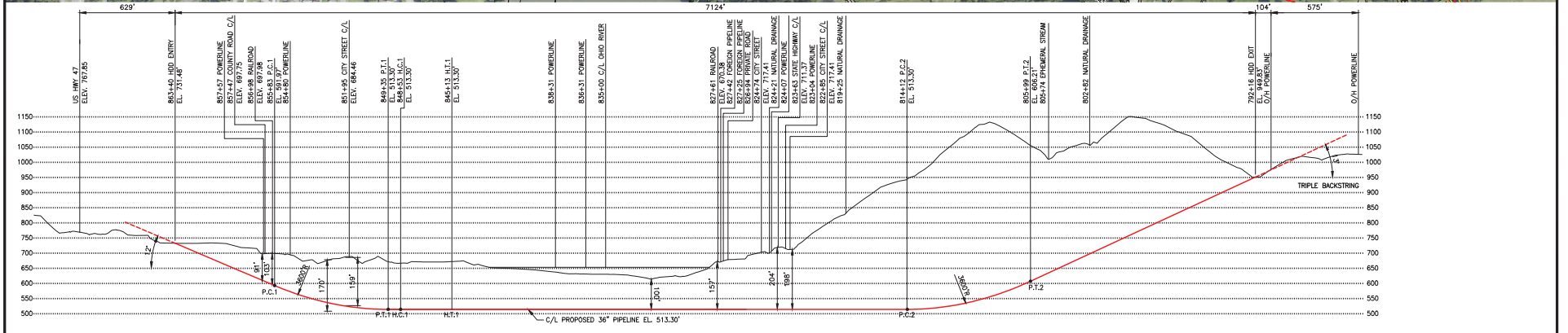
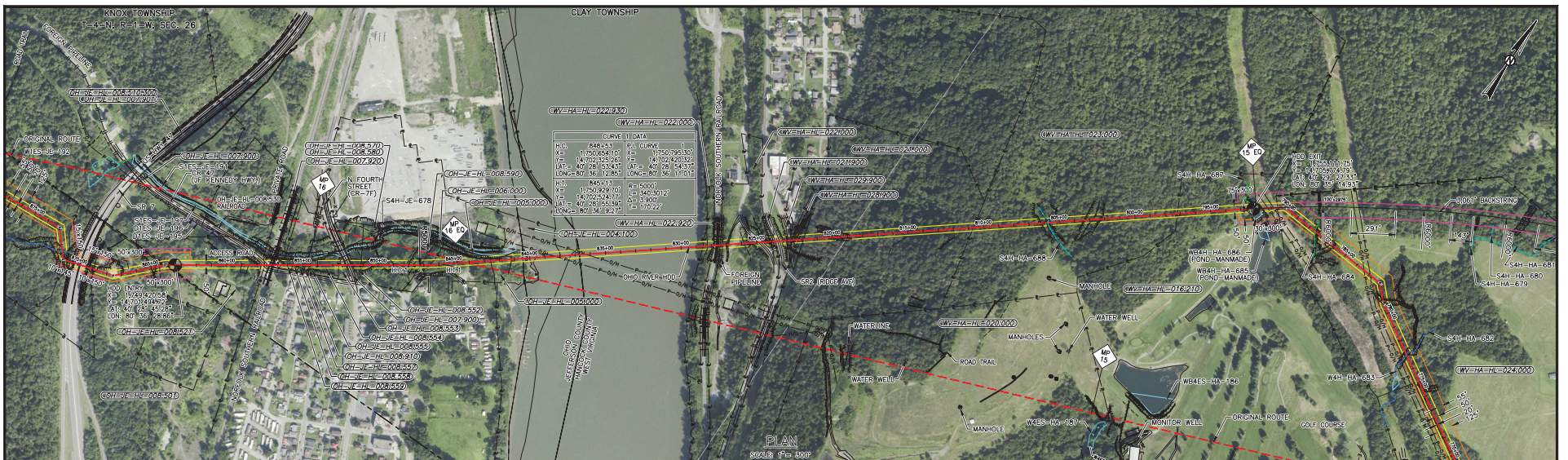


APPENDIX G-2

Horizontal Directional Drill Site-Specific Plan



OHIO RIVER HDD
 HORIZONTAL SCALE: 1" = 300'
 VERTICAL SCALE: 1" = 150'

- SPECIFICATIONS:**
 CARRIER PIPE: 36,000" O.D. X 0.750" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAKP: 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 7,190 FT.
- GENERAL NOTES:**
 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
- ENVIRONMENTAL NOTES:**
 1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
 2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR COUNTERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
 3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
 4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

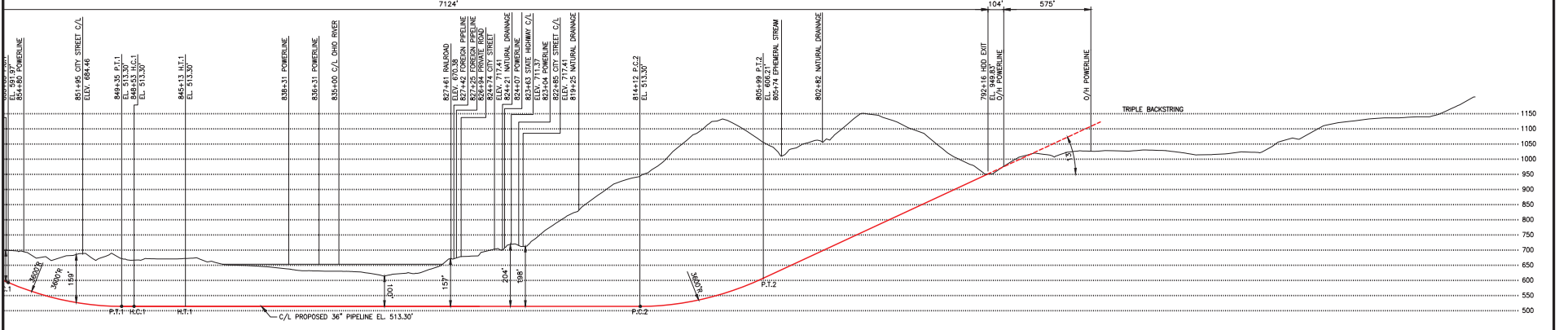
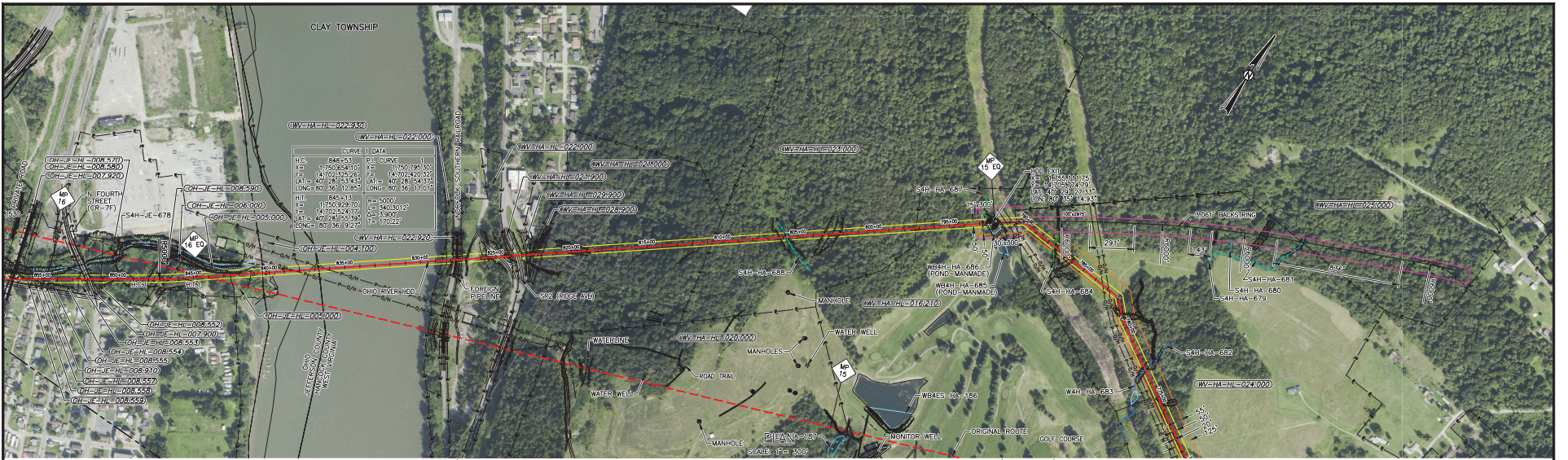
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

<table border="1"> <tr> <th>DWG. STATUS</th> <th>CHECKED BY</th> <th>DATE</th> <th>APPROVED BY</th> <th>DATE</th> </tr> <tr> <td>PRELIM</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BID</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CONSTR.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CADD</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	DWG. STATUS	CHECKED BY	DATE	APPROVED BY	DATE	PRELIM					BID					CONSTR.					CADD					<table border="1"> <tr> <th>PL/REV. NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td>1</td> <td>03/12/16</td> <td>ISSUE FOR BIDDING</td> </tr> </table>	PL/REV. NO.	DATE	DESCRIPTION	1	03/12/16	ISSUE FOR BIDDING	<table border="1"> <tr> <th>CONSTRUCTION YEAR</th> <th>2016</th> </tr> <tr> <th>DESIGN</th> <td>JHR</td> </tr> <tr> <th>ASBUILT</th> <td>KMA</td> </tr> <tr> <th>DATE</th> <td>9-12-14</td> </tr> </table>	CONSTRUCTION YEAR	2016	DESIGN	JHR	ASBUILT	KMA	DATE	9-12-14	<table border="1"> <tr> <th>PROJECT NO.</th> <td>58800000009</td> </tr> <tr> <th>PREVIOUS DWG. NO.</th> <td></td> </tr> <tr> <th>SHEET 1 OF 1</th> <td></td> </tr> <tr> <th>DWG. NO.</th> <td>BQ-P4-45</td> </tr> <tr> <th>SHEET 1 OF 1</th> <td></td> </tr> </table>	PROJECT NO.	58800000009	PREVIOUS DWG. NO.		SHEET 1 OF 1		DWG. NO.	BQ-P4-45	SHEET 1 OF 1	
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G-2-3

Appendix G-2

06-25-15 13:57 111.5 78.00



OHIO RIVER HDD PROFILE
 HORIZONTAL SCALE: 1" = 300'
 VERTICAL SCALE: 1" = 100'

SPECIFICATIONS:
 CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAND 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 7,190 FT.

