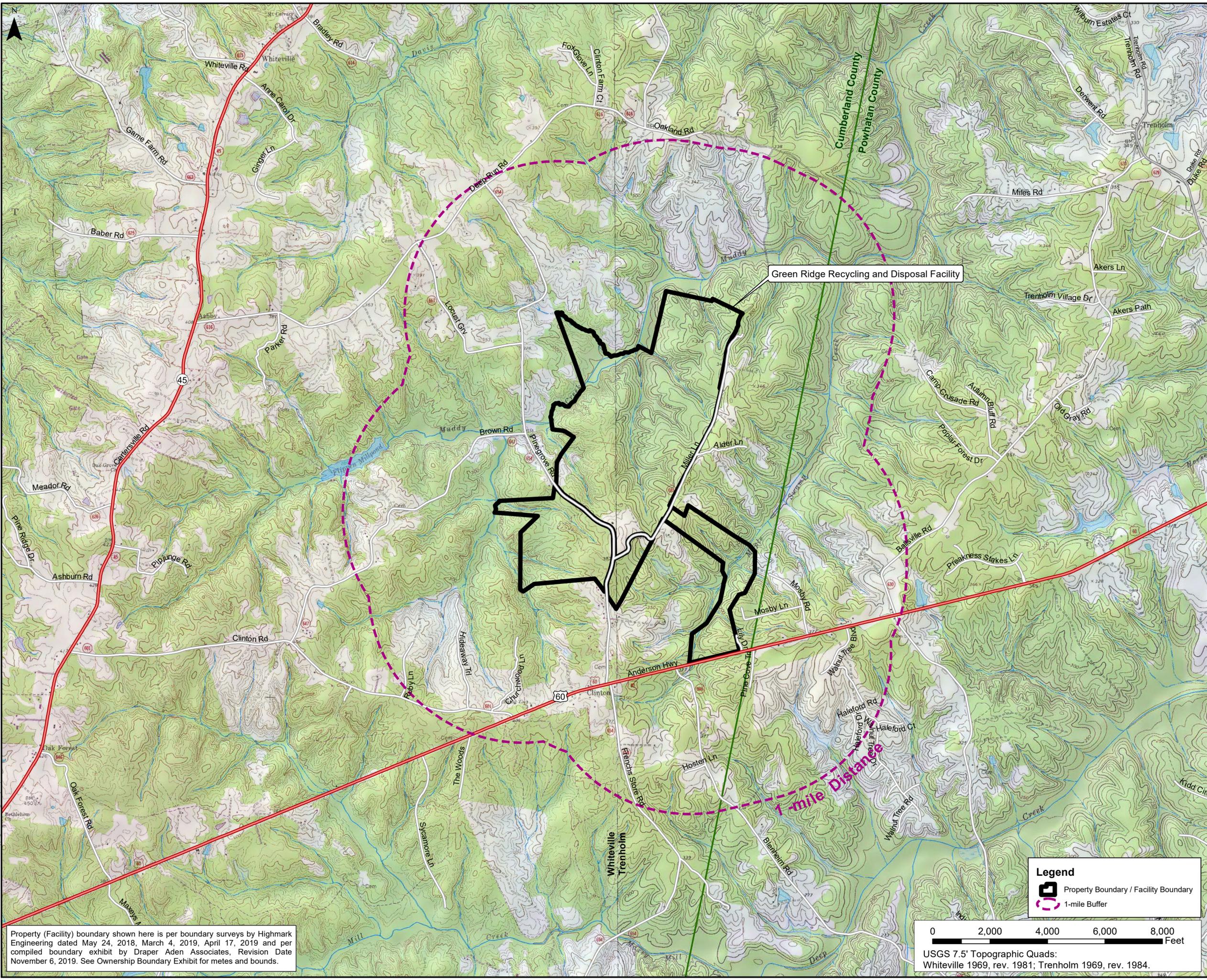


ATTACHMENT PTA-IX - KEY MAP, NEAR-VICINITY MAP, AND REGIONAL MAP

A Key Map has been developed for the Facility, and is included as **Figure No. 1**. The map shows the general location of the Facility and includes important features within one mile from the perimeter [§9 VAC 20-81-460.B]. A Near-Vicinity Map is also included, as **Figure No. 2**. This map shows important features within 500 feet of the perimeter of the Facility boundary, and includes all required layers [§9 VAC 20-81-460.C]. **Figure No. 3** is a Regional Map for the Facility. It includes important features within one, three, and five miles of the perimeter [§9 VAC 20-81-460.C.3, 120.I, and 460.H].



Property (Facility) boundary shown here is per boundary surveys by Highmark Engineering dated May 24, 2018, March 4, 2019, April 17, 2019 and per compiled boundary exhibit by Draper Aden Associates, Revision Date November 6, 2019. See Ownership Boundary Exhibit for metes and bounds.

Legend

- Property Boundary / Facility Boundary
- 1-mile Buffer



USGS 7.5' Topographic Quads:
Whiteville 1969, rev. 1981; Trenholm 1969, rev. 1984.



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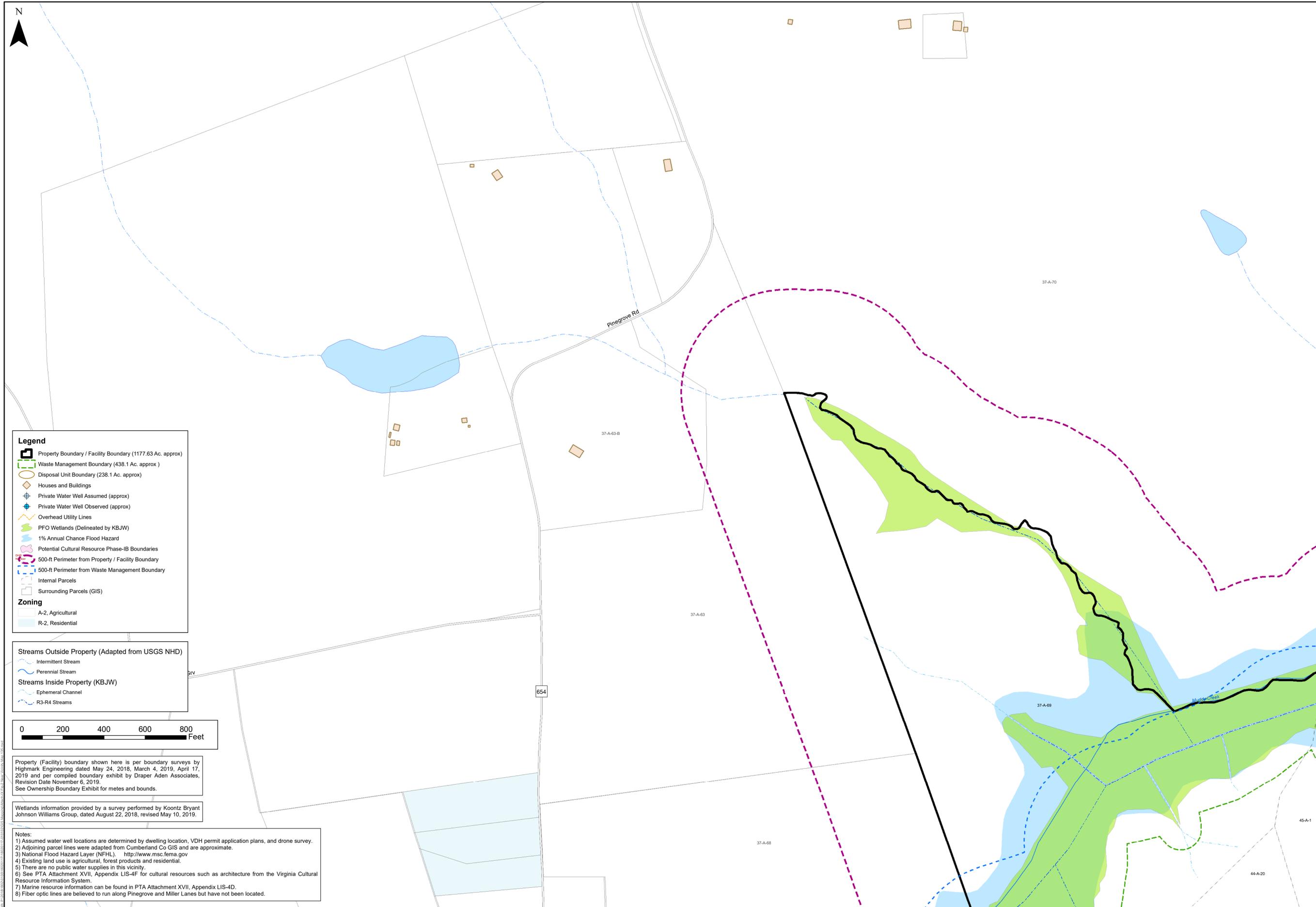
2206 South Main Street
Blacksburg, VA 24060
540-52-0444 Fax: 540-52-0291

Raleigh, NC
Fayetteville, NC
Charlottesville, VA
Hampden Roads, VA
Northern Virginia
Virginia Beach, VA



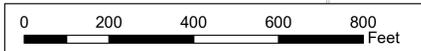
Key Map
Green Ridge Recycling and Disposal Facility
Cumberland Co., Virginia

DESIGNED BY:	LPK
DRAWN BY:	SMF
CHECKED BY:	KEB
SCALE:	1" = 2000'
DATE:	12-09-19
PROJECT NUMBER:	18020117-030102
PTA ATTACHMENT IX	
FIGURE: 1	



- Legend**
- Property Boundary / Facility Boundary (1177.63 Ac. approx)
 - Waste Management Boundary (438.1 Ac. approx)
 - Disposal Unit Boundary (238.1 Ac. approx)
 - Houses and Buildings
 - Private Water Well Assumed (approx)
 - Private Water Well Observed (approx)
 - Overhead Utility Lines
 - PFO Wetlands (Delineated by KBJW)
 - 1% Annual Chance Flood Hazard
 - Potential Cultural Resource Phase-IB Boundaries
 - 500-ft Perimeter from Property / Facility Boundary
 - 500-ft Perimeter from Waste Management Boundary
 - Internal Parcels
 - Surrounding Parcels (GIS)
- Zoning**
- A-2, Agricultural
 - R-2, Residential

- Streams Outside Property (Adapted from USGS NHD)**
- Intermittent Stream
 - Perennial Stream
- Streams Inside Property (KBJW)**
- Ephemeral Channel
 - R3-R4 Streams



Property (Facility) boundary shown here is per boundary surveys by Highmark Engineering dated May 24, 2018, March 4, 2019, April 17, 2019 and per compiled boundary exhibit by Draper Aden Associates, Revision Date November 6, 2019.
See Ownership Boundary Exhibit for metes and bounds.

Wetlands information provided by a survey performed by Koontz Bryant Johnson Williams Group, dated August 22, 2018, revised May 10, 2019.

- Notes:**
- 1) Assumed water well locations are determined by dwelling location, VDH permit application plans, and drone survey.
 - 2) Adjoining parcel lines were adapted from Cumberland Co GIS and are approximate.
 - 3) National Flood Hazard Layer (NFHL). <http://www.msc.fema.gov>
 - 4) Existing land use is agricultural, forest products and residential.
 - 5) There are no public water supplies in this vicinity.
 - 6) See PTA Attachment XVII, Appendix LIS-4F for cultural resources such as architecture from the Virginia Cultural Resource Information System.
 - 7) Marine resource information can be found in PTA Attachment XVII, Appendix LIS-4D.
 - 8) Fiber optic lines are believed to run along Pinegrove and Miller Lanes but have not been located.



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 Northern Virginia
 Virginia Beach, VA

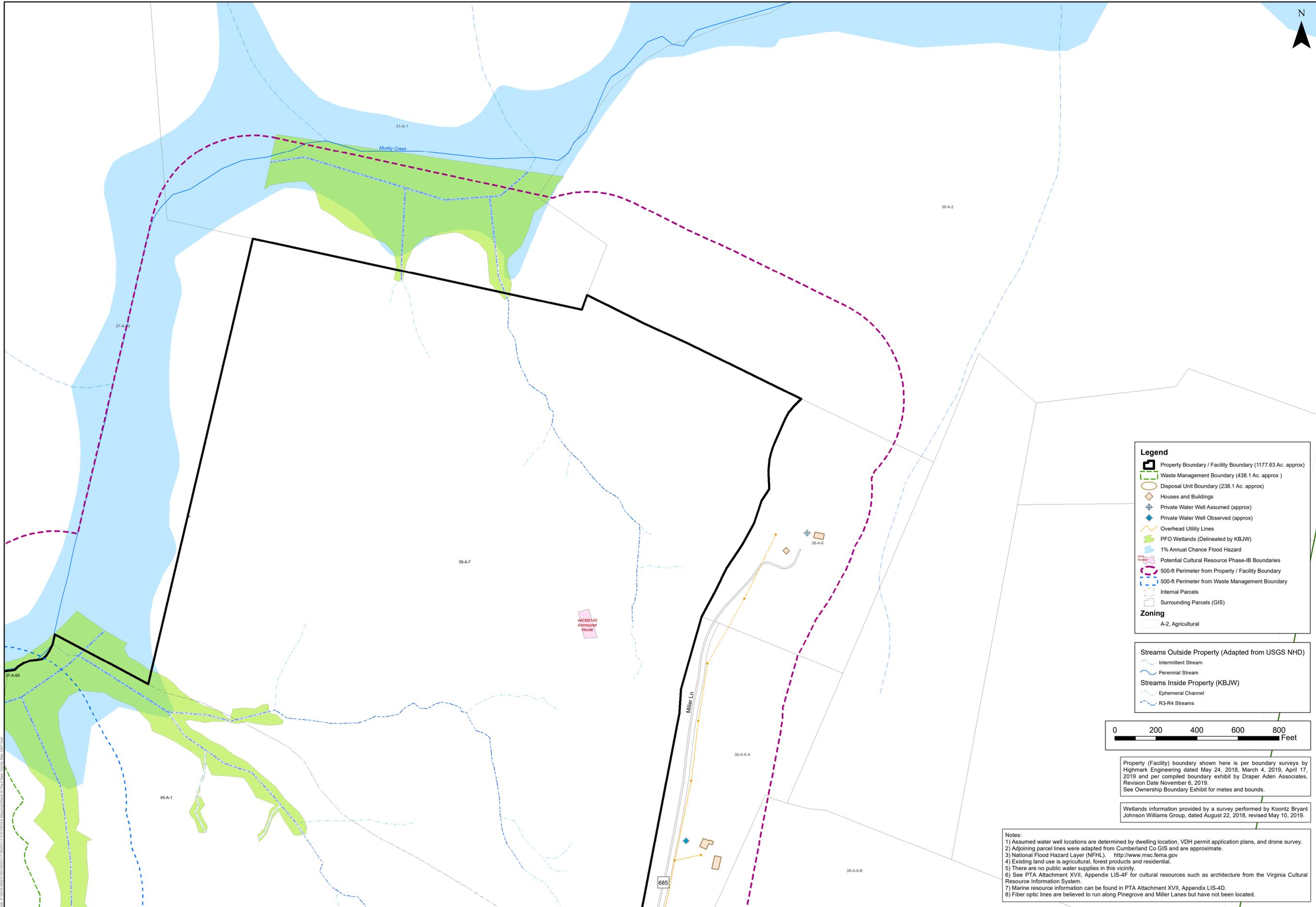


Near Vicinity Map
 Green Ridge Recycling and Disposal Facility
 Cumberland Co., Virginia

REVISIONS

1	2
3	4
5	6
Index	7

DESIGNED BY: LPK
 DRAWN BY: SMF
 CHECKED BY: KEB
 SCALE: 1" = 200'
 DATE: 12-09-19
 PROJECT NUMBER:
18020117-030102
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FIGURE: 2
 Page 1 of 7



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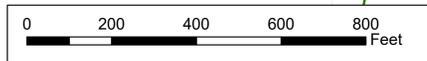
Richmond, VA
 Charlottesville, VA
 Hampton Roads, VA
 Raleigh, NC
 Fayetteville, NC
 Northern Virginia
 Virginia Beach, VA



Near Vicinity Map
 Green Ridge Recycling and Disposal Facility
 Cumberland Co., Virginia

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 - 1% Annual Chance Flood Hazard
 - Potential Cultural Resource Phase-IB Boundaries
 - 500-ft Perimeter from Property / Facility Boundary
 - 500-ft Perimeter from Waste Management Boundary
 - Internal Parcels
 - Surrounding Parcels (GIS)
- Zoning**
- A-2, Agricultural

- Streams Outside Property (Adapted from USGS NHD)**
- Intermittent Stream
 - Perennial Stream
- Streams Inside Property (KBJW)**
- Ephemeral Channel
 - R3-R4 Streams



Property (Facility) boundary shown here is per boundary surveys by Highmark Engineering dated May 24, 2018, March 4, 2019, April 17, 2019 and per compiled boundary exhibit by Draper Aden Associates, Revision Date November 6, 2019. See Ownership Boundary Exhibit for metes and bounds.

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 - 7) Marine resource information can be found in PTA Attachment XVII, Appendix LIS-4D.
 - 8) Fiber optic lines are believed to run along Pinegrove and Miller Lanes but have not been located.

REVISIONS

1	2
3	4
5	6
Index	7

DESIGNED BY: LPK

DRAWN BY: SMF

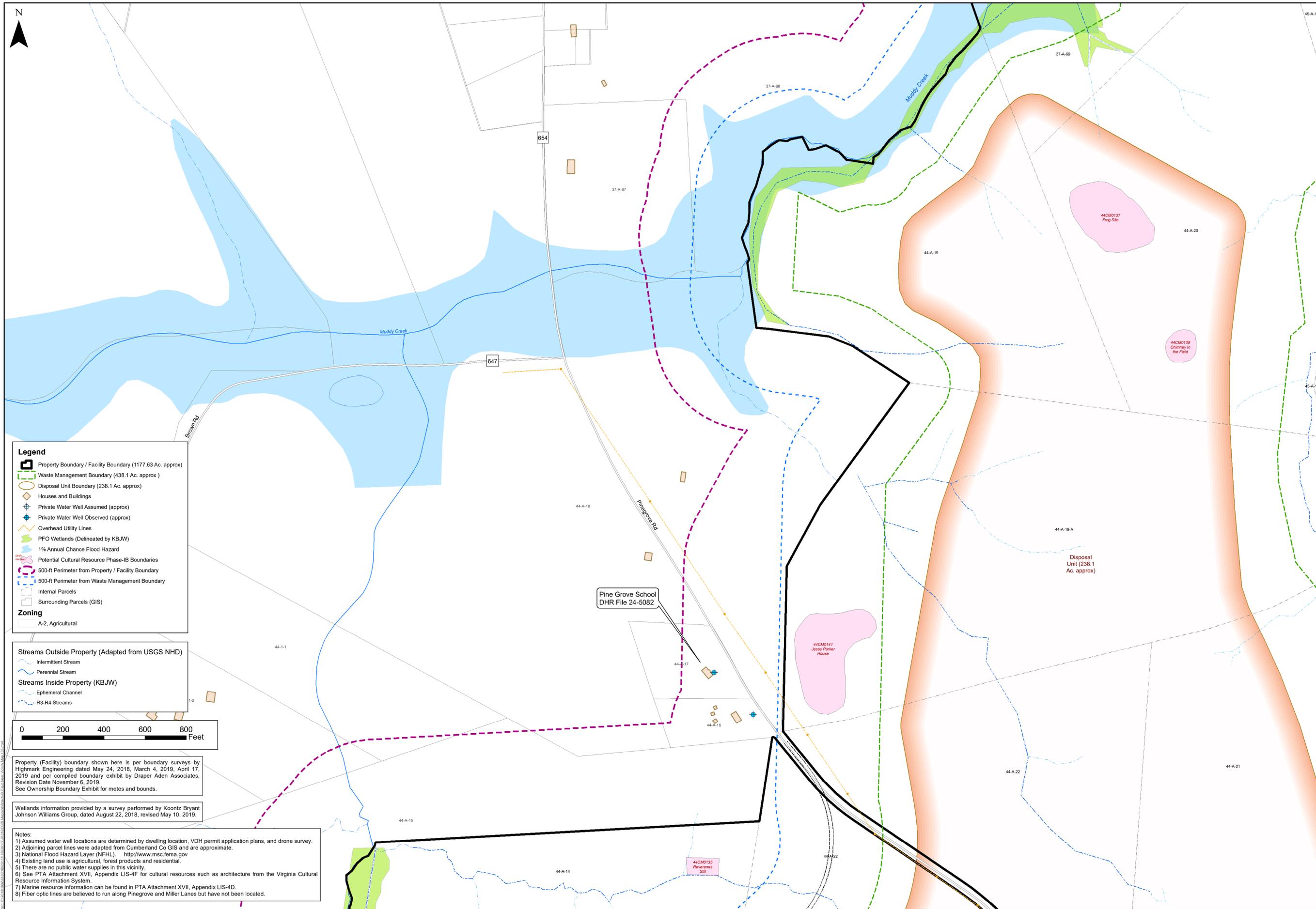
CHECKED BY: KEB

SCALE: 1" = 200'

DATE: 12-09-19

PROJECT NUMBER:
18020117-030102

PTA ATTACHMENT IX
FIGURE: 2
 Page 2 of 7



Legend

- Property Boundary / Facility Boundary (1177.63 Ac. approx)
- Waste Management Boundary (438.1 Ac. approx)
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- Houses and Buildings
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- Internal Parcels
- Surrounding Parcels (GIS)

Zoning

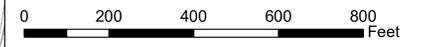
- A-2, Agricultural

Streams Outside Property (Adapted from USGS NHD)

- Intermittent Stream
- Perennial Stream

Streams Inside Property (KBJW)

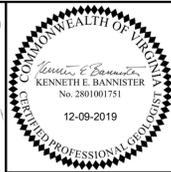
- Ephemeral Channel
- R3-R4 Streams



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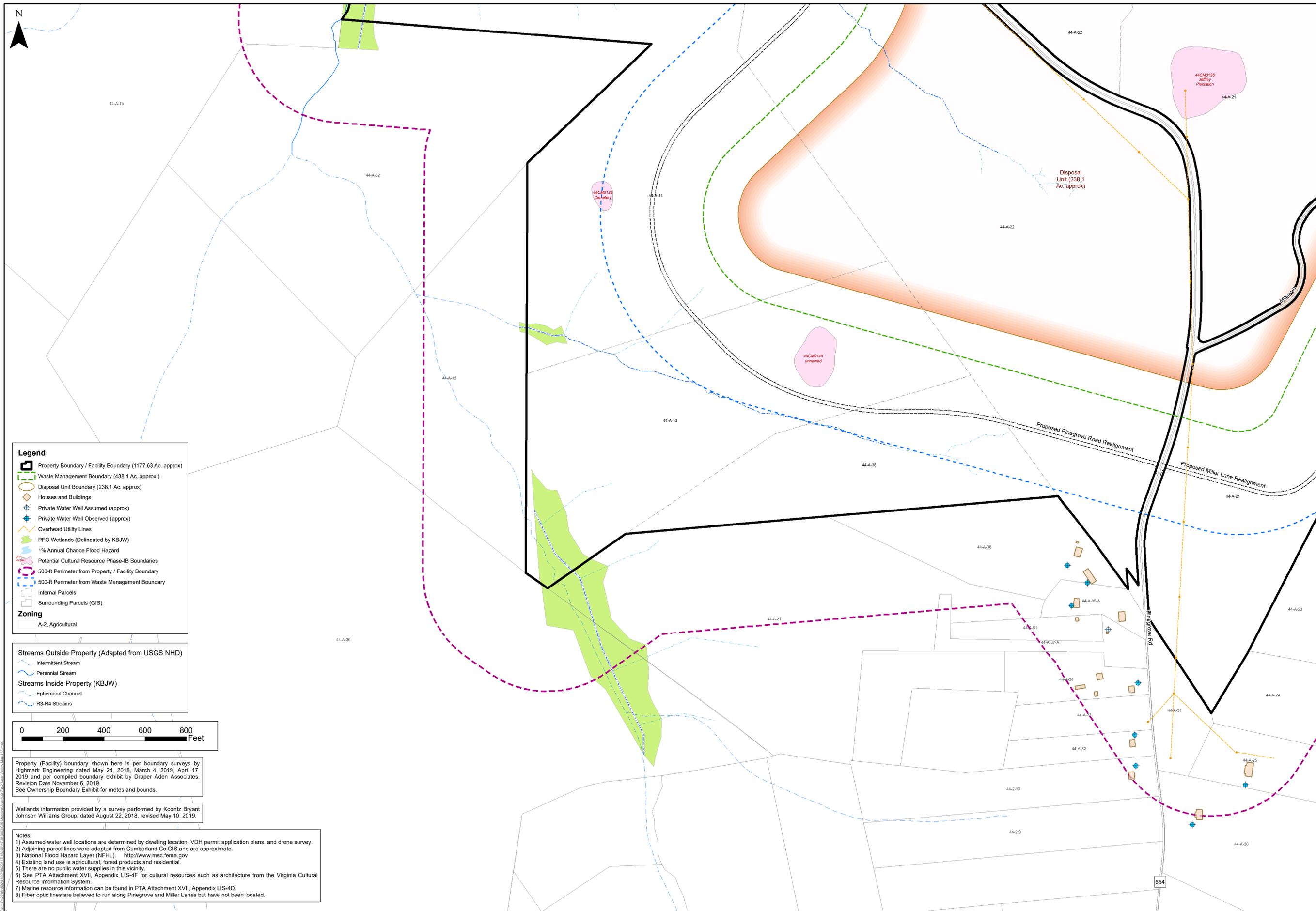
Near Vicinity Map
 Green Ridge Recycling and Disposal Facility
 Cumberland Co., Virginia

REVISIONS

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Index

DESIGNED BY: LPK
 DRAWN BY: SMF
 CHECKED BY: KEB
 SCALE: 1" = 200'
 DATE: 12-09-19
 PROJECT NUMBER:
18020117-030102
PTA ATTACHMENT IX
FIGURE: 2
 Page 3 of 7



Legend

- Property Boundary / Facility Boundary (1177.63 Ac. approx)
- Waste Management Boundary (438.1 Ac. approx)
- Disposal Unit Boundary (238.1 Ac. approx)
- Houses and Buildings
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- Potential Cultural Resource Phase-IB Boundaries
- 500-ft Perimeter from Property / Facility Boundary
- 500-ft Perimeter from Waste Management Boundary
- Internal Parcels
- Surrounding Parcels (GIS)

Zoning

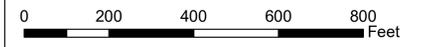
- A-2, Agricultural

Streams Outside Property (Adapted from USGS NHD)

- Intermittent Stream
- Perennial Stream

Streams Inside Property (KBJW)

- Ephemeral Channel
- R3-R4 Streams



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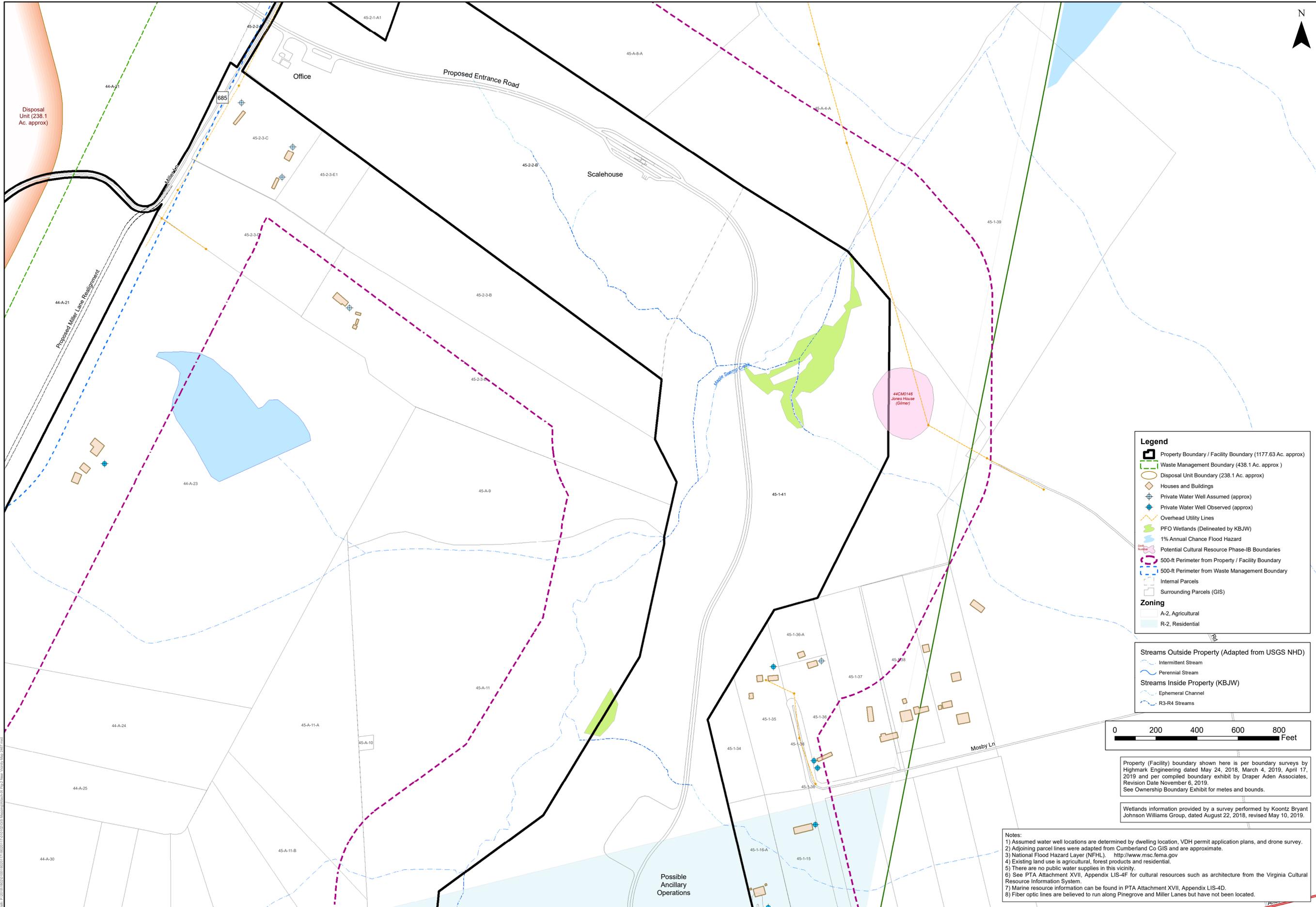


Near Vicinity Map
 Green Ridge Recycling and Disposal Facility
 Cumberland Co., Virginia

REVISIONS

1	2
3	4
5	6
Index	7

DESIGNED BY: LPK
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PTA ATTACHMENT IX
FIGURE: 2
 Page 5 of 7



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 Hampton Roads, VA
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Near Vicinity Map
 Green Ridge Recycling and Disposal Facility
 Cumberland Co., Virginia

Legend

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- Potential Cultural Resource Phase-IB Boundaries
- 500-ft Perimeter from Property / Facility Boundary
- 500-ft Perimeter from Waste Management Boundary
- Internal Parcels
- Surrounding Parcels (GIS)

Zoning

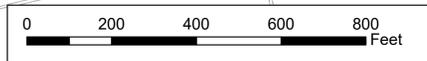
- A-2, Agricultural
- R-2, Residential

Streams Outside Property (Adapted from USGS NHD)

- Intermittent Stream
- Perennial Stream

Streams Inside Property (KBJW)

- Ephemeral Channel
- R3-R4 Streams



Property (Facility) boundary shown here is per boundary surveys by Highmark Engineering dated May 24, 2018, March 4, 2019, April 17, 2019 and per compiled boundary exhibit by Draper Aden Associates, Revision Date November 6, 2019. See Ownership Boundary Exhibit for metes and bounds.

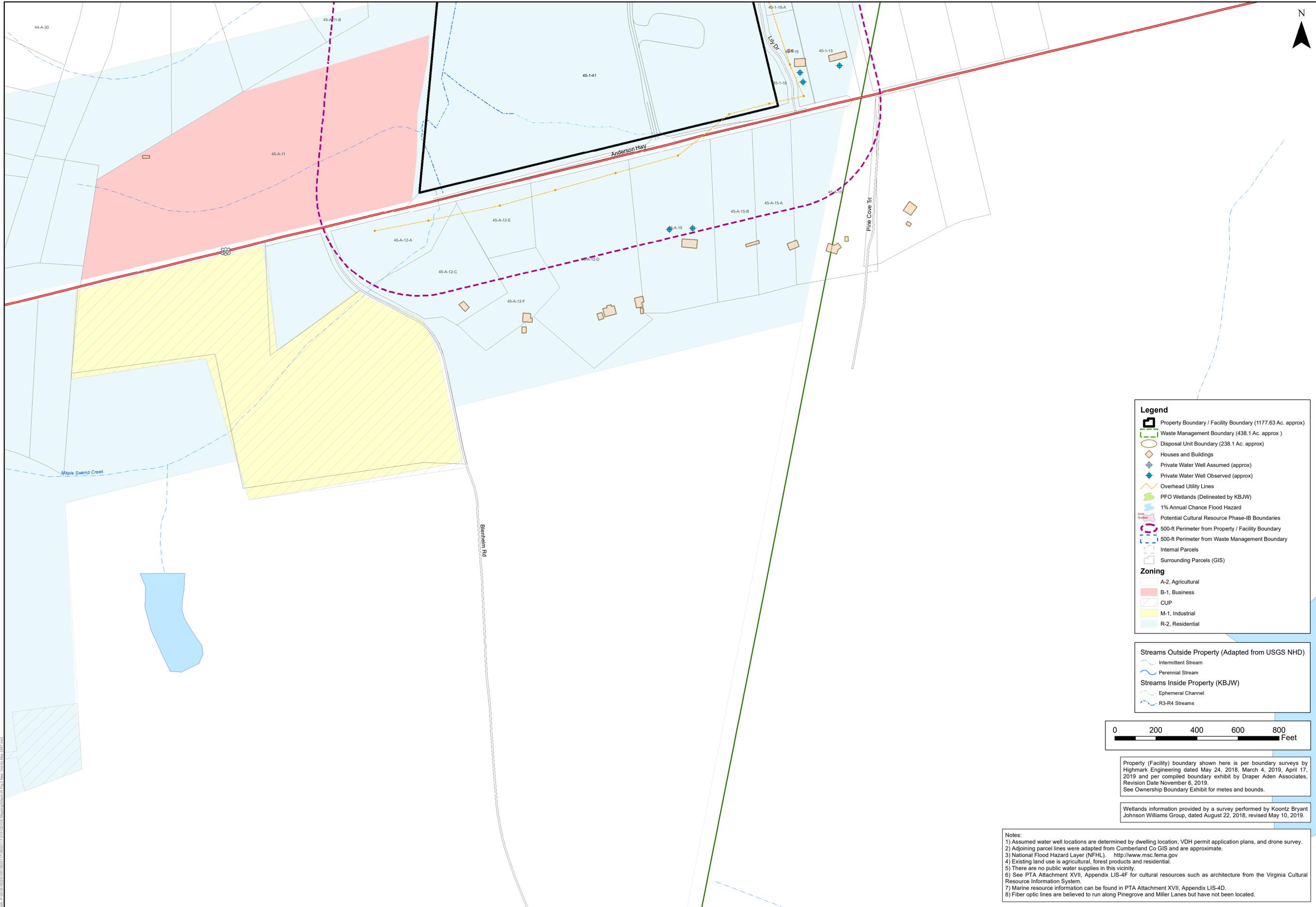
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REVISIONS

1	2
3	4
5	6
Index	7

DESIGNED BY: LPK
 DRAWN BY: SMF
 CHECKED BY: KEB
 SCALE: 1" = 200'
 DATE: 12-09-19
 PROJECT NUMBER:
18020117-030102
PTA ATTACHMENT IX
FIGURE: 2
 Page 6 of 7



Legend

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- 500-ft Perimeter from Property / Facility Boundary
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- Surrounding Parcels (GIS)

Zoning

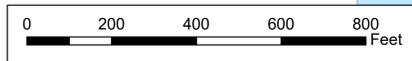
- A-2, Agricultural
- B-1, Business
- CUP
- M-1, Industrial
- R-2, Residential

Streams Outside Property (Adapted from USGS NHD)

- Intermittent Stream
- Perennial Stream

Streams Inside Property (KBJW)

- Ephemeral Channel
- R3-R4 Streams



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Near Vicinity Map
 Green Ridge Recycling and Disposal Facility
 Cumberland Co., Virginia

REVISIONS

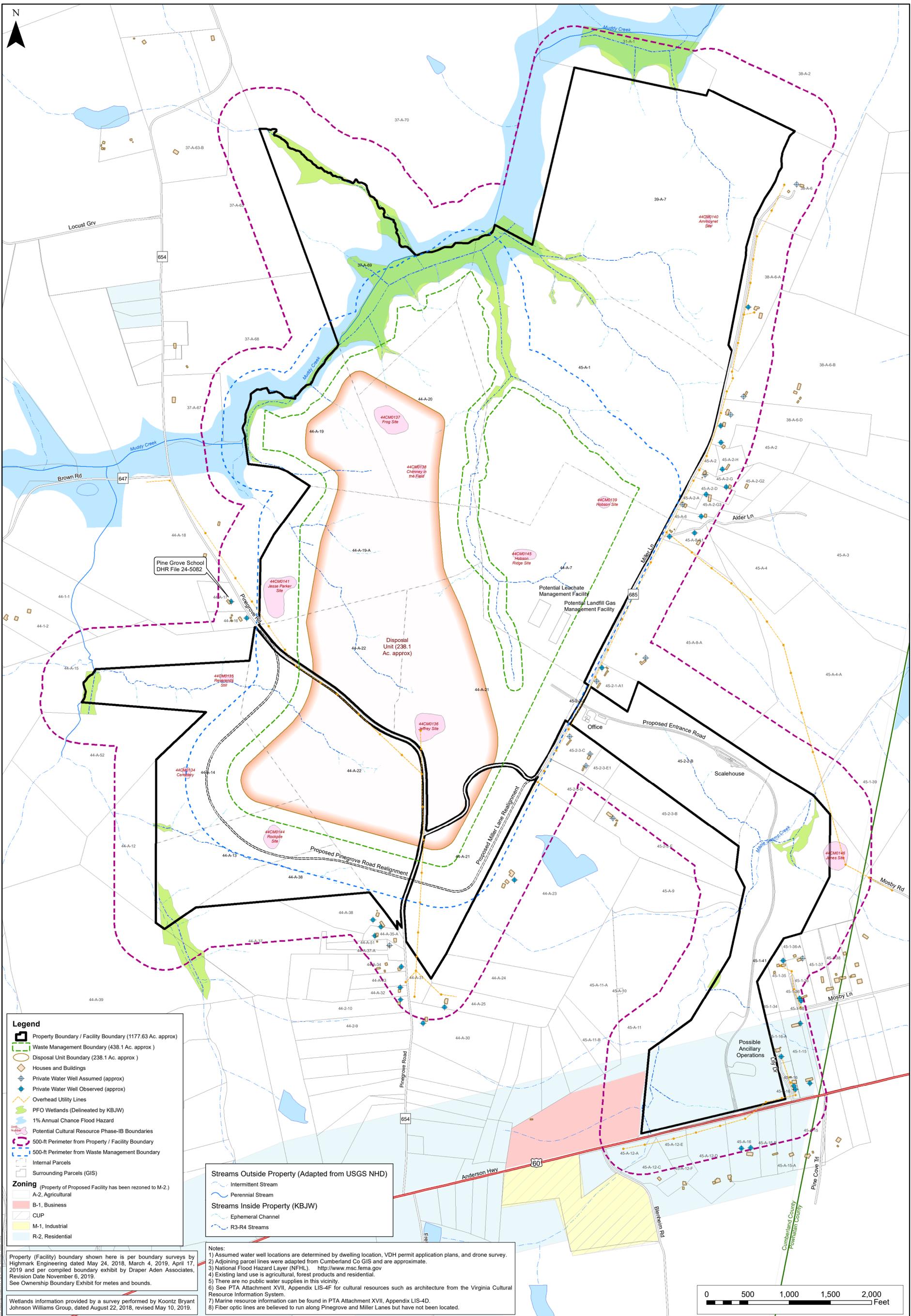
1	2
3	4
5	6
Index	7

DESIGNED BY: LPK
 DRAWN BY: SMF
 CHECKED BY: KEB

SCALE: 1" = 200'
 DATE: 12-09-19

PROJECT NUMBER:
18020117-030102
PTA ATTACHMENT IX
FIGURE: 2
 Page 7 of 7

Map: P:\2018\18020117-030102\18020117-030102-025_Maps\030102-025_Map_030102.dwg
 Date: 12/09/19 10:59:14 AM



Legend

- Property Boundary / Facility Boundary (1177.63 Ac. approx)
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- 500-ft Perimeter from Property / Facility Boundary
- 500-ft Perimeter from Waste Management Boundary
- Internal Parcels
- Surrounding Parcels (GIS)

Zoning (Property of Proposed Facility has been rezoned to M-2)

- A-2, Agricultural
- B-1, Business
- CUP
- M-1, Industrial
- R-2, Residential

Streams Outside Property (Adapted from USGS NHD)

- Intermittent Stream
- Perennial Stream

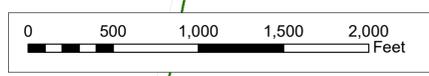
Streams Inside Property (KBJW)

- Ephemeral Channel
- R3-R4 Streams

Notes:

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Wetlands information provided by a survey performed by Koontz Bryant Johnson Williams Group, dated August 22, 2018, revised May 10, 2019.



DESIGNED BY:	LPK
DRAWN BY:	SMF
CHECKED BY:	KEB
SCALE:	1" = 500'
DATE:	12-09-19
PROJECT NUMBER:	18020117-030102
FIGURE:	PTA ATTACHMENT IX
FIGURE:	2

Near Vicinity Map

Green Ridge Recycling and Disposal Facility
Cumberland Co., Virginia

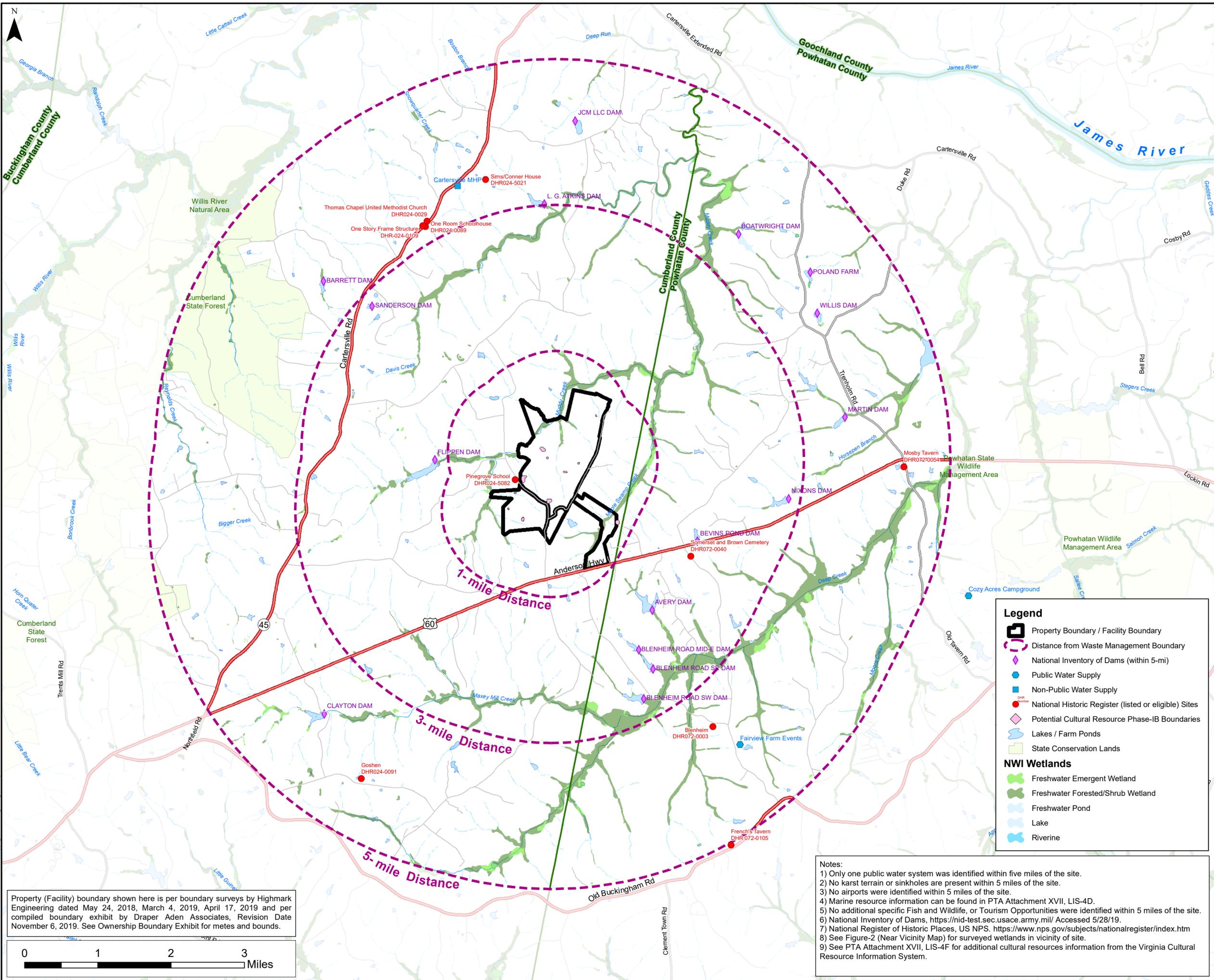
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Legend

- Property Boundary / Facility Boundary
- Distance from Waste Management Boundary
- National Inventory of Dams (within 5-mi)
- Public Water Supply
- Non-Public Water Supply
- National Historic Register (listed or eligible) Sites
- Potential Cultural Resource Phase-IB Boundaries
- Lakes / Farm Ponds
- State Conservation Lands

NWI Wetlands

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

Notes:

- 1) Only one public water system was identified within five miles of the site.
- 2) No karst terrain or sinkholes are present within 5 miles of the site.
- 3) No airports were identified within 5 miles of the site.
- 4) Marine resource information can be found in PTA Attachment XVII, LIS-4D.
- 5) No additional specific Fish and Wildlife, or Tourism Opportunities were identified within 5 miles of the site.
- 6) National Inventory of Dams, <https://nid-test.sec.usace.army.mil/> Accessed 5/28/19.
- 7) National Register of Historic Places, US NPS. <https://www.nps.gov/subjects/nationalregister/index.htm>
- 8) See Figure-2 (Near Vicinity Map) for surveyed wetlands in vicinity of site.
- 9) See PTA Attachment XVII, LIS-4F for additional cultural resources information from the Virginia Cultural Resource Information System.



