RIGHT-OF-WAY & OWNERSHIP DATA

Station	Owner(s)	Length / Slope
1621+37 – 1623+16	WV-HA-136, WV-HA-135, WV-HA-134	179 LF, 180 SLOPE
1623+16 – 1624+97	WV-HA-136, WV-HA-134	181 LF, 182 SLOPE
1624+97 – 1627+90	WV-HA-134	293 LF, 293 SLOPE
1627+90 – 1629+24	WV-HA-134, WV-HA-137	135 LF, 136 SLOPE
1629+24 – 1629+60	WV-HA-139, WV-HA-134, WV-HA-137	35 LF, 37 SLOPE
1629+60 – 1631+17	WV-HA-139, WV-HA-137	157 LF, 161 SLOPE
1631+17 – 1631+55	WV-HA-137	38 LF, 39 SLOPE
1631+55 – 1633+18	WV-HA-138	163 LF, 164 SLOPE
1633+18 – 1634+43	WV-HA-139, WV-HA-138	125 LF, 125 SLOPE
1634+43 – 1635+00	WV-HA-139, WV-HA-140, WV-HA-138	57 LF, 57 SLOPE
1635+00 – 1645+58	WV-HA-140	1058 LF, 1071 SLOPE
1645+58 – 1651+42	WV-HA-141	585 LF, 607 SLOPE
1651+42 – 1651+81	COUNTY ROUTE 28	39 LF - 42 SLOPE
1651+81 – 1658+70	WV-HA-141	689 LF, 720 SLOPE
EQ: 1659+92 BK = 1638+82 AHD – 1645+93	WV-HA-142, WV-HA-141	833 LF, 852 SLOPE
1645+93 – 1653+89	WV-HA-142, WV-DO-001	796 LF, 804 SLOPE

DESIGN

PIPE / COATING	1621+37	1	1651+42 · 4 · 1651+82	1	1653+89
SLOPE DISTANCE		3053'	40'	2376'	
CLASS LOCATION / HCA		1			

ENVIRONMENTAL

CONSTRUCTION EXCLUSION

WETLAND / STREAM

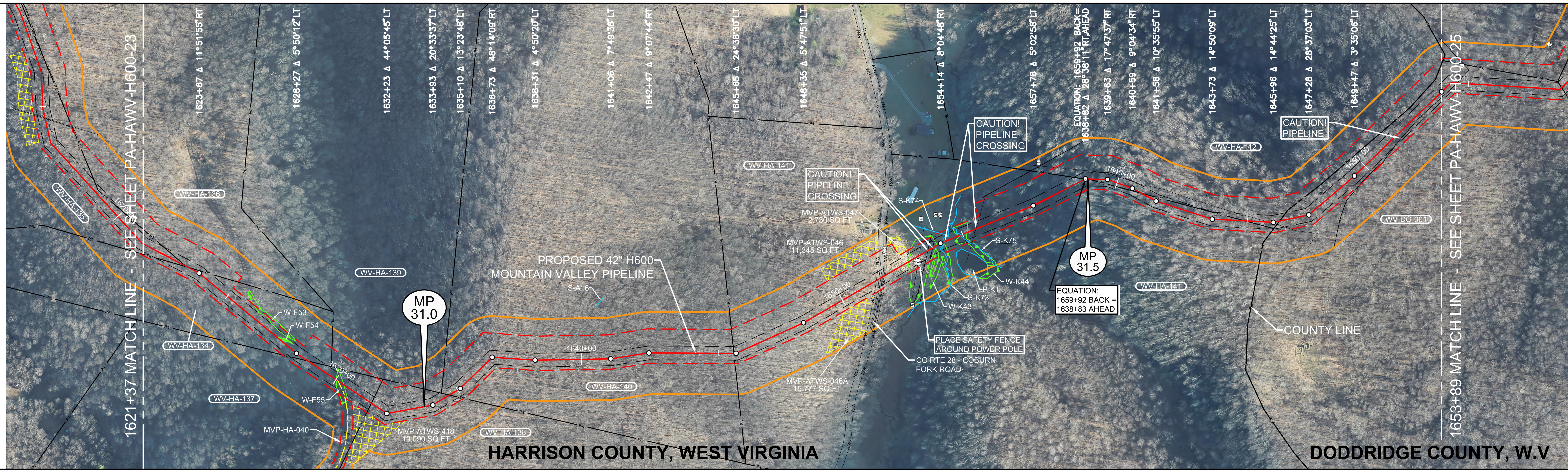
W-F53	W-F54	W-F55	W-K43	S-K74	S-K73	S-K75	W-K44
204 LF	60 LF	93 LF	161 LF	2.5 LF	5 LF	3 LF	67 LF

