



Cabarrus County Government

Cabarrus County Planning and Zoning Commission Meeting
May 9, 2017 @ 7:00 P.M.
Board of Commissioners Meeting Room
Cabarrus County Governmental Center

Agenda

1. **Roll Call**
2. **Approval of April 11, 2017, Planning and Zoning Commission Meeting Minutes**
3. **Old Business – Board of Adjustment:**

Petition CUSE2017-00001- Request for Conditional Use Permit for Public Service Facility (Alternate Power Generation-Solar Farm). Agent is McBride Place Energy, LLC. +/- 627.55 acres located between Joyner Rd, Mt. Pleasant Rd S, and US 601S. (PIN#s 5556-24-4136, 5557-23-9335, 5557-30-6731, 5556-46-9765, 5556-48-2132, 5557-13-4338).

4. **Directors Report**
5. **Legal Update**



Cabarrus County Government

Planning and Zoning Commission Minutes May 9, 2017

Ms. Shannon Frye, Chair, called the meeting to order at 7:18 p.m. Members present in addition to the Chair, were Ms. Mary Blakeney, Mr. Jeffrey Corley, Mr. Chris Pinto, Mr. Richard Price, Mr. Aaron Ritchie and Mr. Steve Wise. Attending from the Planning and Zoning Division were, Ms. Susie Morris, Planning and Zoning Manager, Mr. Jason Earliwine, Sr. Planner, Ms. Arlena Roberts, Clerk to the Board and Mr. Richard Koch, County Attorney.

Roll Call

Mr. Aaron Ritchie, **MOTIONED, SECONDED** by Ms. Mary Blakeney to **APPROVE** the April 11, 2017, meeting minutes. The Vote was unanimous.

The Chair said all persons speaking for the Board of Adjustment case or who plan to testify during the public hearing need to complete a blue card and will need to stand to be sworn in. The Chair administered the oath.

The Chair read the following suggested rules of procedures for the Cabarrus County Planning and Zoning Commission May 9, 2017 meeting:

1. The Cabarrus County planning staff person(s) shall first present the staff report and answer any questions from the Commission. There will be no time limit on these presentations. After staff presents, the applicant will have the opportunity to make a presentation and also answer questions from the Commission. There will be a 20 minute time limit on this presentation.
2. After the Staff report and questions, the proponents (those speaking generally in favor of the case) will have a total of 20 minutes to speak and/or present documents in support of their position. At the conclusion of the presentation, the Commission has the option to ask questions of the proponents.
3. After the proponents finish, the opponents (those speaking generally against the case) will have a total of 15 minutes to speak and/or present documents in support of their position. At the conclusion of the presentation, the Commission has the option to ask questions of the opponents.
4. Each side will then have 5 minutes for rebuttal, with the proponents going first. Again the Commission may direct questions to the speaker. This will conclude the public hearing portion of the meeting and the Commission will proceed to deliberation.

5. Each side is strongly encouraged to use a spokesperson to present the positions commonly held by each. Each side is also strongly encouraged to organize their speakers and presentations to ensure that all persons wanting to speak will have equal time to do so.
6. If a speaker has questions of a person on the other side, such questions shall be addressed to the Commission members to be redirected to the person to be asked. There will be no direct questioning of one speaker by another except through the Commission.
7. Public demonstrations of support for a speaker's comments should be limited to clapping. Any other type of audible support shall be out of order and subject the offender to being removed from the building. Anyone speaking out of order shall likewise be subject to removal.
8. These rules are designed to have a full and fair hearing that is orderly and expeditious and avoid unnecessarily repetitious presentations.

There being no further discussion, Mr. Aaron Ritchie, **MOTIONED, SECONDED** by Mr. Steve Wise to **APPROVE** the Rules of Procedures. The vote was unanimous.

Old Business Board of Adjustment Function:

The Chair introduced Petition CUSE2017-00001 – Request for Conditional Use Permit for a Public Service Facility (Alternate Power Generation-Solar Farm). Agent is McBride Place Energy, LLC.

Mr. Rick Price is very familiar with one of the properties being considered and familiar with the applicant. Based on that he asked that the Board recuse him from any consideration on this matter.

Ms. Mary Blakeney **MOTIONED, SECONDED** by Mr. Aaron Ritchie to recuse Mr. Rick Price from this case. The vote was unanimous.

Mr. Jason Earliwine, Sr. Planner addressed the Board presenting the staff report for CUSE2017-00001 – Request for Conditional Use Permit for a Public Service Facility (Alternate Power Generation-Solar Farm).

Staff has entered the staff report as evidence that the site plan submitted meets the requirements of the Ordinance. The Applicant is McBride Place Energy, LLC. There are four property owners involved in this site plan; Five M's LLC, Bost ET, III, John P. and Adelaide Young McNeill and JAB Farms, LLC.

The site consists of 627.55 +/- acres, which is currently vacant. The applicant is proposing to develop the subject properties with a Public Service Facility (Solar Farm). Public Service Facilities are permitted in Countryside Residential (CR) and Agriculture/Open Space (AO) as a

conditional use and is the existing zoning designation for this property. Currently, the land is vacant and agricultural, but mostly vacant. The adjacent land uses are all residential, agricultural and wooded. The southern side also has the Bible College that we talked about several months ago.

The surrounding zoning is AO and CR, agriculture open space and countryside residential on the north, east and Western sides. The southern side also contains (LC) Limited Commercial where the Bible College is and Midland has an agricultural property there as well.

For the record, signs were posted for the site on March 29, 2017, at three different locations: Joyner Road, Mt. Pleasant Road South and Highway 601 South. We posted two newspaper notifications: the first one on March 29, 2017 and the second one on April 5, 2017. Notification letters were mailed to 78 adjacent property owners on March 28, 2017.

The applicant provided documentation compliant with Section 8-3 of the Cabarrus County Zoning Ordinance petitioning for a Conditional Use.

The applicant submitted a complete application which includes the "Findings of Fact" sheet along with a site plan and applicable supporting documentation.

The applicant is proposing to construct a public service facility (solar farm) on the subject property. The application states the site will be comprised of approximately 50 inverters, 50 transformers, and 50 arrays for the site.

The height of the proposed structures, as shown on Page 2 of the site plan, is 7'10". The application states that the panels are expected to be between seven and nine feet above grade at the highest point. The Ordinance allows up to ten feet for these types of structures.

The map analysis for airport operations was submitted. The proposed subject property does not include any federal airport operations. One local airstrip is located within 5 nautical miles of the site, as shown in Exhibit O.

A copy of the executed decommissioning plan was submitted.

The applicant is proposing to use existing vegetation and supplement as needed on the landscape plan.

Landscape easements will be acquired in multiple areas, as shown on the site plan, to act as the required Landscape Buffer Yards.

Applicant has provided documentation from a private environmental surveying company, Pilot Environmental Inc., and subsequent documentation from the US Army Corp of Engineers, showing that the existing wetlands on the current GIS system are not wetlands, but are considered intermittent streams.

The project will be completed in two Phases. The southern half of the site (Phase 1) contains properties owned, or that will be purchased, by McBride Place Energy. The northern half of the site (Phase 2) is comprised of the Bost family property, which will not be purchased by McBride Place Energy.

The applicant has submitted documentation from NCDOT for five proposed driveways to access the site.

The application states that the project will take approximately seven months from the time of permitting to construct.

The application states that sound levels generated by the solar arrays, as measured at the property lines, shall not exceed 35dba. The nearest inverters will be at least 300 feet from any property line.

The Applicant has submitted the required glare study. They are prepared to answer questions about it. They also have someone here to speak to that if the Board has any specific questions about it. The conclusion of it is that there are no damaging levels, they are far below hazardous levels of glare.

The addresses were assigned to each of the five entrances to the site. Each entrance is to display a sign with a street address. Each entrance will also utilize a Knox Box for security, per the Fire Marshal's request.

Should the Board of Adjustment grant approval of the Conditional Use Permit, Staff requests the following conditions become part of the approval and case record:

1. Site plan review and approval is required subsequent to Board of Adjustment approval in order to ensure compliance with all applicable development requirements and conditions.
2. The Granting Order stating restrictions and applicable conditions of approval, shall be recorded with the deed for the property.
3. The applicant shall procure any and all applicable federal, state, and local permits prior to zoning permitting.
4. Any proposed future expansion of property, as well as modifications or changes to approved site plan, must receive Board of Adjustment approval in the form of an amendment to the Conditional Use Permit.
5. The applicant shall provide copies of all state, local, and federal permits for the permanent project file prior to zoning permitting.
6. The applicant is proposing that existing landscaping will be used to meet the buffer requirements. In the event the buffer does not meet the intent of the ordinance the applicant agrees to install the buffer as required by the Ordinance.

7. Deed Restrictions as outlined in the Storm Water Permit (SW3170403) Schedule of Compliance must be recorded in the Cabarrus County Office of the Register of Deeds and a copy provided to NCDENR and to Cabarrus County Planning after recordation and prior to zoning permitting.
8. Site must meet all conditions set forth in the Soil and Erosion Control Permit #CABAR-2017-050.
9. Per Stormwater Permit #SW3170403, the overall tract built-upon area percentage for the project must be maintained below 24%, as required by 15A NCAC 2H.1017 of the stormwater rules.
10. The Decommissioning Plan must be recorded prior to the zoning permit being issued and a copy provided to Cabarrus County Planning.
11. Phase 1 parcels must be combined into one parcel prior to zoning permitting.
12. Phase 2 parcels must be combined into one parcel prior to zoning permitting.
13. Any proposed landscape easement documents must be recorded prior to zoning permitting. If these documents are not recorded, the applicant must redesign the plan in accordance with the Ordinance or seek a variance, both of which require consideration and/or approval by the Board of Adjustment.
14. Stream and wetland buffers, as required by Chapter 4 of the Cabarrus County Development Ordinance, and as shown on the submitted site plan, shall be delineated in the field prior to the start of any land clearing and/or grading.
15. Addresses shall be clearly posted at each entrance to the site. Knox Boxes shall also be installed at each entrance.
16. The applicant has proposed a chain link fence that will cross the waterbody buffer of Bost Creek near the southern portion of the site, as shown in the site plan. Fences are permitted within the buffer area, provided the design does not interfere with the flow of water through the buffer area to the waterbody.
17. Applicant must adhere to the Special Provisions, listed in each of the five driveway permits issued by the NC Department of Transportation.

Mr. Earliwine said that is the end of the conditions and concludes his staff report. He asked if there were any questions for him. There being no questions for Mr. Earliwine, he stated that the applicant has prepared a presentation.

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Ms. Suzanne Todd, Attorney, Johnston Allison and Hord, PA; 1065 East Morehead Street, Charlotte NC 28204, addressed the Board on behalf of the applicant, McBride Place Energy, LLC.

We appreciate the Board's time and we want to thank Staff. We have been through this extensively and Staff has worked really hard, as we all have, in bringing this matter to fruition. We really appreciate the time that Staff has put into this, evaluating it and making sure we had everything we needed.

She introduced the development team. Mr. Tal McBride, Developer, Mr. Ed Blackwell, Civil Engineer, Mr. Bob Messerich, Site Layout Solar Farm Design, Mr. Ted McGavran, Electrical Engineer, Mr. Evan Merkel, Antares Group (Solar Ocular Glare study) and Mr. Damon Bidencope, MAI Appraiser.

We have provided this information as well as affidavit summaries for all the people who will be testifying today. You have that information and can look at it and hopefully, that will make things go a little faster as well.

We have a court reporter here today. We are having to create a record just in case we need it. You have great legal advice and knowledge about this being a Quasi-Judicial proceeding and what needs to be shown. If there are any questions please feel free to ask her or Mr. Koch.

She said they had a community meeting on March 9, 2107, with approximately 30 to 40 folks appearing. We had everyone there to answer questions and feels like it went really well.

Ms. Todd said that Mr. Bost is in the audience today, as well as other property members. Mr. McBride's family owns some of the acreage as well that is part of the solar farm project. She thinks that sometimes we get so involved in the development that we forget that there is actually a property owner involved and these property owners have the right to use their property in any lawful manner. Again, this is a permitted use subject to a conditional use permit.

Mr. Tal McBride, Owner, McBride Place Energy, addressed the Board stating that he is a Renewable Energy Project Developer. He lives at 202 Johnson Street, Bristol, Virginia. His father, who Mr. Price knows, was born here in Concord.

He has been working on McBride Place Energy for almost six years. It includes four parcels; the McNeill's, Les Young with JAB Farms and Jean Bost, they are all here tonight. The Five M's parcel that his father and grandfather bought in 1954, is the larger portion of the project right at 300 acres. This is the seventh utility scale solar project that he has developed. It is the first one on land that his family actually owns.

It is 74.9 megawatts, the project will provide annually power for about 12,000 homes and the capital cost of the project is approximately \$130 million. Based on Cabarrus County's current tax rate and based on his conversations with Steve Morehouse, it will generate about \$190,000, in taxes in 2018. The bullet back taxes are about \$25,000 per year for the last three years.

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We have an executed power purchase agreement with Duke Energy to purchase the power from the project in place.

He showed the Five M's 300 acre parcel, the McNeill parcel, JB Farms parcel and Jean Bost parcel on either side of Joyner Road on the site plan. He showed the property lines that are going to need to be dissolved. He also showed the Stewarts parcel and said that they are here tonight as well.

There being no questions for Mr. McBride, Ms. Todd called Mr. Ed Blackwell, Engineer to address the Board.

Mr. Koch said before Mr. Blackwell comes forward he asked if the Chair wanted to ask if anyone in the audience had questions for Mr. McBride.

The Chair asked if there was anyone who would like to ask Mr. McBride any questions for what he has stated and shared, they could do so at this time.

Mr. Ed Blackwell, Civil Engineer for the project addressed the Board. He has been doing civil engineering site plans for about thirty years. We grew up with Mr. McBride and his family. He had us come in and do the site plan for this and we worked with North Carolina Department of Environmental Quality and got our stormwater permits and erosion control permits.

We worked with the County Planning and Zoning Staff extensively, to make sure the plan itself meets all the regulations.

Ms. Todd asked Mr. Blackwell if he was a licensed engineer.

Mr. Blackwell said yes. He is a Licensed Civil Engineer in the State of North Carolina. He has professional certifications.

Ms. Todd asked how long he has been licensed.

Mr. Blackwell said he has been licensed as a professional Engineer since 1991. He has had a North Carolina license for a year or two.

Ms. Todd would like to enter Mr. Blackwell as an expert in civil engineering.

The Chair asked if anyone had any questions about Mr. Blackwell's credentials. There being no questions about Mr. Blackwell's credentials, he was entered as an expert in civil engineering.

Mr. Blackwell has been working with the County staff back and forth to get the NCDOT permits for the road connections from EMS for access during site construction and after construction if need be.

The site plan was prepared to meet all of the local and state ordinances to ensure that it meets all of the requirements. As part of being a professional engineer, we are supposed to look for the public safety and welfare of the citizens of the state. We feel that this project meets the criteria of the local ordinances and the state ordinances and we meet the state criteria for the public health, safety and welfare. It is his opinion that they do that.

Mr. Blackwell said when you get into the site, there is a lot of real details. He would be happy to answer any questions. He said the access, the fencing and landscape buffers are all the issues they worked with Staff on.

Ms. Todd said behind Tab #2 in their application is a copy of the site plan layout and also the landscape buffer layout.

Mr. Pinto said he went down Joyner Road today and noticed the property on the left side of Joyner was cleared. He asked if that was part of the property. It has been cleared within the last six months maybe.

Mr. McBride said that property belongs to Whispering Pines, LLC. He showed on the site plan where the Whispering Pines property runs.

There were no questions from the Board or the audience for Mr. Blackwell.

Ms. Todd asked Mr. McGavran, Electrical Engineer, to come forward.

Mr. Ted McGavran, Electrical Engineer, 422 Ashworth Road, Charlotte, NC 28202 addressed the Board. He is a Licensed, Professional Engineer, in the State of North Carolina and a number of other states.

He grew up in Cabarrus County and attended Northwest Cabarrus High School. He attended North Carolina State University and obtain a Bachelor of Science in Electrical Engineering. He has been a professional engineer since 1989.

Ms. Todd asked to admit Mr. McGavren as an expert in Electrical Engineering.

The Chair asked if anyone had any questions about Mr. McGauran's' credentials. There being no questions about Mr. McGaverns' credentials, he was entered as an expert in civil engineering.

Mr. McGavren has worked on a number of projects in the power delivery world and generation world, including electric co-ops. Union Power has been a client who they are interconnecting with, as well as a number of generation electrical producers, utilities and independent power producers; things of that nature. We have worked in hydro, wind and solar.

He said Solar PV is a very benign source of electricity. The panels themselves are essentially silicon chips. They have no hazardous waste. The only thing that would even approximate

anything hazardous on the site would be the mineral oil in the main power transformer and in the various transformers out on the site. Again, that is mineral oil and there will be a spill prevention measure counter control plan to handle that.

He said one of the things that comes up is the question of EMF and that tends to come from electric lines. Two things you need to know about that is: we will be adding no external electric lines to this project. We will be utilizing the Union Power 100 KD transmission line as our source to Duke Energy, that we will power through back to their Locust delivery. He said no additional lines will be built.

As far as EMF in the field itself, there is almost none in there. There are two reasons for that: solar radiation in and of itself, is an electric magnetic field and all we are doing is converting solar light energy into electric energy. There will be no actual increase in EMF energy there. Also, the way those fields are wired, you have electric currents coming from different directions, so the fields cancel themselves out.

Hence, the US Department of Energy study looked at this and measured fields all around the country on various solar fields found that any EMF out there was of negligible, if not immeasurable level.

He said the electric facilities around the Duke Energy facility and the Union Power facilities will have a lot more EMF associated with it. Even in those cases they are minute, when actually compared to the EMF that is given off by household appliances. The EMF situation is such that it is almost immeasurable there.

Based on his experience, research, and training, he can say confidently, that this will pose no threat to any public health, safety or welfare in the area.

The Chair asked if there were any questions from the Board or the audience for Mr. McGavran.

Ms. June Deas, 4380 Joyner Road, Concord, NC, property owner adjacent to the proposed site, addressed the Board. We currently have high voltage wires running across the front of our property. She asked if they will be the lines that will be used to transmit this power.

Mr. McGavran said if that is Union Power lines then that is exactly what they will use.

Ms. Susanne Todd called Mr. Robert Messerich to come forward.

Mr. Robert Messerich, 4676 Traverse Pt. Egan, MN, addressed the Board stating that he is a certified PVN installer and he has spent the last eight years mainly designing solar energy projects from the solar perspective.

Ms. Todd asked to admit Mr. Messerich as an expert in solar site design.

The Chair asked if anyone had any questions about Mr. Messerich's credentials. There being no questions about Mr. Messerich's credentials, he was entered as an expert in solar site design.

Mr. Messerich said his primary involvement here was to work with the civil engineering team. They established all of the parameters for the build, no build zone, landscape buffers and everything to do with the physical part of the site and the erosion controls. Then he worked to set the solar equipment inside those parameters and help to specify the equipment that would work best within that.

He said solar is a very passive neighbor once it is built. He thinks they are saying it will take seven months to build. They do not emit any gases, there is no hazardous substances or fumes, and there are no odors. All of the equipment is enclosed within a six foot fence and that site is remotely monitored 24/7, 365 days a year and he believes an emergency plan has also been submitted. There is no onsite staff at all. There is occasional maintenance to maintain the landscaping. The panels do not need to be cleaned very often; a rain typically takes care of that. If they do, there would be a site visit or there would be some service to other portions of the equipment; other than that, it is basically quiet.

Because there is no staff, there is no additional burden on the transportation system. There is not a bunch of cars coming in and out of it. There are no extra citizens to worry about to put in your schools that would put a strain on the water and sewer or emergency services. It is basically just passive.

He thinks the biggest thing about solar is that it reduces our reliance upon other not as clean forms of energy. He knows a lot of different forms of generation comes with some sort of built in pollution or waste to handle and solar has none of that. It is a nice thing for the State in general.

He said based on his knowledge of building solar farms and the facts that he has stated, it is his professional opinion, that the solar farm use will assure the adequacy of the sewage disposal facility, solid waste, water facilities, police, fire and reduce protection, transportation systems in and around the site and other public facilities.

Because of its limited reliance on public facilities and with the increase in tax revenue that Mr. McBride spoke too, generated because of this proposed project, it is his professional opinion that the proposed solar farm use will maintain or even enhance the value of the contiguous properties.

The Chair asked if there were any questions.

Ms. Deas said what about the converters that convert the solar from solar to electricity; does it put off radiation?

Mr. Messerich said no. He asked if she was speaking of the EMF.

Ms. Deas said she is referring to the conversion from solar to electric that takes place in the converter. Do they put off radiation?

Mr. Messerich said no. The panels themselves take the sunlight and it converts it into a movement of electrons. It does not involve any sort of mechanical operation other than knocking atoms off of one side of the panel and making them flow through the electric lines. That is DC energy, just similar to a battery, it is analogy to a car battery or an AA Eveready.

He said at one point they talked about the 50 inverter stations that takes the direct current and converts it to alternating current. That is done through a series of manipulation to the sine wave. It chops into smaller and smaller pieces until eventually it looks like a nice smooth line. There is really no radiation or any sort of process like that.

Mr. Ted McGavran, Professional Engineer said no radiation is put off by the invertors.

Mr. Pinto asked Mr. Messerich which way is south?

Mr. Messerich showed where south is on the site plan.

Mr. Pinto said what is the largest project Mr. Messerich has worked on before this one?

Mr. Messerich said he has done designs up to 50 megawatts; this is the largest.

There were no further questions.

Ms. Todd said in the Board packet, there was a glare study from the Antares Group. That study was performed by Heidi Alsbrook as well as Evan Merkel with Antares Group. Mr. Merkel is here and there is also an affidavit from Mr. Merkel in the notebook.

The Chair asked Mr. Merkel to come forward.

Mr. Evan Merkel, Electrical Engineer, Antares Group, 904 East 36th Street, Baltimore, MD came forward.

Mr. Pinto said when you came out and you did the site survey, there was one number that showed up on Figure 35 at 1800 hours between February and October. He asked if that is where the glare would come off of that spot for that short distance of time. He said that is the only one that stuck out. He asked if that was the worse glare one that he had when doing the survey.

Mr. Merkel said that is among the worst case scenarios.

Mr. Pinto is wondering if the glare would get into someone's eyes if they were driving a car.

Mr. Merkel said Figure 35 was on someone's parcel, not one of the one's in the road.

Ms. Todd would like to admit Mr. Merkel as an expert in Site Design Glare Analysis.

The Chair asked if anyone had any questions about Mr. Merkel's credentials. There being no questions about Mr. Merkel's credentials, he was entered as an expert in Site Design Glare Analysis.

Ms. Todd asked Mr. Damon Bidencope, Appraiser, to come forward.

Mr. Damon Bidencope, MAI, Appraiser, Bidencope & Associates, 224 South Caswell Road, Charlotte, North Carolina addressed the Board stating that he is a North Carolina State Certified General Appraiser and MAI. He is licensed under Statute 93E which gives the Appraisal Board the rule maker authority to create license certification in North Carolina. He has been practicing real estate appraisal for 25 years or more.

Ms. Todd would like to admit Mr. Damon Bidencope as an expert in Appraisal.

The Chair asked if anyone had any questions about Mr. Bidencope's credentials. There being no questions about Mr. Bidencope's credentials, he was entered as an expert Appraiser.

Mr. Bidencope was asked to perform a study and to look at the project particularly with reference to the adjoining properties and the impact it might have to value on adjoining properties.

In doing so, he performed a report which summarized that analysis and he believes has been provide to the Board. In doing that report, we looked and referenced other facilities that have been built from which we could gain measurable impact. Whether it be an appreciation of prices for properties that adjoin solar farms, ones in terms of the timing of when they are announced and then after post construction to actually track what the prices have been. Because we always know that is very much a consideration for people and their properties and one of the findings that the Board will need to deliberate on.

We do not believe that it would substantially injure the value of adjoining or abutting properties if developed, as far as the site plan that has been submitted that we have copies of in our report. It would not be injurious to the use and the enjoyment of the people adjacent and adjoining property and those uses in the immediate vicinity.

He does not believe and has formed a professional opinion that it would substantially diminish or impair property values within the neighborhood and it would be in harmony and be compatible. That does not mean similar too, but certainly a good neighbor which does not generate lights at night or trips or noise or odor or many other uses that possibly could become a neighboring use to properties there.

He thinks important in their analysis, is noting that the hours of operation are only during daylight. That is the only time that you can capture energy from the sun and so at night time it becomes a totally passive property.

One thing they also considered was the size of this property, because it is a large facility. But to the adjoining property owner that looks at it or the traffic that passes by it, firstly, with the landscape buffers and existing vegetation, even partial views will be relatively obscured. Maybe the only time when you would see a full image of what it is, is if you were flying over in a plane; over the top of it. So, the view for most of the adjoining parcels with the landscape buffers in place and the existing vegetation would be a fairly obscure thing. But when you look on a vertical plan it appears very different.

The Chair asked if there were any questions.

Mr. Richard Deas, Property Owner, addressed the Board. He heard at the first of this meeting that we were going to work on facts only and no opinions. He asked if that is what he heard.

The Chair said that is the criteria for a Quasi-Judicial procedure.

He said that was part of the criteria. But, he has heard three people get up and give an opinion. Such as the last gentleman; it is an opinion that it is not going to change the property values. This is a new entity; solar farms are. There has been no real time to find out what property values are going to fall or how they are going to be managed under this thing. He is citing the Internet as his source but, there has not been any studies to show that there is no impact on the environment.

The Chair said you had a question? Are you asking if it is Mr. Bidencepe's opinion?

Mr. Deas said yes, but are we going to use opinions or are we going to use facts?

The Chair said yes, it is his opinion and we have qualified him as an expert witness, so we are accepting his testimony based on his qualifications as an expert witness. The Board will then have to process it based on what we have heard.

Mr. Deas said he understands that.

Mr. Mark Allen Stewart, adjacent property owner, 8600 Mt. Pleasant Road, Midland, NC, addressed the Board. He showed where the property is located and stated that it is 48 to 49 hundred feet adjacent. He is a peninsula up into the solar farm. He asked Mr. Bidencepe if he has property values of a person in his situation where the property is up inside the solar farm. If he has inquired about properties values where the solar farm is on three sides of a piece of property?

Mr. Bidencepe said in considering and forming his opinion.

Mr. Deas said he needs facts not opinions.

The Chair said base on his qualifications as an expert witness, he is qualified.

Mr. Bidencepe said if I speak to the facts, he has qualified both in federal, local and superior court and he is a qualified expert. Those opinions are based on the collection of facts and analysis that form with scientific methodology; an opinion of things. It is not simply, oh I believe and my finger is the air sort of wondering which way it is blowing sort of thing.

He said in answer to the question specific to Mr. Deas house, you built that house within the past ten years he believes.

Mr. Deas said four years.

Mr. Bidencepe said quite recently and it is sitting back right towards the border. One of the things that Mr. Deas will benefit from, is the fact that there is going to be a buffer on adjoining property, not your property, which is going to provide you with a landscape shield.

Mr. Deas is asking property values not buffers.

Mr. Bidencepe said that is exactly what he is speaking too. The termination of property value leads a desirability. You are now going to have a neighboring use on your property that is going to be quiet and that is going to generate no trips, no neighbors and no housing tract development.

Mr. Deas understands all of that.

Mr. Bidencepe said these are factors that he would put in to considering whether the land value and your home is going to be impacted in terms of value. From the facilities that have been built, the home prices in fact have shown positive appreciation in line with general market levels. These are solar farms that have been built in the Goldsboro area particularly, where we have tracked sales post announcement of the property and then subsequent to that. Which has shown very solid appreciation. To do that we do matched-pairs analysis, where we calculate both sales and things.

He said your next question will be if we have a property with exactly the same acreage, sitting exactly like mine, that is going to be surrounded on three sides by the use. He understands that is a genuine concern that you have.

In speaking to that, when you are forming an appraisal and an analysis of that you are trying to identify impacts to use. You have a residential use on your property. In the instances that they were able to find facilities that had residential uses, there was no impairment to value over reasonable value range of properties. From that we would conclude, that it is his opinion, his professional opinion that your property will not suffer. In particular, because of the buffer and now you will be protected on three sides and you will not have neighbors probably beyond the foreseeable future because of the capital investment that is made that is securing the property that is around you. You are going to be very well protected.

Mr. Deas said he might be protected physically, but he will not be protected financially.

He asked if Mr. Bidencepe had any other properties that abuts up into a solar farm with values that have increased or decreased. Do you have any other real estate with that? He understands what Mr. Bidencepe is saying that with all of the facts stated, that it sort of stays the same.

Mr. Bidencepe said yes he does. He has included, tabled within the reports probably 20 or 30 different sales, along with recording dates, times of when they were sold and calculations of the price appreciation between the dates of sale that are both prior to announcement, during announcement and post construction that you will find in the report. Also, interviews with real estate professionals involved with the selling and marketing of properties that have indicated also in their opinion, which we would use in conversation and interview, to gather information that there has been no damaging impact of value. In fact there has been very little.

Once built, a lot of the uncertainty and the assertions or the worry before it is constructed, then seem to be gone away. That is something you do not have the benefit of right now, but it is Mr. Bidencepe's opinion that will be the case once constructed.

Ms. June Deas said you talk about the analysis that you have done; solar is new. How many properties did you use in this analysis to come up with this conclusion? Do you have specific tracts of land and homeowners that had appraisals before the solar farm came in and then sold and increased or decreased their value? What is your analysis based on?

Mr. Bidencepe said in answering that question, even probably more substantial in having appraisals of property, we actually have properties that have sold and the sale price of those properties when they did sell, before and after a solar farm being installed and that showed a clear appreciation in value and not a diminishment of value. So probably, even one step further than not just his opinion of what is formed, but the data of the actual sales with buyers and sellers; a meeting of the minds.

Ms. Deas asked where the analysis is so they can view it.

Mr. Bidencepe said there are copies of the report that he submitted would be available

The Chair said the Board has his report in the record. Which as he is testifying is included with what he is testifying too.

Ms. Deas asked if they were Cabarrus County home sites or just wooded areas. She asked what they were; are they Virginia? You said that you worked out of Charlotte.

Mr. Bidencepe said yes he does work out of Charlotte. Some of the best indications for what they have seen is in the Goldsboro area. A lot of solar farms being built there with homes that are selling roughly in the two and three hundred thousand dollar bracket. The reason why that is being such a good property to look to is that it has property where development has established before the announcement and now we have sales subsequent to that.

He said because solar is fairly new, you do not have a huge data set from which to go to. That is why we would go where ever in the state we could to find that. We have looked at different installations, whether they be east in the state or west toward the mountains in different places.

Ms. Deas said were these analysis of homes in view of the solar farm or just adjacent to it.

Mr. Bidencepe said yes. In the report you will be able to see that they back right up to the fence of the solar farm.

Ms. Deas said what about the front yard? Where any of them looking straight ahead?

Mr. Bidencepe said yes. There are other properties that are across the road that look straight through at it the other way.

Ms. Deas said but none of it actually adjoin or have it right there where you could throw a ball at the solar panel.

Mr. Bidencepe understands Ms. Deas concern, but he believes if you scrutinize the site plan and the 100 foot and the landscape buffer and the existing vegetation that is being place there, it is why these people impose and demand that level of separation and that level of vegetation buffer.

Ms. Deas said once these buffers are set out, who maintains that? She has seen dead ones all over the state.

Mr. Bidencepe that is a question that is not his expertise.

The Chair said we will let Staff answer that question.

Ms. Todd asked Mr. Bidencepe if his opinion is based on an analysis, is that correct?

Mr. Bidencepe said yes it is.

Ms. Todd said you performed that analysis and it is attached to your affidavit?

Mr. Bidencepe said yes.

Ms. Todd said that concludes their presentation in chief. She asked to reserve some time for rebuttal if necessary. We have also submitted as Exhibit 10 in the notebook sort of a statement of justification and support, which lists out basically potential findings of fact. We have four standards that we need to prove today to make a *Prima Facie* case to receive the permit.

1. The use will maintain or enhance the public health, safety and welfare if located where proposed and developed and operated according to the plan.

Mr. Blackwell has testified to that as well as Mr. Blackwell saying as well as Staff saying that this meets all the Ordinance requirements. Both the specific ones for solar farm use, as well as general requirements.

Mr. McGavran testified about nonhazardous materials that comprise a solar farm panel and the equipment; as well as the transformers containing mineral oil. He explained that the EMF has not increased as a result of solar farm use and that we will be using existing tension lines, existing voltage lines that are already on the property and not increasing any lines through this project. He also testified that the equipment is UL (Underwriters Laboratory) tested and approved and the equipment is safe and will be installed by electrical contractors who are qualified to do so.

Mr. Merkel in his affidavit and statement said there was glare potential, but in the whole there is very little. There might be a potential for glare but as a whole there is less harm or damage than looking at the sun.

2. Maintain or enhance the value of contiguous property.

Mr. Damien Bidence spoke to that affect saying that based on matched pair sales and the characteristic that they look at in determining whether a use is harmful to surrounding properties, that he could find none. It was his professional opinion and is substantiated by his report that this will not reduce property values or somehow harm them.

3. The use will comply with the general plans for physical development of the County as embodied in the Zoning Ordinance or in the Comprehensive Plans or portions thereof adopted by the Cabarrus County Board of Commissioners.

Ms. Todd said this project and this site plan as testified by Staff, does meet the Ordinance requirements. So, it is in compliance with your regulations. It is a permitted use in AO (Agriculture Open Space) and CR (Countryside Residential) zoning.

That is something that the County amended their ordinance for a couple of years ago to allow solar farm use as a permitted use in those zoning districts and that there is a legislative presumption that that is a use that is harmonious in these districts and obviously is in compliance with the plans for physical development of the County.

Ms. Todd admitted the notebook with Exhibits 1 – 10 into evidence. She asked if there were any further questions.

Mr. Koch said the Board may want to see if there are any objections to the introduction of those exhibits from anyone.

The Chair said Counsel has requested we take this notebook into evidence and the Exhibits that are contained within it and the affidavits. The Chair asked if there were any objections.

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There being no objections, they will be deemed admitted into the record.

The Chair asked if there were any other attendees that wish to speak in favor of the conditional use.

Mr. Dalton McCoy, 14280 Bethel Avenue Ext. Midland, NC addressed the Board stating that he knows these people. In the last two years, a solar farm was built adjoining his property. He just wanted to tell them (opponents) that it is the best neighbor he has ever had. It is quiet, his values have not gone down, he likes it and he does not have any objections to it.

He is friends with these people and he wanted them to know that it was built and adjoined his property. He owns a house on Bethel Avenue Extension. He was worried just like they were about the glare and everything else, but now that it is done and has been in operation a year he has no complaints. This is fact, he lives there and has been there for 25 years and he likes it better now.

The Chair asked if there were any questions from the opponents' side for this gentleman.

Mr. McCoy said it joins him on one side. Mr. Marty Stewart was asking about his piece of property, his piece has three sides. It joins his property on one side, on the north side of the entire piece of his property. In the summertime he cannot see it, but in the winter when the leaves are gone he can see it.

Mr. Mark Stewart Jr. said he owns about 48 or 49 hundred feet of property. He asked Mr. McCoy how much property he owns.

Mr. McCoy said he owns 30 acres. It joins him on the north side

Mr. Stewart asked Mr. McCoy how many feet, yards or miles.

The Chair does not think Mr. McCoy knows the dimensions of his property, he only knows the acreage.

Mr. McCoy said it is 15 acres where it joins him on the north side.

Mr. Stewart asked how long was the property line; the distance.

Mr. McCoy said that is something he cannot answer.

Ms. Erica Massey, 8767 Hayden's Way, Concord, NC addressed the Board stating that she is against this solar farm and she has seen the solar farm that is adjacent to Mr. McCoy's house. She asked how large the solar farm is next to Mr. McCoy.

Mr. McCoy said it was 95 acres.

Ms. Massey said this one is 675 acres that is being proposed.

Mr. McCoy said the one next to him is 95 acres and he believes that the actual solar panels were 65 acres of it.

Ms. Massey asked if he was happy with the buffering that was there, because right now it is dead. There is no buffering around.

Mr. McCoy said he is beside it. He has asked several of his neighbors about glare and they said they do not notice anything. He said as far as the buffering he does not know.

Ms. Massey said because there isn't any.

The Chair swore in Ms. Massey because she did not stand to be sworn in at the beginning of the meeting.

Mr. Butch McCoy, P.O. 84, Midland, NC address the Board. He is Dalton McCoy's brother. He does not live beside this property, but being at Dalton's place he does not see any problem with it.

He said the people who are doing this are first class people. This is not somebody who is going in and doing it halfway. They are going to do it right. He has known Mr. McBride's dad for years. They will do this thing right. If you let it get done, they will do it right.

Mr. Kevin Little, 9825 Highway 601, Midland, NC addressed the Board. He has 12 acres that borders the McBride property on the south side at the bottom. To him, it has made his land worth more knowing this was coming. We have rental property beside us where we had horrible neighbors. When he heard about this coming he was excited about it. He said not having any neighbors for 25 years or so made his property value go up.

He knew the McBride's and has leased property from Tal's father for over 15 years. He has watched after the property for them. He probably has spent more time on the McBride property than anybody; it is a special place to him. They have owned it for a long time and he thinks it should pass. It is there land and they have let a lot of people enjoy it and he thinks it is time that they do what they want to do with it. He is in favor of it.

The Chair asked if there were any questions or if there was anyone else wishing to speak in favor of this case.

The Chair said now that the proponents have concluded their statements, she asked if there are any opponents who would like to speak. She reminded them that there is a total of 15 minutes to speak and present your documents that are in support of your presentation.

Mr. Chris Massey, 8767 Hayden's Way, Concord, NC addressed the Board. He lives in Vanderburgh Estates beside the proposed construction site for the solar farm project. He is in

opposition of the solar farm project in his neighborhood. While he generally appreciates, values and encourages renewable energy, he has grave concerns about the proposed project, given its locality, unknown and known risk and the potential economic impact of such a project.

Impact on Property Value:

When one buys a home, the price of the property is based largely on zoning. If he is not mistaken, the area proposed for the project is zoned for countryside residential. Now there is an application to permit a solar farm.

If you were to invest a substantial amount of money into a piece of property and you had two choices; one was being beside an open field of crops or countryside residential and one was being beside a solar farm, which one would you choose? If you genuinely and honestly admit to yourself that a 675 acres solar farm would not be your first choice, then you have necessarily established, given the capitalist nature of the real estate market, that the solar farm is going to affect the value of my home and that as well as my neighbors. He has some signatures from as many of his neighbors that are adjoined to that property line that he was able to get too.

When he purchased his home this is not what he bargained for to be looking at. We knew it was countryside residential, there was no solar farm or anything going in that we knew of and the possibility of housing was an acceptable risk to them. Not to mention, although impressive from the sky, a solar farm will be an eye sore from the ground level given the fencing, and warnings signs that would be required for such a massive property.

Impact and Risk:

He is also concerned about the impact that the project will have on multiple levels; underground lines. As you know a solar farm must be connected to the main power grid. The proposed site for the project is rural in nature and begs to question through whose property the underground cable lines will be run through to connect to the power grid.

Power Outages:

If not maintained or managed properly, the solar farm could short circuit the main grid causing power outages on a grand scale.

Hazardous Materials:

Solar panels may contain hazardous materials and although are sealed under normal conditions, if they are damaged or improperly disposed of when decommissioned, oils or molten salt, hydraulic fluids, coolants, lubricants that may be hazardous could spill or leak.

Impacts to Soil and Water and Air Resource:

Construction of a solar farm is a large scale project and requires clearing and grading and result in soil compaction, potential alteration of drainage channels and increase runoff and erosion.

Additionally, a solar farm of this magnitude is likely to require a lot of cleaning, thus increasing the abandoned water which can strain available water resources and increase the cost of water for everyone else.

Furthermore, if the solar farm uses any chemicals such as dust suppressants, dielectric fluids or herbicides, cleaning the solar panels may result in runoff contaminating the surface or ground water, which in the long term can call terrible health issues.

EMF Sensitivity:

Finally, solar panels and inverters which are what converts solar energy into a useable alternate current, emit electromagnetic frequencies such as a cell phone would, and much like a cell phone can cause a headache from speaking on the phone to long, so to can a solar farm in one's home.

If electromagnetic frequencies were not of any concern, then why does every cell phone which emits such frequencies on a very small scale, including in every iPhone, have a disclosure and warning statement under its legal section? It is because they know that certain levels of exposure to these frequencies can be harmful.

Mr. Massey said admittedly, one solar panel from a distance will not create such an effect, but 695 acres worth of solar panels can and will, even more so for individuals who are sensitive to these frequencies. The effects of these frequencies include, but are not limited to headaches and restlessness to name a few. Moreover, the inverter which generates radio frequency radiation is connected by wires that act as antennae so that radiation may be picked up by hundreds of feet away by the inverter.

In conclusion, while he support and encourage the idea of a solar farm, he is opposed to such a project anywhere near any residential area and ask that the Planning and Zoning Commission reject this project and encourage the developers of the project to merely look for a location more removed from residential areas.

Mr. Massey also came across something out of Woodland, North Carolina, where similar farms of this size were not established by residential communities. There have been several communities where solar farms on smaller scale, 20 acres or less, that have not been approved due to potential health risks, property devaluation, environmental concerns and esthetics.

He said quite frankly, when he comes out of his back door, that is what he is going to see. In the summer time it will be less visible or not visible but in the winter time it is going to be blatant and right there. He did not buy into that for his neighbor.

The Chair asked if there was any questions for Mr. Massey.

Mr. Richard Deas said these are good people and Mr. Bost is one of his best friends in the whole wide world. He is not arguing against what they are doing on their property, that is their business. But, what is the impact going to be on 600 plus acres on the wildlife in this area.

There is a lot of wildlife in that area and he has not heard anybody saying anything about that. He does not know if there is anyone here expert enough to say. He asked if anyone could answer that question.

Mr. Chris Massey said when he moved in, it was all wooded and he believes they were using it for a hunting preserve. There was a lot of deer running through there and then it was logged. When it was logged, that changed the complete dynamics of everything around his house. The sunlight changed, the wind comes through a lot faster and there is not that buffer with all the trees. The deer have made different routes and things like that and the increase in pollen that he has been fighting in his pool from all of that has cost him some economic grief at this point. He said it is a beautiful green but not the color he wants.

He said there is an ecological problem that is going to happen by the de-forestation number one. He cannot even imagine what the solar panels are going to do to change the dynamics of that area. That is another concern.

There being no further questions, the Chair asked if there were any one else who wanted to speak in opposition to this proposal.

Ms. June Deas addressed the Board showing pictures with different views of her property to show how close the solar farm will be to their property. She said it is not the same situation that Mr. Dalton McCoy has where his property is through woods. We have the whole thing open.

We had our home appraised last week because we were told by an appraiser that there is no statistics as to what a solar farm does to property in our area. So, he could not really tell us a dollar amount. He could tell us what our dollar amount for our home place is now. He said we would be a prime example for Cabarrus County if this passes and they are not able to sell their property or have to sell it at a reduced amount.

We are not talking about 95 acres like Mr. McCoy. We are talking about 627 acres; that is quite a difference. High power voltage lines go across their property already and those are the lines that are going to feed from the whole 600 plus acres of solar that is a stone throw from their home. She said it is written up on their appraisal that it is a health hazard or devaluation of their property because it has high powered electric lines on it already.

She said when they bought there in 1979, we bought there because this property of the Bost Family had been in their family for generation after generation; over hundreds of years. It was residential countryside and that is what they enjoy looking at. If you come to their property and

look out you think you are in paradise. But, if we have to sit and look at a solar panel for the rest of our days, we will want to sell our property. If anybody wants some property it is up for sale.

She said this thing about electromagnetic radiation; if you go on the Internet it talks about how solar farms emit solar electromagnetic radiation and they have electromagnetic fields (EMF and EMR). Then they talk about the potential for glare.

Well, if these solar panels are going to be aimed the way her satellite dish is, they are going to be aimed right at us and that has a potential for glare (627 acres). On the Internet it says that birds are dying and we do not know if it is from the heat when they fly over or if they are diving into the solar panels thinking it is bodies of water.

We have wild turkeys walking around in our yard and we have deer. Where are all of these things going to go when there is no countryside for them?

Ms. Deas went on the Cabarrus County website today, trying to find a number for somebody to pick up the phone. She was trying to find out if this meeting was going to be tonight. She saw something that really struck her. It said that Cabarrus County offers zoning and land use regulations to protect property investments. She said she cannot do anything about Mr. McBride or Mr. Bost or anyone else trying to do the solar farm; that is their land not hers. But, she is looking for the County to protect her investment. She is 70 years old and they have been there 30 years. It is not a crappy house, it is a very nice home.

Mr. Mark Stewart Jr., addressed the Board stating that zoning signs were put up six or eight weeks ago. He has called the number four times, left two messages for people to call him back about the zoning. He said to this second no one from the County has called him back; so what good are the zoning signs.

The Chair asked if anyone else would like to speak.

Mr. Koch said at this point if there is any rebuttal, now would be the appropriate time for that.

The Chair said if there is any rebuttal that it be done at this time.

Ms. Susanne Todd addressed the Board stating that it would be less of a rebuttal, maybe an explanation to perhaps provide some comfort. She wants to address three issues.

In regards to the power voltage lines on the Deas property. She asked Mr. McGavran to come forward.

Ms. Todd asked Mr. McGavran if this project will be using the lines on the Deas Property.

Mr. McGavran said the lines that we will be utilizing will the Union Power 100KD line that is there today. He does not know if that is the line that crosses their property.

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Mr. Tal McBride said the line runs down Mt. Pleasant Road. He showed where they were interconnected and he said it runs down and then turns on angle (he showed the power line right of way) and it runs over to Locust substation to Duke.

Mr. McGavran said we will not be utilizing that line.

Ms. Todd asked Mr. McGavran if they will be increasing any voltage on any lines as a result of this project.

Mr. McGavran said no.

Ms. Todd said there was mention of the birds dying. She asked Mr. McGavran to explain that.

Mr. McGavran said in the solar projects that he has worked on they have never had an issue with birds dying.

Ms. Todd believes that might be a reference to out West. Out West they have solar farms that basically have large mirrors and the mirrors then reflect light to a boiler in the center of it. The water in the boiler system heats up and creates steam which causes electricity. There have been occasions where she believes birds fly through the mirrors. There is a lot of heat between the boilers and the mirror that have caused birds to die. But, that is not the technology that we are using; these are simply PV solar panels that do not create that kind of heat.

Ms. Todd said she had a question for Mr. Blackwell. She said behind Tab 2 of the notebook, there is one sheet that shows the site plan layout and the second one shows the landscape buffer behind the Deas property. She asked Mr. Blackwell if he recalls what is being proposed.

Mr. Blackwell said on the common boundary between the Deas property and the solar farm we actually have to plant the 100 foot landscape buffer required by county.

Ms. Todd said the solid line indicates a full buffer will be planted there.

Mr. Blackwell said it will be a full tree buffer there. Since there are no trees, we actually will be planting trees there. (He showed where the buffer will be on the plan) we are going to plant the hundred foot required buffer with trees and shrubs. Right now she can kind of look across the property into a field. Where she now looks, we will have trees for one hundred feet.

The Chair asked if the trees will be evergreen.

Mr. Blackwell said it is a mixture of evergreen, deciduous and shrubbery.

Mr. Corley asked what size those plantings are initially going to be. If this project has a life span, is it going to take that long for those trees to even provide any sort of screening whatsoever?

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Mr. Blackwell said we cannot plant trees that are thirty feet tall. We just can't with the sheer number of trees that we are doing.

Ms. Todd said it is an ordinance requirement as far as the caliper.

Mr. Blackwell said it is two inch caliper tree and the spacing is relatively tight, but there is a grow out of five year, ten year, twenty year grow out. He will admit there is some time to grow out. They are not little tiny trees, they are two inch caliper at planting.

Ms. Todd said they have nothing further.

Ms. June Deas addressed the Board stating that she and her husband are 70 years old. She does not expect this buffer to be anywhere where it would need to be in their life time.

Mr. Mark Stewart, Jr. addressed the Board stating that he has property around this. It is about 48 or 49 hundred feet. He wants to know if he could work with McBride exclusively on what kind of buffer he gets around that 48/49 hundred feet. Instead of him using the county's requirements, he would like the option to leave the existing vegetation, since it would be thicker then what they could plant and it would grow. There is already 15 foot pine trees there and there is a good buffer there. He does not see the expense of taking out 100 feet of existing trees, to plant a small tree, to let it get back to that size and take it 20 years to do it. He already has a buffer on his property, could he work with Mr. McBride on that 48/49 hundred feet?

The Chair asked to see an aerial of the property. Because she is noting placing on the site plan where the buffer is existing and she does not see that relationship.

Mr. Blackwell showed a photo and said it was a Google Earth type photo taken four or five years ago.

The Chair said because what she is looking at and the site plan, as she sees at array seven and eight where you have the existing buffer to remain and where you haven't called out the existing buffer to remain where it is adjacent to his property, even though she sees trees in that area. It seems too her that based on what is being requested here that the site plan could be modified to show where you have the existing canopy.

Mr. Blackwell said we prefer not to cut down mature trees just so we can replant them. We do have fill in. There are some areas that have existing trees that are not thick enough and we would do some infill, if we worked that out with the county. If he can keep hundreds of feet of trees, that is hundreds of feet of trees that he does not have to replant.

The Chair said respecting what you are saying that based on what is being asked here, it would be actually she guesses denoting on this plan, similar to where you have flagged that you will save the existing vegetation. She said that same commitment adjacent to this gentleman's property because it appears from the aerial that you submitted that you do have vegetation there and to the point where it needs to be supplemented.