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 Virginia Beach, VA



Regional Map
 Green Ridge Recycling and Disposal Facility
 Cumberland Co., Virginia

DESIGNED BY: LPK
 DRAWN BY: SMF
 CHECKED BY: KEB
 SCALE: 1:50,000
 DATE: 12-09-19
 PROJECT NUMBER:
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 PTA ATTACHMENT IX
 FIGURE: 3

Path: P:\2018\18020117-030102\GIS_Mapping\Atlas\JK_Fig-3_Regional_Map.mxd
 Date: 12/9/2019 10:58:11 AM

ATTACHMENT PTA-X - PROOF OF OWNERSHIP DOCUMENTS

The real property on which the Green Ridge facility will be located was originally purchased by a related company to Green Ridge Recycling and Disposal Facility, LLC, CWV Land Acquisition, LLC ("CWV Land"). The deeds provided therefore reflect that CWV Land is the record land owner. As of mid-January, a plan of merger was executed in which CWV Land is being merged into the applicant Green Ridge Recycling and Disposal Facility, LLC, which is the surviving entity, and therefore, pursuant Va. Code Section 13.1-1073, will be the owner of the real property. See documents filed with the Virginia State Corporation Commission attached. Final documentation relative to this merger and updated Exhibit will be provided to DEQ under separate cover when available.

The following deeds of ownership are provided herein:

American Timberland Property Deed (parcels 37-A-69, 44-A-20, 45-A-1, and 45-A-7)

Marion Property Deed (parcel 38-A-7)

Jones Property Deed (parcels 44-A-13, 44-A-14, 44-A-22, and 44-A-36)

Tinsley Property Deed (parcel 44-A-19)

Carlisle Property Deed (parcel 44-A-19A)

Wick Property Deed (parcels 44-A-21, 45-2-A, and 45-2-2-B)

Palmore Property Deed (parcels 45-1-40 and 45-1-41)

An exhibit showing the locations of the properties is attached. Note: Deeds may cover multiple parcels.

KAUFMAN & CANOLES
attorneys at law

Kaufman & Canoles, P.C.
150 West Main Street
Suite 2100
Norfolk, VA 23510

Mailing Address
Post Office Box 3037
Norfolk, VA 23514

T (757) 624.3000
F (888) 360.9092

kaufCAN.com

Writer's Direct Dial
(757) 624.3298
csrawls@kaufcan.com

January 17, 2020

VIA HAND DELIVERY

State Corporation Commission
ATTN: Expedited Services, ATTN: Mr. Chuck Rogers
Clerk's Office, First Floor
1300 E. Main Street
Richmond, VA 23219

**Re: Merger of CWV Land Acquisition, LLC and CWV Land Acquisition II, LLC
into Green Ridge Recycling and Disposal Facility, LLC
Our Matter No. 174348**

Dear Mr. Rogers:

Enclosed for filing are Articles of Merger for the above-referenced companies, along with a check in the amount of \$225 payable to the State Corporation Commission for the filing fee and the same day expedited service fee.

Please file the Articles using your same day expedited service. An Expedited Service Request form is also enclosed.

Thank you for your assistance in this matter.

Very truly yours,



Charlotte S. Rawls
Commercial Paralegal

csr

Enclosures

cc: L. Scott Seymour, Esq.
Jacob L. Glasser, Esq.



SCC21.2
(03/19)

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
OFFICE OF THE CLERK
1300 E MAIN ST
RICHMOND, VA 23219
(804) 371-9733
1-866-722-2551 Toll-free in Virginia

Expedited Service Request Form

This form MUST be completed and placed on top of EACH document submission (so it can be readily identified as a request for expedited review and processing).

Name of Corporation or Company (etc.): (Must be typed for Email option.) <div style="text-align: center; font-size: 1.2em;">Green Ridge Recycling and Disposal Facility, LLC</div>	SCC ID No. (if known): <div style="text-align: center; font-size: 1.2em;">S7517818</div>
---	--

Customer Contact Information:

Name: Charlotte Rawls

Company: Kaufman & Canoles, P.C.

Address: P. O. Box 3037

<u>Norfolk</u>	<u>VA</u>	<u>23514</u>
(city or town)	(state)	(zip code)

Telephone: (757) 624 - 3298 ext _____

Email: CSRAWLS@KAUFCAN.COM

(All Letters in Email Address must be CAPITALIZED.)

Send Evidence of Expedited Filing By:
(Choose one)

Email (Only available for Categories A, C and D)

Two typed originals of this form must be submitted for Email option.
See "Return of Evidence" in the Instructions.

Hold for Pickup (Available at 4:00 p.m.)

First-Class Mail

USPS Express Mail (Prepaid envelope required.)

Overnight via UPS Fed Ex
(Completed waybill required. For Fed Ex, the waybill must be computer-generated with a barcode.)

~~ See Information & Instructions for description of Categories. ~~

Expedited Service Requested: (mark service requested)	*** Expedite Fee: <small>*** (other fees may be needed – see footnote)</small>
<input checked="" type="checkbox"/> Category A Expedite Business Entity Document listed in Schedule A	
<input checked="" type="checkbox"/> Same Day Service (Received by 10:00 a.m.)	\$ 200
<input type="checkbox"/> Next Day Service (Received by 2:00 p.m.)	\$ 100
<input type="checkbox"/> Category B Preliminary Review of Document listed in Schedule A (2 nd Business Day Service Only – Received by 2:00 p.m.)	\$ 50
<input type="checkbox"/> Resubmission within 30 Days of initial Pre-Review	(N/C)
<input type="checkbox"/> Category C Expedite Business Entity Document listed in Schedule C (Next Day Service Only – Received by 2:00 p.m.)	\$ 50
<input type="checkbox"/> Category D Expedite Application for Reinstatement (Next Day Service Only – Received by 2:00 p.m.)	\$ 50

FOR OFFICE USE ONLY

I/O

*** Submit one payment for all applicable fees (e.g., charter/entrance, reinstatement, filing and expedite fees)

REVIEW THE INSTRUCTIONS BEFORE SUBMITTING THIS FORM.



SCC21.2
(03/19)

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
OFFICE OF THE CLERK
1300 E MAIN ST
RICHMOND, VA 23219
(804) 371-9733
1-866-722-2551 Toll-free in Virginia

Expedited Service Request Form

This form MUST be completed and placed on top of EACH document submission (so it can be readily identified as a request for expedited review and processing).

Name of Corporation or Company (etc.): (Must be typed for Email option.) <p style="text-align: center;">Green Ridge Recycling and Disposal Facility, LLC</p>	SCC ID No. (if known): <p style="text-align: center;">S7517818</p>																					
Customer Contact Information: Name: <u>Charlotte Rawls</u> Company: <u>Kaufman & Canoles, P.C.</u> Address: <u>P. O. Box 3037</u> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <u>Norfolk</u> <small>(city or town)</small> <u>VA</u> <small>(state)</small> <u>23514</u> <small>(zip code)</small> </div> Telephone: (<u>757</u>) <u>624</u> - <u>3298</u> ext _____ Email: <u>CSRAWLS@KAUFCAN.COM</u> <p style="text-align: center; font-size: small;">(All Letters in Email Address must be CAPITALIZED.)</p>	Send Evidence of Expedited Filing By: (Choose <u>one</u>) <input checked="" type="checkbox"/> Email (Only available for Categories A, C and D) <div style="border: 1px solid black; padding: 5px; margin: 5px 0; font-size: small;"> Two typed originals of this form <u>must</u> be submitted for Email option. See "Return of Evidence" in the Instructions. </div> <input type="checkbox"/> Hold for Pickup (Available at 4:00 p.m.) <input type="checkbox"/> First-Class Mail <input type="checkbox"/> USPS Express Mail (Prepaid envelope required.) <input type="checkbox"/> Overnight via <input type="checkbox"/> UPS <input type="checkbox"/> Fed Ex <small>(Completed waybill required. For Fed Ex, the waybill must be computer-generated with a barcode.)</small>																					
<p style="text-align: center;">~~ See Information & Instructions for description of Categories. ~~</p> Expedited Service Requested: (mark service requested) *** Expedite Fee: (other fees may be needed - see footnote) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><input checked="" type="checkbox"/></td> <td style="width: 55%;">Category A Expedite Business Entity Document listed in Schedule A</td> <td style="width: 30%;"></td> </tr> <tr> <td></td> <td> <input checked="" type="checkbox"/> Same Day Service (Received by 10:00 a.m.)</td> <td style="text-align: right;">\$ 200</td> </tr> <tr> <td></td> <td> <input type="checkbox"/> Next Day Service (Received by 2:00 p.m.)</td> <td style="text-align: right;">\$ 100</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Category B Preliminary Review of Document listed in Schedule A (2nd Business Day Service Only - Received by 2:00 p.m.)</td> <td style="text-align: right;">\$ 50</td> </tr> <tr> <td></td> <td> <input type="checkbox"/> Resubmission within 30 Days of initial Pre-Review</td> <td style="text-align: right;">(N/C)</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Category C Expedite Business Entity Document listed in Schedule C (Next Day Service Only - Received by 2:00 p.m.)</td> <td style="text-align: right;">\$ 50</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Category D Expedite Application for Reinstatement (Next Day Service Only - Received by 2:00 p.m.)</td> <td style="text-align: right;">\$ 50</td> </tr> </table>	<input checked="" type="checkbox"/>	Category A Expedite Business Entity Document listed in Schedule A			<input checked="" type="checkbox"/> Same Day Service (Received by 10:00 a.m.)	\$ 200		<input type="checkbox"/> Next Day Service (Received by 2:00 p.m.)	\$ 100	<input type="checkbox"/>	Category B Preliminary Review of Document listed in Schedule A (2 nd Business Day Service Only - Received by 2:00 p.m.)	\$ 50		<input type="checkbox"/> Resubmission within 30 Days of initial Pre-Review	(N/C)	<input type="checkbox"/>	Category C Expedite Business Entity Document listed in Schedule C (Next Day Service Only - Received by 2:00 p.m.)	\$ 50	<input type="checkbox"/>	Category D Expedite Application for Reinstatement (Next Day Service Only - Received by 2:00 p.m.)	\$ 50	<p style="text-align: center; font-weight: bold;">FOR OFFICE USE ONLY</p> <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 10px;"></div>
<input checked="" type="checkbox"/>	Category A Expedite Business Entity Document listed in Schedule A																					
	<input checked="" type="checkbox"/> Same Day Service (Received by 10:00 a.m.)	\$ 200																				
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<input type="checkbox"/>	Category D Expedite Application for Reinstatement (Next Day Service Only - Received by 2:00 p.m.)	\$ 50																				

*** Submit one payment for all applicable fees (e.g., charter/entrance, reinstatement, filing and expedite fees)

REVIEW THE INSTRUCTIONS BEFORE SUBMITTING THIS FORM.

**ARTICLES OF MERGER
OF
CWV LAND ACQUISITION, LLC,
A VIRGINIA LIMITED LIABILITY COMPANY
AND
CWV LAND ACQUISITION II, LLC,
A VIRGINIA LIMITED LIABILITY COMPANY
INTO
GREEN RIDGE RECYCLING AND DISPOSAL FACILITY, LLC,
A VIRGINIA LIMITED LIABILITY COMPANY**

FIRST: The Plan of Merger is as follows:

1. The limited liability companies planning to merge and the surviving limited liability company into which the limited liability companies plan to merge are as follows: CWV Land Acquisition, LLC, a Virginia limited liability company, and CWV Land Acquisition II, LLC, a Virginia limited liability company (hereinafter referred to as "Merging Companies") plan to merge into and with Green Ridge Recycling and Disposal Facility, LLC, a Virginia limited liability company (hereinafter referred to as the "Surviving Company").

2. The terms and conditions of the merger are as follows: The Merging Companies shall, upon the effective date (the "Effective Date") of the Certificate of Merger issued by the State Corporation Commission pursuant to Section 13.1-1072 of the Code of Virginia, 1950, as amended (the "Code"), be merged with and into the Surviving Company.

3. The manner and basis of converting the membership interests of the Merging Companies into membership interests of the Surviving Company shall be as follows:

On the Effective Date: All of the membership interests outstanding in the Merging Companies, both of which are wholly owned subsidiaries of the Surviving Company, shall, by virtue of the Merger and without any action on the part of the holder thereof, be canceled and no consideration shall be issued in respect thereof.

SECOND: The plan of merger was:

(a) Adopted and approved by the sole Member of CWV Land Acquisition, LLC on January 16, 2020.

(b) Adopted and approved by the sole Member of CWV Land Acquisition II, LLC on January 16, 2020.

(c) Adopted and approved by the sole Member and the Manager of Green Ridge Recycling and Disposal Facility, LLC on January 16, 2020.

THIRD: The Plan of Merger was approved by the Merging Companies and the Surviving Company in accordance with the provisions of Section 13.1-1071 of the Code.

EXECUTED this 16th day of January, 2020

CWV LAND ACQUISITION, LLC,
a Virginia limited liability company

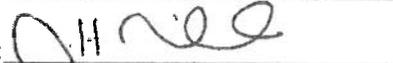
By: GREEN RIDGE RECYCLING AND DISPOSAL
FACILITY, LLC, its sole Member

By: GR Manageco, LLC, its manager

By: See counterpart signature
Scott T. Earl, its member

By: Clairvest GP Manageco Inc., its member

By: 
Name: MICHAEL CASTELLARIN
Title: MANAGING DIRECTOR

By: 
Name: JAMES H. MILLER
Title: CORPORATE SECRETARY

CWV LAND ACQUISITION II, LLC,
a Virginia limited liability company

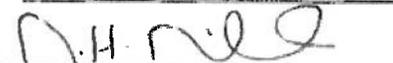
By: GREEN RIDGE RECYCLING AND DISPOSAL
FACILITY, LLC, its sole Member

By: GR Manageco, LLC, its manager

By: See counterpart signature
Scott T. Earl, its member

By: Clairvest GP Manageco Inc.,
its member

By: 
Name: MICHAEL CASTELLARIN
Title: MANAGING DIRECTOR

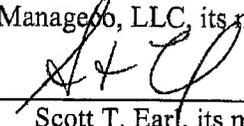
By: 
Name: JAMES H. MILLER
Title: CORPORATE SECRETARY

EXECUTED this 16th day of January, 2020

CWV LAND ACQUISITION, LLC,
a Virginia limited liability company

By: GREEN RIDGE RECYCLING AND DISPOSAL
FACILITY, LLC, its sole Member

By: GR Manageco, LLC, its manager

By: 

Scott T. Earl, its member

By: Clairvest GP Manageco Inc., its member

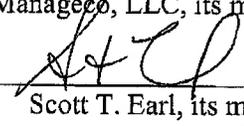
By: See counterpart signature
Name: _____
Title: _____

By: See counterpart signature
Name: _____
Title: _____

CWV LAND ACQUISITION II, LLC,
a Virginia limited liability company

By: GREEN RIDGE RECYCLING AND DISPOSAL
FACILITY, LLC, its sole Member

By: GR Manageco, LLC, its manager

By: 

Scott T. Earl, its member

By: Clairvest GP Manageco Inc.,
its member

By: See counterpart signature
Name: _____
Title: _____

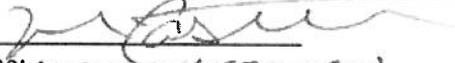
By: See counterpart signature
Name: _____
Title: _____

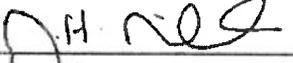
**GREEN RIDGE RECYCLING AND DISPOSAL
FACILITY, LLC, a Virginia limited liability company**

By: GR Manageco, LLC, its manager

By: See counterpart signature
Scott T. Earl, its member

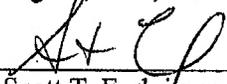
By: Clairvest GP Manageco Inc.,
its member

By: 
Name: MICHAEL LUSTELWEIN
Title: MARKETING DIRECTOR

By: 
Name: JAMES H. MILLER
Title: CORPORATE SECRETARY

GREEN RIDGE RECYCLING AND DISPOSAL
FACILITY, LLC, a Virginia limited liability company

By: GR Manageco? LLC, its manager

By: 

Scott T. Earl, its member

By: Clairvest GP Manageco Inc.,
its member

By: See counterpart signature

Name: _____

Title: _____

By: See counterpart signature

Name: _____

Title: _____

LAND ACQUISITIONS

PROPERTY DEED: AMERICAN TIMBERLAND, LLC

Parcels 37-A-69, 44-A-20, 45-A-1, 45-A-7

Prepared by:
F. LEWIS BIGGS, Esq.
Kepley Broschius & Biggs, PLC
2211 Pump Road
Richmond, Virginia 23233-3507

When Recorded, Return to:
Gordon, Dodson, Gordon & Rowlett
10303 Memory Lane, Suite 101
P.O. Box 130
Chesterfield, VA 23832

Consideration: \$950,000
Assessed Value: \$523,430

Tax Parcel Nos.: 45-A-7, 37-A-69,
44-A-20, and 45-A-1

DEED OF BARGAIN AND SALE

This deed, made and entered into this 27 day of ~~March~~ ^{February}, 2019, by and between AMERICAN TIMBERLAND, LLC, a Delaware limited liability company (the "Grantor"), and CWV LAND ACQUISITIONS, a Virginia limited liability company (the "Grantee"), whose address is 4 Enterprise Avenue, Clifton Park, NY 12065, provides as follows:

WITNESSETH:

THAT for and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid and other good and valuable consideration, the receipt of which is hereby acknowledged by the Grantor, the Grantor does hereby grant, bargain, sell and convey with SPECIAL WARRANTY to the Grantee the real estate described on Exhibit A attached hereto, together with appurtenances thereto (the "Real Estate");

PROVIDED, HOWEVER, THAT the Real Estate is conveyed subject to (and the foregoing special warranty does not cover) (i) all recorded encumbrances, easements, rights-of-way, covenants, agreements, conditions, restrictions, reservations, limitations, mechanics' liens, materialmen's liens, and any other matters of record lawfully applicable to the Property, (ii) the lien of real estate taxes not yet due and payable, (iii) such state of facts as an accurate survey and inspection of the Property would reveal, (iv) the reservation of timber rights provided for below, including, without limitation, rights of ingress and egress over the Real Estate during the term of a certain Timber Reservation Agreement of even date herewith between the Grantor and the Grantee for the purpose of harvesting timber located within Timber Reservation Area, as defined below (the "Reserved Timber") and/or removing Reserved Timber from the Real Estate, and (v) other "Permitted Encumbrances," as such term is defined in the Agreement of Sale dated September 20, 2017 between the Grantor and the Grantee, to the extent such Permitted Encumbrances are lawfully applicable to the Property; and

PROVIDED FURTHER, HOWEVER, THAT the Grantor does hereby reserve and retain the ownership of all trees and timber growing, lying and standing within Real Estate, excluding (a) those areas designated as "Excluded from Timber Reservation" on the attached Exhibit B and (b) those areas located within a 50' of the exterior lot lines of the Real Estate (considered together as a single unit).

IN WITNESS WHEREOF, this deed has been executed on behalf of the undersigned as of the 27 day of ~~March~~ February, 2019.

GRANTOR:

AMERICAN TIMBERLAND, LLC, a Delaware limited liability company

By: BTG Pactual Asset Management US, LLC, its Manager

By: Philip S. Weigel
Name: PHILIP S WEIGEL
Title: AUTHORIZED SIGNATORY

STATE OF NC

COUNTY/CITY OF WARREN to wit:

The foregoing deed was acknowledged before me this 27 day of February, 2019, by Philip S. Weigel, in his/her capacity as Authorized Signatory of BTG Pactual Asset Management US, LLC, the manager of AMERICAN TIMBERLAND, LLC, a Delaware limited liability company, as the act of such company.

My commission expires: 06-13-2019.

JACKIE C HALLS
NOTARY PUBLIC
WARREN COUNTY, NC
My Commission Expires 6-13-2019

Jackie C Halls
Notary Public
Notarial Registration No.: N/A

[NOTARIAL SEAL]

EXHIBIT A

TRACT NUMBER CU-002 (HOBSON)

ALL that certain tract or parcel of land, lying, being and situate in Hamilton District, Cumberland County, Virginia, containing 171 acres, more or less, and described as follows:

THAT parcel of land designated as Lot No. 1 on a map made by R. C. Dodl, C. E., recorded with a decree of the Circuit Court of the County of Cumberland, Virginia, in the suit of Octavia Coleman, et als, vs. James Miller, et als, dated October 29, 1942, in Deed Book 78, page 47, the plat being recorded in Deed Book 78, page 49, containing one hundred and seventy-one (171) acres, more or less, adjoining Lot No. 2 and Lot No. 3 on said map, the CCC road or County Road No. 600, and the lands now or formerly owned by Milton McLaurine, Alger Lipscomb and John Martin.

TRACT NUMBER CU-042 (W. E. HATCHER)

ALL those certain two tracts or parcels of land situate, lying and being in the Hamilton Magisterial District, Cumberland County, Virginia, as follows: (A) Containing twenty five (25) acres, more or less, and known as Tract #2 on a plat by R. C. Dodl, C. E., dated August 22, 1942, and (B) Containing fifty seven (57) acres, more or less, which adjoins the aforesaid twenty five acre tract, and known as Tract #3 on said plat of R. C. Dodl, C. E. Said plat is titled "map showing sub-division of Edward Hobson Estate" and is recorded along with decree making partition of the Edward Hobson estate in the Clerk's Office of the Circuit Court of Cumberland County, Virginia, in Deed Book 78 at Page 47; reference to which is hereby made, and said eighty two (82) acres, more or less, herein conveyed is more particularly described as follows:

BEGINNING at a stake on the C.C.C. road thence along the West side of said road S 28° 28' W 640 ft. to cedar stake; thence S 28° 28' W 366 ft.; thence S 28° 26' W 1234 ft. to a white oak; thence N 57° W 1437 ft. to planted stone; thence N 1° W 693 ft. to a stake in a branch; thence N 5° 34' W 660 ft. to a pine and iron stake; thence S 70° 15' E 702 ft. to a stake and a rock; thence N 29° E 873 ft. to a stake; thence S 61° E 1445 ft. to a stake at the point of beginning. Said metes and bounds include Tract #2 containing twenty five acres, more or less, and Tract #3 containing fifty seven acres, more or less.

TRACT NUMBER CU-063 (BARNES-LIPSCOMB)

ALL that parcel, situated in the Hamilton Magisterial District, Cumberland County, Virginia, approximately 2.5 miles (airline) north northwest of Clinton, consisting of 78.0 acres (being formerly described as 85.5 acres, more or less) lying south and east of (but not touching upon) State Route #654, said tract being shown and fully described on a plat of E. F. Massie, Jr., dated June 1958, which plat is recorded with and made a part of the deed recorded in Deed Book 104, page 276.

TRACT NUMBER CU-069 (M. L. TYLER)

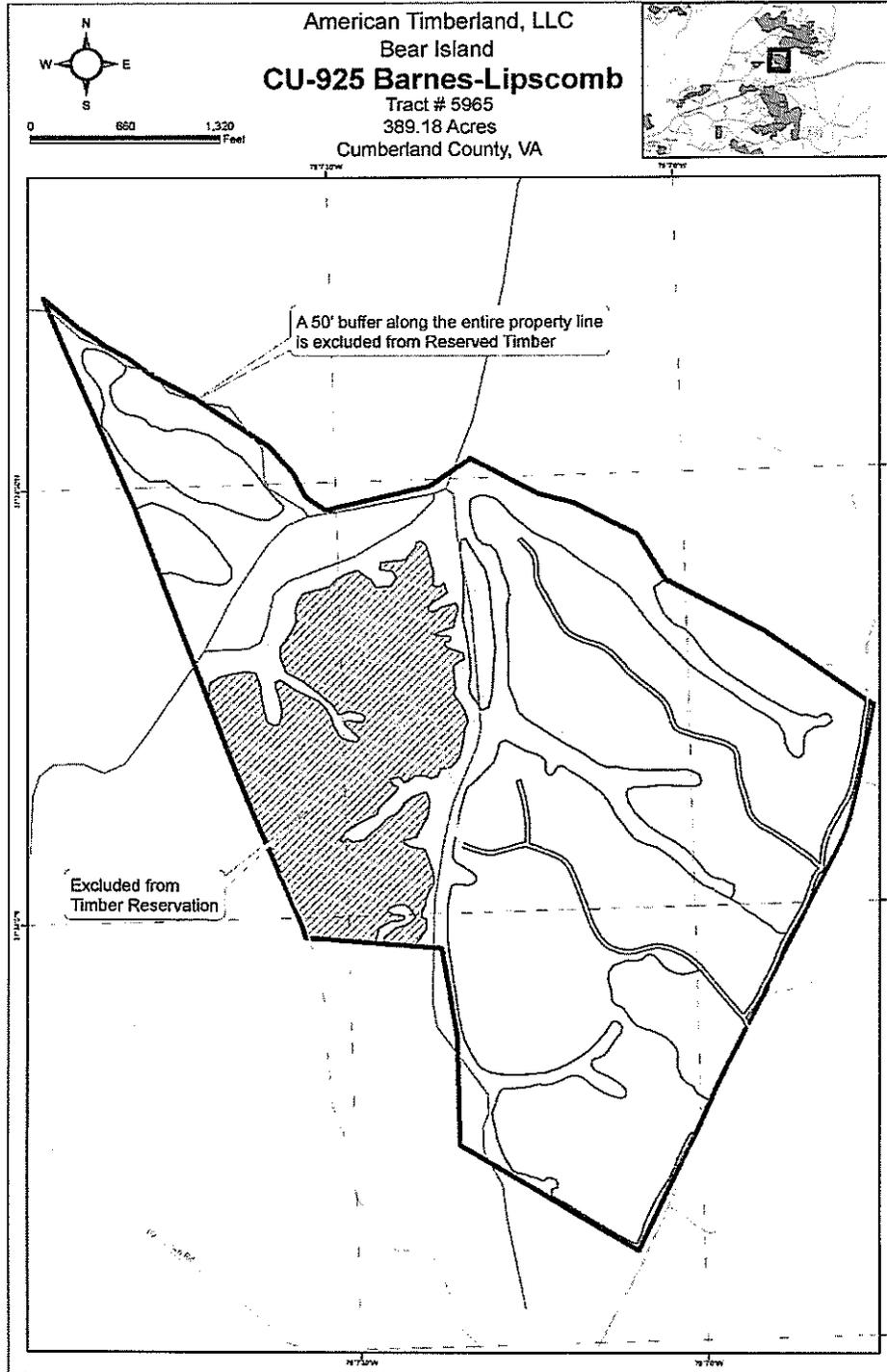
ALL that certain tract or parcel of land, lying, being and situate in Hamilton District, Cumberland County, Virginia, containing 58.18 acres, and described as follows according to a plat entitled "Continental Can Company, Inc. M. L. Tyler Tract No. 549-114, 58.18 Acres, Hamilton District, Cumberland County, Virginia", dated February 20, 1968, made by John R. Nunnally, Jr., C. L. S., a copy of which is attached and made a part of the deed recorded in Deed Book 115, page 80:

BEGINNING at an iron stake and cedar post marking the northernmost boundary of the property hereinafter described cornering with the property now or formerly owned by Continental Can Company, Inc. known as the Barnes-Lipscomb Tract #9366 and the property now or formerly owned by Continental Can Company, Inc. known as the Hobson Tract #8537; thence S. 11° 38' E. 19.61 chains to a cedar post on creek; thence S. 14° 44' W. 15.94 chains to White Oak; thence S. 5° 45' W. 3.63 chains to an iron and Ced. stk; thence S. 3° 30' W. 0.19 chains to a dead pine; thence N. 75° 11' W. 14.54 chains to a 10" pine; thence N. 15° 45' W. 20.13 chains to an iron; thence N. 52° 15' E. 25.24 chains to an iron stake and cedar post, the point of beginning.

TOGETHER with a non-exclusive easement of an undetermined width extending across certain property to State Route #685, as more particularly described in that certain Deed by and between Marcus L. Tyler and Corine F. Tyler and Continental Can Company, Inc., dated February 28, 1968, recorded March 1, 1968, in the Clerk's Office, Circuit Court of Cumberland County, Virginia, in Deed Book 115, page 80.

EXHIBIT B

Depiction of Reserved Timber Areas



LAND ACQUISITIONS

PROPERTY DEED: CURTIS FRANKLIN MARION

Parcel 38-A-7

Deed Prepared By:

N. Garrison Elder, VSB#79590
Elder & Watkins, P.C.
P. O. Box E
113-B East Second Street
Farmville, VA 23901
(434) 392-6647

Real Property ID Map Number:
038-A-7

Title Insurance Underwriter:
First American Title

Consideration: \$399,878.00
Assessment: \$ 212,870.00

THIS DEED, made this 7th day of October, 2019, by and between CURTIS FRANKLIN MARION, hereinafter referred to as the GRANTOR, and CWV LAND ACQUISITION, LLC, hereinafter referred to as the GRANTEE, whose address is 4 Enterprise Ave, Clifton Park, NY, 12065

W I T N E S S E T H :

THAT for and in consideration of the sum of TEN DOLLARS (\$10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the GRANTOR hereby grants and conveys in fee simple absolute with **GENERAL WARRANTY** and **ENGLISH COVENANTS** of title unto the GRANTEE, the following described real estate, to-wit:

ALL THAT CERTAIN PARCEL of land, lying and being in Hamilton Magisterial District, Cumberland County, Virginia, containing 163.746 acres, more or less, as shown on plat of survey prepared by Edmund C. Burruss, L.S., dated October 30, 1997, entitled "Plat of a Parcel of Land in the Hamilton District, Cumberland, Virginia, Being a Portion of Tax Map Section 37(A) Parcel 70" said plat recorded in the Clerk's Office, Circuit Court, Cumberland County, Virginia, in Plat Cabinet A-191, reference to which is hereby made for a more particular description of said property.

BEING the same property conveyed to Curtis Franklin Marion by Deed from Lucy H. Martin, dated January 14, 1998, and recorded January

ELDER & WATKINS
FARMVILLE, VA 23901

15, 1998, in the Clerk's Office of the Circuit Court of Cumberland County, Virginia, in Deed Book 220, at page 837.

The Grantor reserves the right to harvest timber on that portion of the property ("Timber Area") not used by the GRANTEE for its operations, as such use may change from time to time, and less and except a buffer area of fifty (50) feet from all property boundary lines and from any area used by the Grantee in its operations on the property. Grantor likewise reserves the right of ingress and egress across the property conveyed herein for the purpose of conducting its timber harvest. Notwithstanding anything herein to the contrary the Grantor shall conduct its harvesting operation in a manner that does not interfere with Buyer's operations on the property.

The Grantor shall notify the Grantee and the Virginia Department of Forestry a minimum of seven (7) days prior to the start of any harvesting operations, and shall provide notice to the Grantee within twenty-four (24) hours after harvesting is complete. Upon completion of the harvest, Grantor shall promptly repair all damage resulting from its timber operation.

This conveyance is expressly made subject to all unexpired conditions, restrictions, reservations and easements of record to the extent that they may lawfully apply to the property hereby conveyed.

WITNESS the following signature and seal:

Curtis Franklin Marion (SEAL)
CURTIS FRANKLIN MARION

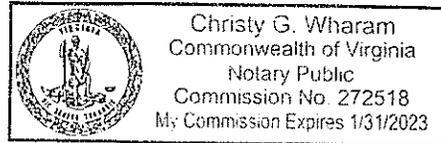
STATE OF VIRGINIA,

CITY/COUNTY of Prince Edward, to-wit:

I, the undersigned, a Notary Public in and for the jurisdiction aforesaid, whose commission expires January 31, 2023, do hereby certify that CURTIS FRANKLIN MARION whose name is signed to the foregoing Deed bearing the date of October 7, 2019, has acknowledged the same before me in my jurisdiction aforesaid, this 8 day of October, 2019.

Christy G. Wharam
Notary Public

ID #: 272518



LAND ACQUISITIONS

PROPERTY DEEDS: JONES FAMILY

Parcels 44-A-13, 44-A-14, 44-A-22, 44-A-36

DEED INSTRUMENT

NO. 201701035

Document Prepared by:
W. RICHARD HAIRFIELD, VSB#14903
HAIRFIELD MORTON, PLC
TITLE COMPANY: OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
CONSIDERATION: \$58,305.00; ASSESSED VALUE: \$49,340.00
Return to: Jeff Under
Map Parcel Nos. 44-A-36

THIS DEED made this 21st day of September, 2017, by and between CLARKE C. JONES, WILLIAM H. JONES, III, and ROBERT P. JONES (the "Grantors"), and CWV LAND ACQUISITION, LLC, a Delaware limited liability company (the "Grantee").

WITNESSETH:

That for and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid by the Grantee to the Grantors, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantors do hereby grant and convey with GENERAL WARRANTY AND ENGLISH COVENANTS OF TITLE to the Grantee, in fee simple, the following described real estate, to-wit:

See attached Schedule "A"

This conveyance is made expressly subject to any and all easements, restrictions, covenants and agreements of record applicable to the property hereby conveyed.

WITNESS the following signatures and seals:

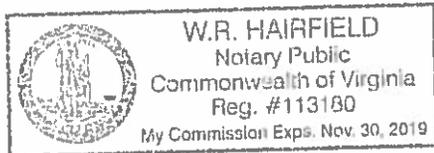

_____(SEAL)
CLARKE C. JONES

Commonwealth of Virginia

City/County of Roanoke, to-wit:

The foregoing instrument was acknowledged before me this 22 day of September, 2017 by CLARKE C. JONES.

My commission expires: 11/30/19





Notary Public

William H. Jones, III (SEAL)
WILLIAM H. JONES, III

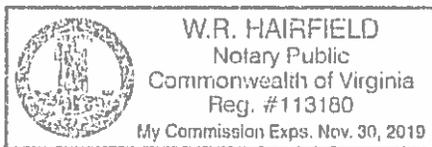
Commonwealth of Virginia

City/County of Des Moines, to-wit:

The foregoing instrument was acknowledged before me this 22nd day of September, 2017 by WILLIAM H. JONES, III.

My commission expires: 11/30/19

[Signature]
Notary Public



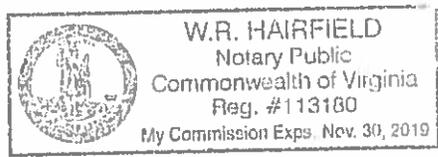
 (SEAL)
ROBERT P. JONES

Commonwealth of Virginia

City/County of Westfield, to-wit:

The foregoing instrument was acknowledged before me this 22nd day of September, 2017 by ROBERT P. JONES.

My commission expires: 11/30/19





Notary Public

Grantee Address:

4 Enterprise Avenue, Clifton Park, NY 12065

SCHEDULE "A"

ALL that certain lot, piece or parcel of land with all improvements thereon and appurtenances thereto, belonging, lying and being in the Hamilton District of Cumberland County, Virginia, containing 17.94 acres, more or less, and being shown and described as Parcel 3 on a plat of survey made by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA", a copy of which plat is recorded in the Clerk's Office, Circuit Court, Cumberland County, Virginia as Cabinet "B" Slide 273.

BEING the same real estate conveyed to Clarke C. Jones, Robert P. Jones and William H. Jones, III, by Deed from Roberta H. Miller, Christopher Brackett, Michelle Rhonda Brackett Carroll, Bertha M. Davis, Juanita N. Tucker, Franklyn Bennie Brunskill, and Lorna Stokley, dated July 24, 2013, recorded August 30, 2013, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, as Instrument No. 20131024.

~~MAILED~~/DELIVERED TO:

Jeff Vaden

INSTRUMENT 201701035
RECORDED IN THE CLERK'S OFFICE OF
CUMBERLAND COUNTY CIRCUIT COURT ON
October 2, 2017 AT 12:32 PM
\$58.50 GRANTOR TAX WAS PAID AS
REQUIRED BY SEC 58.1-802 OF THE VA. CODE
STATE: \$29.25 LOCAL: \$29.25
SARAH A SPRY, CLERK
RECORDED BY: DDM

Sarah A. Spry

DEED INSTRUMENT

NO. 201701034

Document Prepared by:
W. RICHARD HAIRFIELD, VSB#14903
HAIRFIELD MORTON, PLC

Plat recorded in
Plat Cabinet B Slide 273

TITLE COMPANY: OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

CONSIDERATION: \$793,072.00; ASSESSED VALUE: \$296,010.00

Return to: JGH/ML

Map Parcel Nos. 44-A-13; 044-A-14; 044-A-22

THIS DEED made this 21st day of September, 2017, by and between CLARKE CHASTAIN JONES, WILLIAM HENRY JONES, III, ROBERT PRESTON JONES, and TERRY DOUGLAS JONES (the "Grantors"), and CWV LAND ACQUISITION, LLC, a Delaware limited liability company (the "Grantee").

WITNESSETH:

That for and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid by the Grantee to the Grantors, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantors do hereby grant and convey with GENERAL WARRANTY AND ENGLISH COVENANTS OF TITLE to the Grantee, in fee simple, the following described real estate, to-wit:

See attached Schedule "A"

This conveyance is made expressly subject to any and all easements, restrictions, covenants and agreements of record applicable to the property hereby conveyed.

WITNESS the following signatures and seals:

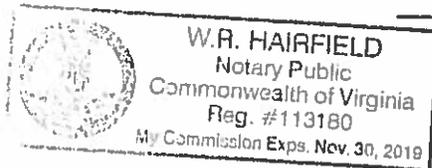
 (SEAL)
CLARKE CHASTAIN JONES

Commonwealth of Virginia

City/County of Charlottesville, to-wit:

The foregoing instrument was acknowledged before me this 22nd day of September, 2017 by CLARKE CHASTAIN JONES.

My commission expires: 11/30/19




Notary Public

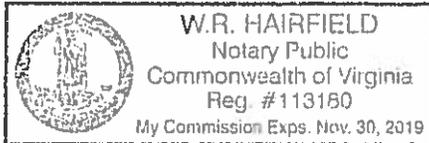
William Henry Jones, III (SEAL)
WILLIAM HENRY JONES, III

Commonwealth of Virginia

City/County of Christchurch, to-wit:

The foregoing instrument was acknowledged before me this 22nd day of September, 2017 by WILLIAM HENRY JONES, III.

My commission expires: 11/30/19



[Signature]
Notary Public

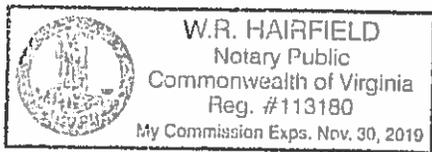
 (SEAL)
ROBERT PRESTON JONES

Commonwealth of Virginia

City/County of Stafford, to-wit:

The foregoing instrument was acknowledged before me this 22nd day of September, 2017 by ROBERT PRESTON JONES.

My commission expires: 11/30/19




Notary Public

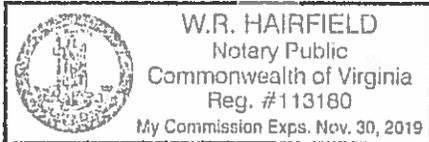
Terry Douglas Jones (SEAL)
TERRY DOUGLAS JONES

Commonwealth of Virginia

City/County of Stafford, to-wit:

The foregoing instrument was acknowledged before me this 22nd day of September, 2017 by TERRY DOUGLAS JONES.

My commission expires: 11/30/19



[Signature]
Notary Public

Grantee Address:

4 Enterprise Avenue, Clifton Park, NY 12065

SCHEDULE "A"

PARCEL I (TM#044-A-13):

ALL that certain lot, piece or parcel of land with all improvements thereon and appurtenances thereto, belonging, lying and being in the Hamilton District of Cumberland County, Virginia, containing 36.09 acres, more or less, and being shown and described as Parcel 2 on a plat of survey made by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA", a copy of which plat is attached hereto and recorded herewith for a more particular description.

BEING the same real estate conveyed to William H. Jones, Jr., by Deed from Nellie S. Stonnell, widow, Nellie M. Cox and S. B. Cox, her husband, Carolyn S. Baber and James P. Baber, her husband and Janet S. Gray and Cameron Gray, her husband, dated May 24, 1979, recorded September 11, 1979, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, in Deed Book 147, page 176. The said William H. Jones, Jr. died Testate on October 1, 2012, and by his Will, probated October 17, 2012, recorded November 7, 2012, in Will Book 417, page 23, and by his List of Heirs, filed November 7, 2012, in Will Book 417, page 41, the said real estate was devised to Clarke Chastain Jones, William Henry Jones, III, Robert Preston Jones and Terry Douglas Jones.

PARCEL II (TM#044-A-14):

ALL that certain lot, piece or parcel of land with all improvements thereon and appurtenances thereto, belonging, lying and being in the Hamilton District of Cumberland County, Virginia, containing 63.54 acres, more or less, and being shown and described as Parcel 1 on a plat of survey made by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA", a copy of which plat is attached hereto and recorded herewith for a more particular description.

BEING the same real estate conveyed to William H. Jones, Jr., by Deed from Elizabeth Scott Marks, widow, and Thomas O. Moore and Ann Elizabeth Moore, husband and wife, dated May 5, 1978, recorded May 19, 1978, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, in Deed Book 142, page 462. The said William H. Jones, Jr. died Testate on October 1, 2012, and by his Will, probated October 17, 2012, recorded November 7, 2012, in Will Book 417, page 23, and by his List of Heirs, filed November 7, 2012, in Will Book 417, page 41, the said real estate was devised to Clarke Chastain Jones, William Henry Jones, III, Robert Preston Jones and Terry Douglas Jones.

PARCEL III (TM#044-A-22):

ALL that certain lot, piece or parcel of land with all improvements thereon and appurtenances thereto, belonging, lying and being in the Hamilton District of Cumberland County, Virginia, containing in total 120.76 acres, more or less, and being shown and described as Parcel 4, containing 37.09 acres, more or less, (Portion 1) and 83.67 acres, more or less, (Portion 2) as shown on a plat of survey made by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA", a copy of which plat is attached hereto and recorded herewith for a more particular description.

BEING a portion of the same real estate conveyed to W. H. Jones, by Deed from W. H. Pleasants and Douglas E. Pleasants, his wife, Pattie E. Powell and H. A. Powell, her husband, Sally A. Stone and Geo. A. Stone, her husband, and W. H. Jones and Mary J. Jones, his wife, being the children and grandchildren of Rosa W. Jones, deceased, dated April 18, 1938, recorded May 15, 1939, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, in Deed Book 75, page 181. The said William H. Jones, died Testate on August 16, 1954, and by his Will, dated February 14, 1945, and probated September 7, 1954, in Will Book 19, page 279, property was devised to his wife, Mary Jackson Jones, for and during her natural life or widowhood, with remainder at her death or remarriage to be devised to his son, William Henry Jones, Jr.. The said William H. Jones, Jr. died Testate on October 1, 2012, and by his Will, probated October 17, 2012, recorded November 7, 2012, in Will Book 417, page 23, and by his List of Heirs, filed November 7, 2012, in Will Book 417, page 41, the said real estate was devised to Clarke Chastain Jones, William Henry Jones, III, Robert Preston Jones and Terry Douglas Jones.

DELIVERED TO:
Jeff Vaden

INSTRUMENT 201701034
RECORDED IN THE CLERK'S OFFICE OF
CUMBERLAND COUNTY CIRCUIT COURT ON
October 2, 2017 AT 12:24 PM
\$793.50 GRANTOR TAX WAS PAID AS
REQUIRED BY SEC 58.1-802 OF THE VA. CODE
STATE: \$396.75 LOCAL: \$396.75

SARAH A SPRY, CLERK
RECORDED BY: DBM

Sarah A. Spry

OWNER'S POLICY OF TITLE INSURANCE

Policy Issuer:
PERPETUAL TITLE, LLC
9910 WAGNERS WAY
CHESTERFIELD, VA 23832
PHONE: (804) 748-3600



Policy Number **OX-11986322** File Number: **PT17-2058**

Issued by Old Republic National Title Insurance Company

Any notice of claim and any other notice or statement in writing required to be given to the Company under this Policy must be given to the Company at the address shown in Section 18 of the Conditions.

