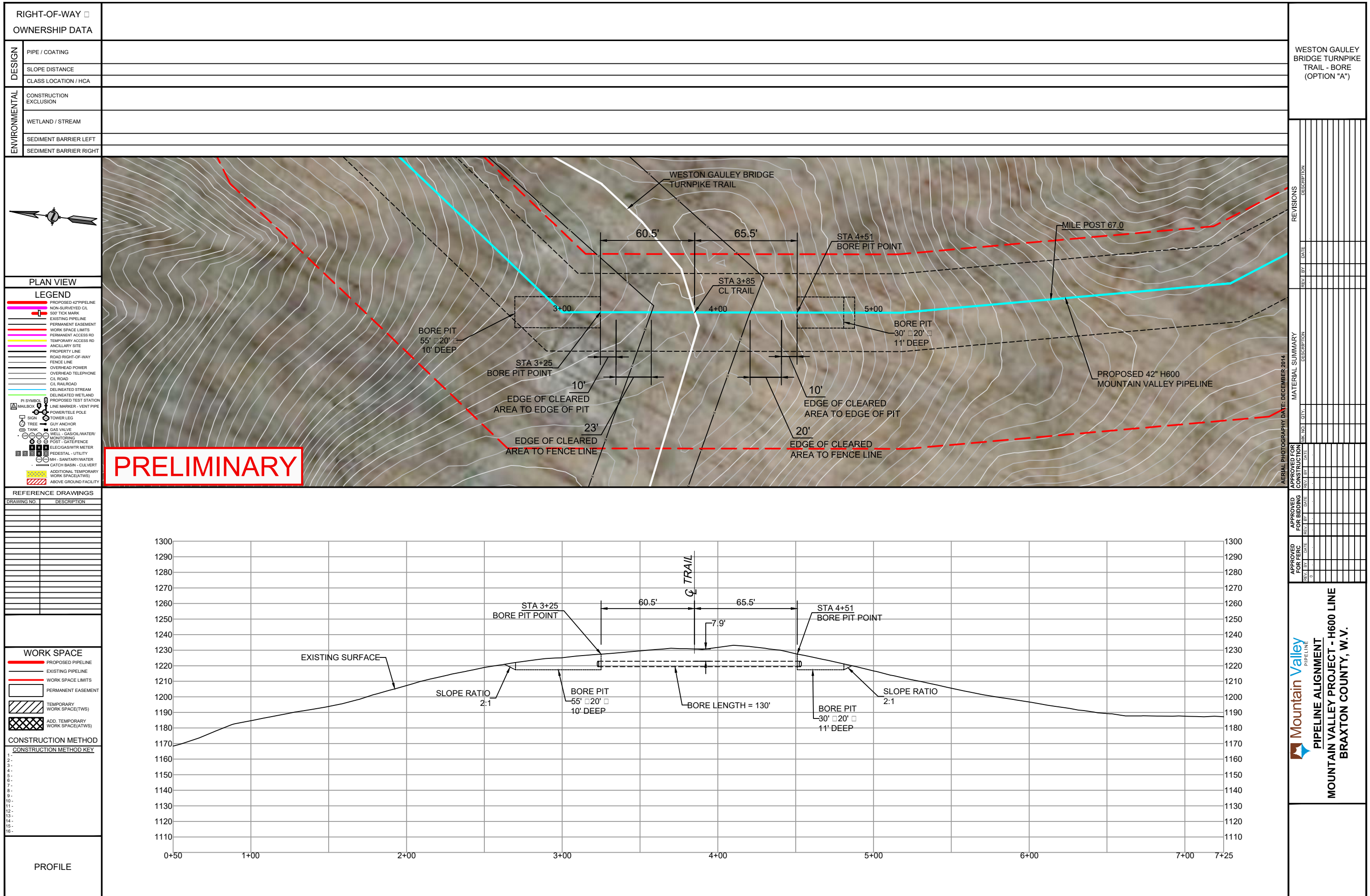


APPENDIX A-2
Bore Profiles for Weston and Gauley Turnpike and
Jefferson National Forest



DESIGN	RIGHT-OF-WAY □
	OWNERSHIP DATA
	PIPE / COATING
ENVIRONMENTAL	SLOPE DISTANCE
	CONSTRUCTION EXCLUSION
	WETLAND / STREAM
	SEDIMENT BARRIER LEFT
	SEDIMENT BARRIER RIGHT

WESTON GAULEY BRIDGE TURNPIKE TRAIL - BORE (OPTION "A")
--

PLAN VIEW

LEGEND

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

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION

WORK SPACE

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

CONSTRUCTION METHOD

CONSTRUCTION METHOD KEY

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.