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



REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION

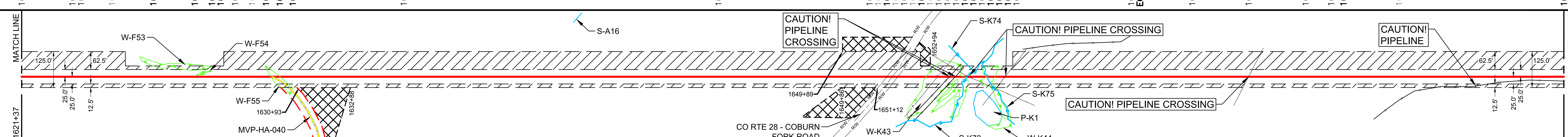
REV 4.0.0 - ISSUED TO FERC

HORIZONTAL STATIONING

1621+37 MATCH LINE
1623+13 PROPERTY LINE
1623+20 PROPERTY LINE
1624+50 PROPERTY CORNER 23'LT
1625+94 BEGIN WETLAND(W-F53) 38'LT
1627+38 BEGIN WETLAND(W-F54) 2'LT
1627+97 END WETLAND(W-F54) 19'LT
1627+98 END WETLAND(W-F53) 34'LT
1628+78 PROPERTY LINE
1629+37 PROPERTY CORNER 64'LT
1629+85 BEGIN WETLAND(W-F55) 37'LT
1630+08 ACCESS RD - TEMPORARY(MVP-HA-040)
1630+78 END WETLAND(W-F55) 38'RT
1634+64 PROPERTY LINE
1645+58 PROPERTY LINE
1651+42 RIGHT-OF-WAY
1651+54 EDGE OF GRAVEL
1651+62 ℄ CO RTE 28 - COBURN FORK ROAD
1651+69 EDGE OF GRAVEL
1651+75 FENCE - BARBED WIRE
1651+81 RIGHT-OF-WAY
1652+66 BEGIN WETLAND(W-K43) 38'RT
1653+08 POWER POLE 17'RT
1653+23 OHP LINE
1653+60 PIPELINE - FOREIGN - DOMINION
1653+80 PIPELINE - FOREIGN - DOMINION
1654+20 ℄ STREAM(S-K73)
1654+27 END WETLAND(W-K43) 13'RT
1654+27 (DOMINION) PIPELINE
1654+65 BEGIN WETLAND(W-K44) 13'RT
1654+93 ℄ STREAM(S-K75)
1655+32 END WETLAND(W-K44) 32'LT
1655+53 20"TL-413(DOMINION) PIPELINE
1659+91 PROPERTY LINE
EQUATION: 1659+92 BACK = 1638+82 AHEAD
1640+97 PROPERTY LINE
1642+90 (DOMINION) PIPELINE
1644+92 PROPERTY LINE
1645+80 FENCE - BARBED WIRE
1646+19 END HARRISON COUNTY, BEGIN DODDRIDGE CO., PROPERTY LINE
REV.1
1648+16 DEER STAND 29'LT
1653+89 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

CONSTRUCTION METHOD KEY
1 - TYPICAL R/W CONFIGURATION
2 - TYPICAL R/W CONFIGUARTION
3 - TYPICAL "SKINNEY" FOR WATER BODY
4 -
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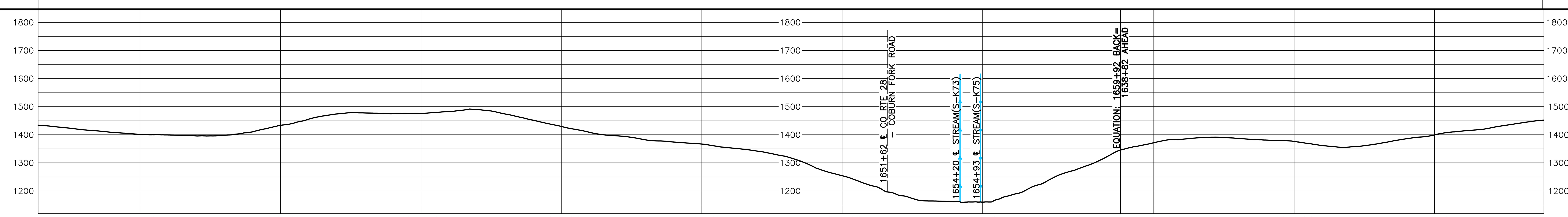
PROFILE



AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

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220 Hoover Boulevard, Suite 2, Holland, Michigan 49423-3766, T 616-392-5938 F 616-392-2116
26555 Evergreen Rd. Suite. 430, Southfield, Michigan 48076, T 248-827-7322 F 248-827-7549
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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	04-11-16	FERC DATA REQUEST NO.2

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	5429	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 CROSSING

	REV.	BY	DATE
APPROVED FOR CONSTRUCTION	.	.	.
APPROVED FOR BIDDING	.	.	.
APPROVED FOR FERC	0	RRR	10-15-15

Mountain Valley PIPELINE

PIPELINE ALIGNMENT

MOUNTAIN VALLEY PROJECT - H600 LINE
TENMILE DIST., HARRISON CO. & GREENBRIER DIST., DODDRIDGE CO. W.V.
STA. 1621+37 TO STA. 1653+89

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	4/4/2016
DRAFTING CK:	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-HAWV-H600 -24	
SHEET 33 OF 326	REV. 0
DATE OF PLOT: 4/19/2016 10:00 AM	