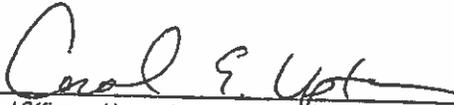
COVERED RISKS

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B, AND THE CONDITIONS, OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, a Florida corporation (the "Company") insures, as of Date of Policy and, to the extent stated in Covered Risks 9 and 10, after Date of Policy, against loss or damage, not exceeding the Amount of Insurance, sustained or incurred by the Insured by reason of:

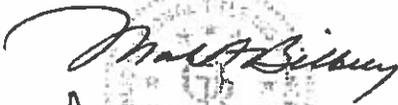
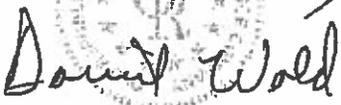
1. Title being vested other than as stated in Schedule A.
2. Any defect in or lien or encumbrance on the Title. This Covered Risk includes but is not limited to insurance against loss from:
 - (a) A defect in the Title caused by
 - (i) forgery, fraud, undue influence, duress, incompetency, incapacity, or impersonation;
 - (ii) failure of any person or Entity to have authorized a transfer or conveyance;
 - (iii) a document affecting Title not properly created, executed, witnessed, sealed, acknowledged, notarized, or delivered;
 - (iv) failure to perform those acts necessary to create a document by electronic means authorized by law;
 - (v) a document executed under a falsified, expired, or otherwise invalid power of attorney;
 - (vi) a document not properly filed, recorded, or indexed in the Public Records including failure to perform those acts by electronic means authorized by law; or
 - (vii) a defective judicial or administrative proceeding.
 - (b) The lien of real estate taxes or assessments imposed on the Title by a governmental authority due or payable, but unpaid.
 - (c) Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
3. Unmarketable Title.
4. No right of access to and from the Land.
5. The violation or enforcement of any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (a) the occupancy, use, or enjoyment of the Land;
 - (b) the character, dimensions, or location of any improvement erected on the Land;
 - (c) the subdivision of land; or
 - (d) environmental protectionif a notice, describing any part of the Land, is recorded in the Public Records setting forth the violation or intention to enforce, but only to the extent of the violation or enforcement referred to in that notice.

Countersigned:

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
A Stock Company
400 Second Avenue South, Minneapolis, Minnesota 55401
(612) 371-1111



Authorized Officer or Licensed Agent

By  President
 Secretary



SCHEDULE A

Name and Address of Title Insurance Company:
Old Republic National Title Insurance Company
400 Second Avenue South
Minneapolis, Minnesota 55401

File No.: PT17-2058

Policy No.: OX-11986322

Address Reference: 0 Pinegrove Road
Cumberland, Virginia 23040

Amount of Insurance: \$ 58,305.00

Premium: \$ 250.00

Date of Policy: October 2, 2017 at 12:32 PM

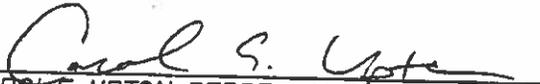
1. Name of Insured:
CWV Land Acquisition, LLC
2. The estate or interest in the Land that is insured by this policy is:
Fee Simple
3. Title is vested in:
CWV Land Acquisition, LLC
4. The Land referred to in this policy is described as follows:

ALL that certain lot, piece or parcel of land with all improvements thereon and appurtenances thereto, belonging, lying and being in the Hamilton District of Cumberland County, Virginia, containing 17.94 acres, more or less, and being shown and described as Parcel 3 on a plat of survey made by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA," a copy of which plat is recorded in the Clerk's Office, Circuit Court, Powhatan County, Virginia, in Plat Cabinet B, Slide 273, reference to which plat is hereby made for a more particular description of the real estate.

BEING the same real estate conveyed to CWV Land Acquisition, LLC, by Deed from Clarke C. Jones, Robert P. Jones and William H. Jones, III, dated September 21, 2017, recorded October 2, 2017, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, as Instrument Number 201701035.

Issued by:

Perpetual Title, LLC
9910 Wagners Way, Chesterfield, VA 23832


CAROL E. UPTON, PERPETUAL TITLE, LLC

SCHEDULE B

File No.: PT17-2058

Policy No.: OX-11986322

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of:

1. Taxes for the first half of the year 2018 and subsequent years.
2. Encroachments, overlaps, deficiency in quantity of ground, boundary line disputes, roadways, unrecorded easements, or any matters not of record which would be disclosed by an accurate survey and inspection of the premises.
3. Any additional taxes for past, present or future years which become due under the land use ordinance of Cumberland County, but which are not currently payable because of the existing classification and use of the land.
4. Possible supplemental assessment and taxes for improvements constructed on the premises.
5. All matters as shown on plat of survey prepared by Gregory A. Watson, Land Surveyor, entitled "Boundary Plat For: Clarke Jones, Being The Property Owned By: James Brackett Estate," dated July 11, 2013, revised August 12, 2013, a copy of which was attached to and recorded with a certain Deed as Instrument No. 20131024, including, but not limited to, the following:
 - a) Branch crossing the center (north) portion of insured premises.
 - b) Drainage along portion of front (east) lot line of insured premises.
6. All matters as shown on recorded Plat in Deed Book 53, page 244.
7. Insured premises does not appear to abut on a public road or highway and accordingly this company does not assume liability for lack of access to and from the Land.
8. All matters as shown on plat of survey prepared by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA," recorded in Plat Cabinet B, Slide 273.



**Old Republic National
Title Insurance
Company**

IMPORTANT INFORMATION TO POLICYHOLDERS

In the event you need to contact someone about this policy for any reason, please contact the agent. If you have additional questions, you may contact the insurance company issuing this policy at the following address and telephone number:

**Old Republic National Title Insurance Company
1800 Bayberry Court
The Meridian Building, Suite 104
Richmond, Virginia 23226
1-866-922-3657**

If you have been unable to contact or obtain satisfaction from the agent or the company, you may contact the Virginia Bureau of Insurance at:

**State Corporation Commission,
Bureau of Insurance
Property and Casualty Division
1300 E. Main Street
P.O. Box 1157
Richmond, Virginia 23209
Telephone: (800) 552-7945 (in Virginia) or
(804) 371-9741 (outside Virginia)**

Written correspondence is preferable so that a record of your inquiry is maintained. When contacting your agent, company or the Bureau of Insurance, have your policy number available.

NOTE: You are reminded that all claims and notices required under the terms of the policy must be made to the Claims Department at the Company's principal office at 400 Second Avenue South, Minneapolis, Minnesota 55401, as required by the terms of the policy. Do not hesitate to contact Old Republic's office at the address and telephone shown above should you have any questions.

FACTS
WHAT DOES OLD REPUBLIC TITLE DO WITH YOUR PERSONAL INFORMATION?

Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: <ul style="list-style-type: none"> • Social Security number and employment information • Mortgage rates and payments and account balances • Checking account information and wire transfer instructions When you are <i>no longer</i> our customer, we continue to share your information as described in this notice.
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons Old Republic Title chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does Old Republic Title share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), or respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes — to offer our products and services to you	No	We don't share
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes — information about your transactions and experiences	Yes	No
For our affiliates' everyday business purposes — information about your creditworthiness	No	We don't share
For our affiliates to market to you	No	We don't share
For non-affiliates to market to you	No	We don't share

Questions

 Go to www.oldrepublictitle.com (Contact Us)

Who we are	
Who is providing this notice?	Companies with an Old Republic Title name and other affiliates. Please see below for a list of affiliates.

What we do	
How does Old Republic Title protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. For more information, visit http://www.OldRepublicTitle.com/newnational/Contact/privacy .
How does Old Republic Title collect my personal information?	<p>We collect your personal information, for example, when you:</p> <ul style="list-style-type: none"> • Give us your contact information or show your driver's license • Show your government-issued ID or provide your mortgage information • Make a wire transfer <p>We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.</p>
Why can't I limit all sharing?	<p>Federal law gives you the right to limit only:</p> <ul style="list-style-type: none"> • Sharing for affiliates' everyday business purposes - information about your creditworthiness • Affiliates from using your information to market to you • Sharing for non-affiliates to market to you <p>State laws and individual companies may give you additional rights to limit sharing. See the "Other important information" section below for your rights under state law.</p>

Definitions	
Affiliates	<p>Companies related by common ownership or control. They can be financial and nonfinancial companies.</p> <ul style="list-style-type: none"> • <i>Our affiliates include companies with an Old Republic Title name, and financial companies such as Attorneys' Title Fund Services, LLC, Lex Terrae National Title Services, Inc., Mississippi Valley Title Services Company, and The Title Company of North Carolina.</i>
Non-affiliates	<p>Companies not related by common ownership or control. They can be financial and non-financial companies.</p> <ul style="list-style-type: none"> • <i>Old Republic Title does not share with non-affiliates so they can market to you</i>
Joint marketing	<p>A formal agreement between non-affiliated financial companies that together market financial products or services to you.</p> <ul style="list-style-type: none"> • <i>Old Republic Title doesn't jointly market.</i>

Other Important Information

Oregon residents only: We are providing you this notice under state law. We may share your personal information (described on page one) obtained from you or others with non-affiliate service providers with whom we contract, such as notaries and delivery services, in order to process your transactions. You may see what personal information we have collected about you in connection with your transaction (other than personal information related to a claim or legal proceeding). To see your information, please click on "Contact Us" at www.oldrepublictitle.com and submit your written request to the Legal Department. You may see and copy the information at our office or ask us to mail you a copy for a reasonable fee. If you think any information is wrong, you may submit a written request online to correct or delete it. We will let you know what actions we take. If you do not agree with our actions, you may send us a statement.

Affiliates Who May be Delivering This Notice

American First Abstract, LLC	American First Title & Trust Company	American Guaranty Title Insurance Company	Attorneys' Title Fund Services, LLC	Compass Abstract, Inc.
eRecording Partners Network, LLC	Genesis Abstract, LLC	Kansas City Management Group, LLC	L.T. Service Corp.	Lenders Inspection Company
Lex Terrae National Title Services, Inc.	Lex Terrae, Ltd.	Mara Escrow Company	Mississippi Valley Title Services Company	National Title Agent's Services Company
Old Republic Branch Information Services, Inc.	Old Republic Diversified Services, Inc.	Old Republic Exchange Company	Old Republic National Title Insurance Company	Old Republic Title and Escrow of Hawaii, Ltd.
Old Republic Title Co.	Old Republic Title Company of Conroe	Old Republic Title Company of Indiana	Old Republic Title Company of Nevada	Old Republic Title Company of Oklahoma
Old Republic Title Company of Oregon	Old Republic Title Company of St. Louis	Old Republic Title Company of Tennessee	Old Republic Title Information Concepts	Old Republic Title Insurance Agency, Inc.
Old Republic Title, Ltd.	Republic Abstract & Settlement, LLC	Sentry Abstract Company	The Title Company of North Carolina	Title Services, LLC
Trident Land Transfer Company, LLC				

6. An enforcement action based on the exercise of a governmental police power not covered by Covered Risk 5 if a notice of the enforcement action, describing any part of the Land, is recorded in the Public Records, but only to the extent of the enforcement referred to in that notice.
7. The exercise of the rights of eminent domain if a notice of the exercise, describing any part of the Land, is recorded in the Public Records.
8. Any taking by a governmental body that has occurred and is binding on the rights of a purchaser for value without Knowledge.
9. Title being vested other than as stated in Schedule A or being defective

(a) as a result of the avoidance in whole or in part, or from a court order providing an alternative remedy, of a transfer of all or any part of the title to or any interest in the Land occurring prior to the transaction vesting Title as shown in Schedule A because that prior transfer constituted a fraudulent or preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws; or
 (b) because the instrument of transfer vesting Title as shown in Schedule A constitutes a preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws by reason of the failure of its recording in the Public Records

- (i) to be timely, or
- (ii) to impart notice of its existence to a purchaser for value or to a judgment or lien creditor.

10. Any defect in or lien or encumbrance on the Title or other matter included in Covered Risks 1 through 9 that has been created or attached or has been filed or recorded in the Public Records subsequent to Date of Policy and prior to the recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The Company will also pay the costs, attorneys' fees, and expenses incurred in defense of any matter insured against by this Policy, but only to the extent provided in the Conditions.

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.

3. Defects, liens, encumbrances, adverse claims, or other matters

(a) created, suffered, assumed, or agreed to by the Insured Claimant;

(b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

(c) resulting in no loss or damage to the Insured Claimant;

(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or

(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.

4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is

(a) a fraudulent conveyance or fraudulent transfer; or

(b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.

5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

CONDITIONS

1. DEFINITION OF TERMS

The following terms when used in this policy mean:

- (a) "Amount of Insurance": The amount stated in Schedule A, as may be increased or decreased by endorsement to this policy, increased by Section 8(b), or decreased by Sections 10 and 11 of these Conditions.
- (b) "Date of Policy": The date designated as "Date of Policy" in Schedule A.
- (c) "Entity": A corporation, partnership, trust, limited liability company, or other similar legal entity.
- (d) "Insured": The Insured named in Schedule A.
 - (i) The term "Insured" also includes
 - (A) successors to the Title of the Insured by operation of law as distinguished from purchase, including heirs, devisees, survivors, personal representatives, or next of kin;
 - (B) successors to an Insured by dissolution, merger, consolidation, distribution, or reorganization;
 - (C) successors to an Insured by its conversion to another kind of Entity;
 - (D) a grantee of an Insured under a deed delivered without payment of actual valuable consideration conveying the Title
 - (1) if the stock, shares, memberships, or other equity interests of the grantee are wholly-owned by the named Insured,
 - (2) if the grantee wholly owns the named Insured,
 - (3) if the grantee is wholly-owned by an affiliated Entity of the named Insured, provided the affiliated Entity and the named Insured are both wholly-owned by the same person or Entity, or
 - (4) if the grantee is a trustee or beneficiary of a trust created by a written instrument established by the Insured named in Schedule A for estate planning purposes.
 - (ii) With regard to (A), (B), (C), and (D) reserving, however, all rights and defenses as to any successor that the Company would have had against any predecessor Insured.
- (e) "Insured Claimant": An Insured claiming loss or damage.
- (f) "Knowledge" or "Known": Actual knowledge, not constructive knowledge or notice that may be imputed to an Insured by reason of the Public Records or any other records that impart constructive notice of matters affecting the Title.
- (g) "Land": The land described in Schedule A, and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is insured by this policy.
- (h) "Mortgage": Mortgage, deed of trust, trust deed, or other security instrument, including one evidenced by electronic means authorized by law.
- (i) "Public Records": Records established under state statutes at Date of Policy for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge. With respect to Covered Risk 5(d), "Public Records" shall also include environmental protection liens filed in the records of the clerk of the United States District Court for the district where the Land is located.
- (j) "Title": The estate or interest described in Schedule A.
- (k) "Unmarketable Title": Title affected by an alleged or apparent matter that would permit a prospective purchaser or lessee of the Title or lender on the Title to be released from the obligation to

purchase, lease, or lend if there is a contractual condition requiring the delivery of marketable title.

2. CONTINUATION OF INSURANCE

The coverage of this policy shall continue in force as of Date of Policy in favor of an Insured, but only so long as the Insured retains an estate or interest in the Land, or holds an obligation secured by a purchase money Mortgage given by a purchaser from the Insured, or only so long as the Insured shall have liability by reason of warranties in any transfer or conveyance of the Title. This policy shall not continue in force in favor of any purchaser from the Insured of either (i) an estate or interest in the Land, or (ii) an obligation secured by a purchase money Mortgage given to the Insured.

3. NOTICE OF CLAIM TO BE GIVEN BY INSURED CLAIMANT

The Insured shall notify the Company promptly in writing (i) in case of any litigation as set forth in Section 5(a) of these Conditions, (ii) in case Knowledge shall come to an Insured hereunder of any claim of title or interest that is adverse to the Title, as insured, and that might cause loss or damage for which the Company may be liable by virtue of this policy, or (iii) if the Title, as insured, is rejected as Unmarketable Title. If the Company is prejudiced by the failure of the Insured Claimant to provide prompt notice, the Company's liability to the Insured Claimant under the policy shall be reduced to the extent of the prejudice.

4. PROOF OF LOSS

In the event the Company is unable to determine the amount of loss or damage, the Company may, at its option, require as a condition of payment that the Insured Claimant furnish a signed proof of loss. The proof of loss must describe the defect, lien, encumbrance, or other matter insured against by this policy that constitutes the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage.

5. DEFENSE AND PROSECUTION OF ACTIONS

- (a) Upon written request by the Insured, and subject to the options contained in Section 7 of these Conditions, the Company, at its own cost and without unreasonable delay, shall provide for the defense of an Insured in litigation in which any third party asserts a claim covered by this policy adverse to the Insured. This obligation is limited to only those stated causes of action alleging matters insured against by this policy. The Company shall have the right to select counsel of its choice (subject to the right of the Insured to object for reasonable cause) to represent the Insured as to those stated causes of action. It shall not be liable for and will not pay the fees of any other counsel. The Company will not pay any fees, costs, or expenses incurred by the Insured in the defense of those causes of action that allege matters not insured against by this policy.
- (b) The Company shall have the right, in addition to the options contained in Section 7 of these Conditions, at its own cost, to institute and prosecute any action or proceeding or to do any other act that in its opinion may be necessary or desirable to establish the Title, as insured, or to prevent or reduce loss or damage to the Insured. The Company may take any appropriate action under the terms of this policy, whether or not it shall be liable to the Insured. The exercise of these rights shall not be an admission of liability or waiver of any provision of this policy. If the Company exercises its rights under this subsection, it must do so diligently.
- (c) Whenever the Company brings an action or asserts a defense as required or permitted by this policy, the Company may pursue the litigation to a final determination by a court of competent jurisdiction, and it expressly reserves the right, in its sole discretion, to appeal any adverse judgment or order.

CONDITIONS (con't)

6. DUTY OF INSURED CLAIMANT TO COOPERATE

(a) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding and any appeals, the Insured shall secure to the Company the right to so prosecute or provide defense in the action or proceeding, including the right to use, at its option, the name of the Insured for this purpose. Whenever requested by the Company, the Insured, at the Company's expense, shall give the Company all reasonable aid (i) in securing evidence, obtaining witnesses, prosecuting or defending the action or proceeding, or effecting settlement, and (ii) in any other lawful act that in the opinion of the Company may be necessary or desirable to establish the Title or any other matter as insured. If the Company is prejudiced by the failure of the Insured to furnish the required cooperation, the Company's obligations to the Insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such cooperation.

(b) The Company may reasonably require the Insured Claimant to submit to examination under oath by any authorized representative of the Company and to produce for examination, inspection, and copying, at such reasonable times and places as may be designated by the authorized representative of the Company, all records, in whatever medium maintained, including books, ledgers, checks, memoranda, correspondence, reports, e-mails, disks, tapes, and videos whether bearing a date before or after Date of Policy, that reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Insured Claimant shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect, and copy all of these records in the custody or control of a third party that reasonably pertain to the loss or damage. All information designated as confidential by the Insured Claimant provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Insured Claimant to submit for examination under oath, produce any reasonably requested information, or grant permission to secure reasonably necessary information from third parties as required in this subsection, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this policy as to that claim.

7. OPTIONS TO PAY OR OTHERWISE SETTLE CLAIMS; TERMINATION OF LIABILITY

In case of a claim under this policy, the Company shall have the following additional options:

(a) To Pay or Tender Payment of the Amount of Insurance.

To pay or tender payment of the Amount of Insurance under this policy together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment or tender of payment and that the Company is obligated to pay.

Upon the exercise by the Company of this option, all liability and obligations of the Company to the Insured under this policy, other than to make the payment required in this subsection, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

(b) To Pay or Otherwise Settle With Parties Other Than the Insured or With the Insured Claimant.

(i) To pay or otherwise settle with other parties for or in the name of an Insured Claimant any claim insured against under this

policy. In addition, the Company will pay any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay; or

(ii) To pay or otherwise settle with the Insured Claimant the loss or damage provided for under this policy, together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay.

Upon the exercise by the Company of either of the options provided for in subsections (b)(i) or (ii), the Company's obligations to the Insured under this policy for the claimed loss or damage, other than the payments required to be made, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

8. DETERMINATION AND EXTENT OF LIABILITY

This policy is a contract of indemnity against actual monetary loss or damage sustained or incurred by the Insured Claimant who has suffered loss or damage by reason of matters insured against by this policy.

(a) The extent of liability of the Company for loss or damage under this policy shall not exceed the lesser of

(i) the Amount of Insurance; or

(ii) the difference between the value of the Title as insured and the value of the Title subject to the risk insured against by this policy.

(b) If the Company pursues its rights under Section 5 of these Conditions and is unsuccessful in establishing the Title, as insured,

(i) the Amount of Insurance shall be increased by 10%, and

(ii) the Insured Claimant shall have the right to have the loss or damage determined either as of the date the claim was made by the Insured Claimant or as of the date it is settled and paid.

(c) In addition to the extent of liability under (a) and (b), the Company will also pay those costs, attorneys' fees, and expenses incurred in accordance with Sections 5 and 7 of these Conditions.

9. LIMITATION OF LIABILITY

(a) If the Company establishes the Title, or removes the alleged defect, lien, or encumbrance, or cures the lack of a right of access to or from the Land, or cures the claim of Unmarketable Title, all as insured, in a reasonably diligent manner by any method, including litigation and the completion of any appeals, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused to the Insured.

(b) In the event of any litigation, including litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals, adverse to the Title, as insured.

(c) The Company shall not be liable for loss or damage to the Insured for liability voluntarily assumed by the Insured in settling any claim or suit without the prior written consent of the Company.

10. REDUCTION OF INSURANCE; REDUCTION OR TERMINATION OF LIABILITY

All payments under this policy, except payments made for costs, attorneys' fees, and expenses, shall reduce the Amount of Insurance by the amount of the payment.

CONDITIONS (con't)

11. LIABILITY NONCUMULATIVE

The Amount of Insurance shall be reduced by any amount the Company pays under any policy insuring a Mortgage to which exception is taken in Schedule B or to which the Insured has agreed, assumed, or taken subject, or which is executed by an Insured after Date of Policy and which is a charge or lien on the Title, and the amount so paid shall be deemed a payment to the Insured under this policy.

12. PAYMENT OF LOSS

When liability and the extent of loss or damage have been definitely fixed in accordance with these Conditions, the payment shall be made within 30 days.

13. RIGHTS OF RECOVERY UPON PAYMENT OR SETTLEMENT

(a) Whenever the Company shall have settled and paid a claim under this policy, it shall be subrogated and entitled to the rights of the Insured Claimant in the Title and all other rights and remedies in respect to the claim that the Insured Claimant has against any person or property, to the extent of the amount of any loss, costs, attorneys' fees, and expenses paid by the Company. If requested by the Company, the Insured Claimant shall execute documents to evidence the transfer to the Company of these rights and remedies. The Insured Claimant shall permit the Company to sue, compromise, or settle in the name of the Insured Claimant and to use the name of the Insured Claimant in any transaction or litigation involving these rights and remedies.

If a payment on account of a claim does not fully cover the loss of the Insured Claimant, the Company shall defer the exercise of its right to recover until after the Insured Claimant shall have recovered its loss.

(b) The Company's right of subrogation includes the rights of the Insured to indemnities, guaranties, other policies of insurance, or bonds, notwithstanding any terms or conditions contained in those instruments that address subrogation rights.

14. ARBITRATION

Either the Company or the Insured may demand that the claim or controversy shall be submitted to arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). Except as provided in the Rules, there shall be no joinder or consolidation with claims or controversies of other persons. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Insured arising out of or relating to this policy, any service in connection with its issuance or the breach of a policy provision, or to any other controversy or claim arising out of the transaction giving rise to this policy. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured. All arbitrable matters when the Amount of Insurance is in excess of \$2,000,000 shall be arbitrated only when agreed to by both the Company and the Insured. Arbitration pursuant to this policy and under the Rules shall be binding upon the parties. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court of competent jurisdiction.

15. LIABILITY LIMITED TO THIS POLICY; POLICY ENTIRE CONTRACT

(a) This policy together with all endorsements, if any, attached to it by the Company is the entire policy and contract between the Insured and the Company. In interpreting any provision of this

policy, this policy shall be construed as a whole.

(b) Any claim of loss or damage that arises out of the status of the Title or by any action asserting such claim shall be restricted to this policy.

(c) Any amendment of or endorsement to this policy must be in writing and authenticated by an authorized person, or expressly incorporated by Schedule A of this policy.

(d) Each endorsement to this policy issued at any time is made a part of this policy and is subject to all of its terms and provisions. Except as the endorsement expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsement, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance.

16. SEVERABILITY

In the event any provision of this policy, in whole or in part, is held invalid or unenforceable under applicable law, the policy shall be deemed not to include that provision or such part held to be invalid, but all other provisions shall remain in full force and effect.

17. CHOICE OF LAW; FORUM

(a) Choice of Law: The Insured acknowledges the Company has underwritten the risks covered by this policy and determined the premium charged therefor in reliance upon the law affecting interests in real property and applicable to the interpretation, rights, remedies, or enforcement of policies of title insurance of the jurisdiction where the Land is located.

Therefore, the court or an arbitrator shall apply the law of the jurisdiction where the Land is located to determine the validity of claims against the Title that are adverse to the Insured and to interpret and enforce the terms of this policy. In neither case shall the court or arbitrator apply its conflicts of law principles to determine the applicable law.

(b) Choice of Forum: Any litigation or other proceeding brought by the Insured against the Company must be filed only in a state or federal court within the United States of America or its territories having appropriate jurisdiction.

18. NOTICES, WHERE SENT

Any notice of claim and any other notice or statement in writing required to be given to the Company under this policy must be given to the Company at 400 Second Avenue South, Minneapolis, Minnesota 55401-2499.

Endorsement
DELETION OF ARBITRATION

Policy Issuer:
PERPETUAL TITLE, LLC
9910 WAGNERS WAY
CHESTERFIELD, VA 23832
PHONE: (804) 748-3600



This endorsement is to be attached to and become a part of Policy No. **OX-11986322** of OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY.

OX-11986322

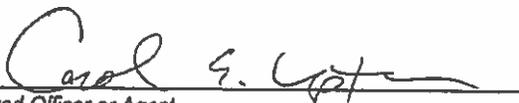
of OLD REPUBLIC NATIONAL

DELETION OF ARBITRATION

The paragraph titled "ARBITRATION" in the Conditions of this policy is hereby deleted.

This endorsement, when countersigned by an authorized officer or agent, is made part of said policy as of the policy date thereof and is subject to the Schedules, Conditions and Exclusions from Coverage therein contained, except as modified by the provisions hereof.

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
A Stock Company
400 Second Avenue South, Minneapolis, Minnesota 55401
(612) 371-1111



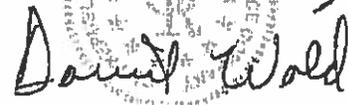
Authorized Officer or Agent

By



President

Attest



Secretary

OWNER'S POLICY OF TITLE INSURANCE

Policy Issuer:
PERPETUAL TITLE, LLC
9910 WAGNERS WAY
CHESTERFIELD, VA 23832
PHONE: (804) 748-3600



Policy Number **OX-11986200** File Number: **PT17-2057**

Issued by Old Republic National Title Insurance Company

Any notice of claim and any other notice or statement in writing required to be given to the Company under this Policy must be given to the Company at the address shown in Section 18 of the Conditions.

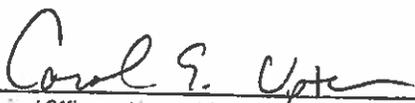
COVERED RISKS

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B, AND THE CONDITIONS, OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, a Florida corporation (the "Company") insures, as of Date of Policy and, to the extent stated in Covered Risks 9 and 10, after Date of Policy, against loss or damage, not exceeding the Amount of Insurance, sustained or incurred by the Insured by reason of:

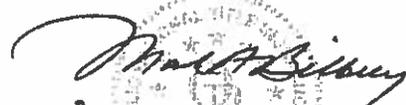
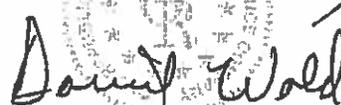
1. Title being vested other than as stated in Schedule A.
2. Any defect in or lien or encumbrance on the Title. This Covered Risk includes but is not limited to insurance against loss from:
 - (a) A defect in the Title caused by
 - (i) forgery, fraud, undue influence, duress, incompetency, incapacity, or impersonation;
 - (ii) failure of any person or Entity to have authorized a transfer or conveyance;
 - (iii) a document affecting Title not properly created, executed, witnessed, sealed, acknowledged, notarized, or delivered;
 - (iv) failure to perform those acts necessary to create a document by electronic means authorized by law;
 - (v) a document executed under a falsified, expired, or otherwise invalid power of attorney;
 - (vi) a document not properly filed, recorded, or indexed in the Public Records including failure to perform those acts by electronic means authorized by law; or
 - (vii) a defective judicial or administrative proceeding.
 - (b) The lien of real estate taxes or assessments imposed on the Title by a governmental authority due or payable, but unpaid.
 - (c) Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
3. Unmarketable Title.
4. No right of access to and from the Land.
5. The violation or enforcement of any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (a) the occupancy, use, or enjoyment of the Land;
 - (b) the character, dimensions, or location of any improvement erected on the Land;
 - (c) the subdivision of land; or
 - (d) environmental protectionif a notice, describing any part of the Land, is recorded in the Public Records setting forth the violation or intention to enforce, but only to the extent of the violation or enforcement referred to in that notice.

Countersigned:

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
A Stock Company
400 Second Avenue South, Minneapolis, Minnesota 55401
(612) 371-1111



Authorized Officer or Licensed Agent

By  President
 Secretary



SCHEDULE A

Name and Address of Title Insurance Company:
Old Republic National Title Insurance Company
400 Second Avenue South
Minneapolis, Minnesota 55401

File No.: PT17-2057

Policy No.: OX-11986200

Address Reference: 0 Pinegrove Road
Cumberland, Virginia 23040

Amount of Insurance: \$ 793,072.00

Premium: \$ 2,899.60

Date of Policy: October 2, 2017 at 12:24 PM

1. Name of Insured:
CWV Land Acquisition, LLC
2. The estate or interest in the Land that is insured by this policy is:
Fee Simple
3. Title is vested in:
CWV Land Acquisition, LLC
4. The Land referred to in this policy is described as follows:
See Exhibit A - Legal Description attached hereto.

Issued by:

Perpetual Title, LLC
9910 Wagners Way, Chesterfield, VA 23832

CAROL E. UPTON, PERPETUAL TITLE, LLC

SCHEDULE B

File No.: PT17-2057

Policy No.: OX-11986200

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of:

1. Taxes for the first half of the year 2018 and subsequent years.
2. Encroachments, overlaps, deficiency in quantity of ground, boundary line disputes, roadways, unrecorded easements, or any matters not of record which would be disclosed by an accurate survey and inspection of the premises.
3. Rights of upper and lower riparian owners in and to the use of the waters and natural flow thereof. (Parcel I)
4. Easement as contained in Deed to the Commonwealth of Virginia by Deed dated November 14, 1973, recorded September 13, 1974, in Deed Book 131, page 647. (Parcel III)
5. Easement as contained in Deed to the Commonwealth of Virginia by Deed dated November 16, 1993, recorded March 9, 1995, in Deed Book 201, page 602. (Parcel III)
6. Easement granted to Chesapeake and Potomac Telephone Company of Virginia, dated January 11, 1974, recorded January 25, 1974, in Deed Book 130, page 149. Grants right of way for buried wires, cables and appurtenances thereto, variable width along Route 654. (Parcel III)
7. Easement: William H. Jones, Jr. to Central Virginia Electric Cooperative, dated February 8, 1996, recorded April 11, 1996, in Deed Book 208, page 359. Grants easement for underground conduits, cables and appurtenances thereto, unspecified feet wide, at designated and undesignated locations, with rights of ingress, egress and clearance. (Parcel III)
8. Insured premises does not appear to abut on a public road or highway and accordingly this company does not assume liability for lack of access to and from the Land. (Parcels I, II)
9. Any additional taxes for past, present or future years which become due under the land use ordinance of Cumberland County, but which are not currently payable because of the existing classification and use of the land. (Parcels I, II & III)
10. Possible supplemental assessment and taxes for improvements constructed on the premises. (Parcels I, II & III)
11. Title to that portion lying within the bounds of any roads or highways. (Parcel III)
12. Rights of others in and to State Route 654 for ingress and egress. (Parcel III)
13. All matters as shown on plat of survey prepared by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA," recorded in Plat Cabinet B, Slide 273.

**EXHIBIT A
LEGAL DESCRIPTION**

PARCEL I (TM#044-A-13):

ALL that certain lot, piece or parcel of land with all improvements thereon and appurtenances thereto, belonging, lying and being in the Hamilton District of Cumberland County, Virginia, containing 36.09 acres, more or less, and being shown and described as Parcel 2 on a plat of survey made by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA," a copy of which plat is recorded in the Clerk's Office, Circuit Court, Powhatan County, Virginia, in Plat Cabinet B, Slide 273, reference to which plat is hereby made for a more particular description of the real estate.

PARCEL II (TM#044-A-14):

ALL that certain lot, piece or parcel of land with all improvements thereon and appurtenances thereto, belonging, lying and being in the Hamilton District of Cumberland County, Virginia, containing 63.54 acres, more or less, and being shown and described as Parcel 1 on a plat of survey made by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA," a copy of which plat is attached to and recorded with a certain Deed in the Clerk's Office, Circuit Court, Cumberland County, Virginia, as Instrument No. 201701034 for a more particular description.

PARCEL III (TM#044-A-22):

ALL that certain lot, piece or parcel of land with all improvements thereon and appurtenances thereto, belonging, lying and being in the Hamilton District of Cumberland County, Virginia, containing in total 120.76 acres, more or less, and being shown and described as Parcel 4, containing 37.09 acres, more or less, (Portion 1) and 83.67 acres, more or less, (Portion 2) as shown on a plat of survey made by Highmark Engineering, dated September 26, 2017, entitled "BOUNDARY SURVEY OF FOUR PARCELS OF LAND ALONG AND TO THE WEST OF STATE ROUTE 654 HAMILTON DISTRICT CUMBERLAND COUNTY, VIRGINIA," a copy of which plat is attached to and recorded with a certain Deed in the Clerk's Office, Circuit Court, Cumberland County, Virginia, as Instrument No. 201701034 for a more particular description.

BEING the same property conveyed to CWV Land Acquisition, LLC, by Deed from Clarke Chastain Jones, William Henry Jones, III, Robert Preston Jones, and Terry Douglas Jones, dated September 21, 2017, recorded October 2, 2017, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, as Instrument Number 201701034.



**Old Republic National
Title Insurance
Company**

IMPORTANT INFORMATION TO POLICYHOLDERS

In the event you need to contact someone about this policy for any reason, please contact the agent. If you have additional questions, you may contact the insurance company issuing this policy at the following address and telephone number:

**Old Republic National Title Insurance Company
1800 Bayberry Court
The Meridian Building, Suite 104
Richmond, Virginia 23226
1-866-922-3657**

If you have been unable to contact or obtain satisfaction from the agent or the company, you may contact the Virginia Bureau of Insurance at:

**State Corporation Commission,
Bureau of Insurance
Property and Casualty Division
1300 E. Main Street
P.O. Box 1157
Richmond, Virginia 23209
Telephone: (800) 552-7945 (in Virginia) or
(804) 371-9741 (outside Virginia)**

Written correspondence is preferable so that a record of your inquiry is maintained. When contacting your agent, company or the Bureau of Insurance, have your policy number available.

NOTE: You are reminded that all claims and notices required under the terms of the policy must be made to the Claims Department at the Company's principal office at 400 Second Avenue South, Minneapolis, Minnesota 55401, as required by the terms of the policy. Do not hesitate to contact Old Republic's office at the address and telephone shown above should you have any questions.

FACTS

WHAT DOES OLD REPUBLIC TITLE DO WITH YOUR PERSONAL INFORMATION?

Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: <ul style="list-style-type: none"> • Social Security number and employment information • Mortgage rates and payments and account balances • Checking account information and wire transfer instructions When you are <i>no longer</i> our customer, we continue to share your information as described in this notice.
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons Old Republic Title chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does Old Republic Title share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), or respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes — to offer our products and services to you	No	We don't share
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes — information about your transactions and experiences	Yes	No
For our affiliates' everyday business purposes — information about your creditworthiness	No	We don't share
For our affiliates to market to you	No	We don't share
For non-affiliates to market to you	No	We don't share

Questions
Go to www.oldrepublictitle.com (Contact Us)

Who we are	
Who is providing this notice?	Companies with an Old Republic Title name and other affiliates. Please see below for a list of affiliates.

What we do	
How does Old Republic Title protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. For more information, visit http://www.OldRepublicTitle.com/newnational/Contact/privacy .
How does Old Republic Title collect my personal information?	<p>We collect your personal information, for example, when you:</p> <ul style="list-style-type: none"> • Give us your contact information or show your driver's license • Show your government-issued ID or provide your mortgage information • Make a wire transfer <p>We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.</p>
Why can't I limit all sharing?	<p>Federal law gives you the right to limit only:</p> <ul style="list-style-type: none"> • Sharing for affiliates' everyday business purposes - information about your creditworthiness • Affiliates from using your information to market to you • Sharing for non-affiliates to market to you <p>State laws and individual companies may give you additional rights to limit sharing. See the "Other important information" section below for your rights under state law.</p>

Definitions	
Affiliates	<p>Companies related by common ownership or control. They can be financial and nonfinancial companies.</p> <ul style="list-style-type: none"> • <i>Our affiliates include companies with an Old Republic Title name, and financial companies such as Attorneys' Title Fund Services, LLC, Lex Terrae National Title Services, Inc., Mississippi Valley Title Services Company, and The Title Company of North Carolina.</i>
Non-affiliates	<p>Companies not related by common ownership or control. They can be financial and non-financial companies.</p> <ul style="list-style-type: none"> • <i>Old Republic Title does not share with non-affiliates so they can market to you</i>
Joint marketing	<p>A formal agreement between non-affiliated financial companies that together market financial products or services to you.</p> <ul style="list-style-type: none"> • <i>Old Republic Title doesn't jointly market.</i>

Other Important Information

Oregon residents only: We are providing you this notice under state law. We may share your personal information (described on page one) obtained from you or others with non-affiliate service providers with whom we contract, such as notaries and delivery services, in order to process your transactions. You may see what personal information we have collected about you in connection with your transaction (other than personal information related to a claim or legal proceeding). To see your information, please click on "Contact Us" at www.oldrepublictitle.com and submit your written request to the Legal Department. You may see and copy the information at our office or ask us to mail you a copy for a reasonable fee. If you think any information is wrong, you may submit a written request online to correct or delete it. We will let you know what actions we take. If you do not agree with our actions, you may send us a statement.

Affiliates Who May be Delivering This Notice

American First Abstract, LLC	American First Title & Trust Company	American Guaranty Title Insurance Company	Attorneys' Title Fund Services, LLC	Compass Abstract, Inc.
eRecording Partners Network, LLC	Genesis Abstract, LLC	Kansas City Management Group, LLC	L.T. Service Corp.	Lenders Inspection Company
Lex Terrae National Title Services, Inc.	Lex Terrae, Ltd.	Mara Escrow Company	Mississippi Valley Title Services Company	National Title Agent's Services Company
Old Republic Branch Information Services, Inc.	Old Republic Diversified Services, Inc.	Old Republic Exchange Company	Old Republic National Title Insurance Company	Old Republic Title and Escrow of Hawaii, Ltd.
Old Republic Title Co.	Old Republic Title Company of Conroe	Old Republic Title Company of Indiana	Old Republic Title Company of Nevada	Old Republic Title Company of Oklahoma
Old Republic Title Company of Oregon	Old Republic Title Company of St. Louis	Old Republic Title Company of Tennessee	Old Republic Title Information Concepts	Old Republic Title Insurance Agency, Inc.
Old Republic Title, Ltd.	Republic Abstract & Settlement, LLC	Sentry Abstract Company	The Title Company of North Carolina	Title Services, LLC
Trident Land Transfer Company, LLC				

6. An enforcement action based on the exercise of a governmental police power not covered by Covered Risk 5 if a notice of the enforcement action, describing any part of the Land, is recorded in the Public Records, but only to the extent of the enforcement referred to in that notice.
7. The exercise of the rights of eminent domain if a notice of the exercise, describing any part of the Land, is recorded in the Public Records.
8. Any taking by a governmental body that has occurred and is binding on the rights of a purchaser for value without Knowledge.
9. Title being vested other than as stated in Schedule A or being defective

(a) as a result of the avoidance in whole or in part, or from a court order providing an alternative remedy, of a transfer of all or any part of the title to or any interest in the Land occurring prior to the transaction vesting Title as shown in Schedule A because that prior transfer constituted a fraudulent or preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws; or
 (b) because the instrument of transfer vesting Title as shown in Schedule A constitutes a preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws by reason of the failure of its recording in the Public Records

- (i) to be timely, or
- (ii) to impart notice of its existence to a purchaser for value or to a judgment or lien creditor.

10. Any defect in or lien or encumbrance on the Title or other matter included in Covered Risks 1 through 9 that has been created or attached or has been filed or recorded in the Public Records subsequent to Date of Policy and prior to the recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The Company will also pay the costs, attorneys' fees, and expenses incurred in defense of any matter insured against by this Policy, but only to the extent provided in the Conditions.

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.

3. Defects, liens, encumbrances, adverse claims, or other matters

(a) created, suffered, assumed, or agreed to by the Insured Claimant;

(b) not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

(c) resulting in no loss or damage to the Insured Claimant;
 (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or

(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.

4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is

(a) a fraudulent conveyance or fraudulent transfer; or

(b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.

5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

CONDITIONS

1. DEFINITION OF TERMS

The following terms when used in this policy mean:

- (a) "Amount of Insurance": The amount stated in Schedule A, as may be increased or decreased by endorsement to this policy, increased by Section 8(b), or decreased by Sections 10 and 11 of these Conditions.
- (b) "Date of Policy": The date designated as "Date of Policy" in Schedule A.
- (c) "Entity": A corporation, partnership, trust, limited liability company, or other similar legal entity.
- (d) "Insured": The Insured named in Schedule A.
- (i) The term "Insured" also includes
- (A) successors to the Title of the Insured by operation of law as distinguished from purchase, including heirs, devisees, survivors, personal representatives, or next of kin;
 - (B) successors to an Insured by dissolution, merger, consolidation, distribution, or reorganization;
 - (C) successors to an Insured by its conversion to another kind of Entity;
 - (D) a grantee of an Insured under a deed delivered without payment of actual valuable consideration conveying the Title
 - (1) if the stock, shares, memberships, or other equity interests of the grantee are wholly-owned by the named Insured,
 - (2) if the grantee wholly owns the named Insured,
 - (3) if the grantee is wholly-owned by an affiliated Entity of the named Insured, provided the affiliated Entity and the named Insured are both wholly-owned by the same person or Entity, or
 - (4) if the grantee is a trustee or beneficiary of a trust created by a written instrument established by the Insured named in Schedule A for estate planning purposes.
- (ii) With regard to (A), (B), (C), and (D) reserving, however, all rights and defenses as to any successor that the Company would have had against any predecessor Insured.
- (e) "Insured Claimant": An Insured claiming loss or damage.
- (f) "Knowledge" or "Known": Actual knowledge, not constructive knowledge or notice that may be imputed to an Insured by reason of the Public Records or any other records that impart constructive notice of matters affecting the Title.
- (g) "Land": The land described in Schedule A, and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is insured by this policy.
- (h) "Mortgage": Mortgage, deed of trust, trust deed, or other security instrument, including one evidenced by electronic means authorized by law.
- (i) "Public Records": Records established under state statutes at Date of Policy for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge. With respect to Covered Risk 5(d), "Public Records" shall also include environmental protection liens filed in the records of the clerk of the United States District Court for the district where the Land is located.
- (j) "Title": The estate or interest described in Schedule A.
- (k) "Unmarketable Title": Title affected by an alleged or apparent matter that would permit a prospective purchaser or lessee of the Title or lender on the Title to be released from the obligation to

purchase, lease, or lend if there is a contractual condition requiring the delivery of marketable title.

2. CONTINUATION OF INSURANCE

The coverage of this policy shall continue in force as of Date of Policy in favor of an Insured, but only so long as the Insured retains an estate or interest in the Land, or holds an obligation secured by a purchase money Mortgage given by a purchaser from the Insured, or only so long as the Insured shall have liability by reason of warranties in any transfer or conveyance of the Title. This policy shall not continue in force in favor of any purchaser from the Insured of either (i) an estate or interest in the Land, or (ii) an obligation secured by a purchase money Mortgage given to the Insured.

3. NOTICE OF CLAIM TO BE GIVEN BY INSURED CLAIMANT

The Insured shall notify the Company promptly in writing (i) in case of any litigation as set forth in Section 5(a) of these Conditions, (ii) in case Knowledge shall come to an Insured hereunder of any claim of title or interest that is adverse to the Title, as insured, and that might cause loss or damage for which the Company may be liable by virtue of this policy, or (iii) if the Title, as insured, is rejected as Unmarketable Title. If the Company is prejudiced by the failure of the Insured Claimant to provide prompt notice, the Company's liability to the Insured Claimant under the policy shall be reduced to the extent of the prejudice.

