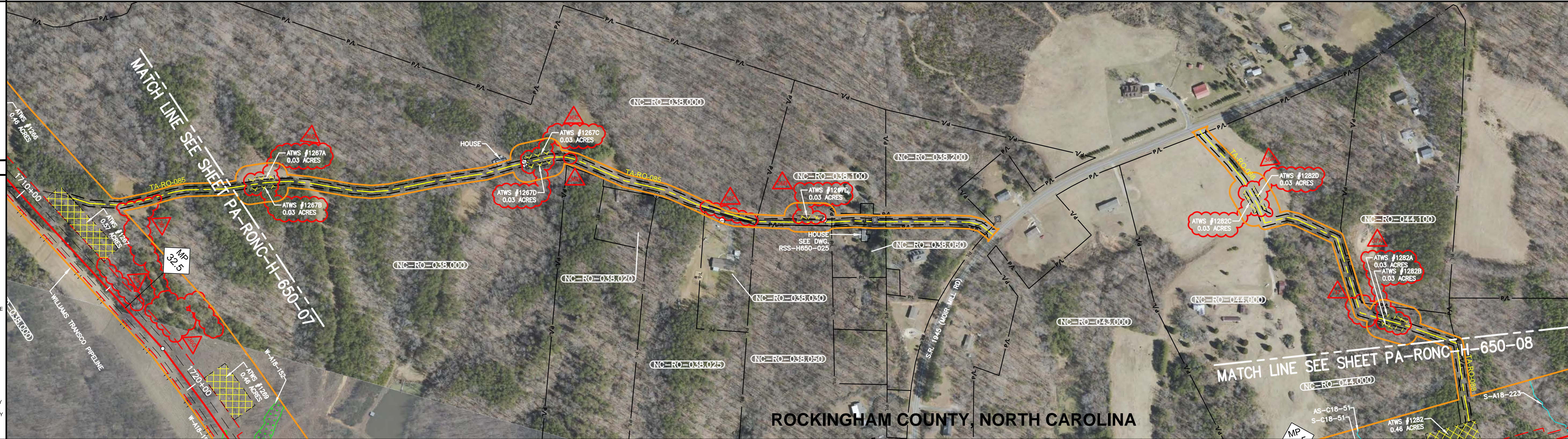
- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

CONSTRUCTION METHOD

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

PROFILE



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	10/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

MARK NO.	QTY.	DESCRIPTION

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR BIDDING**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR BIDDING**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

**Mountain Valley PIPELINE LLC**  
ACCESS ROAD  
MVP SOUTHGATE PROJECT - H-650 LINE  
ROCKINGHAM COUNTY, NORTH CAROLINA  
ACCESS ROADS TA-RO-085 & 088

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PO NO.:

TRC PROJECT NO.: 300423

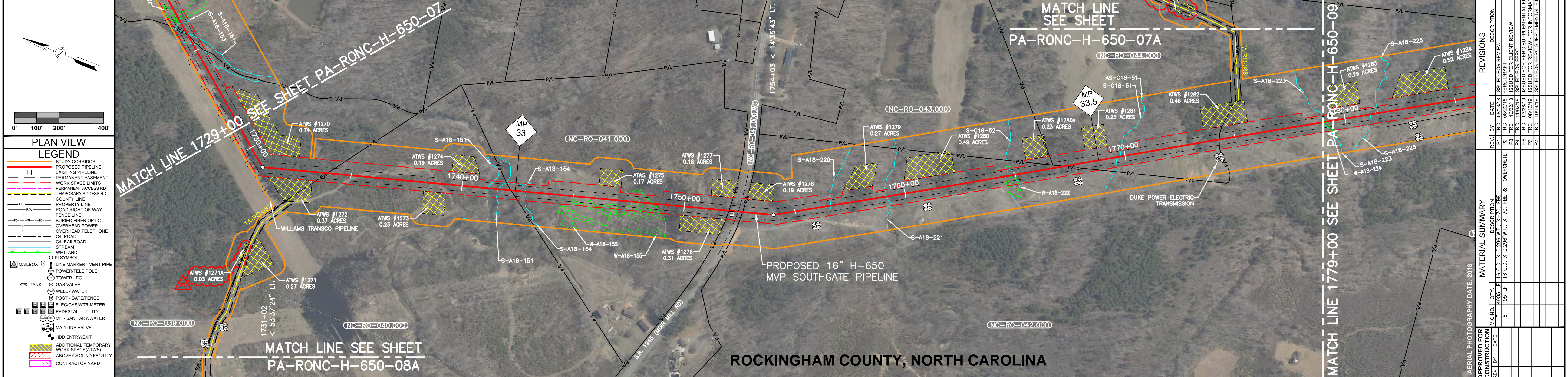
DRAWING NO.: PA-RONC-H-650-07A

REV. P1

DATE OF PLOT: 10/30/2019 8:32:51 AM



RIGHT-OF-WAY & OWNERSHIP DATA		1729+00	NC-RO-039.000	494 LF	1733+94	NC-RO-040.000	827 LF	1742+21	NC-RO-041.000	981 LF	1752+02	NC-RO-041.000.RC	S. R. 1945 (MOIR MILL RD)	61 LF	1752+63	NC-RO-042.000	1460 LF	1767+23	NC-RO-044.000	705 LF	1774+28	NC-RO-042.000	472 LF	1779+00																
DESIGN	PIPE / COATING																																							
	SLOPE DISTANCE	5																																						
CLASS LOCATION / HCA		1																																						
ENVIRONMENTAL	CONSTRUCTION EXCLUSION																																							
	WETLAND / STREAM	S-A18-151 48 LF																							S-A18-154 2 LF		W-A18-155 68 LF		S-A18-220 3 LF		S-A18-221 4 LF		W-A18-222 43 LF		S-C18-52 5 LF		S-C18-51 4 LF			



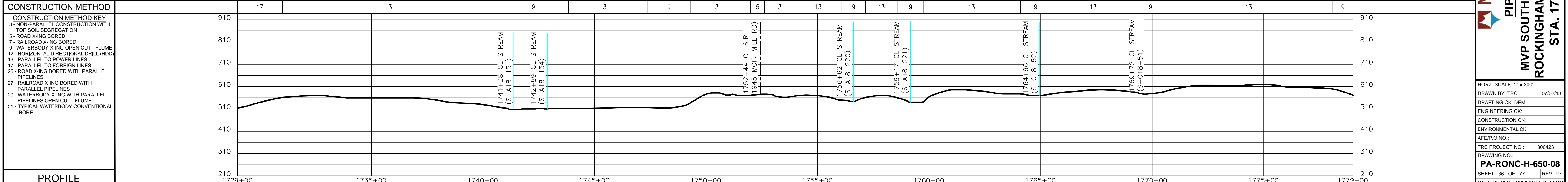
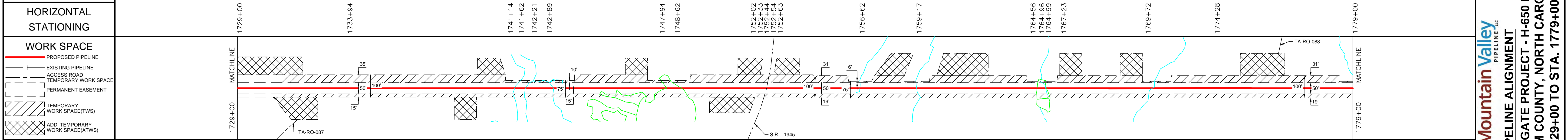
**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- PI SYMBOL
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-07A	ACCESS ROAD ALIGNMENT SHEET
PA-RONC-H-650-08A	ACCESS ROAD ALIGNMENT SHEET



**ISSUED FOR FERC SUPPLEMENTAL FILING**



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	08/31/18	ISSUED FOR REVIEW
P2	09/20/18	FERC DRAFT ALIGNMENT REVIEW
P3	11/02/18	ISSUED FOR FERC
P4	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	08/31/19	ISSUED FOR REVIEW FOR INFORMATION ONLY
P6	10/14/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P7		

**MATERIAL SUMMARY**

QTY.	DESCRIPTION
5	4805 LF 18" O.D. X 0.286 W.T. X-70. FBE
6	95 LF 18" O.D. X 0.286 W.T. X-70. FBE & POWER/TELE

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE	DESCRIPTION

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 1729+00 TO STA. 1779+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PI.D.NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: **PA-RONC-H-650-08**

SHEET: 36 OF 77 REV. P7

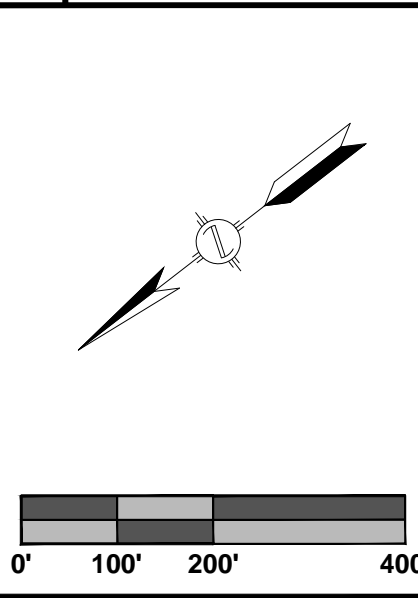
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RIGHT-OF-WAY & OWNERSHIP DATA

DESIGN  
PIPE / COATING  
SLOPE DISTANCE  
CLASS LOCATION / HCA

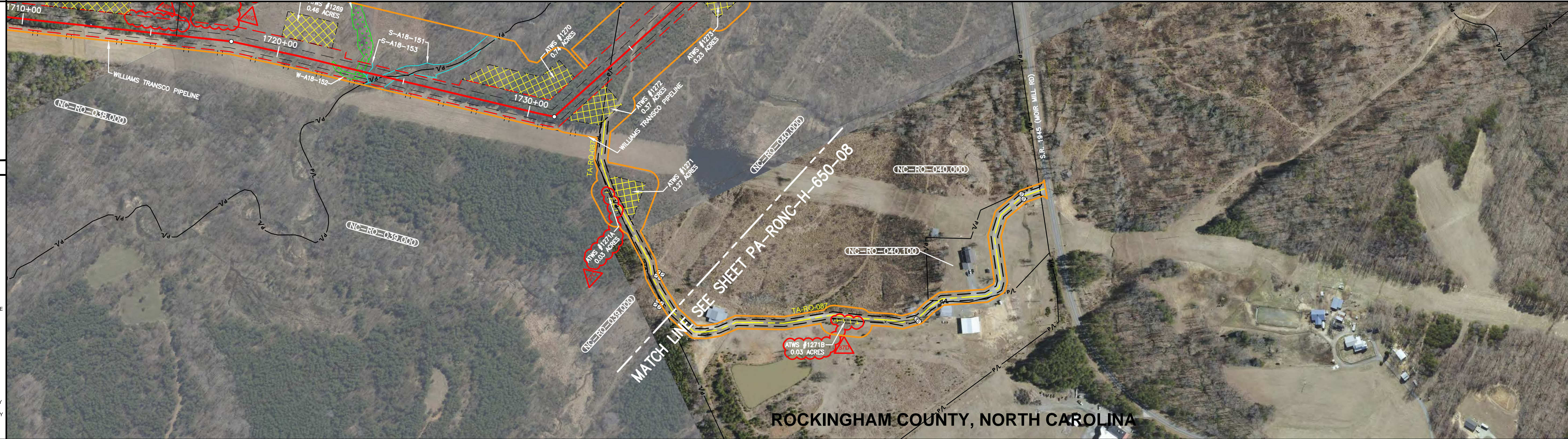
ENVIRONMENTAL  
CONSTRUCTION EXCLUSION  
WETLAND / STREAM



PLAN VIEW

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD



ROCKINGHAM COUNTY, NORTH CAROLINA

ISSUED FOR FERC SUPPLEMENTAL FILING

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-08	ALIGNMENT SHEET

HORIZONTAL STATIONING

WORK SPACE

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

CONSTRUCTION METHOD

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

PROFILE



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	03/20/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

DESCRIPTION	QTY.

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR BIDDING**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR BIDDING**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

**Mountain Valley PIPELINE LLC**

**ACCESS ROAD**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**ACCESS ROAD TA-RO-087**

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PO NO.:

TRC PROJECT NO.: 300423

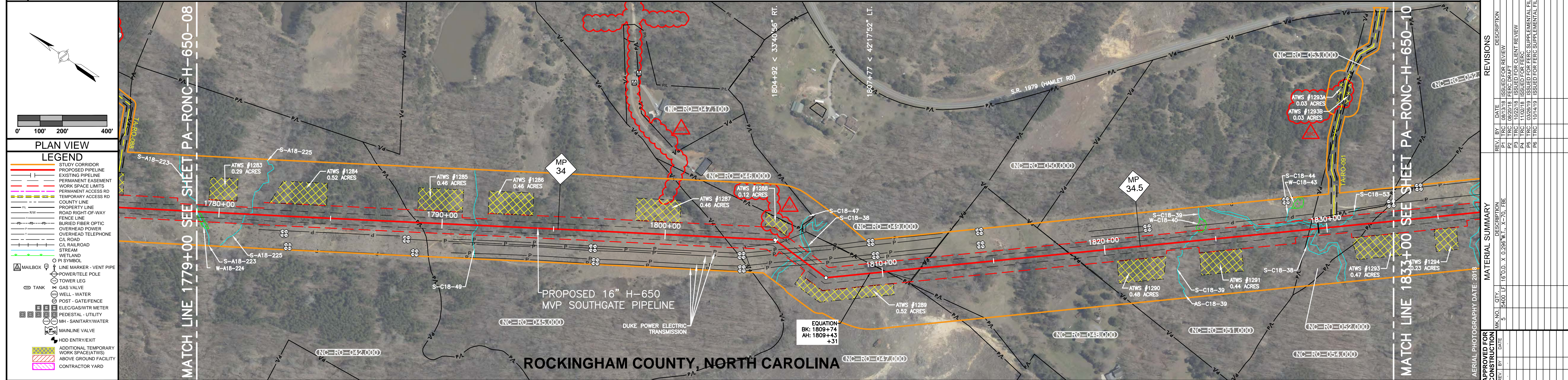
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REV. P1