PROFILE

REVISIONS

NO.	DATE	DESCRIPTION

MATERIAL SUMMARY

DESCRIPTION	QTY

APPROVED FOR BIDDING

BY	DATE

APPROVED FOR PERC

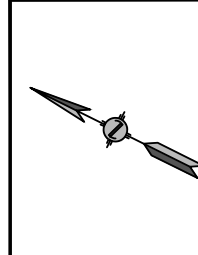
BY	DATE

AERIAL PHOTOGRAPHY DATE: DECEMBER 2014

Mountain Valley
PIPELINE
PIPELINE ALIGNMENT
MOUNTAIN VALLEY PROJECT - H600 LINE
BRAXTON COUNTY, W.V.

RIGHT-OF-WAY <input type="checkbox"/>	
OWNERSHIP DATA	
DESIGN	PIPE / COATING
	SLOPE DISTANCE
	CLASS LOCATION / HCA
ENVIRONMENTAL	CONSTRUCTION EXCLUSION
	WETLAND / STREAM
	SEDIMENT BARRIER LEFT
	SEDIMENT BARRIER RIGHT

APPALACHIAN NATIONAL SCENIC TRAIL - BORE (OPTION "A")



PLAN VIEW

LEGEND

- 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
- PROPERTY LINE
- ROAD RIGHT-OF-WAY
- FENCE LINE
- OVERHEAD POWER
- OVERHEAD TELEPHONE
- C/L ROAD
- C/L RAILROAD
- DELINEATED STREAM
- DELINEATED WETLAND
- PI SYMBOL
- PROPOSED TEST STATION
- LINE MARKER - VENT PIPE
- POWER/TELE POLE
- SIGN
- TOWER LEG
- GUY ANCHOR
- TREE
- TANK
- GAS VALVE
- WELL - GAS/OIL/WATER
- MONITORING POST - GATE/FENCE
- ELEC/GAS/MTR METER
- PEDESTAL - UTILITY
- MH - SANITARY WATER
- CATCH BASIN - CULVERT
- ADDITIONAL TEMPORARY WORK SPACE (ATWS)
- ABOVE GROUND FACILITY

REFERENCE DRAWINGS

DRAWING NO.	DESCRIPTION

WORK SPACE

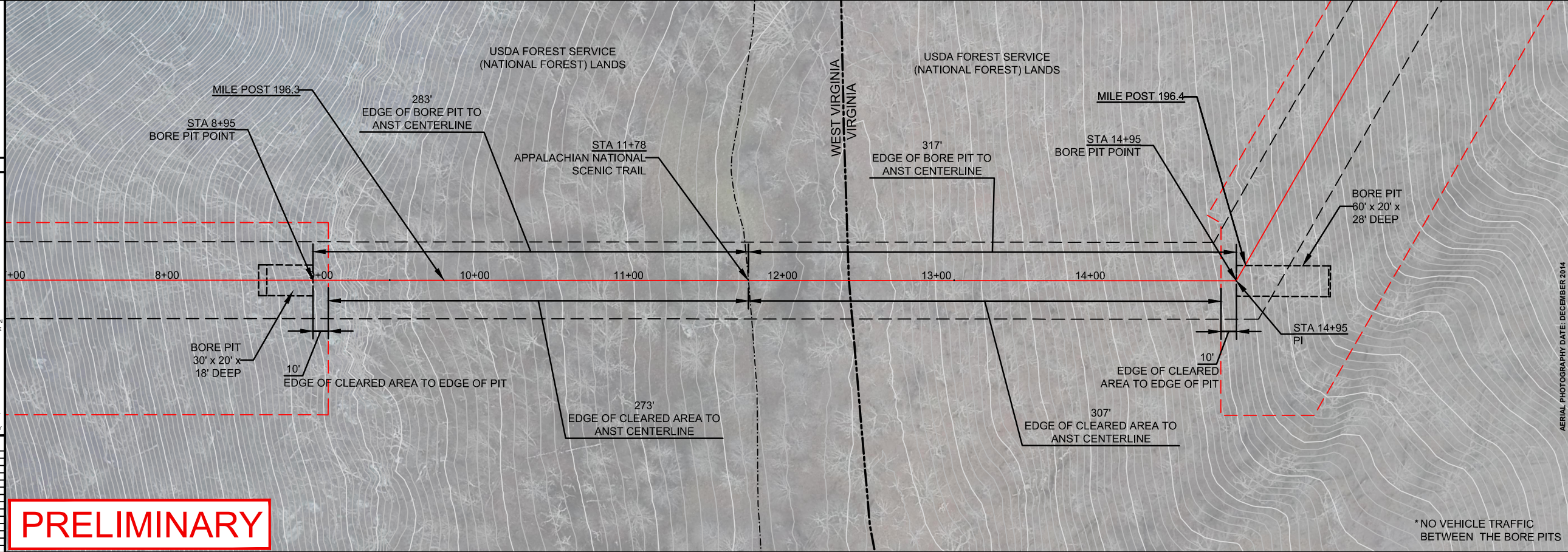
- PROPOSED PIPELINE
- EXISTING PIPELINE
- WORK SPACE LIMITS
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE (TWS)
- ADD. TEMPORARY WORK SPACE (ATWS)

