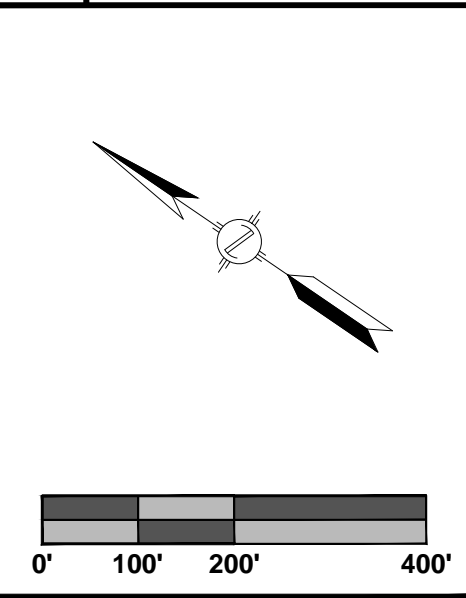


RIGHT-OF-WAY & OWNERSHIP DATA

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
- DELINEATED STREAM
- DELINEATED 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-650-17	ALIGNMENT SHEET

HORIZONTAL STATIONING

WORK SPACE

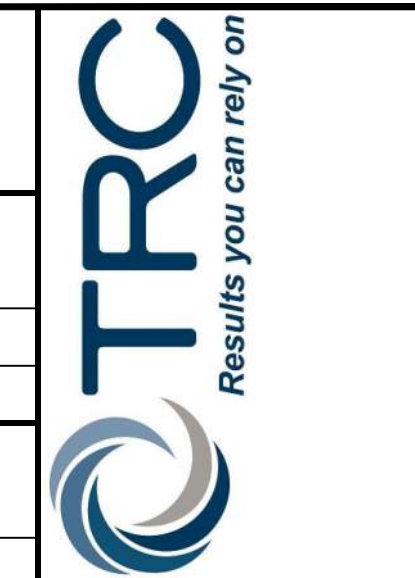
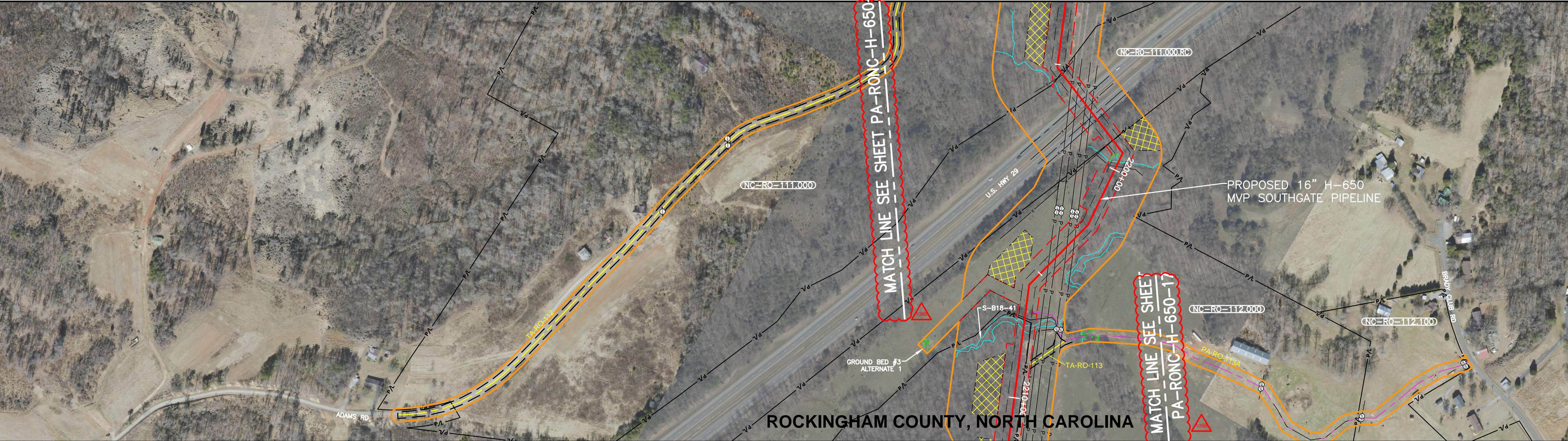
- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE (TWS)
- ADD. TEMPORARY WORK SPACE (ATWS)

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 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.:

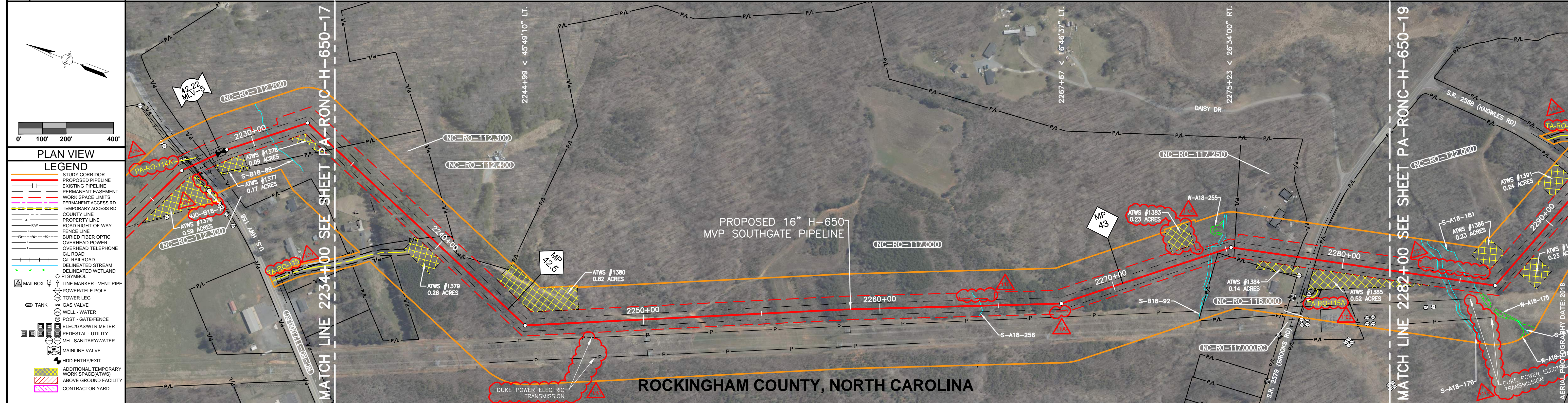
TRC PROJECT NO.: 300423

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

REV. P1

DATE OF PLOT: 3/27/2019 4:17:20 PM

RIGHT-OF-WAY & OWNERSHIP DATA	2234+00	2234+02	2239+53	2244+00	2252+00	2264+28	2275+37	2278+05	2278+86	2282+00
PIPE / COATING										
SLOPE DISTANCE										
CLASS LOCATION / HCA										
CONSTRUCTION EXCLUSION										
WETLAND / STREAM										
	2			1				2		
							S-A18-256		S-B18-92	
							2 LF		12 LF	



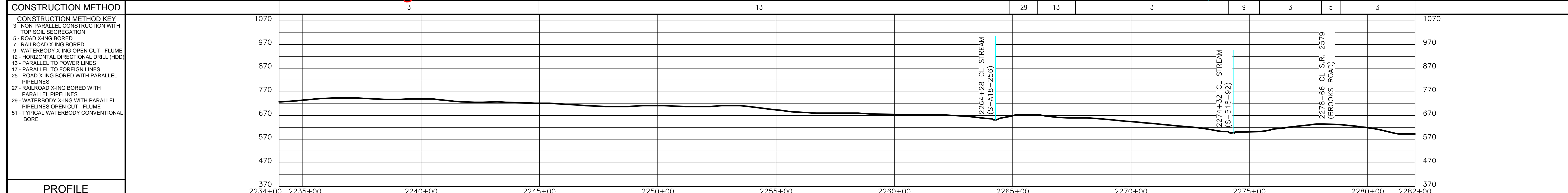
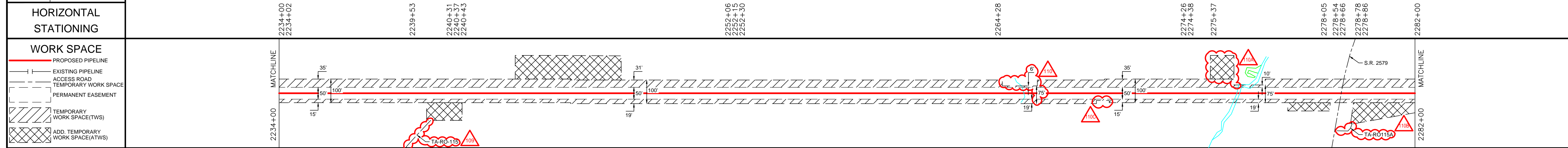
PLAN VIEW

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
- DELINEATED STREAM
- DELINEATED 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



PROFILE

1070	2234+00	2235+00	2240+00	2245+00	2250+00	2255+00	2260+00	2265+00	2270+00	2275+00	2280+00	2282+00	1070
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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

MATERIAL SUMMARY

MARK	QTY.	DESCRIPTION
8	470' LF	16" O.D. X 0.375" W.T. X-65 FBE
9	99' LF	16" O.D. X 0.375" W.T. X-65 FBE & POWERGRATE

APPROVED FOR CONSTRUCTION

REV. BY	DATE

APPROVED FOR BIDDING

REV. BY	DATE

APPROVED FOR FERC

REV. BY	DATE

Mountain Valley
PIPELINE LLC

PIPELINE ALIGNMENT
MVP SOUTHGATE PROJECT - H-650 LINE
ROCKINGHAM COUNTY, NORTH CAROLINA
STA. 2234+00 TO STA. 2282+00

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK: DEM

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

A/E/P.O. NO.:

TRC PROJECT NO.: 300423

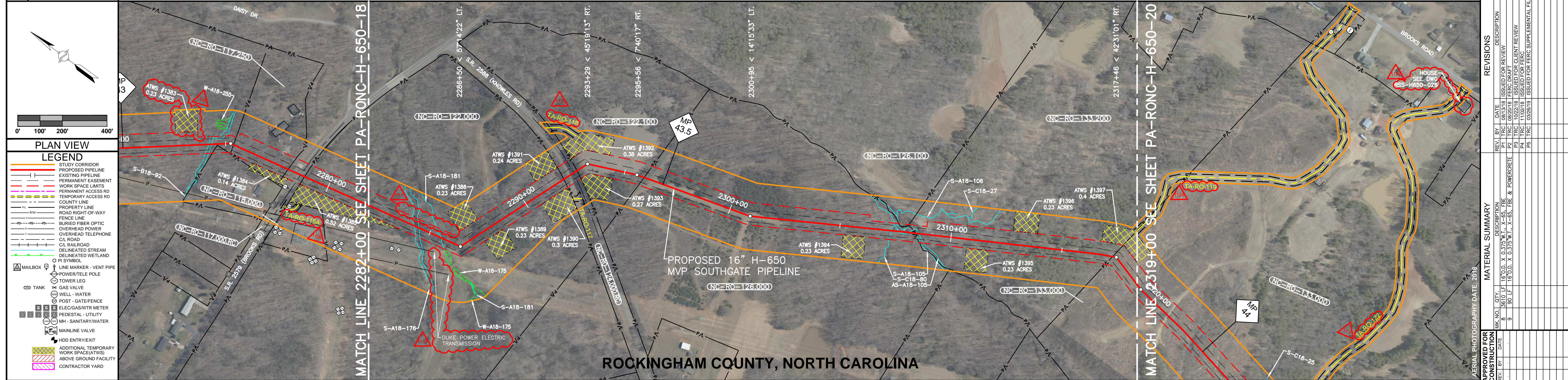
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PA-RONC-H-650-18

