## RIGHT-OF-WAY & OWNERSHIP DATA

| | 4977+22 | EQUATION: 4986+86 BACK= 4986+91 AHEAD | | 5024+25 |
|---|---|---|---|---|
| RIGHT-OF-WAY & OWNERSHIP DATA | | (WV-WB-018) 4707 LF 4719 SLOPE | | |

## DESIGN

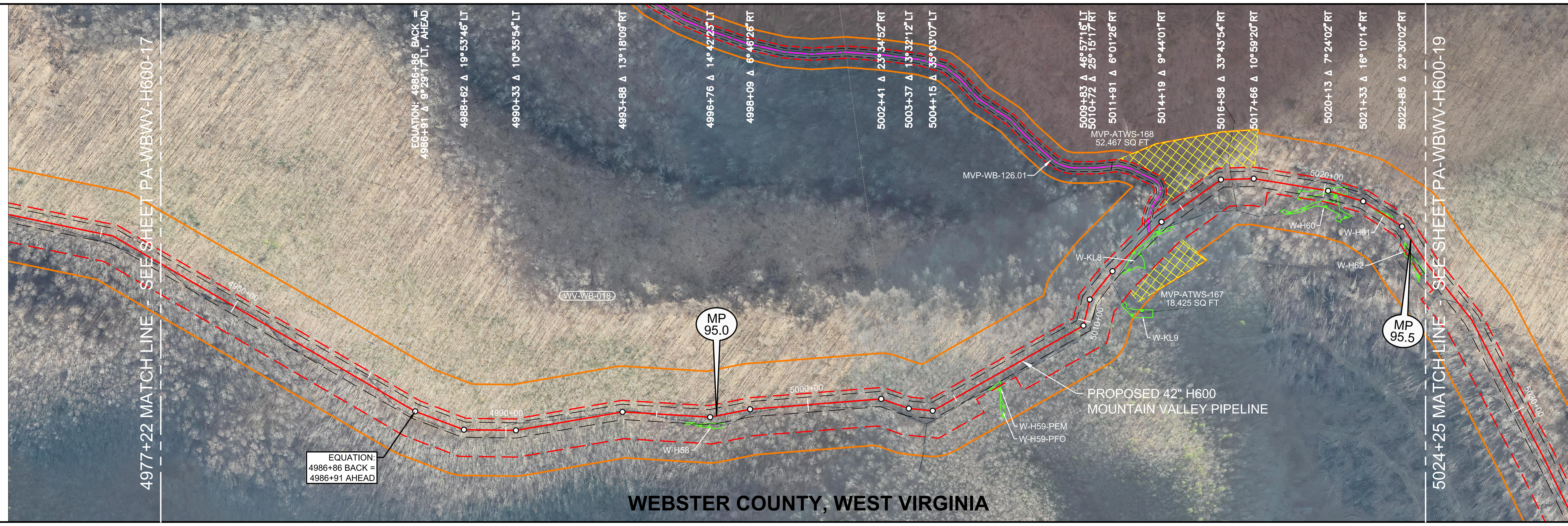
| | |
|---|---|
| PIPE / COATING | 1 |
| SLOPE DISTANCE | 4719' |
| CLASS LOCATION / HCA | 1 |

## ENVIRONMENTAL

| | |
|---|---|
| CONSTRUCTION EXCLUSION | TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST |
| WETLAND / STREAM | W-H58 120 LF; W-H59-PEM 47 LF; W-KL8 235 LF; W-H60 161 LF; W-H61 64 LF; W-H62 91 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

OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

### REFERENCE DRAWINGS

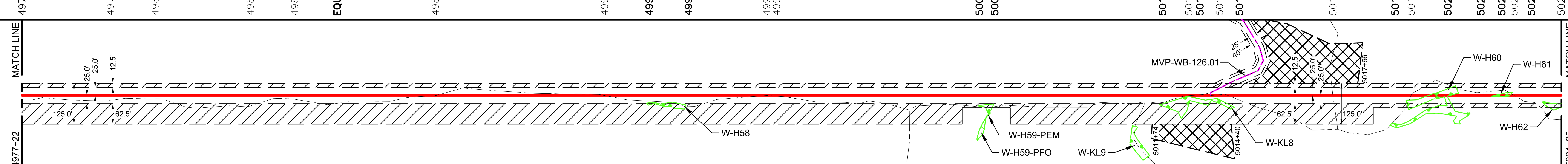
| DRAWING NO. | DESCRIPTION |
|---|---|
| MVP-AR-H600-05 | ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES |
| MVP-QDAR-H600-38 | ACCESS ROAD DETAIL MAP |

