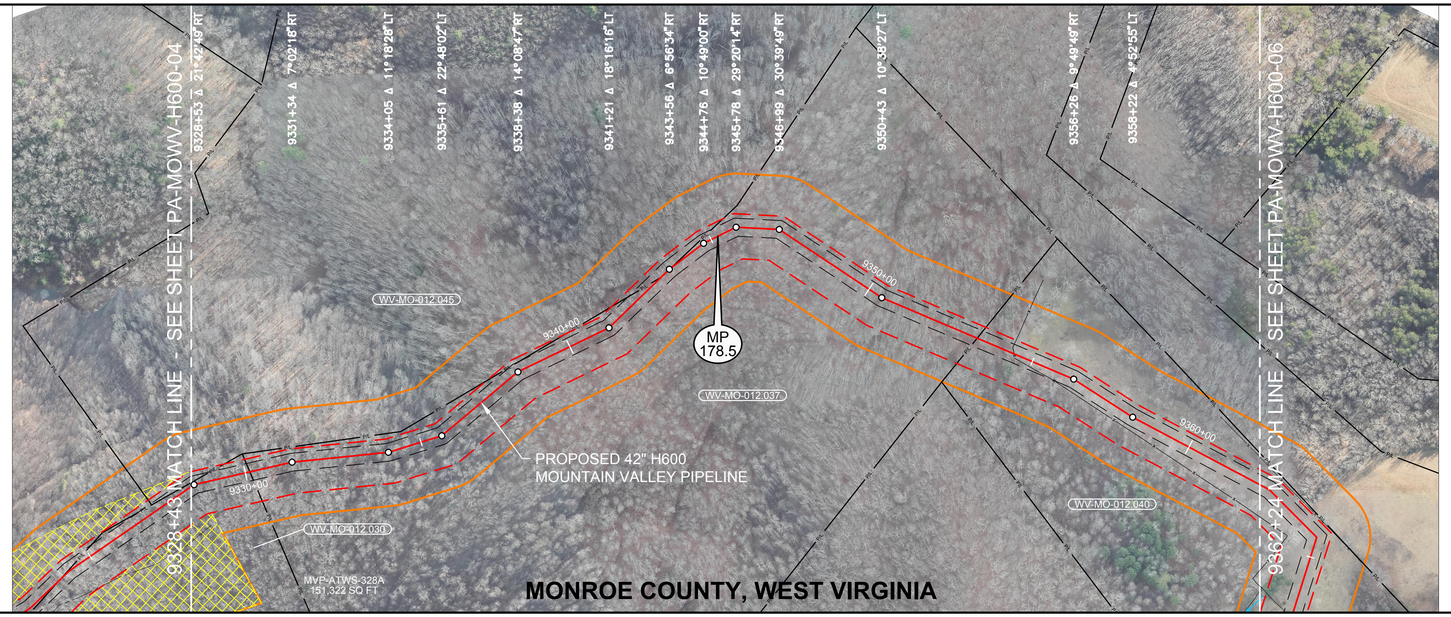
RIGHT-OF-WAY & OWNERSHIP DATA

		9328+43	WV-MO-012.045 / WV-MO-012.030: 104 LF, 104 SLOPE	9329+47	WV-MO-012.030: 66 LF, 66 SLOPE	9330+13	WV-MO-012.037: 741 LF, 742 SLOPE	9337+54	WV-MO-012.045 / WV-MO-012.037: 801 LF, 803 SLOPE	9345+55	WV-MO-012.037: 777 LF, 809 SLOPE	9353+32	WV-MO-012.040: 892 LF, 897 SLOPE	9362+24
DESIGN	PIPE / COATING	9328+43	1											9362+24
	SLOPE DISTANCE		3422'											
	CLASS LOCATION / HCA		1											
ENVIRONMENTAL	CONSTRUCTION EXCLUSION	9328+43	TIME OF YEAR RESTRICTION: NO TREE CLEARING MAY 1ST TO JULY 31ST											9362+24
	WETLAND / STREAM													
	.													
	.													



0' 100' 200' 400'

PLAN VIEW

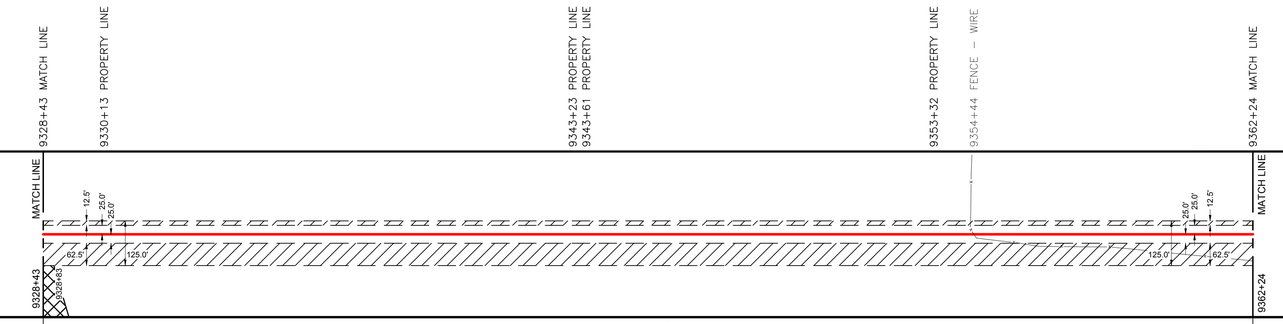
LEGEND

- STUDY CORRIDOR
- PROPOSED 42"PIPELINE
- NON-SURVEYED C/L
- 500' TICK MARK
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- ANCILLARY SITE
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- BARRACADE FENCE
- PI SYMBOL
- PROPOSED TEST STATION
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN
- TOWER LEG
- TREE
- GUY ANCHOR
- TANK
- GAS VALVE
- WELL - GAS/OIL/WATER/ MONITORING
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
MVP-AR-H600-10	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES

HORIZONTAL STATIONING



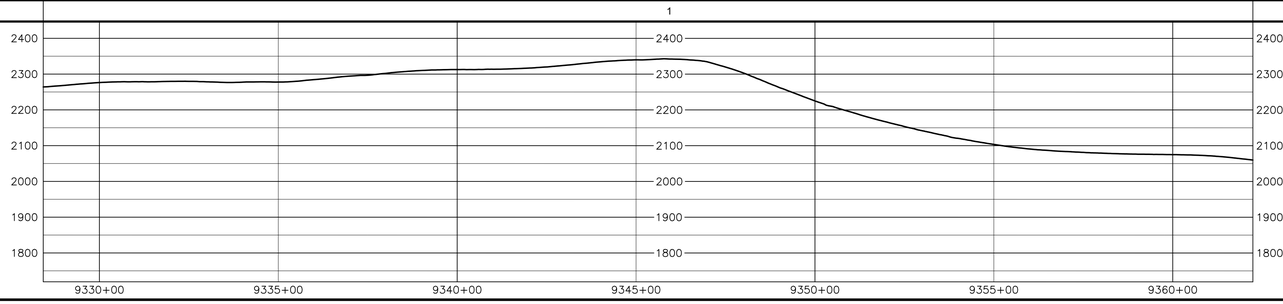
WORK SPACE

CONSTRUCTION METHOD

CONSTRUCTION METHOD KEY

1 - TYPICAL R/W WORKING SIDE RIGHT
1.1 - TYPICAL R/W WORKING SIDE RIGHT
2 - TYPICAL R/W WORKING SIDE LEFT
2.1 - TYPICAL R/W WORKING SIDE LEFT
3 - TYPICAL WETLAND X-ING
4 - ROAD X-ING - BORE
5 - RAILROAD X-ING - BORE
6 - WATERBODY X-ING OPEN CUT - FLUME
7 - PARALLEL TO POWER LINE
8 - RIDGE CONSTRUCTION
9 - WATERBODY X-ING OPEN CUT - WET DITCH
10 - HDD ENTRY PLAN
11 - HDD EXIT PLAN
12 - HDD CONSTRUCTION
13 - PARALLEL TO POWER LINE
14 - PARALLEL TO POWER LINE
15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
33 - SIDE HILL CONSTRUCTION
34 - 2 TONE SIDE HILL CONSTRUCTION

PROFILE



OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

HOLLAND ENGINEERING
220 Hoover Boulevard, Suite 2 | 2695 Evergreen Rd, Suite 430
Holland, Michigan 49423-3786 | Southfield, Michigan 48076
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REVISIONS

REV.	BY	DATE	DESCRIPTION
5	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC
4	HEI	09-23-16	REV. 4.0 ISSUED TO FERC
3	HEI	04-14-16	FERC DATA REQUEST No.2
2	HEI	01-11-16	FERC DATA REQUEST No.1
1	HEI	10-15-15	REV. 4.0 ISSUED TO FERC
0	HEI	10-1-15	REV. 4.0 ISSUED TO FERC

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	3422	42"O.D. X 0.617"W.T. X70 FBE BONDED EPOXY
		TYPE 1 TEST STATION - PIPELINE

APPROVED FOR FERC			APPROVED FOR BIDDING			APPROVED FOR CONSTRUCTION		
REV.	BY	DATE	REV.	BY	DATE	REV.	BY	DATE
0	RRR	10-15-15	3	RRR	09-03-16	-	-	-
4	RRR	10-14-16						

Mountain Valley PIPELINE

PIPELINE ALIGNMENT

MOUNTAIN VALLEY PROJECT - H600 LINE
WOLF CREEK & SPRINGFIELD DIST., MONROE CO.,W.V.
STA. 9328+43 TO STA. 9362+24

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/17/15
DRAFTING CK:	.
ENGINEERING CK:	.
CONSTRUCTION CK:	.
ENVIRONMENTAL CK:	.
AFE/P.O.NO.:	
HEI PROJECT NO.:	14-10-052
DRAWING NO.:	**PA-MOWV-H600-05**
SHEET 197 OF 329	REV. 4
DATE OF PLOT:	10/11/16 8:31 AM

RIGHT-OF-WAY & OWNERSHIP DATA

	9362+24 to 9376+28	9376+28 to 9376+58	9376+58 to 9386+25	9386+25 to 9402+04	9402+04 to 9405+60
RIGHT-OF-WAY & OWNERSHIP DATA	WV-MO-012.040 1404 LF 1413 SLOPE	COUNTY ROUTE 9 30 LF - 31 SLOPE	WV-MO-012.055 1058 LF 1096 SLOPE (EQUATION: 9379+48 BACK= 9378+57 AHEAD)	WV-MO-012.055 / WV-MO-012.060 1579 LF 1581 SLOPE	WV-MO-3504 / WV-MO-012.060 356 LF 360 SLOPE

DESIGN

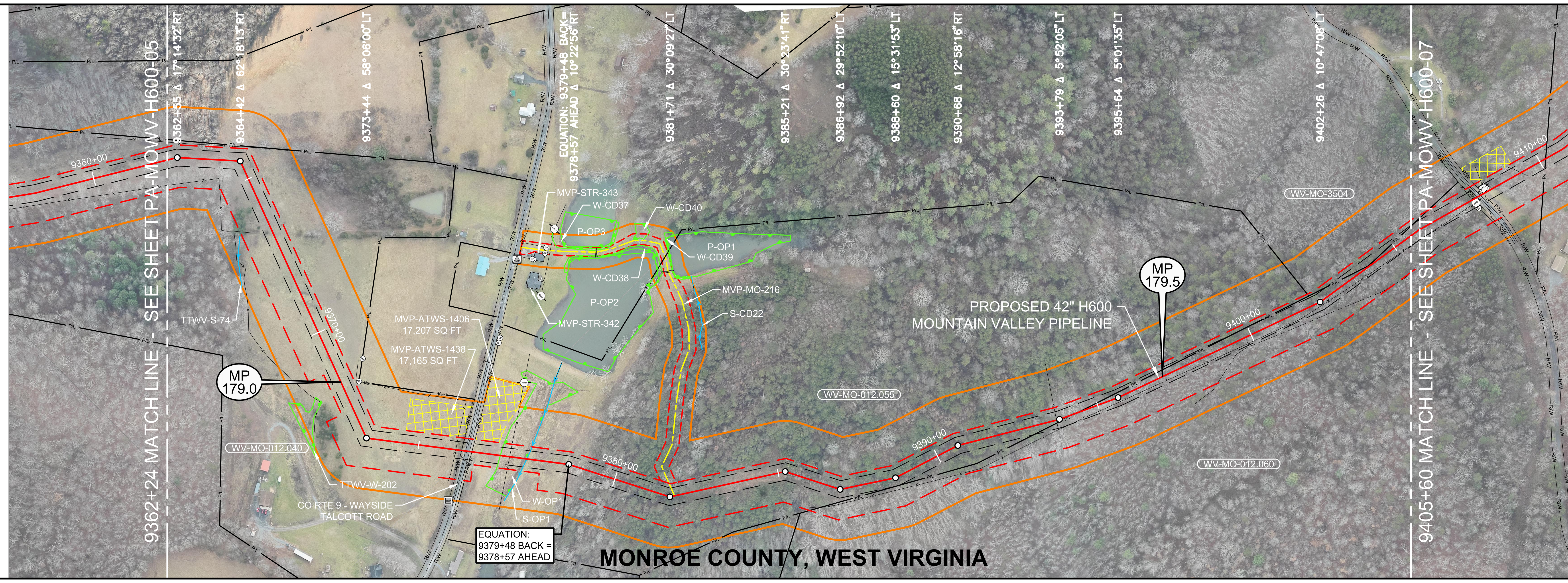
	9362+24 to 9376+23	9376+23 to 9376+63	9376+63 to 9405+60
PIPE / COATING	1	4	1
SLOPE DISTANCE	1408'	40'	3032'
CLASS LOCATION / HCA	1		