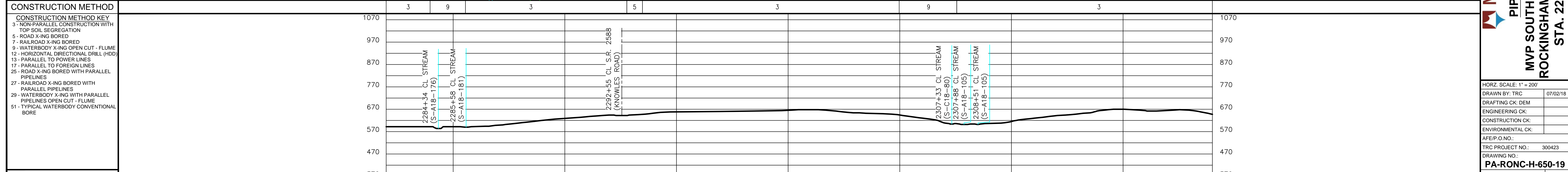
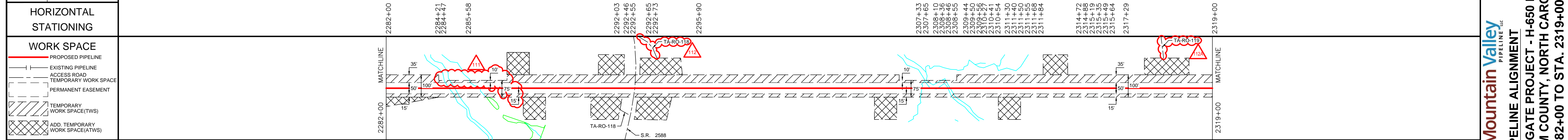
SHEET: 46 OF 77 REV. P5

DATE OF PLOT: 3/27/2019 4:10:34 PM

RIGHT-OF-WAY & OWNERSHIP DATA		2282+00	2282+00	2292+03	2292+73	2295+90	2308+36	2317+29	2319+00
		1003 LF	70 LF	317 LF	1246 LF	893 LF	171 LF		
DESIGN	PIPE / COATING	8	9		8				
	SLOPE DISTANCE								
	CLASS LOCATION / HCA	2			1				
ENVIRONMENTAL	CONSTRUCTION EXCLUSION								
	WETLAND / STREAM	S-A18-176 26 LF	S-A18-181 2 LF		S-C18-80 4 LF	S-A18-105 45 LF	S-A18-105 9 LF		



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	RSS-H650-026	RESIDENTIAL SITE SPECIFIC



PROFILE	2282+00	2285+00	2290+00	2295+00	2300+00	2305+00	2310+00	2315+00	2319+00
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REVISIONS	
REV. NO.	DESCRIPTION
P1	TRC 08/31/18 ISSUED FOR REVIEW
P2	TRC 09/20/18 FERC DRAFT ALIGNMENT REVIEW
P3	TRC 11/02/18 ISSUED FOR FERC
P5	TRC 03/26/19 ISSUED FOR FERC SUPPLEMENTAL FILING

Mountain Valley PIPELINE LLC

PIPELINE ALIGNMENT

MVP SOUTHGATE PROJECT - H-650 LINE

ROCKINGHAM COUNTY, NORTH CAROLINA

STA. 2282+00 TO STA. 2319+00

APPROVED FOR CONSTRUCTION DATE: 2018

APPROVED FOR BIDDING DATE: 2018

APPROVED FOR FERC DATE: 2018

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

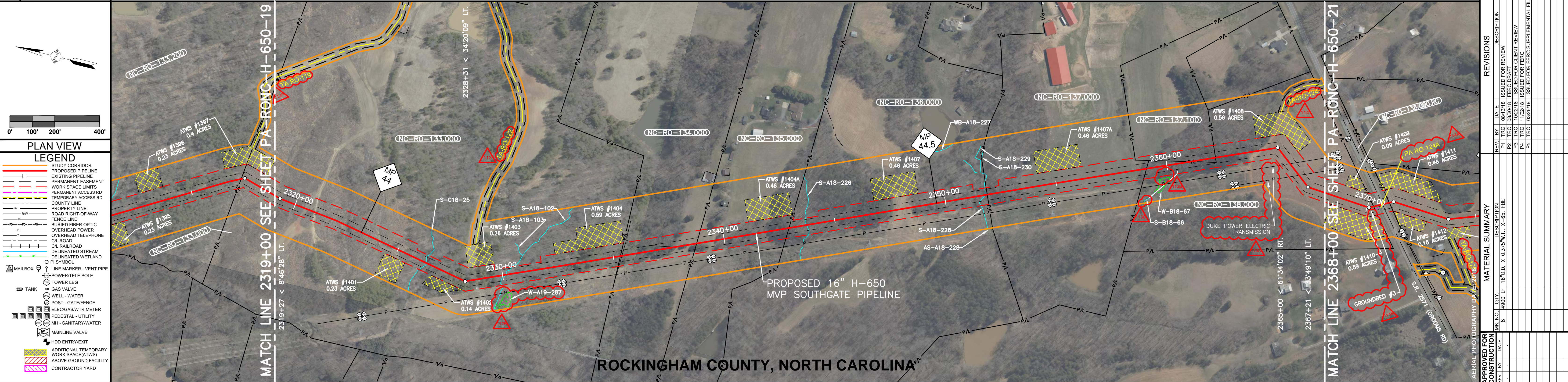
SHEET: 47 OF 77 REV. P5

DATE OF PLOT: 3/27/2019 4:10:51 PM

RIGHT-OF-WAY & OWNERSHIP DATA				NC-RO-133.000	NC-RO-134.000	NC-RO-135.000	NC-RO-136.000	NC-RO-137.000	NC-RO-138.000	NC-RO-137.100	NC-RO-138.000	
		1632 LF			344 LF	417 LF	896 LF	719 LF	200 LF	111 LF	581 LF	

DESIGN												
PIPE / COATING												
SLOPE DISTANCE												
CLASS LOCATION / HCA												

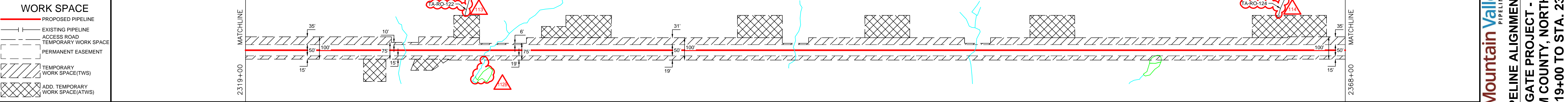
ENVIRONMENTAL												
CONSTRUCTION EXCLUSION												
WETLAND / STREAM		S-C18-25		S-A18-102		S-A18-226		S-A18-228				
		4 LF		3 LF		3 LF		5 LF				



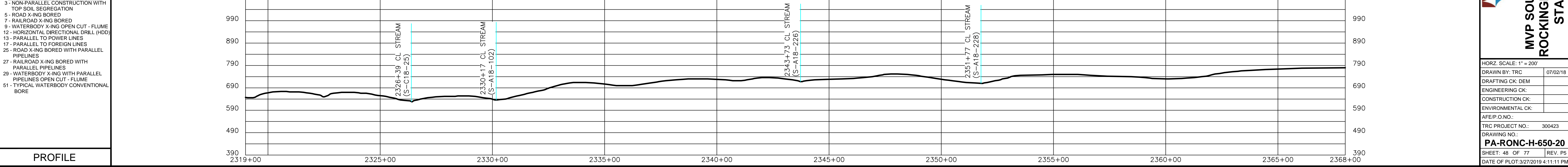
REFERENCE DRAWINGS												
DRAWING NO.												
DESCRIPTION												

ISSUED FOR FERC SUPPLEMENTAL FILING

HORIZONTAL STATIONING																														
	2319+00	2320+50	2320+56	2320+61	2320+61	2321+03	2324+14	2324+18	2324+23	2326+39	2328+88	2328+94	2329+00	2330+17	2335+32	2335+38	2338+76	2342+93	2343+73	2351+77	2351+89	2359+08	2361+08	2362+19	2364+18	2364+27	2364+35	2365+90	2366+56	2368+00



