

## MEMORANDUM

**TO:** Washington County Planning and Zoning Department

**FROM:** Timmons Group on behalf of Wolf Hills Solar

**DATE:** May 28, 2024

**RE:** Wolf Hills Solar Environmental Resource Impact Analysis

Timmons Group, on behalf of Wolf Hills Solar, has conducted a limited environmental review of resources that may be present in the vicinity of the proposed project location. This environmental review includes national and state forests, national and state parks, wildlife management areas, conservation easements, recreational areas, prime forest and agricultural lands, wildlife resources, and cultural and historic resources.

### Federal, State, and Local Conservation and Recreation Lands

No federal, state, or local lands intersect with Wolf Hills Solar. There are two managed lands located within two miles of the proposed project location. More information is available in Table 1. The Washington County Little League complex abuts the southern portion of the Site. The City of Bristol’s Sugar Hollow Park is located 0.4 miles southwest of the Site.

Table 1. Protected Lands within two miles of Wolf Hills Solar

Name	Land Type	Owner
Washington County Little League	Non-Governmental Organization	Private
Sugar Hollow Park	City Park	City of Bristol

### Aviation and Pipelines

The Virginia Highlands public airport is located approximately 1.5 miles east of the Site. The privately owned Tri-cities heliport is located 0.9 miles southwest of the Site. The East Tennessee Gas Company Interstate natural gas pipeline runs through the center and western edge of the Site. The project has communicated with the Virginia Highlands Airport and airport officials do not believe the project will have a negative impact on airport operations.

### Wetlands and Streams

Wetlands and streams are present on site. As the project progresses, more precise locations of wetlands and streams will be delineated by a third party and verified by the United States Army Corps of Engineers (USACE) and the Virginia Department of Environmental Quality (VDEQ). If wetland or stream impacts are unavoidable, the project will obtain the appropriate permits for impacts to jurisdictional wetlands and streams.

Wetlands and streams form a natural wildlife corridor, and as they will generally not be impacted by the project, will remain as interior corridors for wildlife utilization. Wetlands and streams are generally outside the fenced area so free passage of wildlife will be allowed for the duration of the project. The Virginia Department of Wildlife Resources advises that interior passages through solar projects helps reduce potential impacts to wildlife, to which this project will adhere.

### Wildlife Resources

Timmons Group has conducted a threatened and endangered (T&E) species review of the Wolf Hills Solar project using the Virginia Department of Wildlife Resources (VDWR) Wildlife Environmental Review Mapping System (WERMS).

Based on the queried database, there is the potential for the federally and state endangered Northern-Long Eared Bat to occur near the project. The project will coordinate with the VDWR during state permitting to ensure the protection of the northern-long eared bat.

Beaver Creek, a trout stream, runs near the site. Given the location of the stream, the project will be setback at least 100LF from Beaver Creek, which is the VDWR's recommendation for the protection of trout waters. The project will also strictly adhere to stormwater and erosion & sediment control measures, which will further protect Beaver Creek.

The Virginia Department of Conservation and Recreation recommends that solar projects plant native and/or pollinator species whenever possible. The proposed seed mix to be planted in disturbed areas underneath the panels consists of both native and pollinator species.

### Prime Farmland

Based on the Natural Resources Conservation Service (NRCS) soils data, there are soils classified as prime farmland and farmland of statewide importance within the Site. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for those uses. There are approximately 58.01 acres of prime farmland soils on the Site, and only 3.37 acres are within the solar panel area. The Virginia Land and Energy Navigator, a data service of the Virginia Cooperative Extension, classifies prime farmland in the state. This dataset matches the analysis prime farmland area soils. Less than 1% of the project area that is planned for development is considered prime farmland.

Farmland of statewide importance generally includes areas that almost meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. There are approximately 1,367.15 acres of soils classified farmland of statewide importance in the property area and 827.33 acres in the solar panel area. Washington County has a total of 125,832 acres of soils that are considered farmland of state importance. The Wolf Hills Solar project only plans to develop on 0.6% of those soils.