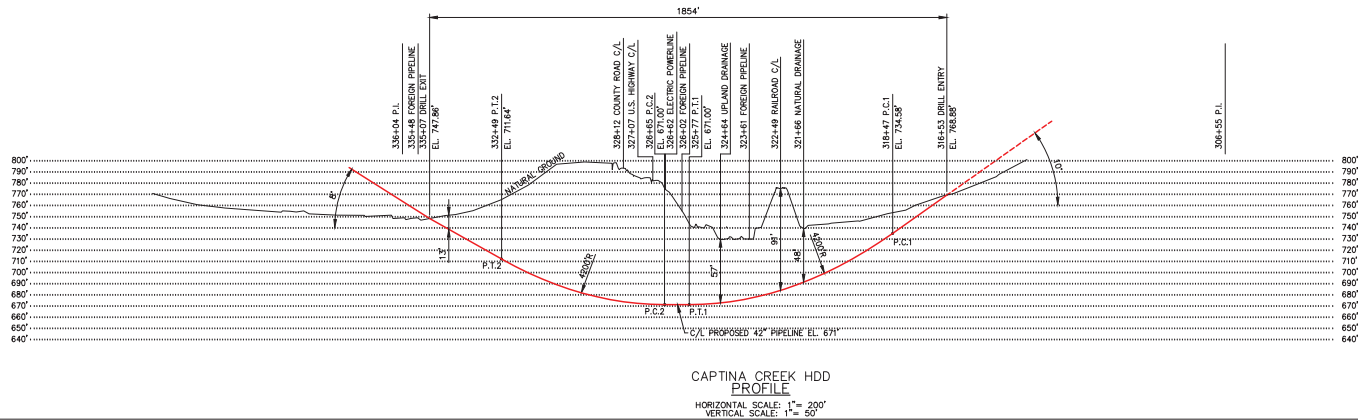
GENERAL NOTES:
 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 3) FOOT ACCESS FOR HDD GUIDANCE WIRE WILL BE REQUIRED FOR 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:
 1) EROSION/SEDIMENTATION CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
 2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
 3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
 4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
 - PROPOSED PIPELINE
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH
 - GEOTECH CORE

ENVIRONMENTAL LEGEND:
 - PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

<table border="1"> <tr> <th>DWG. STATUS</th> <th>CHECKED BY</th> <th>DATE</th> <th>APPROVED BY</th> <th>DATE</th> </tr> <tr> <td>PRELIM</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BID</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CONSTR.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CADD</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	DWG. STATUS	CHECKED BY	DATE	APPROVED BY	DATE	PRELIM					BID					CONSTR.					CADD					<table border="1"> <tr> <th>PL/ISS. NO.</th> <th>ACTUAL NO.</th> <th>CONSTRUCTION YEAR</th> </tr> <tr> <td></td> <td></td> <td>2016</td> </tr> </table>	PL/ISS. NO.	ACTUAL NO.	CONSTRUCTION YEAR			2016	<table border="1"> <tr> <th>DESIGN</th> <th>JHR</th> <th>DATE</th> </tr> <tr> <td>DESIGN</td> <td>KMA</td> <td>9-12-14</td> </tr> <tr> <th>ASBUILT</th> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	DESIGN	JHR	DATE	DESIGN	KMA	9-12-14	ASBUILT						<table border="1"> <tr> <th>FILE NO.</th> <th>SCALE</th> </tr> <tr> <td></td> <td>NOTED</td> </tr> </table>	FILE NO.	SCALE		NOTED	<p>ROVER PIPELINE PROJECT BURGETTSTOWN LATERAL - 36" NG PIPELINE OHIO RIVER HDD BACKSTRING M.P. 15.0 TO M.P. 16.1 HANCOCK, WEST VIRGINIA TO JEFFERSON, OHIO</p>	<table border="1"> <tr> <td>PROJECT NO.</td> <td>58800000009</td> </tr> <tr> <td>PREVIOUS DWG. NO.</td> <td></td> </tr> <tr> <td>SHEET 1 OF 1</td> <td></td> </tr> <tr> <td>DWG. NO.</td> <td>BQ-P4-45_BS</td> </tr> <tr> <td>SHEET 1 OF 1</td> <td></td> </tr> </table>	PROJECT NO.	58800000009	PREVIOUS DWG. NO.		SHEET 1 OF 1		DWG. NO.	BQ-P4-45_BS	SHEET 1 OF 1	
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CAPTINA CREEK HDD PROFILE
 HORIZONTAL SCALE: 1" = 200'
 VERTICAL SCALE: 1" = 50'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: TBD* PSIG MIN - TBD* PSIG MAX
 DESIGN PRESSURE: MASP 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 1,865 FT.

GENERAL NOTES:

- GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
- FOOT ACCESS FOR HDD TRUCKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

- EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
- ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
- PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
- EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

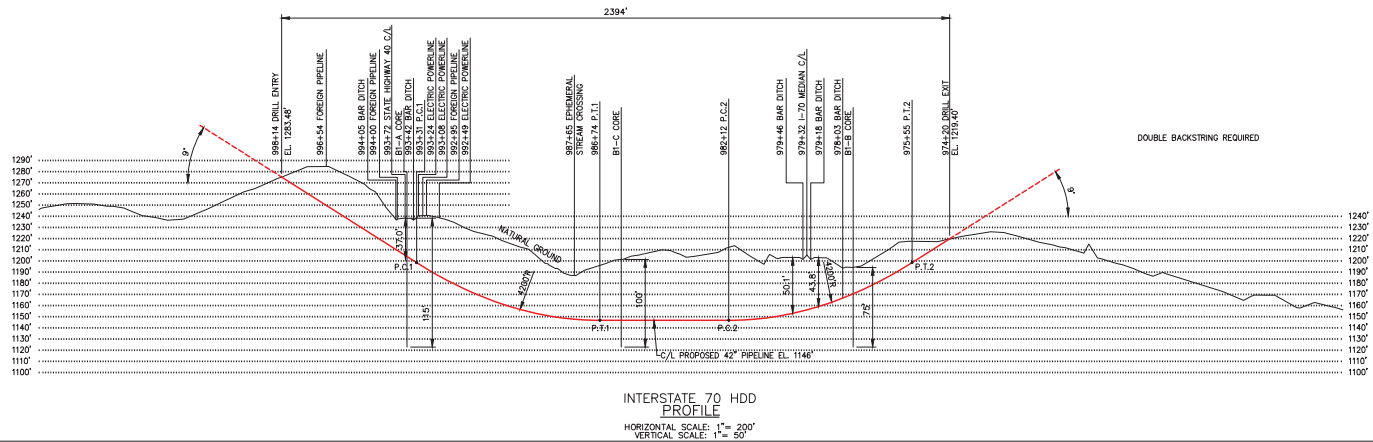
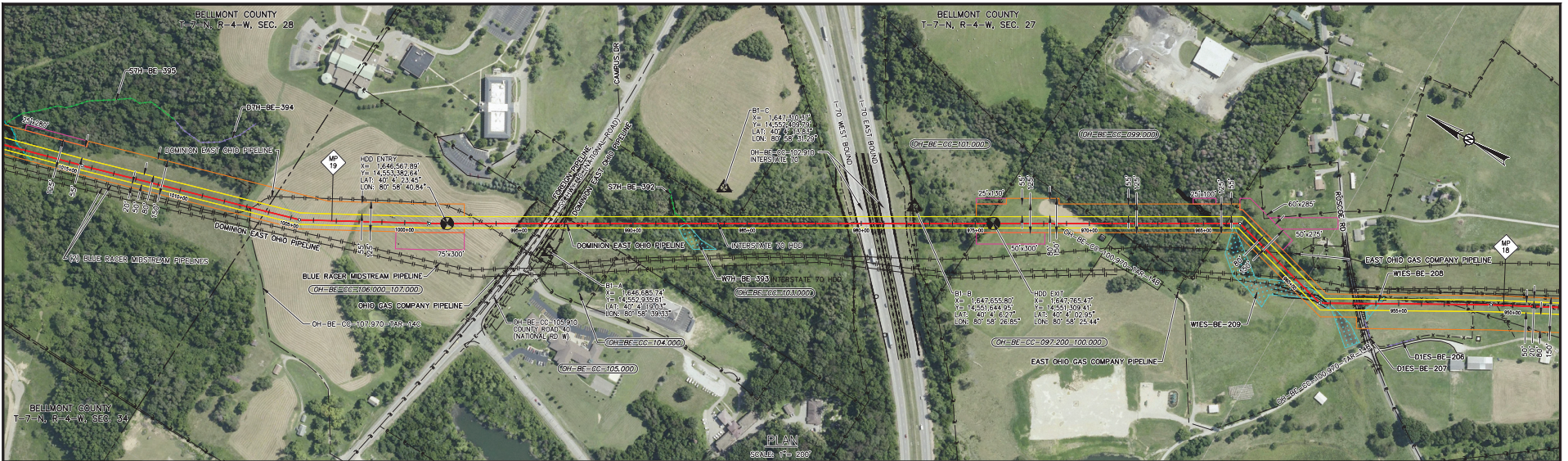
- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

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DWG. STATUS	CHECKED BY	DATE	APPROVED BY	DATE	PL/STA. NO.	ACCOM. NO.	CONSTRUCTION YEAR	2016																																																																		
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G2-5