4. PROOF OF LOSS

In the event the Company is unable to determine the amount of loss or damage, the Company may, at its option, require as a condition of payment that the Insured Claimant furnish a signed proof of loss. The proof of loss must describe the defect, lien, encumbrance, or other matter insured against by this policy that constitutes the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage.

5. DEFENSE AND PROSECUTION OF ACTIONS

- (a) Upon written request by the Insured, and subject to the options contained in Section 7 of these Conditions, the Company, at its own cost and without unreasonable delay, shall provide for the defense of an Insured in litigation in which any third party asserts a claim covered by this policy adverse to the Insured. This obligation is limited to only those stated causes of action alleging matters insured against by this policy. The Company shall have the right to select counsel of its choice (subject to the right of the Insured to object for reasonable cause) to represent the Insured as to those stated causes of action. It shall not be liable for and will not pay the fees of any other counsel. The Company will not pay any fees, costs, or expenses incurred by the Insured in the defense of those causes of action that allege matters not insured against by this policy.
- (b) The Company shall have the right, in addition to the options contained in Section 7 of these Conditions, at its own cost, to institute and prosecute any action or proceeding or to do any other act that in its opinion may be necessary or desirable to establish the Title, as insured, or to prevent or reduce loss or damage to the Insured. The Company may take any appropriate action under the terms of this policy, whether or not it shall be liable to the Insured. The exercise of these rights shall not be an admission of liability or waiver of any provision of this policy. If the Company exercises its rights under this subsection, it must do so diligently.
- (c) Whenever the Company brings an action or asserts a defense as required or permitted by this policy, the Company may pursue the litigation to a final determination by a court of competent jurisdiction, and it expressly reserves the right, in its sole discretion, to appeal any adverse judgment or order.

CONDITIONS (con't)

6. DUTY OF INSURED CLAIMANT TO COOPERATE

(a) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding and any appeals, the Insured shall secure to the Company the right to so prosecute or provide defense in the action or proceeding, including the right to use, at its option, the name of the Insured for this purpose. Whenever requested by the Company, the Insured, at the Company's expense, shall give the Company all reasonable aid (i) in securing evidence, obtaining witnesses, prosecuting or defending the action or proceeding, or effecting settlement, and (ii) in any other lawful act that in the opinion of the Company may be necessary or desirable to establish the Title or any other matter as insured. If the Company is prejudiced by the failure of the Insured to furnish the required cooperation, the Company's obligations to the Insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such cooperation.

(b) The Company may reasonably require the Insured Claimant to submit to examination under oath by any authorized representative of the Company and to produce for examination, inspection, and copying, at such reasonable times and places as may be designated by the authorized representative of the Company, all records, in whatever medium maintained, including books, ledgers, checks, memoranda, correspondence, reports, e-mails, disks, tapes, and videos whether bearing a date before or after Date of Policy, that reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Insured Claimant shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect, and copy all of these records in the custody or control of a third party that reasonably pertain to the loss or damage. All information designated as confidential by the Insured Claimant provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Insured Claimant to submit for examination under oath, produce any reasonably requested information, or grant permission to secure reasonably necessary information from third parties as required in this subsection, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this policy as to that claim.

7. OPTIONS TO PAY OR OTHERWISE SETTLE CLAIMS; TERMINATION OF LIABILITY

In case of a claim under this policy, the Company shall have the following additional options:

(a) To Pay or Tender Payment of the Amount of Insurance.

To pay or tender payment of the Amount of Insurance under this policy together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment or tender of payment and that the Company is obligated to pay.

Upon the exercise by the Company of this option, all liability and obligations of the Company to the Insured under this policy, other than to make the payment required in this subsection, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

(b) To Pay or Otherwise Settle With Parties Other Than the Insured or With the Insured Claimant.

(i) To pay or otherwise settle with other parties for or in the name of an Insured Claimant any claim insured against under this

policy. In addition, the Company will pay any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay; or

(ii) To pay or otherwise settle with the Insured Claimant the loss or damage provided for under this policy, together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay.

Upon the exercise by the Company of either of the options provided for in subsections (b)(i) or (ii), the Company's obligations to the Insured under this policy for the claimed loss or damage, other than the payments required to be made, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

8. DETERMINATION AND EXTENT OF LIABILITY

This policy is a contract of indemnity against actual monetary loss or damage sustained or incurred by the Insured Claimant who has suffered loss or damage by reason of matters insured against by this policy.

(a) The extent of liability of the Company for loss or damage under this policy shall not exceed the lesser of

(i) the Amount of Insurance; or

(ii) the difference between the value of the Title as insured and the value of the Title subject to the risk insured against by this policy.

(b) If the Company pursues its rights under Section 5 of these Conditions and is unsuccessful in establishing the Title, as insured,

(i) the Amount of Insurance shall be increased by 10%, and

(ii) the Insured Claimant shall have the right to have the loss or damage determined either as of the date the claim was made by the Insured Claimant or as of the date it is settled and paid.

(c) In addition to the extent of liability under (a) and (b), the Company will also pay those costs, attorneys' fees, and expenses incurred in accordance with Sections 5 and 7 of these Conditions.

9. LIMITATION OF LIABILITY

(a) If the Company establishes the Title, or removes the alleged defect, lien, or encumbrance, or cures the lack of a right of access to or from the Land, or cures the claim of Unmarketable Title, all as insured, in a reasonably diligent manner by any method, including litigation and the completion of any appeals, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused to the Insured.

(b) In the event of any litigation, including litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals, adverse to the Title, as insured.

(c) The Company shall not be liable for loss or damage to the Insured for liability voluntarily assumed by the Insured in settling any claim or suit without the prior written consent of the Company.

10. REDUCTION OF INSURANCE; REDUCTION OR TERMINATION OF LIABILITY

All payments under this policy, except payments made for costs, attorneys' fees, and expenses, shall reduce the Amount of Insurance by the amount of the payment.

CONDITIONS (con't)

11. LIABILITY NONCUMULATIVE

The Amount of Insurance shall be reduced by any amount the Company pays under any policy insuring a Mortgage to which exception is taken in Schedule B or to which the Insured has agreed, assumed, or taken subject, or which is executed by an Insured after Date of Policy and which is a charge or lien on the Title, and the amount so paid shall be deemed a payment to the Insured under this policy.

12. PAYMENT OF LOSS

When liability and the extent of loss or damage have been definitely fixed in accordance with these Conditions, the payment shall be made within 30 days.

13. RIGHTS OF RECOVERY UPON PAYMENT OR SETTLEMENT

(a) Whenever the Company shall have settled and paid a claim under this policy, it shall be subrogated and entitled to the rights of the Insured Claimant in the Title and all other rights and remedies in respect to the claim that the Insured Claimant has against any person or property, to the extent of the amount of any loss, costs, attorneys' fees, and expenses paid by the Company. If requested by the Company, the Insured Claimant shall execute documents to evidence the transfer to the Company of these rights and remedies. The Insured Claimant shall permit the Company to sue, compromise, or settle in the name of the Insured Claimant and to use the name of the Insured Claimant in any transaction or litigation involving these rights and remedies.

If a payment on account of a claim does not fully cover the loss of the Insured Claimant, the Company shall defer the exercise of its right to recover until after the Insured Claimant shall have recovered its loss.

(b) The Company's right of subrogation includes the rights of the Insured to indemnities, guaranties, other policies of insurance, or bonds, notwithstanding any terms or conditions contained in those instruments that address subrogation rights.

14. ARBITRATION

Either the Company or the Insured may demand that the claim or controversy shall be submitted to arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). Except as provided in the Rules, there shall be no joinder or consolidation with claims or controversies of other persons. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Insured arising out of or relating to this policy, any service in connection with its issuance or the breach of a policy provision, or to any other controversy or claim arising out of the transaction giving rise to this policy. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured. All arbitrable matters when the Amount of Insurance is in excess of \$2,000,000 shall be arbitrated only when agreed to by both the Company and the Insured. Arbitration pursuant to this policy and under the Rules shall be binding upon the parties. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court of competent jurisdiction.

15. LIABILITY LIMITED TO THIS POLICY; POLICY ENTIRE CONTRACT

(a) This policy together with all endorsements, if any, attached to it by the Company is the entire policy and contract between the Insured and the Company. In interpreting any provision of this

policy, this policy shall be construed as a whole.

(b) Any claim of loss or damage that arises out of the status of the Title or by any action asserting such claim shall be restricted to this policy.

(c) Any amendment of or endorsement to this policy must be in writing and authenticated by an authorized person, or expressly incorporated by Schedule A of this policy.

(d) Each endorsement to this policy issued at any time is made a part of this policy and is subject to all of its terms and provisions. Except as the endorsement expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsement, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance.

16. SEVERABILITY

In the event any provision of this policy, in whole or in part, is held invalid or unenforceable under applicable law, the policy shall be deemed not to include that provision or such part held to be invalid, but all other provisions shall remain in full force and effect.

17. CHOICE OF LAW; FORUM

(a) Choice of Law: The Insured acknowledges the Company has underwritten the risks covered by this policy and determined the premium charged therefor in reliance upon the law affecting interests in real property and applicable to the interpretation, rights, remedies, or enforcement of policies of title insurance of the jurisdiction where the Land is located.

Therefore, the court or an arbitrator shall apply the law of the jurisdiction where the Land is located to determine the validity of claims against the Title that are adverse to the Insured and to interpret and enforce the terms of this policy. In neither case shall the court or arbitrator apply its conflicts of law principles to determine the applicable law.

(b) Choice of Forum: Any litigation or other proceeding brought by the Insured against the Company must be filed only in a state or federal court within the United States of America or its territories having appropriate jurisdiction.

18. NOTICES, WHERE SENT

Any notice of claim and any other notice or statement in writing required to be given to the Company under this policy must be given to the Company at 400 Second Avenue South, Minneapolis, Minnesota 55401-2499.

Endorsement

DELETION OF ARBITRATION

Policy Issuer:
PERPETUAL TITLE, LLC
9910 WAGNERS WAY
CHESTERFIELD, VA 23832
PHONE: (804) 748-3600



This endorsement is to be attached to and become a part of Policy No. **OX-11986200** of OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY.

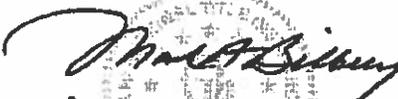
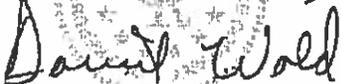
DELETION OF ARBITRATION

The paragraph titled "ARBITRATION" in the Conditions of this policy is hereby deleted.

This endorsement, when countersigned by an authorized officer or agent, is made part of said policy as of the policy date thereof and is subject to the Schedules, Conditions and Exclusions from Coverage therein contained, except as modified by the provisions hereof.

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
A Stock Company
400 Second Avenue South, Minneapolis, Minnesota 55401
(612) 371-1111


Authorized Officer or Agent

By  President
Attest  Secretary

LAND ACQUISITIONS

PROPERTY DEED: JAMES W. TINSLEY, III

Parcel 44-A-19

DEED INSTRUMENT
NO. 201701350

Refer to Jeff Voda

Document Prepared by:
Gordon, Dodson, Gordon & Rowlett
P. O. Box 130
Chesterfield, Virginia 23832
T. L. Gordon, Esq.
Licensed in the State of Virginia
State Bar #: 19466

Consideration: \$132,000
Assessed Value: \$44,000

PIN: 044 A 19

THIS DEED, made this 30 day of Nov 4 2017, by and between,
JAMES W. TINSLEY, III, hereafter designated "GRANTOR"; and CWV
LAND ACQUISITIONS, LLC, a Virginia limited liability company, hereafter
known as "GRANTEE";

WITNESSETH:

That for and in consideration of the sum of TEN DOLLARS (\$10.00) and
other good and valuable consideration, the receipt of which is hereby
acknowledged the grantor does hereby grant and convey unto the grantee with
GENERAL WARRANTY AND ENGLISH COVENANTS OF TITLE the real
property described in schedule "A" which is attached hereto and made part
hereof.

This conveyance is made expressly subject to all easements, conditions,
restrictions and agreements of record applicable to the property hereby
conveyed.

TITLE INSURANCE COMPANY Old Republic National Title Insurance Company



Chesterfield Meadows
Office Park
10303 Memory Lane
Suite 101
P.O. Box 130
Chesterfield, Virginia
23832

www.gordondodson.com

OFFICE
(804) 748-8153

FAX
(804) 748-3287

REAL ESTATE FAX
(804) 751-9082

WITNESS the following signatures and seals:

James W. Tinsley, III (SEAL)
JAMES W. TINSLEY, III

STATE OF North Carolina:

~~CITY~~ COUNTY OF PASQUOTANK, to wit:

The foregoing instrument was acknowledged before me on
this 30th day of November, 2017 by JAMES W. TINSLEY, III.

A. Van der

Notary Public



My commission expires: 12-2-19

SCHEDULE "A"

ALL of that certain tract, piece or parcel of land with the improvements thereon and appurtenances thereto, belonging, lying, being and situate in Hamilton Magisterial District, Cumberland County, Virginia, containing 43.5 acres, more or less, as shown on a plat prepared by Highmark Engineering, entitled "Boundary Survey of Parcel ID 44-A-19 to the East of State Route 654," dated November 30, 2017, recorded in the Clerk's Office, Circuit Court, Cumberland County, Virginia, a copy of which is attached hereto and recorded herewith for a more particular description of the property hereby conveyed.

BEING the same real estate conveyed to James W. Tinsley, III, by Deed from Landon G. Atkins and Adeline S. Atkins, husband and wife, dated November 21, 1960, recorded November 28, 1960, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, in Deed Book 103, page 97.

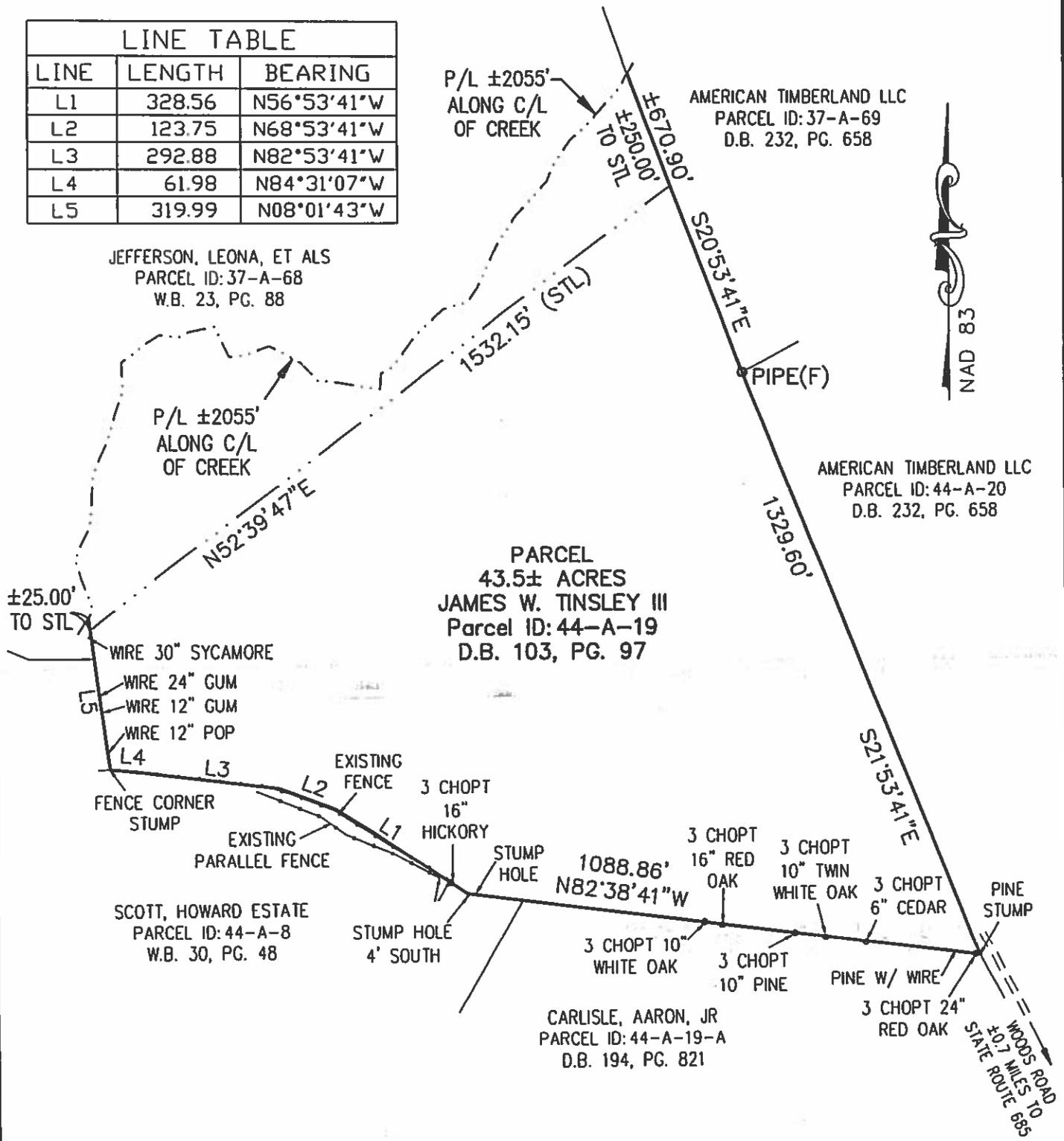
Grantee's Address:

4 Enterprise ave

Clifton Park, NY 12065

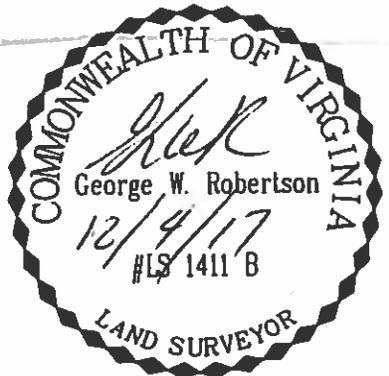
Attn: Jerry Cifer

LINE TABLE		
LINE	LENGTH	BEARING
L1	328.56	N56°53'41"W
L2	123.75	N68°53'41"W
L3	292.88	N82°53'41"W
L4	61.98	N84°31'07"W
L5	319.99	N08°01'43"W



NOTES

IMPROVEMENTS ARE NOT SHOWN ON THIS PLAT.
 THIS PLAT REPRESENTS A CURRENT FIELD SURVEY.
 EASEMENTS MAY EXIST THAT ARE NOT SHOWN.
 ROD(S) SHALL BE SET BY NOVEMBER 30, 2018.



APPROVED
See 12/8/2017
 Record Plat by: 6/8/2018
 Cumberland County, VA
 Subdivision Agent

BOUNDARY SURVEY
 OF PARCEL ID 44-A-19 TO THE
 EAST OF STATE ROUTE 654

HAMILTON DISTRICT * CUMBERLAND COUNTY, VIRGINIA
 NOVEMBER 30, 2017 SCALE: 1" = 300'

HME HIGHMARK ENGINEERING
 engineering excellence.
 13281 RIVERS BEND BLVD., SUITE 201 CHESTER, VA 23838
 P (804)-895-2875 bgammon@highmarkeng.com F(804)-530-3984



OWNER'S POLICY OF TITLE INSURANCE

Policy Issuer:
PERPETUAL TITLE, LLC
9910 WAGNERS WAY
CHESTERFIELD, VA 23832
PHONE: (804) 748-3600



Policy Number **OX-12088540** File Number: PT17-2121

Issued by Old Republic National Title Insurance Company

Any notice of claim and any other notice or statement in writing required to be given to the Company under this Policy must be given to the Company at the address shown in Section 18 of the Conditions.

COVERED RISKS

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B, AND THE CONDITIONS, OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, a Florida corporation (the "Company") insures, as of Date of Policy and, to the extent stated in Covered Risks 9 and 10, after Date of Policy, against loss or damage, not exceeding the Amount of Insurance, sustained or incurred by the Insured by reason of:

1. Title being vested other than as stated in Schedule A.
2. Any defect in or lien or encumbrance on the Title. This Covered Risk includes but is not limited to insurance against loss from:
 - (a) A defect in the Title caused by
 - (i) forgery, fraud, undue influence, duress, incompetency, incapacity, or impersonation;
 - (ii) failure of any person or Entity to have authorized a transfer or conveyance;
 - (iii) a document affecting Title not properly created, executed, witnessed, sealed, acknowledged, notarized, or delivered;
 - (iv) failure to perform those acts necessary to create a document by electronic means authorized by law;
 - (v) a document executed under a falsified, expired, or otherwise invalid power of attorney;
 - (vi) a document not properly filed, recorded, or indexed in the Public Records including failure to perform those acts by electronic means authorized by law; or
 - (vii) a defective judicial or administrative proceeding.
 - (b) The lien of real estate taxes or assessments imposed on the Title by a governmental authority due or payable, but unpaid.
 - (c) Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
3. Unmarketable Title.
4. No right of access to and from the Land.
5. The violation or enforcement of any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (a) the occupancy, use, or enjoyment of the Land;
 - (b) the character, dimensions, or location of any improvement erected on the Land;
 - (c) the subdivision of land; or
 - (d) environmental protection

if a notice, describing any part of the Land, is recorded in the Public Records setting forth the violation or intention to enforce, but only to the extent of the violation or enforcement referred to in that notice.

Countersigned:

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

A Stock Company

400 Second Avenue South, Minneapolis, Minnesota 55401

(612) 371-1111


Authorized Officer or Licensed Agent

By



President

Attest



Secretary

SCHEDULE A



Name and Address of Title Insurance Company:
Old Republic National Title Insurance Company
400 Second Avenue South
Minneapolis, Minnesota 55401

File No.: PT17-2121

Policy No.: OX-12088540

Address Reference: 44 Acres TM#44-A-19
Cumberland, Virginia

Amount of Insurance: \$ 132,000.00

Premium: \$ 514.80

Date of Policy: December 8, 2017 at 09:22 AM

1. Name of Insured:
CWV Land Acquisitions LLC
2. The estate or interest in the Land that is insured by this policy is:
Fee Simple
3. Title is vested in:
CWV Land Acquisitions LLC
4. The Land referred to in this policy is described as follows:

ALL of that certain tract, piece or parcel of land with the improvements thereon and appurtenances thereto, belonging, lying, being and situate in Hamilton Magisterial District, Cumberland County, Virginia, containing 43.5 acres, more or less, as shown on a plat prepared by Highmark Engineering, entitled "Boundary Survey of Parcel ID 44-A-19 to the East of State Route 654," a copy of which is recorded in the Clerk's Office, Circuit Court, Cumberland County, Virginia, as Instrument Number 201701350, and reference to which plat is hereby made for a more particular description.

BEING the same real estate conveyed to CWV Land Acquisitions LLC, by Deed from James W. Tinsley, III, dated November 30, 2017, recorded December 8, 2017, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, as Instrument No. 201701350.

Issued by:

Perpetual Title, LLC
9910 Wagners Way, Chesterfield, VA 23832



CAROL E. UPTON, PERPETUAL TITLE, LLC

SCHEDULE B

File No.: PT17-2121

Policy No.: OX-12088540

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of:

1. Taxes for the first half of the year 2018 and subsequent years.
2. All matters as shown on Plat recorded with Deed in Deed Book 103, page 71.
3. Possible supplemental assessment and taxes for improvements constructed on the premises.
4. Insured premises does not appear to abut on a public road or highway and accordingly this company does not assume liability for lack of access to and from the Land.
5. An examination of a plat of survey by Highmark Engineering, dated November 30, 2017, provided by the borrower (or insured) herein for matters adverse to the title herein insured disclosed the following:
 - a) Plat Line along the Center Line of Creek.
 - b) Fence along but not conforming to lot lines.
6. Rights of upper and lower riparian owners in and to the use of the waters and natural flow thereof.



**Old Republic National
Title Insurance
Company**

IMPORTANT INFORMATION TO POLICYHOLDERS

In the event you need to contact someone about this policy for any reason, please contact the agent. If you have additional questions, you may contact the insurance company issuing this policy at the following address and telephone number:

**Old Republic National Title Insurance Company
1800 Bayberry Court
The Meridian Building, Suite 104
Richmond, Virginia 23226
1-866-922-3657**

If you have been unable to contact or obtain satisfaction from the agent or the company, you may contact the Virginia Bureau of Insurance at:

**State Corporation Commission,
Bureau of Insurance
Property and Casualty Division
1300 E. Main Street
P.O. Box 1157
Richmond, Virginia 23209
Telephone: (800) 552-7945 (in Virginia) or
(804) 371-9741 (outside Virginia)**

Written correspondence is preferable so that a record of your inquiry is maintained. When contacting your agent, company or the Bureau of Insurance, have your policy number available.

NOTE: You are reminded that all claims and notices required under the terms of the policy must be made to the Claims Department at the Company's principal office at 400 Second Avenue South, Minneapolis, Minnesota 55401, as required by the terms of the policy. Do not hesitate to contact Old Republic's office at the address and telephone shown above should you have any questions.

6. An enforcement action based on the exercise of a governmental police power not covered by Covered Risk 5 if a notice of the enforcement action, describing any part of the Land, is recorded in the Public Records, but only to the extent of the enforcement referred to in that notice.
7. The exercise of the rights of eminent domain if a notice of the exercise, describing any part of the Land, is recorded in the Public Records.
8. Any taking by a governmental body that has occurred and is binding on the rights of a purchaser for value without Knowledge.
9. Title being vested other than as stated in Schedule A or being defective

(a) as a result of the avoidance in whole or in part, or from a court order providing an alternative remedy, of a transfer of all or any part of the title to or any interest in the Land occurring prior to the transaction vesting Title as shown in Schedule A because that prior transfer constituted a fraudulent or preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws; or
 (b) because the instrument of transfer vesting Title as shown in Schedule A constitutes a preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws by reason of the failure of its recording in the Public Records

- (i) to be timely, or
- (ii) to impart notice of its existence to a purchaser for value or to a judgment or lien creditor.

10. Any defect in or lien or encumbrance on the Title or other matter included in Covered Risks 1 through 9 that has been created or attached or has been filed or recorded in the Public Records subsequent to Date of Policy and prior to the recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The Company will also pay the costs, attorneys' fees, and expenses incurred in defense of any matter insured against by this Policy, but only to the extent provided in the Conditions.

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.

3. Defects, liens, encumbrances, adverse claims, or other matters

(a) created, suffered, assumed, or agreed to by the Insured Claimant;

(b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;

(c) resulting in no loss or damage to the Insured Claimant;

(d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or

(e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.

4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is

(a) a fraudulent conveyance or fraudulent transfer; or
 (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.

5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

CONDITIONS

1. DEFINITION OF TERMS

The following terms when used in this policy mean:

- (a) "Amount of Insurance": The amount stated in Schedule A, as may be increased or decreased by endorsement to this policy, increased by Section 8(b), or decreased by Sections 10 and 11 of these Conditions.
- (b) "Date of Policy": The date designated as "Date of Policy" in Schedule A.
- (c) "Entity": A corporation, partnership, trust, limited liability company, or other similar legal entity.
- (d) "Insured": The Insured named in Schedule A.
 - (i) The term "Insured" also includes
 - (A) successors to the Title of the Insured by operation of law as distinguished from purchase, including heirs, devisees, survivors, personal representatives, or next of kin;
 - (B) successors to an Insured by dissolution, merger, consolidation, distribution, or reorganization;
 - (C) successors to an Insured by its conversion to another kind of Entity;
 - (D) a grantee of an Insured under a deed delivered without payment of actual valuable consideration conveying the Title
 - (1) if the stock, shares, memberships, or other equity interests of the grantee are wholly-owned by the named Insured,
 - (2) if the grantee wholly owns the named Insured,
 - (3) if the grantee is wholly-owned by an affiliated Entity of the named Insured, provided the affiliated Entity and the named Insured are both wholly-owned by the same person or Entity, or
 - (4) if the grantee is a trustee or beneficiary of a trust created by a written instrument established by the Insured named in Schedule A for estate planning purposes.
 - (ii) With regard to (A), (B), (C), and (D) reserving, however, all rights and defenses as to any successor that the Company would have had against any predecessor Insured.
- (e) "Insured Claimant": An Insured claiming loss or damage.
- (f) "Knowledge" or "Known": Actual knowledge, not constructive knowledge or notice that may be imputed to an Insured by reason of the Public Records or any other records that impart constructive notice of matters affecting the Title.
- (g) "Land": The land described in Schedule A, and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is insured by this policy.
- (h) "Mortgage": Mortgage, deed of trust, trust deed, or other security instrument, including one evidenced by electronic means authorized by law.
- (i) "Public Records": Records established under state statutes at Date of Policy for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge. With respect to Covered Risk 5(d), "Public Records" shall also include environmental protection liens filed in the records of the clerk of the United States District Court for the district where the Land is located.
- (j) "Title": The estate or interest described in Schedule A.
- (k) "Unmarketable Title": Title affected by an alleged or apparent matter that would permit a prospective purchaser or lessee of the Title or lender on the Title to be released from the obligation to

purchase, lease, or lend if there is a contractual condition requiring the delivery of marketable title.

2. CONTINUATION OF INSURANCE

The coverage of this policy shall continue in force as of Date of Policy in favor of an Insured, but only so long as the Insured retains an estate or interest in the Land, or holds an obligation secured by a purchase money Mortgage given by a purchaser from the Insured, or only so long as the Insured shall have liability by reason of warranties in any transfer or conveyance of the Title. This policy shall not continue in force in favor of any purchaser from the Insured of either (i) an estate or interest in the Land, or (ii) an obligation secured by a purchase money Mortgage given to the Insured.

3. NOTICE OF CLAIM TO BE GIVEN BY INSURED CLAIMANT

The Insured shall notify the Company promptly in writing (i) in case of any litigation as set forth in Section 5(a) of these Conditions, (ii) in case Knowledge shall come to an Insured hereunder of any claim of title or interest that is adverse to the Title, as insured, and that might cause loss or damage for which the Company may be liable by virtue of this policy, or (iii) if the Title, as insured, is rejected as Unmarketable Title. If the Company is prejudiced by the failure of the Insured Claimant to provide prompt notice, the Company's liability to the Insured Claimant under the policy shall be reduced to the extent of the prejudice.

4. PROOF OF LOSS

In the event the Company is unable to determine the amount of loss or damage, the Company may, at its option, require as a condition of payment that the Insured Claimant furnish a signed proof of loss. The proof of loss must describe the defect, lien, encumbrance, or other matter insured against by this policy that constitutes the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage.

5. DEFENSE AND PROSECUTION OF ACTIONS

- (a) Upon written request by the Insured, and subject to the options contained in Section 7 of these Conditions, the Company, at its own cost and without unreasonable delay, shall provide for the defense of an Insured in litigation in which any third party asserts a claim covered by this policy adverse to the Insured. This obligation is limited to only those stated causes of action alleging matters insured against by this policy. The Company shall have the right to select counsel of its choice (subject to the right of the Insured to object for reasonable cause) to represent the Insured as to those stated causes of action. It shall not be liable for and will not pay the fees of any other counsel. The Company will not pay any fees, costs, or expenses incurred by the Insured in the defense of those causes of action that allege matters not insured against by this policy.
- (b) The Company shall have the right, in addition to the options contained in Section 7 of these Conditions, at its own cost, to institute and prosecute any action or proceeding or to do any other act that in its opinion may be necessary or desirable to establish the Title, as insured, or to prevent or reduce loss or damage to the Insured. The Company may take any appropriate action under the terms of this policy, whether or not it shall be liable to the Insured. The exercise of these rights shall not be an admission of liability or waiver of any provision of this policy. If the Company exercises its rights under this subsection, it must do so diligently.
- (c) Whenever the Company brings an action or asserts a defense as required or permitted by this policy, the Company may pursue the litigation to a final determination by a court of competent jurisdiction, and it expressly reserves the right, in its sole discretion, to appeal any adverse judgment or order.

CONDITIONS (con't)

6. DUTY OF INSURED CLAIMANT TO COOPERATE

(a) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding and any appeals, the Insured shall secure to the Company the right to so prosecute or provide defense in the action or proceeding, including the right to use, at its option, the name of the Insured for this purpose. Whenever requested by the Company, the Insured, at the Company's expense, shall give the Company all reasonable aid (i) in securing evidence, obtaining witnesses, prosecuting or defending the action or proceeding, or effecting settlement, and (ii) in any other lawful act that in the opinion of the Company may be necessary or desirable to establish the Title or any other matter as insured. If the Company is prejudiced by the failure of the Insured to furnish the required cooperation, the Company's obligations to the Insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such cooperation.

(b) The Company may reasonably require the Insured Claimant to submit to examination under oath by any authorized representative of the Company and to produce for examination, inspection, and copying, at such reasonable times and places as may be designated by the authorized representative of the Company, all records, in whatever medium maintained, including books, ledgers, checks, memoranda, correspondence, reports, e-mails, disks, tapes, and videos whether bearing a date before or after Date of Policy, that reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Insured Claimant shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect, and copy all of these records in the custody or control of a third party that reasonably pertain to the loss or damage. All information designated as confidential by the Insured Claimant provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Insured Claimant to submit for examination under oath, produce any reasonably requested information, or grant permission to secure reasonably necessary information from third parties as required in this subsection, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this policy as to that claim.

7. OPTIONS TO PAY OR OTHERWISE SETTLE CLAIMS; TERMINATION OF LIABILITY

In case of a claim under this policy, the Company shall have the following additional options:

(a) To Pay or Tender Payment of the Amount of Insurance.

To pay or tender payment of the Amount of Insurance under this policy together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment or tender of payment and that the Company is obligated to pay.

Upon the exercise by the Company of this option, all liability and obligations of the Company to the Insured under this policy, other than to make the payment required in this subsection, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

(b) To Pay or Otherwise Settle With Parties Other Than the Insured or With the Insured Claimant.

(i) To pay or otherwise settle with other parties for or in the name of an Insured Claimant any claim insured against under this

policy. In addition, the Company will pay any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay; or

(ii) To pay or otherwise settle with the Insured Claimant the loss or damage provided for under this policy, together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay.

Upon the exercise by the Company of either of the options provided for in subsections (b)(i) or (ii), the Company's obligations to the Insured under this policy for the claimed loss or damage, other than the payments required to be made, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

8. DETERMINATION AND EXTENT OF LIABILITY

This policy is a contract of indemnity against actual monetary loss or damage sustained or incurred by the Insured Claimant who has suffered loss or damage by reason of matters insured against by this policy.

(a) The extent of liability of the Company for loss or damage under this policy shall not exceed the lesser of

(i) the Amount of Insurance; or

(ii) the difference between the value of the Title as insured and the value of the Title subject to the risk insured against by this policy.

(b) If the Company pursues its rights under Section 5 of these Conditions and is unsuccessful in establishing the Title, as insured,

(i) the Amount of Insurance shall be increased by 10%, and

(ii) the Insured Claimant shall have the right to have the loss or damage determined either as of the date the claim was made by the Insured Claimant or as of the date it is settled and paid.

(c) In addition to the extent of liability under (a) and (b), the Company will also pay those costs, attorneys' fees, and expenses incurred in accordance with Sections 5 and 7 of these Conditions.

9. LIMITATION OF LIABILITY

(a) If the Company establishes the Title, or removes the alleged defect, lien, or encumbrance, or cures the lack of a right of access to or from the Land, or cures the claim of Unmarketable Title, all as insured, in a reasonably diligent manner by any method, including litigation and the completion of any appeals, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused to the Insured.

(b) In the event of any litigation, including litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals, adverse to the Title, as insured.

(c) The Company shall not be liable for loss or damage to the Insured for liability voluntarily assumed by the Insured in settling any claim or suit without the prior written consent of the Company.

10. REDUCTION OF INSURANCE; REDUCTION OR TERMINATION OF LIABILITY

All payments under this policy, except payments made for costs, attorneys' fees, and expenses, shall reduce the Amount of Insurance by the amount of the payment.

CONDITIONS (con't)

11. LIABILITY NONCUMULATIVE

The Amount of Insurance shall be reduced by any amount the Company pays under any policy insuring a Mortgage to which exception is taken in Schedule B or to which the Insured has agreed, assumed, or taken subject, or which is executed by an Insured after Date of Policy and which is a charge or lien on the Title, and the amount so paid shall be deemed a payment to the Insured under this policy.

12. PAYMENT OF LOSS

When liability and the extent of loss or damage have been definitely fixed in accordance with these Conditions, the payment shall be made within 30 days.

13. RIGHTS OF RECOVERY UPON PAYMENT OR SETTLEMENT

(a) Whenever the Company shall have settled and paid a claim under this policy, it shall be subrogated and entitled to the rights of the Insured Claimant in the Title and all other rights and remedies in respect to the claim that the Insured Claimant has against any person or property, to the extent of the amount of any loss, costs, attorneys' fees, and expenses paid by the Company. If requested by the Company, the Insured Claimant shall execute documents to evidence the transfer to the Company of these rights and remedies. The Insured Claimant shall permit the Company to sue, compromise, or settle in the name of the Insured Claimant and to use the name of the Insured Claimant in any transaction or litigation involving these rights and remedies.

If a payment on account of a claim does not fully cover the loss of the Insured Claimant, the Company shall defer the exercise of its right to recover until after the Insured Claimant shall have recovered its loss.

(b) The Company's right of subrogation includes the rights of the Insured to indemnities, guaranties, other policies of insurance, or bonds, notwithstanding any terms or conditions contained in those instruments that address subrogation rights.

14. ARBITRATION

Either the Company or the Insured may demand that the claim or controversy shall be submitted to arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). Except as provided in the Rules, there shall be no joinder or consolidation with claims or controversies of other persons. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Insured arising out of or relating to this policy, any service in connection with its issuance or the breach of a policy provision, or to any other controversy or claim arising out of the transaction giving rise to this policy. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured. All arbitrable matters when the Amount of Insurance is in excess of \$2,000,000 shall be arbitrated only when agreed to by both the Company and the Insured. Arbitration pursuant to this policy and under the Rules shall be binding upon the parties. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court of competent jurisdiction.

15. LIABILITY LIMITED TO THIS POLICY; POLICY ENTIRE CONTRACT

(a) This policy together with all endorsements, if any, attached to it by the Company is the entire policy and contract between the Insured and the Company. In interpreting any provision of this

policy, this policy shall be construed as a whole.

(b) Any claim of loss or damage that arises out of the status of the Title or by any action asserting such claim shall be restricted to this policy.

(c) Any amendment of or endorsement to this policy must be in writing and authenticated by an authorized person, or expressly incorporated by Schedule A of this policy.

(d) Each endorsement to this policy issued at any time is made a part of this policy and is subject to all of its terms and provisions. Except as the endorsement expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsement, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance.

16. SEVERABILITY

In the event any provision of this policy, in whole or in part, is held invalid or unenforceable under applicable law, the policy shall be deemed not to include that provision or such part held to be invalid, but all other provisions shall remain in full force and effect.

17. CHOICE OF LAW; FORUM

(a) Choice of Law: The Insured acknowledges the Company has underwritten the risks covered by this policy and determined the premium charged therefor in reliance upon the law affecting interests in real property and applicable to the interpretation, rights, remedies, or enforcement of policies of title insurance of the jurisdiction where the Land is located.

Therefore, the court or an arbitrator shall apply the law of the jurisdiction where the Land is located to determine the validity of claims against the Title that are adverse to the Insured and to interpret and enforce the terms of this policy. In neither case shall the court or arbitrator apply its conflicts of law principles to determine the applicable law.

(b) Choice of Forum: Any litigation or other proceeding brought by the Insured against the Company must be filed only in a state or federal court within the United States of America or its territories having appropriate jurisdiction.

18. NOTICES, WHERE SENT

Any notice of claim and any other notice or statement in writing required to be given to the Company under this policy must be given to the Company at 400 Second Avenue South, Minneapolis, Minnesota 55401-2499.

Endorsement
DELETION OF ARBITRATION

Policy issuer:
PERPETUAL TITLE, LLC
9910 WAGNERS WAY
CHESTERFIELD, VA 23832
PHONE: (804) 748-3800



This endorsement is to be attached to and become a part of Policy No. **OX-12088540**
TITLE INSURANCE COMPANY.

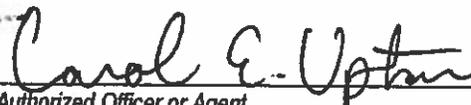
of OLD REPUBLIC NATIONAL

DELETION OF ARBITRATION

The paragraph titled "ARBITRATION" in the Conditions of this policy is hereby deleted.

This endorsement, when countersigned by an authorized officer or agent, is made part of said policy as of the policy date thereof and is subject to the Schedules, Conditions and Exclusions from Coverage therein contained, except as modified by the provisions hereof.

OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
A Stock Company
400 Second Avenue South, Minneapolis, Minnesota 55401
(612) 371-1111



Authorized Officer or Agent

ORT Form 4106 9/07
Deletion of Arbitration, ALTA Policies

By  President
Attest  Secretary



LAND ACQUISITIONS

PROPERTY DEED: AARON CARLISLE, JR

Parcel 44-A-19A

**VIRGINIA LAND RECORD COVER SHEET
FORM A - COVER SHEET CONTENT**

Instrument Date: 9/18/2019
Instrument Type: DBS
Number of Parcels: 1 Number of Pages: 2
 City County

CUMBERLAND

TAX EXEMPT? VIRGINIA/FEDERAL LAW
 Grantor:
 Grantee:
Consideration: \$216,000.00
Existing Debt: \$0.00
Actual Value/Assumed: \$78,120.00

PRIOR INSTRUMENT UNDER § 58.1-803(D):
Original Principal: \$0.00
Fair Market Value Increase: \$0.00

Original Book Number: Original Page Number:

Original Instrument Number:

Prior Recording At: City County
CUMBERLAND

Percentage In This Jurisdiction: **100%**

(Area Above Reserved For Deed Stamp Only)

BUSINESS / NAME

1 Grantor: CARLISLE, AARON JR.
 Grantor:
1 Grantee: CWV LAND ACQUISITION, LLC
 Grantee:

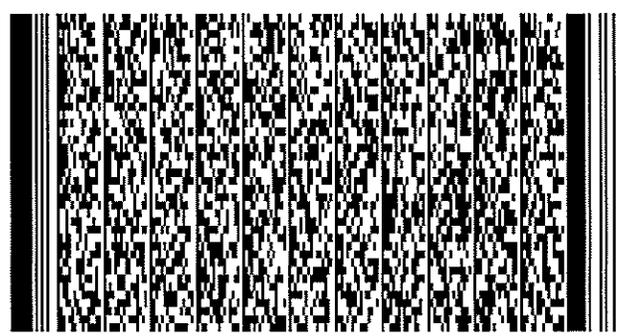
GRANTEE ADDRESS

Name: CWV LAND ACQUISITION, LLC
Address: 4 ENTERPRISE AVENUE
City: CLIFTON PARK State: NY Zip Code: 12065
Book Number: 194 Page Number: 821 Instrument Number:
Parcel Identification Number (PIN): 044-A-19-A Tax Map Number: 044-A-19-A
Short Property Description: PARCEL CONTAINING 65 +/- ACRES
IN HAMILTON MAGISTERIAL DISTRICT

Current Property Address:

City: CUMBERLAND State: VA Zip Code: 23040
Instrument Prepared By: SCOTT D. STOLTE Recording Paid By: GORDON, DODSON GORDON & ROW
Recording Returned To: GORDON, DODSON, GORDON & ROWLETT
Address: 10303 MEMORY LANE, STE 101
City: CHESTERFIELD State: VA Zip Code: 23832

DEED INSTRUMENT
NO. 10001055



This Instrument was prepared by:
Scott D. Stolte, Esquire (28357)
Ayers & Stolte, P.C.
710 North Hamilton Street
Richmond, Virginia 23221
(804)358-4731

Return to: Gordon, Dodson
10303 Memory Lane Ste 101
Chesapeake, VA 23832

Parcel Identification Number: 044 A 19 A
Consideration: \$216,000.00
Assessed Value: \$78,120.00
Title Insurance Provided by: First American Title Insurance Company

THIS DEED OF BARGAIN AND SALE is made this 18th day of September, 2019, by and between **AARON CARLISLE, JR.**, Grantor, and **CWV LAND ACQUISITION, LLC**, a Virginia limited liability company, Grantee.

WITNESSETH:

That for and in consideration of the premises and other good and valuable consideration, the receipt of which is hereby acknowledged, the Grantor does hereby grant and convey with **SPECIAL WARRANTY**, unto the Grantee, in fee simple, the following described real property, to wit:

ALL that certain parcel of land in Hamilton Magisterial District of Cumberland County, Virginia containing Sixty-Five (65) acres, more or less, shown on the Land Books of Cumberland County, Virginia as Sixty-Two (62) acres, described on a plat of survey made March 13, 1908 by J.H. Hobson, and of recorded in the Clerk's Office of the Circuit Court of Cumberland County, Virginia, in Deeb Book 45, page 379.

BEGINNING a portion of the same property conveyed to Aaron Carlisle, Jr., dated January 13, 1994, and recorded January 27, 1994, in the Clerk's Office of the Circuit Court of Cumberland County, Virginia in deed Book 194, page 821.