Mr. Blackwell said we have to add in other places, so we could.

Ms. Todd said we could make that modification to use the existing and that is something we previously asked for. Her concern is that it would then have to be bought back to the Board or the plan would have to be reapproved?

The Chair said let's reserve how we may facilitate the timing for that; with respect to if there is a commitment to do that and let staff help us understand what we may need to do to address that. Her purpose for asking this is that she feels like there have been a number of comments about being adjacent to this and glare. Again, where you have vegetation that can be preserved versus you have a site plan that really shows where you are landscaping. She is trying to have an open understanding about where there are trees adjacent to the property that can be saved, they will be saved. She understands that it is not the intent to remove it but as it is presented here there are areas where we see trees that would be updated to be saved.

Mr. Stewart said there is not going to be any glare the way his house sits and the way solar panels are going to sit. He is going to be on the backside. He is not worried about glare.

The Chair is trying to speak to everyone who has brought a concern for it.

Mr. McBride said he and Mr. Stewart have had numerous conversations about this. There are existing trees on either side of his property that if you and I were this far apart you could not see me and I could not see you. They satisfy those screening requirements now.

Mr. Stewart said why take all of that out?

The Chair said we are going to work through that.

Mr. Richard Deas noticed down on Mr. McBride's property off of Highway 601 there is a nice buffer of natural trees that was left from the logging. He said it is pretty substantial, but in a situation like he has and some of the others, these plantings that will happen will be probably Leyland Cypress or something like that.

He has toured two of these solar farms, one in Cabarrus County and one on the edge of Stanley County. Where the open areas were, where they set out the vegetation, it is all dead; none of it is alive. He does not know why that is but he speculate it is the heat and everything else. He does not know how it is going to be maintained or how they are going to keep it going.

There being no further comments, the Chair closed the Public Hearing.

Mr. Pinto does not think this facility will be detrimental to the health and general welfare of anybody, really in Cabarrus County. He likes the idea of solar far more than Plants. Whether it be McGuire or whether it is over there at the steam station. The further you get away from there, the more valuable solar is in providing neighbors with power, possibly through rolling blackouts or whatever.

He said in part of our Ordinance, solar energy facilities are classified as a public facility in AO and CR. That is one of the reasons why he feels it should be approved.

The Chair said a site plan has been prepared with the modifications that we discussed to possible condition, that the existing vegetation be maintained to meet the buffer requirement and they have submitted a site plan that does meet the Ordinance requirement.

The Chair thinks another point that was made was that the proposed use is using the existing lines and therefore limits any other impact to the infrastructure using public utilities. Additionally, the site has obtained the necessary emergency access from NCDOT.

Mr. Ritchie lives close to this, but he does not have any land backing up to it or anything. He would rather see 627 acres of solar panels verses five or six hundred houses. You have no cars coming into a solar farm, where you would have 12 to 15 hundred coming in if it were a housing development; just the impact that would have on everybody that is adverse.

Mr. Corley certainly appreciates and accepts the expert witness testimony on their specific subject areas. A hardship for him in his mind is still that visible barrier. He does not know that we have had much either way. He has heard some of the opponents' state that they are concerned about what they are going to see. He understands this plan may comply with the buffer requirement in the ordinance but, he would challenge the developer and everybody involved in the project to attempt to uniquely, allow that buffer to be as specific as possible in the field, in trying to satisfy each individual homeowners needs, as they are neighbors and you are neighbors. He thinks you have heard that loud and clear.

Mr. McBride said he intends to that.

Mr. Wise said this is a huge piece of property and with the earth being moved, he wants to make sure that the property is protected for erosion control. He has not had a chance to look at the topo and he is not sure how much grading has to be done but he wants to make sure that good erosion control measures are done. He assumes that this is being inspected by NC Erosion.

Mr. McBride said yes DEQ. We went through extensive consultation with them on that and we will do that.

Ms. Mary Blakeney said that she has no objections.

Mr. Koch said before the Board entertains a motion he wants to be clear. There was some talking about adding an additional condition concerning the landscaping. There is a landscaping condition already contained in the staffs list of 17 conditions.

The Chair thinks we are going to add or supplement that.

Mr. Koch said the motion will need to reflect that.

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The Chair said understood. We will add an additional condition to Staffs' conditions to specifically address this landscaping provision if needed.

Mr. Koch is trying to understand. He said if there are going to be additional conditions they need to be part of the motion.

Mr. Corley asked if the easement that is going to be obtained, off of Mr. McBride's property.

Mr. McBride said yes. He indicated where the Nancy and Mike Kucera's property is located on the east, southeast side of the property (6811.33 feet along the boundary). We signed an agreement with them to acquire the 100 foot buffer easement along that boundary. There are existing trees there that are 30 feet tall that serve as a buffer and it is between a quarter and a half a mile from our boundary line over to Mt. Pleasant Road of mature pine trees.

The Chair said this is the easement that is being established off of your site onto their property to meet your buffer.

Mr. McBride said that is correct.

The Chair said where alternatively, we were talking about you all saving existing vegetation within you property limits abutting adjoining property lines.

Mr. McBride said yes. It is a combination of those two things that they will be doing.

The Chair said in compliance with the Ordinance.

Mr. McBride said yes.

The Chair said we will make a motion to approve the request with the conditions proposed by Staff and also establish a condition that where existing vegetation exists within the limits of the subject property, that vegetation will be saved and supplemented where not adequate to meet the landscape requirement of the zoning ordinance.

Mr. Koch said isn't that condition six in the staff report?

The Chair said the problem is there are parts on this site plan that do show the existing vegetation to remain on the site plan and is in conflict with that statement. Because when that gentlemen spoke and showed us trees that were on that portion of his property. That is why she is saying this site plan has areas where they are saving it, but they have not included that adjacent to his site. So when he asked if we could save this, she was asking to update the plan to save the existing vegetation. It is almost like yes, it is in the conditions but the picture is not matching the statement in all areas where she thinks the applicant has said he would save.

Ms. Susie Morris, Planning and Zoning Manager, addressed the Board stating that the applicant was proposing to use a landscape easement in that particular section. It was not successful, so

that buffer had to be moved back onto the applicant's property. She does not know if that might be part of what is causing the confusing. The notes may have been missed. If the Chair is okay with it, she will take a look at the plan.

Ms. Morris looked at the plan and said there is a misrepresentation on that plan, as far as labeling. She thinks that is what may have happened. It does show that there will be the required 100 foot buffer. What it does not show, at this time, is that they will be using existing trees to meet that. She believes that Mr. McBride has said that he will maintain the existing trees to meet that buffer and would be okay with the Board placing that as an additional condition specific to Mr. Stewart's property.

Mr. McBride said that he would be okay with it.

There being no further discussion The Chair **MOTIONED, SECONDED** by Mr. Aaron Ritchie to **APPROVE** CUSE2017-00001, Conditional Use Permit for Public Service Facility (Alternate Power Generation-Solar Farm, McBride Place Energy) with the conditions recommended by Staff in the staff report and with the added condition to keep existing vegetation around the Stewart Property at 8600 Mt Pleasant Rd S and supplement the Landscape Buffer to meet the requirements of the Ordinance. The vote was unanimous.

It was the consensus of the Board to have Mr. Koch prepare the specific Findings of Fact, Conclusion of Law and the Granting Order. (See attached)

Mr. Koch said there has been a request from the applicant made to him outside of this hearing that they would like for that to occur sooner rather than later and hopefully, before the Board's next meeting, when you would typically approve that. He asked if the Commission would entertain allowing him and the Chair to work collaboratively on the Granting Order and Findings and Conclusion and if it is acceptable to the Chair and to him, to allow the Chair to enter that and sign it before the next meeting.

It was the consensus of the Board to allow Mr. Koch and the Chair to work collaboratively on the Granting Order and Findings and Conclusion and allow the Chair to sign it prior to the next Board meeting if needed.

Directors Report:

Ms. Morris reminded the members (Mr. Pinto and Mr. Price) who signed up to attend the training that it is next Tuesday, May 16th. If anyone else is interested in attending the training to let us know immediately.

Legal Update

Mr. Koch had an eventful day in court on May 1st, regarding the three cases that we had spoken about previously.

Planning and Zoning Commission
Minutes
May 9, 2017

The first one was the DeComo case involving the people living in the RV. They have now moved into their new home. We verified that and they have complied with the Order and we took a withdrawal of the Motion for Contempt for Noncompliance.

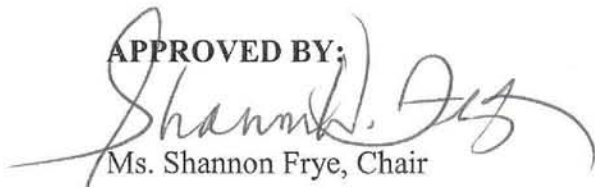
The second one was the Porter case and that was argued before Judge McGee. He took it under advisement and said he would review the whole record and that he would have a decision sometime within the next month.

Finally, the Little, case was the other Motion for Contempt. We verified that there still wasn't compliance with the order entered by the Judge and the Ordinance. The Judge directed Mr. Koch to draw up an order for his arrest, under violation of the Civil Contempt Substantive Law and Procedure, which we are in the process of doing. Since it is civil contempt, he basically holds the keys to the jail house, so to speak. Meaning, that he will be incarcerated until he complies, however long that may take for him to do. The Judge also ordered him to reimburse the County for almost \$5,000.00, in Attorney fees because of the noncompliance since the order was entered.

We are in the process of working on that and that will be the first one of those that we have had. It will be interesting to see how that plays out. Certainly, his ability to comply on his part would be very simple. But he has chosen up to this point not too and to attempt to avoid service and compliance.

There being no further discussion, the Ms. Mary Blakeney **MOTIONED, SECONDED** by Mr. Aaron Ritchie to **ADJOURN** the meeting. The vote was unanimous. The meeting ended at 9:30 p.m.

APPROVED BY:




Ms. Shannon Frye, Chair

SUBMITTED BY:



Arlena B. Roberts

ATTEST BY:



Susie Morris, Planning and Zoning Manager

MCBRIDE PLACE ENERGY, LLC — APPLICANT
CUSE 2017-00001

CONDITIONS OF APPROVAL

Included in the approval of the Conditional Use Permit, the following conditions of the approval must be met:

1. Site plan review and approval is required subsequent to Board of Adjustment approval in order to ensure compliance with all applicable development requirements and conditions. (Zoning)
2. The Granting Order stating restrictions and applicable conditions of approval, shall be recorded with the Register of Deeds of Cabarrus County. (Zoning)
3. The Applicant shall procure any and all applicable federal, state, and local permits prior to zoning permitting. (Zoning)
4. Any proposed future expansion of property, as well as modifications or changes to approved site plan, must receive Board of Adjustment approval in the form of an amendment to the Conditional Use Permit. (Zoning)
5. The Applicant shall provide copies of all state, local, and federal permits for the permanent project file prior to zoning permitting. (Zoning)
6. The Applicant is proposing that existing landscaping will be used to meet the buffer requirements. In the event the buffer does not meet the intent of the ordinance the Applicant agrees to install the buffer as required by the Ordinance. (Zoning)
7. Deed Restrictions as outlined in the Storm Water Permit (SW3170403) Schedule of Compliance must be recorded in the Cabarrus County Office of the Register of Deeds and a copy provided to NCDENR and to Cabarrus County Planning after recordation and prior to zoning permitting. (NCDENR, Planning)
8. Site must meet all conditions set forth in the Soil and Erosion Control Permit #CABAR-2017-050.
9. Per Stormwater Permit #SW3170403, the overall tract built-upon area percentage for the project must be maintained below 24%, as required by 15A NCAC 2H.1017 of the stormwater rules.

10. The Decommissioning Plan must be recorded prior to the zoning permit being issued and a copy provided to Cabarrus County Planning. (Zoning)

11. Phase 1 parcels must be combined into one parcel prior to zoning permitting.

12. Phase 2 parcels must be combined into one parcel prior to zoning permitting.

13. Any proposed landscape easement documents must be recorded prior to zoning permitting. If these documents are not recorded, the Applicant must redesign the plan in accordance with the Ordinance or seek a variance, both of which require consideration and/or approval by the Board of Adjustment. (Planning)

14. Stream and wetland buffers, as required by Chapter 4 of the Cabarrus County Development Ordinance, and as shown on the submitted site plan, shall be delineated in the field prior to the start of any land clearing and/or grading. (Planning)

15. Addresses shall be clearly posted at each entrance to the site. Knox Boxes shall also be installed at each entrance. (Fire Marshal's Office)

16. The Applicant has proposed a chain link fence that will cross the waterbody buffer of Bost Creek near the southern portion of the site, as shown in the site plan. Fences are permitted within the buffer area, provided the design does not interfere with the flow of water through the buffer area to the waterbody. (Planning)

17. Applicant must adhere to the Special Provisions, listed in each of the five driveway permits issued by the NC Department of Transportation. (NCDOT)

18. Applicant agreed to keep existing vegetation around the Stewart Property at 8600 Mt Pleasant Rd S (PIN#5556-47-8315) and supplement the Landscape Buffer to meet the requirements of the Ordinance. (Planning)

Memo

To: Ms. R. Susanne Todd
Cc: Jason Earliwine, Sr. Planner,
From: Lynn Roberts, Clerk to the Planning and Zoning Commission
Date: June 1, 2017
Re: Granting Order for Conditional Use Permit CUSE2017-00001

Attached please find the recorded Granting Order for Conditional Use Permit CUSE2017-00001, McBride Place Energy, LLC approved at the May 9, 2017, Planning and Zoning Commission.

A condition of approval for your proposed project is that the Granting Order, stating restrictions and applicable conditions of approval, must be recorded with the deed to the property so that it appears during a due diligence search. The Granting Order has been submitted to the Register of Deeds Office for recordation. A bill from Cabarrus County Finance will be forwarded to the address you provided for the fees associated with recording documents with the Register of Deeds.

If you have any questions, please call our office at 704-920-2141.

*mailed on 6/1/17
to S. Todd also emailed*

SCANNED AND RETURNED

FILED
CABARRUS COUNTY NC
WAYNE NIXON
REGISTER OF DEEDS
FILED Jun 01, 2017
AT 09:20 am
BOOK 12515
START PAGE 0262
END PAGE 0269
INSTRUMENT # 13794
EXCISE TAX \$0.00
EBV

Prepared by and Return to:
Richard M. KochCabarrus
County Attorney
ROD Box 74

Application Number CUSE 2017-00001

COUNTY OF CABARRUS
STATE OF NORTH CAROLINA

ORDER GRANTING A CONDITIONAL USE PERMIT

The Board of Adjustment for the County of Cabarrus, having held a public hearing on May 9, 2017 to consider application number CUSE 2017-00001 submitted by applicant McBride Place Energy, LLC, and having heard all of the evidence and arguments presented at the hearing, makes Findings of Fact and Conclusions of Law contained in the attached Exhibit A and makes the following additional Conclusions:

1. It is the Board's Conclusion that the proposed use does satisfy the first General Standard listed in Section 8.3 of the Cabarrus County Zoning Ordinance ("Ordinance"); namely, that the use will promote the public health, safety and general welfare, if located where proposed and developed and operated according to the plan as submitted.

2. It is the Board's Conclusion that the proposed use does satisfy the second General Standard listed in the Ordinance; namely, that the use will maintain or enhance the value of contiguous property.

3. It is the Board's Conclusion that the proposed use does satisfy the third General Standard listed in the Ordinance; namely, the use does not adversely affect the adequacy of sewage disposal facilities, solid waste and water facilities, police, fire and rescue squad protection, schools, transportation systems (in and around the site) and other public facilities.

4. It is the Board's Conclusion that the proposed use does satisfy the fourth General Standard listed in the Ordinance; namely, the use is in compliance with the general plans for the

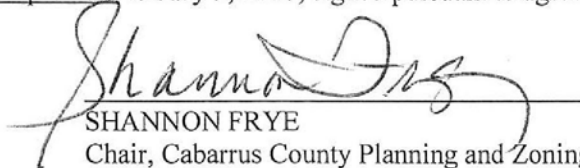
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physical development of the County as embodied in the Ordinance or in the land use plan, or portion thereof, adopted by the Board of County Commissioners.

5. It is the Board's Conclusion that the proposed use does satisfy the specific standards listed in the Ordinance for this use.

Because the Board concludes that all of the general and specific conditions precedent to the issuance of a CONDITIONAL USE PERMIT have been satisfied, IT IS ORDERED, by unanimous vote of the Board, that the application for the issuance of a CONDITIONAL USE PERMIT be GRANTED, subject to the conditions contained in the attached Exhibit B. The Applicant shall fully comply with all the applicable requirements in the Ordinance and must develop the property in accordance with the site plan submitted and approved. If any of the conditions shall be violated, this permit may become void and of no effect.

This 31st day of May 2017, nunc pro tunc to May 9, 2017, signed pursuant to agreement of the Board of Adjustment.


SHANNON FRYE
Chair, Cabarrus County Planning and Zoning
Commission, sitting as the Board of Adjustment

STATE OF NORTH CAROLINA

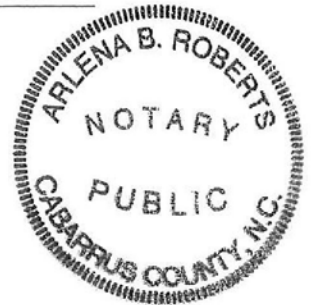
COUNTY OF CABARRUS

I, Arlena B. Roberts, a notary public in and for said county and state, do hereby certify that Shannon Frye, Chair, Cabarrus County Planning and Zoning Commission, personally appeared before me this day and acknowledged the execution of the foregoing Order.

This 31 day of may 2017.


Notary Public

My commission expires: March 21, 2022



NOTE: If you are dissatisfied with the decision of this Board, an appeal may be taken to the Superior Court of Cabarrus County within thirty (30) days after the date of this order. See Section 12-25 of the Ordinance

EXHIBIT A

MCBRIDE PLACE ENERGY, LLC — APPLICANT
CUSE 2017-00001

FINDINGS OF FACT

GENERAL FINDINGS

1. This application is for the construction of a public service facility (solar farm) by Applicant on +/- 627.55 acres owned by Five M's, LLC; Bost ET, III; John P. McNeill and Adelaide McNeill; and JAB Farms, LLC, which are described as all or portions of PINs 55562441360000, 55572393350000, 5557306731000, 55564697650000, 55564821320000, and 55571343380000 (collectively, the "Property"). The application was complete and duly filed.

2. Notice of the application by posting of the Property, notification in a newspaper of general circulation or electronically as permitted and notice to surrounding property owners was properly accomplished as required by North Carolina statute and the Cabarrus County Zoning Ordinance ("Ordinance").

3. A public hearing was held on May 9, 2017. All witnesses were placed under oath and all persons present were given an opportunity to present evidence and to cross-examine witnesses. All witnesses offered by the Applicant that were proffered as experts in their respective fields were so qualified by the Board, without objection.

4. The staff report of Cabarrus County Planning and Development Services was also admitted into evidence.

SPECIFIC FINDINGS

1. The use as proposed is not detrimental to and will maintain or enhance the public health, safety and general welfare.

- a) The Applicant provided evidence in the form of oral testimony and affidavit by civil engineer and expert Ed Blackwell, P.E. who testified that the solar farm has received North Carolina Department of Transportation permits for roadway connections to provide EMS and fire with access to the Property, and that the site plan meets all applicable Ordinance requirements for solar farm use.
- b) The Applicant provided evidence in the form of oral testimony and affidavit by professional engineer and expert Edward ("Ted") McGavran, P.E. that solar PV

is a very benign source of electricity, that the panels themselves are essentially silicon chips, and that the solar farm will produce no hazardous waste.

- c) Also, Mr. McGavran further testified that the solar farm will utilize existing Union Power KV transmission lines to distribute the electricity generated by the use.
- d) Also, Mr. McGavran testified that the use will not increase the amount of existing natural electromagnetic field ("EMF") energy, that surrounding Duke Energy and Union Electric electrical facilities have a lot more EMF associated with them, and even the amounts of EMF created by these facilities is minute when compared to the EMF generated by household appliances.
- e) The Applicant provided evidence in the form of oral testimony and affidavit by expert Evan Merkel, Electrical Engineer and Certified PV Installation Professional with Antares Group, Inc., who testified that based on the study he prepared, the potential for glare exists during certain times of the day and year along certain points of adjacent roadways where the panels are visible, but that any potential for glare could be mitigated through screening.
- f) Mr. Merkel further testified that the potential for ocular hazard resulting from the proposed use is far below the levels considered harmful or even hazardous.
- g) The Applicant provided testimony by Tal McBride, a member of the Applicant limited liability company, that his family has owned 300 acres of the Property since 1954, that this is the seventh utility scale project that he has developed, that at 74.9 MW in size, the solar farm will provide annual power for about 12,000 homes, that the capital cost of the solar farm is approximately \$130 million, and that based on Cabarrus County's current tax rate, he believes that the solar farm will generate around \$190,000 in annual ad valorem taxes and \$75,000 in back taxes. Mr. McBride further testified that there is an executed Power Purchase Agreement for Duke Energy to purchase the power generated by the solar farm.
- h) Mr. Belk McCoy testified that he has lived on property near Midland for the past 25 years and within the last two years has had a solar farm built adjacent to his property, that he had been worried about glare and other potential issues, but that he has no complaints.
- i) There was no credible testimony or evidence presented by any opponent to the application that the solar farm use would be detrimental to the public health, safety and general welfare.

2. The use as proposed will maintain or enhance the value of contiguous property.

- a) The applicant provided evidence in the form of oral testimony and affidavit by expert Damon Bidencepe, a licensed real estate appraiser with the MAI designation, who used sales comparisons of properties adjacent to other solar facilities to testify that such properties had comparable sales values in line with general market levels, even after the solar facility was constructed and operating.

- b) Mr. Bidencope used matched pair analysis from a developing subdivision adjacent to a solar farm in Goldsboro, North Carolina, where the prices of sold homes before, during and after the solar facility's construction were comparable and specifically showed no depreciation due to the solar farm.
- c) Mr. Bidencope researched sale prices for properties in other areas that sold both prior to and again after the construction of a solar farm that show clear appreciation in value.
- d) Also, Mr. Bidencope interviewed other real estate professionals with listings or sales in the area of the Property that did not reduce the sales prices because of the proposed solar farm use. He cited the facts that solar facilities are quiet, odorless, will be buffered, have an appearance similar to other uses commonly found in rural areas and produce very little traffic as among the reasons the solar farm use will not adversely affect adjoining property values.
- e) There was no credible testimony or evidence presented by any opponent to the application that the existence of this solar farm in its proposed location would be detrimental to the value of adjoining properties.

3. The use as proposed does not adversely affect the adequacy of sewage disposal facilities, solid waste and water facilities, police, fire and rescue squad protection, schools, transportation systems (in and around the site) and other public facilities.

- a) The Applicant provided evidence in the form of oral testimony and affidavit by expert Bob Messerich, Certified PV Installation Professional, who testified that the proposed use is a very passive neighbor, that it does not emit gases, that there are no hazardous substances, fumes or odors, that the equipment is enclosed within a six foot fence, that the site is remotely monitored 24/7, 365 days a year and that an emergency plan has been submitted.
- b) Mr. Messerich further testified that that the use will require no onsite staff, and have only occasional staff visits to maintain landscaping or service panels or other parts of equipment; and that due to lack of staff, the use creates no additional burden on the transportation systems, nor does solar farm use create any impact on the County's schools, water, sewer or emergency services.
- c) Also, Mr. Messerich testified that the use will not create pollution or waste and reduces reliance on other forms of energy that do generate such by- products.
- d) The solar farm will use existing external transmission lines, which limits further impacts to the infrastructure and existing public facilities.
- e) There was no credible testimony or evidence presented by any opponent to the application that solar farm use would burden any public utilities.

5. The use as proposed will comply with the general plans for the physical development of the County as embodied in the Ordinance or in the area development plans that have been adopted.

- a) County staff member Jason Earliwine testified that the subject property is zoned Agricultural Open ("AO") and Countryside Residential ("CR") and that solar farms are permitted as a conditional use in AO and CR zoning districts under the Ordinance. As such, the solar farm generally complies with the plans for physical development of the County as embodied in the Ordinance.
- b) Mr. Blackwell and Mr. Earliwine testified that the site plan for the solar farm use has been extensively reviewed and complies with the Ordinance.
- c) Mr. Earliwine also testified that the Applicant submitted a complete application and provided documentation compliant with Section 8-3 *et seq.* of the Ordinance for solar farm use.
- d) There was no credible testimony or evidence presented by any opponent to the application that solar farm use does not meet the requirements of the Ordinance.

Based on the foregoing Findings of Fact, the Cabarrus County Planning and Zoning Commission, sitting as the Board of Adjustment, makes the following:

CONCLUSIONS OF LAW

1. The Applicant has presented competent, material and substantial evidence in its application, other written materials, and through witness testimony and affidavits, that the solar farm use as applied for meets the standards in the Ordinance precedent to the issuance of a conditional use permit.
2. The evidence presented by the opponents of the application was insufficient to rebut the presumption that the application, with the agreed conditions, was compliant with the Ordinance and should be granted.
3. The Applicant is entitled to the issuance of a conditional use permit based on the provisions of its application and the conditions contained in the County's staff report, plus the additional condition imposed by the Board, to wit: that the Applicant maintain and preserve the existing vegetation within the required 100 foot buffer area adjacent to the property owned by Mark A. Stewart, Jr., Trustee for the Revocable Trust Agreement of Mark A. Stewart, Jr., dated March 30, 2010, located at 8600 Mt. Pleasant Road, Midland (Cabarrus County) North Carolina and identified as Cabarrus County Parcel ID No. 55564783150000 and supplement the landscape buffer as necessary to meet the requirements of the Ordinance.

EXHIBIT B

MCBRIDE PLACE ENERGY, LLC — APPLICANT
CUSE 2017-00001

CONDITIONS OF APPROVAL

Included in the approval of the Conditional Use Permit, the following conditions of the approval must be met:

1. Site plan review and approval is required subsequent to Board of Adjustment approval in order to ensure compliance with all applicable development requirements and conditions. (Zoning)
2. The Granting Order stating restrictions and applicable conditions of approval, shall be recorded with the Register of Deeds of Cabarrus County. (Zoning)
3. The Applicant shall procure any and all applicable federal, state, and local permits prior to zoning permitting. (Zoning)
4. Any proposed future expansion of property, as well as modifications or changes to approved site plan, must receive Board of Adjustment approval in the form of an amendment to the Conditional Use Permit. (Zoning)
5. The Applicant shall provide copies of all state, local, and federal permits for the permanent project file prior to zoning permitting. (Zoning)
6. The Applicant is proposing that existing landscaping will be used to meet the buffer requirements. In the event the buffer does not meet the intent of the ordinance the Applicant agrees to install the buffer as required by the Ordinance. (Zoning)
7. Deed Restrictions as outlined in the Storm Water Permit (SW3170403) Schedule of Compliance must be recorded in the Cabarrus County Office of the Register of Deeds and a copy provided to NCDENR and to Cabarrus County Planning after recordation and prior to zoning permitting. (NCDENR, Planning)
8. Site must meet all conditions set forth in the Soil and Erosion Control Permit #CABAR-2017-050.
9. Per Stormwater Permit #SW3170403, the overall tract built-upon area percentage for the project must be maintained below 24%, as required by 15A NCAC 2H.1017 of the stormwater rules.
10. The Decommissioning Plan must be recorded prior to the zoning permit being issued and a copy provided to Cabarrus County Planning. (Zoning)

11. Phase 1 parcels must be combined into one parcel prior to zoning permitting.
12. Phase 2 parcels must be combined into one parcel prior to zoning permitting.
13. Any proposed landscape easement documents must be recorded prior to zoning permitting. If these documents are not recorded, the Applicant must redesign the plan in accordance with the Ordinance or seek a variance, both of which require consideration and/or approval by the Board of Adjustment. (Planning)
14. Stream and wetland buffers, as required by Chapter 4 of the Cabarrus County Development Ordinance, and as shown on the submitted site plan, shall be delineated in the field prior to the start of any land clearing and/or grading. (Planning)
15. Addresses shall be clearly posted at each entrance to the site. Knox Boxes shall also be installed at each entrance. (Fire Marshal's Office)
16. The Applicant has proposed a chain link fence that will cross the waterbody buffer of Bost Creek near the southern portion of the site, as shown in the site plan. Fences are permitted within the buffer area, provided the design does not interfere with the flow of water through the buffer area to the waterbody. (Planning)
17. Applicant must adhere to the Special Provisions, listed in each of the five driveway permits issued by the NC Department of Transportation. (NCDOT)
18. Applicant agreed to keep existing vegetation around the Stewart Property at 8600 Mt Pleasant Rd S (PIN#5556-47-8315) and supplement the Landscape Buffer to meet the requirements of the Ordinance. (Planning)

Staff Use Only:

PLANNING STAFF REPORT

CABARRUS COUNTY PLANNING AND ZONING COMMISSION

05/01/2017

Approved: _____

Denied: _____

Tabled: _____

Conditional Use Permit: CUSE2017-00001

Applicant Information: McBride Place Energy, LLC
2002 Lee Highway #16005
Bristol, VA 24209

Owner(s) Information: Five M's LLC
1583 Ridgedale Rd
Harrisonburg, VA 22801

Bost ET, III
4701 NC Hwy 200
Concord, NC 28025

John P. and Adelaide Young McNeill
PO Box 656
Norwood, NC 28128

JAB Farms, LLC
c/o Kermit Leslie Young, JR.
PO Box 18
Norwood, NC 28128

PIN#s: 5556-24-4136 5556-46-9765
5557-23-9335 5556-48-2132
5557-30-6731 5557-13-4338

Area in Acres: +/- 627.55 acres

Purpose of Request: The applicant is proposing to develop the subject properties with a public service facility (Solar Farm). Public service facilities are permitted in Countryside Residential (CR) and Agriculture/Open Space (AO) zoning as a conditional use.

Site Description: The site is approximately 627.55 acres in size and vacant.

Current Land Uses: Vacant/Agricultural/Silvaculture

Adjacent Land Uses: North: Residential/Agricultural/Wooded
East: Residential/Agricultural/Wooded
South: Residential/Wooded/Wetland/Bible College
West: Residential/Agricultural/Wooded

Permitted Uses:	Any uses permitted in the CR and AO zoning districts
Existing Zoning:	CR (Countryside Residential) and AO (Agriculture/Open Space)
Surrounding Zoning:	North: CR (Countryside Residential) and AO (Agriculture/Open Space) East: CR (Countryside Residential) and AO (Agriculture/Open Space) South: CR (Countryside Residential), LC (Limited Commercial), and Midland AG (Agricultural) West: CR (Countryside Residential) and AO (Agriculture/Open Space)
Signs Posted:	03/29/2017
Newspaper Notification:	03/29/2017
Newspaper Notification 2:	04/05/2017
Notification Letters:	03/28/2017

Exhibits

Exhibit A – Staff Report
 Exhibit B – Application
 Exhibit C – Site Plan
 Exhibit D – Aerial Map
 Exhibit E – Zoning Map
 Exhibit F – Future Land Use Map
 Exhibit G – NCDEMLR Erosion Control Permit and NCDEMLR Stormwater Permit
 Exhibit H – Solar Ocular Impact Analysis (Glare Study)
 Exhibit I – Decommissioning Plan
 Exhibit J – Certificate of Public Convenience
 Exhibit K – Adjacent Parcel Letter and List
 Exhibit L – Pilot Environmental Inc. Wetland Delineation Report
 Exhibit M – US Army Corps of Engineers Wetland Confirmation Letter
 Exhibit N – Emergency Plan
 Exhibit O – Maps of Nearest Airports/Airstrips
 Exhibit P – Midland Letter
 Exhibit Q – Zoning Signs
 Exhibit R – Landscape Easement Documents

Agency Review Comments

Sheriff Review: Approved

No comments per Lieutenant Ray Gilleland (Cabarrus County Sheriff's Department)

Stormwater Review - State: Approved

No Comments per Michael Randall (Environmental Engineer, NCDEMLR)

Soil-Water Conservation Review: Approved

"I have no natural resource concerns. The water table is high and the soil is shallow on this site, however, I do not believe that would be disturbed by a solar farm. They have already stated that they would maintain good ground cover, minimize grading, use native grasses and shrubs where possible, and prioritize pollinator friendly varieties. I would just add that they should pay attention to the stream buffers on Bost Creek and Rocky River, as well as stay out of the jurisdictional wetland." Per Erin Lineberger (Resource Conservation Coordinator, Cabarrus Soil & Water)

NCDOT Review: Approved

No comments per Leah Wagner (Field Services Engineer, NCDOT)

Erosion Review: Approved

No comments per Zahid Khan (Regional Engineer, NCDEMLR)

Fire Review: Approved

Comments were addressed...no outstanding issues. Per Matthew Hopkins (Assistant Fire Marshal)

EMS Review: Approved

No comments per Alan Thompson (Cabarrus County EMS Director)

Midland Review:

PLEASE SEE EXHIBIT P – Letter from Town of Midland Planning

Zoning Review: Approved

Comments were addressed...no outstanding issues. Per Jason Earliwine

History / Other Information

1. The applicant provided documentation compliant with Section 8-3 of the Cabarrus County Zoning Ordinance, petitioning for a Conditional Use.
2. The applicant submitted a complete application which includes the "Findings of Fact" sheet along with a site plan and applicable supporting documentation.
3. The subject property is approximately 627.55 acres in size.
4. The subject property is currently vacant and wooded.
5. The applicant is proposing to construct a public service facility (solar farm) on the subject property. The application states the site will be comprised of approximately 50 inverters, 50 transformers, and 50 arrays for the site.

6. The height of proposed structures, as shown on Page 2 of site plan, is 7'10". The application states that the panels are expected to be between seven and nine feet above grade at the highest point. The Ordinance allows up to ten feet for these types of structures.
7. The map analysis for airport operations was submitted. The proposed project search area does not include any federal airport operations. One local airstrip is located within 5 nautical miles of the site, as shown in EXHIBIT O.
8. A copy of the executed decommissioning plan was submitted.
9. The applicant is proposing to use existing vegetation to supplement as needed on the landscape plan.
10. Landscape easements will be acquired in multiple areas, as shown on the site plan, to act as the required Landscape Buffer Yards.
11. Applicant has provided documentation from a private environmental surveying company, Pilot Environmental Inc, and subsequent documentation from the US Army Corp of Engineers, showing that the existing wetlands in the current GIS system are not wetlands, but are considered intermittent streams.
12. The project will be completed in two Phases. The southern half of the site (Phase 1) contains properties owned or that will be purchased by McBride Place Energy. The northern half of the site (Phase 2) is comprised of the Bost family property, which will not be purchased by McBride Place Energy.
13. The applicant has submitted documentation from NCDOT for five proposed driveways to access the site.
14. The application states that the project will take approximately seven months from the time of permitting to construct.
15. The application states that sound levels generated by the solar arrays, as measured at the property lines, shall not exceed 35dba. The nearest inverters will be at least 300 feet from any property line.
16. Applicant has submitted the required glare study. Atares Group, Inc. performed a solar ocular impact analysis to evaluate glare potential for the solar farm project. After using the Solar Glare Hazard Analysis Tool, developed by the FAA, and a line-of-sight viewshed analysis, the results, shown in Exhibit H, found little concern for ocular hazard from the nearby roadways or adjacent parcels. Several of the observer points do have potential for low-level glare or potential for temporary after-image, but the levels are far below hazardous levels. For summary information and conclusions from the study, see Section 9 of the Application and EXHIBIT H.

17. Addresses have been assigned to each of the five entrances to the site. Each entrance is to display a sign with a street address. Each entrance will also utilize a Knox Box for security, per the Fire Marshal's request.

Conditions of Approval

Should the Board of Adjustment grant approval of the Conditional Use Permit, Staff requests the following conditions become part of the approval and case record:

1. Site plan review and approval is required subsequent to Board of Adjustment approval in order to ensure compliance with all applicable development requirements and conditions. (Zoning)
2. The Granting Order stating restrictions and applicable conditions of approval, shall be recorded with the deed for the property. (Zoning)
3. The applicant shall procure any and all applicable federal, state, and local permits prior to zoning permitting. (Zoning)
4. Any proposed future expansion of property, as well as modifications or changes to approved site plan, must receive Board of Adjustment approval in the form of an amendment to the Conditional Use Permit. (Zoning)
5. The applicant shall provide copies of all state, local, and federal permits for the permanent project file prior to zoning permitting. (Zoning)
6. The applicant is proposing that existing landscaping will be used to meet the buffer requirements. In the event the buffer does not meet the intent of the ordinance the applicant agrees to install the buffer as required by the Ordinance. (Zoning)
7. Deed Restrictions as outlined in the Storm Water Permit (SW3170403) Schedule of Compliance must be recorded in the Cabarrus County Office of the Register of Deeds and a copy provided to NCDENR and to Cabarrus County Planning after recordation and prior to zoning permitting. (NCDENR, Planning)
8. Site must meet all conditions set forth in the Soil and Erosion Control Permit #CABAR-2017-050.
9. Per Stormwater Permit #SW3170403, the overall tract built-upon area percentage for the project must be maintained below 24%, as required by 15A NCAC 2H.1017 of the stormwater rules.
10. The Decommissioning Plan must be recorded prior to the zoning permit being issued and a copy provided to Cabarrus County Planning. (Zoning)
11. Phase 1 parcels must be combined into one parcel prior to zoning permitting.

12. Phase 2 parcels must be combined into one parcel prior to zoning permitting.
13. Any proposed landscape easement documents must be recorded prior to zoning permitting. If these documents are not recorded, the applicant must redesign the plan in accordance with the Ordinance or seek a variance, both of which require consideration and/or approval by the Board of Adjustment. (Planning)
14. Stream and wetland buffers, as required by Chapter 4 of the Cabarrus County Development Ordinance, and as shown on the submitted site plan, shall be delineated in the field prior to the start of any land clearing and/or grading. (Planning)
15. Addresses shall be clearly posted at each entrance to the site. Knox Boxes shall also be installed at each entrance. (Fire Marshal's Office)
16. The applicant has proposed a chain link fence that will cross the waterbody buffer of Bost Creek near the southern portion of the site, as shown in the site plan. Fences are permitted within the buffer area, provided the design does not interfere with the flow of water through the buffer area to the waterbody. (Planning)
17. Applicant must adhere to the Special Provisions, listed in each of the five driveway permits issued by the NC Department of Transportation. (NCDOT)

Staff Use Only:

PLANNING STAFF REPORT

CABARRUS COUNTY PLANNING AND ZONING COMMISSION

05/01/2017

Approved: _____

Denied: _____

Tabled: _____

Conditional Use Permit: CUSE2017-00001

Applicant Information: McBride Place Energy, LLC
2002 Lee Highway #16005
Bristol, VA 24209

Owner(s) Information: Five M's LLC
1583 Ridgedale Rd
Harrisonburg, VA 22801

Bost ET, III
4701 NC Hwy 200
Concord, NC 28025

John P. and Adelaide Young McNeill
PO Box 656
Norwood, NC 28128

JAB Farms, LLC
c/o Kermit Leslie Young, JR.
PO Box 18
Norwood, NC 28128

PIN#s:	5556-24-4136	5556-46-9765
	5557-23-9335	5556-48-2132
	5557-30-6731	5557-13-4338

Area in Acres: +/- 627.55 acres

Purpose of Request: The applicant is proposing to develop the subject properties with a public service facility (Solar Farm). Public service facilities are permitted in Countryside Residential (CR) and Agriculture/Open Space (AO) zoning as a conditional use.

Site Description: The site is approximately 627.55 acres in size and vacant.

Current Land Uses: Vacant/Agricultural/Silvaculture

Adjacent Land Uses: North: Residential/Agricultural/Wooded
East: Residential/Agricultural/Wooded
South: Residential/Wooded/Wetland/Bible College
West: Residential/Agricultural/Wooded

Permitted Uses:	Any uses permitted in the CR and AO zoning districts
Existing Zoning:	CR (Countryside Residential) and AO (Agriculture/Open Space)
Surrounding Zoning:	North: CR (Countryside Residential) and AO (Agriculture/Open Space) East: CR (Countryside Residential) and AO (Agriculture/Open Space) South: CR (Countryside Residential), LC (Limited Commercial), and Midland AG (Agricultural) West: CR (Countryside Residential) and AO (Agriculture/Open Space)
Signs Posted:	03/29/2017
Newspaper Notification:	03/29/2017
Newspaper Notification 2:	04/05/2017
Notification Letters:	03/28/2017

Exhibits

Exhibit A – Staff Report
 Exhibit B – Application
 Exhibit C – Site Plan
 Exhibit D – Aerial Map
 Exhibit E – Zoning Map
 Exhibit F – Future Land Use Map
 Exhibit G – NCDEMLR Erosion Control Permit and NCDEMLR Stormwater Permit
 Exhibit H – Solar Ocular Impact Analysis (Glare Study)
 Exhibit I – Decommissioning Plan
 Exhibit J – Certificate of Public Convenience
 Exhibit K – Adjacent Parcel Letter and List
 Exhibit L – Pilot Environmental Inc. Wetland Delineation Report
 Exhibit M – US Army Corps of Engineers Wetland Confirmation Letter
 Exhibit N – Emergency Plan
 Exhibit O – Maps of Nearest Airports/Airstrips
 Exhibit P – Midland Letter
 Exhibit Q – Zoning Signs
 Exhibit R – Landscape Easement Documents

Agency Review Comments

Sheriff Review: Approved

No comments per Lieutenant Ray Gilleland (Cabarrus County Sheriff's Department)

Stormwater Review - State: Approved

No Comments per Michael Randall (Environmental Engineer, NCDEMLR)

Soil-Water Conservation Review: Approved

"I have no natural resource concerns. The water table is high and the soil is shallow on this site, however, I do not believe that would be disturbed by a solar farm. They have already stated that they would maintain good ground cover, minimize grading, use native grasses and shrubs where possible, and prioritize pollinator friendly varieties. I would just add that they should pay attention to the stream buffers on Bost Creek and Rocky River, as well as stay out of the jurisdictional wetland." Per Erin Lineberger (Resource Conservation Coordinator, Cabarrus Soil & Water)

NCDOT Review: Approved

No comments per Leah Wagner (Field Services Engineer, NCDOT)

Erosion Review: Approved

No comments per Zahid Khan (Regional Engineer, NCDEMLR)

Fire Review: Approved

Comments were addressed...no outstanding issues. Per Matthew Hopkins (Assistant Fire Marshal)

EMS Review: Approved

No comments per Alan Thompson (Cabarrus County EMS Director)

Midland Review:

PLEASE SEE EXHIBIT P – Letter from Town of Midland Planning

Zoning Review: Approved

Comments were addressed...no outstanding issues. Per Jason Earliwine

History / Other Information

1. The applicant provided documentation compliant with Section 8-3 of the Cabarrus County Zoning Ordinance, petitioning for a Conditional Use.
2. The applicant submitted a complete application which includes the "Findings of Fact" sheet along with a site plan and applicable supporting documentation.
3. The subject property is approximately 627.55 acres in size.
4. The subject property is currently vacant and wooded.
5. The applicant is proposing to construct a public service facility (solar farm) on the subject property. The application states the site will be comprised of approximately 50 inverters, 50 transformers, and 50 arrays for the site.

6. The height of proposed structures, as shown on Page 2 of site plan, is 7'10". The application states that the panels are expected to be between seven and nine feet above grade at the highest point. The Ordinance allows up to ten feet for these types of structures.
7. The map analysis for airport operations was submitted. The proposed project search area does not include any federal airport operations. One local airstrip is located within 5 nautical miles of the site, as shown in EXHIBIT O.
8. A copy of the executed decommissioning plan was submitted.
9. The applicant is proposing to use existing vegetation to supplement as needed on the landscape plan.
10. Landscape easements will be acquired in multiple areas, as shown on the site plan, to act as the required Landscape Buffer Yards.
11. Applicant has provided documentation from a private environmental surveying company, Pilot Environmental Inc, and subsequent documentation from the US Army Corp of Engineers, showing that the existing wetlands in the current GIS system are not wetlands, but are considered intermittent streams.
12. The project will be completed in two Phases. The southern half of the site (Phase 1) contains properties owned or that will be purchased by McBride Place Energy. The northern half of the site (Phase 2) is comprised of the Bost family property, which will not be purchased by McBride Place Energy.
13. The applicant has submitted documentation from NCDOT for five proposed driveways to access the site.
14. The application states that the project will take approximately seven months from the time of permitting to construct.
15. The application states that sound levels generated by the solar arrays, as measured at the property lines, shall not exceed 35dba. The nearest inverters will be at least 300 feet from any property line.
16. Applicant has submitted the required glare study. Atares Group, Inc. performed a solar ocular impact analysis to evaluate glare potential for the solar farm project. After using the Solar Glare Hazard Analysis Tool, developed by the FAA, and a line-of-sight viewshed analysis, the results, shown in Exhibit H, found little concern for ocular hazard from the nearby roadways or adjacent parcels. Several of the observer points do have potential for low-level glare or potential for temporary after-image, but the levels are far below hazardous levels. For summary information and conclusions from the study, see Section 9 of the Application and EXHIBIT H.

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17. Applicant must adhere to the Special Provisions, listed in each of the five driveway permits issued by the NC Department of Transportation. (NCDOT)

CONDITIONAL USE PERMIT APPLICATION



Instructions

1. Schedule a pre-application meeting with Staff to discuss the procedures and requirements for a Conditional Use Permit request.

Date of Pre-Application Meeting: November 28, 2016 Staff Facilitator(s): Jason Earliwine

2. Submit a complete application to the Planning Division. All applications must include the following:

- ☐ Cabarrus County Land Records printout of all adjacent property owners. This includes properties located across the right-of-way and all on-site easement holders. The list must include owner name, address, and Parcel Identification Number.
- ☐ A recent survey or legal description of the property.
- ☐ 15 folded copies of the proposed site plan.
- ☐ Any additional documents essential for the application to be considered complete.
(Determined at pre-application meeting)

3. Submit cash, check, or money order made payable to Cabarrus County. Fees: Conditional Use Permit \$550.00 +\$5.00 per acre +3% technology fee based on total application fee

The deadline for submittal is always the same day as the Planning and Zoning Commission Meeting which is the second Tuesday of the month. Applications must be submitted before 2:00 PM that day for consideration on the next available agenda.

Incomplete applications will be returned to the applicant and will not be processed.

Process Summary:

1. Hold a pre-application meeting with Staff to discuss your Conditional Use Permit request and the Conditional Use Permit process.
2. Submit a complete application with the appropriate fees to the Cabarrus County Planning Division.

Staff and appropriate agents will review your complete application and site plan and comments will be forwarded to you. You will need to address the comments in writing, revise the site plan accordingly and resubmit a site plan showing that all comments are addressed and errors corrected.

3. Once advised that the site plan is correct and ready to be presented to the Board of Adjustment, you will need to submit 18 folded copies of the plan.

4. When the copies of the plan are received, Staff will begin to prepare a staff report, schedule a public meeting date and notify adjacent property owners of the public meeting/public hearing date. A sign advertising the public hearing will also be placed on the property being considered for the Conditional Use Permit.

Meeting Information: Meetings are held the second Tuesday of each month at 7:00 PM in the Cabarrus County Governmental Center located in downtown Concord at 65 Church Street, SE.

Conditional Use Permit: Conditional Use Permits are considered by the Board of Adjustment during a quasi-judicial hearing. This means that anyone wishing to speak regarding the application must be sworn in. The vote requirement for the Conditional Use Permit to pass is a simple majority. Additional conditions may be added as part of the Conditional Use Permit approval process.

Questions: Any questions related to the Conditional Use Permit process may be directed to the Planning Division at 704-920-2141, between 8 AM and 5 PM, Monday through Friday.

TO THE BOARD OF ADJUSTMENT:
*I HEREBY PETITION THE BOARD OF ADJUSTMENT TO GRANT THE ZONING
ADMINISTRATOR THE AUTHORITY TO ISSUE A CONDITIONAL USE PERMIT FOR THE USE
OF THE PROPERTY AS DESCRIBED BELOW.*

<u>Applicant's Name</u>	<u>Property Owners' Names</u>
McBride Place Energy, LLC ("McBride" or "Applicant")	Five M's LLC; Bost ET, III; John P. McNeill and Adelaide Young McNeill; and JAB Farms, LLC
<u>Applicant's Address</u>	<u>Property Owners' Addresses</u>
2002 Lee Highway, #16005 Bristol, VA 24209	1583 Ridgedale Road (Five M's) Harrisonburg, VA 22801
tal@mcbrideenergy.com (571) 228-5105	4701 Hwy 200 (Bost) Concord, NC 28025
<u>Applicant's Representative</u>	
R. Susanne Todd Johnston Allison & Hord, PA 1065 East Morehead Street Charlotte, NC 28204 stodd@jahlaw.com (704) 332-1181	P.O. Box 656 (McNeill) Norwood, NC 28128 c/o Kermit Leslie Young, Jr. (JAB Farms) P.O. Box 18 Norwood, NC 28128

Parcel Information

Existing Use of Property	Agriculture/Vacant
Proposed Use of Property	Public Service Facility (Solar Farm)
Existing Zoning Property:	CR (Countryside Residential) & AO (Agricultural / Open Space)

Property Location	Area generally bounded by Rocky River to North; Mt. Pleasant Road South to East; and Hwy 601 to South and West	
Property Acreage	+/- 627.55 Acres	
Parcel Number (PIN)	+/- 299.24 AC of 55562441360000	(Five Ms)
	+/- 203.80 AC of 55572393350000	(Bost)
	+/- 1.27 AC of 5557306731000	
	+/- 21.42 AC of 55564697650000	(McNeill)
	+/- 94.99 AC of 55564821320000	(JAB Farms)
	+/- 6.83 AC of 55571343380000	

Land Use of Adjacent Properties

NORTH	Vacant/Agricultural	SOUTH	Residential/Farm
EAST	Farm/Residential	WEST	Residential

Proposed Use

Applicant, McBride Place Energy, LLC, proposes to install an approximately 74.9 MW (AC) solar energy conversion facility ("Facility", or "Solar Farm" or "Facility") on several parcels comprising over 600 acres in size. This \$130M Project will be located on a site that includes tracts owned by Five Ms, LLC and Gene Bost III. Five M's, LLC intends to purchase three tracts of land currently owned by the McNeill's ("McNeill Tract") and JAB Farms, LLC. All tracts not owned will be leased by Applicant for at least 25 years from the date the Facility becomes operational. Applicant will also be acquiring easements from certain adjacent landowners for purposes of maintaining existing vegetation to provide visual screening of the Facility in accordance with the Cabarrus County Zoning Ordinance ("Ordinance"). Collectively, the real estate supporting the Facility is referred to as the "Site".