## HORIZONTAL STATIONING

- 4977+22 MATCH LINE
- 4979+92 ℄ TRAIL(DIRT)
- 4981+29 ℄ TRAIL(DIRT)
- 4984+20 ℄ TRAIL(DIRT)
- 4985+56 ℄ TRAIL(DIRT)
- EQUATION: 4986+86 BACK = 4986+91 AHEAD
- 4989+49 ℄ TRAIL(DIRT)
- 4994+66 ℄ TRAIL(DIRT)
- 4995+95 BEGIN WETLAND(W-H58)24'RT
- 4997+14 END WETLAND(W-H58)29'RT
- 4999+62 ℄ TRAIL(DIRT)
- 4999+67 ℄ TRAIL(DIRT)
- 5006+09 BEGIN WETLAND(W-H59-PEM)32'RT
- 5006+57 END WETLAND(W-H59-PEM)26'RT
- 5012+06 BEGIN WETLAND(W-KL8)28'RT
- 5012+86 ℄ TRAIL(DIRT)
- 5013+20 ACCESS ROAD – PERMANENT (MVP-WB-126.01)
- 5013+72 ℄ FIELD ROAD(DIRT)
- 5014+41 END WETLAND(W-KL8)33'RT
- 5016+94 ℄ TRAIL(DIRT)
- 5019+17 BEGIN WETLAND(W-H60)14'RT
- 5019+33 ℄ FIELD ROAD(DIRT)
- 5020+78 END WETLAND(W-H60)7'LT
- 5021+79 BEGIN WETLAND(W-H61)2'RT
- 5022+43 END WETLAND(W-H61)9'LT
- 5022+48 ℄ FIELD ROAD(DIRT)
- 5023+34 BEGIN WETLAND(W-H62)20'RT
- 5024+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)



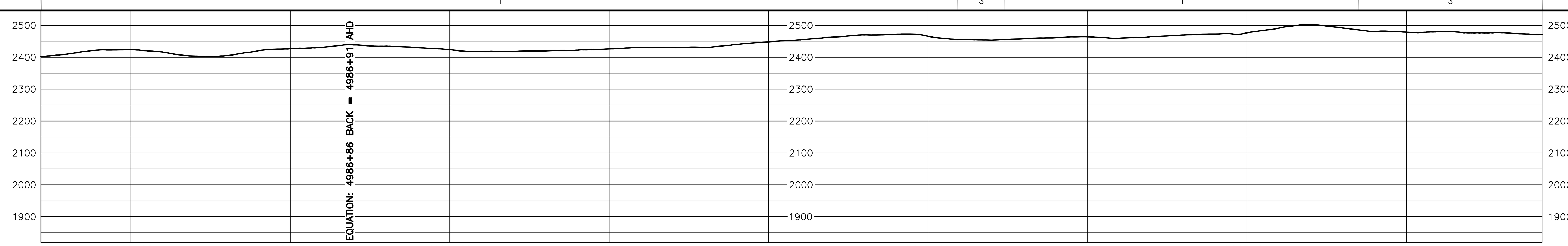

## CONSTRUCTION METHOD

| | | | | |
|---|---|---|---|---|
| CONSTRUCTION METHOD | 1 | 3 | 1 | 3 |

### 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





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 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 | 4719 | 42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY |
| | | TYPE 1 TEST STATION - PIPELINE |