Appendix G-2

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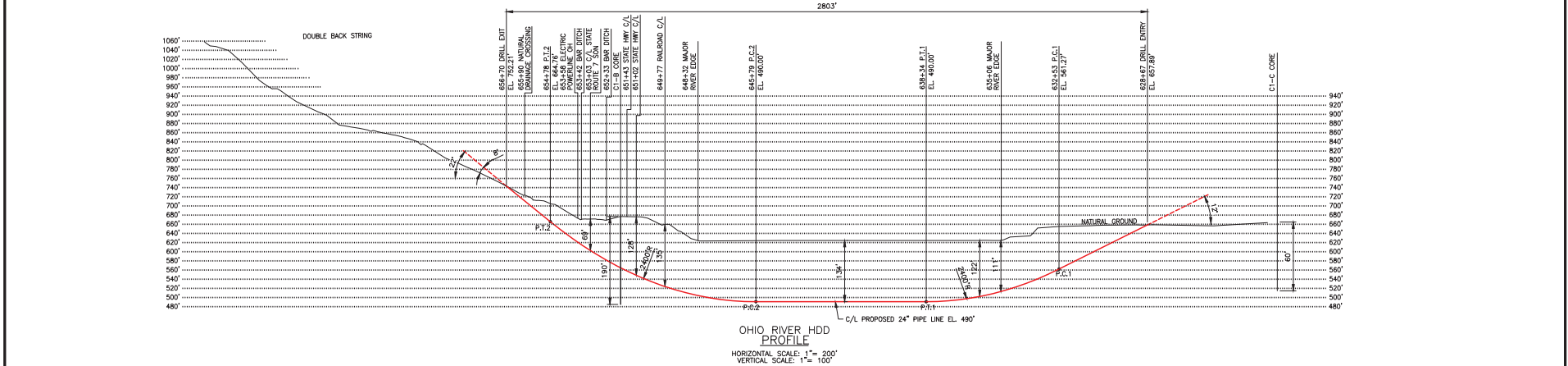
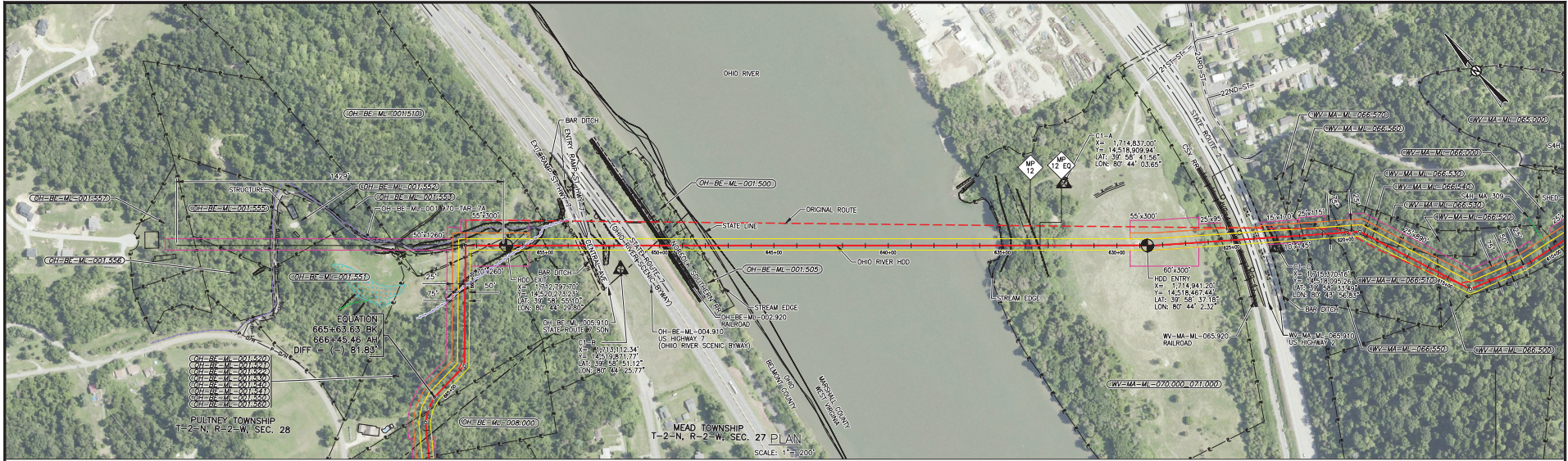
INTERSTATE 70 HDD PROFILE
 HORIZONTAL SCALE: 1" = 200'
 VERTICAL SCALE: 1" = 50'

- SPECIFICATIONS:**
 CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAMP 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 2,407 FT.
- GENERAL NOTES:**
 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 3) FOOT ACCESS FOR HOD TRUCKTRAILER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.
- ENVIRONMENTAL NOTES:**
 1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
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- LEGEND:**
 - PROPOSED PIPELINE
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH
 - GEOTECH CORE
- ENVIRONMENTAL LEGEND:**
 - PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

D. FERC FILING UPDATE		ADM	6-03-15	JHR	JHR
C. FERC FILING		G.D	1-15-15	CRF	JHR
B. GEOTECHNICAL CORE COLLECTION		RBR	11-7-14	CRF	JHR
A. FERC DRAFT FILING		NLM	11-5-14	CRF	JHR

CHKD	APPD	DATE	BY	DATE	BY	DATE

PROJECT NO.	58500000005
PREVIOUS DWG. NO.	
SHEET 1 OF 1	
DWG. NO.	CL-P4-42
SHEET 1 OF 1	



SPECIFICATIONS:
 CARRIER PIPE: 24.000" O.D. X 0.532" W.T. X-65
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAKP 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 2,858 FT.

GENERAL NOTES:
 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

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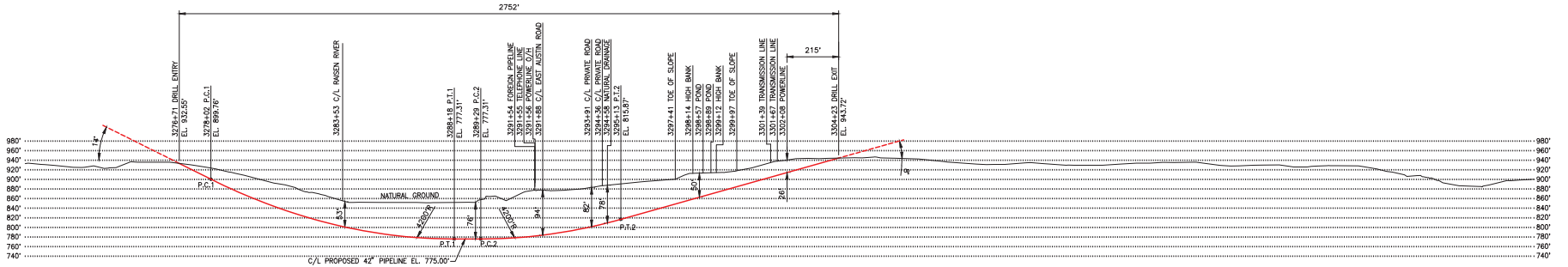
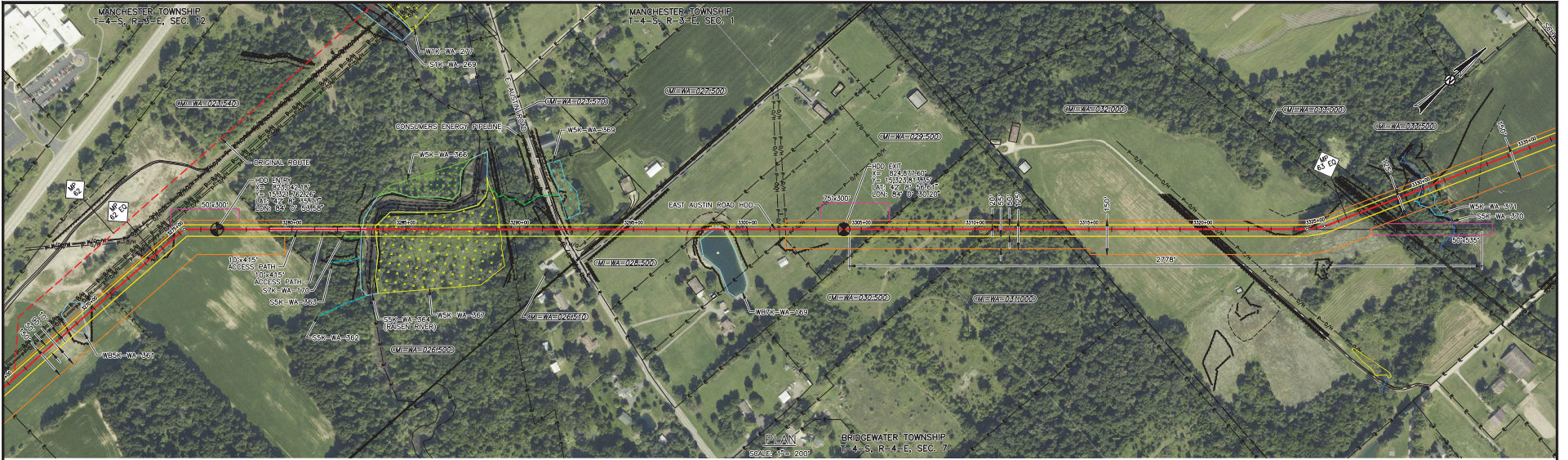
ENVIRONMENTAL LEGEND:
 - PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

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DWG. STATUS	CHECKED BY	DATE	APPROVED BY	DATE	PL/DIR. NO.	ACTIVITY NO.	CONSTRUCTION YEAR	2016																																												
PRELIM					DESIGN	JHR	KMA	9-17-14																																												
BID					ASBUILT																																															
CONSTR.					FILE NO.																																															
CADD					SCALE: NOTED																																															

G-2-7

Appendix G-2

05/25/15 08:13 111.1 28 FEB



EAST AUSTIN ROAD HDD PROFILE
 HORIZONTAL SCALE: 1" = 200'
 VERTICAL SCALE: 1" = 100'

SPECIFICATIONS:

CARRIER PIPE: 42,000" O.D. X 0.864" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: TBD* PSIG MIN - TBD* PSIG MAX
 DESIGN PRESSURE: MAMP 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 2,778 FT.