ENVIRONMENTAL

CONSTRUCTION EXCLUSION (9362+24 to 9405+60)	TIME OF YEAR RESTRICTION: NO TREE CLEARING MAY 1ST TO JULY 31ST
WETLAND / STREAM	W-OP1 96 LF; S-OP1 3 LF
.	
.	

PLAN VIEW

0' 100' 200' 400'



LEGEND

- STUDY CORRIDOR
- PROPOSED 42"PIPELINE
- NON-SURVEYED C/L
- 500' TICK MARK
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- ANCILLARY SITE
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- BARRACADE FENCE
- PI SYMBOL
- PROPOSED TEST STATION
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN
- TOWER LEG
- TREE
- GUY ANCHOR
- TANK
- GAS VALVE
- WELL - GAS/OIL/WATER/ MONITORING
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
MVP-AR-H600-10	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES

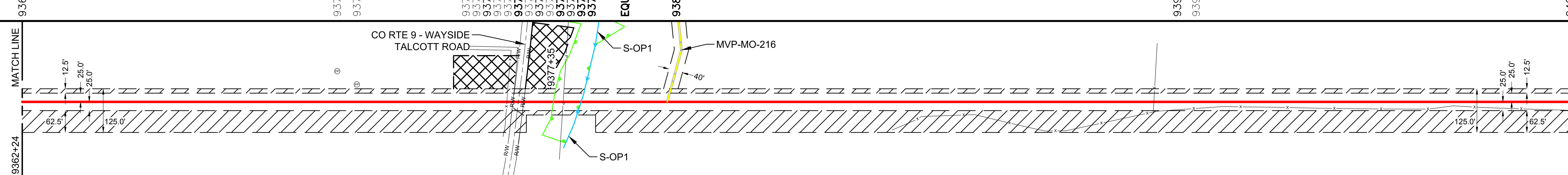
OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

HORIZONTAL STATIONING

- 9362+24 MATCH LINE
- 9371+25 FENCE POST 88'LT
- 9371+81 FENCE POST 50'LT
- 9376+10 FENCE - ELECTRIC
- 9376+27 FENCE - HOG WIRE
- 9376+28 RIGHT-OF-WAY
- 9376+30 CULVERT OPEN END 19'RT
- 9376+40 EDGE OF ASPHALT
- 9376+43 ℄ CO RTE 9 - WAYSIDE TALCOTT ROAD
- 9376+52 EDGE OF ASPHALT
- 9376+58 RIGHT-OF-WAY
- 9376+59 FENCE-HOG WIRE,CULV.OPEN END 39'RT
- 9377+38 BEGIN WETLAND(W-OP1)38'RT
- 9377+71 OHP LINE
- 9378+22 ℄ STREAM(S-OP1)
- 9378+33 END WETLAND(W-OP1)38'LT
- EQUATION: 9379+48 BACK = 9378+57 AHEAD
- 9381+86 ACCESS RD-TEMPORARY(MVP-MO-216)
- 9394+37 PROPERTY LINE
- 9393+70 FENCE - BARBED WIRE
- 9405+60 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

9362+24 to 9376+23	9376+23 to 9378+...	to 9405+60
1	3,6,9,15	1

CONSTRUCTION METHOD KEY

- 1 - TYPICAL R/W WORKING SIDE RIGHT
- 1.1 - TYPICAL R/W WORKING SIDE RIGHT
- 2 - TYPICAL R/W WORKING SIDE LEFT
- 2.1 - TYPICAL R/W WORKING SIDE LEFT
- 3 - TYPICAL WETLAND X-ING
- 4 - ROAD X-ING - BORE
- 5 - RAILROAD X-ING - BORE
- 6 - WATERBODY X-ING OPEN CUT - FLUME
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- 8 - RIDGE CONSTRUCTION
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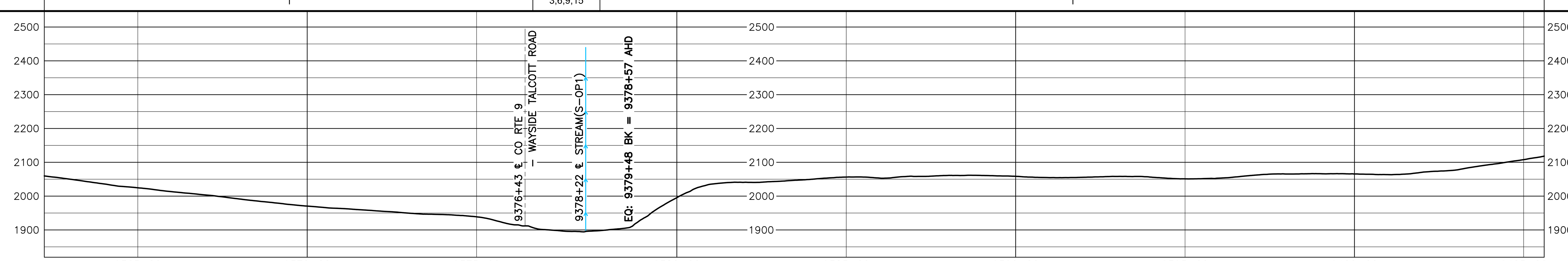
- 15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
- 33 - SIDE HILL CONSTRUCTION
- 34 - 2 TONE SIDE HILL CONSTRUCTION