CONSTRUCTION METHOD

CONSTRUCTION METHOD KEY

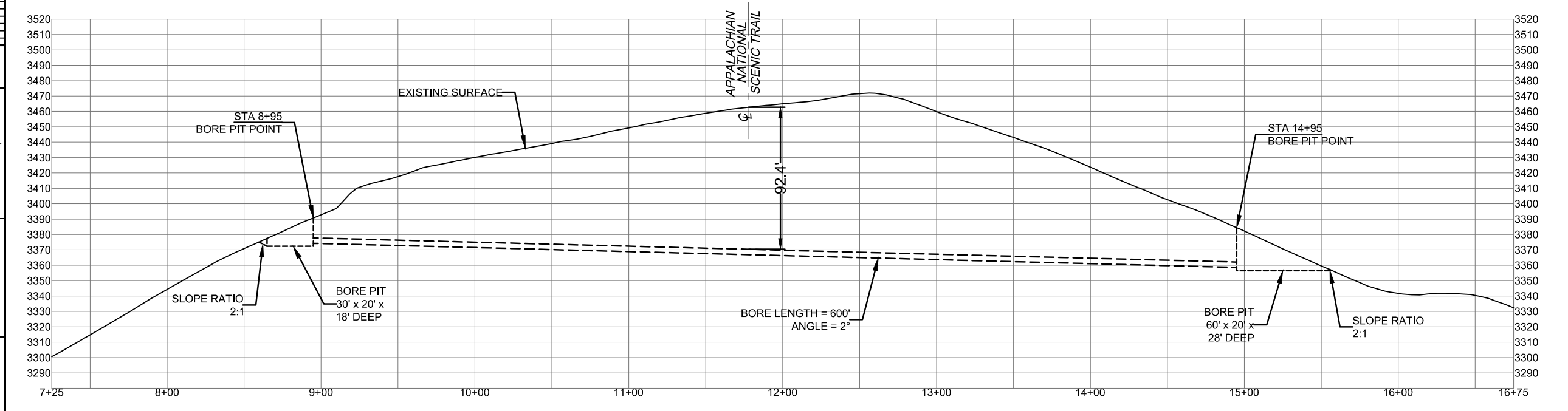
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.

PROFILE



PRELIMINARY

*NO VEHICLE TRAFFIC BETWEEN THE BORE PITS



REVISIONS

REV. BY	DATE	DESCRIPTION

MATERIAL SUMMARY

DESCRIPTION	QTY.