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

### 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

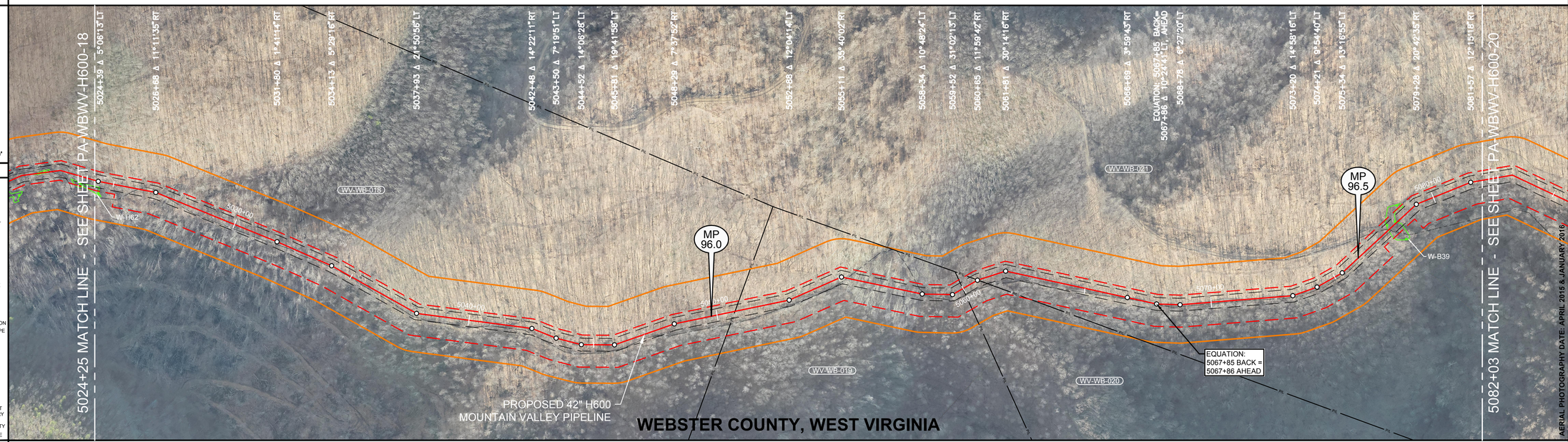
# PIPELINE ALIGNMENT

# MOUNTAIN VALLEY PROJECT - H600 LINE GLADE DIST., WEBSTER CO.,W.V. STA. 4977+22 TO STA. 5024+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-WBWV-H600-18 | |
| SHEET 106 OF 329 | REV. 4 |
| DATE OF PLOT: 10/11/16 7:14 AM | |

## RIGHT-OF-WAY & OWNERSHIP DATA

| | | 5024+25 | | 5050+18 | 5050+95 | 5059+99 | 5060+35 | 5062+51 | | 5082+03 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | WV-WB-018 | WV-WB-018 / WV-WB-019 | WV-WB-019 | WV-WB-020 | WV-WB-021 | WV-WB-020 | | WV-WB-021 | |
| | | 2593 LF 2607 SLOPE | 77 LF 77 SLOPE | 904 LF 906 SLOPE | 36 LF 36 SLOPE | 216 LF 216 SLOPE | | EQUATION: 5067+85 BACK= 5067+86 AHEAD | 1951 LF 2011 SLOPE | |
| DESIGN | PIPE / COATING | 5024+25 | 1 | | | | | | | 5082+03 |
| | SLOPE DISTANCE | 5854' | | | | | | | | |
| | CLASS LOCATION / HCA | 1 | | | | | | | | |
| ENVIRONMENTAL | CONSTRUCTION EXCLUSION | 5024+25 | TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST | | | | | | | 5082+03 |
| | WETLAND / STREAM | W-H62 25 LF | | | | | | | W-B39 111 LF | |
| | . | | | | | | | | | |
| | . | | | | | | | | | |




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
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- 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

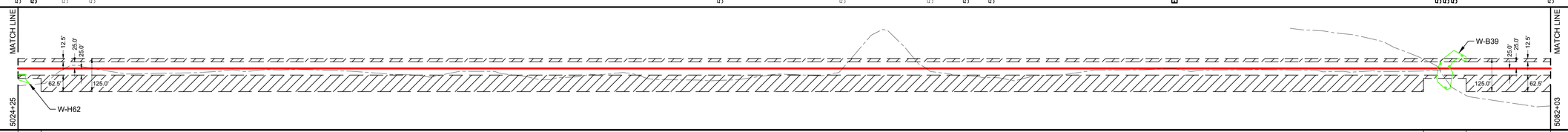
| DRAWING NO. | DESCRIPTION |
|---|---|
| MVP-AR-H600-05 | ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES |

HORIZONTAL STATIONING

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5024+25 MATCH LINE<br>5024+49 END WETLAND(W-H62)22'RT | 5026+02 ℄ FIELD ROAD(DIRT) | 5027+05 ℄ FIELD ROAD(DIRT) | 5050+72 PROPERTY LINE | 5055+33 ℄ FIELD ROAD(DIRT) | 5058+49 ℄ FIELD ROAD(DIRT) | 5059+99 PROPERTY LINE | 5060+66 PROPERTY LINE | EQUATION: 5067+85 BK= 5067+86 AHD | 5077+73 BEGIN WETLAND(W-B39)34'RT<br>5077+82 ℄ FIELD ROAD(DIRT)<br>5078+84 END WETLAND(W-B39)38'LT | 5082+03 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

| 3 | 1 | 3 | 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
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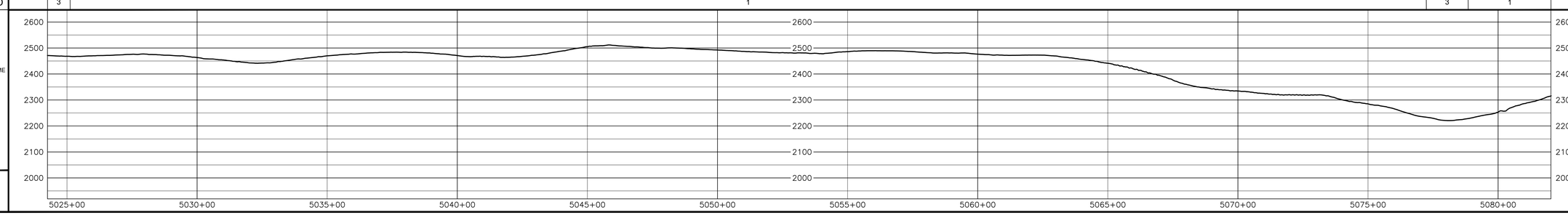
14 - PARALLEL TO POWER LINE
15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
33 - SIDE HILL CONSTRUCTION
34 - 2-TONE SIDE HILL CONSTRUCTION

PROFILE




OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

MATERIAL SUMMARY

| MK. NO. | QTY. | DESCRIPTION |
|---|---|---|
| 1 | 5854 | 42"O.D. X 0.617"W.T. API 5L X70 PSL2 FBE BONDED EPOXY |
| | | 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 |

REVISIONS

| REV. | BY | DATE | DESCRIPTION |
|---|---|---|---|
| 0 | HEI | 10-15 | REV. 4.0 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 | 08-15-16 | FERC DATA REQUEST No.3 |
| 4 | HEI | 10-14-16 | 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
T 616.396.0808 F 616.392.4007 | T 248.557.7222 F 248.557.7949
www.hollandengineering.com

