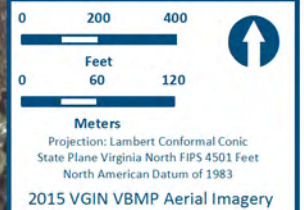
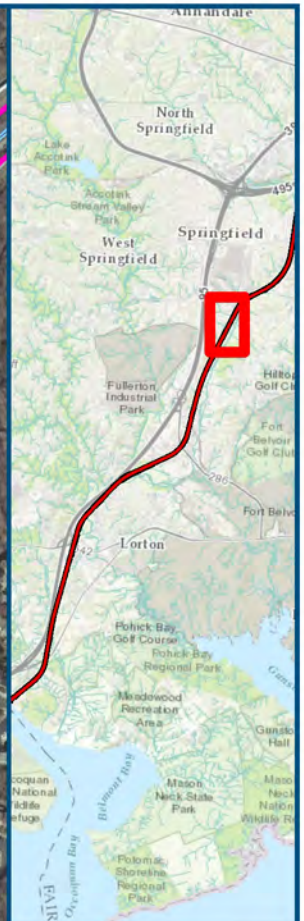


## **APPENDIX A: MAPS DETAILING ARCHAEOLOGICAL AREAS**



### Legend

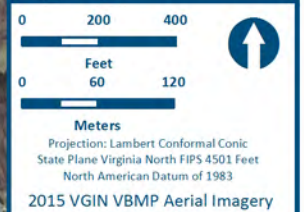
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 03 Franconia to Lorton (FRLO)**

**Archaeological Areas within the FRLO Segment**

5/2016







**Legend**

Archaeological APE

Archaeological Areas

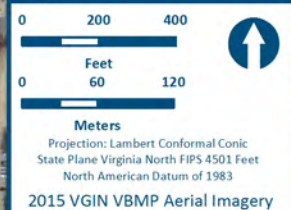
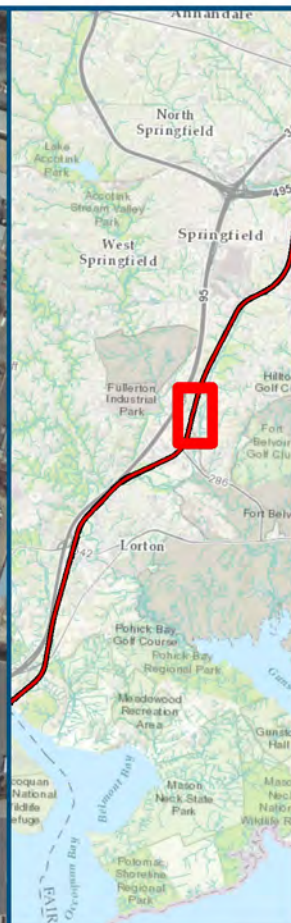
**DC2RVA Project Segments**  
03 Franconia to Lorton  
(FRLO)

**Archaeological Areas  
within the FRLO Segment**

5/2016







**Legend**

- Archaeological APE
- Archaeological Areas

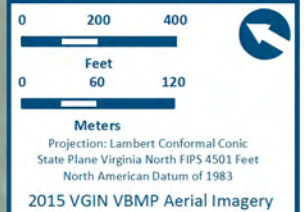
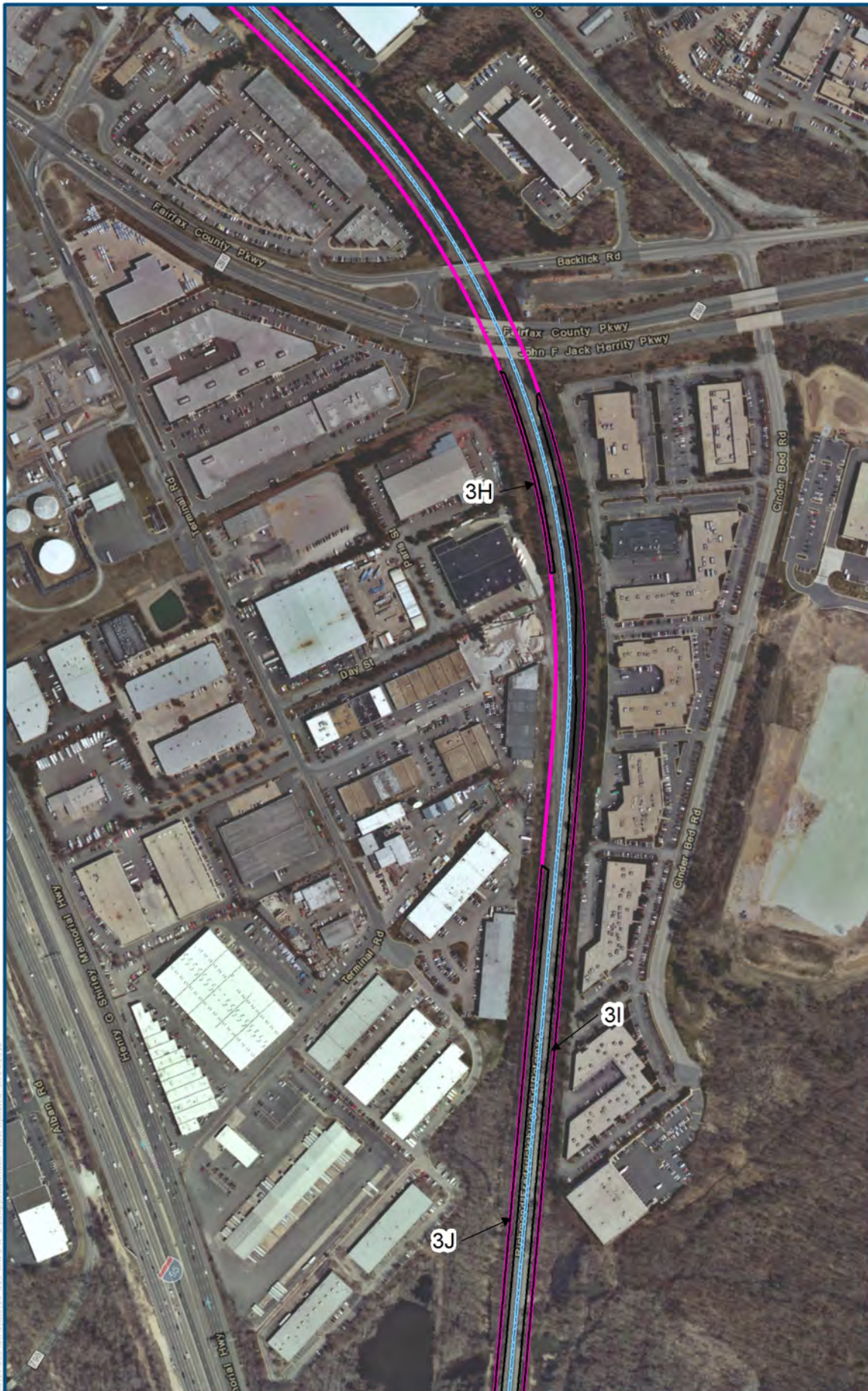
**DC2RVA Project Segments**

03 Franconia to Lorton (FRLO)

**Archaeological Areas within the FRLO Segment**

5/2016



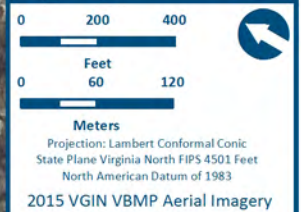


- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 03 Franconia to Lorton (FRLO)

**Archaeological Areas  
within the FRLO Segment**

5/2016





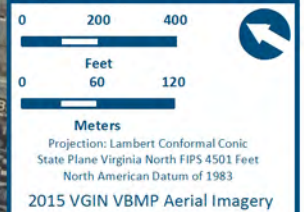
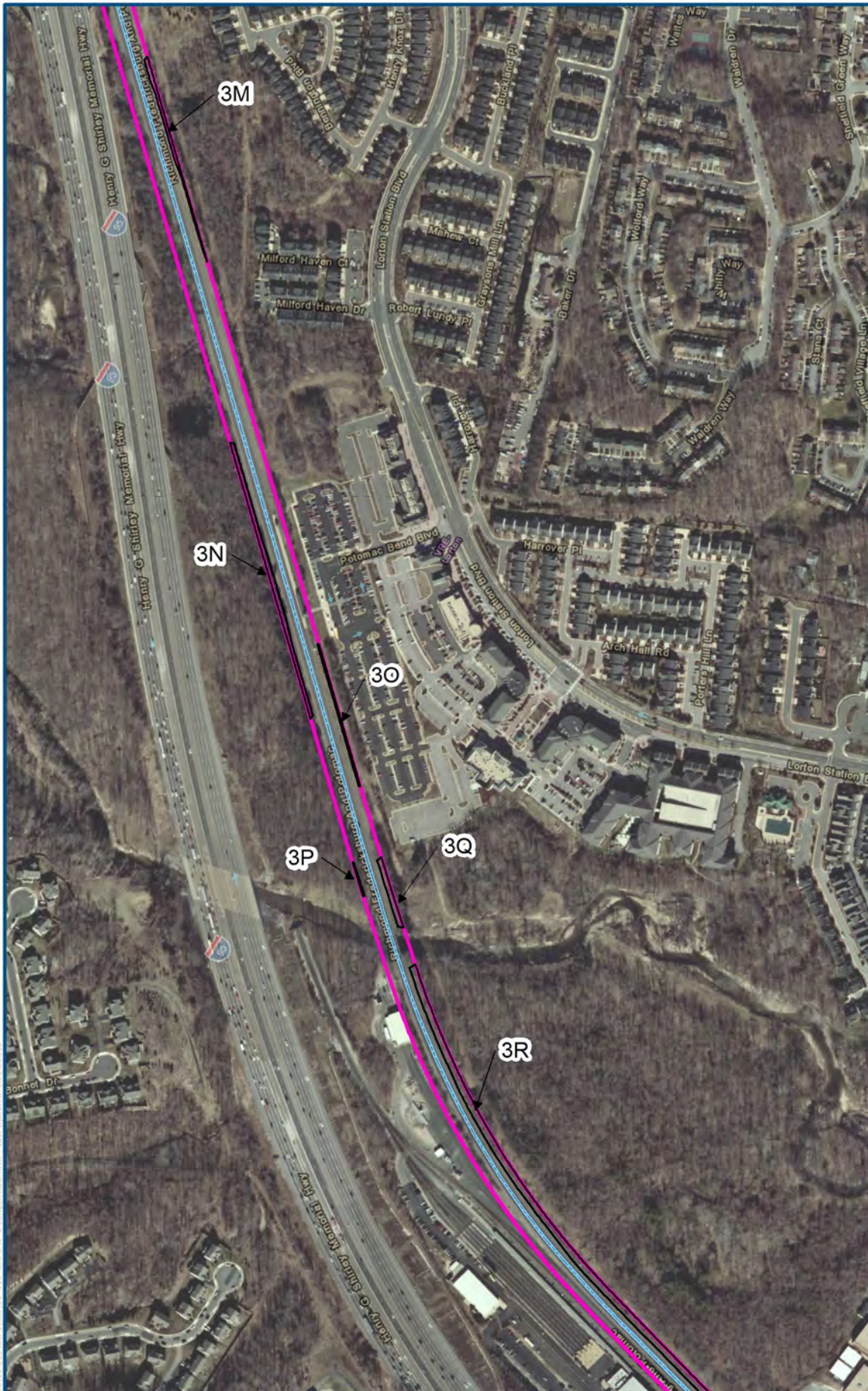
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments
- 03 Franconia to Lorton (FRLO)

**Archaeological Areas  
within the FRLO Segment**

5/2016





### Legend

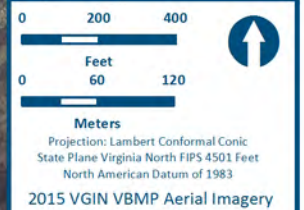
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 03 Franconia to Lorton (FRLO)

**Archaeological Areas  
within the FRLO Segment**

5/2016







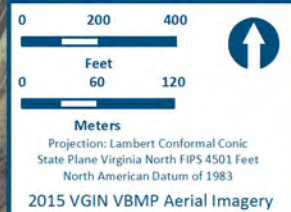
- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 03 Franconia to Lorton (FRLO)
  - 04 Lorton to Powells Creek (LOPC)

**Archaeological Areas within the FRLO Segment**

5/2016







### Legend

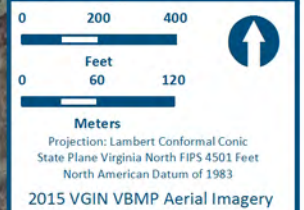
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 04 Lorton to Powells Creek (LOPC)

**Archaeological Areas  
within the LOPC Segment**

5/2016







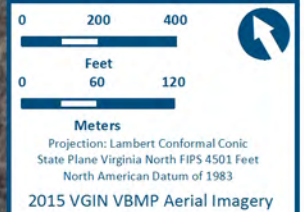
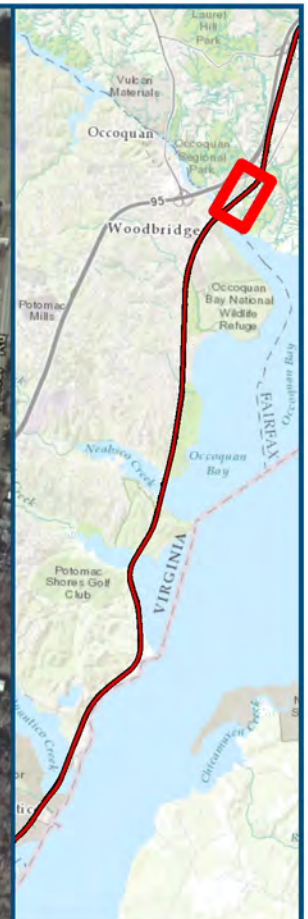
- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 04 Lorton to Powells Creek (LOPC)

**Archaeological Areas  
within the LOPC Segment**

5/2016





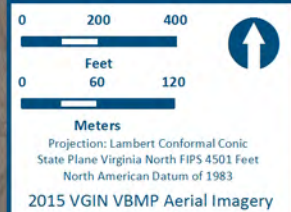
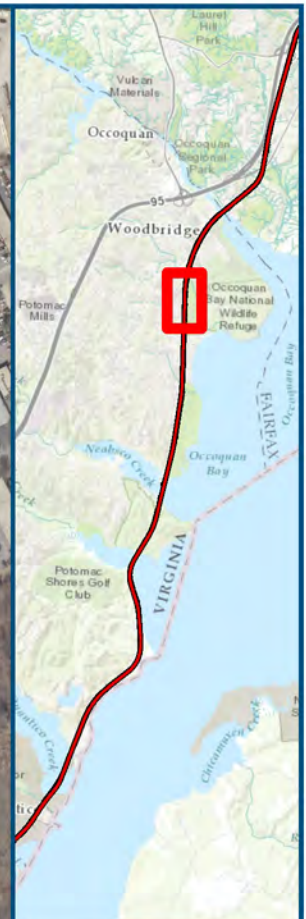
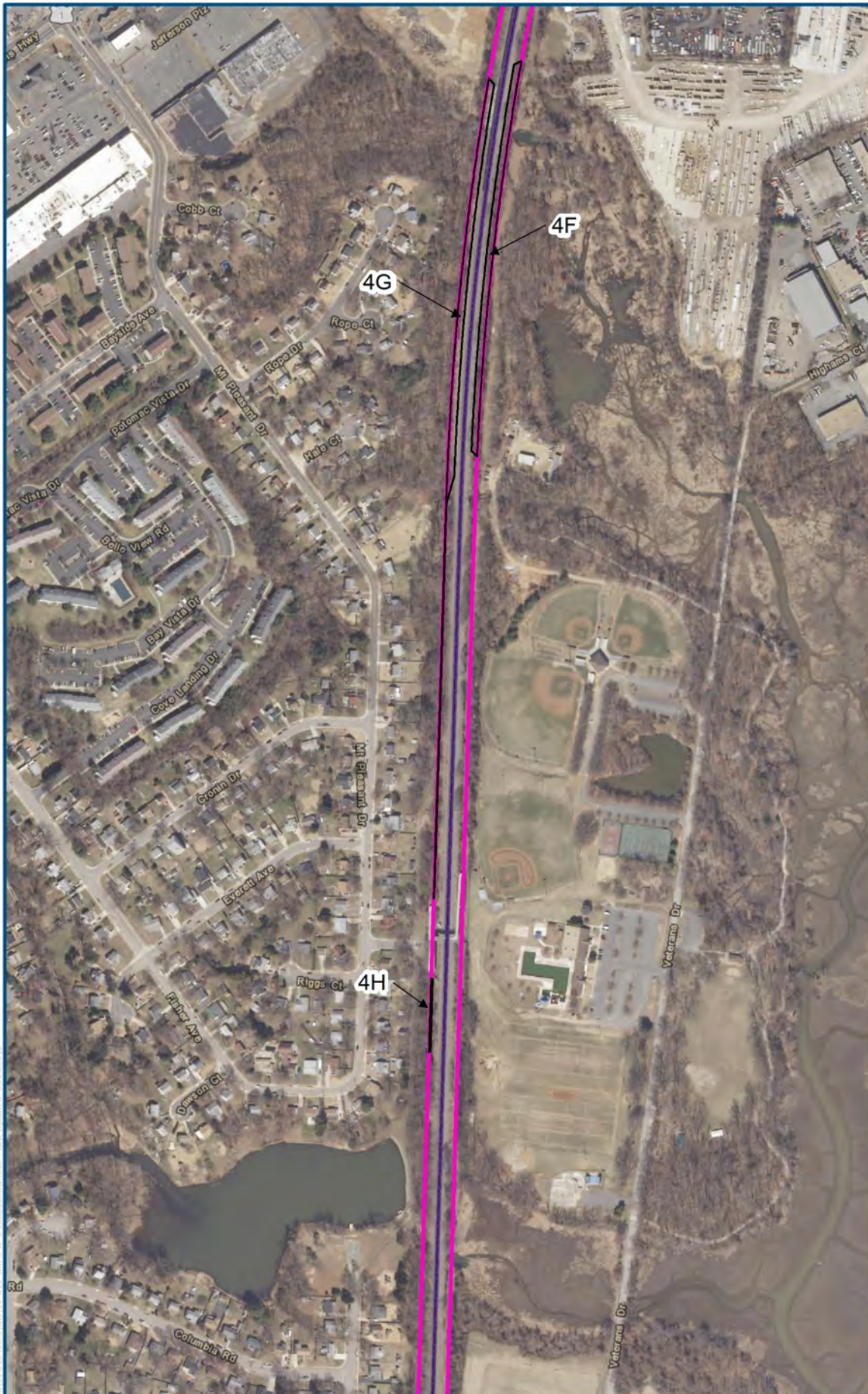


- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 04 Lorton to Powells Creek (LOPC)

**Archaeological Areas  
within the LOPC Segment**

5/2016





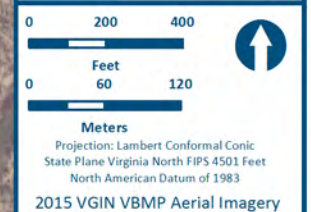
- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 04 Lorton to Powells Creek (LOPC)

**Archaeological Areas  
within the LOPC Segment**

5/2016





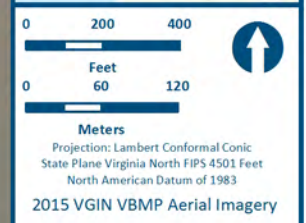
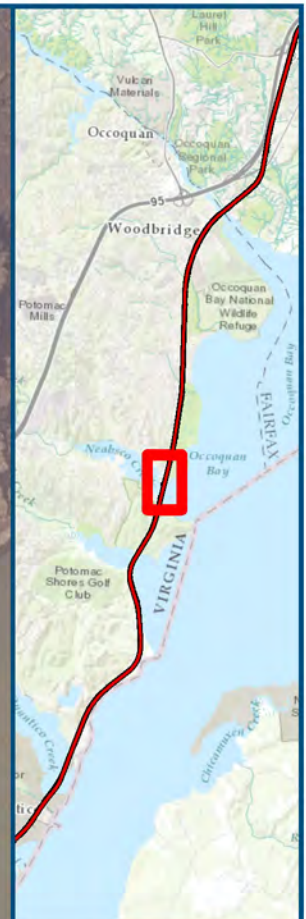


- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 04 Lorton to Powells
  - Creek (LOPC)

**Archaeological Areas  
within the LOPC Segment**

5/2016



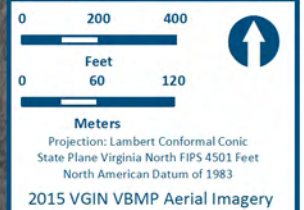


- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 04 Lorton to Powells Creek (LOPC)

**Archaeological Areas within the LOPC Segment**

5/2016





### Legend

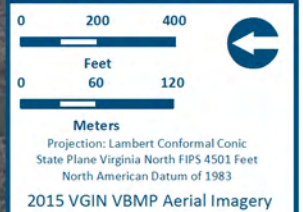
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 06 Arkendale to Dahlgren Junction (ARDJ)

**Archaeological Areas  
within the ARDJ Segment**

5/2016







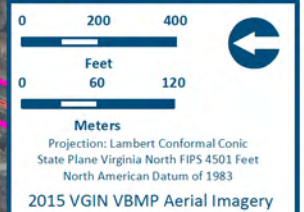
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 06 Arkendale to Dahlgren Junction (ARDJ)

**Archaeological Areas  
within the ARDJ Segment**

5/2016





### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 06 Arkendale to Dahlgren Junction (ARDJ)

**Archaeological Areas  
within the ARDJ Segment**

5/2016

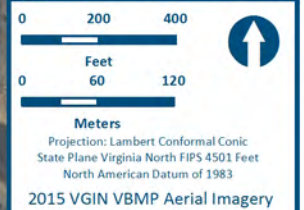
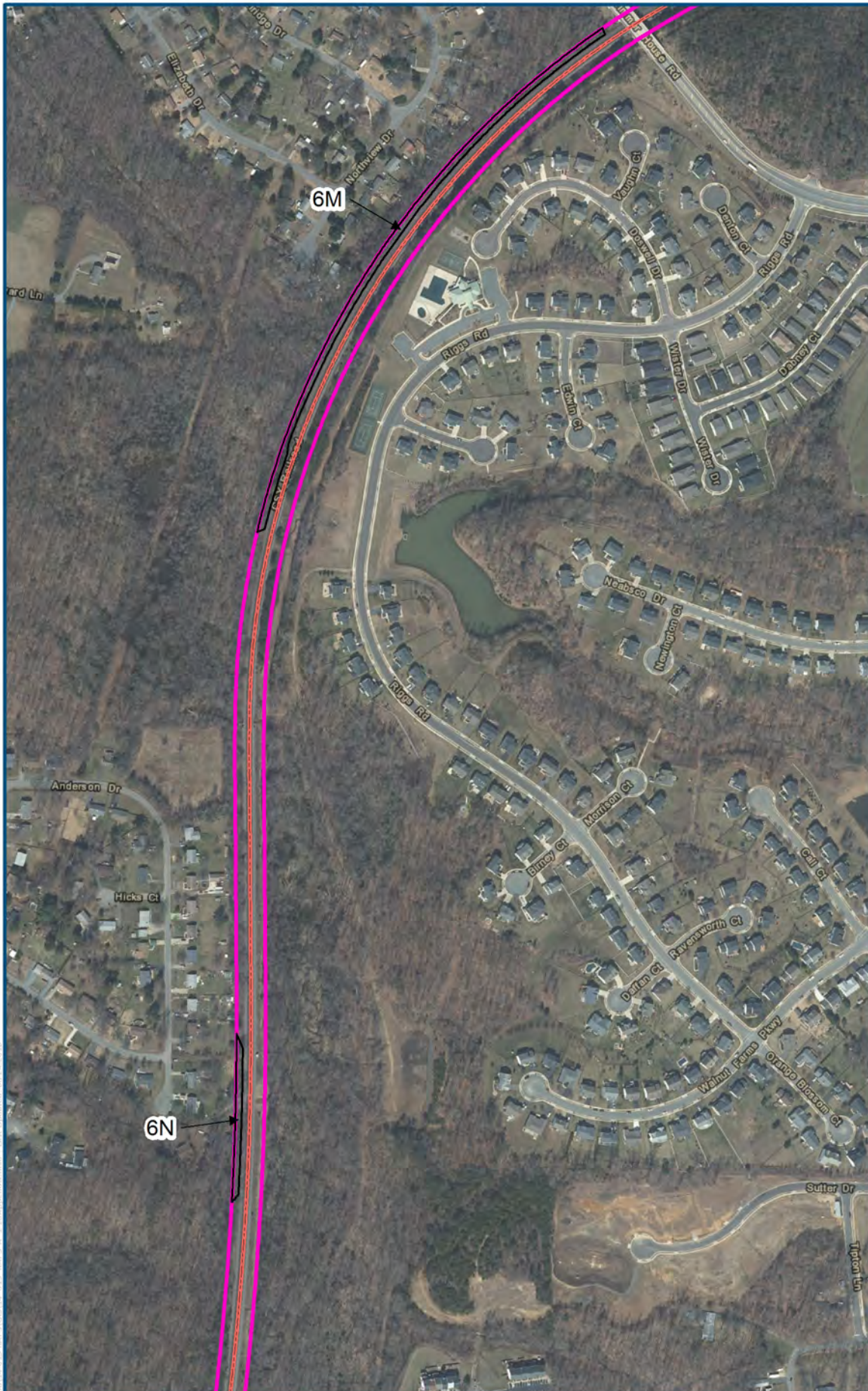












### Legend

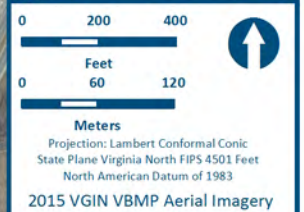
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 06 Arkendale to Dahlgren Junction (ARDJ)

**Archaeological Areas  
within the ARDJ Segment**

5/2016







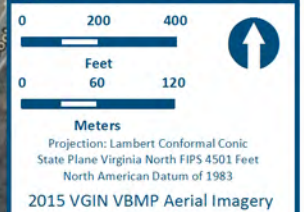
- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 06 Arkendale to Dahlgren Junction (ARDJ)

**Archaeological Areas  
within the ARDJ Segment**

5/2016





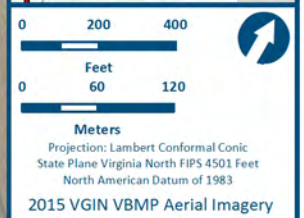


- Legend**
- ▬ Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - ▬ 07 Dahlgren Junction To Fredericksburg (DJFB)
  - ▬ 21 Fredericksburg Bypass (FBBP)

**Archaeological Areas within the DJFB Segment**

5/2016





- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments
  - 08 Fredericksburg to Hamilton (FBHA)

Archaeological Areas  
within the FBHA Segment

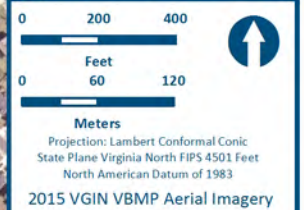
5/2016











- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 08 Fredericksburg to Hamilton (FBHA)
  - 09 Hamilton to Crossroads (HAXR)

Archaeological Areas  
within the HAXR Segment

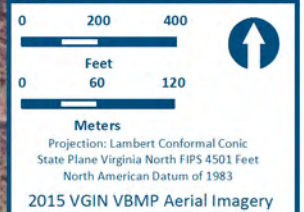
5/2016



U.S. Department of Transportation  
Federal Railroad Administration

[www.DC2RVArail.com](http://www.DC2RVArail.com)





### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 09 Hamilton to Crossroads (HAXR)

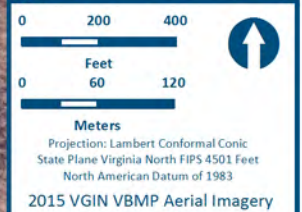
**Archaeological Areas  
within the HAXR Segment**

5/2016







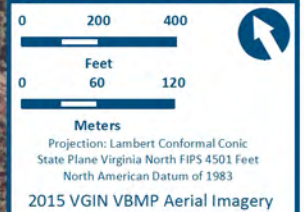
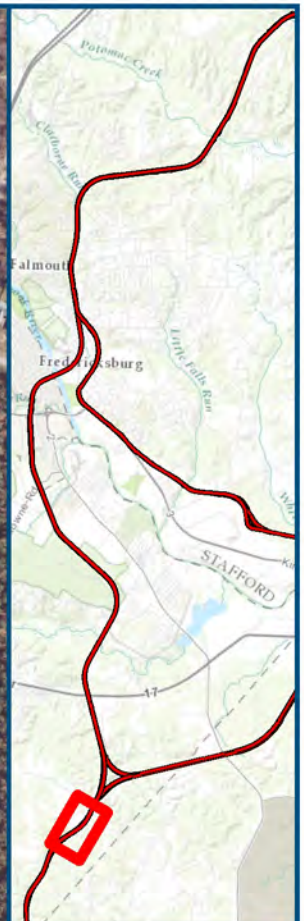
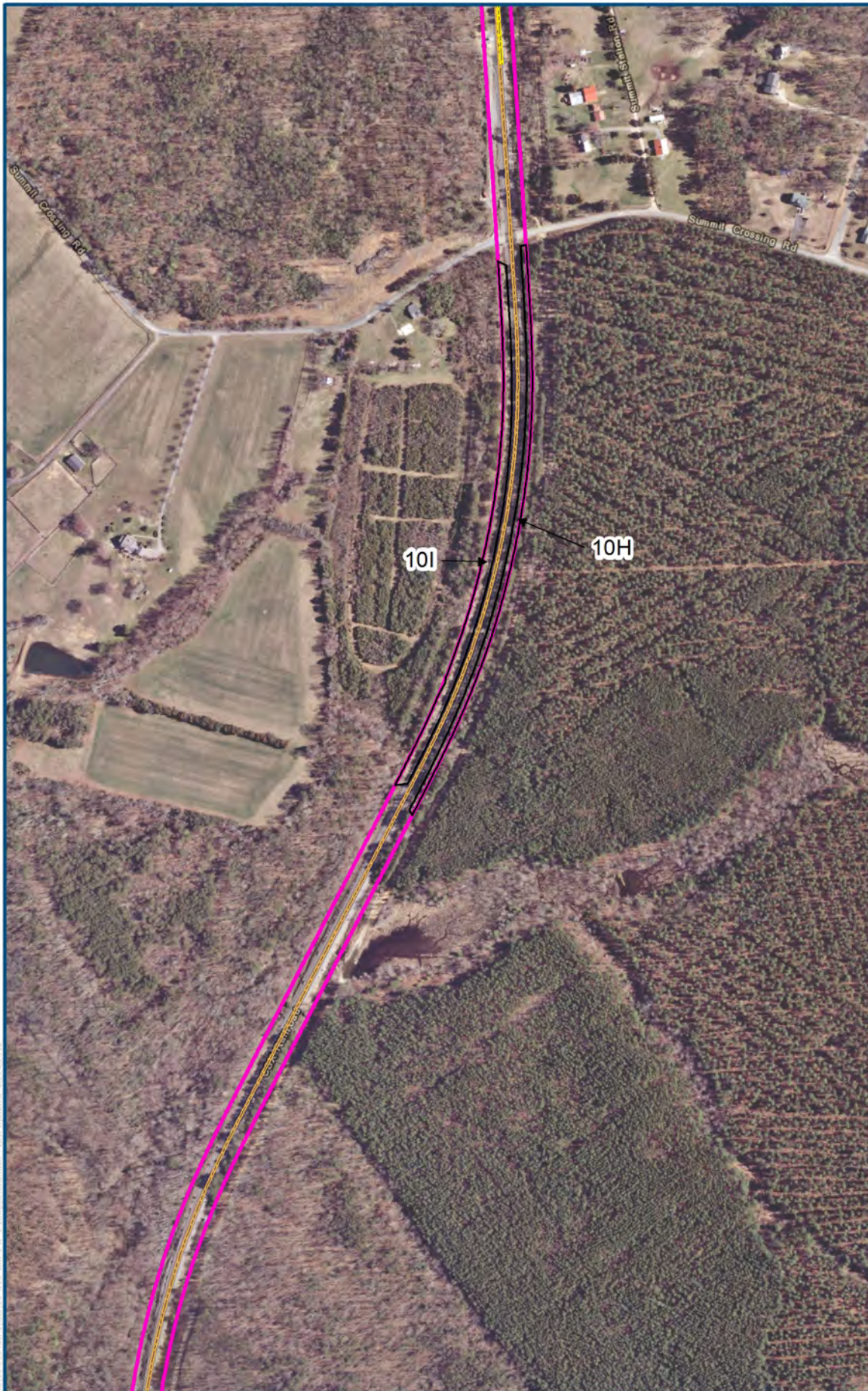


- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 10 Crossroads to Guinea (XRGU)
  - 21 Fredericksburg Bypass (FBBP)

**Archaeological Areas  
within the XRGU  
Segment**

5/2016



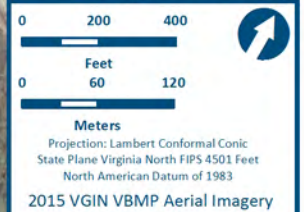
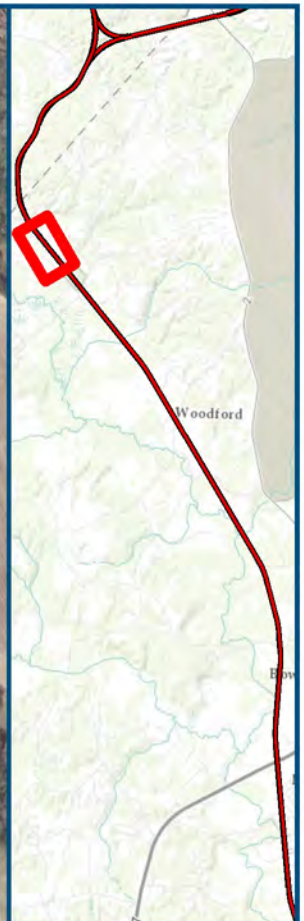


- Legend**
- █ Archaeological APE
  - █ Archaeological Areas
  - DC2RVA Project Segments**
    - █ 10 Crossroads to Guinea (XRGU)
    - █ 21 Fredericksburg Bypass (FBBP)

**Archaeological Areas within the XRGU Segment**

5/2016





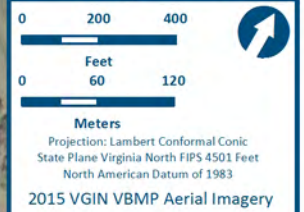
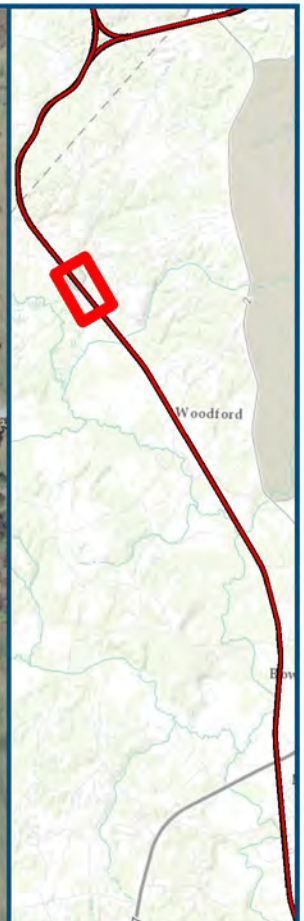
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 10 Crossroads to Guinea (XRGU)

Archaeological Areas  
within the XRGU  
Segment

5/2016





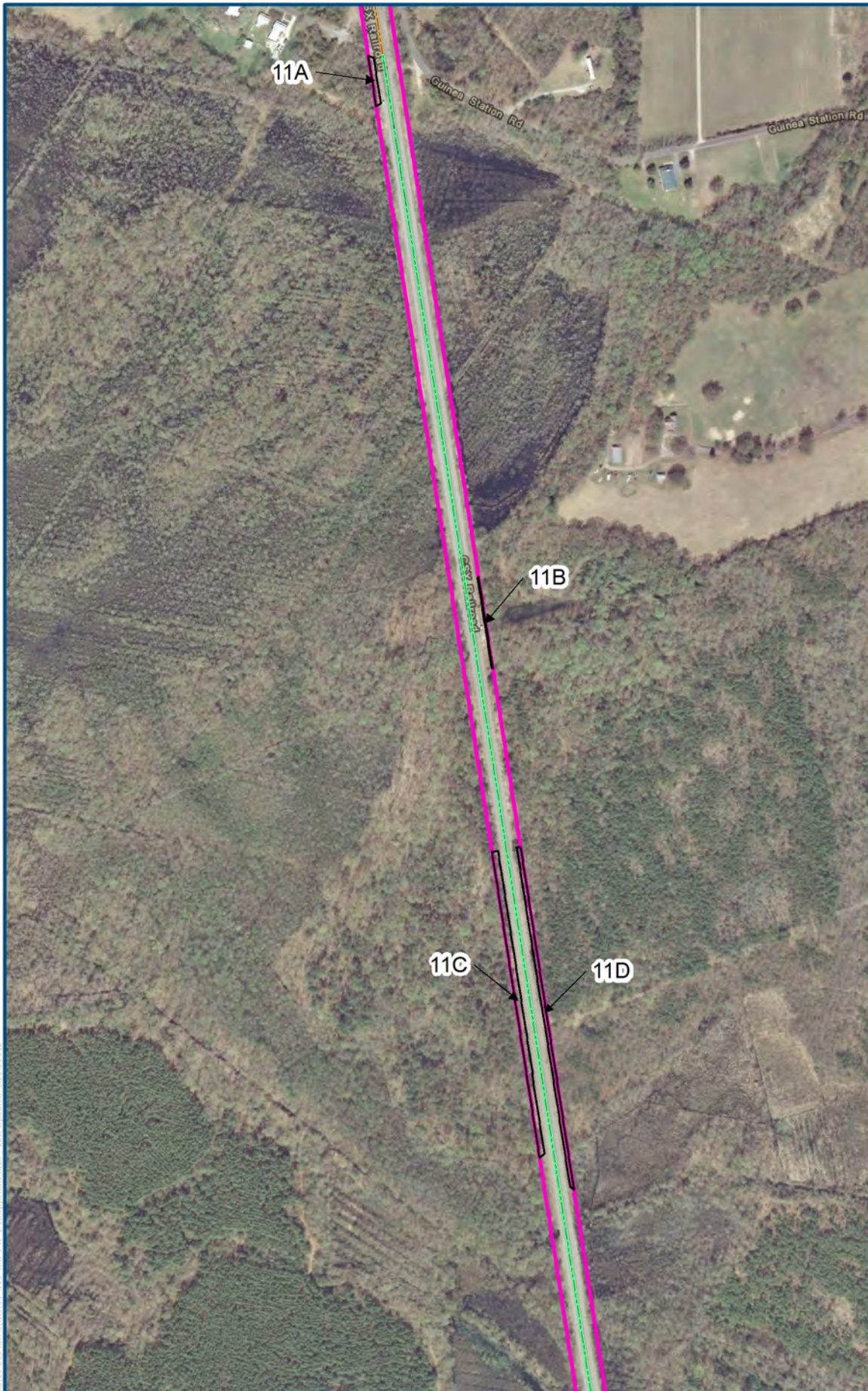
- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 10 Crossroads to Guinea (XRGU)
  - 11 Guinea to Milford (GUMD)