APPROVED FOR PERMITS FOR BIDDING CONSTRUCTION

APPROVED FOR UTILITY CONSTRUCTION

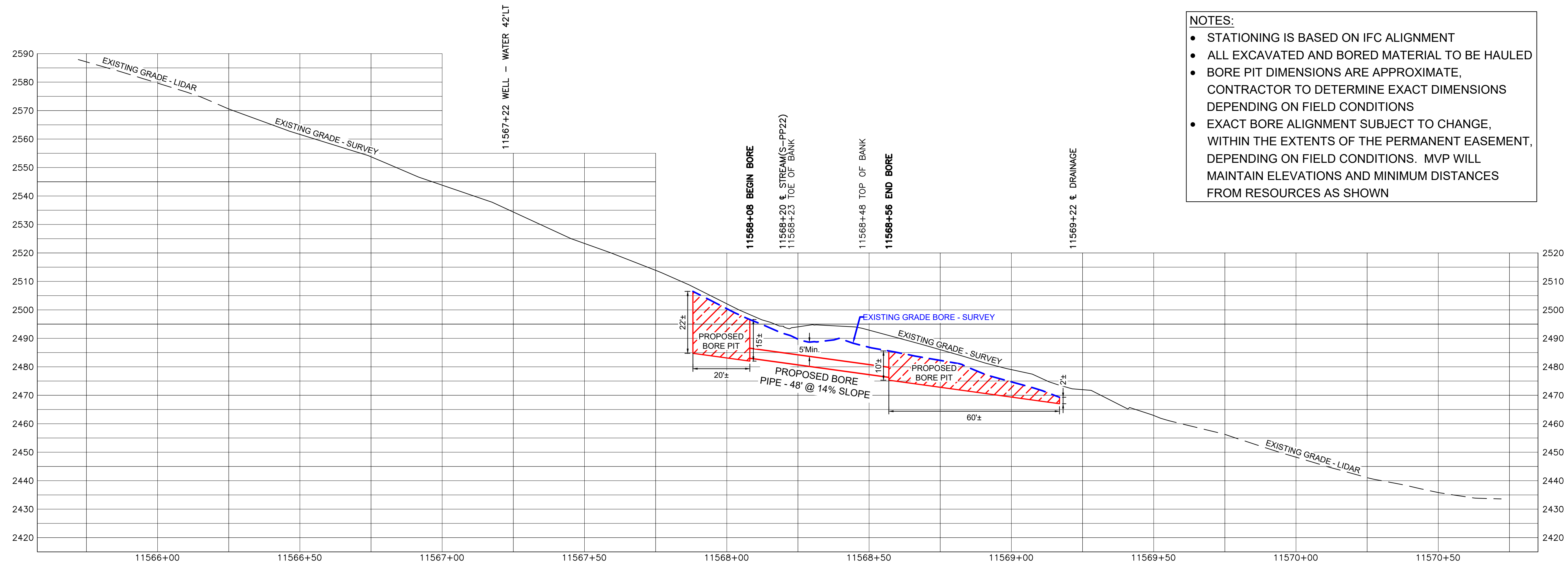
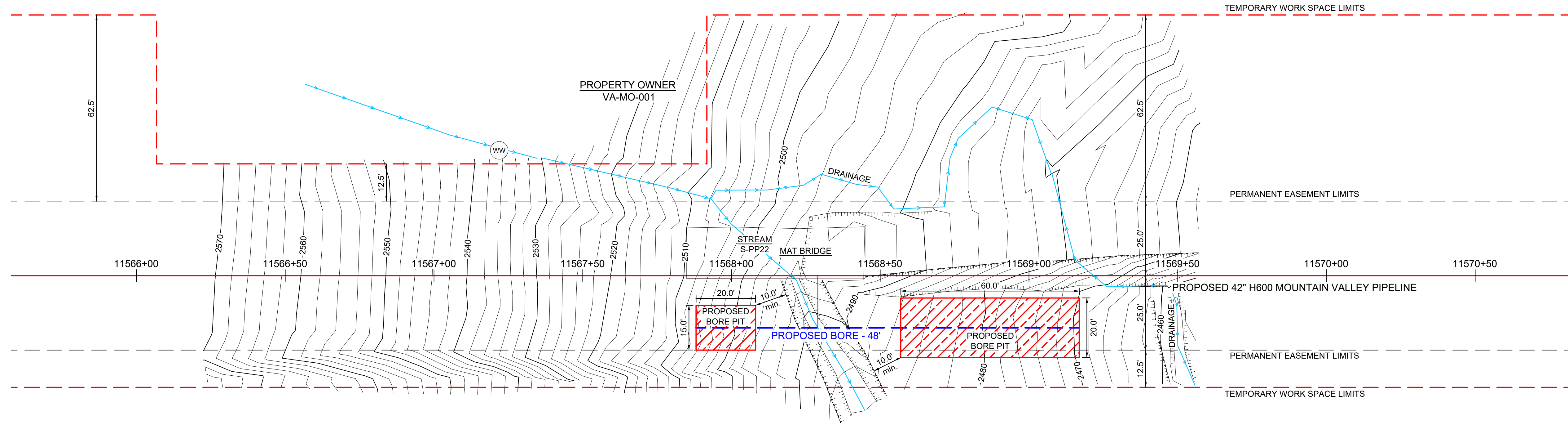
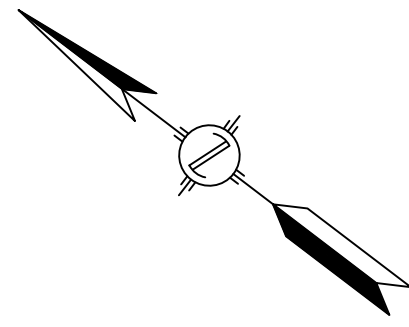
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PIPELINE ALIGNMENT

MOUNTAIN VALLEY PROJECT - H600 LINE

RED SULPHUR DIST., MONROE CO., W.V.

PEMBROKE PRECINCT., GILES CO., VA.



