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**MINUTES  
TOWN OF PITTSBORO  
PLANNING BOARD MEETING  
Monday, February 3, 2014, 7:00 PM**

**ATTENDANCE**

**Members Present:** Raeford Bland, Kenneth Hoyle, Shannon Plummer, Alfreda Alston,  
Bob McConnaughey

**Member Absent:** John Clifford, Steve Barker

**Staff Present:** Stuart Bass, Planning Director, Fred Royal, Town Engineer, Ileana Platon,  
Administrative Support Specialist, Bryan Gruesbeck, Town Manager,  
Messick, Town Attorney

**A. CALL TO ORDER**

- **Vice Chairman Bland called the meeting to order at 7:03 pm**

**B. APPROVAL OF MINUTES**

- **Motion made by Mr. Hoyle to approve the minutes of January 6, 2014**
- **Seconded by Mr. Plummer**

**C. NEW BUSINESS**

**1. SP-2014-01**

**Chatham Park Solar Farm**

*Action Needed- Discussion, Recommendation to Town Board*

**Mr. Bass:** This is a Site Plan for a Solar Farm. Property is owned by Chatham Park LLC., engineer and Site Developer is Strata Solar, LLC. Location is off of Moncure Pittsboro Road, the current zoning is RA-2 (Rural-Agricultural) and so is the adjacent zoning. It is 178 Acres, 185 Acres to be disturbed. There are no utilities on the site other than the construction for this

Solar Farm. It is presented to the Board for review and recommendation to the Town Board of Commissioners. The plans have been reviewed by the appropriate departments. Recommendation is approval, subject to submission of storm water Discharge application and subsequent approval.

**Mr. Bland** requested the Applicants to carry out their presentation.

**Beth Trahos, Attorney at Smith, Moore & Leatherwood**, attending on behalf of Solar Strata LLC., advised the Board that several individuals from Strata Solar were present to share information on the proposed project. This project is permitted under the current zoning as a general use. The review taking place today is a Site Plan Review that is sort of a ministerial function based on the requirements and codes verifying that they have complied with all of the code requirements for this use.

**Mr. Lance Williams, Site Development Manager for Strata Solar, LLC;**

Strata Solar is a Company based in Chatham County, headquarters and warehouse are located by Governors Club. They have a solar farm just south of that facility which is similar to the project proposed tonight. They have also begun construction on a 40 acre site down in the Moncure area. Strata Solar have completed 45 to 50 solar farms throughout North Carolina. Generally, they are considered rural low impact use because they have very little impervious surface. They set their staging areas on logging mats and power drive the racking system and the posts similar to the way NCDOT puts up guardrails. No concrete is used which means that if the solar panels need to be removed they are simply pulled out; generally they end up with less than one percent impervious surface.

There is no noise or odors at the site, panels are normally no more than 10 feet high. Goods are not brought into the site daily; it generates no trash and creates less traffic than one house because workers are not on site on a daily basis. While they disturb soil they do not do much grading on site, disturbance will be more from the construction activity. It is not their practice to change the slope substantially on the site they can handle up to a twelve percent grade. Solar Strata often develops solar farms in areas which have some environmental sensitive regulations, they just had one approved in Durham County in a watershed area and also started another very close to Lake Waccamaw which is very restrictive to water quality standards.

Their Engineers will work with the Town making sure it does not disturb the environment. It is a favorable transitional use of land between more developed areas and areas sensitive to water quality. In a County and Community perspective it alters the tax base but do not place a lot of demand on the services. Except from their staff which is already local this Farm is not adding new population to the area, however, it adds over \$100,000.00 per year in additional taxes. This

project has been approved by the North Carolina Utilities Commission, as part of that approval because it is a State action they go by the State Environmental Review Clearing House.

**Mr. Hoyle** asked if this site would be exactly like the one in Governor's Club.

**Mr. Williams** replied that it is similar.

**Mr. Hoyle**; what if the EMC decides not to purchase what they generate. **Mr. Williams** stated that they do not build farms unless they have long term power purchase agreements of at least 10 years. They do not know of significant energy producing facilities that cannot sell their power.