The Facility will consist of solar panels that convert sunlight to electricity. The panels are supported by steel or aluminum frame supports which are hand driven into the ground at regular intervals. The support structures and panels are generally arranged in sequence east to west and in parallel with each other. Individual panels and structures are grouped together into an "array". The Applicant is proposing the Facility will include approximately 50 arrays. Depending on small variations in Site elevation, the panels are expected to be between 7 and 9 feet above-grade at their highest point. Arrays are separated by only so much distance as is needed to allow access for operating and maintenance and to prevent shading of any array by the arrays to the south.

Low-voltage electrical cable collects the electricity from the panels and arrays and carries the electricity to inverters where the direct current (DC) energy is converted to alternating current (AC). There will be approximately 50 inverters located within the Facility. The electricity is then transformed to a higher voltage by pad-mounted transformers within the Site. There will be approximately 50 transformers within the Site. The collector cables between arrays and inverters, and between inverters and transformers, will be buried underground. Inverters and transformers are self-contained and no electrical

circuits are exposed. Once transformed to a suitable medium voltage, the electricity will be carried by cable to a new electric substation to be built and operated by Applicant on the McNeill Tract. Applicant will deliver the Facility's output to Union Power Cooperative's (UPC) adjacent breaker station connected with the new Facility substation for distribution to UPC's electric grid.

The arrays, inverters, transformers and all related equipment that comprise the Facility will be contained within a six-foot chain link fence. There will be five driveways into the Site and gated access to the interior of the fenced area. Fiber optic or equivalent communication equipment will be installed to monitor the performance of the arrays and other Facility equipment remotely. No personnel will be located on-site, other than for maintenance activities as required.

Marketable timber within the Site will be harvested, and remaining stumps, brush and other vegetation removed as needed for construction. Existing trees and vegetation at the perimeter of the Site will be retained to provide visual screening. Similarly, trees and vegetation on certain adjacent tracts will be retained by agreement with the landowners for the duration of the Facility. To the extent there are areas along the exterior perimeter of the Site that require additional vegetation for screening, new shrubs or shorter trees, native to the area, and, where possible, pollinator friendly, will be planted and maintained. Within the fenced portion of the Site and buffer areas, native grasses will be planted and maintained.

Construction will consist of removing trees and other vegetation within the Site to allow for installation of the solar arrays and other Facility equipment. Due to topography, some grading and excavation is expected over the 600+ acre Site. Electrical cabling will be trenched underground. Gravel roads will be constructed as necessary to maintain the Site; racking and panels will be installed, along with the inverters and transformers. The substation will be constructed and installed on the McNeill Tract in parallel with array construction. The total construction process, will last approximately 7 months, with a completion date scheduled for December 2017.

General Requirements

The Zoning Ordinance imposes the following general requirements on the use requested by the applicant. Under each requirement, the applicant should explain, with reference to the attached plans (when applicable) how the proposed use satisfies these requirements.

- 1. The Board must find that the uses(s) as proposed "are not detrimental to the public health, safety or general welfare." (Zoning Ordinance Section 8-3: "Conditional uses must maintain or enhance the public health, safety and general welfare if located where proposed and developed and operated according to the plan as submitted.")**

- A. General Comment**

The proposed Facility will not be detrimental to public health, safety or the general welfare of Cabarrus County citizens. This application is intended to provide information consistent with that required by Cabarrus County Zoning Ordinance ("Ordinance"). McBride is willing to provide the County with additional information and/or respond to questions and requests as needed.

- B. Public Health**

Solar farms are facilities with equipment designed to receive and collect as much direct and diffuse sunlight as possible, converting it to usable clean electric energy. Solar farms

lessen our dependency on other methods of generating energy such as nuclear, coal, natural gas and oil, all of which produce various waste streams that must be addressed. Solar farms do not create chemical or toxic by-products that threaten air, soil, ground water or surface water resources; they do nothing to generate or spread disease or bacteria; and are not a source of environmental noise that would disturb the emotional health of local residents. The proposed Facility includes electrical inverter and transformer equipment located throughout the Site.

Although the arrays are silent, the inverter and transformer equipment produce a humming sound which can be heard within close proximity, but then quickly dissipating as one moves away from the equipment. Proposed plans place the closest inverter and transformer 300 feet from the edge of the fence line. Vegetation and topography further mitigate any audible sound such that it is unlikely that the Facility will be heard above the ambient sounds of the surrounding area.

Use of the property by a quiet solar farm prevents the site from being used by many other uses that create substantial environmental noise (e.g. tractors for farming, lawnmowers from a single-family subdivision, guns from hunters). Furthermore, solar farm use protects the ground and surface waters from the uses that could otherwise be developed as a matter of right (e.g. collection of manure from dairy farming; chemicals used in nurseries and greenhouses; or chemicals used in crop production). To the extent that these other, potentially intrusive uses would no longer be allowed, public health is enhanced.

As a result of these facts, the use will maintain or enhance public health.

C. Public Safety

(i) Traffic

Transportation/traffic safety is one of the key issues when considering the impact a use will have on public safety. Post construction, this Facility will generate very little traffic, with no incoming/outgoing vehicle trips most days. The Facility will be remotely monitored with no permanent personnel located at the Site. Traffic will consist of periodic trips by vehicles coming to the Site to check on, and maintain equipment and vegetation.

In sharp contrast, a low density residential subdivision of 126 homes on this Site with a conservative estimate of 2-4 vehicle trips per home, per day, would burden Joyner Road, US Hwy 601, and Mt. Pleasant Road with between 252 and 504 new vehicle trips per day

Construction of the Facility is projected to occur over a 7 month period, during which there will be daily traffic activity by construction contractors and other project team experts. NCDOT requirements and specifications will be followed and road access permit conditions will be met.

(ii) Environmental Safety

Unlike farming and other uses, solar farm use protects adjoining streams from sedimentation from soil erosion. Solar cells are mounted on racks and hand

driven into the ground with minimal site grading. Hearty grass suitable to the climate is planted beneath the cells for soil stability. During construction, standard erosion control measures will be constructed and maintained in accordance with local and state storm water regulations. As with most developments, storm water and erosion control permits must be obtained prior to construction and land disturbance. Solar farm use does not require the spraying of pesticides typically used in commercial farming operations. As such, storm water runoff from solar facilities does not contain these potentially harmful pesticides. There are no harmful emissions from the solar panels.

(iii) Equipment Safety

The Facility will be constructed to meet or exceed all standards of the National Electric Code, and all equipment is listed with and will comply with Underwriters Laboratories, a safety consulting and certification company that specializes in the public adoption and drafting of safety standards for electrical devices and components.

The facility will be surrounded by a six foot chain link fence and may include 3 strands of barbed wire along the top to protect both the public and the facility from unauthorized access.

(iv) Offsite Glare

The Applicant has engaged a national engineering firm to perform a "glare study" of the project site. Based on the site conditions, characteristics and location of the solar panels and angles of the sun, study results show little concern for offsite glare for vehicles on adjacent roadways and properties. Use of landscape screening will mitigate the few areas having potential for low-level glare. There is no FAA regulated airport within 5 nautical miles from the center of the solar farm Project.

As a result of these facts, the use will maintain or enhance public safety.

D. General Welfare

The Applicant respectfully objects to being asked how the use will maintain or enhance the general welfare, which is a legislative determination not appropriately made by a Board of Adjustment under powers granted to such boards under N.C. Gen. Stat. § 153A-345 and § 160A-388. Notwithstanding this objection, the applicant replies that this facility will (i) provide temporary construction jobs and increase the county tax base without requiring more schools or water/sewer infrastructure to be built; (ii) allow for interim use of property that is not served by public water or sewer; (iii) maintain open land in a rural area without adding measurable vehicle trips to the roadways; (iv) provide sustainable and clean energy for citizen and business consumption and as an alternative to energy from fossil fuels and nuclear sources; and (v) enable local citizens to find productive use of farmland without being pressured to sell their land for use as a housing development that would put strains on the school system, road system, and require more law enforcement services.

As a result of these facts, the use will maintain or enhance the general welfare.

2. **The Board must find that the use(s) as proposed "are appropriately located with respect to transportation facilities, water supply, fire and police protection, waste disposal, etc." (Zoning Ordinance Section 8-3: Conditional Uses must "assure the adequacy of sewage disposal facilities; solid waste and water facilities; police, fire and rescue squad protection; schools; transportation systems; and other facilities.")**

A. Transportation

The vehicle trips for the solar farm will be so few that most days it will produce no traffic at all. The entrance and access points will be approved by NCDOT pursuant to driveway permit requirements. Internally within the Site, sufficient access will be constructed to accommodate required vehicles.

B. Sewage Disposal Facilities

The solar farm Site is not currently served by public water or sewer. During construction, there will be portable toilets on site. Post construction, the solar farm site will require zero bathrooms because it will not have daily workers.

C. Solid Waste

Debris generated during construction will be disposed of at an appropriate facility.

D. Water Facilities

The proposed Facility will not require a tap and will not have water on Site.

E. Schools

This Facility will not create any burdens on the school system. Instead, it will generate tax revenue that could be used for school construction while adding no children to the school population.

F. Police, Fire and Rescue Squad Protection

There is no reasonable basis upon which to conclude that police, sheriff, ambulance, rescue squad or other emergency officials would be called or needed more than any other business in the county. Because the Site does not attract traffic or people, there is a reasonable basis to conclude that it will require far less attention from police, fire and rescue squad services. Applicant will work individually with all local jurisdictions to insure public safety personnel have access to the Site.

As a result of these facts, the adequacy of sewage disposal, solid waste, water, police, fire, rescue squad, schools, transportation are assured and will be maintained. Applicant respectfully requests a list of any "other public facilities," as referenced in the zoning ordinance. It will be pleased to address such facilities as requested.

3. **The Board must find that the use(s) as proposed "will not violate neighborhood character nor adversely affect surrounding land uses." (Zoning Ordinance Section 8-3: Conditional Uses must "maintain or enhance the value of contiguous property unless the use is a public necessity, in which case the use need not do so")**

A. General Comment

Please note, Sections B and C address the Ordinance standard of maintaining or enhancing adjacent property values; Section D respond to the Conditional Use Permit questions about the proposed project with respect to the character of the surrounding property uses and public necessity.

B. The Use Will Maintain or Enhance the Value of Contiguous Property

Because solar farms are relatively new to North Carolina, it is not uncommon for citizens to assert unsubstantiated claims that the use will harm their property values. There is nothing about a solar farm's quiet, odorless, dust free, low traffic characteristics that would make it an "external obsolescence" (a use that has an impact on nearby properties). Applicant will present such evidence at the hearing.

C. Public Necessity

On October 29, 2013, McBride Place Energy, LLC filed an application with the North Carolina Utilities Commission seeking a certificate of public convenience and necessity for construction of a 79.9-MW solar photovoltaic facility. After public notice was provided and no complaints received, the Public Staff, in accordance with North Carolina Gen. Stat. §62-110.1, determined that the construction and operation of the facility was in the public interest, based in part on the probable future growth of the use of electricity and the probable needed generating reserves for the benefit of the people of North Carolina. On November 24, 2014, and as amended on December 16, 2016, the North Carolina Utilities Commission issued to McBride Place Energy, LLC, the requested Certificate of Public Necessity and Convenience. Note, the proposed Facility is sized slightly smaller to meet the requirements of interconnection with UPC.

D. The Use Will Not Violate the Neighborhood Character or Adversely Affect Surrounding Land Uses

The Project site and surrounding properties are zoned as Countryside Residential (CR) and Agricultural/Open Space (AO). The Ordinance describes each district as follows:

CR – Provide permanent county/rural residential life style
AO – Provides for low intensity agricultural operations

Solar energy facilities are classified as a "Public Service Facility" which are permitted uses (subject to a conditional use permit) in CR and AO Zoning Districts (Section 3-8 Table of Permitted Uses, page 6 of 9).

Unlike a farm, or a number of other small business endeavors contemplated in Chapter 3 of the Ordinance which can be used by right or by meeting certain standards on this Site, the proposed use of a solar farm generates no odors, does not use loud equipment, generates no dust, produces no waste and does not use chemicals or pesticides in the manner that an agricultural farming operation would. Unlike other permitted uses within AO and CR zoning (for example a subdivision; group or family care facility; dairy processing; or nursery/greenhouse) that could be constructed on this Site, the proposed Solar Farm use does not generate traffic and will not have multiple bright, nighttime security lights.

No characteristic of this proposed Facility would prevent a neighboring landowner from enjoying the full use of their home or land for any purpose they currently engage in or could engage in under the Ordinance.

The proposed Site is generally wooded and/or adjacent to properties that are themselves heavily wooded. In general, existing natural vegetation along the north, east and south sides of the Site consist of dense and well-developed evergreen pine growth of various heights and maturity. Areas along the west and northwest also include existing natural growth of hardwoods such as sweet gum, red oak, white oak, hickory and red maple. The Bost Creek, interior to the project, is generally lined with Sycamore trees and hardwoods.

McBride proposes to retain and utilize the existing trees and vegetation as a natural buffer around the perimeter of site as much as possible and supplement where needed, by planting additional buffer vegetation to accomplish the level one 100 foot buffer, as determined necessary. The interior of the parcels will be harvested of timber and vegetation as necessary to accommodate the solar arrays. The existing perimeter vegetation will be largely retained to provide buffering. As is shown in the aerial pictures of each project parcel, existing vegetation is quite full and in most locations, the density of existing trees and shrub growth exceeds the standards described in *Table Four: Landscape Perimeter Buffer Yards* of the Ordinance (Section 9 - Landscaping and Buffering).

The Facility does not include any buildings on the Site. Existing telephone, electrical and cellular infrastructure are common throughout Cabarrus County are considered typical structures commonly seen in rural areas such as the Site. Parts of the proposed Facility are adjacent to the area's main thoroughfares – US Highway 601, Mt. Pleasant Road, and Joyner Road. Certain portions of the project Site already include a 100-foot utility right-of-way for an existing electric power line on the north side of Joyner Road and along the west side of Mt. Pleasant Road.

Solar panels are not obtrusive and are much shorter in height than a typical home or barn. In fact, solar arrays are the approximate height and character of greenhouses, a common structure in low density, agriculture zoned areas.

Leasing property for a low impact use such as a solar farm allows owners of farmland to maintain large tracts of open land for themselves and their heirs instead of having to succumb to the economic pressure of selling the land for residential or other development. Solar farm use serves to protect existing farming industry by providing a steady income on some acreage so that a farmer can continue agricultural farming operations on their remaining acreage.

4. **The Board must find that the use(s) as proposed "will comply with the general plans for the physical development of the County or Town, as embodied in the Zoning Ordinance or in the area development plans that have been adopted." (Zoning Ordinance Section 8-3: Conditional Uses must "comply with the general plans for the physical development of the County as embodied in these regulations or in the Land Use Plan adopted by the Cabarrus County Board of Commissioners.")**

The majority of the Site is zoned Countryside Residential ("CR") with the portion north of Joyner Road designated as zoned Agricultural/Open District (AO). Under the Ordinance, solar farm use is an allow use in CR and AO districts as a Public Service Facility (subject to a Conditional Use

Permit). Including solar farms as a permitted use in CR and AO districts establishes a legislative presumption that solar farms in these districts are consistent with the general plans for the physical development of the County, the County's land use plan and the County's Ordinance.

The N.C. Supreme Court held in *Woodhouse v. Board of Commissioners*, 299 N.C. 211, 261 S.E.2d 882 (1980), that "The inclusion of the particular use in the ordinance as one which is permitted under certain conditions is equivalent to a legislative finding that the prescribed use is one which is in harmony with the other uses permitted in the district" See also, *Mann Media v. Randolph County*, 356 N.C. 1, 565 S.E.2d 9 (2002). *Blair Investments, LLC v. Roanoke Rapids City Council*, 752 S.E.2d 524, 529 (N.C. Ct. App. 2013).

Specific Requirements

The Zoning Ordinance also imposes SPECIFIC REQUIREMENTS on the use(s) requested by the applicant. The applicant should be prepared to demonstrate that, if the land is used in a manner consistent with the plans, specifications, and other information presented to the Board, the proposed use(s) will comply with specific requirements concerning the following:

Nature of use (type, number of units, and/or area): 74.9-MW Public Service Facility (Solar), including a substation owned by Applicant for purpose of collecting solar energy produced by the Facility and to interconnect and deliver such energy to the local electric utility provider.

Accessory uses (if any): NA

Setback provisions:

Principle Use

Front: 75' Side yard Single: 20' Side yard Total: 40' Rear: 30'

Accessory Use

Front: _____ Side yard Single: _____ Side yard Total: _____ Rear: _____

Height provisions: Principle Use: Not To Exceed 10' Accessory Use: NA _____

Off street parking and loading provisions: (include calculations)

Zero (0) number of parking spaces as shown on site plan; zero parking spaces required since Facility is unmanned and remotely monitored. Interior maintenance aisles within the Site are wide enough to accommodate temporary vehicle parking off to the side.

Sign provisions: (include sketch drawing with dimensions)

See Site Plan.

Provisions for screening landscaping and buffering: (show on site plan)

A Level One buffer will be provided around the perimeter of the Project adjacent to residential zoning. Said buffer will utilize existing trees, shrubs and vegetative growth to the extent the height and location will avoid interference with the path of sunlight to the arrays. Supplemental plantings will be made where additional screening is needed using plants and trees native to the area, and where possible, pollinator

friendly. The Buffer Yard screening detail is shown on the site plan.

Provisions for vehicular circulation and access to streets: (provide NCDOT permit and/or TIA)

There will be 5 point(s) of access to the proposed solar farm site; one along US 601, two along Mt. Pleasant Road and two on Joyner Road. The NCDOT permit(s) are attached and incorporated herein by reference. Circulation needs are minimal and road(s) are as shown on site plan. During construction, the driveways will be gravel per NCDENR erosion & sediment control plan specifications, with a larger radius to accommodate construction traffic. Post construction, the driveway(s) will be constructed per the approved NCDOT driveway permit, which will also consist of gravel from the existing edge of pavement, extending to the radius point of the turnout. Following construction, employees will visit the site weekly or less frequently to check on/maintain the equipment and manage vegetation. The proposed solar farm Facility will generate far fewer trips per day than one average single family detached home. On-site circulation, through and around the solar array, will consist of soil access drives.

Adequate and safe design for grades, paved curbs and gutters, drainage systems, and treatment or turf to handle storm waters, prevent erosion, subdue dust:

The proposed Facility will maintain existing, pre-development drainage patterns. Steel posts are individually driven into the ground to support the solar array racking. The Site is designed to minimize impervious surfaces and property control stormwater, including erosion. The area beneath the solar panels will be planted with grass where needed to stabilize the ground. The only permanent impervious surfaces are rack posts and concrete slabs at each inverter area and transformer, and under substation/breaker station area.

An adequate amount and safe location of play areas for children and other recreational uses according to the concentration of residential property:

Not applicable.

Compliance with applicable overlay zones: (see Chapter 4 of Zoning Ordinance)

Property falls within MH-2 overlay district and Applicant complies with any applicable provisions in Chapter 4. Site will comply with applicable provisions of the Waterbody Buffer Zone (WBZ) in Chapter 4.

Compliance with the Flood Damage Prevention Ordinance: (see County Code Chapter 38)

Per flood maps, Site is not within a perennial flood zone; there is a small portion of the site property to the southeast in 100-year flood zones as shown by the Cabarrus County GIS system. No equipment associated with this Facility will be placed in these areas and there is no planned construction activity which would disturb these locations.

Other requirements may be requested by the applicant or specified by the Board for protection of the public health, safety, welfare, and convenience:

Predefined Standards

Each individual Conditional Use listed in the Zoning Ordinance may have specific standards imposed. Refer to Chapter 8, the Conditional Use section of the Zoning Ordinance for these requirements. Each standard should be addressed in the site plan submitted along with this application.

Certification

I hereby confirm that the information contained herein and herewith is true and correct and that this application shall not be scheduled for official consideration until all of the required contents have been submitted to the Planning and Development Department.

Signature of Applicant _____ Date _____

Signature of Owner (Bost) _____ Date _____

Signature of Owner (JAB Farms) _____ Date _____

Signature of Owner (McNeill) _____ Date _____

Signature of Owner (McNeill) _____ Date _____

Signature of Owner (Five M's) _____ Date _____

STATE OF NORTH CAROLINA
COUNTY OF CABARRUS

BEFORE THE
CABARRUS COUNTY BOARD OF
ADJUSTMENT
CUP #2017-0001

CONDITIONAL USE PERMIT
APPLICATION FOR A PUBLIC SERVICE
FACILITY (SOLAR ELECTRIC POWER
PLANT) BY MCBRIDE PLACE ENERGY,
LLC

**STATEMENT OF JUSTIFICATION IN
SUPPORT OF THE CONDITIONAL USE
PERMIT APPLICATION**

NOW COMES THE PETITIONER, by and through counsel of record, and respectfully requests approval of their application for a conditional use permit to operate a solar farm. In support of this request, Petitioner provides the following information:

I. INTRODUCTION

McBride Place Energy, LLC proposes to construct a public service facility (“Solar Farm” or “Facility”) on approximately 627 acres located in Cabarrus County, North Carolina (the “Property”). The Property is zoned Countryside Residential (CR) and Agriculture/Open Space (AO). Under the Cabarrus County Zoning Ordinance (“Ordinance”), Solar Farm is a permitted use in CR and AO zoning, subject to a Conditional Use Permit.

The Solar Farm will contain rows of photovoltaic (“PV”) cell solar panels mounted to steel and aluminum racking. The posts are set individually in an effort to minimize the amount of grading on site. These rows of PV cells are referred to as “solar arrays”. The solar arrays will be both fixed panels as well as trackers that slowly follow the sun as it makes its way across the sky. .

II. STATEMENT IN SUPPORT OF APPLICATION

A. The proposed Facility will maintain or enhance the public health, safety or general welfare if located where proposed and developed and operated according to the plan as submitted.

The proposed Facility will not be detrimental to public health, safety or the general welfare of Cabarrus County citizens.

The Facility will collect sunlight and convert it to clean useable electric energy. Solar farms contain no hazardous materials and unlike other methods of generating electricity such as nuclear, coal, oil and natural gas, solar farms produce no chemical or toxic by product in the process.

The proposed Facility is quiet with only the inverters and transformers making a humming sound during daylight hours. The humming can only be heard in close proximity to the equipment and

dissipates quickly as one moves to the edge of the project. From the project fence line, it is unlikely that the proposed facility can be heard over the ambient noise of the surrounding area.

To the extent that solar farm use prevents the Property from being used for other noises that create environmental noise or potentially harmful by products such as hunting, dairy farming, crop production or development as a subdivision, the proposed Facility protects the Property from these by right uses.

Post construction, the Solar Farm will create very little traffic, generating far fewer daily trips than one average single family detached home. The Facility will not be staffed daily. The Facility will be monitored by Employees 24/7 remotely. Employees will visit the site weekly or less frequently to check and maintain equipment and vegetation management.

The Facility will have access from five (5) permitted entrances. One entrance is on Hwy 601 S, two on Joyner Road and two entrances on Mt. Pleasant Road; public rights-of-way of adequate width to accommodate emergency vehicles.

The proposed Facility will be constructed in accordance with the standards of the National Electric Code and all equipment is UL compliant.

The active area of the proposed Facility will be enclosed by a six (6) foot tall chain-link fence to protect both the proposed Facility and the public from unauthorized access to the Property.

The proposed Facility will be screened from adjoining parcels and public rights-of-way to provide a visual barrier and mitigate any glare.

The proposed Facility will protect against soil erosion and sedimentation. Care is taken to minimize grading on the site by individually setting poles to support the solar cells. The areas beneath the solar panels will be planted with grass to stabilize the site. During construction, erosion control measures will be maintained in accordance with the County regulations. The site will comply with State of North Carolina and Cabarrus County storm water regulations.

The proposed Facility will increase the County's tax base without requiring more schools or water/sewer infrastructure to be built. The proposed Solar Farm will create temporary jobs to the community while allowing an interim use for land that is not currently served by public water and sewer.

B. The proposed Facility will assure the adequacy of sewage disposal facilities; solid waste and water facilities, police, fire and rescue squad protection; schools; transportation systems; and other facilities.

The proposed Facility is unmanned except for occasional maintenance visits and therefore does not require sewer or water facilities to operate. Water needed to clean the solar panels will be brought in on trucks. The proposed Facility will not require trash pick-up or burden the existing school system. Post construction, the proposed Facility will generate far less trips per week than the average single family residence. Solar farms do not contain hazardous materials or attract traffic or people and as such, it is reasonable to conclude that the proposed Facility will require far less fire, police and rescue resources than other potential uses. Due to limited or non-use of public infrastructure and services, adequacy will be assured.

C. The proposed Facility will maintain or enhance the value of contiguous property.

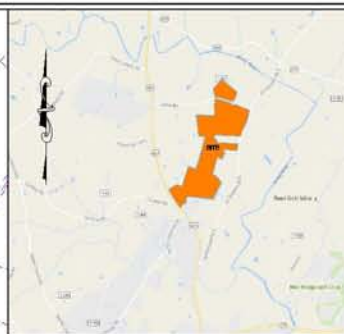
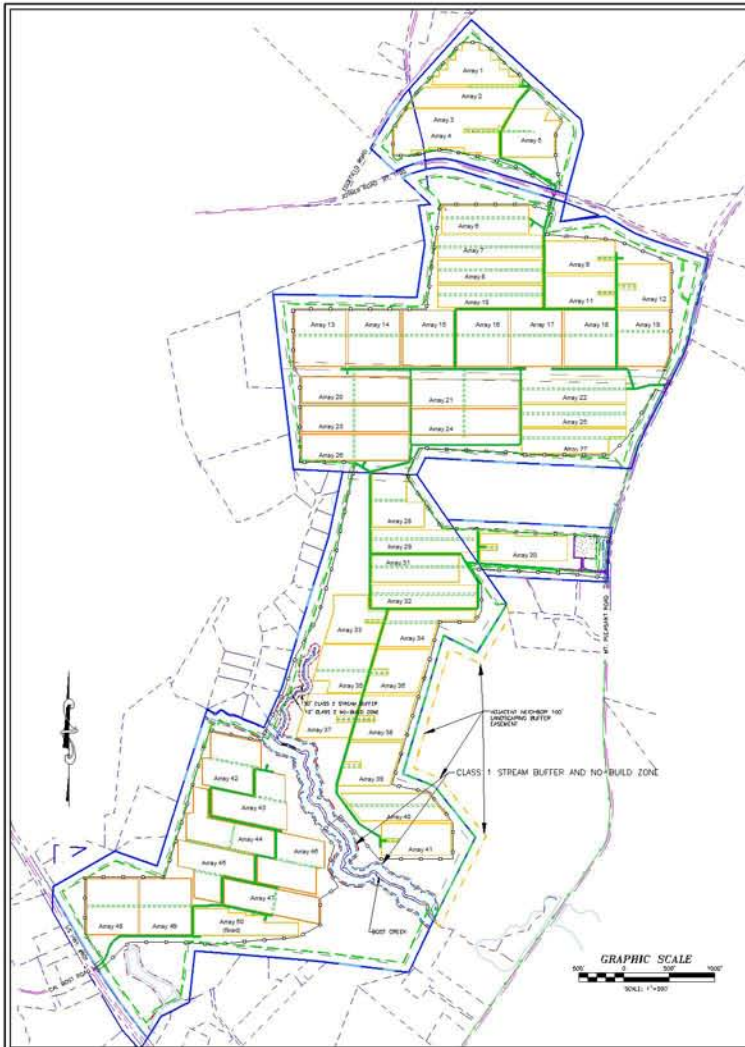
The proposed Facility has no characteristics that typically would be considered as having a negative impact on adjacent properties. The creation of solar energy is barely audible. The only sound is the quiet hum of equipment within the site converting and conveying electricity to the

power grid during daylight hours. The proposed Facility creates no odor. The ongoing operation of a solar farm requires limited maintenance and does not draw a significant traffic volume in normal operation. The proposed Solar Farm will generate far fewer daily trips than one average single family detached home. The proposed Facility will not create chemical or toxic byproducts. The proposed Facility creates clean, renewable energy, reducing reliance on other sources of electricity such as coal, nuclear, natural gas or oil, all of which produce various waste streams. Solar panels are shorter in height than a typical home or barn. When mounted on racks, the panels will not exceed 10' in height, similar to green houses, a common sight in rural, agricultural areas. The proposed Facility will be adequately screened from adjacent residential use and rights of way as required by this Ordinance.

D. The proposed Facility will comply with the general plans for the physical development of the County as embodied in the Zoning Ordinance or in the Land Use Plan adopted by the Cabarrus County Board of Commissioners.

The Property is zoned as Countryside Residential (CR) and Agriculture/Open Space (AO) pursuant to the Cabarrus County Zoning Ordinance ("Ordinance"). In 2014, the County included solar farm as an allowed use (with a permit) in CR and AO zoning districts creating a legislative presumption that solar farm use is consistent with the County's plans for physical development. Solar Farm is a permitted use in CR and AO zoning, subject to a Conditional Use Permit; therefore the Solar Farm use is a harmonious use in CR and AO zoning districts and complies with the general plans for the physical development. The proposed Facility meets the specific standards and conditions for solar farm use as set forth in the Ordinance. The County adopted Land Plan for this area emphasizes preservation of agricultural property, solar farm use being the only development that allows for complete restoration of the property to its prior condition upon completion of said use.

FYI.C300



VICINITY MAP
SCALE: 1" = 3000'

LEGEND

- SITE BOUNDARY
- EXISTING PROPERTY LINE
- SETBACK LINE
- PROPOSED FND
- PROPOSED ROW LINE
- PROPOSED SERVICE AREA
- EXISTING ROAD
- PROPOSED ROAD
- PROPOSED FENCE
- CHURCHY FENCE
- HEAVY INCREMENT
- LIGHT INCREMENT
- CHURCHY AREA
- FIELD SOLAR PANELS
- TRUCKING SOLAR PANELS
- TOP OF BODY ONLY STREAM BANK
- STREAM BUFFER
- NO-BUILD WATER BODY SETBACK
- REPLENTMENT STREAM BUFFER
- 100' LANDSCAPE BUFFER
- PROPOSED ALLEGED HIGHWAY BUFFER

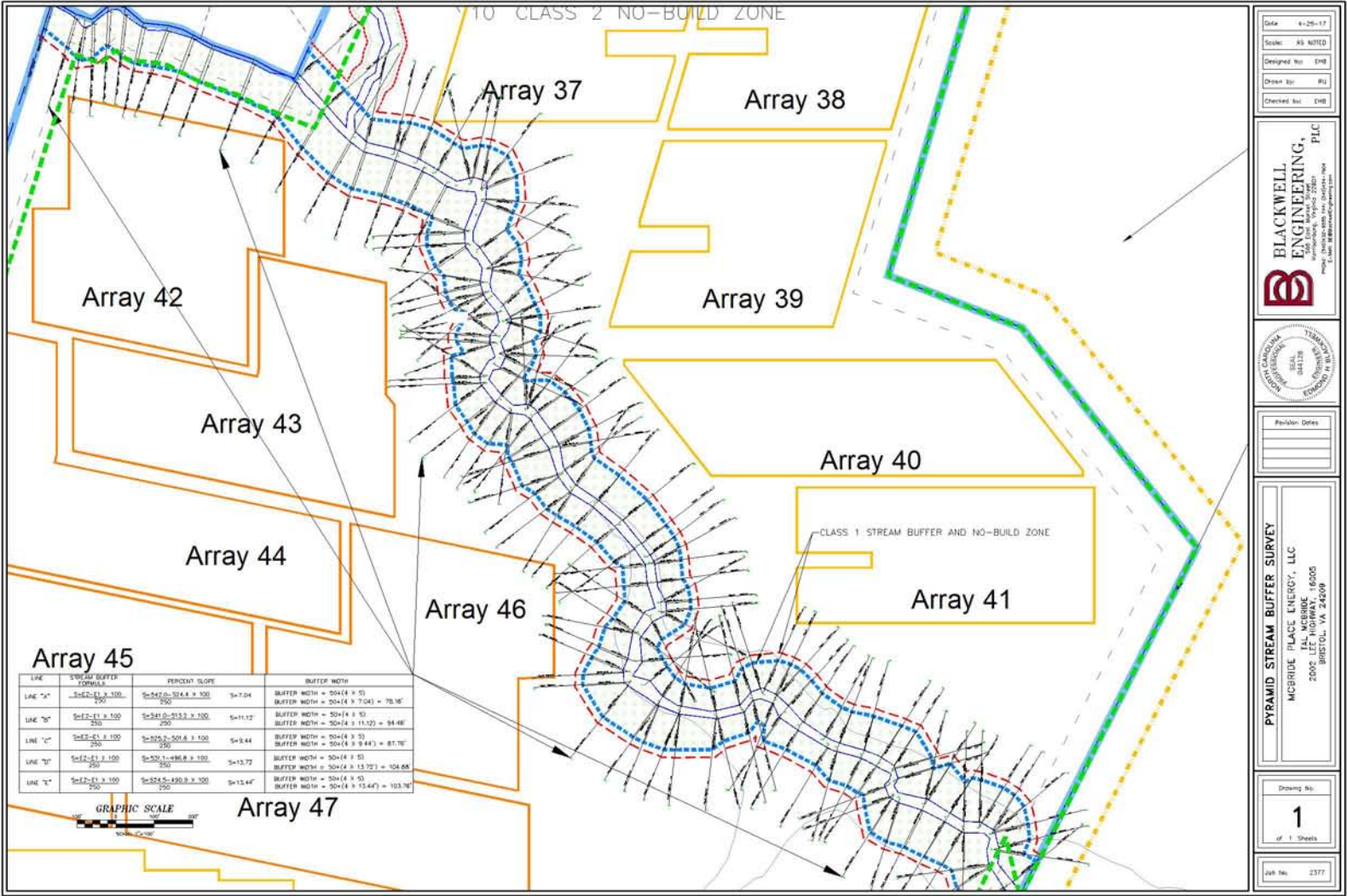
Date	6-25-17
Scale	AS NOTED
Designed By	ENB
Drawn By	BL
Checked By	ENB

BLACKWELL ENGINEERING, PLC
INCORPORATED IN THE STATE OF CALIFORNIA
10000 WILLOW CREEK DRIVE, SUITE 100
DUBLIN, CALIFORNIA 94568
TEL: 916.481.1000
WWW.BLACKWELLEN지니어링.COM

Project Name	SITE LAYOUT
Client	MCCBRIDE PLACE ENERGY, LLC 2005 LEE HIGHWAY 6500 DUBLIN, CA 94568

Drawing No.	1
of 1 Sheets	

Job No.	2377
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Date: 4-25-17

Scale: AS NOTED

Designed by: EMB

Drawn by: BJJ

Checked by: EMB

BLACKWELL
ENGINEERING,
PLC

04128
EDMONT, ALBERTA, CANADA

PROJ. NO. 2377

PROJ. NAME: PYRAMID STREAM BUFFER SURVEY

CLIENT: MCBRIDE PLACE ENERGY, LLC

ADDRESS: 2005 LEE HIGHWAY 6505
BRISTOL, VA 24209

Drawing No.

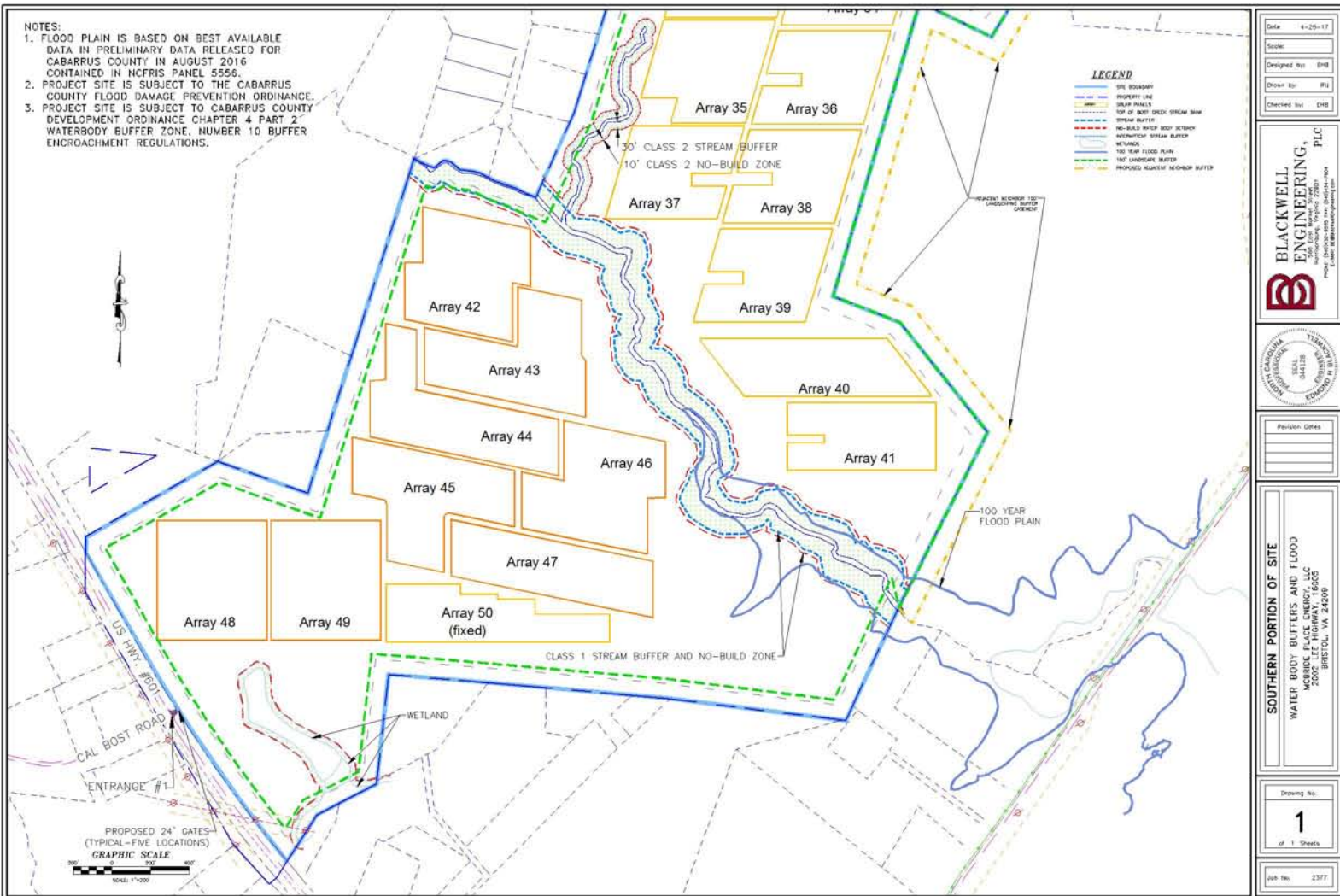
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of 1 Sheets

Job No.

2377

- NOTES:
1. FLOOD PLAIN IS BASED ON BEST AVAILABLE DATA IN PRELIMINARY DATA RELEASED FOR CABARRUS COUNTY IN AUGUST 2016 CONTAINED IN NCFRIS PANEL 5556.
 2. PROJECT SITE IS SUBJECT TO THE CABARRUS COUNTY FLOOD DAMAGE PREVENTION ORDINANCE.
 3. PROJECT SITE IS SUBJECT TO CABARRUS COUNTY DEVELOPMENT ORDINANCE CHAPTER 4 PART 2 WATERBODY BUFFER ZONE, NUMBER 10 BUFFER ENCRoACHMENT REGULATIONS.



Date	4-25-17
Scope:	
Designed By:	CH
Drawn By:	RL
Checked By:	CH

**BLACKWELL
ENGINEERING,
PLC**
566 East Main Street
Warrenburg, Virginia 22081
Phone: (540) 925-5555 Fax: (540) 934-7004



Revision Notes

SOUTHERN PORTION OF SITE

WATER BODY BUFFERS AND FLOOD
MCBRIDE PLACE ENERGY, LLC
2002 LEE HIGHWAY, 16505
BRISTOL, VA 24209

Drawing No.
1
of 1 Sheets

Job 146	2377
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MCBRIDE PLACE ENERGY, LLC SOLAR FARM

A 74.9 MW SOLAR FARM
LOCATED ON 627.6± ACRES IN
CABARRUS COUNTY, NORTH CAROLINA



VICINITY MAP
SCALE: 1" = 2000'

DEVELOPER:
MCBRIDE PLACE ENERGY, LLC
TAL MCBRIDE
2002 LEE HIGHWAY, #16005
BRISTOL, VA 24209
571-228-5105

CERTIFICATE OF PLAN APPROVAL



The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by the North Carolina Department of Transportation. This certificate is valid for the project described herein and is subject to the provisions of the North Carolina General Statutes 113A-87 (a) and 113A-88 (a) and the North Carolina Administrative Code, 15A-0405, Chapter 48-0007 (a). This certificate must be posted at the primary entrance of the job site before construction begins and must be maintained in accordance with the provisions of the North Carolina Administrative Code, Title 15A, Chapter 48-0007 (a).

Project Name and Location
Date of Plan Approval
Signature of Engineer
Professional Engineer
Seal of Engineer

PR:
MCBR
5
h.
PIN#S 5556-24-4136; 555;
5556-
NOTE: ACREAGE WITH
PROPOSED L

THIS PROPERTY IS SUBJECT
AS PER THE NCFRIS, PRELIM
FEMA FLOOD ZONE: ZONE X
ZONE X
TOTAL PROPOSED



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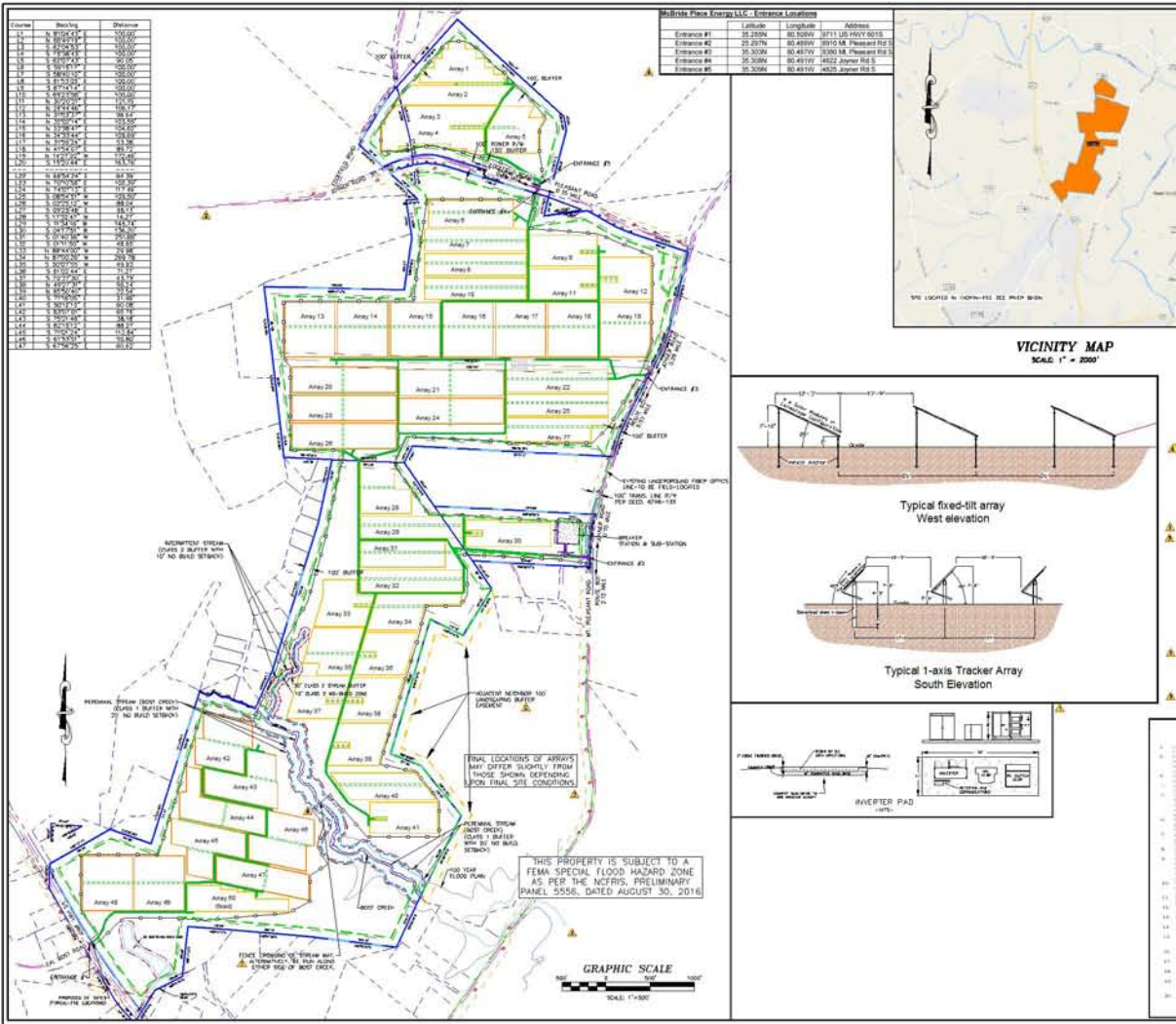
LA
14805 E
David
PHONE:

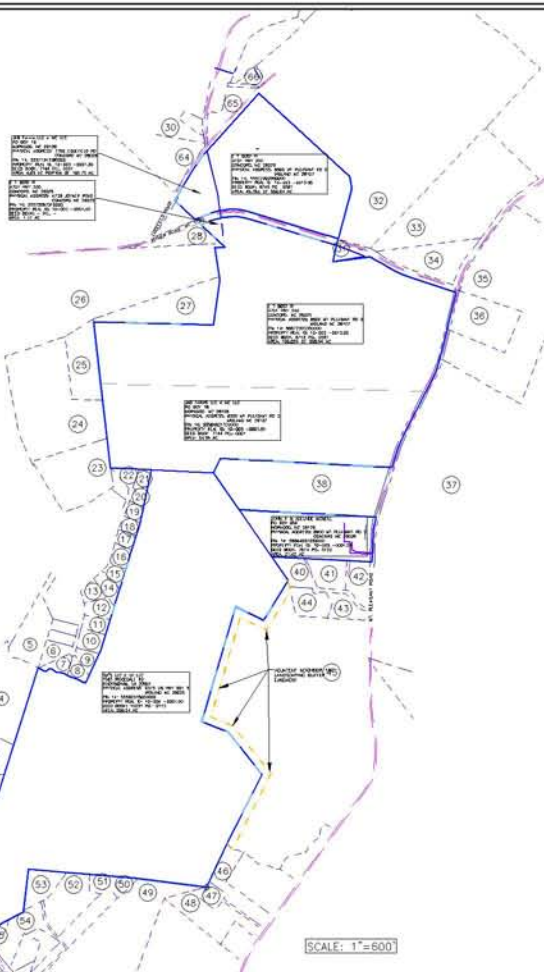
SHEET INDEX	
SHEET	DESCRIPTION
1	TITLE SHEET
1.1	EXHIBITS
2	LAYOUT - OVERALL
3	ADJACENT PROPERTY OWNERS
4	CONSTRUCTION AREAS
5.0	GRADING-ESC PLAN - OVERALL
5.1	GRADING-ESC PLAN - AREA 1.1
5.2	GRADING-ESC PLAN - AREA 1.2
5.3	GRADING-ESC PLAN - AREA 2.1
5.4	GRADING-ESC PLAN - AREA 2.2
5.5	GRADING-ESC PLAN - AREA 3.1
5.6	GRADING-ESC PLAN - AREA 3.2
5.7	GRADING-ESC PLAN - AREA 3.3
5.8	GRADING-ESC PLAN - AREA 4.1
5.9	ESC PLAN NARRATIVE
5.10	ESC PLAN NARRATIVE
5.11	GRADING DETAILS
6	DRAINAGE AREAS & SOILS
7.0	LANDSCAPING - OVERALL
7.1	LANDSCAPING - SOUTH
7.2	LANDSCAPING - MID-SOUTH
7.3	LANDSCAPING - MID-NORTH
7.4	LANDSCAPING - NORTH

REVISED: 4-25-17 PER COUNTY
REVISED: 4-19-17 PER COUNTY
REVISED: 4-3-17 PER COUNTY
REVISED: 3-22-17 PER COUNTY
REVISED: 3-10-17 PER COUNTY
REVISED: 2-15/2017 - PER NCDEO
REVISED: 1/26/2017 - PER NCDEO
ORIGINAL PLAN DATE: 1/5/2017