- NOTES:**
- STATIONING IS BASED ON IFC ALIGNMENT
 - ALL EXCAVATED AND BORED MATERIAL TO BE HAULED
 - BORE PIT DIMENSIONS ARE APPROXIMATE, CONTRACTOR TO DETERMINE EXACT DIMENSIONS DEPENDING ON FIELD CONDITIONS
 - EXACT BORE ALIGNMENT SUBJECT TO CHANGE, WITHIN THE EXTENTS OF THE PERMANENT EASEMENT, DEPENDING ON FIELD CONDITIONS. MVP WILL MAINTAIN ELEVATIONS AND MINIMUM DISTANCES FROM RESOURCES AS SHOWN

LEGEND

	PROPOSED H600 PIPELINE		MAILBOX
	PROPOSED PERMANENT EASEMENT		FIRE HYDRANT
	TEMPORARY WORK SPACE		GUY ANCHOR - POWER POLE
	ACCESS ROAD		LINE MARKER
	ROAD RIGHT-OF-WAY		SIGN
	PROPERTY LINE		CULVERT
	FENCE		PIPELINE
	TOP OF BANK		WATERMAIN
	TOE OF BANK		OVERHEAD POWER LINE
	STREAM		WETLAND BOUNDARY
	CULVERT		

PROJECTION: UTM ZONE 17
 HORIZONTAL DATUM: NAD 83 US SURVEY FEET
 VERTICAL DATUM: NAVD88

REFERENCE DRAWINGS

DRAWING NUMBER	TITLE
PA-MOVA-H600-01	ALIGNMENT SHEET

REVISIONS

REV	BY	DATE	DESCRIPTION
0	HEI	05/26/20	PRELIMINARY FOR REVIEW
1	HEI	06/24/20	ISSUED FOR REVIEW - ADDED BORE INFORMATION

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

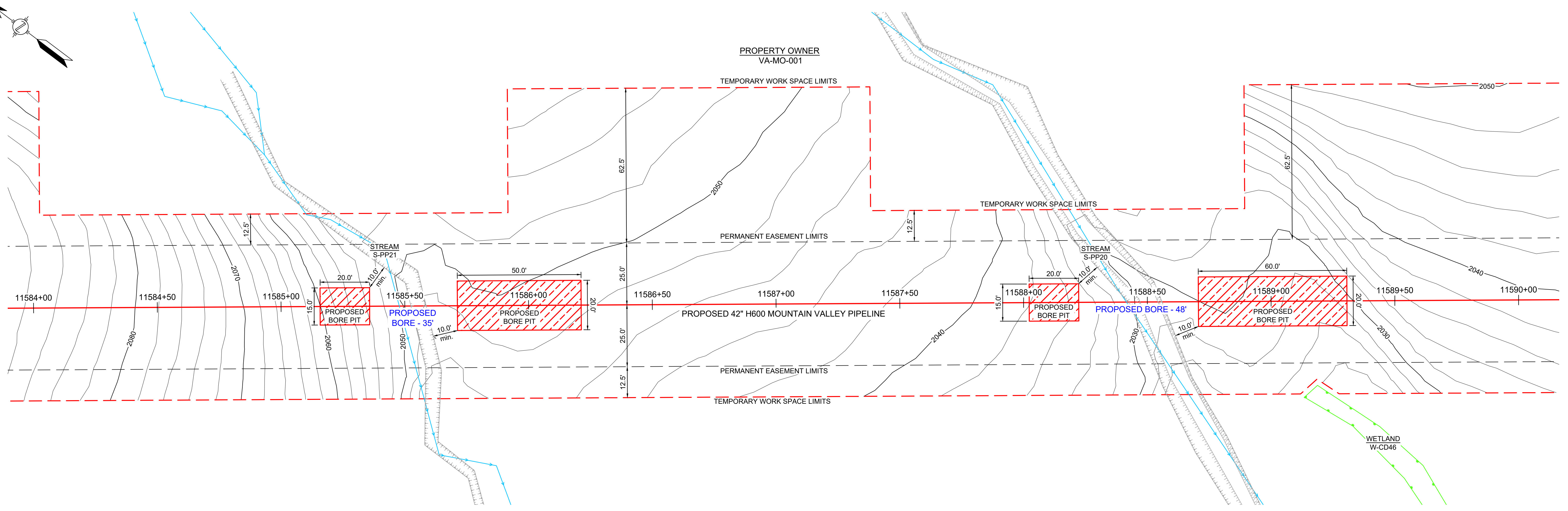
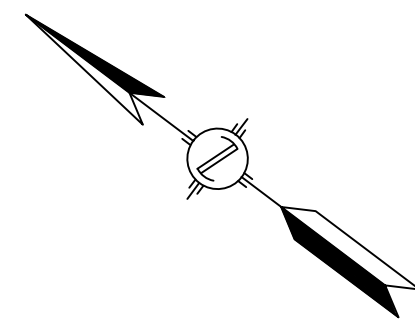
APPROVED FOR BIDDING		APPROVED FOR CONSTRUCTION	
REV.	DATE	REV.	DATE