RIGHT-OF-WAY & OWNERSHIP DATA

Station	Owner (upper)	Owner (lower)	Length
1653+89 – 1654+26	WV-HA-142	WV-DO-001	37 LF / 37 SLOPE
1654+26 – 1654+41	WV-HA-142 / WV-DO-002	WV-DO-001	15 LF / 15 SLOPE
1654+41 – 1658+44	WV-DO-002	WV-DO-001	403 LF / 404 SLOPE
1658+44 – 1670+28	WV-DO-002	WV-DO-003	1184 LF / 1191 SLOPE
1670+28 – 1674+30	WV-DO-005.01	WV-DO-003	402 LF / 405 SLOPE
1674+30 – 1678+17	WV-DO-005.01	WV-DO-004	387 LF / 387 SLOPE
1678+17 – 1682+55	WV-DO-004		438 LF / 441 SLOPE
1682+55 – 1683+96	WV-DO-005		141 LF / 141 SLOPE
1683+96 – 1687+64	WV-DO-005.01	WV-DO-005	368 LF / 371 SLOPE
1687+64 – 1693+51	WV-DO-005		587 LF / 633 SLOPE
1693+51 – 1693+81	COUNTY ROUTE 15/5		30 LF - 31 SLOPE
1693+81 – 1701+60	WV-DO-005		779 LF / 787 SLOPE
1701+60 – 1709+45	WV-HA-143		785 LF / 790 SLOPE
1709+45 – 1710+33	COUNTY ROUTE 15/5	WV-HA-143	88 LF / 88 SLOPE

DESIGN

Station	PIPE / COATING	SLOPE DISTANCE	CLASS LOCATION / HCA
1653+89 – 1665+93	1	1220'	1
1665+93 – 1671+07	2	521'	2
1671+07 – 1675+87	1	487'	1
1675+87 – 1678+25	2	241'	2
1678+25 – 1683+65	1	547'	1
1683+65 – 1693+46	2	994'	2
1693+46 – 1693+66	5	40'	2
1693+66 – 1710+33	2	1671'	2

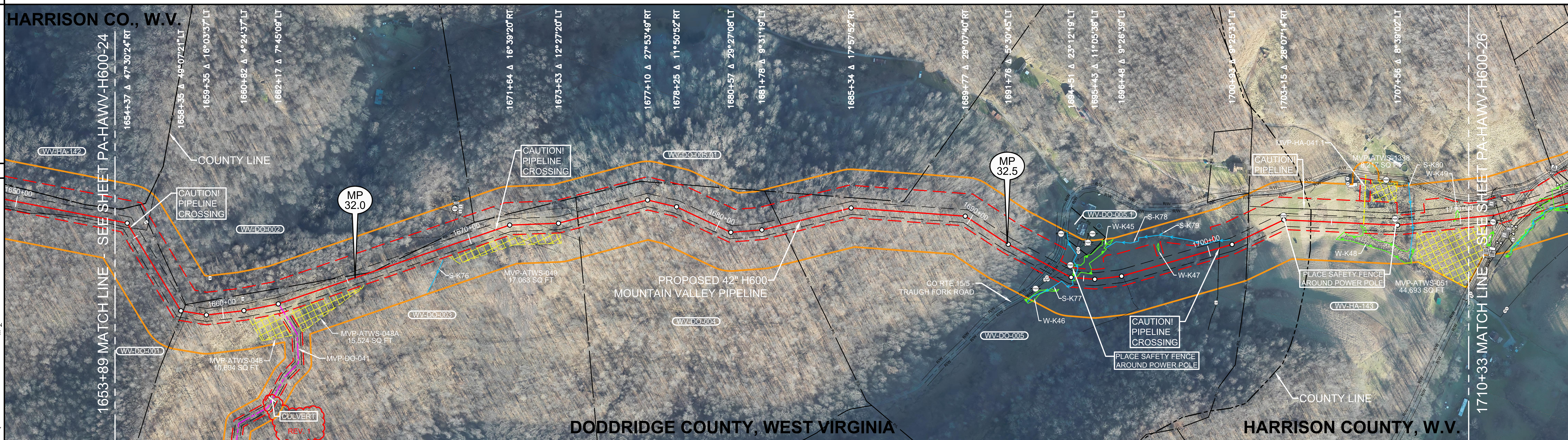
ENVIRONMENTAL

CONSTRUCTION EXCLUSION

WETLAND / STREAM	S-K77	W-K45	S-K78	W-K48	S-K80	W-K49
	4 LF	74 LF	3 LF	31 LF	3 LF	26 LF

PLAN VIEW

0' 100' 200' 400'



AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

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

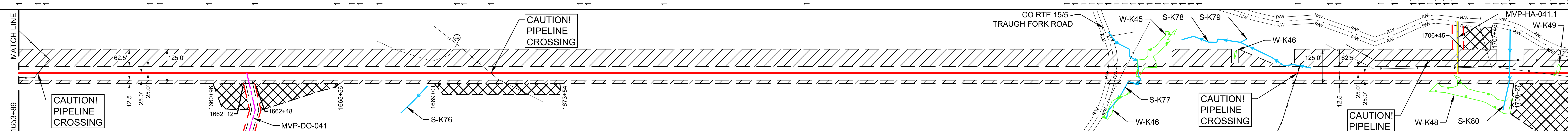
REV 4.0.0 - ISSUED TO FERC

HORIZONTAL STATIONING

- **1653+89 MATCH LINE**
- 1654+58 PIPELINE – FOREIGN – DOMINION
- 1654+73 LINE MARKER 49'LT
- 1658+43 PROPERTY LINE
- 1659+01 FENCE – BARBED WIRE
- 1660+81 LINE MARKER 31'LT
- **1662+18 ACCESS RD –PERMANENT(MVP–DO–041)**
- 1665+47 FENCE – BARBED WIRE
- 1666+00 PROPERTY LINE
- 1666+04 PROPERTY LINE
- 1667+01 FENCE – BARBED WIRE
- 1669+83 WELL – GAS 129'LT
- 1670+07 BUILDING – SHED 112'LT
- 1672+72 (DOMINION) PIPELINE
- 1674+30 PROPERTY LINE
- 1674+32 FENCE – BARBED WIRE
- 1677+37 BUILDING – CABIN 63'LT
- 1682+55 PROPERTY LINE
- 1693+31 FENCE – BARBED WIRE
- 1693+51 RIGHT–OF–WAY
- 1693+59 EDGE OF ASPHALT
- 1693+66 GATE POST 54'RT
- 1693+66 GATE POST 56'RT
- **1693+66 ℄ CO RTE 15/5 – TRAUGH FORK ROAD**
- 1693+68 GATE POST 43'RT
- 1693+71 EDGE OF ASPHALT
- 1693+76 GATE POST 49'RT
- 1693+81 RIGHT–OF–WAY
- 1694+05 OHP LINE
- 1694+26 BUILDING – SHED 121'LT
- 1694+26 POWER POLE 41'LT
- 1694+27 FENCE – WIRE
- **1694+54 BEGIN WETLAND(W–K45) 12'RT**
- **1694+63 ℄ STREAM(S–K77)**
- **1695+28 END WETLAND(W–K45) 19'RT**
- 1700+42 PIPELINE – FOREIGN – CNX
- 1701+60 PROPERTY LINE
- 1701+67 FENCE – ELECTRIC
- 1703+15 POWER POLE 16'LT
- **1704+20 COUNTY LINE**
- **1705+50 BEGIN WETLAND(W–K48) 38'RT**
- **1705+53 END WETLAND(W–K48) 38'RT**
- 1705+58 BUILDING – SHED 136'LT
- **1706+13 BEGIN WETLAND(W–K48) 8'RT**
- **1706+39 END WETLAND(W–K48) 38'RT**
- **1706+24 ACCESS ROAD–TEMPORARY (MVP–HA–041.1)**
- 1706+41 CONCRETE FOUNDATION 61'LT
- 1707+45 POWER POLE 23'LT
- 1707+48 PEDESTAL – TELEPHONE 25'LT
- 1707+51 GUY ANCHOR 3'RT
- **1708+14 ℄ STREAM(S–K80)**
- 1708+16 ℄ DRAIN
- 1709+34 OHP LINE
- **1709+74 BEGIN WETLAND(W–K49) 9'RT**
- **1709+99 END WETLAND(W–K49) 17'LT**
- **1710+33 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

CONSTRUCTION METHOD KEY

1 - TYPICAL R/W CONFIGURATION
2 - TYPICAL R/W CONFIGUARTION
3 - TYPICAL "SKINNEY" FOR WATER BODY
4 -
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6 -
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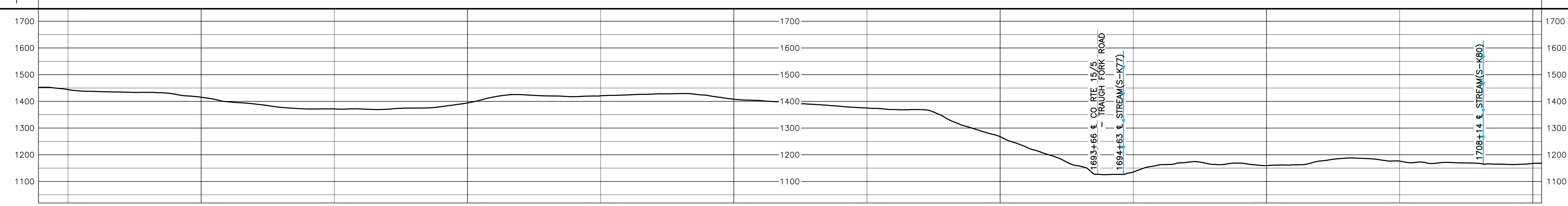
PROFILE



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Southfield, Michigan 48076
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www.hollandengineering.com

REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC
1	HEI	04-11-16	FERC DATA REQUEST NO.2

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	2254	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
2	3427	42"O.D. X 0.740"W.T., X-70, FUSION BONDED EPOXY
5	40	42"O.D. X 0.888"W.T., X-70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE
		TYPE 4 TEST STATION - FOREIGN CROSSING

APPROVED FOR CONSTRUCTION		
REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING		
REV.	BY	DATE
.	.	.