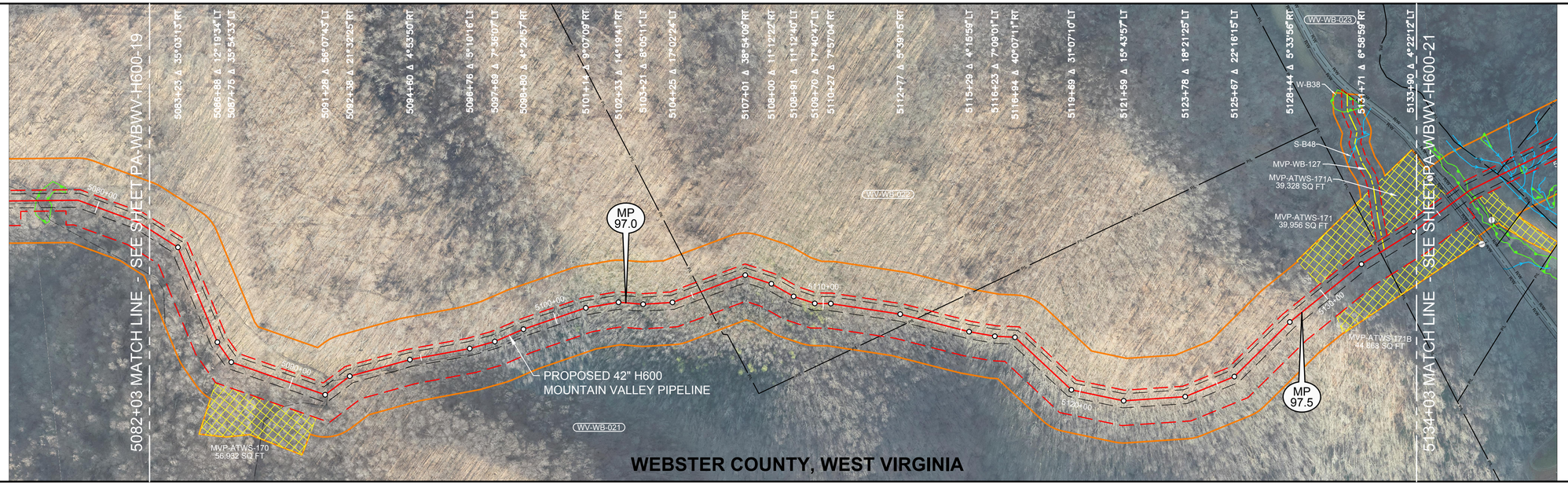

Mountain Valley PIPELINE

# PIPELINE ALIGNMENT
# MOUNTAIN VALLEY PROJECT - H600 LINE
# GLADE DIST., WEBSTER CO.,W.V.
# STA. 5024+25 TO STA. 5082+03

| | |
|---|---|
| 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-WBWV-H600-19 |
| SHEET 107 OF 329 | REV. 4 |
| DATE OF PLOT: 10/11/16 7:15 AM | |

## RIGHT-OF-WAY & OWNERSHIP DATA

| | | 5082+03 | WV-WB-021 2330 LF 2375 SLOPE | 5105+33 | WV-WB-022 684 LF 718 SLOPE | 5112+17 | WV-WB-022 / WV-WB-021 166 LF 169 SLOPE | 5113+83 | WV-WB-021 1868 LF 1964 SLOPE | 5132+51 | WV-WB-023 152 LF 165 SLOPE | 5134+03 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | PIPE / COATING | 5082+03 | 1 | | | | | | | | | 5134+03 |
| | SLOPE DISTANCE | | 5390' | | | | | | | | | |
| | CLASS LOCATION / HCA | | 1 | | | | | | | | | |
| ENVIRONMENTAL | CONSTRUCTION EXCLUSION | 5082+03 | TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST | | | | | | | | | 5134+03 |
| | 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
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- OVERHEAD TELEPHONE
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- C/L RAILROAD
- DELINEATED STREAM
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- BARRACADE FENCE
- PI SYMBOL
- PROPOSED TEST STATION
- MAILBOX
- LINE MARKER - VENT PIPE
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- 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

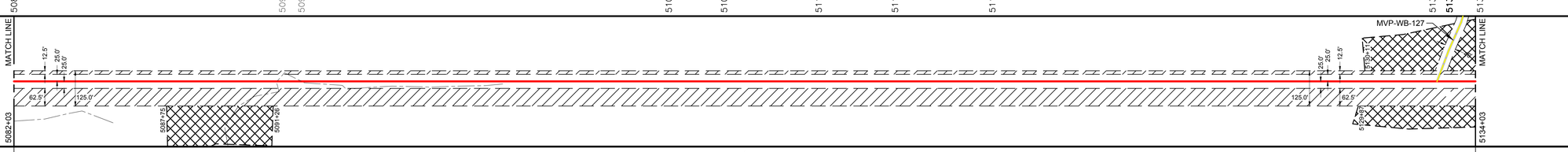
| DRAWING NO. | DESCRIPTION |
|---|---|
| MVP-AR-H600-05 | ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES |

## HORIZONTAL STATIONING

5082+03 MATCH LINE | 5091+39 ℄ TRAIL(DIRT) | 5092+27 ℄ TRAIL(DIRT) | 5105+33 PROPERTY LINE | 5107+30 PROPERTY CORNER 13'RT | 5110+67 PROPERTY CORNER 9'RT | 5113+38 PROPERTY LINE | 5116+85 PROPERTY CORNER 7'RT | 5132+51 PROPERTY LINE | 5132+67 ACCESS ROAD – TEMPORARY (MVP–WB–127) | 5134+03 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 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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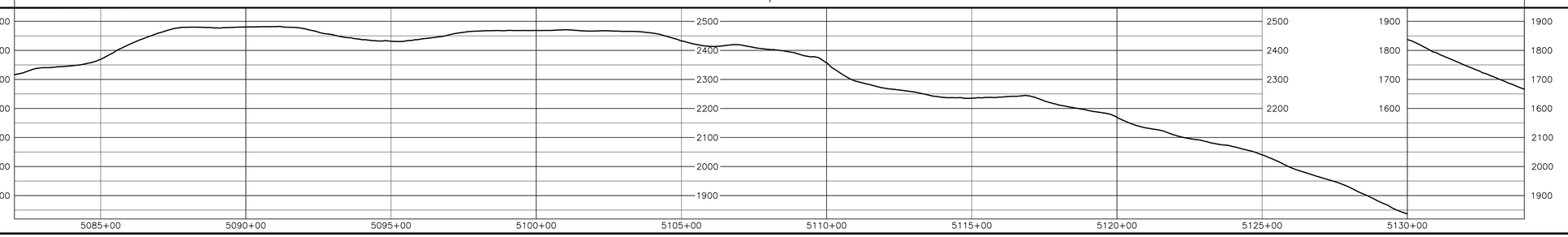
15 - WATERBODY X-ING OPEN CUT - DRY/DAM & PUMP
33 - SIDE HILL CONSTRUCTION
34 - 2-TONE SIDE HILL CONSTRUCTION