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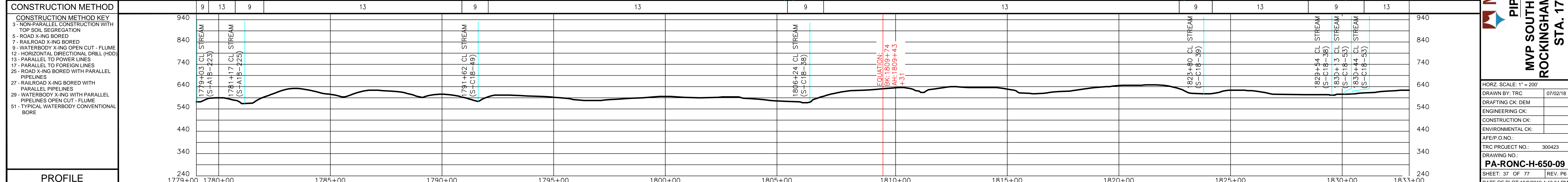
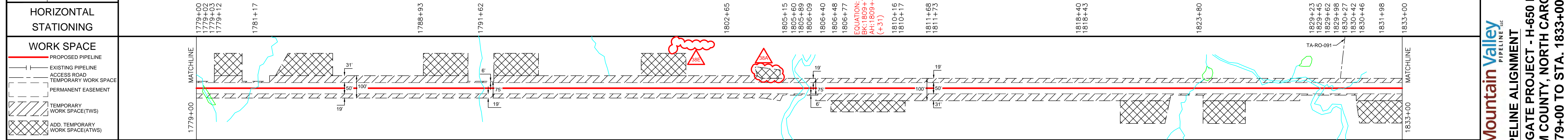


RIGHT-OF-WAY & OWNERSHIP DATA		1779+00	1788+93	1802+65	1810+17	1811+73	1818+40	1823+23	1831+98	1833+00
		993 LF	1372 LF	783 LF	156 LF	667 LF	1083 LF	275 LF	102 LF	
DESIGN	PIPE / COATING	5								
	SLOPE DISTANCE	1								
	CLASS LOCATION / HCA									
ENVIRONMENTAL	CONSTRUCTION EXCLUSION									
	WETLAND / STREAM	W-A18-224 10 LF	S-A18-223 4 LF	S-A18-225 5 LF	S-C18-49 4 LF	S-C18-38 33 LF	S-C18-39 2 LF	S-C18-38 17 LF	S-C18-53 <1 LF	S-C18-53 <1 LF



REFERENCE DRAWINGS	
DRAWING NO.	DESCRIPTION
PA-RONC-H-650-09A	ACCESS ROAD ALIGNMENT SHEET

HORIZONTAL STATIONING	
1779+00 MATCH LINE	1779+00 MATCH LINE (W-A18-224)
1779+02 BEGIN STREAM (S-A18-223)	1779+02 BEGIN STREAM (S-A18-223)
1779+12 END WETLAND (W-A18-224)	1779+12 END WETLAND (W-A18-224)
1781+17 CL STREAM (S-A18-225)	1781+17 CL STREAM (S-A18-225)
1788+93 PROPERTY LINE	1788+93 PROPERTY LINE
1791+62 CL STREAM (S-C18-49)	1791+62 CL STREAM (S-C18-49)
1802+65 PROPERTY LINE	1802+65 PROPERTY LINE
1805+15 FENCE, 2' WIRE	1805+15 FENCE, 2' WIRE
1805+60 OVERHEAD TRANSMISSION LINE	1805+60 OVERHEAD TRANSMISSION LINE
1805+89 OVERHEAD TRANSMISSION LINE	1805+89 OVERHEAD TRANSMISSION LINE
1806+09 BEGIN STREAM (S-C18-38)	1806+09 BEGIN STREAM (S-C18-38)
1806+40 END STREAM (S-C18-38)	1806+40 END STREAM (S-C18-38)
1806+48 OVERHEAD TRANSMISSION LINE	1806+48 OVERHEAD TRANSMISSION LINE
1806+77 OVERHEAD TRANSMISSION LINE	1806+77 OVERHEAD TRANSMISSION LINE
EQUATION: BK: 1809+74	EQUATION: BK: 1809+74
AH: 1809+43	AH: 1809+43
(+31)	(+31)
1810+16 FENCE, 4' BARBED WIRE	1810+16 FENCE, 4' BARBED WIRE
1810+17 PROPERTY LINE	1810+17 PROPERTY LINE
1811+68 FENCE, 4' BARBED WIRE	1811+68 FENCE, 4' BARBED WIRE
1811+73 PROPERTY LINE	1811+73 PROPERTY LINE
1818+40 PROPERTY LINE	1818+40 PROPERTY LINE
1818+43 FENCE, 4' BARBED WIRE	1818+43 FENCE, 4' BARBED WIRE
1823+80 CL STREAM (S-C18-39)	1823+80 CL STREAM (S-C18-39)
1829+23 PROPERTY LINE	1829+23 PROPERTY LINE
1829+45 BEGIN STREAM (S-C18-38)	1829+45 BEGIN STREAM (S-C18-38)
1829+62 END STREAM (S-C18-38)	1829+62 END STREAM (S-C18-38)
1829+98 CL STREAM (S-C18-53)	1829+98 CL STREAM (S-C18-53)
1830+27 CL STREAM (S-C18-53)	1830+27 CL STREAM (S-C18-53)
1830+42 CL STREAM (S-C18-53)	1830+42 CL STREAM (S-C18-53)
1830+45 CL STREAM (S-C18-53)	1830+45 CL STREAM (S-C18-53)
1831+98 PROPERTY LINE	1831+98 PROPERTY LINE
1833+00 MATCH LINE	1833+00 MATCH LINE



CONSTRUCTION METHOD	
CONSTRUCTION METHOD KEY	
5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION	
5 - ROAD X-ING BORED	
7 - RAILROAD X-ING BORED	
9 - WATERBODY X-ING OPEN CUT - FLUME	
12 - HORIZONTAL DIRECTIONAL DRILL (HDD)	
17 - PARALLEL TO POWER LINES	
17 - PARALLEL TO FOREIGN LINES	
25 - ROAD X-ING BORED WITH PARALLEL PIPELINES	
27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES	
29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME	
51 - TYPICAL WATERBODY CONVENTIONAL BORE	

PROFILE	
1779+00	1780+00
1785+00	1790+00
1795+00	1800+00
1805+00	1810+00
1815+00	1820+00
1825+00	1830+00
1833+00	

**ISSUED FOR FERC SUPPLEMENTAL FILING**



REVISIONS	
REV. BY	DATE
P1 TRC	08/13/18
P2 TRC	09/20/18
P3 TRC	11/02/18
P4 TRC	03/26/19
P5 TRC	10/14/19
P6 TRC	

MATERIAL SUMMARY	
MATERIAL	QTY.
5" DIA. X 18" O.D. X 0.296 W.T. X 70' FIBER	5400 LF

APPROVED FOR CONSTRUCTION	
REV. BY	DATE

**Mountain Valley PIPELINE LLC**  
**PIPELINE ALIGNMENT**  
**MVP SOUTHGATE PROJECT - H-650 LINE**  
**ROCKINGHAM COUNTY, NORTH CAROLINA**  
**STA. 1779+00 TO STA. 1833+00**

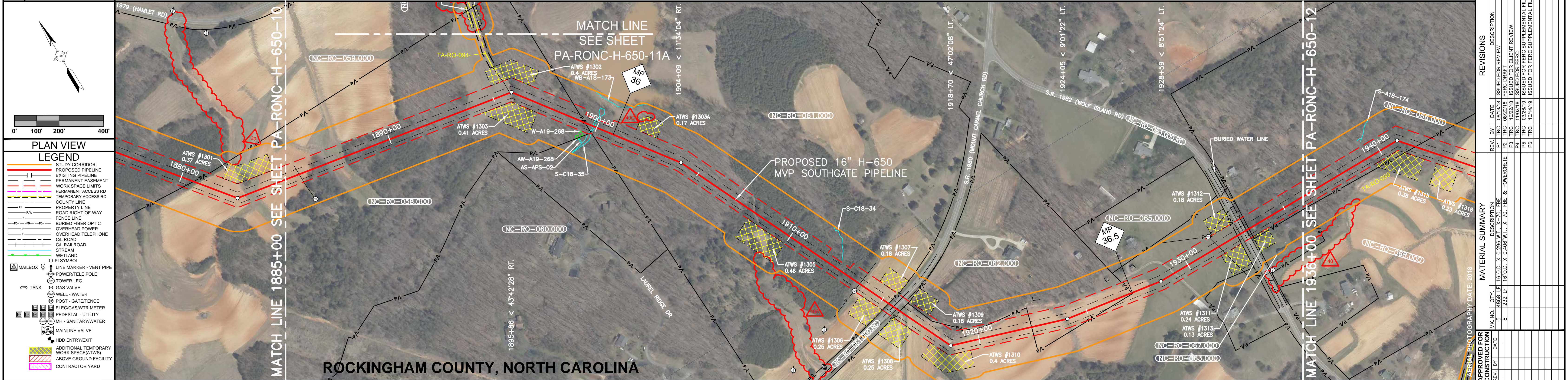
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ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFEP.D.NO.:	
TRC PROJECT NO.:	300423
DRAWING NO.:	
<b>PA-RONC-H-650-09</b>	
SHEET: 37 OF 77	REV. P6
DATE OF PLOT: 10/29/2019 4:43:34 PM	



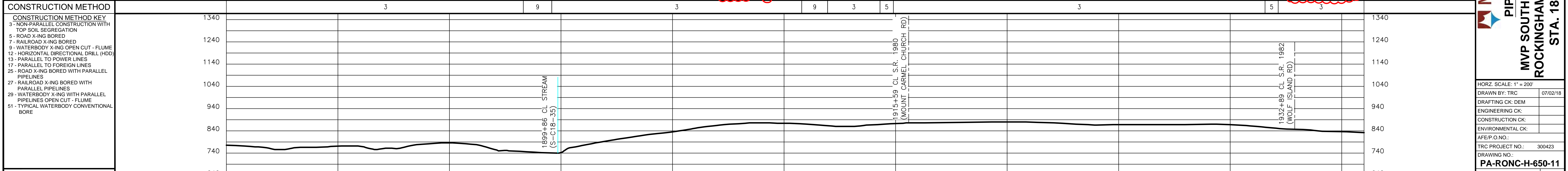
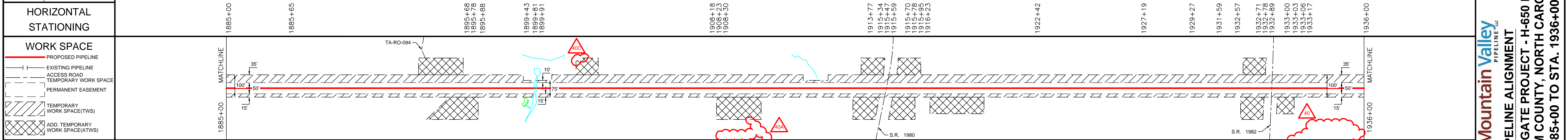




RIGHT-OF-WAY & OWNERSHIP DATA		1885+00	1885+00	1899+43	1904+09 < 11'34.04" RT.	1915+34	1915+42	1916+15	1922+42	1927+19	1932+57	1933+17	1936+00
		1443 LF				1591 LF			647 LF	477 LF	538 LF	60 LF	283 LF
DESIGN		PIPE / COATING											
		SLOPE DISTANCE											
		CLASS LOCATION / HCA											
ENVIRONMENTAL		CONSTRUCTION EXCLUSION											
		WETLAND / STREAM											
		S-C18-35											
		10 LF											



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	PA-RONC-H-650-11A	ACCESS ROAD ALIGNMENT SHEET
<p>1885+00 MATCH LINE</p> <p>1885+65 OVERHEAD POWER LINE</p> <p>1895+68 EDGE OF ROAD</p> <p>1895+78 CL ROAD (DIRT)</p> <p>1895+88 EDGE OF ROAD</p> <p>1899+43 PROPERTY LINE</p> <p>1899+81 BEGIN STREAM (S-C18-35)</p> <p>1899+91 END STREAM (S-C18-35)</p> <p>1908+18 EDGE OF ROAD</p> <p>1908+23 CL ACCESS ROAD (GRAVEL)</p> <p>1908+30 EDGE OF ROAD</p> <p>1913+77 OVERHEAD POWER LINE</p> <p>1915+34 PROPERTY LINE</p> <p>1915+47 EDGE OF ROAD</p> <p>1915+59 (MOUNT CARMEL CHURCH RD)(ASPHALT)</p> <p>1915+78 EDGE OF ROAD</p> <p>1915+78 CL DITCH</p> <p>1915+95 PROPERTY LINE</p> <p>1916+23 CL ACCESS ROAD (DIRT)</p> <p>1922+42 PROPERTY LINE</p> <p>1927+19 PROPERTY LINE</p> <p>1929+27 CL RD (GRAVEL)</p> <p>1931+59 OVERHEAD POWER LINE</p> <p>1932+57 PROPERTY LINE</p> <p>1932+71 CL DITCH</p> <p>1932+78 EDGE OF ROAD</p> <p>1932+89 CL S.R. 1982 (WOLF ISLAND RD)(ASPHALT)</p> <p>1933+00 BURIED WATER LINE</p> <p>1933+03 BURIED WATER LINE</p> <p>1933+06 CL DITCH</p> <p>1933+17 PROPERTY LINE</p> <p>1936+00 MATCH LINE</p>		



CONSTRUCTION METHOD	CONSTRUCTION METHOD KEY	1340	1240	1140	1040	940	840	740	640
	5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION								
	5 - ROAD X-ING BORED								
	7 - RAILROAD X-ING BORED								
	9 - WATERBODY X-ING OPEN CUT - FLUME								
	12 - HORIZONTAL DIRECTIONAL DRILL (HDD)								
	17 - PARALLEL TO POWER LINES								
	25 - ROAD X-ING BORED WITH PARALLEL PIPELINES								
	27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES								
	29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME								
	51 - TYPICAL WATERBODY CONVENTIONAL BORE								

PROFILE	1885+00	1890+00	1895+00	1900+00	1905+00	1910+00	1915+00	1920+00	1925+00	1930+00	1935+00	1936+00
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REVISIONS		REV. BY	DATE	DESCRIPTION
P1	TRC	08/31/18	180818	ISSUED FOR REVIEW
P2	TRC	09/20/18	180920	FERC DRAFT COMMENT REVIEW
P3	TRC	11/02/18	181102	ISSUED FOR FERC
P4	TRC	03/26/19	190326	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	TRC	10/24/19	191024	ISSUED FOR FERC SUPPLEMENTAL FILING
P6	TRC	10/24/19	191024	ISSUED FOR FERC SUPPLEMENTAL FILING

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 1885+00 TO STA. 1936+00**

APPROVED FOR CONSTRUCTION: [Signature]

APPROVED FOR BIDDING: [Signature]

APPROVED FOR FERC: [Signature]

DATE: 07/02/18

DRAWN BY: TRC

ENGINEERING CK: DEM

CONSTRUCTION CK:

ENVIRONMENTAL CK:

TRC PROJECT NO.: 300423

DRAWING NO.: PA-RONC-H-650-11

SHEET: 39 OF 77

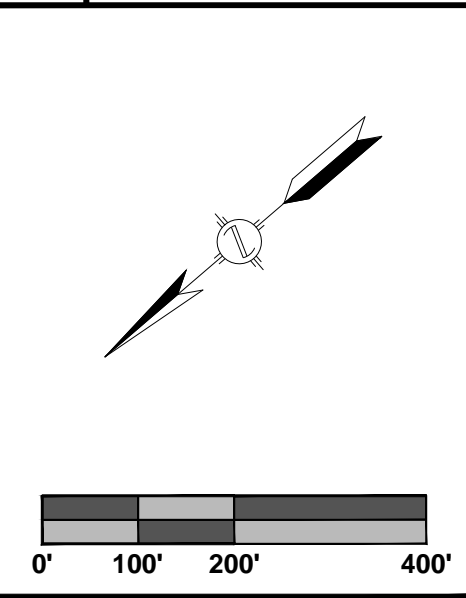
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**RIGHT-OF-WAY & OWNERSHIP DATA**

DESIGN  
 PIPE / COATING  
 SLOPE DISTANCE  
 CLASS LOCATION / HCA

ENVIRONMENTAL  
 CONSTRUCTION EXCLUSION  
 WETLAND / STREAM



**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- PI SYMBOL
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-11	ALIGNMENT SHEET

**HORIZONTAL STATIONING**

**WORK SPACE**

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

**CONSTRUCTION METHOD**

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

**PROFILE**



**ISSUED FOR FERC SUPPLEMENTAL FILING**



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	10/26/2019	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

MARK NO.	QTY.	DESCRIPTION
8	5500 LF	18" O.D. X 0.375 W.T. X-65 FBE

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR BIDDING**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

**Mountain Valley PIPELINE LLC**

**ACCESS ROAD**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**ACCESS ROAD TA-RO-094**

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PO NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: **PA-RONC-H-650-11A**

REV. P1

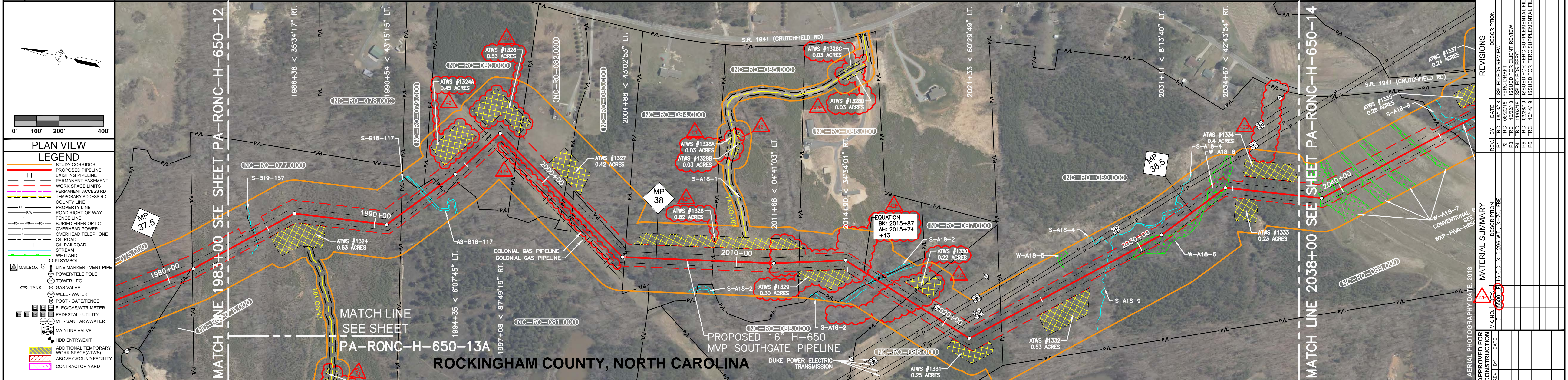
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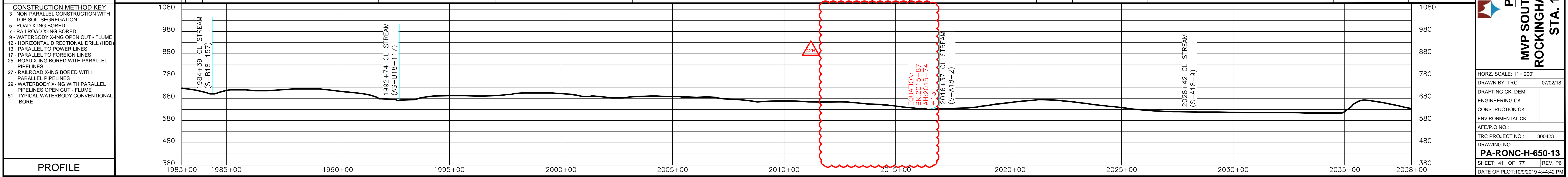
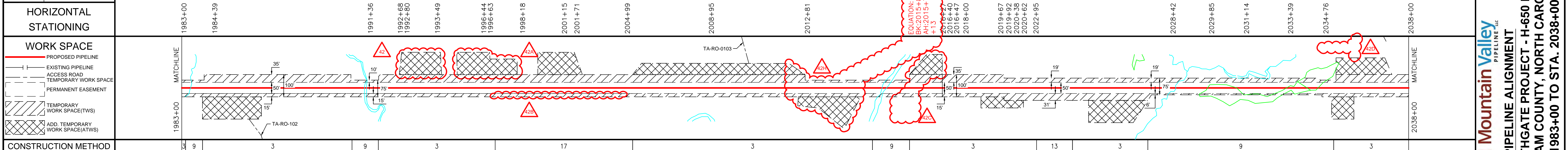




RIGHT-OF-WAY & OWNERSHIP DATA		1983+00	1983+00	1991+36	1993+49	1998+18	2001+15	2001+71	2004+99	2008+95	2012+81	2016+40	2018+00	2022+95	2038+00
		NC-RO-077.000	NC-RO-081.000	NC-RO-080.000	NC-RO-082.000	NC-RO-083.000	NC-RO-081.000	NC-RO-084.000	NC-RO-085.000	NC-RO-086.000	NC-RO-087.000	NC-RO-088.000	NC-RO-089.000		
		836 LF	213 LF	469 LF	297 LF	56 LF	328 LF	396 LF	386 LF	372 LF	160 LF	495 LF	1505 LF		
DESIGN	PIPE / COATING	5													
	SLOPE DISTANCE														
	CLASS LOCATION / HCA	1													
ENVIRONMENTAL	CONSTRUCTION EXCLUSION														
	WETLAND / STREAM	S-B19-157 3 LF		AS-B18-117 12 LF						S-A18-2 20 LF		S-A18-9 3 LF	W-A18-6 130 LF	W-A18-6 138 LF	



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	PA-RONC-H-650-13A	ACCESS ROAD ALIGNMENT SHEET
HORIZONTAL STATIONING	1983+00 MATCH LINE	1984+39 CL STREAM (S-B19-157)
	1991+36 PROPERTY LINE	1992+68 BEGIN STREAM (AS-B18-117)
	1992+80 END STREAM (AS-B18-117)	1993+49 PROPERTY LINE
	1996+44 COLONIAL GAS PIPELINE	1996+63 COLONIAL GAS PIPELINE
	1998+18 PROPERTY LINE	2001+15 PROPERTY LINE
	2001+71 PROPERTY LINE	2004+99 PROPERTY LINE
	2008+95 PROPERTY LINE	2012+81 PROPERTY LINE
	2016+40 PROPERTY LINE	2018+00 PROPERTY LINE
	2019+67 OVERHEAD TRANSMISSION LINE	2019+92 OVERHEAD TRANSMISSION LINE
	2020+38 OVERHEAD TRANSMISSION LINE	2020+62 OVERHEAD TRANSMISSION LINE
	2022+95 PROPERTY LINE	2028+42 CL STREAM (S-A18-9)
	2029+85 BEGIN WETLAND (W-A18-6)	2031+14 END WETLAND (W-A18-6)
	2033+39 BEGIN WETLAND (W-A18-6)	2034+76 END WETLAND (W-A18-6)
	2038+00 MATCH LINE	



REV. NO.	DATE	DESCRIPTION
P1	08/13/18	ISSUED FOR REVIEW
P2	09/20/18	FERC DRAFT SUPPLEMENTAL FILING
P3	11/02/18	ISSUED FOR FERC
P4	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	07/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P6		

REV. NO.	DATE	DESCRIPTION
5	05/08/20	MATERIAL SUMMARY
6	05/08/20	MATERIAL SUMMARY

APPROVED FOR CONSTRUCTION	DATE

APPROVED FOR BIDDING	DATE

APPROVED FOR FERC	DATE

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 1983+00 TO STA. 2038+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/P.O. NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: PA-RONC-H-650-13

SHEET: 41 OF 77 REV. P6

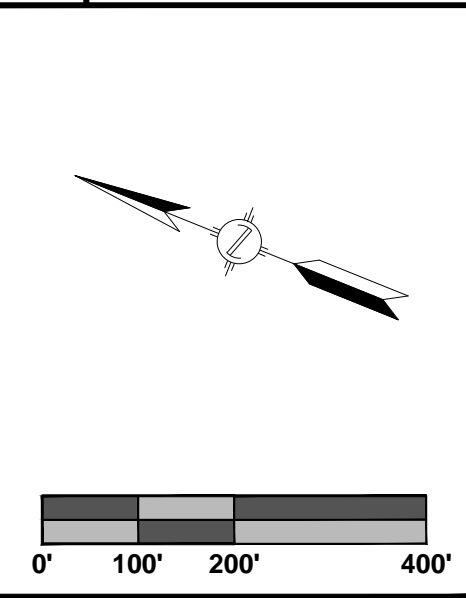
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**RIGHT-OF-WAY & OWNERSHIP DATA**

DESIGN  
 PIPE / COATING  
 SLOPE DISTANCE  
 CLASS LOCATION / HCA

ENVIRONMENTAL  
 CONSTRUCTION EXCLUSION  
 WETLAND / STREAM



**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD



ROCKINGHAM COUNTY, NORTH CAROLINA

**ISSUED FOR FERC SUPPLEMENTAL FILING**

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-13	ALIGNMENT SHEET

**HORIZONTAL STATIONING**

**WORK SPACE**

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

**CONSTRUCTION METHOD**

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

**PROFILE**



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	10/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

DESCRIPTION	QTY.

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR BIDDING**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

**Mountain Valley PIPELINE LLC**

**ACCESS ROAD**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**ACCESS ROAD TA-RO-102**

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PO NO.:

TRC PROJECT NO.: 300423

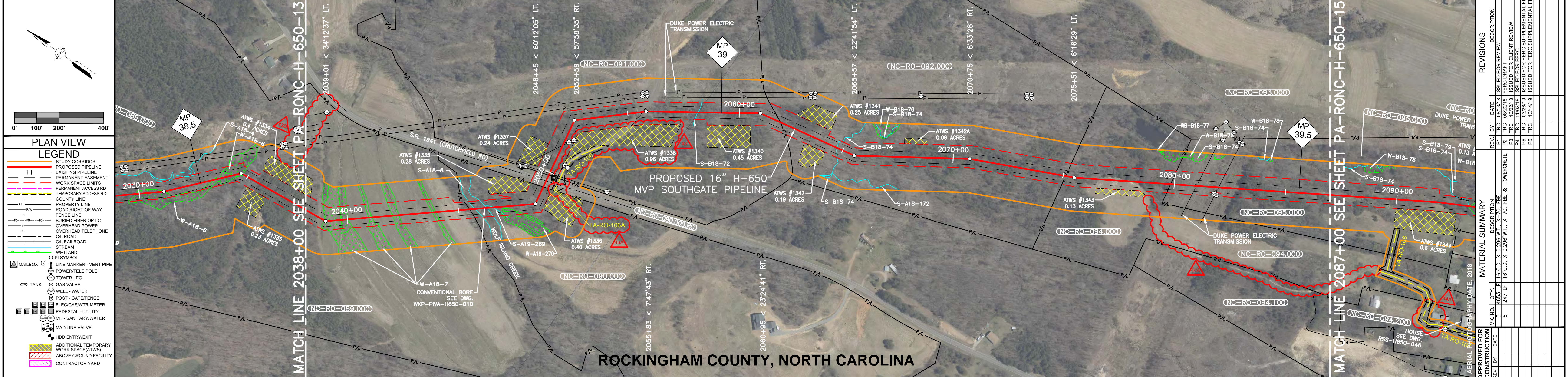
DRAWING NO.: PA-RONC-H-650-13A

REV. P1

DATE OF PLOT: 10/30/19 8:34:13 AM



RIGHT-OF-WAY & OWNERSHIP DATA		2038+00	2045+43	2049+29	2050+30	2061+94	2075+12	2079+84	2087+00
		NC-RO-089.000	NC-RO-090.000	NC-RO-090.000.RC S. R. 1941 (CRUTCHFIELD RD)	NC-RO-091.000	NC-RO-092.000	NC-RO-094.000	NC-RO-095.000	
		749 LF	380 LF	58 LF	1207 LF	1318 LF	472 LF	716 LF	
DESIGN	PIPE / COATING	5	6	5	6	5			
SLOPE DISTANCE									
CLASS LOCATION / HCA		2				1			2
ENVIRONMENTAL	CONSTRUCTION EXCLUSION								
WETLAND / STREAM		W-A18-7 110 LF	W-A18-7 17 LF	W-A18-7 28 LF	W-A18-7 16 LF	S-A18-8 53 LF	S-A19-269 2 LF	S-B18-72 2 LF	S-B18-74 4 LF



**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

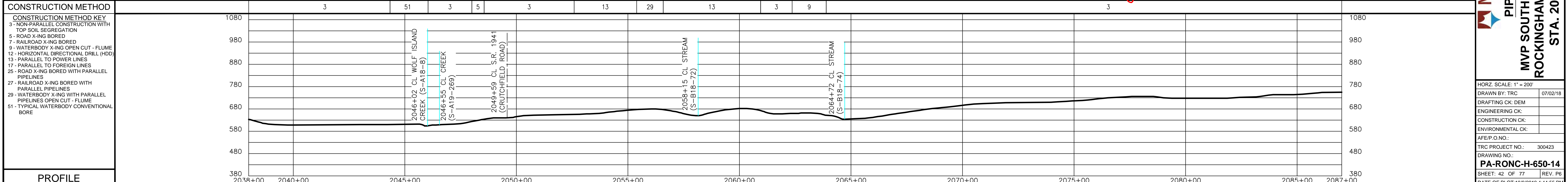
**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
WXP-RO-NC-095-010	WOLF ISLAND CREEK CONVENTIONAL BORE
MVP-51	WATERBODY CONVENTIONAL BORE