PROFILE



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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	01-11-16	FERC DATA REQUEST No.1
2	HEI	04-14-16	FERC DATA REQUEST No.2
3	HEI	09-03-16	REV. 4.1.13 ISSUED FOR BID
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	4440	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
4	40	42"O.D. X 0.740"W.T., X-70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
3	RRR	09-03-16

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15
4	RRR	10-14-16

Mountain Valley PIPELINE

PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE SPRINGFIELD DIST., MONROE CO.,W.V. STA. 9362+24 TO STA. 9405+60

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/17/15
DRAFTING CK:	.
ENGINEERING CK:	.
CONSTRUCTION CK:	.
ENVIRONMENTAL CK:.	.
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-MOWV-H600-06	
SHEET 198 OF 329	REV. 4
DATE OF PLOT: 10/11/16 8:32 AM	

RIGHT-OF-WAY & OWNERSHIP DATA

Station	Parcel	Length
9405+60 – 9406+39	WV-MO-3504 / WV-MO-012.060	79 LF, 80 SLOPE
9406+39 – 9407+77	WV-MO-012.060	138 LF, 138 SLOPE
9407+77 – 9408+08	COUNTY ROUTE 7/5	31 LF - 31 SLOPE
9408+08 – 9409+61	WV-MO-012.065	153 LF, 164 SLOPE
9409+61 – 9410+45	WV-MO-012.065 / WV-MO-3507	83 LF, 89 SLOPE
9410+45 – 9415+46	WV-MO-3507	501 LF, 523 SLOPE
9415+46 – 9465+45	WV-MO-012.070	4997 LF, 5029 SLOPE

DESIGN

PIPE / COATING	9405+60	1	9407+72	4
	9408+12	EQUATION: 9410+77 BK= 9410+79 AHD	1	9465+45
SLOPE DISTANCE	213'	40'	5801'	
CLASS LOCATION / HCA	1			

ENVIRONMENTAL

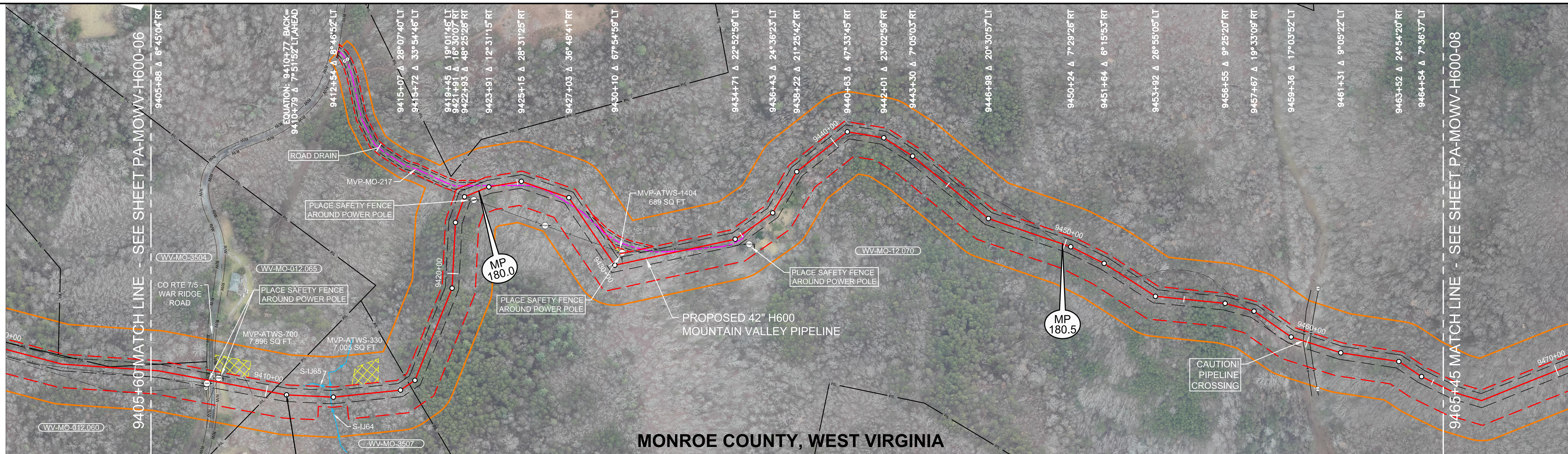
CONSTRUCTION EXCLUSION	9405+60 – T.O.Y.R.: NO CONSTRUCTION WITHIN STREAM S-83 OCT 1ST TO JUNE 30TH	TIME OF YEAR RESTRICTION: NO TREE CLEARING MAY 1ST TO JULY 31ST – 9465+45
WETLAND / STREAM	S-IJ64	2.5 LF
.		
.		

PLAN VIEW

0' 100' 200' 400'

LEGEND

STUDY CORRIDOR
PROPOSED 42"PIPELINE
NON-SURVEYED C/L
500' TICK MARK
EXISTING PIPELINE
PERMANENT EASEMENT
WORK SPACE LIMITS
PERMANENT ACCESS RD
TEMPORARY ACCESS RD
ANCILLARY SITE
COUNTY LINE
PROPERTY LINE
ROAD RIGHT-OF-WAY
FENCE LINE
OVERHEAD POWER
OVERHEAD TELEPHONE
C/L ROAD
C/L RAILROAD
DELINEATED STREAM
DELINEATED WETLAND
BARRACADE FENCE
PI SYMBOL – PROPOSED TEST STATION
MAILBOX – LINE MARKER - VENT PIPE
POWER/TELE POLE
SIGN – TOWER LEG
TREE – GUY ANCHOR
TANK – GAS VALVE
WELL - GAS/OIL/WATER/MONITORING
POST - GATE/FENCE
ELEC/GAS/WTR METER
PEDESTAL - UTILITY
MH - SANITARY/WATER
CATCH BASIN - CULVERT
ADDITIONAL TEMPORARY WORK SPACE(ATWS)
ABOVE GROUND FACILITY
LIMITS OF DISTURBANCE



EQUATION:
9410+77 BACK =
9410+79 AHEAD

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

REFERENCE DRAWINGS

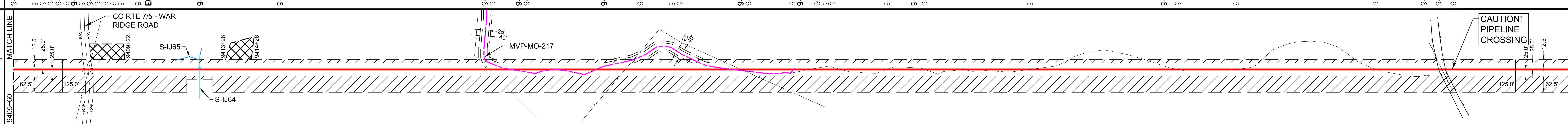
DRAWING NO.	DESCRIPTION
MVP-AR-H600-10	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES

HORIZONTAL STATIONING

9405+60 MATCH LINE
9407+72 GATE POST 19'RT
9407+75 GATE POST 31'RT
9407+75 POWER POLE 13'RT
9407+77 RIGHT-OF-WAY
9407+86 EDGE OF ASPHALT
9407+92 ℄ CO RTE 7/5 – WAR RIDGE ROAD
9407+98 EDGE OF ASPHALT
9408+08 RIGHT-OF-WAY
9408+15 POWER POLE 15'LT
9408+16 POWER POLE 12'LT
9408+18 PEDESTAL – TELEPHONE 15'LT
9408+34 GUY ANCHOR 11'LT
9410+19 PROPERTY LINE
EQUATION: 9410+77 BACK= 9410+79 AHEAD
9412+45 ℄ STREAM(S-IJ64)
9415+19 PROPERTY LINE
9422+96 OHP LINE
9423+21 POWER POLE 24'RT
9424+58 ACCESS RD – PERMANENT(MVP-MO-217)
9424+58 PROPERTY LINE
9427+51 ACCESS RD – PERMANENT(MVP-MO-217)
9429+20 OHP LINE
9430+41 GUY ANCHOR 23'LT
9430+46 POWER POLE 40'LT
9432+75 ACCESS RD – PERMANENT(MVP-MO-217)
9433+09 OHP LINE
9435+03 POWER POLE 46'RT
9435+09 ACCESS RD – PERMANENT(MVP-MO-217)
9435+16 GUY ANCHOR 60'RT
9435+70 ℄ FIELD ROAD(DIRT)
9436+90 ℄ FIELD ROAD(DIRT)
9438+67 ℄ FIELD ROAD(DIRT)
9439+70 PROPERTY LINE
9440+11 ℄ FIELD ROAD(DIRT)
9444+16 ℄ FIELD ROAD(DIRT)
9449+30 PROPERTY LINE
9449+83 ℄ FIELD ROAD(DIRT)
9452+07 ℄ FIELD ROAD(DIRT)
9457+42 ℄ FIELD ROAD(DIRT)
9459+84 PIPELINE – FOREIGN – COLUMBIA
9459+97 20"PIPELINE – FOREIGN – COLUMBIA
9460+11 PIPELINE – FOREIGN – COLUMBIA
9465+45 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

1	6,9,15	1

CONSTRUCTION METHOD KEY

1 - TYPICAL R/W WORKING SIDE RIGHT
1.1 - TYPICAL R/W WORKING SIDE RIGHT
2 - TYPICAL R/W WORKING SIDE LEFT
2.1 - TYPICAL R/W WORKING SIDE LEFT
3 - TYPICAL WETLAND X-ING
4 - ROAD X-ING - BORE
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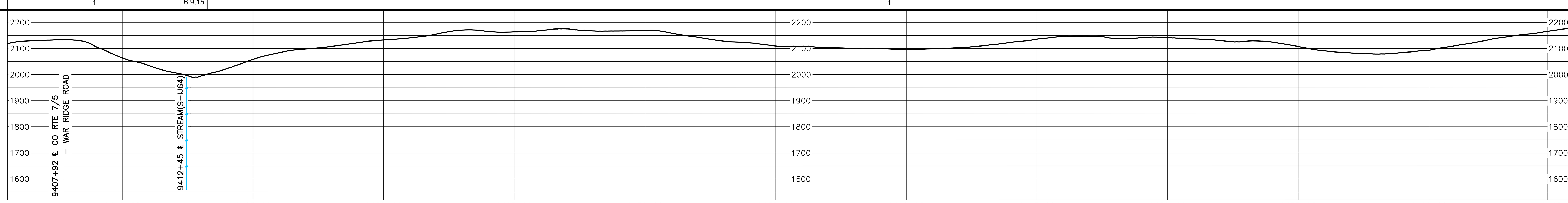
33 - SIDE HILL CONSTRUCTION
34 - 2 TONE SIDE HILL CONSTRUCTION

PROFILE



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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	01-11-16	FERC DATA REQUEST No.1
2	HEI	04-14-16	FERC DATA REQUEST No.2
3	HEI	09-03-16	REV. 4.1.13 ISSUED FOR BID
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	6014	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
4	40	42"O.D. X 0.740"W.T., X-70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE
		TYPE 4 TEST STATION - FOREIGN PIPELINE

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
3	RRR	09-03-16

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15
4	RRR	10-14-16

Mountain Valley PIPELINE

PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE
SPRINGFIELD DIST., MONROE CO.,W.V.
STA. 9405+60 TO STA. 9465+45

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/17/15
DRAFTING CK:	.
ENGINEERING CK:	.
CONSTRUCTION CK:	.
ENVIRONMENTAL CK:	.
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-MOWV-H600-07	
SHEET 199 OF 329	REV. 4
DATE OF PLOT: 10/11/16 8:32 AM	

PIPELINE ALIGNMENT

MOUNTAIN VALLEY PROJECT - H600 LINE
SPRINGFIELD DIST., MONROE CO.,W.V.
STA. 9465+45 TO STA. 9518+25

RIGHT-OF-WAY & OWNERSHIP DATA

Station range	Tract	Length
9465+45 – 9479+20	WV-MO-012.070	1375 LF / 1411 SLOPE
9479+20 – 9480+03	WV-MO-012.080 / WV-MO-012.070	83 LF / 89 SLOPE
9480+03 – 9486+63	WV-MO-012.080	660 LF / 669 SLOPE
9486+63 – 9487+85	WV-MO-012.085 / WV-MO-012.080	122 LF / 123 SLOPE
9487+85 – 9488+68	WV-MO-012.085	83 LF / 84 SLOPE
9488+68 – 9495+78	WV-MO-012.085 / WV-MO-012.080	807 LF / 827 SLOPE
9495+78 – 9518+25	WV-MO-012.085	2247 LF / 2296 SLOPE