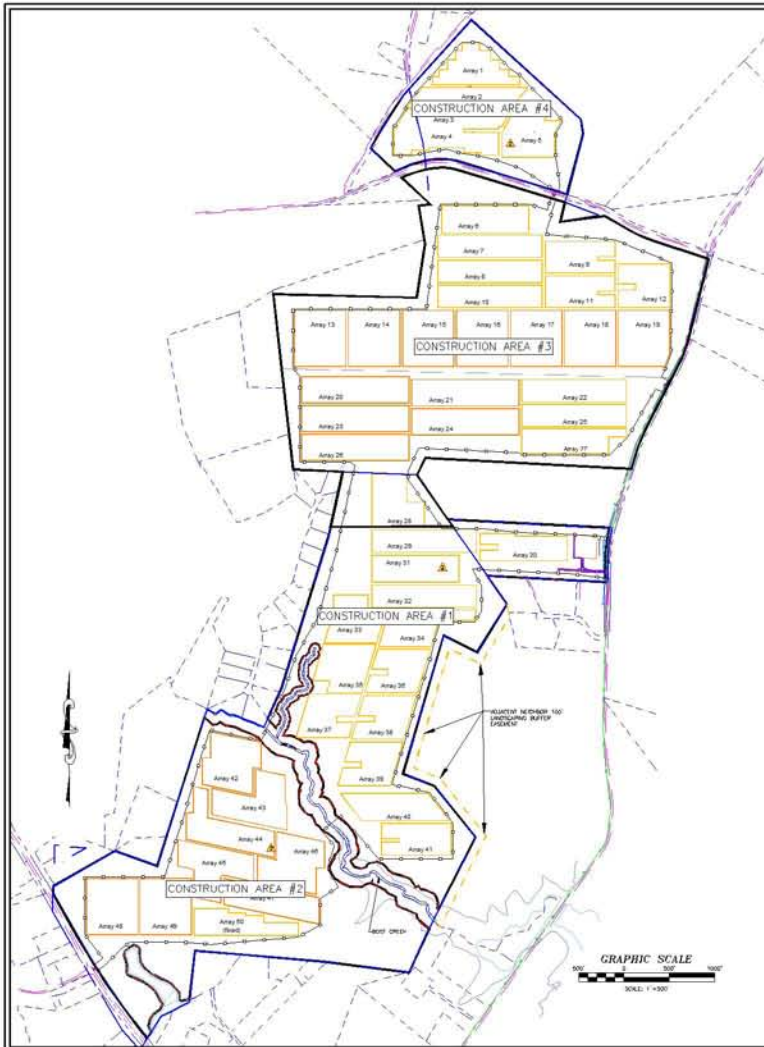
SOLAR FARM EXHIBITS







ADJUDICATED PRIVACY VIOLATIONS				Nondisclosure of Information		Access to Information	
Case Number	Individual Name	Organization Name	Organization Address	Organization Phone	Organization Email	Organization Website	Organization Fax
1	John Doe	ABC Company	123 Main St.	456-789-0123	john.doe@abc.com	www.abc.com	456-789-0124
2	Jane Smith	XYZ Corporation	456 Elm St.	789-012-3456	jane.smith@xyz.com	www.xyz.com	789-012-3457
3	Robert Johnson	DEF Industries	789 Oak St.	012-345-6789	robert.johnson@def.com	www.def.com	012-345-6790
4	Emily White	GHI Systems	101 Pine St.	234-567-8901	emily.white@ghi.com	www.ghi.com	234-567-8902
5	Michael Brown	JKL Networks	202 Cedar St.	345-678-9012	michael.brown@jkl.com	www.jkl.com	345-678-9013
6	Sarah Davis	MNO Enterprises	303 Birch St.	456-789-0123	sarah.davis@mno.com	www.mno.com	456-789-0124
7	David Wilson	PQR Solutions	404 Spruce St.	567-890-1234	david.wilson@pqr.com	www.pqr.com	567-890-1235
8	Lisa Anderson	STU Consulting	505 Ash St.	678-901-2345	lisa.anderson@stu.com	www.stu.com	678-901-2346
9	James Taylor	VWX Services	606 Hickory St.	789-012-3456	james.taylor@vwx.com	www.vwx.com	789-012-3457
10	Patricia Moore	YZA Group	707 Walnut St.	890-123-4567	patricia.moore@yza.com	www.yza.com	890-123-4568
11	Christopher Lee	BCD Partners	808 Maple St.	901-234-5678	christopher.lee@bcd.com	www.bcd.com	901-234-5679
12	Amanda Hall	EFG Associates	909 Poplar St.	012-345-6789	amanda.hall@efg.com	www.efg.com	012-345-6790
13	Kevin King	HIJ Ventures	1010 Cherry St.	123-456-7890	kevin.king@hij.com	www.hij.com	123-456-7891
14	Nicole Green	KLM Holdings	1111 Elm St.	234-567-8901	nicole.green@klm.com	www.klm.com	234-567-8902
15	Brandon Scott	NOP Limited	1212 Oak St.	345-678-9012	brandon.scott@nop.com	www.nop.com	345-678-9013
16	Stephanie Adams	QRS Corporation	1313 Pine St.	456-789-0123	stephanie.adams@qrs.com	www.qrs.com	456-789-0124
17	Gregory Baker	TUV Industries	1414 Cedar St.	567-890-1234	gregory.baker@tuv.com	www.tuv.com	567-890-1235
18	Michelle Carter	WXY Systems	1515 Birch St.	678-901-2345	michelle.carter@wxy.com	www.wxy.com	678-901-2346
19	Timothy Evans	ZAB Networks	1616 Spruce St.	789-012-3456	timothy.evans@zab.com	www.zab.com	789-012-3457
20	Rebecca Foster	ACD Enterprises	1717 Ash St.	890-123-4567	rebecca.foster@acd.com	www.acd.com	890-123-4568
21	Jonathan Gibson	DEF Group	1818 Hickory St.	901-234-5678	jonathan.gibson@def.com	www.def.com	901-234-5679
22	Kimberly Hill	GHI Partners	1919 Walnut St.	012-345-6789	kimberly.hill@ghi.com	www.ghi.com	012-345-6790
23	Eric Young	JKL Services	2020 Maple St.	123-456-7890	eric.young@jkl.com	www.jkl.com	123-456-7891
24	Angela King	MNO Holdings	2121 Cherry St.	234-567-8901	angela.king@mno.com	www.mno.com	234-567-8902
25	Benjamin Lee	PQR Ventures	2222 Elm St.	345-678-9012	benjamin.lee@pqr.com	www.pqr.com	345-678-9013
26	Christina Scott	STU Limited	2323 Oak St.	456-789-0123	christina.scott@stu.com	www.stu.com	456-789-0124
27	Harold Adams	VWX Associates	2424 Pine St.	567-890-1234	harold.adams@vwx.com	www.vwx.com	567-890-1235
28	Victoria Baker	YZA Enterprises	2525 Cedar St.	678-901-2345	victoria.baker@yza.com	www.yza.com	678-901-2346
29	Walter Carter	BCD Holdings	2626 Birch St.	789-012-3456	walter.carter@bcd.com	www.bcd.com	789-012-3457
30	Yvonne Evans	EFG Services	2727 Spruce St.	890-123-4567	yvonne.evans@efg.com	www.efg.com	890-123-4568
31	Zachary Foster	HIJ Group	2828 Ash St.	901-234-5678	zachary.foster@hij.com	www.hij.com	901-234-5679
32	Alfred Gibson	KLM Enterprises	2929 Hickory St.	012-345-6789	alfred.gibson@klm.com	www.klm.com	012-345-6790
33	Betty Hill	NOP Holdings	3030 Walnut St.	123-456-7890	betty.hill@nop.com	www.nop.com	123-456-7891
34	Carl King	QRS Ventures	3131 Maple St.	234-567-8901	carl.king@qrs.com	www.qrs.com	234-567-8902
35	Diana Lee	TUV Services	3232 Cherry St.	345-678-9012	diana.lee@tuv.com	www.tuv.com	345-678-9013
36	Edward Scott	VWX Associates	3333 Elm St.	456-789-0123	edward.scott@vwx.com	www.vwx.com	456-789-0124
37	Fiona Adams	YZA Enterprises	3434 Oak St.	567-890-1234	fiona.adams@yza.com	www.yza.com	567-890-1235
38	George Baker	BCD Holdings	3535 Pine St.	678-901-2345	george.baker@bcd.com	www.bcd.com	678-901-2346
39	Helen Carter	EFG Services	3636 Cedar St.	789-012-3456	helen.carter@efg.com	www.efg.com	789-012-3457
40	Ivan Davis	HIJ Partners	3737 Ash St.	890-123-4567	ivan.davis@hij.com	www.hij.com	890-123-4568
41	Jane Doe	ABC Company	123 Main St.	456-789-0123	jane.doe@abc.com	www.abc.com	456-789-0124
42	John Smith	XYZ Corporation	456 Elm St.	789-012-3456	john.smith@xyz.com	www.xyz.com	789-012-3457
43	Robert Johnson	DEF Industries	789 Oak St.	012-345-6789	robert.johnson@def.com	www.def.com	012-345-6790
44	Emily White	GHI Systems	101 Pine St.	234-567-8901	emily.white@ghi.com	www.ghi.com	234-567-8902
45	Michael Brown	JKL Networks	202 Cedar St.	345-678-9012	michael.brown@jkl.com	www.jkl.com	345-678-9013
46	Sarah Davis	MNO Enterprises	303 Birch St.	456-789-0123	sarah.davis@mno.com	www.mno.com	456-789-0124
47	David Wilson	PQR Solutions	404 Spruce St.	567-890-1234	david.wilson@pqr.com	www.pqr.com	567-890-1235
48	Lisa Anderson	STU Consulting	505 Ash St.	678-901-2345	lisa.anderson@stu.com	www.stu.com	678-901-2346
49	James Taylor	VWX Services	606 Hickory St.	789-012-3456	james.taylor@vwx.com	www.vwx.com	789-012-3457
50	Patricia Moore	YZA Group	707 Walnut St.	890-123-4567	patricia.moore@yza.com	www.yza.com	890-123-4568
51	Christopher Lee	BCD Partners	808 Maple St.	901-234-5678	christopher.lee@bcd.com	www.bcd.com	901-234-5679
52	Amanda Hall	EFG Associates	909 Poplar St.	012-345-6789	amanda.hall@efg.com	www.efg.com	012-345-6790
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55	Brandon Scott	NOP Limited	1212 Oak St.	345-678-9012	brandon.scott@nop.com	www.nop.com	345-678-9013
56	Stephanie Adams	QRS Corporation	1313 Pine St.	456-789-0123	stephanie.adams@qrs.com	www.qrs.com	456-789-0124
57	Gregory Baker	TUV Industries	1414 Cedar St.	567-890-1234	gregory.baker@tuv.com	www.tuv.com	567-890-1235
58	Michelle Carter	WXY Systems	1515 Birch St.	678-901-2345	michelle.carter@wxy.com	www.wxy.com	678-901-2346
59	Timothy Evans	ZAB Networks	1616 Spruce St.	789-012-3456	timothy.evans@zab.com	www.zab.com	789-012-3457
60	Rebecca Foster	ACD Enterprises	1717 Ash St.	890-123-4567	rebecca.foster@acd.com	www.acd.com	890-123-4568
61	Jonathan Gibson	DEF Group	1818 Hickory St.	901-234-5678	jonathan.gibson@def.com	www.def.com	901-234-5679
62	Kimberly Hill	GHI Partners	1919 Walnut St.	012-345-6789	kimberly.hill@ghi.com	www.ghi.com	012-345-6790
63	Eric Young	JKL Services	2020 Maple St.	123-456-7890	eric.young@jkl.com	www.jkl.com	123-456-7891
64	Angela King	MNO Holdings	2121 Cherry St.	234-567-8901	angela.king@mno.com	www.mno.com	234-567-8902
65	Benjamin Lee	PQR Ventures	2222 Elm St.	345-678-9012	benjamin.lee@pqr.com	www.pqr.com	345-678-9013
66	Christina Scott	STU Limited	2323 Oak St.	456-789-0123	christina.scott@stu.com	www.stu.com	456-789-0124
67	Harold Adams	VWX Associates	2424 Pine St.	567-890-1234	harold.adams@vwx.com	www.vwx.com	567-890-1235
68	Victoria Baker	YZA Enterprises	2525 Cedar St.	678-901-2345	victoria.baker@yza.com	www.yza.com	678-901-2346
69	Walter Carter	BCD Holdings	2626 Birch St.	789-012-3456	walter.carter@bcd.com	www.bcd.com	789-012-3457
70	Yvonne Evans	EFG Services	2727 Spruce St.	890-123-4567	yvonne.evans@efg.com	www.efg.com	890-123-4568
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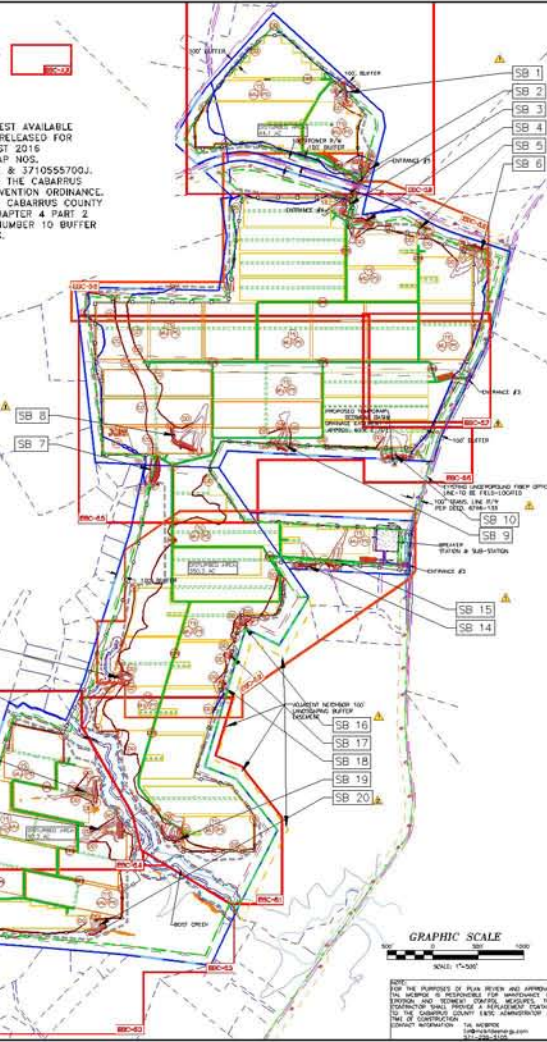


CONSTRUCTION NOTES

1. Obtain site plan approval and other applicable permits.
 2. Hold a pre-construction conference at least one week prior to any construction activity.
 3. Construction Area #1
 - a. Flag the work limits, including the perimeter buffer area and no-build area along Best Creek for protection of trees and creek.
 - b. All perimeter Erosion/Sediment Control measures in all areas, such as sediment fencing, diversions, and sediment basins shall be installed before any clearing, grubbing, or lesser stripping takes place. Temporary diversion ditches designed to direct clean water entering the site to on area off-site must be stabilized immediately after installation with vegetation and mulching. Due to the nature of this project and the required number and size of temporary sediment basins and associated control measures, it is necessary to install erosion control measures within the designated perimeter Buffer Area and in areas where Solar Arrays will ultimately be installed. Once the need for the temporary measures ceases, the Buffer Area shall be re-established and the grade beneath Solar Arrays created and stabilized.
 - c. Obtain permission from County/DCO ESC Inspector to proceed.
 - d. Install temporary gravel Construction Entrances/LIMs.
 - e. Complete site clearing and grubbing.
 - f. Construct Construction Staging Area and Concrete Washout Area as shown on Sheet 5.10, detail "Service Aids, Rock Path & and Construction Staging Area Soil Section and Concrete Washout".
 - g. Grade Construction Area #1 portion of the site as shown on the Site Plan, Sheets 5.0, 5.1, & 5.2. Bare areas should be vegetated or mulched, if grading ceases for more than two weeks.
 - h. Construct Service Roads and Service Paths as shown on Sheet 5.0, 5.1 & 5.2 and Sheet 5.10, detail "Service Aids, Rock Path & and Construction Staging Area Soil Section".
 - i. Install solar array inverter pads per solar manufacturer's practices at locations shown on Sheets 5.1 & 5.2.
 - j. Install solar array anchors/support beams per manufacturer's instructions in areas not impacted by sediment basins. Anchors and beams for solar arrays located within temporary sediment basins shall be installed after removal of temporary erosion control measures and full site stabilization. Installation of anchors and beams causes no risk of soil erosion or creation of sediment.
 - k. Install culvert from array pads to a location, to be determined, near the Union River just.
 - l. Inspect all erosion and sediment controls weekly and after all rainfall events. Needed repairs are to be completed immediately.
 - m. After obtaining approval from the County/DCO ESC Inspector, remove temporary sediment control measures, and stabilize the entire Construction Area #1.
 - n. Install remaining solar array anchors/support beams in areas previously occupied by temporary sediment control measures.
 - o. Establish permanent vegetation.
 - p. Install solar arrays onto supports and test.
 - q. Estimated time before final stabilization - 7 months.
 4. Construction Areas #2 - #4
 - a. Repeat steps 3.a. - 3.d. for Areas #2 - #4.
 5. Any off-site borrow and waste required for this project must come from a site with an approved erosion control plan, a site regulated under the mining act of 1971, or a landfill regulated by the Division of solid waste management. Trash/debris from demolition activities or generated by any activities on site must be disposed of at a facility regulated by the Division of Solid Waste Management or per Division of Solid Waste Management or Division of Water Resources rules and regulations. [15a NCAC 4b .010]
 6. Pursuant to the NPDES permit that went into effect August 3, 2011, ground stabilization must occur within 7 days on perimeter areas and slopes greater than 3:1, and ground stabilization must occur within 14 days on other areas. These requirements supersede any less stringent stabilization requirement on the plans and apply for any section of the project for any period of inactivity or project completion. [G.S. 143-215.1]
 7. Construction Entrances must consist of at least 2-3 inch stone and be maintained in a condition that will prevent tracking or direct flow of mud onto streets. Periodic top dressing with stone will be necessary. Install water bars, ditch diversions or other suitable measures so that stormwater does not leave the limits of disturbance through the construction entrances, as needed. [G.S. 113a-57(3), 15a NCAC 4b .0105]
- Maintenance**
- In general, all erosion and sediment control measures shall be checked daily and after each significant rainfall. The following items shall be checked, in particular:
1. The seeded area shall be checked regularly to ensure that a good stand is maintained. Areas shall be fertilized and re-seeded as needed.
 2. The gravel Construction Entrances shall be maintained in a condition which will prevent tracking or flow of mud into public rights-of-way. Periodic top dressing with additional stone or the washing and reworking of existing stone shall be required when the stone is covered or has been pushed into the soil and shall be returned to its original minimum depth of 6".
 3. The Silt Fence barrier, if used, shall be checked regularly (no less than weekly) for undermining or deterioration of the fabric. Sediment shall be removed when the level of sediment deposition becomes 6" deep at the fence.
 4. Self-inspection requirements:
 - a. As a minimum, the inspections shall be performed after each of the following phases of a plan:
 1. Installation of perimeter erosion and sediment control measures.

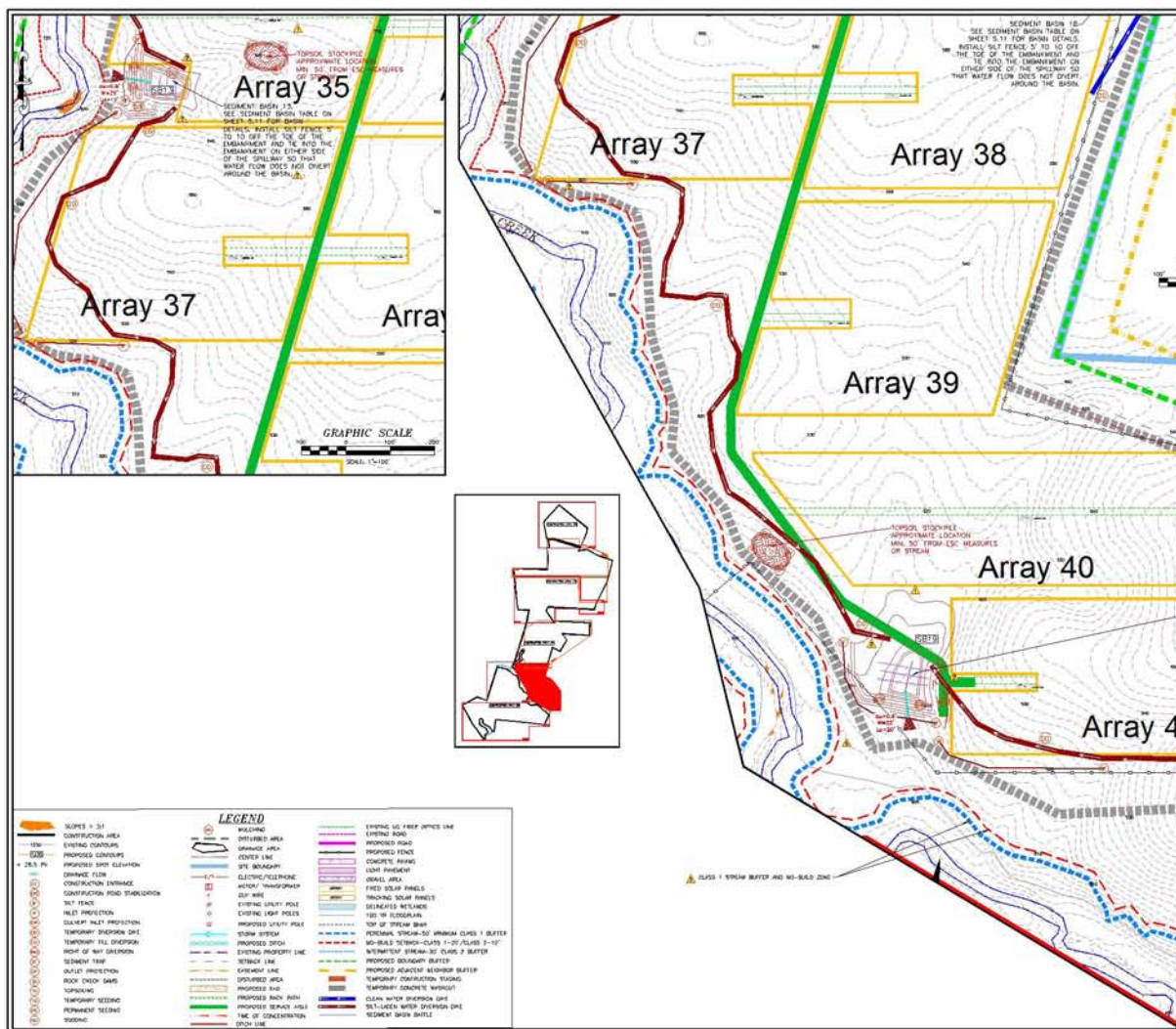
NOTES:

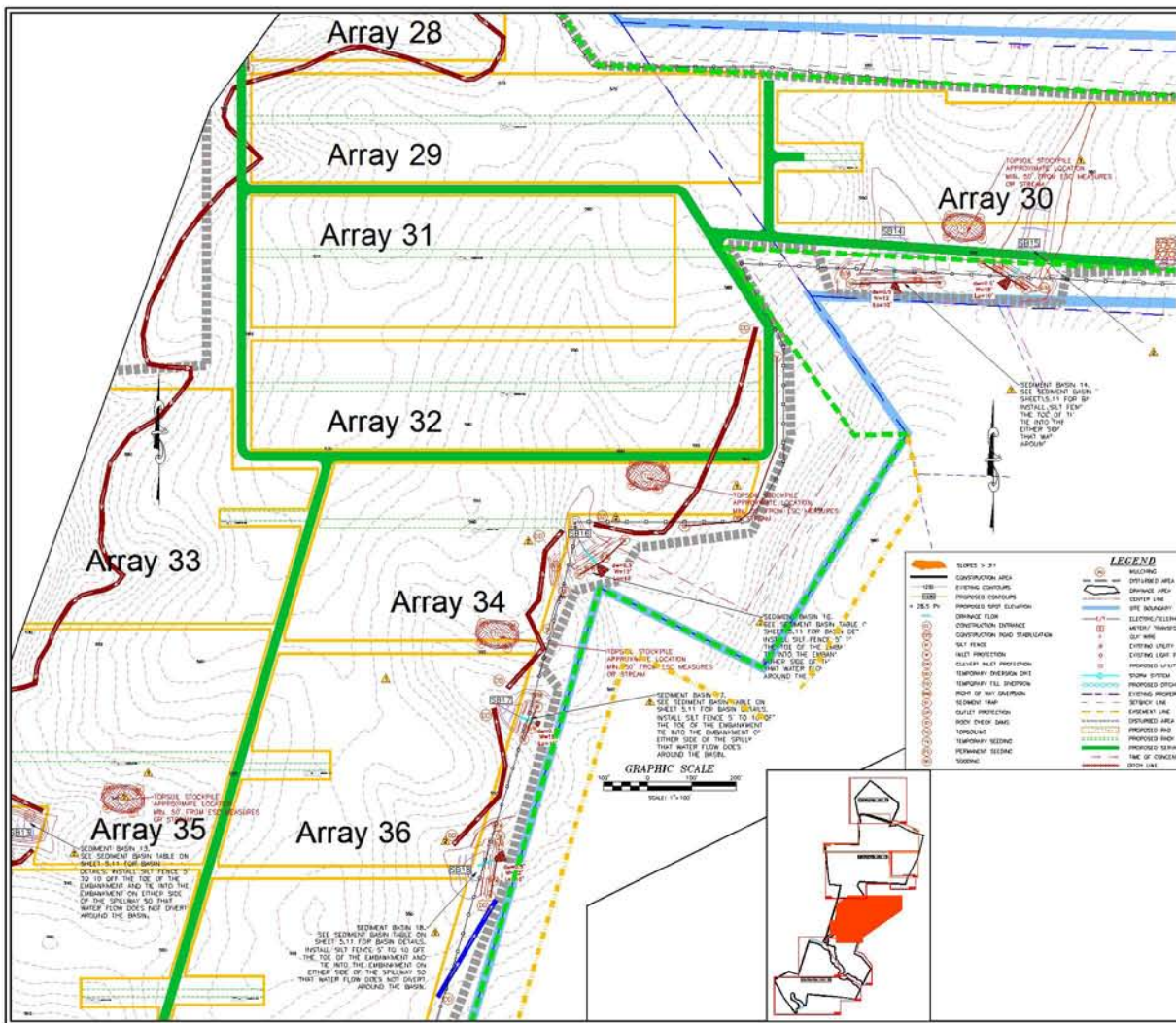
1. FLOOD PLAIN IS BASED ON BEST AVAILABLE DATA IN PRELIMINARY DATA RELEASED FOR CABARRUS COUNTY IN AUGUST 2016 CONTAINED IN NFIP, FIRM MAP NOS. 3710554600J, 3710555500J, & 3710555700J.
2. PROJECT SITE IS SUBJECT TO THE CABARRUS COUNTY FLOOD DAMAGE PREVENTION ORDINANCE.
3. PROJECT SITE IS SUBJECT TO CABARRUS COUNTY DEVELOPMENT ORDINANCE CHAPTER 4 PART 2 WATERBODY BUFFER ZONE, NUMBER 10 BUFFER ENCROACHMENT REGULATIONS.

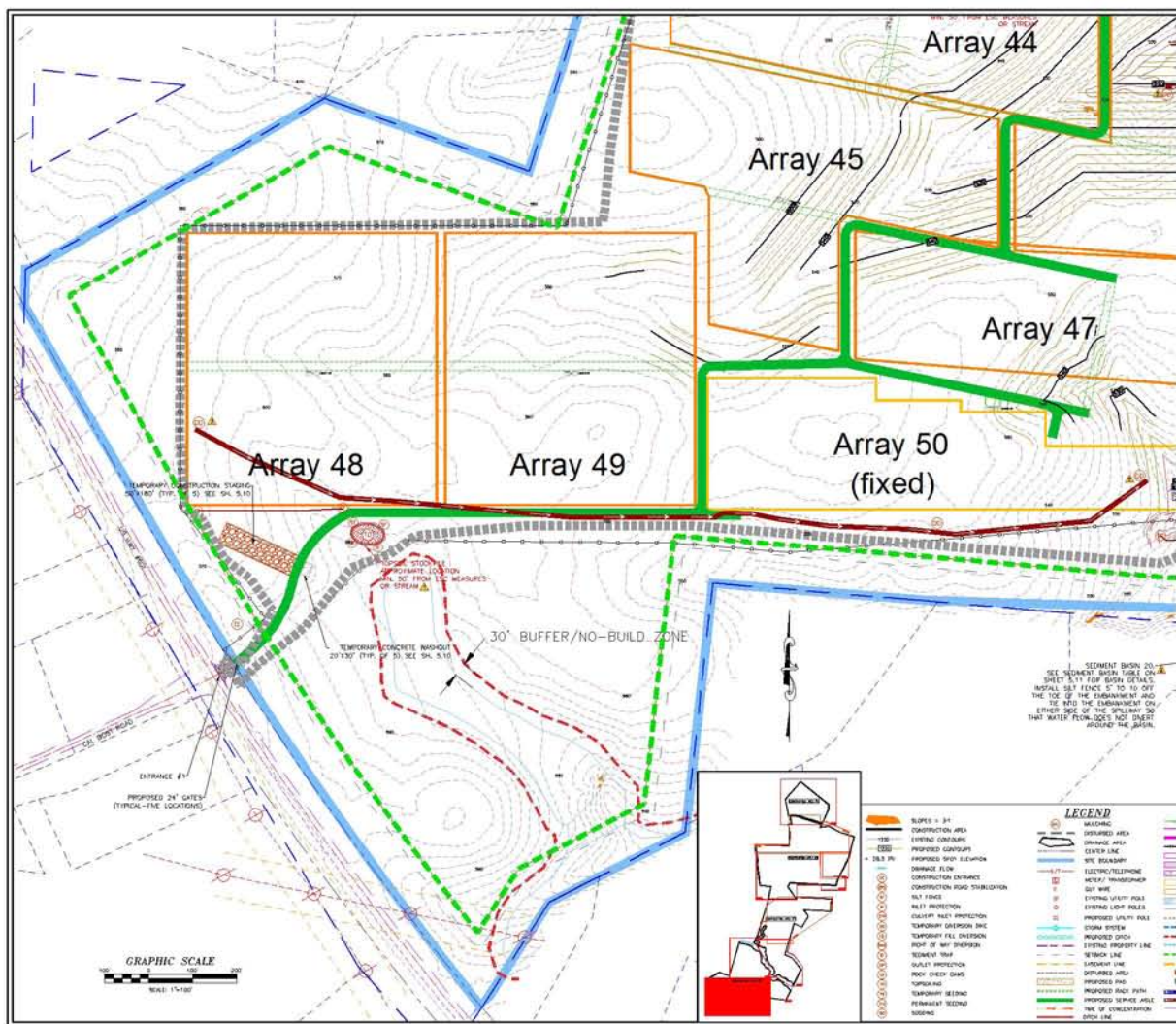
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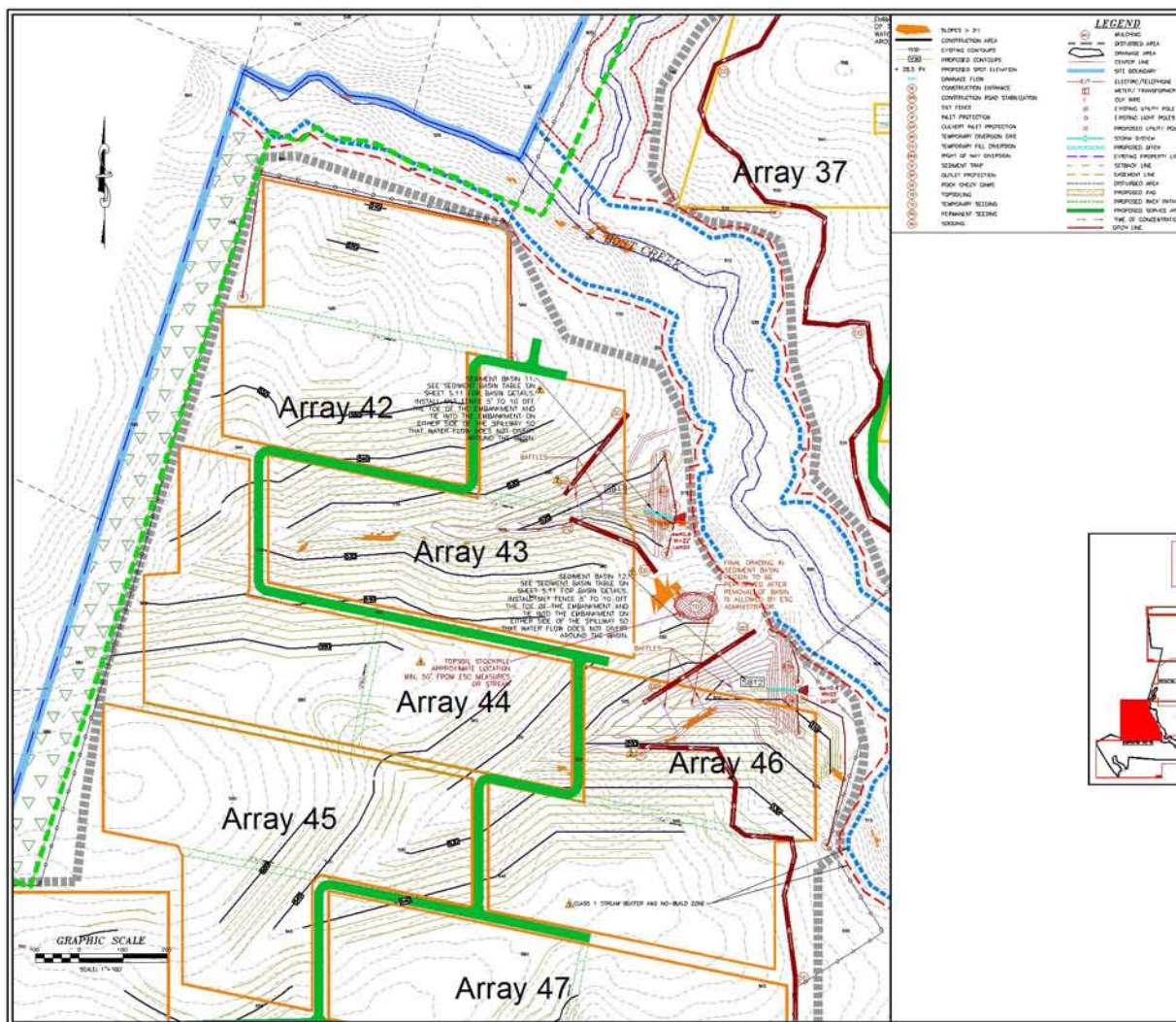
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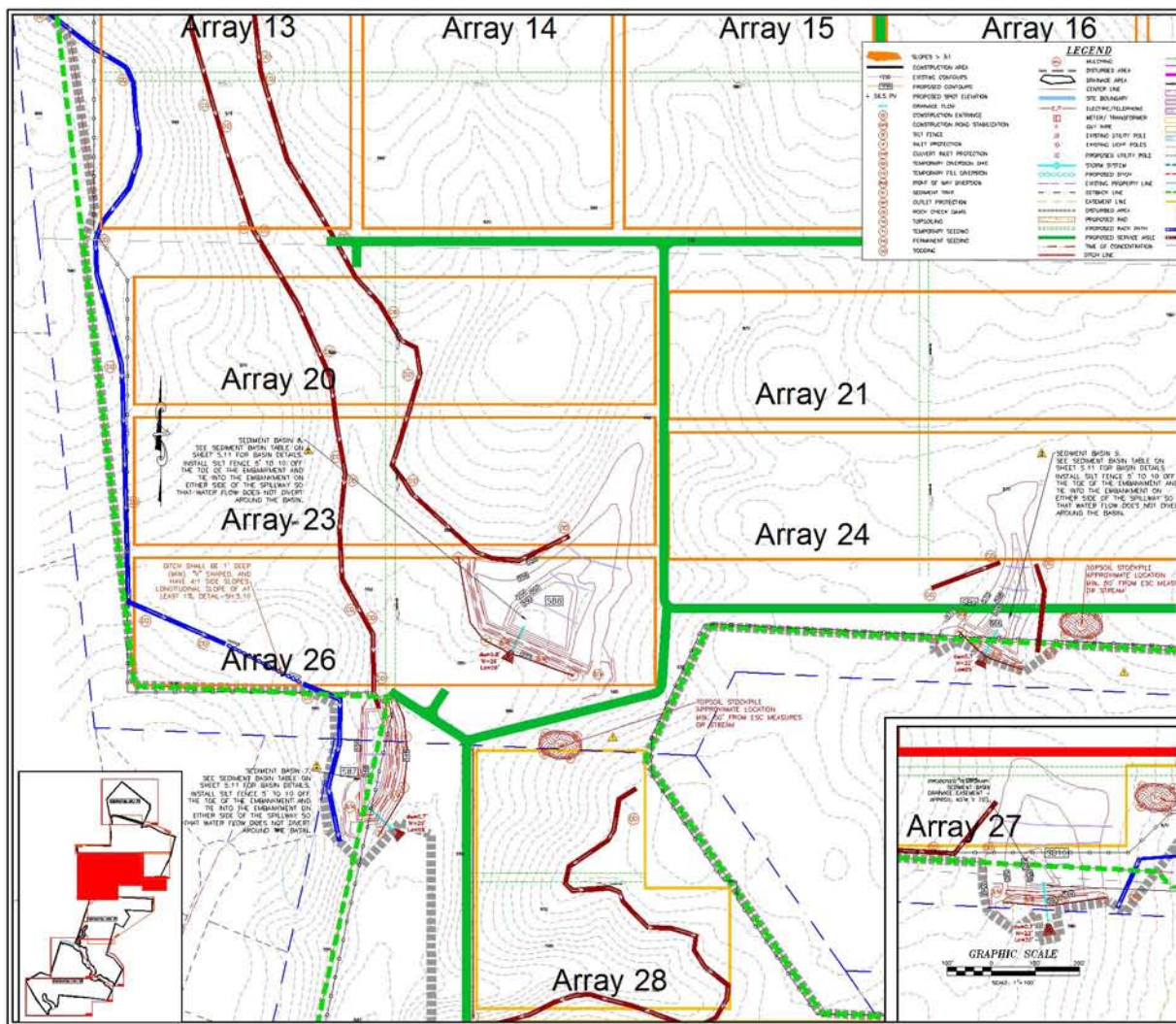
	Sq. Ft.	Impermeable Pavement	Estimated Runoff
Entrance	#1	1,168	Fertiles
Entrance	#2	940	
Entrance Road for Substation		13,990	Wooded Area
Entrance	#3	812	Agricultural
Entrance	#4	907	
Entrance	#5	907	
Total Impervious Area	n	18,840 SF	

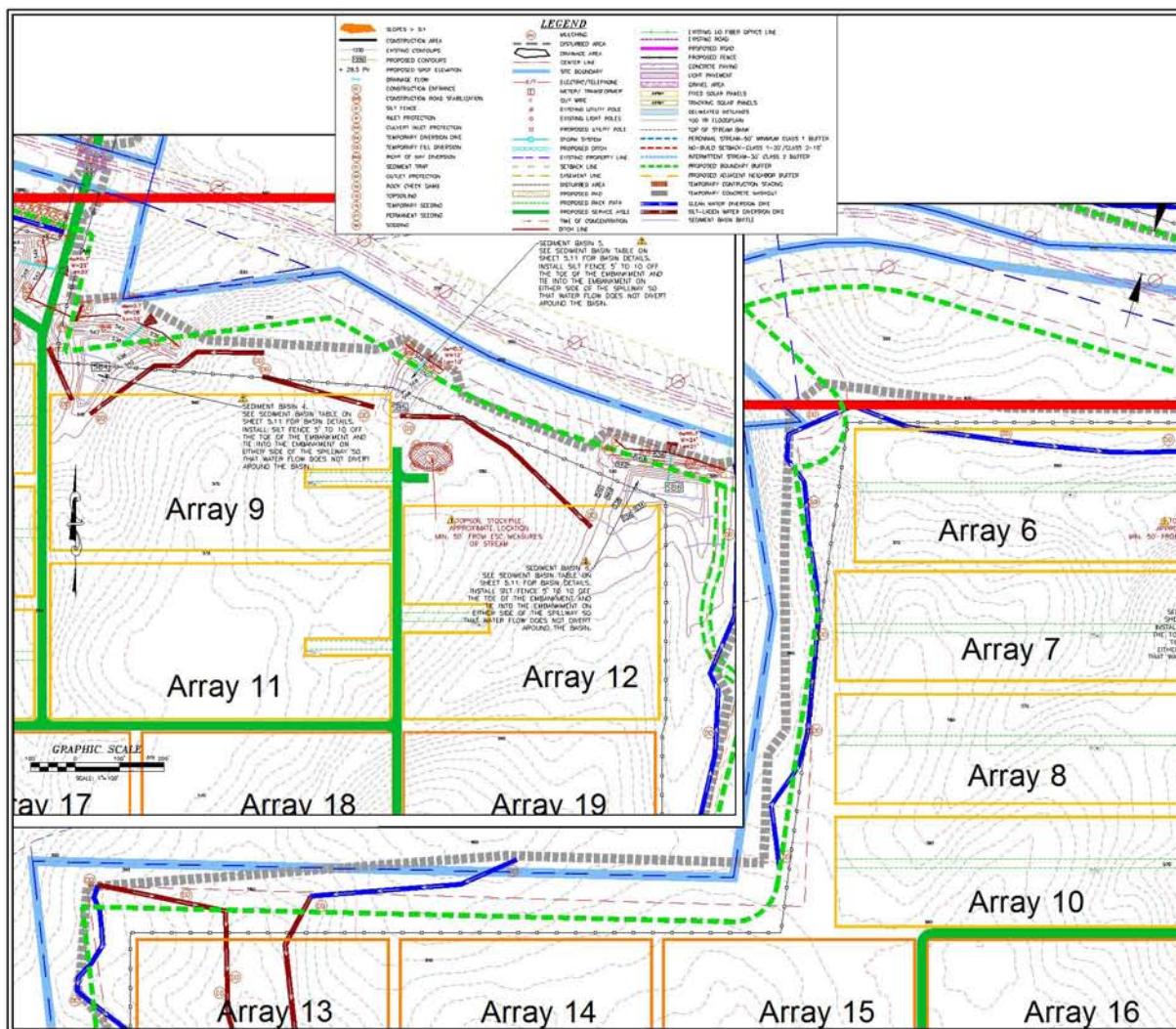












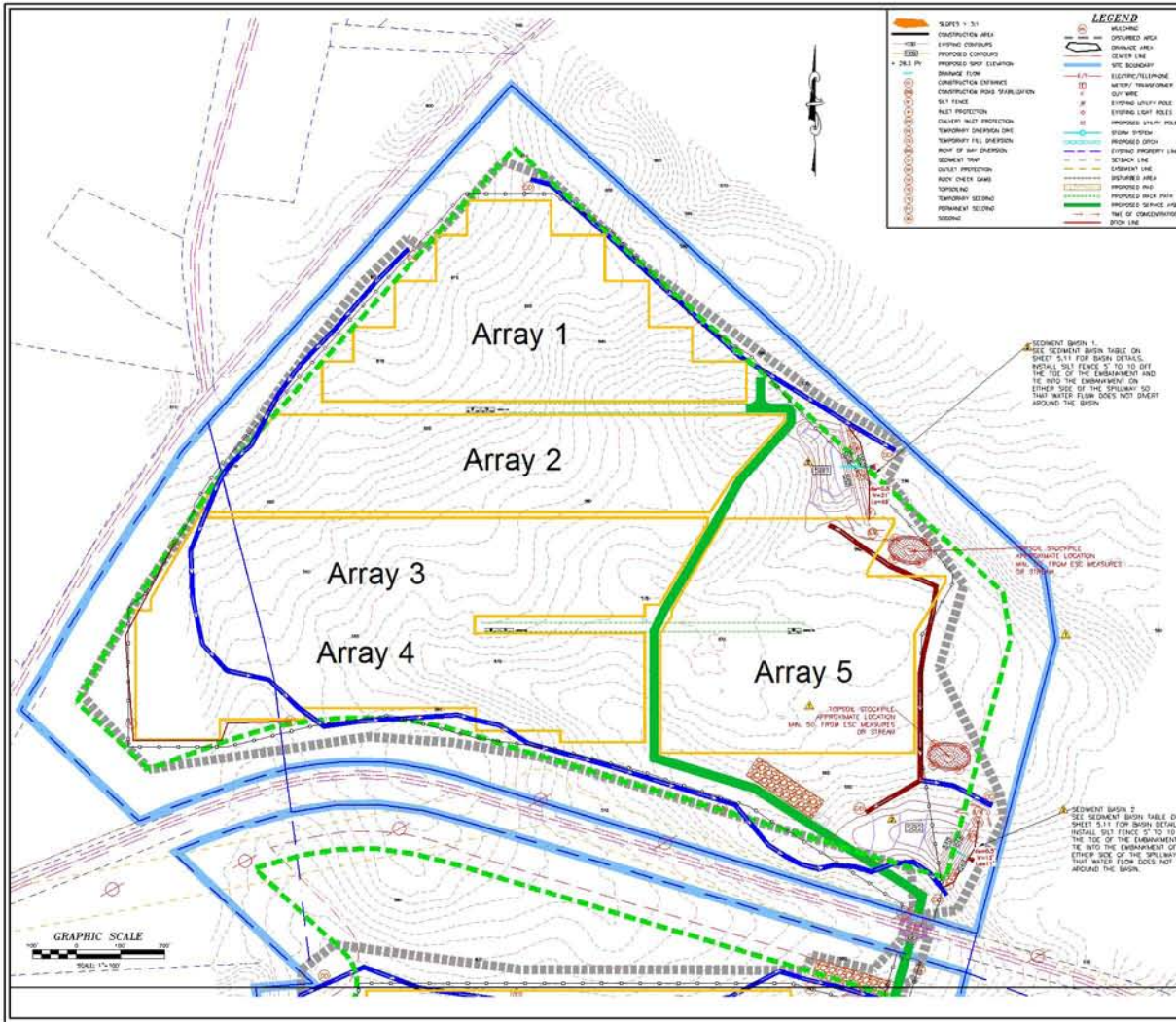


Table 2. 100 Bootstrap sampling Percentages for 10

seedling, 400-450	1000-1200
seedling, 450-500	1200-1400
seedling, 500-550	1400-1600
seedling, 550-600	1600-1800
seedling, 600-650	1800-2000
seedling, 650-700	2000-2200
seedling, 700-750	2200-2400
seedling, 750-800	2400-2600
seedling, 800-850	2600-2800
seedling, 850-900	2800-3000
seedling, 900-950	3000-3200
seedling, 950-1000	3200-3400
seedling, 1000-1050	3400-3600
seedling, 1050-1100	3600-3800
seedling, 1100-1150	3800-4000
seedling, 1150-1200	4000-4200
seedling, 1200-1250	4200-4400
seedling, 1250-1300	4400-4600
seedling, 1300-1350	4600-4800
seedling, 1350-1400	4800-5000
seedling, 1400-1450	5000-5200
seedling, 1450-1500	5200-5400
seedling, 1500-1550	5400-5600
seedling, 1550-1600	5600-5800
seedling, 1600-1650	5800-6000
seedling, 1650-1700	6000-6200
seedling, 1700-1750	6200-6400
seedling, 1750-1800	6400-6600
seedling, 1800-1850	6600-6800
seedling, 1850-1900	6800-7000
seedling, 1900-1950	7000-7200
seedling, 1950-2000	7200-7400
seedling, 2000-2050	7400-7600
seedling, 2050-2100	7600-7800
seedling, 2100-2150	7800-8000
seedling, 2150-2200	8000-8200
seedling, 2200-2250	8200-8400
seedling, 2250-2300	8400-8600
seedling, 2300-2350	8600-8800
seedling, 2350-2400	8800-9000
seedling, 2400-2450	9000-9200
seedling, 2450-2500	9200-9400
seedling, 2500-2550	9400-9600
seedling, 2550-2600	9600-9800
seedling, 2600-2650	9800-10000
seedling, 2650-2700	10000-10200
seedling, 2700-2750	10200-10400
seedling, 2750-2800	10400-10600
seedling, 2800-2850	10600-10800
seedling, 2850-2900	10800-11000
seedling, 2900-2950	11000-11200
seedling, 2950-3000	11200-11400
seedling, 3000-3050	11400-11600
seedling, 3050-3100	11600-11800
seedling, 3100-3150	11800-12000
seedling, 3150-3200	12000-12200
seedling, 3200-3250	12200-12400
seedling, 3250-3300	12400-12600
seedling, 3300-3350	12600-12800
seedling, 3350-3400	12800-13000
seedling, 3400-3450	13000-13200
seedling, 3450-3500	13200-13400
seedling, 3500-3550	13400-13600
seedling, 3550-3600	13600-13800
seedling, 3600-3650	13800-14000
seedling, 3650-3700	14000-14200
seedling, 3700-3750	14200-14400
seedling, 3750-3800	14400-14600
seedling, 3800-3850	14600-14800
seedling, 3850-3900	14800-15000
seedling, 3900-3950	15000-15200
seedling, 3950-4000	15200-15400
seedling, 4000-4050	15400-15600
seedling, 4050-4100	15600-15800
seedling, 4100-4150	15800-16000
seedling, 4150-4200	16000-16200
seedling, 4200-4250	16200-16400
seedling, 4250-4300	16400-16600
seedling, 4300-4350	16600-16800
seedling, 4350-4400	16800-17000
seedling, 4400-4450	17000-17200
seedling, 4450-4500	17200-17400
seedling, 4500-4550	17400-17600
seedling, 4550-4600	17600-17800
seedling, 4600-4650	17800-18000
seedling, 4650-4700	18000-18200
seedling, 4700-4750	18200-18400
seedling, 4750-4800	18400-18600
seedling, 4800-4850	18600-18800
seedling, 4850-4900	18800-19000
seedling, 4900-4950	19000-19200
seedling, 4950-5000	19200-19400
seedling, 5000-5050	19400-19600
seedling, 5050-5100	19600-19800
seedling, 5100-5150	19800-20000
seedling, 5150-5200	20000-20200
seedling, 5200-5250	20200-20400
seedling, 5250-5300	20400-2

Learning Objectives

1. To understand the importance of the business environment in the business world.

2. To understand the importance of the business environment in the business world.

Self-assessment

Practice and Review: Study the following questions and answer them.