VERT & HORZ. SCALE: 1" = 20'

DRAWN BY: HEI(DRF)	5/26/2020
DRAFTING CK:	
ENGINEERING CK:	
UIE JOB NO.:	
AFE/P.O. NO.:	
HEI PROJECT NO.:	14-10-052
UIE FILE NO.:	
DRAWING NO.:	PP-H600-014
SHEET 1 OF 1	REV. 1
DATE OF PLOT:	6/24/2020 4:42 PM

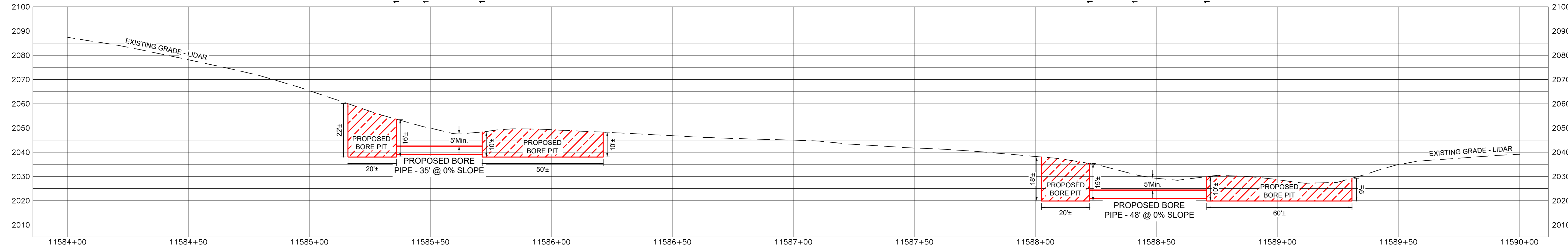
Mountain Valley PIPELINE

PLAN & PROFILE
 STATION 11566+00 TO 11570+50
 MVP PIPELINE PROJECT
 PROPOSED H600 PIPELINE
 MONTGOMERY COUNTY, VIRGINIA



- NOTES:**
- STATIONING IS BASED ON IFC ALIGNMENT
 - ALL EXCAVATED AND BORED MATERIAL TO BE HAULED
 - BORE PIT DIMENSIONS ARE APPROXIMATE, CONTRACTOR TO DETERMINE EXACT DIMENSIONS DEPENDING ON FIELD CONDITIONS
 - EXACT BORE ALIGNMENT SUBJECT TO CHANGE, WITHIN THE EXTENTS OF THE PERMANENT EASEMENT, DEPENDING ON FIELD CONDITIONS. MVP WILL MAINTAIN ELEVATIONS AND MINIMUM DISTANCES FROM RESOURCES AS SHOWN

11585+36 BEGIN BORE
 11585+48 ± STREAM(S-PP21)
 11585+71 END BORE
 11588+22 BEGIN BORE
 11588+41 ± STREAM(S-PP20)
 11588+70 END BORE



LEGEND

	PROPOSED H600 PIPELINE		MAILBOX
	PROPOSED PERMANENT EASEMENT		FIRE HYDRANT
	TEMPORARY WORK SPACE		GUY ANCHOR - POWER POLE
	ACCESS ROAD		LINE MARKER
	ROAD RIGHT-OF-WAY		SIGN
	PROPERTY LINE		CULVERT
	FENCE		PIPELINE
	TOP OF BANK		WATERMAIN
	TOE OF BANK		OVERHEAD POWER LINE
	STREAM		WETLAND BOUNDARY
	CULVERT		