CONSTRUCTION METHOD																																	
	1090																																



REVISIONS												
REV. BY												
DATE												
DESCRIPTION												

APPROVED FOR CONSTRUCTION					
REV. BY					
DATE					

Mountain Valley
PIPELINE LLC

MVP SOUTHGATE PROJECT - H-650 LINE
ROCKINGHAM COUNTY, NORTH CAROLINA
STA. 2319+00 TO STA. 2368+00

HORZ. 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

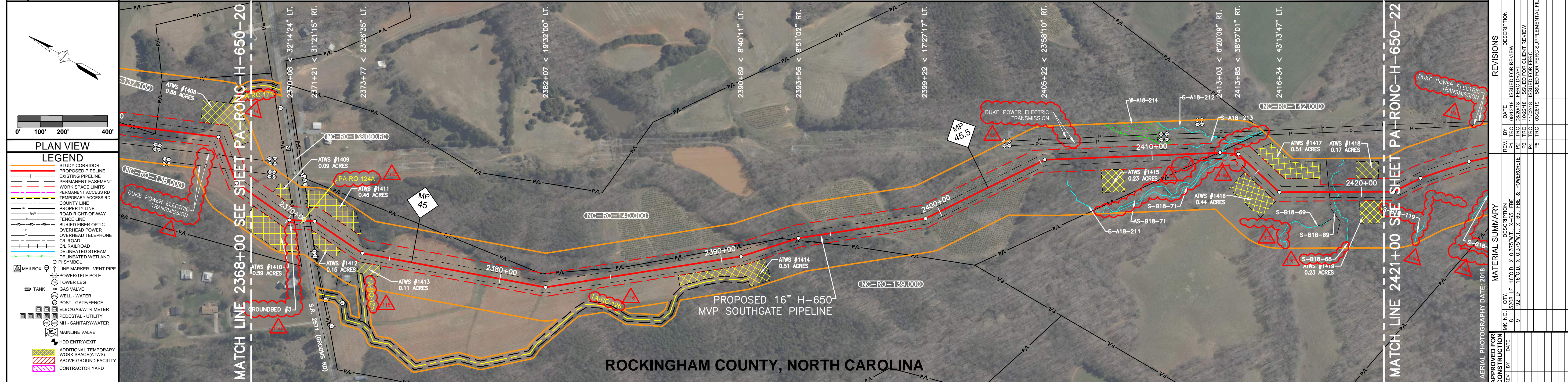
DRAWING NO.: **PA-RONC-H-650-20**

SHEET: 48 OF 77 REV. P5

DATE OF PLOT: 3/27/2019 4:11:11 PM

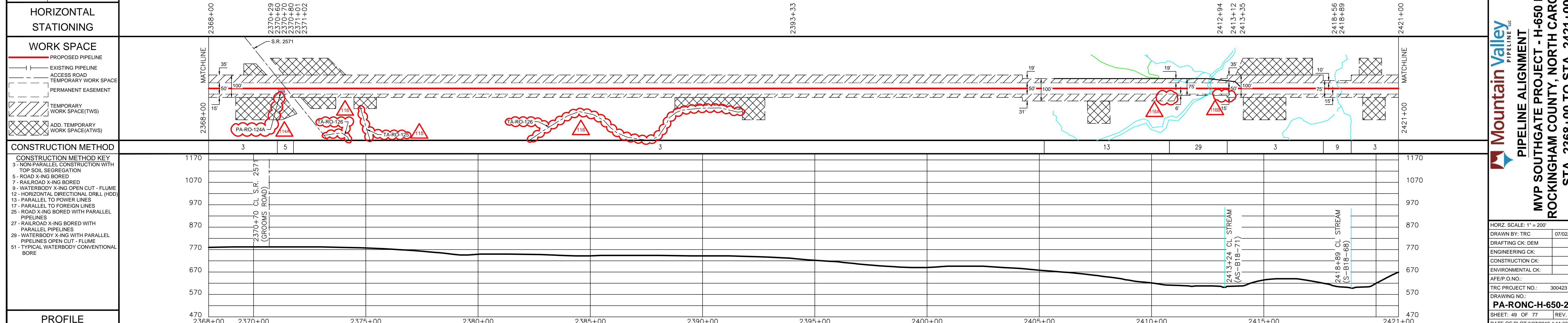
RIGHT-OF-WAY & OWNERSHIP DATA	NC-RO-138.000	NC-RO-138.000.RC	NC-RO-139.000	NC-RO-140.000	NC-RO-142.000
	2368+00	2370+29	2371+02	2393+33	2412+94
	229 LF	S.R. 2571 (GROOMS RD) 73 LF	2231 LF	1961 LF	806 LF

DESIGN	PIPE / COATING	8	9	8	
	SLOPE DISTANCE				
	CLASS LOCATION / HCA		2		1
ENVIRONMENTAL	CONSTRUCTION EXCLUSION				
	WETLAND / STREAM				S-B18-71 23 LF
					S-B18-68 3 LF




REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION							
HORIZONTAL STATIONING	2368+00 MATCH LINE	2421+00 MATCH LINE							
WORK SPACE	3	5	3	13	29	3	9	3	2421+00 MATCHLINE

ISSUED FOR FERC SUPPLEMENTAL FILING



PROFILE	2368+00	2370+00	2375+00	2380+00	2385+00	2390+00	2395+00	2400+00	2405+00	2410+00	2415+00	2421+00
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TRC
Results you can rely on

REVISIONS	
REV. NO.	DESCRIPTION
1	ISSUED FOR REVIEW
2	FERC DRAFTER COMMENT REVIEW
3	ISSUED FOR FERC
4	ISSUED FOR FERC SUPPLEMENTAL FILING

MATERIAL SUMMARY	
ITEM NO.	DESCRIPTION
1	18" O.D. X 0.375" W.T. X-65 FBE
2	92' LF 18" O.D. X 0.375" W.T. X-65 FBE & POWERGRIPTE
3	92' LF 18" O.D. X 0.375" W.T. X-65 FBE & POWERGRIPTE
4	92' LF 18" O.D. X 0.375" W.T. X-65 FBE & POWERGRIPTE
5	92' LF 18" O.D. X 0.375" W.T. X-65 FBE & POWERGRIPTE

APPROVED FOR CONSTRUCTION FOR BIDDING FOR FERC

APPROVED FOR FERC SUPPLEMENTAL FILING

DATE: 07/02/18

DATE: 07/02/18

Mountain Valley
PIPELINE LLC

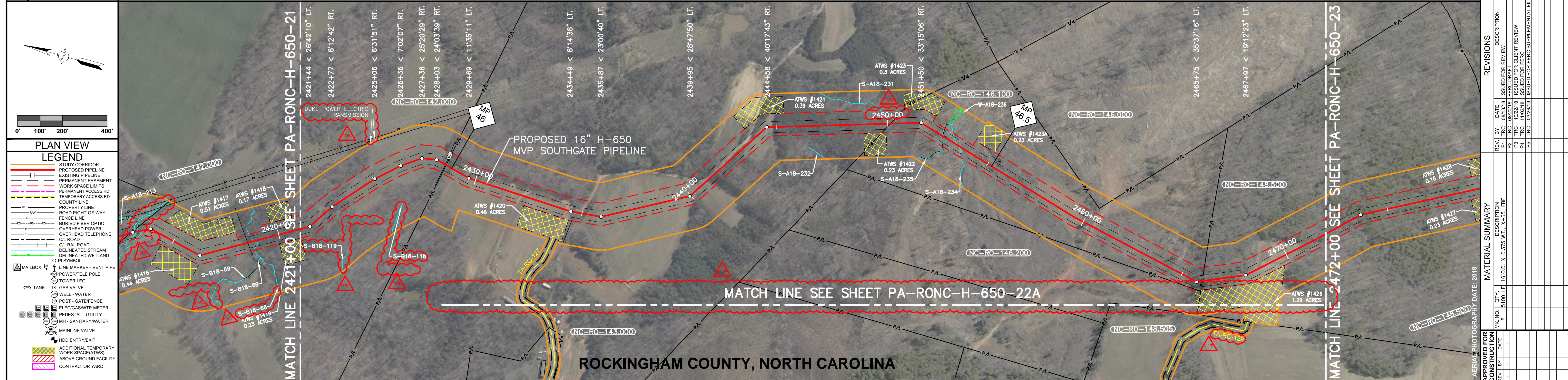
PIPELINE ALIGNMENT

MVP SOUTHGATE PROJECT - H-650 LINE

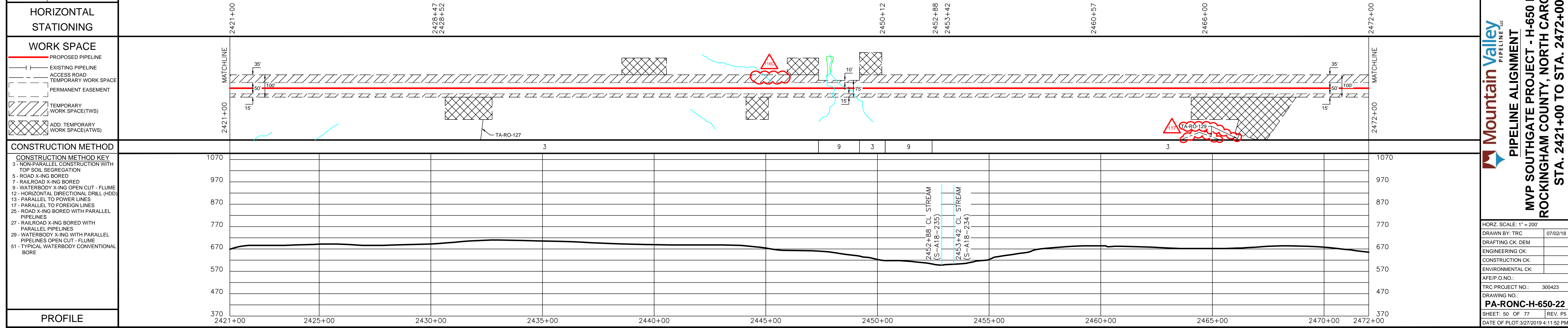
ROCKINGHAM COUNTY, NORTH CAROLINA

STA. 2368+00 TO STA. 2421+00

RIGHT-OF-WAY & OWNERSHIP DATA		2421+00 2421+00	NC-RO-142.000	752 LF	2428+52	NC-RO-143.000	2160 LF	2450+12	NC-RO-146.100.AR	1588 LF	2466+00	NC-RO-148.500	600 LF	2472+00	2472+00
DESIGN	PIPE / COATING														
	SLOPE DISTANCE	8													
	CLASS LOCATION / HCA	1													
ENVIRONMENTAL	CONSTRUCTION EXCLUSION														
	WETLAND / STREAM												S-A18-235	S-A18-234	3 LF



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	PA-RONC-H-650-22A	ACCESS ROAD ALIGNMENT SHEET
<p style="text-align: center;">ISSUED FOR FERC SUPPLEMENTAL FILING</p>		
HORIZONTAL STATIONING	2421+00 MATCH LINE	2472+00 MATCH LINE
WORK SPACE	2428+47 FENCE, 4' BARBED WIRE	2428+52 PROPERTY LINE
	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	



PROFILE	2421+00	2425+00	2430+00	2435+00	2440+00	2445+00	2450+00	2455+00	2460+00	2465+00	2470+00	2472+00
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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
P5	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	DATE
APPROVED FOR BIDDING	DATE

APPROVED FOR BIDDING	DATE

Mountain Valley PIPELINE LLC
PIPELINE ALIGNMENT
MVP SOUTHGATE PROJECT - H-650 LINE
ROCKINGHAM COUNTY, NORTH CAROLINA
STA. 2421+00 TO STA. 2472+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-650-22
SHEET: 50 OF 77	REV. P5
DATE OF PLOT: 3/27/2019 4:11:52 PM	