## 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
T 616.396.0065 F 616.796.0327 | T 248.557.7222 F 248.557.7949
www.hollandengineering.com


### REVISIONS

| REV. | BY | DATE | DESCRIPTION |
|---|---|---|---|
| 0 | HEI | 10-1-15 | REV. 4.0 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 | 09-02-16 | REV. 4.1 ISSUED TO FERC |
| 4 | HEI | 10-14-16 | OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC |

**AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016**

**MATERIAL SUMMARY**

| MK. NO. | QTY. | DESCRIPTION |
|---|---|---|
| 1 | 5390 | 42"O.D. X 0.617"W.T. API 5L X65 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**
**GLADE DIST., WEBSTER CO.,W.V.**
**STA. 5082+03 TO STA. 5134+03**

| | |
|---|---|
| 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-WBWV-H600-20** |
| SHEET 108 OF 329 | REV. 4 |
| DATE OF PLOT: 10/11/16 7:15 AM | |

| RIGHT-OF-WAY & OWNERSHIP DATA | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Station | 5134+03 | 5135+62 | 5135+92 | 5137+38 | 5137+52 | 5137+75 | 5138+14 | 5148+61 | 5150+76 | 5157+85 | 5162+62 | 5163+20 | 5163+38 | 5169+38 | 5169+70 | 5169+79 | 5170+01 | 5170+68 | 5170+98 | 5177+68 |
| Tract | WV-WB-023 | COUNTY ROUTE 28 30 LF - 30 SLOPE | WV-WB-023.02 | WV-WB-023.01 / WV-WB-023.02 | WV-WB-023.01 / WV-WB-024 / WV-WB-023.02 | WV-WB-023.01 / WV-WB-024 | WV-WB-024 | WV-WB-024 / WV-WB-025 | WV-WB-025 | WV-WB-026 / WV-WB-025 | WV-WB-027 / WV-WB-028 / WV-WB-025.01 | WV-WB-028 / WV-WB-025.01 | WV-WB-028 | WV-WB-028 / WV-WB-028.01 | WV-WB-027 / WV-WB-028 / WV-WB-028.01 | WV-WB-027 / WV-WB-028.01 | WV-WB-027 / WV-WB-029 / WV-WB-028.01 | WV-WB-027 / WV-WB-029 | WV-WB-029 | |
| Length | 159 LF 167 SLOPE | | 146 LF 147 SLOPE | 14 LF 14 SLOPE | 23 LF 24 SLOPE | 39 LF 39 SLOPE | 1047 LF 1083 SLOPE | 215 LF 232 SLOPE | 709 LF 796 SLOPE | 477 LF 486 SLOPE | 58 LF 60 SLOPE | 18 LF 18 SLOPE | 600 LF 605 SLOPE | 32 LF 34 SLOPE | 9 LF 9 SLOPE | 22 LF 24 SLOPE | 67 LF 70 SLOPE | 30 LF 30 SLOPE | 670 LF 733 SLOPE | |

## DESIGN

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Station | 5134+03 | 5135+57 | 5135+97 | 5137+51 | 5137+91 | | 5177+68 |
| PIPE / COATING | 1 | 4 | 1 | 4 | 1 | | |
| SLOPE DISTANCE | 162' | 40' | 155' | 40' | 4204' | | |
| CLASS LOCATION / HCA | 1 | | | | | | |