DESIGN

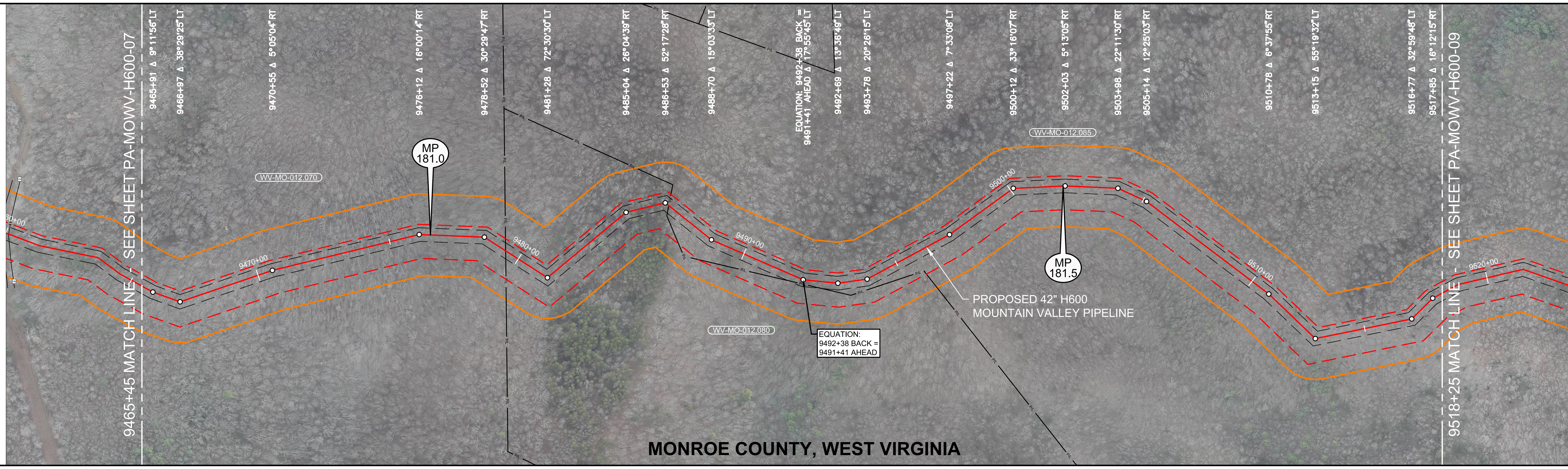
PIPE / COATING	9465+45 – 9518+25: 1 (EQUATION: 9492+38 BK= 9491+41 AHD)
SLOPE DISTANCE	5499'
CLASS LOCATION / HCA	1

ENVIRONMENTAL

CONSTRUCTION EXCLUSION	9465+45 – 9518+25: TIME OF YEAR RESTRICTION: NO TREE CLEARING MAY 1ST TO JULY 31ST
WETLAND / STREAM	
.	
.	

PLAN VIEW

0' 100' 200' 400'



AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

LEGEND

- STUDY CORRIDOR
- PROPOSED 42"PIPELINE
- NON-SURVEYED C/L
- 500' TICK MARK
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- ANCILLARY SITE
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- BARRACADE FENCE
- PI SYMBOL / PROPOSED TEST STATION
- MAILBOX / LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN / TOWER LEG
- TREE / GUY ANCHOR
- TANK / GAS VALVE
- WELL - GAS/OIL/WATER/ MONITORING
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

REFERENCE DRAWINGS

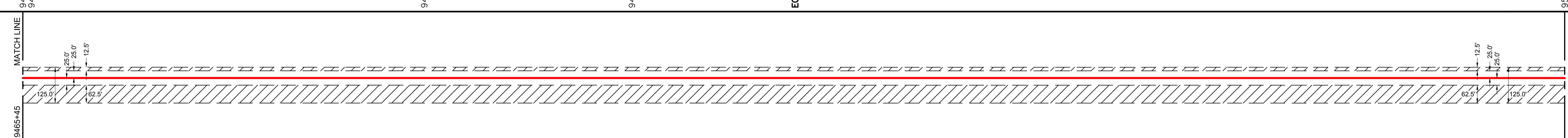
DRAWING NO.	DESCRIPTION
MVP-AR-H600-10	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES

HORIZONTAL STATIONING

- 9465+45 MATCH LINE
- 9465+45 PROPERTY LINE
- 9479+45 PROPERTY LINE
- 9486+69 PROPERTY LINE
- EQUATION: 9492+38 BACK = 9491+41 AHEAD
- 9518+25 MATCH LINE

WORK SPACE

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



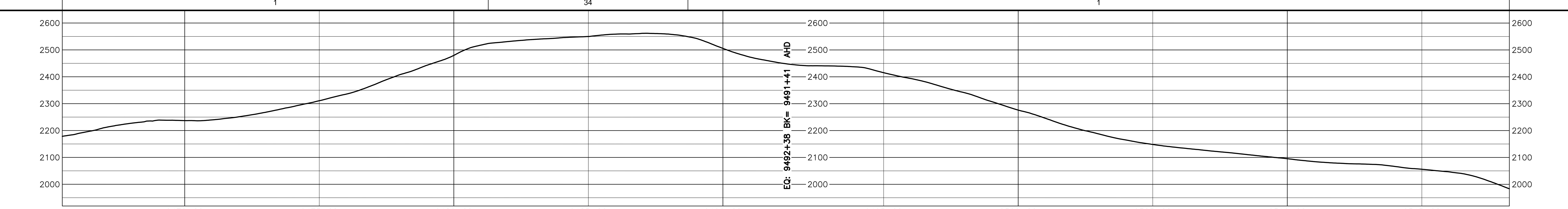
CONSTRUCTION METHOD

Station range	Method
9465+45 – ~9481	1
~9481 – ~9489	34
~9489 – 9518+25	1

CONSTRUCTION METHOD KEY

1 - TYPICAL R/W WORKING SIDE RIGHT
1.1 - TYPICAL R/W WORKING SIDE RIGHT
2 - TYPICAL R/W WORKING SIDE LEFT
2.1 - TYPICAL R/W WORKING SIDE LEFT
3 - TYPICAL WETLAND X-ING
4 - ROAD X-ING - BORE
5 - RAILROAD X-ING - BORE
6 - WATERBODY X-ING OPEN CUT - FLUME
7 - PARALLEL TO POWER LINE
8 - RIDGE CONSTRUCTION
9 - WATERBODY X-ING OPEN CUT - WET DITCH
10 - HDD ENTRY PLAN
11 - HDD EXIT PLAN
12 - HDD CONSTRUCTION
13 - PARALLEL TO POWER LINE
14 - PARALLEL TO POWER LINE
15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
33 - SIDE HILL CONSTRUCTION
34 - 2 TONE SIDE HILL CONSTRUCTION