PROJECTION: UTM ZONE 17
 HORIZONTAL DATUM: NAD 83 US SURVEY FEET
 VERTICAL DATUM: NAVD88

REFERENCE DRAWINGS

DRAWING NUMBER	TITLE
PA-MOVA-H600-01	ALIGNMENT SHEET

REVISIONS

REV	BY	DATE	DESCRIPTION
0	HEI	05/18/20	PRELIMINARY FOR REVIEW
1	HEI	06/09/20	ISSUED FOR REVIEW - ADDED BORE INFORMATION

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

APPROVED FOR BIDDING

REV.	BY	DATE

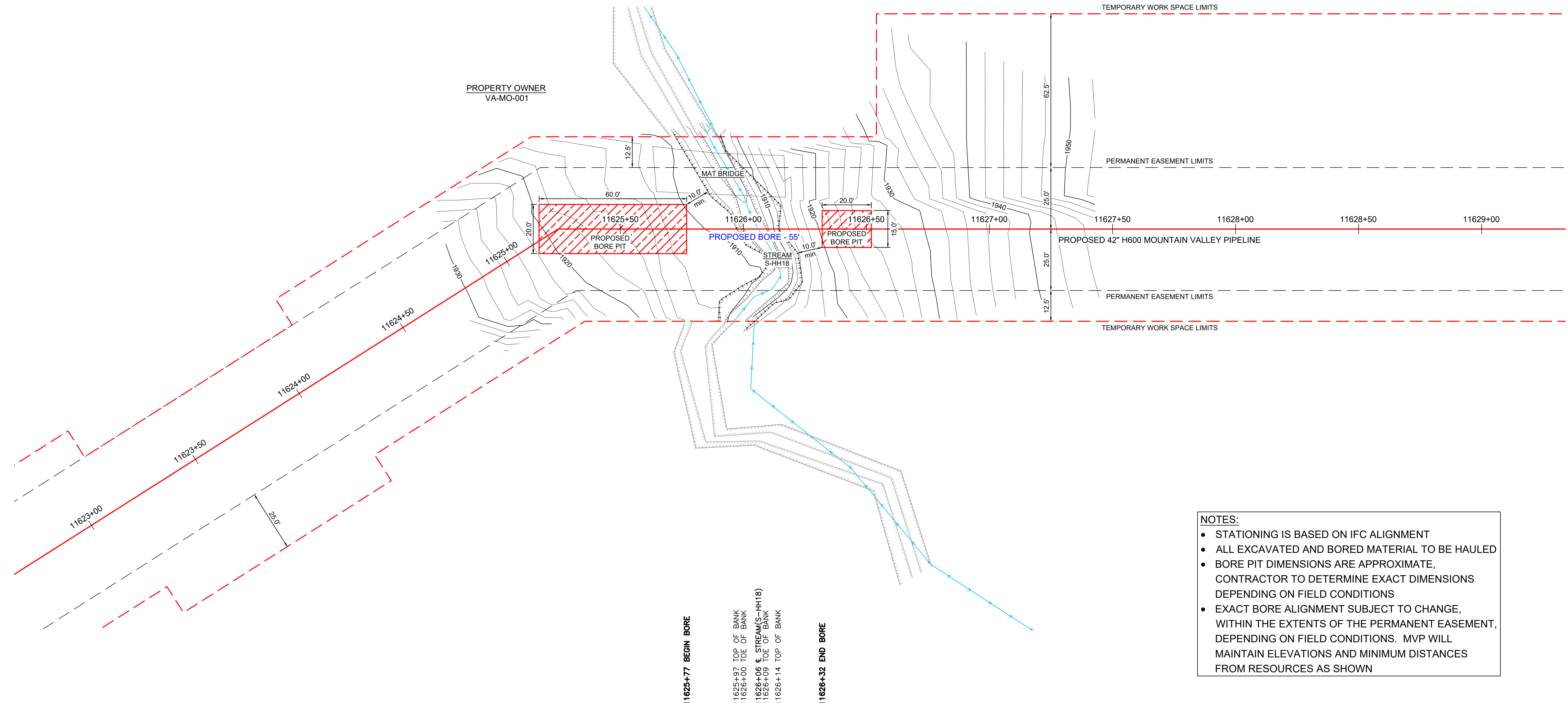
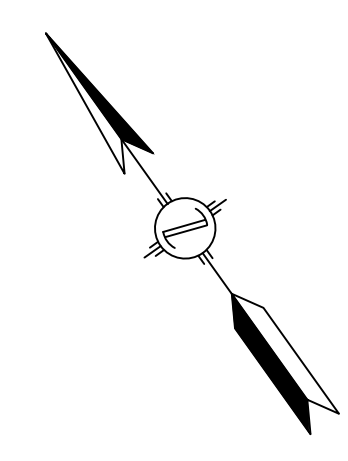
APPROVED FOR CONSTRUCTION

