

SECTION 2. PROJECT DESCRIPTION

Tall Pines Solar LLC ('Tall Pines' or the 'Project') intends to install an approximately 218 MW_{AC} solar photovoltaic ('solar PV') facility in Charlotte County, Virginia. The Project will be located on approximately 1,775 acres of land ('Site') owned by multiple landowners. The Site consists of two clusters of parcels where the parcels are contiguous within each cluster. The northern cluster (524 acres) and the southern cluster (1,251 acres) are separated by approximately 2,500 feet. The Project will interconnect with the existing 115 kV 'Twittys Creek Substation' to 'Madisonville Substation' transmission lines that traverse the Site.

2.1. [Site Description](#)

The Site consists of the following properties:

Table 1: Tall Pines Parcels

Parcel	Owner
27-A-26 27-A-27 27-A-28 27-A-29	CRAWLEY J ARCHER EST
27-A-32-C	MATHIS ADAM FRANKLIN & ELIZABETH EILEEN
27-A-32-B	MORRIS JERRY L OR JUDY W
27-A-33	MORRIS BRYAN K & ANGELA N
27-A-33-A	MORRIS BRYAN K & ANGELA N
27-A-33-B	MORRIS BRYAN K & ANGELA N
27-A-34-A	MORRIS BRYAN K & ANGELA N
17-1-1-A	VASSAR BRENDA N & GOODMAN KAREN VASSAR & JASON M
17-1-2	VASSAR BRENDA N & GOODMAN KAREN VASSAR & JASON M
17-1-2-A	VASSAR BRENDA N & GOODMAN KAREN VASSAR & JASON M
17-1-3	VASSAR BRENDA N & L GREGORY & CHERYL F
17-1-4-C	VASSAR BRENDA N & L GREGORY & CHERYL F
17-A-15	VASSAR BRENDA N & GOODMAN KAREN VASSAR & JASON M
17-A-16	VASSAR BRENDA N & L GREGORY & CHERYL F
27-A-12	VASSAR BRENDA N & L GREGORY
27-A-15	VASSAR BRENDA N & FEINMAN SHANNON VASSAR & STEVEN J
27-A-16	VASSAR BRENDA N & L GREGORY & CHERYL F
27-A-18	VASSAR BRENDA N & L GREGORY & CHERYL F
27-A-19	
27-A-20	VASSAR BRENDA N & L GREGORY & CHERYL F
27-A-20-A	VASSAR
27-A-22 27-A-23 27-A-24	VASSAR BRENDA N & FEINMAN STEVEN J & SHANNON VASSAR
27-A-25	VASSAR BRENDA N & FEINMAN STEVEN J & SHANNON VASSAR
27-A-54 27-A-55	VASSAR BRENDA N & FEINMAN STEVEN J & SHANNON VASSAR
27-A-56	VASSAR BRENDA N & FEINMAN STEVEN J & SHANNON VASSAR
27-A-58	VASSAR BRENDA N & FEINMAN STEVEN J & SHANNON VASSAR
27-A-59	VASSAR BRENDA N & FEINMAN STEVEN J & SHANNON VASSAR

The total property is approximately 1,775 acres in size. The land coverage breakdown is as follows:

Table 2: Land Coverage Breakdown

Land Coverage Category	Approximate Area
Planted Forest	1,092 Acres
Open Land / Agricultural	305 Acres
Natural Forest	216 Acres
Wetlands	146 Acres
Transmission ROW	14 Acres
Residential Yard	2 Acres

The Site is currently zoned as General Agricultural and is primarily used for timber and agriculture. According to the Article 9 Use Matrix of the Charlotte County Zoning Ordinance, a Conditional Use Permit ('CUP') is required for the installation of any large solar energy system.

Setback distances are provided in Table 3 below. Vegetated buffers are located within the setback distances and are also provided in Table 3 below. Setbacks are shown in the Site layout drawing TP-SL-202 and a cross-sectional view of typical setbacks and buffer distance is included as drawing TP-SL-400.

Table 3: Setbacks and Buffers

Setback or Buffer	Feet
Vegetated Buffer	25' (Minimum)
Side Equipment Setback	75'
Front Equipment Setback	125'
Wetlands Setback	100'
Transmission Setback – from Center	75'

The Site contains approximately 147 acres of wetlands, water bodies, and streams which will remain undisturbed. To limit wetland disturbance, the Project will prioritize reuse of existing roads and culverts in wetlands areas. No new road crossings will be constructed in wetland areas and fence crossings in streams and wetland areas will be limited to the extent practical.

Due to mounting equipment constraints, solar PV equipment will not be installed in areas with large slope.

The total fenced area is 1,113 acres, or 62.7% of the total Site area. With these considerations for easements, setbacks, buffer zones, and slope constraint, the disturbed area will be approximately 1,087 acres, or 61.2%, of the total Site area. This is measured as the usable land area within the Project fence line (not including wetland setbacks or slope constrained areas within the Project fence line).