APPROVED FOR FERC		
REV.	BY	DATE
0	RRR	10-15-15

Mountain Valley PIPELINE

PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE
UNION DIST., HARRISON CO. &
GREENBRIER DIST., DODDRIDGE CO., W.V.
STA. 1653+89 TO STA. 1710+33

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	4/4/2016
DRAFTING CK:	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-HAWV-H600 -25	
SHEET 34 OF 326	REV. 1
DATE OF PLOT: 4/19/2016 10:01 AM	

RIGHT-OF-WAY & OWNERSHIP DATA

Station	Ownership	Length
1710+33 – 1711+51	COUNTY ROUTE 30/5; WV-HA-143	118 LF 118 SLOPE
1711+51 – 1714+16	COUNTY ROUTE 30/5 TURTLETREE FORK ROAD; WV-HA-143	265 LF 269 SLOPE
1714+16 – 1714+92	WV-HA-144; WV-HA-143	76 LF 76 SLOPE
1714+92 – 1727+99	WV-HA-144	1298 LF 1300 SLOPE
1727+99 – 1728+21	COUNTY ROUTE 30/1	31 LF - 31 SLOPE
1728+21 – 1733+73	WV-HA-144	552 LF 584 SLOPE
1733+73 – 1738+63	WV-HA-144; WV-HA-145	490 LF 509 SLOPE
1738+63 – 1745+26	WV-HA-145	663 LF 671 SLOPE
1745+26 – 1745+82	WV-HA-145; WV-HA-146	56 LF 58 SLOPE
1745+82 – 1746+29	WV-HA-145; WV-HA-146; BDO-2	47 LF 48 SLOPE
1746+29 – 1748+41	BDO-2; WV-HA-146	212 LF 216 SLOPE

DESIGN

Station	PIPE / COATING	SLOPE DISTANCE	CLASS LOCATION / HCA
1710+33 – 1711+77	2	144'	2
1711+77 – 1712+57	5	80'	2
1712+57 – 1714+96	2	243'	2
1714+96 – 1717+11	1	215'	1
1717+11 – 1727+85	2	1076'	2
1727+85 – 1728+25	5	40'	2
1728+25 – 1732+95	2	495'	2
1732+95 – 1748+41	1	1587'	1

ENVIRONMENTAL

CONSTRUCTION EXCLUSION

WETLAND / STREAM

REV. 2

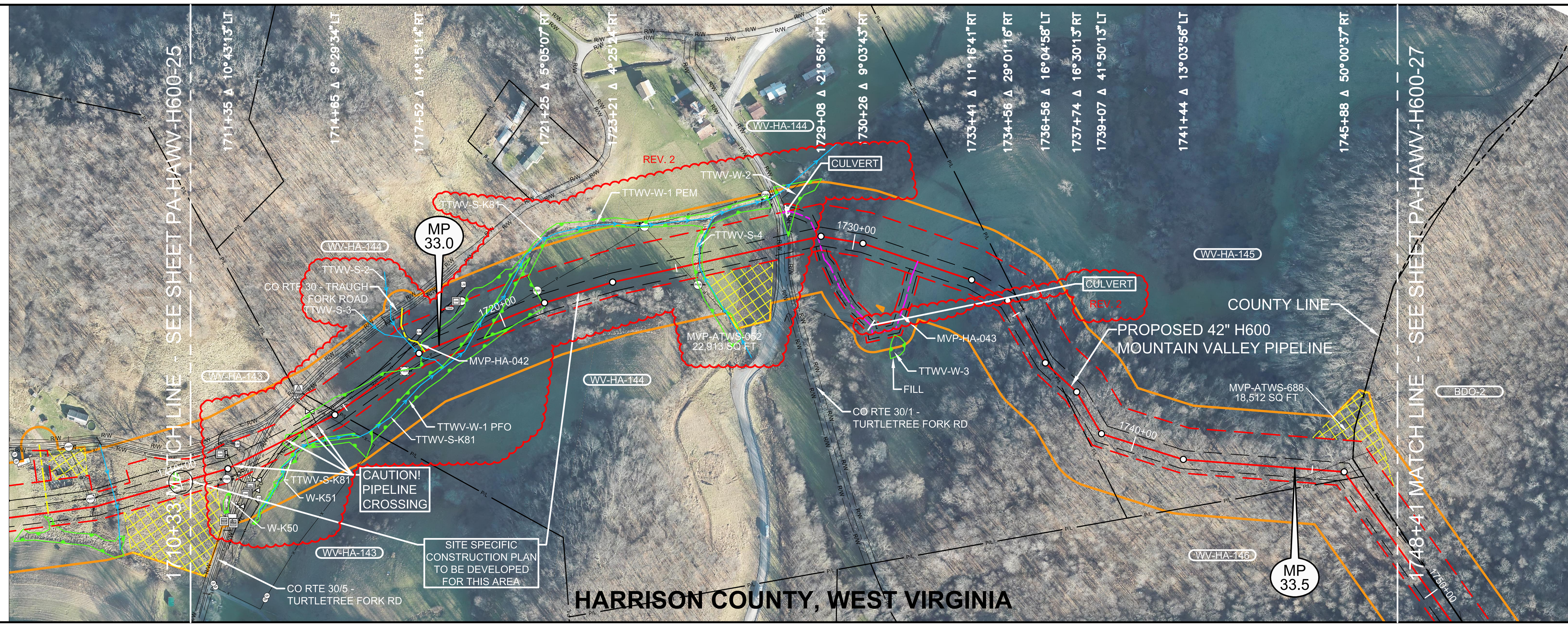
W-K51	TTWV-W-1 PEM	TTWV-W-1 PFO	TTWV-S-2	TTWV-W-1 PEM		TTWV-W-1 PEM	TTWV-S-4	TTWV-W-2
58 LF	534 LF	70 LF	LF	146 LF		25 LF	LF	40 LF