This conveyance is made expressly subject to all easements, restrictions, covenants, deeds of trust and agreements of record or contained herein applicable to the property hereby conveyed.

WITNESS the following signatures:

Aaron Carlisle, Jr.
Aaron Carlisle, Jr.

COMMONWEALTH OF VIRGINIA
CITY OF RICHMOND, to-wit:

The foregoing instrument was acknowledged before me this 18 day of September, 2019,
by Aaron Carlisle, Jr.

My Commission Expires: 4 30 2022 Registration Number: 7346065

Tracy L. Trollinger
Notary Public

GRANTEE ADDRESS:

4 Enterprise Ave
Clifton Park, NY 12205



~~MAILED/DELIVERED TO:~~
Gordon, Dodson, Gordon + Rowlett
10303 Memory Ln. Ste 101
Chesterfield, VA 23032

INSTRUMENT 190001055
RECORDED IN THE CLERK'S OFFICE OF
CUMBERLAND COUNTY CIRCUIT COURT ON
SEPTEMBER 20, 2019 AT 03:28 PM
\$216.00 GRANTOR TAX WAS PAID AS
REQUIRED BY SEC 58.1-802 OF THE VA. CODE
STATE: \$108.00 LOCAL: \$108.00
DEIDRE D. MARTIN, CLERK
RECORDED BY: MKL

LAND ACQUISITIONS

PROPERTY DEED: JOHN H. WICK, III and MARY R. WICK

Parcel 44-A-21; Parcels 45-2-2A, 45-2-2B

C - \$ 170,695.00
A - \$ 85,530.-

Document Prepared by:
Gordon, Dodson, Gordon & Rowlett
P. O. Box 130
Chesterfield, Virginia 23832
T. L. Gordon, Esq.
Licensed in the State of Virginia
State Bar #: 19466

PIN: 045 2 2 B & 045 2 2 A

THIS DEED, made this 18 day of October, 2019, by and between,
JOHN H. WICK, III, hereafter designated "GRANTOR"; and CWV LAND
ACQUISITION, LLC, a Virginia limited liability company, hereafter known
as "GRANTEE";

WITNESSETH:

That for and in consideration of the sum of TEN DOLLARS (\$10.00) and
other good and valuable consideration, the receipt of which is hereby
acknowledged the grantor does hereby grant and convey unto the grantee with
GENERAL WARRANTY AND ENGLISH COVENANTS OF TITLE the real
property described in schedule "A" which is attached hereto and made part
hereof.

This conveyance is made expressly subject to all easements, conditions,
restrictions and agreements of record applicable to the property hereby
conveyed.

TITLE INSURANCE COMPANY First American Title Insurance Company



Chesterfield Meadows
Office Park
10303 Memory Lane
Suite 101
P.O. Box 130
Chesterfield, Virginia
23832

www.gordondodson.com

OFFICE
(804) 748-8153

FAX
(804) 748-3287

REAL ESTATE FAX
(804) 751-9082

WITNESS the following signatures and seals:

John H. Wick III (SEAL)
JOHN H. WICK, III

STATE OF Virginia
CITY/COUNTY OF Chesterfield, to wit:

The foregoing instrument was acknowledged before me on
this 18 day of October, 2019 by JOHN H. WICK, III.

Tamra R. Gibbs
Notary Public

My commission expires: 3-31-23



SCHEDULE "A"

ALL of those two certain tracts or parcels of real estate situate in Hamilton District, Cumberland County, Virginia, and more particularly described and designated as follows, to-wit:

PARCEL NUMBER ONE

BEGINNING at a rod set in the western right of way line of State Route number 685, as shown on the hereinafter described plat, thence South $46^{\circ} 40$ minutes E. 40.25 ft. to a rod; thence N. $33^{\circ} 23$ minutes 00 seconds E. 516.59 ft. to a rod; thence S. $43^{\circ} 37$ minutes, 40 seconds, E. 64.38 ft. to a rod set in the western right of way line of State Route number 685; thence along said right of way line S. $31^{\circ} 04$ minutes 00 seconds W. 65.55 ft. to a point; thence along a curve with a radius of 1544.41 ft. and a length of 197.80 ft.: thence S. $38^{\circ} 24$ minutes 18 seconds W. 252.44 ft. to the point of Beginning; and containing 0.694 acres and designated as Parcel 2A on that certain plat dated December 20, 1976, prepared by Woodrow K. Cofer, CLS, and recorded in the Circuit Court Clerk's Office of Cumberland County, Virginia, with this deed.

PARCEL NUMBER TWO

BEGINNING at a rod set in the eastern right of way line of State Route number 685 as shown on the herein after designated plat; thence S. $48^{\circ} 37$ minutes 40 seconds, E. 541.49 ft. to a rod; thence N. $26^{\circ} 52$ minutes. 384.46 ft. to a rod; thence S. $49^{\circ} 18$ minutes E. 1937.00 ft to a stone; thence S. $34^{\circ} 17$ minutes W. 24.05 ft. to a rod thence S. $13^{\circ} 22$ minutes W. 201.40 ft. to a rod; thence N. $46^{\circ} 40$ minutes 00 seconds W. 2532.56 ft. to a rod set in the eastern right of way line of State Route number 685; thence N. $38^{\circ} 24$ minutes 18 seconds E. 255.03 ft. to a point; thence a curve with a radius of 1574.41 ft. and a length of 201.65 ft.; thence N. $31^{\circ} 04$ minutes 00 seconds E. 60.10 ft. to the point of Beginning, and containing 48.082 acres and designated as Parcel 2B on that certain plat dated

December 20, 1976, prepared by Woodrow K. Cofer, CLS and recorded in the Circuit Court Clerk's Office of Cumberland County, Virginia, with this deed.

BOTH PARCELS:

BEING the same property conveyed to John H. Wick, III, by Deed from William R. Miller and Gladys Miller, his wife, dated January 11, 1977, and recorded January 20, 1977, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, in Book 138, Page 267.

Grantee's Address:

4 Enterprise Ave
Clarksville, NY 12065

Document Prepared by:
Gordon, Dodson, Gordon & Rowlett
P. O. Box 130
Chesterfield, Virginia 23832
T. L. Gordon, Esq.
Licensed in the State of Virginia
State Bar #: 19466

C- 91 466, 130 -
A- 8 213, 090 -

PIN: 044 A 21

THIS DEED, made this 18 day of October, 2019, by and between,
JOHN H. WICK, III and MARY R. WICK, hereafter designated
"GRANTORS"; and **CWV LAND ACQUISITION, LLC**, a Virginia limited
liability company, hereafter known as "GRANTEE";

WITNESSETH:

That for and in consideration of the sum of TEN DOLLARS (\$10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged the grantors do hereby grant and convey unto the grantee with GENERAL WARRANTY AND ENGLISH COVENANTS OF TITLE the real property described in schedule "A" which is attached hereto and made part hereof.

This conveyance is made expressly subject to all easements, conditions, restrictions and agreements of record applicable to the property hereby conveyed.

TITLE INSURANCE COMPANY First American Title Insurance Company



Chesterfield Meadows
Office Park
10303 Memory Lane
Suite 101
P.O. Box 130
Chesterfield, Virginia
23832

www.gordondodson.com

OFFICE
(804) 748-8153

FAX
(804) 748-3287

REAL ESTATE FAX
(804) 751-9082

WITNESS the following signatures and seals:

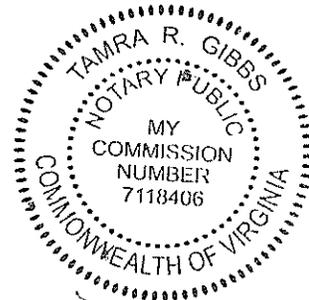
John H. Wick III (SEAL)
JOHN H. WICK, III

STATE OF Virginia
CITY/COUNTY OF Chesterfield, to wit:

The foregoing instrument was acknowledged before me on
this 18 day of October, 2019 by **JOHN H. WICK, III.**

Tamra R. Gibbs
Notary Public

My commission expires: 3-31-23



Mary R. Wick (SEAL)
MARY R. WICK

STATE OF Virginia
CITY/COUNTY OF Chesterfield, to wit:

The foregoing instrument was acknowledged before me on
this 18 day of October, 2019 by **MARY R. WICK.**

Tamra R. Gibbs
Notary Public

My commission expires: 3-31-23



SCHEDULE "A"

ALL those certain tracts, pieces or parcels of land, with improvements thereon and appurtenances thereunto belonging, containing together 133.18 acres of land, more or less, one parcel containing 40.87 acres, more or less, lies to the south of State Route 685, the other parcel containing 92.31 acres, more or less, of land lies to the north of State Route 685, both parcels lying and being in Hamilton District Cumberland County, Virginia, and more particularly bounded and described in accordance with plat of survey by W. K. Cofer & H.S. Jones, Certified Land Surveyors, dated July 22, 1975, entitled, "Plat of Louise Flippen Property in Hamilton District, Cumberland County, Virginia," a copy of which is attached hereto and to which reference is hereby made for a more particular description of the property hereby conveyed.

LESS & EXCEPT that portion conveyed to the Commonwealth of Virginia for improvements to State Route 654 by deed dated October 19, 1993, recorded March 9, 1995, in Deed Book 201, page 598.

BEING a portion of the same property conveyed to John H. Wick, III and Mary R. Wick, husband and wife, by Deed from LeRoy E. Brown, III, Executor under the Last Will and Testament of Louse Cox Flippen, deceased, dated July 31, 1975, and recorded August 8, 1975, in the Clerk's Office, Circuit Court, Cumberland County, Virginia, in Deed Book 134, Page 168.

Grantee's Address:

4 Enterprise Ave
Clifton Park NY, 12065

LAND ACQUISITIONS

PROPERTY DEED: ELLIS M. PALMORE LUMBER, INC.

Parcels 45-1-40, 45-1-41

Tax ID # 045-1-40
045-1-41

Consideration: \$ 500,000.00
Assessment: \$ 190,380.00

Prepared by: CowanGates, by D. Heath Gates, Jr. (#80384), P.O. Box 35655, Richmond, VA 23235-0655

THIS DEED, made this 20th day of September, 2019, by and between ELLIS M. PALMORE LUMBER, INC, A/K/A ELLIS M. PALMORE LUMBER, INCORPORATED, (the Grantor), party of the first part; and CWV LAND ACQUISITION, LLC, (the Grantee), party of the second part;

WITNESSETH:

That for and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, the receipt of all of which is hereby acknowledged, the said Grantor does hereby grant and convey, with GENERAL WARRANTY and ENGLISH COVENANTS OF TITLE unto the said Grantee, in fee simple, the following described property, to-wit:

SEE SCHEDULE "A" ATTACHED

This conveyance is made subject to applicable easements, restrictions, conditions and covenants affecting the property herein conveyed.

Title Insurance provided by: First American Title Insurance Company

WITNESS the following signature and seal.

Ellis M. Palmore Lumber, Inc., a/k/a
Ellis M. Palmore Lumber, Incorporated

By: Robert M. Palmore ^{President} (SEAL)
Robert M. Palmore, President

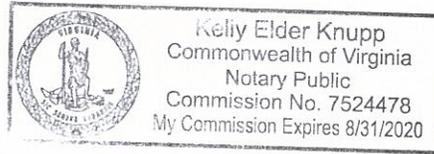
By: David E. Palmore V.P. (SEAL)
David E. Palmore, Vice President

STATE OF Virginia
CITY/COUNTY OF Chestnutfield to-wit:

The foregoing instrument was acknowledged before me this 10 day of October, 2019 by Robert M. Palmore.

Kelly Elder Knupp
Notary Public

My commission expires: 8/31/2020
Registration No.: 7524478

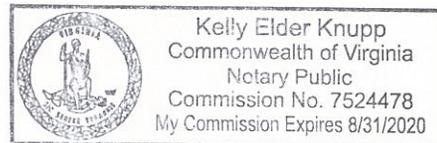


STATE OF Virginia
CITY/COUNTY OF Chestnutfield to-wit:

The foregoing instrument was acknowledged before me this 10 day of October, 2019 by David E. Palmore.

Kelly Elder Knupp
Notary Public

My commission expires: 8/31/2020
Registration No.: 7524478



Grantee's Address:

4 Enterprise Ave
Utter Park, NY 12025

SCHEDULE "A"

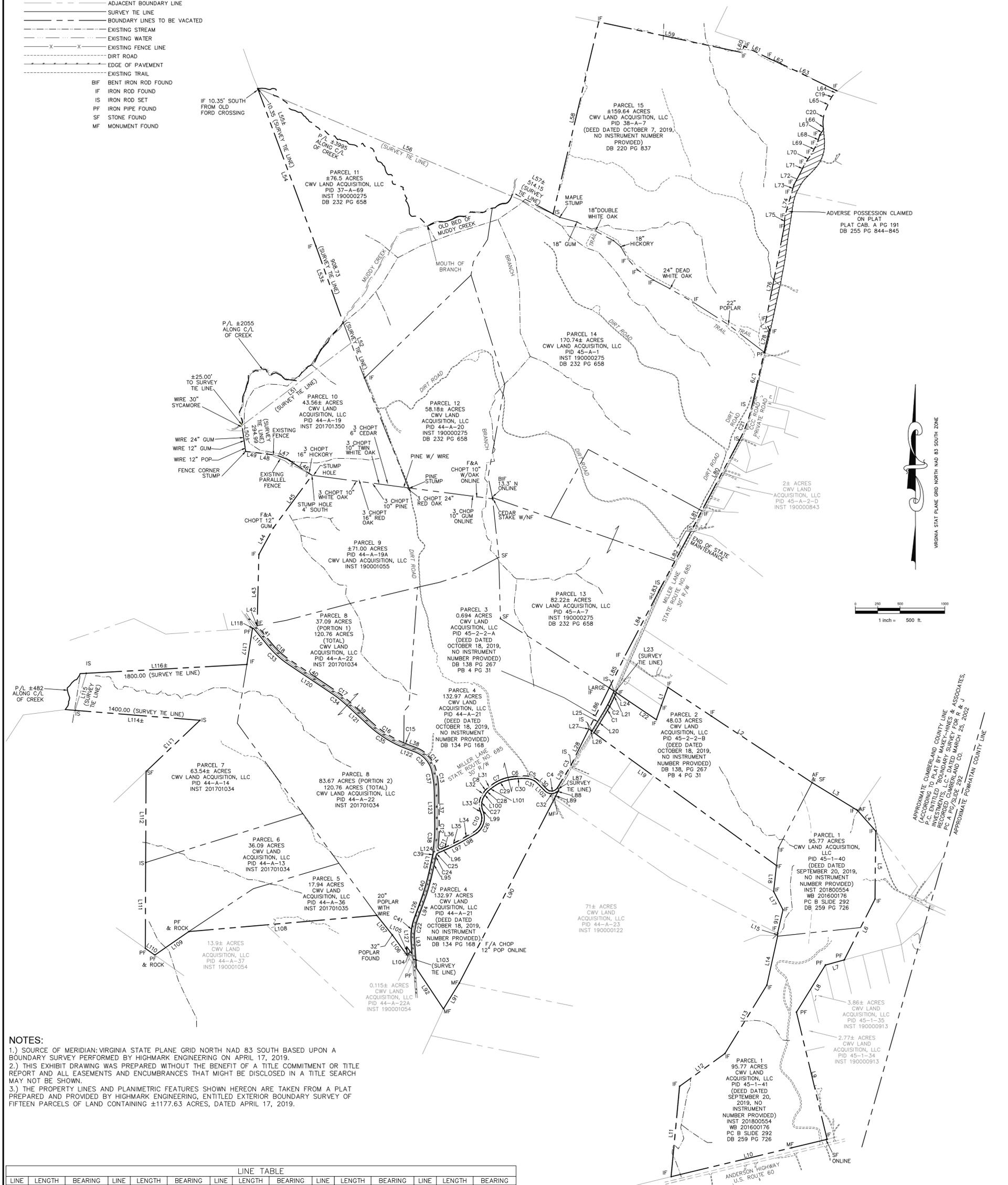
PARCEL 1: ALL that certain tract or parcel of land, lying and being in Hamilton District, Cumberland County, Virginia, known and designated as Parcel 1, containing 95.77 acres, more or less, as shown on plat of survey by Highmark Engineering, dated May 24, 2018 and recorded May 25, 2018 in the Clerk's Office, Circuit Court, Cumberland County, Virginia in Plat Cabinet B, Slide 292, to which plat reference is hereby made for a more particular description.

PARCEL II: ALL that certain tract or parcel of land, lying and being in Hamilton District, Cumberland County, Virginia, known and designated as Parcel 2, containing 10.99 acres, more or less, as shown on plat of survey by Highmark Engineering, dated May 24, 2018 and recorded May 25, 2018 in the Clerk's Office, Circuit Court, Cumberland County, Virginia in Plat Cabinet B, Slide 292, to which plat reference is hereby made for a more particular description.

BEING a portion of the same property conveyed to Ellis M. Palmore Lumber, Inc., by Deed from Ronald I. Pernbelton, dated April 4, 2002, and recorded April 9, 2002, in the Clerk's Office, Circuit Court, Cumberland County, Virginia in Deed Book 259, Page 726 and further by Deed of Confirmation by Ellis M. Palmore Lumber, Incorporated, a Virginia corporation, as Grantor and Grantee, dated May 25, 2018, recorded May 25, 2018 in Instrument No. 201800554.

LEGEND

- BOUNDARY LINE
- CREEKS AND STREAMS
- ADJACENT BOUNDARY LINE
- SURVEY TIE LINE
- BOUNDARY LINES TO BE VACATED
- EXISTING STREAM
- EXISTING WATER
- X X EXISTING FENCE LINE
- DIRT ROAD
- EDGE OF PAVEMENT
- EXISTING TRAIL
- BIF BENT IRON ROD FOUND
- IF IRON ROD FOUND
- IS IRON ROD SET
- PF IRON PIPE FOUND
- SF STONE FOUND
- MF MONUMENT FOUND



NOTES:
 1.) SOURCE OF MERIDIAN: VIRGINIA STATE PLANE GRID NORTH NAD 83 SOUTH BASED UPON A BOUNDARY SURVEY PERFORMED BY HIGHMARK ENGINEERING ON APRIL 17, 2019.
 2.) THIS EXHIBIT DRAWING WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT OR TITLE REPORT AND ALL EASEMENTS AND ENCUMBRANCES THAT MIGHT BE DISCLOSED IN A TITLE SEARCH MAY NOT BE SHOWN.
 3.) THE PROPERTY LINES AND PLANIMETRIC FEATURES SHOWN HEREON ARE TAKEN FROM A PLAT PREPARED AND PROVIDED BY HIGHMARK ENGINEERING, ENTITLED EXTERIOR BOUNDARY SURVEY OF FIFTEEN PARCELS OF LAND CONTAINING ±1177.63 ACRES, DATED APRIL 17, 2019.

LINE	LENGTH	BEARING	LINE	LENGTH	BEARING									
L1	385.35	N19°35'50"E	L27	0.42	S26°14'11"W	L53	908.73±	N19°36'48"W	L79	648.19	S12°35'59"W	L105	99.87	S03°52'09"E
L2	1937.45	S56°25'26"E	L28	454.32	S26°14'11"W	L54	1876.11	N20°10'30"W	L80	898.91	S27°58'06"W	L106	285.18	N35°51'08"W
L3	595.36	S98°22'22"E	L29	285.93	S31°04'56"W	L55	10.55±	N20°10'30"W	L81	195.23	S27°31'32"W	L107	279.81	N38°24'23"W
L4	309.62	S41°12'28"E	L30	118.38	N44°23'36"W	L56	3592.70	S66°54'50"E	L82	814.25	S28°12'54"W	L108	210.87	S85°02'47"W
L5	763.34	S00°37'00"W	L31	44.69	S51°36'34"W	L57	514.15±	S62°08'21"E	L83	22.45	S24°08'33"W	L109	462.84	S55°15'39"W
L6	764.88	S26°44'27"W	L32	33.57	S32°46'24"W	L58	2216.24	N13°18'24"E	L84	840.56	S27°28'44"W	L110	129.67	N50°00'15"W
L7	218.55	S74°30'35"W	L33	28.80	S18°40'58"E	L59	1636.78	S77°51'06"E	L85	369.46	S25°58'56"W	L111	964.98	N00°14'00"E
L8	620.87	S31°27'47"W	L34	194.33	S60°03'44"W	L60	75.92	N19°53'40"E	L86	516.17	S26°14'11"W	L112	1023.00	N00°14'00"E
L9	1469.41	S13°30'22"E	L35	125.08	S63°25'14"W	L61	316.13	S63°46'30"E	L87	32.28	S33°09'57"E	L113	833.96	N46°20'56"E
L10	1795.34	S76°29'02"W	L36	90.36	S66°42'28"W	L62	220.64	S65°33'59"E	L88	37.80	S31°52'29"W	L114	1512.28±	N85°26'19"W
L11	1019.98	N85°22'07"E	L37	393.10	N00°42'17"W	L63	620.40	S65°33'59"E	L89	70.18	S26°14'11"W	L115	434.22	N16°29'57"E
L12	626.60	N54°01'07"E	L38	109.87	N69°04'52"W	L64	56.53	S44°35'18"W	L90	2331.37	S27°11'10"W	L116	1870.00±	N86°49'28"E
L13	900.50	N31°25'07"E	L39	345.57	N47°09'43"W	L65	128.14	S23°56'23"W	L91	339.87	S31°18'50"W	L117	410.59	N08°48'18"E
L14	562.26	N12°19'07"E	L40	612.99	N55°59'35"W	L66	58.71	S03°32'52"E	L92	546.44	N03°34'50"W	L118	10.49	N86°27'36"E
L15	35.97	N00°23'36"W	L41	261.09	N39°29'21"W	L67	68.38	S34°04'11"W	L93	315.65	N03°52'09"W	L119	264.71	S39°29'21"E
L16	268.49	N13°03'26"E	L42	0.94	N79°37'24"E	L68	113.65	S18°52'29"W	L94	211.29	N20°02'45"E	L120	612.99	S55°59'35"E
L17	231.47	N27°01'16"W	L43	801.08	N01°20'33"E	L69	120.70	S28°59'33"W	L95	148.08	N12°05'16"E	L121	345.57	S47°09'43"E
L18	292.39	N06°16'38"E	L44	339.57	N28°33'08"E	L70	135.59	S34°09'02"W	L96	147.34	N66°42'28"E	L122	109.87	S69°04'52"E
L19	2529.31	N53°49'23"W	L45	732.15	N36°12'46"E	L71	116.17	S25°43'40"W	L97	126.82	N12°45'14"E	L123	393.10	S00°42'17"E
L20	254.60	N31°15'29"E	L46	328.56	N56°48'05"W	L72	149.26	S28°06'03"W	L98	195.21	N60°03'44"E	L124	5.00	S80°38'34"E
L21	59.56	N23°55'11"E	L47	123.75	N68°48'05"W	L73	81.90	S16°03'34"W	L99	28.80	N18°40'58"W	L125	146.08	S12°05'16"W
L22	541.07	S95°51'56"E	L48	292.88	N82°48'05"W	L74	261.89	S18°02'28"W	L100	33.57	S32°46'24"E	L126	211.29	S20°02'45"W
L23	30.60	N54°45'31"W	L49	61.98	N84°25'32"W	L75	117.47	S03°40'31"W	L101	44.69	N51°36'34"E	L127	148.00	S03°52'09"E
L24	65.57	S23°58'09"W	L50	319.99±	N07°56'08"W	L76	1099.43	S10°57'50"W	L102	118.38	S44°23'36"E			
L25	252.02	S31°15'29"W	L51	1532.15	N52°45'23"E	L77	88.55	S28°53'50"E	L103	172.36	N17°11'19"W			
L26	40.29	N53°49'23"W	L52	250.00	N20°48'05"W	L78	263.11	S12°42'38"W	L104	100.00	N35°51'08"W			

CURVE	LENGTH	RADIUS	DELTA	CHD DIRECTION	CHORD	CURVE	LENGTH	RADIUS	DELTA	CHD DIRECTION	CHORD
C1	201.65	1574.41	7°20'18"	N27°35'20"E	201.51	C22	239.48	573.74	23°54'54"	S08°05'18"W	237.74
C2	197.80	1544.41	7°20'17"	N27°35'20"E	197.66	C23	355.84	2562.00	7°57'29"	N16°04'01"E	355.56
C3	7.53	89.00	4°50'45"	N28°39'34"E	7.52	C24	43.81	1612.00	1°33'25"	N11°18'34"E	43.80
C4	139.32	76.37	104°31'27"	N83°20'40"E	120.79	C25	288.62	210.00	78°44'43"	N20°14'23"E	266.43
C5	152.00	204.98	42°29'08"	N65°38'04"W	148.54	C26	288.62	210.00	78°44'43"	N20°14'23"E	266.43
C6	202.37	830.00	13°58'11"	S86°11'02"W	201.87	C27	157.16	175.00	51°27'22"	S07°02'43"W	151.94
C7	231.13	480.00	27°35'23"	S65°24'15"W	228.91	C28	54.24	165.00	18°50'10"	S42°11'29"W	54.00
C8	64.11	195.00	18°50'10"	S42°11'29"W	63.82	C29	216.69	450.00	27°35'23"	S65°24'15"W	214.60
C9	184.11	205.00	51°27'22"	S07°02'43"W	177.98	C30	195.05	800.00	13°58'11"	S86°11'02"W	194.57
C10	247.39	180.00	78°44'43"	N20°14'23"E	228.37	C31	129.78	175.00	42°29'08"	N65°38'04"W	126.82
C11	52.54	25.00	120°24'43"	S53°05'11"E	53.05	C32	179.99	106.37	96°56'54"	N87°02'56"E	159.27
C12	220.82	1617.00	7°49'28"	N03°12'27"E	220.65	C33	293.99	1020.60	16°30'15"	S47°44'28"E	292.57
C13	250.21	1125.00	12°44'36"	N07°04'35"W	249.70	C34	181.79	1179.40	8°49'53"	N51°34'39"W	181.61
C14	342.67	352.91	55°37'59"	N41°15'52"W	329.36	C35	492.32	1286.90	21°55'10"	S58°07'17"E	489.33
C15	45.18	1236.90	2°05'35"	S68°02'05"E	45.18	C36	294.12	302.91	55°37'59"	N41°15'52"W	282.70
C16	428.01	1236.90	19°49'35"	S57°04'30"E	425.88	C37	239.09	1075.00	12°44'36"	N07°04'35"W	238.60
C17	169.50	1239.40	8°49'53"	N51°34'39"W	169.31	C38	275.19	1567.00	10°03'43"	N04°19'34"E	274.83
C18	279.59	970.60	16°30'15"	S47°44'28"E	278.62	C39	74.92	1572.00	24°35'01"	N10°43'21"E	74.91
C19	65.69	182.29	20°38'50"	S34°15'53"W	65.34	C40	350.29	1522.00	7°57'29"	N16°04'01"E	350.01
C20	171.22	356.90	27°29'14"	S10°11'46"W	169.58	C41	256.17	613.74	23°54'54"	S08°05'18"W	254.32
C21	381.35	1450.00	15°04'08"	N20°26'03"E	380.25						

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EXHIBIT DRAWING SHOWING
OVERALL BOUNDARY
GREEN RIDGE RECYCLING AND
DISPOSAL FACILITY
 HAMILTON DISTRICT - CUMBERLAND COUNTY, VIRGINIA

DESIGNED BY:	REVISIONS:	PROJECT NUMBER:
DRAWN BY: DAJ	NOVEMBER 6, 2019 OWNER INFORMATION	18020117-030102
CHECKED BY: CAS	NOVEMBER 18, 2019 CLIENT DEED INFO	
SCALE: 1" = 500'		
DATE: 07/18/2019		

ATTACHMENT PTA-XI - HYDROGEOLOGIC AND GEOTECHNICAL REPORT

As required by VAC 20-81-100, et seq., a Hydrogeologic and Geotechnical Report for the Facility has been prepared following the outline referenced in Submission Instruction No. 1 (rev. 01/2012). The report is intended to define the geology beneath the site, and the groundwater flow path and rates of the uppermost aquifer.

SIGNATURE/CERTIFICATION

Qualified Groundwater Scientist:

I certify that I have prepared or supervised preparation of the attached report, that it has been prepared in accordance with industry standards and practices, and that the information contained herein is truthful and accurate to the best of my knowledge.

Certified this 9th day of December, 2019

Prepared by:

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Seal:



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APPENDIX 1 – Tables

APPENDIX 2 - Koontz Bryant Johnson Williams (KBJW) - *Preliminary Subsurface Exploration, Soil and Groundwater Study, Cumberland County, Virginia, March 12, 2018.*

1.0 INTRODUCTION/BACKGROUND

On behalf of Green Ridge Recycling and Disposal, LLC (GRRD), Draper Aden Associates (DAA) prepared this Hydrogeologic and Geotechnical Report for a proposed solid waste disposal Facility located in Cumberland County, Virginia (Facility). This report is being submitted to the Virginia Department of Environmental Quality – Piedmont Regional Office (DEQ) and follows the outline requirements referenced in the DEQ’s Solid Waste Permitting Submission Instruction No. 1 (rev. 01/2012).

The proposed Facility comprises 1,177.63 acres of timbered lands located in eastern Cumberland County, north of U.S. Route 60 (Anderson Highway), in the vicinity of Route 654 (Pinegrove Road) and Route 685 (Miller Lane). **PTA Attachment IX-Figure 1-Key Map** shows the location of the Facility, its boundary, and surrounding geographic features.

The proposed waste disposal unit, and other waste management infrastructure, are located on the portion of the Facility bounded on the east by Miller Lane and on the north by Muddy Creek. **PTA Attachment IX-Figure 2-Near Vicinity Map** shows The Waste Management Boundary (WMB) that encloses the disposal area and other waste management infrastructure, all located west of Miller Lane. Several unnamed tributaries that bisect this portion of the Facility eventually feed into Muddy Creek.

The portion of the Facility located east of Miller Lane will not contain any waste disposal units, nor other activities that would be considered part of the waste management unit (such as leachate storage). This eastern portion of the Facility is crossed by Maple Swamp Creek, a tributary to Muddy Creek, and will comprise an office building, access road, scalehouse, and other ancillary operations. Accordingly, hydrogeologic and geotechnical studies described in this report focused on the proposed waste disposal area west of Miller Lane.

1.1 Purpose and Methods

The purpose of this Hydrogeologic and Geotechnical Report is to characterize the hydrogeology and groundwater flow regime underlying the proposed Facility, assess the availability and suitability of on-site soils for use in constructing the landfill, and assess subsurface foundation characteristics.

Prior to the 2019 DAA hydrogeologic study, Koontz Bryant Johnson Williams (KBJW) had completed a study of the Facility location: *Preliminary Subsurface Exploration, Soil and Groundwater Study, Cumberland County, Virginia, March 12, 2018*. That report is included as an appendix to this document, including its boring logs, cross sections and a potentiometric surface map. Boring logs from the KBJW report are not repeated in **PTA Attachment XII – Location of Borings and Boring Logs**, where the more recent logs for the 2019 DAA hydrogeologic study

can be found. Similarly, the cross sections from the KBJW report are not repeated in **PTA Attachment XV**, which contains only potentiometric maps and cross sections from the DAA 2019 hydrogeologic study.

A variety of investigative techniques and methods were used to collect information and data as discussed under each of the following sections. The discussion that follows centers on the DAA site characterization work, with mention of how the KBJW results are utilized. For further information on methods and techniques used in the KBJW study, the reader is referred to that document, in Appendix 2.

This report was compiled and formatted in general accordance with the requirements of *Virginia Solid Waste Management Regulations (VSWMR)* and DEQ's Submission Instruction No. 1 *Procedural Requirements for a New or Modified Solid Waste Management Facility (SWMF) Permit Application* (Revised January 2012).

2.0 BORING RECORDS

The boring records, including number of borings, location of borings, depths of borings, sampling, boring logs, observation wells, in-situ hydraulic conductivity, and sealing of borings are presented in this section and the referenced attachments.

PTA Attachment XII-Figure BOR is a 1 inch = 500 feet scale plan view of the Facility showing the Facility boundary, waste management boundary (WMB), disposal unit boundary (DUB) and boring locations. **Table 1 (Appendix 1)** is a summary table showing the depth, completion status, construction details and survey results for each of the borings advanced within the Facility and WMB, including those installed by KBJW. DAA Boring/Well Logs for each boring are also included in **PTA Attachment XII – Location of Borings and Boring Logs**.

2.1 Number of Borings

Following initial site reconnaissance, and two meetings with the DEQ to obtain their input on the planned site characterization studies, an initial boring plan was developed. The number and layout of borings were planned to investigate a site that included two proposed disposal units totaling approximately 500 acres, bisected by a tributary to Muddy Creek. Based on the anticipated WMB, the number of borings planned across the waste management unit was consistent with Table 5.1 of 9VAC 20-81-460.E.1.a. Including the KBJW borings, a total of seventy-two (72) borings were advanced across the Facility as then planned. All borings were conducted in the planned disposal area of the site, west of Miller Lane (versus along the access road portion of the site east of Miller Lane where there will be no disposal). The DAA field investigation concluded in May 2017.

Following the field investigation, the WMB was modified for several reasons, including the avoidance of wetlands and streams, avoidance of cultural resources, adjustments of planned road relocations, and ultimately the elimination of an approximately 200-acre eastern disposal area.

This site redesign created a larger 'non-disposal' portion of the WMB in the eastern section of the Facility that lies west of Miller Lane, and one 238.1-acre disposal area on the western portion of the Facility.

The total acreage within the revised WMB is approximately 438.1 acres. Per Table 5.1 of §9 VAC 20-81-460.E.1.a, for a WMB greater than 200 acres, the required number of borings is 24 plus 1 boring for each additional 10 acres beyond 200 (or an additional 23.8 borings for this WMB). Thus, forty-eight (48) borings are required to characterize the area within the WMB. Of the 72 borings installed, 55 of these borings are either within or immediately adjacent to the WMB or are integral to the characterization of the area within the WMB. The remaining 16 borings are no longer considered "Table 5.1" borings as they are no longer within or adjacent the WMB, nor needed to characterize the area within the WMB. However, these 16 borings still provide useful information in terms of assessing groundwater flow across the Facility, and assessing the relationship of the Facility to nearby private water wells along Miller Lane.

It should be noted that due to the adjustment of the WMB, some borings that were originally inside the WMB boundary proper, are now outside, but adjacent (e.g., DAA-11pz, DAA-37pz, B-6).

Other borings associated characterizing the area within the WMB were specifically sited so as to provide useful geological information and a wider field of study to better characterize conditions within WMB. This would include for example the wells just outside the southern edge of the WMB (e.g., B-17, DAA-8pz, DAA-7sb and B-20). Had these borings been sited further to the north and inside the current (rather than planned) WMB, the information they would provide would be of lesser value and duplicative of other borings in that area, such as DAA-5pz, DAA-6pz, DAA1sb, DAA-4sb.

The line of borings near the southeastern corner of the WMB, (DAA-42pz, DAA-47pz, DAA-46pz and DAA-44 pz) were needed at these specific locations (and not within the current WMB) to better evaluate groundwater flow directions beneath the areas within and adjacent the WMB, and in this area of a groundwater divide.

Borings along the northeast corner of the WMB (DAA-18pz, B-10, DAA-41pz, DAA-17sb, DAA-16pz and B-11) are essential for evaluating the groundwater flow characteristics along the northern portion of the area within the WMB. They help to evaluate how the unnamed tributary immediately to the north of the WMB may play a role in intercepting groundwater flowing north from this portion of the Facility and directing it westward toward the larger tributary bisecting the Facility.

Additional borings will be advanced around the WMB and completed as permanent monitoring wells during Facility construction. The location of these additional borings/wells will be identified during the Part B application process.

2.2 Location of Borings

As shown on **PTA Attachment XII-Figure BOR** the boring locations targeted the major geomorphic features within the WMB, specifically in and around the proposed DUB. The proposed DUB encompasses approximately 238.1 acres. The boring distribution reflects a pattern within the WMB designed to characterize the geology and hydrogeology of the area within and adjacent the WMB. Field adjustments to the boring locations were made to target various geomorphic features, to address accessibility issues, and to avoid wetlands, streams, and potential cultural resource areas. Subsurface information from both the borings and piezometers was used to prepare five geologic cross-sections within the Facility (**PTA Attachment XV-Figures Cross-1 and Cross 2**).

2.3 Depth of Borings

All borings were advanced using hollow-stem augers. Rock cores were also collected from several of the borings using Wireline NQ2" (NQTK) rock coring equipment with a diamond tooth bit. Boring logs and a summary table (**Table 1**) are included in **Appendix 1**.

Borings are identified using the following nomenclature, which denote the completion status:

- **DAA-2sb:** Advanced by Blue Ridge Drilling during February through March 2019, under the supervision of DAA. Boring was advanced until auger refusal or 60 to 65 feet below ground surface (bgs), whichever came first. Upon completion of drilling, borings were sealed/abandoned using hydrated bentonite pellets.
- **DAA-5pz:** Advanced by Blue Ridge Drilling during February through March 2019 and Jetco Drilling during May 2019, under the supervision of DAA. Boring was advanced until auger refusal or 55 to 60 feet bgs, whichever came first. Upon completion of drilling, 2-inch piezometers were installed by Blue Ridge Drilling and 1-inch piezometers were installed by Jetco.
- **DAA-15pz-s and DAA-15pz-d:** Boring Pairs advanced by Blue Ridge Drilling during February through March 2019, under the supervision of DAA. One boring was advanced until auger refusal and completed as a 2-inch piezometer (shallow). The second boring was advanced until auger refusal then cored an additional ten feet and completed as a 2-inch piezometer (deep).
- **B-1:** Advanced by Blue Ridge Drilling in December 2017, under the supervision of Koontz Bryant Johnson Williams (KBJW). Boring was advanced until auger refusal. Upon completion of drilling the boring was:
 - Sealed with bentonite or,
 - completed as a 1-inch piezometer or,
 - cored an additional ten feet deep and sealed with bentonite

2.4 Sampling

Samples were logged and collected at each of the DAA borings using the following methods, frequency and rationale:

Auger Cuttings:

Auger cuttings generated during drilling were used to log and collect bulk samples at depths ranging from 0 to 6 feet below ground surface. Auger cuttings were collected from the 0 to 5-foot interval and composited as bulk samples for geotechnical analysis.

Split Spoons:

Continuous split spoon samples (per ASTM D1586-99 *Standard Method for Penetration Test and Split-Barrel Sampling of Soils*) were collected and logged beginning at depths ranging from 2 feet to 6 feet bgs in each of the borings. A depth of 6 feet bgs was used as a conservative estimate for the proposed base grade of the disposal unit (proposed lowest elevation of solid waste disposal). Continuous split spoon samples were collected until:

- blow counts exceeded 50+/6 inches, at which time the boring was advanced at 5-foot intervals between split spoon samples until auger refusal; or
- auger refusal

Shelby Tubes:

Shelby tube samples were also collected in accordance with ASTM D1587 *Standard Practice for Thin-Walled Tube Sampling of Soils for Geotechnical Purposes*. Shelby tube samples collected from several of the borings advanced within the WMB targeted depths ranging from 5 to 25 feet bgs. These target depths were selected to evaluate engineering properties such as strength and compressibility for the eventual submittal of the Part B permit application. The depths of the Shelby tube samples are shown on the boring logs.

Rock Coring:

Rock cores were collected from ten borings. Upon auger refusal, Wireline NQ2" (NQTK) rock coring equipment with a diamond tooth bit was used to core ten (10) feet into bedrock. The rock core samples were logged in the field and assigned a rock quality designation (RQD) value as shown on the boring logs.

All borings were logged from the surface to the termination depth as shown on the boring logs in **PTA Attachment XII**. Field classifications of the subsurface soil and rock were determined by a geologist at the time of drilling and confirmed by geotechnical laboratory testing. Results of the geotechnical laboratory testing used to confirm the field classification of the soil and rock are included in **PTA Attachment XIII – Laboratory and Field Data**.

2.5 Observation Wells

Forty-five of the 72 borings were completed as 1-inch or 2-inch piezometers as shown on **PTA Attachment XII-Figure BOR**, and **Table 1 (Appendix 1)**. This includes four paired piezometers, which are designated as DAA-19pz-s, DAA-19pz-d, DAA-23pz-s, DAA-23pz-d, DAA-25pz-s, DAA-25pz-d, DAA-15pz-s, and DAA-15pz-d.

Potentiometric and slug test data collected from several piezometers were used to determine the rate and direction of groundwater flow across the Facility.

2.6 In-Situ Hydraulic Conductivity

In-situ single-well aquifer tests (slug tests) were performed at seven of the 2-inch piezometers. These piezometers include DAA-22pz, DAA-25pz-s, DAA-25pz-d, DAA-5pz, DAA-8pz, DAA-26pz, and DAA-29pz. DAA-25pz-d is screened in bedrock and the remaining piezometers that were slug tested are screened in overlying unconsolidated materials. Both slug-in and slug-out tests were performed on all seven piezometers. Slug test data was analyzed to determine hydraulic conductivity (K) using the Bouwer and Rice (1976) or Bouwer (1989) methods of analysis. Aqtesolv computer software was used to facilitate the calculations. Test results from the piezometers screened in unconsolidated material indicated hydraulic conductivity values ranging from 1.20×10^{-1} feet per day (ft/day) to 3.82×10^{-1} ft/day, with an average value of 2.45×10^{-1} ft/day. Based on the test results performed on DAA-25pz-d (screened in bedrock), the hydraulic conductivity value was 1.36×10^{-1} ft/day. Test data and calculations are included in **PTA Attachment XIII**.

2.7 Sealing of Borings/Well Abandonment

Boreholes that were not converted to piezometers were abandoned upon completion of drilling using hydrated bentonite pellets. Piezometers located within the proposed DUB and/or WMB that will not be converted to a permanent monitoring well will be abandoned prior to construction of the Facility. The abandonment procedures will follow then-current written DEQ guidance. Currently acceptable monitoring well abandonment procedures include:

1. DEQ will be notified of any monitoring well, observation well or piezometer abandonment activities.
2. The ground surface completion will be removed.
3. The entire well bore will be over drilled to remove all casing, sand filter pack material and grout. Additionally, the resulting open borehole will be backfilled using a tremie pipe with a type I Portland cement and bentonite grout containing 5% by volume bentonite.
4. The monitoring well will be filled with a type 1 Portland cement grout and bentonite containing 5% by volume bentonite from the bottom of the well using a tremie pipe. The bentonite prevents the grout mixture from shrinking while curing, thus providing a good seal in the abandoned borehole to minimize formation of preferential flow paths.

3.0 GEOTECHNICAL REPORT

3.1 Description of Soil Units

PTA Attachment XII (and KBJW report in Appendix 2) contain the boring logs that represent the subsurface conditions encountered during the subsurface investigation conducted at the Facility. Soil strata inferences, discussed below and indicated on the boring logs, represent an estimate of the subsurface conditions based on visual classifications of soils and laboratory classification test results. Note that the transitions between soil strata are generally less distinct than shown on the boring logs and are interpolated between the boring locations. For specific subsurface soil information refer to the boring logs.

The following overall soil strata were observed during the DAA subsurface drilling investigation:

Stratum S1: Stratum S1 material consisted of fine- to coarse-grained Clayey SAND (SC), fine-grained Elastic SILT (MH), and Clayey fine SAND (ML). The Stratum S1 material extended to depths ranging from 2 to 63.5-feet below existing grade, was observed to be light brown to reddish-brown in color, damp to wet, and exhibited N-values ranging from 4 to 25 blows per foot (bpf).

Stratum S2: Stratum S2 material consisted of fine- to coarse-grained Silty SAND (SM) with varying degrees of plasticity. The material extended to a depth ranging from 2 to 48 feet below existing grade, was observed to be light brown and reddish-brown to brownish-gray in color, damp to moist, and exhibiting N-values ranging from 2 to 66 bpf.

Stratum S3: Stratum S3 material consisted of saprolite (partially weathered rock). Saprolite is a transitional material between soil and rock, with hard to very dense relative densities. The material extended to boring termination at depths ranging from 2 to 55 feet below grade, was observed to be light brown to gray in color, damp to wet, and exhibiting N-values ranging from 48 to greater than 100 bpf.

3.2 Laboratory Results

The soil samples obtained during the field investigation were placed in labeled sample containers that were sealed to reduce moisture loss. The rock core samples were stored in core boxes. Field samples were transported to DAA's U.S. Army Corps of Engineers Qualified Materials Testing Laboratory for further testing. The testing items and related ASTM standards are listed below:

Test Item	Standard Name
Soil Natural Moisture Contents	ASTM D2216
Atterberg Limits	ASTM D4318
Soil Classification	ASTM D2487
Standard Proctor Test	ASTM D698
Hydraulic Conductivity	ASTM D5084

A table summarizing the testing results listed above and detailed laboratory reports are presented in **PTA Attachment XIII** of this report.

3.2 Remolded Hydraulic Conductivity

Although it is not intended to use the onsite soil material for a drainage layer, impermeable cap or an impermeable liner, remolded hydraulic conductivity testing was performed on composite bulk samples collected from the upper 0 to 5 feet at various locations across the Facility. The test samples were prepared according to ASTM D698, Standard Proctor, and ASTM D5084. The results of the remolded hydraulic conductivity tests ranged from 1.0×10^{-7} to 7.6×10^{-8} cm/sec.