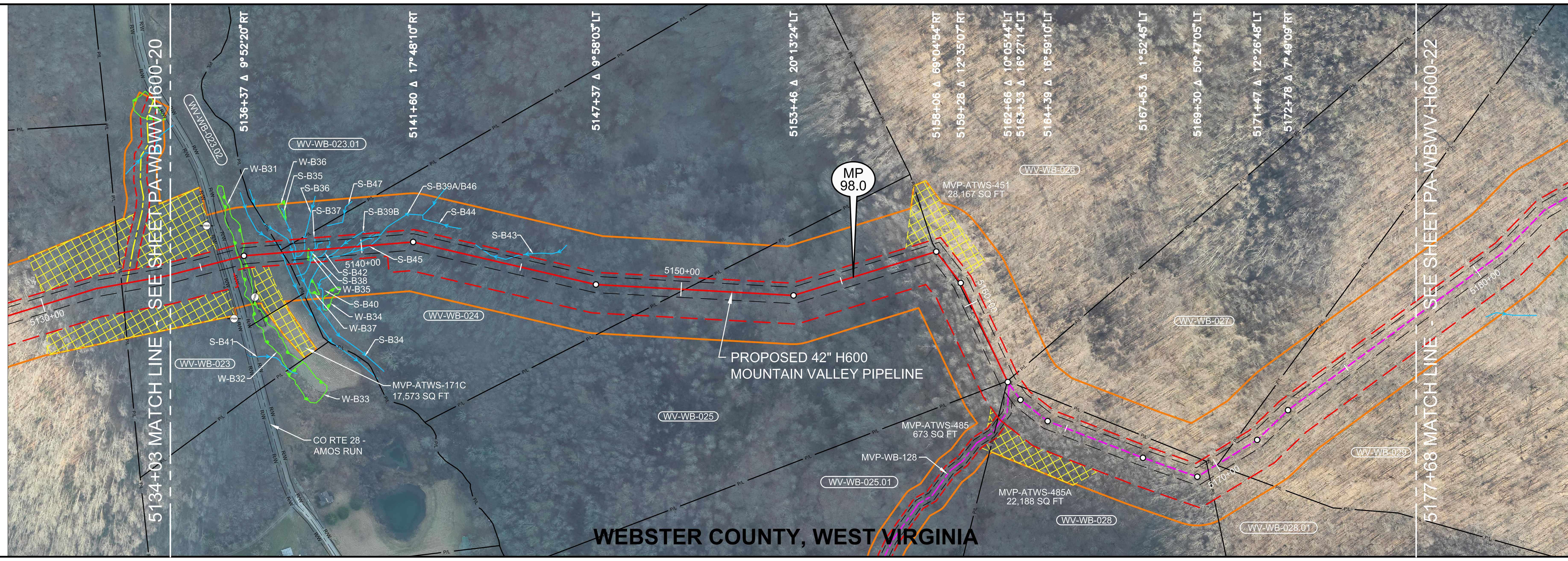
## ENVIRONMENTAL

CONSTRUCTION EXCLUSION (5134+03 – 5177+68): TIME OF YEAR RESTRICTION: NO TREE CLEARING APRIL 1ST TO JULY 31ST

| WETLAND / STREAM | W-B31 | S-B34 | S-B35 | S-B36 | W-B35 | S-B37 | S-B38 | S-B42 | S-B39b /B46 | S-B39b /B46 | S-B45 | S-B43 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 14 LF | 31 LF | 2 LF | 2 LF | 5 LF | 2 LF | 2 LF | 2 LF | 3 LF | 3 LF | 3 LF | 145 LF |

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

AERIAL PHOTOGRAPHY DATE: APRIL 2015 & JANUARY 2016

**OCTOBER 2016 PROPOSED ROUTE - ISSUED TO FERC**

### REFERENCE DRAWINGS

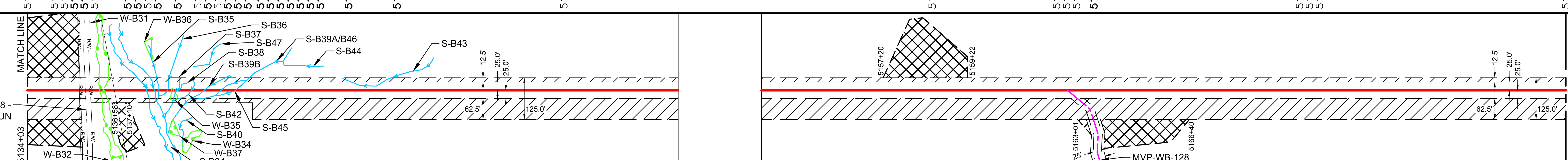
| DRAWING NO. | DESCRIPTION |
|---|---|
| MVP-AR-H600-06 | ACCESS ROADS, ANCILLARY SITES, MAINLINE VALVES & LAUNCHER/RECEIVER SITES |
| MVP-QDAR-H600-42 | ACCESS ROAD DETAIL MAP |