**HORIZONTAL STATIONING**

**WORK SPACE**

2038+00	2038+66	2038+73	2038+80	2040+04	2040+94	2041+11	2042+02	2042+30	2043+81	2043+97	2045+49	2045+74	2046+27	2046+55	2049+29	2049+49	2049+59	2049+69	2049+87	2049+96	2051+34	2055+61	2055+68	2055+75	2058+15	2061+94	2064+72	2075+12	2079+84	2081+00	2081+99	2087+00
MATCHLINE	EDGE OF ROAD	EDGE OF ROAD	EDGE OF ROAD	BEGIN WETLAND (W-A18-7)	BEGIN WETLAND (W-A18-7)	END WETLAND (W-A18-7)	BEGIN WETLAND (W-A18-7)	END WETLAND (W-A18-7)	BEGIN WETLAND (W-A18-7)	END WETLAND (W-A18-7)	PROPERTY LINE	BEGIN WOLF ISLAND CREEK (S-A18-8)	END WOLF ISLAND CREEK (S-A18-8)	CL STREAM (S-A18-8)	PROPERTY LINE	EDGE OF ROAD	EDGE OF ROAD	EDGE OF ROAD	EDGE OF ROAD	PROPERTY LINE	OVERHEAD POWER LINE	OVERHEAD POWER LINE	EDGE OF ROAD	EDGE OF ROAD	CL STREAM (S-B18-72)	PROPERTY LINE	CL STREAM (S-B18-74)	PROPERTY LINE	PROPERTY LINE	OVERHEAD TRANSMISSION LINE	OVERHEAD TRANSMISSION LINE	MATCHLINE



**PROFILE**

2038+00 2040+00 2045+00 2050+00 2055+00 2060+00 2065+00 2070+00 2075+00 2080+00 2085+00 2087+00

**ISSUED FOR FERC SUPPLEMENTAL FILING**

**TRC**  
Results you can rely on

**REVISIONS**

REV. NO.	DATE	DESCRIPTION
P1	08/31/18	ISSUED FOR REVIEW
P2	09/20/18	FERC DRAFT COMMENT REVIEW
P3	11/02/18	ISSUED FOR FERC
P5	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P6	10/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

QTY.	DESCRIPTION
5	18" O.D. X 0.296" W.T. X-70. FBE
6	24" LF 18" O.D. X 0.296" W.T. X-70. FBE & POWERGRITE
247	LF 18" O.D. X 0.296" W.T. X-70. FBE & POWERGRITE

**APPROVED FOR CONSTRUCTION**

**APPROVED FOR BIDDING**

**APPROVED FOR FERC**

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 2038+00 TO STA. 2087+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

A/E/P O.N.O.:

TRC PROJECT NO.: 300423

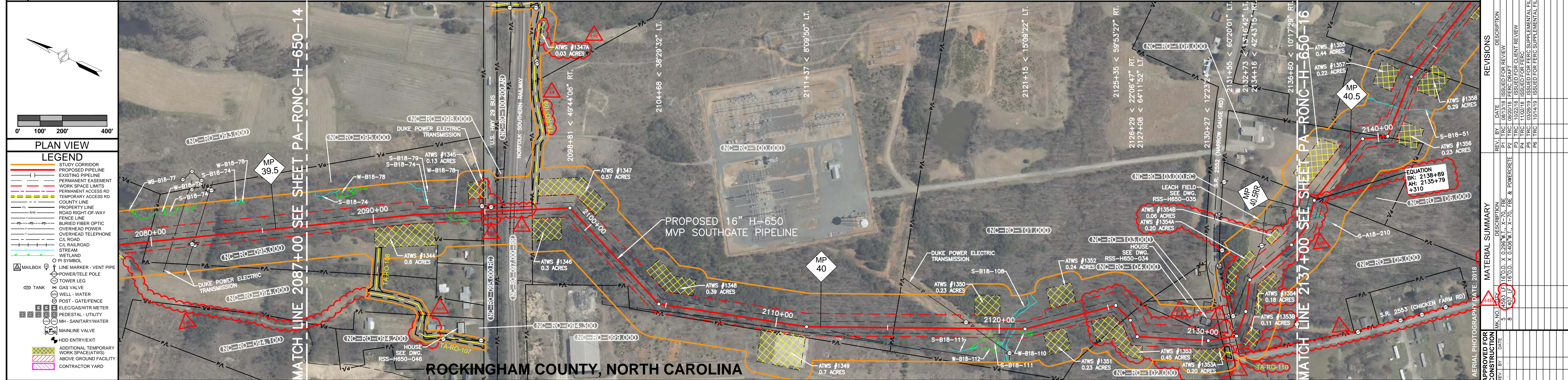
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SHEET: 42 OF 77 REV. P6

DATE OF PLOT: 10/9/2019 4:44:55 PM



RIGHT-OF-WAY & OWNERSHIP DATA		2087+00	2094+95	2095+55	2095+79	2097+12	2115+29	2126+06	2130+44	2130+88	2131+47	2137+00
PIPE / COATING		5		8			5			8		5
SLOPE DISTANCE												
CLASS LOCATION / HCA				2			1			2		
CONSTRUCTION EXCLUSION												
WETLAND / STREAM			S-B18-74 4 LF	W-B18-78 56 LF						S-B18-108 27 LF		



REVISIONS	NO.	DATE	DESCRIPTION
	P1	08/03/18	ISSUED FOR REVIEW
	P2	08/20/18	FERC DRAFT SUPPLEMENTAL FILING REVIEW
	P3	11/02/18	ISSUED FOR FERC
	P5	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
	P6	10/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	DATE	DESCRIPTION
	09/10/18	X 0.296 W.T. X-70, FBE
	10/17/18	16" O.D. X 0.408 W.T. X-70, FBE & POWER CONCRETE

APPROVED FOR BIDDING	DATE	DESCRIPTION
	09/10/18	X 0.296 W.T. X-70, FBE
	10/17/18	16" O.D. X 0.408 W.T. X-70, FBE & POWER CONCRETE

APPROVED FOR FERC	DATE	DESCRIPTION
	09/10/18	X 0.296 W.T. X-70, FBE
	10/17/18	16" O.D. X 0.408 W.T. X-70, FBE & POWER CONCRETE

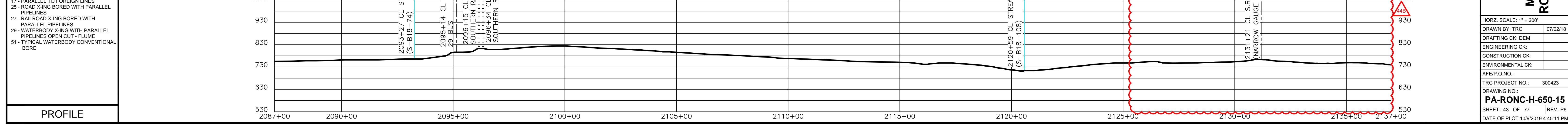
APPROVED FOR FERC SUPPLEMENTAL FILING	DATE	DESCRIPTION
	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
	10/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING

REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	RSS-H650-034	RESIDENTIAL SITE SPECIFIC
	RSS-H650-035	RESIDENTIAL SITE SPECIFIC
	RSS-H650-046	RESIDENTIAL SITE SPECIFIC

HORIZONTAL STATIONING	2087+00	2090+00	2095+00	2100+00	2105+00	2110+00	2115+00	2120+00	2125+00	2130+00	2137+00
2093+27 CL STREAM (S-B18-74)											
2093+29 BEGIN WETLAND (W-B18-78)											
2093+85 END WETLAND (W-B18-78)											
2094+87 OVERHEAD POWER LINE											
2095+05 EDGE OF ROAD											
2095+14 CL U.S. HWY 29 BUS (ASPHALT)											
2095+25 EDGE OF ROAD											
2095+55 PROPERTY LINE											
2096+19 CL NORFOLK SOUTHERN RAILWAY											
2096+34 CL NORFOLK SOUTHERN RAILWAY											
2096+75 CL ACCESS RD											
2097+12 PROPERTY LINE											
2115+29 PROPERTY LINE											
2118+93 OVERHEAD POWER LINE											
2120+45 BEGIN STREAM (S-B18-108)											
2120+72 END STREAM (S-B18-108)											
2126+08 PROPERTY LINE											
2130+78 PROPERTY LINE											
2130+88 PROPERTY LINE											
2131+21 GAUGE RD (NARROW)											
2131+47 PROPERTY LINE											

WORK SPACE	2087+00	2090+00	2095+00	2100+00	2105+00	2110+00	2115+00	2120+00	2125+00	2130+00	2137+00
PROPOSED PIPELINE											
EXISTING PIPELINE											
ACCESS ROAD											
TEMPORARY WORK SPACE											
PERMANENT EASEMENT											
TEMPORARY WORK SPACE (TWS)											
ADD. TEMPORARY WORK SPACE (ATWS)											

CONSTRUCTION METHOD	2087+00	2090+00	2095+00	2100+00	2105+00	2110+00	2115+00	2120+00	2125+00	2130+00	2137+00
CONSTRUCTION METHOD KEY											
5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION											
5 - ROAD X-ING BORED											
7 - RAILROAD X-ING BORED											
9 - WATERBODY X-ING OPEN CUT - FLUME											
12 - HORIZONTAL DIRECTIONAL DRILL (HDD)											
13 - PARALLEL TO POWER LINES											
17 - PARALLEL TO FOREIGN LINES											
25 - ROAD X-ING BORED WITH PARALLEL PIPELINES											
27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES											
29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME											
51 - TYPICAL WATERBODY CONVENTIONAL BORE											

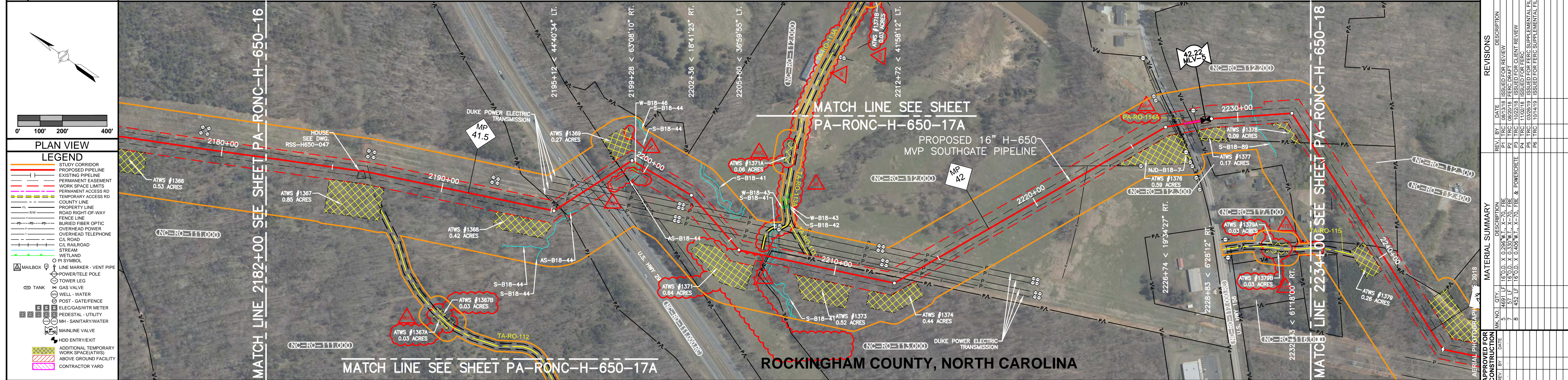








RIGHT-OF-WAY & OWNERSHIP DATA	2182+00	2195+00	2195+38	2198+53	2198+59	2206+97	2213+14	2227+25	2227+97	2234+00
DESIGN	PIPE / COATING	5	8	8	5	8	7	5		
ENVIRONMENTAL	CONSTRUCTION EXCLUSION									
	WETLAND / STREAM		W-B18-46 6 LF	S-B18-44 3 LF	S-B18-41 20 LF		S-B18-89 1 LF			



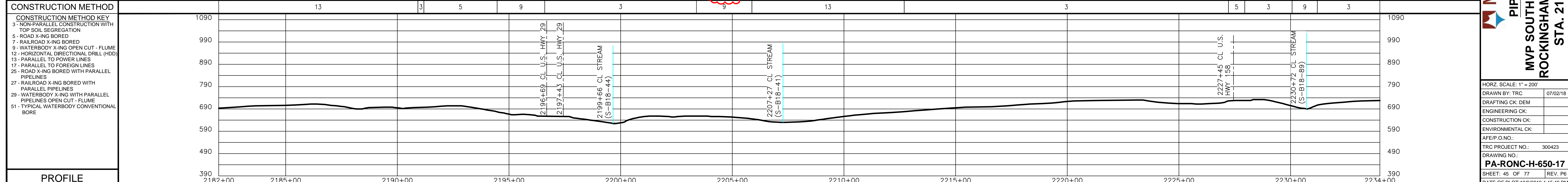
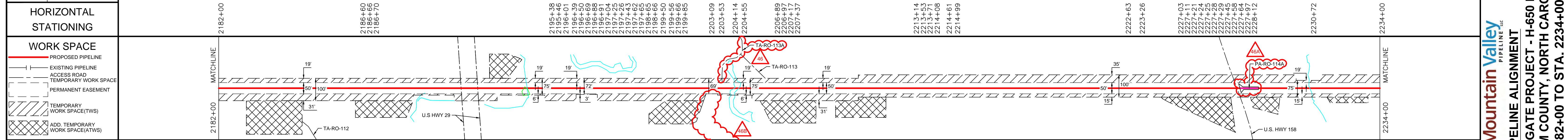
**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
X.X.XXXX-110-01	PROPOSED MAIN LINE VALVE PLAN
PA-RONC-H-650-17A	ACCESS ROAD ALIGNMENT SHEET
RSS-H650-047	RESIDENTIAL SITE SPECIFIC



**ISSUED FOR FERC SUPPLEMENTAL FILING**



**REVISIONS**

REV. NO.	DATE	DESCRIPTION
1	08/31/18	ISSUED FOR REVIEW
2	09/20/18	FERC DRAFT SUPPLEMENTAL FILING REVIEW
3	11/02/18	ISSUED FOR FERC
4	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
5	10/14/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

QTY.	DESCRIPTION
4691 LF	18" O.D. X 0.296 W.T. X-70 FBE
57 LF	18" O.D. X 0.300 W.T. X-70 FBE
428 LF	10" O.D. X 0.408 W.T. X-70 FBE & POWERGRATE