RIGHT-OF-WAY & OWNERSHIP DATA

DESIGN	PIPE / COATING
	SLOPE DISTANCE
	CLASS LOCATION / HCA

ENVIRONMENTAL	CONSTRUCTION EXCLUSION
	WETLAND / STREAM

PLAN VIEW

LEGEND

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

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-22	ALIGNMENT SHEET
RSS-H650-027	RESIDENTIAL SITE SPECIFIC

HORIZONTAL STATIONING

WORK SPACE

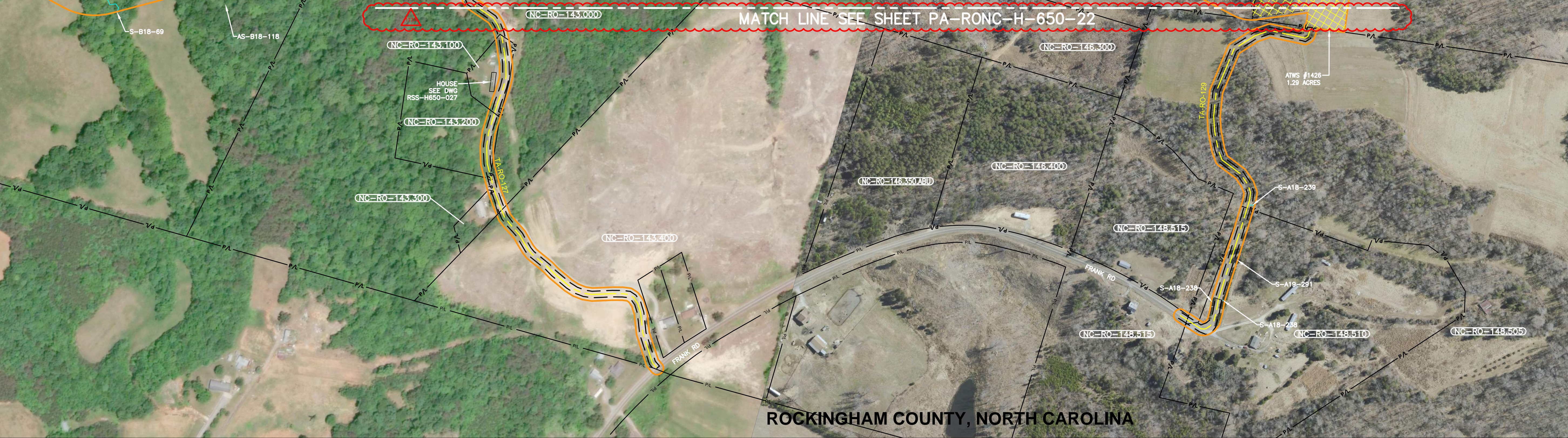
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[Symbol]	EXISTING PIPELINE
[Symbol]	ACCESS ROAD
[Symbol]	TEMPORARY WORK SPACE
[Symbol]	PERMANENT EASEMENT
[Symbol]	TEMPORARY WORK SPACE(TWS)
[Symbol]	ADD. TEMPORARY WORK SPACE(ATWS)

CONSTRUCTION METHOD

CONSTRUCTION METHOD KEY

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

PROFILE



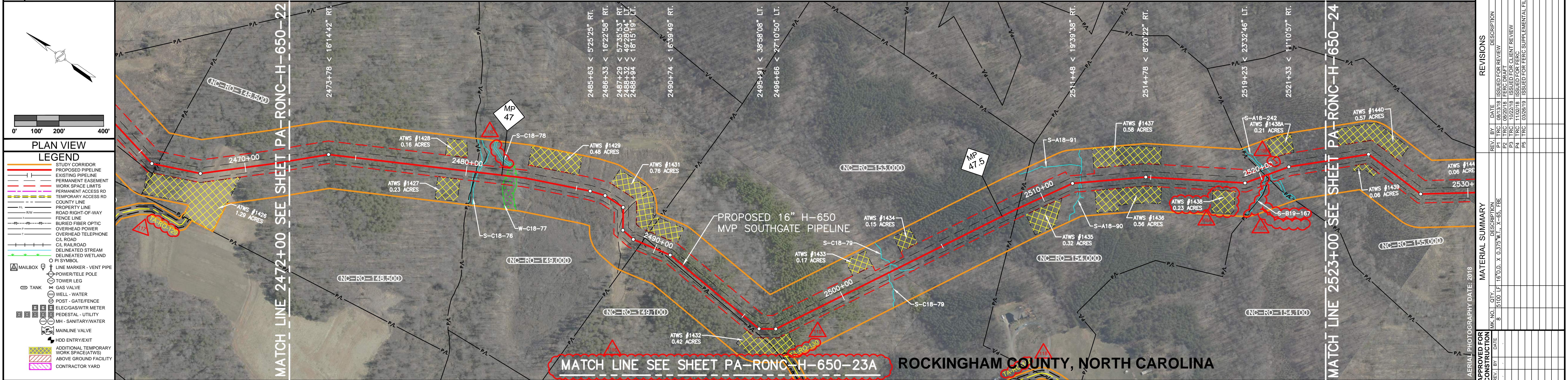
REVISIONS	
REV. BY	DATE
P1	TRC 03/26/19
	ISSUED FOR FERC SUPPLEMENTAL FILING

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-127 & 129

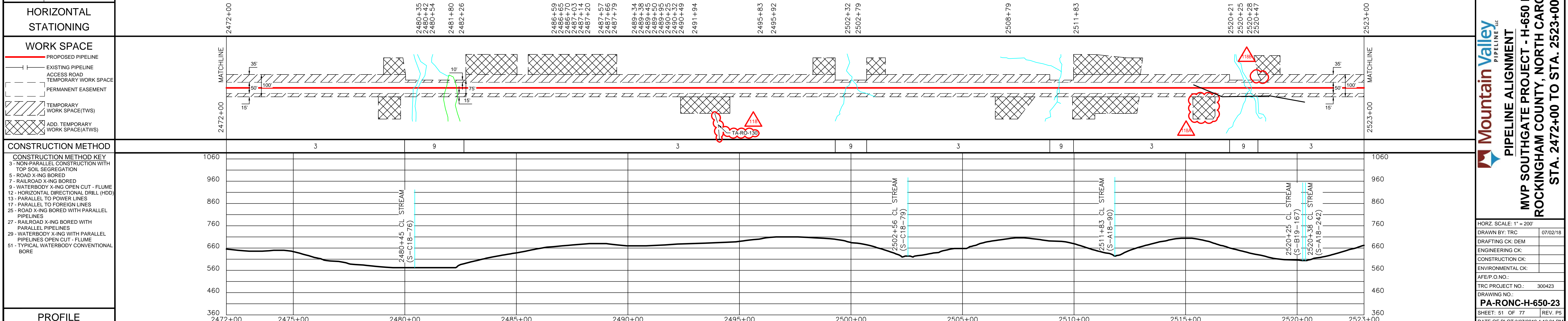
HORZ. SCALE: 1" = 200'	
DRAWN BY: TRC	07/02/18
DRAFTING CK:	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/PO NO.:	
TRC PROJECT NO.:	300423
DRAWING NO.:	PA-RONC-H-650-22A
	REV. P1
DATE OF PLOT: 3/27/2019 4:17:48 PM	

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
DESIGN		842 LF	892 LF	91 LF	1854 LF	1142 LF	279 LF
ENVIRONMENTAL			S-C18-76 19 LF	W-C18-77 46 LF	S-C18-79 2 LF	S-C18-79 2 LF	S-B19-167 3 LF
						S-A18-242 19 LF	S-B19-167 19 LF



REFERENCE DRAWINGS	APPROVED FOR CONSTRUCTION	APPROVED FOR BIDDING	APPROVED FOR FERC
DRAWING NO. DESCRIPTION	DATE	DATE	DATE
PA-RONC-H-650-23A ACCESS ROAD ALIGNMENT SHEET			

HORIZONTAL STATIONING	WORK SPACE
2472+00 MATCH LINE	PROPOSED PIPELINE
2480+35 BEGIN STREAM (S-C18-76)	EXISTING PIPELINE
2480+42 PROPERTY LINE	ACCESS ROAD
2480+54 END STREAM (S-C18-76)	TEMPORARY WORK SPACE
2481+80 BEGIN WETLAND (W-C18-77)	PERMANENT EASEMENT
2482+26 END WETLAND (W-C18-77)	TEMPORARY WORK SPACE (TWS)
2486+59 EDGE OF ROAD	ADD. TEMPORARY WORK SPACE (ATWS)
2486+65 CL ROAD (GRASS)	
2486+70 EDGE OF ROAD	
2487+03 EDGE OF ROAD (GRASS)	
2487+20 EDGE OF ROAD	
2487+57 EDGE OF ROAD	
2487+76 CL ROAD (GRASS)	
2487+79 EDGE OF ROAD	
2489+34 PROPERTY LINE	
2489+46 CL ROAD (GRASS)	
2489+50 EDGE OF ROAD	
2489+95 EDGE OF ROAD	
2490+25 PROPERTY LINE	
2490+42 CL FARM RD (DIRT)	
2491+94 EDGE OF ROAD	
2495+83 EDGE OF ROAD	
2495+92 EDGE OF ROAD	
2502+32 BEGIN STREAM (S-C18-79)	
2502+79 END STREAM (S-C18-79)	
2508+79 PROPERTY LINE	
2511+83 CL STREAM (S-A18-90)	
2520+21 PROPERTY LINE	
2520+25 CL STREAM (S-B19-167)	
2520+29 BEGIN STREAM (S-A18-242)	
2520+47 END STREAM (S-A18-242)	
2523+00 MATCH LINE	



PROFILE	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
	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



REVISIONS	MATERIAL SUMMARY
REV. NO. DATE DESCRIPTION	DATE DESCRIPTION
P1 08/13/18 ISSUED FOR REVIEW	8 5100 LF 18" O.D. X 0.375 W.T. X-65 FBE
P2 09/20/18 FERC DRAFT COMMENT REVIEW	
P3 11/02/18 ISSUED FOR FERC	
P5 03/26/19 ISSUED FOR FERC SUPPLEMENTAL FILING	

ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION	APPROVED FOR BIDDING	APPROVED FOR FERC
DATE	DATE	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

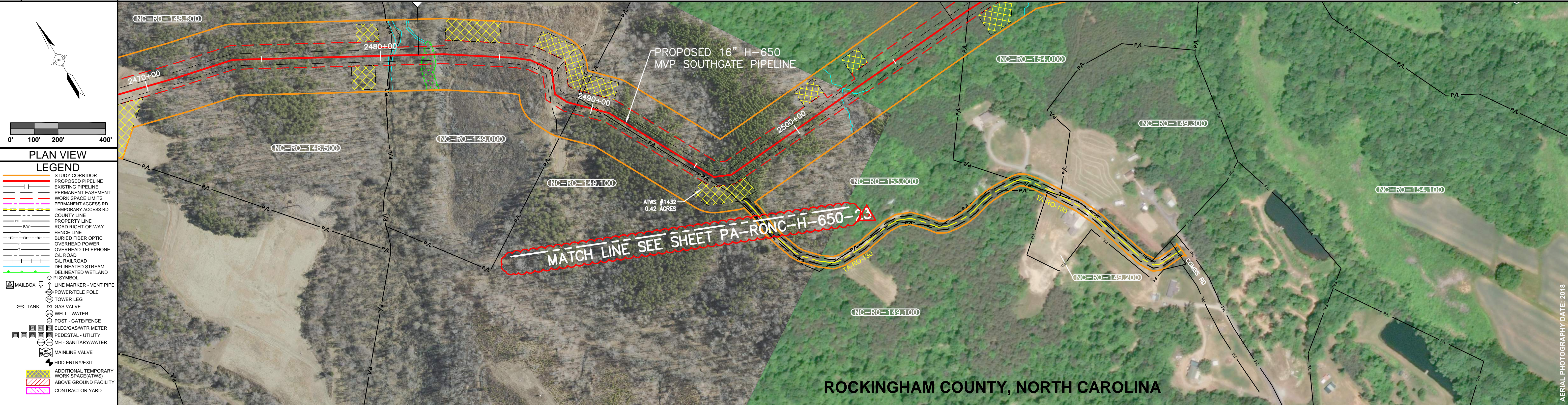
SHEET: 51 OF 77 REV. P5

DATE OF PLOT: 3/27/2019 4:12:21 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
- DELINEATED STREAM
- DELINEATED 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