GENERAL NOTES:

- GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
- FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

- EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
- ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
- PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
- EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

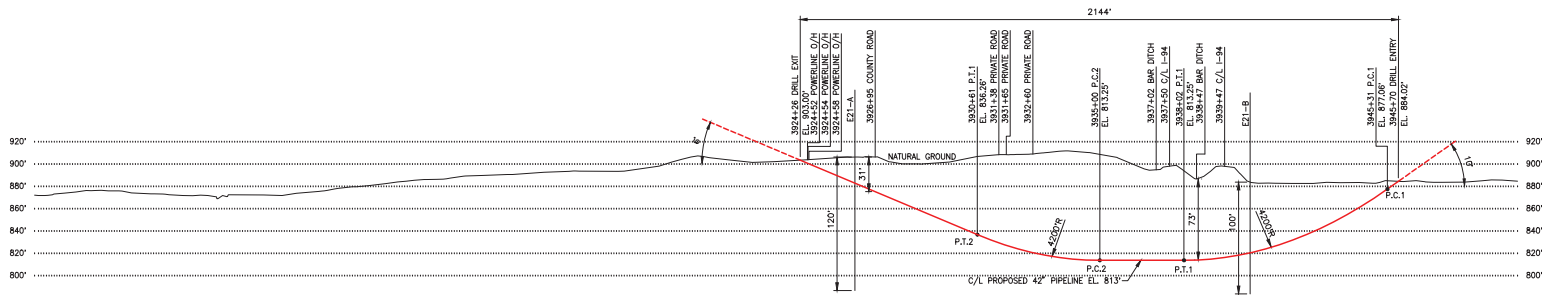
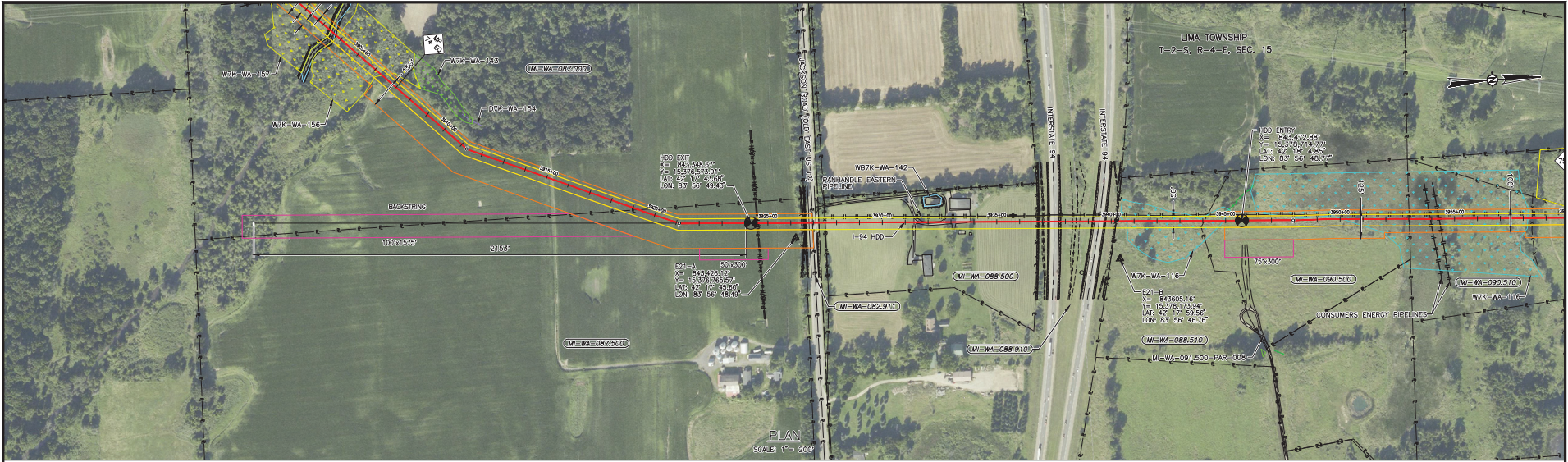
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WK-P3-8007	ALIGNMENT	A	FERC FILING	GJD	11-7-14	CRF	JHR

DWG STATUS	CHECKED		APPROVED		PL/DATE NO. / DRAWING NO.	CONSTRUCTION YEAR	2016
	BY	DATE	BY	DATE			
PREL.Y					DESIGN	JHR	
BID					DRAWN	KMA	9-22-14
CONSTR.					ASBUILT		
CADD					FILE NO.		
					SCALE: NOTED		



ROVER PIPELINE PROJECT
 MARKET SEGMENT - 42" NG PIPELINE
 EAST AUSTIN ROAD HDD
 M.P. 62.6 TO M.P. 63.1
 WASHTENAW, MICHIGAN

PROJECT NO.	58500000005
PREVIOUS DWG. NO.	
SHEET 1 OF 1	
DWG. NO.	MK-P4-22
SHEET 1 OF 1	



I-94 HDD
PROFILE
HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 50'

SPECIFICATIONS:
CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAOP: 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 2,153'

GENERAL NOTES:
1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
3) FOOT ACCESS FOR HDO GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:
1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR COUNTERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

- LEGEND:**
- PROPOSED PIPELINE
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH
 - ▲ GEOTECH CORE
- ENVIRONMENTAL LEGEND:**
- PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
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MK-P3-8019	ALIGNMENT	B	FOR REVIEW	MFZ	3-30-15	CRF	JHR
		C	FERC FILING UPDATE	LRW	6-3-15	CRF	JHR

DWG STATUS	CHECKED		APPROVED		P.L./D.M. NO.	CONTRACT NO.	CONSTRUCTION YEAR	2016
	BY	DATE	BY	DATE				
PRELIM					DESIGN	JHR		
CONSTR.					DRAWN	KMA	9-29-14	
CADD					ASBUILT			

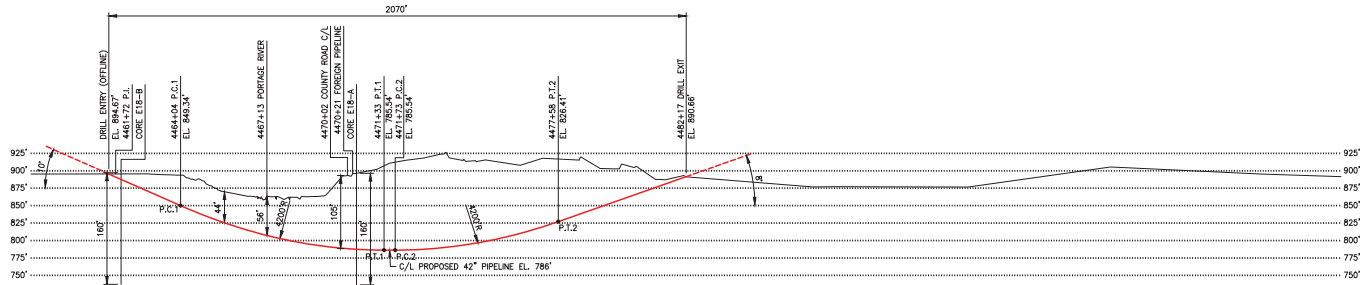
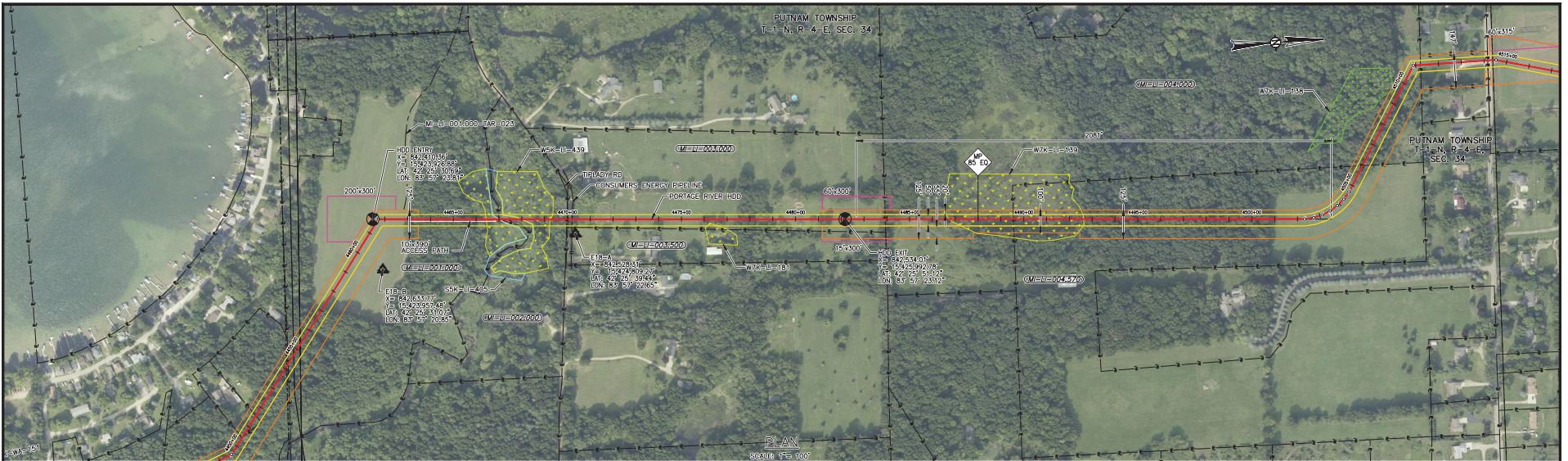
ROVER PIPELINE PROJECT
MARKET SEGMENT - 42" NG PIPELINE
I-94 HDD
M.P. 74.3 TO M.P. 74.7
WASHTENAW, MICHIGAN

PROJECT NO.	58500000005
PREVIOUS DWG. NO.	
SHEET 1 OF 1	
DWG. NO.	MK-P4-22B
SHEET 1 OF 1	

G2-9

Appendix G-2

05/05/15 05:15:03 14114 N/A 14



PORTAGE RIVER HDD
PROFILE
HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 40'

SPECIFICATIONS:

CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSLI DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MAND 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 2,081 FT.