Archaeological Areas  
within the XRGU  
Segment

5/2016







0 200 400  
Feet  
0 60 120  
Meters  
Projection: Lambert Conformal Conic  
State Plane Virginia North FIPS 4501 Feet  
North American Datum of 1983  
2015 VGIN VBMP Aerial Imagery

**Legend**  
 Archaeological APE  
 Archaeological Areas  
**DC2RVA Project Segments**  
 10 Crossroads to Guinea (XRGU)  
 11 Guinea to Milford (GUMD)

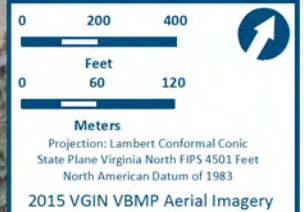
**Archaeological Areas within the GUMD Segment**

5/2016







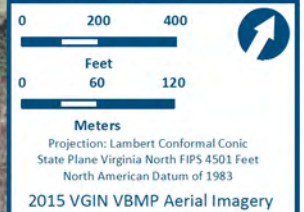


- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 11 Guinea to Milford (GUMD)

**Archaeological Areas  
within the GUMD  
Segment**

5/2016





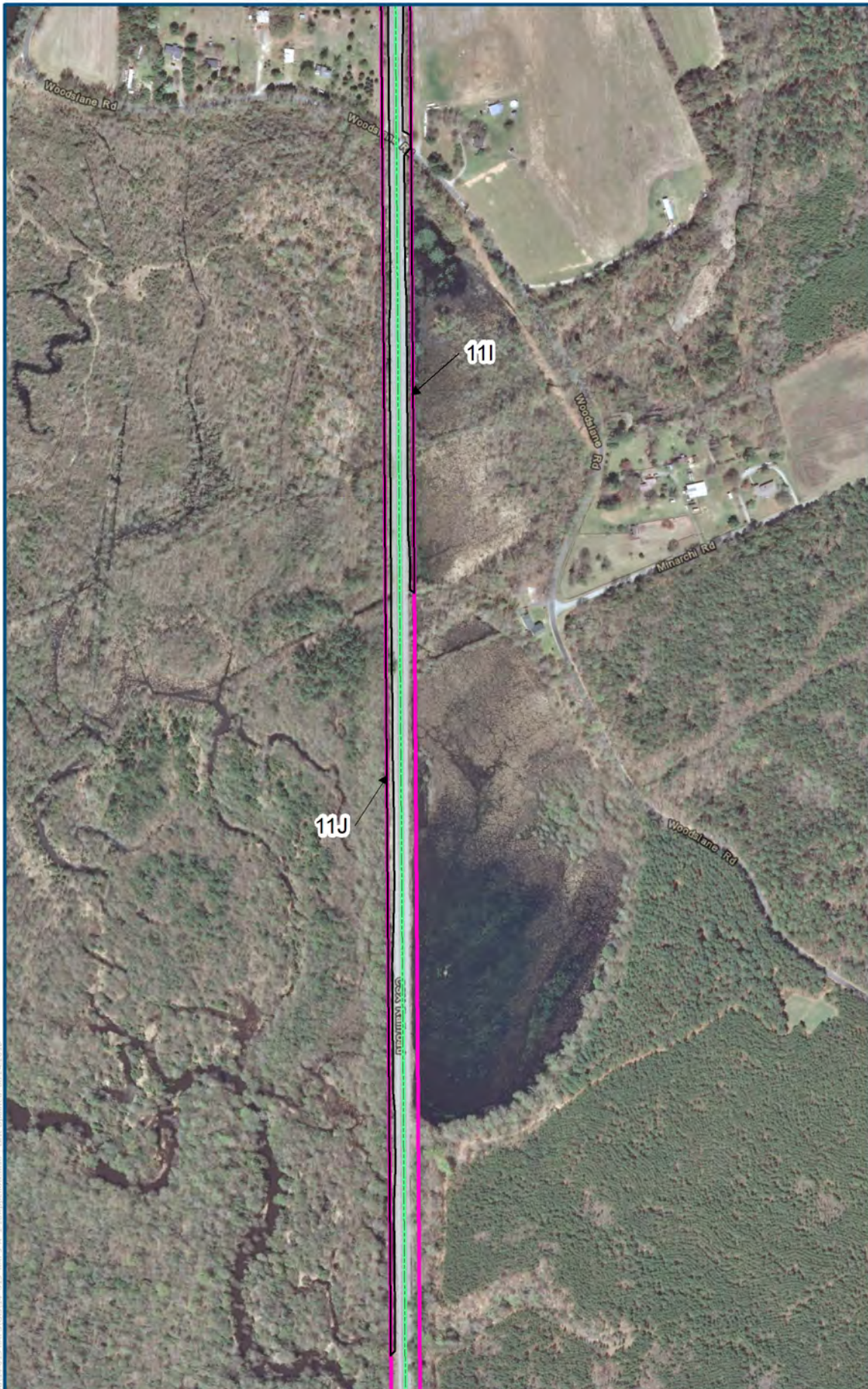
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 11 Guinea to Milford (GUMD)

**Archaeological Areas  
within the GUMD  
Segment**

5/2016





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Feet  
0 60 120  
Meters  
Projection: Lambert Conformal Conic  
State Plane Virginia North FIPS 4501 Feet  
North American Datum of 1983  
2015 VGIN VBMP Aerial Imagery

### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 11 Guinea to Milford (GUMD)

**Archaeological Areas  
within the GUMD  
Segment**

5/2016

Aerial Imagery provided by the Virginia Department of Transportation, 2015. Maps & Graphics created by the Virginia Department of Transportation, 05/24/2016.









0 200 400  
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0 60 120  
Meters  
Projection: Lambert Conformal Conic  
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North American Datum of 1983  
2015 VGIN VBMP Aerial Imagery

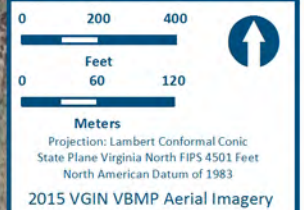
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 11 Guinea to Milford (GUMD)

**Archaeological Areas  
within the GUMD  
Segment**

5/2016



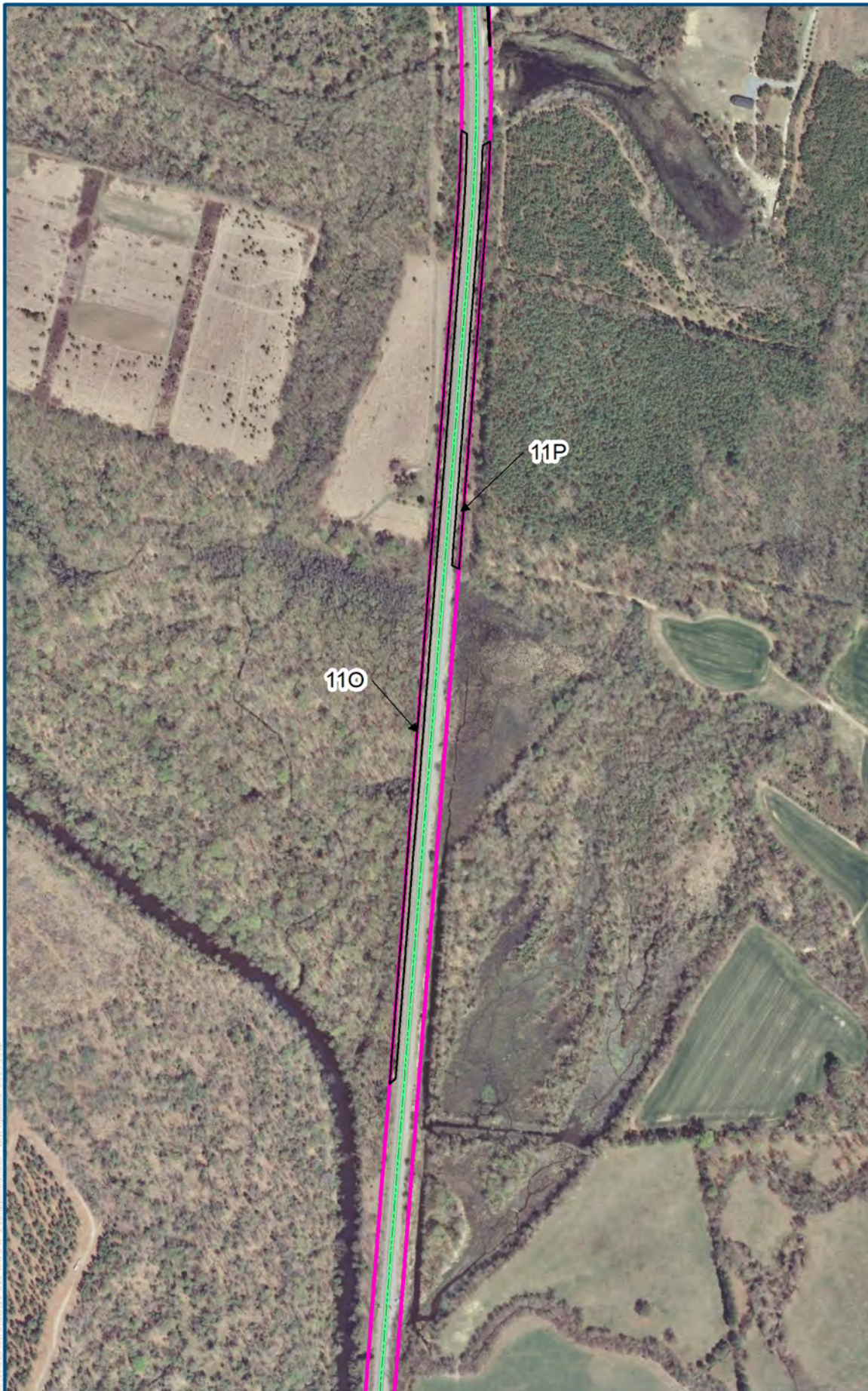


- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 11 Guinea to Milford (GUMD)

**Archaeological Areas within the GUMD Segment**

5/2016





0 200 400  
Feet  
0 60 120  
Meters  
Projection: Lambert Conformal Conic  
State Plane Virginia North FIPS 4501 Feet  
North American Datum of 1983  
2015 VGIN VBMP Aerial Imagery

### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 11 Guinea to Milford (GUMD)

**Archaeological Areas  
within the GUMD  
Segment**

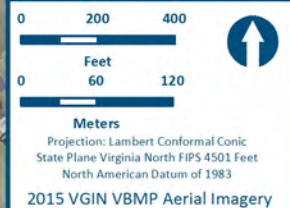
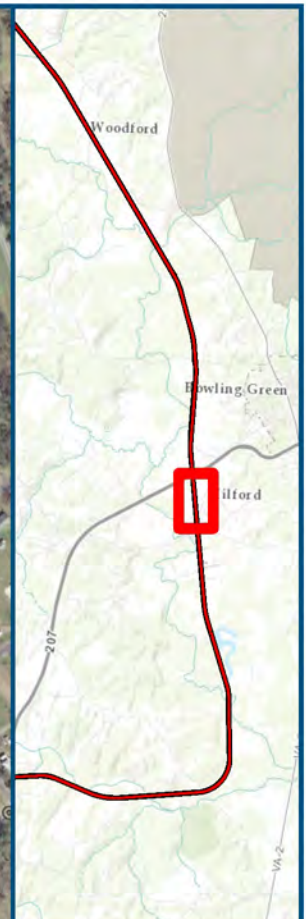
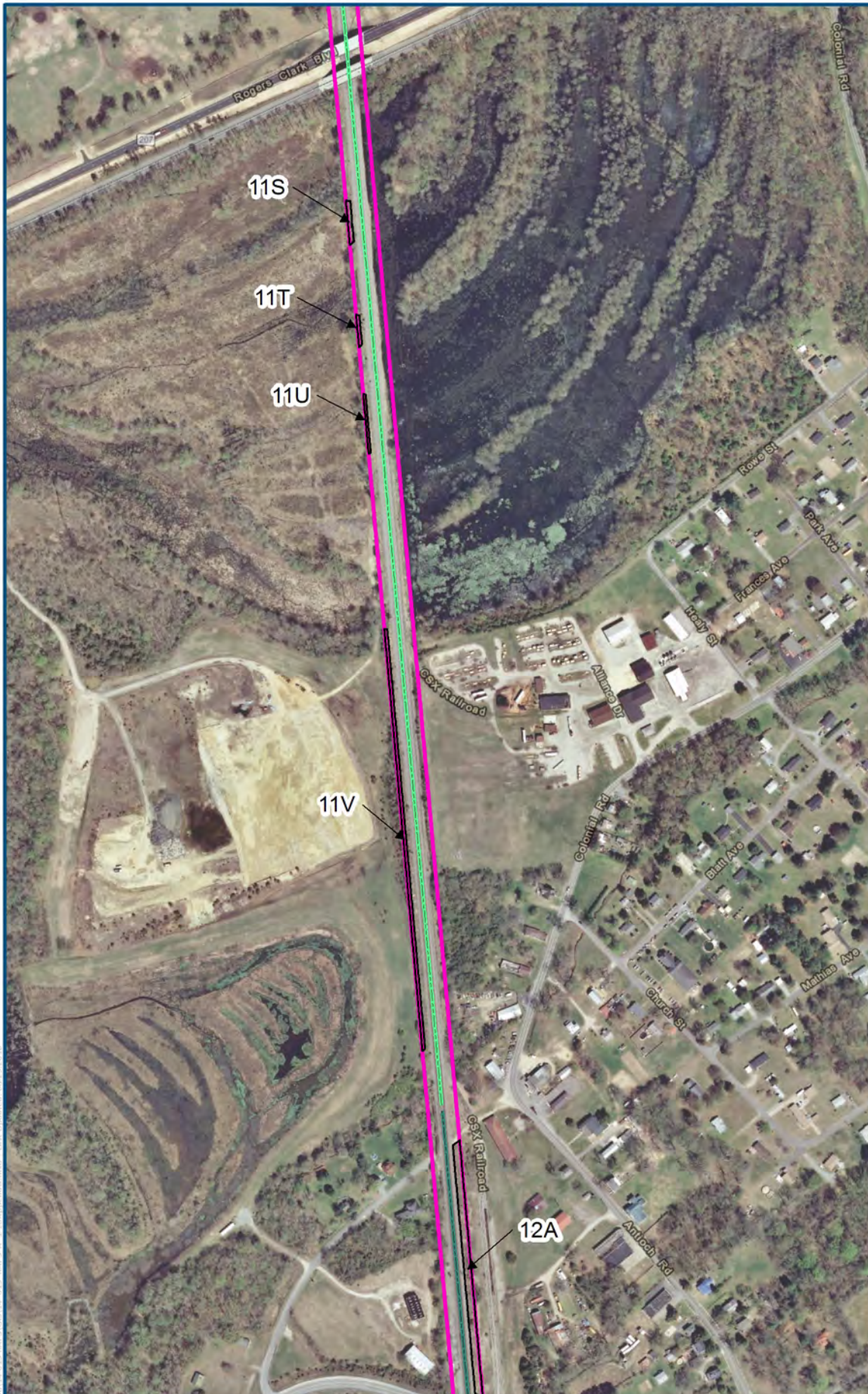
5/2016











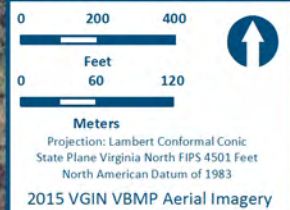
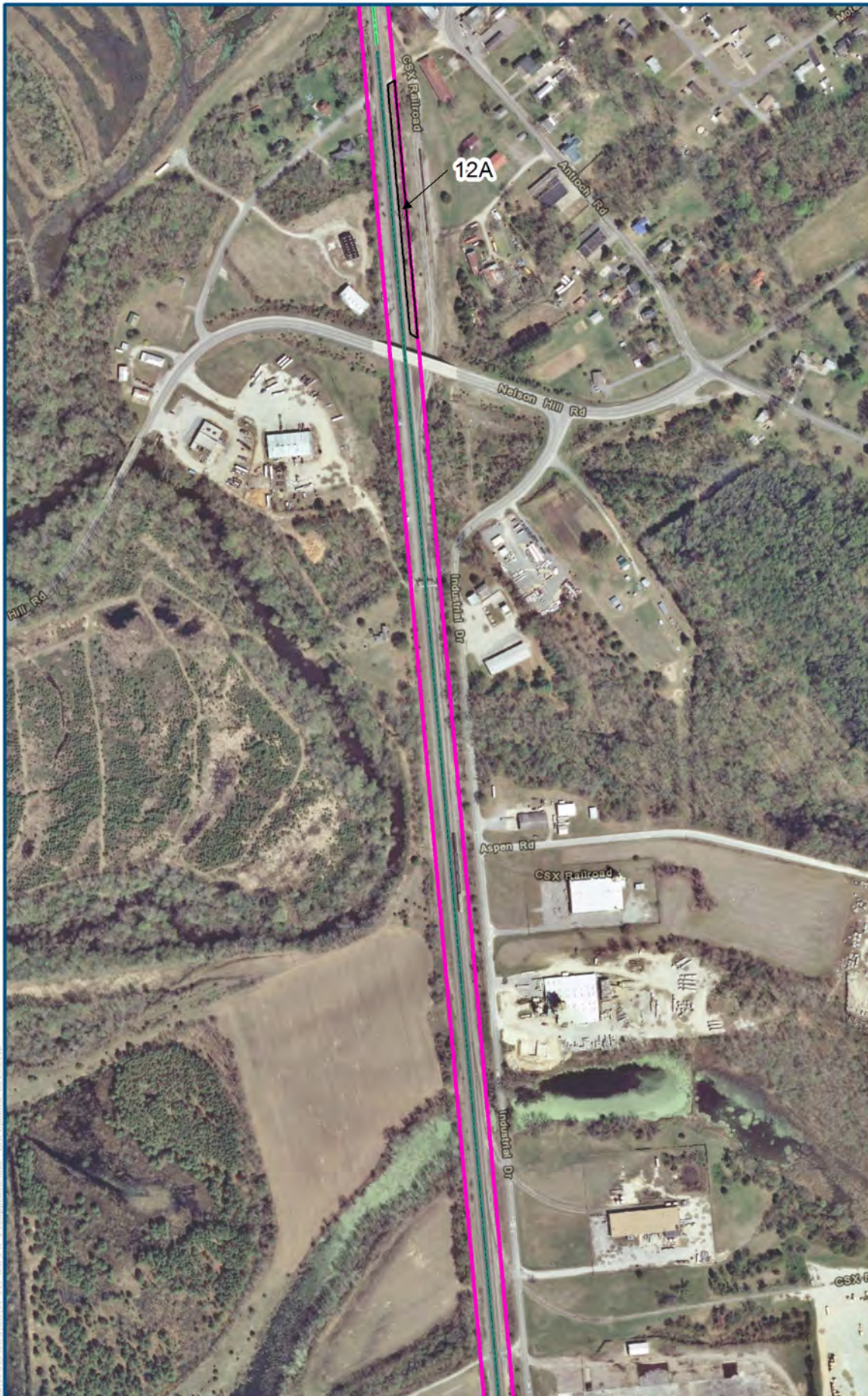
- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 11 Guinea to Milford (GUMD)
  - 12 Milford to North Doswell (MDND)

Archaeological Areas  
within the GUMD  
Segment

5/2016







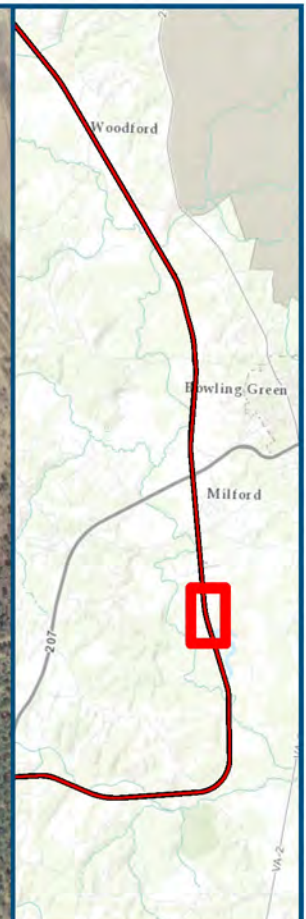
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 11 Guinea to Milford (GUMD)
- 12 Milford to North Doswell (MDND)

**Archaeological Areas  
within the MDND  
Segment**

5/2016





0 200 400  
 Feet  
 0 60 120  
 Meters  
 Projection: Lambert Conformal Conic  
 State Plane Virginia North FIPS 4501 Feet  
 North American Datum of 1983  
 2015 VGIN VBMP Aerial Imagery

- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 12 Milford to North Doswell (MDND)

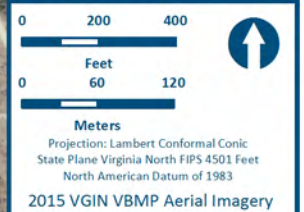
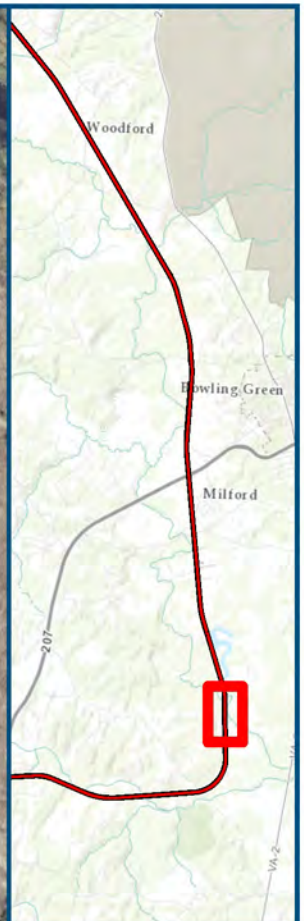
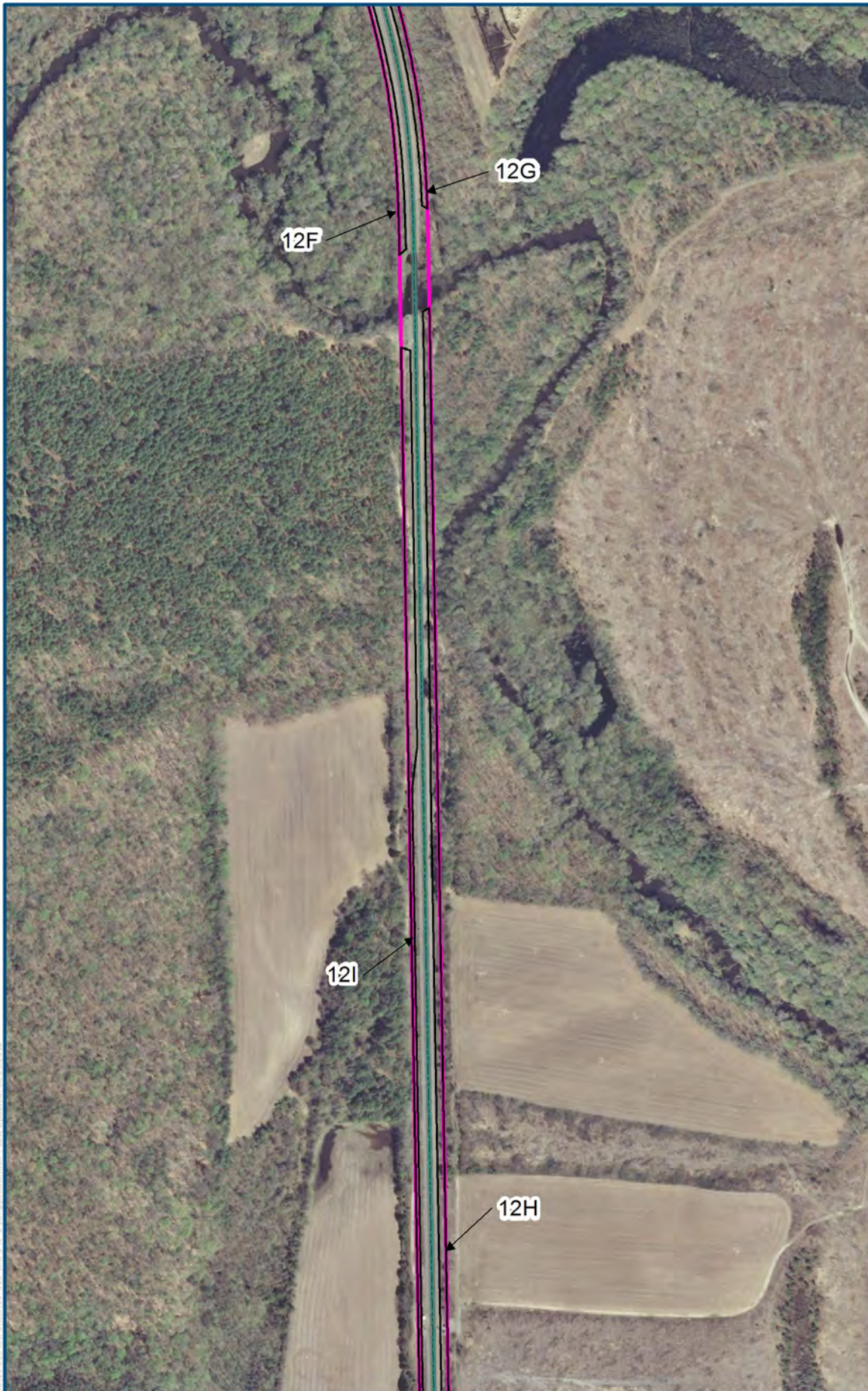
**Archaeological Areas  
 within the MDND  
 Segment**

5/2016









- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 12 Milford to North Doswell (MDND)

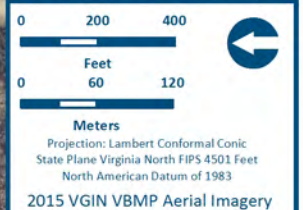
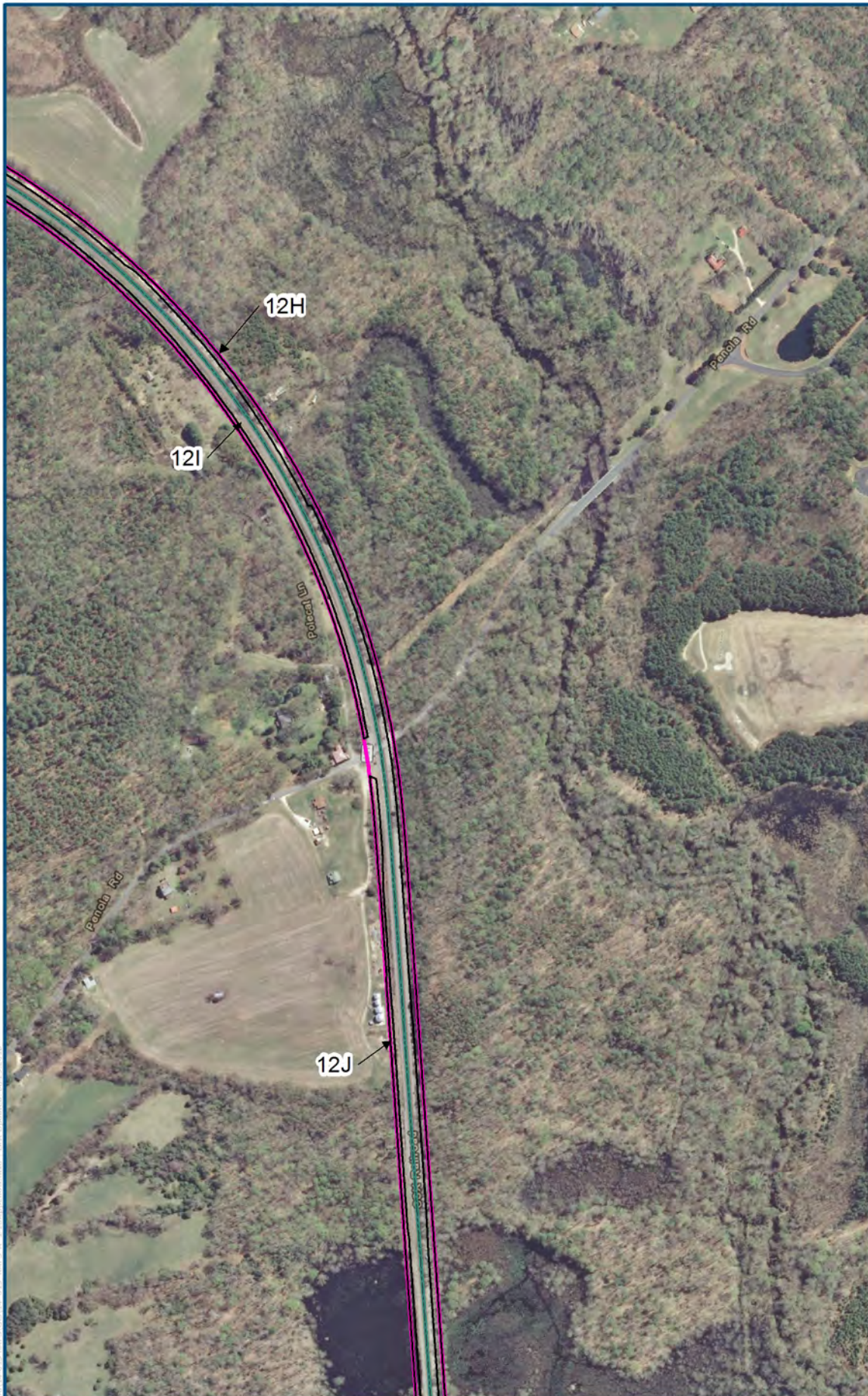
**Archaeological Areas  
within the MDND  
Segment**

5/2016









- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 12 Milford to North
  - Doswell (MDND)

**Archaeological Areas  
within the MDND  
Segment**

5/2016





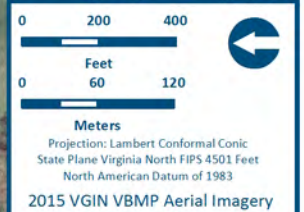
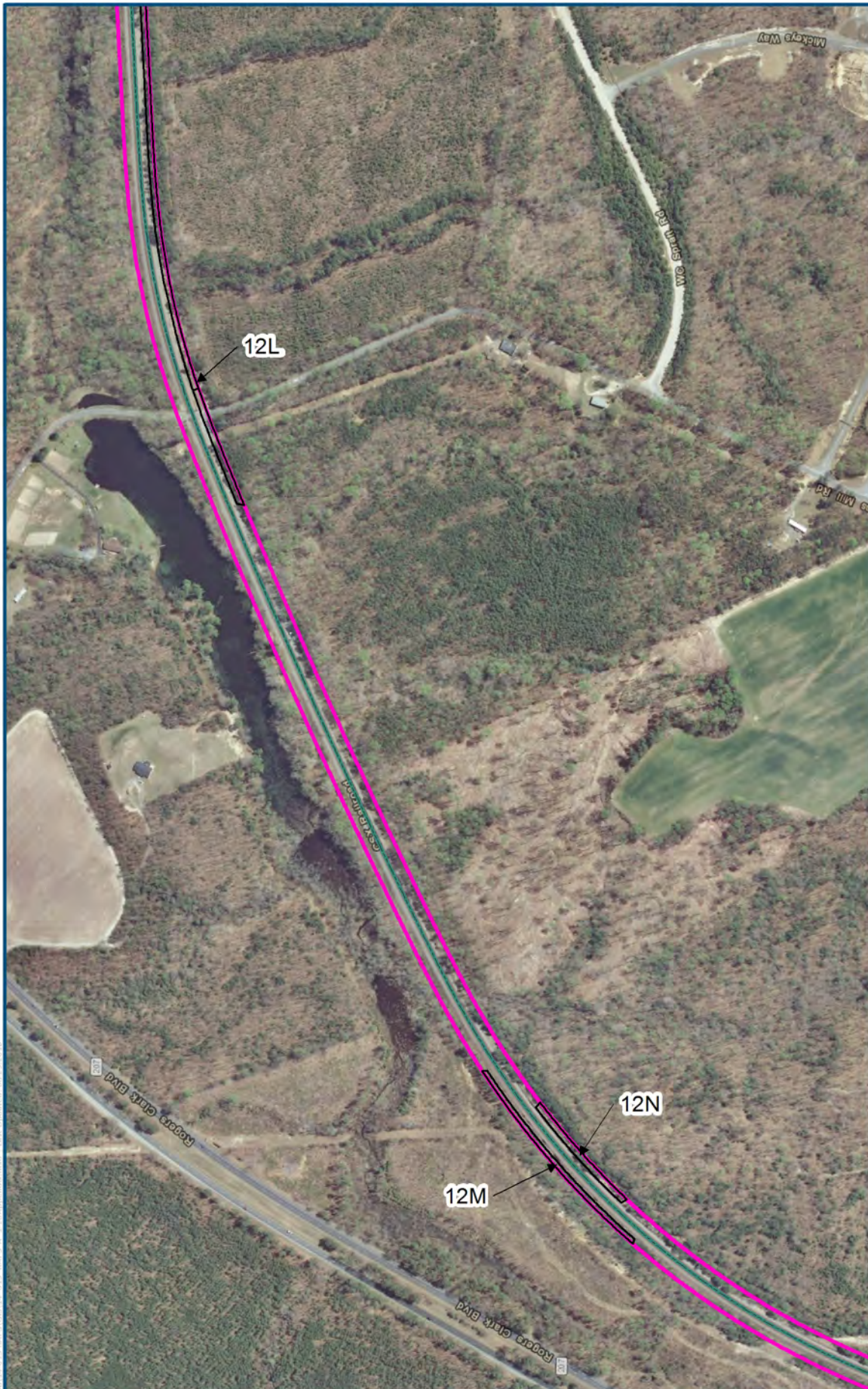










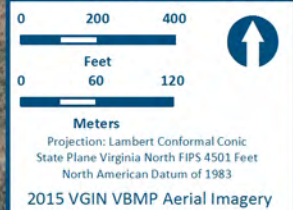


- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 12 Milford to North
  - Doswell (MDND)