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
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- 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

ROCKINGHAM COUNTY, NORTH CAROLINA

ISSUED FOR FERC SUPPLEMENTAL FILING



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 FERC

REV. BY	DATE

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.:

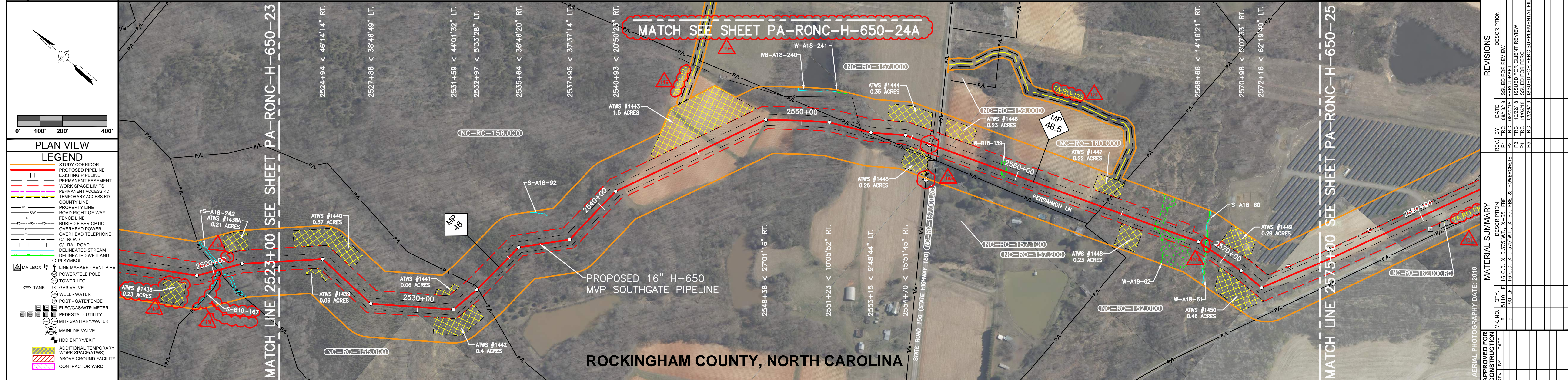
TRC PROJECT NO.: 300423

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

REV. P1

DATE OF PLOT: 3/27/2019 4:18:24 PM

RIGHT-OF-WAY & OWNERSHIP DATA		2523+00	2523+00	2533+04	2533+04	2552+67	2552+67	2556+25	2556+25	2564+08	2564+08	2575+00	2575+00
		1004 LF		1963 LF		358 LF		783 LF				1092 LF	
DESIGN		PIPE / COATING											
		SLOPE DISTANCE											
		CLASS LOCATION / HCA											
ENVIRONMENTAL		CONSTRUCTION EXCLUSION											
		WETLAND / STREAM											
		W-B18-139 24 LF											
		W-A18-62 40 LF											
		W-A18-61 1 LF											
		S-A18-60 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
- DELINEATED STREAM
- DELINEATED WETLAND
- PI SYMBOL
- 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
PA-RONC-H-650-24A	ACCESS ROAD ALIGNMENT SHEET

HORIZONTAL STATIONING

WORK SPACE

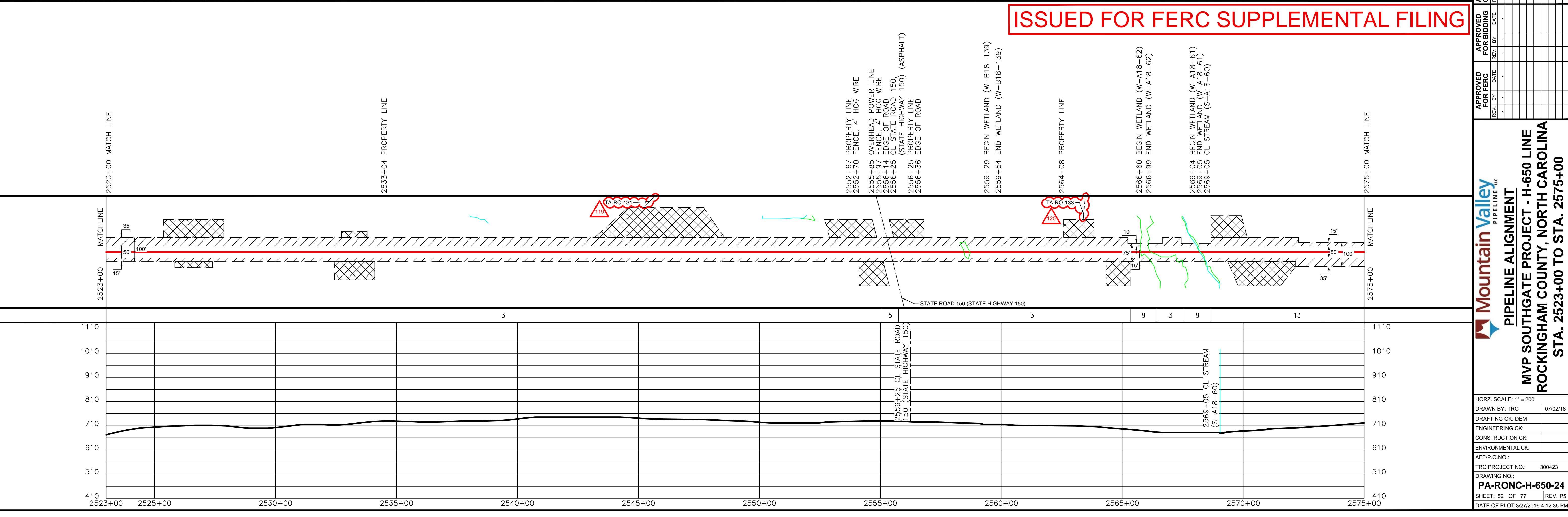
- PROPOSED PIPELINE
- EXISTING PIPELINE
- ACCESS ROAD
- TEMPORARY WORK SPACE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE(TWS)
- ADD. TEMPORARY WORK SPACE(ATWS)

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)
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- 29 - WATERBODY X-ING WITH PARALLEL PIPELINES OPEN CUT - FLUME
- 51 - TYPICAL WATERBODY CONVENTIONAL BORE

PROFILE



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	03/06/19	ISSUED FOR FERC SUPPLEMENTAL FILING

MATERIAL SUMMARY

ITEM NO.	QTY.	DESCRIPTION
8	5110 LF	18" O.D. X 0.375" W.T. X-65, FBE
9	90 LF	18" O.D. X 0.375" W.T. X-65, FBE & CONCRETE

APPROVED FOR CONSTRUCTION

REV. BY	DATE	DESCRIPTION

Mountain Valley PIPELINE LLC

PIPELINE ALIGNMENT

MVP SOUTHGATE PROJECT - H-650 LINE

ROCKINGHAM COUNTY, NORTH CAROLINA

STA. 2523+00 TO STA. 2575+00

PROJECT INFORMATION

TRC PROJECT NO.: 300423

DRAWING NO.: PA-RONC-H-650-24

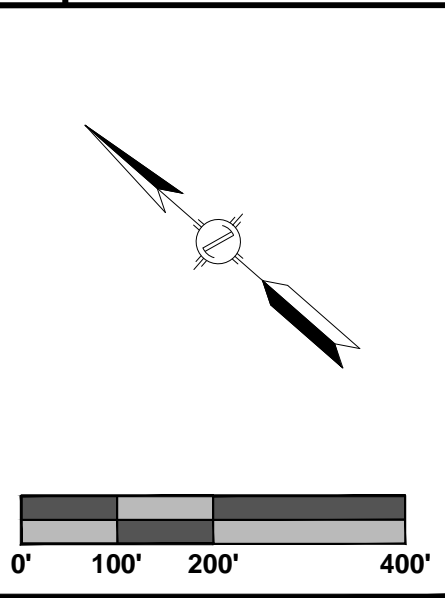
SHEET: 52 OF 77

DATE OF PLOT: 3/27/2019 4:12:35 PM

RIGHT-OF-WAY & OWNERSHIP DATA

DESIGN
PIPE / COATING
SLOPE DISTANCE
CLASS LOCATION / HCA

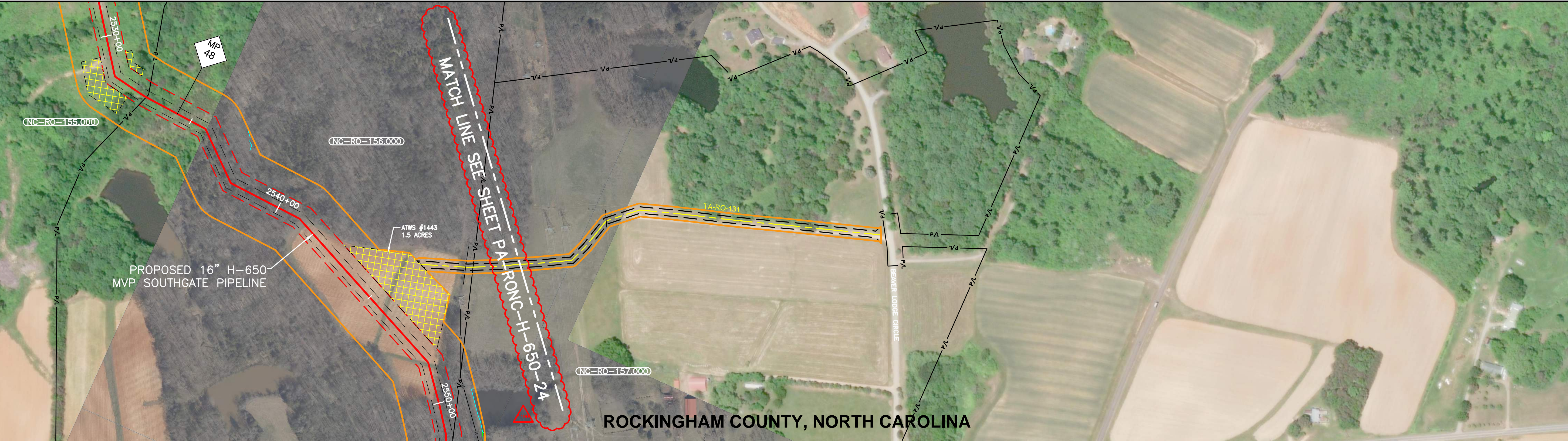
ENVIRONMENTAL
CONSTRUCTION EXCLUSION
WETLAND / STREAM



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
- DELINEATED STREAM
- DELINEATED 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