3.3 Volume of Materials

As required by §9 VAC 20-81-460.E.2.b.(3), calculations supporting the estimate of soil materials required for development and operation of the landfill are provided in **PTA Attachment XIV – Material Volume Calculations**. On-site soil materials will be used for structural fill, bedding layers, upper layers of closure cap, intermediate cover and limited operations. On-site soils will not be used for liner or the infiltration layer component of the cap. A geosynthetic clay liner will be used in lieu of clay soil materials. Green Ridge will use alternate daily covers in lieu of the 6" soil for daily cover where appropriate.

Based on preliminary calculations as provided in the referenced attachment, approximately 9.2M cubic yards (cy) will be needed for construction and operations. Significant soil material will be generated from excavation to the base grade of the western disposal area. (estimated to be 4.9M cy) In addition, it is estimated that significant soils can be borrowed from on-site borrow areas primarily in the eastern side of the property (estimated to be 4.36M cy)

Note that the calculations indicate a slight excess. Should additional soil be needed in the future, it could come from borrowing soil from properties adjacent to the site currently owned by Green Ridge but not within the facility boundary.

4.0 HYDROGEOLOGIC REPORT

4.1 Water Table Information

Forty-five (45) of the seventy-two (72) borings were completed as piezometers. The top of casing elevation for each piezometer (both DAA and KBJW piezometers) was surveyed to within 0.10 feet by a licensed surveyor. Construction details for the piezometers are shown on the boring logs in **PTA Attachment XII**, in the **KBJW Report (Appendix 2)**, and in **Table 1 (Appendix 1)**.

4.2 Groundwater Level Measurements

Groundwater level measurements were collected from the piezometers on April 5, 2019, May 31, 2019, and October 29, 2019. Because additional piezometers were installed after the April measurements, and the fact that they reflect a seasonal picture of groundwater elevation similar to the May 31st data, only one springtime potentiometric map was constructed (in addition to the one constructed from the October 29th data). No purging or sampling activities were conducted within the 24 hours preceding the measuring activities, so that measured water levels would be representative of actual field conditions. Static water levels were measured with an electronic water level indicator, accurate to 0.01 feet. These measurements were obtained from a surveyed mark on top of each casing to ensure consistency. The results of these measurements are in **Table 1 (Appendix 1)**.

4.3 Vertical Flow Components

May 31, 2019 - As discussed in section 2.5 of this report, four pairs of piezometers were installed during the hydrogeologic study. As shown in **Table 1 (Appendix 1)**, groundwater elevations observed on May 31, 2019 in the four pairs of piezometers were:

- 308.26 DAA-19pz-s ▪ 294.27 DAA-23pz-s ▪ 304.90 DAA-25pz-s ▪ 307.07 DAA-15pz-s
- 308.29 DAA-19pz-d ▪ 292.41 DAA-23pz-d ▪ 305.75 DAA-25pz-d ▪ 307.09 DAA-15pz-d

Vertical gradient was calculated for each pair by dividing the difference in groundwater elevation between the shallow piezometer and the deep piezometer by the vertical difference between the midpoint of the relative screens, or:

$$\frac{(\text{Groundwater Elevation Shallow Piezometer}) - (\text{Groundwater Elevation Deep Piezometer})}{\text{Difference of mid-screen depths between Shallow and Deep Piezometers}}$$

Results showed an overall upward gradient in all the piezometer pairs except the DAA-23pz location. The DAA-23pz pair showed a minimal downward hydraulic gradient.

October 29, 2019 - As shown on **Table 1**, groundwater elevations observed on October 29, 2019 in the four pairs of piezometers were:

- 305.54 DAA-19pz-s ▪ 291.41 DAA-23pz-s ▪ 302.45 DAA-25pz-s ▪ 305.95 DAA-15pz-s
- 304.89 DAA-19pz-d ▪ 294.85 DAA-23pz-d ▪ 302.65 DAA-25pz-d ▪ 306.04 DAA-15pz-d

Vertical gradient was calculated for each pair by dividing the difference in groundwater elevation between the shallow piezometer and the deep piezometer by the vertical difference between the midpoint of the relative screens, or:

$$\frac{(\text{Groundwater Elevation Shallow Piezometer}) - (\text{Groundwater Elevation Deep Piezometer})}{\text{Difference of mid-screen depths between Shallow and Deep Piezometers}}$$

Results showed an overall upward gradient in the piezometer pairs of DAA-23pz and DAA-25pz. The DAA-15pz and DAA-19pz pairs showed a downward hydraulic gradient.

4.4 Seasonal and Temporal Factors

Infiltration from precipitation as a factor of seasonal fluctuations in total rainfall and rainfall intensity, likely affect the static groundwater elevations in the uppermost aquifer at the site. Monthly precipitation data from July 2018 through June 2019 is presented on **Table 2 (Appendix 1)**. Limited data exists at this time regarding the response of groundwater elevations at the Facility to precipitation. Additional data will be collected during future monitoring events until such time that a correlation may be established.

It should be noted that Facility design, and base grades as shown in the cross sections contained in PTA Attachment XV, utilize the highest groundwater levels as observed in the May 31, 2019 event. The October 29, 2019 water levels were generally around two to three feet lower than those observed in May, with the greatest drop being nearly five feet in DAA-29pz.

Currently, no apparent temporal or anthropogenic factors that could affect groundwater levels at the Facility are occurring. Such factors might include on-site pumping of wells or pumping of high-yielding offsite wells.

4.5 Field Procedures and Results

As stated in the previous section describing hydraulic conductivity testing, in-situ single-well aquifer tests (slug tests) were performed at seven of the 2-inch piezometers. These piezometers include DAA-22pz, DAA-25pz-s and DAA-25pz-d, DAA-5pz, DAA-8pz, DAA-26pz and DAA-29pz. DAA-25pz-d is screened in bedrock and the remaining piezometers that were slug tested are screened in overlying unconsolidated materials. Both slug-in and slug-out tests were performed on all seven piezometers. Slug test data was analyzed to determine hydraulic conductivity (K) using the Bouwer and Rice (1976) or Bouwer (1989) methods of analysis. Aqtesolv computer software was used to facilitate the calculations. Test results from the piezometers screened in unconsolidated material indicated hydraulic conductivity values ranging from 1.20×10^{-1} feet per day (ft/day) to 3.82×10^{-1} ft/day, with an average value of 2.45×10^{-1} ft/day. Based on the test results performed on DAA-25pz-d (screened in bedrock), the hydraulic conductivity value was 1.36×10^{-1} ft/day. Test data and calculations are presented in **PTA Attachment XIII**.

4.6 Description of Site Geology

The Facility is located within the Piedmont province, which is the largest physiographic province in Virginia. Virginia's Piedmont province is characterized by gently rolling topography and extends from the Blue Ridge Mountains on the west to the Coastal Plain Province on the east. Bedrock within the Piedmont province generally consists of hard, resistant igneous rock and metamorphosed igneous and sedimentary rock, although minor sedimentary basin deposit formations are also present. Bedrock within the Piedmont province is typically overlain by unconsolidated regolith. A significant portion of the regolith is typically comprised of saprolite, which is a soft, decomposed rock created by chemical weathering of the uppermost bedrock surface. Saprolite within the Piedmont province is variably thick and can exceed 60 feet in thickness. Outcrops are commonly restricted to stream valleys where saprolite has been removed by erosion.

Based on a review of the *Geologic Map of Virginia* prepared by the United States Geologic Survey (USGS, 1993), the Facility is underlain by Proterozoic light gray segregation-layered gneiss containing prominent potassium feldspar porphyroblasts (see **PTA Attachment XV-Geologic Map**). Typical mineralogy is quartzite, biotite, plagioclase, potassium feldspar, muscovite and hornblende. Bedrock outcrops are visible in stream beds at various locations across the Facility and observations of these outcrops confirm the site is in fact underlain by fractured gneiss.

During drilling activities at the Facility, bedrock was encountered at depths ranging from 8 feet bgs in DAA-45pz to depths of greater than 60 feet in DAA-4sb and DAA-7b. A bedrock surface contour map is included in **PTA Attachment XV as Figure Bed**. As shown on **Table 1** and the boring logs in **Attachment XII**, ten rock core samples were collected. Each core sample consisted of two 5-foot continuous runs collected from B-2, B-3, B-6, B-18, B-20, DAA-1sb, DAA-15pz-d, DAA-19pz-d, DAA-23pz-d and DAA-25pz-d. The Rock Quality Designation (RQD) results ranged from 13% (highly weathered) in the upper 5-foot run in B-18 to 98% (competent) in the lower 5-foot run in B-2. Consistent with the regional geology literature for the Piedmont province in this area of Virginia, the core samples indicate the Facility is predominantly underlain by a biotite rich gneiss with intermittent quartz seams/intrusions. This type of rock is typically not conducive to solution activity, although it is likely to contain fractures and fracture zones, which have contributed to the formation of existing depressions and stream channels across the site.

The Part A subsurface investigation indicated geology beneath the Facility is generally consistent with characteristics typical of the Piedmont province (rolling topography, weathered bedrock underlying a blanket of unconsolidated and saprolitic materials, and shallower depths to bedrock in stream valleys where overlying material has been removed by erosion). Site soils are predominantly composed of unconsolidated sands and silts, with lesser deposits of silty clays. Saprolites and remnant rock fabric were typically observed in unconsolidated soils throughout the site. Soils are typically thicker on the topographically elevated areas, and thinner in the stream valleys. Observed thickness ranged from greater than 60 feet thick in DAA-7sb, which is located at the southern (upgradient) portion of the Facility, to 8 feet thick in DAA-45pz, which is located

at the northern (downgradient) portion of the Facility near Muddy Creek. Cross-sections are presented in **PTA Attachment XV**.

The uppermost aquifer zone is predominantly located in the materials overlying the bedrock. However, as discussed in more detail in the following section, the water table extends to below the bedrock surface at the downgradient portion of the Facility where unconsolidated soils thin toward Muddy Creek. Flow of groundwater in bedrock primarily occurs in the upper weathered portions, and not the underlying, less weathered and more competent portions. No structural discontinuities that would affect groundwater flow were noted during the subsurface investigation.

4.7 Description of Aquifer

The findings of the Part A subsurface investigation have characterized the directions of groundwater flow within the uppermost aquifer. As stated above, and as presented in **PTA Attachment XV-Cross-Sections**, the uppermost aquifer is predominantly located in the pore space available in the soils and saprolite materials overlying the bedrock. These materials are predominantly granular permeable materials including fine to medium sands and silts, with lesser amounts of silty clays.

Recharge areas on the Facility coincide with most topographically elevated areas where permeable granular materials are exposed at the surface. In these areas, infiltrated precipitation is the primary source of recharge.

Potentiometric surface maps prepared from groundwater elevation data collected in May and October 2019 are shown in **PTA Attachment XV-Figures GW-1 and GW-2**. Groundwater flow direction is presumed to be perpendicular to the interpolated groundwater elevation contours. As shown on the potentiometric surface maps, groundwater flow across the Facility is generally north-northwest toward Muddy Creek. This flow pattern is likely caused by the effect of the topography, the geometry of the underlying bedrock, and localized stream beds which, dissect the Facility. The majority of groundwater flow occurs in the unconsolidated materials overlying the bedrock. Comparison of potentiometric elevations to bedrock elevations indicate that the water table appears to extend below the bedrock surface at the north-northeast portion of the Facility closer to Muddy Creek.

Potentiometric gradients (i) range from approximately 7.94×10^{-3} in the southern most upgradient section of the Facility to 2.92×10^{-2} in the central downgradient portion of the Facility. As previously discussed, in-situ single-well aquifer tests (slug tests) were performed on selected piezometers. Based on the slug tests, the average hydraulic conductivity (K) of the unconsolidated materials was 0.245 ft/day. Assuming an effective porosity (n) of 0.30, (McWorter and Sunada, 1977) the average seepage velocity for the upgradient portion of the Facility, where the shallower gradient was estimated, is calculated as follows:

$$V = Ki/n$$

$$V = (0.245 \text{ ft/day}) (7.94 \times 10^{-3}) / 0.30$$

$$V = 6.48 \times 10^{-3} \text{ ft/day}$$

The average linear velocity for the downgradient portion of the Facility, where the steepest gradient was estimated, is calculated as follows:

$$V = Ki/n$$

$$V = (0.245 \text{ ft/day}) (2.92 \times 10^{-2}) / 0.30$$

$$V = 2.38 \times 10^{-2} \text{ ft/day}$$

As previously discussed, paired piezometers were installed in the overburden and bedrock material. Comparison of these observed elevations indicates that the uppermost aquifer comprises both the shallow unconsolidated materials and the deeper, weathered upper portions of bedrock.

Summary of Findings: To summarize the site geology and hydrogeology at the proposed Facility as it pertains to groundwater monitoring and conduciveness to corrective actions, if warranted, the findings of the Part A subsurface investigation indicated the following:

- Most of the uppermost aquifer occupies the pore space within the saprolite material overlying bedrock at the Facility. These materials are predominantly fine to medium sands and silts, with lesser amounts of silty clays.
- Some portions of the uppermost aquifer are located at or below the bedrock surface at topographically elevated areas immediately upgradient of Muddy Creek.
- Flow of groundwater in bedrock primarily occurs in the upper weathered rock, however deeper groundwater flow in bedrock is likely occurring as well (below the elevation of the investigation) with this deeper flow controlled by fracture zones in the bedrock. These fracture zones often correlate with stream valleys. Permanent monitoring wells will be installed to monitor this deeper flow system as well as the shallower bedrock (saprolite) and overburden flow systems.
- No faults or other structural discontinuities that would complicate groundwater flow or monitoring were noted during the investigation.
- The soil and rock types, as well as groundwater flow patterns observed during the investigation indicate the site geology and hydrogeology are conducive for the uppermost aquifer to be characterized and effectively monitored.
- Site conditions indicate that a monitoring well network can be designed and installed to monitor the landfill.

5.0 REFERENCES

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USGS, 1993. *Geologic Map of Virginia*. Prepared by the Virginia Division of Mines, Mineral and Energy.

VSWMR, 2012. *Virginia Solid Waste Management Regulations - Procedural Requirements for a New or Modified Solid Waste Management Facility Permit Application* (Revised January 2012).

APPENDIX HG-1

TABLES

TABLE 1
Boring Log Completion Details
Groundwater and Bedrock Elevation Data
 Green Ridge Recycling and Disposal Facility
 Cumberland, VA

Boring ID	Completion Date	Auger Refusal Depth (ft bgs)	Rock Core Depth (ft bgs)	Current Status	Depth to Groundwater (feet below top of casing)			Elevation Data (feet above mean sea level)								
					04/11/19	05/31/19	10/29/19	Top of Casing	Top of Screen	Bottom of Screen	Ground Surface	Groundwater			Proposed Base Grade	Bedrock
												04/11/19	05/31/19	10/29/19		
B-1	11/30/17	51	-	1" Piezometer	37.06	36.14	36.65	375.59	339.63	323.63	374.63	338.53	339.45	338.94	344.65	323.63
B-2	11/30/17	32	32 to 42	Sealed Boring	-	-	-	-	-	-	358.28	-	-	-	na	326.28
B-3	12/01/17	25.5	25.5 to 35.5	1" Piezometer	19.90	19.40	20.06	348.89	312.33	322.33	347.83	328.99	329.49	328.83	322.88	322.33
B-4	12/01/17	25.5	-	Sealed Boring	-	-	-	-	-	-	329.63	-	-	-	na	304.13
B-5	12/04/17	10	-	Sealed Boring	-	-	-	-	-	-	315.00	-	-	-	299.16	305.00
B-6	12/12/17	40	40 to 50	Sealed Boring	-	-	-	-	-	-	355.46	-	-	-	na	315.46
B-7	12/05/17	55	-	1" Piezometer	31.78	30.53	31.84	353.71	312.33	297.33	352.33	321.93	323.18	321.87	328.18	297.33
B-8	12/04/17	36	-	1" Piezometer	36.15	35.15	35.20	331.21	304.26	294.26	330.26	295.06	296.06	296.01	315.69	294.26
B-9	12/01/17	21	-	Sealed Boring	-	-	-	-	-	-	310.55	-	-	-	281.26	289.55
B-10	12/05/17	47	-	1" Piezometer	29.72	29.19	30.10	342.16	309.19	294.19	341.19	312.44	312.97	312.06	317.97	294.19
B-11	12/05/17	40	-	Sealed Boring	-	-	-	-	-	-	320.32	-	-	-	281.07	280.32
B-12	12/06/17	40	-	1" Piezometer	10.82	13.08	19.55	337.01	315.89	295.89	335.89	326.19	323.93	317.46	na	295.89
B-13	12/07/17	25	-	Sealed Boring	-	-	-	-	-	-	332.58	-	-	-	316.19	307.58
B-14	12/07/17	42.5	-	1" Piezometer	30.34	31.16	33.87	291.89	258.00	248.00	290.50	261.55	260.73	258.02	265.73	248.00
B-15	12/08/17	11	-	Sealed Boring	-	-	-	-	-	-	265.88	-	-	-	na	254.88
B-16	12/08/17	30	-	Sealed Boring	-	-	-	-	-	-	320.00	-	-	-	na	290.00
B-17	11/12/17	47	-	1" Piezometer	31.38	30.15	30.99	383.46	354.37	334.37	381.37	352.08	353.31	352.47	na	334.37
B-18	12/14/17	30	30 to 40	1" Piezometer	13.81	13.94	16.60	366.17	350.42	325.42	365.42	352.36	352.23	349.57	348.09	335.42
B-19	12/13/17	46.5	-	Sealed Boring	-	-	-	-	-	-	363.66	-	-	-	na	317.16
B-20	12/15/17	38	38 to 48	1" Piezometer	34.65	34.05	34.90	349.61	316.15	301.15	349.15	314.96	315.56	314.71	na	311.15
DAA-1sb	02/21/19	21.5	21.5 to 31.5	Sealed Boring	-	-	-	-	-	-	348.25	-	-	-	332.22	326.75
DAA-2sb	02/25/19	51.5	-	Sealed Boring	-	-	-	-	-	-	355.61	-	-	-	325.04	304.11
DAA-3sb	02/25/19	> 62	-	Sealed Boring	-	-	-	-	-	-	348.39	-	-	-	333.64	< 286.39
DAA-4sb	02/26/19	39	-	Sealed Boring	-	-	-	-	-	-	347.44	-	-	-	343.78	308.44
DAA-5pz	02/26/19	35.5	-	2" Piezometer	20.32	19.56	21.25	356.50	325.99	320.99	356.49	336.18	336.94	335.25	339.68	320.99
DAA-6pz	02/26/19	23.5	-	2" Piezometer	18.25	18.13	21.20	335.19	314.42	309.42	332.92	316.94	317.06	313.99	324.63	309.42
DAA-7sb	02/27/19	63.5	-	Sealed Boring	-	-	-	-	-	-	352.90	-	-	-	na	289.40
DAA-8pz	02/27/19	36	-	2" Piezometer	8.47	9.59	13.55	365.46	338.19	328.19	364.19	356.99	355.87	351.91	na	328.19
DAA-9pz	02/28/19	25	-	2" Piezometer	19.89	19.71	21.70	365.68	350.25	340.25	365.25	345.79	345.97	343.98	348.58	340.25
DAA-10pz	02/28/19	31	-	2" Piezometer	22.95	22.66	24.60	341.55	313.45	308.45	339.45	318.60	318.89	Dry	323.52	308.45
DAA-11pz	02/28/19	23	-	2" Piezometer	dry	23.75	dry	336.30	317.07	312.07	335.07	Dry	312.55	Dry	na	312.07
DAA-12pz	03/04/19	25.5	-	2" Piezometer	22.34	22.35	26.00	331.20	309.57	304.57	330.07	308.86	308.85	305.20	315.95	304.57
DAA-13pz	03/04/19	34	-	2" Piezometer	24.82	24.66	27.05	359.36	328.96	323.96	357.96	334.54	334.70	332.31	331.44	323.96
DAA-14pz	03/05/19	42	-	2" Piezometer	36.79	35.75	35.30	381.44	343.13	338.13	380.13	344.65	345.69	346.14	349.97	338.13
DAA-15pz-s	03/05/19	34	-	2" Piezometer	24.53	24.08	25.20	331.15	300.98	295.98	329.98	306.62	307.07	305.95	302.47	295.98
DAA-15pz-d	03/05/19	29	29 to 39	2" Piezometer	24.72	24.25	25.30	331.34	300.71	290.71	329.71	306.62	307.09	306.04	na	300.71
DAA-16pz	03/06/19	26	-	2" Piezometer	21.68	27.57	dry	324.60	302.02	297.02	323.02	302.92	297.03	Dry	301.63	297.02
DAA-17sb	03/06/19	22.5	-	Sealed Boring	-	-	-	-	-	-	332.69	-	-	-	305.85	310.19
DAA-18pz	03/07/19	27	-	2" Piezometer	17.68	18.26	21.83	343.46	320.12	315.12	342.12	325.78	325.20	321.63	na	315.12
DAA-19pz-s	03/07/19	21.5	-	2" Piezometer	17.00	17.68	20.40	325.94	308.84	303.84	325.34	308.94	308.26	305.54	313.26	303.84
DAA-19pz-d	03/11/19	23	23 to 33	2" Piezometer	18.17	18.80	22.20	327.09	306.18	296.18	325.18	308.92	308.29	304.89	na	302.18
DAA-20pz	03/11/19	34	-	2" Piezometer	dry	dry	dry	313.62	283.39	278.39	312.39	Dry	Dry	Dry	277.63	278.39
DAA-21sb	03/12/19	47	-	Sealed Boring	-	-	-	-	-	-	315.47	-	-	-	285.97	268.47



TABLE 1
Boring Log Completion Details
Groundwater and Bedrock Elevation Data
 Green Ridge Recycling and Disposal Facility
 Cumberland, VA

Boring ID	Completion Date	Auger Refusal Depth (ft bgs)	Rock Core Depth (ft bgs)	Current Status	Depth to Groundwater (feet below top of casing)			Elevation Data (feet above mean sea level)								
					04/11/19	05/31/19	10/29/19	Top of Casing	Top of Screen	Bottom of Screen	Ground Surface	Groundwater			Proposed Base Grade	Bedrock
												04/11/19	05/31/19	10/29/19		
DAA-22pz	03/12/19	> 55	-	2" Piezometer	37.55	35.86	35.48	324.70	278.33	268.33	323.33	287.15	288.84	289.22	293.84	< 268.33
DAA-23pz-s	03/13/19	33	-	2" Piezometer	28.59	26.34	29.20	320.61	290.63	285.63	318.63	292.02	294.27	291.41	315.56	285.63
DAA-23pz-d	03/13/19	37	37 to 47	2" Piezometer	27.98	26.26	23.82	318.67	280.94	270.94	317.94	290.69	292.41	294.85	na	280.94
DAA-24pz	03/13/19	23	-	2" Piezometer	22.33	20.27	20.40	291.19	271.87	266.87	289.87	268.86	270.92	270.79	275.92	266.87
DAA-25pz-s	03/14/19	37	-	2" Piezometer	23.55	23.55	26.00	328.45	294.38	289.38	326.38	304.90	304.90	302.45	310.75	289.38
DAA-25pz-d	03/14/19	37	37 to 47	2" Piezometer	21.88	21.95	25.05	327.70	289.58	279.58	326.58	305.82	305.75	302.65	na	289.58
DAA-26pz	03/27/19	48	-	2" Piezometer	28.76	28.07	28.86	305.08	261.20	256.20	304.20	276.32	277.01	276.22	284.60	256.20
DAA-27sb	03/27/19	21.5	-	Sealed Boring	-	-	-	-	-	-	331.70	-	-	-	295.20	310.20
DAA-28sb	03/28/19	44	-	Sealed Boring	-	-	-	-	-	-	320.28	-	-	-	299.64	276.28
DAA-29pz	03/28/19	34.5	-	2" Piezometer	20.91	20.63	25.60	349.41	318.34	313.34	347.84	328.50	328.78	323.81	322.08	313.34
DAA-30sb	03/28/19	31	-	Sealed Boring	-	-	-	-	-	-	339.93	-	-	-	313.35	308.93
DAA-31pz	03/29/19	33.5	-	2" Piezometer	31.64	31.04	32.20	349.92	320.07	315.07	348.57	318.28	318.88	317.72	319.98	315.07
DAA-32sb	03/29/19	31	-	Sealed Boring	-	-	-	-	-	-	349.82	-	-	-	325.35	318.82
DAA-33sb	04/02/19	17	-	Sealed Boring	-	-	-	-	-	-	348.20	-	-	-	333.81	331.20
DAA-34pz	04/02/19	39.5	-	2" Piezometer	27.65	25.91	26.75	355.38	320.20	315.20	354.70	327.73	329.47	328.63	334.17	315.20
DAA-35pz	04/03/19	38	-	2" Piezometer	31.58	30.95	32.00	367.36	332.58	327.58	365.58	335.78	336.41	335.36	340.90	327.58
DAA-36pz	04/03/19	45	-	2" Piezometer	10.25	10.64	14.04	340.83	300.15	295.15	340.15	330.58	330.19	326.79	335.19	295.15
DAA-37sb	04/04/19	47.5	-	Sealed Boring	-	-	-	-	-	-	357.48	-	-	-	355.32	309.98
DAA-38sb	04/04/19	19.5	-	Sealed Boring	-	-	-	-	-	-	307.43	-	-	-	292.53	287.93
DAA-39sb	04/04/19	25.5	-	Sealed Boring	-	-	-	-	-	-	315.21	-	-	-	284.97	289.71
DAA-40pz	04/05/19	29	-	2" Piezometer	25.94	26.83	dry	327.50	301.93	296.93	325.93	301.56	300.67	Dry	305.67	296.93
DAA-41pz	04/08/19	22.5	-	2" Piezometer	22.45	22.83	23.60	307.99	289.02	284.02	306.52	285.54	285.16	284.39	290.16	284.02
DAA-42pz	05/20/19	48	-	1" Piezometer	-	27.70	30.25	366.57	320.99	315.99	363.99		338.87	336.32	na	315.99
DAA-43pz	05/20/19	15	-	1" Piezometer	-	dry	dry	309.32	299.00	294.00	309.00		dry	dry	na	294.00
DAA-44pz	05/20/19	45	-	1" Piezometer	-	36.90	38.70	382.98	339.96	334.96	379.96		346.08	344.28	na	334.96
DAA-45pz	05/20/19	8	-	1" Piezometer	-	dry	dry	271.24	266.06	261.06	269.06		dry	dry	266.40	261.06
DAA-46pz	05/20/19	35	-	1" Piezometer	-	26.78	28.80	364.16	330.77	325.77	360.77		337.38	335.36	na	325.77
DAA-47pz	05/21/19	54	-	1" Piezometer	-	29.27	31.52	360.91	310.19	305.19	359.19		331.64	329.39	na	305.19
DAA-48pz	05/21/19	18	-	1" Piezometer	-	dry	dry	317.84	302.50	297.50	315.50		dry	dry	na	297.50

Not Applicable: Boring/Piezometer outside of the Limits of Disposal Area

TABLE 2
Precipitation Data
Green Ridge Recycling and Disposal Facility
Cumberland, VA

Month	Monthly Precipitation (inches)	Average Precipitation (inches)
January / 2018	2.67	0.09
February / 2018	2.83	0.10
March / 2018	0.76	0.02
April / 2018	4.94	0.16
May / 2018	6.53	0.21
June / 2018	4.2	0.14
July / 2018	3.03	0.10
August / 2018	4.17	0.13
September / 2018	10.05	0.34
October / 2018	8.01	0.26
November / 2018	6.53	0.22
December / 2018	10	0.32
January / 2019	3.1	0.10
February / 2019	4.09	0.15
March / 2019	3.22	0.10
April / 2019	3.55	0.12
May / 2019		0.00
June / 2019		0.00
July / 2019		0.00

Data obtained from: NOAA Farmville 2 N, VA US USC00442941

APPENDIX HG-2

**PRELIMINARY SUBSURFACE EXPLORATION,
SOIL AND GROUNDWATER STUDY
CUMBERLAND COUNTY, VIRGINIA**

**Koontz Bryant Johnson Williams
March 12, 2018**



**Preliminary Subsurface Exploration, Soil and
Groundwater Study
Cumberland County, Virginia**

**Client:
CWV LLC
Chesterfield, Virginia**

March 12, 2018



March 12, 2018

CWV LLC
c/o Mr. James H. Martin
Via Email: jamesmartinjr49@gmail.com

RE: Project Completion Report
Cumberland County, Virginia
Project #2017890

Dear Mr. Martin,

Koontz Bryant Johnson Williams PC (KBJW) is pleased to submit this project completion report detailing subsurface exploration of soil and groundwater at the site in Cumberland County. The subject project consists of approximately 8-10 parcels of land totaling 1,100 +/- acres in the eastern portion of the county. A site location map is included as Figure 1.

Field Investigation

Prior to initiation of subsurface exploration, KBJW selected proposed drilling locations based on review of topographic maps for the area. Locations were selected to maximize the area for the proposed land use while minimizing the potential impact from on-site drainages. KBJW personnel then met on-site with a representative from the drilling company to refine the locations based on accessibility.

A total of twenty soil borings were advanced via 3¼ ID hollow stem augers in November and and December 2017. Soil samples were collected via Standard Penetration (continuous sampling in the first 10 feet, every 5 feet thereafter) with the exception of boring B-1 which was sampled continuously to establish overall subsurface soil lithology.



Of the twenty borings, ten (B-1, B-2, B-7, B-8, B-10, B-12, B-14, B-17, B-18, B-20) were converted to piezometers to measure static groundwater elevations. Six locations were cored using a wireline core. Of the six locations, five (B-2, B-3, B-6, B-18, B-20) were cored to a total depth of 10 feet below auger refusal. A sixth location (B-13) was attempted however, the core barrel locked up in the rock after one foot of coring. The core barrel was retrieved after an extended recovery period and no further coring was attempted at the location.

Soil and rock core samples were logged during drilling activities. Boring/piezometer logs are attached as Appendix A.

Piezometers were completed using $\frac{3}{4}$ inch ID PVC piping with bell couplings (no glues were used). The piezometers were hand slotted to extend a minimum of 5 feet above where saturated conditions were first encountered. Piezometers were placed through the augers into the natural formation. No sand packs were utilized. End caps were secured on both the bottom and top of the piezometers. Details pertaining to installation of the piezometers is summarized in Table 1 and shown in the attached boring/piezometer logs (Appendix A).

Following completion of the above described field services, KBJW personnel mobilized back to the site to confirm drilling locations and measure the depth to groundwater in readily accessible piezometers.

Laboratory Testing

KBJW performed soils testing on representative samples from multiple locations to confirm lithologies and address soil properties. The results of laboratory testing are shown in Appendix B.

Findings

Based on a review of site topographic conditions, soil boring/piezometer logs, geologic cross-sectional views of the soil/rock conditions, measured groundwater levels, and laboratory testing, the following site conditions were noted.



- Surface topography is rolling with ridges and incised drainages (Figures 1 & 2))
- Surface water flows north towards Muddy Creek (Figures 1 & 2)
- Groundwater mimics surface topography and also flows north towards Muddy Creek (Figure 3)
- Depth to groundwater measured on January 30, 2018 ranged from 19.5 to 39 feet below ground surface (bgs) (Table 1 & Appendix A).
- Overburden soils are generally classified as micaceous fine Sand, SILTY SAND and SILT and range in thickness from 10 feet (B-5) to 55 feet (B-7) (Appendix A).
- Auger refusal was encountered at depths ranging from 10 feet bgs to 55 feet bgs (Table 1 & Appendix A).
- Bedrock generally consisted of biotite rich gneiss (Appendix A).
- Bedrock encountered within ten feet of auger refusal underlying the portion of the site east of Pinegrove Road appeared to be more massive (B-2, B-3, B-6) than that encountered west of Pinegrove Road (B-18 & B-20) (Appendix A).
- Overburden soils generally consist of fine to medium grained Silts (ML) with %passing the #200 sieve values in the average range of 60%. Plasticity Index values typically range from 10-20 and exhibit low to moderate plasticities.

Detailed information regarding soil, bedrock, and groundwater conditions can be found on the boring logs and the attached site maps and profiles.

Sincerely,

Brent E. Johnson P.E., P.G.
Vice President





Figures

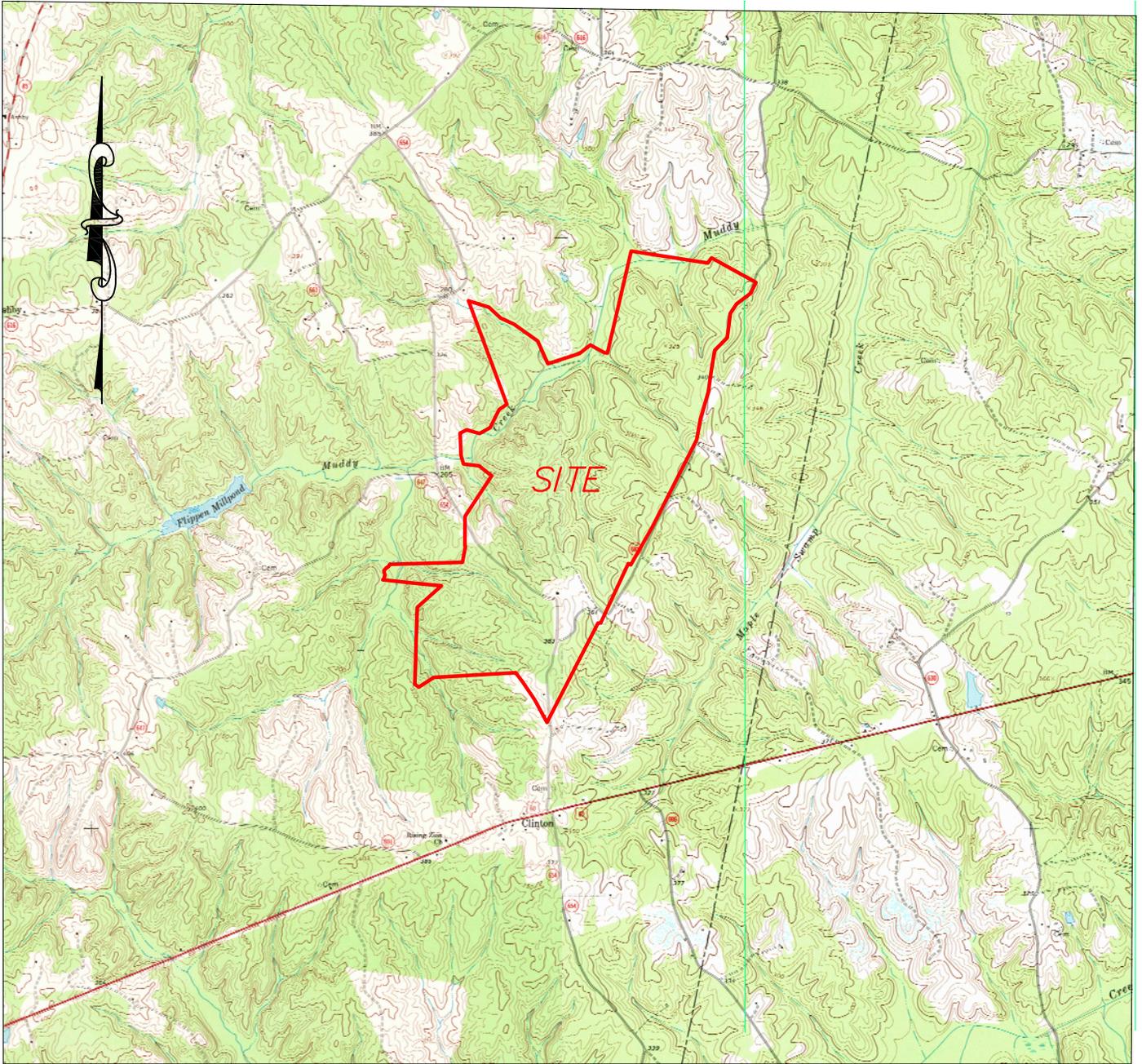
1. Site Location Map
2. Site Base Map
3. Potentiometric Surface Elevation Map
4. Cross-Section A-A'
5. Cross-Section B-B'
6. Cross-Section C-C'
7. Cross-Section D-D'
8. Cross-Section E-E'

Tables

1. Key Elevations

Appendices

- A. Boring/Piezometer Logs
- B. Atterberg Limits



Scale 1: 4000

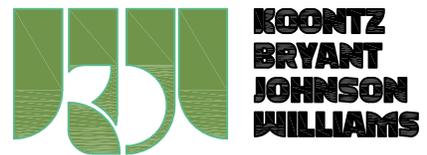


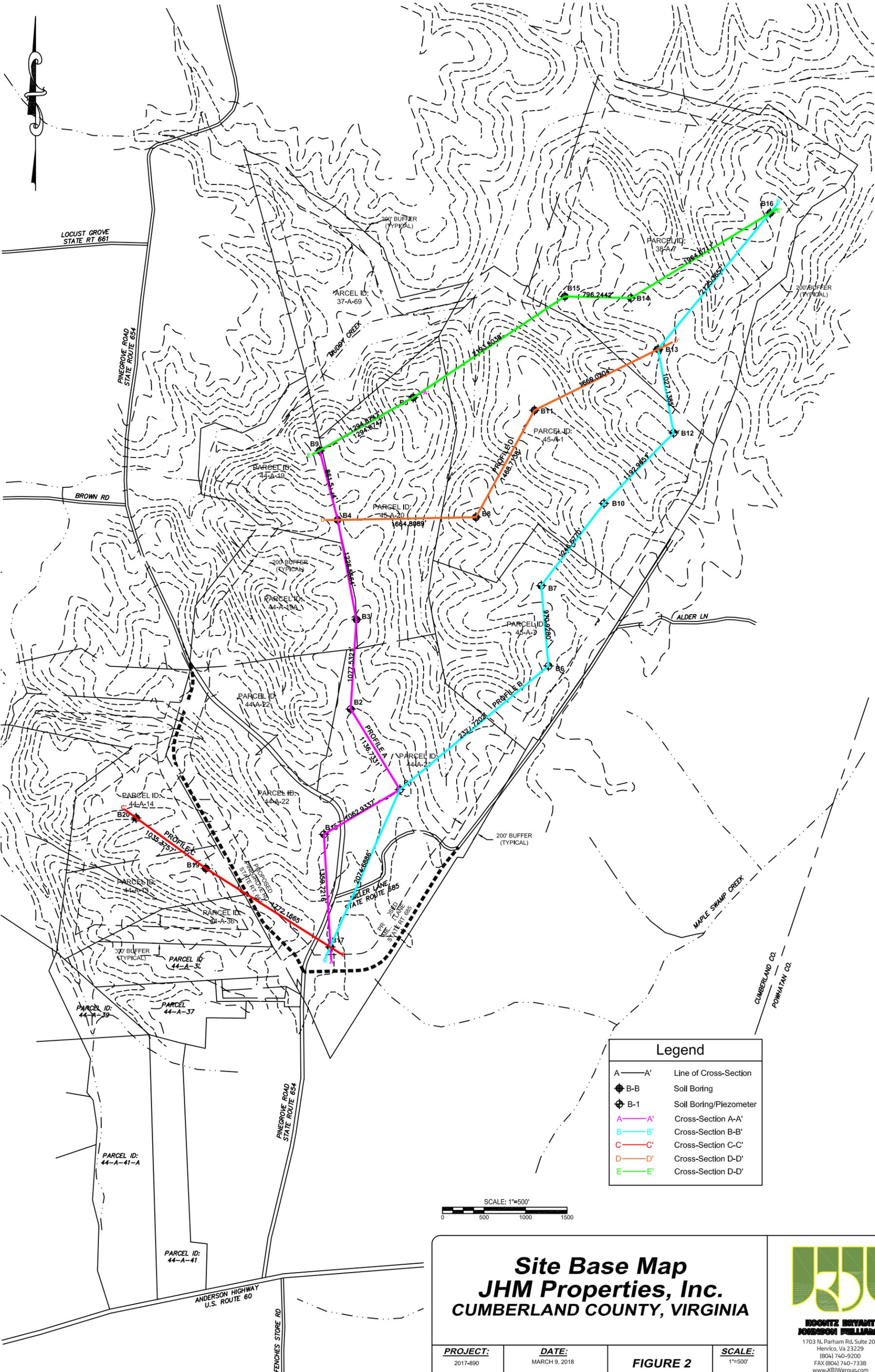
FIGURE 1
SITE LOCATION MAP

CUMBERLAND, VIRGINIA.