1. What is the business environment?

2. What are the factors that influence the business environment?

Assignment

Write a short essay on the business environment.

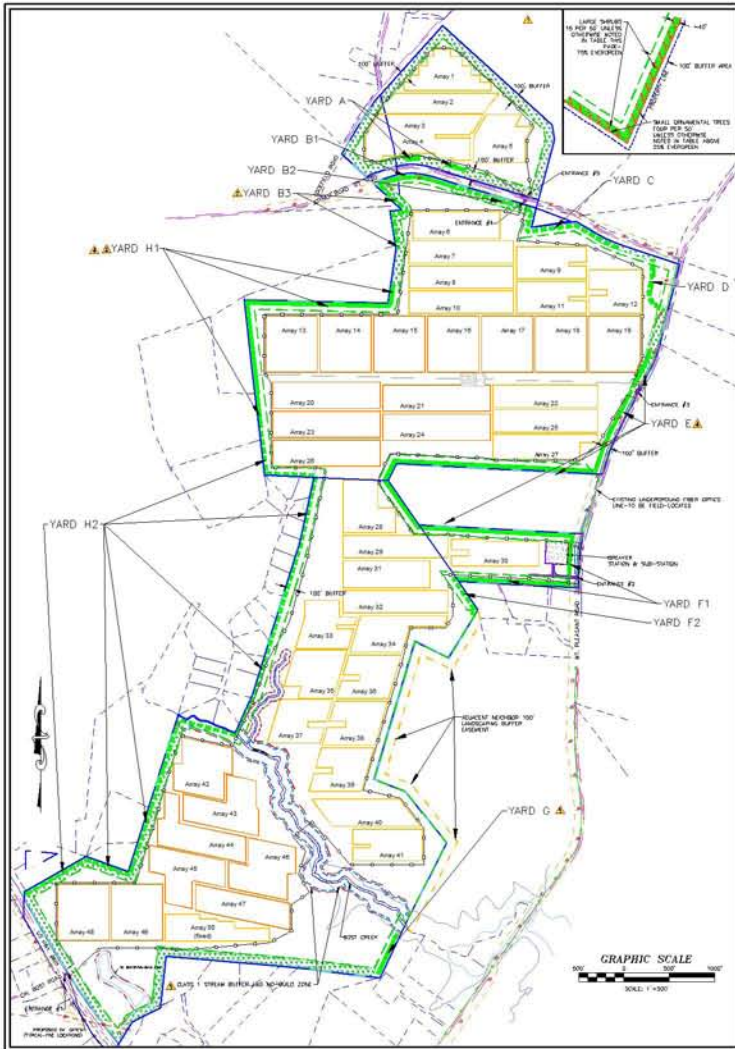
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After a review by the committee, the following recommendations were made:

2375 • J. Neurosci., June 23, 2010 • 30(25):2369–2375

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- LANDSCAPE NOTES**
1. TREES SHALL BE PLANTED IN BUFFER AREAS AS SHOWN ON THIS PLAN. TREES SHALL BE PLANTED IN BUFFER AREAS AS SHOWN ON THIS PLAN. TREES SHALL BE PLANTED IN BUFFER AREAS AS SHOWN ON THIS PLAN.
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Yard	Existing Length (ft)	Required Width (ft)	Required Trees (8' underfoot)	Required Shrubs (30' per 100 sq ft)	Proposed Plantings
A	400	100	40	120	20 trees/120 shrubs
B1	300	100	30	90	15 trees/90 shrubs
B2	200	100	20	60	10 trees/60 shrubs
B3	100	100	10	30	5 trees/30 shrubs
C	100	100	10	30	5 trees/30 shrubs
D	100	100	10	30	5 trees/30 shrubs
E	100	100	10	30	5 trees/30 shrubs
F1	100	100	10	30	5 trees/30 shrubs
F2	100	100	10	30	5 trees/30 shrubs
G	100	100	10	30	5 trees/30 shrubs
H1	100	100	10	30	5 trees/30 shrubs
H2	100	100	10	30	5 trees/30 shrubs

* Required tree and shrub counts are reduced by the retention of existing vegetation. Existing tree/shrub count was estimated by visual observation and review of aerial photos.

No Mow Lawn Seeding Instructions

Everything you need to know to get the best results with your No Mow Lawn.



PREPARE YOUR LAWN

Before you can seed your lawn, you need to prepare it. This means removing any existing grass, weeds, and debris. You can do this by mowing the lawn very short, then pulling out any weeds or debris. You can also use a herbicide to kill any weeds or debris. Once you have prepared your lawn, you can seed it.

SEEDING INSTRUCTIONS

1. **Seeding Rate:** The seeding rate for No Mow Lawn is 1/2 lb per 1,000 sq ft. This is a broadcast seeding rate. You can use a broadcast spreader to seed your lawn. You can also seed your lawn by hand, but this is more difficult.

2. **Seeding Time:** The best time to seed your lawn is in the fall. This is when the weather is cool and the grass is growing. You can also seed your lawn in the spring, but this is not as ideal.

3. **Seeding Method:** You can seed your lawn by hand or with a broadcast spreader. A broadcast spreader is the best method for seeding your lawn. It allows you to seed your lawn evenly and quickly.

4. **Seeding Depth:** You should seed your lawn at a depth of 1/4 inch. This is the depth at which the seeds will be able to germinate.

5. **Seeding Frequency:** You should seed your lawn once a year. This is the best frequency for maintaining your lawn.

Seeding Instructions

Everything you need to know to get the best results with your No Mow Lawn.



PREPARE YOUR LAWN

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GRAPHIC SCALE

0 50 100 150

SCALE: 1" = 40'

SEEDING INSTRUCTIONS

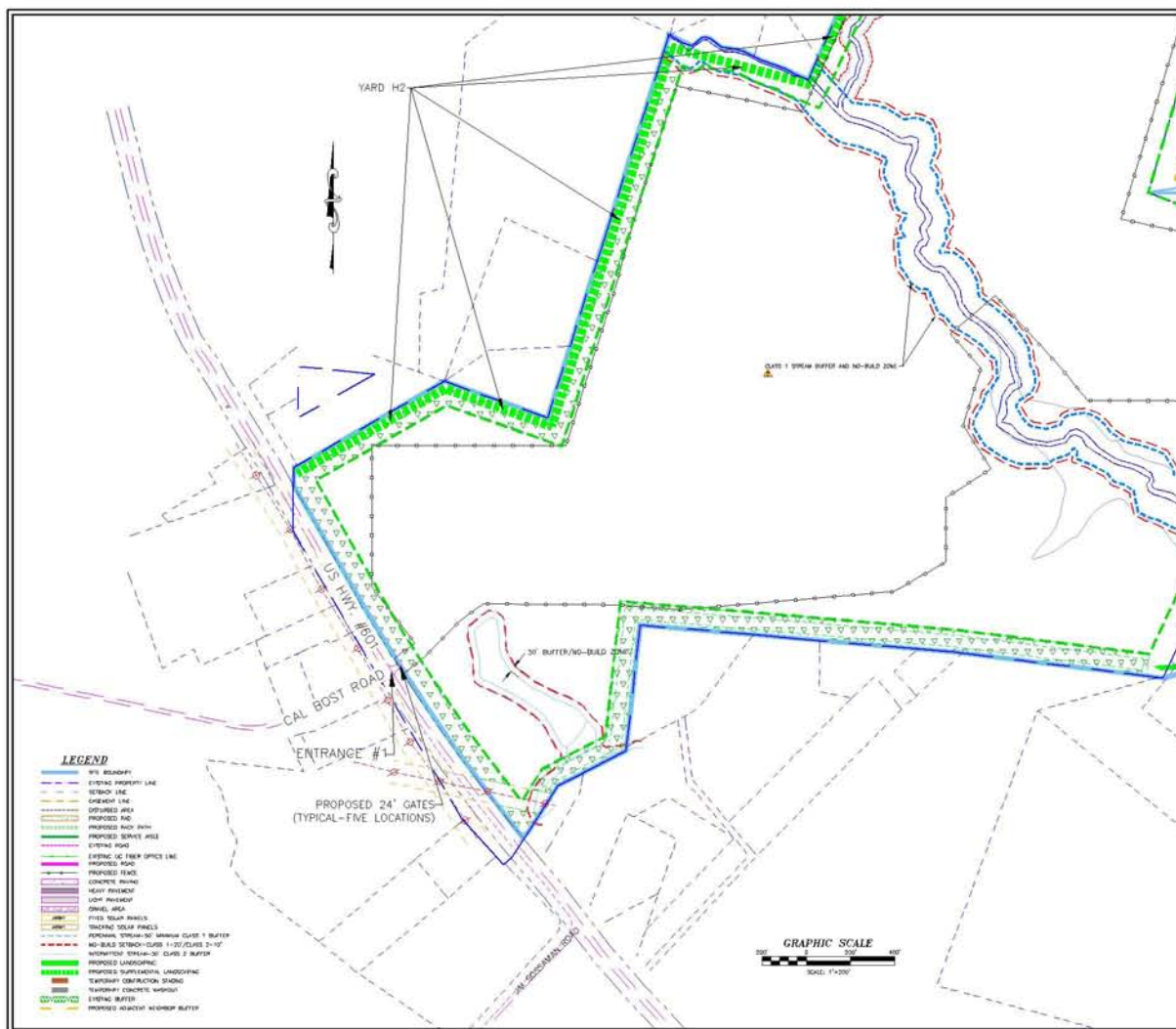
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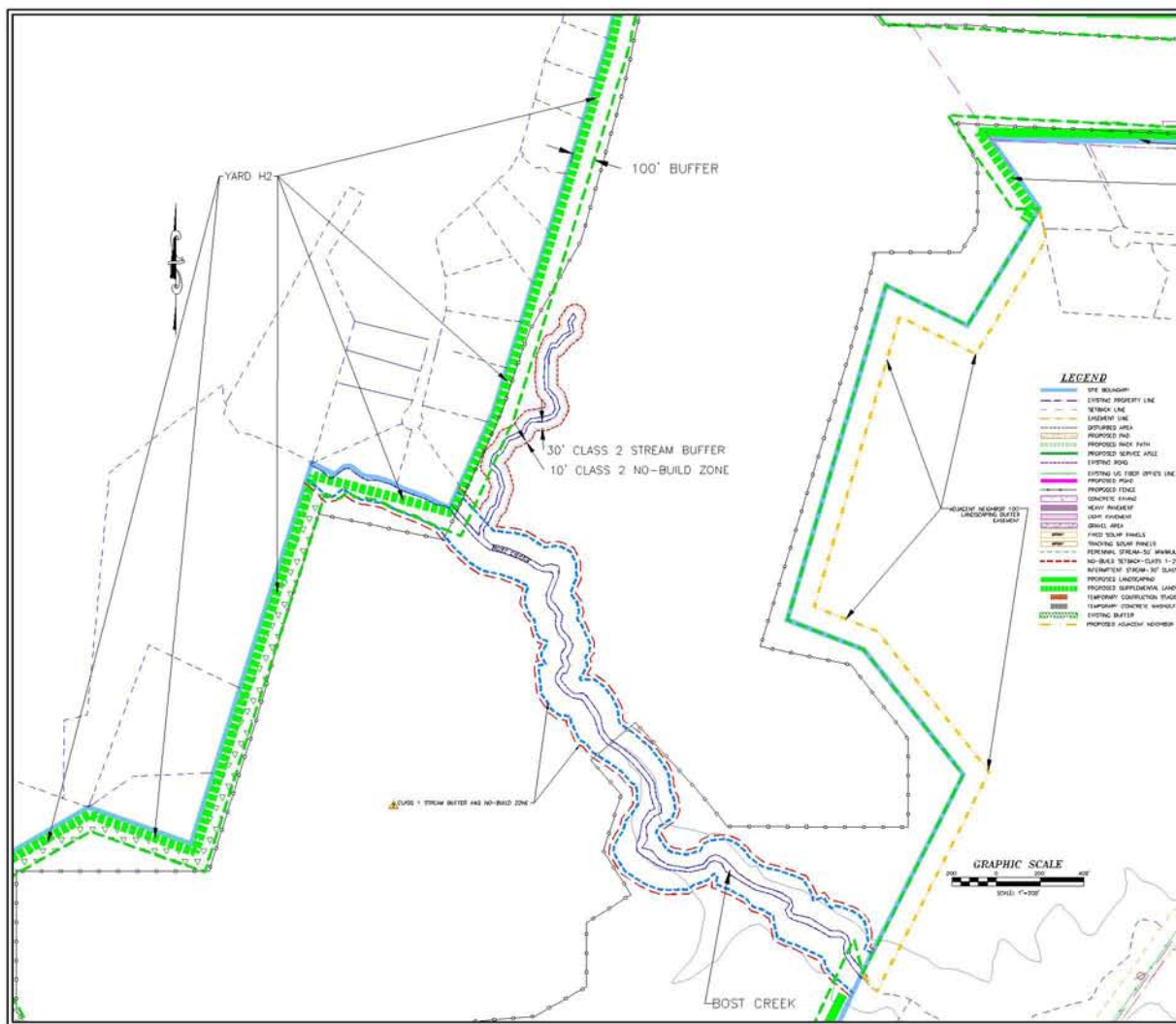
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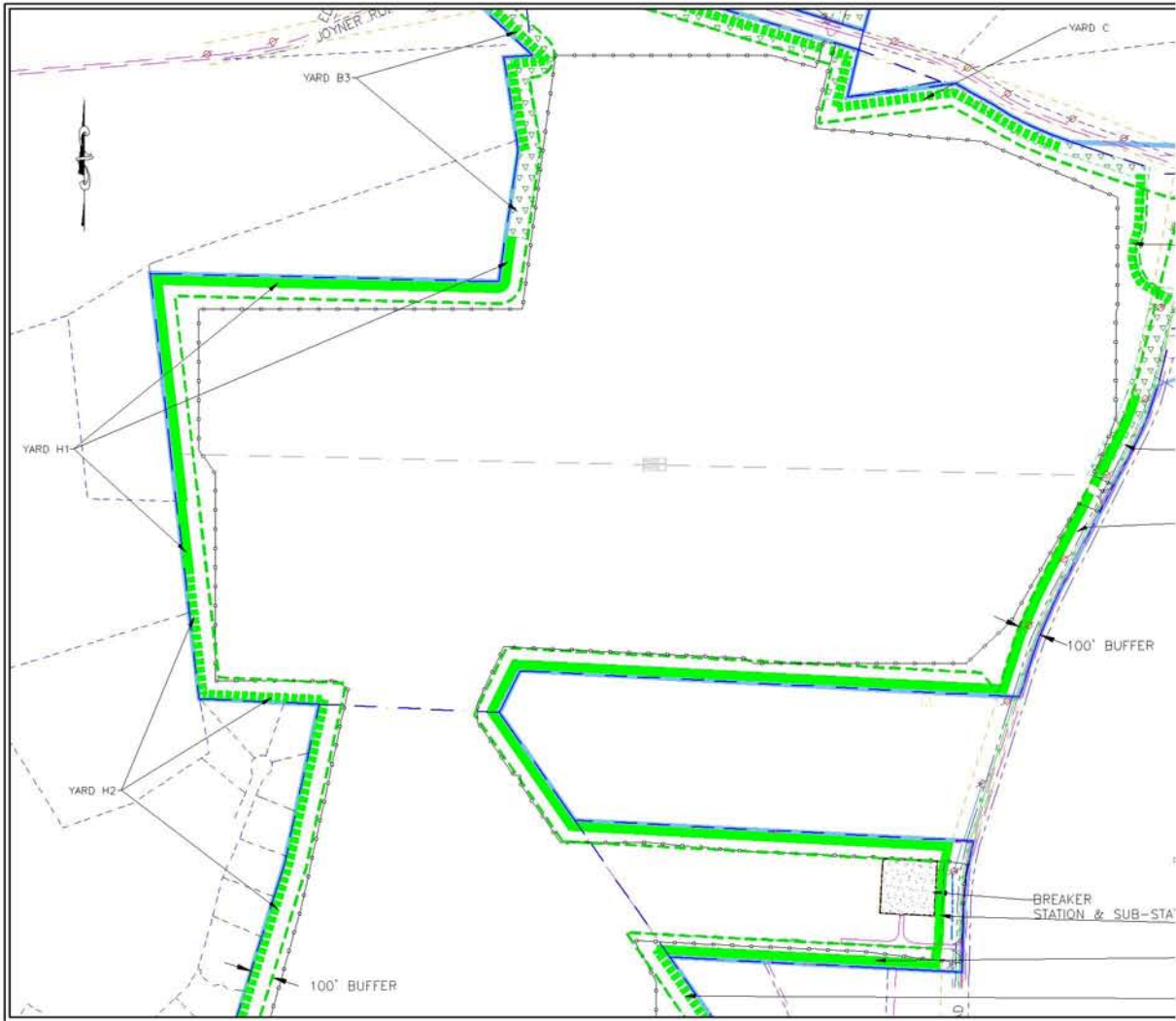
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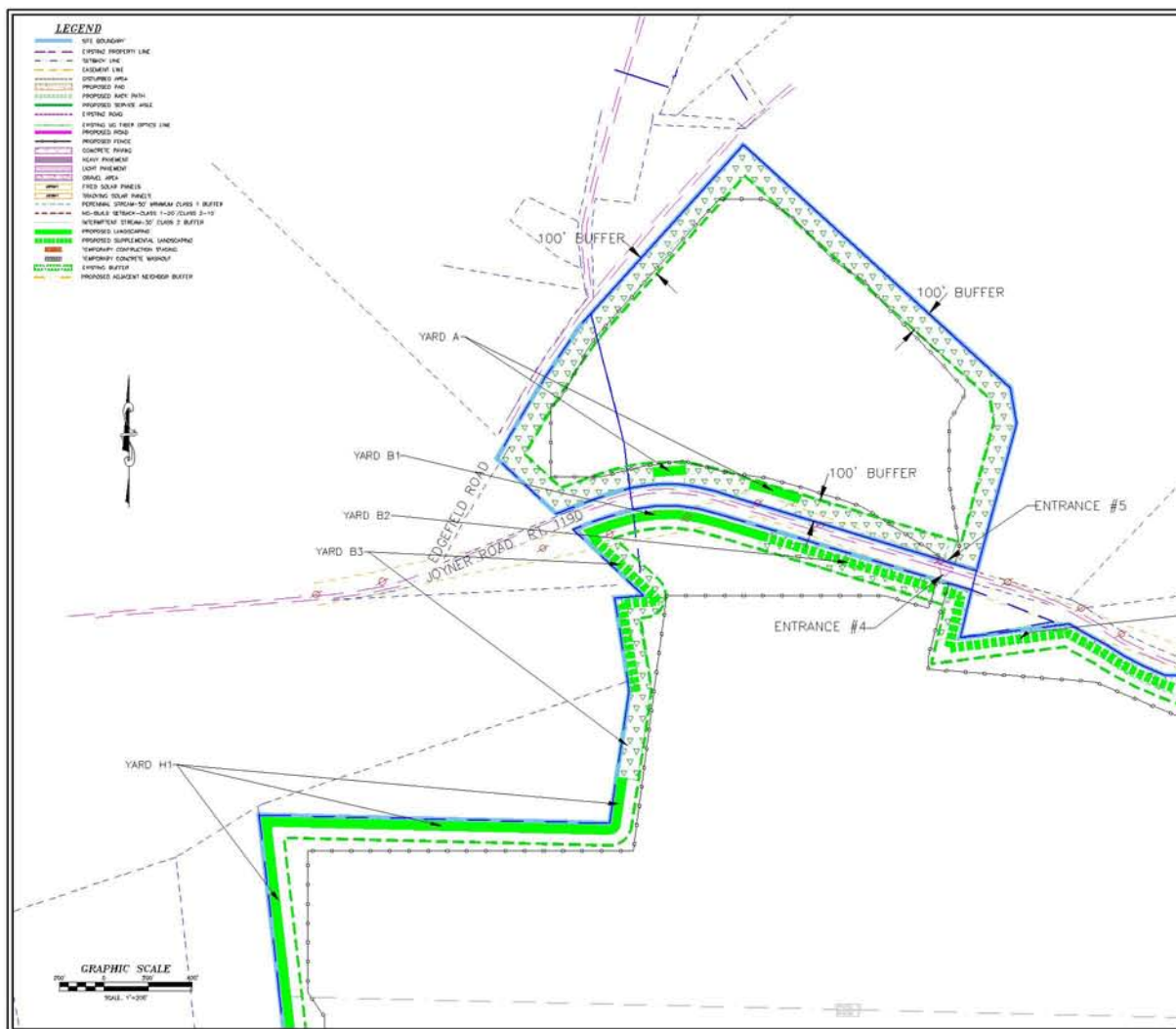
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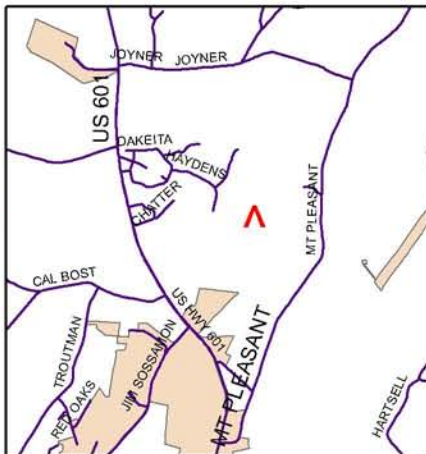


Aerial Map

Exhibit D



Applicant: McBride Place Energy, LLC
Owners: Five M's LLC, Bost ET III,
John P & Adelaide Young McNeill, and
JAB Farms, LLC
Case: CUSE2017-00001
Address: Located on +/- 627.55 between
Joyner Rd, Mt. Pleasant Rd S, and US601 S
Purpose: Requesting a Conditional Use Permit
for a Public Service Facility (Solar Farm)
PINs: 5556-24-1436, 5557-23-9335,
5557-30-6731, 5556-46-9765, 5556-48-2132,
5557-13-4338



Cabarrus County shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. These data cannot be construed to be a legal document. Primary sources from which these data were compiled must be consulted for verification of information contained within the data.

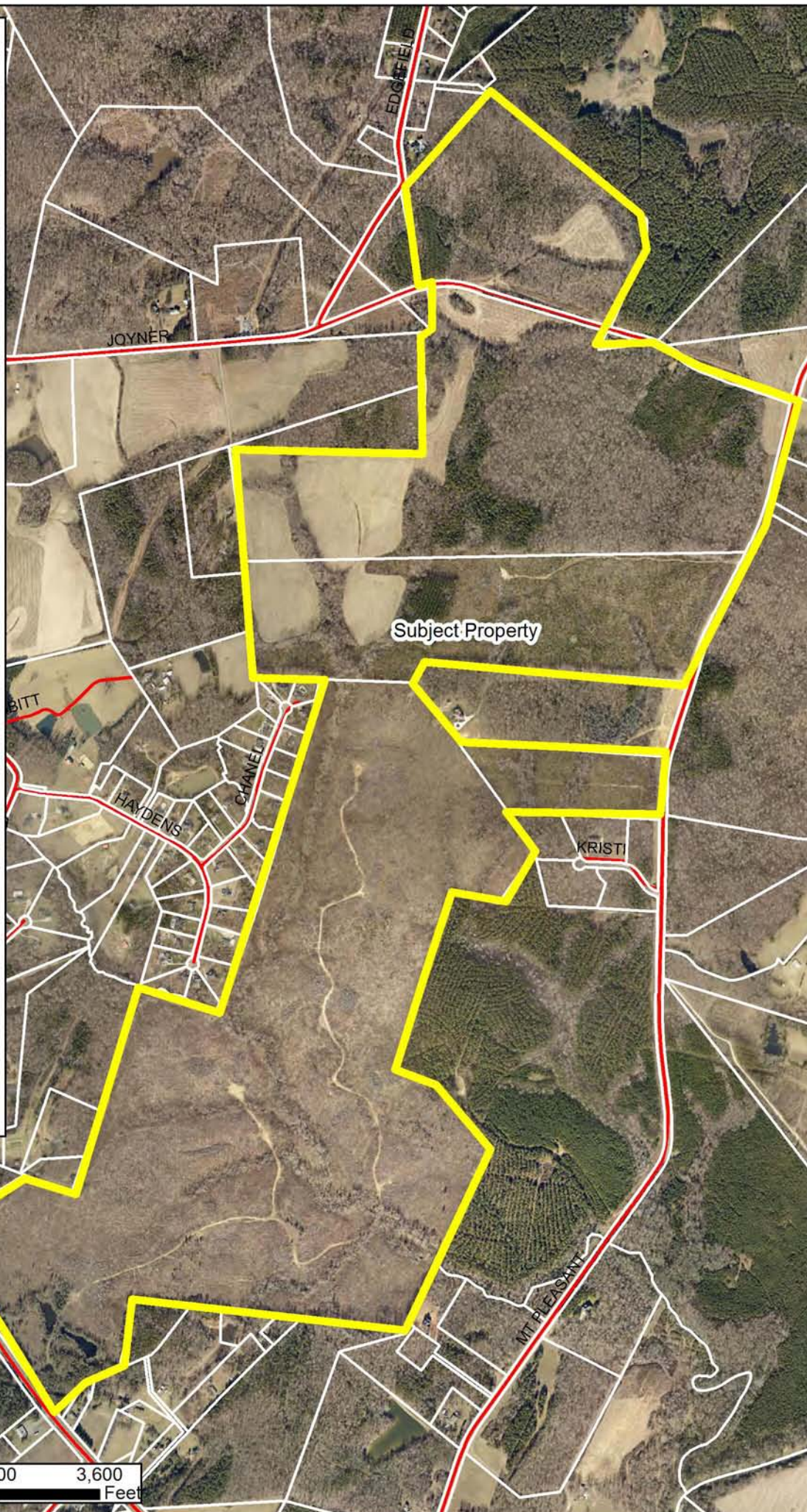
Map Prepared by Cabarrus County Planning & Development
May 2, 2017

Legend

- PARCEL TAX VIEW
- STREETS CENTERLINE
- Cabarrus County

1 inch = 1,200 feet

0 450 900 1,800 2,700 3,600 Feet

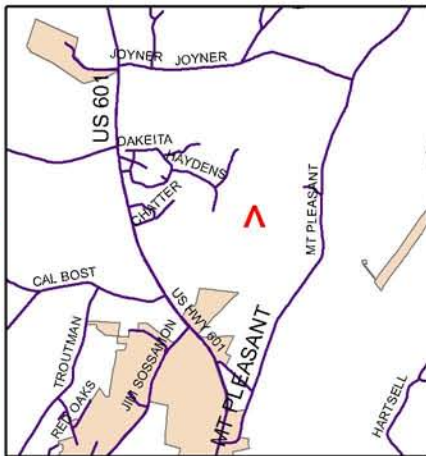


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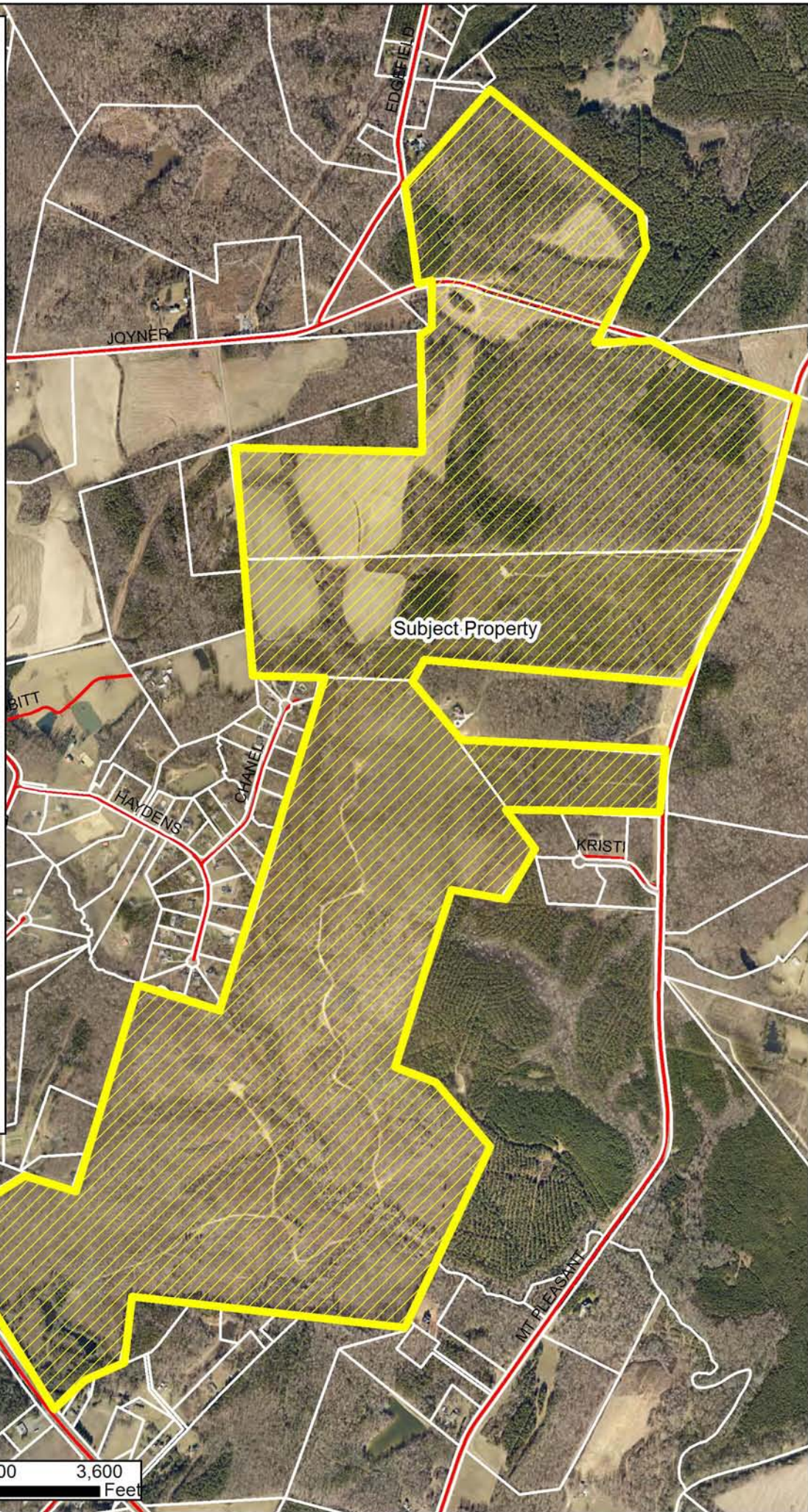


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Map Prepared by Cabarrus County Planning & Development
May 2, 2017



Mhfoe
PARCEL TAX VIEW
STREETS CENTERLINE
Cabarrus County

1 inch = 1,200 feet

3

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Map Prepared by Cabarrus County Planning &
Development
May 2, 2017

Mhfoe
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STREETS CENTERLINE
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1 inch = 600 feet

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Map Prepared by Cabarrus County Planning &
Development
May 2, 2017

KRIST

...PIEASANT

PARCEL TAX VIEW
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Aerial Map Exhibit D

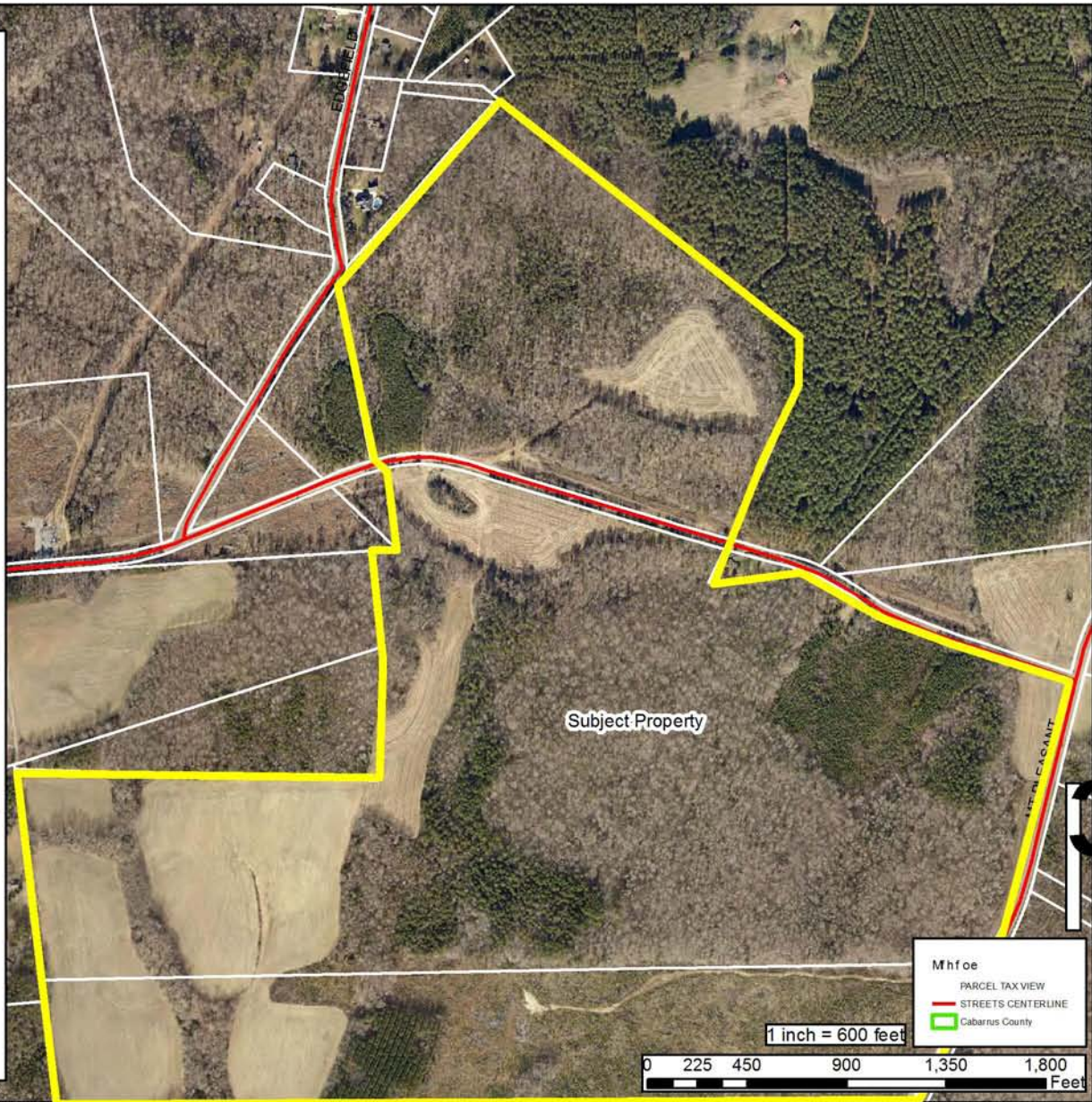


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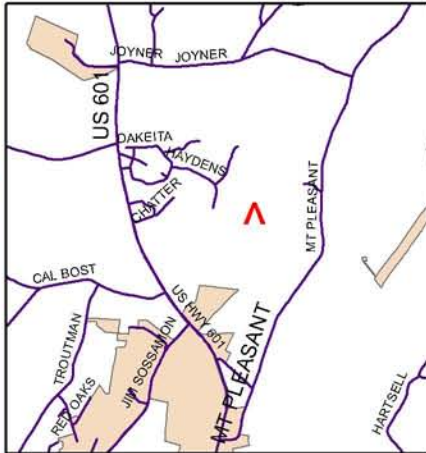


Zoning Map

Exhibit E

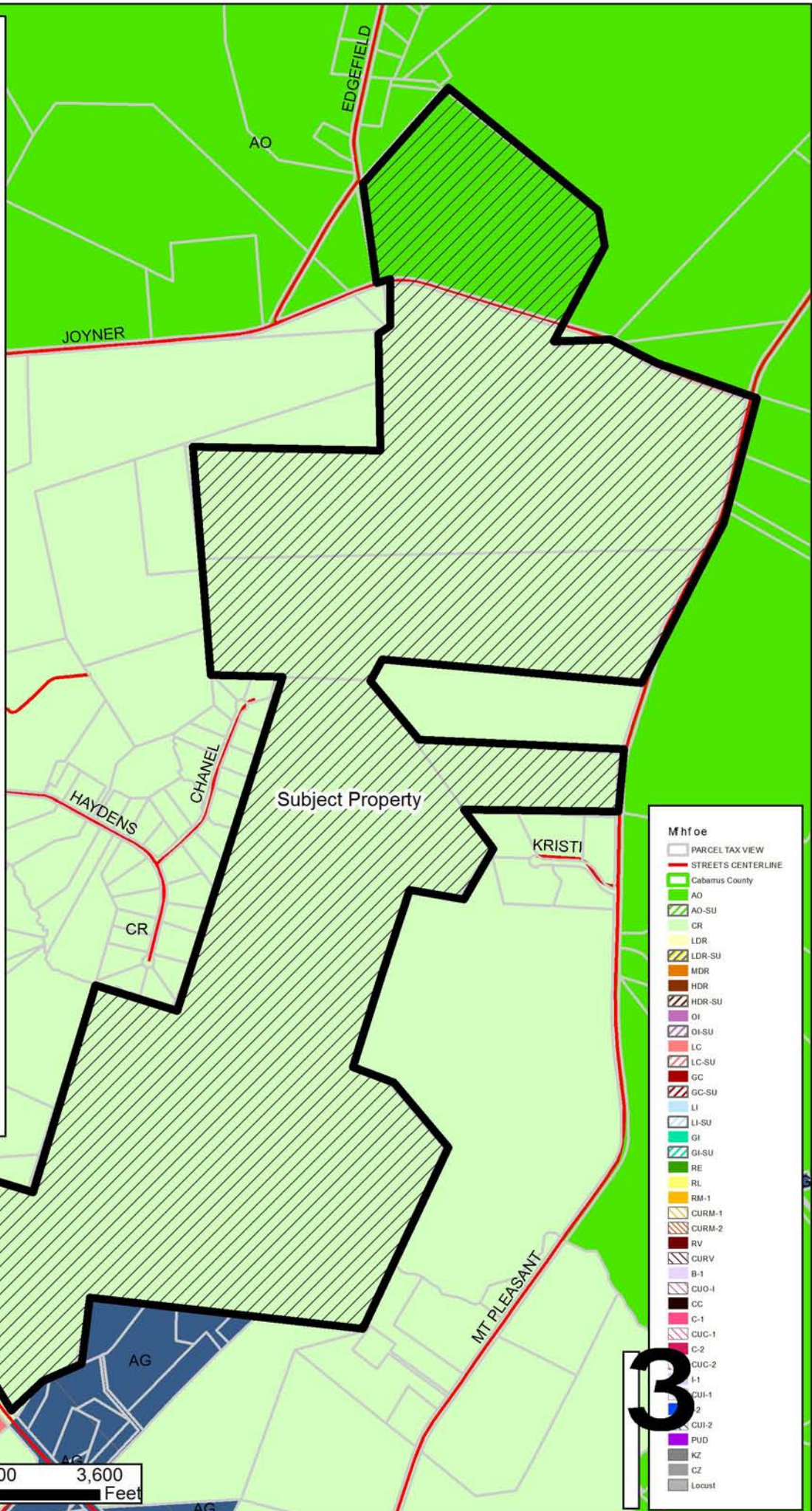


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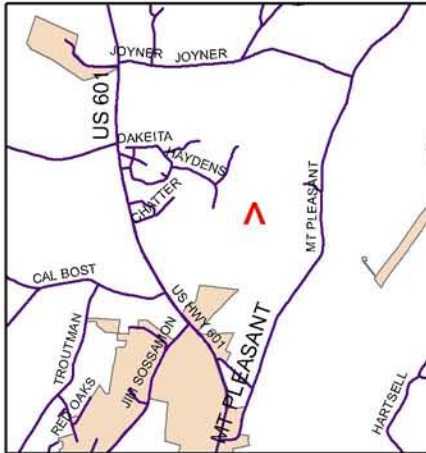


Future Land Use Map

Exhibit F

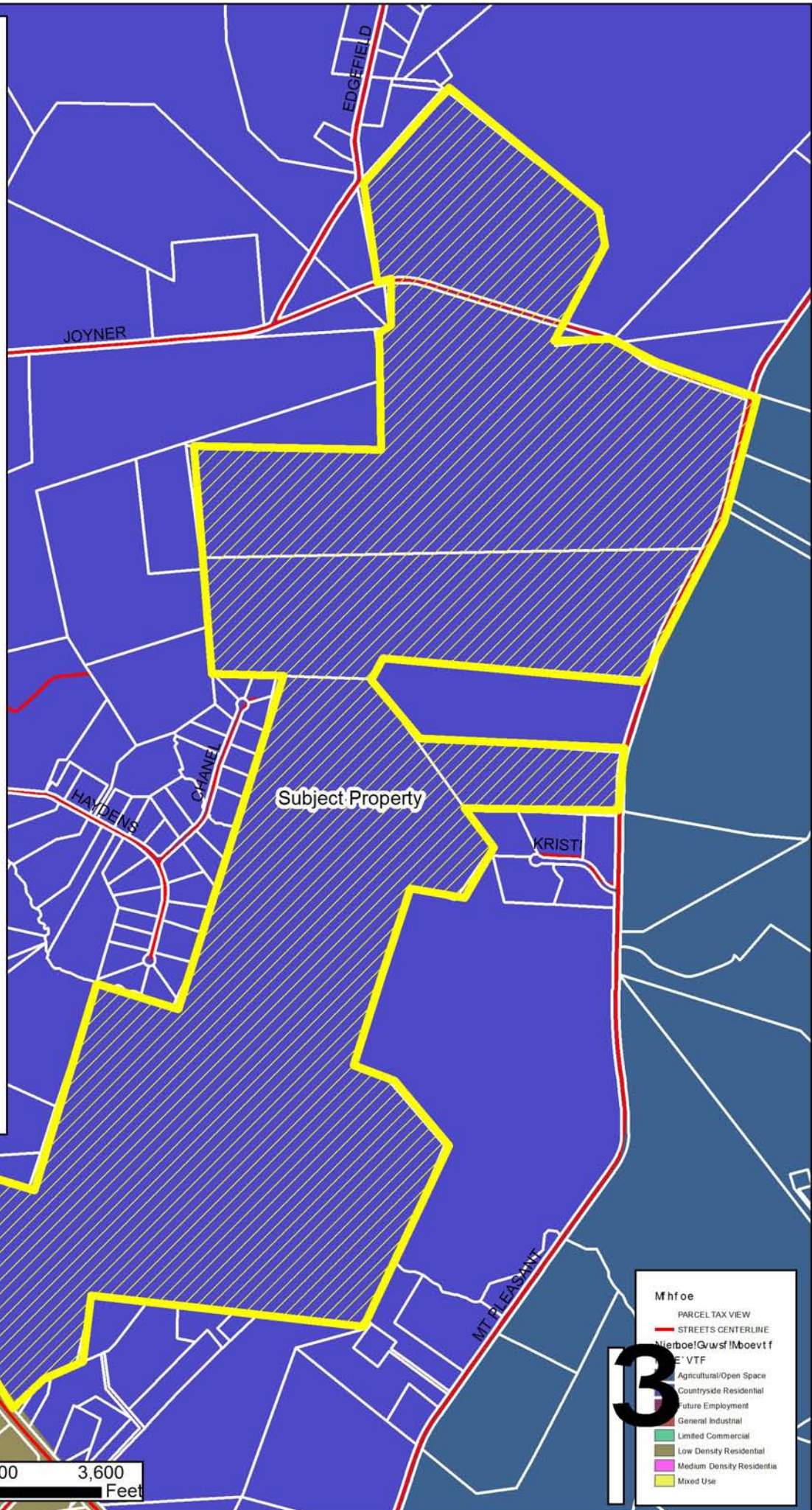


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Map Prepared by Cabarrus County Planning & Development
 May 2, 2017



- Future Land Use**
- PARCEL TAX VIEW
 - STREETS CENTERLINE
 - Future Employment
 - Agricultural/Open Space
 - Countryside Residential
 - General Industrial
 - Limited Commercial
 - Low Density Residential
 - Medium Density Residential
 - Mixed Use

13

CERTIFICATE OF PLAN APPROVAL



The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by the North Carolina Department of Environmental Quality in accordance with North Carolina General Statute 113A - 57 (4) and 113A - 54 (d) (4) and North Carolina Administrative Code, Title 15A, Chapter 4B.0107 (c). This certificate must be posted at the primary entrance of the job site before construction begins and until establishment of permanent groundcover as required by North Carolina Administrative Code, Title 15A, Chapter 4B.0127 (b).

MCBRIDE PLACE ENERGY, LLC - CONCORD - CABARRUS COUNTY

Project Name and Location

CABARRUS - 2817-050



Environmental
Quality

Feb. 27, 2017

Date of Plan Approval
with MODIFICATION PR.

ZAHID S. KHAN

Regional Engineer



Energy, Mineral
and Land Resources
ENVIRONMENTAL QUALITY

ROY COOPER

Governor

MICHAEL S. REGAN

Secretary

TRACY E. DAVIS

Director

February 27, 2017

**LETTER OF APPROVAL WITH MODIFICATIONS
AND PERFORMANCE RESERVATIONS**

McBride Place Energy, LLC
Attention: Henry Talmage McBride, III. Managing Member
Post Office Box 16005
Bristol, Virginia 24209

RE: Project Name: McBride Place Energy, LLC
Acres Approved: 494.6 Acres
Project ID: CABAR-2017-050
County: Cabarrus, City: Concord
Address: Highway 601 South
River Basin: Yadkin – Pee Dee
Stream Classification: Other
Submitted By: McBride Place Energy, LLC
Date Received by LQS: February 17, 2017
Plan Type: Revised

Dear Mr. McBride:

This office has reviewed the subject erosion and sedimentation control plan and hereby issues this Letter of Approval with Modifications and Performance Reservations. A list of the modifications and reservations is attached. This plan approval shall expire three (3) years following the date of approval, if no land-disturbing activity has been undertaken, as is required by Title 15A NCAC 4B .0129. Should the plan not perform adequately, a revised plan will be required (G.S. 113A-54.1)(b).

Please be aware that your project will be covered by the enclosed NPDES Construction Stormwater General Permit NCG010000. Please become familiar with all the requirements and conditions of this permit in order to achieve compliance.

Please be advised that Title 15A NCAC 4B .0118(a) requires that a copy of the approved erosion control plan be on file at the job site. Also, you should consider this letter to give the Notice

Letter of Approval with Modifications and Performance Reservations
McBride Place Energy, LLC
February 27, 2017
Page 2 of 3

required by G.S. 113A-61.1(a) of our right of periodic inspection to insure compliance with the approved plan.

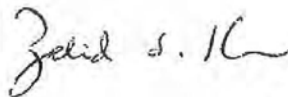
North Carolina's Sedimentation Pollution Control Program is performance-oriented, requiring protection of existing natural resources and adjoining properties. If, following the commencement of this project, it is determined that the erosion and sedimentation control plan is inadequate to meet the requirements of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statute 113A-51 thru 66), this office may require revisions to the plan and implementation of the revisions to insure compliance with the Act.

Acceptance and approval of this plan is conditioned upon your compliance with Federal and State water quality laws, regulations, and rules. In addition, local city or county ordinances or rules may also apply to this land-disturbing activity. This approval does not supersede any other permit or approval.

Please note that this approval is based in part on the accuracy of the information provided in the Financial Responsibility Form, which you have provided. You are requested to file an amended form if there is any change in the information included on the form. In addition, it would be helpful if you notify this office of the proposed starting date for this project. Please notify us if you plan to have a preconstruction conference.

Your cooperation is appreciated.

Sincerely,



Zahid S. Khan, CPM, CPESC, CPSWQ
Regional Engineer
Land Quality Section

SID/cys

Enclosures: Certificate of Plan Approval
Modifications and Performance Reservations
NPDES Permit

c: Dick Johnson, PE, Blackwell Engineering PLC, 566 East Market Street Harrisonburg, Virginia 22801
Inspection Department

MODIFICATIONS AND PERFORMANCE RESERVATIONS

Project Name: McBride Place Energy, LLC
Project ID: CABAR-2017-050
County: Cabarrus

Modifications pursuant to applicable North Carolina General Statutes and/or Regulations:

1. Please note that merely planting grass seed does not satisfy the requirements of "vegetative cover" or of "groundcover sufficient to restrain erosion". These requirements are not satisfied until a standing cover of grass or other groundcover (such as properly applied and secured mulched seeding or appropriate rip-rap) is established that is sufficient to restrain accelerated or man-made erosion. [G.S. 143-215.1]

Performance Reservations:

1. The site must be managed such that the extent and duration of the land-disturbing activity is minimized. Please sequence construction to limit the size of the area exposed at any one time. [15A NCAC 4B .0106(2), 15A NCAC 4B .0106(3)]
2. Additional measures may be required - The applicant is responsible for the control of sediment on-site. If the approved erosion and sedimentation control measures prove insufficient, the applicant must take those additional steps necessary to stop sediment from leaving this site. [15A NCAC 4B .0115]

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT QUALITY
STATE STORMWATER MANAGEMENT PERMIT

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules and Regulations

PERMISSION IS HEREBY GRANTED TO

Mr. Henry T. McBride, III
McBride Place Energy, Cabarrus County

FOR THE

construction, operation and maintenance of a Solar Farm, McBride Place Energy, in compliance with the provisions of 15A NCAC 2H .1017 (hereafter referred to as the "*stormwater rules*") and the approved stormwater management plans and specifications, and other supporting data as attached and on file with and approved by the State and considered a part of this permit.