**APPROVED FOR CONSTRUCTION**

**APPROVED FOR BIDDING**

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 2182+00 TO STA. 2234+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/P.O.NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: PA-RONC-H-650-17

SHEET: 45 OF 77 REV. P6

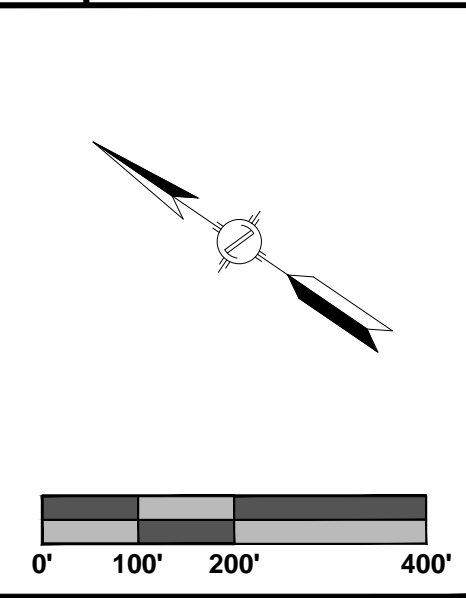
DATE OF PLOT: 10/29/2019 4:45:49 PM



RIGHT-OF-WAY & OWNERSHIP DATA

DESIGN

ENVIRONMENTAL



**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-17	ALIGNMENT SHEET
RSS-H650-048	RESIDENTIAL SITE SPECIFIC

HORIZONTAL STATIONING

**WORK SPACE**

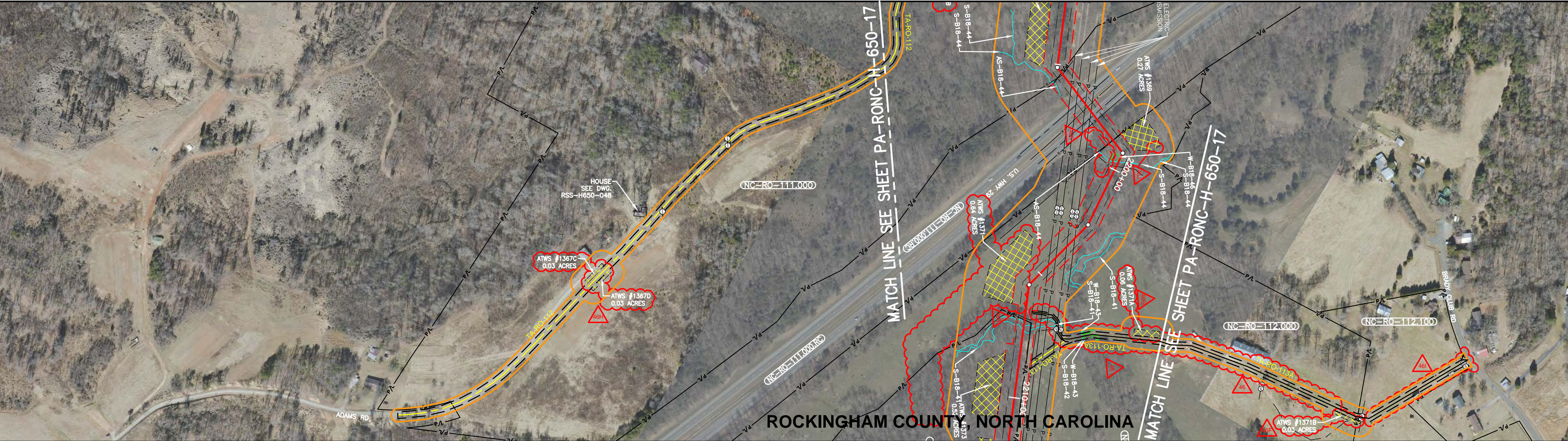
- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

**CONSTRUCTION METHOD**

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

PROFILE



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	10/20/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

DESCRIPTION	QTY.

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

**Mountain Valley PIPELINE LLC**

**ACCESS ROAD**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**ACCESS ROADS TA-RO-112 & 113A**

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PO NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: PA-RONC-H-650-17A

REV. P1

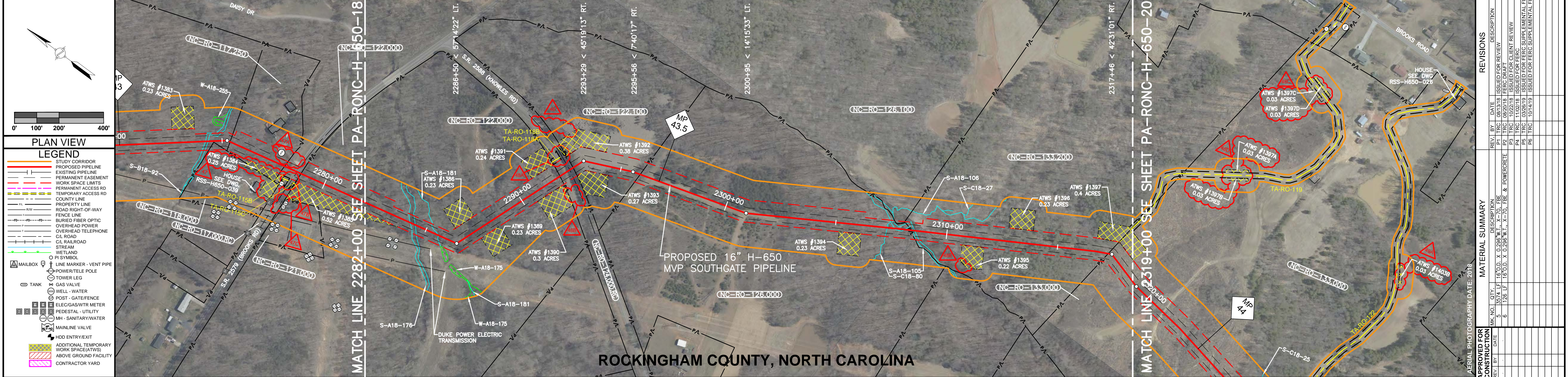
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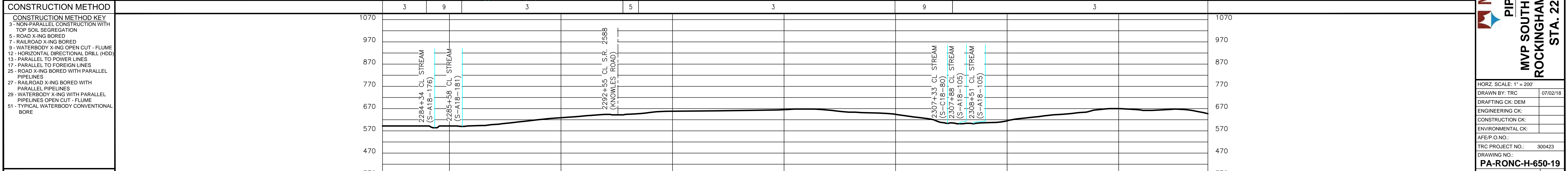
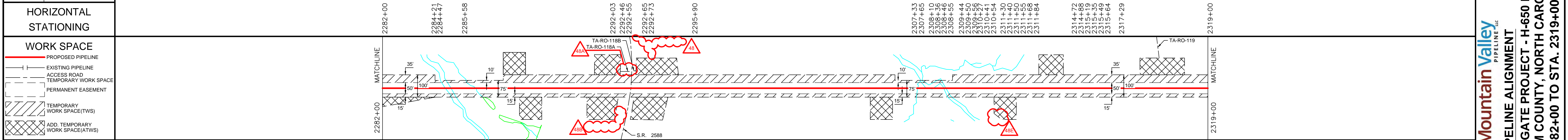




RIGHT-OF-WAY & OWNERSHIP DATA		2282+00	NC-RO-122.000	NC-RO-124.000, RC S.R. 2588 (KNOWLES RD)	NC-RO-122.100	NC-RO-126.000	NC-RO-133.200	NC-RO-133.000	2319+00
			1003 LF	70 LF	317 LF	1246 LF	893 LF	171 LF	
DESIGN	PIPE / COATING	2282+00	5	2295+03	6	2295+90	5	2317+29	2319+00
	SLOPE DISTANCE								
ENVIRONMENTAL		CONSTRUCTION EXCLUSION		2		1			
		WETLAND / STREAM		S-A18-176	S-A18-181	S-C18-80	S-A18-105	S-A18-105	
				26 LF	2 LF	4 LF	45 LF	9 LF	



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	RSS-H650-026	RESIDENTIAL SITE SPECIFIC
<p style="text-align: center;"><b>ISSUED FOR FERC SUPPLEMENTAL FILING</b></p>		
<p style="text-align: center;">MOUNTAIN VALLEY PIPELINE LLC PIPELINE ALIGNMENT MVP SOUTHGATE PROJECT - H-650 LINE ROCKINGHAM COUNTY, NORTH CAROLINA STA. 2282+00 TO STA. 2319+00</p>		



CONSTRUCTION METHOD	CONSTRUCTION METHOD KEY
	5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
	5 - ROAD X-ING BORED
	7 - RAILROAD X-ING BORED
	9 - WATERBODY X-ING OPEN CUT - FLUME
	12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
	13 - PARALLEL TO POWER LINES
	17 - PARALLEL TO FOREIGN LINES
	25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
	27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
	29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME
	51 - TYPICAL WATERBODY CONVENTIONAL BORE

PROFILE	2282+00	2285+00	2290+00	2295+00	2300+00	2305+00	2310+00	2315+00	2319+00
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REV. BY	DATE	DESCRIPTION
P1	08/31/18	ISSUED FOR REVIEW
P2	09/20/18	FERC DRAFT SUPPLEMENTAL FILING REVIEW
P3	11/02/18	ISSUED FOR FERC
P4	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	10/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	DATE

APPROVED FOR BIDDING	DATE

APPROVED FOR FERC	DATE

AERIAL PHOTOGRAPHY DATE: 2018  
 HORIZ. SCALE: 1" = 200'  
 DRAWN BY: TRC  
 07/02/18  
 DRAFTING CK: DEM  
 ENGINEERING CK:  
 CONSTRUCTION CK:  
 ENVIRONMENTAL CK:  
 AFE/P.O. NO.:  
 TRC PROJECT NO.: 300423  
 DRAWING NO.:  
**PA-RONC-H-650-19**  
 SHEET: 47 OF 77  
 REV. P6  
 DATE OF PLOT: 10/9/2019 4:46:23 PM

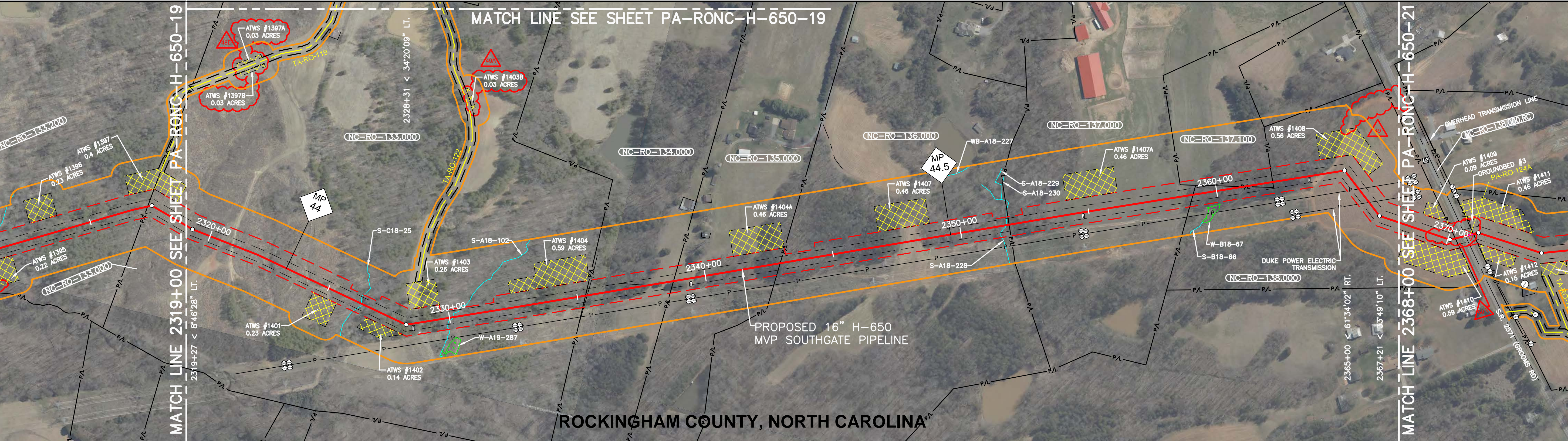


RIGHT-OF-WAY & OWNERSHIP DATA		2319+00	1632 LF	2335+32	344 LF	2338+76	417 LF	2342+93	896 LF	2351+89	719 LF	2359+08	200 LF	2361+08	111 LF	2362+19	581 LF	2368+00
DESIGN	PIPE / COATING																	
	SLOPE DISTANCE	5																
ENVIRONMENTAL	CONSTRUCTION EXCLUSION																	
	WETLAND / STREAM	S-C18-25	4 LF	S-A18-102	3 LF											S-A18-228	5 LF	

**PLAN VIEW**

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATEFENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE (ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD



**REVISIONS**

REV. NO.	DATE	DESCRIPTION
P1	08/13/18	ISSUED FOR REVIEW
P2	09/20/18	FERC DRAFTER CLIENT REVIEW
P3	11/02/18	ISSUED FOR FERC
P4	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	07/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P6	10/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

MARKING	QTY.	DESCRIPTION
5	4800 LF	X 0.256 W.T. X-70 FBE

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE	DESCRIPTION

**APPROVED FOR BIDDING**

REV. BY	DATE	DESCRIPTION

**APPROVED FOR FERC**

REV. BY	DATE	DESCRIPTION

**REFERENCE DRAWINGS**

DRAWING NO.	DESCRIPTION

**ISSUED FOR FERC SUPPLEMENTAL FILING**

**HORIZONTAL STATIONING**

2319+00 MATCH LINE

2320+50 EDGE OF ROAD  
2320+56 CL ROAD (DRT)  
2320+61 EDGE OF ROAD  
2320+91 EDGE OF ROAD  
2321+03 EDGE OF ROAD

2324+14 EDGE OF ROAD  
2324+18 CL ROAD (DRT)  
2324+23 EDGE OF ROAD

2326+39 CL STREAM (S-C18-25)

2328+59 SSD 1 START MITIGATOR - SECTION 1

2328+88 EDGE OF ROAD  
2328+94 CL ACCESS RD  
2329+00 EDGE OF ROAD

2330+17 CL STREAM (S-A18-102)