ISSUED FOR FERC SUPPLEMENTAL FILING

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
PA-RONC-H-650-24	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
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PROFILE



REVISIONS

REV. NO.	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

Mountain Valley PIPELINE LLC

ACCESS ROAD

MVP SOUTHGATE PROJECT - H-650 LINE

ROCKINGHAM COUNTY, NORTH CAROLINA

ACCESS ROAD TA-RO-131

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18

DRAFTING CK:

ENGINEERING CK:

CONSTRUCTION CK:

ENVIRONMENTAL CK:

AFE/PO NO.:

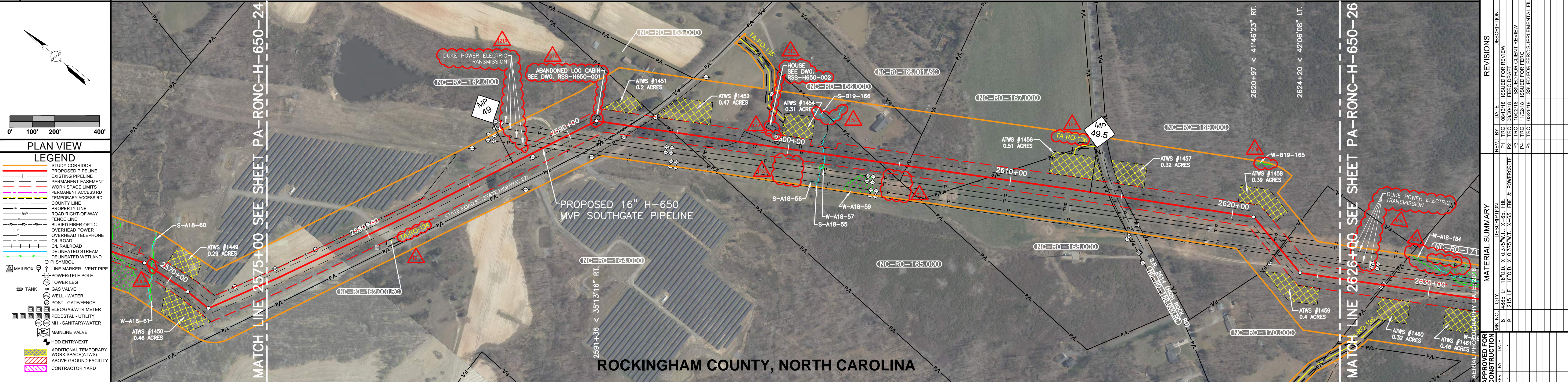
TRC PROJECT NO.: 300423

DRAWING NO.: PA-RONC-H-650-24A

REV. P1

DATE OF PLOT: 3/27/2019 4:18:43 PM

RIGHT-OF-WAY & OWNERSHIP DATA	DESIGN	ENVIRONMENTAL																																								
<table border="1"> <tr> <th>STATION</th> <th>RIGHT-OF-WAY & OWNERSHIP DATA</th> </tr> <tr> <td>2575+00</td> <td>NC-RO-162.000</td> </tr> <tr> <td>2580+00</td> <td>1785 LF</td> </tr> <tr> <td>2592+85</td> <td>NC-RO-162.000RC STATE ROAD 87 (STATE HIGHWAY 87)</td> </tr> <tr> <td>2594+81</td> <td>NC-RO-164.000 196 LF</td> </tr> <tr> <td>2604+07</td> <td>NC-RO-165.000 926 LF</td> </tr> <tr> <td>2609+03</td> <td>NC-RO-166.000 128 LF</td> </tr> <tr> <td>2605+35</td> <td>NC-RO-167.000 368 LF</td> </tr> <tr> <td>2614+42</td> <td>NC-RO-168.000 539 LF</td> </tr> <tr> <td>2614+42</td> <td>NC-RO-168.000RC S.R.2614 (HIGH ROCK RD) 71 LF</td> </tr> <tr> <td>2615+13</td> <td>NC-RO-169.000 766 LF</td> </tr> <tr> <td>2622+79</td> <td>NC-RO-170.000 321 LF</td> </tr> <tr> <td>2626+00</td> <td></td> </tr> </table>	STATION	RIGHT-OF-WAY & OWNERSHIP DATA	2575+00	NC-RO-162.000	2580+00	1785 LF	2592+85	NC-RO-162.000RC STATE ROAD 87 (STATE HIGHWAY 87)	2594+81	NC-RO-164.000 196 LF	2604+07	NC-RO-165.000 926 LF	2609+03	NC-RO-166.000 128 LF	2605+35	NC-RO-167.000 368 LF	2614+42	NC-RO-168.000 539 LF	2614+42	NC-RO-168.000RC S.R.2614 (HIGH ROCK RD) 71 LF	2615+13	NC-RO-169.000 766 LF	2622+79	NC-RO-170.000 321 LF	2626+00		<table border="1"> <tr> <th>PIPE / COATING</th> <th>DESIGN</th> </tr> <tr> <td>8</td> <td>8</td> </tr> <tr> <th>SLOPE DISTANCE</th> <td></td> </tr> <tr> <th>CLASS LOCATION / HCA</th> <td>1 2 1</td> </tr> </table>	PIPE / COATING	DESIGN	8	8	SLOPE DISTANCE		CLASS LOCATION / HCA	1 2 1	<table border="1"> <tr> <th>CONSTRUCTION EXCLUSION</th> <th>ENVIRONMENTAL</th> </tr> <tr> <td></td> <td></td> </tr> <tr> <th>WETLAND / STREAM</th> <td>S-A18-55 3 LF</td> </tr> </table>	CONSTRUCTION EXCLUSION	ENVIRONMENTAL			WETLAND / STREAM	S-A18-55 3 LF
STATION	RIGHT-OF-WAY & OWNERSHIP DATA																																									
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CLASS LOCATION / HCA	1 2 1																																									
CONSTRUCTION EXCLUSION	ENVIRONMENTAL																																									
WETLAND / STREAM	S-A18-55 3 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
- DELINEATED STREAM
- DELINEATED WETLAND
- PI SYMBOL
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- TOWER LEG
- GAS VALVE
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- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- MAINLINE VALVE
- HDD ENTRY/EXIT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- CONTRACTOR YARD

REFERENCE DRAWINGS	APPROVED FOR CONSTRUCTION	APPROVED FOR BIDDING	APPROVED FOR FERC
DRAWING NO. DESCRIPTION	REV. BY DATE	REV. BY DATE	REV. BY DATE
RSS-H650-001 RESIDENTIAL SITE SPECIFIC			
RSS-H650-002 RESIDENTIAL SITE SPECIFIC			

HORIZONTAL STATIONING

2575+00 MATCH 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)

2593+37 EDGE OF ROAD

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 (HIGH ROCK ROAD)

2614+91 EDGE OF ROAD

2615+13 PROPERTY LINE

2621+96 OVERHEAD TRANSMISSION LINE

2622+23 OVERHEAD TRANSMISSION LINE

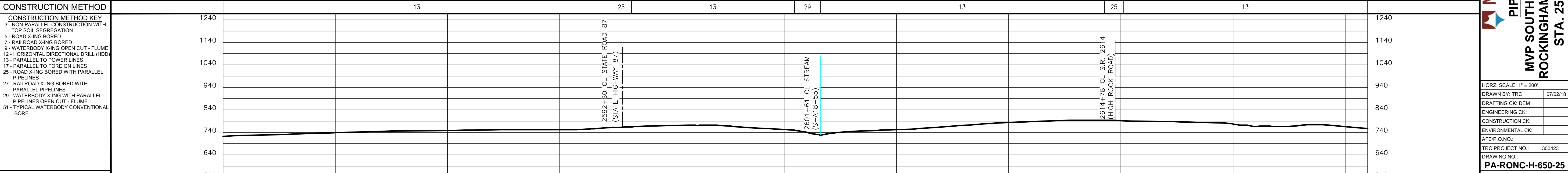
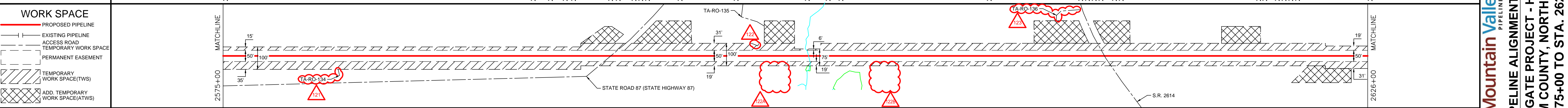
2622+79 PROPERTY LINE

2622+86 FENCE, 4.5" HOG & BARBED WIRE

2622+97 OVERHEAD TRANSMISSION LINE

2623+25 OVERHEAD TRANSMISSION LINE

2626+00 MATCH LINE



PROFILE

1240

1140

1040

940

840

740

640

540

2575+00 2580+00 2585+00 2590+00 2595+00 2600+00 2605+00 2610+00 2615+00 2620+00 2626+00



REVISIONS

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

MATERIAL SUMMARY

ITEM NO.	QTY.	DESCRIPTION
8	4885 LF	18" O.D. X 0.375" W.T. X-65 FBE
9	215 LF	18" O.D. X 0.375" W.T. X-65 FBE & POWER/CONCRETE

APPROVED FOR CONSTRUCTION

REV. BY	DATE

APPROVED FOR BIDDING

REV. BY	DATE

APPROVED FOR FERC

REV. BY	DATE

Mountain Valley PIPELINE LLC

PIPELINE ALIGNMENT

MVP SOUTHGATE PROJECT - H-650 LINE

ROCKINGHAM COUNTY, NORTH CAROLINA

STA. 2575+00 TO STA. 2626+00

HORZ. 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

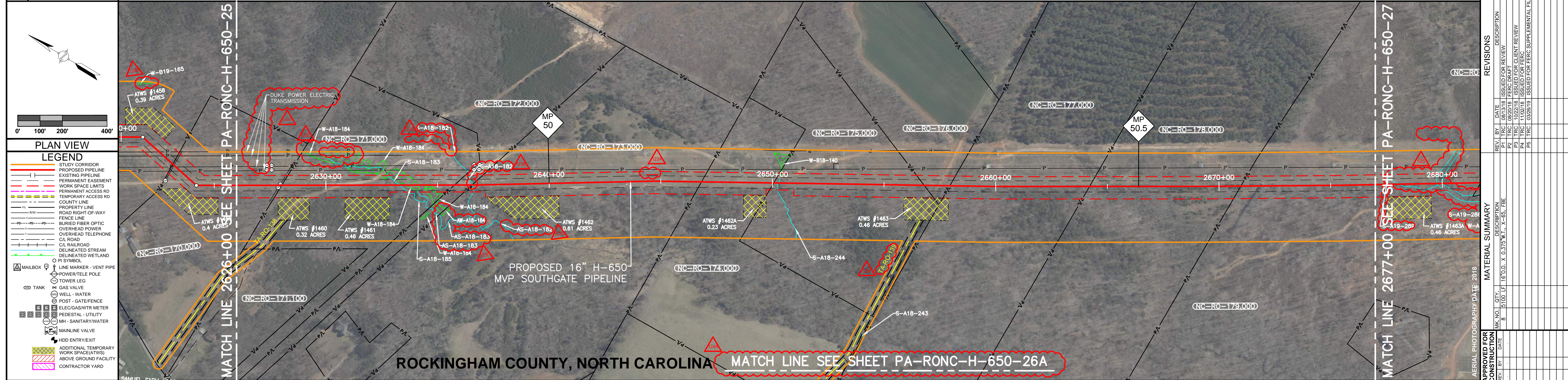
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SHEET: 53 OF 77 REV. P5