The Permit shall be effective from the date of issuance until rescinded and shall be subject to the following specific conditions and limitations:

I. DESIGN STANDARDS

1. The overall tract built-upon area percentage for the project must be maintained below 24%, as required by 15A NCAC 2H .1017 of the stormwater rules.
2. Approved plans and specifications for projects covered by this permit are incorporated by reference and are enforceable parts of the permit.
3. The built-upon areas associated with this project shall be located at least 30 feet landward of all perennial and intermittent streams.
4. Projects shall be designed to maximize dispersed flow through vegetated areas and minimize channelization of flow.
5. Stormwater that cannot be released as dispersed flow shall be transported by vegetated conveyances. A minimal amount of non-vegetated conveyances for erosion protection or piping for driveways or culverts under a road shall be allowed by the permitting authority when it cannot be avoided.
6. The conveyance shall be designed so that it does not erode during the peak flow from the 10-year storm as demonstrated by engineering calculations.
7. The minimum length of the swale or vegetated area shall be 100 feet.
8. Grassed swales or vegetated areas shall be designed such that the swale or vegetated area can carry the peak flow from the 10-year storm at a non-erosive velocity. The longitudinal slope of the swale or vegetated area shall not exceed five percent, except where not practical due to physical constraints. In these cases, devices to slow the rate of runoff and encourage infiltration to reduce pollutant delivery shall be provided. The swale's cross-section shall be trapezoidal with a minimum bottom width of two feet. The side slopes of the swale or vegetated area shall be no steeper than 3:1 (horizontal to vertical).

II. SCHEDULE OF COMPLIANCE

1. The permittee is responsible for verifying that the proposed built-upon area does not exceed the allowable built-upon area.
2. The Director may notify the permittee when the permitted site does not meet one or more of the minimum requirements of the permit. Within the time frame specified in the notice, the permittee shall submit a written time schedule to the Director for modifying the site to meet minimum requirements. The permittee shall provide copies of revised plans and certification in writing to the Director that the changes have been made.
3. This project may not be sold or subdivided in whole or in part without first receiving a permit modification.
4. The following deed restrictions must be recorded with the Office of the Register of Deeds:
 - a. The following covenants are intended to ensure ongoing compliance with State Stormwater Management Permit.
 - b. The State of North Carolina is made a beneficiary of these covenants to the extent necessary to maintain compliance with the Stormwater Management Permit.
 - c. These covenants are to run with the land and be binding on all persons and parties claiming under them.
 - d. The covenants pertaining to stormwater may not be altered or rescinded without the express written consent of the State.
 - e. Alteration of the drainage as shown on the approved plans may not take place without the concurrence of the State.
 - f. This project may not be sold or subdivided, in whole or in part, without first receiving a permit modification from the Division.
 - h. Construction of additional impervious areas such that low-density requirements are no longer met will require a permit modification prior to construction. An engineered system will be required to collect and treat the runoff from all built-upon area associated with the project, including that area permitted under the low density option.
 - i. Filling in or piping of any vegetative conveyances (ditches, swales, etc.) associated with this development, except for average driveway crossings, is strictly prohibited by any persons.
 - j. The built-upon areas shall be located a minimum of 30 feet landward of all perennial and intermittent surface waters.
5. A copy of the recorded restrictions must be received in this Office within 30 days of the date of sale.
6. Filling in or piping of any vegetative conveyances (ditches, swales, etc.) associated with the permitted development, except for average driveway crossings, is strictly prohibited by any persons.
7. The permittee shall submit to the Director and shall have received approval for revised plans, specifications, and calculations prior to construction, for any modification to the approved plans, including, but not limited to, those listed below:
 - a. Any revision to the approved plans, regardless of size.
 - b. Project name change.
 - c. Transfer of ownership.
 - d. Redesign or addition to the approved amount of built-upon area.

- e. Further subdivision, acquisition, or sale of the project area in whole or in part. The project area is defined as all property owned by the permittee, for which Sedimentation and Erosion Control Plan approval was sought.
 - f. Filling in, altering or piping any vegetative conveyance shown on the approved plan.
8. During construction, erosion shall be kept to a minimum and any eroded areas of the swales or other vegetated conveyances will be repaired immediately.
9. The permittee shall provide the operation and maintenance necessary to operate the permitted stormwater management systems at optimum efficiency to include:
- a. Inspections
 - b. Sediment removal.
 - c. Mowing, and re-vegetating of the side slopes.
 - d. Immediate repair of eroded areas.
 - e. Maintenance of side slopes in accordance with approved plans and specifications.
10. Within 30 days of completion of the project, the permittee shall certify in writing that the project has been constructed in accordance with the approved plans.
11. The permittee shall submit all information requested by the Director or his representative within the time frame specified in the written information request.

III. GENERAL CONDITIONS

- 1. This permit is not transferable to any person or entity except after notice to and approval by the Director. The Director may require modification or revocation and re-issuance of the permit to change the name and incorporate such other requirements as may be necessary. In the event of a name or ownership change, a completed Name/Ownership Change form, signed by both parties, must be submitted to the State accompanied by the supporting documentation as listed on page 2 of the form. The approval of this request will be considered on its merits, and may or may not be approved.
- 2. The permittee is responsible for compliance with all permit conditions until the Director approves a transfer of ownership. Neither the sale of the project nor the transfer of common areas to a third party, such as a homeowner's association, constitutes an approved transfer of the stormwater permit.
- 3. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to an enforcement action in accordance with North Carolina General Statutes 143-215.6A to 143-215.6C.
- 4. The issuance of this permit does not prohibit the Director from reopening and modifying the permit, revoking and reissuing the permit, or terminating the permit as allowed by the laws, rules, and regulations contained in Session Law 2006-246, Title 15A of the North Carolina Administrative Code, Subchapter 2H.1000; and North Carolina General Statute 143-215.1 et. al.
- 5. In the event the facilities fail to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective action, including those as may be required by the State, such as the construction of additional or replacement stormwater management systems.
- 6. The permittee grants permission to DEQ Staff to enter the property during normal business hours for the purpose of inspecting all components of the stormwater

management facility.

7. The permit issued shall continue in force and effect until revoked or terminated. The permit may be modified, revoked and reissued or terminated for cause. The filing of a request for a permit modification, revocation and re-issuance, or termination does not stay any permit condition.
8. Unless specified elsewhere, permanent seeding requirements for the swales must follow the guidelines established in the North Carolina Erosion and Sediment Control Planning and Design Manual.
9. Approved plans and specifications for this project are incorporated by reference and are enforceable parts of the permit.
10. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances, which may be imposed by other government agencies (local, state and federal), which have jurisdiction.
11. The permittee shall notify the Division in writing of any name, ownership or mailing address changes at least 30 days prior to making such changes.

Permit issued this the 10th day of April, 2017.

Original Signed by Micheal F. Randall

for Tracy E. Davis, P.E., CPM
Director Division of Energy, Mineral, and Land Resources



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

TRACY DAVIS
Director

April 10, 2017

Mr. Henry T. McBride, III
Managing Member
McBride Place Energy
202 Johnson Street
Bristol, Virginia 24209

Subject: Stormwater Permit No. SW3170403
McBride Place Energy, Cabarrus County

Dear Mr. McBride:

The Division of Energy, Mineral, and Land Resources (DELMR), received a complete Stormwater Management Permit Application for the subject project on April 7, 2017. Staff review of the plans and specifications has determined that the project, as proposed, will comply with the Stormwater Regulations set forth in Title 15A Section NCAC 2H.1000. We are forwarding Permit No. SW3170403, dated April 10, 2017, for the construction, operation and maintenance of the subject project and the stormwater system. This permit shall be effective from the date of issuance, or until rescinded and shall be subject to the conditions and limitations as specified therein, and does not supersede any other agency permit that may be required.

If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing by filing a written petition with the Office of Administrative Hearings (OAH). The written petition must conform to Chapter 150B of the North Carolina General Statutes. Per NCGS 143-215(e) the petition must be filed with the OAH within thirty (30) days of receipt of this permit. You should contact the OAH with all questions regarding the filing fee (if a filing fee is required) and/or the details of the filing process at 6714 Mail Service Center, Raleigh, NC 27699-6714, or via telephone at 919-431-3000, or visit their website at www.NCOAH.com. Unless such demands are made this permit shall be final and binding.

This project will be kept on file at the Mooresville Regional Office. If you have any questions, or need additional information concerning this matter, please contact Mike Randall at (919) 807-6374; or mike.randall@ncdenr.gov.

Sincerely,

Original Signed by Micheal. F Randall

for Tracy E. Davis, PE, CPM, Director

cc: SW3170403 File, Mooresville Regional Office
ec: Edmond H. Blackwell, P.E. Blackwell Engineering PLC!!





**McBride Place Energy
Solar Ocular Impact Analysis
Reference #80.138**

ANTARES Contact:

Heidi Alsbrooks
Project Manager
halsbrooks@antaresgroupinc.com
(301) 731-1900 ext. 701

Submission Date:

February 27, 2017

Corporate Headquarters
4500 Forbes Blvd, Suite 410
Lanham, MD 20706

Southeast Regional Office
57 S. Main Street
Harrisonburg, VA 22801
540-442-9848

Northeast Regional Office
7000 E Genesee St
Bldg D, Upper Floor
Fayetteville, NY 13066

Remote Offices
Moravia, IA
Denver, CO
Petaluma, CA

To the extent allowable by law, the information, data and drawings embodied in this proposal are strictly confidential and are supplied on the understanding that they will be held confidentially and not disclosed to third parties without the prior written consent of ANTARES Group Inc.



CONTENTS

1	Introduction	3
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APPENDIX A – SGHAT Analysis Summaries for Roadway Observation Points

APPENDIX B - SGHAT Analysis Summaries for Adjacent Parcel Observation Points

APPENDIX C – MPE SITE PLAN

1 INTRODUCTION

McBride Place Energy, LLC (MPE) contracted ANTARES Group, Inc (ANTARES) to evaluate glare potential for a proposed solar project located in Cabarrus County, North Carolina. The County's Conditional Use Permit (CUP) requirements for solar projects state that a map analysis must be completed to identify any airports located within a five nautical mile distance of the project center, and that an applicant for a CUP "must demonstrate that glare created by the project will not adversely impact surrounding properties or vehicles travelling on right of way near the site".¹

The proposed project site is not located within 5 nautical miles of an airport. Twenty-four roadway observation points, and 16 points located on adjacent parcels were evaluated for major array locations and configurations using the Solar Glare Hazard Analysis Tool (SGHAT). The Federal Aviation Administration (FAA) developed this tool because solar energy systems may produce glint or glare, which can be a hazard to pilots and air traffic controllers. ANTARES began its analysis with SGHAT because it is the best tool currently available for modelling glint and glare from solar energy systems.

The visual impact of glint and glare can extend beyond pilots and air traffic controllers to nearby residential locations and travelers on adjacent roads. In these cases, the glare from a solar energy system is influenced by landscape elements such as trees, buildings, and hills. SGHAT does not take such elements into account and therefore does not provide a complete analysis of the ground visual impact of a solar energy system. For this reason, ANTARES also performed a line-of-sight viewshed analysis for the aforementioned observation points.

After performing the SGHAT and line-of-sight viewshed analyses, ANTARES found little concern for ocular hazard from the nearby roadway or adjacent parcels. Most points along Mt. Pleasant Road, Joyner Road, and Edgefield Rd, and the points on adjacent parcels have no visibility of the proposed array; several points have potential for low-level glare far under levels considered hazardous.

1.1 BACKGROUND

Analyzing the potential for glare from a solar energy system is a crucial part of assessing the project's visual impact. Glare can be a hazard for pilots and drivers. It may also pose a risk to the ocular health of observers and residents in nearby areas. As a result, several methods for assessing glare potential have been developed.

In November 2013, the FAA published "FAA Review of Solar Energy System Projects on Federally Obligated Airports"², an interim policy regarding proposals for the construction of solar energy systems (defined by the FAA as solar photovoltaic and solar hot water systems) on airports. The

¹ Cabarrus County Development Ordinance, Chapter 8- Conditional Uses, p12, as amended 10/17/2016.

² www.faa.gov/airports/environmental/
<http://www.gpo.gov/fdsys/pkg/FR-2013-10-23/pdf/2013-24729.pdf>

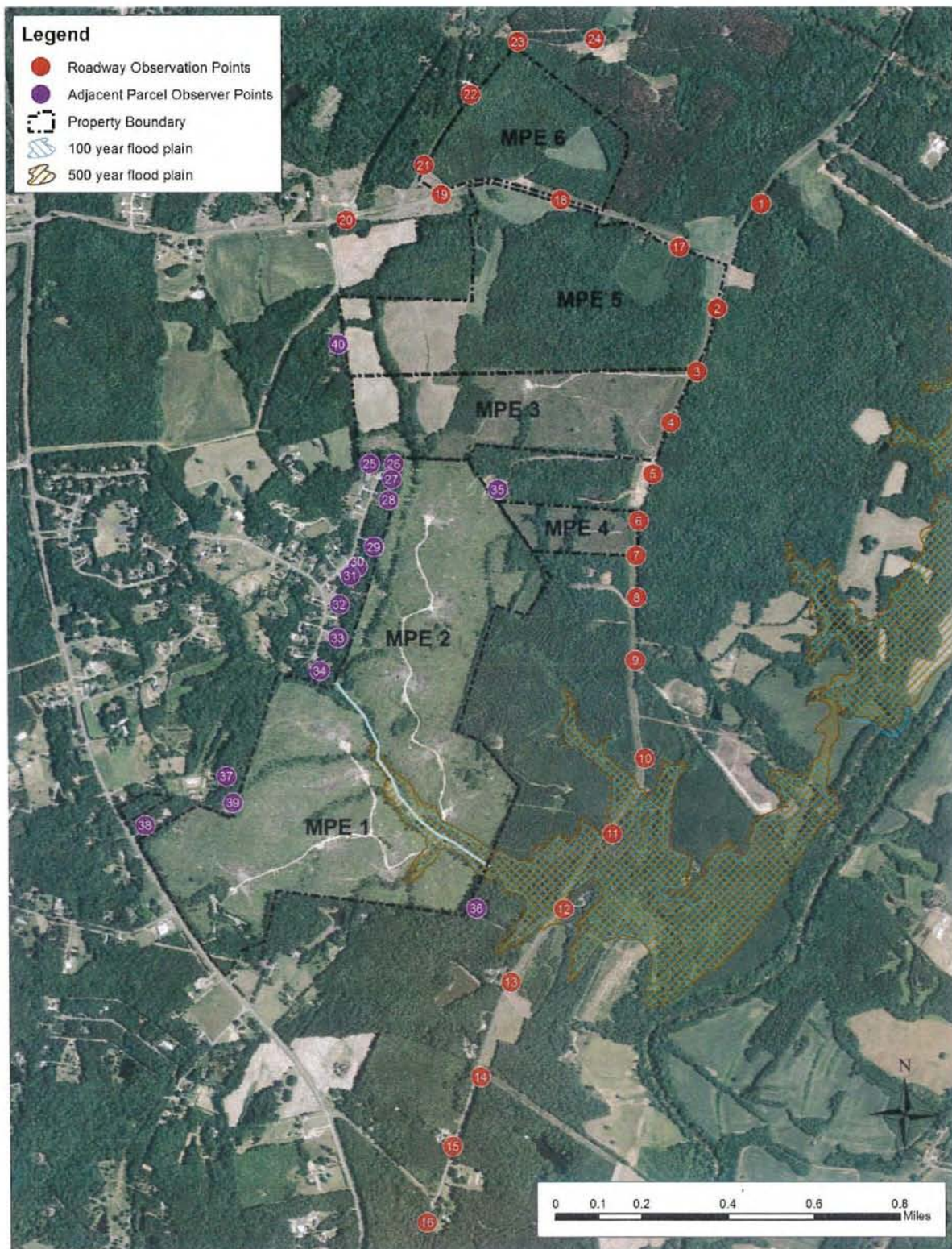
policy came about because of the concerns associated with the proximity of solar energy systems to airports. Solar energy systems may produce glint (momentary flash of bright light) or glare (continuous source of bright light). As a result, federally obligated airports are now required to request FAA review and approval for proposed solar energy system installations. The tool's utility is not limited to analysis of systems near airports, and is useful in evaluating solar energy systems in a variety of locations.

However, SGHAT is limited in its ability to predict glare potential for ground level observers. The tool does not take into account landscape features that may impact the glare from a solar energy system. To resolve this discrepancy, a line-of-sight viewshed analysis can be used. This type of analysis assesses the potential for glare to impact nearby roads and neighborhoods during the daytime. Using a line-of-sight viewshed analysis in conjunction with SGHAT provides a complete evaluation of the potential ground visual impact of a solar energy system.

1.2 SITE CONDITIONS

MPE assessed six parcels of land located in rural Cabarrus County, NC to host the project. These parcels contain a mix of terrain ranging from clearcut to partially and heavily wooded. One parcel is bisected by Bost Creek and its associated historical flood plain. The terrain consists of gently rolling hills. Certain areas will require clearing of trees and other landscape obstructions, and in general some areas may require some degree of grading or terrain modification. An aerial view of the project site with the flood plain highlighted is shown below.

Figure 1 Site Overview



2 SGHAT ANALYSIS

2.1 FAA STANDARDS FOR OCULAR IMPACT MEASUREMENT

In November 2013, the Federal Aviation Administration (FAA) published *FAA Review of Solar Energy System Projects on Federally Obligated Airports*, an interim policy regarding proposals for the construction of solar energy systems (defined by the FAA as solar photovoltaic and solar hot water systems) on airports.

In order to receive permission for a proposed solar energy system installation, the airport sponsor must show that it meets the following standards:

1. No potential for glint or glare in the existing or planned Airport Traffic Control Tower cab, and
2. No potential for glare or "low potential for an after-image" along the final approach path for any existing or future landing thresholds.

Ocular impact must be measured over an entire calendar year in one minute intervals from sun rise to sun set.

2.2 ASSESSING OCULAR IMPACT

The FAA has developed a Solar Glare Ocular Hazard Plot and uses it as the standard for analyzing the potential risks associated with proposed projects. The potential hazard is a function of retinal irradiance and the size/distance of the glare source. Qualification of hazard as determined by Sandia National Laboratories is shown in the figure below.

Figure 2. Qualification of Ocular Hazard Based on Retinal Irradiance

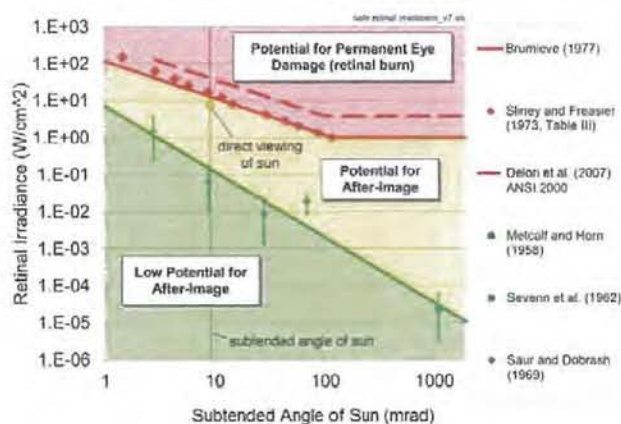
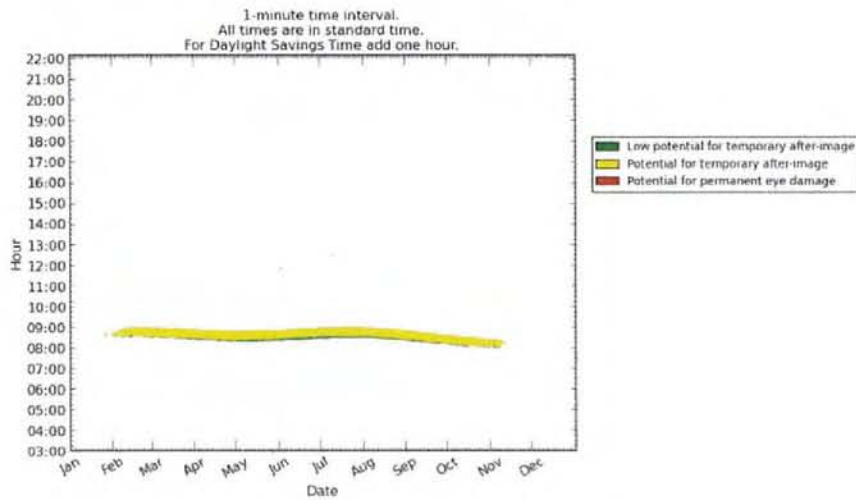


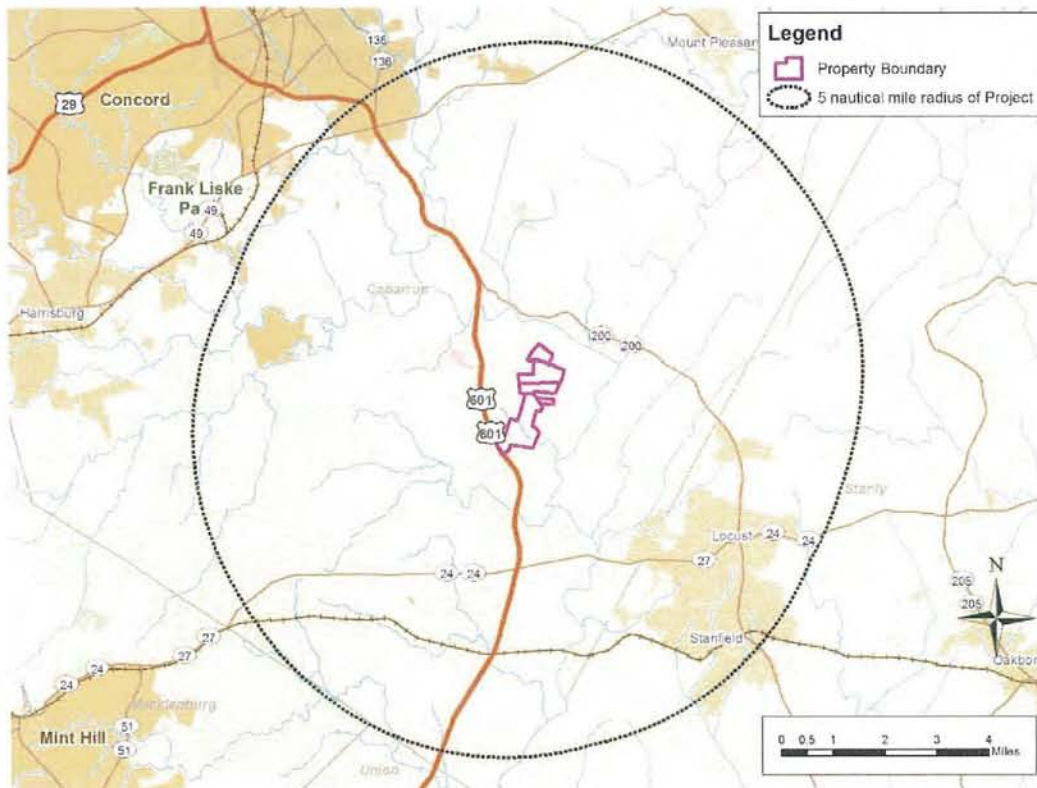
Image courtesy of Sandia National Laboratories

A sample glare occurrence plot showing the potential for ocular hazard is shown below. In this sample, potential for temporary after-image is found around 8:45 AM from roughly February through November.

Figure 3. Example Glare Occurrence Plot

2.3 ANALYSIS OF AIRPORT PROXIMITY

There are no airports within 5 nautical miles of the project center, as shown in Figure 4; thus no further action is needed with regard to airport impact analysis.

Figure 4. Project Location, with Five Nautical Mile Radius

2.4 GLARE ANALYSIS FOR ROADWAY OBSERVATION POINTS

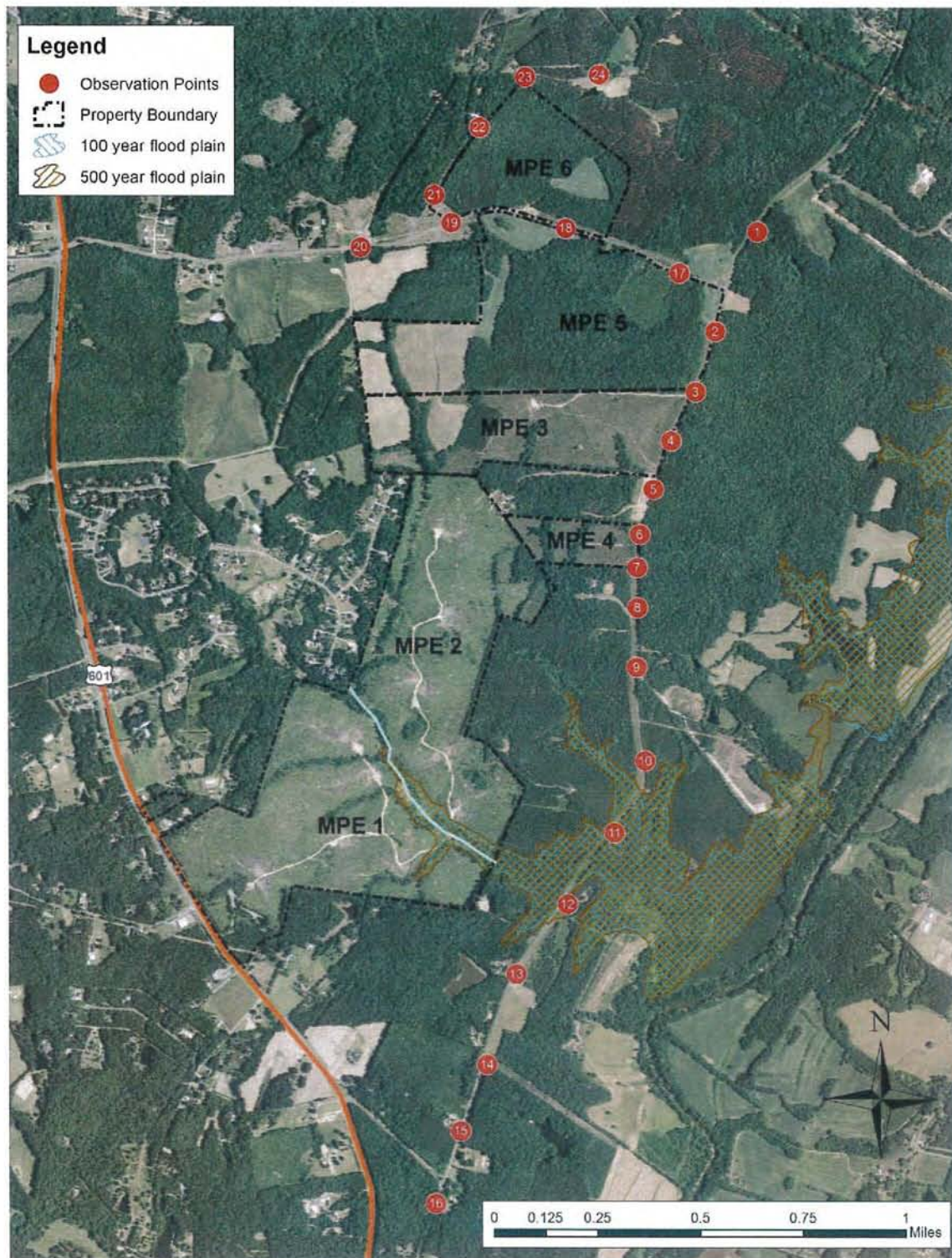
Glare hazard due to the proposed PV installation was tested for observation points along Mount Pleasant Road, Joyner Road, and Edgefield Road. The proposed PV system is to the west of Mount Pleasant Road and on either side of Joyner Road on several privately owned parcels. A site plan for the proposed system is shown in Figure 6. There are six separate properties that make up this project. A total of 24 observation points along adjacent roads were used in the SGHAT analysis. Each of these observation points was evaluated for each adjacent array location, resulting in a total of 96 evaluations.

Criteria for the proposed PV array was specified in SGHAT and included tilt and azimuth configuration, tracking (where applicable), and module surface reflectivity. These criteria were modeled using standard PV equipment in a configuration designed specifically for the proposed location of the PV system. The parameters used for the analysis are shown below. A site plan of the proposed array is also provided in Appendix C.

Figure 5. PV Array Modeling Parameters

System Location / Description		Array Tilt Angle (degrees)	Array Azimuth (degrees)	Module Surface	Average Height (ft)
MPE Solar Energy Facility	Fixed Tilt	25	180	Smooth glass with Anti-reflective coating	4
	1-X Tracking	+/- 60	180	Smooth glass with Anti-reflective coating	4

Figure 6. Site Plan Map with Proposed PV Array Location



2.4.1 Results

The results of the SGHAT analysis show that array areas MPE 1, 3, 5, and 6 have some potential for ocular hazard at multiple observation points, however, most of those cases show low potential for temporary after-image. The table below provides a summary of all results for the observation points tested.

Figure 7. Summary of Potential Ocular Hazards at Roadway Observation Points

Observation Point	MPE 1	MPE 2 MPE 4	MPE 3 MPE 5	MPE 6
1	-	-	-	◆
2	-	-	●	◆
3	-	-	●	-
4	-	-	●	-
5	-	●	●	-
6	-	●	-	-
7	-	●	-	-
8	-	●	-	-
9	-	●	NT	NT
10	-	●	NT	NT
11	-	●	NT	NT
12	◆	-	NT	NT
13	●	-	NT	NT
14	-	-	NT	NT
15	-	-	NT	NT
16	-	-	NT	NT
17	NT	NT	●	◆
18	NT	NT	-	◆
19	NT	NT	-	●
20	NT	NT	◆	●
21	NT	NT	-	●
22	NT	NT	-	●
23	NT	NT	-	-
24	NT	NT	-	-

●

◆

■

NT

Low Potential for Temporary After Image

Potential for Temporary After Image

Potential for Permanent Eye Damage

Not tested

A copy of the SGHAT analysis for all approach paths and array sections is included for reference in Appendix A.

3 LINE-OF-SIGHT VIEWSHED ANALYSIS

3.1 METHODOLOGY

ArcGIS (version 10) was used to develop the viewshed maps for this analysis. The two main elements used in ArcGIS to develop the viewshed maps are a Digital Elevation Model (DEM) and land cover data sets. The DEM data was obtained from the United States Geological Survey (USGS) at a 1/3 arc second (roughly 10 meter) cell resolution. Supplemental vegetation data was obtained from aerial photography. The vegetation data was used to estimate line-of-sight calculations assuming a canopy cover.

A tree height of 50 feet surrounding the project site was assumed. Line-of-sight calculations were made from an observer point of five feet above ground level, assuming the maximum solar panel height of 7'10" above ground level for each of the fixed tilt array locations, and 7'2" above ground level for each of the tracker array locations. It was assumed that all of the land contained within the property boundary, as shown in the figures below, was cleared of vegetation.

3.2 RESULTS FOR ROADWAY OBSERVATION POINTS

Figures 8 through 11 below present the results of the line-of-sight viewshed analyses for each of the six project areas. The figures show, in yellow, the areas where the solar panels can be seen assuming the observer viewing height of five feet above ground level and a maximum solar panel height of 7'2" or 7'10" above ground level, as applicable. The figure also shows the observer locations that were analyzed using SGHAT. Where the observer locations overlap the areas in yellow, the solar panels can be seen and the SGHAT model output is accurate even when considering potential landscape obstacles such as terrain and vegetation. Where the observer locations do not overlap the areas in yellow, the SGHAT model results are not relevant because landscape features will block the view of the solar panels. The combined results of SGHAT and the line-of-sight viewshed analysis are presented in Figure 12.

Figure 8. Line-Of-Sight Viewshed Analysis Results for MPE 1

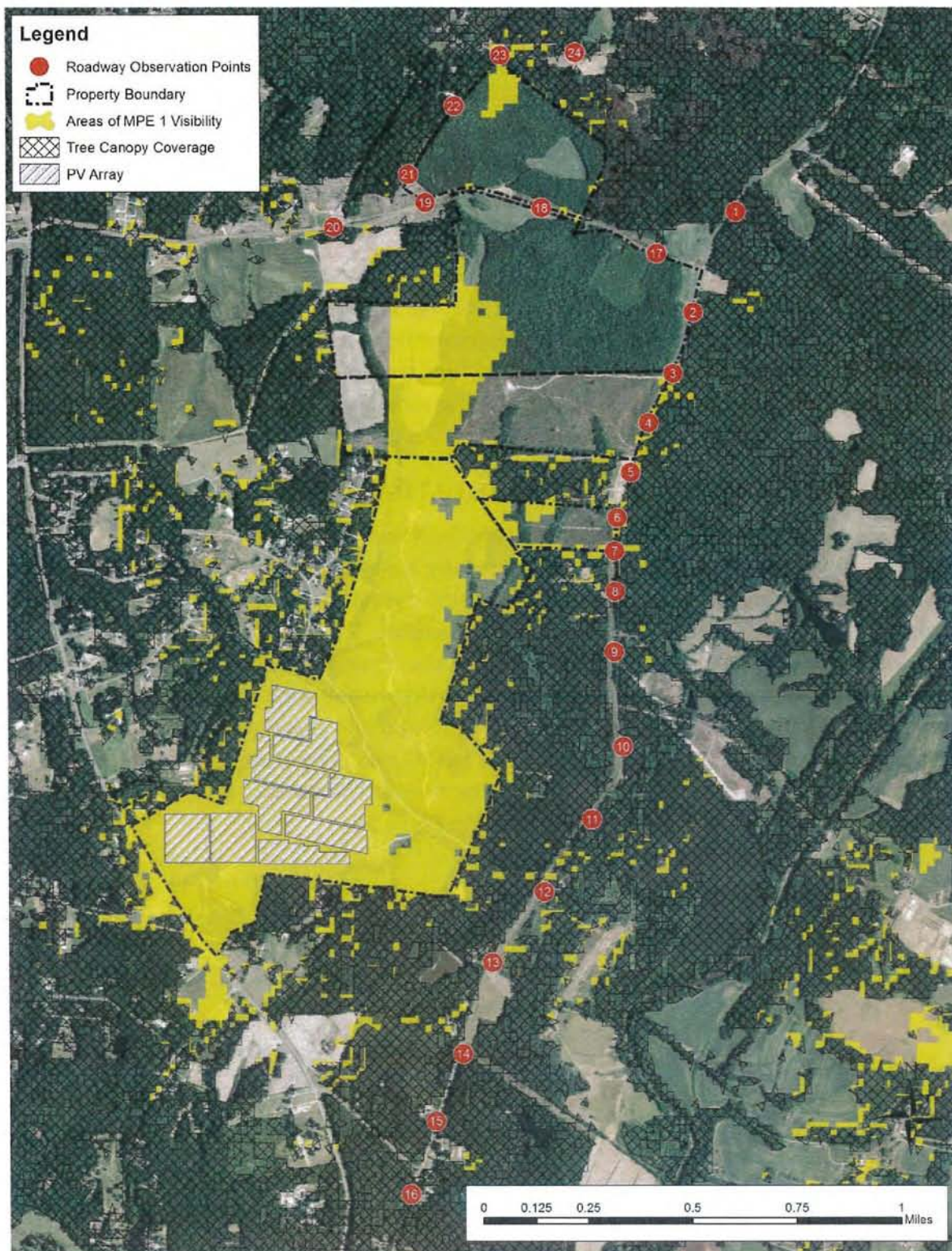


Figure 9. Line-Of-Sight Viewshed Analysis Results for MPE 2 & 4

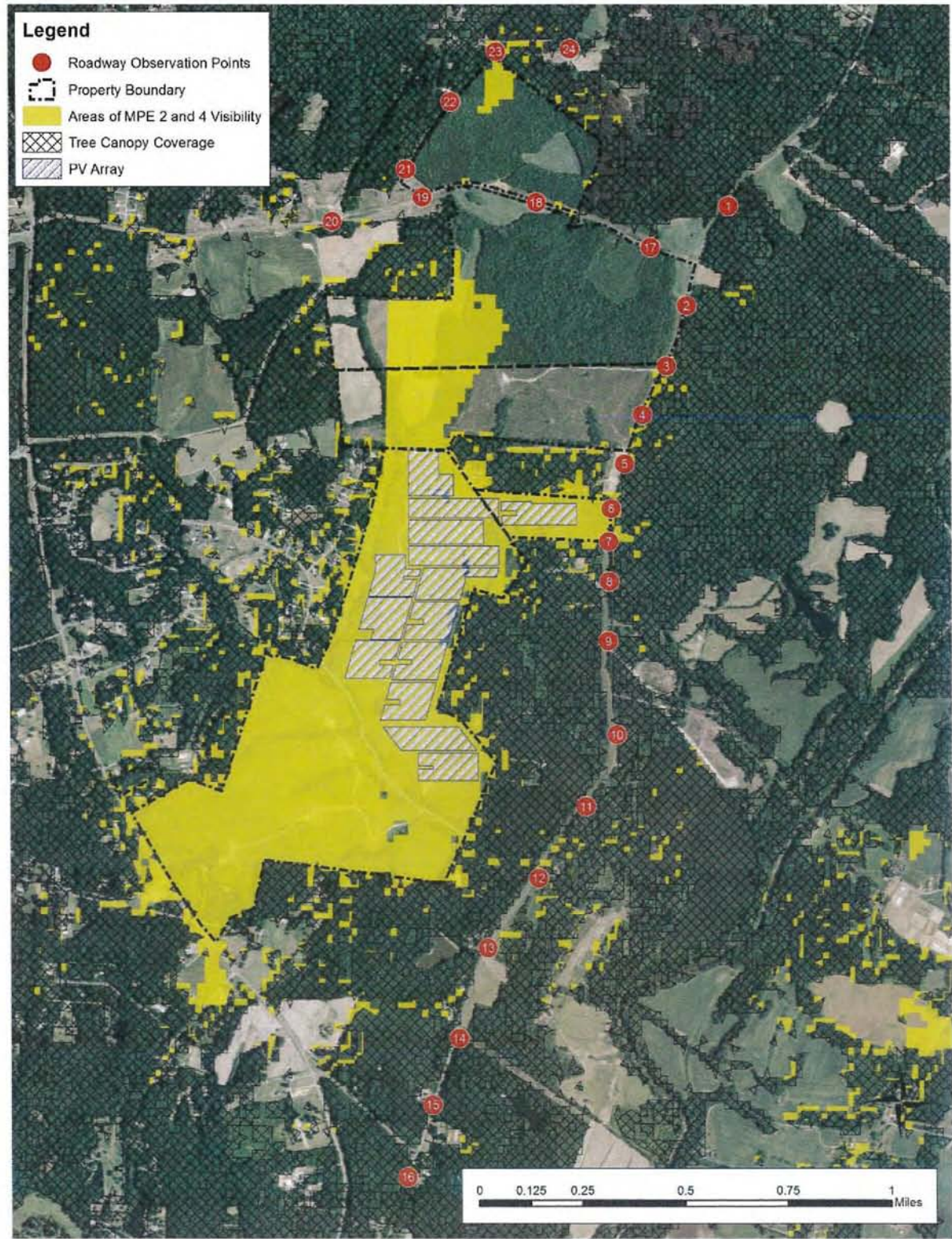


Figure 10. Line-Of-Sight Viewshed Analysis Results for MPE 3 & 5

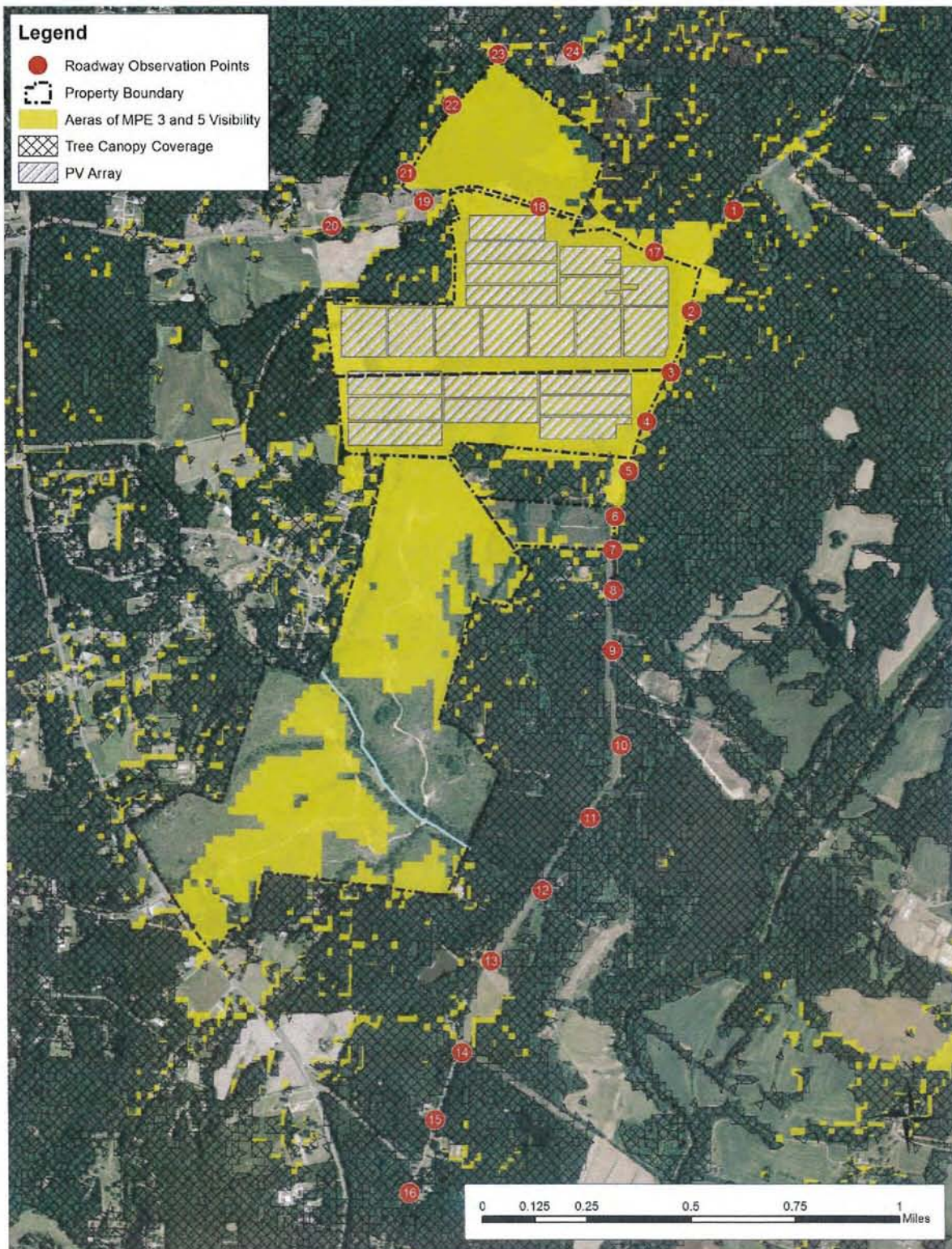


Figure 11. Line-Of-Sight Viewshed Analysis Results for MPE 6

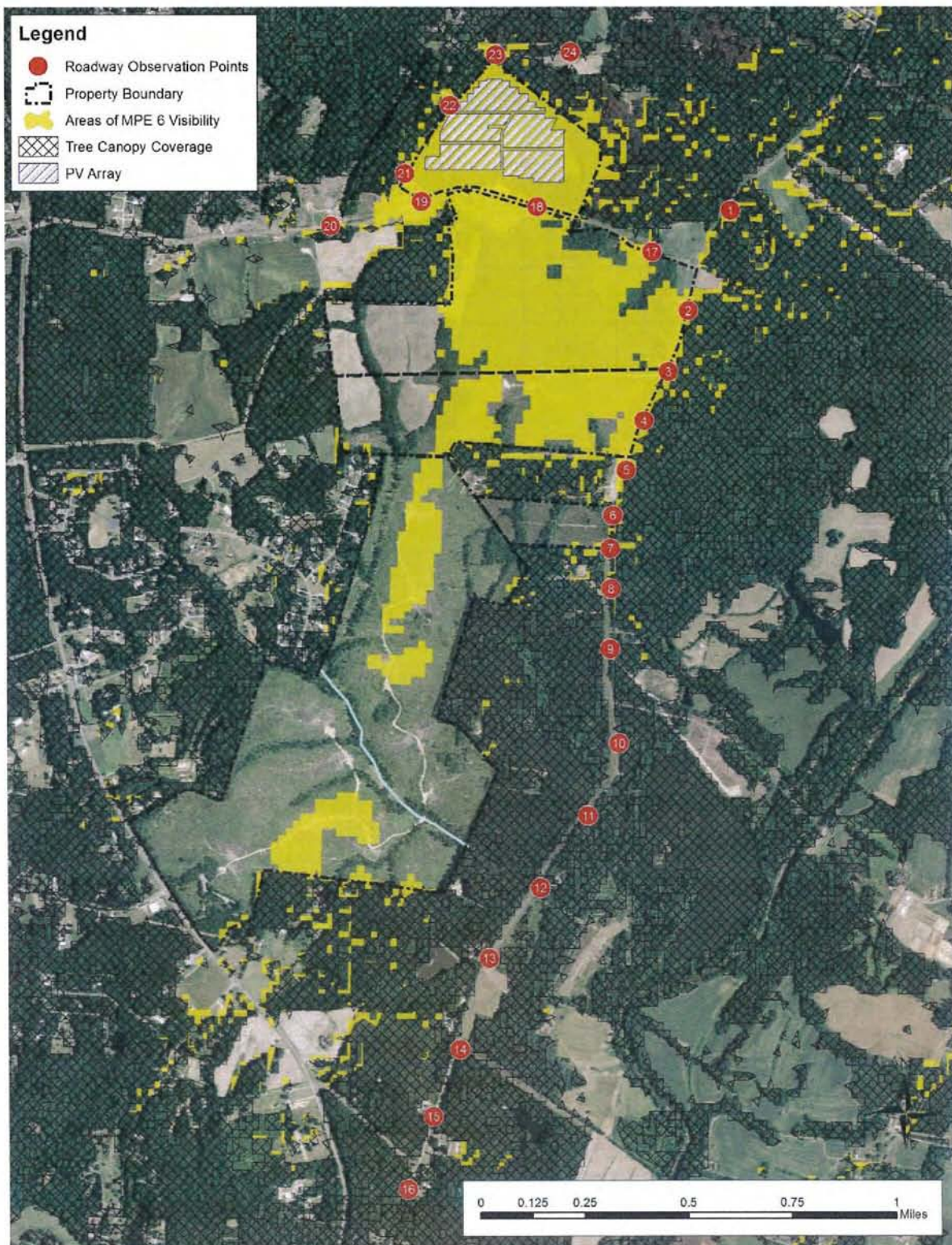


Figure 12. Combined SGHAT and Line-of-Sight Analysis for Roadway Observation Points

Obs. Point	MPE 1		MPE 2 & 4		MPE 3 & 5		MPE 6	
	SGHAT Result	Line-of-Sight Result	SGHAT Result	Line-of-Sight Result	SGHAT Result	Line-of-Sight Result	SGHAT Result	Line-of-Sight Result
1	-	Not visible	-	Not visible	-	Visible	●	Not visible
2	-	Not visible	-	Not visible	●	Visible	◆	Visible
3	-	Visible	-	Visible	●	Visible	-	Visible
4	-	Visible	-	Visible	●	Visible	-	Visible
5	-	Visible	●	Visible	●	Visible	-	Visible
6	-	Visible	●	Visible	-	Visible	-	Visible
7	-	Not visible	●	Visible	-	Visible	-	Visible
8	-	Not visible	●	Not visible	-	Not visible	-	Visible
9	-	Not visible	●	Not visible	NT	Not visible	NT	Not visible
10	-	Not visible	●	Not visible	NT	Not visible	NT	Not visible
11	-	Not visible	●	Not visible	NT	Not visible	NT	Not visible
12	◆	Visible	-	Visible	NT	Not visible	NT	Not visible
13	●	Not visible	-	Not visible	NT	Visible	NT	Not visible
14	-	Not visible	-	Not visible	NT	Not visible	NT	Not visible
15	-	Not visible	-	Not visible	NT	Not visible	NT	Not visible
16	-	Not visible	-	Not visible	NT	Not visible	NT	Not visible
17	NT	Not visible	NT	Not visible	●	Visible	◆	Visible
18	NT	Not visible	NT	Not visible	-	Visible	◆	Visible
19	NT	Not visible	NT	Not visible	-	Not visible	●	Visible
20	NT	Visible	NT	Visible	◆	Visible	●	Visible
21	NT	Not visible	NT	Not visible	-	Visible	●	Visible
22	NT	Not visible	NT	Not visible	-	Visible	●	Visible
23	NT	Visible	NT	Visible	-	Visible	-	Visible
24	NT	Not visible	NT	Not visible	-	Not visible	-	Not visible

● Low Potential for Temporary After Image

◆ Potential for Temporary After Image

■ Potential for Permanent Eye Damage

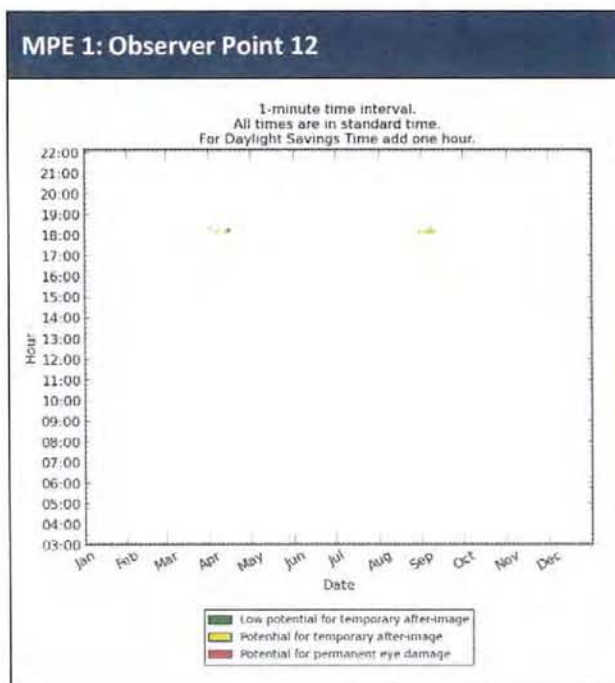
NT Not tested

3.2.1 Discussion of Combined SGHAT and Line-of-Sight Analysis for Roadway Observation Points

The line-of-sight analysis, which includes obstructions such as trees and vegetation, indicates that the solar panels will not be visible from several of the roadway observer locations where the SGHAT model, which does not consider obstructions, predicted potential ocular hazard. The combined results were as follows:

MPE 1: the solar panels will be visible from roadway observer location 12, where the SGHAT model predicted a potential for after image, as shown in Figure 13. The solar panels will not be visible from roadway observer location 13, where the SGHAT model predicted a low potential for after image.