GENERAL NOTES:

- GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
- FOOT ACCESS FOR HDD TRUCK/WALKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:

- EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
- ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
- PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
- EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

- LEGEND:
- PROPOSED PIPELINE
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH
 - GEOTECH CORE

- ENVIRONMENTAL LEGEND:
- PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
E	FERC FILING UPDATE	RBR	6-24-15	JHR	JHR
D	FERC FILING UPDATE	LRW	6-3-15	CRF	JHR
C	FOR REVIEW	LRW	3-30-15	CRF	JHR
B	FOR REVIEW	NLM	2-23-15	JHR	JHR
A	PRELIMINARY	LRW	11-5-14	CRF	JHR

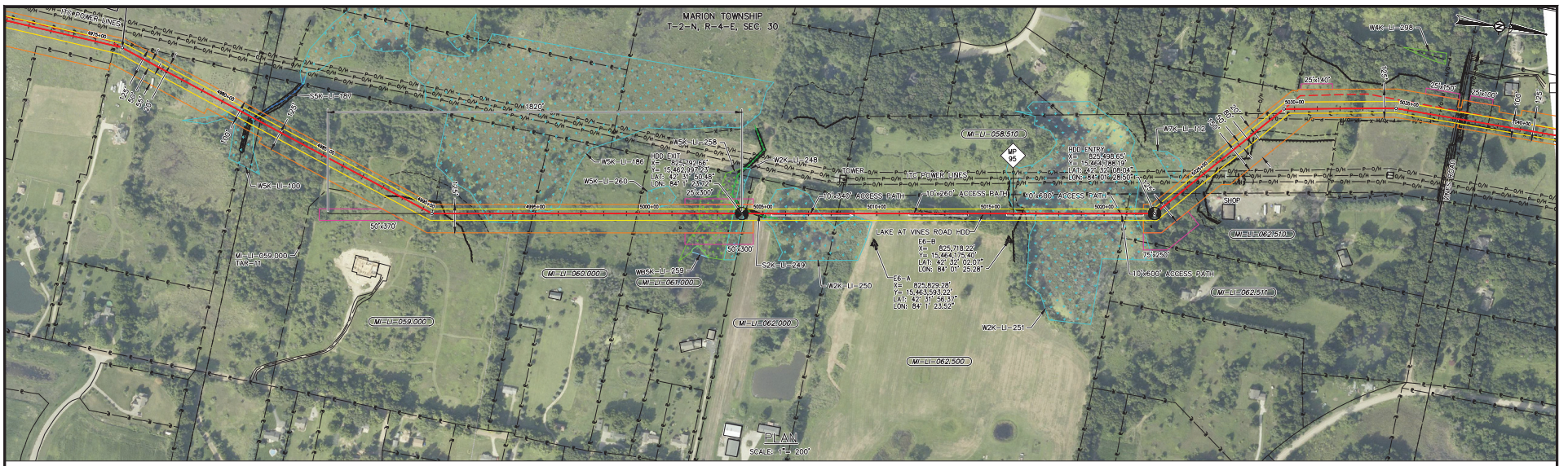
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	BY	DATE	BY	DATE			
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BID							
CONSTR.							
CADD							

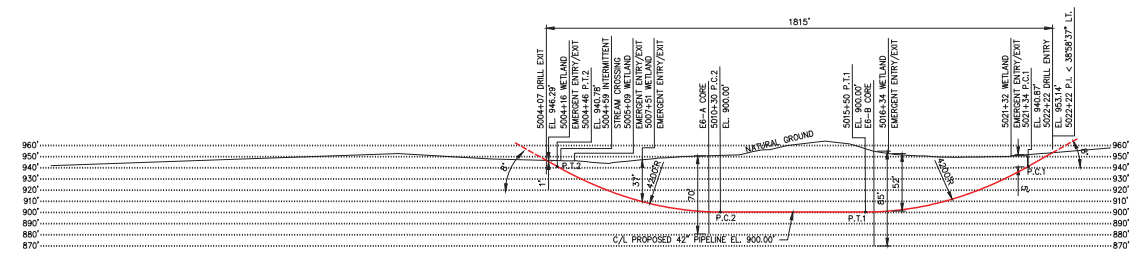
DESIGN	BY	DATE
DESIGN	JHR	
DRAWN	LRW	10-1-14
ASBUILT		

ROVER PIPELINE PROJECT
42" MARKET SEGMENT - NG PIPELINE
PORTAGE RIVER HDD
M.P. 84.5 TO M.P. 84.9
LIVINGSTON, MICHIGAN

PROJECT NO.	PREVIOUS DWG. NO.	SHEET NO. OF 1	DWG. NO.	SHEET 1 OF 1
			MK-P4-23B	



G-2-11



LAKE AT VINES ROAD HDD
PROFILE
HORIZONTAL SCALE: 1" = 200'
VERTICAL SCALE: 1" = 50'

SPECIFICATIONS:
CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
DESIGN PRESSURE: MASP 1,440 PSIG
LOCATION CLASS: TBD
DESIGN FACTOR: 0.5
TRUE LENGTH: 1,820 FT.

- GENERAL NOTES:**
- 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 - 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 - 3) FOOT ACCESS FOR HDD TRUCK/CRANE WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

- ENVIRONMENTAL NOTES:**
- 1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
 - 2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
 - 3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
 - 4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

- LEGEND:**
- PROPOSED PIPELINE
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH
 - GEOTECH CORE
- ENVIRONMENTAL LEGEND:**
- PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
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		D	FERC FILING UPDATE	G.B	1-15-15	CRF	JHR
		C	FERC FILING	RBR	11-7-14	CRF	JHR
		B	GEOTECHNICAL CORE COLLECTION	NLM	11-5-14	CRF	JHR
		D	FERC FILING UPDATE	RBR	6-24-15	JHR	JHR
		E	FERC FILING UPDATE				

DWC STATUS	CHECKED		APPROVED		PL/STA. NO. / DRAWING NO.	CONSTRUCTION YEAR	2016
	BY	DATE	BY	DATE			
PREL.Y					DESIGN	JHR	
BID					DRAWN	KMA	9-25-14
CONSTR.					ASBUILT		
CADD					FILE NO.		
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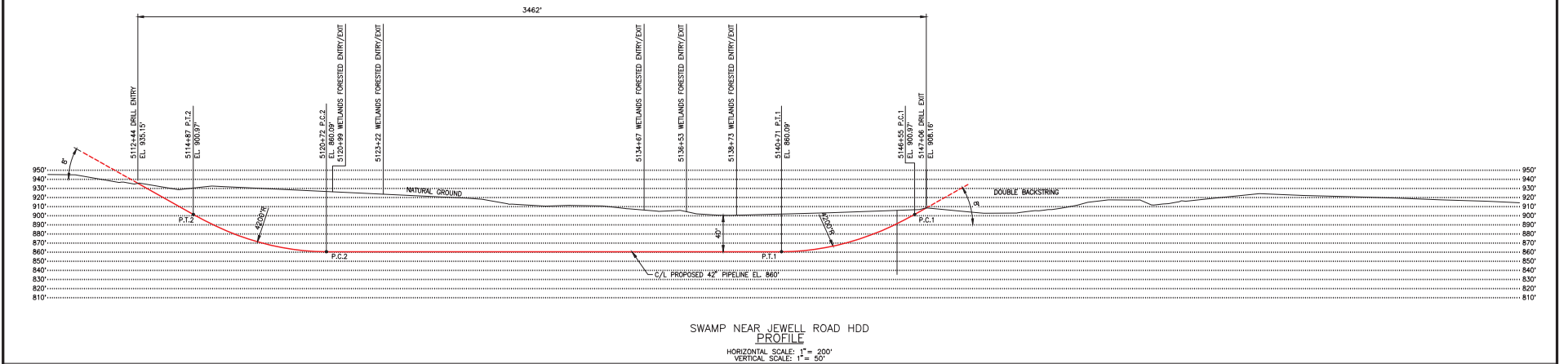
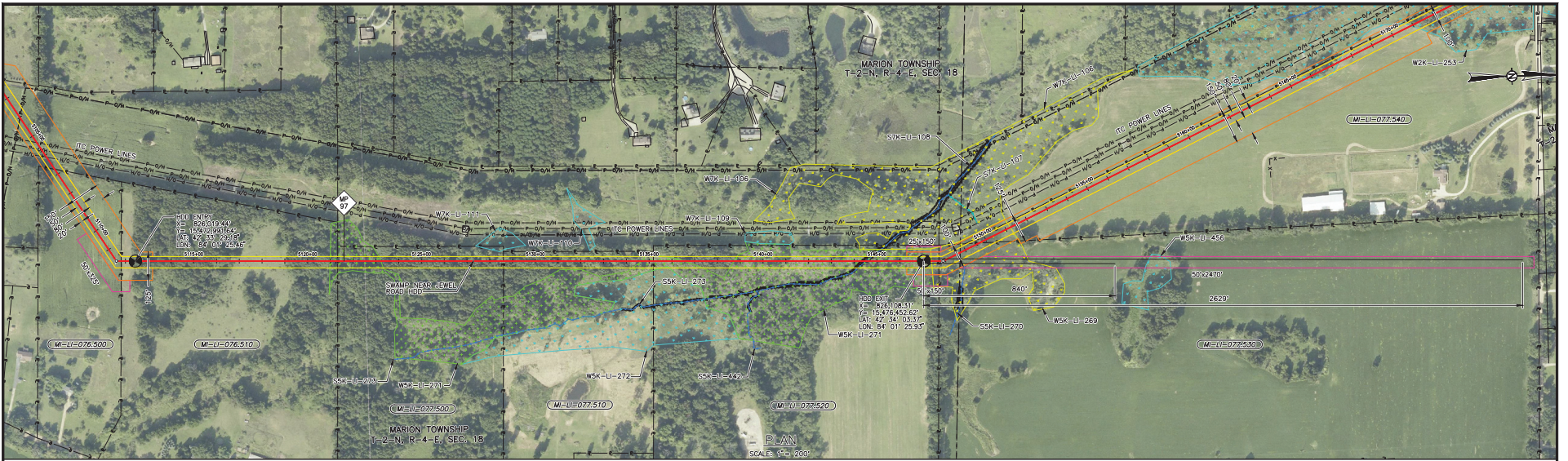


ROVER PIPELINE PROJECT
MARKET SEGMENT - 42" NG PIPELINE
LAKE AT VINES ROAD HDD
M.P. 94.8 TO M.P. 95.1
LIVINGSTON, MICHIGAN

PROJECT NO.	585000000005
PREVIOUS DWG. NO.	
SHEET 1 OF 1	
DWG. NO.	MK-P4-27
SHEET 1 OF 1	

Appendix G-2

808 22
8120 01-20 15 12 21



SPECIFICATIONS:
 CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAND 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 3,468.8 FT.