DATE: MARCH 9, 2018 SCALE: 1" = 4000'

From USGS 7.5 Minute Quads:
Trenholm, 1969 Photoinspected 1979
Whiteville, 1969





Legend	
A—A'	Line of Cross-Section
● B-B	Soil Boring
⊕ B-1	Soil Boring/Piezometer
A—A'	Cross-Section A-A'
B—B'	Cross-Section B-B'
C—C'	Cross-Section C-C'
D—D'	Cross-Section D-D'
E—E'	Cross-Section E-E'

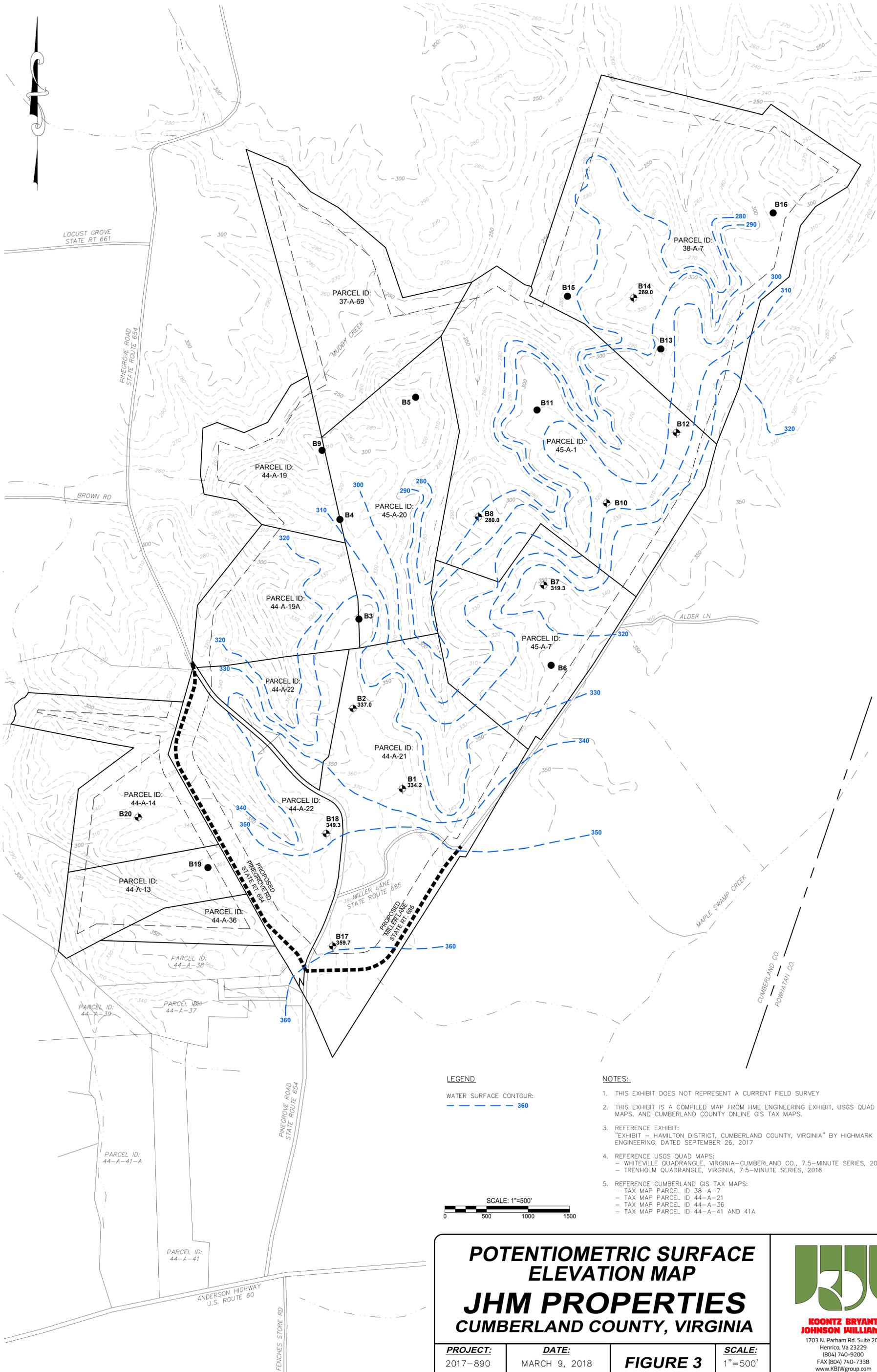
SCALE: 1"=500'
 0 500 1000 1500

Site Base Map
JHM Properties, Inc.
CUMBERLAND COUNTY, VIRGINIA



**KOONTZ BRYANT
 JOHNSON PHILLIPS**
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 Henrico, Va 23229
 (804) 740-9200
 FAX (804) 740-7338
 www.KBJWgroup.com

PROJECT: 2017-890	DATE: MARCH 9, 2018	FIGURE 2	SCALE: 1"=500'
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LEGEND
 WATER SURFACE CONTOUR:
 - - - - - 360

SCALE: 1"=500'
 0 500 1000 1500

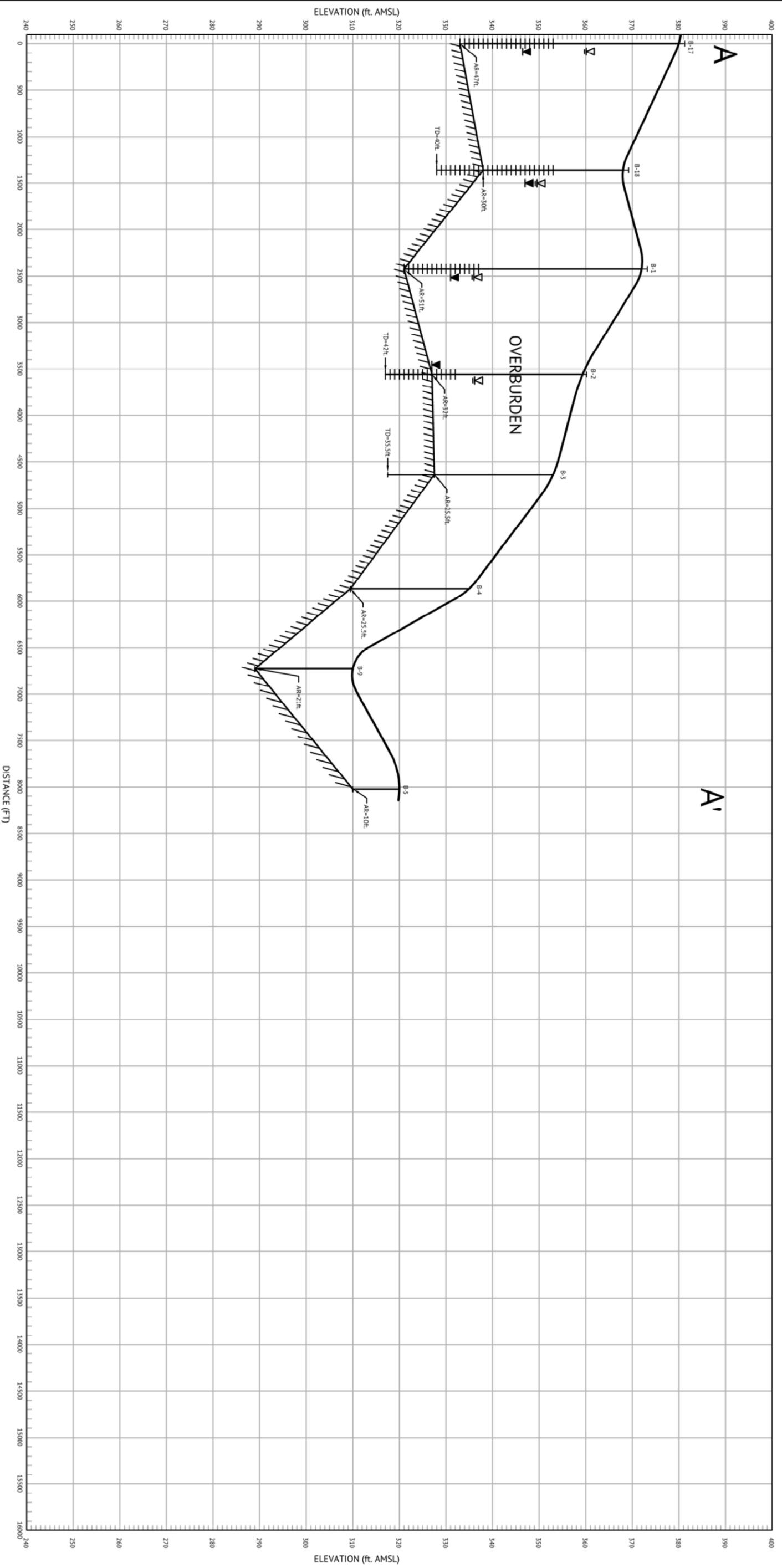
- NOTES:**
1. THIS EXHIBIT DOES NOT REPRESENT A CURRENT FIELD SURVEY
 2. THIS EXHIBIT IS A COMPILED MAP FROM HME ENGINEERING EXHIBIT, USGS QUAD MAPS, AND CUMBERLAND COUNTY ONLINE GIS TAX MAPS.
 3. REFERENCE EXHIBIT:
 "EXHIBIT - HAMILTON DISTRICT, CUMBERLAND COUNTY, VIRGINIA" BY HIGHMARK ENGINEERING, DATED SEPTEMBER 26, 2017
 4. REFERENCE USGS QUAD MAPS:
 - WHITEVILLE QUADRANGLE, VIRGINIA-CUMBERLAND CO., 7.5-MINUTE SERIES, 2016
 - TRENHOLM QUADRANGLE, VIRGINIA, 7.5-MINUTE SERIES, 2016
 5. REFERENCE CUMBERLAND GIS TAX MAPS:
 - TAX MAP PARCEL ID 38-A-7
 - TAX MAP PARCEL ID 44-A-21
 - TAX MAP PARCEL ID 44-A-36
 - TAX MAP PARCEL ID 44-A-41 AND 41A

POTENTIOMETRIC SURFACE ELEVATION MAP
JHM PROPERTIES
CUMBERLAND COUNTY, VIRGINIA



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PROJECT: 2017-890	DATE: MARCH 9, 2018	FIGURE 3	SCALE: 1"=500'
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GRAPH A
 JHM PROPERTIES
 CC-1100
 KEY BORE HOLE PROPERTIES



- Elevation Groundwater Encountered During Drilling
- Groundwater Elevation Measured January 30, 2018
- Auger Refusal
- Total Depth
- Weathered Rock/Rock
- Piezometer
- Screen Interval

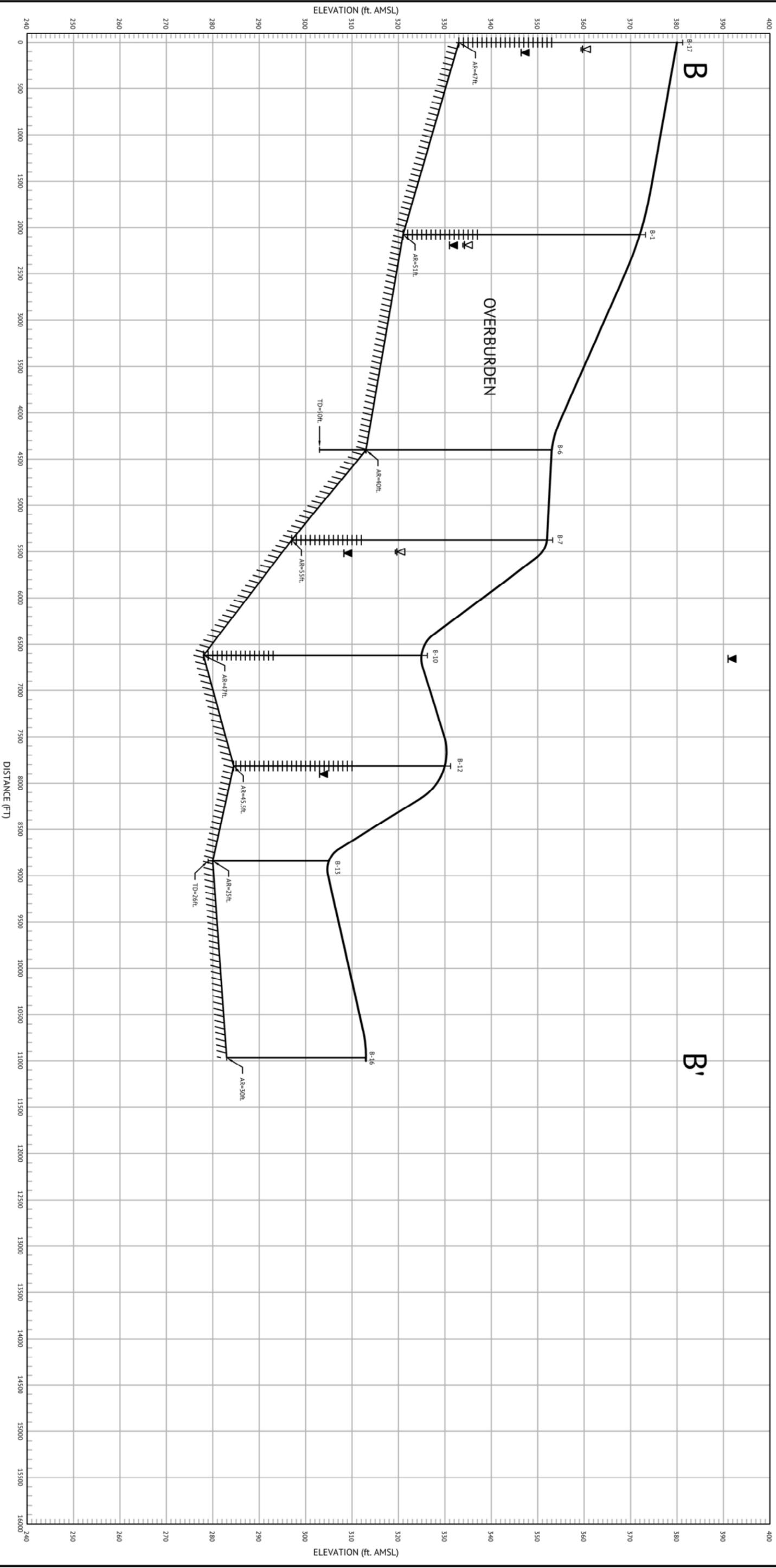
CROSS-SECTION A-A'

JHM PROPERTIES

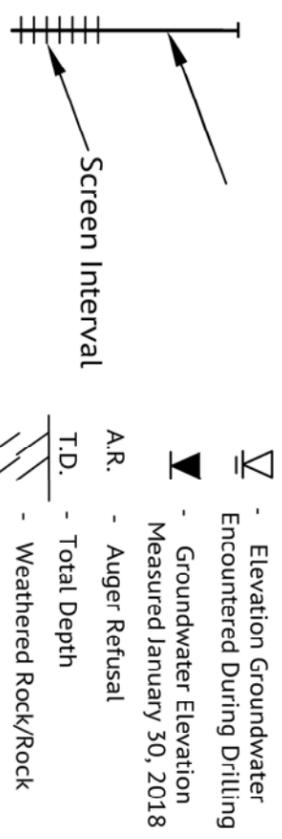
CUMBERLAND COUNTY, VIRGINIA

PROJECT: 2017-890	DATE: MARCH 8, 2018	FIGURE 4	SCALE: 1"=500'
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GRAPH B
 JHM PROPERTIES
 CC-1100
 KEY BORE HOLE PROPERTIES



CROSS-SECTION B-B'

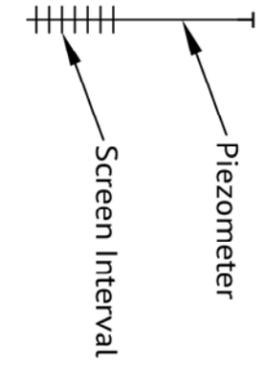
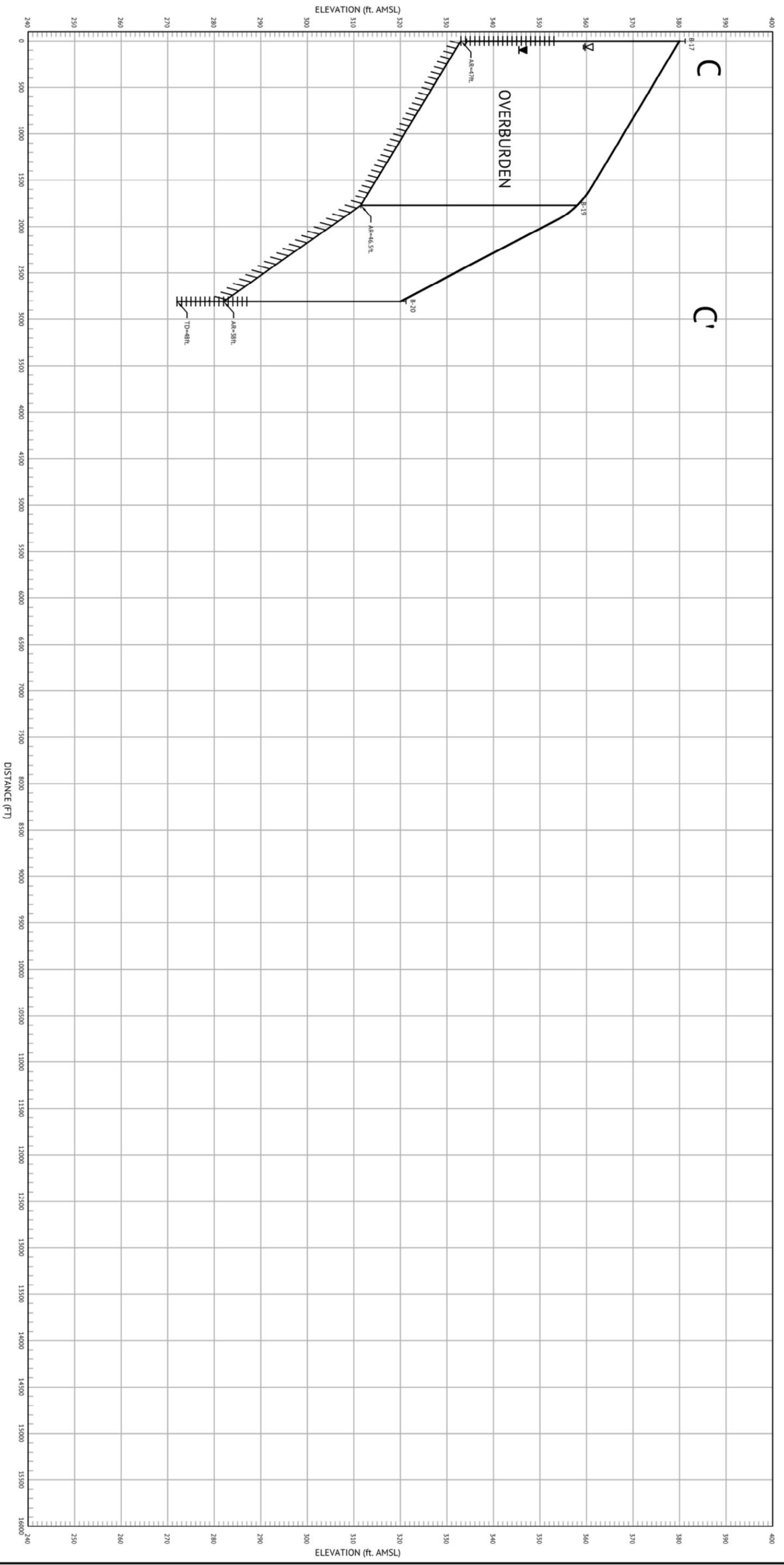
JHM PROPERTIES

CUMBERLAND COUNTY, VIRGINIA

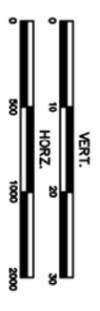
PROJECT: 2017-890	DATE: MARCH 9, 2018	FIGURE 5	SCALE: 1"=500'
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**ROONITZ BRYANT
JOHNSON BUILDERS**
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 (804) 740-9200
 FAX (804) 740-7388
 www.RBJBgroup.com



- ▽ - Elevation Groundwater Encountered During Drilling
- ▾ - Groundwater Elevation Measured January 30, 2018
- A.R. - Auger Refusal
- T.D. - Total Depth
- ▨ - Weathered Rock/Rock



GRAPH C

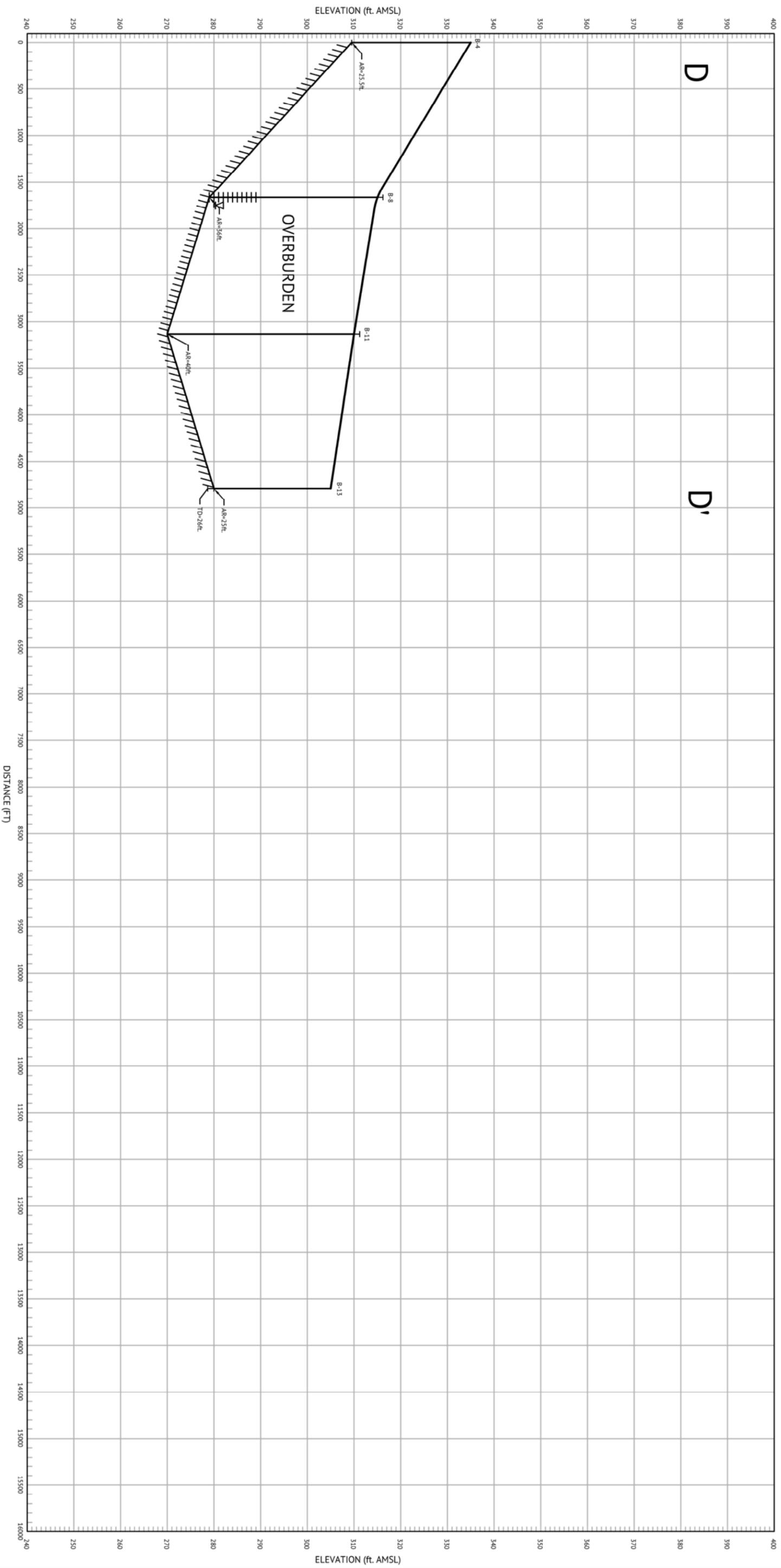
JHM PROPERTIES

CUMBERLAND COUNTY, VIRGINIA

PROJECT: 2017-890	DATE: MARCH 9, 2018	FIGURE 6	SCALE: 1" = 500'
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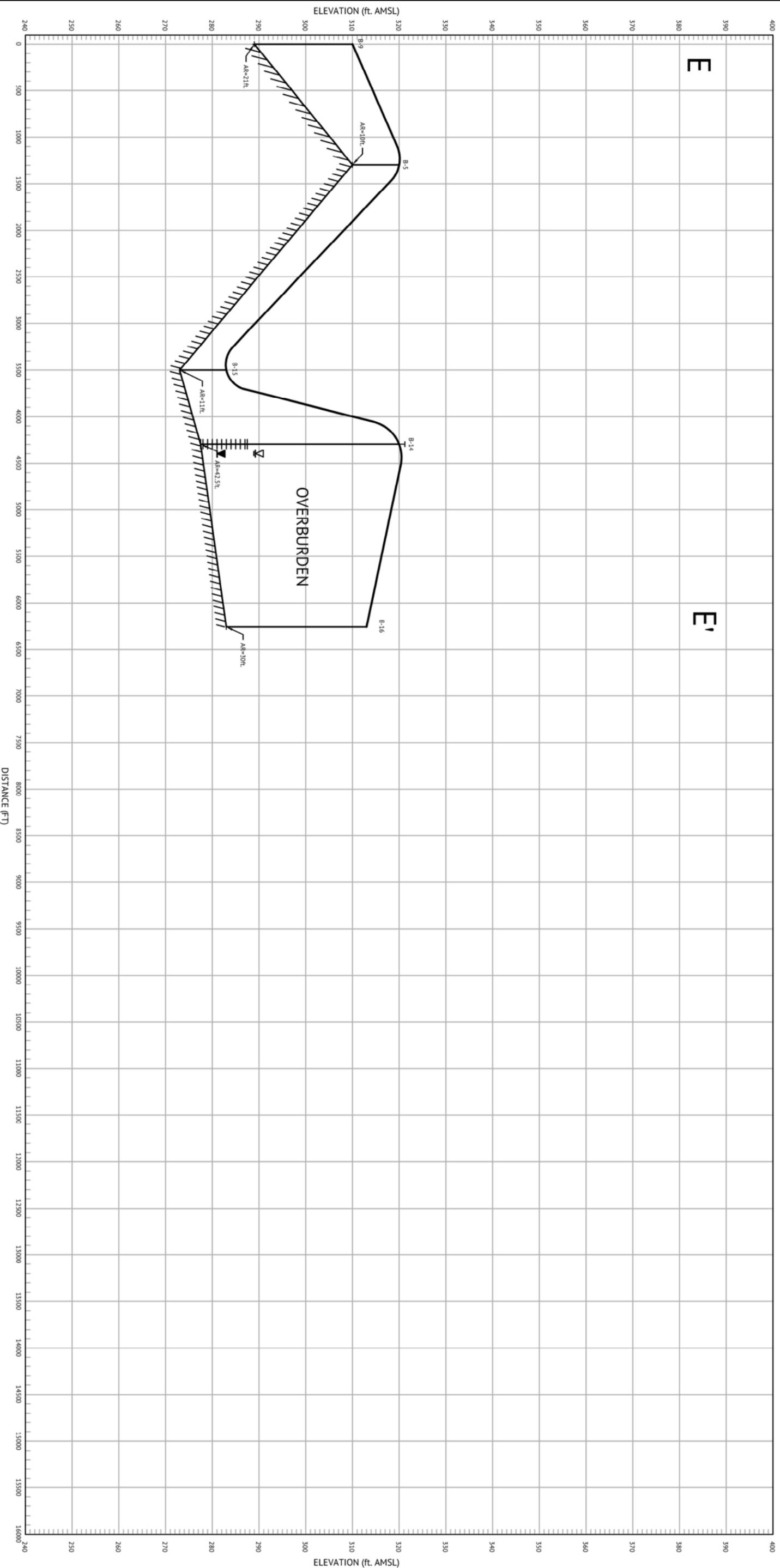


CROSS-SECTION D-D'
JHM PROPERTIES
CUMBERLAND COUNTY, VIRGINIA

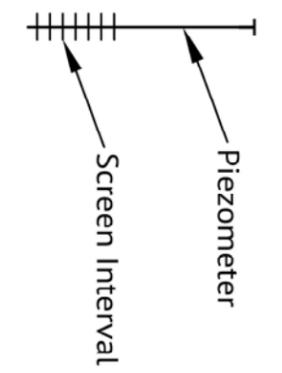
PROJECT: 2017-890	DATE: MARCH 9, 2018	FIGURE 7	SCALE: 1"=500'
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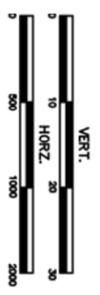
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 www.RBJWground.com



GRAPH E
 JHM PROPERTIES
 CC-1100
 KEY BORE HOLE PROPERTIES



- ▽ - Elevation Groundwater Encountered During Drilling
- ▼ - Groundwater Elevation Measured January 30, 2018
- A.R. - Auger Refusal
- T.D. - Total Depth
- /// - Weathered Rock/Rock



CROSS-SECTION E-E'		
JHM PROPERTIES		
CUMBERLAND COUNTY, VIRGINIA		
PROJECT: 2017-890	DATE: MARCH 9, 2018	SCALE: 1"=500'
ROONITZ BRYANT JOHNSON WILLIAMS 1703 N. Dupont Rd. Suite 202 Henrico, VA 23229 (804) 742-9200 FAX (804) 740-7388 www.RJBWgroup.com		

TABLE 1
KEY ELEVATIONS
CWV LLC
CUMBERLAND COUNTY, VA

LOCATION	GRD. ELEV. (ft. AMSL)	STICKUP ft.	TOC ELEV. (ft. AMSL)	INITIAL GW ELEV. (ft. AMSL)	DEPTH TO GW. ft.	ELEV. GW. (ft. AMSL)	DEPTH TO REFUSAL/RX ft.	REFUSAL/ TOP OF ROCK (ft. AMSL)	TOP OF SCREEN ELEV. (ft. AMSL)	BOTTOM OF SCREEN ELEV. (ft. AMSL)	TD (ft. AMSL)	COMMENTS
B-1	372.0	1.2	373.2	331.0	39.0	334.2	51.0	321.0	337.0	321.0	---	Stopped at auger refusal
B-2	359.0	1.0	360.0	327.0	23.0	337.0	32.0	327.0	332.0	317.0	317.0	Cored 10 ft. below auger refusal
B-3	353.0	---	---	---	---	---	25.5	327.5	---	---	317.5	Cored 10 ft. below auger refusal
B-4	335.0	---	---	---	---	---	25.5	309.5	---	---	---	Stopped at auger refusal
B-5	320.0	---	---	---	---	---	10.0	310.0	---	---	---	Stopped at auger refusal
B-6	353.0	---	---	---	---	---	40.0	313.0	---	---	303.0	Cored 10 ft. below auger refusal
B-7	352.0	1.3	353.3	308.5	34.0	319.3	55.0	297.0	312.0	297.0	---	Stopped at auger refusal
B-8	315.0	1.0	316.0	---	36.0	280.0	36.0	279.0	289.0	279.0	---	Stopped at auger refusal
B-9	310.0	---	---	---	---	---	21.0	289.0	---	---	---	Stopped at auger refusal
B-10	325.0	1.0	326.0	291.0	Dry	Dry	47.0	278.0	293.0	278.0	---	Stopped at auger refusal
B-11	310.0	---	---	---	---	---	40.0	270.0	---	---	---	Stopped at auger refusal
B-12	330.0	1.2	331.2	303.0	NM	NM	45.5	284.5	310.0	284.5	---	Stopped at auger refusal
B-13	305.0	---	---	---	---	---	25.0	280.0	---	---	279.0	Cored 1 ft. below auger refusal
B-14	320.0	1.5	321.5	281.0	32.5	289.0	42.5	277.5	287.5	277.5	---	Stopped at auger refusal
B-15	283.0	---	---	---	---	---	11.0	272.0	---	---	---	Stopped at auger refusal
B-16	313.0	---	---	---	---	---	30.0	283.0	---	---	---	Stopped at auger refusal
B-17	380.0	2.2	382.2	346.5	22.5	359.7	47.0	333.0	353.0	333.0	---	Stopped at auger refusal
B-18	368.0	0.8	368.8	347.0	19.5	349.3	30.0	338.0	353.0	328.0	328.0	Cored 10 ft. below auger refusal
B-19	358.0	---	---	---	---	---	46.5	311.5	---	---	---	Stopped at auger refusal
B-20	320.0	0.6	320.6	---	NM	NM	38.0	282.0	287.0	272.0	272.0	Cored 10 ft. below auger refusal

NOTES: GRD. ELEV. - Ground Elevation
 TOC ELEV. - Top of Casing Elevation
 INITIAL GW. ELEV. - Initial Groundwater Elevation; encountered during drilling of boring
 DEPTH TO GW. - Depth to Groundwater; measured 1-30-18 from TOC
 ELEV. GW. - Elevation Groundwater; measured 1-30-18 from TOC
 DEPTH TO REFUSAL/RX - Depth to Auger Refusal/Rock
 TOP OF SCREEN ELEV. - Top of Screen Elevation
 BOTTOM OF SCREEN ELEV. - Bottom of Screen Elevation
 TD - Total Depth
 ft. AMSL - Feet Above Mean Sea Level
 ft. - Feet
 NM - Not measured; unable to remove caps
 B-14; core barrel got stuck at 1 ft. below auger refusal; barrel was retrieved after several hours, no further rock coring performed at this location



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 1.2 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-1		G S Technician: J. Patterson				
Date: 11/29-30/2017	Depth: 51.5 ft.	Boring Method: 3.25" ID H. S. Auger				
Depth	Soil/Rock Description	Blow Count	Remarks			
2	Red brown sandy SILT, trace organic matter, moist	3		372.0		
		3				
		4				
		5				
		5				
4		8				
		10				
		12				
		5				
6		8				
		9				
		10				
8	Red brown SILT with sand, trace rock fragments @10 ft., moist	5				
		6				
		7				
		7				
		3				
10		5				
		6				
		5				
		4				
12		3				
		4				
		4				
		5				
14		6				
		4				
		3				
		3				
		4				
16	White gray pink very fine SAND, dry (saprolitic structure)	2				
		3				
		3				
		4				
18		4				
		4				
		3				
		4				
20		4				
		4				
		5				
		5				



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT. - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-1		G S Technician: J. Patterson			
Date: 11/29-30/2017	Depth: 51.5 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
22	Light brown very fine SAND, dry	4		337.0	
		7			
		7			
24	White black micaceous very fine SAND, trace rock fragments, dry (increasing structure with depth)	8			
		7			
		8			
26	Light brown light gray micaceous SILTY SAND (saprolitic structure at base)	6			
		6			
		6			
28	Light brown brown SILTY SAND, moist	3			
		4			
		4			
30	Light brown brown SILTY SAND, moist	5			
		5			
		5			
32	Light gray very fine SAND, dry	7			
		3			
		11			
34	Light gray very fine SAND, trace rock fragments @ 32.5 ft., dry	15			
		15			
		9			
36	Red pink black weathered granite, dry	14			
		13			
		14			
38	Gray dark gray, some white banding, very fine SAND, dry	14			
		17			
		17			
40	Dark gray black micaceous very fine SAND, dry, biotite rich granodiorite residuum (36.5-37 ft.)	18			
		23			
		28			
40	Dark gray black micaceous very fine SAND, dry	50/6			
		50/3			
		50/3			



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-1		G S Technician: J. Patterson			
Date: 11/29-30/2017	Depth: 51.5 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
	Dark gray black micaceous very fine SAND, trace rock fragments, dry	50/3	Saturated @ 41 ft.	331.0	
42					
	Dark gray black micaceous very fine SAND, trace rock fragments, dry	50/3			
44					
	Dark gray black micaceous very fine SAND, trace rock fragments, dry	50/3			
46					
	Dark gray black micaceous very fine SAND, trace rock fragments, dry	50/3			
48					
	Dark gray black micaceous very fine SAND, trace rock fragments, dry	50/3			
50					
	Dark gray black micaceous very fine SAND, trace rock fragments, dry	50/3			
51					

Auger Refusal @ 51.0 ft.



EDGORTZ BRYANT
JOHNSON WILLIAMS

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 1.0 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-2		G S Technician: J. Patterson				
Date: 11/30/2017	Depth: 42.0 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core				
Depth	Soil/Rock Description	Blow Count	Remarks			
				359.0		
2						
		3				
	Red brown SILT, trace clay, moist	5				
		7				
4		8				
	Red brown SILT, trace clay, moist	5				
	Red brown SILT, dry	6				
		7				
6	Light brown SILT, trace organic matter at base, dry	7				
	Light brown SILT, trace structure at base, dry	4				
		4				
		5				
8		4				
	Yellow brown SILT, trace rock fragments, dry	4				
		3				
		3				
10		2				
12						
14	Yellow brown SANDY SILT, some quartz fragments, moist	3				
		4				
		6				
16						
18						
	Yellow brown SILT, some quartz fragments, dry	15				
	White light gray fine to medium SAND with structure, dry	11				
20		9				

WELL CONSTRUCTION DETAILS

Push Cap

1.25" ID Push Coupling PVC Pipe

Natural Formation



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-2		G-S Technician: J. Patterson			
Date: 11/30/2017	Depth: 42.0 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core			
Depth	Soil/Rock Description	Blow Count	Remarks		
22					
24	Black white felspathic granodiorite residuum, dry	23			
	Yellow brown light gray fine to coarse SAND, some rock fragments, dry	32			
		50/5			← 1.25" ID Push Coupling PVC Pipe
26				332.0	
28					
30	Dark gray gray white brown fine SAND, trace rock fragments, dry	50/3			← Natural Formation
32			Saturated at 32 ft. Auger Refusal @ 32 ft.	327.0	
34			Run 1: 32-37 ft. Recovery - 38/60 Inches = 63% RQD = 22.75/38 Inches = 60%		← Rock
36	Biotite rich gneiss with felspathic banding				
38			Run 2: 37-42 ft. Recovery - 60/60 inches = 100% RQD = 59/60 inches = 98%		← Hand Slotted Screen 1.25" ID PVC Pipe
40					



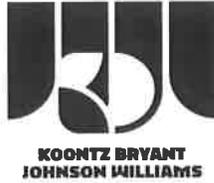
Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	
Client: J. H. Martin		Driller: P. Smith			
Location: B-2		G S Technician: J. Patterson			
Date: 11/30/2017	Depth: 42.0 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core			
Depth	Soil/Rock Description	Blow Count	Remarks		
42	Blotite rich gneiss with felspathic banding		Run 2 - 37-42 ft. Recovery - 60/60 inches = 100% RQD = 59/50 inches = 98%	317.0	

Total Depth @ 42 ft.



**KOONTZ BRYANT
JOHNSON WILLIAMS**

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-3		G S Technician: J. Patterson		
Date: 11/30-12/1/17	Depth: 35.5 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core		
Depth	Soil/Rock Description	Blow Count	Remarks	
				353.0
2				
4	Light brown red brown CLAYEY SILT, moist, organic matter at top, rock fragments at 3 ft.	4		
		6		
		7		
		10		
6	Light brown red brown CLAYEY SILT, moist	4		
		7		
		6		
6	Light brown red brown SILT, trace rock fragments at 6 ft., dry	10		
		4		
		5		
8	Dark brown biotite rich SILT, dry	5		
		7		
		6		
10	Red brown SILT, structure at base, dry	6		
		6		
		5		
		7		
12				
14		10		
		13		
		11		
16	Biotite rich very fine SAND, trace muscovite, with structure, dry			
18				
20		50/3		



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)		
Client: J. H. Martin		Driller: P. Smith				
Location: B-3		G S Technician: J. Patterson				
Date: 11/30-12/1/17	Depth: 35.5 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core				
Depth	Soil/Rock Description	Blow Count	Remarks			
22	Biotite rich very fine SAND, trace muscovite, with structure, dry	50/2		327.5		
24						
26	25.5-26.7 ft. - Banded granodiorite gneiss		Auger Refusal @ 25.5 ft.			
28	26.7--27 ft. - Quartz rich granodiorite 27-27.9 ft.-Granodiorite, two parallel vertical fractures		Run 1 - 25.5-30.5 ft. Recovery - 60/60 inches = 100% RQD = 51.5/60 inches = 86%			
30	27.9-30.5 ft. - Granodiorite gneiss		Rock			
32	Biotite rich granodiorite gneiss, dry, vertical fracture @ 32.5-32.7 ft.				Run 2 - 30.5-35.5 ft. Recovery - 60/60 inches = 100% RQD = 47.5/60inches = 79%	
34						Rock
						317.5

Total Depth @ 35.5 ft.



**KOONTZ BRYANT
JOHNSON WILLIAMS**

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-4		G S Technician: J. Patterson		
Date: 12/1/2017	Depth: 25.5 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
				335.0
2				
	Light brown very fine SAND, dry	14		
		35		
4	White light brown very fine SAND, with structure, dry	43		
		36		
	White light brown very SILTY SAND with structure, dry	18		
		25		
6	Biotite rich weathered granodiorite, dry	28		
		47		
	Light brown dark brown very fine SAND, some structure, dry	25		
		50/5		
8				
	Light brown brown white very fine SAND, some structure, dry	50/5		
10				
12				
14	Light brown very fine SAND with structure, dry	22		
		25		
	Red brown dark gray very fine SAND, trace quartz fragments, dry	28		
16				
18				
	Light gray light brown fine to medium SAND with horizontal structure, trace rock fragments, dry	50/3		
20				

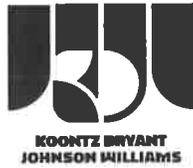


**KOONTZ BRYANT
JOHNSON WILLIAMS**

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-4		G S Technician: J. Patterson		
Date: 12/1/2017	Depth: 25.5 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
22				
24	Light gray light brown micaceous fine to medium SAND, dry	50/6		

Auger Refusal @ 25.5 ft.

309.5



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-5		G S Technician: J. Patterson		
Date: 12/4/2017	Depth: 10 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	320.0
2				
	Light brown light gray SILT, dry	13 50/6		
4				
	Light brown light gray very fine SANDY SILT, dry biotite rich from 4-4.5 ft.	17 50/5		
6				
	Gray brown very fine SILT, dry	33 50/3		
8				
	No Return	50/0		
10				

Auger Refusal @ 10 ft.

310.0



**KOONTZ BRYANT
JOHNSON WILLIAMS**

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-6		G S Technician: J. Patterson		
Date: 12/12/2017	Depth: 50 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core		
Depth	Soil/Rock Description	Blow Count	Remarks	
				353.0
2				
	Red micaceous CLAYEY SILT, moist	2		
		4		
4		4		
	Red micaceous SILT, trace quartz fragments at top of sample, moist to dry	5		
		3		
		3		
6		3		
	Dark brown light brown micaceous SILT, dry	4		
		3		
		3		
8		3		
	Light brown light gray micaceous SILT, trace quartz fragments, dry	2		
		3		
10		3		
12				
14	Light gray light brown micaceous SILT, dry	4		
		6		
		7		
16				
18				
	Light gray light brown micaceous SANDY SILT, dry	6		
		11		
20		17		

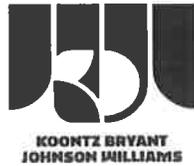


**KOONTZ BRYANT
JOHNSON WILLIAMS**

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-6		G S Technician: J. Patterson		
Date: 12/12/2017	Depth: 50 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core		
Depth	Soil/Rock Description	Blow Count	Remarks	
22				
24	Light gray light brown SANDY SILT, weathered granite at base, dry	29 50/5		
26				
28				
30	Light gray light brown micaceous SANDY SILT with quartz fragments, dry	50/2		
32				
34		NR		
36				
38				
40		NR		

Auger Refusal @ 40 ft.

313.0



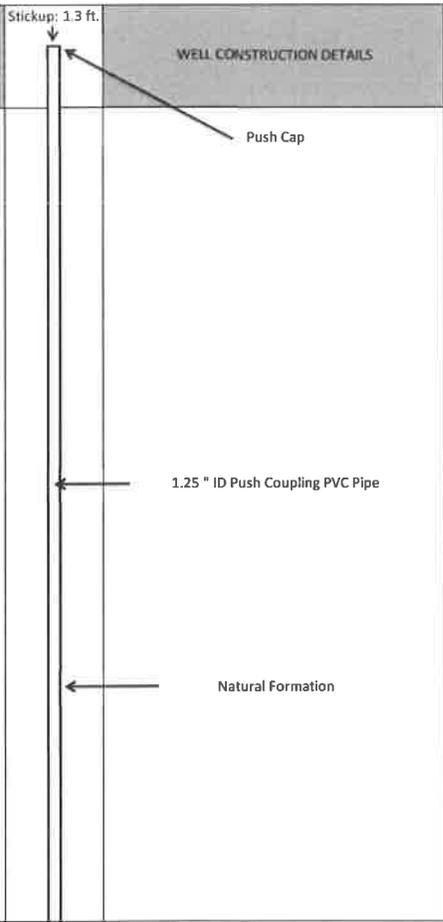
Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	
Client: J. H. Martin		Driller: P. Smith			
Location: B-6		G S Technician: J. Patterson			
Date: 12/12/2017	Depth: 50 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core			
Depth	Soil/Rock Description	Blow Count	Remarks		
	Biotite rich banded GNEISS with quartz, dry		Run 1 - 40-45 ft. Recovery - 52/60 inches = 87% RQD = 44/60 inches = 73%		
42	Massive quartz intrusion, dry			Rock	
44	Highly weathered biotite rich SCHIST, dry		Run 2 - 45-50 ft. Recovery - 52/60 inches = 87% RQD = 35.5/60 inches = 59%		
	Highly weathered SCHIST, dry			Rock	
46	Weathered biotite rich GNEISS with quartz, dry				
	Biotite rich GNEISS with quartz banding, pyrite noted throughout, dry				
50					

Total Depth @ 50 ft.

303.0



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 1.3 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-7		G S Technician: J. Patterson				
Date: 12/4-5/2017		Boring Method: 3.25" ID H.S. Auger				
Depth	Soil/Rock Description	Blow Count	Remarks			
				352.0		
2						
		5				
	Red brown micaceous SILT, moist	4				
		6				
4		8				
		5				
	Red brown SILT trace quartz fragments, dry	5				
		7				
6		8				
		5				
	Light brown SILT, trace structure, dry	6				
		4				
8	Light brown white very fine SANDY SILT, dry	3				
		3				
	Light brown light gray SANDY SILT, dry	6				
		7				
10		4				
12						
14	Light gray white very fine SANDY SILT, dry	4				
		5				
	Light gray light brown fine to medium SAND, dry	5				
16						
18						
		7				
	Light gray white very fine SANDY SILT, dry	11				
20		10				





Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-7		G S Technician: J. Patterson			
Date: 12/4-5/2017		Depth: 55 ft. Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
22					<p>1.25" ID Push Coupling PVC Pipe</p> <p>Natural Formation</p>
24	Light brown light gray micaceous very fine SANDY SILT, trace rock fragments at top, dry	7 12 14			
26					
28					
30	Light brown red black micaceous very fine SANDY SILT, dry White light gray very fine SANDY SILT with rock fragments, dry	9 31 25			
32					
34	White light brown micaceous SANDY SILT, dry	20 12 23			
36					
38					
40	Light brown white light gray black micaceous very fine SANDY SILT, dry	21 36 50/3			

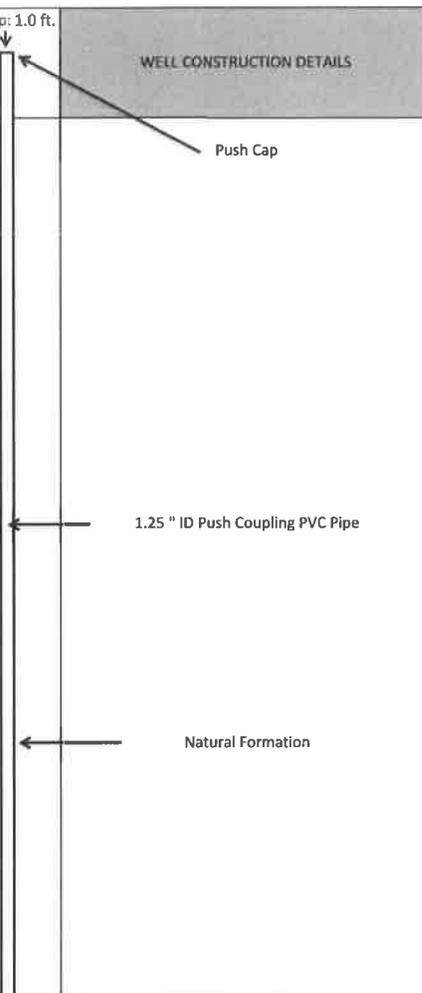


Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT. - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-7		G S Technician: J. Patterson			
Date: 12/4-5/2017	Depth: 55 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
42			Saturated @ 43.5 ft.	312.0	<p>Hand Slotted Screen 1.25" ID PVC Pipe</p>
44	Light brown light gray very fine SANDY SILT with rock fragments at the top, saturated	50/5		308.5	
46					
48			Saturated		<p>Natural Formation</p> <p>Hand Slotted Screen 1.25" ID PVC Pipe</p>
50	Light brown light gray biotite rich very fine SANDY SILT, saturated	50/6			
52					
54	No Return, saturated spoon	50/0	Auger Refusal @ 55 ft.	297.0	<p>Push Cap</p>
55					



EDONIZ BRYANT
JOHNSON WILLIAMS

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 1.0 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-8		GS Technician: J. Patterson				
Date: 12/4/2017	Depth: 36 ft.	Boring Method: 3.25" ID H. S. Auger				
Depth	Soil/Rock Description	Blow Count	Remarks			
				315.0		
2						
		3				
	Brown light brown SILT, some CLAYEY	4				
4	SILT from 2.3-2.7 ft., moist to dry	4				
		8				
		8				
	Red brown light brown SILT with biotite	9				
	banding, trace quartz rock fragments, dry	16				
6		15				
		9				
	Light brown SILT, trace quartz fragments,	11				
	dry	10				
8		13				
		19				
	Light brown SANDY SILT with micaceous	18				
	banding, dry	13				
10		16				
12						
14	Light brown SILT with micaceous banding,	8				
	dry	12				
	Yellow brown white very fine SAND, dry	50/3				
16						
18						
	Light brown brown micaceous SILT, trace	13				
	quartz fragments, structure, dry	18				
20		17				





Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-8		G S Technician: J. Patterson			
Date: 12/4/2017	Depth: 36 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
22					
24	Light brown very fine SANDY SILT, dry	50/6		289.0	1.25" ID Push Coupling PVC Pipe
26					
28					Natural Formation
30	Light brown white fine to medium SAND, some quartz fragments, dry	50/5			Hand Slotted Screen 1.25" ID PVC Pipe
32					
34	No Return	50/1			
36				279.0	Push Cap

Auger Refusal @ 36 ft.