Figure 13. SGHAT Glare Occurrence Plot for MPE1, Observer Point 12



MPE 2 & 4: the solar panels will be visible from roadway observer locations 5, 6, and 7, where the SGHAT model predicted a low potential for after image, as shown in Figure 14 and Figure 15. The solar panels will not be visible from roadway observer point 8, 9, 10, or 11, where the model predicted a low potential for after image.

Figure 14. SGHAT Glare Occurrence Plot for MPE 2 & 4, Observer Points 5 and 6

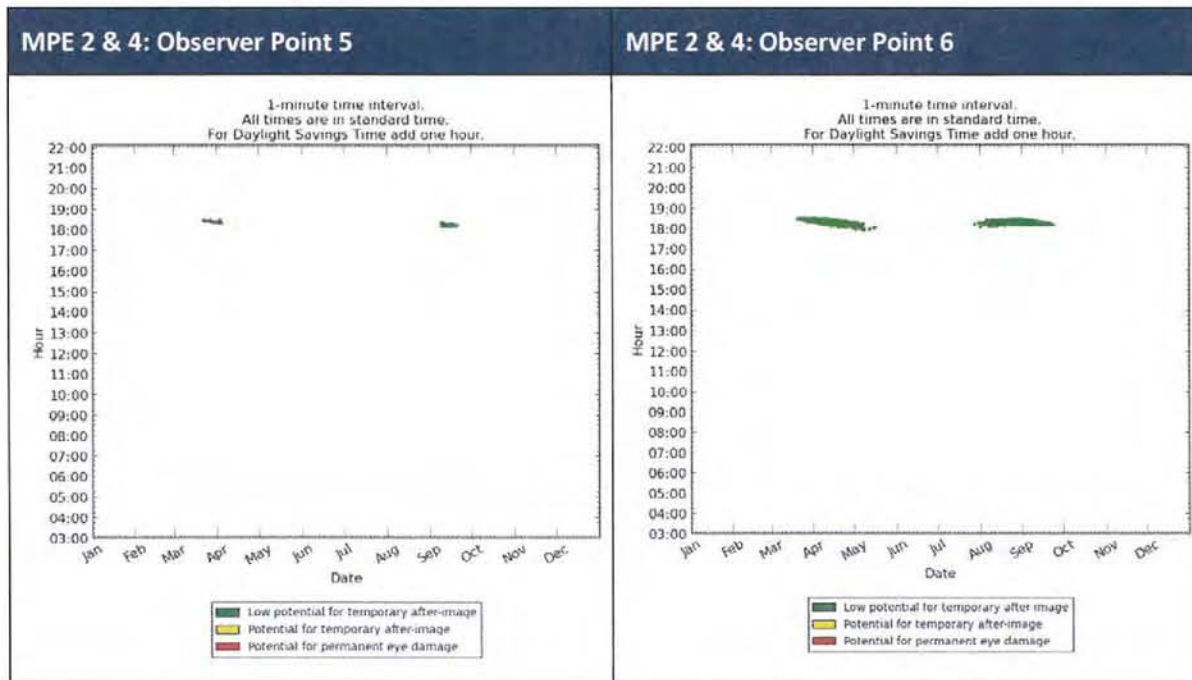
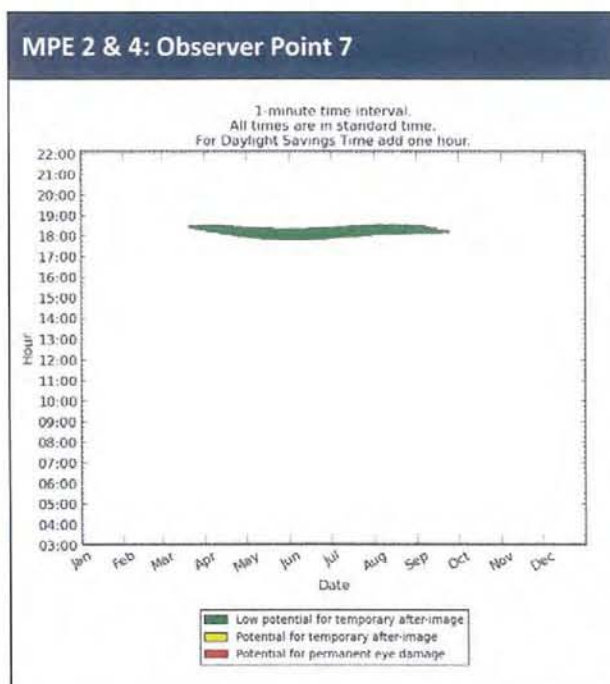


Figure 15. SGHAT Glare Occurrence Plot for MPE 2 & 4, Observer Point 7



MPE 3 & 5: the solar panels will be visible from roadway observer locations 2, 3, 4, 5, and 17, where the SGHAT model predicted a low potential for after image, and from location 20, which SGHAT indicates has potential for temporary after-image.

Figure 16. SGHAT Glare Occurrence Plot for MPE 3 & 5, Observer Points 2 and 3

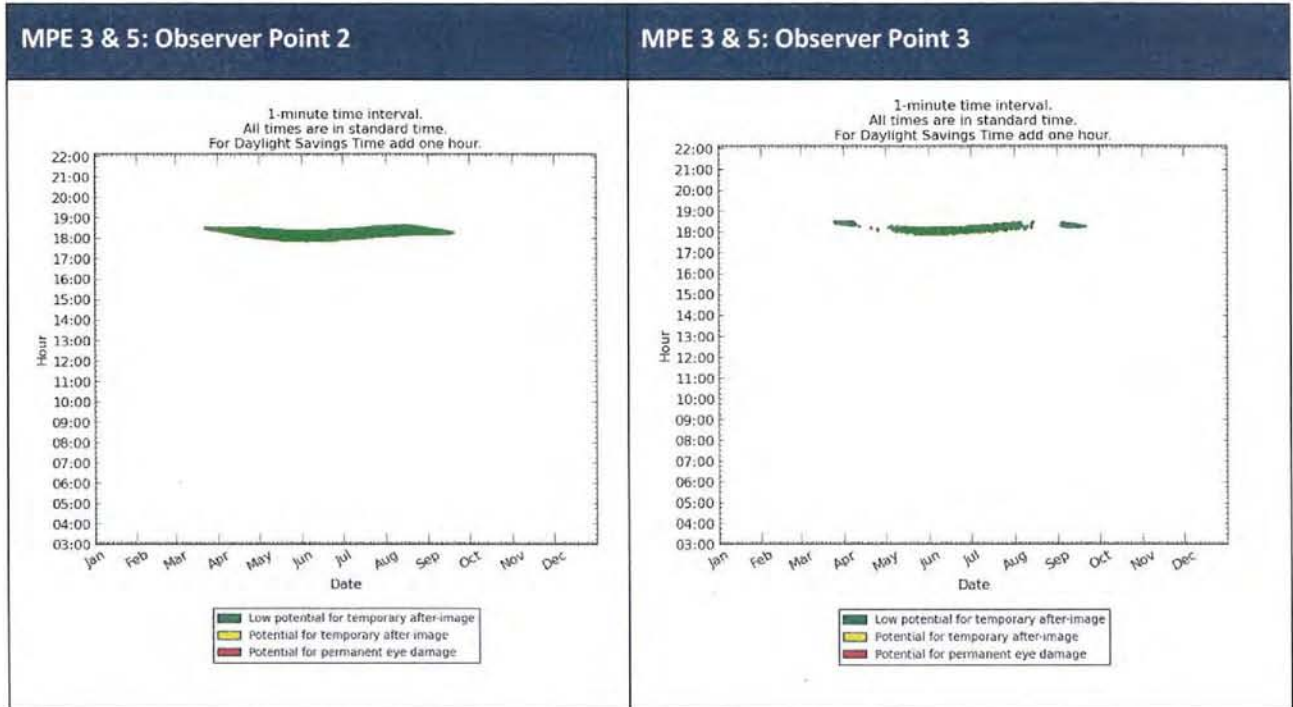


Figure 17. SGHAT Glare Occurrence Plot for MPE 3 & 5, Observer Points 4 and 5

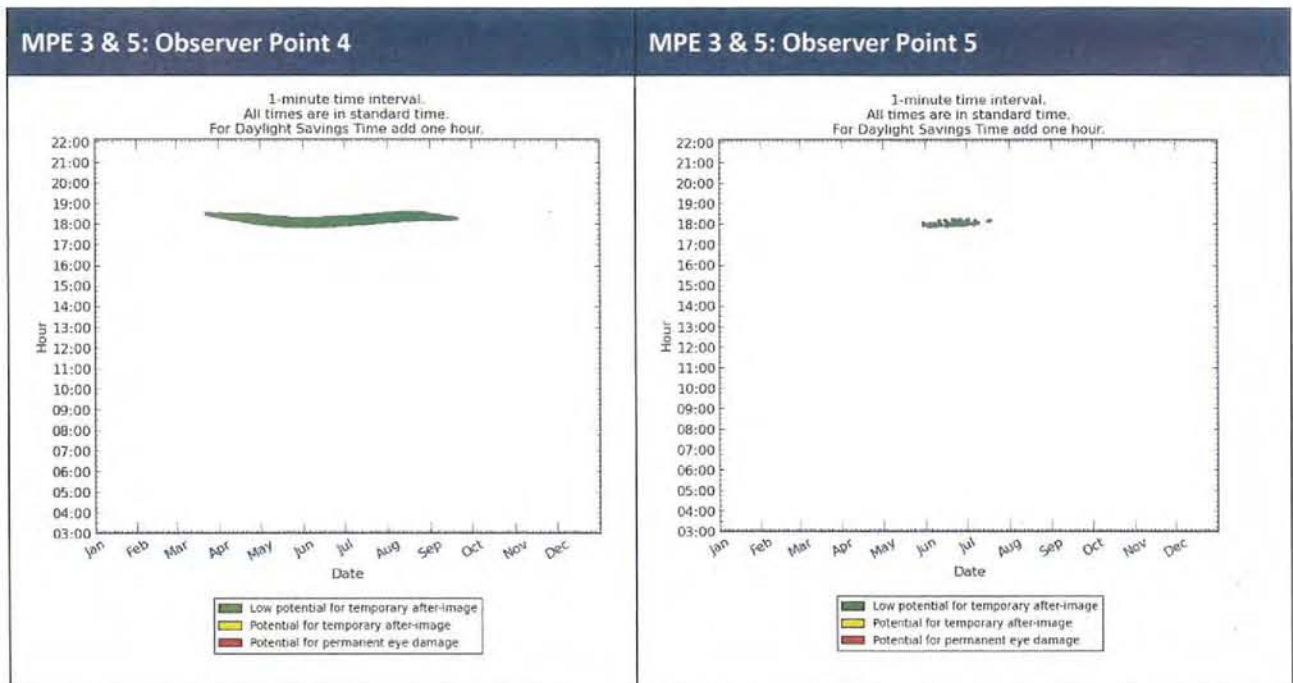
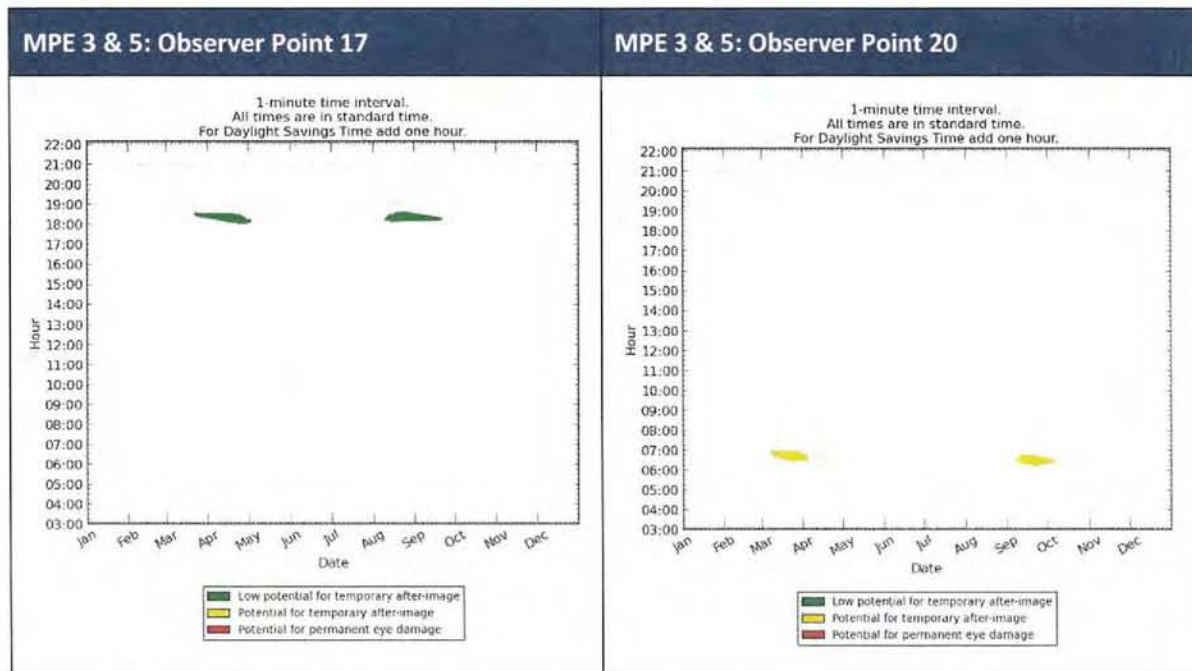


Figure 18. SGHAT Glare Occurrence Plot for MPE 3 & 5, Observer Point 17 and 20



MPE 6: The solar panels will not be visible from roadway observer location 1, which SGHAT indicated has a potential for temporary after image. The solar panels will be visible from roadway observer location 2, 17, and 18, which SGHAT indicated has a potential for temporary after image, and from locations 19, 20, 21, and 22, which have a low potential for after image, as shown in Figure 19 - Figure 22.

Figure 19. SGHAT Glare Occurrence Plot for MPE 6, Observer Point 2

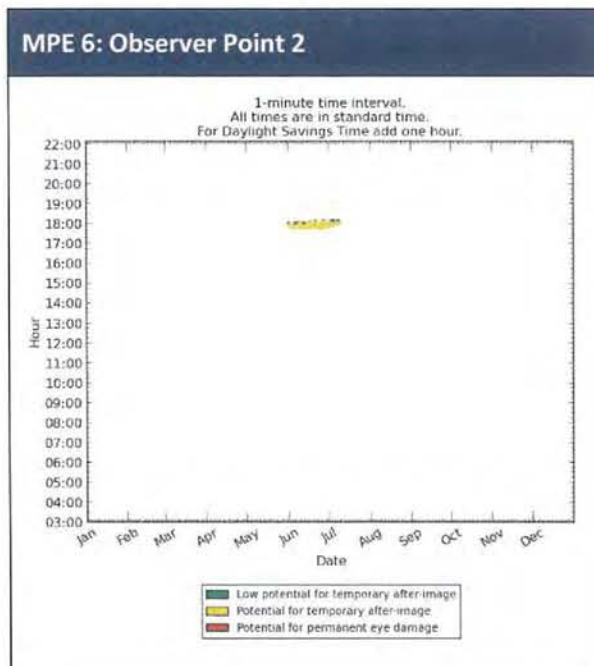


Figure 20. SGHAT Glare Occurrence Plot for MPE 6, Observer Points 17 and 18

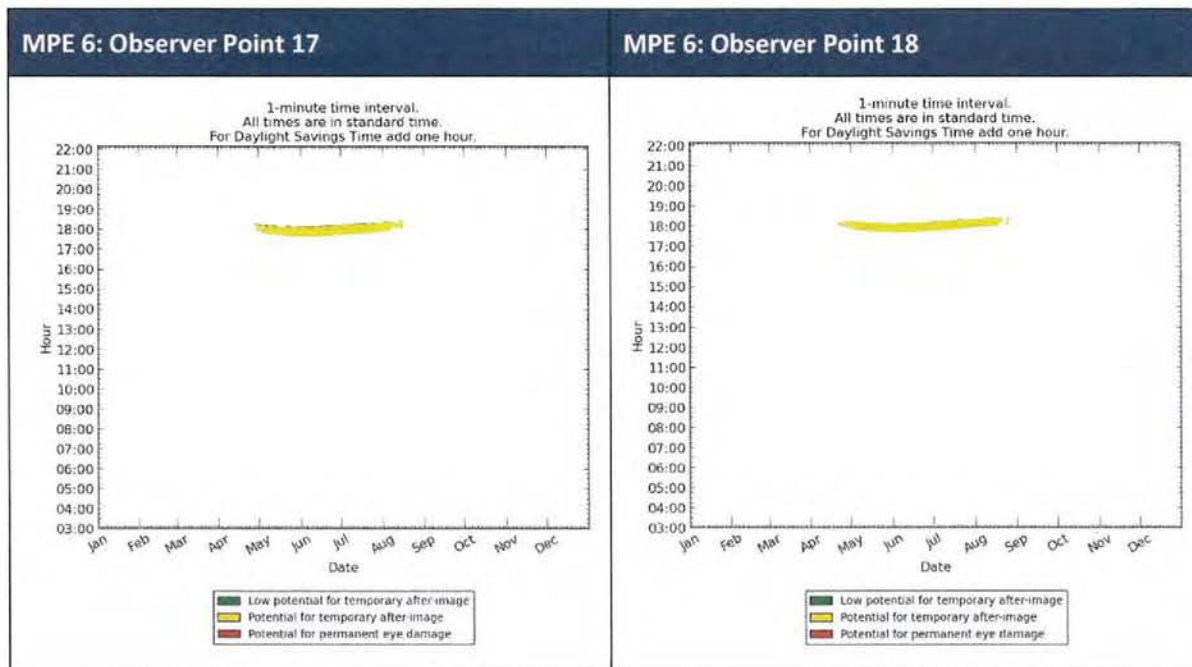


Figure 21. SGHAT Glare Occurrence Plot for MPE 6, Observer Points 19 and 20

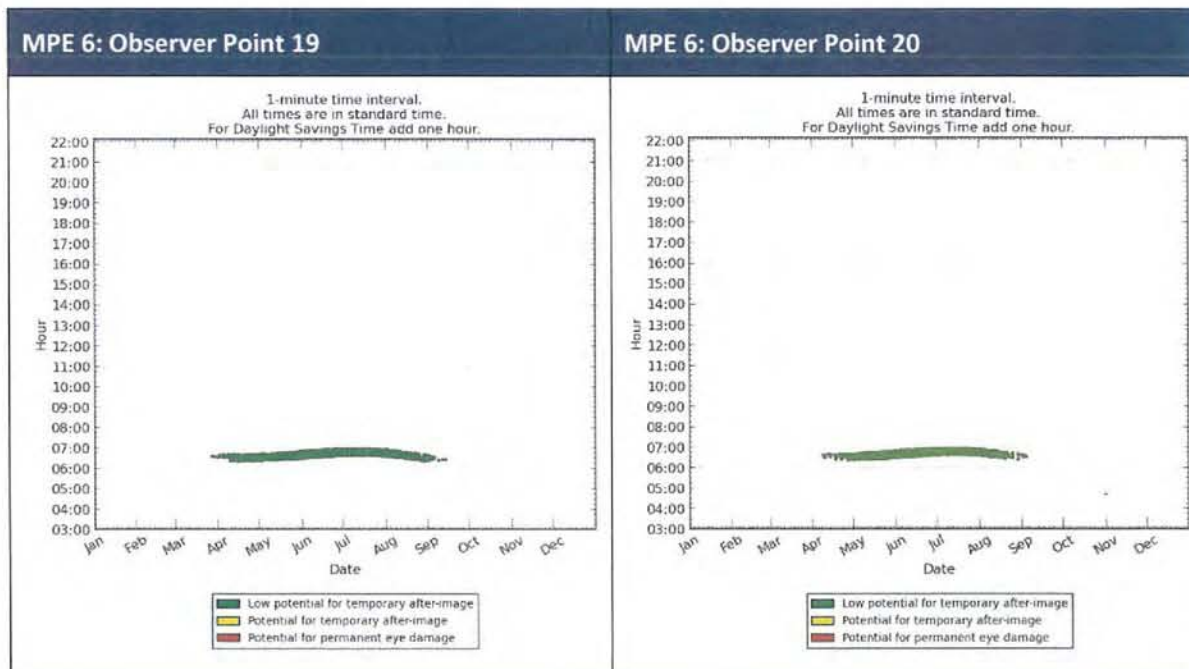
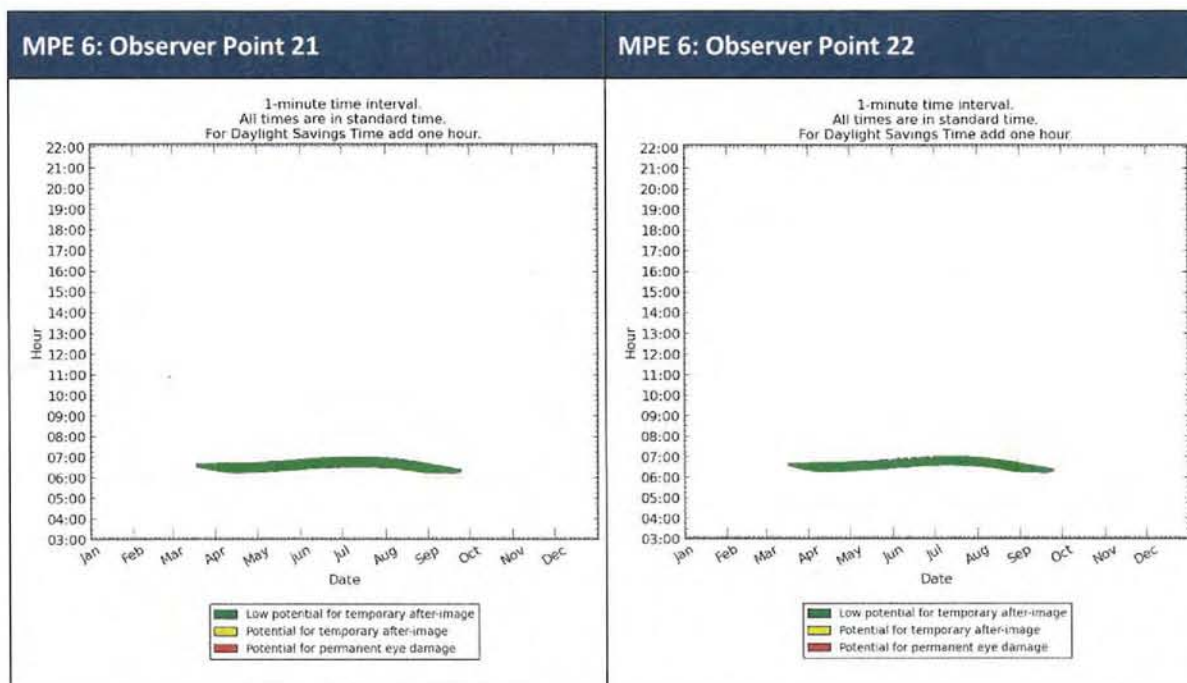
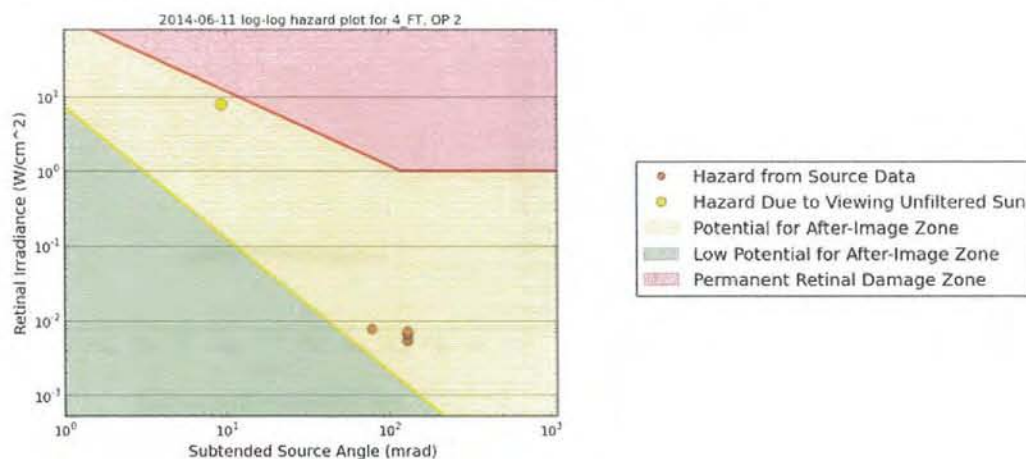


Figure 22. SGHAT Glare Occurrence Plot for MPE 6, Observer Points 21 and 22



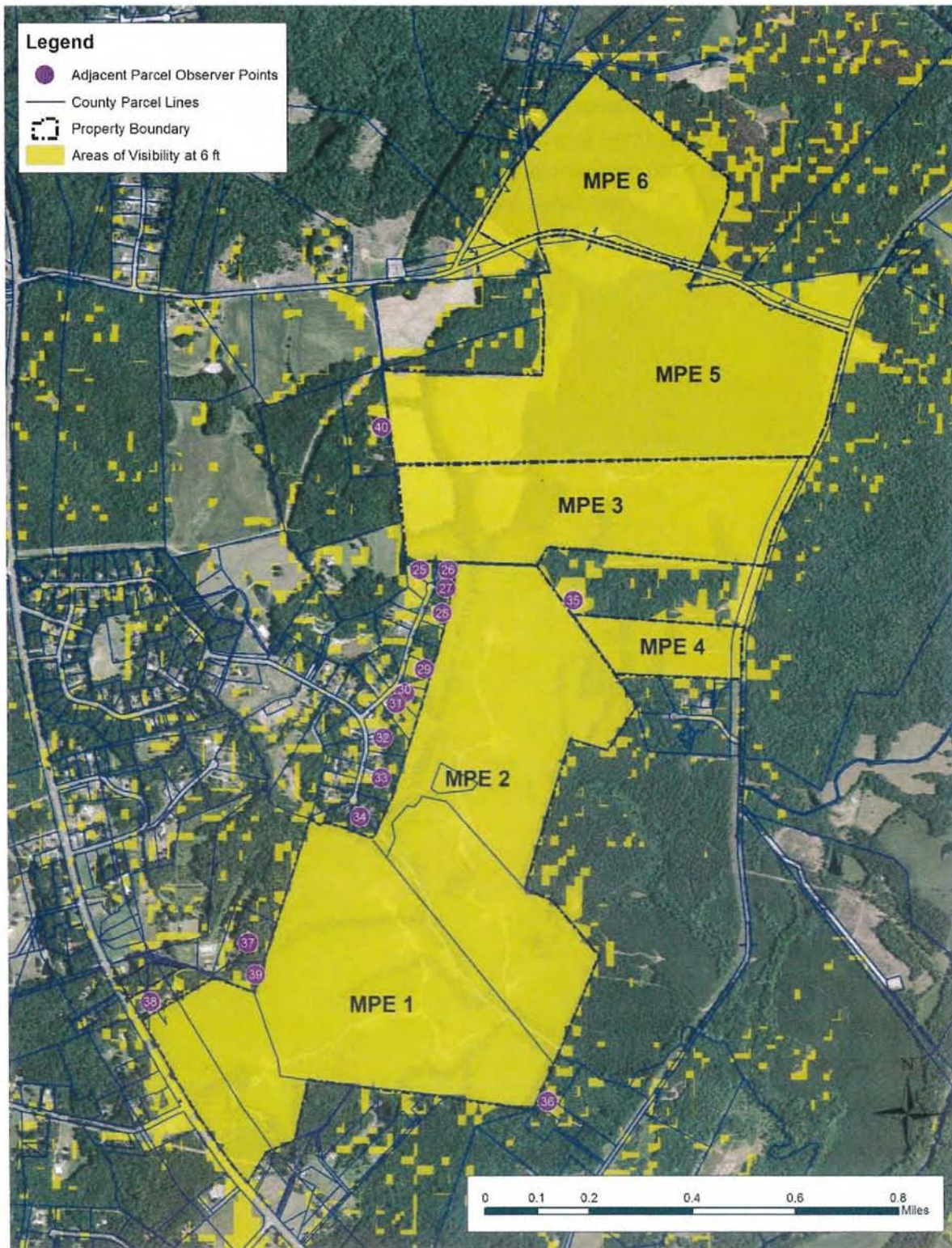
An example of the worst-case ocular hazard for MPE 6 as observed in mid-June from Observation Point 2 is shown below in Figure 23.

Figure 23. Example Ocular Hazard Plot - MPE 6 at OP 2 on June 11st

4 ANALYSIS FOR PARCEL OBSERVATION POINTS

Glare hazard due to the proposed PV installation was tested for 16 observation points located on adjacent parcels. Due to the large land area covered by these parcels adjacent to the project, the points were selected from a preliminary line-of-sight analysis for locations where a viewer 6 feet in height would have visibility; these locations are shown in Figure 24. Each of these observation points was evaluated for each adjacent array location, resulting in a total of 96 evaluations. Criteria for the proposed PV array were identical used for the roadway analysis, as given previously in Figure 5.

Figure 24. Location of Adjacent Parcel Observation Points



4.1 RESULTS

The results of the SGHAT analysis show that array areas MPE 1, 2, 3, 4, and 5 have some potential for ocular hazard at multiple adjacent parcel observation points. The table below provides a summary of all results for the observation points tested.

Figure 25. Summary of Potential Ocular Hazards at Adjacent Parcel Observation Points

Observation Point	MPE 1	MPE 2 MPE 4	MPE 3 MPE 5	MPE 6
25	-	♦	●	-
26	-	♦	●	-
27	-	♦	●	-
28	-	♦	●	-
29	-	♦	●	-
30	-	♦	●	-
31	-	♦	●	-
32	-	♦	-	-
33	-	♦	-	-
34	-	♦	-	-
35	-	♦	●	-
36	♦	-	-	-
37	-	♦	-	-
38	-	♦	-	-
39	-	♦	-	-
40	-	-	♦	-

●	Low Potential for Temporary After Image
♦	Potential for Temporary After Image
■	Potential for Permanent Eye Damage
NT	Not tested

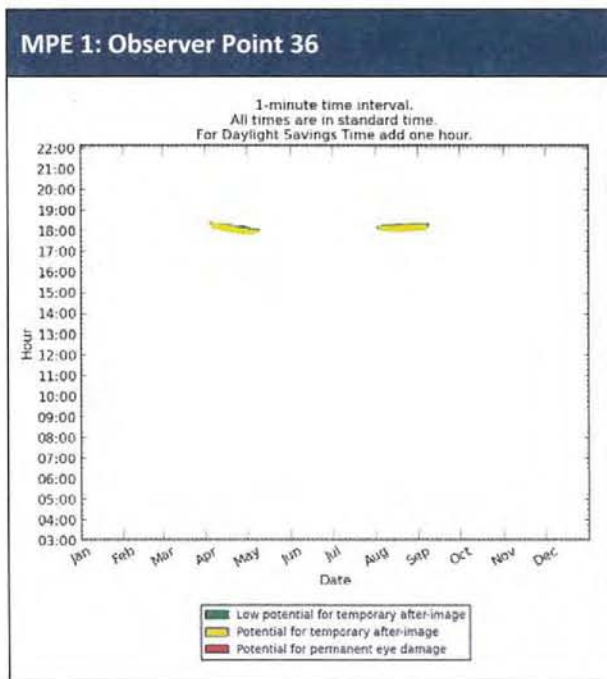
A copy of the SGHAT analysis for all adjacent parcel observation points and array sections is included for reference in Appendix B.

4.2 DISCUSSIONS OF GLARE ANALYSIS RESULTS FOR ADJACENT PARCEL OBSERVATION POINTS.

As previously discussed, the adjacent parcel observation points were pre-screened for visibility. Detailed discussion of the glare results for each array area are as follows:

MPE 1: The SGHAT analysis indicates that Adjacent Parcel Observer Point 36 has potential for glare, with potential for temporary after image.

Figure 26. SGHAT Glare Occurrence Plot for MPE 1, Observer Points 36



MPE 2 & 4: The SGHAT analysis indicates that there will be no glare at points 36 and 40. The analysis indicates that there will be glare for points 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 37, 38 and 39, with potential for temporary after image.

Figure 27. SGHAT Glare Occurrence Plot for MPE 2, Observer Points 25 and 26

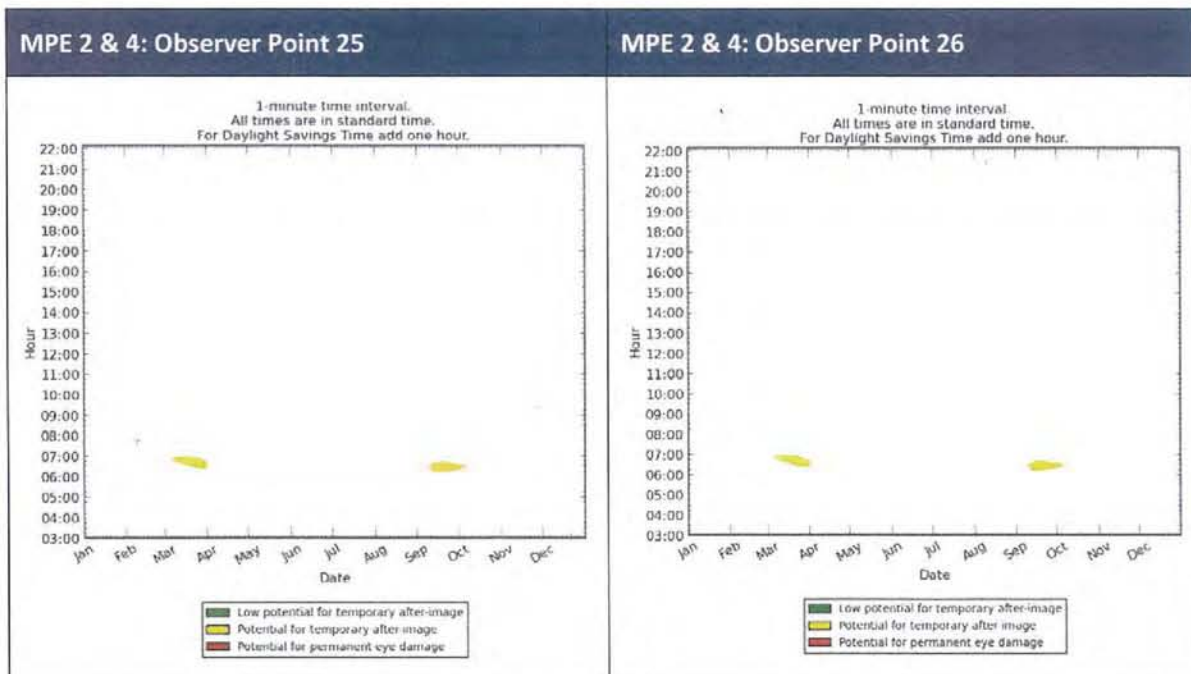


Figure 28. SGHAT Glare Occurrence Plot for MPE 2, Observer Points 27 and 28

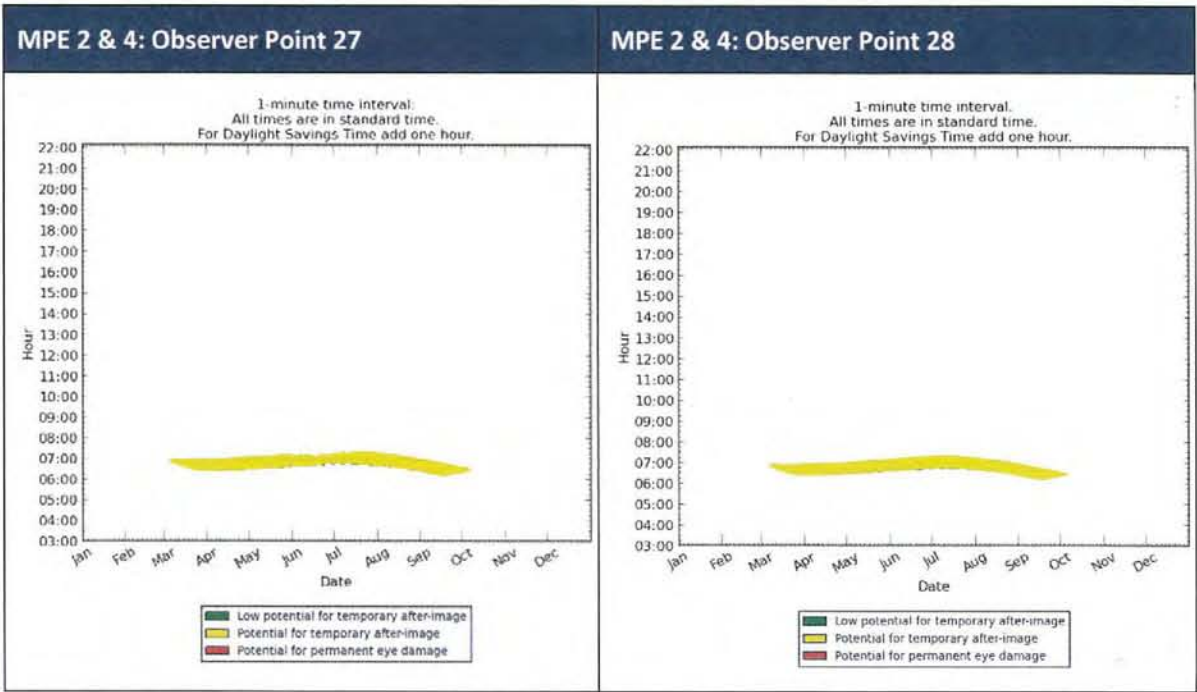


Figure 29. SGHAT Glare Occurrence Plot for MPE 2, Observer Points 29 and 30

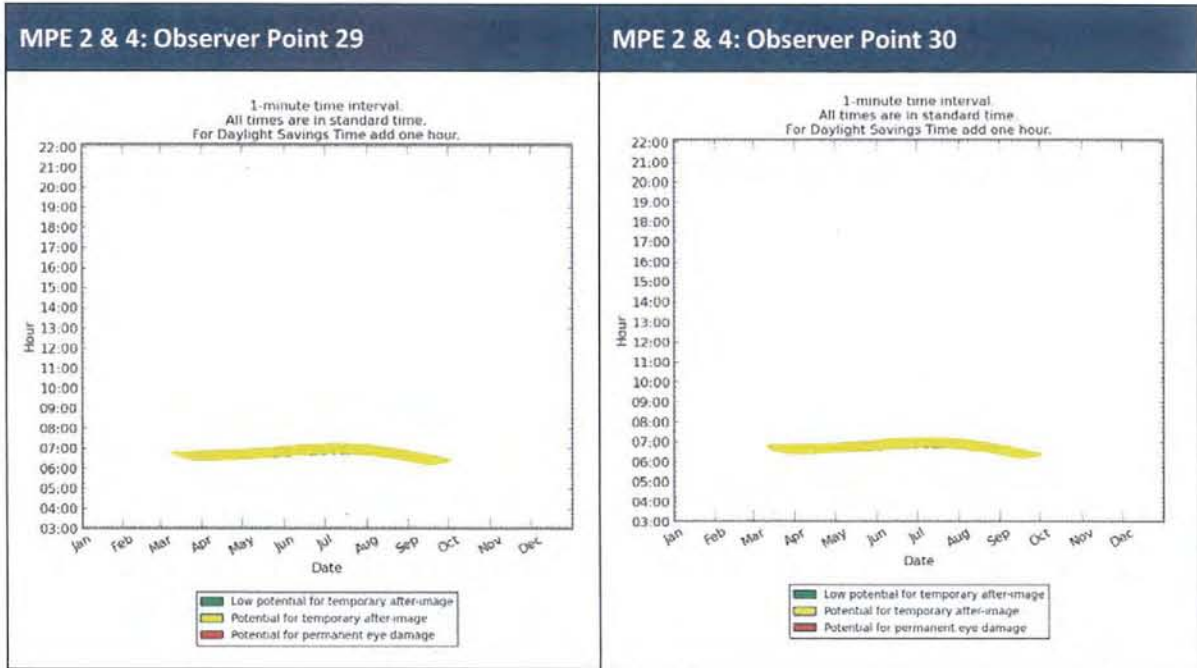


Figure 30. SGHAT Glare Occurrence Plot for MPE 2, Observer Points 31 and 32

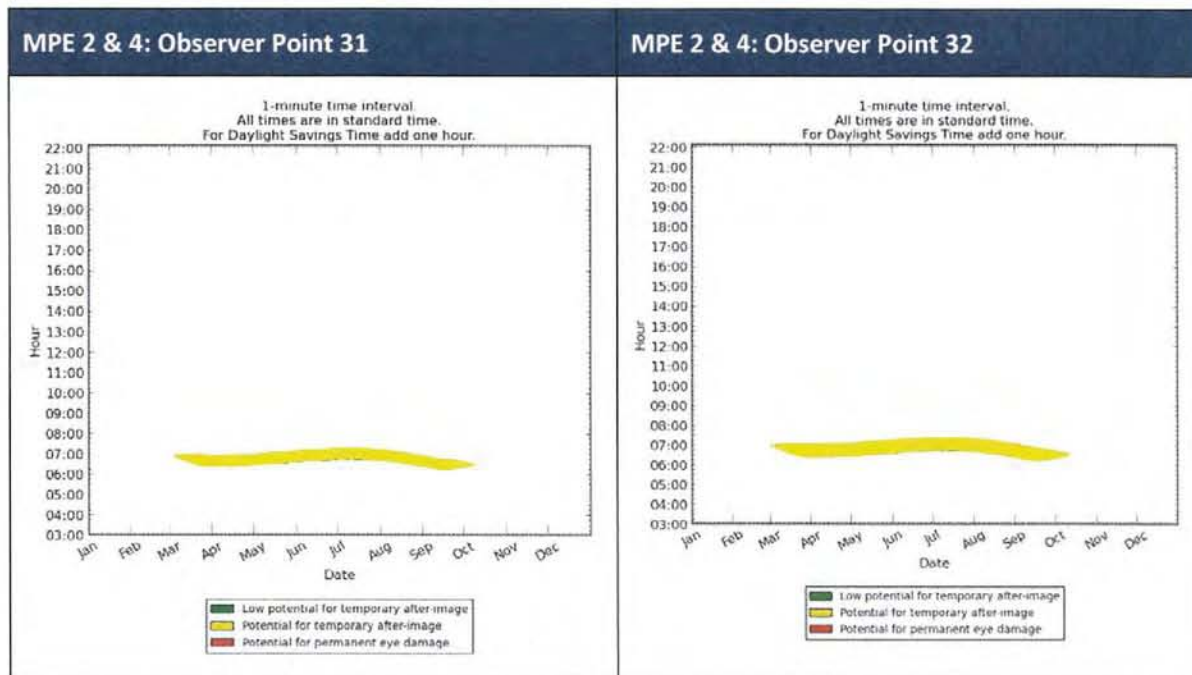


Figure 31. SGHAT Glare Occurrence Plot for MPE 2, Observer Points 33 and 34

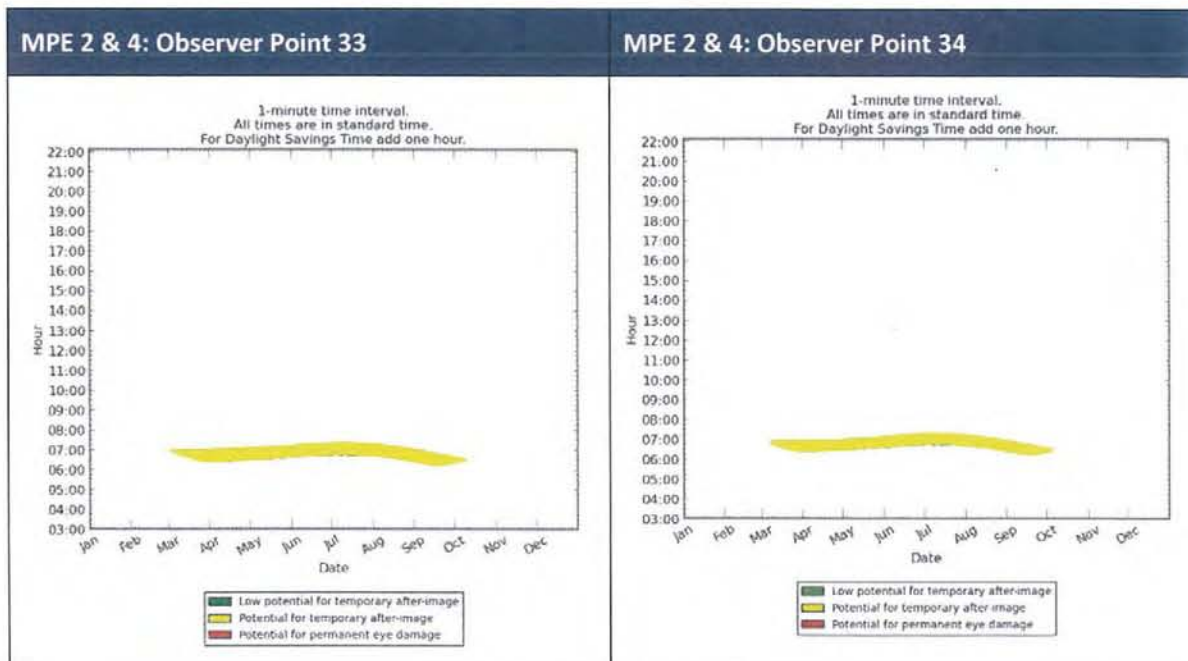


Figure 32. SGHAT Glare Occurrence Plot for MPE 2, Observer Points 35 and 37

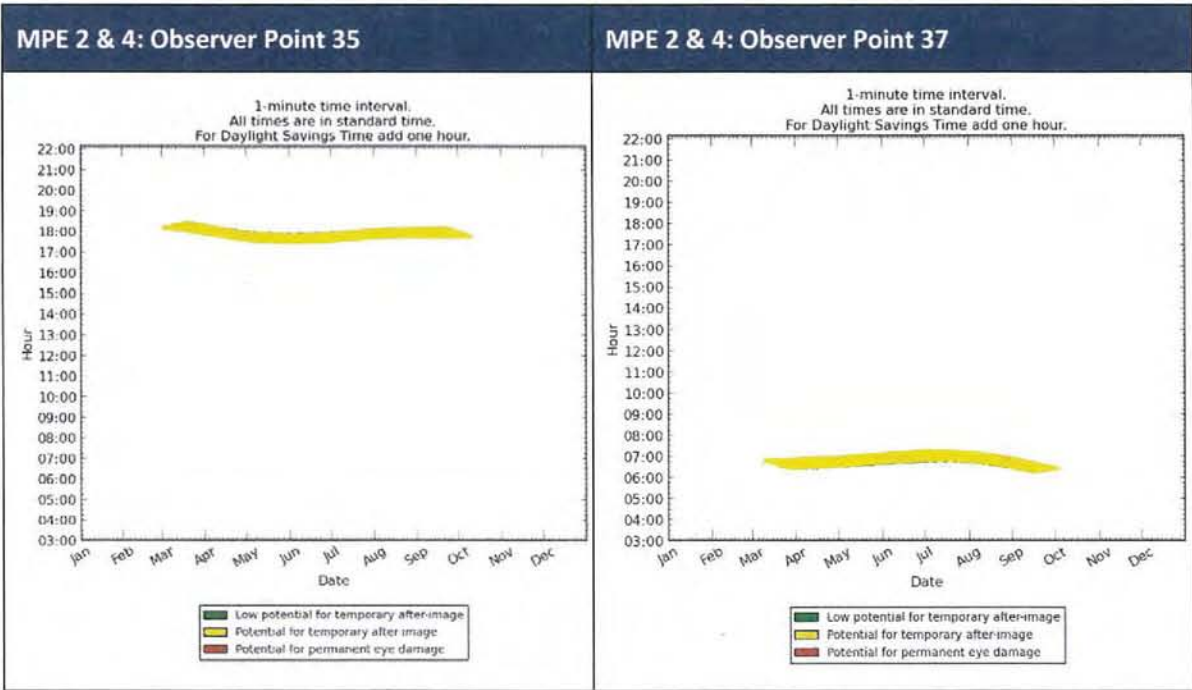
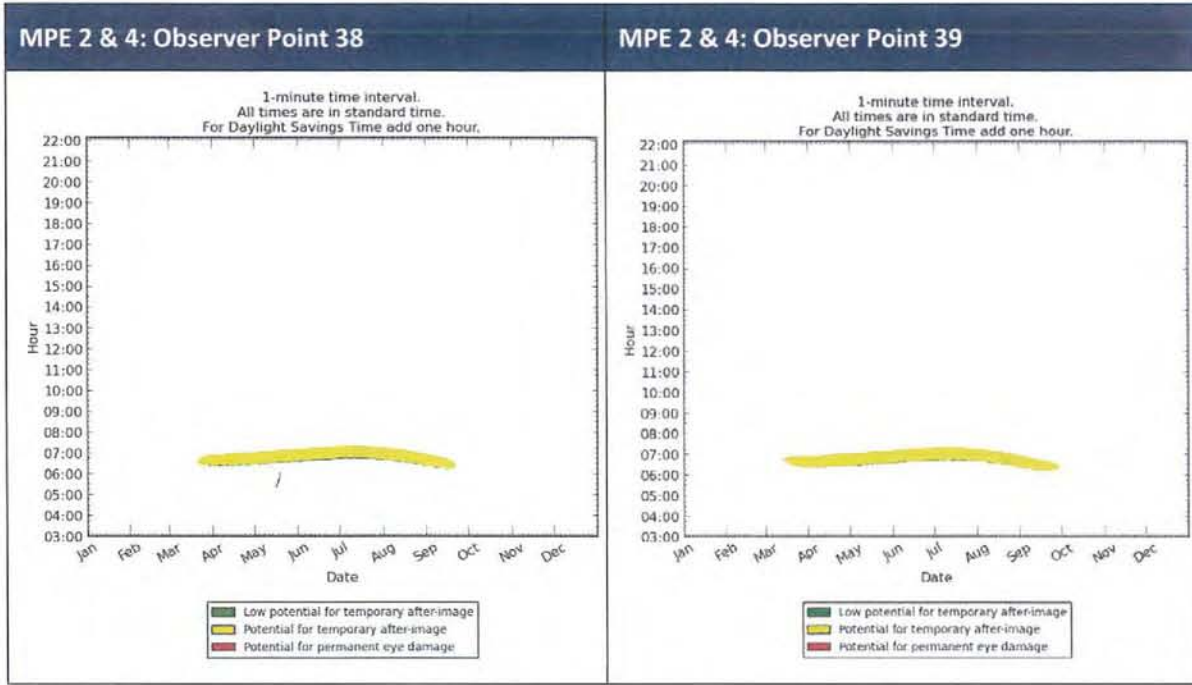


Figure 33. SGHAT Glare Occurrence Plot for MPE 2, Observer Points 38 and 39



MPE 3 & 5: The SGHAT analysis indicates that there will be no glare at points 32, 33, 34, 36, 37, 38, and 39. The analysis indicates that there will be glare for points 25, 26, 27, 28, 29, 30, 31, 35, and 40.