### Cultural and Historical Resources

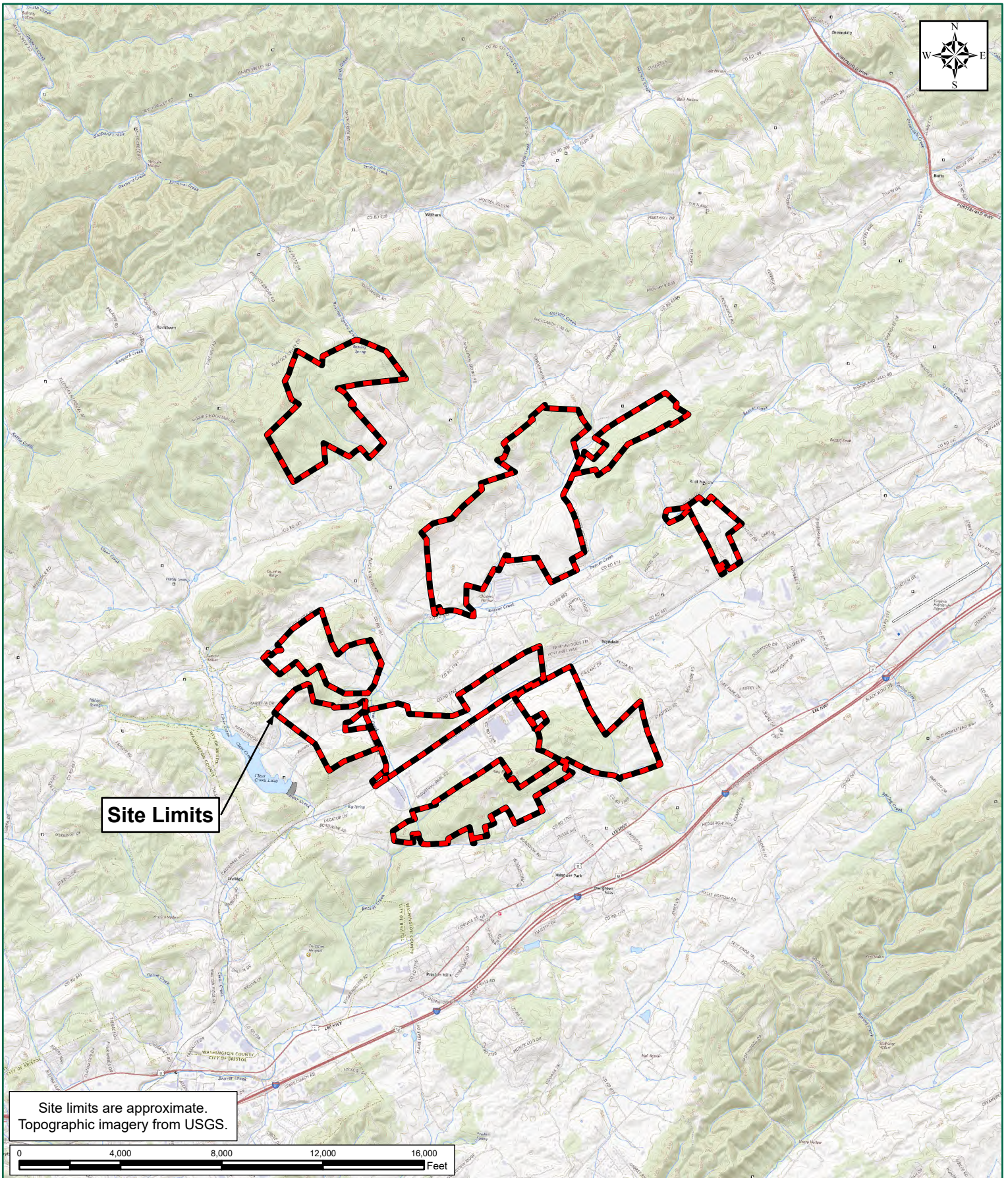
The Project is not expected to have any impacts to cultural and historical resources due to the amount of cultural work required at the state permitting level. In-depth cultural surveys conducted by qualified professionals will be submitted for approval and concurrence by the Virginia Department of Historic Resources (VDHR).

There are two previously recorded architectural resources and two previously recorded archaeological resources within the project area. One archaeological resource (DHR ID #

44WG0432) is considered potentially eligible for listing on the National Register of Historic Places (NRHP) and the Virginia Landmarks Register (VLR). The remaining resources located on the Site have not yet been evaluated or have been determined not eligible for listing on the NRHP and VLR. There are twenty architectural resources and within one half mile of the project, which is the standard search area for architectural resources. One of the architectural resources (DHR ID # 095-5361) is eligible for listing on the NRHP and the VLR. The remaining architectural resources have been determined not eligible or have not yet been evaluated.