**Mr. Bland** asked about rain water hitting the panels and where does that water flow into, does the soil underneath the panels absorb it?

**Mr. Williams** responded that in general it is not considered a shed roof, there is some spacing in between the panels. If it's not raining heavily then it would fall into the spacing between the racks, however, with heavy rainfall where its ponding to the grass underneath it would wick on over because there is no gravel to absorb the water.

**Mr. Bland**; is a 6 foot fence is high enough to keep deer away from the site.

**Mr. Williams** stated that the requirement for the 6 foot fence with barbwire comes from the electrical code based on the voltage needed to secure the site. It serves a dual purpose of keeping people away from a 40 million dollar investment and also to discourage anyone from taking copper for salvage. As far as deer, their practices have been reviewed by the North Carolina Wildlife Commission and found safe, although a deer could jump into the site they can also jump out.

**Mr. Bland**; on constructing the fence he has notice that there will be a lot of indentations going in and out. Would it be more sensible to enclose the area and save a lot of fencing.

**Mr. Williams**; their objective is to keep the site construction more environmentally friendly.

**Mr. Plummer** asked what the lifespan of the project is.

**Mr. Williams** replied that the technology has been around since the 1960's. The panels are guaranteed that 25 years from now they will still be operating at 85% of their original rate. However, a 35 or 50 year life is a question that depends on the environment. The most interesting thing about a project of this size is that the panels don't move, the only moving parts

are the fans inside the inverters. They can produce some sounds but only for about 200 feet nothing that could be heard by the surrounding properties.

**Mr. Bland** asked if there any sound wave when converting AC to DC.

**Mr. Williams** said that when they take their power and put it on the grid one of the concerns was if it was clean and it is extremely clean.

**Jay Cobb, Commercial Sales Manager at Solar Strata** gave a slide show presentation of the Solar Farms and panels conveying they try to keep the construction consistent. He stated that Solar Strata provides complete turnkey services for these projects. Growing very rapidly they employ over 100 full time employees and at any point they employ approximately 1000 contract employees that actually do the physical labor associated with constructing these systems.

**Mr. Plummer** asked if there was a format on how much power would an acre of solar panel provided.

**Mr. Cobb** said that on a site like this particular one 178 acres it can generate power to 3,000 homes.

**Brent Niemann, Civil Engineer for Strata Solar** is a licensed engineer in North Carolina and has worked on about 100 Solar Farms in the state. Generally their Solar Farms have been five megawatts making this project one the largest and planning it to be their first twenty megawatt site. He toured the site with Jay Cobb of Solar Strata and Fred Royal, Town Engineer allowing Mr. Royal to get a feel of their construction practices. They also have a Site Civil Engineer working with Solar Strata to help prepare the storm water documents. He went further to explain about the solar panels and their spacing, the size of the racks and how they would be placed. In this particular farm they will be doing a double inverter which will maximize the efficiency. In regards to the disturbed area versus the lease area, the disturbed area would be areas that they need to denude to construct the facility which would be south of the panels where trees would be removed to avoid shading.

The transformers are wired together and eventually they come to the end of the array and go overhead. A substation will be built, essentially what it means is when it comes out of the inverter this transformer will step it up to a medium voltage grade which is what they connect to the distribution lines and is anywhere from 12KV to 40KV depending on the utility and that particular part of the grid. In this scenario they are connecting directly to high voltage transmission lines and the break of high voltages is 100KV. The higher the voltage the more efficient it is to transport the electricity, so it makes sense to go to medium voltage and then take

that to the substation where it is then taken from the 40KV to the 115KV. The substation will be owned by the Utility Company but they will work hand in hand with the design and construction.

The fence line this site plan is designed based on light art topography which is available from NCDOT and is what they use for flood plain mapping. In regards to the building of the farm, first they remove trees and large vegetation, they smooth the surface without grading, poles will be grounded, panels set in place and vegetation will be planted underneath, it is a very simple construction. During the stabilization period which could be one to two years they have a commitment to inspect and measure within a 24 hours of a half inch rainfall event. Beyond that they have operations and maintenance personnel that go regularly and maintain the landscape the site is also monitored remotely.