The Project will have six (6) gated entrances to public roads in the following locations:

- Two (2) entrances at Welsh Tract Rd near the middle of the Site
- One (1) entrance on Tall Pines Ln near the South side of the Site
- One (1) entrance on Fox Hollow Ln near the middle of the Site
- Two (2) entrances along Bethlehem Rd on the North side of the Site
- Each entrance will include appropriate warning signage that includes the 911 address, owner's information, and a 24-hour emergency contact number. The main entrances on Welsh Tract Rd and the northernmost entrance on Bethlehem Rd will be fitted with an electronic security and controlled access system. The other entrances off Tall Pines Ln and the southernmost entrance on Bethlehem Rd will have simple gated access. The Site will have a state-of-the-art security system featuring gate sensors, 24/7 video monitoring, and distributed lighting where appropriate

for operations and maintenance. Lighting throughout Tall Pines will be shielded and positioned away from adjacent properties to minimize light spillage, as well as being dark-sky compliant.

The perimeter of the Project will include a continuous vegetative buffer, within the defined setbacks, of at least twenty-five feet (25'). The vegetated buffer will include existing growth where possible and planted vegetation where necessary to obscure the ground-level view of the Project from adjacent properties and roads. This vegetated buffer will be maintained throughout all site boundaries excluding existing on-site easements for the transmission line and railway line.

The areas used for solar PV equipment will be encompassed by a six foot (6') tall chain-link fence topped with three (3) barbed wires. Internal roads throughout the Site will be compacted dirt or gravel roads with a minimum width of fifteen feet (15'). These roads will be used for operations, maintenance, and construction.

2.2. [Equipment](#)

The Project will include the installation of approximately 605,070 solar modules mounted to a single axis tracking system with one module in portrait (1P) orientation. The modules will be UL listed and designed with antireflective coating. The tracking system primary consists of galvanized steel and/or aluminum components and is supported by steel piles driven approximately six feet to ten feet into the ground. At the greatest tilt angle, the maximum solar module height over level ground will be approximately eight feet (8') above ground level. In cases where the ground dips under the row, the maximum height will not exceed fifteen feet (15') above the lowest level of the dip. Ground cover throughout the Site will consist of planted seed grass under the solar modules, which will be a species compatible with the local environment.

The Project will include seventy-five (75) inverter skids, each housing an individual inverter and transformer, mounted on a mat pad.

The substation will be approximately 250' x 400' and will include electrical equipment such as medium voltage transformers, switchgear, and dead-end structures. Substation equipment will be mounted on concrete pads, foundations, and piles. The remaining area will have crushed stone ground cover and will be encompassed by a chain-link fence. All electrical equipment will meet the National Electrical Code and State Building codes. In accordance with Charlotte County Zoning Ordinance 10-23-7, the height of all equipment will not exceed twenty-five feet (25').

The Project controls building will be a prefabricated metal building approximately 40' x 30' x 12' high.

Final design and equipment availability may change the above equipment numbers slightly, however overall intent and design practices will be maintained.

2.3. [Community Meeting](#)

Within thirty (30) days of the County accepting Tall Pines application as complete a Community Meeting will be held. Adjacent landowners to the Project and the Zoning Administrator will be notified in writing of the date, time, and location of the meeting at least seven (7) days and no more than fourteen (14) days prior. Within in the same timeline, Tall Pines will advertise the Community Meeting in a newspaper of record in the County for the public. Maps, preliminary layouts, and other material related to the Project will be presented to the public, Tall Pines will also provide feedback to any questions from the public.

Following the Community Meeting, Tall Pines will submit a summary of input and questions from the public to the Zoning Administrator.

2.4. Community Impact

Prior to construction, Tall Pines will meet with first responders to discuss Project activities on site, familiarize first responders with the property, and answer any questions. During this meeting, a safety plan will be put in place to ensure workers' safety, minimize risk, provide locations of warning signage at entrances and throughout the Site, and provide first responders with layouts with locations of roads and entrances to the Site in case of emergency.

All residences and roadways will be screened from glare by the vegetated buffer on the perimeter of the property. It does not appear that any residence will be negatively affected during the construction or operation of the Project. Figure 1 shows the proximity of the closest city, Charlotte Court House, to the Project. The southernmost Site boundary is located 5,613 ft (1.06 miles) away from Charlotte Court House city limit and the southernmost solar module is located 5,929 ft (1.12 miles) from the city limit.

Tall Pines also will include wildlife corridors throughout the Site, shown in yellow in Figure 2 below. These areas will not be fenced in any way and will be kept open and undisturbed for the movement of migratory animals and other wildlife.



Figure 1: Proximity of Site to Charlotte Court House City Limits



Figure 2: Wildlife Corridors