2335+32 PROPERTY LINE  
2335+38 FENCE, BARBED WIRE

2338+76 PROPERTY LINE

2339+70 SOLID-STATE DECOUPLER 2

2342+93 PROPERTY LINE

2351+77 CL STREAM (S-A18-228)  
2351+89 PROPERTY LINE

2354+77 SOLID-STATE DECOUPLER 3

2359+08 PROPERTY LINE

2361+08 PROPERTY LINE

2362+19 PROPERTY LINE

2363+60 SSD 4 END MITIGATOR - SECTION 1

2364+18 EDGE OF ROAD  
2364+27 CL ACCESS RD (GRASS)  
2364+35 EDGE OF ROAD

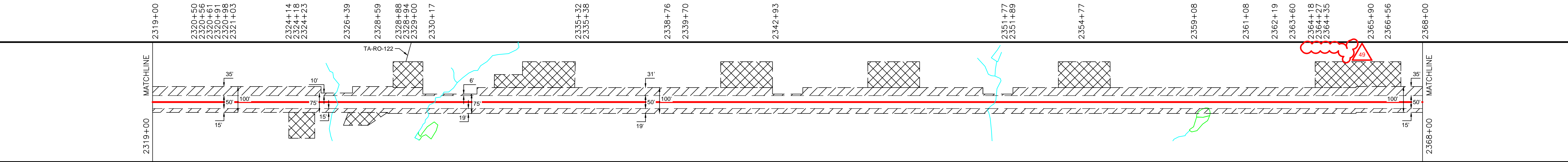
2365+90 OVERHEAD TRANSMISSION LINE

2366+56 OVERHEAD TRANSMISSION LINE

2368+00 MATCH LINE

**WORK SPACE**

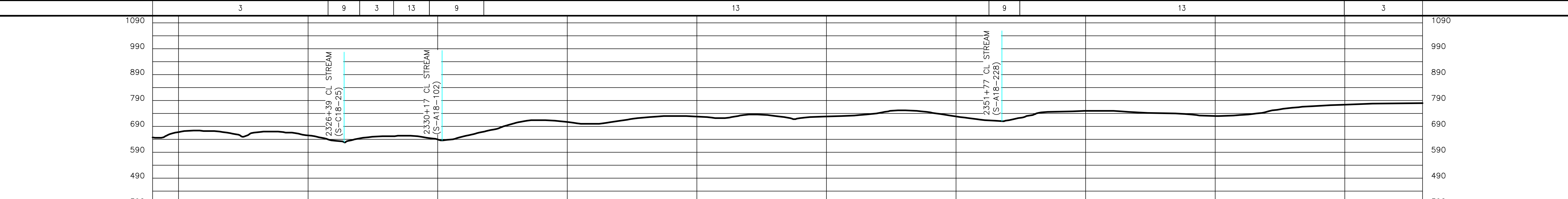
- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE (TWS)
- ADD. TEMPORARY WORK SPACE (ATWS)



**CONSTRUCTION METHOD**

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 7 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 17 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME
- 51 - TYPICAL WATERBODY CONVENTIONAL BORE



**TRC**  
Results you can rely on

**Mountain Valley**  
PIPELINE LLC

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

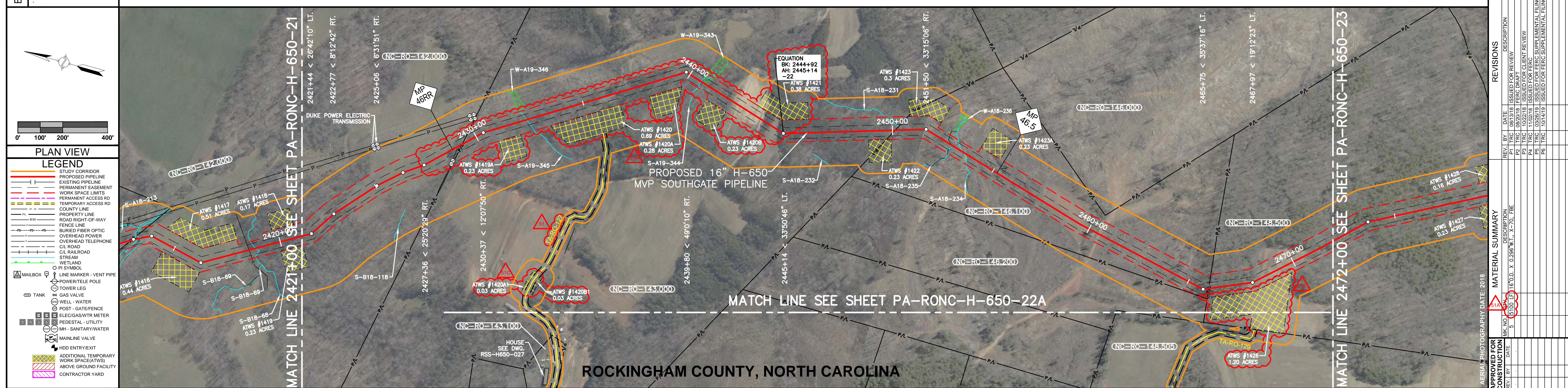
**STA. 2319+00 TO STA. 2368+00**



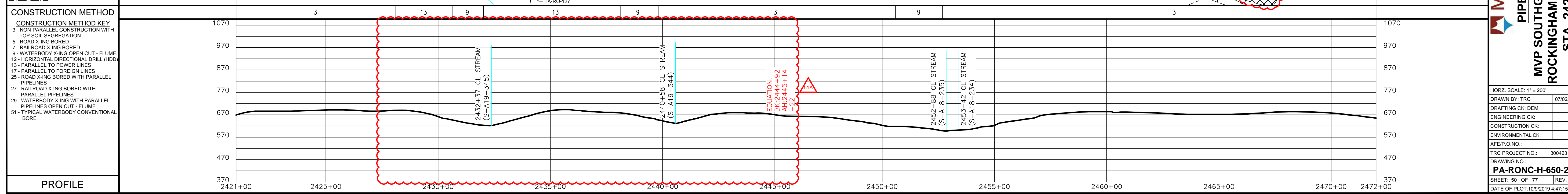
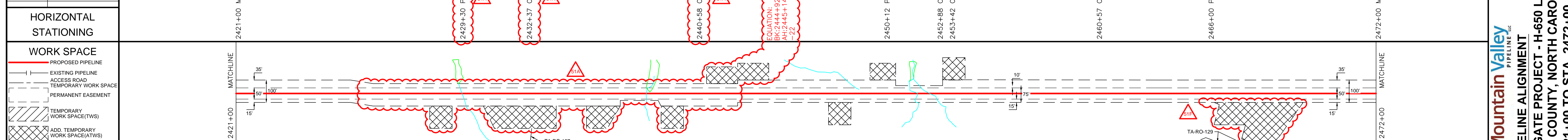




RIGHT-OF-WAY & OWNERSHIP DATA		NC-RO-142.000	NC-RO-143.000	NC-RO-146.100.AR	NC-RO-148.500
DESIGN		PIPE / COATING	5		
		SLOPE DISTANCE	1		
		CLASS LOCATION / HCA			
ENVIRONMENTAL		CONSTRUCTION EXCLUSION			
		WETLAND / STREAM	S-A19-345 3 LF	S-A19-344 2 LF	S-A18-235 3 LF    S-A18-234 2 LF



REFERENCE DRAWINGS	DRAWING NO.    DESCRIPTION PA-RONC-H-650-22A    ACCESS ROAD ALIGNMENT SHEET RSS-H650-027    RESIDENTIAL SITE SPECIFIC
HORIZONTAL STATIONING	2421+00 MATCH LINE 2429+50 PROPERTY LINE 2432+37 CL STREAM (S-A19-345) 2440+58 CL STREAM (S-A19-344) 2450+12 PROPERTY LINE 2452+88 CL STREAM (S-A18-235) 2453+42 CL STREAM (S-A18-234) 2460+57 CL ROAD (GRASS) 2466+00 PROPERTY LINE 2472+00 MATCH LINE



**ISSUED FOR FERC SUPPLEMENTAL FILING**



REVISIONS	
REV. BY	DATE
P1	08/03/19
P2	08/05/19
P3	11/02/19
P4	03/05/19
P5	10/14/19
P6	

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 2421+00 TO STA. 2472+00**

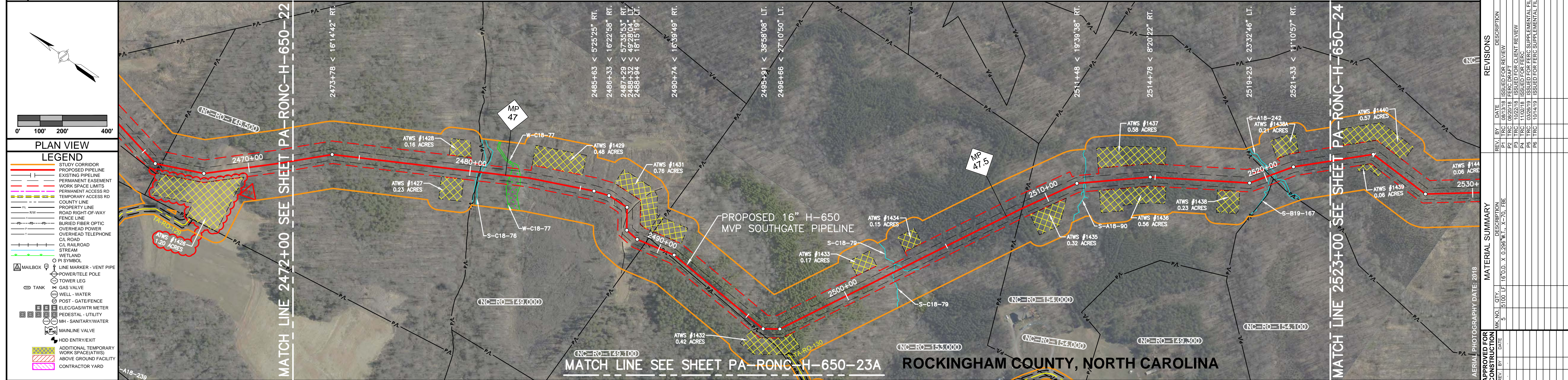
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 DRAWN BY: TRC    07/02/18  
 DRAFTING CK: DEM  
 ENGINEERING CK:  
 CONSTRUCTION CK:  
 ENVIRONMENTAL CK:  
 AFE/P.O. NO.:  
 TRC PROJECT NO.: 300423  
 DRAWING NO.:  
**PA-RONC-H-650-22**  
 SHEET: 50 OF 77    REV. P6  
 DATE OF PLOT: 10/29/2019 4:47:15 PM





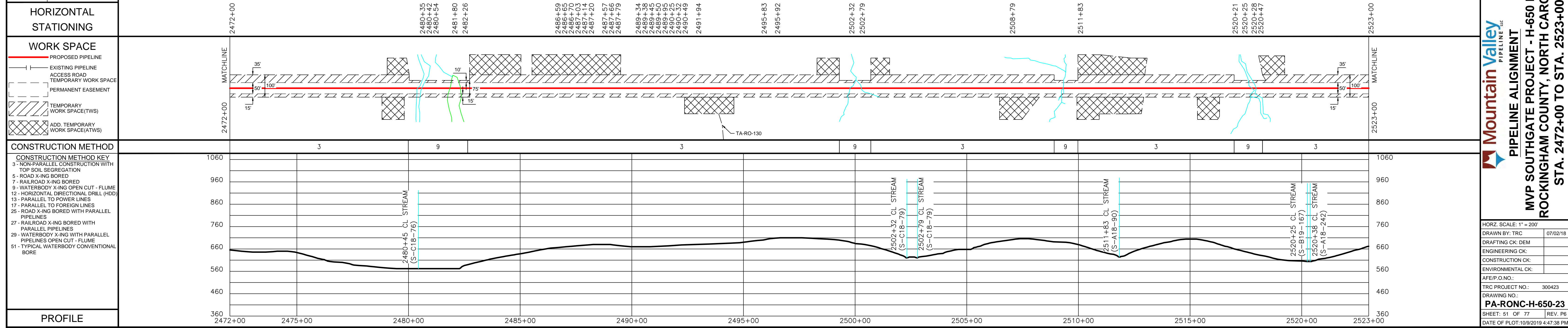


RIGHT-OF-WAY & OWNERSHIP DATA		NC-RO-148.500	NC-RO-149.000	NC-RO-149.100	NC-RO-153.000	NC-RO-154.000	NC-RO-155.000	
		842 LF	892 LF	91 LF	1854 LF	1142 LF	279 LF	
DESIGN	PIPE / COATING	5						
	SLOPE DISTANCE	1						
	CLASS LOCATION / HCA							
ENVIRONMENTAL	CONSTRUCTION EXCLUSION							
	WETLAND / STREAM	S-C18-76 19 LF	W-C18-77 46 LF		S-C18-79 2 LF	S-C18-79 2 LF	S-C18-90 2 LF	S-B19-167 3 LF



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	PA-RONC-H-650-23A	ACCESS ROAD ALIGNMENT SHEET
HORIZONTAL STATIONING	2472+00 MATCH LINE	2523+00 MATCH LINE
WORK SPACE	2472+00	2523+00
CONSTRUCTION METHOD	3	9
PROFILE	1060	360

ISSUED FOR FERC SUPPLEMENTAL FILING



**TRC**  
Results you can rely on

REV. NO.	DATE	DESCRIPTION
P1	08/13/18	ISSUED FOR REVIEW
P2	09/20/18	FERC DRAFT SUPPLEMENTAL FILING REVIEW
P3	11/02/18	ISSUED FOR FERC
P4	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	07/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P6	10/24/19	ISSUED FOR FERC SUPPLEMENTAL FILING

AERIAL PHOTOGRAPHY DATE: 2016

APPROVED FOR CONSTRUCTION	DATE

APPROVED FOR BIDDING	DATE

**Mountain Valley**  
PIPELINE LLC

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 2472+00 TO STA. 2523+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC      07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/P.O. NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: **PA-RONC-H-650-23**

SHEET: 51 OF 77      REV. P6

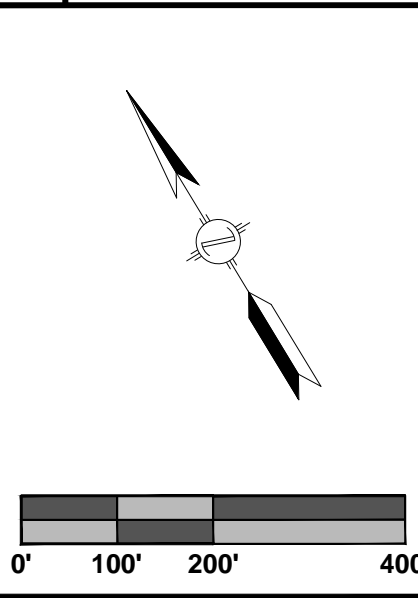
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RIGHT-OF-WAY & OWNERSHIP DATA