**Archaeological Areas  
within the MDND  
Segment**

5/2016





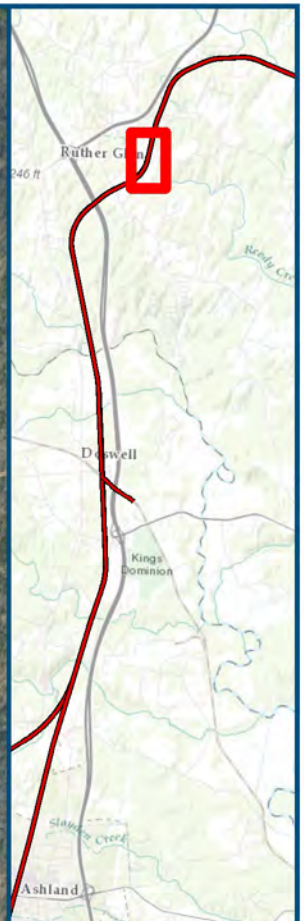
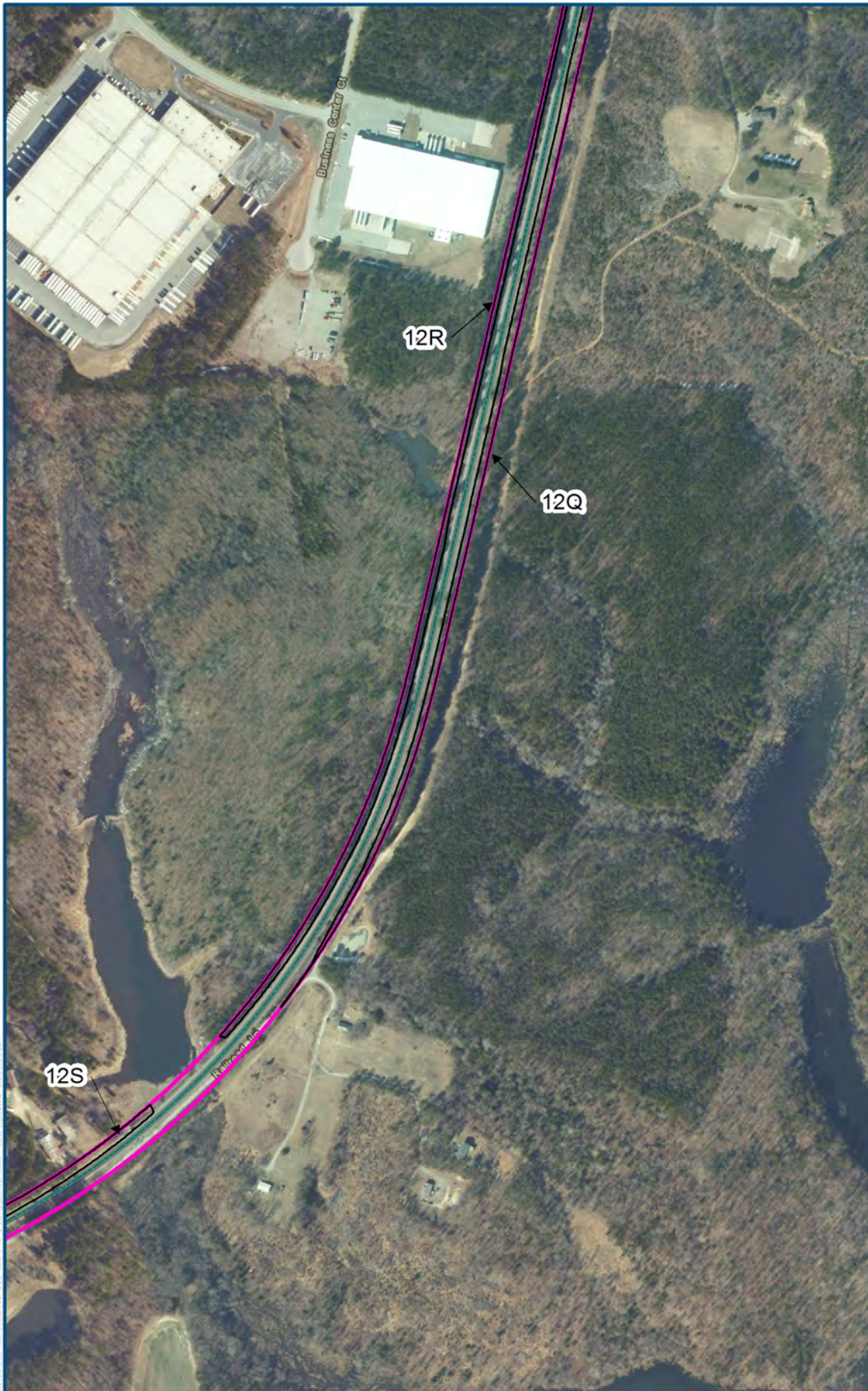
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 12 Milford to North
- Doswell (MDND)

**Archaeological Areas  
within the MDND  
Segment**

5/2016





0 200 400  
Feet  
0 60 120  
Meters  
Projection: Lambert Conformal Conic  
State Plane Virginia North FIPS 4501 Feet  
North American Datum of 1983  
2015 VGIN VBMP Aerial Imagery

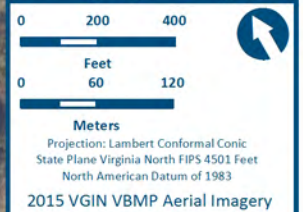
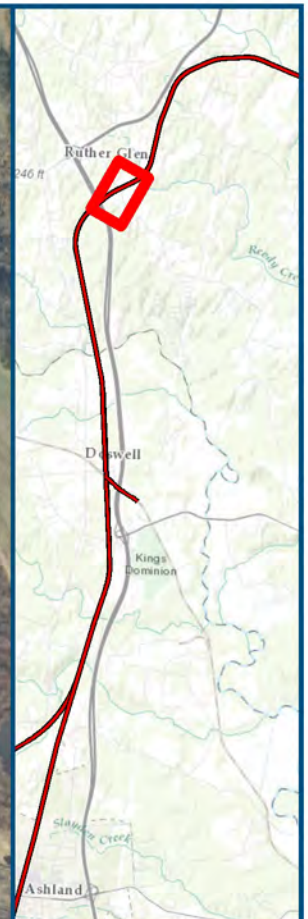
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 12 Milford to North
- Doswell (MDND)

**Archaeological Areas  
within the MDND  
Segment**

5/2016





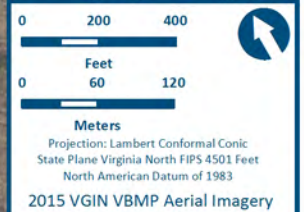
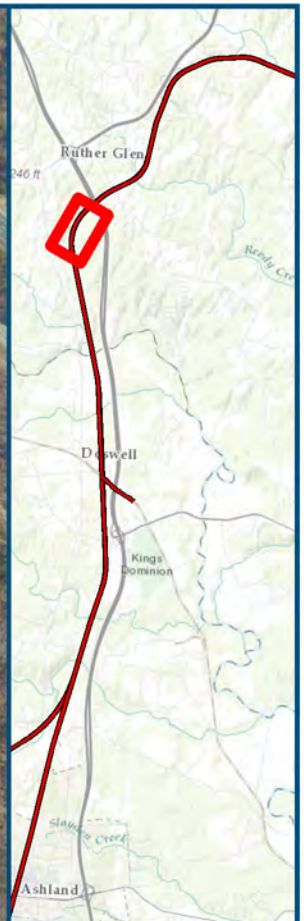
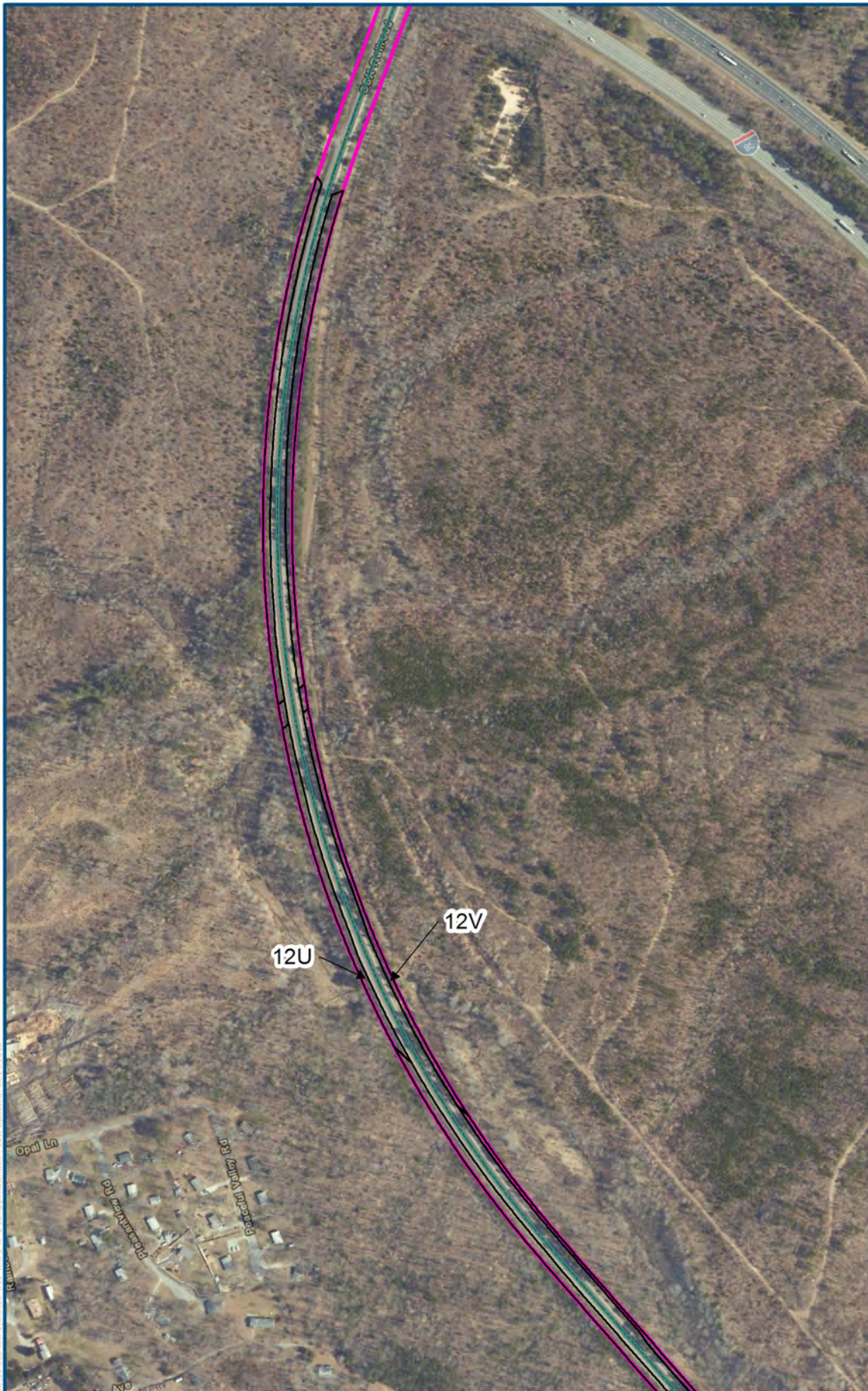
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 12 Milford to North
- Doswell (MDND)

**Archaeological Areas  
within the MDND  
Segment**

5/2016





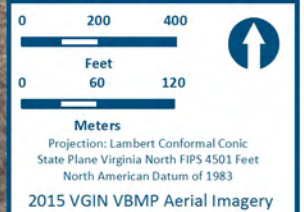
- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 12 Milford to North
  - Doswell (MDND)

**Archaeological Areas  
within the MDND  
Segment**

5/2016

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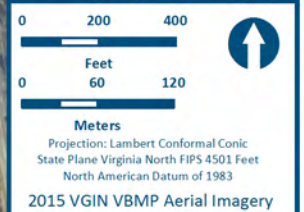
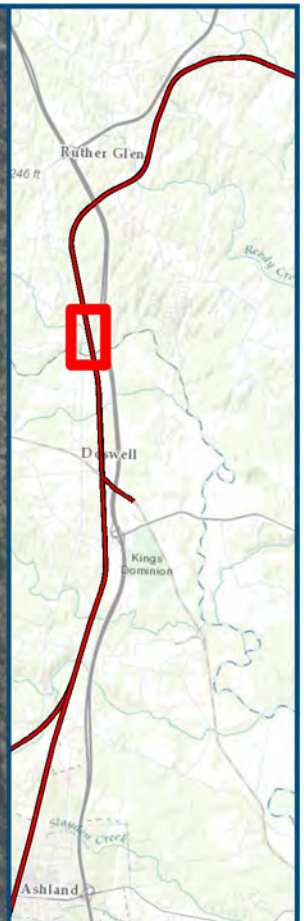
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 12 Milford to North
- Doswell (MDND)

**Archaeological Areas  
within the MDND  
Segment**

5/2016





### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 12 Milford to North
- Doswell (MDND)

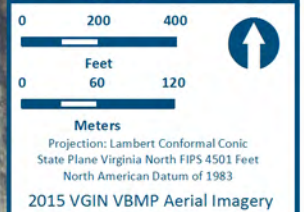
**Archaeological Areas  
within the MDND  
Segment**

5/2016









### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 13 North Doswell to Elmont (NDEL)

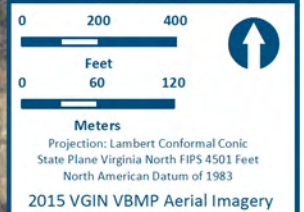
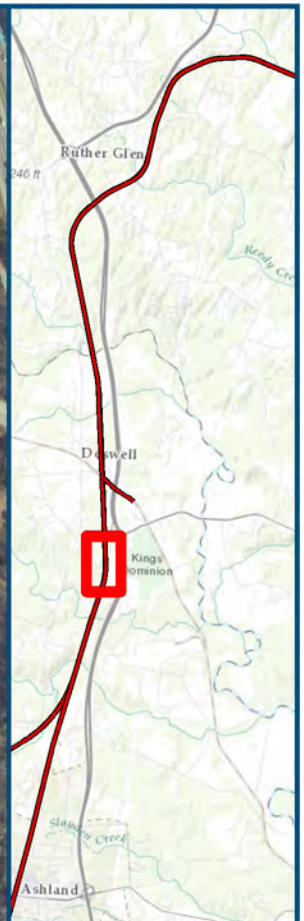
**Archaeological Areas  
within the NDEL Segment**

5/2016







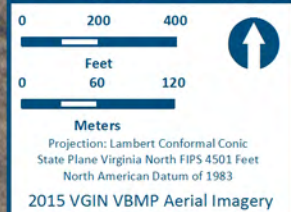
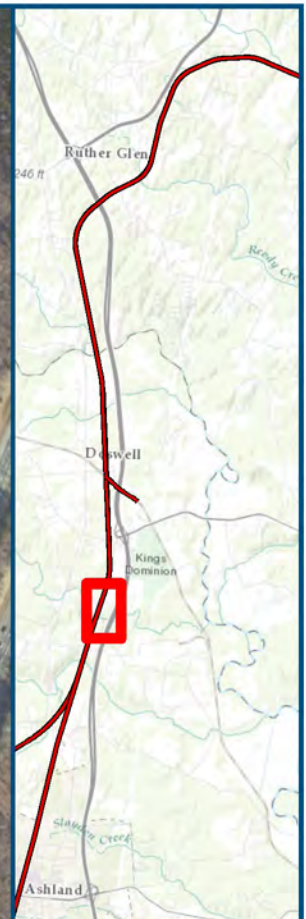


- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 13 North Doswell to Elmont (NDEL)

Archaeological Areas  
within the NDEL Segment

5/2016





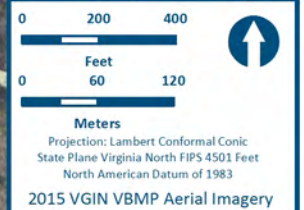
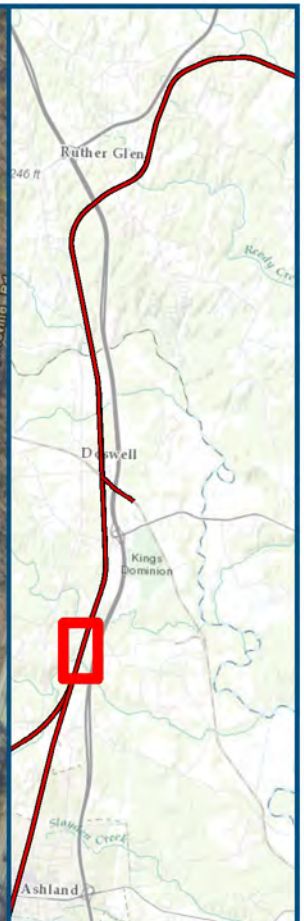
- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 13 North Doswell to Elmont (NDEL)

**Archaeological Areas  
within the NDEL Segment**

5/2016

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### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 13 North Doswell to Elmont (NDEL)

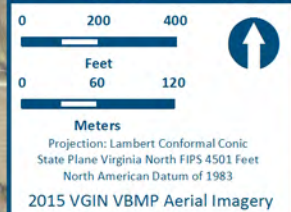
**Archaeological Areas  
within the NDEL Segment**

5/2016









- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 13 North Doswell to Elmont (NDEL)
  - 22 Ashland Bypass (ASBP)

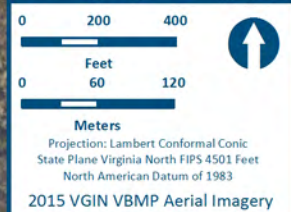
**Archaeological Areas  
within the NDEL Segment**

5/2016



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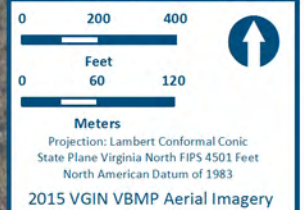
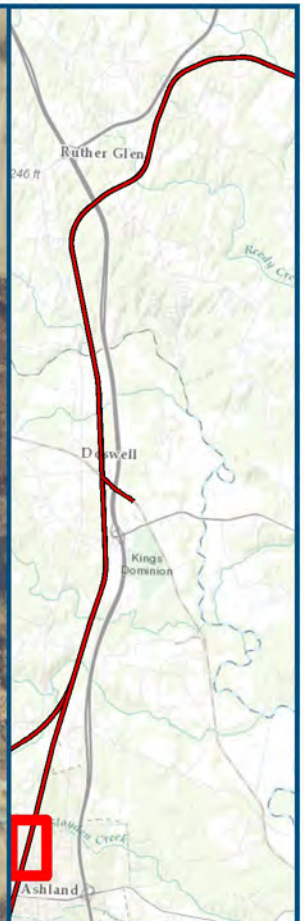


- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 13 North Doswell to Elmont (NDEL)

**Archaeological Areas  
within the NDEL Segment**

5/2016





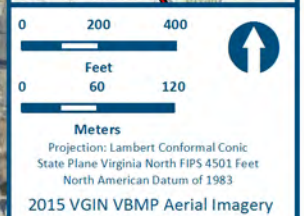
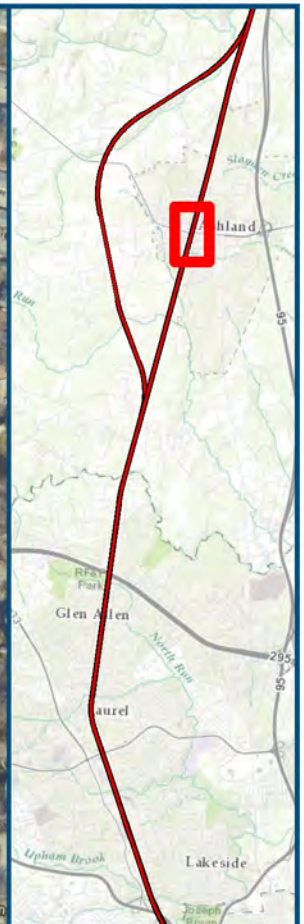
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 13 North Doswell to Elmont (NDEL)

**Archaeological Areas  
within the NDEL Segment**

5/2016





### Legend

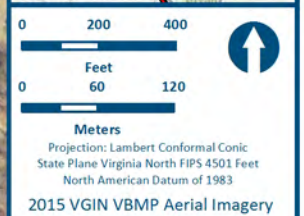
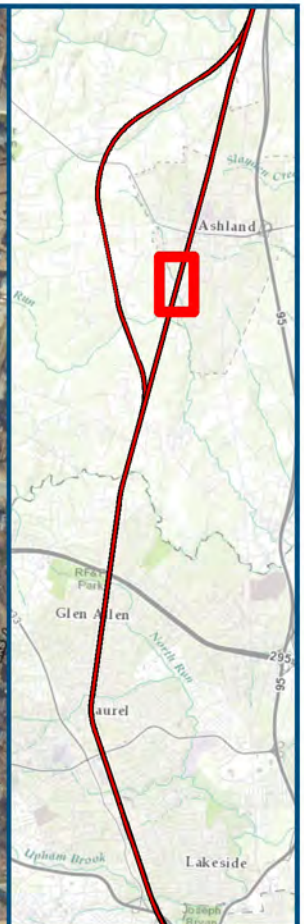
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 13 North Doswell to Elmont (NDEL)**

**Archaeological Areas  
within the NDEL Segment**

5/2016







### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 13 North Doswell to Elmont (NDEL)

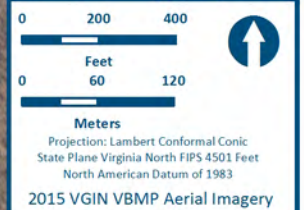
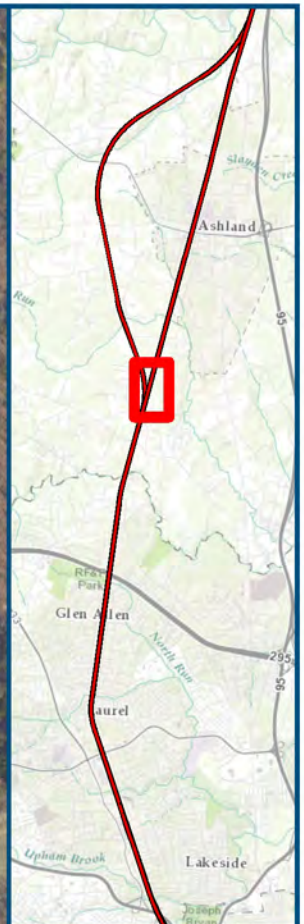
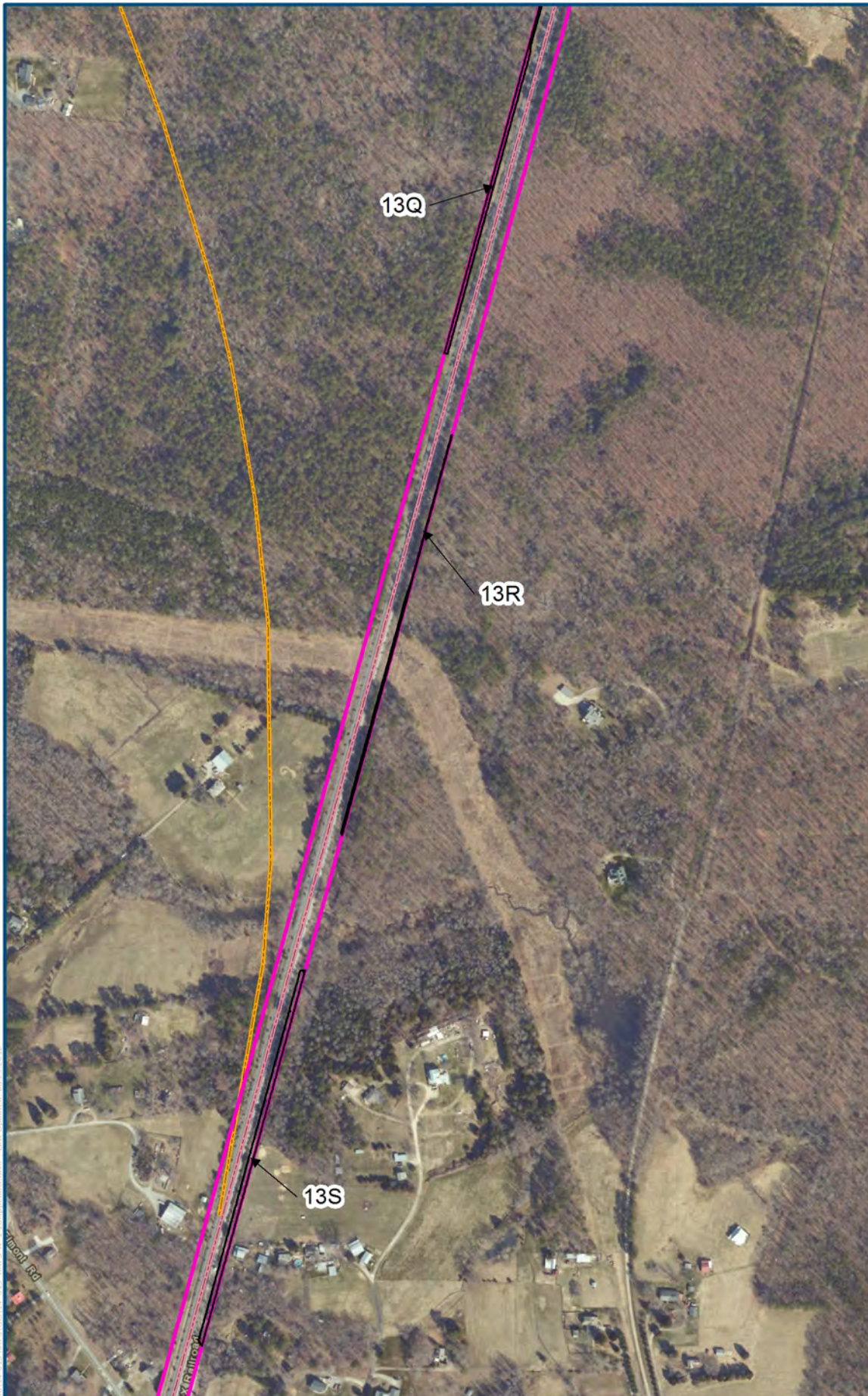
**Archaeological Areas  
within the NDEL Segment**

5/2016







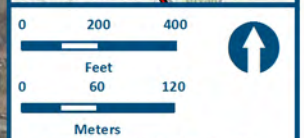


- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 13 North Doswell to Elmont (NDEL)
  - 22 Ashland Bypass (ASBP)

**Archaeological Areas within the NDEL Segment**

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Projection: Lambert Conformal Conic  
 State Plane Virginia North FIPS 4501 Feet  
 North American Datum of 1983

**Legend**

- 2015 VGIN VBMP Aerial Imagery
- Archaeological APE
- Archaeological Areas

**DC2RVA Project Segments**

- 13 North Doswell to Elmont (NDEL)
- 14 Elmont to Greendale (ELGN)
- 22 Ashland Bypass (ASBP)

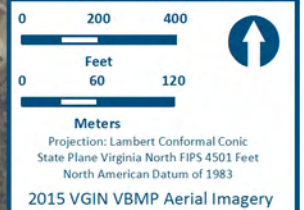
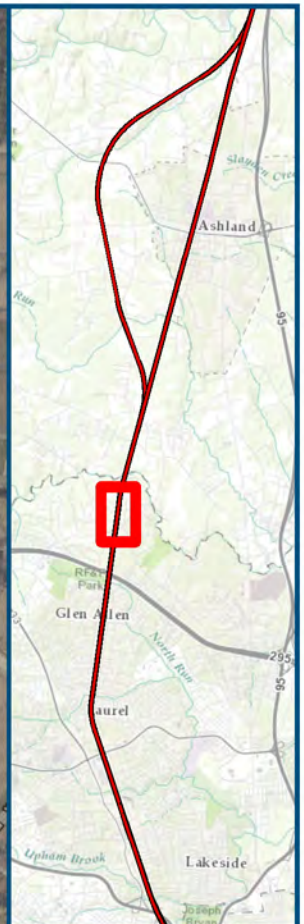
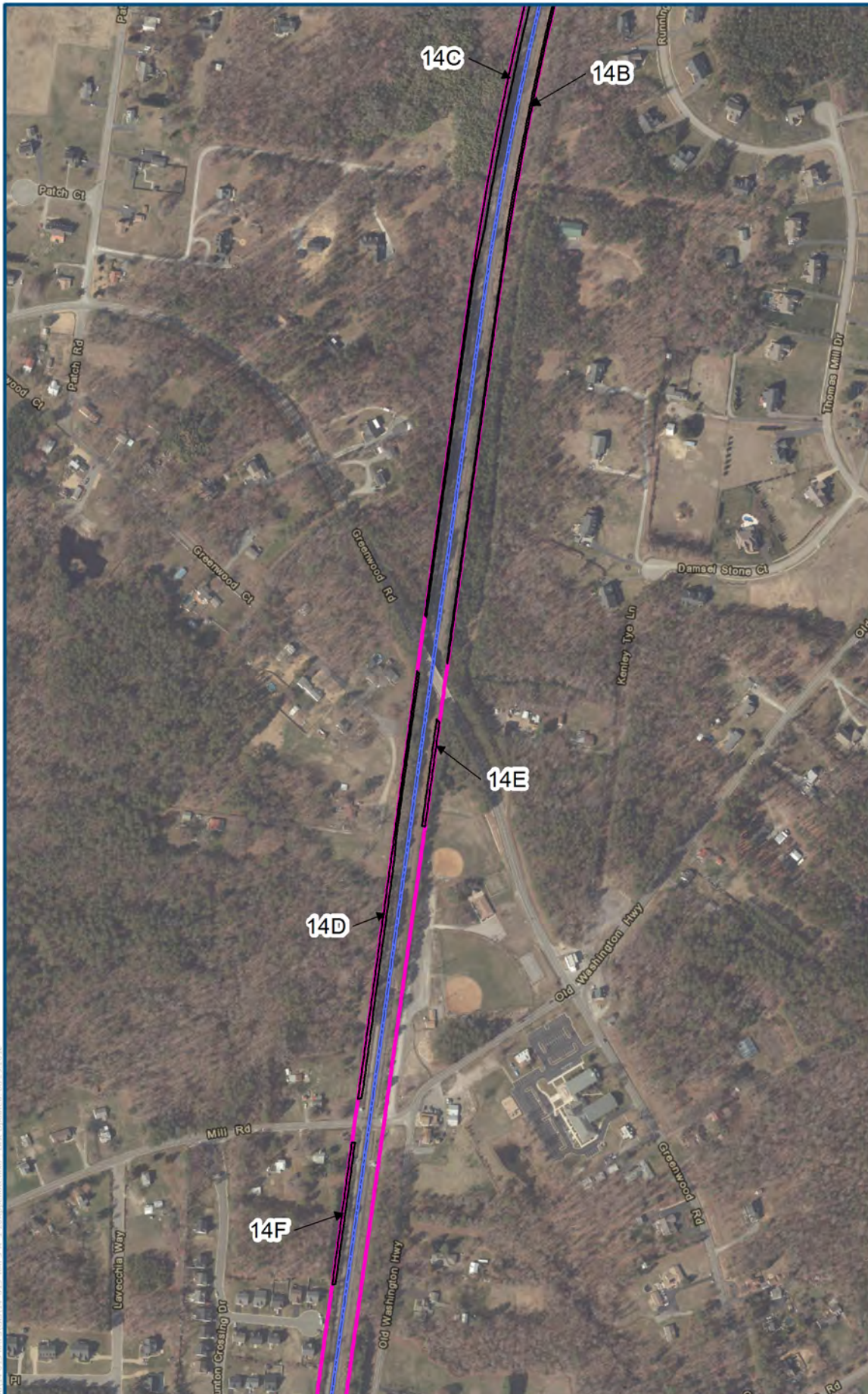
**Archaeological Areas within the NDEL Segment**

5/2016









### Legend

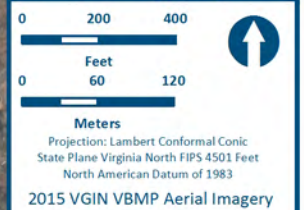
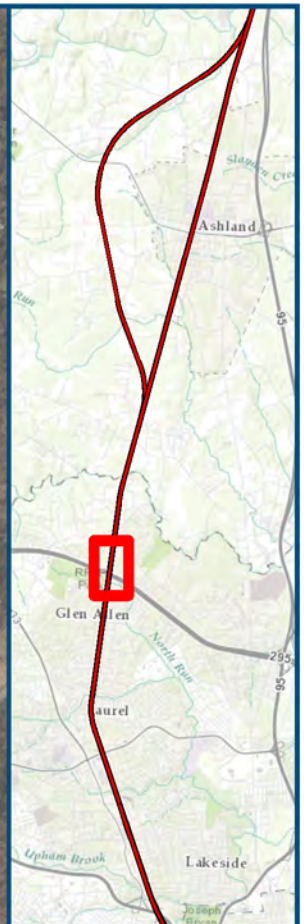
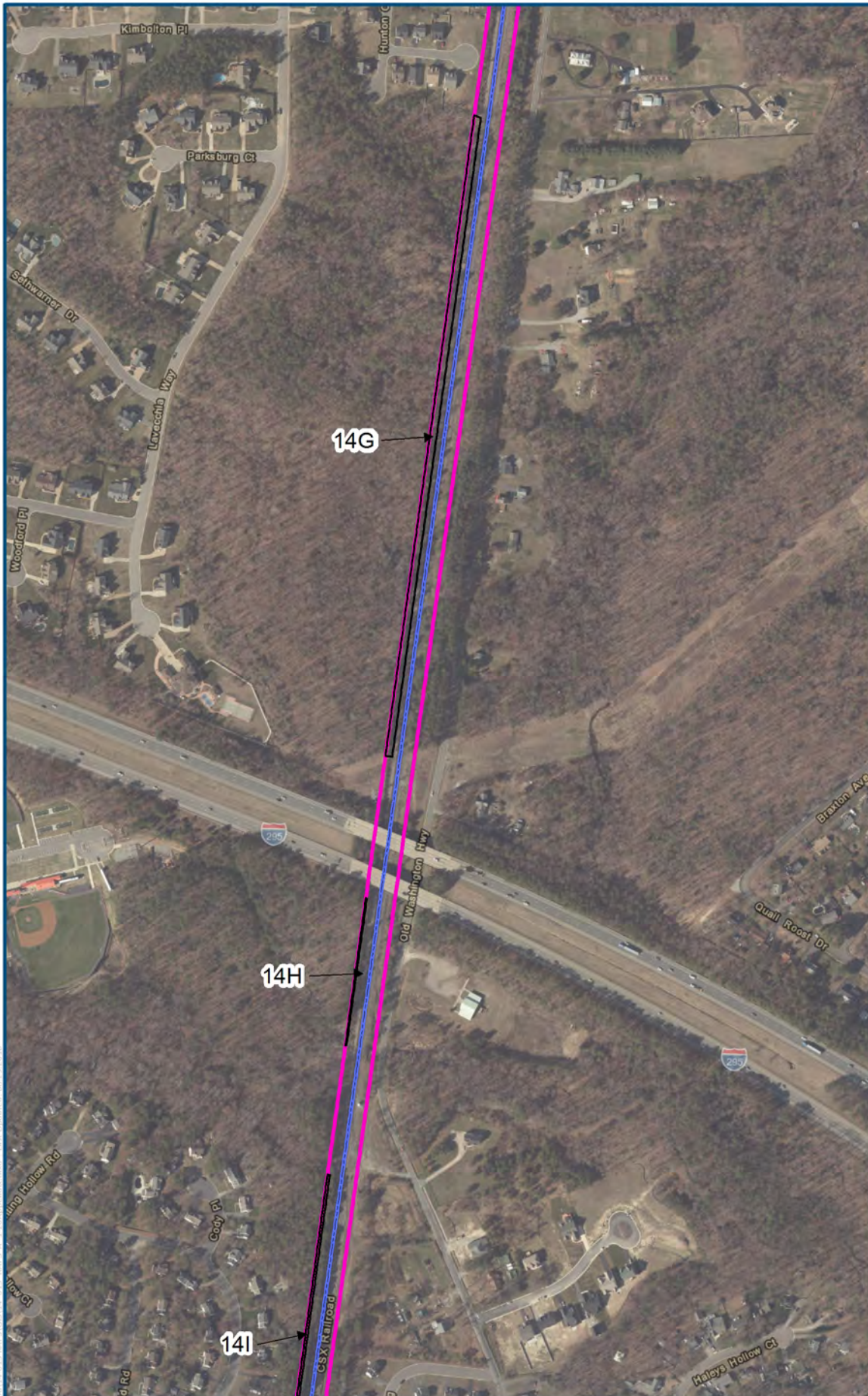
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 14 Elmont to Greendale (ELGN)

**Archaeological Areas  
within the ELGN Segment**

5/2016





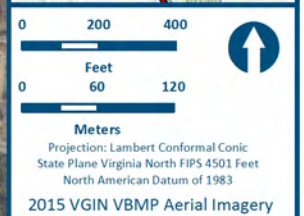
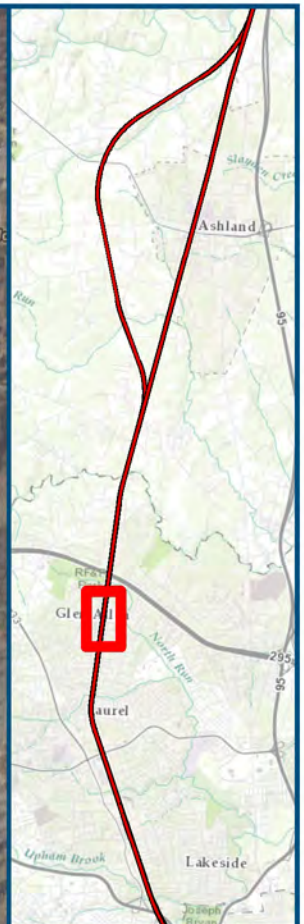


- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 14 Elmont to Greendale (ELGN)

**Archaeological Areas  
within the ELGN Segment**

5/2016





### Legend

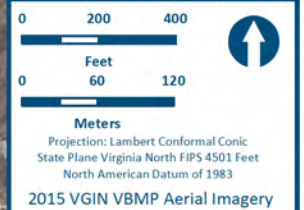
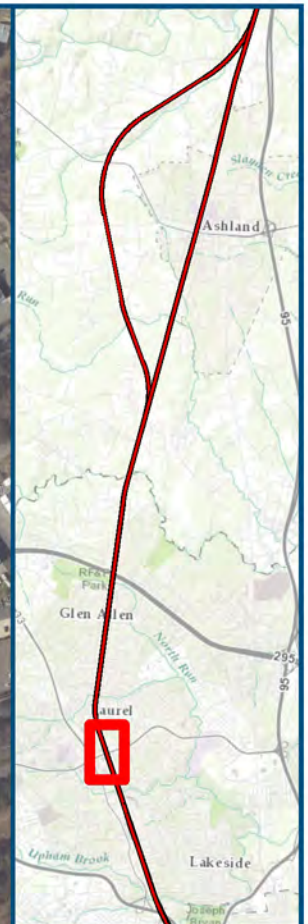
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 14 Elmont to Greendale (ELGN)