In case of lightning strikes they have lightning arresters on certain pieces of equipment but lightning is lightning and the voltage is highly irregular. They have had some panels damaged due to lightning strikes but it was just to the panel, no major equipment failure. There are disconnects and cutouts between multiple parts within the site as well our cutouts before the utility company and the utility company to them, there is also a breaker station which belongs to Duke Energy.

- **Mr. Hoyle made motion to send it to the Commissioners with their recommendation.**
- **Ms. Alston seconded**
- **Vote: 5-0**

## **E. OLD BUSINESS**

### **1. SD-2013-01**

#### **Kensington Park, Final Plat**

#### ***Action Needed – Discussion recommendation to Town Board***

**Mr. Bass** stated that the Developer has submitted a Final Plat for review and consideration. The proposed development is a 16 lot subdivision located on Park Drive west of the intersection of Hillsboro Street (15-501). It is a 7.740 acre project minimum lot size is 12,000 square feet. All the lot sizes are greater than 14,000 square feet. The project was approved for construction on March 25, 2013. The Subdivision Ordinance provides for conditional approval subject to guarantees of final improvements. The project is majority completed, with the street paving and minor grading remaining. To that end, the developer will provide a letter of credit for the final street paving and grading.

**Staff Recommendation** is for Conditional Approval and forward to the Town Board of Commissioners, subject to the approval of the Subdivision Improvement Agreement with appropriate surety. Applicant will proceed to complete the final construction items. The utility lines are in and have been inspected by Hydrostructures P.A.

**Mr. Hoyle** does not understand why this is coming back to the Planning Board when it has already been approved by the Board of Commissioners.

**Mr. Bass** said that the way the Subdivision Ordinance is outlined the Final Plat approval comes to the Planning Board and then to the Town Board of Commissioners. On hand is the actual recordation Plat that will get recorded in the Register of Deeds Office.

**Mr. Hoyle** stated that this Plat is not to scale according to the rules and regulations of the ordinance, it should be to scale instead of a copy.

**Mr. Bass** responded that it is just the Plat, it is not a full set of Plans, is the administrative portion to be recorded in the Register of Deeds office, and has its own standards for scale and size.

**Mr. Royal** said that the final Plat that will be recorded will be on a sheet of Mylar, and it will be smaller than the construction plans because the Register of Deeds limits the size of the document.

**Mr. Hoyle** understood that the purpose of the Plat coming to the Planning Board is strictly administrative.

**Mr. Messick** stated that the Plat that was approved previously authorizes the Developer to commence construction. This Plat, if approved, will allow the Developer to sell lots. It also shows that the improvements have been either completed or substantially completed and that there are arrangements made which assures they will be done and will be built within compliance with the preliminary.

**Mr. Hoyle** asked if they taken care of all the flooding issues on Park Drive and Mr. Royal responded that they have met their requirements.

- **Mr. Hoyle made motion for approval to be sent down to the Board of Commissioners.**
- **Mr. Plummer seconded.**
- **Vote: 5-0**

## **E. BOARD MEMBER CONCERNS**

None

## **F. REPORTS AND ANNOUNCEMENTS**

**Mr. Royal** said that an Inter Local Agreement with Chatham County was approved at the last Board of Commissioners meeting for three items. One of the items is for the County to administer their Erosion and Sedimentation Control Ordinance for the Town of Pittsboro. This means that the County Board will review the ordinance and if approved with a resolution and the Town Board of Commissioners approves that resolution it will go to the State. The State will then review it, if approved by them it will be sent it to the Environmental Management Commission for their approval. What this means to Pittsboro is the Delegation of Erosion Control will go from the State of North Carolina to Chatham County, creating a much higher level of service for development at the local level.

## **G. ADJOURNMENT**

- **Ms. Alston made motion to adjourn.**
- **Mr. Hoyle seconded**
- **Meeting adjourned at 7:56pm**

*Next Planning Board Meeting is scheduled for Monday, March 3, 2014 at 7:00pm.*