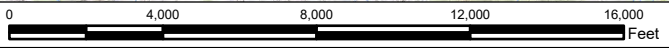
### Figures and Attachments

- Figure 1      Vicinity Map
- Figure 2      Protected Lands Map
- Figure 3      Context Map
- Figure 4      Prime Farmland Map
- Figure 5      Cultural Resources Review
- Figure 6      Wildlife Environmental Review Map



**Site Limits**

Site limits are approximate.  
Topographic imagery from USGS.



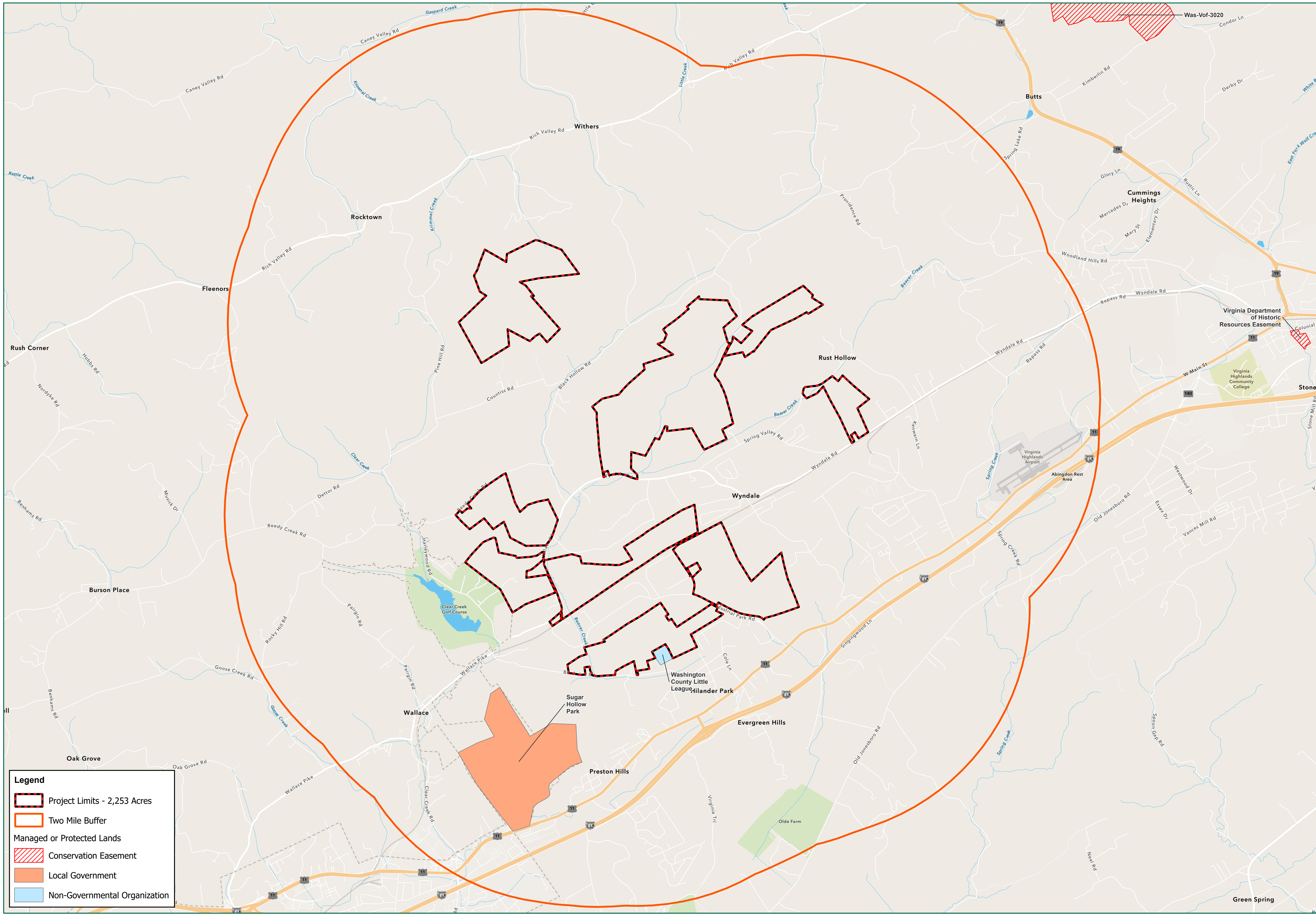
**WOLF HILLS SOLAR**  
 WASHINGTON COUNTY, VIRGINIA  
**FIGURE 1: VICINITY MAP**