**Archaeological Areas  
within the ELGN Segment**

5/2016







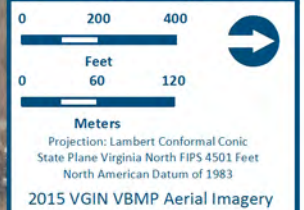
- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 14 Elmont to Greendale (ELGN)
  - 15 Greendale to SAY/WAY (GNSA)

**Archaeological Areas within the GNSA Segment**

5/2016







### Legend

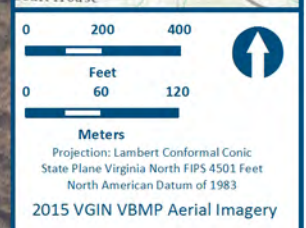
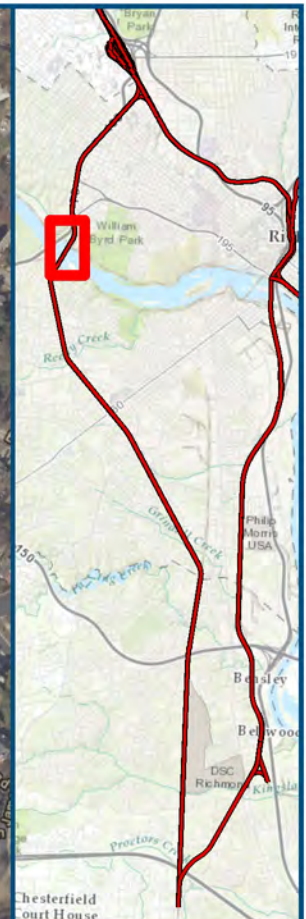
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 16 SAY/WAY to AM Jct (Hermitage Lead) (SAAM)
- 20' Buckingham Branch/Hospital Wye (BBHW)

**Archaeological Areas within the SAAM Segment**

5/2016





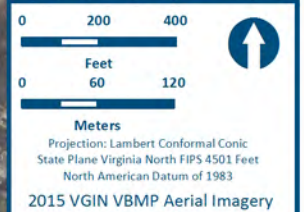
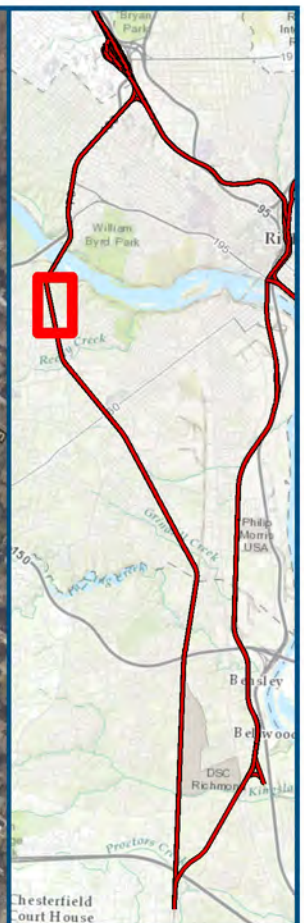
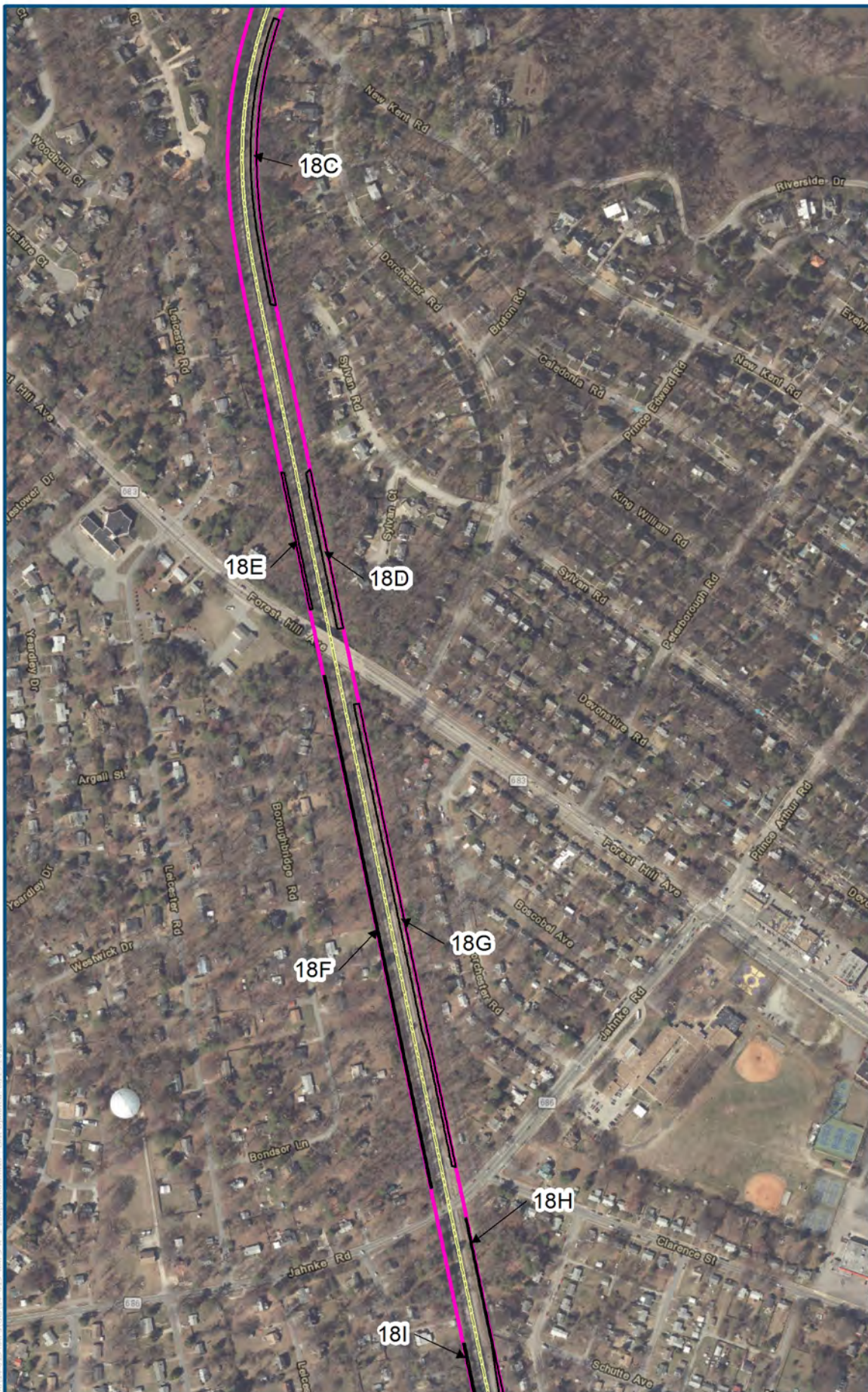


- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia
  - A Line (WACE)

**Archaeological Areas  
within the WACE  
Segment**

5/2016





### Legend

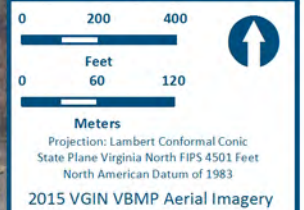
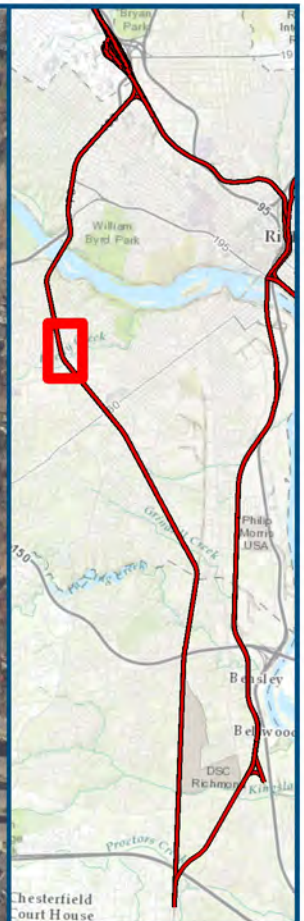
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia
- A Line (WACE)

**Archaeological Areas  
within the WACE  
Segment**

5/2016







### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia
- A Line (WACE)

**Archaeological Areas  
within the WACE  
Segment**

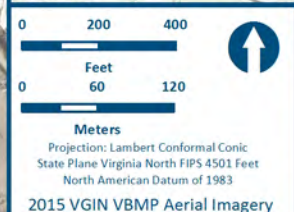
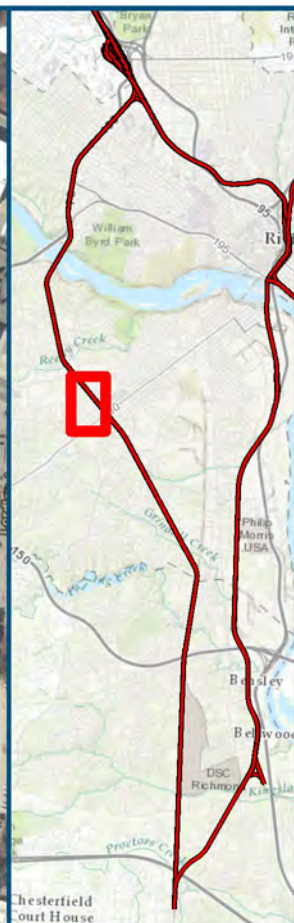
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- Legend**
- Archaeological APE
  - Archaeological Areas
  - DC2RVA Project Segments**
  - 18 WAY to Centralia
  - A Line (WACE)

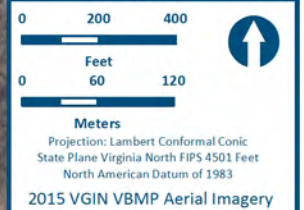
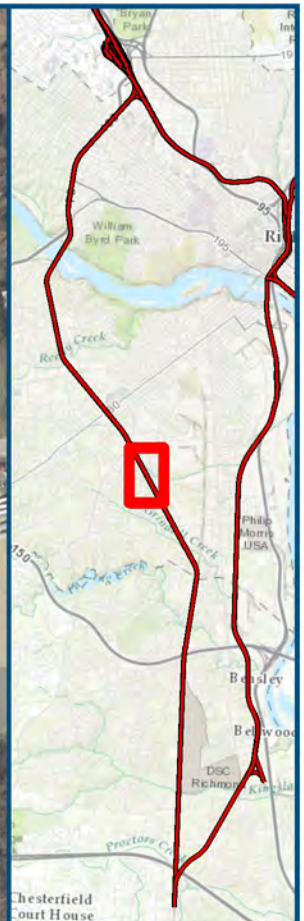
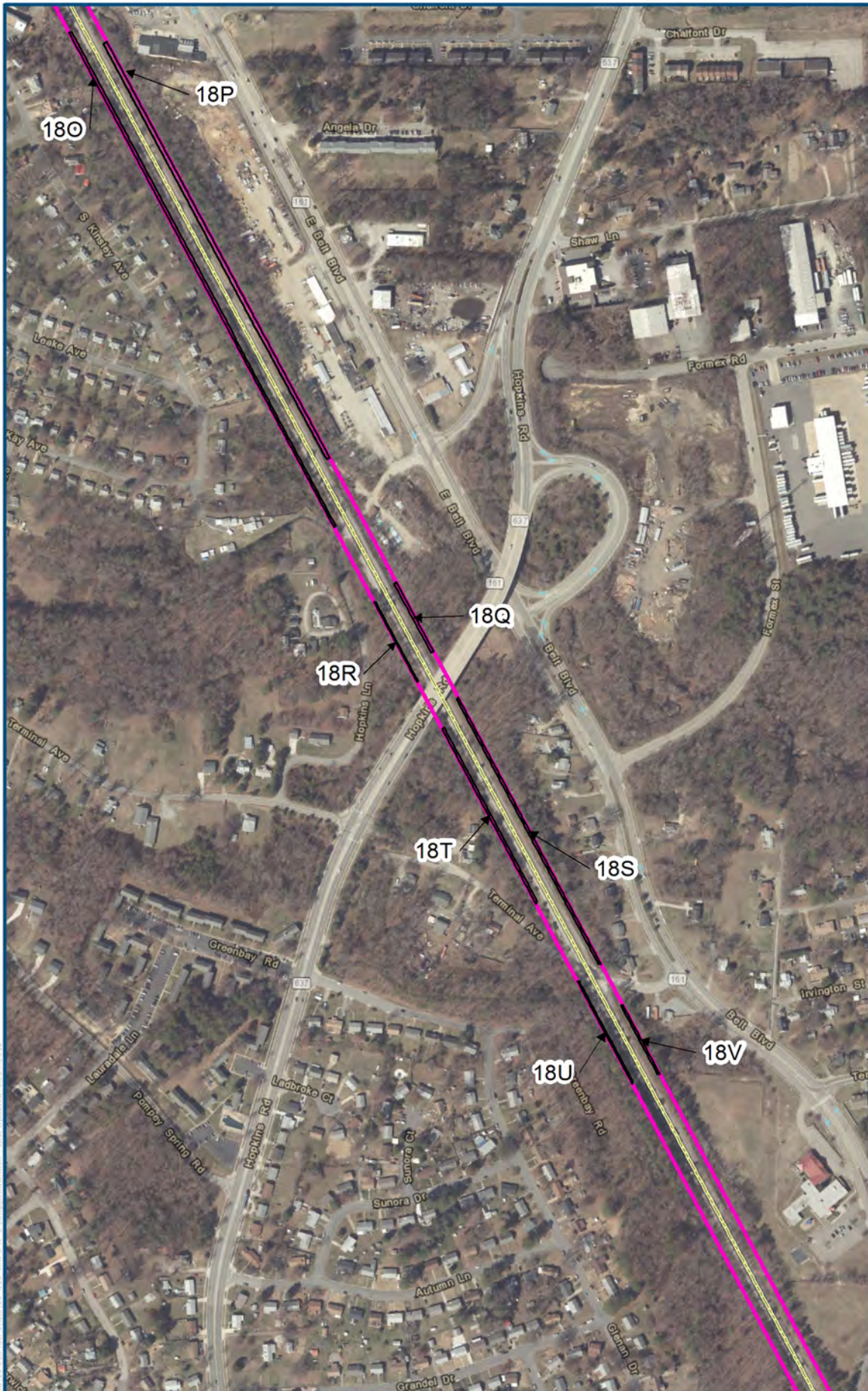
**Archaeological Areas  
within the WACE  
Segment**

5/2016









### Legend

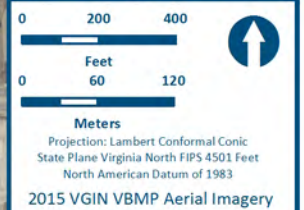
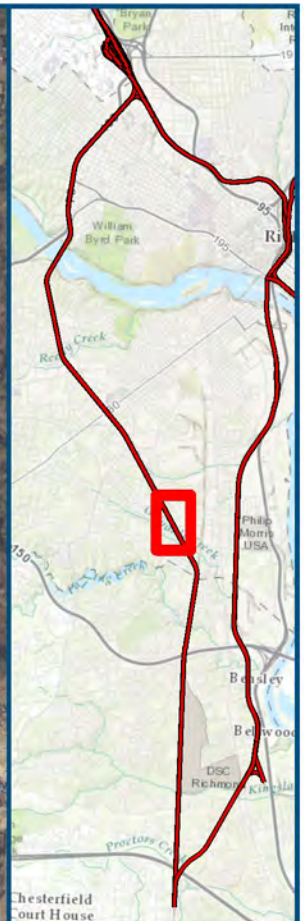
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia
- A Line (WACE)

Archaeological Areas  
within the WACE  
Segment

5/2016







### Legend

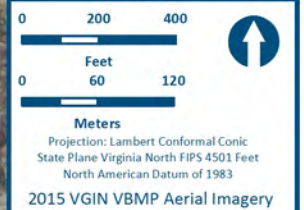
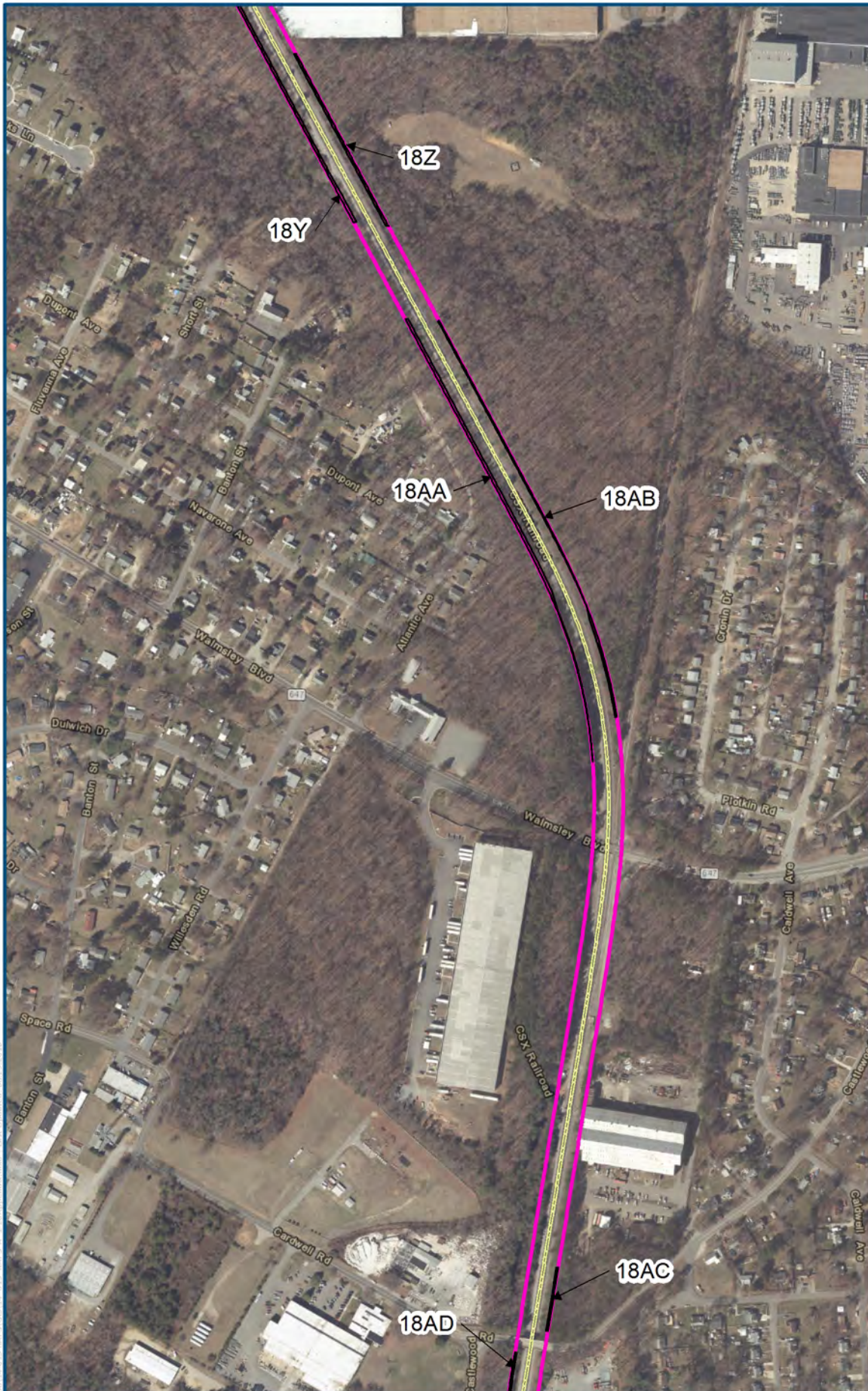
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia
- A Line (WACE)

**Archaeological Areas  
within the WACE  
Segment**

5/2016







### Legend

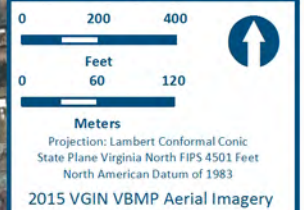
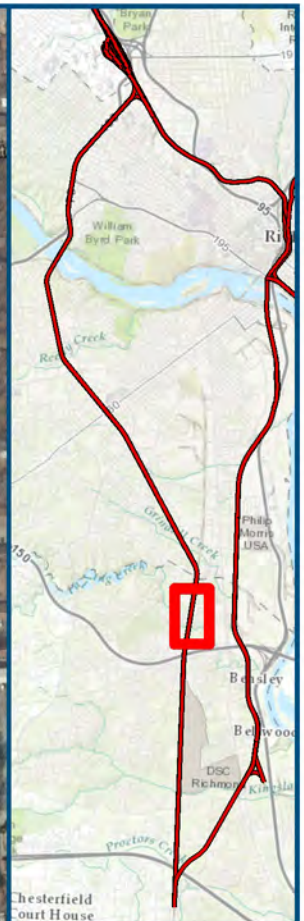
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia
- A Line (WACE)

Archaeological Areas  
within the WACE  
Segment

5/2016







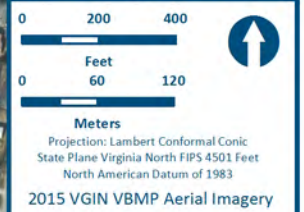
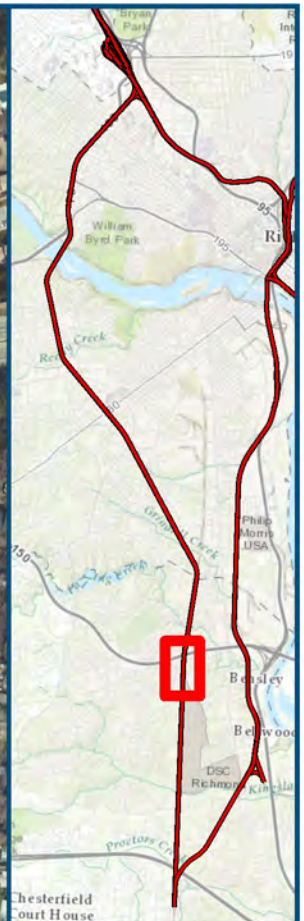
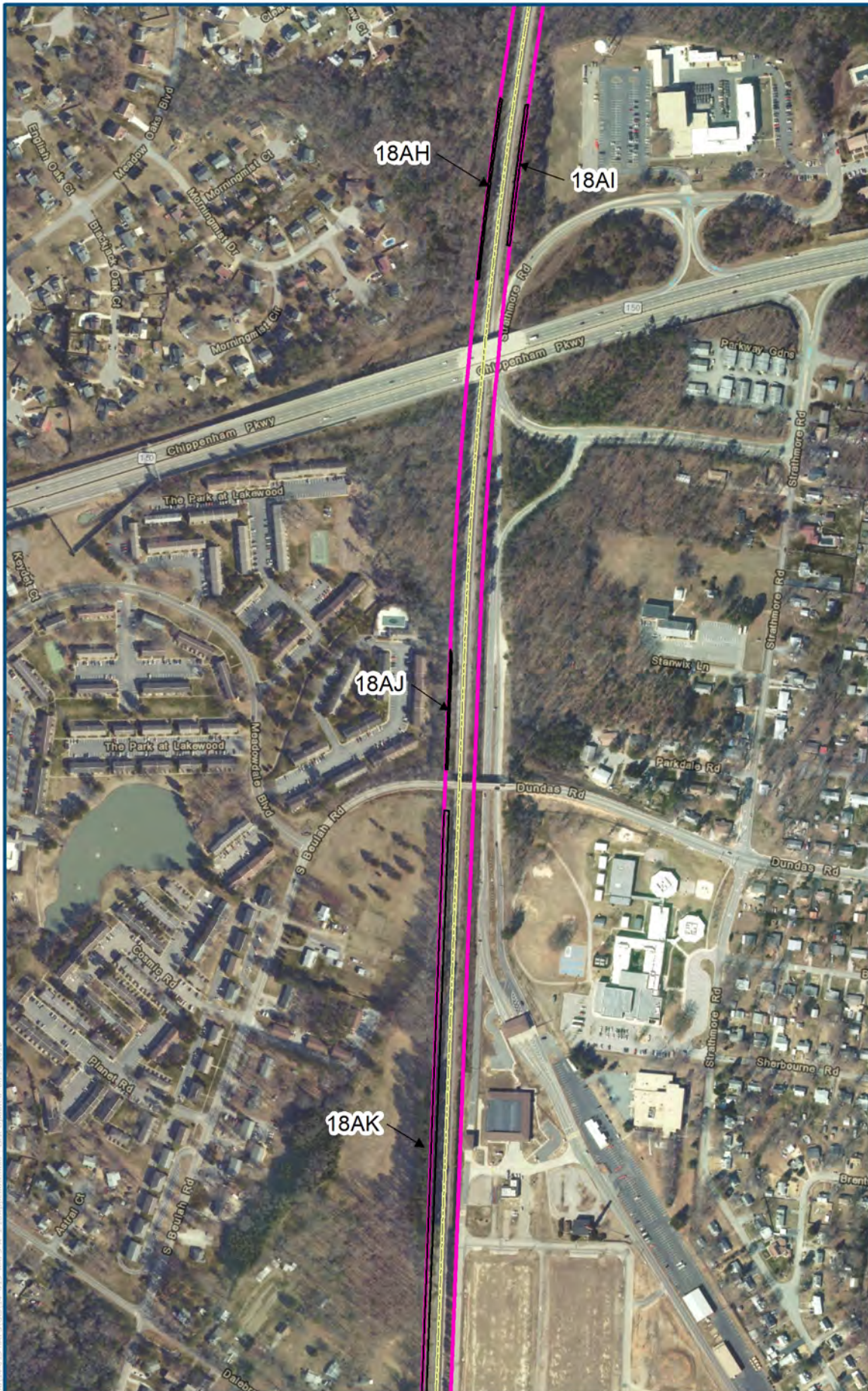
- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia
  - A Line (WACE)

Archaeological Areas  
within the WACE  
Segment

5/2016







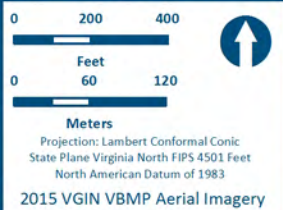
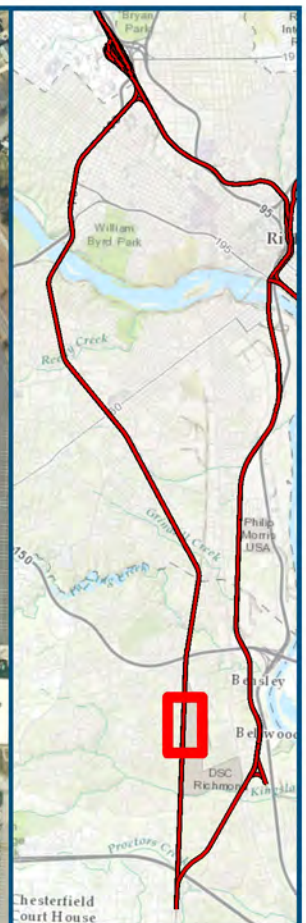
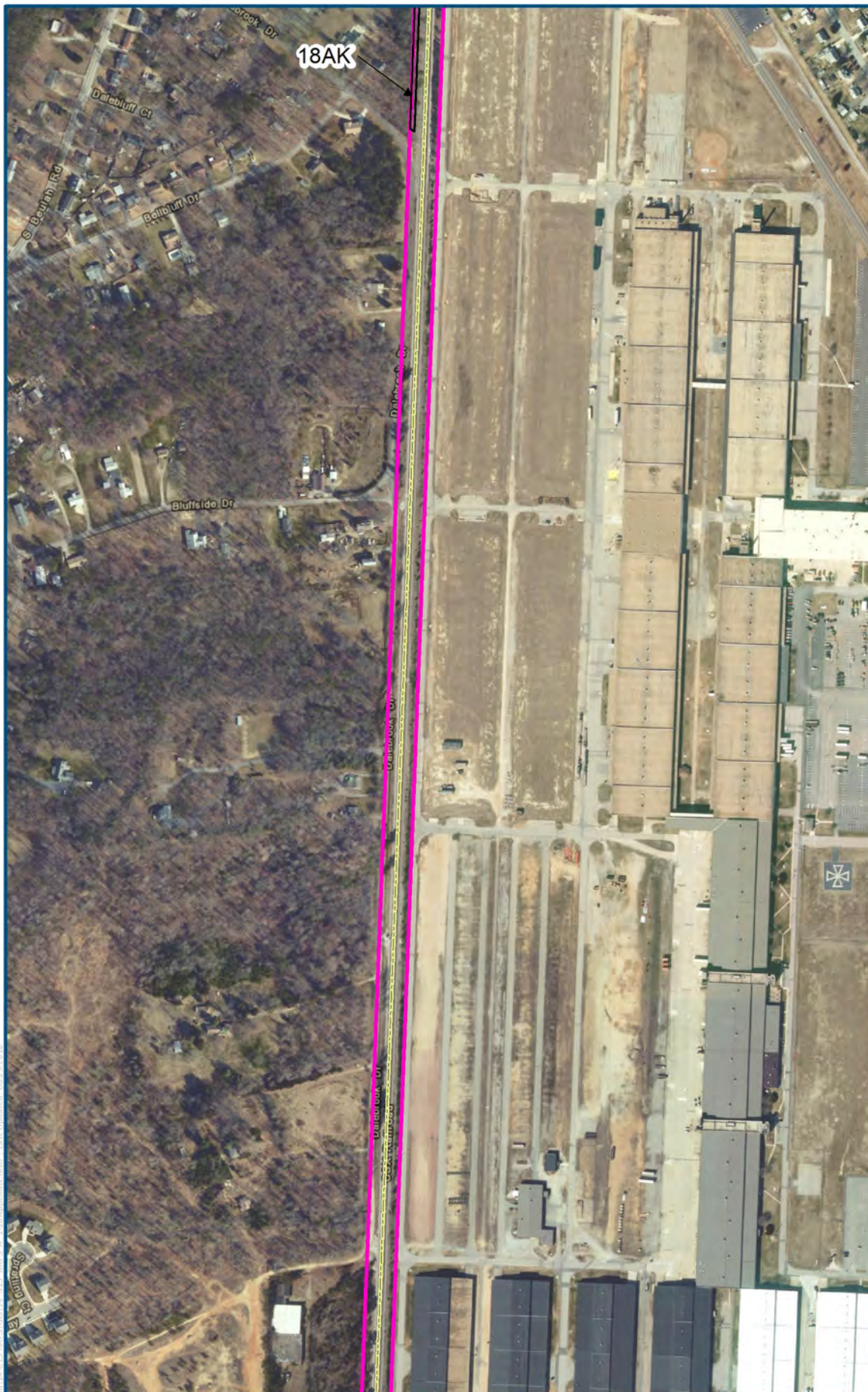
### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia
- A Line (WACE)



Archaeological Areas  
within the WACE  
Segment

5/2016





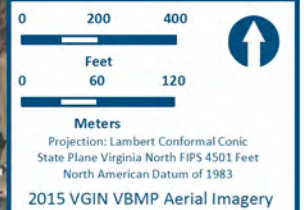
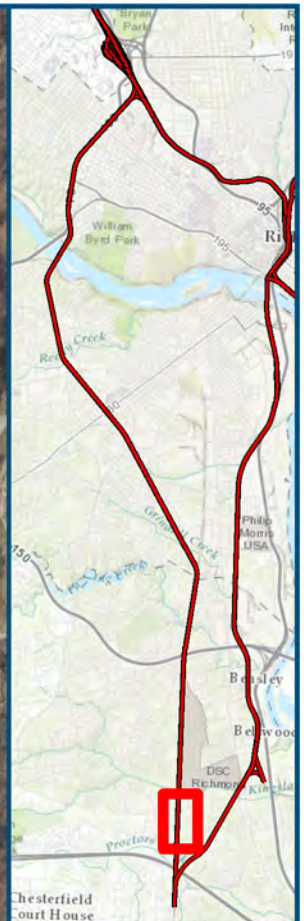
### Legend

-  Archaeological APE  
 Archaeological Areas  
**DC2RVA Project Segments**  
 18 WAY to Centralia  
 - A Line (WACE)

### Archaeological Areas within the WACE Segment

5/2016





### Legend

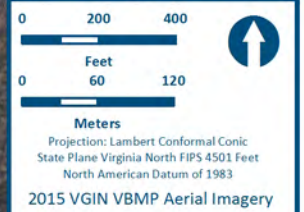
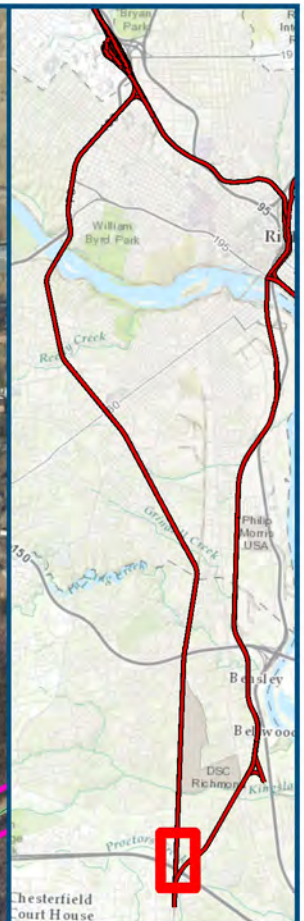
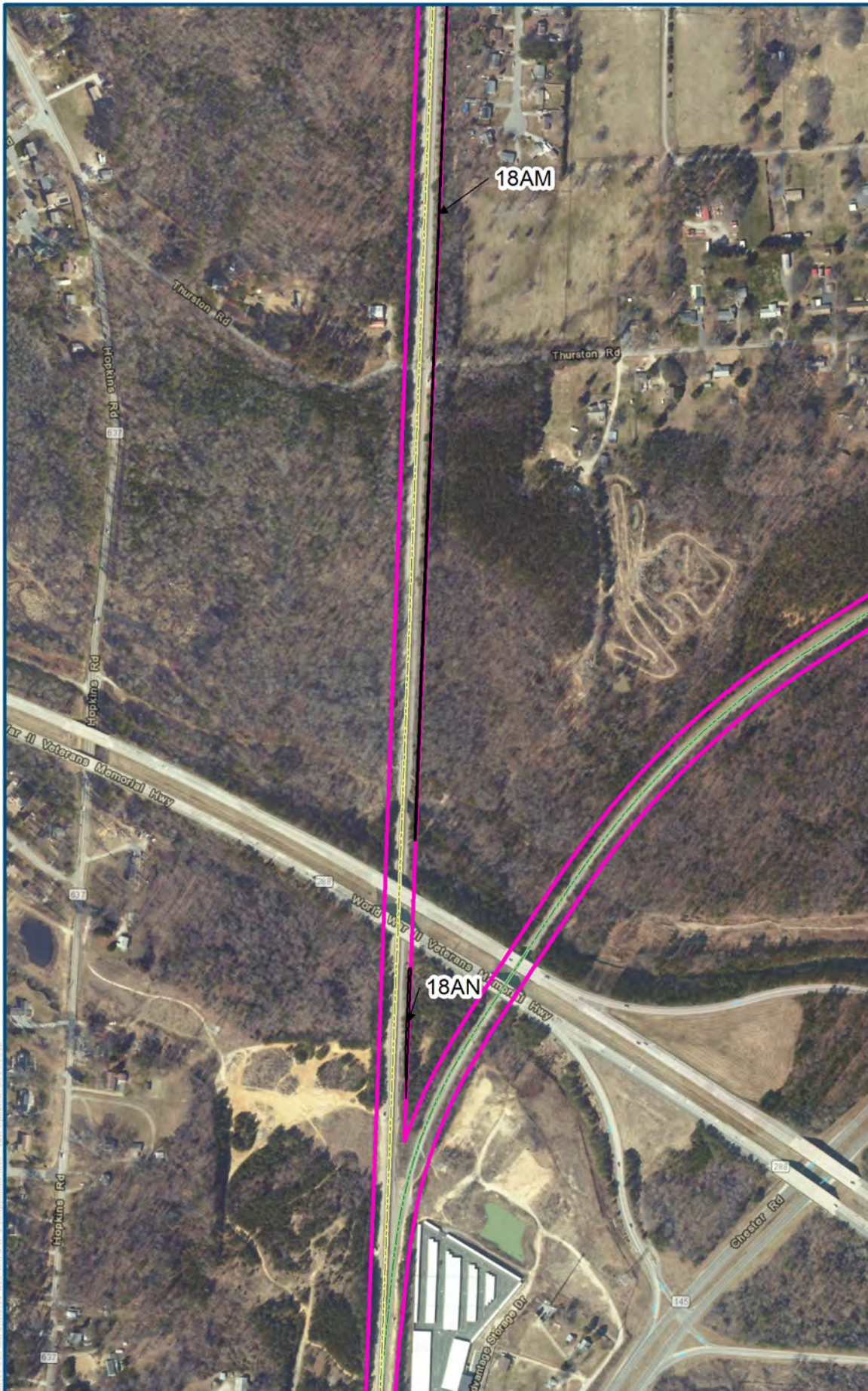
- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
- 18 WAY to Centralia**
- A Line (WACE)**