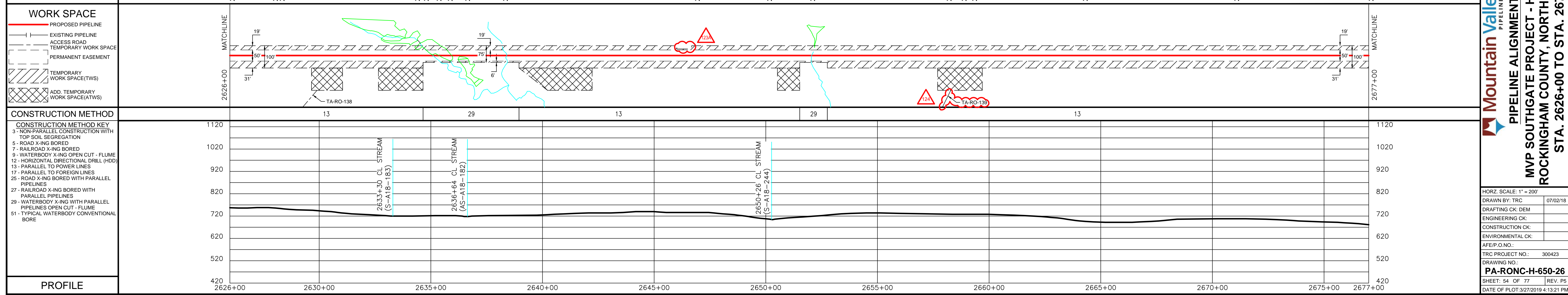
DATE OF PLOT: 3/27/2019 4:12:58 PM

ISSUED FOR FERC SUPPLEMENTAL FILING

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	
		203 LF	773 LF	78 LF	1029 LF	323 LF	674 LF	114 LF	626 LF	678 LF	602 LF	
DESIGN	PIPE / COATING											
	SLOPE DISTANCE	8										
	CLASS LOCATION / HCA	1										
ENVIRONMENTAL	CONSTRUCTION EXCLUSION											
	WETLAND / STREAM	S-A18-183 4 LF	W-A18-184 57 LF	AS-A18-182 1 LF								



REFERENCE DRAWINGS	DRAWING NO.	DESCRIPTION
	PA-RONC-H-650-26A	ACCESS ROAD ALIGNMENT SHEET
HORIZONTAL STATIONING	2626+00 MATCH LINE	2677+00 MATCH LINE
WORK SPACE	2627+93 FENCE, 4.5' HOG & BARBED WIRE 2628+03 PROPERTY LINE	2633+30 CL STREAM (S-A18-183) 2633+57 BEGIN WETLAND (W-A18-184) 2634+14 END WETLAND (W-A18-184) 2635+76 PROPERTY LINE 2636+54 PROPERTY LINE
CONSTRUCTION METHOD	2646+83 PROPERTY LINE	2650+06 PROPERTY LINE
PROFILE	2650+26 CL STREAM (S-A18-244)	2656+80 PROPERTY LINE 2657+47 CL ACCESS RD (GRASS) 2657+94 PROPERTY LINE



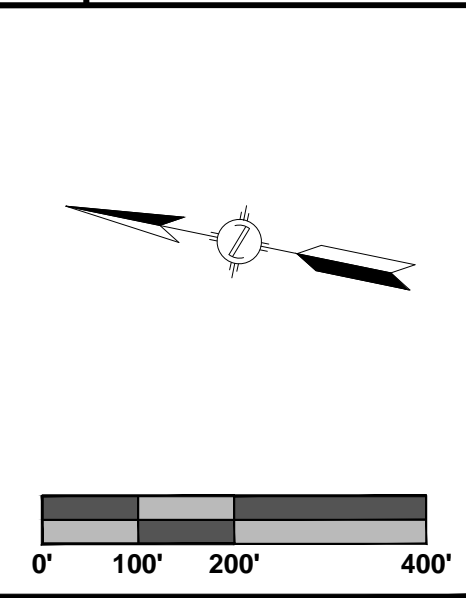
REVISIONS	REV. BY	DATE	DESCRIPTION
	P1 TRC	08/13/18	ISSUED FOR REVIEW
	P2 TRC	09/20/18	FERC DRAFTER COMMENT REVIEW
	P3 TRC	11/02/18	ISSUED FOR FERC
	P5 TRC	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING
MATERIAL SUMMARY	MARK NO.	QTY.	DESCRIPTION
	8	5100 LF	18" O.D. X 0.375 W.T. X-65 FBE
APPROVED FOR CONSTRUCTION	DATE		
APPROVED FOR BIDDING	DATE		
APPROVED FOR FERC	DATE		



RIGHT-OF-WAY & OWNERSHIP DATA

DESIGN
PIPE / COATING
SLOPE DISTANCE
CLASS LOCATION / HCA

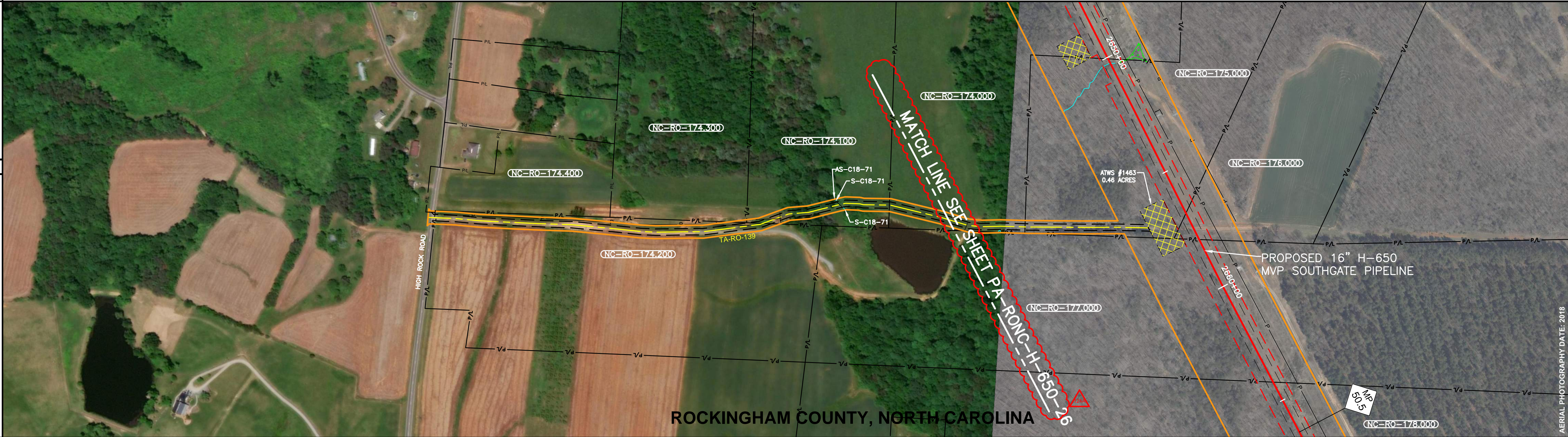
ENVIRONMENTAL
CONSTRUCTION EXCLUSION
WETLAND / STREAM



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
- DELINEATED STREAM
- DELINEATED 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



ISSUED FOR FERC SUPPLEMENTAL FILING

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	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

AERIAL PHOTOGRAPHY DATE: 2018

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/PO NO.:

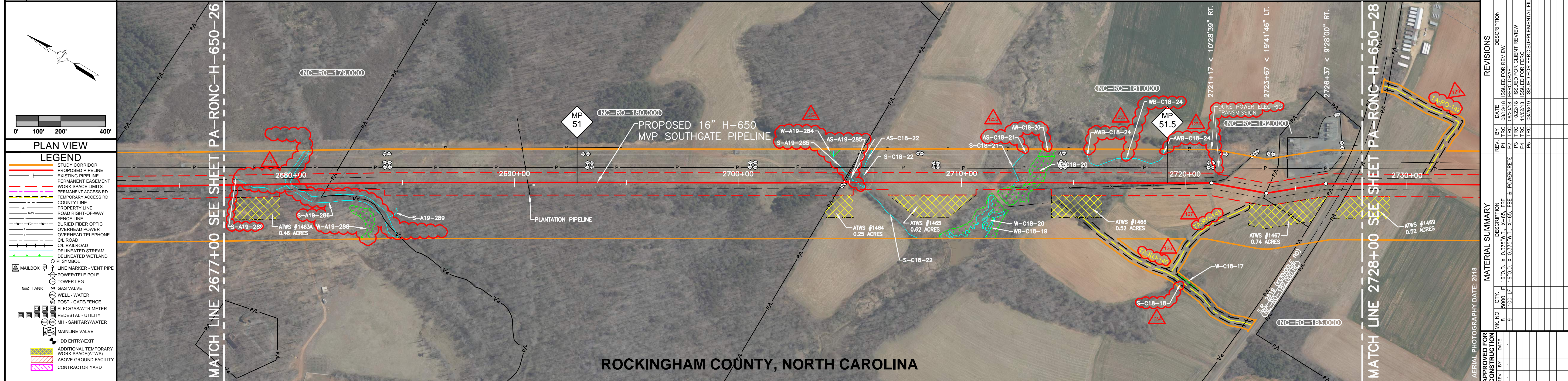
TRC PROJECT NO.: 300423

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

REV. P1

DATE OF PLOT: 3/27/2019 4:18:58 PM

RIGHT-OF-WAY & OWNERSHIP DATA		2677+00	NC-RO-179.000	2681+72	NC-RO-180.000	2704+68	NC-RO-181.000	2723+65	NC-RO-182.000	NC-RO-182.000.RC	NC-RO-183.000	2728+00
DESIGN	PIPE / COATING		472 LF		2296 LF		8		310 LF	S.R.2619 (KERNODLE RD) 81 LF	44 LF	
ENVIRONMENTAL	CONSTRUCTION EXCLUSION						1					
	WETLAND / STREAM		S-A19-289 3 LF	S-A19-286 21 LF		AS-A19-285 2 LF	S-C18-22 3 LF		S-C18-21 7 LF	W-C18-20 70 LF		