**TIMMONS GROUP**  
 YOUR VISION ACHIEVED THROUGH OURS.



TIMMONS GROUP JOB NUMBER: 62392  
 PROJECT STUDY LIMITS: 2,253 ACRES  
 LATITUDE: 36.6845673  
 LONGITUDE: -82.0966587

U.S.G.S. QUADRANGLE(S): WYNDALE  
 DATE(S): 2022  
 WATERSHED(S): NORTH FORK HOLSTON, SOUTH FORK HOLSTON (FRENCH BROAD-HOLSTON RIVER BASIN)  
 HYDROLOGIC UNIT CODE(S): 06010101, 06010102



**Legend**

- Project Limits - 2,253 Acres
- Two Mile Buffer
- Managed or Protected Lands**
- Conservation Easement
- Local Government
- Non-Governmental Organization

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 1001 Builders Parkway, Suite 300  
 Richmond, VA 23226  
 www.timmons.com

**PROJECT NAME & LOCATION**

**WOLF HILLS SOLAR**  
 WASHINGTON COUNTY -  
 VIRGINIA

DATE	05/22/2024
PROJECT NUMBER	62392
PROJECT NAME	WOLF HILLS SOLAR
DESIGNED BY / DRAWN BY	M. HILL

**NOTES:**  
 PADUS data from USGS.  
 Aerial imagery from VGIN.

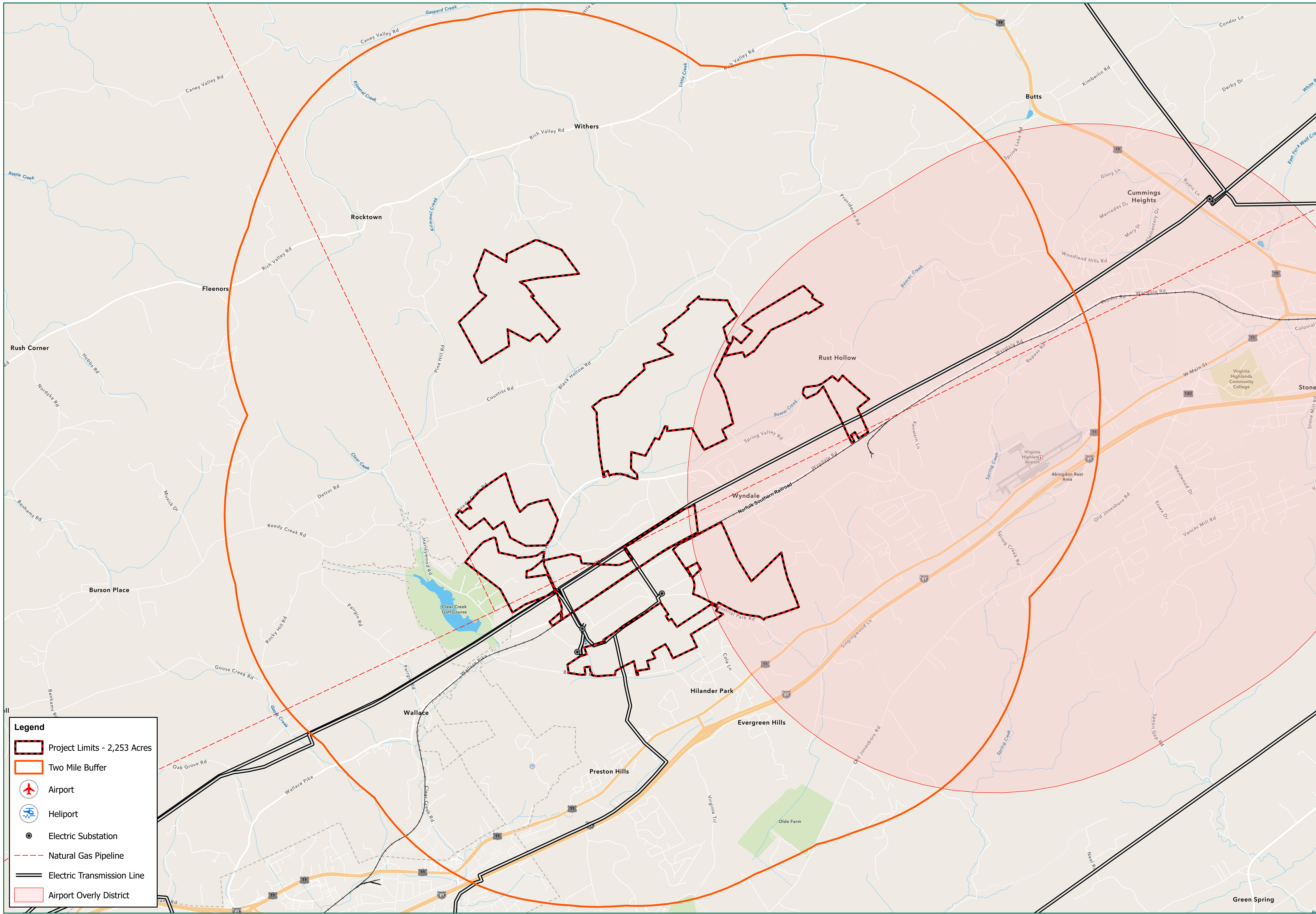
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REVISIONS	
#	DESCRIPTION