**Archaeological Areas  
within the WACE  
Segment**

5/2016







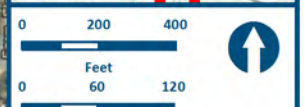
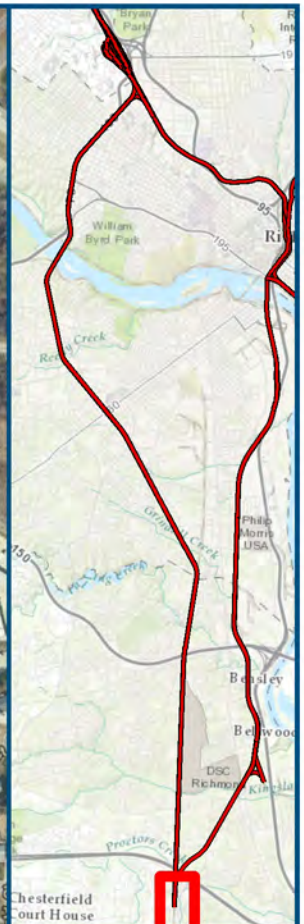
- Legend**
- Archaeological APE
  - Archaeological Areas
- DC2RVA Project Segments**
- 17 AM Jct to Centralia
  - S Line (AMCE)
  - 18 WAY to Centralia
  - A Line (WACE)

Archaeological Areas  
within the WACE  
Segment

5/2016







**Meters**  
 Projection: Lambert Conformal Conic  
 State Plane Virginia North FIPS 4501 Feet  
 North American Datum of 1983  
 2015 VGIN VBMP Aerial Imagery

### Legend

- Archaeological APE
- Archaeological Areas
- DC2RVA Project Segments**
  - 17 AM Jct to Centralia
  - S Line (AMCE)
  - 18 WAY to Centralia
  - A Line (WACE)

**Archaeological Areas  
 within the WACE  
 Segment**

5/2016





## **APPENDIX B: SHOVEL TEST CATALOG**

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**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
03	A	01		I	0.0	0.6	10YR 4/3 brown silt	
03	A	01		II	0.6	1.1	10YR 4/3 brown silty loam mottled with clumps of various clays and high percentage of gravel	appears to be disturbed from activity around railroad and wash-down flood chute from suburban development above
03	A	02		I	0.0	0.2	10YR 4/3 brown silt	
03	A	02		II	0.2	0.9	10YR 4/3 brown silty loam mottled with clumps of various clays and high percentage of gravel	
03	A	02		III	0.9	1.3	10YR 6/4 light yellowish brown sandy clay	
03	I	01		I	0.0	0.3	2.5Y 4/3 olive brown sandy loam	
03	I	01		II	0.3	0.4	10YR 2/1 black sandy loam	
03	I	01		III	0.4	0.8	10YR 6/3 pale brown silty clay	
03	I	02		I	0.0	0.3	2.5Y 4/3 olive brown sandy loam	
03	I	02		II	0.3	0.8	10YR 6/3 pale brown silty clay	
04	A	01		I	0.0	0.1	10YR 3/3 dark brown sandy loam	
04	A	01		II	0.1	0.8	10YR 5/3 brown sandy loam	
04	A	01		III	0.8	1.4	10YR 7/1 light gray sand with pockets of 10YR 3/2 very dark grayish brown and 10YR 6/8 brownish yellow sandy loam	
04	A	01		IV	1.4	1.8	10YR 6/8 brownish yellow loamy sand	disturbed
04	A	02		I	0.0	1.0	10YR 5/4 yellowish brown sandy loam with pockets of 10YR 6/8 brownish yellow sandy clay	redeposit
04	A	02		II	1.0	1.4	10YR 6/1 gray loamy sand mottled with 10YR 6/8 brownish yellow sandy clay	hydric subsoil
04	A	03		I	0.0	0.4	10YR 4/3 brown sandy loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
04	A	03		II	0.4	1.0	10YR 5/4 yellowish brown sandy loam with pockets of 10YR 6/8 brownish yellow sandy clay	redeposit
04	A	03		III	1.0	1.4	10YR 6/1 gray loamy sand mottled with 10YR 6/8 brownish yellow sandy clay	hydric subsoil
04	A	04		I	0.0	0.2	10YR 4/3 brown silty loam	
04	A	04		II	0.2	0.8	10YR 5/3 brown silty loam	
04	A	04		III	0.8	1.2	10YR 6/3 pale brown silty loam	
04	A	04		IV	1.2	1.6	10YR 6/2 light brownish gray mottled with 10YR 6/6 brownish yellow sandy clay	
04	A	05		I	0.0	0.1	10YR 3/2 very dark grayish brown mottled with 10YR 4/1 dark gray and 10YR 6/6 brownish yellow silty loam with 60% angular gravels	gravel impasse at .1
04	F	01		I	0.0	0.8	7.5YR 5/6 strong brown sandy loam	
04	F	01		II	0.8	1.2	10YR 6/3 pale brown sand with degrading sandstone	
04	F	02		I	0.0	0.4	10YR 4/2 dark grayish brown silty loam	
04	F	02		II	0.4	0.9	10YR 2/1 black silty loam	
04	F	02		III	0.9	1.3	10YR 6/3 pale brown sand with degrading sandstone	
06	J	01		I	0.0	0.1	10YR 3/2 very dark grayish brown sandy loam with 60% rounded cobbles	
06	J	01		II	0.1	0.5	10YR 6/6 brownish yellow sandy loam with 60% rounded cobbles	
06	J	02		I	0.0	0.2	10YR 3/2 very dark grayish brown sandy loam	
06	J	02		II	0.2	0.4	10YR 2/2 very dark brown sandy loam	
06	J	02		III	0.4	0.8	10YR 3/2 very dark grayish brown sandy loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
06	J	03		I	0.0	0.3	10YR 3/3 dark brown mottled with 10YR 6/6 brownish yellow silty loam	
06	J	03		II	0.3	1.0	10YR 5/3 brown silty loam	
06	J	03		III	1.0	1.4	10YR 6/6 brownish yellow silty clay loam	
06	J	04		I	0.0	0.6	10YR 5/3 brown silty loam	
06	J	04		II	0.6	1.0	10YR 6/6 brownish yellow silty clay loam	
06	L	01		I	0.0	0.1	7.5YR 4/3 brown sandy loam	
06	L	01		II	0.1	1.7	7.5YR 5/4 brown sandy loam mottled with 10YR 5/6 strong brown clay and 10YR 3/2 dark brown sandy loam	
06	L	01		III	1.7	2.0	7.5YR 5/6 strong brown sandy clay	heavily disturbed
06	L	02		I	0.0	0.1	7.5YR 4/3 brown sandy loam	
06	L	02		II	0.1	1.4	7.5YR 5/4 brown sandy loam mottled with 10YR 5/6 strong brown clay and 10YR 3/2 dark brown sandy loam	
06	L	02		III	1.4	1.5	7.5YR 5/6 strong brown sandy clay	heavily disturbed
06	L	03		I	0.0	0.1	7.5YR 4/3 brown sandy loam	
06	L	03		II	0.1	1.3	7.5YR 5/4 brown sandy loam mottled with 10YR 5/6 strong brown clay and 10YR 3/2 dark brown sandy loam	
06	L	03		III	1.3	1.6	7.5YR 5/6 strong brown sandy clay	heavily disturbed
06	L	04		I	0.0	0.2	10YR 3/2 very dark grayish brown sandy loam	
06	L	04		II	0.2	1.0	10YR 6/8 brownish yellow mottled with 10YR 5/8 yellowish brown and 10YR 3/2 very dark grayish brown sandy loam	disturbed



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
06	L	05					Not Excavated	wires everywhere
06	L	06		I	0.0	0.4	10YR 3/2 very dark grayish brown mottled with 10YR 2/1 black and 10YR 6/6 brownish yellow sandy loam	disturbed along rail grade
06	L	06		II	0.4	1.5	10YR 6/8 brownish yellow mottled with 10YR 5/3 brown and 10YR 3/2 very dark grayish brown sandy loam	disturbed along rail grade
06	L	06		III	1.5	2.0	10YR 5/3 brown sandy loam	
06	L	07		I	0.0	0.9	10YR 2/1 black sandy loam	
06	L	07		II	0.9	1.4	10YR 6/6 brownish yellow sandy loam	
06	L	07		III	1.4	1.8	10YR 6/3 pale brown sandy clay	
06	L	08		I	0.0	0.7	10YR 2/1 black sandy loam	
06	L	08		II	0.7	1.5	10YR 6/6 brownish yellow sandy loam	
06	M	01		I	0.0	0.3	10YR 4/3 olive brown sandy loam	
06	M	01		II	0.3	1.0	10YR 6/4 light yellowish brown with large pockets of 10YR 2/1 black sandy loam	heavily disturbed
06	M	02		I	0.0	0.3	10YR 4/3 brown sandy loam	
06	M	02		II	0.3	1.0	10YR 6/4 light yellowish brown with large clumps of 10YR 2/1 black sandy loam	
06	M	02		III	1.0	1.4	10YR 6/2 light brownish gray sandy clay with 10YR 5/6 yellowish brown oxidization	heavily disturbed
06	M	03		I	0.0	0.3	10YR 4/3 brown sandy loam	
06	M	03		II	0.3	1.0	10YR 5/4 yellowish brown sandy loam with pockets of 10YR 2/1 black and 10YR 6/6 brownish yellow	
06	M	03		III	1.0	1.4	10YR 2/1 black sandy loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
06	M	03		IV	1.4	1.6	10YR 6/6 brownish yellow sandy clay	heavily disturbed
06	N	01		I	0.0	0.5	10YR 6/6 brownish yellow sandy loam	
06	N	01		II	0.5	1.0	10YR 4/3 brown mottled with 10YR 2/1 black sandy loam with 40% gravel	
06	N	01		III	1.0	1.5	10YR 6/6 brownish yellow loamy sand	disturbed
06	N	02					Not Excavated	Verizon box and disturbed ground surface
08	C	01		I	0.0	0.1	10YR 4/1 dark gray silty loam with 80% angular gravel	STP location appears to be in grade disturbance due to railroad
08	C	02		I	0.0	1.1	10YR 4/3 dark brown silty loam with 15% angular debris	
08	C	02		II	1.1	1.5	10YR 6/3 pale brown silty clay	
08	C	03					Not Excavated	disturbed
08	C	04		I	0.0	1.3	10YR 4/3 dark brown silty loam	
08	C	04		II	1.3	1.7	10YR 6/3 pale brown silty clay	
08	C	05		I	0.0	1.0	10YR 4/3 dark brown silty loam	
08	C	05		II	1.0	1.4	10YR 6/3 pale brown silty clay	
08	C	06		I	0.0	0.8	10YR 4/3 dark brown silty loam	
08	C	06		II	0.8	1.2	10YR 6/3 pale brown silty clay	
08	C	07		I	0.0	1.0	10YR 4/3 dark brown silty loam	
08	C	07		II	1.0	1.4	10YR 6/3 pale brown silty clay	
08	C	08		I	0.0	0.8	10YR 4/3 dark brown silty loam	
08	C	08		II	0.8	1.2	10YR 5/6 yellowish brown silty clay	
08	C	09		I	0.0	0.7	10YR 4/3 dark brown silty loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
08	C	09		II	0.7	1.1	10YR 5/6 yellowish brown silty clay loam	
08	C	10		I	0.0	0.6	10YR 4/3 dark brown silty loam	
08	C	10		II	0.6	1.0	10YR 5/6 yellowish brown silty clay	
08	C	11		I	0.0	0.6	10YR 4/3 dark brown silty loam	
08	C	11		II	0.6	1.0	10YR 5/6 yellowish brown silty clay loam	
08	C	12		I	0.0	0.8	10YR 4/3 dark brown silty loam	
08	C	12		II	0.8	1.2	10YR 5/6 yellowish brown silty clay	
08	C	13		I	0.0	0.9	10YR 4/3 dark brown silty loam	
08	C	13		II	0.9	1.3	10YR 5/6 yellowish brown silty clay loam	
08	C	14		I	0.0	0.6	10YR 4/3 dark brown silty loam	
08	C	14		II	0.6	1.0	10YR 5/6 yellowish brown silty clay	
08	C	15		I	0.0	0.8	10YR 4/3 dark brown silty loam	
08	C	15		II	0.8	1.2	10YR 5/6 yellowish brown silty clay loam	
08	C	16		I	0.0	0.6	10YR 4/3 dark brown silty loam with 2% angular gravels and three rounded cobbles	
08	C	16		II	0.6	1.0	10YR 5/6 yellowish brown silty clay	
08	C	17		I	0.0	0.7	10YR 4/3 dark brown silty clay loam	
08	C	17		II	0.7	1.1	2.5Y 6/3 light brownish gray silty clay	
08	C	18		I	0.0	0.6	10YR 4/3 dark brown silty loam	
08	C	18		II	0.6	1.0	10YR 5/6 yellowish brown silty clay	
08	C	19		I	0.0	0.5	10YR 4/3 dark brown silty loam	
08	C	19		II	0.5	0.9	2.5Y 6/3 light brownish gray silty clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
08	C	20		I	0.0	0.4	10YR 4/3 dark brown silty loam	
08	C	20		II	0.4	0.8	2.5Y 6/3 light brownish gray silty clay	
08	C	21		I	0.0	0.1	2.5Y 4/2 dark grayish brown silty loam with 5% subangular gravels	
08	C	21		II	0.1	0.5	7.5YR 4/6 strong brown silty clay	
08	C	22		I	0.0	0.1	10YR 4/2 dark grayish brown silty loam	
08	C	22		II	0.1	0.5	10YR 6/2 light brownish gray and 10YR 5/6 dark yellowish brown	hydric
08	C	23		I	0.0	0.4	10YR 4/2 dark grayish brown silty loam with 10% subangular gravels	modern garbage (colorless glass fragments, plastic, coal)
08	C	23		II	0.4	0.8	10YR 5/1 gray silty clay	
08	C	24		I	0.0	0.2	10YR 4/2 dark grayish brown silty loam	
08	C	24		II	0.2	0.6	10YR 5/1 gray silty clay	hydric
08	C	25					Not Excavated	petroleum pipeline
08	C	26		I	0.0	0.8	10YR 2/1 black loose silty loam with 75% varying gravel and cobbles	disturbed
08	C	27		I	0.0	0.1	10YR 5/1 gray silty loam with 20% angular gravels	appears to be disturbed
08	C	28		I	0.0	0.4	10YR 4/2 dark grayish brown silty loam with 20% angular gravels	
08	C	28		II	0.4	0.8	10YR 5/1 gray silty clay	
08	C	29		I	0.0	0.4	10YR 4/1 dark gray silty sandy loam with 10% angular gravels	
08	C	29		II	0.4	0.8	10YR 5/1 gray silty sandy clay	
08	C	30					Not Excavated	disturbance adjacent to rail line



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
08	C	31					Not Excavated	disturbance adjacent to rail line
08	C	32					Not Excavated	disturbance adjacent to rail line
08	C	33					Not Excavated	disturbance adjacent to rail line
08	C	34					Not Excavated	disturbance adjacent to rail line
08	C	35					Not Excavated	disturbance adjacent to rail line
08	C	36					Not Excavated	disturbance adjacent to rail line
08	C	37					Not Excavated	disturbance adjacent to rail line
08	C	38		I	0.0	0.5	10YR 5/2 grayish brown mottled with 10YR 5/6 yellowish brown silty loam	
08	C	38		II	0.5	0.9	10YR 6/1 gray mottled with 10YR 5/6 yellowish brown silty loam	
08	C	39		I	0.0	0.9	10YR 4/6 dark yellowish brown silty loam	
08	C	39		II	0.9	1.3	10YR 6/8 brownish yellow mottled with 10YR 5/6 yellowish brown silty clay	
08	C	40		I	0.0	0.7	10YR 4/3 dark brown silty loam	
08	C	40		II	0.7	1.1	10YR 6/2 light brownish gray mottled with 10YR 5/6 yellowish brown silty loam	
08	C	41		I	0.0	0.7	2.5Y 4/3 olive brown silty loam with 5% subangular gravels	
08	C	41		II	0.7	1.4	10YR 4/3 dark brown silty loam	
08	C	41		III	1.4	1.8	10YR 7/2 light gray mottled with 10YR 5/6 yellowish brown silty clay	
08	C	42		I	0.0	1.0	10YR 4/3 dark brown silty loam	
08	C	42		II	1.0	1.4	10YR 5/6 yellowish brown silty clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
08	C	43		I	0.0	0.7	10YR 5/3 brown silty clay loam	
08	C	43		II	0.7	1.1	7.5YR 4/6 strong brown silty clay with 2% angular gravels and very compact sediments	
08	C	44		I	0.0	0.7	10YR 4/3 dark brown silty loam	
08	C	44		II	0.7	1.1	10YR 5/6 yellowish brown silty clay	on slight slope up to north
08	C	45		I	0.0	0.5	10YR 4/2 dark grayish brown silty loam with 8% subangular gravels	
08	C	45		II	0.5	0.9	10YR 5/1 gray silty clay	
08	D	01		I	0.0	0.2	10YR 3/2 very dark grayish brown silty loam	
08	D	01		II	0.2	0.5	10YR 5/1 gray mottled with 10YR 2/1 black and 10YR 6/4 light yellowish brown loamy clay	
08	D	01		III	0.5	1.0	10YR 2/1 black sandy loam	water flooded at 0.8
09	A	01		I	0.0	0.1	10YR 3/2 very dark grayish brown	
09	A	01		II	0.1	0.7	10YR 4/2 dark grayish brown mottled with 7.5YR 5/6 strong brown with manganese ferric inclusions	
09	A	01		III	0.7	1.0	10YR 6/4 light yellowish brown	water filled STP in strat II
09	A	02		I	0.0	0.4	10YR 2/1 black silty loam	
09	A	02		II	0.4	0.8	10YR 5/8 yellowish brown sandy clay with 75% gravel inclusions	high carbon content, railroad construction gravel terminated at 0.8
09	A	03		I	0.0	0.6	10YR 2/2 very dark brown sandy loam with 60% angular railroad gravel	discarded bolt, concrete, glass
09	A	03		II	0.6	1.0	10YR 5/3 brown sandy loam	
09	A	03		III	1.0	1.4	10YR 6/6 brownish yellow sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
09	B	01		I	0.0	0.3	10YR 2/2 very dark brown with pockets of 10YR 6/4 light yellowish brown and 10YR 5/6 yellowish brown sandy clay loam with 30% gravels	
09	B	01		II	0.3	1.1	mixed pockets of 2.5Y 4/3 olive brown and 10YR 5/3 brown and 10YR 6/6 brownish yellow clay loam	
09	B	01		III	1.1	1.5	10YR 2/1 black sand	appears to be railroad related
09	B	01		IV	1.5	1.9	10YR 6/2 light brownish gray clay with ferrous inclusions	
09	B	02		I	0.0	0.3	10YR 2/2 very dark brown with pockets of 10YR 6/4 light yellowish brown and 10YR 5/6 yellowish brown sandy clay loam with 60% gravels	
09	B	02		II	0.3	0.8	mixed pockets of 2.5Y 4/3 olive brown and 10YR 5/3 brown and 10YR 6/6 brownish yellow clay loam	
09	B	02		III	0.8	0.9	10YR 2/1 black sand	appears to be railroad related
09	B	02		IV	0.9	1.3	10YR 6/2 light brownish gray clay with ferrous inclusions	
09	B	03		I	0.0	0.3	10YR 2/2 very dark brown with pockets of 10YR 6/4 light yellowish brown and 10YR 5/6 yellowish brown sandy clay loam with 60% gravels	
09	B	03		II	0.3	0.6	mixed pockets of 2.5Y 4/3 olive brown and 10YR 5/3 brown and 10YR 6/6 brownish yellow clay loam	
09	B	03		III	0.6	0.8	10YR 2/1 black sand	
09	B	03		IV	0.8	1.0	mixed pockets of 2.5Y 4/3 olive brown and 10YR 5/3 brown and 10YR 6/6 brownish yellow clay loam	
09	B	03		V	1.0	1.1	10YR 2/1 black sand	
09	B	03		VI	1.1	1.8	10YR 6/3 pale brown sandy clay	Railroad spikes to I-IV, Disturbed Railroad
09	E	01		I	0.0	0.9	10YR 5/3 brown silty clay loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
09	E	01		II	0.9	1.3	10YR 6/4 light yellowish brown silty clay	
09	E	02		I	0.0	0.8	10YR 4/3 brown loamy clay	
09	E	02		II	0.8	1.1	10YR 5/4 yellowish brown clay	
09	E	02		III	1.1	1.5	7.5YR 5/6 strong brown clay	encountered at 1.3, pyramid memorial (stone structure) located NW of STP
09	E	03		I	0.0	0.7	10YR 4/3 brown silty clay loam	
09	E	03		II	0.7	1.1	7.5YR 5/6 strong brown silty clay	
09	E	04		I	0.0	0.4	10YR 4/3 brown silty clay loam	
09	E	04		II	0.4	0.9	7.5YR 5/6 strong brown silty clay	
09	E	05		I	0.0	0.7	10YR 4/3 brown silty clay loam	
09	E	05		II	0.7	1.1	7.5YR 5/6 strong brown silty clay	
09	E	06		I	0.0	0.8	10YR 4/3 brown silty clay loam	
09	E	06		II	0.8	1.2	7.5YR 5/6 strong brown silty clay	
09	E	07		I	0.0	0.8	10YR 4/3 brown silty clay loam	
09	E	07		II	0.8	1.2	7.5YR 5/6 strong brown silty clay	
09	F	01		I	0.0	0.5	2.5Y 3/3 dark olive brown with pockets of 7.5YR 5/6 strong brown and 7.5YR 2/2 very dark brown sandy loam	
09	F	01		II	0.5	0.8	2.5Y 3/3 dark olive brown with pockets of 7.5YR 5/6 strong brown and 7.5YR 2/2 very dark brown sandy clay with bands of black staining from rail activity	
09	F	01		III	0.8	1.2	10YR 6/4 light yellowish brown clay with notable mineral inclusions	STP located east of rail, west of clear field



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
09	G	01		I	0.0	0.4	10YR 4/2 dark grayish brown sandy loam with angular gravel	
09	G	01		II	0.4	0.8	10YR 4/2 dark grayish brown with 30% 7.5YR 6/6 reddish yellow	hydric
09	G	01		III	0.8	1.0	5PB 4/1 dark bluish gray with 40% 10YR 6/1 gray	hydric
09	G	01		IV	1.0	1.1	10YR 3/1 very dark gray	hydric
09	G	01		V	1.1	1.5	10YR 6/1 gray	hydric, water filled STP, strat I disturbed
09	G	02		I	0.0	0.4	10YR 4/2 dark grayish brown sandy clay	
09	G	02		II	0.4	0.9	10YR 6/1 gray mottled with 5PB 5/1 bluish gray and 10YR 6/1 gray sandy clay	strats disturbed
09	G	02		III	0.9	1.0	10YR 2/1 black mottled with 10YR 6/1 gray	
09	G	03		I	0.0	0.3	2.5Y 2.5/1 black sandy clay loam	
09	G	03		II	0.3	1.0	2.5Y 7/2 light gray clay	
09	G	04		I	0.0	0.4	2.5Y 2.5/1 black sandy clay loam	
09	G	04		II	0.4	1.0	2.5Y 7/2 light gray clay	
09	G	05		I	0.0	0.4	2.5Y 2.5/1 black silty loam	
09	G	05		II	0.4	1.0	2.5Y 7/2 light gray clay	
09	G	06		I	0.0	0.5	2.5Y 2.5/1 black sandy loam	
09	G	06		II	0.5	1.0	2.5Y 6/2 light brownish gray clay	
09	G	06		III	1.0	1.4	10YR 6/1 gray mottled with 10YR 6/6 brownish yellow oxidation clay	
09	G	07		I	0.0	0.2	10YR 2/2 very dark brown sandy clay loam	
09	G	07		II	0.2	1.0	10YR 6/1 gray clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
09	G	08		I	0.0	0.2	2.5Y 2.5/1 black sandy clay loam	
09	G	08		II	0.2	1.2	2.5Y 7/2 light gray mottled with 10YR 6/6 brownish yellow clay	water at 1.0
09	G	09		I	0.0	0.7	2.5Y 2.5/1 black sandy loam	
09	G	09		II	0.7	1.1	2.5Y 6/2 light brownish gray mottled with 2.5Y 6/6 olive yellow clay	
09	G	10		I	0.0	0.2	10YR 2/2 very dark brown sandy clay loam	
09	G	10		II	0.2	0.3	10YR 6/1 gray clay	water filling at 0.2
09	G	11		I	0.0	0.5	2.5Y 2.5/1 black sandy loam	
09	G	11		II	0.5	0.8	10YR 6/2 light brownish gray clay	
09	G	11		III	0.8	1.2	2.5Y 6/2 light brownish gray mottled with 10YR 6/6 brownish yellow clay	encountered water 0.9, earthwork north of STP, rail spike at 0.5
09	G	12		I	0.0	0.3	2.5Y 2.5/1 black sandy loam	
09	G	12		II	0.3	1.0	2.5Y 6/2 light brownish gray mottled with 10YR 6/6 brownish yellow oxidation clay	encountered water at 0.9, earthwork north of STP
09	G	13					Not Excavated	STP lies on earthwork that starts from tracks and runs towards SE
09	G	14		I	0.0	0.5	2.5Y 2.5/1 black sandy loam	
09	G	14		II	0.5	1.0	2.5Y 6/2 light brownish gray mottled with 10YR 6/6 brownish yellow oxidation clay	encountered water at 0.5
09	G	15		I	0.0	0.6	2.5Y 2.5/1 black sandy loam	
09	G	15		II	0.6	1.0	10YR 6/2 light brownish gray clay	
10	B	01		I	0.0	0.9	10YR 5/4 yellowish brown silty sandy loam	
10	B	01		II	0.9	1.3	7.5YR 5/6 yellowish brown sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
I0	C	01		I	0.0	0.7	I0YR 5/2 grayish brown sandy loamy clay	
I0	C	01		II	0.7	1.1	7.5YR 5/6 strong brown clay sand	
II	D	01		I	0.0	0.3	I0YR 4/3 brown sandy loam	
II	D	01		II	0.3	0.5	I0YR 5/6 yellowish brown sandy clay	
II	D	01		III	0.5	0.7	I0YR 2/1 black with 90% angular gravel	disturbed, railroad fill impasse at 0.7
II	D	02		I	0.0	0.2	I0YR 4/3 brown sandy loam	
II	D	02		II	0.2	0.3	I0YR 5/6 yellowish brown sandy clay	
II	D	02		III	0.3	0.5	I0YR 2/1 black with 90% angular gravel	disturbed, railroad fill impasse
II	D	03		I	0.0	0.3	I0YR 3/2 very dark grayish brown sandy loam	
II	D	03		II	0.3	0.9	I0YR 6/4 light yellowish brown mottled with 15% I0YR 5/6 yellowish brown silty clay	
II	D	04		I	0.0	0.2	I0YR 4/3 brown sandy clay with multiple clay clumps	overburden
II	D	04		II	0.2	0.3	I0YR 3/1 very dark gray sandy loam	buried, but still modern A
II	D	04		III	0.3	0.8	I0YR 6/4 light yellowish brown silty clay	
II	D	05		I	0.0	0.3	I0YR 4/3 brown silty loam	
II	D	05		II	0.3	0.8	I0YR 6/6 brownish yellow silty clay	
II	D	06		I	0.0	0.4	I0YR 4/3 brown silty loam	
II	D	06		II	0.4	0.7	I0YR 6/1 gray mottled with I0YR 6/8 brownish yellow and I0YR 3/2 very dark grayish brown silty clay	clumpy, overburden
II	D	06		III	0.7	1.1	I0YR 6/1 gray mottled with 15% I0YR 6/6 brownish yellow sandy clay	
II	D	07		I	0.0	0.2	I0YR 4/3 brown silty loam	overburden
II	D	07		II	0.2	0.3	I0YR 6/3 pale brown silty loam	overburden



