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~~September 2025~~
Rev. November 5, 2025

PROJECT NARRATIVE

for

MINOR SITE PLAN APPROVAL

WEST WINDSOR PLAINSBORO REGIONAL SCHOOL'S SOLAR CARPORTS

BLOCK 2001; LOT1
BLOCK 1902; LOT 23
BLOCK 1901; LOT 3

located in

PLAINSBORO TOWNSHIP,
MIDDLESEX COUNTY
NEW JERSEY

PREPARED BY:

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Greenskies Clean Energy, LLC (Applicant) is proposing the construction of solar carport systems over portions of the existing parking lots of three schools operated and owned by the West Windsor Plainsboro Regional School District. The project sites known as,

Millstone River School – 75 Grovers Mill Road – Block 2001; Lot 1

High School North – 90 Grovers Mill Road – Block 1902; Lot 23

Community Middle School – 95 Grovers Mill Road – Block 1901; Lot 3

were chosen to install solar carports for the purposes of generating clean electrical power to reduce the dependence on fossil fuels and to provide an electrical cost savings to the school district. All school properties are fully developed consisting of school buildings, parking lots, activity fields and existing utilities including stormwater management facilities. Under the proposed conditions, the solar carports will be constructed within the existing parking lots of the schools with no change in traffic circulation or negative impacts on the parking layout or space count.

The solar carport systems will be constructed using a 545W double glass bi-facial solar module by JA Solar. The canopy structures will be designed using both a cantilever tee-shaped design & canopy design, which is an industry standard for large commercial solar systems nationwide. In accordance with the Section 85-34 of Plainsboro Township's subdivision and Site Plan Review – Improvements and Design standards, all column and beams will be constructed with high quality components, and consist of boxed vertical structural elements, with a proper finish approved by the Township Planner. The solar carports systems will have solar inverters mounted to the boxed vertical columns with underground conduits being run to proposed switchgear equipment. Switchgear equipment will be located in close proximity to the existing school and within landscaped areas. Canopy lights will be utilized to replace the light pole fixtures that will be removed in order to install the solar carport systems.

MILLSTONE RIVER SCHOOL – 75 GROVERS MILL ROAD

The Millstone River School proposes solar carports within the large parking area west of the existing school. Two (2) canopy type solar carport structures will be constructed, both with a 2° tilt. The columns will be placed as such, that they will not interfere with the existing parking spaces and will be placed either between two head-on parking spaces or immediately outside of the paved parking lot. Carport Structure #1 will have a total of 540 solar modules and Carport Structure #2 will have 646 solar modules producing a total of 500Kw (AC). The electrical conduit will travel to the existing school and tie into the school electrical room. No switchgear or transformer pads are required for these improvements.

HIGH SCHOOL NORTH – 90 GROVERS MILL ROAD

High School North proposes five (5) solar carport structures located in the east parking lot. The structures will be placed along the five head-on parking lanes with columns placed in center as to not interfere with the parking spaces. Each of the five structures will have 492 solar modules that will produce a total of 1,000 Kw (AC). The electrical conduit will run along the ends of the

carport structures to a fenced in concrete pad that will support switchgear and transformer equipment. The conduit will then leave the concrete equipment pad and run along the front of the school to another fenced in equipment pad before tying into the school's existing electrical room.

COMMUNITY MIDDLE SCHOL – 95 GROVERS MILL ROAD

The Community Middle School proposes nine (9) carport structures located in the west parking lot. The structures will be mostly tee-design carports except for three structures that will be canopy type design to accommodate the existing underground stormwater management facilities. Columns supporting the canopy structure will be located in the concrete islands that will allow the solar canopy to span across the parking spaces and not interfere with the underground basin operations or maintenance protocols. The tee-designed carport columns will be placed in between head-on parking spaces or directly outside the parking lot and cantilever over the existing parking spaces. All nine structures will have a total count of 1,272 solar modules that will produce 565 Kw (AC). Electrical conduit will run along the ends of the parking islands and will connect directly into the school's electrical room. No switchgear or transformer pads are required for these improvements.

The following components are included in the proposed design for all school sites:

1. **Tee Design & Canopy Type Structures**
   All solar carport structures will be either tee type or canopy type design. The tee-designed carports have a single row of columns that support the solar modules at a certain degree tilt. The canopy carport structure will have columns supporting spanned girders that will have the solar modules attached. The columns will have a raised concrete footing to prevent cars from damaging the columns.

2. **Boxed Columns & Exterior Skirt**
   In accordance with the Section 85-34 of the Township's Subdivision and Site Plan Review – Improvements and Design Standards, all columns will be "boxed" beams. The outer edge of the solar carports along the purlins will be covered with a skirt. Both the columns and skirt will be painted with a high-quality semi-gloss paint. Color to be approved by the Twp.

3. **Column mounted inverters**
   The solar carports structure will each have an electrical inverter that will convert DC power to AC prior to entering the conduit runs to the point of interconnect. The inverters will be Solis Three Phase Grid Tied Inverters, which will be located at the top of the boxed column typically located at the end of the carport structure.

4. Under Canopy Lighting

The solar carports will have under canopy lighting to comply with the Township's requirements. The fixtures are mounted to the horizontal beams and will follow timing procedures as directed by the Township's ordinance and the existing approved procedures at the school sites.

5. Finished Paint

A high quality, durable paint designed for such an application will be used on the solar carport columns and structure components. The paint will have a semi-gloss or satin finish to facilitate cleaning. Color to be approved by the Township Engineer and/or Zoning Officer.

6. Conduit Runs

After the electrical conduits exit the column mounted inverts they will run to the proposed equipment pads or directly to the schools main electrical room. All conduit runs that travel thru pavement will have the asphalt saw cut and removed. Once the conduit is properly buried, the asphalt will be restored with 4" hot mix asphalt base course and a 2" asphalt surface course. All conduits that run through a concrete sidewalk or patio area will have the concrete restored with 4" thick, Class "B concrete once the electrical conduits are installed. All pervious conduit runs will be restored to original ground cover.

7. Stormwater Drainage

The solar panels atop of the carport structures will be placed slightly apart from each other that will allow stormwater to flow down in-between them and onto the existing parking lot pavement below. Stormwater will then travel along the existing drainage pattern into the sites stormwater collection system. No negative impacts to stormwater runoff quality or quantity are anticipated due to the solar carport improvements. The low end of the solar carport structures will be fitted with snow guards that will prevent accumulated snow from falling off the carport structure.

Permits & Approvals

	Status
Township of Plainsboro	Pending
Middlesex County Planning Board	Exempt – Exemption Ltr Pending
Freehold Soil Conservation District	Exempt – Projects disturb less than 5,000sf

JMF/jmf

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