**DRAWING DESCRIPTION**  
**FIGURE 2:**  
**PROTECTED**  
**LANDS MAP**

**SCALE (FEET)**

0	2,000	4,000
<small>PLANS PRINTED AS 11x17 ARE HALF SCALE</small>	<small>SCALE</small>	<small>SHEET NUMBER</small>
H:1" = 2,000'	1	



**Legend**

- Project Limits - 2,253 Acres
- Two Mile Buffer
- ✈ Airport
- 🚁 Heliport
- Electric Substation
- Natural Gas Pipeline
- Electric Transmission Line
- Airport Overly District

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**PROJECT NAME & LOCATION**

**WOLF HILLS SOLAR**  
 WASHINGTON COUNTY -  
 VIRGINIA

DATE	05/22/2024
PROJECT NUMBER	62392
PROJECT NAME	WOLF HILLS SOLAR
DESIGNED BY / DRAWN BY	M. HILL

**NOTES:**  
 Aviation data from ESRI.  
 Aerial imagery from VGIN.

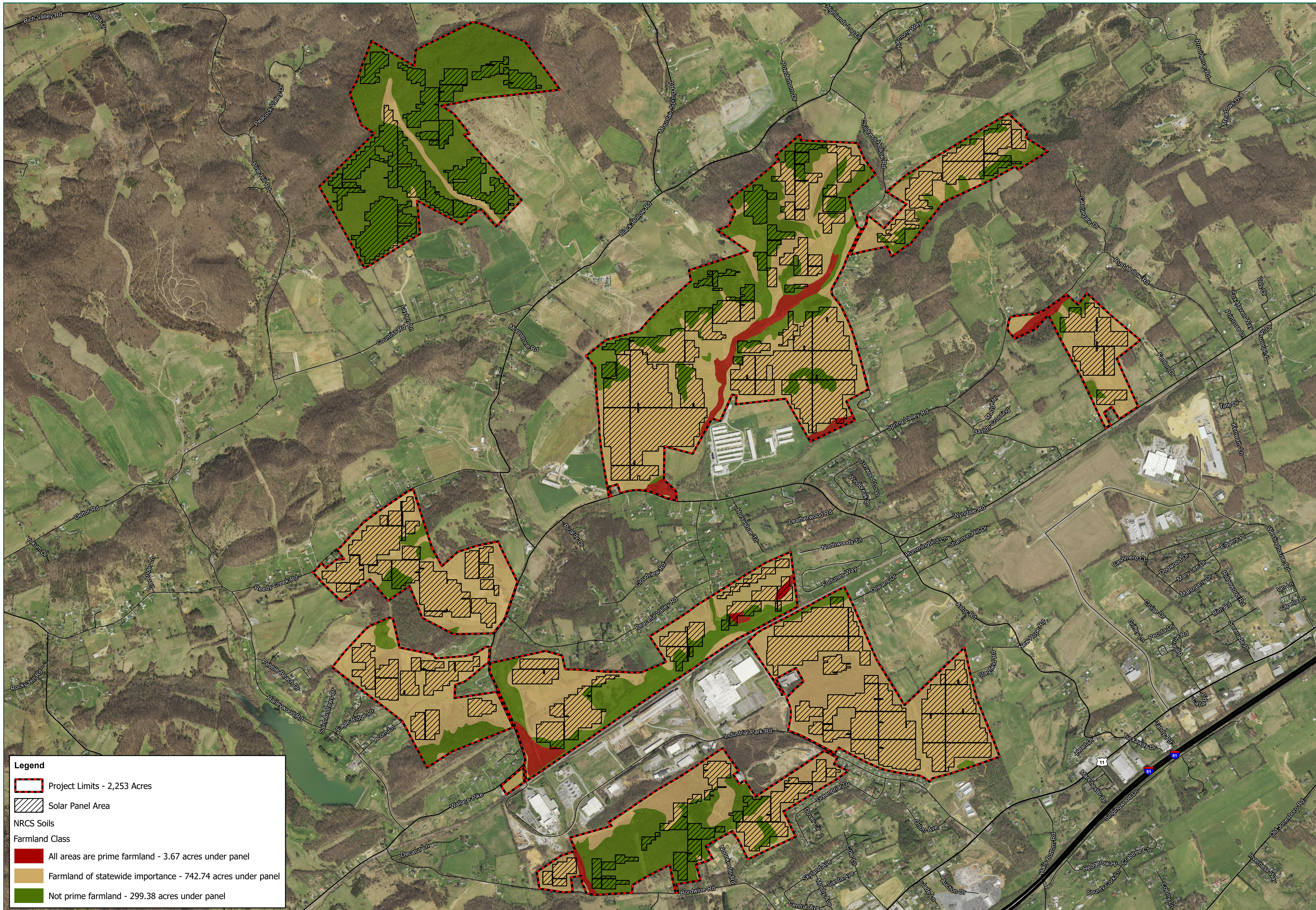
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REVISIONS	
#	DESCRIPTION

**DRAWING DESCRIPTION**  
**FIGURE 3:**  
**CONTEXT MAP**

**SCALE (FEET)**

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PLANS PRINTED AS 11x17 ARE HALF SCALE		
SCALE	SHEET NUMBER	
H:1" = 2,000'	1	



**Legend**

- Project Limits - 2,253 Acres
- Solar Panel Area

**NRCS Soils**

**Farmland Class**

- All areas are prime farmland - 3.67 acres under panel
- Farmland of statewide importance - 742.74 acres under panel
- Not prime farmland - 299.38 acres under panel

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 Richmond, VA 23226  
 www.timmons.com