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



REV 4.0.0 - ISSUED TO FERC

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION

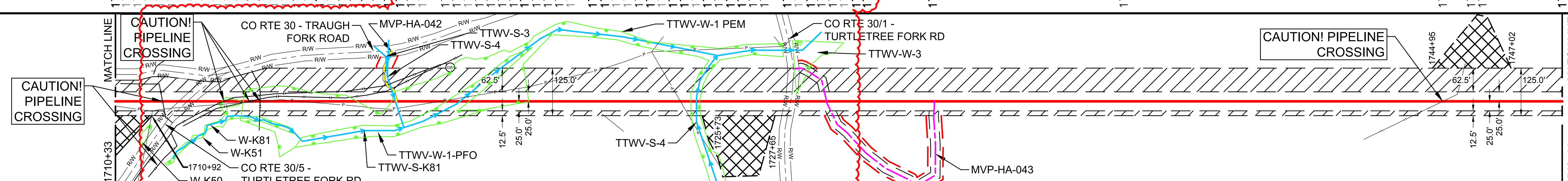
HORIZONTAL STATIONING

REV. 2

- 1710+33 MATCH LINE
- 1710+99 GUY ANCHOR 32'RT
- 1711+24 POWER POLE 26'RT
- 1711+25 METER – GAS 45'LT
- 1711+26 METER – GAS 45'LT
- 1711+28 METER – GAS 44'LT
- 1711+28 VALVE – GAS 44'LT
- 1711+30 GUY ANCHOR 1'RT
- 1711+35 GUY ANCHOR 29'RT
- 1711+42 METER – GAS 45'LT
- 1711+43 VALVE – GAS 46'LT
- 1711+48 VENT PIPE 42'RT
- 1711+52 PIPELINE – FOREIGN – UNKNOWN
- 1711+79 FENCE – BARBED WIRE
- 1711+82 LINE MARKER 35'LT
- 1711+83 LINE MARKER 36'LT
- 1711+95 RIGHT–OF–WAY
- 1712+04 EDGE OF GRAVEL
- 1712+17 ℄ CO RTE 30/5 –TURTLETREE FORK RD
- 1712+25 EDGE OF GRAVEL
- 1712+34 FENCE – BARBED WIRE
- 1712+39 RIGHT–OF–WAY
- 1713+01 BEGIN WETLAND(W–K51) 8'RT
- 1713+13 PIPELINE – FOREIGN – UNKNOWN
- 1713+59 END WETLAND(W–K51) 1'LT
- 1713+69 BEGIN WETLAND(TTWV–W–1 PEM)
- 1713+81 PIPELINE – FOREIGN – CONSOL
- 1713+87 VENT PIPE 81'LT
- LINE MARKER 81'LT
- 1713+98 UNGRD UTILITY – TELEPHONE
- 1714+06 OHP LINE
- 1714+07 VALVE – GAS 40'LT
- 1714+09 PIPELINE – FOREIGN – UNKNOWN
- 1714+50 FENCE – HOG WIRE
- 1714+75 PROPERTY LINE
- 1715+14 OHP LINE
- 1717+52 ℄ STREAM(TTWV–S–K81)
- 1715+62 UNGRD UTILITY – TELEPHONE
- 1716+01 UNGRD UTILITY – TELEPHONE
- 1716+46 UNGRD UTILITY – TELEPHONE
- 1716+91 PEDESTAL – TELEPHONE 16'RT
- POWER POLE 16'RT
- 1719+22 ℄ STREAM(TTWV–S–4)
- 1717+68 ACCESS ROAD–TEMPORARY(MVP–HA–042)
- 1717+68 LINE MARKER 40'LT
- 1718+76 TANK – UNKNOWN 84'LT
- 1718+82 OHP LINE
- 1719+03 BEGIN WETLAND(TTWV–W–1 PFO)
- 1719+14 WELL – GAS 89'LT
- 1719+73 BEGIN WETLAND(TTWV–W–1 PFO)
- 1721+19 END WETLAND(TTWV–W–1 PEM)
- 1721+18 POWER POLE 39'LT
- 1725+48 BEGIN WETLAND(TTWV–W–1 PEM)
- 1725+15 OHP LINE
- 1725+66 ℄ STREAM(TTWV–S–2)
- 1725+48 END WETLAND(TTWV–W–1 PEM)
- 1727+84 FENCE – BARBED WIRE
- 1727+90 RIGHT–OF–WAY
- EDGE OF GRAVEL
- 1728+05 ℄ CO RTE 30/1 –TURTLETREE FORK RD
- 1728+16 EDGE OF GRAVEL
- 1728+16 BEGIN WETLAND(TTWV–W–2)
- 1728+21 RIGHT–OF–WAY
- 1728+29 FENCE – BARBED WIRE
- 1728+32 GATE POST 82'LT
- 1728+56 END WETLAND(TTWV–W–2)
- 1728+99 ACCESS ROAD–PERMANENT(MVP–HA–043)
- 1731+84 ACCESS ROAD–PERMANENT(MVP–HA–043)
- 1736+86 PROPERTY LINE
- 1745+27 30"(DOMINION) PIPELINE
- 1745+94 FENCE – BARBED WIRE
- 1746+11 PROPERTY LINE
- 1748+41 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