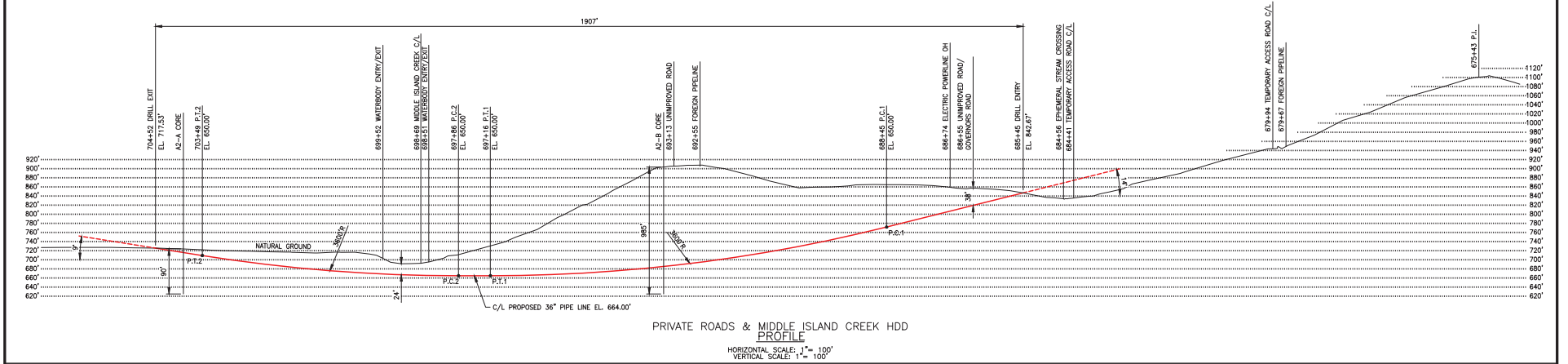
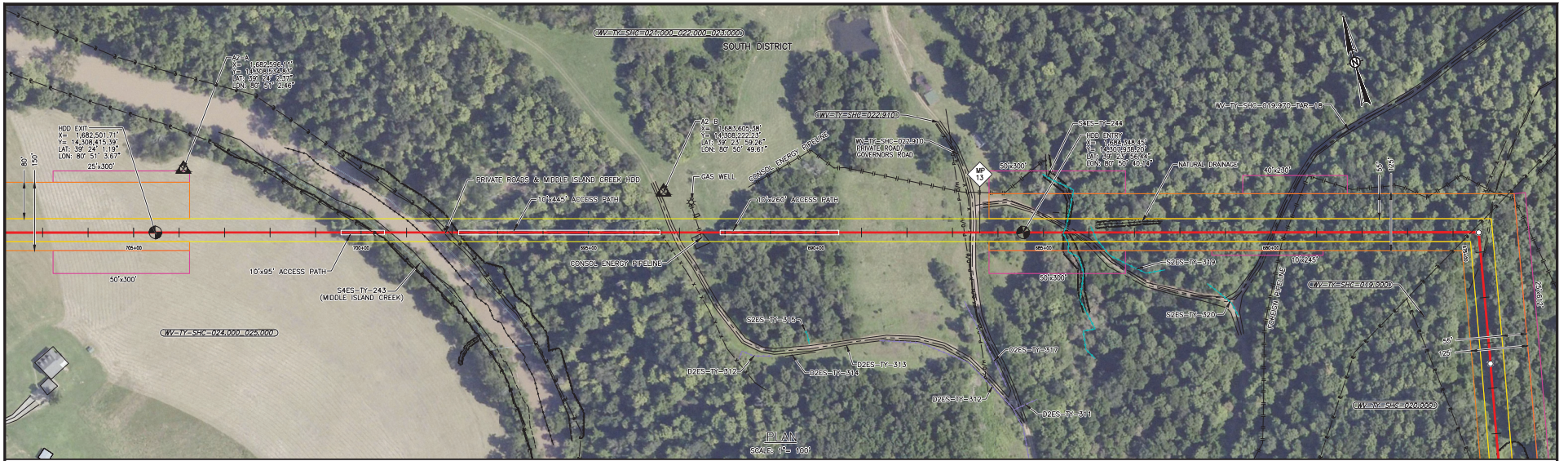
GENERAL NOTES:
 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 3) FOOT ACCESS FOR HDD TRUCKER WIRE WILL BE REQUIRED FOR 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:
 1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
 2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
 3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
 4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
 - PROPOSED PIPELINE
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH
 - GEOTECH CORE

ENVIRONMENTAL LEGEND:
 - PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

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NO.	REVISION - DESCRIPTION	BY	DATE	CHKD	APPD																																																												
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B	FERC FILING	MFZ	1-15-15	CRF	JHR																																																												
A	FERC DRAFT FILING AND GEOTECHNICAL CORE COLLECTION	GJD	11-7-14	CRF	JHR																																																												
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PREVIOUS DWG. NO.																																																																	
SHEET 1 OF 1																																																																	
DWG. NO.	MK-P4-28																																																																
SHEET 1 OF 1																																																																	



SPECIFICATIONS:
 CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURES: TBD PSIG MIN - TBD PSIG MAX
 DESIGN PRESSURE: MAMP 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 1,929 FT.

GENERAL NOTES:
 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:
 1) EROSION/SEDIMENTATION CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
 2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
 3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
 4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
 - PROPOSED PIPELINE
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH
 - GEOTECH CORE

ENVIRONMENTAL LEGEND:
 - PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHKD	APPD
SW-P3-15	ALIGNMENT	A	FERC DRAFT FLING				
SW-P3-14	ALIGNMENT	A	FERC DRAFT FLING				

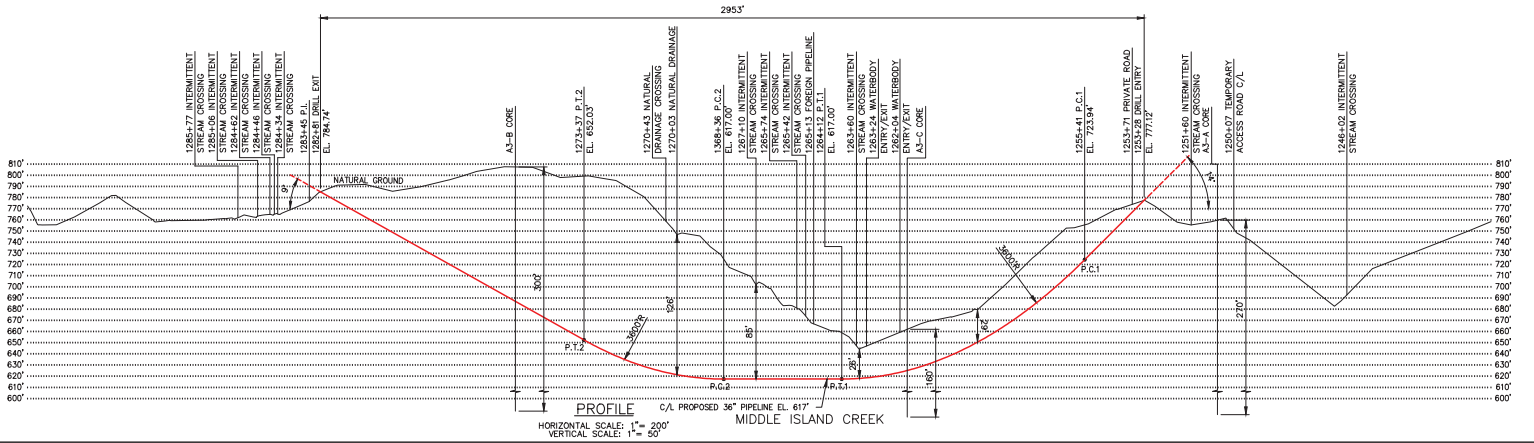
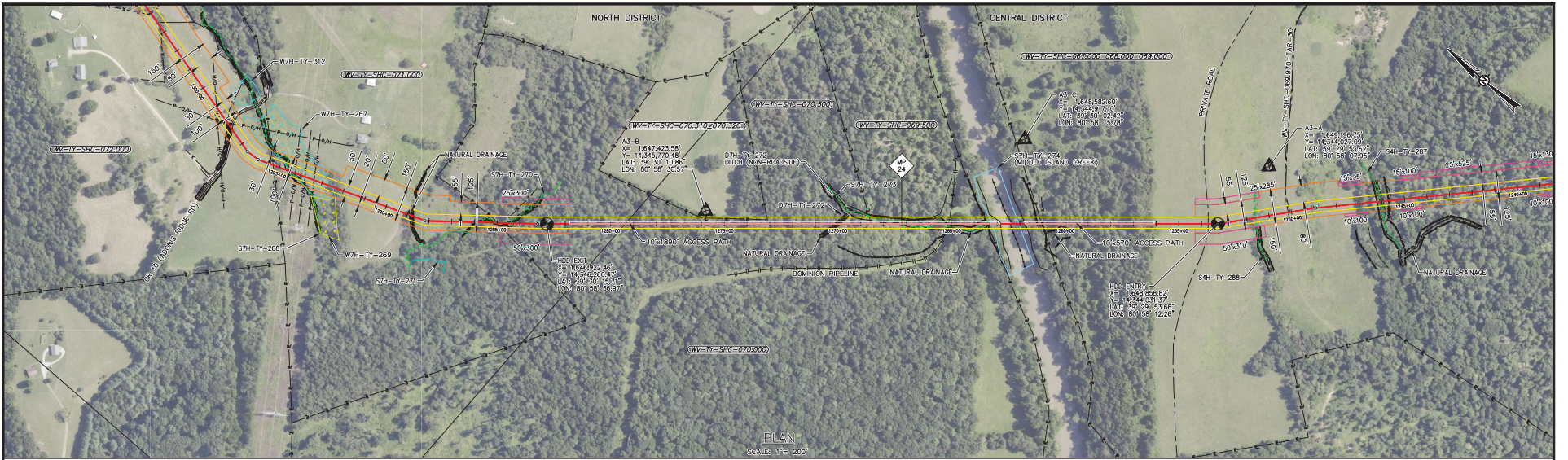
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BY	DATE	BY	DATE			
PREL.Y.						
BID						
CONSTR.						
CADD						