DESIGN  
PIPE / COATING  
SLOPE DISTANCE  
CLASS LOCATION / HCA

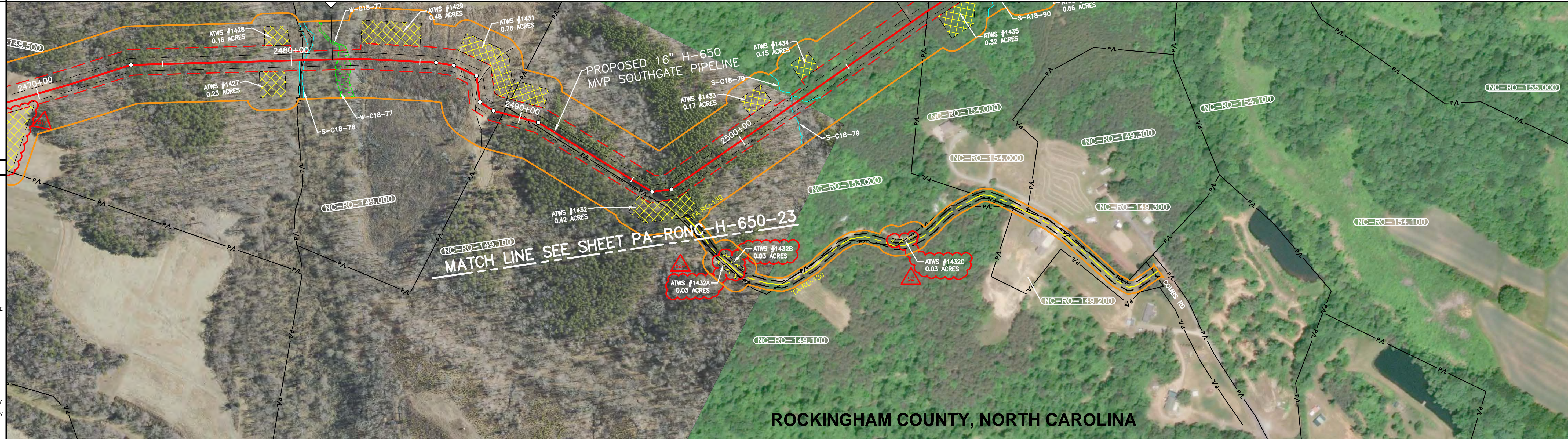
ENVIRONMENTAL  
CONSTRUCTION EXCLUSION  
WETLAND / STREAM



PLAN VIEW

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD



REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-23	ALIGNMENT SHEET

HORIZONTAL STATIONING

WORK SPACE

- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

CONSTRUCTION METHOD

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

PROFILE



**REVISIONS**

REV. BY	DATE	DESCRIPTION
P1	10/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING

**MATERIAL SUMMARY**

DESCRIPTION	QTY.

**APPROVED FOR CONSTRUCTION**

REV. BY	DATE

**APPROVED FOR BIDDING**

REV. BY	DATE

**APPROVED FOR FERC**

REV. BY	DATE

ISSUED FOR FERC SUPPLEMENTAL FILING

**Mountain Valley PIPELINE LLC**

ACCESS ROAD

MVP SOUTHGATE PROJECT - H-650 LINE

ROCKINGHAM COUNTY, NORTH CAROLINA

ACCESS ROAD TA-RO-130

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PO NO.:

TRC PROJECT NO.: 300423

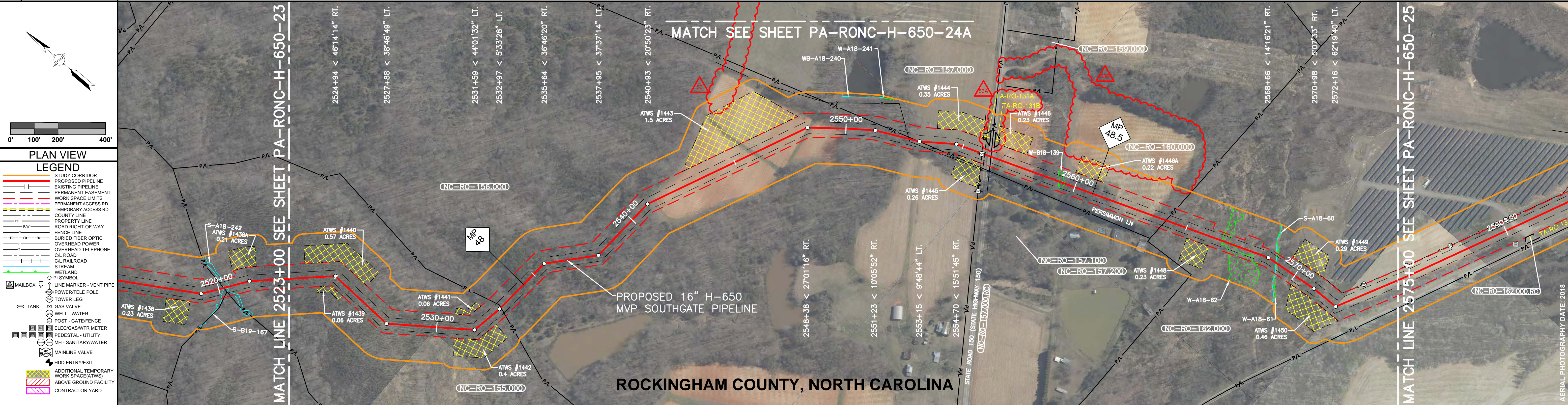
DRAWING NO.: PA-RONC-H-650-23A

REV. P1

DATE OF PLOT: 10/30/19 8:35:42 AM

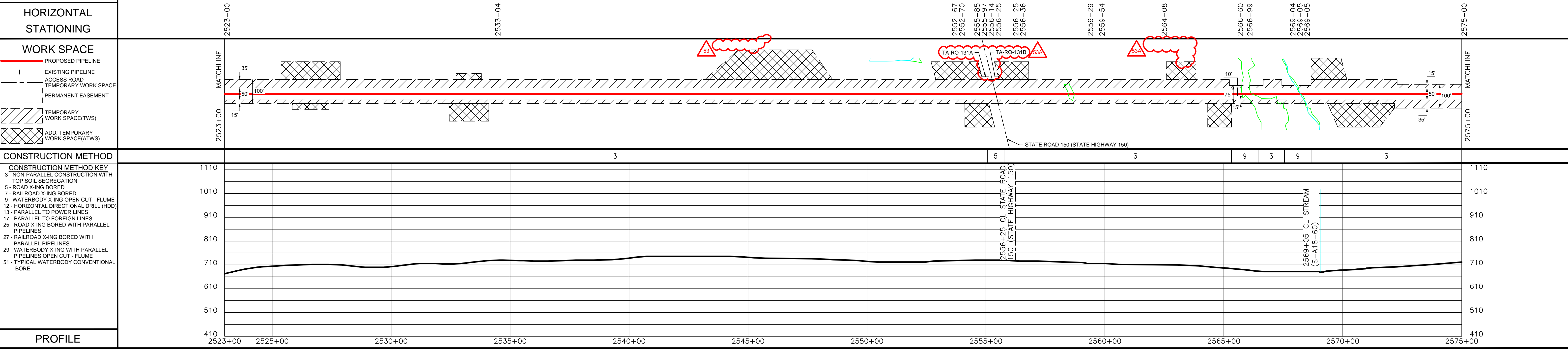


RIGHT-OF-WAY & OWNERSHIP DATA		NC-RO-155.000	NC-RO-156.000	NC-RO-157.000	NC-RO-157.000	NC-RO-160.000	NC-RO-162.000	
DESIGN		PIPE / COATING	1004 LF	5	358 LF	783 LF	1092 LF	
ENVIRONMENTAL		SLOPE DISTANCE						
		CLASS LOCATION / HCA	1		2		1	
		CONSTRUCTION EXCLUSION						
		WETLAND / STREAM			W-B18-139 24 LF	W-A18-62 40 LF	W-A18-61 1 LF	S-A18-60 4 LF



REFERENCE DRAWINGS		DRAWING NO.	DESCRIPTION
		PA-RONC-H-650-24A	ACCESS ROAD ALIGNMENT SHEET
HORIZONTAL STATIONING		2523+00	MATCH LINE
WORK SPACE		2523+00	MATCHLINE
CONSTRUCTION METHOD		2523+00	MATCHLINE
PROFILE		2523+00	MATCHLINE

ISSUED FOR FERC SUPPLEMENTAL FILING



REVISIONS		REV. BY	DATE	DESCRIPTION
		P1	08/31/18	ISSUED FOR REVIEW
		P2	09/20/18	FERC DRAFTER COMMENT REVIEW
		P3	11/02/18	ISSUED FOR FERC
		P5	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
		P6	10/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING
MATERIAL SUMMARY		QTY.	DESCRIPTION	
		5	18" O.D. X 0.296 W.T. X-70, FBE	
		8	80 LF 18" O.D. X 0.406 W.T. X-70, FBE & POWERGRATE	
APPROVED FOR CONSTRUCTION		DATE		
APPROVED FOR BIDDING		DATE		
APPROVED FOR FERC		DATE		

**Mountain Valley**  
PIPELINE LLC

**PIPELINE ALIGNMENT**

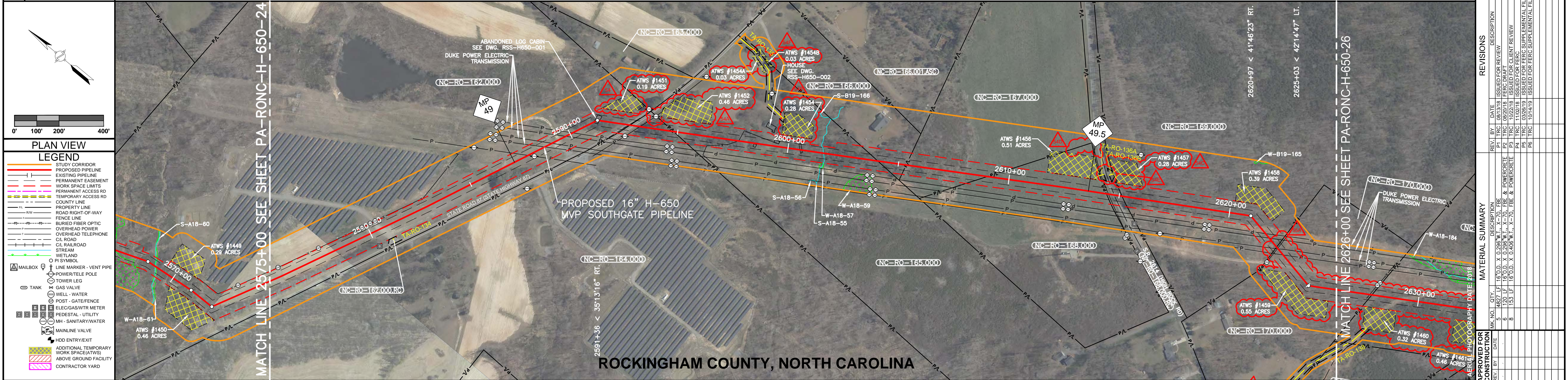
**MVP SOUTHGATE PROJECT - H-650 LINE**  
ROCKINGHAM COUNTY, NORTH CAROLINA  
STA. 2523+00 TO STA. 2575+00

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18  
DRAFTING CK: DEM  
ENGINEERING CK:  
CONSTRUCTION CK:  
ENVIRONMENTAL CK:  
AFE/P.O. NO.:  
TRC PROJECT NO.: 300423  
DRAWING NO.:  
**PA-RONC-H-650-24**  
SHEET: 52 OF 77 REV. P6  
DATE OF PLOT: 10/29/2019 4:47:51 PM

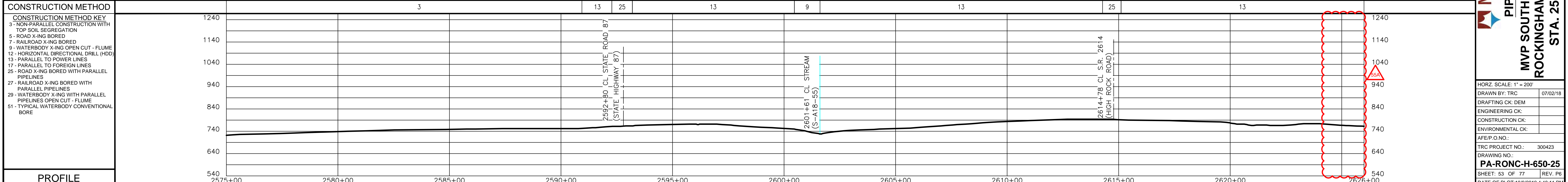
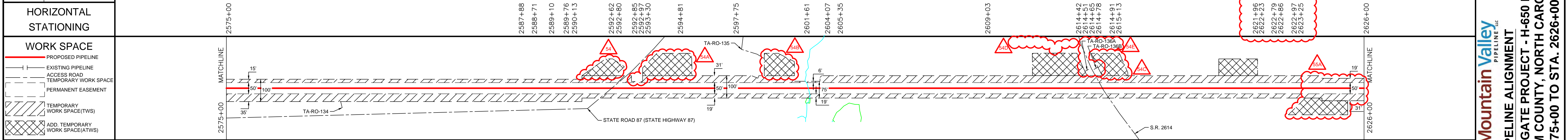


RIGHT-OF-WAY & OWNERSHIP DATA		NC-RO-162.000	NC-RO-162.000RC	NC-RO-164.000	NC-RO-165.000	NC-RO-166.000	NC-RO-167.000	NC-RO-168.000	NC-RO-168.000.RC	NC-RO-169.000	NC-RO-170.000
		1785 LF	STATE ROAD 87 (STATE HIGHWAY 87)	196 LF	926 LF	128 LF	368 LF	539 LF	S.R.2614 (HIGH ROCK RD) 71 LF	766 LF	321 LF
DESIGN	PIPE / COATING	5	8	5	5	6	5	5	5	5	5
	SLOPE DISTANCE										
	CLASS LOCATION / HCA	1	2						1		
ENVIRONMENTAL	CONSTRUCTION EXCLUSION										
	WETLAND / STREAM				S-A18-55						
					3 LF						



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	RSS-H650-001	RESIDENTIAL SITE SPECIFIC
	RSS-H650-002	RESIDENTIAL SITE SPECIFIC