**WOLF HILLS SOLAR**  
 WASHINGTON COUNTY - VIRGINIA

DATE: 05/22/2024

PROJECT NUMBER: 62392

PROJECT NAME: WOLF HILLS SOLAR

DESIGNED BY/DRAWN BY: M. HILL

**NOTES:**  
 Soils data from NRCS, via ERSI SSUGO.  
 Aerial imagery from VGIN.

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REVISIONS	
#	DESCRIPTION

**FIGURE 4: PRIME FARMLAND MAP**

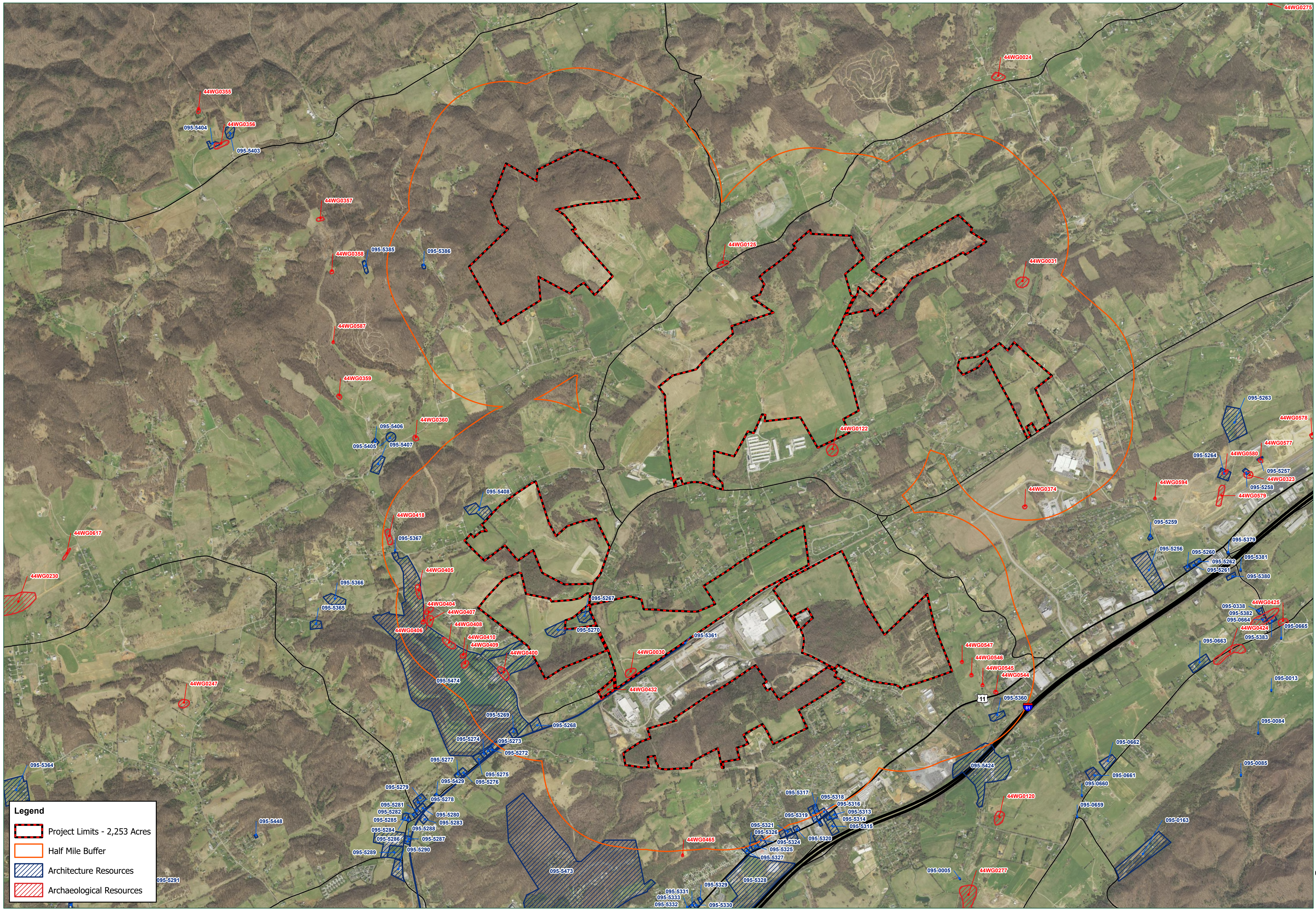
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REVISIONS	
#	DESCRIPTION