DESIGN	JHR	BY	DATE
DESIGN	KMA	9-11-14	

FILE NO.	SCALE: NOTED

ROVER PIPELINE PROJECT
 SHERWOOD LATERAL - 36" NG PIPELINE
 PRIVATE ROADS & MIDDLE ISLAND CREEK HDD
 M.P. 13.0 TO M.P. 13.3
 TYLER COUNTY, WEST VIRGINIA

PROJECT NO. 58500000003
 PREVIOUS DWG. NO.
 SHEET 1 OF 1
 DWG. NO. SW-P4-38
 SHEET 1 OF 1



SPECIFICATIONS:
 CARRIER PIPE: 36.000" O.D. X 0.750" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAMP 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 2,979 FT.

- GENERAL NOTES:**
- 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 - 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 - 3) FOOT ACCESS FOR HDD TRUCK/CRANE WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

- ENVIRONMENTAL NOTES:**
- 1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
 - 2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
 - 3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
 - 4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

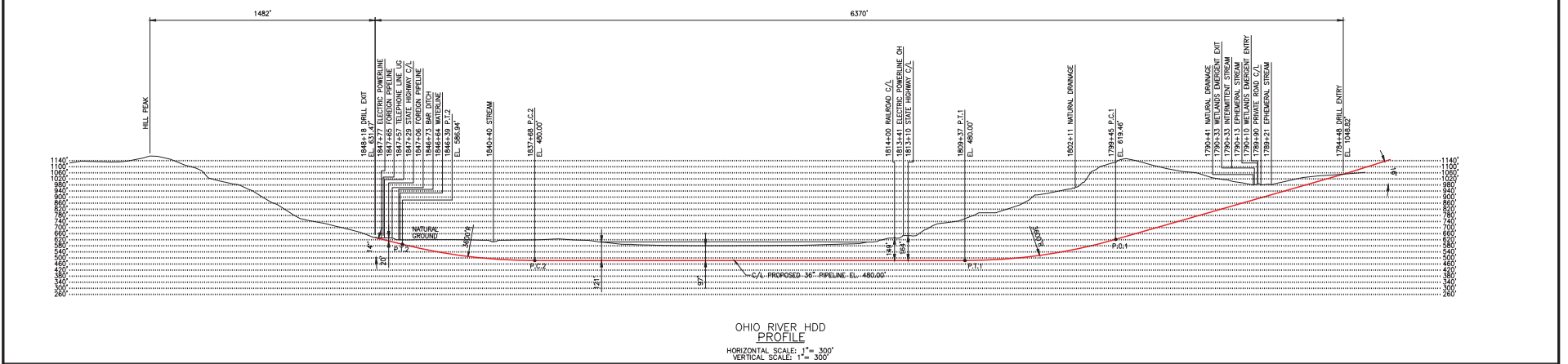
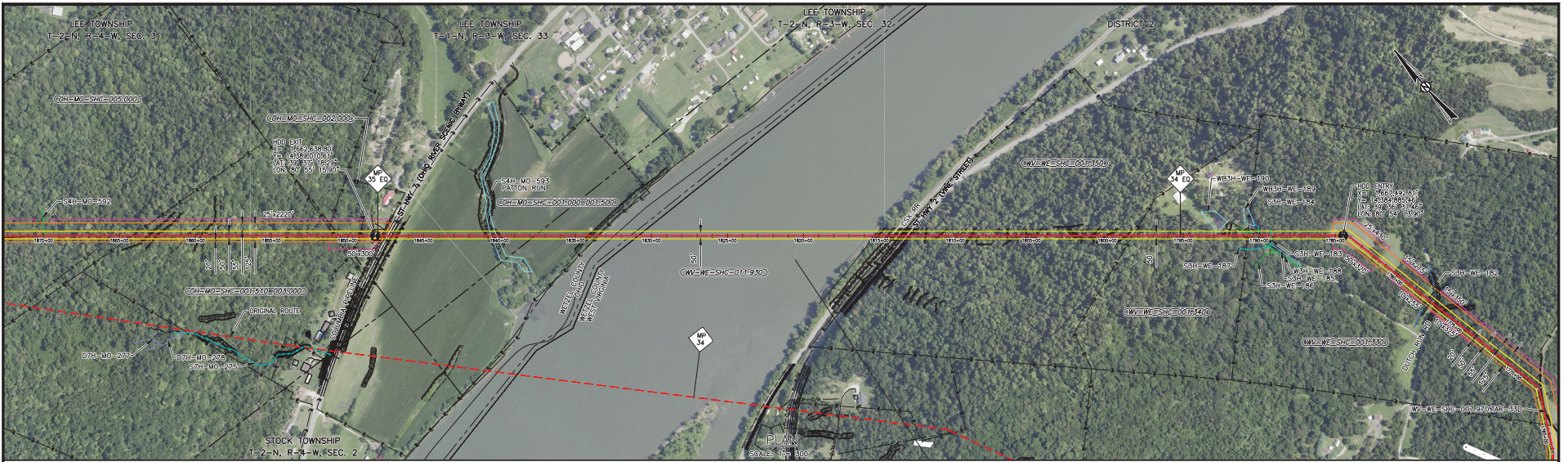
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SW-P3-1026	ALIGNMENT	A	FERC DRAFT FLING	KMA	9-4-14	CRF	JHR

DWG. STATUS	CHECKED		APPROVED		PL/STA. NO. / ACCOM. NO.	CONSTRUCTION YEAR	2016
	BY	DATE	BY	DATE			
PREL.Y					DESIGN	JHR	9-12-14
BID					DRAWN	KMA	9-12-14
CONSTR.					ASBUILT		
CADD					FILE NO.		
					SCALE: NOTED		



ROVER PIPELINE PROJECT
 SHERWOOD LATERAL - 36" NG PIPELINE
 MIDDLE ISLAND CREEK HDD
 M.P. 23.7 TO M.P. 24.3
 TYLER COUNTY, WEST VIRGINIA

PROJECT NO. 58500000003
 PREVIOUS DWG. NO.
 SHEET 1 OF 1
 DWG. NO. SW-P4-39
 SHEET 1 OF 1



SPECIFICATIONS:
 CARRIER PIPE: 36.000" O.D. X 0.75" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAND. 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 6,780 FT.

GENERAL NOTES:
 1) GRID PROJECTION BASED UPON UTM COORDINATE SYSTEM, ZONE 17 (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CENTRAL MERIDIAN.
 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:
 1) EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
 2) ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
 3) PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
 4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

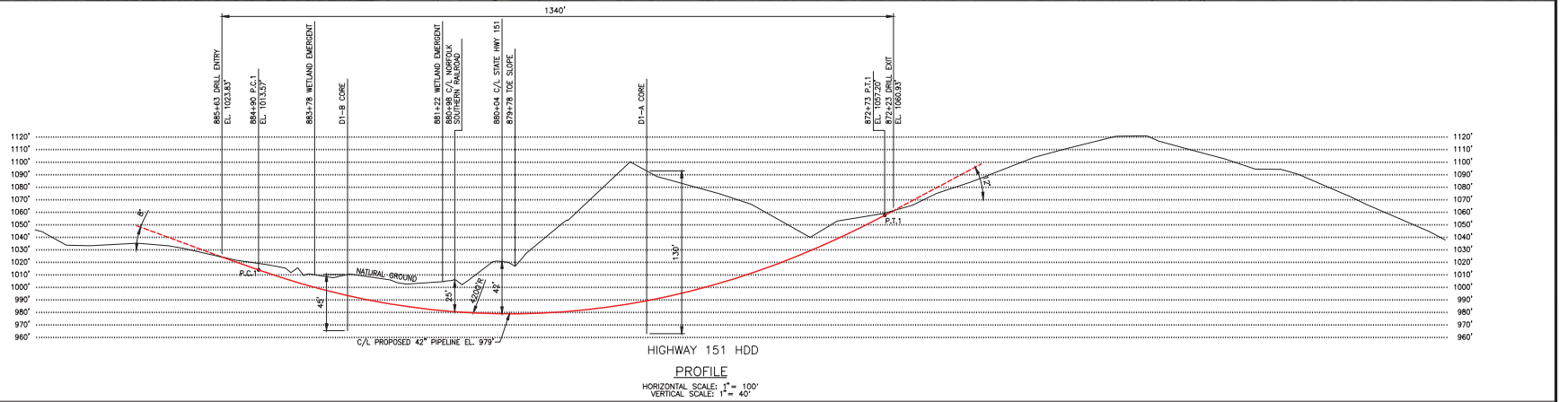
LEGEND:
 - PROPOSED PIPELINE
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH

ENVIRONMENTAL LEGEND:
 - PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

SW-P3-1037	ALIGNMENT	B	FERC FILING UPDATE	LRW	6-03-15	CRF	JHR
SW-P3-1036	ALIGNMENT	A	FERC FILING	KMA	1-15-15	CRF	JHR
DWG. NO.	REFERENCE DRAWING TITLE	NO.	REVISION - DESCRIPTION	BY	DATE	CHKD	APP'D

DWC STATUS	CHECKED	APPROVED			P.L./D.W. NO.	CONSTRUCTION YEAR	2016
	BY	DATE	BY	DATE			
PREL.Y					DESIGN	JHR	10-17-14
BID					DRAWN	KMA	10-17-14
CONSTR.					ASBUILT		
CADD5	PLOT DATE:				FILE NO.		
	FILE NAME:				SCALE:	NOTED	

ROVER PIPELINE PROJECT		PROJECT NO.	58500000003
SHERWOOD LATERAL - 36" NG PIPELINE		PREVIOUS DWG. NO.	
OHIO RIVER HDD		SHEET 1 OF 1	
M.P. 33.8 TO M.P. 35.0		DWG. NO.	SW-P4-40
WETZEL, WEST VIRGINIA TO MONROE, OHIO		SHEET 1 OF 1	



SPECIFICATIONS:
 CARRIER PIPE: 42,000" O.D. X 0.864" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 26 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAMP 1,440 PSIG
 LOCATION CLASS: TBD
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 1,348 FT.

- GENERAL NOTES:**
- GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
 - CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 - FOOT ACCESS FOR HDD TRUTHTRAKER WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

- ENVIRONMENTAL NOTES:**
- EROSION/SEDIMENT CONTROL STRUCTURES TO BE INSTALLED AND MAINTAINED TO MINIMIZE IMPACTS TO WETLANDS OR WATERBODIES.
 - ANY ON-LAND TRENCH DEWATERING TO BE DIRECTED TO WETLAND FILTER BAG AND/OR DEWATERING STRUCTURE IN AN UPLAND AREA TO MINIMIZE EROSION OF SEDIMENTATION TO WETLANDS/WATERBODIES.
 - PRE-CONSTRUCTION CONTOURS TO BE RE-ESTABLISHED FOR ALL DISTURBED AREAS. ALL DISTURBED AREAS TO BE RESTORED AND/OR REVEGETATED AS APPLICABLE.
 - EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:

- PROPOSED PIPELINE
- PERMANENT EASEMENT
- TEMPORARY WORK SPACE
- ADDITIONAL TEMPORARY WORK SPACE
- ACCESS PATH
- GEOTECH CORE

ENVIRONMENTAL LEGEND:

- PERENNIAL STREAM
- EPHEMERAL STREAM
- INTERMITTENT STREAM
- NATURAL DRAINAGE
- WATERBODY
- WETLAND EMERGENT
- WETLAND FORESTED
- WETLAND SCRUB SHRUB

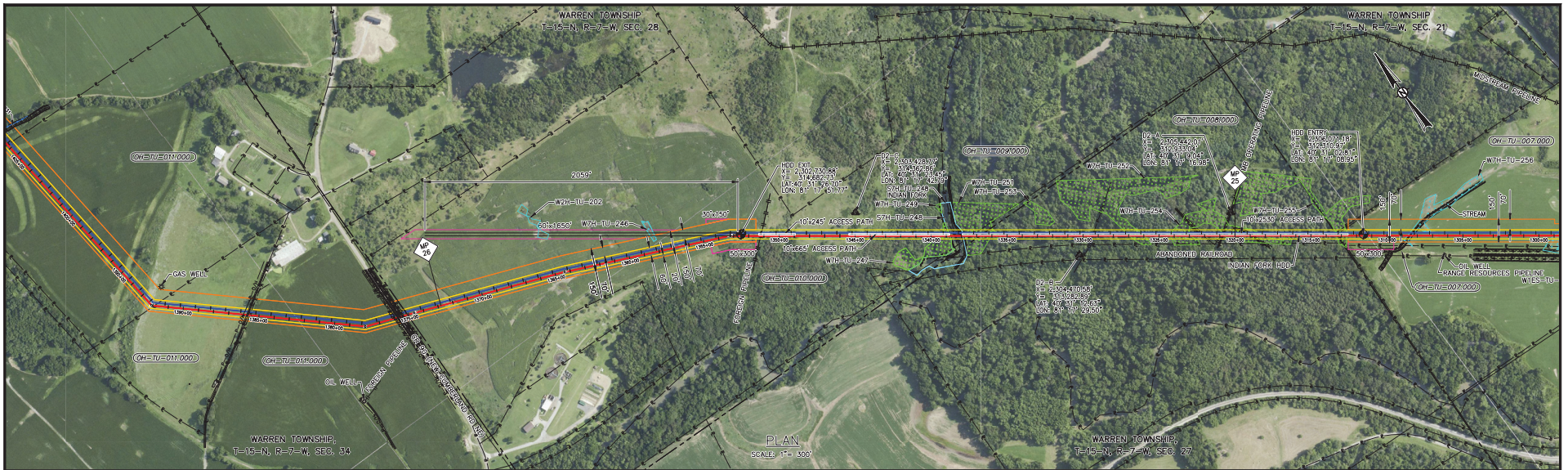
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ML-P3-1018	ALIGNMENT	A	FERC DRAFT FLING				

DWG. STATUS	CHECKED		APPROVED		PL/DATE NO. ACCURACY NO.	CONSTRUCTION YEAR	2016
	BY	DATE	BY	DATE			
PREL.Y					DESIGN	JHR	10-1-14
BID					DRAWN	NLM	10-1-14
CONSTR.					ASBUILT		
CADD					FILE NO.		
					SCALE: NOTED		

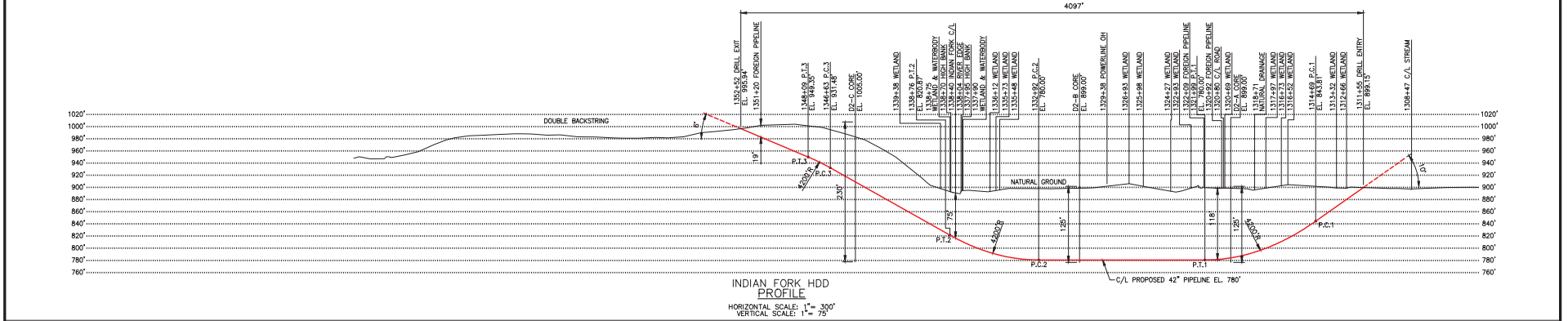


ROVER PIPELINE PROJECT
 SUPPLY CONNECTOR LINE A & B - 42" NG PIPELINE
 HIGHWAY 151 HDD
 M.P. 16.5 TO M.P. 16.8
 SENECA COUNTY, OHIO

PROJECT NO. 58500000001
 PREVIOUS DWG. NO.
 SHEET 1 OF 1
 DWG. NO. ML-P4-01
 SHEET 1 OF 1



G2-17



SPECIFICATIONS:
 CARRIER PIPE: 42.000" O.D. X 0.864" W.T. X-70
 A.P.I. 5L PSL 2, DSAW, W/ 14-16 MILS FBE AND 40 MILS ARO
 HYDROSTATIC PRE-TEST PRESSURE: "TBD" PSIG MIN - "TBD" PSIG MAX
 DESIGN PRESSURE: MAKP 1,440 PSIG
 LOCATION CLASS: TBA
 DESIGN FACTOR: 0.5
 TRUE LENGTH: 4,118 FT.

GENERAL NOTES:
 1) GRID PROJECTION BASED UPON OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE (GRID UNITS IN FEET) GEODETIC DATUM: NAD 1983, CLARKE SPHEROID, 1866.
 2) CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL FOREIGN PIPELINE CROSSINGS AND COVER PRIOR TO CONSTRUCTION.
 3) FOOT ACCESS FOR HDD GUIDED WIRE WILL BE REQUIRED 100 FT TO 200 FT BOTH SIDES OF CENTERLINE. HAND CLEARING OF TREES 3" DIAMETER AND SMALLER.

ENVIRONMENTAL NOTES:
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 4) EROSION/SEDIMENTATION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL RESTORATION AND REVEGETATION ARE DEEMED SUCCESSFUL.

LEGEND:
 - PROPOSED MAINLINE A
 - PROPOSED MAINLINE B
 - PERMANENT EASEMENT
 - TEMPORARY WORK SPACE
 - ADDITIONAL TEMPORARY WORK SPACE
 - ACCESS PATH
 - GEOTECH CORE

ENVIRONMENTAL LEGEND:
 - PERENNIAL STREAM
 - EPHEMERAL STREAM
 - INTERMITTENT STREAM
 - NATURAL DRAINAGE
 - WATERBODY
 - WETLAND EMERGENT
 - WETLAND FORESTED
 - WETLAND SCRUB SHRUB

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Appendix G-2

06-23-15 11:25 AM 33 RBR