CONSTRUCTION METHOD KEY
1 - TYPICAL R/W CONFIGURATION
2 - TYPICAL R/W CONFIGUARTION
3 - TYPICAL "SKINNEY" FOR WATER BODY
4 -
5 -
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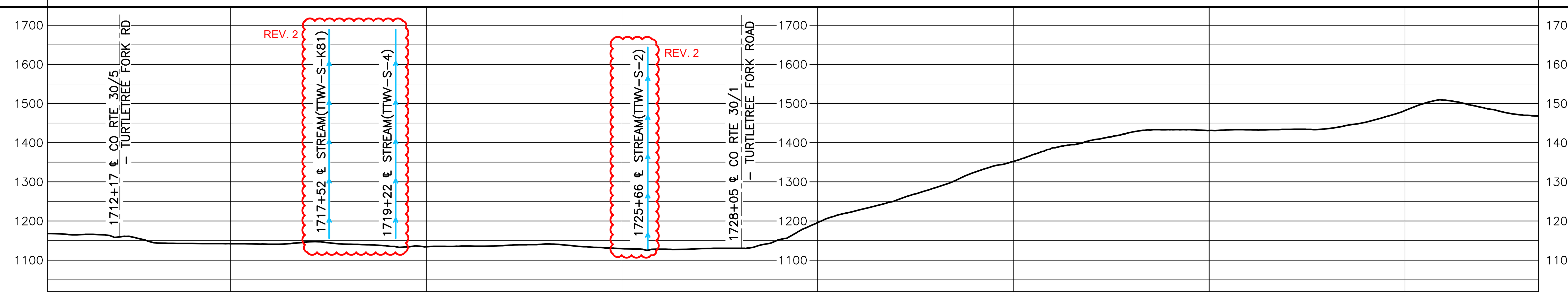
PROFILE



AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

HOLLAND ENGINEERING
220 Hoover Boulevard, Suite 2, Holland, Michigan 49423-3766, T 616-392-5938 F 616-392-2116
26555 Evergreen Rd. Suite 430, Southfield, Michigan 48076, T 248-827-7322 F 248-827-7549
www.hollandengineering.com

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 21 - ADDED NHD WATERBOBY
2	HEI	04-11-16	FERC DATA REQUEST NO.2

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	1802	42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY
2	1958	42"O.D. X 0.740"W.T., X-70, FUSION BONDED EPOXY
5	120	42"O.D. X 0.888"W.T., X-70, FBE & ARO
		TYPE 1 TEST STATION - PIPELINE
		TYPE 4 TEST STATION - FOREIGN CROSSING

APPROVED FOR CONSTRUCTION

REV.	BY	DATE
.	.	.

APPROVED FOR BIDDING

REV.	BY	DATE
.	.	.

APPROVED FOR FERC

REV.	BY	DATE
0	RRR	10-15-15

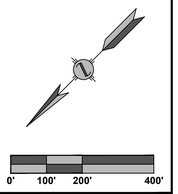
Mountain Valley PIPELINE

PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE
UNION DIST., HARRISON CO.,W.V.
STA. 1710+33 TO STA. 1748+41

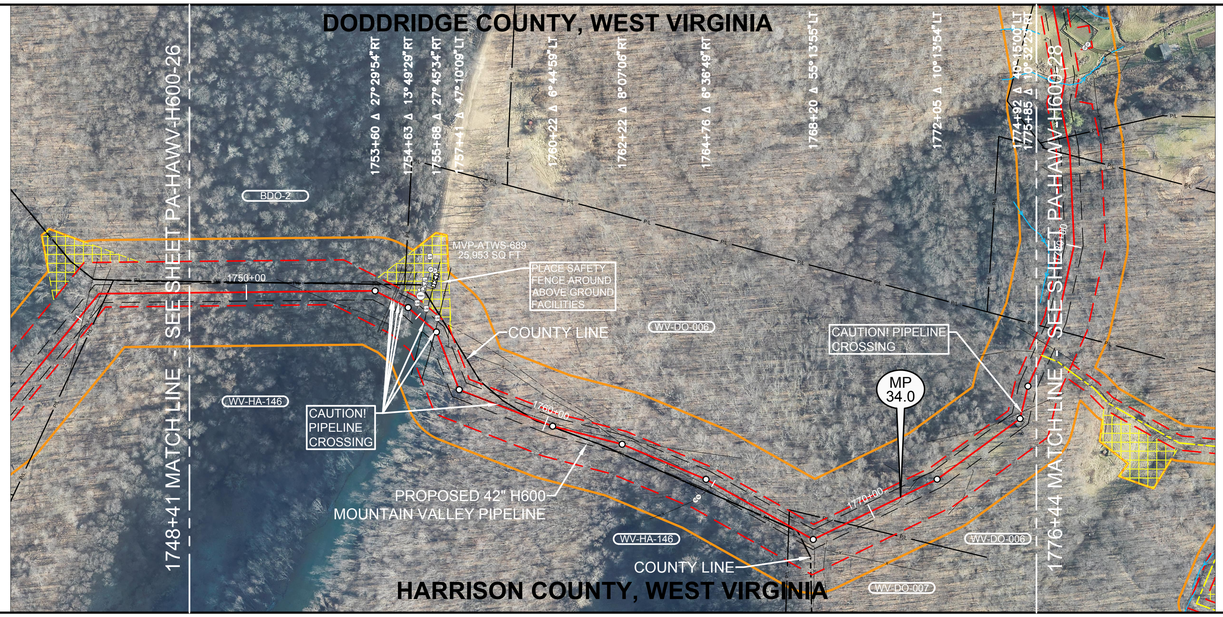
HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	4/4/2016
DRAFTING CK:	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-HAWV-H600 -26	
SHEET 35 OF 326	REV. 2
DATE OF PLOT: 4/19/2016 2:25 PM	