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	D	07		III	0.3	0.4	10YR 3/1 very dark gray silty loam	overburden
II	D	07		IV	0.4	1.3	10YR 5/4 yellowish brown silty loam	buried Ap
II	D	07		V	1.3	1.7	10YR 6/3 pale brown silty clay	subsoil
II	D	08		I	0.0	0.5	10YR 4/3 brown silty loam	
II	D	08		II	0.5	0.9	10YR 6/2 light brownish gray mottled with 10YR 6/6 brownish yellow silty clay	
II	D	09		I	0.0	0.1	10YR 4/3 brown silty clay loam	
II	D	09		II	0.1	0.2	10YR 5/3 brown silty clay loam	
II	D	09		III	0.2	0.6	10YR 6/8 brownish yellow silty clay	access road, clearly stripped
II	E	01		I	0.0	0.5	10YR 2/1 black silty loam	
II	E	01		II	0.5	1.2	10YR 5/4 yellowish brown silty clay	
II	E	01		III	1.2	1.6	10YR 7/4 very pale brown clay	
II	E	02					Not Excavated	disturbed
II	E	03		I	0.0	0.4	10YR 4/2 dark grayish brown silty loam	
II	E	03		II	0.4	1.2	10YR 5/4 yellowish brown silty clay	
II	E	03		III	1.2	1.6	10YR 7/4 very pale brown clay	
II	E	04		I	0.0	0.4	10YR 4/2 dark grayish brown silty loam	
II	E	04		II	0.4	1.2	10YR 5/4 yellowish brown silty clay	
II	E	04		III	1.2	1.6	10YR 7/4 very pale brown clay	
II	E	05		I	0.0	0.4	10YR 4/2 dark grayish brown silty loam	
II	E	05		II	0.4	1.2	10YR 5/4 yellowish brown silty clay	
II	E	05		III	1.2	1.6	10YR 7/4 very pale brown clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	E	06		I	0.0	0.4	10YR 4/2 dark grayish brown silty loam	
II	E	06		II	0.4	1.2	10YR 5/4 yellowish brown silty clay	
II	E	06		III	1.2	1.6	10YR 7/4 very pale brown clay	
II	E	07		I	0.0	0.4	10YR 4/2 dark grayish brown silty loam	
II	E	07		II	0.4	1.2	10YR 5/4 yellowish brown silty clay	
II	E	07		III	1.2	1.6	10YR 7/4 very pale brown clay	
II	E	08		I	0.0	0.1	10YR 3/2 very dark grayish brown sandy loam	
II	E	08		II	0.1	0.3	10YR 4/3 brown silty clay	
II	E	08		III	0.3	0.7	10YR 5/3 brown silty loam	in heavily overgrown area next to RR, appears to be stripped and disturbed
II	E	09		I	0.0	0.9	10YR 3/2 very dark grayish brown sandy loam	
II	E	09		II	0.9	1.3	10YR 5/3 brown silty clay loam	
II	E	10		I	0.0	1.0	10YR 4/3 brown sandy loam	
II	E	10		II	1.0	1.4	10YR 5/6 yellowish brown sandy clay	
II	E	11		I	0.0	0.9	10YR 4/3 brown sandy loam	
II	E	11		II	0.9	1.3	10YR 5/6 yellowish brown sandy clay	
II	E	12		I	0.0	1.0	10YR 4/3 brown sandy loam	
II	E	12		II	1.0	1.4	10YR 5/6 yellowish brown sandy clay	
II	E	13		I	0.0	0.5	10YR 4/3 brown mottled with 10YR 2/2 very dark brown sandy loam	
II	E	13		II	0.5	1.0	10YR 5/4 yellowish brown sandy loam	
II	E	13		III	1.0	1.4	10YR 6/4 light yellowish brown sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	E	14		I	0.0	0.6	10YR 4/3 brown mottled with 10YR 2/2 very dark brown sandy loam	
II	E	14		II	0.6	1.0	10YR 5/4 yellowish brown sandy loam	
II	E	14		III	1.0	1.4	10YR 6/4 light yellowish brown sandy clay	
II	E	15		I	0.0	0.7	10YR 4/3 brown mottled with 10YR 2/2 very dark brown sandy loam	
II	E	15		II	0.7	1.0	10YR 5/4 yellowish brown sandy loam	
II	E	15		III	1.0	1.4	10YR 6/4 light yellowish brown sandy clay	
II	E	16		I	0.0	0.8	10YR 4/3 brown mottled with 10YR 2/2 very dark brown sandy loam	
II	E	16		II	0.8	1.0	10YR 5/4 yellowish brown sandy loam	
II	E	16		III	1.0	1.4	10YR 6/4 light yellowish brown sandy clay	
II	E	17		I	0.0	0.7	10YR 4/3 brown sandy loam	
II	E	17		II	0.7	1.1	10YR 5/4 yellowish brown sandy loam	
II	E	17		III	1.1	1.5	10YR 6/4 light yellowish brown sandy clay	
II	E	18		I	0.0	0.7	10YR 4/3 brown sandy loam	
II	E	18		II	0.7	1.1	10YR 5/4 yellowish brown sandy loam	
II	E	18		III	1.1	1.5	10YR 6/4 light yellowish brown sandy clay	
II	E	19		I	0.0	0.7	10YR 4/3 brown sandy loam	
II	E	19		II	0.7	1.1	10YR 5/4 yellowish brown sandy loam	
II	E	19		III	1.1	1.5	10YR 6/4 light yellowish brown sandy clay	
II	E	20		I	0.0	0.7	10YR 4/3 brown sandy loam	
II	E	20		II	0.7	1.1	10YR 5/4 yellowish brown sandy loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	E	20		III	1.1	1.5	10YR 6/4 light yellowish brown sandy clay	
II	E	21					Not Excavated	disturbed, grading near intersection of existing RR and private access road
II	E	22					Not Excavated	disturbed, grading near intersection of existing RR and private access road
II	E	23					Not Excavated	disturbed, grading near intersection of existing RR and private access road
II	E	24		I	0.0	0.2	10YR 2/1 black very loose sandy loam with 60% angular gravel	highly disturbed, not practically testable, vegetation also consistent with piled up overburden
II	E	25		I	0.0	0.4	10YR 3/2 very dark grayish brown silty sand	
II	E	25		II	0.4	0.7	10YR 4/3 sand	terminated -- disturbed layer with RR ballast
II	E	26		I	0.0	0.5	10YR 3/1 very dark gray silty sand	
II	E	26		II	0.5	0.8	10YR 5/3 brown sand	
II	E	26		III	0.8	1.2	10YR 7/6 yellow sandy clay	
II	E	27		I	0.0	0.6	10YR 3/1 very dark gray silty sand	
II	E	27		II	0.6	1.1	10YR 5/3 brown sand	
II	E	27		III	1.1	1.5	10YR 8/2 very pale brown sandy clay	
II	E	28		I	0.0	0.3	10YR 4/1 dark gray silty sand	
II	E	28		II	0.3	0.7	10YR 3/2 very dark grayish brown silty sand	terminated -- disturbed, contained RR ballast and trash
II	E	29		I	0.0	1.0	10YR 3/1 very dark gray mottled with 10YR 7/6 yellow and 10YR 4/3 brown	
II	E	30		I	0.0	0.6	10YR 3/1 very dark gray silty sand	
II	E	30		II	0.6	0.9	10YR 7/8 yellow mottled with 10YR 5/3 brown and 10YR 7/1 light gray sand	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	E	30		III	0.9	1.3	10YR 6/3 pale brown mottled with 10YR 7/8 yellow sandy clay	disturbed
II	E	31		I	0.0	1.0	10YR 3/1 very dark gray mottled with 10YR 7/8 yellow and 2.5Y 5/6 light olive brown sand	terminated -- disturbed
II	E	32		I	0.0	1.0	10YR 3/1 very dark gray mottled with 10YR 7/8 yellow and 2.5Y 5/6 light olive brown sand	terminated -- disturbed
II	F	01		I	0.0	0.4	2.5Y 5/3 light olive brown sandy loam	
II	F	01		II	0.4	0.8	10YR 3/2 very dark brown sandy loam	root impasse at 0.8
II	F	02		I	0.0	0.3	10YR 3/3 dark brown sandy loam	
II	F	02		II	0.3	0.9	10YR 5/4 yellowish brown sandy loam	
II	F	02		III	0.9	1.7	7.5YR 5/6 strong brown sandy clay	
II	F	03		I	0.0	0.6	2.5Y 4/2 dark grayish brown sandy loam	
II	F	03		II	0.6	1.2	2.5Y 7/4 pale yellow sandy clay	
II	F	03		III	1.2	1.4	10YR 7/8 yellow sandy clay	
II	F	04		I	0.0	0.3	10YR 3/3 dark brown sandy loam	
II	F	04		II	0.3	1.0	10YR 5/4 yellowish brown sandy loam	
II	F	04		III	1.0	1.4	7.5YR 5/6 strong brown sandy clay	
II	F	05		II	0.5	0.7	2.5Y 7/4 pale yellow silty clay	
II	F	05		III	0.7	1.1	10YR 7/8 yellow silty clay	
II	F	06		I	0.0	0.6	10YR 3/3 dark brown sandy loam	
II	F	06		II	0.6	1.3	10YR 5/4 yellowish brown sandy loam	
II	F	06		III	1.3	1.7	7.5YR 5/6 strong brown sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	F	07		I	0.0	0.5	2.5Y 4/2 dark grayish brown silty loam with 2% angular cobbles	
II	F	07		II	0.5	1.2	2.5Y 6/4 light yellowish brown silty clay	
II	F	07		III	1.2	1.6	10YR 7/6 yellow sandy clay with 5% rounded gravels	
II	F	08		I	0.0	0.8	10YR 3/2 very dark grayish brown sand	
II	F	08		II	0.8	1.2	10YR 4/4 dark yellowish brown sand	
II	F	08		III	1.2	1.6	10YR 6/3 pale brown sandy clay	
II	F	09		I	0.0	0.7	2.5Y 4/2 dark grayish brown silty loam	
II	F	09		II	0.7	1.4	2.5Y 5/4 light olive brown silty clay	
II	F	09		III	1.4	1.8	2.5Y 6/2 light brownish gray silty clay	
II	F	10		I	0.0	0.6	10YR 3/2 very dark grayish brown sand	
II	F	10		II	0.6	0.9	10YR 4/4 dark yellowish brown sand	
II	F	10		III	0.9	1.3	10YR 6/3 pale brown sandy clay	
II	F	11		I	0.0	0.5	2.5Y 4/2 dark grayish brown silty loam	
II	F	11		II	0.5	1.1	2.5Y 5/4 light olive brown silty clay	
II	F	11		III	1.1	1.5	10YR 7/6 yellow silty clay	
II	F	12		I	0.0	0.5	10YR 3/2 very dark grayish brown sand	
II	F	12		II	0.5	1.0	10YR 4/4 dark yellowish brown sand	
II	F	12		III	1.0	1.4	10YR 6/3 pale brown sandy clay	
II	F	13		I	0.0	0.7	2.5Y 4/2 dark grayish brown silty loam	
II	F	13		II	0.7	1.4	2.5Y 5/4 light olive brown silty clay	
II	F	14		I	0.0	0.5	10YR 3/2 very dark grayish brown sand	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	F	14		II	0.5	1.1	10YR 4/4 dark yellowish brown sand	
II	F	14		III	1.1	1.5	10YR 6/3 pale brown sandy clay	
II	F	15		I	0.0	0.7	10YR 3/2 very dark grayish brown sand	
II	F	15		II	0.7	1.2	10YR 4/4 dark yellowish brown sand	
II	F	15		III	1.2	1.6	10YR 6/3 pale brown sandy clay	
II	F	16		I	0.0	0.6	10YR 3/2 very dark grayish brown mottled with 10YR 5/3 brown sand	
II	F	16		II	0.6	1.0	10YR 6/4 light yellowish brown sandy clay	
II	F	17		I	0.0	0.5	2.5Y 4/2 dark grayish brown silty loam	
II	F	17		I	0.0	0.5	10YR 5/4 yellowish brown sandy loam	
II	F	17		II	0.5	1.0	10YR 6/4 light yellowish brown sandy clay	
II	F	18		I	0.0	0.6	2.5Y 3/3 dark olive brown sandy loam	
II	F	18		II	0.6	1.0	2.5Y 5/3 light olive brown sandy clay	
II	F	19		I	0.0	0.5	2.5Y 3/3 dark olive brown sandy loam	
II	F	19		II	0.5	1.1	2.5Y 5/3 light olive brown sandy clay	
II	F	20		I	0.0	0.4	2.5Y 3/3 dark olive brown sandy loam	
II	F	20		II	0.4	1.0	2.5Y 5/3 light olive brown sandy clay	
II	F	21		I	0.0	0.8	2.5Y 3/3 dark olive brown sandy loam	
II	F	21		II	0.8	1.2	2.5Y 5/3 light olive brown sandy clay	
II	I	01		I	0.0	0.5	10YR 2/1 black sand	
II	I	01		II	0.5	1.1	10YR 6/4 light yellowish brown sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
11	I	01		III	1.1	1.5	7.5YR 5/6 strong brown mottled with 10YR 6/1 gray clay	
11	I	02		I	0.0	0.6	10YR 2/1 black sand	
11	I	02		II	0.6	1.1	10YR 6/4 light yellowish brown sandy clay	
11	I	02		III	1.1	1.6	7.5YR 5/6 strong brown mottled with 10YR 6/1 gray clay	
11	I	03		I	0.0	0.4	10YR 4/3 brown silty sand	
11	I	03		II	0.4	0.8	10YR 6/4 light yellowish brown sandy clay	
11	I	03		III	0.8	1.2	7.5YR 5/6 strong brown mottled with 10YR 6/1 gray clay	
11	I	04		I	0.0	0.3	10YR 3/2 very dark grayish brown silty sand	
11	I	04		II	0.3	0.6	10YR 6/3 pale brown sandy clay	
11	I	04		III	0.6	1.0	10YR 7/1 light gray clay	
11	I	05		I	0.0	0.5	10YR 3/2 very dark grayish brown silty sand	
11	I	05		II	0.5	0.8	10YR 6/3 pale brown sandy clay	
11	I	05		III	0.8	1.2	10YR 7/1 light gray clay	
11	I	06		I	0.0	0.6	10YR 2/1 black silty sand	
11	I	06		II	0.6	0.9	10YR 6/3 pale brown sandy clay	
11	I	06		III	0.9	1.3	10YR 5/8 yellowish brown clay	
11	I	07		I	0.0	0.4	10YR 2/1 black sandy silt	
11	I	07		II	0.4	0.8	10YR 6/3 pale brown sandy clay	
11	I	07		III	0.8	1.2	10YR 5/8 yellowish brown clay	
11	I	08		I	0.0	0.4	10YR 2/1 black sandy silt	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	I	08		II	0.4	0.9	10YR 6/3 pale brown sandy clay	
II	I	08		III	0.9	1.3	10YR 5/8 yellowish brown clay	
II	I	09		I	0.0	0.5	10YR 2/1 black sandy silt	
II	I	09		II	0.5	0.9	10YR 6/3 pale brown sandy clay	
II	I	09		III	0.9	1.3	10YR 5/8 yellowish brown clay	
II	I	10		I	0.0	0.3	10YR 2/2 very dark brown silty loam	
II	I	10		II	0.3	0.9	2.5Y 6/6 olive yellow silty clay	
II	I	10		III	0.9	1.3	2.5Y 6/3 light brownish gray mottled with 2.5Y 7/6 yellow silty clay	
II	I	11		I	0.0	0.4	10YR 4/2 dark grayish brown sandy silt	
II	I	11		II	0.4	0.9	2.5Y 5/4 light olive brown sandy clay	
II	I	12		I	0.0	0.2	10YR 3/3 dark brown silty loam	gleyish
II	I	12		II	0.2	0.9	2.5Y 4/3 olive brown silty clay	gleyish
II	I	12		III	0.9	1.4	2.5Y 6/3 light brownish gray silty clay	gleyish
II	I	13		I	0.0	0.5	10YR 4/2 dark grayish brown sandy silt	
II	I	13		II	0.5	0.8	2.5Y 5/4 light olive brown sandy clay	
II	I	13		III	0.8	1.2	10YR 5/2 grayish brown clay	
II	I	14		I	0.0	0.3	10YR 3/3 dark brown silty loam	gleyish
II	I	14		II	0.3	0.7	2.5Y 4/3 olive brown silty clay	gleyish
II	I	14		III	0.7	1.1	2.5Y 6/3 light brownish gray silty clay	gleyish
II	I	15		I	0.0	0.6	10YR 4/2 dark grayish brown silty sand	
II	I	15		II	0.6	1.1	2.5Y 5/4 light olive brown sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	I	16		I	0.0	0.6	10YR 2/1 black sand	
II	I	16		II	0.6	0.8	5Y 6/2 light olive gray sandy clay	
II	I	16		III	0.8	1.2	2.5Y 4/3 olive brown mottled with 2.5Y 6/3 light yellow brown silty clay	
II	I	17		I	0.0	0.4	10YR 4/2 dark grayish brown silty sand	
II	I	17		II	0.4	0.7	7.5YR 7/8 reddish yellow mottled with 10YR 7/1 light gray clay	terminated -- disturbed
II	I	18		I	0.0	0.3	10YR 3/2 very dark grayish brown sandy silty loam with 70% rounded gravels	
II	I	18		II	0.3	0.8	10YR 6/6 brownish yellow sandy clay with 80% rounded gravels	
II	I	18		III	0.8	1.2	10YR 7/3 very pale yellow mottled with 2.5Y 6/1 gray sandy clay with 80% rounded gravels	
II	I	19		I	0.0	0.3	10YR 5/3 brown silty sand	terminated -- disturbed, large pebble congregation
II	I	20		I	0.0	0.2	10YR 5/3 brown silty sand	terminated -- disturbed
II	I	21		I	0.0	0.5	7.5YR 2.5/2 very dark brown sandy loam with 60% rounded gravels	
II	I	21		II	0.5	0.8	2.5Y 2.5/1 black sandy loam	
II	I	21		III	0.8	1.1	2.5Y 3/3 dark olive brown sandy clay	
II	I	21		IV	1.1	1.5	10YR 5/2 grayish brown sandy clay	
II	I	22		I	0.0	0.7	10YR 4/2 dark grayish brown silty sand	
II	I	22		II	0.7	1.0	2.5Y 7/2 light gray sand	
II	I	22		III	1.0	1.4	2.5Y 7/4 pale yellow sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	I	23		I	0.0	0.5	10YR 3/2 very dark grayish brown sandy silty loam with 30% rounded gravels	
II	I	23		II	0.5	0.7	2.5Y 2.5/1 black sandy silty loam	
II	I	23		III	0.7	1.1	10YR 6/3 pale brown sandy clay	
II	I	24		I	0.0	0.6	10YR 4/2 dark grayish brown silty sand	
II	I	24		II	0.6	1.1	2.5Y 5/2 grayish brown silty sand	
II	I	24		III	1.1	1.6	2.5Y 5/4 light olive brown sandy clay	
II	I	25		I	0.0	0.6	10YR 3/1 very dark gray sandy loam with 10% rounded gravels	
II	I	25		II	0.6	0.9	10YR 3/3 dark brown sandy clay	
II	I	25		III	0.9	1.3	10YR 5/4 yellowish brown sandy clay	
II	I	26		I	0.0	0.4	10YR 4/2 dark grayish brown silty sand	
II	I	26		II	0.4	0.8	7.5YR 7/8 reddish yellow mottled with gray clay	
II	I	27		I	0.0	0.3	10YR 3/2 very dark grayish brown silty sandy loam	
II	I	27		II	0.3	0.6	10YR 6/3 pale brown silty clay	
II	I	27		III	0.6	1.5	10YR 7/6 yellow mottled with 2.5Y 7/1 light gray silty clay	gleyish
II	I	28		I	0.0	0.4	10YR 4/2 dark grayish brown silty sand	
II	I	28		II	0.4	1.0	10YR 6/6 brownish yellow sand	
II	I	28		III	1.0	1.4	10YR 7/8 reddish yellow sandy clay	
II	I	29		I	0.0	0.5	10YR 4/3 brown silty sand	
II	I	29		II	0.5	1.3	10YR 6/6 brownish yellow silty sandy clay	
II	I	30		I	0.0	0.4	10YR 4/2 dark grayish brown silty sand	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	I	30		II	0.4	0.8	10YR 6/6 brownish yellow sand	
II	I	30		III	0.8	1.2	10YR 7/8 reddish yellow sandy clay	
II	I	31		I	0.0	0.5	10YR 2/2 very dark brown silty loam	
II	I	31		II	0.5	0.8	10YR 4/4 dark yellowish brown sandy clay with 5% small rounded gravels	
II	I	31		III	0.8	1.2	10YR 7/6 yellow sandy clay	
II	I	32		I	0.0	0.5	10YR 4/2 dark grayish brown silty sand	
II	I	32		II	0.5	1.0	10YR 6/6 brownish yellow sand	
II	I	32		III	1.0	1.5	2.5Y 7/2 light gray clay sand	
II	I	33		I	0.0	0.6	10YR 2/2 very dark brown sandy loam with 2% rounded gravels	
II	I	33		II	0.6	1.2	10YR 6/4 light yellowish brown sandy silty clay	
II	I	34		I	0.0	0.4	10YR 2/1 black silty sand	
II	I	34		II	0.4	0.9	10YR 6/6 brownish yellow sand	
II	I	34		III	0.9	1.4	2.5Y 7/2 light gray clay sand	
II	I	35		I	0.0	0.6	10YR 3/2 very dark grayish brown silty loam	
II	I	35		II	0.6	1.2	10YR 7/6 yellow sandy clay with 5% rounded gravels	
II	I	36	North	I	0.0	1.1	10YR 2/1 black silty sand	Site 44CE0836
II	I	36	North	II	1.1	1.9	10YR 6/6 brownish yellow sand	Site 44CE0836
II	I	36	North	III	1.9	2.4	5Y 8/4 pale yellow sand clay	Site 44CE0836. modern glass and brick discarded
II	I	36	South	I	0.0	0.4	10YR 3/2 very dark grayish brown sandy loam	Site 44CE0836
II	I	36	South	II	0.4	0.9	10YR 2/1 black sandy loam with 20% rounded gravels	Site 44CE0836



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	I	36	South	III	0.9	1.3	2.5Y 6/6 olive yellow sandy clay	Site 44CE0836
II	I	36		I	0.0	0.7	10YR 2/1 black silty sand	Site 44CE0836
II	I	36		II	0.7	2.2	10YR 6/6 brownish yellow sand	Site 44CE0836
II	I	36		III	2.2	2.7	5Y 8/4 pale yellow sand clay	Site 44CE0836
II	I	37		I	0.0	0.7	2.5Y 2.5/1 black silty loam with 3% rounded gravels	
II	I	37		II	0.7	0.9	2.5Y 6/4 light yellowish brown silty loam	
II	I	37		III	0.9	1.3	2.5Y 6/6 olive yellow silty sandy clay	
II	I	38		I	0.0	0.3	10YR 3/2 very dark grayish brown silty sand	
II	I	38		II	0.3	1.0	2.5Y 6/6 olive yellow sandy loam	
II	I	39		I	0.0	0.4	10YR 4/2 dark grayish brown silty sand	terminated -- disturbed
II	I	40		I	0.0	0.7	2.5Y 2.5/1 black sandy loam with 20% rounded gravels	
II	I	40		II	0.7	1.0	2.5Y 4/1 dark gray sandy loam with 50% rounded gravels	
II	I	40		III	1.0	1.4	2.5Y 6/6 olive yellow sandy clay	
II	I	41		I	0.0	1.2	10YR 2/1 black silty loam	
II	I	41		II	1.2	1.6	2.5Y 8/4 pale yellow sand	
II	I	42		I	0.0	0.7	2.5Y 2.5/1 black sandy loam with 20% rounded gravels	
II	I	42		II	0.7	1.0	2.5Y 4/1 dark gray sandy loam with 50% rounded gravels	
II	I	42		III	1.0	1.4	2.5Y 6/6 olive yellow sandy clay	
II	I	43		I	0.0	0.2	10YR 2/1 black silty loam	terminated -- disturbed
II	I	44		I	0.0	0.7	2.5Y 2.5/1 black sandy loam with 20% rounded gravels	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	I	44		II	0.7	1.0	2.5Y 4/1 dark gray sandy loam with 50% rounded gravels	
II	I	44		III	1.0	1.4	2.5Y 6/6 olive yellow sandy clay	
II	I	45		I	0.0	1.3	10YR 2/1 black silty loam	terminated -- massive root impasse
II	I	46					Not Excavated	ditch
II	I	47		I	0.0	0.5	2.5Y 2.5/1 black sandy loam	
II	I	47		II	0.5	0.9	2.5Y 4/1 dark gray sandy loam with 2% rounded gravels	
II	I	47		III	0.9	1.3	2.5Y 6/6 olive yellow sandy clay	
II	I	48		I	0.0	1.2	10YR 2/1 black silty loam	
II	I	48		II	1.2	1.6	10YR 7/8 yellow clay	
II	I	49		I	0.0	0.6	2.5Y 2.5/1 black sandy loam	
II	I	49		II	0.6	1.0	2.5Y 4/1 dark gray sandy loam with 2% rounded gravels	
II	I	49		III	1.0	1.4	2.5Y 6/6 olive yellow sandy clay	
II	I	50		I	0.0	0.8	10YR 5/2 grayish brown silty loam	
II	I	50		II	0.8	1.2	10YR 2/1 black silty loam	
II	I	50		III	1.2	1.6	10YR 7/8 yellow clay	
II	I	51		I	0.0	0.5	2.5Y 2.5/1 black sandy loam	terminated -- root impasse at 0.5
II	I	52					Not Excavated	gravel becomes too wide and occupies corridor
II	I	53		I	0.0	0.4	10YR 2/2 very dark brown sandy loam	
II	I	53		II	0.4	0.9	2.5Y 3/1 very dark gray sandy loam	
II	I	53		III	0.9	1.3	10YR 6/8 brownish yellow sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	I	54		I	0.0	0.5	10YR 5/2 grayish brown sandy loam	
II	I	54		I	0.0	0.9	10YR 2/1 black silty loam	
II	I	54		II	0.5	1.3	10YR 6/4 light yellowish brown sand	
II	I	55		II	0.9	1.4	10YR 7/8 yellow clay	
II	I	55		III	1.3	2.0	7.5YR 5/6 strong brown sandy clay	
II	I	56		I	0.0	0.4	10YR 5/2 grayish brown sandy loam	
II	I	56		II	0.4	0.7	10YR 6/4 light yellowish brown sand	
II	I	56		III	0.7	1.2	7.5YR 5/6 strong brown sandy clay	
II	I	57		I	0.0	0.5	10YR 5/2 grayish brown sandy loam	
II	I	57		II	0.5	2.0	10YR 6/4 light yellowish brown sand	
II	I	57		III	2.0	2.5	7.5YR 5/6 strong brown sandy clay	
II	J	01		I	0.0	0.8	2.5Y 3/2 very dark grayish brown sandy loam	
II	J	01		II	0.8	1.0	2.5Y 2.5/1 black sandy loam	
II	J	01		III	1.0	1.4	10YR 6/1 gray sandy clay	
II	J	02		I	0.0	0.9	2.5Y 3/2 very dark grayish brown sandy loam	
II	J	02		II	0.9	1.3	10YR 6/1 gray sandy clay	
II	J	03		I	0.0	0.8	2.5Y 3/2 very dark grayish brown sandy loam	
II	J	03		II	0.8	1.1	2.5Y 4/3 olive brown sandy loam	
II	J	03		III	1.1	1.5	2.5Y 6/2 light brownish gray sandy clay	
II	J	04		I	0.0	0.8	2.5Y 3/2 very dark grayish brown sandy loam	
II	J	04		II	0.8	1.3	2.5Y 6/3 light yellowish brown sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
11	J	05		I	0.0	0.8	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	05		II	0.8	1.3	2.5Y 6/3 light yellowish brown sandy clay	
11	J	06		I	0.0	1.1	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	06		I	0.0	0.5	10YR 4/2 dark grayish brown sandy loam	
11	J	06		II	1.1	1.5	2.5Y 6/3 light yellowish brown sandy clay	
11	J	07		I	0.0	1.1	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	07		II	1.1	1.5	2.5Y 6/3 light yellowish brown silty clay	
11	J	08		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	08		II	1.0	1.4	10YR 5/4 light olive brown silty clay	
11	J	09		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	09		II	1.0	1.4	10YR 5/4 light olive brown silty clay	
11	J	10		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	10		II	1.0	1.4	10YR 5/4 light olive brown silty clay	
11	J	11		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	11		II	1.0	1.4	10YR 5/4 light olive brown silty clay	
11	J	12		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	12		II	1.0	1.4	10YR 5/4 light olive brown silty clay	
11	J	13		I	0.0	1.1	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	13		II	1.1	1.5	10YR 5/4 light olive brown silty clay	
11	J	14		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	14		II	1.0	1.4	10YR 5/4 light olive brown silty clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
11	J	15		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	15		II	1.0	1.4	10YR 5/4 light olive brown silty clay	
11	J	16		I	0.0	1.2	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	16		II	1.2	1.6	10YR 5/4 light olive brown sandy clay	
11	J	17		I	0.0	1.3	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	17		II	1.3	1.7	10YR 5/4 light olive brown sandy clay	
11	J	18		I	0.0	1.1	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	18		II	1.1	1.5	10YR 5/4 light olive brown sandy clay	
11	J	19		I	0.0	1.1	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	19		II	1.1	1.5	10YR 5/4 light olive brown sandy clay	
11	J	20		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	20		II	1.0	1.4	10YR 5/4 light olive brown sandy clay	
11	J	21		I	0.0	1.0	2.5Y 3/2 very dark grayish brown sandy loam	
11	J	21		II	1.0	1.4	10YR 5/4 light olive brown sandy clay	
11	J	22		I	0.0	0.9	2.5Y 3/3 dark olive brown sandy loam	
11	J	22		II	0.9	1.3	10YR 5/4 light olive brown sandy clay	
11	J	23		I	0.0	1.1	2.5Y 3/3 dark olive brown sandy loam	
11	J	23		II	1.1	1.5	10YR 5/4 light olive brown sandy clay	
11	J	24		I	0.0	1.0	2.5Y 3/3 dark olive brown sandy loam	
11	J	24		II	1.0	1.4	10YR 5/4 light olive brown sandy clay	
11	J	25		I	0.0	0.9	2.5Y 3/3 dark olive brown sandy loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	J	25		II	0.9	1.3	10YR 5/4 light olive brown sandy clay	
II	J	26		I	0.0	0.9	2.5Y 3/3 dark olive brown sandy loam	
II	J	26		II	0.9	1.3	10YR 5/4 light olive brown sandy clay	
II	J	27		I	0.0	0.9	2.5Y 3/3 dark olive brown sandy loam	
II	J	27		II	0.9	1.3	10YR 5/4 light olive brown sandy clay	
II	J	28		I	0.0	0.9	2.5Y 3/3 dark olive brown sandy loam	
II	J	28		II	0.9	1.3	10YR 5/4 light olive brown sandy clay	
II	J	29		I	0.0	1.0	2.5Y 3/3 dark olive brown sandy loam	
II	J	29		II	1.0	1.4	10YR 5/4 light olive brown sandy clay	
II	J	30		I	0.0	1.0	2.5Y 3/3 dark olive brown sandy loam	
II	J	30		II	1.0	1.4	10YR 5/4 light olive brown sandy clay	
II	J	31		I	0.0	0.9	2.5Y 3/3 dark olive brown sandy loam	
II	J	31		II	0.9	1.3	10YR 5/4 light olive brown sandy clay	
II	J	32		I	0.0	0.5	10YR 2/1 black mottled with 10YR 6/8 brownish yellow silty loam	disturbed
II	J	33		I	0.0	0.3	10YR 4/3 brown silty loam	
II	J	33		II	0.3	0.9	10YR 5/3 brown silty loam	
II	J	33		III	0.9	1.3	10YR 6/3 pale brown silty clay	
II	J	34		I	0.0	1.0	10YR 2/1 black mottled with 10YR 6/8 brownish yellow sandy loam	
II	J	35		I	0.0	0.2	10YR 3/1 very dark gray sandy loam	
II	J	35		II	0.2	0.4	10YR 2/1 black sandy loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	J	35		III	0.4	0.6	10YR 4/3 brown silty loam	
II	J	35		IV	0.6	1.0	10YR 6/4 light yellowish brown sandy clay	
II	J	36		I	0.0	0.2	10YR 3/1 very dark gray sandy loam	
II	J	36		II	0.2	0.4	10YR 2/1 black sandy loam	
II	J	36		III	0.4	0.7	10YR 4/3 brown silty loam	
II	J	36		IV	0.7	1.0	10YR 6/4 light yellowish brown sandy clay	
II	L	01		I	0.0	0.1	10YR 4/3 brown silty loam	impasse at solid asphalt
II	L	02		I	0.0	0.1	10YR 4/3 brown silty loam	impasse at solid asphalt
II	L	03		I	0.0	0.1	10YR 4/3 brown silty loam	impasse at solid asphalt
II	L	04		I	0.0	0.4	10YR 2/1 black sandy loam	
II	L	04		II	0.4	1.0	10YR 7/2 light gray mottled with 10YR 6/1 gray and 10YR 6/8 brownish yellow clay sand	
II	L	05		I	0.0	0.5	10YR 2/1 black sandy loam with high percentage of gravel	appears disturbed/redeposited
II	L	05		II	0.5	0.9	10YR 7/2 light gray mottled with 10YR 6/1 gray and 10YR 6/8 brownish yellow clay sand	
II	L	06		I	0.0	0.5	10YR 2/1 black sandy loam with high percentage of gravel	appears disturbed/redeposited
II	L	06		II	0.5	0.9	10YR 7/2 light gray mottled with 10YR 6/1 gray and 10YR 6/8 brownish yellow clay sand	
II	M	01		I	0.0	0.6	10YR 2/1 black sandy loam	
II	M	01		II	0.6	1.0	10YR 6/4 light yellowish brown sandy clay	
II	M	02		I	0.0	0.2	10YR 2/1 black with 60% + gravel indicative of RR grade fill	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	M	03		I	0.0	1.2	10YR 2/1 black with 60% + gravel indicative of RR grade fill	
II	M	04		I	0.0	0.8	10YR 2/1 black with 60% + gravel indicative of RR grade fill	
II	M	05		I	0.0	0.8	10YR 3/1 very dark gray sandy loam	
II	M	05		II	0.8	1.2	10YR 7/6 yellow mottled with 10YR 8/3 very pale brown sandy clay	contained old terra cotta sewer pipe
II	M	06		I	0.0	0.3	10YR 3/2 very dark grayish brown sandy loam	
II	M	06		II	0.3	0.5	10YR 5/3 brown sandy loam	
II	M	06		III	0.5	1.0	10YR 6/2 light grayish brown sandy loam	
II	M	06		IV	1.0	1.4	10YR 6/4 light yellowish brown sandy clay	
II	M	07		I	0.0	0.3	10YR 3/2 very dark grayish brown sandy loam	
II	M	07		II	0.3	0.7	10YR 2/1 black sandy loam	
II	M	07		III	0.7	0.9	10YR 6/3 pale brown sandy loam	
II	M	07		IV	0.9	1.0	10YR 2/1 black sandy loam	
II	M	07		V	1.0	1.6	10YR 6/4 light yellowish brown sand clay loam	
II	M	08		I	0.0	0.8	10YR 3/1 very dark gray sandy loam	
II	M	08		II	0.8	1.2	7.5YR 5/1 gray mottled with 10YR 6/3 pale brown with RR gravels, debris, concrete, and brick chunks	disturbed
II	M	09		I	0.0	1.0	10YR 3/1 very dark gray sandy loam	disturbed
II	M	10		I	0.0	0.4	10YR 4/3 brown sandy loam	
II	M	10		II	0.4	0.6	10YR 5/1 gray clay	terminated -- disturbed, hydric, near stream
II	M	11		I	0.0	0.7	10YR 2/1 black sandy loam	disturbed



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	M	12		I	0.0	0.1	10YR 2/1 black sandy loam	
II	M	12		II	0.1	0.4	10YR 5/1 gray sandy loam	water filling in at 0.4
II	M	13		I	0.0	0.9	10YR 2/1 black sandy loam with 60% RR gravel	
II	M	13		II	0.9	1.3	10YR 6/1 gray sandy clay with 5% 10YR 4/6 dark yellowish brown oxidization	railroad disturbance on top of hydric soil
II	M	14					Not Excavated	road
II	M	15		I	0.0	0.9	10YR 2/1 black sandy loam with 5% rounded gravels	
II	M	15		II	0.9	1.3	2.5Y 7/2 light gray mottled with 2.5Y 8/3 pale yellow sandy clay	
II	M	16		I	0.0	0.4	10YR 2/1 black sandy loam with 60% RR gravel	
II	M	16		II	0.4	0.9	10YR 5/1 gray sandy clay	disturbed, hydric
II	M	17		I	0.0	0.7	10YR 2/1 black sandy loam with 60% rocks and gravel	
II	M	17		II	0.7	1.1	10YR 5/3 brown mottled with 10YR 5/8 yellowish brown and 10YR 6/1 gray sandy clay with 5% rocks and gravel	
II	M	18		I	0.0	0.6	10YR 2/1 black sandy loam with 65% RR gravel	
II	M	18		II	0.6	1.0	10YR 5/1 gray sandy clay	disturbed, hydric
II	M	19		I	0.0	1.1	10YR 2/1 black sandy loam with 2% rounded cobbles	
II	M	19		II	1.1	1.5	2.5Y 4/1 dark gray sandy loam	
II	M	19		III	1.5	1.9	2.5Y 6/2 light brownish gray sandy clay	
II	M	20		I	0.0	1.5	10YR 2/1 black sandy loam with 60% rocks and gravel	
II	M	20		II	1.5	1.9	10YR 5/3 brown mottled with 10YR 5/8 yellowish brown and 10YR 6/1 gray sandy clay with 5% rocks and gravel	hydric at 1 foot, water table



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	M	21		I	0.0	1.1	10YR 2/1 black sandy loam with 65% RR gravel	
II	M	21		II	1.1	1.6	10YR 5/1 gray sandy clay	disturbed, hydric
II	M	22		I	0.0	1.0	10YR 2/1 black sand with 50% rocks and gravel	terminated -- hydric soils, water table
II	M	23		I	0.0	0.9	10YR 2/1 black sandy loam with 65% RR gravel	
II	M	23		II	0.9	1.3	10YR 4/1 dark gray sandy clay	disturbed, hydric
II	M	24		I	0.0	1.0	10YR 2/1 black sandy loam with 50% gravels and 10% rounded cobbles	highly disturbed
II	M	25		I	0.0	0.5	10YR 2/1 black sandy loam with 65% RR gravel	
II	M	25		II	0.5	0.9	10YR 4/1 dark gray sandy clay	disturbed, hydric
II	M	26		I	0.0	0.4	10YR 2/1 black sandy loam with 90% angular rounded gravels	highly disturbed
II	M	27					Not Excavated	push pile
II	O	01		I	0.0	0.4	10YR 3/4 dark yellowish brown silty sand	
II	O	01		II	0.4	1.9	10YR 6/6 brownish yellow sand	
II	O	01		III	1.9	3.2	10YR 6/8 brownish yellow sand	terminated -- depth
II	O	02		I	0.0	0.4	2.5Y 3/3 dark olive brown sandy loam	
II	O	02		II	0.4	0.5	10YR 3/1 very dark gray sandy loam	
II	O	02		III	0.5	1.2	10YR 5/4 yellowish brown sandy loam	
II	O	02		IV	1.2	1.6	10YR 7/4 very pale brown sandy clay	
II	O	03		I	0.0	0.2	10YR 4/3 brown sandy loam	
II	O	03		II	0.2	2.0	10YR 5/4 yellowish brown sandy loam	
II	O	03		III	2.0	2.4	7.5YR 6/6 reddish yellow sandy clay	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	O	04		I	0.0	0.4	10YR 3/4 dark yellowish brown silty sand	
II	O	04		II	0.4	2.0	10YR 6/6 brownish yellow sand	
II	O	04		III	2.0	3.0	10YR 5/8 yellowish brown sand	terminated -- depth
II	O	05		I	0.0	0.2	2.5Y 4/1 dark gray sandy loam	
II	O	05		II	0.2	0.5	10YR 5/4 yellowish brown sandy loam	
II	O	05		III	0.5	2.7	10YR 7/6 yellow sand	
II	O	05		IV	2.7	3.1	10YR 6/6 brownish yellow loamy sand	slightly micaceous
II	O	06		I	0.0	0.4	10YR 3/4 dark yellowish brown silty sand	
II	O	06		II	0.4	0.8	10YR 4/4 dark yellowish brown sand	
II	O	06		III	0.8	1.4	10YR 6/6 brownish yellow sand	
II	O	06		IV	1.4	1.8	10YR 5/8 yellowish brown sandy clay	
II	O	07		I	0.0	0.3	2.5Y 4/2 dark grayish brown sandy loam	
II	O	07		II	0.3	0.4	2.5Y 3/1 very dark gray sandy loam	
II	O	07		III	0.4	0.7	10YR 5/3 brown sandy loam	
II	O	07		IV	0.7	1.6	10YR 6/4 light yellowish brown sand	
II	O	07		V	1.6	2.0	10YR 7/4 very pale brown sandy clay	
II	O	08		I	0.0	0.2	10YR 4/2 dark grayish brown silty loam	terminated -- due to proximity of utility line and soil disturbance
II	O	09		I	0.0	0.8	10YR 4/3 brown silty sand	
II	O	09		II	0.8	1.2	10YR 6/6 brownish yellow sand	
II	O	09		III	1.2	2.1	10YR 5/8 yellowish brown clay sand	
II	O	10		I	0.0	0.3	2.5Y 4/3 olive brown sandy loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	O	10		II	0.3	1.0	10YR 4/4 dark yellowish brown sandy loam	
II	O	10		III	1.0	1.8	10YR 7/6 yellow sand	
II	O	10		IV	1.8	2.2	10YR 7/4 very pale brown sandy clay	
II	O	11					Not Excavated	artificial berm containing old fence line
II	O	12		I	0.0	0.6	10YR 4/3 brown silty sand	
II	O	12		II	0.6	1.0	10YR 5/3 brown sand	
II	O	12		III	1.0	3.0	10YR 6/6 brownish yellow sand	terminated -- depth
II	O	13		I	0.0	0.9	2.5Y 4/3 olive brown sandy loam	
II	O	13		II	0.9	1.0	10YR 3/1 very dark gray sandy loam	
II	O	13		III	1.0	1.3	10YR 4/3 brown sandy loam	
II	O	13		IV	1.3	1.7	10YR 6/6 brownish yellow sand	
II	O	14		I	0.0	0.7	10YR 4/3 brown silty sand	
II	O	14		II	0.7	2.2	10YR 5/6 yellowish brown sand	
II	O	14		III	2.2	3.1	10YR 7/6 yellow sand with 50% pebbles	terminated -- depth
II	O	15		I	0.0	0.9	10YR 5/4 yellowish brown sandy loam	
II	O	15		II	0.9	1.4	10YR 6/4 light yellowish brown sandy loam	
II	O	15		III	1.4	1.8	10YR 6/6 brownish yellow sand	
II	O	16		I	0.0	0.2	10YR 4/3 brown sandy loam with 60% gravels	
II	O	16		II	0.2	0.8	10YR 4/4 dark yellowish brown sandy loam	
II	O	16		III	0.8	2.2	10YR 6/4 light yellowish brown sand	
II	O	16		IV	2.2	2.6	10YR 5/6 yellowish brown sand with high percentage of rounded pebbles	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
II	O	17		I	0.0	0.8	10YR 4/3 brown silty sand	
II	O	17		II	0.8	1.2	10YR 2/1 black silty sand	
II	O	17		III	1.2	1.7	10YR 4/3 brown silty sand	
II	O	17		IV	1.7	3.0	10YR 7/6 yellow sand	terminated -- depth
II	O	18		I	0.0	0.2	10YR 3/3 dark brown sandy loam	
II	O	18		II	0.2	0.4	10YR 2/1 black sandy loam	
II	O	18		III	0.4	1.2	10YR 5/4 yellowish brown sand with high percentage of rounded pebbles	STP terminated as large void was encountered
II	O	19					Not Excavated	Buried Verizon appears to be outside of corridor. Inside corridor is a ditch adjacent to tracks
II	O	20					Not Excavated	buried Verizon line appears to be outside of corridor. Inside corridor is a ditch adjacent to tracks
II	Q	01		I	0.0	1.6	10YR 2/2 very dark brown with 15% 10YR 6/1 gray sandy loam	
II	Q	01		II	1.6	2.0	10YR 6/1 gray with 40% 10YR 2/2 very dark brown sandy loam with 25% gravel	
II	Q	02		I	0.0	0.2	10YR 2/1 black loose sandy loam with 30% gravel	extremely soft and loose
II	Q	03		I	0.0	0.7	10YR 2/1 black loose sandy loam with 30% gravel	
II	Q	03		II	0.7	1.1	10YR 7/6 yellow mottled with 7.5YR 6/8 reddish yellow	
II	T	01		I	0.0	0.2	10YR 3/2 very dark grayish brown silty loam	
II	T	01		II	0.2	0.7	10YR 5/6 yellowish brown clay sand	wet
II	T	02		I	0.0	0.4	10YR 3/2 very dark grayish brown silty loam	
II	T	02		II	0.4	1.0	10YR 5/6 yellowish brown clay sand	wet