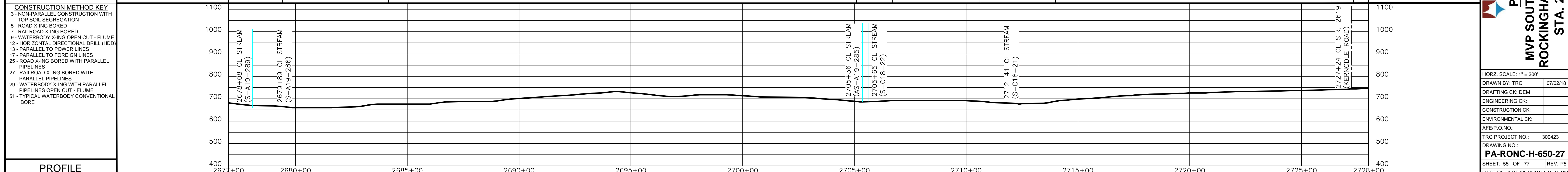
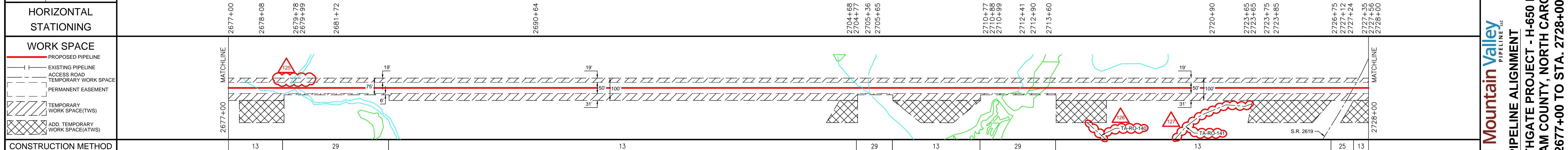


PLAN VIEW

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
- DELINEATED STREAM
- DELINEATED 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

DRAWING NO.	DESCRIPTION
2677+00	MATCH LINE
2678+08	CL STREAM (S-A19-289)
2679+78	BEGIN STREAM (S-A19-286)
2679+99	END STREAM (S-A19-286)
2681+72	PROPERTY LINE
2690+64	PLANTATION PIPELINE
2704+68	PROPERTY LINE
2704+77	FENCE, 4 BARBED WIRE
2705+36	CL STREAM (AS-A19-285)
2705+65	CL STREAM (S-C18-22)
2710+77	EDGE OF ROAD
2710+88	CL ROAD (DIRT)
2710+99	EDGE OF ROAD
2712+41	CL STREAM (S-C18-21)
2712+90	BEGIN WETLAND (W-C18-20)
2713+60	END WETLAND (W-C18-20)
2720+90	FENCE, 4 BARBED WIRE
2723+65	PROPERTY LINE
2723+75	CL ACCESS RD (DIRT)
2723+85	EDGE OF ROAD
2726+75	PROPERTY LINE
2727+12	EDGE OF ROAD
2727+24	CL S.R. 2619 (KERNODLE ROAD)(ASPHALT)
2727+35	CL ROAD (DIRT)
2727+55	PROPERTY LINE
2728+00	MATCH LINE



CONSTRUCTION METHOD KEY	
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

ISSUED FOR FERC SUPPLEMENTAL FILING

REVISIONS	
REV. BY	DATE
P1	TRC 08/31/18
P2	TRC 09/20/18
P3	TRC 11/02/18
P4	TRC 03/26/19
P5	TRC 03/26/19

MATERIAL SUMMARY	
QTY.	DESCRIPTION
8	5000 LF 18" O.D. X 0.375" W.T. X-65 FBE
9	100 LF 18" O.D. X 0.375" W.T. X-65 FBE & POWERGRIT
9	100 LF 18" O.D. X 0.375" W.T. X-65 FBE & POWERGRIT
9	100 LF 18" O.D. X 0.375" W.T. X-65 FBE & POWERGRIT
9	100 LF 18" O.D. X 0.375" W.T. X-65 FBE & POWERGRIT

APPROVED FOR CONSTRUCTION

APPROVED FOR BIDDING

APPROVED FOR FERC

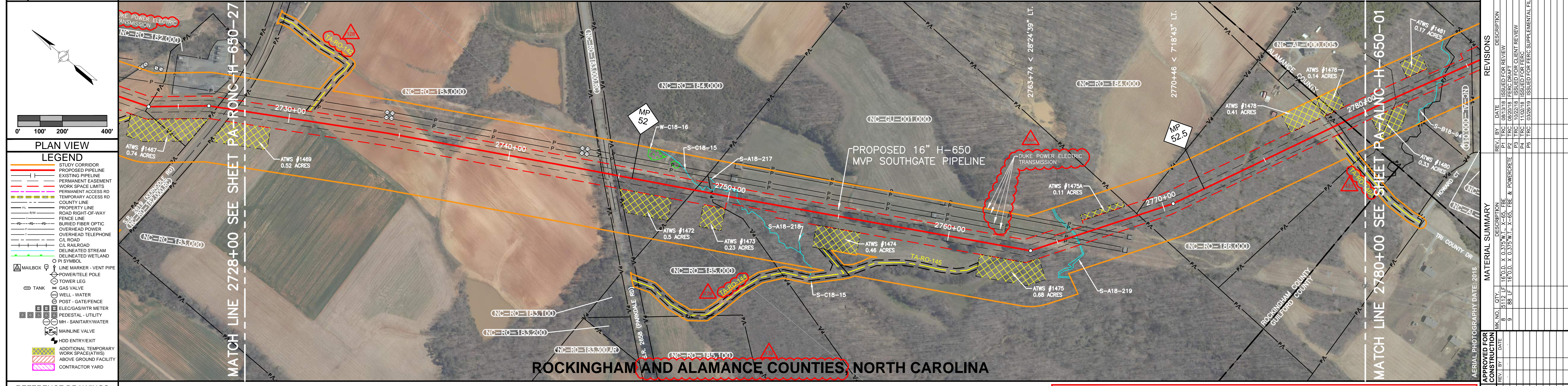
PIPELINE ALIGNMENT
MVP SOUTHGATE PROJECT - H-650 LINE
ROCKINGHAM COUNTY, NORTH CAROLINA
STA. 2677+00 TO STA. 2728+00

AERIAL PHOTOGRAPHY DATE: 2016

HORZ. SCALE: 1" = 200'

DRAWN BY: TRC 07/02/18
DRAFTING CK: DEM
ENGINEERING CK:
CONSTRUCTION CK:
ENVIRONMENTAL CK:
AFEP/O.D. NO.:
TRC PROJECT NO.: 300423
DRAWING NO.:
PA-RONC-H-650-27
SHEET: 55 OF 77 REV. P5
DATE OF PLOT: 3/27/2019 4:13:42 PM

RIGHT-OF-WAY & OWNERSHIP DATA		NC-RO-183.000	NC-RO-183.000.RC S.R. 2658 (PARKDALE RD)	NC-RO-184.000	NC-RO-185.000	NC-GU-001.000	NC-RO-186.000	NC-AL-000.005
		1624 LF	68 LF	353 LF	76 LF	1961 LF	982 LF	136 LF
DESIGN	PIPE / COATING	8	9	8				
	SLOPE DISTANCE							
	CLASS LOCATION / HCA			1				2
ENVIRONMENTAL	CONSTRUCTION EXCLUSION							
	WETLAND / STREAM			S-C18-15 3 LF		S-A18-219 4 LF		



DRAWING NO.	DESCRIPTION

2728+00	MATCHLINE	2730+00	2735+00	2740+00	2745+00	2750+00	2755+00	2760+00	2765+00	2770+00	2775+00	2780+00	MATCHLINE
		2744+24 PROPERTY LINE 2744+52 CL DITCH 2744+43 CL DITCH 2744+53 CL S.R. 2658 (PARKDALE RD) (ASPHALT) 2744+64 CL S.R. 2658 (PARKDALE RD) 2744+71 CL DITCH 2744+92 PROPERTY LINE											
		2748+45 PROPERTY LINE 2749+21 PROPERTY LINE 2750+39 CL STREAM (S-C18-15)											

WORK SPACE		13	25	13	29	13	29	13	3				
CONSTRUCTION METHOD		1110								1110			
CONSTRUCTION METHOD KEY		1010								1010			
5 - NON-PARALLEL CONSTRUCTION WITH TOP SOIL SEGREGATION		910								910			
5 - ROAD X-ING BORED		810								810			
7 - RAILROAD X-ING BORED		710								710			
9 - WATERBODY X-ING OPEN CUT - FLUME		610								610			
12 - HORIZONTAL DIRECTIONAL DRILL (HDD)		510								510			
17 - PARALLEL TO POWER LINES		410								410			
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		2728+00	2730+00	2735+00	2740+00	2745+00	2750+00	2755+00	2760+00	2765+00	2770+00	2775+00	2780+00

<p> TA-RO-146 TA-RO-145 TA-RO-146 </p>	<p> 2765+17 OVERHEAD TRANSMISSION LINE, 2765+61 OVERHEAD TRANSMISSION LINE 2765+84 BEGIN STREAM (S-A18-219) 2765+89 END STREAM (S-A18-219) 2766+48 OVERHEAD TRANSMISSION LINE 2766+83 OVERHEAD TRANSMISSION LINE </p>	<p> 2768+82 PROPERTY LINE 2773+84 EDGE OF ROAD (GRAVEL) 2773+91 CL ROAD (GRAVEL) 2773+99 EDGE OF ROAD 2778+24 CL ACCESS RD (GRAVEL) 2778+40 FENCE, 4' HOE WIRE 2778+64 PROPERTY LINE </p>	<p> 2780+00 MATCH LINE </p>
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TRC
Results you can rely on

REV.	BY	DATE	DESCRIPTION
P1	TRC	08/31/18	ISSUED FOR REVIEW
P2	TRC	09/20/18	FERC DRAFT CLIENT REVIEW
P3	TRC	11/02/18	ISSUED FOR FERC
P5	TRC	03/26/19	ISSUED FOR FERC SUPPLEMENTAL FILING

APPROVED FOR CONSTRUCTION

REV.	BY	DATE	DESCRIPTION
B	5112	18.01.18	X 0.375 W.T. X-65 FBE
9	88	18.01.18	X 0.375 W.T. X-65 FBE & POWERGRIT

APPROVED FOR BIDDING

REV.	BY	DATE	DESCRIPTION

Mountain Valley PIPELINE LLC
PIPELINE ALIGNMENT
MVP SOUTHGATE PROJECT - H-650 LINE
ROCKINGHAM COUNTY, NORTH CAROLINA
STA. 2728+00 TO STA. 2780+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-650-28
 SHEET: 56 OF 77 REV. P5
 DATE OF PLOT: 3/27/2019 4:14:00 PM