RIGHT-OF-WAY & OWNERSHIP DATA

		1748+41		1753+94	1754+54	1755+96	1758+05	1767+42	1768+46	1770+29	1776+44
		BDO-2		WV-HA-146	WV-DO-006	WV-HA-146	WV-HA-146	WV-DO-006	WV-DO-007	WV-DO-006	WV-DO-006
		WV-HA-146		160 LF	WV-HA-146	209 LF	WV-HA-146	104 LF	WV-DO-007	615 LF	
		553 LF		161 SLOPE	42 LF	210 SLOPE	937 LF	105 SLOPE	183 LF	633 SLOPE	
		560 SLOPE			42 SLOPE		954 SLOPE		187 SLOPE		
DESIGN	PIPE / COATING	1748+41	1								1776+44
	SLOPE DISTANCE	2852'									
	CLASS LOCATION / HCA	1									
ENVIRONMENTAL	CONSTRUCTION EXCLUSION										
	WETLAND / STREAM										
	.										
	.										



PLAN VIEW



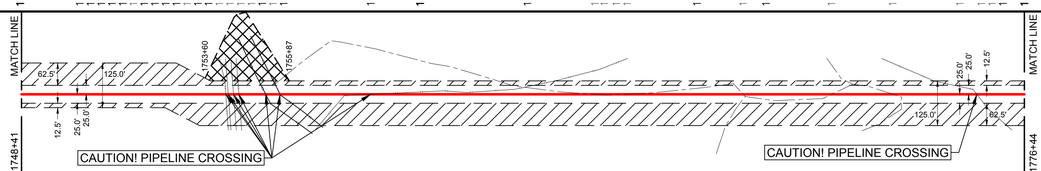
LEGEND

- 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

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 1

CONSTRUCTION METHOD KEY
1 - TYPICAL R/W CONFIGURATION
2 - TYPICAL R/W CONFIGUARTION
3 - TYPICAL "SKINNEY" FOR WATER BODY
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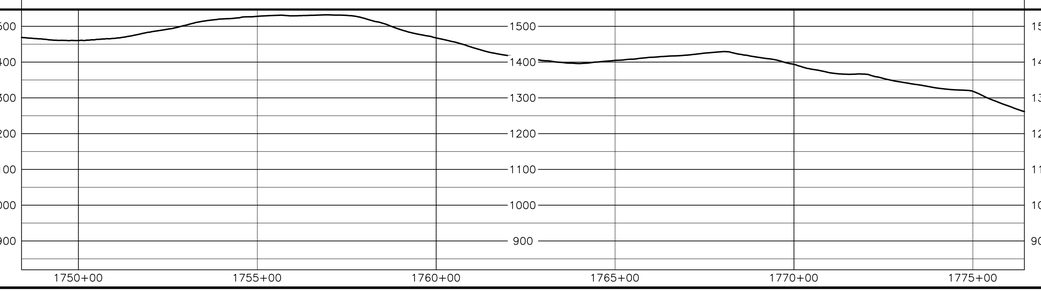
PROFILE



REV 4.0.0 - ISSUED TO FERC

HOLLAND ENGINEERING
220 Hoover Boulevard, Suite 2 | 2655 Evergreen Rd, Suite 430
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REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	10-15-15	REV. 4.0.0 ISSUED TO FERC

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

MATERIAL SUMMARY

MK. NO.	QTY.	DESCRIPTION
1	2852	42"O.D. X 0.617"W.T. X70 FBE BONDED EPOXY
		TYPE 1 TEST STATION - PIPELINE
		TYPE 4 TEST STATION - FOREIGN CROSSING

APPROVED FOR CONSTRUCTION			
REV.	BY	DATE	
-	-	-	

APPROVED FOR BIDDING			
REV.	BY	DATE	
-	-	-	

APPROVED FOR FERC			
REV.	BY	DATE	
0	HRR	10-15-15	

Mountain Valley PIPELINE

PIPELINE ALIGNMENT

MOUNTAIN VALLEY PROJECT - H600 LINE

UNION DIST., HARRISON CO. & GREENBRIER DIST., DODDRIDGE CO.,W.V.

STA. 1748+41 TO STA. 1776+44

HORZ. SCALE: 1" = 200'	
DRAWN BY: HEI(DRF)	4/4/2016
DRAFTING CK:	
ENGINEERING CK:	
CONSTRUCTION CK:	
ENVIRONMENTAL CK:	
AFE/P.O.NO.:	
HEI PROJECT NO.: 14-10-052	
DRAWING NO.: PA-HAWV-H600 -27	
SHEET 36 OF 326	REV. 0
DATE OF PLOT: 4/19/2016 10:01 AM	