PROFILE



MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	5499	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
		TYPE 1 TEST STATION - PIPELINE

REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	01-11-16	FERC DATA REQUEST No.1
2	HEI	04-14-16	FERC DATA REQUEST No.2
3	HEI	09-03-16	REV. 4.1.13 ISSUED FOR BID
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
3	RRR	09-03-16

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15
4	RRR	10-14-16

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Mountain Valley PIPELINE

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/17/15
DRAFTING CK:	.
ENGINEERING CK:	.
CONSTRUCTION CK:	.
ENVIRONMENTAL CK:.	.
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-MOWV-H600-08	
SHEET 200 OF 329	REV. 4
DATE OF PLOT: 10/11/16 8:32 AM	

RIGHT-OF-WAY & OWNERSHIP DATA

STA.	9518+25	9543+11	9545+83	9561+09	9561+59	9567+19	9567+49	9568+09	9568+37	9568+96	9569+05	9570+92	9574+42	9574+95	9576+25
Parcel	WV-MO-012.085	WV-MO-012.085 / WV-MO-012.090	WV-MO-012.085	WV-MO-012.085 / WV-MO-012.095	WV-MO-012.095	STATE HIGHWAY 122	WV-MO-012.105	WV-MO-012.110 / WV-MO-012.105	INDIAN CREEK	WV-MO-012.110 / WV-MO-012.105	WV-MO-012.110	WV-MO-012.115	WV-MO-012.110 / WV-MO-012.115	WV-MO-012.110	
Length	2486 LF 2522 SLOPE	272 LF 273 SLOPE	1526 LF 1529 SLOPE	50 LF 50 SLOPE	560 LF 572 SLOPE	30 LF - 30 SLOPE	59 LF 60 SLOPE	28 LF 28 SLOPE	59 LF 59 SLOPE	9 LF 9 SLOPE	186 LF 202 SLOPE	350 LF 359 SLOPE	53 LF 55 SLOPE	130 LF 144 SLOPE	

DESIGN

	9518+25	9544+75	6545+15	9548+99	9549+39	9551+27	9551+67	9566+86	9569+26	9576+25
PIPE / COATING	1	4	1	4	1	4	1	4	1	
SLOPE DISTANCE	2685'	40'	386'	40'	188'	40'	1532'	240'	743'	
CLASS LOCATION / HCA	1									

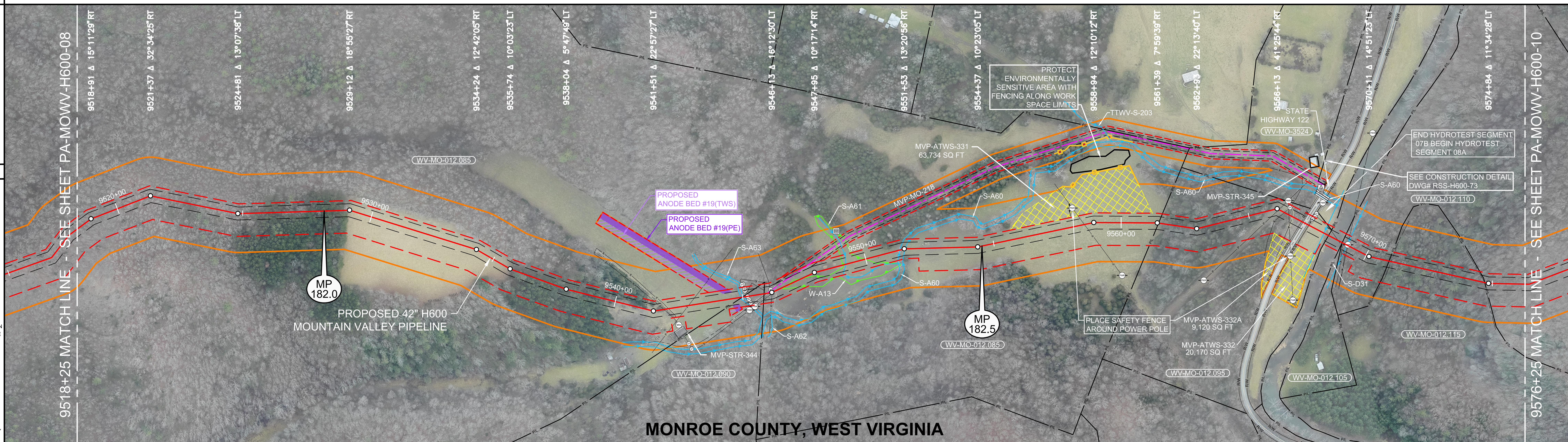
ENVIRONMENTAL

CONSTRUCTION EXCLUSION: 9518+25 — TIME OF YEAR RESTRICTION: NO TREE CLEARING MAY 1ST TO JULY 31ST; T.O.Y.R.: NO CONSTRUCTION WITHIN STREAM S-D31 OCT 1ST TO JUNE 30TH — 9576+25

WETLAND / STREAM	S-A63	W-A13	S-A61	S-A60	S-D31
	10 LF	428 LF	7 LF	21 LF	100 LF

PLAN VIEW

0' 100' 200' 400'



LEGEND

- STUDY CORRIDOR
- PROPOSED 42"PIPELINE
- NON-SURVEYED C/L
- 500' TICK MARK
- EXISTING PIPELINE
- PERMANENT EASEMENT
- WORK SPACE LIMITS
- PERMANENT ACCESS RD
- TEMPORARY ACCESS RD
- ANCILLARY SITE
- COUNTY LINE
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- BARRACADE FENCE
- PI SYMBOL
- PROPOSED TEST STATION
- MAILBOX
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN
- TOWER LEG
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- GUY ANCHOR
- TANK
- GAS VALVE
- WELL - GAS/OIL/WATER/ MONITORING
- POST - GATE/FENCE
- ELEC/GAS/WTR METER
- PEDESTAL - UTILITY
- MH - SANITARY/WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE(ATWS)
- ABOVE GROUND FACILITY
- LIMITS OF DISTURBANCE

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION
MVP-AR-H600-10	ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES
MVP-QDAR-H600-73	ACCESS ROAD DETAIL MAP