HORIZONTAL STATIONING	2575+00 MATCH LINE	2587+68 OVERHEAD TRANSMISSION LINE.	2588+71 OVERHEAD TRANSMISSION LINE.	2589+10 OVERHEAD TRANSMISSION LINE	2589+76 OVERHEAD TRANSMISSION LINE	2590+13 OVERHEAD TRANSMISSION LINE	2592+62 EDGE OF ROAD (STATE HIGHWAY 87)	2592+80 CL STATE ROAD 87 (STATE HIGHWAY 87)	2592+85 PROPERTY LINE (ASPHALT)	2592+87 PROPERTY LINE	2593+30 OVERHEAD POWER LINE	2594+81 PROPERTY LINE	2597+75 FENCE, ELECTRIC	2601+61 CL STREAM (S-A18-55)	2604+07 PROPERTY LINE	2605+35 PROPERTY LINE	2609+03 PROPERTY LINE	2614+42 PROPERTY LINE	2614+51 FENCE, 4" ELECTRIC	2614+65 EDGE OF ROAD	2614+78 CL S.R. 2614	2614+91 EDGE OF ROAD (ROAD)(ASPHALT)	2615+13 PROPERTY LINE	2621+96 OVERHEAD TRANSMISSION LINE	2622+23 OVERHEAD TRANSMISSION LINE	2622+79 PROPERTY LINE	2622+86 FENCE, 4.5" HOG & BARBED WIRE	2622+97 OVERHEAD TRANSMISSION LINE	2623+25 OVERHEAD TRANSMISSION LINE	2626+00 MATCH LINE
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CONSTRUCTION METHOD	CONSTRUCTION METHOD KEY	3	13	25	13	9	13	25	13	1240
	5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION									
	7 - RAILROAD X-ING BORED									
	9 - WATERBODY X-ING OPEN CUT - FLUME									
	12 - HORIZONTAL DIRECTIONAL DRILL (HDD)									
	17 - PARALLEL TO FOREIGN LINES									
	25 - ROAD X-ING BORED WITH PARALLEL PIPELINES									
	27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES									
	29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME									
	51 - TYPICAL WATERBODY CONVENTIONAL BORE									



REV. NO.	DATE	DESCRIPTION
P1	08/13/19	ISSUED FOR REVIEW
P2	09/03/19	FERC DRAFT REVIEW
P3	11/02/19	ISSUED FOR FERC
P4	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	10/17/19	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	DATE

APPROVED FOR BIDDING	DATE

**Mountain Valley PIPELINE LLC**

**PIPELINE ALIGNMENT**

**MVP SOUTHGATE PROJECT - H-650 LINE**

**ROCKINGHAM COUNTY, NORTH CAROLINA**

**STA. 2575+00 TO STA. 2626+00**

HORIZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/P.O. NO.:

TRC PROJECT NO.: 300423

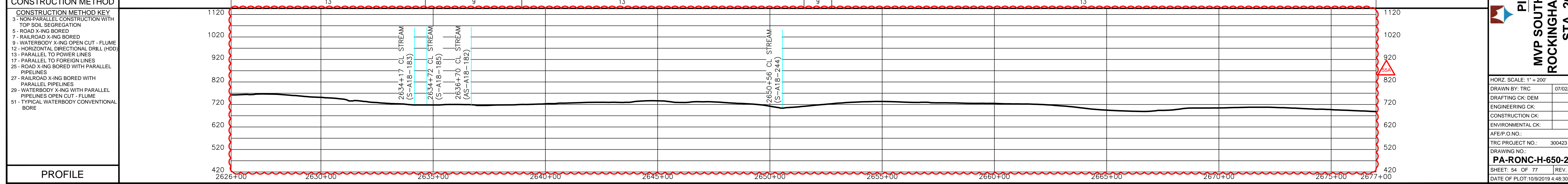
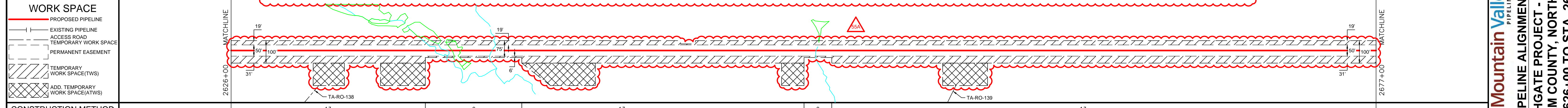
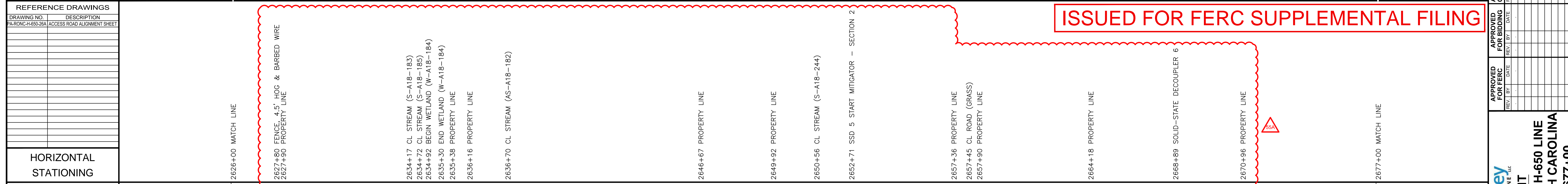
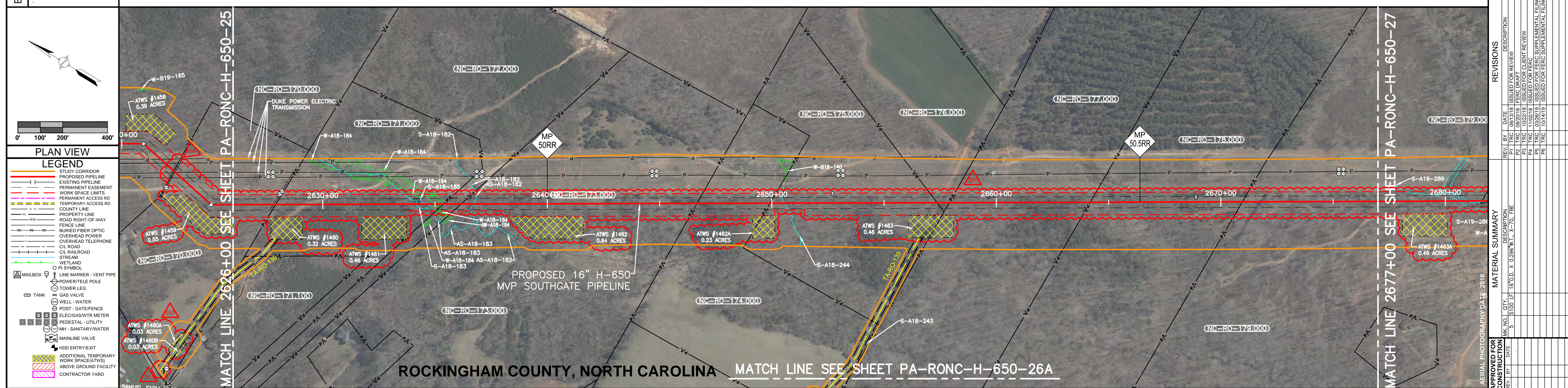
DRAWING NO.: PA-RONC-H-650-25

SHEET: 53 OF 77 REV. P6

DATE OF PLOT: 10/29/2019 4:48:11 PM



RIGHT-OF-WAY & OWNERSHIP DATA		NC-RO-170.000	NC-RO-171.000	NC-RO-172.000	NC-RO-173.000	NC-RO-174.000	NC-RO-175.000	NC-RO-176.000	NC-RO-177.000	NC-RO-178.000	NC-RO-179.000	NC-RO-179.000								
DESIGN		190 LF	747 LF	2635+37	79 LF	2636+16	1051 LF	2646+67	325 LF	2649+92	744 LF	2657+36	54 LF	2657+90	628 LF	2664+18	678 LF	2670+96	604 LF	2677+00
ENVIRONMENTAL		<div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid red; padding: 2px;">S-A18-183 4 LF</div> <div style="border: 1px solid red; padding: 2px;">S-A18-185 1 LF</div> <div style="border: 1px solid red; padding: 2px;">W-A18-184 39 LF</div> <div style="border: 1px solid red; padding: 2px;">AS-A18-182 1 LF</div> <div style="border: 1px solid red; padding: 2px;">S-A18-244 3 LF</div> </div>																		



CONSTRUCTION METHOD KEY	5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
	5 - ROAD X-ING BORED
	7 - RAILROAD X-ING BORED
	9 - WATERBODY X-ING OPEN CUT - FLUME
	12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
	17 - PARALLEL TO FOREIGN LINES
	25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
	27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
	29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME
	51 - TYPICAL WATERBODY CONVENTIONAL BORE



REV. NO.	DATE	DESCRIPTION
P1	08/13/18	ISSUED FOR REVIEW
P2	09/20/18	FERC DRAFT COMMENT REVIEW
P3	11/02/18	ISSUED FOR FERC
P4	03/06/19	ISSUED FOR FERC SUPPLEMENTAL FILING
P5	10/14/19	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	DATE

APPROVED FOR BIDDING	DATE

**Mountain Valley PIPELINE LLC**  
**PIPELINE ALIGNMENT**  
**MVP SOUTHGATE PROJECT - H-650 LINE**  
**ROCKINGHAM COUNTY, NORTH CAROLINA**  
**STA. 2626+00 TO STA. 2677+00**

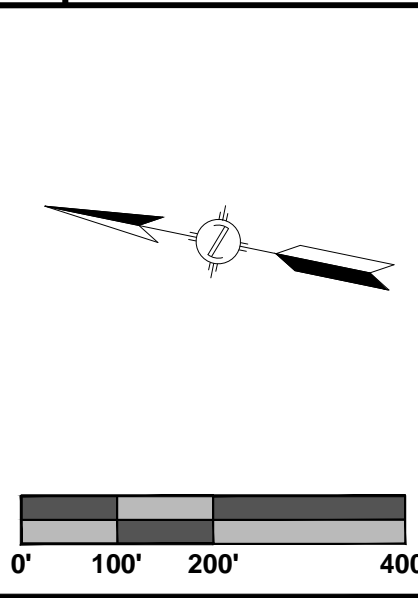
HORIZ. SCALE: 1" = 200'	07/02/18
DRAWN BY: TRC	
DRAFTING CK: DEM	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/P.O. NO.:	
TRC PROJECT NO.:	300423
DRAWING NO.:	PA-RONC-H-650-26
SHEET: 54 OF 77	REV. P6
DATE OF PLOT: 10/9/2019 4:48:30 PM	



RIGHT-OF-WAY & OWNERSHIP DATA

DESIGN  
PIPE / COATING  
SLOPE DISTANCE  
CLASS LOCATION / HCA

ENVIRONMENTAL  
CONSTRUCTION EXCLUSION  
WETLAND / STREAM



PLAN VIEW

**LEGEND**

- STUDY CORRIDOR
- PROPOSED PIPELINE
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- BURIED FIBER OPTIC
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- CL ROAD
- CL RAILROAD
- STREAM
- WETLAND
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
- WELL - WATER
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-26	ALIGNMENT SHEET

HORIZONTAL STATIONING

WORK SPACE

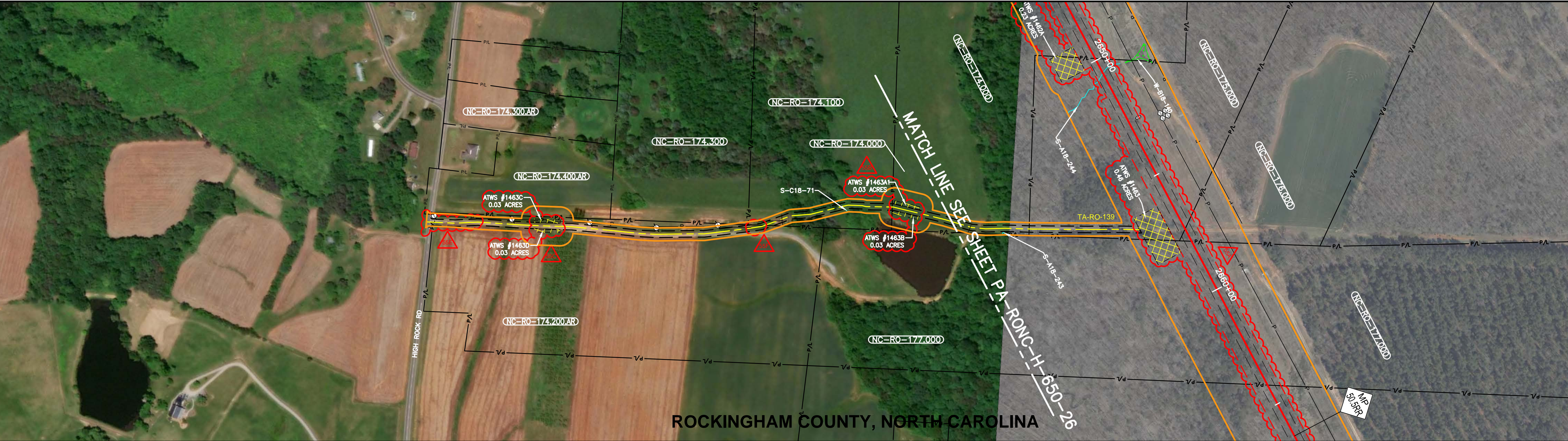
- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

CONSTRUCTION METHOD

**CONSTRUCTION METHOD KEY**

- 5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION
- 5 - ROAD X-ING BORED
- 7 - RAILROAD X-ING BORED
- 9 - WATERBODY X-ING OPEN CUT - FLUME
- 12 - HORIZONTAL DIRECTIONAL DRILL (HDD)
- 13 - PARALLEL TO POWER LINES
- 17 - PARALLEL TO FOREIGN LINES
- 25 - ROAD X-ING BORED WITH PARALLEL PIPELINES
- 27 - RAILROAD X-ING BORED WITH PARALLEL PIPELINES
- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME

PROFILE



REVISIONS	
REV. BY	DATE
P1	TRC 03/20/19
ISSUED FOR FERC SUPPLEMENTAL FILING	

MATERIAL SUMMARY	
DESCRIPTION	QTY.

APPROVED FOR CONSTRUCTION	
REV. BY	DATE

APPROVED FOR BIDDING	
REV. BY	DATE

APPROVED FOR FERC	
REV. BY	DATE

**Mountain Valley PIPELINE LLC**  
ACCESS ROAD  
MVP SOUTHGATE PROJECT - H-650 LINE  
ROCKINGHAM COUNTY, NORTH CAROLINA  
ACCESS ROAD TA-RO-139

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/P.O. NO.:

TRC PROJECT NO.: 300423

DRAWING NO.: PA-RONC-H-650-26A

REV. P1

DATE OF PLOT: 10/30/2019 8:36:17 AM