## HORIZONTAL STATIONING

5134+03 MATCH LINE
5135+54 OHP LINE
5135+62 RIGHT-OF-WAY
5135+69 EDGE OF GRAVEL
5135+77 ℄ CO RTE 28 - AMOS RUN
5135+92 RIGHT-OF-WAY
5135+97 EDGE OF GRAVEL
5136+19 BEGIN WETLAND(W-B31)
5136+25 OHP LINE
5136+33 END WETLAND(W-B31)
5137+61 STREAM BANK(S-B34)
5137+63 PROPERTY LINE
5137+86 EDGE OF WATER
5137+85 STREAM BANK(S-B34)
EDGE OF WATER
5137+97 ℄ STREAM(S-B35)
5138+24 ℄ STREAM(S-B36)
5138+31 BEGIN WETLAND(W-B35)29'RT
5138+50 ℄ STREAM(S-B37)
5138+53 ℄ STREAM(S-B38)
5138+54 END WETLAND(W-B35)19'RT
5138+94 ℄ STREAM(S-B42)
5139+33 ℄ STREAM(S-B39B)
5139+84 ℄ STREAM(S-B46)
5140+28 ℄ STREAM(S-B45)
5143+49 ℄ STREAM(S-B43)35'LT
5144+94 ℄ STREAM(S-B43)37'LT
5150+12 PROPERTY LINE
5158+68 PROPERTY LINE
5162+41 PROPERTY LINE
5162+62 PROPERTY LINE
5162+63 PROPERTY LINE
5162+73 ACCESS ROAD - PERMANENT (MVP-WB-128)
5169+69 PROPERTY LINE
5169+99 PROPERTY LINE
5170+06 PROPERTY LINE
5177+68 MATCH LINE

## WORK SPACE

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



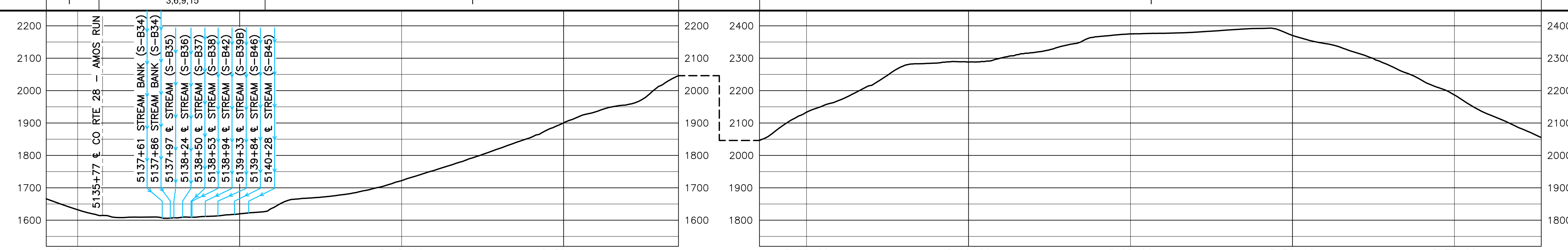

## CONSTRUCTION METHOD

| 5134+03 – 5135+77 | 5135+77 – 5140+28 | 5140+28 – 5177+68 |
|---|---|---|
| 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
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 | 4521 | 42"O.D. X 0.617"W.T., X-70, FUSION BONDED EPOXY |
| 4 | 80 | 42"O.D. X 0.740"W.T., X-70, FBE & ARO |
| | | 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 |


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


Mountain Valley PIPELINE

# PIPELINE ALIGNMENT

## MOUNTAIN VALLEY PROJECT - H600 LINE GLADE DIST., WEBSTER CO.,W.V. STA. 5134+03 TO STA. 5177+68

| | |
|---|---|
| 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-WBWV-H600-21 | |
| SHEET 109 OF 329 | REV. 4 |
| DATE OF PLOT: 10/11/16 7:16 AM | |