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
11	V	01		I	0.0	0.2	10YR 3/3 dark brown silty clay loam	
11	V	01		II	0.2	0.8	10YR 5/6 yellowish brown clay	
11	V	02		I	0.0	0.2	10YR 3/3 dark brown sandy clay loam	
11	V	02		II	0.2	0.4	10YR 5/3 brown sandy loam	
11	V	02		III	0.4	0.8	10YR 6/4 light yellowish brown sandy clay	
11	V	03		I	0.0	0.2	10YR 3/3 dark brown sandy loam	
11	V	03		II	0.2	1.0	7.5YR 5/6 strong brown sandy clay	
11	V	04	North	I	0.0	0.8	10YR 3/4 dark yellowish brown sandy loam	
11	V	04	North	II	0.8	1.2	7.5YR 5/6 strong brown sandy clay	
11	V	04	South	I	0.0	0.6	10YR 3/3 dark brown sandy loam	
11	V	04	South	II	0.6	1.0	7.5YR 5/6 strong brown sandy clay	
11	V	04		I	0.0	0.8	10YR 3/4 dark yellowish brown sandy loam	ISF 11-I
11	V	04		II	0.8	1.2	7.5YR 5/6 strong brown sandy clay	ISF 11-I
11	V	05		I	0.0	0.4	10YR 3/3 dark brown sandy loam	
11	V	05		II	0.4	1.0	7.5YR 5/6 strong brown sandy clay	
11	V	06		I	0.0	0.6	10YR 3/3 dark brown sandy loam	
11	V	06		II	0.6	1.0	7.5YR 5/6 strong brown sandy clay	
11	V	07		I	0.0	0.3	10YR 3/2 very dark grayish brown silty loam	
11	V	07		II	0.3	0.7	10YR 5/6 yellowish brown clay	
12	H	01		I	0.0	0.7	10YR 2/1 black sandy loam	ISF 12-I.packed gravel impasse at 0.7, rail disturbance
12	H	02		I	0.0	0.5	10YR 2/1 black sandy loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
12	H	02		II	0.5	0.8	10YR 4/2 dark grayish brown sandy loam	
12	H	02		III	0.8	1.0	coal	
12	H	02		IV	1.0	1.4	2.5Y 6/4 light yellowish brown mottled with 2.5Y 6/6 olive yellow sandy clay	
12	H	03		I	0.0	0.7	10YR 2/1 black sandy loam mottled with 2.5Y 4/2 dark grayish brown sandy loam and 2.5Y 6/6 olive yellow silty clay with 80% angular gravels and presence of coal at 0.3	excavation stopped at 0.7, highly disturbed
12	H	04		I	0.0	0.5	10YR 2/1 black sandy loam mottled with 2.5Y 6/6 olive yellow silty clay and 90% angular gravels/cobbles	
12	H	05		I	0.0	0.5	10YR 2/1 black sandy loam mottled with 2.5Y 6/6 olive yellow sandy clay with 80% angular gravels and coal throughout	highly disturbed. Rail activity
12	H	06		I	0.0	0.8	10YR 3/2 very dark grayish brown silty loam	
12	H	06		II	0.8	1.2	2.5Y 7/6 yellow silty clay	
12	H	07		I	0.0	0.3	10YR 4/1 dark gray silty loam	
12	H	07		II	0.3	0.7	2.5Y 5/3 light olive brown silty loam	
12	H	07		III	0.7	1.1	2.5Y 7/4 pale yellow silty clay	
12	H	08		I	0.0	0.4	10YR 4/1 dark gray silty loam	
12	H	08		II	0.4	0.7	2.5Y 5/6 light olive brown silty loam	
12	H	08		III	0.7	1.1	2.5Y 6/6 olive yellow silty loam	
12	H	09		I	0.0	0.3	10YR 4/1 dark gray silty loam	
12	H	09		II	0.3	0.6	2.5Y 5/6 light olive brown silty loam	
12	H	09		III	0.6	1.0	2.5Y 6/6 olive yellow silty loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
I2	H	I0		I	0.0	0.8	2.5Y 5/2 grayish brown sandy loam	
I2	H	I0		II	0.8	1.2	2.5Y 6/4 light yellowish brown sandy clay	
I2	H	I0I		I	0.0	0.7	10YR 2/I black sandy loam	
I2	H	I0I		II	0.7	1.2	2.5Y 5/6 light olive brown sandy loam	
I2	H	I02		I	0.0	0.6	10YR 2/I black sandy loam	
I2	H	I02		II	0.6	0.8	2.5Y 5/4 light olive brown sandy loam	
I2	H	I02		III	0.8	0.9	10YR 2/I black sandy loam	
I2	H	I02		IV	0.9	1.1	10YR 5/6 yellowish brown sandy loam	
I2	H	I02		V	1.1	1.3	10YR 2/I black sandy loam	
I2	H	I02		VI	1.3	2.0	10YR 5/4 yellowish brown sandy loam	
I2	H	II		I	0.0	0.7	2.5Y 5/2 grayish brown silty loam	
I2	H	II		II	0.7	1.1	2.5Y 6/6 olive yellow silty clay	
I2	H	I2		I	0.0	0.7	10YR 3/I very dark gray silty loam	
I2	H	I2		II	0.7	1.1	2.5Y 5/4 light olive brown mottled with 10YR 6/4 light yellowish brown and 10YR 6/8 brownish yellow silty clay	
I2	H	I3		I	0.0	0.9	7.5YR 3/I very dark gray mottled with 7.5YR 4/2 brown silty sand	excavation ceased at buried railroad tie, disturbed
I2	H	I4		I	0.0	0.5	10YR 2/I black silty loam	excavation ceased due to high disturbance and gravel content, push pile and gravel road near STP
I2	H	I5		I	0.0	0.5	10YR 2/I black silty loam	
I2	H	I6		I	0.0	0.5	10YR 2/I black silty loam	compacted gravel
I2	H	I7		I	0.0	0.6	10YR 2/I black silty loam with 10% gravels and 5% rounded cobbles	highly disturbed, root impasse @ 0.6



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
12	H	17					Not Excavated	STP located in unpaved staging area
12	H	18		III	1.2	1.6	2.5Y 7/4 pale yellow sandy loam	
12	H	19		VII	2.0	2.4	10YR 6/4 light yellowish brown loamy sand	
12	I	01		I	0.0	0.3	10YR 2/1 black silty loam with 70% gravel rocks throughout	
12	I	01		II	0.3	0.7	10YR 5/6 yellowish brown clay with 70% gravel rocks throughout	
12	I	02		I	0.0	0.4	10YR 2/1 black silty loam	
12	I	02		II	0.4	1.0	10YR 6/6 brownish yellow sandy clay	
12	I	02		III	1.0	1.6	10YR 6/3 pale brown clay	
12	I	03		I	0.0	0.3	10YR 2/1 black silty loam	
12	I	03		II	0.3	1.1	10YR 5/2 grayish brown sandy clay	
12	I	03		III	1.1	1.8	10YR 7/8 yellow sand	modern trash discarded
12	I	04	North	I	0.0	0.4	10YR 2/1 black silty loam	
12	I	04	North	II	0.4	0.8	10YR 5/2 grayish brown sandy clay	Site 44CE0838
12	I	04	North	III	0.8	1.3	10YR 6/6 brownish yellow sandy clay	Site 44CE0838
12	I	04	North	IV	1.3	1.9	10YR 7/6 yellow clay	Site 44CE0838
12	I	04	South	I	0.0	0.3	10YR 2/1 black mottled with tan and gray silty clay	Site 44CE0838
12	I	04	South	II	0.3	0.8	10YR 8/6 yellow mottled with gray sandy clay	Site 44CE0838, terminated -- disturbed
12	I	04		I	0.0	0.4	10YR 2/1 black silty loam	Site 44CE0838
12	I	04		II	0.4	1.0	10YR 5/2 grayish brown sandy clay	Site 44CE0838
12	I	04		III	1.0	1.5	10YR 6/6 brownish yellow sandy clay	Site 44CE0838



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
12	I	04		IV	1.5	2.1	10YR 7/6 yellow clay	Site 44CE0838
12	I	05		I	0.0	0.3	10YR 2/1 black mottled with gray and orange silty sandy clay	
12	I	06		I	0.0	0.3	10YR 2/1 black mottled with orange silty sand	
12	I	06		II	0.3	1.0	10YR 5/2 grayish brown sandy clay	
12	I	06		III	1.0	1.4	10YR 7/6 yellow clay	
12	I	07		I	0.0	0.4	10YR 2/1 black silty sand	
12	I	07		II	0.4	0.9	10YR 5/2 grayish brown sandy clay	
12	I	07		III	0.9	1.1	10YR 6/6 brownish yellow sandy clay	
12	I	07		IV	1.1	1.6	10YR 7/6 yellow clay	
12	I	08		I	0.0	0.4	10YR 2/1 black mottled with brown and orange	terminated -- disturbed
12	I	09		I	0.0	1.0	10YR 2/1 black silty sand	
12	I	09		II	1.0	1.2	10YR 5/2 grayish brown sandy clay	
12	I	09		III	1.2	1.6	10YR 7/6 yellow sandy clay	
12	I	10		I	0.0	0.4	10YR 2/1 black silty sand	
12	I	10		II	0.4	0.9	10YR 5/2 grayish brown sandy clay	
12	I	10		III	0.9	1.2	7.5YR 5/6 strong brown mottled with gray, white, and dark orange clay	
12	I	11		I	0.0	0.3	10YR 2/1 black silty loam	
12	I	11		II	0.3	0.7	10YR 5/4 yellowish brown silty clay	
12	I	11		III	0.7	1.2	10YR 6/6 brownish yellow clay	
12	I	12		I	0.0	0.4	10YR 2/1 black silty loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
12	I	12		II	0.4	0.8	10YR 7/8 yellow sandy clay	
12	I	12		III	0.8	1.2	10YR 6/6 brownish yellow clay	
12	I	13		I	0.0	0.3	10YR 4/3 brown silty loam	
12	I	13		II	0.3	0.7	10YR 5/6 yellowish brown sandy clay	
12	I	13		III	0.7	1.1	10YR 6/6 brownish yellow clay	
12	I	14		I	0.0	0.4	10YR 4/1 dark gray silty sand	
12	I	14		II	0.4	0.6	10YR 6/6 brownish yellow sandy clay	
12	I	14		III	0.6	0.8	10YR 5/2 grayish brown silty sand	
12	I	14		IV	0.8	1.3	10YR 6/8 brownish yellow sandy clay	
12	I	15		I	0.0	0.5	10YR 3/6 dark yellowish brown silty sand	
12	I	15		II	0.5	1.2	10YR 5/2 grayish brown clay sand	
12	I	15		III	1.2	1.6	10YR 6/8 brownish yellow sandy clay	
12	I	16		I	0.0	0.2	10YR 3/6 dark yellowish brown silty sand	
12	I	16		II	0.2	0.6	10YR 6/6 brownish yellow silty sand	
12	I	16		III	0.6	0.9	10YR 5/2 grayish brown silty clay	
12	I	16		IV	0.9	1.4	10YR 6/8 brownish yellow mottled with gray clay	
12	I	17		I	0.0	0.3	10YR 3/6 dark yellowish brown silty sand	
12	I	17		II	0.3	0.7	10YR 6/6 brownish yellow silty sand	
12	I	17		III	0.7	0.9	10YR 5/2 grayish brown silty clay	
12	I	17		IV	0.9	1.4	10YR 6/8 brownish yellow mottled with gray clay	
12	I	18		I	0.0	0.6	10YR 3/6 dark yellowish brown silty loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
12	I	18		II	0.6	1.1	10YR 6/6 brownish yellow sandy clay	
12	I	18		III	1.1	1.5	10YR 6/2 light brownish gray mottled with orange clay	
12	I	19		I	0.0	0.4	10YR 3/6 dark yellowish brown silty loam	
12	I	19		II	0.4	0.6	10YR 5/2 grayish brown silty sand	
12	I	19		III	0.6	1.0	10YR 6/6 brownish yellow sandy clay	
12	I	19		IV	1.0	1.4	10YR 6/8 brownish yellow clay	
12	I	20		I	0.0	0.3	10YR 2/1 black silty loam	
12	I	20		II	0.3	0.6	10YR 6/6 brownish yellow silty sand	
12	I	20		III	0.6	1.0	10YR 6/8 brownish yellow clay	
12	I	21		I	0.0	0.6	10YR 6/8 brownish yellow clay	terminated -- disturbed
12	I	22		I	0.0	0.6	10YR 3/6 dark yellowish brown silty loam	
12	I	22		II	0.6	1.0	10YR 6/8 brownish yellow mottled with white and gray clay	
12	I	23		I	0.0	0.4	10YR 3/6 dark yellowish brown silty loam	
12	I	23		II	0.4	0.9	10YR 6/8 brownish yellow mottled with white and gray clay	
12	I	24		I	0.0	0.8	2.5Y 4/3 olive brown sandy loam	
12	I	24		II	0.8	1.3	2.5Y 6/6 olive yellow sandy loam	
12	I	24		III	1.3	1.7	10YR 7/8 yellow silty clay	
12	I	25		I	0.0	1.1	7.5YR 5/2 brown mottled with 10YR 4/1 dark gray and 7.5YR 6/8 reddish yellow sand	
12	I	25		II	1.1	1.5	7.5YR 6/8 reddish yellow mottled with 10YR 3/1 very dark gray sand	disturbed, contains fill and strats are not intact



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
12	I	26		I	0.0	1.0	2.5Y 4/3 olive brown sandy loam	
12	I	26		II	1.0	1.5	2.5Y 6/6 olive yellow sandy loam	
12	I	26		III	1.5	1.9	10YR 7/8 yellow silty clay with 20% rounded river gravels	
12	J	01	West	I	0.0	0.6	2.5Y 3/2 very dark grayish brown sandy loam	Site 44CE0837. discarded corroded railroad spike
12	J	01	West	II	0.6	1.0	2.5Y 5/3 light olive brown sandy loam	Site 44CE0837
12	J	01	West	III	1.0	1.4	2.5Y 6/6 olive yellow mottled with 10YR 7/8 yellow silty clay	Site 44CE0837
12	J	01		I	0.0	0.3	2.5Y 3/2 very dark grayish brown silty loam	Site 44CE0837. modern glass discarded
12	J	01		II	0.3	1.0	2.5Y 6/6 olive yellow silty clay	Site 44CE0837
12	J	02		I	0.0	1.1	2.5Y 3/2 very dark grayish brown mottled with 2.5Y 4/2 dark grayish brown sandy loam	
12	J	02		II	1.1	1.5	2.5Y 6/4 light yellowish brown clay	
12	J	03		I	0.0	0.3	2.5Y 3/2 very dark grayish brown sandy loam	
12	J	03		II	0.3	0.7	2.5Y 5/3 light olive brown sandy loam	discarded brick fragments
12	J	03		III	0.7	1.1	2.5Y 6/6 olive yellow mottled with 10YR 7/8 yellow silty clay	
12	J	04		I	0.0	0.5	2.5Y 3/2 very dark grayish brown silty loam with 20% angular gravels	
12	J	04		II	0.5	0.9	black coal	modern glass discarded
12	J	04		III	0.9	1.3	2.5Y 6/6 olive yellow mottled with 10YR 7/8 yellow silty clay	
12	J	05	East	I	0.0	0.3	10YR 2/1 black silty loam	Site 44CE0837
12	J	05	East	II	0.3	0.5	coal sandy loam	Site 44CE0837



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
12	J	05	East	III	0.5	1.0	2.5Y 7/3 pale yellow mottled with 2.5Y 7/6 yellow silty clay	Site 44CE0837
12	J	05		I	0.0	0.5	2.5Y 3/2 very dark grayish brown sandy loam	Site 44CE0837
12	J	05		II	0.5	0.8	2.5Y 5/3 light olive brown sandy loam	Site 44CE0837
12	J	05		III	0.8	1.1	10YR 2/1 black sandy loam	Site 44CE0837.soil may be stained by rotting carbonatious matter
12	J	05		IV	1.1	1.5	2.5Y 7/3 pale yellow mottled with 2.5Y 7/6 yellow silty clay	Site 44CE0837
12	J	06		I	0.0	0.7	2.5Y 3/2 very dark grayish brown silty loam	foam rubber tubing suggesting soils in shovel test may be disturbed, root impasse at 0.7
12	J	07		I	0.0	0.8	2.5Y 3/2 very dark grayish brown sandy loam	
12	J	07		II	0.8	1.2	2.5Y 5/3 light olive brown silty loam	
12	J	07		III	1.2	1.6	2.5Y 7/3 pale yellow mottled with 2.5Y 7/6 yellow silty clay	
12	L	01		I	0.0	0.5	7.5YR 4/2 brown clay loam	
12	L	01		II	0.5	0.8	7.5YR 5/6 strong brown clay loam	
12	L	01		III	0.8	0.9	7.5YR 5/2 brown sandy clay	
12	L	01		IV	0.9	1.2	7.5YR 5/6 strong brown sandy clay	
12	M	01		I	0.0	0.4	10YR 2/1 black sandy loam	
12	M	01		II	0.4	0.8	10YR 3/2 very dark grayish brown sandy loam	
12	M	01		III	0.8	1.0	10YR 2/1 black sandy loam	
12	M	01		IV	1.0	1.4	10YR 3/2 very dark grayish brown sandy loam	
12	M	01		V	1.4	1.8	10YR 6/4 light yellowish brown sandy loam	highly disturbed, steep slope west of STP/tracks east
12	Q	01		I	0.0	0.4	10YR 6/6 brownish yellow silty loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
I2	Q	01		II	0.4	1.2	2.5Y 7/4 pale yellow sandy loam	
I2	Q	01		III	1.2	1.6	2.5Y 7/3 pale yellow sand	
I2	Q	01		IV	1.6	2.0	10YR 6/6 brownish yellow sandy clay	
I2	Q	02		I	0.0	0.6	2.5Y 7/4 pale yellow sandy loam	
I2	Q	02		II	0.6	1.0	10YR 6/6 brownish yellow sandy clay	
I2	Q	03		I	0.0	1.4	repeated bands of 2.5Y 8/3 pale yellow mottled with 10YR 6/6 brownish yellow sand	possibly from repeated mechanical disturbance
I2	Q	03		II	1.4	2.0	10YR 5/8 yellowish brown sand	
I2	Q	04		I	0.0	0.3	10YR 4/2 dark grayish brown silty loam	
I2	Q	04		II	0.3	0.6	2.5Y 7/3 pale yellow sandy loam	
I2	Q	04		III	0.6	1.0	10YR 6/6 brownish yellow sandy clay	
I2	Q	05		I	0.0	0.6	10YR 2/1 black silty loam with 80% gravel	
I2	Q	05		II	0.6	0.9	10YR 2/1 black mottled with 2.5Y 7/3 pale yellow sandy loam	
I2	Q	05		III	0.9	1.7	10YR 2/1 black sandy loam	
I2	Q	05		IV	1.7	1.9	10YR 2/2 very dark brown sandy loam	
I2	Q	05		V	1.9	2.3	2.5Y 6/3 light yellowish brown	highly disturbed
I2	S	01		I	0.0	0.7	10YR 3/2 very dark grayish brown silty loam	
I2	S	01		II	0.7	0.9	10YR 4/6 dark yellowish brown silty loam	
I2	S	01		III	0.9	1.3	10YR 5/6 yellowish brown sandy loam	
I2	S	02		I	0.0	0.8	10YR 3/2 very dark grayish brown silty loam	
I2	S	02		II	0.8	1.0	10YR 4/6 dark yellowish brown silty loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
12	S	02		III	1.0	1.4	10YR 5/6 yellowish brown sandy loam	
12	S	03		I	0.0	0.2	10YR 3/1 very dark gray silty loam	
12	S	03		II	0.2	0.5	10YR 3/1 very dark gray mottled with 10YR 4/2 dark grayish brown silty loam	
12	S	03		III	0.5	0.9	10YR 2/1 black sandy loam	high percentage of gravel throughout
12	U	01		I	0.0	1.2	clumps of various redeposited clay	
12	U	01		II	1.2	1.6	10YR 6/1 gray clay with 10YR 5/6 yellowish brown oxidation	disturbed on top of hydric
12	U	02		I	0.0	0.3	10YR 5/3 brown sandy loam	
12	U	02		II	0.3	1.0	7.5YR 5/6 strong brown sandy clay	
12	U	02		III	1.0	1.4	7.5YR 6/8 reddish yellow mottled with 10YR 6/1 gray sandy clay	
12	U	03		I	0.0	0.4	10YR 5/3 brown sandy loam	
12	U	03		II	0.4	1.4	7.5YR 5/6 strong brown sandy clay	
12	U	04		I	0.0	0.2	10YR 4/3 brown sandy loam	
12	U	04		II	0.2	0.4	10YR 2/1 black sand	
12	U	04		III	0.4	0.8	10YR 6/6 brownish yellow clay	disturbed
12	V	01		I	0.0	0.1	10YR 3/2 very dark grayish brown humic soil	
12	V	01		II	0.1	1.0	10YR 6/6 brownish yellow mottled with 10YR 6/3 pale brown clay	very deep soils as suspected, area around track has been dug very deep into side of hill
12	V	02		I	0.0	0.1	10YR 3/2 very dark grayish brown humic soil	
12	V	02		II	0.1	1.0	10YR 6/6 brownish yellow mottled with 10YR 6/3 pale brown clay	
12	V	03		I	0.0	0.1	10YR 3/2 very dark grayish brown humic soil	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
I2	V	03		II	0.1	1.0	Bands of 10YR 6/1 gray and 10YR 6/8 brownish yellow	
I2	X	01					Not Excavated	
I2	X	02		I	0.0	1.2	7.5YR 4/3 brown silty loam	
I2	X	02		II	1.2	1.4	7.5YR 5/4 brown silty clay	
I2	X	02		III	1.4	1.6	10YR 2/1 black gritty burnt silty loam	
I2	X	02		IV	1.6	2.0	7.5YR 5/4 yellowish brown silty clay	
I2	Y	01		I	0.0	1.5	10YR 5/3 brown mottled with 10YR 5/6 yellowish brown oxidation clay loam	water table at 1.5
I2	Y	02		I	0.0	1.4	7.5YR 4/3 brown sandy clay loam with mica	
I2	Y	02		II	1.4	1.8	7.5YR 6/2 pinkish gray sandy clay with various inclusions	soils at top are very loose, pushed around
I3	I	01		I	0.0	0.2	10YR 3/2 very dark grayish brown sand	
I3	I	01		II	0.2	0.9	7.5YR 5/4 brown mottled with 7.5YR 5/8 strong brown sandy clay with coal inclusions	
I3	I	01		III	0.9	1.1	7.5YR 5/8 strong brown sandy clay	
I3	J	01		I	0.0	1.4	10YR 3/1 very dark gray sandy loam with 90% gravel	disturbed
I3	J	01		II	1.4	1.9	10YR 5/6 yellowish brown sandy clay	
I3	P	01		I	0.0	0.1	10YR 3/1 very dark gray sandy loam with 60% angular gravel	terminated -- compact gravel impasse
I3	P	02		I	0.0	0.1	10YR 3/1 very dark gray sandy loam with 60% angular gravel	
I3	R	01		I	0.0	0.4	10YR 2/1 black sand	disturbed by rail activity
I3	R	01		II	0.4	0.5	2.5Y 4/3 olive brown sand	
I3	R	01		III	0.5	1.5	10YR 6/4 light yellowish brown sandy clay	STP located within power corridor



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
I3	R	02		I	0.0	0.5	10YR 2/1 black sand with 50% gravels	
I3	R	02		II	0.5	1.2	Mix of 2.5Y 4/3 olive brown with 10YR 2/1 black and 10YR 6/4 light yellowish brown sandy loamy clay	STP located within power corridor
I3	R	03		I	0.0	1.8	various disturbed layers of 2.5Y 4/3 olive brown with 10YR 2/1 black and 10YR 6/4 light yellowish brown sandy loamy clay with 50% gravel	very modern beer bottle glass at 1.2 discarded
I3	R	03		II	1.8	2.2	10YR 6/4 light yellowish brown sandy clay	
I3	R	04		I	0.0	1.0	various disturbed layers of 2.5Y 4/3 olive brown with 10YR 2/1 black and 10YR 6/4 light yellowish brown sandy loamy clay with 50% gravel	STP located on small artificial rise North of STP
I3	S	01		I	0.0	0.3	10YR 3/1 very dark gray sandy loam	
I3	S	01		II	0.3	0.4	charcoal lens	
I3	S	01		III	0.4	0.8	10YR 5/8 yellowish brown sandy clay	
I3	S	01		IV	0.8	1.0	7.5YR 5/8 strong brown saprolite	likely in access road
I3	S	02		I	0.0	0.4	10YR 3/1 very dark gray sandy loam	
I3	S	02		II	0.4	0.6	10YR 3/1 very dark gray sandy loam	
I3	S	02		III	0.6	0.8	degraded bedrock	60% rocky throughout, likely in access road
I3	S	03		I	0.0	0.7	10YR 3/1 very dark gray sandy loam	
I3	S	03		II	0.7	1.1	10YR 5/8 yellowish brown sandy clay	likely in access road
I3	T	01		I	0.0	2.2	2.5Y 4/3 olive brown sand	
I3	T	01		II	2.2	2.6	2.5Y 4/3 olive brown sand mottled with 10% 10YR 6/4 light yellowish brown clay sand	
I3	T	02		I	0.0	0.4	10YR 3/2 very dark grayish brown sandy loam	
I3	T	02		II	0.4	1.1	2.5Y 4/3 olive brown	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
I3	T	02		III	1.1	1.9	sand with 40% rounded cobbles	
I3	T	02		IV	1.9	2.2	sand with 40% rounded cobbles (minor organic staining appears to give strat a darker appearance, but munsell remains the same)	
I3	T	02		V	2.2	2.4	2.5Y 6/4 light yellowish brown sandy clay	tracks east of STP, house west of STP
I3	T	03		I	0.0	2.0		
I3	T	03		II	2.0	2.4		
I3	T	04		I	0.0	0.4	10YR 3/2 very dark grayish brown sandy loam	
I3	T	04		II	0.4	2.0	2.5Y 4/3 olive brown sand	
I3	T	04		III	2.0	2.4	2.5Y 6/4 light yellowish brown sandy clay	
I3	T	05		I	0.0	1.5	10YR 3/2 very dark grayish brown sandy loam	40% rounded cobbles at 1.0 through 1.3
I3	T	05		II	1.5	2.0	10YR 5/4 yellowish brown sand	
I3	T	06		I	0.0	0.9	2.5Y 3/3 dark olive brown sandy loam mottled with 10YR 5/6 yellowish brown sandy clay	
I3	T	06		II	0.9	1.3	10YR 5/6 yellowish brown sandy clay	
I3	T	07		I	0.0	0.8	2.5Y 3/3 dark olive brown sandy loam with 50% angular gravels	
I3	T	07		II	0.8	1.2	10YR 5/8 yellowish brown sandy clay with 10% angular and rounded gravels	STP runs east of cedar tree line
I3	T	08		I	0.0	0.5	10YR 2/2 very dark brown sandy loam mottled with 60% gravel	
I3	T	08		II	0.5	0.9	10YR 5/6 yellowish brown sandy clay	
I3	T	09		I	0.0	0.4	10YR 2/2 very dark brown with 50% angular gravels	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
13	T	09		II	0.4	1.0	10YR 5/6 yellowish brown mottled with 10YR 6/6 brownish yellow	
13	T	10		I	0.0	0.2	10YR 4/2 dark grayish brown sandy loam with 10YR 5/8 yellowish brown clumps	heavily disturbed
13	T	10		II	0.2	0.7	10YR 5/8 yellowish brown mottled with 10YR 6/1 gray and 10YR 7/2 light gray sandy clay	heavily disturbed
13	T	10		III	0.7	1.0	10YR 5/3 brown mottled with 10YR 5/1 gray sandy clay	heavily disturbed
13	T	10		IV	1.0	1.4	7.5YR 5/6 strong brown clay sand	
13	T	11		I	0.0	0.3	10YR 3/2 very dark grayish brown sandy loam with 60% rounded/angular gravels	
13	T	11		II	0.3	0.4	10YR 5/6 yellowish brown sandy loam with 60% rounded/angular gravels	
13	T	11		III	0.4	1.0	10YR 3/1 very dark gray and black sandy loam with 60% rounded/angular gravels	
13	T	11		IV	1.0	1.4	2.5Y 6/4 light yellowish brown sand with 60% rounded/angular gravels	
14	A	01		I	0.0	0.2	2.5Y 3/2 very dark grayish brown sandy loam	
14	A	01		II	0.2	1.0	2.5Y 4/3 olive brown with 15% 10YR 5/4 yellowish brown and 10% gravel	impasse at layer of large gravel and black railroad grit
14	A	02		I	0.0	0.5	2.5Y 3/2 very dark grayish brown loamy sand	
14	A	02		II	0.5	1.3	2.5Y 5/4 light olive brown sand	
14	A	02		III	1.3	1.7	10YR 6/4 light yellowish brown sand	
14	A	04		I	0.0	0.3	10YR 3/2 very dark grayish brown sandy loam	
14	A	04		II	0.3	1.1	10YR 6/4 light yellowish brown sand	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
14	A	04		III	1.1	1.3	10YR 5/1 gray sand	gleying
14	A	04		IV	1.3	1.7	10YR 6/1 gray sand	
14	A	05		I	0.0	0.2	10YR 2/2 very dark brown sandy loam	
14	A	05		II	0.2	1.0	10YR 6/3 pale brown sand	
14	A	05		III	1.0	1.4	10YR 6/1 gray sand	hydric/gleyed
14	A	06		I	0.0	0.3	10YR 3/2 very dark grayish brown sandy loam	
14	A	06		II	0.3	1.2	mixture of pockets of hydric sand and clay, 10YR 6/4 light yellowish brown and 10YR 6/1 gray predominate	
14	A	07		I	0.0	0.4	10YR 2/1 black with pockets of 10YR 5/6 yellowish brown sandy loam	
14	A	07		II	0.4	1.1	10YR 2/1 black railroad grit with compacted gravel impasse at 1.1	
14	A	08		I	0.0	0.2	10YR 2/2 very dark brown sandy loam	
14	A	08		II	0.2	0.6	clumpy bands of 10YR 4/3 brown and 10YR 5/8 yellowish brown and 10YR 4/1 dark gray and others	
14	A	08		III	0.6	0.7	10YR 2/2 very dark brown sandy clay	
14	A	08		IV	0.7	1.1	clumpy bands of 10YR 4/3 brown and 10YR 5/8 yellowish brown and 10YR 4/1 dark gray and others	
14	A	09		I	0.0	0.3	10YR 2/2 very dark brown sandy loam	highly compacted. contain pockets various other sediments
14	A	09		II	0.3	0.4	10YR 6/4 light yellowish brown sandy clay	highly compacted. contain pockets various other sediments
14	A	09		III	0.4	0.6	5YR 5/4 reddish brown clay	highly compacted. contain pockets various other sediments



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
14	A	09		IV	0.6	0.7	10YR 2/1 black railroad grit	highly compacted. contain pockets various other sediments
14	G	01		I	0.0	0.2	2.5YR 2.5/2 very dusky red sandy silty loam	
14	G	01		II	0.2	0.6	10YR 6/6 brownish yellow mottled with 10YR 4/2 dark grayish brown and 10YR 2/1 black sandy loam	
14	G	01		III	0.6	0.9	2.5YR 2.5/2 very dusky red mottled with 10YR 6/6 brownish yellow and 10YR 4/2 dark grayish brown sandy loam	coal
14	G	01		IV	0.9	1.0	10YR 2/1 black sandy loam	
14	G	01		V	1.0	1.4	10YR 6/1 gray mottled with 10YR 5/6 yellowish brown oxidation sandy loam	hydric soil, 60% gravel, possible old railroad bed of access road
14	G	02		I	0.0	0.3	2.5Y 4/2 dark grayish brown very compact sandy clay loam with 40% gravel	
14	G	02		II	0.3	0.5	10YR 2/1 black sand	
14	G	02		III	0.5	0.9	2.5Y 5/1 gray sandy clay	
14	G	03		I	0.0	0.4	2.5YR 2.5/2 very dusky red sandy loam with 25% gravel	very wet and compacted
14	G	03		II	0.4	0.8	10YR 6/4 light yellowish brown mottled with 40% 10YR 7/3 very pale brown clay sand	very wet and compacted
14	G	04		I	0.0	0.8	2.5YR 2.5/2 very dusky red sandy loam with 25% gravel	
14	G	04		II	0.8	1.2	10YR 6/4 light yellowish brown mottled with 40% 10YR 7/3 very pale brown clay sand	thin black lens between strat I and II
14	I	01		I	0.0	0.2	2.5YR 2.5/2 very dusky red sandy loam with 30% gravels	very compact
14	I	01		II	0.2	0.8	10YR 6/1 gray with 40% 10YR 6/6 brownish yellow sandy clay	hydric



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
14	I	02		I	0.0	0.1	2.5YR 2.5/2 very dusky red sandy loam	
14	I	02		II	0.1	1.1	clumps of redeposited wetland clays including 10YR 6/6 brownish yellow and 10YR 6/1 gray and 10YR 6/2 light brownish gray and 10YR 7/1 light gray	heterogeneous pockets as opposed to a homogeneous mass, clearly redeposited
15	B	01		I	0.0	1.0	2.5Y 3/2 very dark grayish brown mottled with 10YR 2/1 black sandy loam with 60% gravel	likely old railroad bed
18	AD	01		I	0.0	0.3	10YR 2/1 black clay loam with 60% gravel	gravel impasse
18	AD	02		I	0.0	0.1	2.5Y 2.5/1 black wet clay loam with 75% gravel	gravel impasse just below surface
18	AH	01		I	0.0	0.5	10YR 3/4 dark yellowish brown sandy loam	
18	AH	01		II	0.5	0.6	7.5YR 5/6 strong brown mottled with 10YR 7/3 very pale brown loamy sand	
18	AH	01		III	0.6	0.8	2.5Y 7/2 light gray compact sand	appears to be layers of disturbed fill
18	AH	02		I	0.0	0.5	10YR 3/4 dark yellowish brown sandy loam	
18	AH	02		II	0.5	0.6	7.5YR 5/6 strong brown mottled with 10YR 7/3 very pale brown loamy sand	
18	AH	02		III	0.6	1.0	2.5Y 7/2 light gray compact sand	
18	AH	02		IV	1.0	1.3	7.5YR 5/6 strong brown mottled with 10YR 7/3 very pale brown loamy sand and decomposing bedrock	located on ridge finger just lower than rail grade
18	AH	03		I	0.0	0.5	10YR 3/4 dark yellowish brown sandy loam	
18	AH	03		II	0.5	0.6	7.5YR 5/6 strong brown mottled with 10YR 7/3 very pale brown loamy sand	
18	AH	03		III	0.6	0.8	2.5Y 7/2 light gray compact sand	
18	AK	01		I	0.0	0.2	7.5YR 3/2 dark brown silty loam	
18	AK	01		II	0.2	0.7	5YR 5/6 yellowish red clay loam	



**TABLE B-1: SHOVEL TEST CATALOG**

Segment	Area	STP	Radial	Level	Start Depth	End Depth	Soil Description	Comments
18	AK	01		III	0.7	1.0	5YR 5/6 yellowish red mottled with 7.5YR 7/2 pinkish gray compact silty clay	possible decaying bedrock, very deflated
18	AK	02		I	0.0	0.5	7.5YR 3/2 dark brown silty loam	
18	AK	02		II	0.5	0.7	10YR 6/4 light yellowish brown clay loam	
18	AK	02		III	0.7	1.0	5YR 4/6 yellowish red silty clay	
18	C	01		I	0.0	0.8	10YR 3/2 very dark grayish brown clay loam	
18	C	01		II	0.8	1.3	10YR 5/6 yellowish brown compact sandy clay	
18	C	02		I	0.0	0.6	10YR 3/2 very dark grayish brown clay loam	
18	C	02		II	0.6	1.0	10YR 5/6 yellowish brown compact sandy clay	
18	C	03		I	0.0	0.5	10YR 2/2 very dark brown silty loam	
18	C	03		II	0.5	0.8	10YR 6/4 light yellowish brown sandy clay	



## **APPENDIX C: ARTIFACT CATALOG**

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**TABLE C-1: ARTIFACT CATALOG**

Site	Prov.	Strat	Level	Object	Part	Material	Ware	Decoration/ Color	Manufacture Tech.	Comments	Count
44CE0836	III-36	II	I	Tableware	Rim Fragment	Refined Earthenware	Whiteware	Plain			1
44CE0836	III-36	II	I	Brick	Fragment				Hand-made	6.8 g	1
44CE0836	III-36	II	I	Indeterminate	Body Fragment	Stoneware	Gray/Buf Bodied	Salt-Glazed			1
44CE0836	III-36	II	I	Indeterminate	Body Fragment	Refined Earthenware	Creamware	Plain			1
44CE0836	III-36	II	I	Window Glass		Glass		Aqua			2
44CE0836	III-36 South	I	2	Indeterminate	Rim Fragment	Refined Earthenware	Whieldon				1
44CE0836	III-36 South	I	2	Brick	Fragment				Hand-made	13.7 g	1
ISF 11-1	IV-04	I	I	Tableware	Rim Fragment	Refined Earthenware	Ironstone	Plain			1
ISF 12-1	12H-01	I	I	Nail	Head and Shaft	Iron Alloy			Indeterminate		1
44CE0838	12I-04	I	I	Indeterminate	Body Fragment	Refined Earthenware	Whiteware	Plain		Burned	1
44CE0838	12I-04	I	I	Indeterminate	Body Fragment	Terra Cotta					1
44CE0838	12I-04	I	I	Indeterminate		Iron Alloy				Round, possible rim fragment	1
44CE0838	12I-04 North	I	I	Nail	Complete	Iron Alloy			Cut, Machine Headed		1
44CE0837	12J-01	I	I	Indeterminate	Body Fragment	Porcelain	Porcelain, Soft Paste	Plain			1



**TABLE C-1: ARTIFACT CATALOG**

Site	Prov.	Strat	Level	Object	Part	Material	Ware	Decoration/ Color	Manufacture Tech.	Comments	Count
44CE0837	12J-05	I	I	Indeterminate		Iron Alloy				Flat, rod-like fragment	1
44CE0837	12J-05 East	I	I	Nail	Complete	Iron Alloy			Ungalvanized Wire		2
44CE0837	SFC 12- I	0	0	Bottle	Almost Complete	Glass		Purple/ Solarized		Patent Finish, Rectangular Base	1



## **APPENDIX D: ARPA PERMIT**

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Please use this number  
when referring to this permit

DI Form 1991 (Rev Jan 2008)  
for use with DI Form 1926  
OMB No. 1024-0037  
Exp. Date (1/14/2017)


No.: 2015.FRSP.02

## United States Department of the Interior

### PERMIT FOR ARCHEOLOGICAL INVESTIGATIONS

**To conduct archeological work on Department of the Interior lands and Indian lands under the authority of:**

- ☒ The Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa-mm) and its regulations (43 CFR 7).
- ☐ The Antiquities Act of 1906 (P.L. 59-209; 34 Stat. 225, 16 U.S.C. 431-433) and its regulations (43 CFR 3).
- ☐ Supplemental regulations (25 CFR 262) pertaining to Indian lands.
- ☐ Bureau-specific statutory and/or regulatory authority: \_\_\_\_\_

1. Permit issued to: <b>Dovetail Cnltnrl Resource Group</b>		2. Under application dated <b>October 20, 2015</b>	
3. Address: <b>300 Central Road, Suite 200, Fredericksburg, Virginia 22401</b>		4. Telephone number(s) <b>540-899-9170</b>	
		5. E-mail address(es) <b>kbarile@dovetailcrg.com</b>	
6. Name of Permit Administrator <b>Dr. Kerri Barile</b>  Telephone number(s): <b>540 899-9170</b> Email address(es): <b>kbarile@dovetailcrg.com</b>		7. Name of Principal Investigator(s) <b>Dr. Kerri Barile</b>  Telephone number(s): <b>540 899-9170</b> Email address(es): <b>kbarile@dovetailcrg.com</b>	
8. Name of Field Director(s) authorized to carry out field projects  <b>Curtis McCoy</b>		Telephone number(s): <b>540 899-9170</b>  Email address(es): <b>cmccoy@dovetailcrg.com</b>	
9. Activity authorized: <b>The field survey will consist of three parts: one, a field inspection of the study areas through a visual reconnaissance to identify any surface features or artifact concentrations and note areas with a high potential to contain sites; two, systematic subsurface investigations with the excavation of shovel test pits in areas that have the potential for intact soils; and three, a metal detector survey of the two segments. During the visual reconnaissance, archaeologists will inspect the areas for subsurface study. The survey will comprise a pedestrian inspection to locate surface features or artifact scatters and also to identify areas that appear to have the potential for intact subsurface deposits. This information will be the basis for subsequent research. See Figure 1.</b>			
10. On lands described as follows: <b>Two portions of the overall project corridor, known as Segment 8, Fredericksburg to Hamilton (FBHA) and Segment 9, Hamilton to Crossroads (HAXR), are located on National Park Service (NPS) property. These segments include approximately 0.28 acres of high probability archeological areas identified via predictive modeling on or immediately adjacent to Fredericksburg and Spotsylvania National Military Park.</b>			
11. During the duration of the project      From <b>1-15-2016</b> To <b>1-14-2017</b>			
12. Name and address of the curatorial facility in which collections, records, data, photographs, and other documents resulting from work under this permit shall be deposited for permanent preservation on behalf of the United States Government. <b>Fredericksburg &amp; Spotsylvania National Military Park.</b>			
13. Permittee is required to observe the listed standard permit conditions and the special permit conditions attached to this permit.			
14. Signature and title of approving official  			15. Date  <b>1/8/16</b>



### 15. Standard Permit Conditions

- a. This permit is subject to all applicable provisions of 43 CFR Part 3, 43 CFR 7, and 25 CFR 262, and applicable departmental and bureau policies and procedures, which are made a part hereof.
- b. The permittee and this permit are subject to all other Federal, State, and local laws and regulations applicable to the public lands and resources.
- c. This permit shall not be exclusive in character, and shall not affect the ability of the land managing bureau to use, lease or permit the use of lands subject to this permit for any purpose.
- d. This permit may not be assigned.
- e. This permit may be suspended or terminated for breach of any condition or for management purposes at the discretion of the approving official, upon written notice.
- f. This permit is issued for the term specified in 11 above.
- g. Permits issued for a duration of more than one year must be reviewed annually by the agency official and the permittee.
- h. The permittee shall obtain all other required permit(s) to conduct the specified project.
- i. Archeological project design, literature review, development of the regional historic context framework, site evaluation, and recommendations for subsequent investigations must be developed with direct involvement of an archeologist who meets the Secretary of the Interior's Standards for Archeology and Historic Preservation; fieldwork must be generally overseen by an individual who meets the Secretary of the Interior's Standards for Archeology and Historic Preservation.
- j. Permittee shall immediately request that the approving official (14. above) make a modification to accommodate any change in an essential condition of the permit, including individuals named and the nature, location, purpose, and time of authorized work, and shall without delay notify the approving official of any other changes affecting the permit or regarding information submitted as part of the application for the permit. Failure to do so may result in permit suspension or revocation.
- k. Permittee may request permit extension, in writing, at any time prior to expiration of the term of the permit, specifying a limited, definite amount of time required to complete permitted work.
- l. Any correspondence about this permit or work conducted under its authority must cite the permit number. Any publication of results of work conducted under the authority of this permit must cite the approving bureau and the permit number.
- m. Permittee shall submit a copy of any published journal article and any published or unpublished report, paper, and manuscript resulting from the permitted work (apart from those required in items q. and s., below), to the approving official and the appropriate official of the approved curatorial facility (item 12 above).
- n. Prior to beginning any fieldwork under the authority of this permit, the permittee, following the affected bureau's policies and procedures, shall contact the field office manager responsible for administering the lands involved to obtain further instructions.
- o. Permittee may request a review, in writing to the official concerned, of any disputed decision regarding inclusion of specific terms and conditions or the modification, suspension, or revocation of this permit, setting out reasons for believing that the decision should be reconsidered.
- p. Permittee shall not be released from requirements of this permit until all outstanding obligations have been satisfied, whether or not the term of the permit has expired. Permittee may be subject to civil penalties for violation of any term or condition of this permit.