DRAWING DESCRIPTION  
**FIGURE 5:  
 CULTURAL  
 RESOURCE MAP**

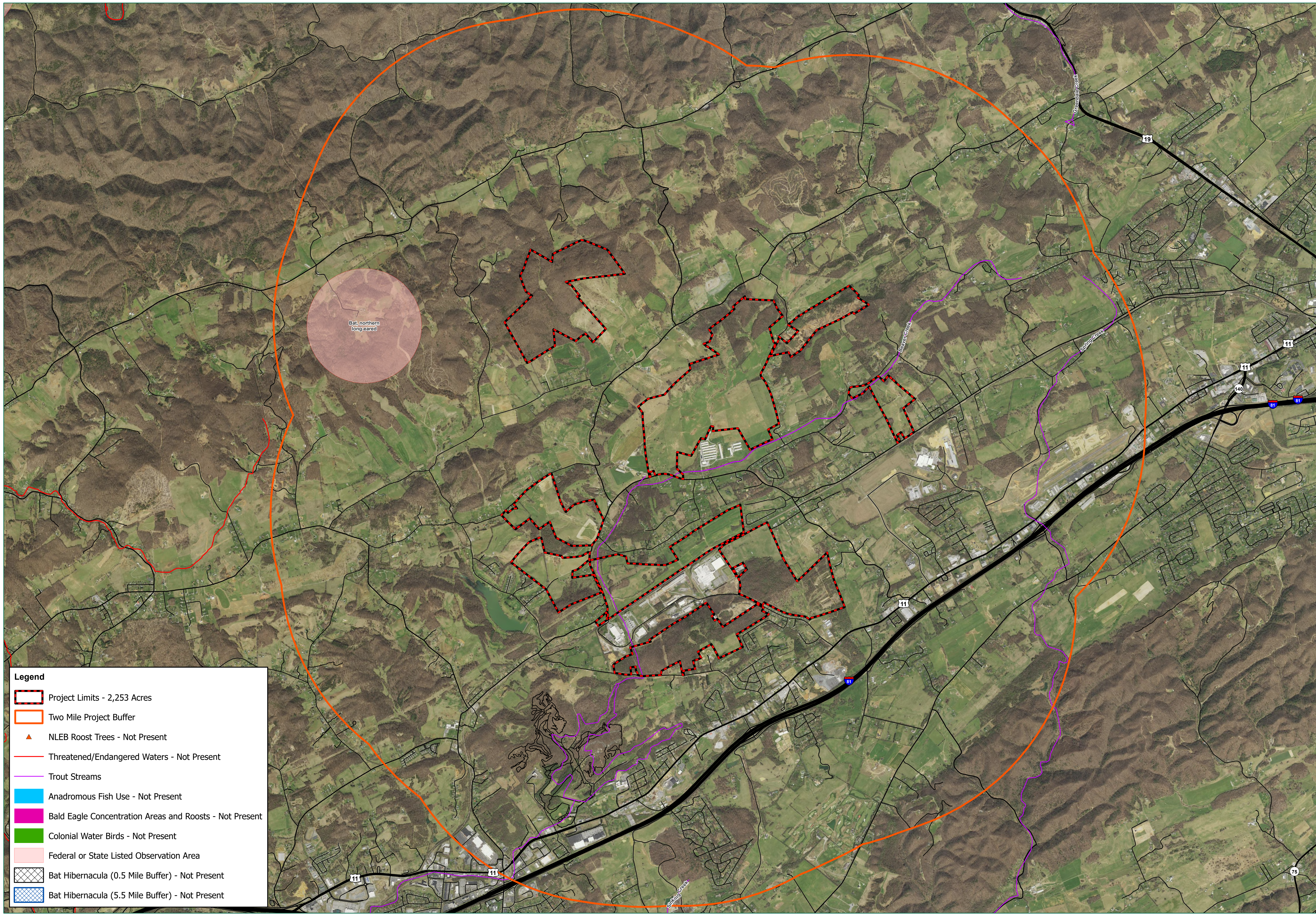
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 SCALE 1 SHEET NUMBER  
 H: 1" = 1,400' 1



**Legend**

- Project Limits - 2,253 Acres
- Half Mile Buffer
- Architecture Resources
- Archaeological Resources





**Legend**

- Project Limits - 2,253 Acres
- Two Mile Project Buffer
- ▲ NLEB Roost Trees - Not Present
- Threatened/Endangered Waters - Not Present
- Trout Streams
- Anadromous Fish Use - Not Present
- Bald Eagle Concentration Areas and Roosts - Not Present
- Colonial Water Birds - Not Present
- Federal or State Listed Observation Area
- Bat Hibernacula (0.5 Mile Buffer) - Not Present
- Bat Hibernacula (5.5 Mile Buffer) - Not Present

DATE	05/22/2024
PROJECT NUMBER	62392
PROJECT NAME	WOLF HILLS
DESIGNED BY / DRAWN BY	L. WHEELER

**NOTES:**  
 WERMS data from DWR.  
 Bat hibernacula include identifications of Northern long-eared bat, Tri-colored bat, Little-brown bat, Virginia big-eared bat, Gray bat, and Indiana bat.  
 Aerial imagery from VGIN.

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REVISIONS	
#	DESCRIPTION

**DRAWING DESCRIPTION**  
**FIGURE 6:**  
**WILDLIFE ENVIRONMENTAL REVIEW MAP**

**SCALE (FEET)**  
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PLANS PRINTED AS 11X17 ARE HALF SCALE  
SCALE      FEET NUMBER  
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