REV.	BY	DATE

Mountain Valley PIPELINE

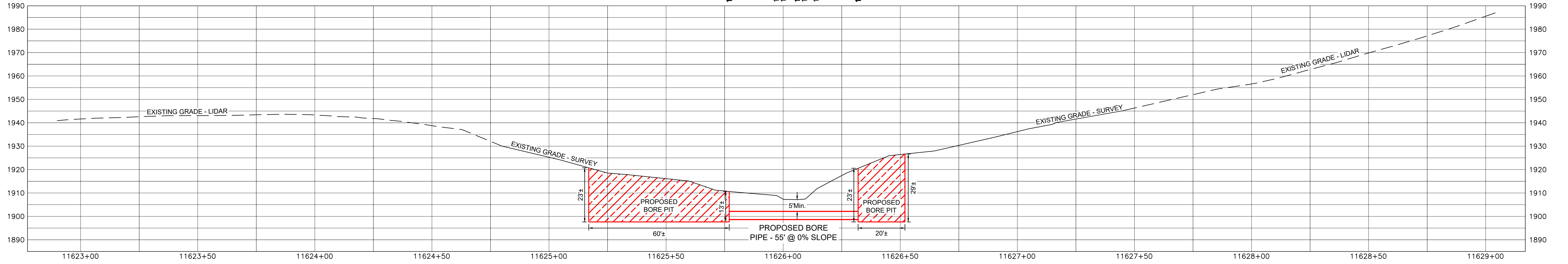
PLAN & PROFILE
STATION 11584+00 TO 11590+00
MVP PIPELINE PROJECT
PROPOSED H600 PIPELINE
MONTGOMERY COUNTY, VIRGINIA

VERT & HORZ. SCALE: 1" = 20'
 DRAWN BY: HEI(AJN) 5/18/2020
 DRAFTING CK: .
 ENGINEERING CK: .
 UEI JOB NO.:
 AFE/P.O. NO.:
 HEI PROJECT NO.: 14-10-052
 UEI FILE NO.:
 DRAWING NO.: **PP-H600-116**
 SHEET 1 OF 1 REV. 1
 DATE OF PLOT: 6/9/2020 5:23 PM



NOTES:

- STATIONING IS BASED ON IFC ALIGNMENT
- ALL EXCAVATED AND BORED MATERIAL TO BE HAULED
- BORE PIT DIMENSIONS ARE APPROXIMATE, CONTRACTOR TO DETERMINE EXACT DIMENSIONS DEPENDING ON FIELD CONDITIONS
- EXACT BORE ALIGNMENT SUBJECT TO CHANGE, WITHIN THE EXTENTS OF THE PERMANENT EASEMENT, DEPENDING ON FIELD CONDITIONS. MVP WILL MAINTAIN ELEVATIONS AND MINIMUM DISTANCES FROM RESOURCES AS SHOWN



11625+77 BEGIN BORE
 11625+87 TOP OF BANK
 11626+00 TOE OF BANK
 11626+06 & STREAM(S-HH18)
 11626+09 TOE OF BANK
 11626+14 TOP OF BANK
 11626+32 END BORE

LEGEND

	PROPOSED H600 PIPELINE		MAILBOX
	PROPOSED PERMANENT EASEMENT		FIRE HYDRANT
	TEMPORARY WORK SPACE		GUY ANCHOR - POWER POLE
	ACCESS ROAD		LINE MARKER
	ROAD RIGHT-OF-WAY		SIGN
	PROPERTY LINE		CULVERT
	FENCE		PIPELINE
	TOP OF BANK		WATERMAIN
	TOE OF BANK		OVERHEAD POWER LINE
	STREAM		WETLAND BOUNDARY
	CULVERT		

PROJECTION: UTM ZONE 17
 HORIZONTAL DATUM: NAD 83 US SURVEY FEET
 VERTICAL DATUM: NAVD88

REFERENCE DRAWINGS

DRAWING NUMBER	TITLE	REV.	BY	DATE	DESCRIPTION
PA-MOVA-H600-02	ALIGNMENT SHEET	0	HEI	05/26/20	PRELIMINARY FOR REVIEW
		1	HEI	06/24/20	ISSUED FOR REVIEW - ADDED BORE INFORMATION

REVISIONS

REV.	BY	DATE	DESCRIPTION
0	HEI	05/26/20	PRELIMINARY FOR REVIEW
1	HEI	06/24/20	ISSUED FOR REVIEW - ADDED BORE INFORMATION

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

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

VERT & HORZ. SCALE: 1" = 20'

DRAWN BY: HEI(DRF) 5/26/2020

DRAFTING CK: .

ENGINEERING CK: .

UEI JOB NO.: .

AFE/PO NO.: .

HEI PROJECT NO.: 14-10-052

UEI FILE NO.: .

DRAWING NO.: PP-H600-023

SHEET 1 OF 1 REV. 1

DATE OF PLOT: 6/24/2020 4:57 PM

Mountain Valley PIPELINE

PLAN & PROFILE
STATION 11623+00 TO 11629+00
MVP PIPELINE PROJECT
PROPOSED H600 PIPELINE
MONTGOMERY COUNTY, VIRGINIA