**15. Standard Permit Conditions (continued)**

- q. Permittee shall submit a preliminary report to the approving official within a timeframe established by the approving official, which shall be no later than 6 weeks after the completion of any episode of fieldwork, setting out what was done, how it was done, by whom, specifically where, and with what results, including maps, GPS data, an approved site form for each newly recorded archeological site, and the permittee's professional recommendations, as results require. If other than 6 weeks, the timeframe shall be specified in Special Permit Condition p. Depending on the scope, duration, and nature of the work, the approving official may require progress reports, during or after the fieldwork period or both, and as specified in Special Permit Condition r.
- r. Permittee shall submit a clean, edited draft final report to the agency official for review to insure conformance with standards, guidelines, regulations, and all stipulations of the permit. The schedule for submitting the draft shall be determined by the agency official.
- s. Permittee shall submit a final report to the approving official not later than 180 days after completion of fieldwork. Where a fieldwork episode involved only minor work and/or minor findings, a final report may be submitted in place of the preliminary report. If the size or nature of fieldwork merits, the approving official may authorize a longer timeframe for the submission of the final report as specified in Special Permit Condition q.
- t. Two copies of the final report, a completed NTIS Report Documentation Page (SF-298), available at <http://www.ntis.gov/pdf/rdpform.pdf>, and a completed NADB-Reports Citation Form, available at [http://www.cr.nps.gov/aad/tools/nadbform\\_update.doc](http://www.cr.nps.gov/aad/tools/nadbform_update.doc), will be submitted to the office issuing the permit.
- u. The permittee agrees to keep the specific location of sensitive resources confidential. Sensitive resources include threatened species, endangered species, and rare species, archeological sites, caves, fossil sites, minerals, commercially valuable resources, and sacred ceremonial sites.
- v. Permittee shall deposit all artifacts, samples and collections, as applicable, and original or clear copies of all records, data, photographs, and other documents, resulting from work conducted under this permit, with the curatorial facility named in item 12, above, not later than 90 days after the date the final report is submitted to the approving official. Not later than 180 days after the final report is submitted, permittee shall provide the approving official with a catalog and evaluation of all materials deposited with the curatorial facility, including the facility's accession and/or catalog numbers.
- w. Permittee shall provide the approving official with a confirmation that museum collections described in v. above were deposited with the approved curatorial facility, signed by an authorized curatorial facility official, stating the date materials were deposited, and the type, number and condition of the collected museum objects deposited at the facility.
- x. Permittee shall not publish, without the approving official's prior permission, any locational or other identifying archeological site information that could compromise the Government's protection and management of archeological sites.
- y. For excavations, permittee shall consult the OSHA excavation standards which are contained in 29 CFR §1926.650, §1926.651 and §1926.652. For questions regarding these standards contact the local area OSHA office, OSHA at 1-800-321-OSHA, or the OSHA website at <http://www.osha.gov>.
- z. Special permit conditions attached to this permit are made a part hereof.



### 16. Special Permit Conditions

- ✓ a. Permittee shall allow the approving official and bureau field officials, or their representatives, full access to the work area specified in this permit at any time the permittee is in the field, for purposes of examining the work area and any recovered materials and related records.
- ✓ b. Permittee shall cease work upon discovering any human remains and shall immediately notify the approving official or bureau field official. Work in the vicinity of the discovery may not resume until the authorized official has given permission.
- ✓ c. Permittee shall backfill all subsurface test exposures and excavation units as soon as possible after recording the results, and shall restore them as closely as reasonable to the original contour.
- ✓ d. Permittee shall not use mechanized equipment in designated, proposed, or potential wilderness areas unless authorized by the agency official or a designee in additional specific conditions associated with this permit.
- ✓ e. Permittee shall take precautions to protect livestock, wildlife, the public, or other users of the public lands from accidental injury in any excavation unit.
- ✓ f. Permittee shall not conduct any flint knapping or lithic replication experiments at any archeological site, aboriginal quarry source, or non-site location that might be mistaken for an archeological site as a result of such experiments.
- ✓ g. Permittee shall perform the fieldwork authorized in this permit in a way that does not impede or interfere with other legitimate uses of the public lands, except when the authorized officer specifically provides otherwise.
- ✓ h. Permittee shall restrict vehicular activity to existing roads and trails unless the authorized officer provides otherwise.
- ✓ i. Permittee shall keep disturbance to the minimum area consistent with the nature and purpose of the fieldwork.
- ✓ j. Permittee shall not cut or otherwise damage living trees unless the authorized officer gives permission.
- ✓ k. Permittee shall take precautions at all times to prevent wildfire. Permittee shall be held responsible for suppression costs for any fires on public lands caused by the permittee's negligence. Permittee may not burn debris without the authorized officer's specific permission.
- ✓ l. Permittee shall conduct all operations in such a manner as to prevent or minimize scarring and erosion of the land, pollution of the water resources, and damage to the watershed.
- ✓ m. Permittee shall not disturb resource management facilities within the permit area, such as fences, reservoirs, and other improvements, without the authorized officer's approval. Where disturbance is necessary, permittee shall return the facility to its prior condition, as determined by the authorized officer.
- ✓ n. Permittee shall remove temporary stakes and/or flagging, which the permittee has installed, upon completion of fieldwork.
- ✓ o. Permittee shall clean all camp and work areas before leaving the permit area. Permittee shall take precautions to prevent littering or pollution on public lands, waterways, and adjoining properties. Refuse shall be carried out and deposited in approved disposal areas.
- ✓ p. Permittee shall submit the preliminary report within **30** days of completion of any episode of fieldwork.
- ✓ q. Permittee shall submit the final report within **60** days after completion of fieldwork.
- ✓ r. Permittee shall submit progress reports **every six months** over the duration of the project.
- ✓ s. Additional special permit conditions are attached.



### Special Permit Conditions Continuation Sheet

- Collections from FRSP will be cataloged using the most current version of ICMS (please contact Gail Frace, Northeast Region Archeology Program, at 978-970-5151 or at [Gail\\_Frace@nps.gov](mailto:Gail_Frace@nps.gov) for questions related to NPS collections management).
- In addition to the state archeological site forms, NPS ASMIS Forms will be completed for all archeological sites identified on NPS property (contact Erik Kreusch, NER ASMIS Coordinator, at 978-970-5144 or [Erik\\_S\\_Kreusch@nps.gov](mailto:Erik_S_Kreusch@nps.gov), if you have any questions or need assistance with ASMIS (Archeological Site Management Information System).
- In accordance with Standard Permit Condition 15.i, the Principal Investigators must supervise archeological field investigations by conducting periodic visits in order to ensure professional standards are met.
- All archeological investigations will be supervised by an archeologist who meets the Secretary of Interior's professional qualifications.
- All archeological field investigations conducted will be consistent with the Virginia Department of Historic Resources guidelines and the Secretary of Interior's Standards and Guidelines for Archeological Documentation.
- The following changes are made to the proposed methodology outlined in the ARPA application:  
Shovel Test Pits (STP) will be 0.5 m<sup>2</sup> in size (square); shovel test pits will be separated by no more than 10 meters; artifacts and archival materials will be returned to FRSP for curation; ASMIS forms will be filled out in addition to VCRIS forms to register sites.
- STPs will be excavated across the entire NPS Area of Potential Effect (APE).
- The National Park Service has royalty-free, irrevocable, and non-exclusive license to field notes, raw data, images, manuscripts, and reports for non-profit NPS uses, including educational, archival, and research uses. These materials may be used, reproduced and displayed for these purposes in any and all medium including, but not limited to, the World Wide Web.
- Progress reports (Section 15.r, above) will be made to Jim Kendrick, Regional Archeologist; Northeast Region Archeology Program, 115 John Street, 4<sup>th</sup> Floor, Lowell, MA, 01852. Progress report may be made via email correspondence ([Jim\\_Kendrick@nps.gov](mailto:Jim_Kendrick@nps.gov)).
- Archaeological Survey report will be produced and delivered to the NPS. The final report will address all NPS and VDHR comments. The NPS and VDHR will be given sufficient time to review the draft report, draft ASMIS records, and digital catalog records. The final report will also conform to the Secretary of Interior's Standards and Guidelines for Archeological Documentation (please see [http://www.nps.gov/history/local-law/arch\\_stnds\\_7.htm](http://www.nps.gov/history/local-law/arch_stnds_7.htm) for more information) and to VDHR guidelines for archeological investigations.
- Draft and final products identified in the Standard Permit Conditions (Section 15) and the Special Permit Conditions (Section 16) may be sent to: Jim Kendrick, Regional Archeologist; Northeast Region Archeology Program, 115 John Street, 4<sup>th</sup> Floor, Lowell, MA, 01852.
- One hard copy of the draft report will be delivered to Jim Kendrick at the address above and one hard copy of the draft report will be delivered to Eric Mink, Historian and Cultural Resources Manager, Fredericksburg & Spotsylvania NMP, 120 Chatham Lane, Fredericksburg, VA.
- Six hard copies (two for FRSP (one unbound), two for VDHR) of the final report will be delivered to Eric Mink at the address above; two hard copies of the final report for NRAP's ARPA files, will be delivered to Jim Kendrick at the address above. A digital copy of the final report in Adobe pdf format will also be submitted to both Eric Mink and Jim Kendrick. GIS files and geospatial data of all excavation locations will be submitted with the final report.
- A copy of the permit will be kept by the permittee on site at all times when work is being conducted on NPS property.
- Permittee will maintain a photographic log containing information on each photograph taken, including full provenience information, date, and aspect; will maintain a field specimen log; and will maintain provenience integrity by placing associated objects into common containers.
- Stratigraphic profiles will be drawn to scale and will include detailed soil descriptions.

By signing below, I, the Principal Investigator, acknowledge that I have read and understand the Permit for Archeological Investigations and agree to its terms and conditions as evidenced by my signature below and initiation of work or other activities under the authority of this permit.

Signature and title:



President/Principal Investigator

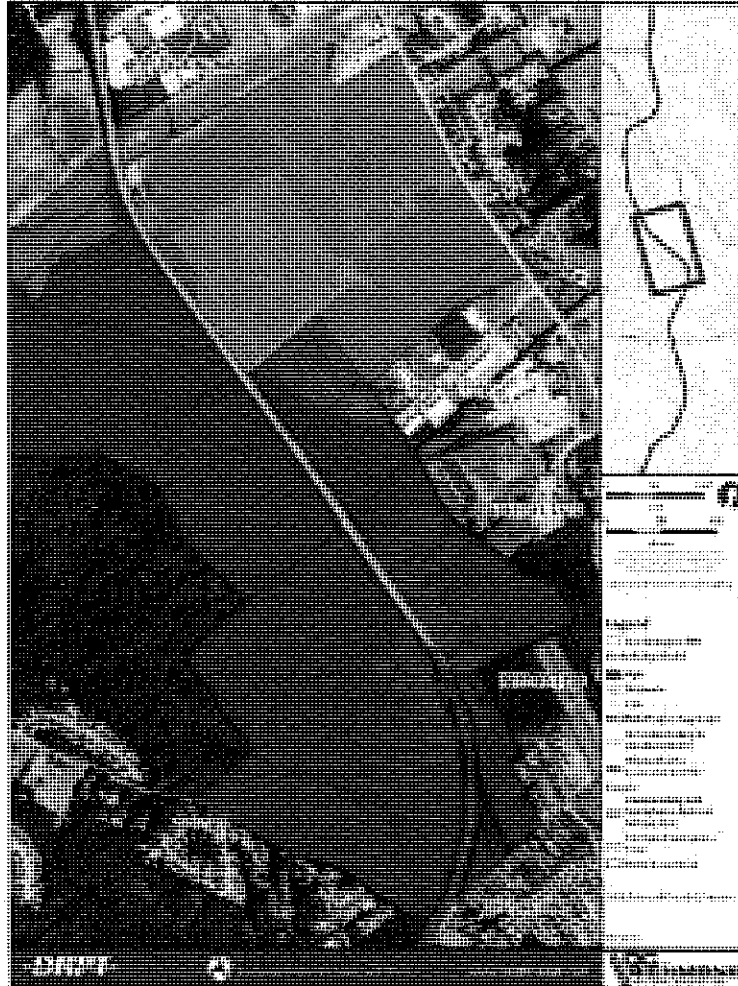
Date:

December 18, 2015



**Paperwork Reduction Act and Estimated Burden Statement:** This information is being collected pursuant to 16 U.S.C. 470cc and 470mm, to provide the necessary facts to enable the Federal land manager (1) to evaluate the applicant's professional qualifications and organizational capability to conduct the proposed archeological work; (2) to determine whether the proposed work would be in the public interest; (3) to verify the adequacy of arrangements for permanent curatorial preservation, as United States property, of specimens and records resulting from the proposed work; (4) to ensure that the proposed activities would not be inconsistent with any management plan applicable to the public lands involved; (5) to provide the necessary information needed to complete the Secretary's Report to Congress on Federal Archeology Programs; and (6) to allow the National Park Service to evaluate Federal archeological protection programs and assess compliance with the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470). Submission of the information is required before the applicant may enjoy the benefit of using publicly owned archeological resources. To conduct such activities without a permit is punishable by felony-level criminal penalties, civil penalties, and forfeiture of property. A federal agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. Public reporting for this collection of information is estimated to average three hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Departmental Consulting Archeologist; NPS; 1849 C Street, NW (2275); Washington, DC 20240-0001.





**FIGURE 3: FREDERICKSBURG AND SPOTSVYLAND NATIONAL MILITARY PARK OWNED LAND WITHIN THE CORRIDOR. UTM Coordinates: Zone 18N 600000, 427107**

Figure 1 Showing areas where archeological work will be carried out.



## **APPENDIX E: NEWLY RECORDED ARCHAEOLOGICAL SITE FORMS**

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## Snapshot

Date Generated: August 16, 2016

**Site Name:** No Data  
**Site Classification:** Terrestrial, open air  
**Year(s):** No Data  
**Site Type(s):** Artifact scatter  
**Other DHR ID:** No Data  
**Temporary Designation:** Site 11-1

### Site Evaluation Status

Not Evaluated

## Locational Information

**USGS Quad:** WOODFORD  
**County/Independent City:** Caroline (County)  
**Physiographic Province:** Coastal Plain  
**Elevation:** No Data  
**Aspect:** Flat  
**Drainage:** Lower Chesapeake  
**Slope:** 0 - 2  
**Acreage:** 0.030  
**Landform:** Other  
**Ownership Status:** Private  
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic  
**Site Type:** Artifact scatter  
**Cultural Affiliation:** Euro-American  
**DHR Time Period:** Reconstruction and Growth, World War I to World War II  
**Start Year:** No Data  
**End Year:** No Data  
**Comments:** No Data

## Bibliographic Information

### Bibliography:

No Data

### Informant Data:

No Data



## CRM Events

### Event Type: Survey:Phase I

#### Project Staff/Notes:

Emily Calhoun, Curtis McCoy, Morgan McKenzie, Joe Blondino, Earl Proper

**Project Review File Number:** 2014-0666

**Sponsoring Organization:** No Data

**Organization/Company:** Dovetail CRG

**Investigator:** Kevin McCloskey

**Survey Date:** 9/28/2015

#### Survey Description:

From September of 2015 through April 2016, Dovetail Cultural Resource group conducted a Phase I Survey of the 123 Mile DC2RVA corridor. The archaeological study included a Phase IB survey of the first 20 segments (Rosslyn to Alexandria [ROAF] through Buckingham Branch/Hospital Wye [BBHW]) of the DC2RVA corridor based on the results of the previously completed archaeological background review and archaeological predictive model. Those portions of the corridor which were determined by this agreed upon archaeological model to have some probability to contain intact subsurface archaeological deposits were subjected to a pedestrian survey and visual inspection. Any areas which were clearly disturbed or untestable were photo-documented and areas which visual inspection indicated might be undisturbed were surveyed via the excavation of Shovel test pits (STPs). These were excavated at 50-foot (15.2-m) intervals along transects paralleling the corridor, which was never so wide as to require more than a single transect. STPs measured approximately 1.3 feet (38.1 cm) in diameter and were excavated to penetrate at least 0.3 feet (10.2 cm) into sterile subsoil where possible. Shovel test radials were excavated at 25-foot (7.6-m) intervals in cardinal directions from shovel tests that produced cultural materials. All soils excavated from STPs were passed through 0.25-inch (0.6-cm) hardware mesh cloth. A total of 424 shovel test pits (STPs) was excavated across the 123-mile (198-km) APE, within 51 discrete archaeological areas. The excavation of the shovel tests resulted in the recovery of 19 artifacts that date entirely to the historic period and include ceramics, glass, metal, and architectural debris. Phase IB survey resulted in the identification of 20 archaeological sites and 2 isolated finds within the surveyed portions of the APE. Of these 20 archaeological sites, 17 were previously identified archaeological sites and 3 were newly recorded. It is recommended that two of these sites (44SP0187 and 44SP0468) are potentially eligible for listing on the NRHP. Additionally, two sites (44HE0840 and 44HE0841) remain unevaluated for the NRHP, while the other 16 sites (or the portions of these sites within the APE) and the 2 isolated finds are either recommended not eligible for NRHP listing, or it is recommended that the portion of those sites within the project corridor does not contribute to potential eligibility.

Current Land Use	Date of Use	Comments
Railroad	7/25/2016 12:00:00 AM	The site is located on the east side of the existing railroad grade on level ground at the same elevation as the existing grade

**Threats to Resource:** Transportation Expansion

**Site Conditions:** 25-49% of Site Destroyed

**Survey Strategies:** Subsurface Testing, Surface Testing

**Specimens Collected:** Yes

**Specimens Observed, Not Collected:** No

#### Artifacts Summary and Diagnostics:

Eight artifacts were recovered from the two STPs, six from the second soil layer of one STP and two from the first layer of the other STP. The artifact assemblage includes four ceramic fragments, two pieces of aqua window glass, and two hand-made brick fragments. The ceramic fragments include one whiteware, one plain creamware, one whieldon creamware, and one stoneware.

#### Summary of Specimens Observed, Not Collected:

No Data

**Current Curation Repository:** Dovetail Cultrual Resource Group

**Permanent Curation Repository:** DHR

**Field Notes:** Yes

**Field Notes Repository:** DHR

**Photographic Media:** Digital

**Survey Reports:** Yes

#### Survey Report Information:

Phase IB Archaeological Survey for the Washington, D.C. to Richmond, Virginia High Speed Rail Project Rosslyn to Alexandria (ROAF) through Buckingham Branch/Hospital Wye (BBHW) Segments DHR #2014-0666 by Kevin McCloskey, Earl Proper, Curtis McCoy, Emily Calhoun, Morgan MacKenzie, and Joseph Blondino

**Survey Report Repository:** DHR



**DHR Library Reference Number:**

No Data

**Significance Statement:**

The very low artifact density, the evidence for significant disturbance and the absence of surface or subsurface features indicate that the site does not exhibit the potential to yield significant information on settlement patterns or domestic life during the historic period in Caroline County Virginia (Criterion D). There are also no significant associations between these deposits and a significant historical event or patterns of events (Criterion A). There are no associations with significant persons (Criterion B), and the deposits do not illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). As such, the site is recommended not eligible for listing on the NRHP.

**Surveyor's Eligibility Recommendations:**

Recommended Not Eligible

**Surveyor's NR Criteria Recommendations, :**

No Data

**Surveyor's NR Criteria Considerations:**

No Data



## Snapshot

Date Generated: August 16, 2016

**Site Name:** No Data  
**Site Classification:** Terrestrial, open air  
**Year(s):** No Data  
**Site Type(s):** Artifact scatter  
**Other DHR ID:** No Data  
**Temporary Designation:** Site 12-1

### Site Evaluation Status

Not Evaluated

## Locational Information

**USGS Quad:** PENOLA, RUTHER GLEN  
**County/Independent City:** Caroline (County)  
**Physiographic Province:** Coastal Plain  
**Elevation:** No Data  
**Aspect:** No Data  
**Drainage:** Lower Chesapeake  
**Slope:** 0 - 2  
**Acreage:** 0.110  
**Landform:** Other  
**Ownership Status:** Local Govt  
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic  
**Site Type:** Artifact scatter  
**Cultural Affiliation:** Euro-American  
**DHR Time Period:** Reconstruction and Growth, World War I to World War II  
**Start Year:** No Data  
**End Year:** No Data  
**Comments:** No Data

## Bibliographic Information

### Bibliography:

No Data

### Informant Data:

No Data



## CRM Events

### Event Type: Survey:Phase I

#### Project Staff/Notes:

Emily Calhoun, Curtis McCoy, Morgan McKenzie, Joe Blondino, Earl Proper

**Project Review File Number:** 2014-0666

**Sponsoring Organization:** No Data

**Organization/Company:** Dovetail CRG

**Investigator:** Kevin McCloskey

**Survey Date:** 9/28/2015

#### Survey Description:

From September of 2015 through April 2016, Dovetail Cultural Resource group conducted a Phase I Survey of the 123 Mile DC2RVA corridor. The archaeological study included a Phase IB survey of the first 20 segments (Rosslyn to Alexandria [ROAF] through Buckingham Branch/Hospital Wye [BBHW]) of the DC2RVA corridor based on the results of the previously completed archaeological background review and archaeological predictive model. Those portions of the corridor which were determined by this agreed upon archaeological model to have some probability to contain intact subsurface archaeological deposits were subjected to a pedestrian survey and visual inspection. Any areas which were clearly disturbed or untestable were photo-documented and areas which visual inspection indicated might be undisturbed were surveyed via the excavation of Shovel test pits (STPs). These were excavated at 50-foot (15.2-m) intervals along transects paralleling the corridor, which was never so wide as to require more than a single transect. STPs measured approximately 1.3 feet (38.1 cm) in diameter and were excavated to penetrate at least 0.3 feet (10.2 cm) into sterile subsoil where possible. Shovel test radials were excavated at 25-foot (7.6-m) intervals in cardinal directions from shovel tests that produced cultural materials. All soils excavated from STPs were passed through 0.25-inch (0.6-cm) hardware mesh cloth. A total of 424 shovel test pits (STPs) was excavated across the 123-mile (198-km) APE, within 51 discrete archaeological areas. The excavation of the shovel tests resulted in the recovery of 19 artifacts that date entirely to the historic period and include ceramics, glass, metal, and architectural debris. Phase IB survey resulted in the identification of 20 archaeological sites and 2 isolated finds within the surveyed portions of the APE. Of these 20 archaeological sites, 17 were previously identified archaeological sites and 3 were newly recorded. It is recommended that two of these sites (44SP0187 and 44SP0468) are potentially eligible for listing on the NRHP. Additionally, two sites (44HE0840 and 44HE0841) remain unevaluated for the NRHP, while the other 16 sites (or the portions of these sites within the APE) and the 2 isolated finds are either recommended not eligible for NRHP listing, or it is recommended that the portion of those sites within the project corridor does not contribute to potential eligibility.

Current Land Use	Date of Use	Comments
Railroad	7/25/2016 12:00:00 AM	The archaeological site lies immediately adjacent to an existing railroad grade, within a larger wooded area, containing a mix of evergreen and deciduous trees, with relatively dense undergrowth and brambles.

<b>Threats to Resource:</b>	Transportation Expansion
<b>Site Conditions:</b>	25-49% of Site Destroyed
<b>Survey Strategies:</b>	Observation, Subsurface Testing, Surface Testing
<b>Specimens Collected:</b>	Yes
<b>Specimens Observed, Not Collected:</b>	No

#### Artifacts Summary and Diagnostics:

The site is a small scatter of historic artifacts (n=5) recovered from three positive STPs and a single surface collection. The artifact assemblage consists of nails (n=2), a porcelain fragment (n=1), an unidentifiable iron alloy fragment, and a solarized glass bottle (n=1).

#### Summary of Specimens Observed, Not Collected:

No Data

<b>Current Curation Repository:</b>	Dovetail Cultural Resource Group
<b>Permanent Curation Repository:</b>	DHR
<b>Field Notes:</b>	Yes
<b>Field Notes Repository:</b>	DHR
<b>Photographic Media:</b>	Digital
<b>Survey Reports:</b>	Yes

#### Survey Report Information:

Phase IB Archaeological Survey for the Washington, D.C. to Richmond, Virginia High Speed Rail Project Rosslyn to Alexandria (ROAF) through Buckingham Branch/Hospital Wye (BBHW) Segments DHR #2014-0666 by Kevin McCloskey, Earl Proper, Curtis McCoy, Emily Calhoun, Morgan MacKenzie, and Joseph Blondino

**Survey Report Repository:** DHR



<b>DHR Library Reference Number:</b>	No Data
<b>Significance Statement:</b>	The very low artifact density, the evidence for significant disturbance and the absence of surface or subsurface features indicate that the site does not exhibit the potential to yield significant information on settlement patterns or domestic life during the historic period in Caroline County Virginia (Criterion D). There are also no significant associations between these deposits and a significant historical event or patterns of events (Criterion A). There are no associations with significant persons (Criterion B), and the deposits do not illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). As such, the portion of site within the APE is recommended not eligible for listing on the NRHP.
<b>Surveyor's Eligibility Recommendations:</b>	Recommended Not Eligible
<b>Surveyor's NR Criteria Recommendations, :</b>	No Data
<b>Surveyor's NR Criteria Considerations:</b>	No Data



## Snapshot

Date Generated: August 16, 2016

**Site Name:** No Data  
**Site Classification:** Terrestrial, open air  
**Year(s):** No Data  
**Site Type(s):** Artifact scatter, Artifact scatter  
**Other DHR ID:** No Data  
**Temporary Designation:** Site 12-2

### Site Evaluation Status

Not Evaluated

## Locational Information

**USGS Quad:** PENOLA  
**County/Independent City:** Caroline (County)  
**Physiographic Province:** Coastal Plain  
**Elevation:** No Data  
**Aspect:** No Data  
**Drainage:** Lower Chesapeake  
**Slope:** 0 - 2  
**Acreage:** 0.010  
**Landform:** Other  
**Ownership Status:** Private  
**Government Entity Name:** No Data

## Site Components

### Component 1

**Category:** Domestic  
**Site Type:** Artifact scatter  
**Cultural Affiliation:** Euro-American  
**DHR Time Period:** Reconstruction and Growth, World War I to World War II  
**Start Year:** No Data  
**End Year:** No Data  
**Comments:** No Data

### Component 2

**Category:** Domestic  
**Site Type:** Artifact scatter  
**Cultural Affiliation:** Euro-American  
**DHR Time Period:** World War I to World War II  
**Start Year:** No Data  
**End Year:** No Data  
**Comments:** No Data

## Bibliographic Information

### Bibliography:

No Data

### Informant Data:

No Data



## CRM Events

### Event Type: Survey:Phase I

#### Project Staff/Notes:

Emily Calhoun, Curtis McCoy, Morgan McKenzie, Joe Blondino, Earl Proper

**Project Review File Number:** 2014-0666

**Sponsoring Organization:** No Data

**Organization/Company:** Dovetail CRG

**Investigator:** Kevin McCloskey

**Survey Date:** 9/28/2015

#### Survey Description:

From September of 2015 through April 2016, Dovetail Cultural Resource group conducted a Phase I Survey of the 123 Mile DC2RVA corridor. The archaeological study included a Phase IB survey of the first 20 segments (Rosslyn to Alexandria [ROAF] through Buckingham Branch/Hospital Wye [BBHW]) of the DC2RVA corridor based on the results of the previously completed archaeological background review and archaeological predictive model. Those portions of the corridor which were determined by this agreed upon archaeological model to have some probability to contain intact subsurface archaeological deposits were subjected to a pedestrian survey and visual inspection. Any areas which were clearly disturbed or untestable were photo-documented and areas which visual inspection indicated might be undisturbed were surveyed via the excavation of Shovel test pits (STPs). These were excavated at 50-foot (15.2-m) intervals along transects paralleling the corridor, which was never so wide as to require more than a single transect. STPs measured approximately 1.3 feet (38.1 cm) in diameter and were excavated to penetrate at least 0.3 feet (10.2 cm) into sterile subsoil where possible. Shovel test radials were excavated at 25-foot (7.6-m) intervals in cardinal directions from shovel tests that produced cultural materials. All soils excavated from STPs were passed through 0.25-inch (0.6-cm) hardware mesh cloth. A total of 424 shovel test pits (STPs) was excavated across the 123-mile (198-km) APE, within 51 discrete archaeological areas. The excavation of the shovel tests resulted in the recovery of 19 artifacts that date entirely to the historic period and include ceramics, glass, metal, and architectural debris. Phase IB survey resulted in the identification of 20 archaeological sites and 2 isolated finds within the surveyed portions of the APE. Of these 20 archaeological sites, 17 were previously identified archaeological sites and 3 were newly recorded. It is recommended that two of these sites (44SP0187 and 44SP0468) are potentially eligible for listing on the NRHP. Additionally, two sites (44HE0840 and 44HE0841) remain unevaluated for the NRHP, while the other 16 sites (or the portions of these sites within the APE) and the 2 isolated finds are either recommended not eligible for NRHP listing, or it is recommended that the portion of those sites within the project corridor does not contribute to potential eligibility.

<b>Current Land Use</b>	<b>Date of Use</b>	<b>Comments</b>
Railroad	7/25/2016 12:00:00 AM	The site, which measures 50 feet (15.2 m) east to west by 25 feet (7.6 m) north-south, lies on generally level ground in an area where the level of the rail is raised only minimally above the level of the surrounding land
<b>Threats to Resource:</b>	Transportation Expansion	
<b>Site Conditions:</b>	25-49% of Site Destroyed	
<b>Survey Strategies:</b>	Observation, Subsurface Testing, Surface Testing	
<b>Specimens Collected:</b>	Yes	
<b>Specimens Observed, Not Collected:</b>	No	
<b>Artifacts Summary and Diagnostics:</b>		
The artifact assemblage consists of four artifacts, and includes ceramics (n=2) (one terra cotta fragment and one burnt whiteware fragment), a cut nail (n=1) and an unidentifiable metal object (n=1).		
<b>Summary of Specimens Observed, Not Collected:</b>		
No Data		
<b>Current Curation Repository:</b>	Dovetail Cultural Resource Group	
<b>Permanent Curation Repository:</b>	DHR	
<b>Field Notes:</b>	Yes	
<b>Field Notes Repository:</b>	DHR	
<b>Photographic Media:</b>	Digital	
<b>Survey Reports:</b>	Yes	
<b>Survey Report Information:</b>		
Phase IB Archaeological Survey for the Washington, D.C. to Richmond, Virginia High Speed Rail Project Rosslyn to Alexandria (ROAF) through Buckingham Branch/Hospital Wye (BBHW) Segments DHR #2014-0666 by Kevin McCloskey, Earl Proper, Curtis McCoy, Emily Calhoun, Morgan MacKenzie, and Joseph Blondino		
<b>Survey Report Repository:</b>	DHR	



**DHR Library Reference Number:**

No Data

**Significance Statement:**

The very low artifact density, the evidence for significant disturbance and the absence of surface or subsurface features indicate that the site does not exhibit the potential to yield significant information on settlement patterns or domestic life during the historic period in Caroline County Virginia (Criterion D). There are also no significant associations between these deposits and a significant historical event or patterns of events (Criterion A). There are no associations with significant persons (Criterion B), and the deposits do not illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). As such, the site is recommended not eligible for listing on the NRHP.

**Surveyor's Eligibility Recommendations:**

Recommended Not Eligible

**Surveyor's NR Criteria Recommendations, :**

No Data

**Surveyor's NR Criteria Considerations:**

No Data



## **APPENDIX F: GPS COORDINATES OF SHOVEL TESTS EXCATED ON NPS LAND**

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**TABLE F-1: UTM COORDINATES OF SHOVEL TESTS LOCATED ON NPS PROPERTY**

Area	STP	Easting (UTM NAD 1983)	Northing (UTM NAD 1983)
8D	1	286383.1247	4236867.243
9E	1	286802.2955	4236479.736
9E	2	286792.7253	4236489.717
9E	3	286783.1553	4236499.698
9E	4	286773.5225	4236509.616
9E	5	286763.6769	4236519.325
9E	6	286753.8313	4236529.034
9E	7	286744.0077	4236538.765
9F	1	286933.3175	4236289.871
9G	15	287008.1799	4236074.424
9G	14	287010.1861	4236063.968
9G	12	287014.1985	4236043.055
9G	11	287016.0789	4236032.575
9G	10	287017.8423	4236022.075
9G	9	287019.6055	4236011.575
9G	8	287020.9075	4236001.009
9G	7	287022.1451	4235990.434
9G	6	287023.3825	4235979.859
9G	5	287024.6297	4235969.285