**KOONTZ BRYANT
JOHNSON WILLIAMS**

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-9		G S Technician: J. Patterson		
Date: 12/1/2017	Depth: 21 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
2				310.0
4	Light brown dark brown micaceous SANDY SILT, moist	3 7 7 16		
6	Brown dark brown SILT with horizontal structure, moist	27 50/2		
8	White light gray light brown black very fine SAND, dry	30 50/5		
10	Light gray light brown black fine SANDY SILT with structure, dry	44 50/2		
12				
14	Light gray light brown black fine SANDY SILT with structure, dry	14 9 20		
16				
18				
20	Light brown light gray fine SANDY SILT, dry	50/3		

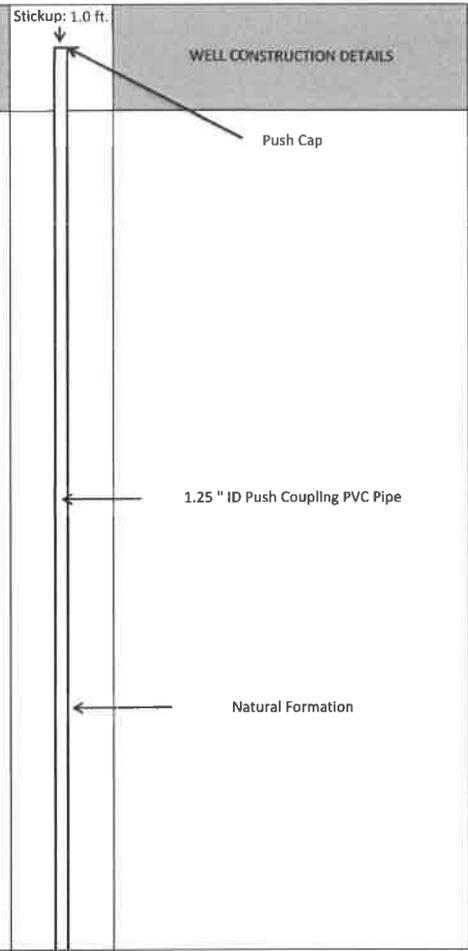


Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-9		G S Technician: J. Patterson		
Date: 12/1/2017	Depth: 21 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
21				289.0

Auger Refusal @ 21 ft.



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 1.0 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-10		G S Technician: J. Patterson				
Date: 12/5/2017	Depth: 47 ft.	Boring Method: 3.25" ID H. S. Auger				
Depth	Soil/Rock Description	Blow Count	Remarks			
				325.0		
2						
		11				
	light brown light gray very fine SANDY	12				
4	SILT, trace rock fragments & structure at base, dry	15				
		14				
		20				
	Light brown light gray SILT with horizontal structure, dry	26				
		15				
6		14				
		10				
	Light gray light brown very fine SANDY SILT, dry	11				
		12				
8	Light gray light brown micaceous SILT with and, some structure, dry	16				
		28				
	Light gray light brown very fine SANDY SILT, dry	50/5				
10						
12						
14	Black white light brown weathered granodiorite with gneissic banding, dry	13				
		17				
	White light gray very fine SANDY SILT with structure, dry	19				
16						
18						
	White light gray very fine SANDY SILT with structure, dry	6				
		8				
20	Light brown micaceous Silt, dry	11				





KNIGHT BRYANT
ROBINSON WILLIAMS

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT. - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-10		G.S. Technician: J. Patterson			
Date: 12/5/2017	Depth: 47 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
22					
24	Light brown white micaceous SILT, dry	13 16 28			Natural Formation
26					
28					
30	Light brown light gray white micaceous SILT with plagioclase feldspar from 28.6-28.7 ft., with structure dry	30 50/6			1.25" ID Push Coupling PVC Pipe
32				293.0	
34	Black white micaceous SILT, moist to saturated @ 34 ft.	50/6	Saturated @ 34 ft.	291.0	Natural Formation
36					
38					Hand Slotted Screen 1.25" ID PVC Pipe
40	Dark brown brown gray black micaceous SILT with banding, saturated	20 48 50/4			



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT. - AMSL)	
Client: J. H. Martin		Driller: P. Smith			
Location: B-10		G S Technician: J. Patterson			
Date: 12/5/2017	Depth: 47 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
42					
44	Dark gray gray light green black micaceous SILT, saturated	50/6			
46					
47				278.0	

Auger Refusal @ 47 ft.



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-11		G S Technician: J. Patterson		
Date: 12/5/2017	Depth: 40 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
				310.0
2				
		3		
		5		
4	Light brown micaceous SILT, moist	5		
		7		
		5		
		7		
6	Yellow brown very fine SANDY SILT, dry	11		
	Light brown white SILT, dry	11		
	Light gray white fine SAND with quartz fragments, dry	42		
		46		
8	Brown light brown red brown black weathered granodiorite, dry	20		
		12		
		13		
		14		
10	Light brown red brown SILT, dry	14		
		14		
12				
14	Light gray light brown yellow brown micaceous very fine SANDY SILT, structure increasing with depth, dry	10		
		12		
		12		
16				
18				
	Light brown light gray black weathered granodiorite with gneissic banding, dry	25		
20		50/4		



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-11		G S Technician: J. Patterson		
Date: 12/5/2017	Depth: 40 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
22				
24	Light brown light gray black weathered granodiorite with gneissic banding, dry	8 12 17		
26				
28				
30	Light gray black very fine micaceous SANDY SILT, with structure, dry	50/4		
32				
34	Light gray black micaceous SILT (weathered gneiss), dry	50/3		
36				
38				
	No Return	50/1		
40				

Auger Refusal @ 40 ft.

270.0



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT. - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-14		G S Technician: J. Patterson			
Date: 12/7/2017	Depth: 42.5 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
42			Auger Refusal @ 42.5 ft.	277.5	<p>1.25" ID Hand Slotted PVC Screen</p> <p>Push Cap</p>



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 1.2 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-12		G S Technician: J. Patterson				
Date: 12/8/2017	Depth: 45.5 ft.	Boring Method: 3.25" ID H. S. Auger				
Depth	Soil/Rock Description	Blow Count	Remarks			
				330.0		
2						Push Cap
	Red brown CLAYEY SILT, moist	8				
		7				
	Red brown micaceous SILT, moist	7				
4		8				
	Red brown CLAYEY SILT, moist	4				
	Red brown yellow SILT with horizontal structure, dry	6				
		8				
6	White black micaceous Silt with structure, dry	8				
		4				
	Light brown micaceous SILT, dry	5				
		7				
8		3				
	Light brown SILT, trace quartz fragments at 8.5 ft., horizontal structure, dry	4				
		6				
		6				
10		5				1.25" ID Push Coupling PVC Pipe
12						
14	Light brown light gray SILT with sand, biotite rich at base with horizontal structure, dry	4				
		3				
		4				Natural Formation
16						
18						
	Light brown white micaceous SILT, dry	7				
		10				
20	White pink light brown very fine SANDY SILT with quartz fragments, dry	9				

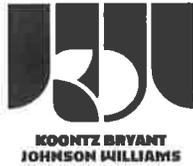


Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-12		G S Technician: J. Patterson			
Date: 12/6/2017	Depth: 45.5 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
22				310.0	
24	Light brown light gray SILT with pink plagioclase banding at 24 ft., dry	21 13 12			
26					
28			Saturated @ 27 ft.	303.0	
30	Light brown light gray white black SILT with horizontal banding, trace quartz fragments at base, saturated at 27 ft. (seen on rod)	12 18 23			1.25" ID PHand Slotted PVC Screen
32					
34	Light brown light gray white black SILT with horizontal banding, trace quartz fragments at base, saturated	12 12 25			Natural Formation
36					
38					
40	Light brown light gray white black SILT with horizontal banding, trace quartz fragments at top, saturated	50/5			



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT. - AMSL)	
Client: J. H. Martin		Driller: P. Smith			
Location: B-12		G S Technician: J. Patterson			
Date: 12/6/2017	Depth: 45.5 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
42					
44	Dark brown black micaceous SILT, saturated	50/3		284.50	

Auger Refusal @ 45.5 ft.



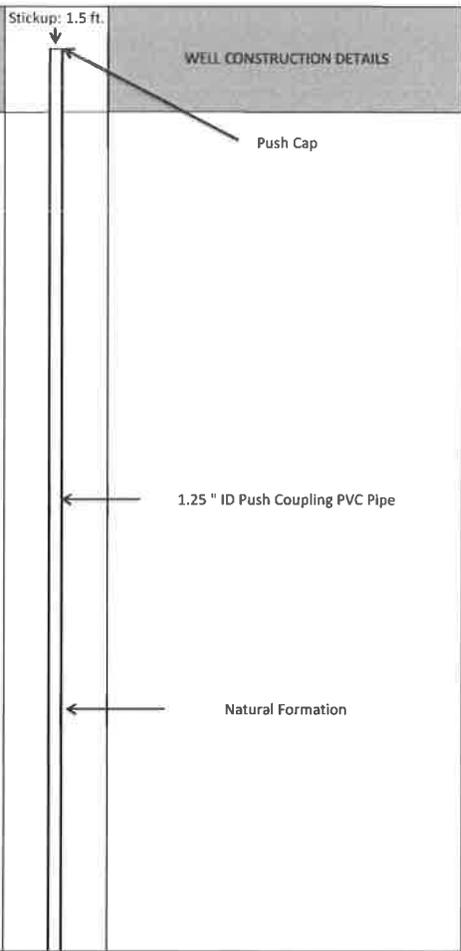
Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-13		G S Technician: J. Patterson		
Date: 12/6-7/2017	Depth: 26 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core		
Depth	Soil/Rock Description	Blow Count	Remarks	
				305.0
2				
	Light brown brown CLAYEY SILT, trace organic matter at the top, wet	3		
		5		
4		5		
		6		
	Light brown light gray micaceous SILT with rock fragments at 4-5 ft., dry	20		
		17		
6		16		
		21		
	Light brown micaceous SILT, dry	7		
		10		
8		17		
		19		
	Light brown micaceous SILT, dry	13		
		14		
10		14		
		16		
12				
	Light brown SILT with quartz fragments, dry	50/4		
14				
	Light brown white fine to medium SAND with silt, dry			
16				
18				
	Light brown light gray micaceous SILT with biotite banding, dry	32		
		35		
20		50/4		



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-13		G S Technician: J. Patterson		
Date: 12/6-7/2017	Depth: 26 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core		
Depth	Soil/Rock Description	Blow Count	Remarks	
22				
24	Light brown light gray SILT, trace biotite mica, horizontal structure, dry	50/3		
	Highly weathered micaceous SILT, dry		Run 1: 25-26 ft. Recovery - 12/12" = 100% RQD - 0/12" = 0% Auger Refusal @ 25 ft. Rock Core Lock Up @ 26 ft.	280.0 279.0



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 1.5 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-14		GS Technician: J. Patterson				
Date: 12/7/2017		Boring Method: 3.25" ID H. S. Auger				
Depth	Soil/Rock Description	Blow Count	Remarks			
				320.0		
2						
		5				
	Light brown micaceous SILT, moist to dry	6				
4		11				
		14				
		8				
	Light brown red brown micaceous SILT structure at the base, dry	20				
6		28				
		26				
		16				
	Red brown light gray SILT with structure, trace biotite mica at base, dry	18				
8		17				
		23				
		20				
	Light brown SILT, trace rock fragments, horizontal structure, dry	24				
10		29				
		50/4				
12						
14	Light brown light gray black SILT, trace rock fragments at 14 ft., horizontal structure, dry	32				
		43				
		41				
16						
18						
	Light brown micaceous SILT, horizontal structure, dry	35				
20		50/3				





Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT. - ANSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-14		G.S. Technician: J. Patterson			
Date: 12/7/2017	Depth: 42.5 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
22					
	Light brown light gray micaceous SILT, dry	50/2			
24					
26					
28					
	Light brown micaceous SILT, dry	27			
	Red brown SANDY SILT, trace quartz fragments, dry	50/5			
30					
32					
	Brown dark brown micaceous SANDY SILT, dry	14		287.50	
		25			
34		28			
36					
38					
	Red brown black micaceous SILT, wet to saturated	20			
	Red brown micaceous SANDY SILT, saturated	50/6	Saturated @ 39 ft.	281.0	
40					



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-15		G S Technician: J. Patterson		
Date: 12/8/2017	Depth: 11 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	283.0
2				
4	Light brown micaceous SILT, dry	4		
	Dark gray dark brown biotite rich SILT with structure, dry	8		
		20		
6		45		
	Light brown light gray micaceous SILT, dry	30		
		39		
8		50/6		
	Gray brown white micaceous SILT, dry	29		
	Gray brown white micaceous SANDY SILT, trace rock fragments, dry	40		
10		50/3		
	Dark gray brown biotite rich micaceous SILT, trace rock fragments, dry	35		
		50/4		

Auger Refusal @ 11 ft.



**KOONTZ BRYANT
JOHNSON WILLIAMS**

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-16		G S Technician: J. Patterson		
Date: 12/8/2017	Depth: 30 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
2				
4	Red brown micaceous SILT, dry	3		
		3		
		3		
		5		
6	Red brown micaceous SILT, dry	4		
		6		
		5		
		7		
8	Light brown micaceous SILT, dry	6		
		8		
		5		
10	White light brown micaceous SILT, dry	7		
		6		
		7		
		6		
12		7		
		6		
		7		
14	Light brown light gray micaceous SILT, dry	6		
		7		
		8		
16				
18				
20	Light brown light gray micaceous SILT, some white plagioclase, dry	6		
		9		
		10		



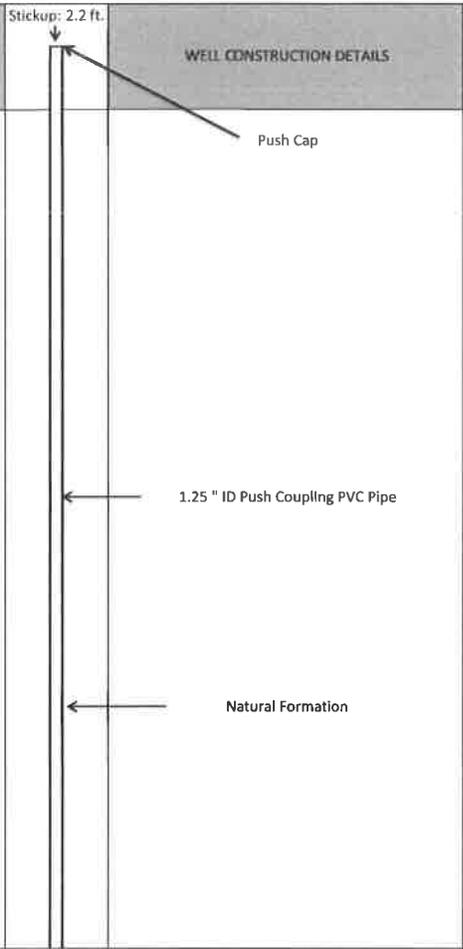
Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-16		G S Technician: J. Patterson		
Date: 12/8/2017	Depth: 30 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	313.0
22				
	Light brown brown gray micaceous SILT, trace rock fragments, dry	39 50/3		
24				
26				
28				
	Light brown light gray micaceous SANDY SILT, dry	50/3		
30				

Auger Reusal @ 30 ft.

283.0

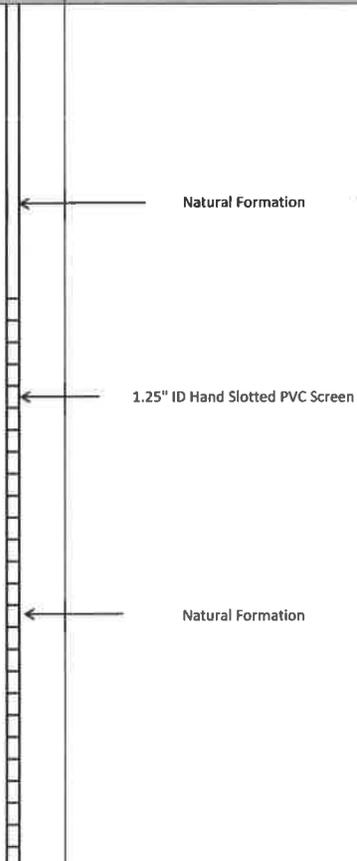


Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 2.2 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-17		G S Technician: J. Patterson				
Date: 12/12/2017		Boring Method: 3.25" ID H. S. Auger				
Depth	Soil/Rock Description	Blow Count	Remarks			
				380.0		
2						
		4				
	Red brown micaceous SILT, moist	7				
4		11				
		14				
		5				
	Red brown micaceous SILT, trace quartz fragments at top of sample, moist	8				
6		11				
		13				
		4				
	Red brown micaceous SILT, dry	4				
8		4				
		4				
		3				
	Red brown light brown micaceous SILT with sand, dry	4				
10		5				
		7				
12						
14	Red brown light brown micaceous SILT, structure at base, dry	3				
		3				
		4				
16						
18						
	Red brown micaceous SILT, dry	3				
		4				
20	Brown black micaceous SILT, dry	3				





Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-17		G S Technician: J. Patterson			
Date: 12/12/2017	Depth: 47.0 ft.	Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
22					
	Red brown micaceous SILT, dry	3			
		4			
24	Dark brown SANDY SILT, dry	6			
26					
28				353.0	
30	Light gray gray micaceous SANDY SILT, dry	12			
		18			
		14			
32					
34	Light brown light gray gray black micaceous SANDY SILT (weathered gneiss) with quartz fragments, saturated @ 33.5 ft.	10	Saturated @ 33.5 ft.	346.5	
		19			
		25			
36					
38					
40	Light brown light gray gray black micaceous SANDY SILT (weathered gneiss) with quartz fragments, saturated	40			
		50/4			

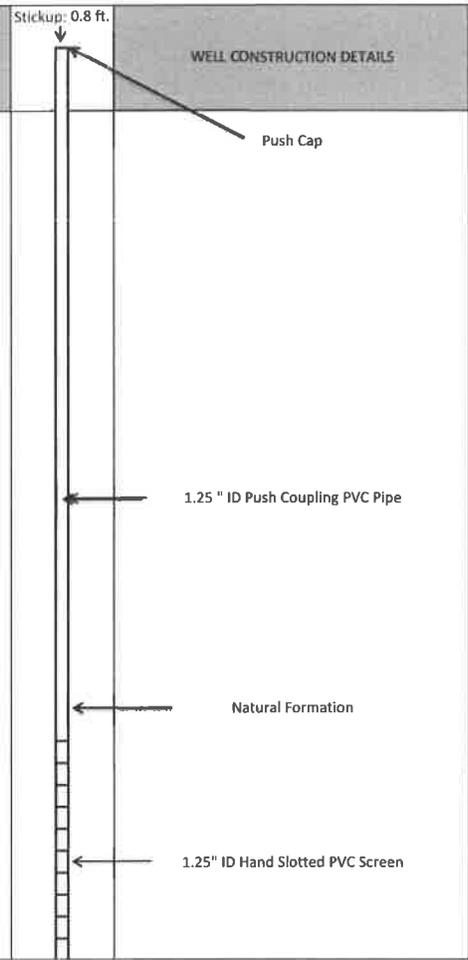




Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-17		G S Technician: J. Patterson			
Date: 12/12/2017		Boring Method: 3.25" ID H. S. Auger			
Depth	Soil/Rock Description	Blow Count	Remarks		
42					
44	Biotite rich SANDY SILT with quartz fragments, saturated (minor anticlinal with arch towards top of spoon)	27 50/3			
46					
Auger Refusal @ 47.0 ft.				333.0	



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 0.8 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-18		G S Technician: J. Patterson				
Date: 12/14/2017		Boring Method: 3.25" ID H. S. Auger/Wireline Core				
Depth	Soil/Rock Description	Blow Count	Remarks			
				368.0		
2						
		3				
	Red brown SILT, moist	7				
4		9				
		13				
		5				
	Red brown SILT, trace rock fragments, moist	12				
6		17				
		20				
		8				
	Red brown SILT, trace rock fragments, moist	13				
8		12				
		12				
		5				
	Red brown light gray SILT, dry	10				
10		12				
		14				
12						
14	Red brown dark brown micaceous SILT, structure at base of sample, dry	2				
		2				
		3				
16						
18						
	Red brown dark brown micaceous SILT, dry	2				
		4				
20	Light gray SILT, wet	8				
				353.0		





Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-18		G.S. Technician: J. Patterson			
Date: 12/14/2017		Depth: 40.0 ft. Boring Method: 3.25" ID H. S. Auger/Wireline Core			
Depth	Soil/Rock Description	Blow Count	Remarks		
22			Saturated @ 21 ft.	347.0	
24	Light brown light gray micaceous weathered GNEISS with quartz banding, saturated (slight anticlinal folding at top of sample)	7 41 50/1			Natural Formation
26					
28					
30	Red brown dark gray SANDY SILT with quartz fragments, saturated	50/2			1.25" ID Hand Slotted PVC Screen
32	30-30.7 ft. - Fine grained banded GNEISS with biotite & muscovite, minor fractures at 45° & 90° (water staining of fractures noted), saturated		Auger Refusal @ 30 ft.	338.0	
34	30.7-31.6 ft. - Muscovite rich SCHIST, trace quartz fragments at 31.2 ft. & 31.5 ft. saturated		Run 1: 30-35 ft. Recovery - 30/60" = 50% RQD - 8/60" = 13%		Rock
36	21.5-32.5 ft. - Biotite rich SCHIST with quartz fragments, some muscovite, saturated				
38	35-36.3 ft. - Weathered biotite rich GNEISS with water stained folding, saturated		Run 2: 35-40 ft. Recovery - 61.5/60" = 103% RQD - 41/60" = 68%		1.25" ID Hand Slotted PVC Screen
40	36.3-36.4 ft. - Weathered quartz, sat. 36.4-37.1 ft. - Biotite rich quartz banded GNEISS with minor stained fractures, sat. 37.1-37.2 ft. - Highly weathered biotite rich GNEISS, saturated 37.2-40 ft. - Biotite rich GNEISS with some folding & quartz banding, sat.			328.0	Push Cap

Total Depth @ 40 ft.



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-19		G S Technician: J. Patterson		
Date: 12/13/2017	Depth: 46.5 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
				358.0
2				
		5		
		8		
	Light gray light brown SILT, dry	13		
4		15		
		10		
	Light gray light brown SILT with sand, dry	22		
		43		
6		50/3		
	Light gray light brown SILT, dry	50/2		
8				
		25		
	Light gray light brown micaceous SILT, trace structure at base, dry	29		
10		50/5		
12				
14	Light gray light brown micaceous SILT, trace structure at base, dry	28		
		50/2		
16				
18				
	Light brown light gray micaceous SILT, dry	50/6		
20				



**KOONTZ BRYANT
JOHNSON WILLIAMS**

Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-19		G S Technician: J. Patterson		
Date: 12/13/2017	Depth: 46.5 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
22				
24	Dark brown biotite rich SANDY SILT, horizontal structure, dry	50/5		
26				
28				
30	Dark brown biotite rich SANDY SILT, horizontal structure, dry Light brown SANDY SILT, dry	33 50/3		
32				
34	Light brown brown SANDY SILT, dry	50/3		
36				
38				
40	Light brown brown SANDY SILT, dry	50/1		



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)
Client: J. H. Martin		Driller: P. Smith		
Location: B-19		G S Technician: J. Patterson		
Date: 12/13/2017	Depth: 46.5 ft.	Boring Method: 3.25" ID H. S. Auger		
Depth	Soil/Rock Description	Blow Count	Remarks	
42				
44	Light brown brown SANDY SILT, dry	50/1		
46				

Auger Refusal @ 46.5 ft.

311.5



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	Stickup: 0.6 ft.	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith				
Location: B-20		G S Technician: J. Patterson				
Date: 12/13/ & 15/2017	Depth: 48.0 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core				
Depth	Soil/Rock Description	Blow Count	Remarks			
2				320.0		
4	Gray micaceous SILT with quartz fragments at base, dry	14 30 50/4				Push Cap
6	Light brown SILT, some quartz fragments, dry	15 50/5				
8	Red brown SANDY SILT, trace quartz fragments, dry	13 25 26 37				
10	Black brown white micaceous SANDY SILT with quartz fragments, dry	15 35 50/4				1.25" ID Push Coupling PVC Pipe
12						
14	Light gray gray micaceous SANDY SILT with quartz fragments, dry	33 50/5				Natural Formation
16						
18						
20	Brown gray black micaceous SILT, trace quartz fragments, dry	40 43 50/4				



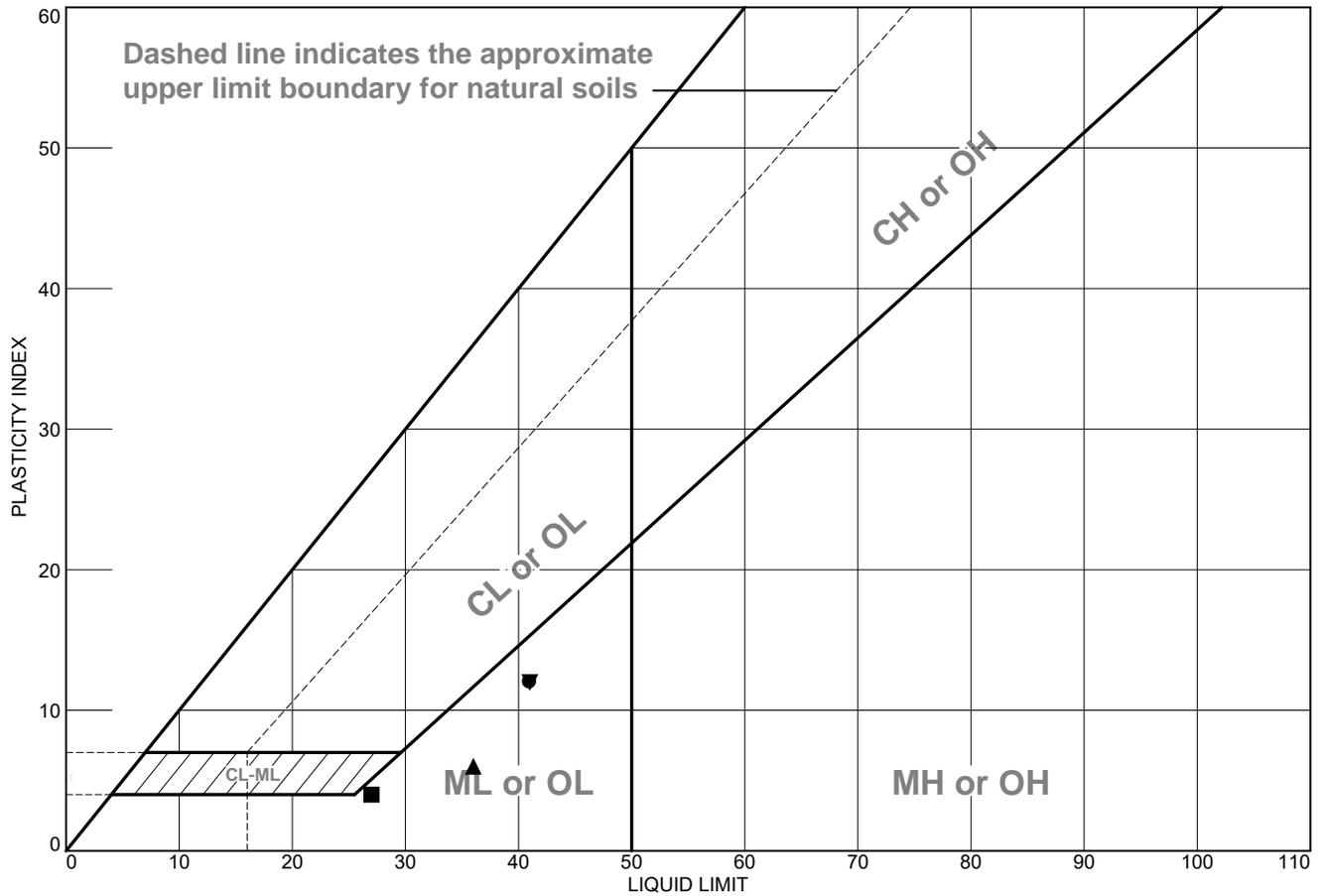
Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-20		G S Technician: J. Patterson			
Date: 12/13/ & 15/2017	Depth: 48.0 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core			
Depth	Soil/Rock Description	Blow Count	Remarks		
22					
24	Light brown SANDY SILT with quartz fragments at the top of the sample, with structure, dry	19 50/3			Natural Formation
26					
28					
30	Light brown gray black micaceous SILT, dry	50/6			1.25" ID Push Coupling PVC Pipe
32					
34	Light brown light gray micaceous SILT, dry	12 50/5		287.0	
36					
38					1.25" ID Hand Slotted PVC Screen
	Quartz rich GNEISS with pink plagioclase feldspar		Auger refusal @ 38 ft. Run 1: 38-43 ft. Recovery - 22/60" = 37%	282.0	Rock
40	Biotite rich GNEISS, rock weathering increasing with depth		RQD - 0/60" = 0%		



Project: CC-1100		Drilling Company: Blue Ridge Drilling, Inc.		ELEVATION (FT - AMSL)	WELL CONSTRUCTION DETAILS
Client: J. H. Martin		Driller: P. Smith			
Location: B-20		G S Technician: J. Patterson			
Date: 12/13/2017	Depth: 48.0 ft.	Boring Method: 3.25" ID H. S. Auger/Wireline Core			
Depth	Soil/Rock Description	Blow Count	Remarks		
42					
44	Biotite rich GNEISS with quartz banding, weathered to highly weathered, dry		Run2: 43-48 ft. Recovery - 36/60" = 60% RQD - 14/60" = 23%		
46					
48					272.0

Total Depth @ 48 ft.

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	red brown, moist, Silt with sand (ML)	41	29	12		72.9	ML
■	light brown, moist, friable, Silty Sand (SM)	27	23	4		39.1	SM
▲	yellow brown, moist, sandy Silt with trace rock fragments	36	30	6		58.3	ML
◆	light brown and white, dry, Silty Sand (SM)	18	NP	NP		31.6	SM
▼	light gray and light brown, mica, sandy Silt (ML)	41	29	12		62.2	ML

Project No. 2017890 **Client:** CWV LLC
Project: Cumberland Property
● Location: B-1 **Depth:** 8'-10' **Sample Number:** 1
■ Location: B-1 **Depth:** 28'-30' **Sample Number:** 2
▲ Location: B-2 **Depth:** 14'-15' **Sample Number:** 3
◆ Location: B-4 **Depth:** 4'-5' **Sample Number:** 4
▼ Location: B-6 **Depth:** 18'-20' **Sample Number:** 5

Geo-Solutions

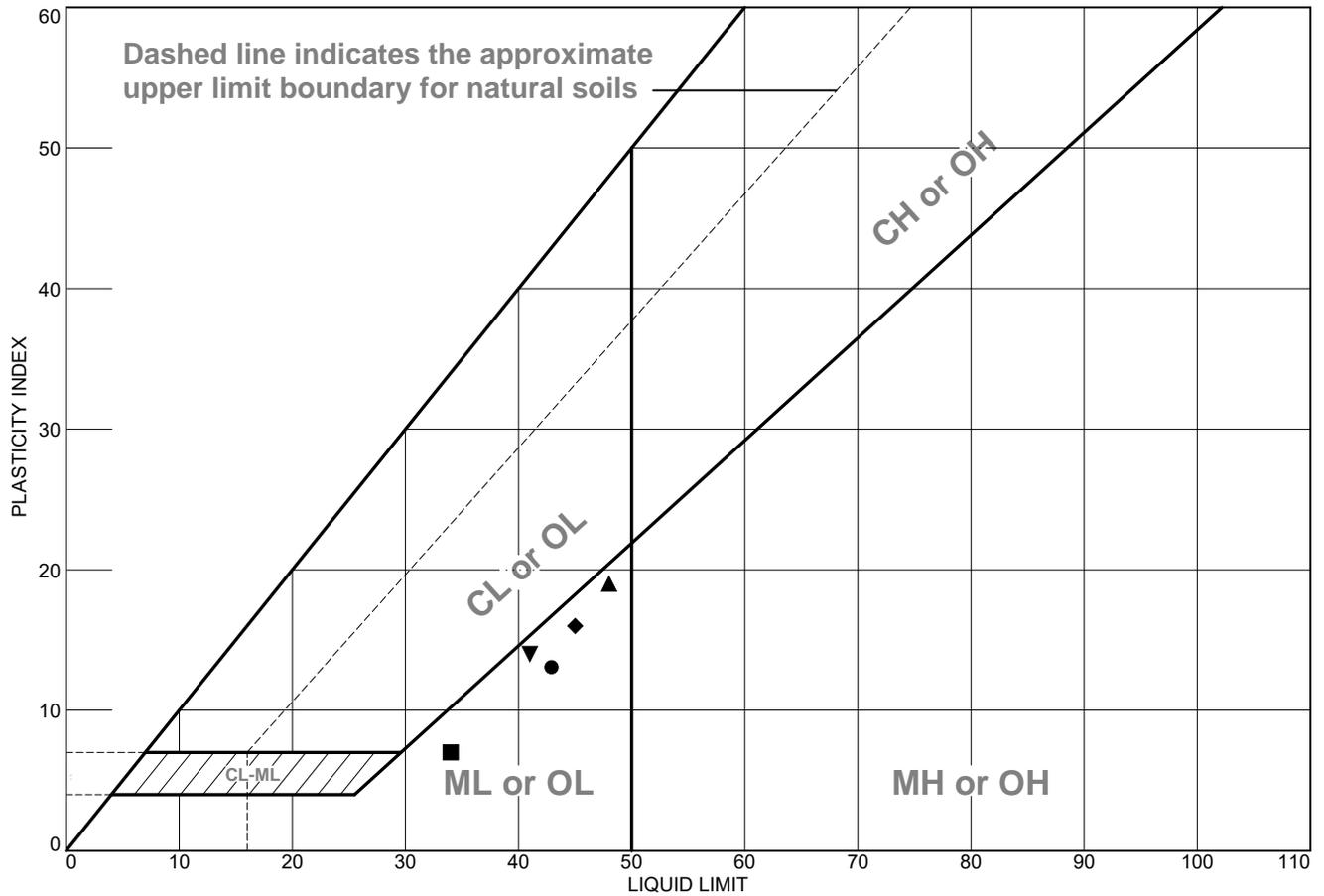
Hopewell, Virginia

Remarks:

Figure

Tested By: CCL **Checked By:** BEJ

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	light brown and gray, dry, friable, sandy Silt (ML)	43	30	13		58.4	ML
■	light brown and white, mica, dry, sandy Silt (ML)	34	27	7		55.1	ML
▲	light brown, dry, mica, sandy Silt (ML)	48	29	19		64.9	ML
◆	light gray and light brown, mica, Silt with sand (ML)	45	29	16		70.2	ML
▼	light brown and light gray, dry, Silt with sand (ML)	41	27	14		62.2	ML

Project No. 2017890 **Client:** CWV LLC
Project: Cumberland Property

● Location: B-7 **Depth:** 8'-9' **Sample Number:** 6
■ Location: B-7 **Depth:** 34'-36' **Sample Number:** 7
▲ Location: B-8 **Depth:** 8'-10' **Sample Number:** 8
◆ Location: B-10 **Depth:** 6'-8' **Sample Number:** 9
▼ Location: B-12 **Depth:** 14'-16' **Sample Number:** 10

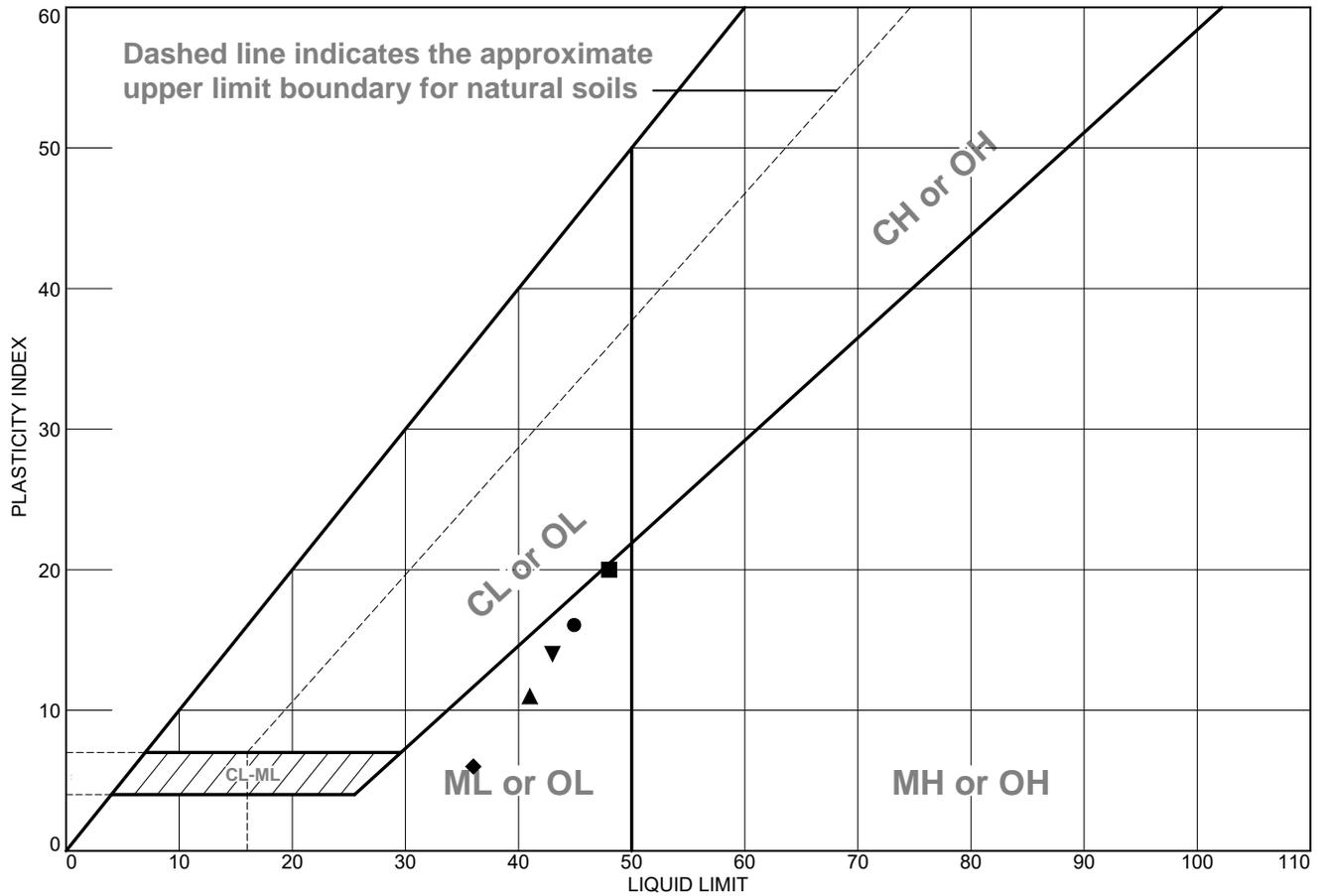
Geo-Solutions
Hopewell, Virginia

Remarks:

Figure

Tested By: CCL Checked By: BEJ

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	light brown, dry, Silt (ML)	45	29	16		74.9	ML
■	red brown, mica, Silt (ML)	48	28	20		77.3	ML
▲	red brown and light brown, mica, Silt with sand (ML)	41	30	11		64.1	ML
◆	light gray and gray, mica, dry, sandy Silt (ML)	36	30	6		54.7	ML
▼	light gray and light brown, dry, Silt with sand (ML)	43	29	14		62.3	ML

Project No. 2017890 **Client:** CWV LLC
Project: Cumberland Property
● Location: B-13 **Depth:** 6'-8' **Sample Number:** 11
■ Location: B-16 **Depth:** 4'-6' **Sample Number:** 12
▲ Location: B-17 **Depth:** 8'-10' **Sample Number:** 13
◆ Location: B-17 **Depth:** 28'-30' **Sample Number:** 14
▼ Location: B-19 **Depth:** 4'-6' **Sample Number:** 15

Geo-Solutions

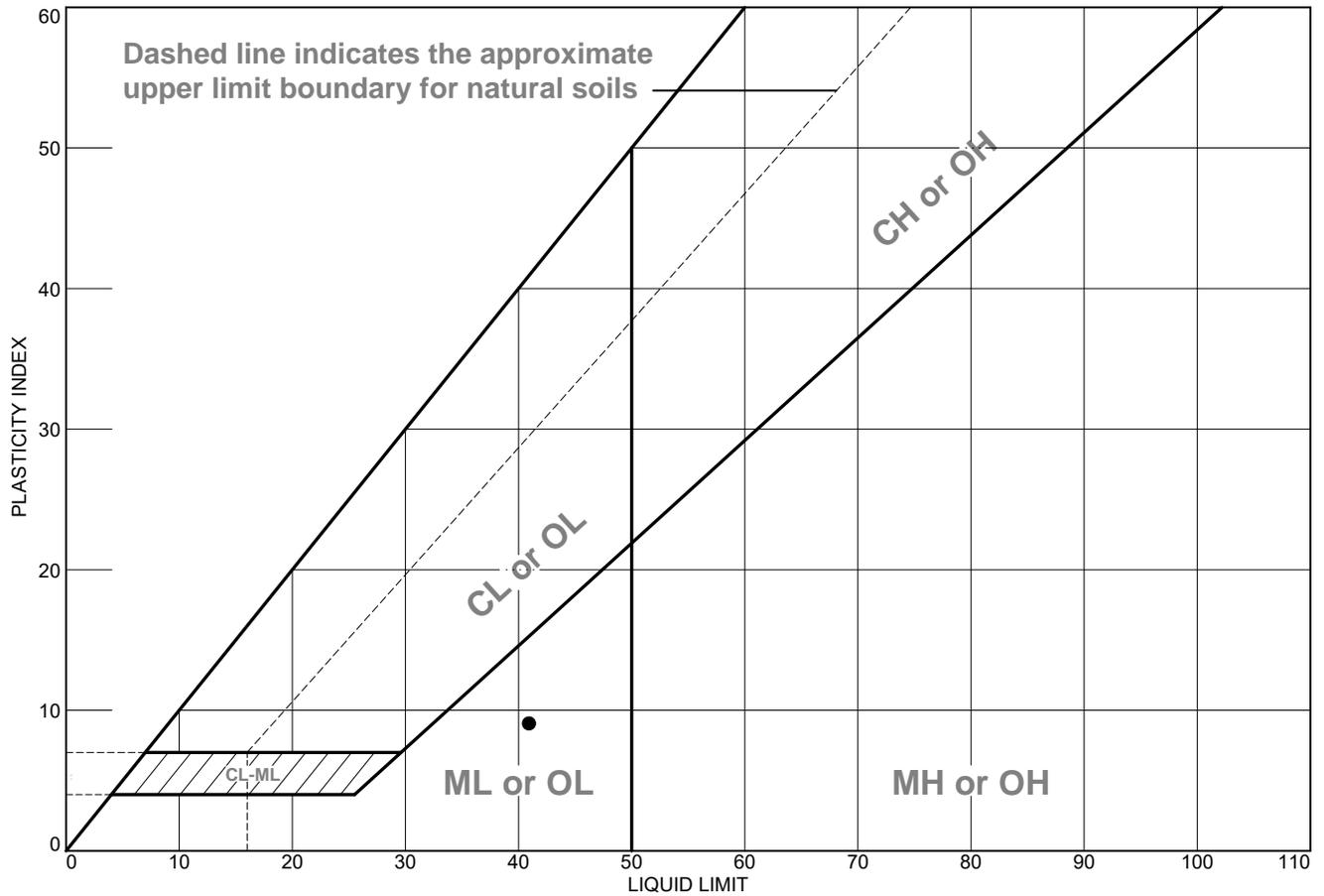
Hopewell, Virginia

Remarks:

Figure

Tested By: CCL **Checked By:** BEJ

LIQUID AND PLASTIC LIMITS TEST REPORT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
● red brown and brown, sandy Silt (ML) w/ rock fragments	41	32	9		58.4	ML

<p>Project No. 2017890 Client: CWV LLC</p> <p>Project: Cumberland Property</p> <p>● Location: B-20 Depth: 6'-8' Sample Number: 16</p>	<p>Remarks:</p>
<p>Geo-Solutions</p> <p>Hopewell, Virginia</p>	

Figure

Tested By: CCL **Checked By:** BEJ