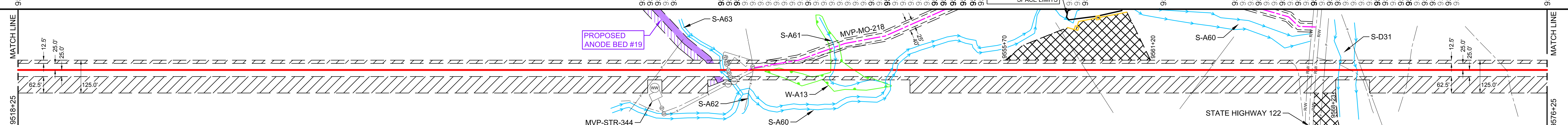
OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

HORIZONTAL STATIONING

9518+25 MATCH LINE
9541+92 FENCE - ELECTRIC
9542+10 FENCE - ELECTRIC
9542+39 WELL - WATER 68'RT
9542+56 BUILDING - BARN 75'RT
9542+88 OHP LINE
9544+91 STREAM BANK(S-A63)
9544+98 PROPERTY LINE
9545+02 STREAM BANK(S-A63)
9545+04 GATE POST 47'LT
9545+09 GATE POST 48'LT
9545+12 GATE POST 31'LT
9545+14 GATE POST 22'LT
9545+17 PEDESTAL - TELEPHONE 53'RT
9545+17 POWER POLE 53'RT
9545+18 GATE POST 24'LT
9545+18 FENCE - WOOD
9545+18 GATE POST
9545+18 BRIDGE - PEDESTRIAN 33'RT
9545+22 GATE POST 12'RT
9545+27 GATE POST 27'RT
9545+36 GATE POST 39'RT
9545+40 POWER POLE 43'RT
9545+40 PEDESTAL - TELEPHONE 42'RT
9545+83 PROPERTY LINE
9545+92 EDGE OF DIRT
9545+95 ACCESS RD - PERMANENT(MVP-MO-218)
9546+01 ℄ DRIVEWAY(GRAVEL)
9546+11 EDGE OF DIRT
9546+11 GATE POST 12'LT
9546+13 GATE
9546+13 GATE POST 1'RT
9546+57 BEGIN WETLAND(W-A13)5'RT
9549+19 ℄ STREAM(S-A61)
9550+85 END WETLAND(W-A13)38'RT
9551+37 STREAM BANK(S-A60)
9551+58 STREAM BANK(S-A60)
9551+81 SENSITIVE AREA 141'RT
PROTECT ENVIRONMENTALLY SENSITIVE AREA WITH FENCING ALONG WORK SPACE LIMITS
9558+12 GUY ANCHOR 66'LT
9558+24 POWER POLE 72'LT
9558+57 OHP LINE
9561+44 PROPERTY LINE
9566+20 OHP LINE
9566+28 GUY ANCHOR 56'LT
9566+36 POWER POLE 48'LT
9566+44 FENCE - ELECTRIC
9566+54 GATE POST 27'LT
9566+55 GATE POST 31'LT
9566+64 OHP LINE
9566+77 ℄ FIELD ROAD(DIRT)
9567+19 RIGHT-OF-WAY
9567+25 EDGE OF ASPHALT
9567+34 ℄ STATE HIGHWAY 122
9567+44 EDGE OF ASPHALT
9567+49 RIGHT-OF-WAY
9567+51 OHP LINE
9567+52 GATE POST 28'LT
9567+56 GATE POST 41'LT
9567+56 GATE POST 54'LT
9567+57 GATE POST 40'LT
9568+16 STREAM BANK(S-D31)
9568+36 PROPERTY LINE
9568+78 ℄ FIELD ROAD(DIRT)
9568+96 PROPERTY LINE
9569+16 STREAM BANK(S-D31)
9569+19 POWER POLE 3'LT
9569+19 OHP LINE
9570+91 PROPERTY LINE
9571+00 ℄ FIELD ROAD(DIRT)
9574+70 PROPERTY LINE
9574+70 ℄ FIELD ROAD(DIRT)
9576+25 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

9518+25 –										– 9576+25
1	3	1	3,6,9,15	3,6,9,15,34	SEE LAND SLIDE MITIGATION PLAN 34	34	1	6,9,15	1	

CONSTRUCTION METHOD KEY

1 - TYPICAL R/W WORKING SIDE RIGHT
1.1 - TYPICAL R/W WORKING SIDE RIGHT
2 - TYPICAL R/W WORKING SIDE LEFT
2.1 - TYPICAL R/W WORKING SIDE LEFT
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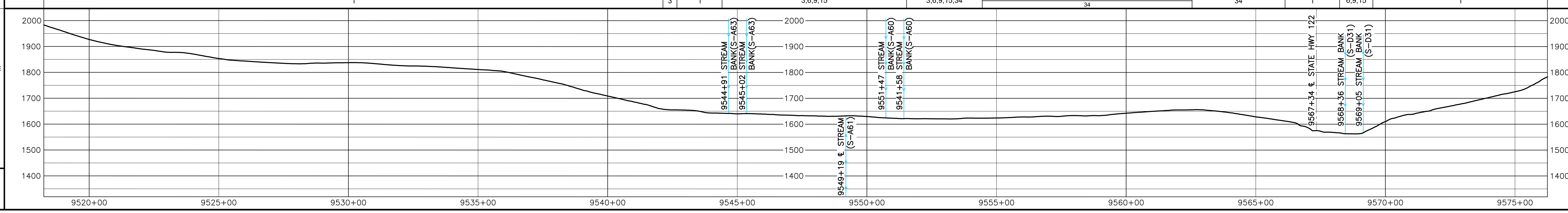
PROFILE



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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	01-11-16	FERC DATA REQUEST No.1
2	HEI	04-14-16	FERC DATA REQUEST No.2
3	HEI	09-03-16	REV. 4.1.13 ISSUED FOR BID
4	HEI	10-14-16	OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	5484	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
4	360	42"O.D. X 0.740"W.T., X-70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
3	RRR	09-03-16

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15
4	RRR	10-14-16

Mountain Valley PIPELINE

PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE SPRINGFIELD DIST., MONROE CO.,W.V. STA. 9518+25 TO STA. 9576+25

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	02/17/15
DRAFTING CK:	.
ENGINEERING CK:	.
CONSTRUCTION CK:	.
ENVIRONMENTAL CK:	.
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-MOWV-H600-09	
SHEET 201 OF 329	REV. 4
DATE OF PLOT: 10/12/16 9:44 AM	