Figure 34. SGHAT Glare Occurrence Plot for MPE 3 & 5, Observer Points 25 and 26

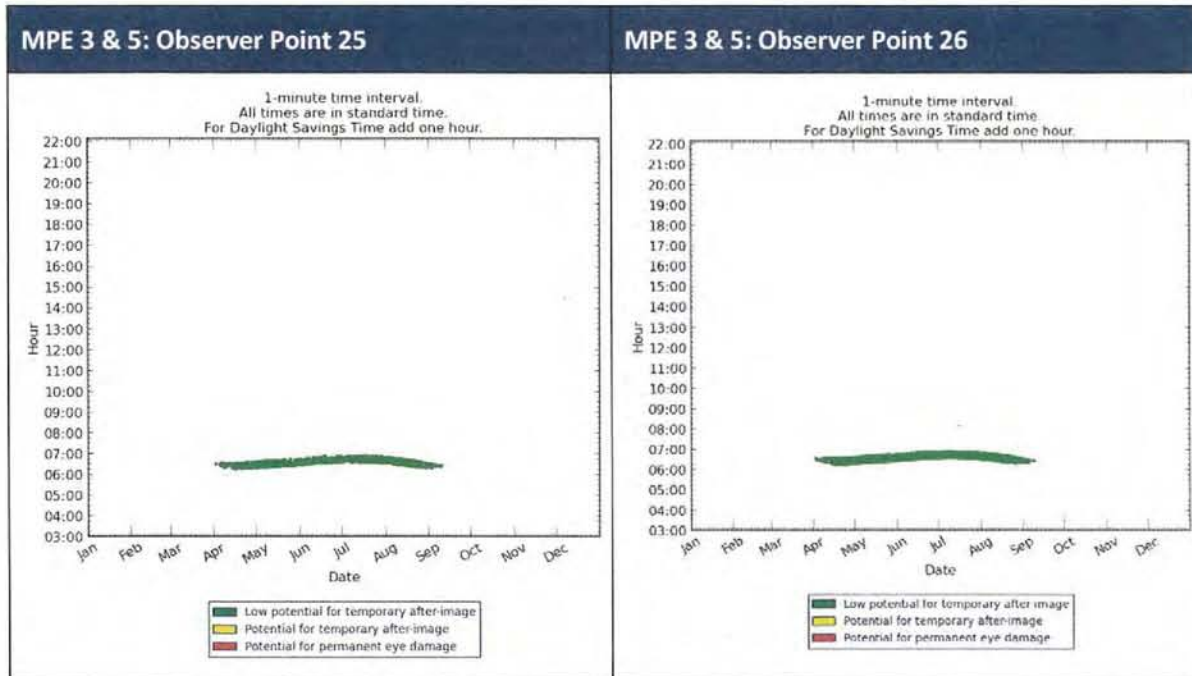


Figure 35. SGHAT Glare Occurrence Plot for MPE 3 & 5, Observer Points 27 and 28

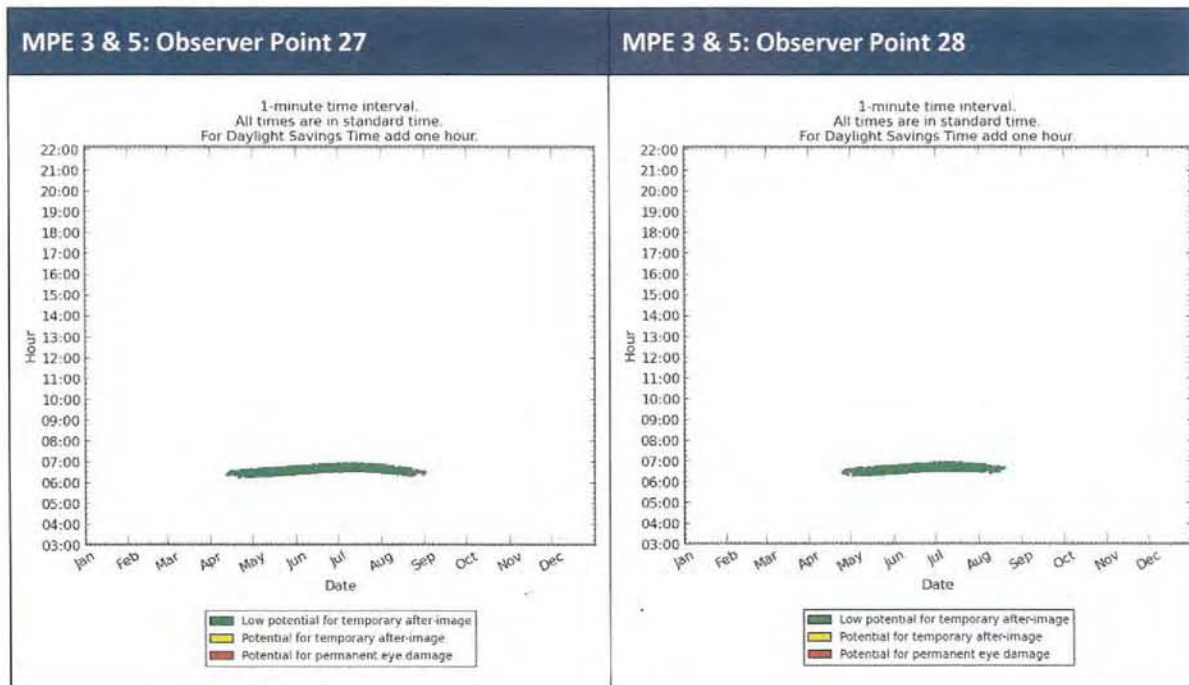


Figure 36. SGHAT Glare Occurrence Plot for MPE 3 & 5, Observer Points 29 and 30

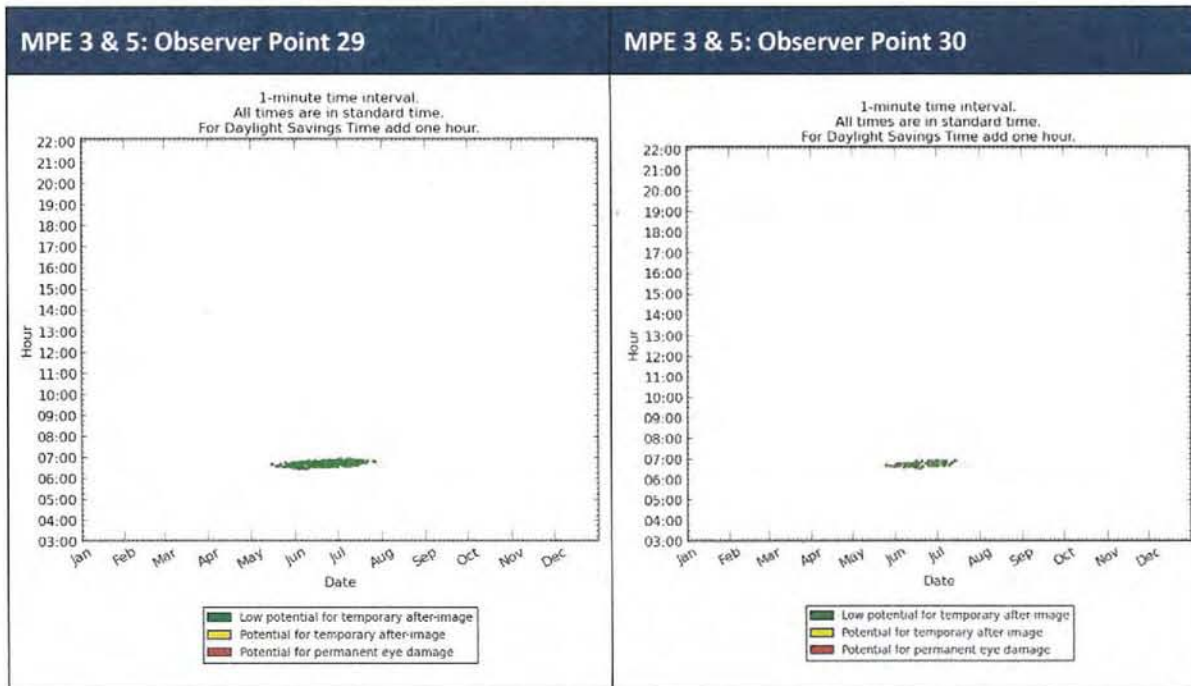


Figure 37. SGHAT Glare Occurrence Plot for MPE 3 & 5, Observer Points 31 and 35

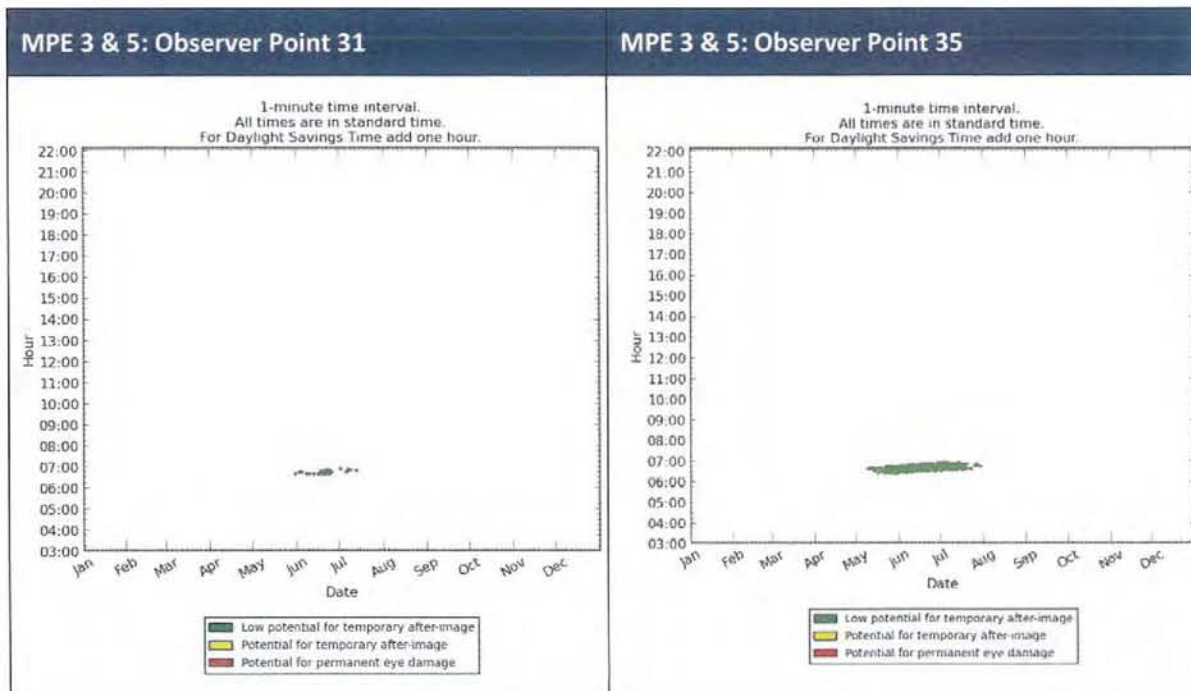
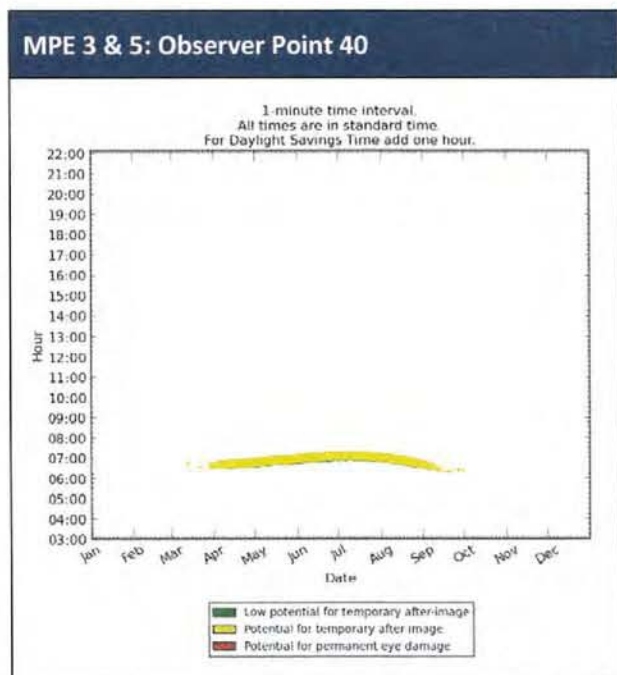


Figure 38. SGHAT Glare Occurrence Plot for MPE 3 & 5, Observer Point 40



A copy of the SGHAT analysis for all adjacent parcel observer points and array sections is included for reference in Appendix B.

5 CONCLUSIONS

ANTARES utilized the Solar Glare Hazard Assessment Tool (SGHAT) version 2.0, developed by the Department of Energy's Sandia National Laboratories, to evaluate potential glare from McBride Place Energy's proposed ground-mounted solar arrays located in Midland, NC. The potential for glare was evaluated for 24 points along Mt. Pleasant Road, Joyner Road, and Edgefield Road, which run adjacent to the proposed project areas, and for 16 additional points located on parcels of land adjacent to the project areas. Most of the observer points were found to have no visibility of the proposed array; the areas with visibility of the project site and having potential for ocular hazard were found to be far under levels considered hazardous. For points that show a Potential for Temporary After-Image, using landscape screening will mitigate such visibility.

APPENDIX A.

SGHAT Analysis Summaries for Roadway Observation Points

APPENDIX B.

SGHAT Analysis Summaries for Adjacent Parcel Observation Points

APPENDIX C.

MPE Site Plan

McBride Place Energy, LLC Decommissioning Plan

**74.9 MW (AC) Solar Energy Public Service Facility
Off Highway 601/Mt. Pleasant Road
Cabarrus County, NC**

McBride Place Energy, LLC
2002 Lee Highway, #16005
Bristol, VA, 24209
(571) 228-5105

McBride Place Energy, LLC ("MPE") is proposing the installation and operation of a 74.9 MW alternating current ("AC") solar energy conversion facility near Midland, North Carolina ("Facility") and has requested a conditional use permit from Cabarrus County. The applicable ordinance requires MPE to submit a decommissioning plan for removal of the Facility once its operating life is complete, which is set forth below.

1. Background

The Facility is located on four separate tracts, currently owned by Five Ms, LLC, JAB Farms, the McNeills, and Gene Bost. MPE is leasing the Five M's and Bost tracts; Five Ms is purchasing the JAB Farms and McNeill parcels, and will also lease those to MPE. The leases with Five M's and Bost include specific obligations requiring MPE to remove its facilities at the end of the term of the lease.

The Facility will include solar panels situated on top of steel and aluminum support structures. The support structures rest on metal pilings driven into the ground to a depth of 8 to 9 feet. The solar equipment will be connected by underground electrical cables, and numerous inverters and transformers will be located on grade-level concrete pads. An electrical substation will be built on the McNeill tract, which will rest on a concrete foundation on grade, with underground grounding cables.

The operating life of the Facility is expected to be 25 – 35 years. It is likely that upon the conclusion of its operating life, the site will be re-permitted for a replacement facility that will use the existing electrical infrastructure.

2. Decommissioning

Assuming the Facility is not re-permitted and replaced at the conclusion of its operating life, full decommissioning will consist of the following:

- a. Removal of the solar panels, which will be recycled.
- b. Disassembly and removal of metal support structures and extraction of metal pilings in their entirety.
- c. Removal of inverters and transformers.
- d. Removal of concrete inverter and transformer pads.
- e. Removal of all cables or other subsurface equipment to a depth of 36 inches.
- f. Removal of perimeter fence, unless the landowner wishes to keep any part of the fence in

- place.
- g. Removal of the substation equipment, concrete foundations, grounding cables and related equipment
 - h. Returning maintenance paths and road entries to a condition comparable to pre-construction state, unless the landowner wishes the pathways be retained.

All areas previously occupied by equipment will be restored to comparable condition and seeded with grasses or other plantings as agreed with the landowner.

This the 27th day of February, 2017.

MCBRIDE PLACE ENERGY, LLC

By: Henry T. McBride, III
Title: Managing Member

State of North Carolina
County of Mecklenburg

Sworn and subscribed to before me this 27th day of February, 2017, by MCBRIDE PLACE ENERGY, LLC

[Signature]
Notary Public

My Commission Expires: 2/9/2021

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-3096 SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

<p>In the Matter of Application of McBride Place Energy, LLC, for a Certificate of Public Convenience and Necessity to Construct a 79.9-MW Solar Facility in Cabarrus County, North Carolina</p>	<p>)))))</p>	<p>ORDER AMENDING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY</p>
--	----------------------------------	---

BY THE CHAIRMAN: On November 26, 2014, the Commission issued an Order granting McBride Place Energy, LLC (Applicant), a certificate of public convenience and necessity (CPCN) pursuant to G.S. 62-110.1(a) for construction of a 79.9-MW solar generating facility to be located on U.S. Highway 601 between Joyner Road and Mt. Pleasant Road near Midland, Cabarrus County, North Carolina. In addition, the Commission accepted the registration of the Applicant's facility as a new renewable energy facility.

On November 28 and 30, 2016, the Applicant provided updated information informing the Commission of changes regarding two parcels of land, as follows: the elimination of one parcel, being parcel number 5556-84-2473; and a correction to the previously identified parcel number 5556-446-9785 to read parcel number 5556-46-9765. In addition, the Applicant stated that the following e911 address has been assigned to the project site: 9375 U.S. Highway 601 S, Midland.

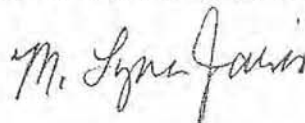
Based on the foregoing update to the application, the Chairman finds good cause to amend the CPCN to use the e911 address of the project site as the location information. Appendix A shall constitute the amended certificate of public convenience and necessity reflecting the updated address of the facility.

IT IS, THEREFORE, SO ORDERED.

ISSUED BY ORDER OF THE COMMISSION.

This the 16th day of December, 2016.

NORTH CAROLINA UTILITIES COMMISSION



M. Lynn Jarvis, Chief Clerk

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-3096, SUB 0

McBride Place Energy, LLC
P. O. Box 16005
Bristol, Virginia 24209

is hereby issued this

AMENDED CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

PURSUANT TO G.S. 62-110.1

for a 79.9-MW_{AC} solar photovoltaic electric generating facility

located at

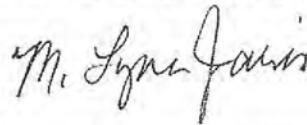
9375 U.S. Highway 601 S, Midland, Cabarrus County, North Carolina,

subject to all orders, rules, regulations and conditions
as are now or may hereafter be lawfully made
by the North Carolina Utilities Commission.

ISSUED BY ORDER OF THE COMMISSION.

This the 16th day of December, 2016.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink, appearing to read "M. Lynn Jarvis". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

M. Lynn Jarvis, Chief Clerk

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-3096, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Application of McBride Place Energy, LLC,)	ORDER ISSUING CERTIFICATE
for a Certificate of Public Convenience and)	AND ACCEPTING REGISTRATION
Necessity to Construct a 79.9-MW Solar)	OF NEW RENEWABLE ENERGY
Facility in Cabarrus County, North Carolina)	FACILITY

BY THE COMMISSION: On October 29, 2013, McBride Place Energy, LLC (McBride Place), filed an application pursuant to Commission Rule R8-64(b) seeking a certificate of public convenience and necessity pursuant to G.S. 62-110.1(a) for construction of a 79.9-MW_{AC} solar photovoltaic electric generating facility to be located in Cabarrus County, North Carolina. The application stated that McBride Place had yet to determine the plan to sell the electricity.

Contemporaneously with the application, McBride Place filed a registration statement for a new renewable energy facility. The registration statement included the certified attestations required by Commission Rule R8-66(b).

On November 1, 2013, the Commission issued an Order Requiring Publication of Notice.

On December 10, 2013, and on December 17, 2013 the State Clearinghouse filed comments and requested additional information from McBride Place. On November 13, 2014, the State Clearinghouse filed additional comments. Because of the nature of the comments, the cover letter indicated that no further State Clearinghouse review action by the Commission was required for compliance with the North Carolina Environmental Policy Act.

On September 12, 2014, McBride Place filed a certificate of service stating that a copy of the application and related public notice were provided to the North Carolina Electric Membership Corporation (NCEMC) on September 3, 2014.

On October 3, 2014, McBride Place filed an affidavit of publication from the Independent Tribune (Concord, NC) stating that the publication of notice was completed on September 21, 2014. No complaints have been received.

On October 22, 2014, the Public Staff contacted NCEMC regarding the fact that the public notice and copy of the application were delivered to NCEMC after the first date of publication. NCEMC indicated that it was not prejudiced by late notice of this facility and that it had been aware of the proposed construction for some time.

On October 17, 2014, McBride Place filed a certificate of service stating that the public notice and a copy of the application were provided to Duke Energy Progress (DEP) and NCEMC on October 16, 2014. The Public Staff contacted McBride Place who indicated that an arrangement for wheeling of power from NCEMC to DEP had been negotiated.

The Public Staff presented this matter to the Commission at its Regular Staff Conference on November 24, 2014. The Public Staff stated that it had reviewed the application and determined it to be in compliance with the requirements of G.S. 62-110.1(a) and Commission Rule R8-64. The Public Staff further stated that the registration statement contains the certified attestations required by Commission Rule R8-66(b). Therefore, the Public Staff recommended approval of the certificate and registration for the facility.

After careful consideration, the Commission finds good cause to approve the application and issue the attached certificate for the proposed solar photovoltaic electric generating facility. The Commission further finds good cause, based upon the foregoing and the entire record in this proceeding, to accept registration of the facility as a new renewable energy facility. McBride Place Energy, LLC, shall annually file the information required by Commission Rule R8-66 on or before April 1 of each year and will be required to participate in the NC-RETS REC tracking system (<http://www.ncrets.org>) in order to facilitate the issuance of RECs.

IT IS, THEREFORE, ORDERED as follows:

1. That the application of McBride Place Energy, LLC, for a certificate of public convenience and necessity shall be, and is hereby, approved.
2. That Appendix A shall constitute the certificate of public convenience and necessity issued to McBride Place Energy, LLC, for the 79.9-MW_{AC} solar photovoltaic electric generating facility to be located in Cabarrus County on parcel 5556-23-1563 on Route 601, between Joyner Road and Mt. Pleasant Road, near Concord, North Carolina.
3. That the registration statement filed by McBride Place Energy, LLC, for its solar photovoltaic facility located in Cabarrus County, North Carolina, as a new renewable energy facility shall be, and is hereby, accepted.

4. That McBride Place Energy, LLC, shall annually file the information required by Commission Rule R8-66 on or before April 1 of each year.

ISSUED BY ORDER OF THE COMMISSION.

This the 26th day of November, 2014.

NORTH CAROLINA UTILITIES COMMISSION

Paige J. Morris

Paige J. Morris, Deputy Clerk

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. SP-3096, SUB 0

McBride Place Energy, LLC
P. O. Box 16005,
Bristol, Virginia 24209

is hereby issued this

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
PURSUANT TO G.S. 62-110.1

for a 79.9-MW_{AC} solar photovoltaic electric generating facility

located

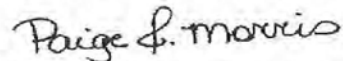
in Cabarrus County on parcel 5556-23-1563 on Route 601,
between Route 601, Joyner Road and Mt. Pleasant Road,
near Midland, North Carolina,

subject to all orders, rules, regulations and conditions
as are now or may hereafter be lawfully made
by the North Carolina Utilities Commission.

ISSUED BY ORDER OF THE COMMISSION.

This the 26th day of November, 2014.

NORTH CAROLINA UTILITIES COMMISSION



Paige J. Morris, Deputy Clerk

STATE OF NORTH CAROLINA

UTILITIES COMMISSION

RALEIGH

DOCKET NO. SP-3096, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of the **Application of McBride Place**)**Energy LLC** for a Certificate of) **VERIFIED CERTIFICATE OF SERVICE**

Public Convenience and Necessity and)

Registration as a New Renewable Facility)

I, Tal McBride, do hereby certify that a copy of the Application for a Certificate of Public Convenience and Necessity and the related Public Notice were served on Duke Energy Progress by depositing a copy of same on October 16, 2014 in the United States mail, postage pre-paid, and addressed as follows:

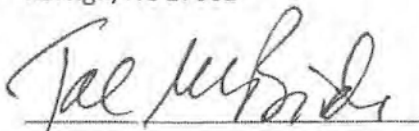
Ms. Kendal Bowman

Assistant General Counsel

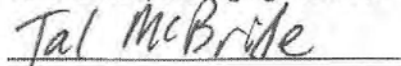
Duke Energy Progress

410 Wilmington St.

Raleigh, NC 27601

This 16th day of October, 2014


Tal McBride, Managing Member



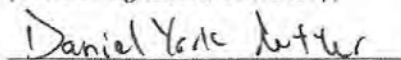
Print name

Sworn to and subscribed before me this day by Tal McBride I have personal knowledge of the identity of the principal

Date: October 16, 2014

 , Notary Public

(Official signature of Notary)



Printed or Typed name



DANIEL YORK RUTTER
NOTARY PUBLIC 7553460
COMMONWEALTH OF VIRGINIA

MY COMMISSION EXPIRES SEPTEMBER 30, 2017

STATE OF NORTH CAROLINA

UTILITIES COMMISSION

RALEIGH

DOCKET NO. SP-3096, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of the Application of McBride Place)

Energy LLC for a Certificate of) VERIFIED CERTIFICATE OF SERVICE

Public Convenience and Necessity and)

Registration as a New Renewable Facility)

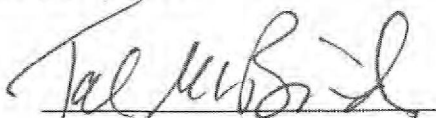
I, Tal McBride, do hereby certify that a copy of the Application for a Certificate of Public Convenience and Necessity and the related Public Notice were served on North Carolina EMC by depositing a copy of same on October 16, 2014, ~~2014~~ in the United States mail, postage pre-paid, and addressed as follows:

Robert B. Schwentker

Senior Vice President of Legal Services
and Chief Operating Officer, GreenCo Solutions, Inc.

North Carolina Electric Membership Corporation

3400 Sumner Blvd.
Raleigh, NC 27616

This 16th day of October, 2014


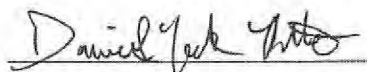
Tal McBride, Managing Member



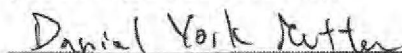
Print name

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Date: October 16, 2014

 , Notary Public

(Official signature of Notary)



Printed or Typed name



DANIEL YORK RUTTER
NOTARY PUBLIC 793480
COMMONWEALTH OF VIRGINIA

MY COMMISSION EXPIRES SEPTEMBER 30, 2017

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-3096, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Application of McBride Place Energy, LLC,)	ORDER ISSUING CERTIFICATE
for a Certificate of Public Convenience and)	AND ACCEPTING REGISTRATION
Necessity to Construct a 79.9-MW Solar)	OF NEW RENEWABLE ENERGY
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After careful consideration, the Commission finds good cause to approve the application and issue the attached certificate for the proposed solar photovoltaic electric generating facility. The Commission further finds good cause, based upon the foregoing and the entire record in this proceeding, to accept registration of the facility as a new renewable energy facility. McBride Place Energy, LLC, shall annually file the information required by Commission Rule R8-66 on or before April 1 of each year and will be required to participate in the NC-RETS REC tracking system (<http://www.ncrets.org>) in order to facilitate the issuance of RECs.

IT IS, THEREFORE, ORDERED as follows:

1. That the application of McBride Place Energy, LLC, for a certificate of public convenience and necessity shall be, and is hereby, approved.
2. That Appendix A shall constitute the certificate of public convenience and necessity issued to McBride Place Energy, LLC, for the 79.9-MW_{AC} solar photovoltaic electric generating facility to be located in Cabarrus County on parcel 5556-23-1563 on Route 601, between Joyner Road and Mt. Pleasant Road, near Concord, North Carolina.
3. That the registration statement filed by McBride Place Energy, LLC, for its solar photovoltaic facility located in Cabarrus County, North Carolina, as a new renewable energy facility shall be, and is hereby, accepted.

4. That McBride Place Energy, LLC, shall annually file the information required by Commission Rule R8-66 on or before April 1 of each year.

ISSUED BY ORDER OF THE COMMISSION.

This the 26th day of November, 2014.

NORTH CAROLINA UTILITIES COMMISSION

Paige J. Morris

Paige J. Morris, Deputy Clerk

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. SP-3096, SUB 0

McBride Place Energy, LLC
P. O. Box 16005,
Bristol, Virginia 24209

is hereby issued this

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
PURSUANT TO G.S. 62-110.1

for a 79.9-MW_{AC} solar photovoltaic electric generating facility

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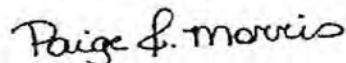
in Cabarrus County on parcel 5556-23-1563 on Route 601,
between Route 601, Joyner Road and Mt. Pleasant Road,
near Midland, North Carolina,

subject to all orders, rules, regulations and conditions
as are now or may hereafter be lawfully made
by the North Carolina Utilities Commission.

ISSUED BY ORDER OF THE COMMISSION.

This the 26th day of November, 2014.

NORTH CAROLINA UTILITIES COMMISSION



Paige J. Morris, Deputy Clerk

ADJACENT PARCEL LIST EXHIBIT K

PIN#	NAME	NAME2	ADDRESS	CITY	STATE	ZIP
55562646960000	HENDERSON KENNEY EVERETT & WF	HENDERSON CONSTANCE SHIFLETT	4778 ROCKY RIVER RD	CONCORD	NC	28027
55562762730000	GASTON RODNEY	GASTON MARY ANN WIFE	4586 CHANEL COURT	CONCORD	NC	28025
55568424730000	WILLIAM S FRANK E	WILLIAM S NANETTE J W F	26450 RED BARN TRL	LOCUST	NC	28097
55469229160000	BARNHARDT REBECCA LYNN		9450 HWY 601	MIDLAND	NC	28107
55561774810000	WIDENHOUSE BOBBY ALAN	WIDENHOUSE NYRA W F	4200 NESSITT RD	CONCORD	NC	28025
55565547180000	GARY W LATON LLC	A NC LLC	PO BOX 1129	CONCORD	NC	28026
55565651940000	GARY W LATON LLC	A NC LLC	PO BOX 1129	CONCORD	NC	28026
55562132590000	ALEXANDER DEVELOPMENT CORP NC		7755 HILLIARD LANE	CONCORD	NC	28025
55562240890000	WHEELER DAVID E	WHEELER SARAH	8501 ROCK HOLE RD	STANFIELD	NC	28163
55562743160000	LANIER WAYNE M		4587 CHANEL CT	CONCORD	NC	28025
55562754190000	MC MANUS GEORGE LEE	MC MANUS BARBARA BURRIS W F	4599 CHANEL CT	CONCORD	NC	28025
55562774060000	TYLER GEORGE G	TYLER GLENDA WIFE	4598 CHANEL COURT	CONCORD	NC	28025
55469235270000	TUCKER LOUIS J L F EST		9470 HWY 601	MIDLAND	NC	28107
55560364000000	PRESSLEY KEVIN D	PRESSLEY STEPHANIE G WIFE	9365 HIGHWAY 601	MIDLAND	NC	28107
55561240090000	LITTLE KEVIN G	LITTLE LORI N (WF)	9825 HWY 601	MIDLAND	NC	28107
55562517050000	LOVIN KEVAN G	LOVIN TREVA J WIFE	8717 HAYDEN WAY	CONCORD	NC	28025
55564672640000	GARY W LATON LLC	A NC LLC	PO BOX 1129	CONCORD	NC	28026
55573264720000	CRAWFORD MARTY M		7475 EDGEFIELD RD	CONCORD	NC	28025
55560047250000	WILSON GUDEJA C		9808 JIM SOSSOMAN RD	MIDLAND	NC	28107
55561115690000	MORGAN ALFRED ODELL JR		9801 HWY 601	MIDLAND	NC	28107
55563156760000	HATHCOCK LANA M		4135 BROWNWOOD LANE	CONCORD	NC	28027
55561479950000	MASSEY ERICA	MASSEY CHRISTOPHER HUSBAND	8767 HAYDEN WAY	CONCORD	NC	28025
55573231400000	BOST BRANT T		7490 EDGEFIELD RD	CONCORD	NC	28025
55561590480000	JONES GEORGE R	JONES DEANNA C (WF)	8755 HAYDEN WAY	CONCORD	NC	28025
55561833940000	BEATTY JOHN A JR	BEATTY CAROL LYNN	3220 WINDING TRL	MATTHEWS	NC	28105
55564598540000	GARY W LATON LLC	A NC LLC	PO BOX 1129	CONCORD	NC	28026
55564821320000	JAB FARM S LLC / A NC LLC	O O KERMIT LESJIE YOUNG JR	P O BOX 18	NORWOOD	NC	28128
55573283500000	RILEY DAVID B	RILEY GINDY L WIFE	7491 EDGEFIELD ROAD	CONCORD	NC	28025
55576248840000	WHISPERING PINES HOLDING LLC	A NC LLC	363 CHURCH ST N STE 240	CONCORD	NC	28025
55469270590000	KANE JOHN L		9700 HWY 601	MIDLAND	NC	28107
55562632410000	MOORE EVAN	MOORE LAURA W F	4512 CHANEL CT	CONCORD	NC	28025

55564358710000	KUCERA NANCY A		6308 GOLD WAGON LANE	CHARLOTTE	NC	28227
55469254310000	KING WILLIAM B		9500 HWY 601	MIDLAND	NC	28107
55561551270000	WALKER JAMES J		8754 HAYDEN WAY	CONCORD	NC	28025
55561990410000	DEAS RICHARD N SR MR & MRS		4380 JOYNER ROAD	CONCORD	NC	28025
55563290630000	FINSEL KRISTOPHER L	FINSEL JOLI A WF	9700 M T PLEASANT RD	MIDLAND	NC	28107
55564697650000	MCNELL JOHN P	MCNELL ADELAIDE YOUNG (WF)	PO BOX 656	NORWOOD	NC	28128
55565622050000	GARY W LATON LLC	A NC LLC	PO BOX 1129	CONCORD	NC	28026
55571343380000	JAB FARM S LLC / A NC LLC		O O KERMIT LESLIE YOUNG JR	NORWOOD	NC	28128
55469252830000	HATCHER MARK A	HATCHER PAMELA T WF	890 ROCK RD	RUTHERFORD	NC	28139
55469371270000	CRISWELL BERRY BLANE JR	CRISWELL CARRIE ANN WF	9419 US HWY 601 S	MIDLAND	NC	28107
55562503110000	BULLOCK KRISTY	BULLOCK TROY HSB	8739 HAYDEN WAY	CONCORD	NC	28025
55560173670000	SCOTT SARA		9775 US HWY 601 S	MIDLAND	NC	28107
55560366360000	PRESSLEY NOLLE C & WIFE	PRESSLEY JANNA H	9355 HWY 601	MIDLAND	NC	28107
55560476130000	PRESSLEY NOLLE C & WIFE	PRESSLEY JANNA H	9355 HWY 601	MIDLAND	NC	28107
55562760040000	COOK TIM OTHEE	COOK AMY F WIFE	4570 CHANEL CT	CONCORD	NC	28025
55563168590000	HATHCOCK LANA M		4135 BROWNWOOD LANE	CONCORD	NC	28027
55567978110000	WILLIAM S FRANK E	WILLIAM S NANETTE J WF	26450 RED BARN TRL	LOCUST	NC	28097
55561169920000	LITTLE KEVIN G	LITTLE LORI N (WF)	9825 HWY 601	MIDLAND	NC	28107
55561550800000	CLIFF KEVIN L & WIFE	CLIFF SANDRA J	8766 HAYDEN WAY	CONCORD	NC	28025
55562505730000	GIOCONDO MARK ADAMS &	GIOCONDO REGINA WIFE	8725 HAYDEN WAY	CONCORD	NC	28025
55564783150000	STEWART MARK A JR TRUSTEE		8600 M T PLEASANT RD S	MIDLAND	NC	28107
55576191210000	WHISPERING PINES HOLDING LLC		363 CHURCH ST N STE 240	CONCORD	NC	28025
55572393350000	BOST ET III		4701 HWY 200	CONCORD	NC	28025
55562620540000	SOUDI MAHDI AL		4504 CHANEL CT	CONCORD	NC	28025
55562658440000	HENDERSON KENNEY EVERETT & WF	HENDERSON CONSTANCE SHIFLETT	4778 ROCKY RIVER RD	CONCORD	NC	28027
55574217500000	HONEYCUTT CLIFF W		7450 EDGEFIELD ROAD	CONCORD	NC	28025
55560131690000	XARS INC		9690 HWY 601	MIDLAND	NC	28107
55563917510000	VANDEBURG A J	VANDEBURG MARY H WIFE	4506 WILD OAK LANE	GREENSBORO	NC	27406
55571195160000	HARTSELL LUTHER THOMPSON IV	CRAWFORD JANE HARTSELL	& HEATH H HEDGPETH	CONCORD	NC	28027
55469174100000	ALTMAN JAMES H	ALTMAN BRENDA L WIFE	6423 E MERCER WAY	MERCER ISLAND	WA	98040
55469188100000	UNION LODGE 618 AF & AM TRSTEE		PO BOX 497	MIDLAND	NC	28107
55562220880000	MORGAN ALFRED ODELL JR		9801 HWY 601	MIDLAND	NC	28107
55562644240000	EGGERS DARRELL J	EGGERS STACEY S WIFE	4524 CHANEL CT	CONCORD	NC	28025
55573067310000	BOST ET III		4701 HWY 200	CONCORD	NC	28025

55566794450000	PHARR J YORKE III		58 OAK CREEK LN	HENDERSONVLL	NC	28739
55562441360000	FIVE M'S LLC	A VA LLC	1583 RIDGEDALE RD	ROCKINGHAM	VA	22801
55566529860000	PHARR CAPITAL LLC		428 HERMITAGE CT	CHARLOTTE	NC	28207
55561933150000	AI PROPERTIES		PO BOX 215	MIDLAND	NC	28107



Cabarrus County Government – Planning and Development Department

March 28, 2017

Dear Property Owner:

A Conditional Use Permit Application has been filed in our office for property **adjacent** to yours. The specifics of the request are listed below. The Cabarrus County Board of Adjustment will consider this petition on Tuesday, April 11, 2017 at 7:00 PM in the 2nd floor Commissioner's Chambers of the Cabarrus County Governmental Center, located at 65 Church Street SE, Concord, NC 28026. A Public Hearing will be conducted and public input will be allowed during that time. If you have any comments about this request, I encourage you to attend this meeting.

Petitioner:	McBride Place Energy, LLC
Petition Number:	CUSE2017-00001
Property Location:	On Approximately 627 acres located between Joyner Road, Mt. Pleasant Rd S, and US 601S
Parcel ID Numbers:	5556-24-4136, 5557-23-9335, 5557-30-6731, 5556-46-9765, 5556-48-2132, 5557-13-4338
Existing Zoning:	Countryside Residential (CR) Agriculture/Open Space (AO)
Conditional Use Permit Request:	Request for a Public Service Facility (Solar Farm)

If you have any questions regarding this petition, or the hearing process, please contact me at Cabarrus County Planning and Development at 704.920.2149.

Sincerely,

Jason Earliwine
Senior Planner
Cabarrus County Planning and Development
704.920.2149



FYI JCM

December 18, 2015

Mr. Tal McBride
McBride Energy Services, LLC
PO Box 16005
Bristol, Virginia

Reference: Wetland Delineation
McBride Place Energy Solar Site
9375 U.S. Highway 601 South & 8500 Mount Pleasant Road South
Midland, Cabarrus County, North Carolina
PEI Project 1689

Dear Mr. McBride:

Pilot Environmental, Inc. (PEI) is pleased to submit this report of the wetland delineation for the approximate 8 acre tract located at 9375 U.S. Highway 601 South & 8500 Mount Pleasant Road South in Midland, Cabarrus County, North Carolina.

Background

Wetlands are defined by the United States Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA) as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions." In order for an area to be classified as wetland, hydrophytic vegetation, hydric soils, and wetland hydrology indicators must be present.

Section 404 of the Clean Water Act regulates the discharge of dredge and fill materials into waters of the United States (lakes, rivers, ponds, streams, etc.), including wetlands. Waters of the United States include the territorial seas, navigable coastal and inland lakes, rivers and streams, intermittent streams, and wetlands. The EPA and the USACE jointly administer the Section 404 program. Section 401 of the Clean Water Act grants each state the authority to approve, condition, or deny any Federal permits that could result in a discharge to State waters.

Jurisdictional features include wetlands, open waters, ponds, lakes and perennial/intermittent streams. Jurisdictional features are regulated by the USACE and North Carolina Department of Environmental Quality-Division of Water Resources (NCDEQ-DWR). Permits are required prior to impacting any jurisdictional feature. The type of permit required is specific to the type, location

and amount of impacts. Stormwater management plans and/or mitigation for proposed impacts could be a requirement of the permit approval process.

The findings and conclusions found in this report are our opinions based on field conditions encountered at the time of the site visit. Changes including, but not limited to, regulations, weather, timber/vegetation removal and usage/development of the site or nearby properties can alter the findings and opinions presented in this report. We recommend that this report only be used for preliminary planning purposes. Agency verifications, followed by a survey of jurisdictional features are required to determine the exact extent and locations of jurisdictional features and are valid for a period of up to five years following issuance of a USACE Jurisdictional Determination (JD) and/or NCDEQ-DWR Site Determination Letter.

Scope of Services

PEI was contracted to perform a wetland delineation for the approximate 8 acre tract located at 9375 U.S. Highway 601 South & 8500 Mount Pleasant Road South in Midland, Cabarrus County, North Carolina. The site includes a portion of the parcel identified by the Cabarrus County Geographical Information Systems (GIS) as Parcel Identification Number (PIN) 55562315630000. The site is being evaluated for proposed development with a solar farm. The scope of services included a delineation of jurisdictional features (streams, wetlands and other surface waters) located on the site. PEI was provided with the site boundary in a Google Earth digital file.

Literature Review

We reviewed the U.S. Geological Survey (USGS) Topographic Map, the U.S. Department of Agriculture (USDA) Soil Survey of Cabarrus County, the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Map and the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM).

- The USGS Topographic Map (Drawing 1) does not depict surface waters or wetlands on the site. The map shows a drainage swale on the site that could contain surface waters or wetlands. An unnamed tributary to Bost Creek is shown approximately 100 feet southwest of the site.
- The USDA Web Soil Survey of Cabarrus County (Drawing 2) identifies the following soils on the site: Misenheimer channery silt loam (MsA). The Misenheimer series consists of moderately well drained and somewhat poorly drained, moderately rapid permeable soils that occur on nearly level to sloping ridges, in depressions and around the heads of drainageways in the Piedmont. The soil mapping unit is not identified on the Cabarrus County Hydric Soils List.

PEI also reviewed the last published USDA Soil Survey of Cabarrus County (Drawing 2A). The map identifies two intermittent streams on the northern portion of the site that converge into

one and cross the central portion of the site. Other surface waters or wetlands are not shown on the site.

- PEI reviewed the USFWS NWI Map (Drawing 3) for the site. The NWI map identifies freshwater forested/shrub wetlands on the site.
- PEI reviewed the FEMA FIRM (Drawing 4) for the site. The FEMA FIRM shows that the site is located outside of the 100 year floodplain.

Field Delineation

PEI personnel conducted the field delineation on October 8, 2015. The site contains wooded land and recently timbered land. Structures are not located on the site. Ponds are not located on the site.

A stream is located on the southern portion of the site. The stream originates at an approximate two foot heat cut on the south-central portion of the site. The stream has a well-defined bed and bank, meanders and evidence of an ordinary high water mark. Flowing water and/or presence of aquatic life was not observed in the stream at the time of our delineation. Based on our observations, the stream is intermittent. The head of the stream was marked in the field with blue and white striped surveyor tape. The stream should be located by surveyors.

Wetlands are not located on the site. Evidence of hydrophytic vegetation was observed at the site. However, it is our opinion that hydric soil indicators and wetland hydrology indicators are not present in these areas. A USACE Wetland Determination Data Form, supporting our opinion, is included as an attachment.

Watershed Classification/Buffer Requirements

According to the NCDEQ-DWR, the site is located in the Yadkin River Basin. The NCDEQ-DWR has classified Bost Creek as Class C waters, in the vicinity of the site. In accordance with 15A NCAC 02B .0200, state regulated surface water vegetative buffers are not required adjacent to the surface waters on the site.

Based on conversations with representatives of Cabarrus County and Chapter 4-10 of the Cabarrus County Unified Development Ordinance (UDO): A minimum 30 foot stream buffer shall be established from the stream bank on all sides of all intermittent or Class 2 streams and any identified wetlands. Class 2 Streams shall include all rivers or streams shown on the USGS Maps as dotted or dashed blue lines, identified as a stream on the NCRS Soil Survey for Cabarrus County, identified on the Cabarrus County Geographic Information System or identified as a stream by a qualified stream classification professional as defined in Section 4-10.4. However, it should be noted that a 100 foot vegetative buffer may be required if the stream located on the

site is classified as perennial by Cabarrus County during zoning/planning approval. We recommend consultation with Cabarrus County prior to land disturbance activities occurring on the site.

According to the NCDEQ-DWR Interactive Stormwater Map, the site is located in an area identified as State Permitting Authority. Therefore, we recommend consultation with the state/local municipality to determine if the proposed development on the site requires development buffers/setbacks from surface waters for compliance with state and local stormwater requirements.

Agency Verification

The USACE has declined field verification of the site. In an email from Mr. William Elliot, Regulatory Specialist with the USACE Wilmington District, the USACE will proceed with issuance of a USACE JD based on Drawing 5 of this report without field verification of the site.

Drawing 5 shows the locations of the site, stream, including our designations, and data point. Drawing 5 should only be used for preliminary planning purposes and is subject to change pending receipt of the USACE JD. PEI has requested that the USACE issue a jurisdictional determination (JD) based on Drawing 5. We understand that our flags will be surveyed to determine the exact extent and locations of jurisdictional features. If requested and upon receipt of a wetland plat prepared by a N.C. Licensed Surveyor, PEI will review the plat and submit it to the USACE for final written concurrence.

Closing

We appreciate the opportunity to provide our services to you. Please contact us at (336) 708-4997 if you have questions or require additional information.

Sincerely,

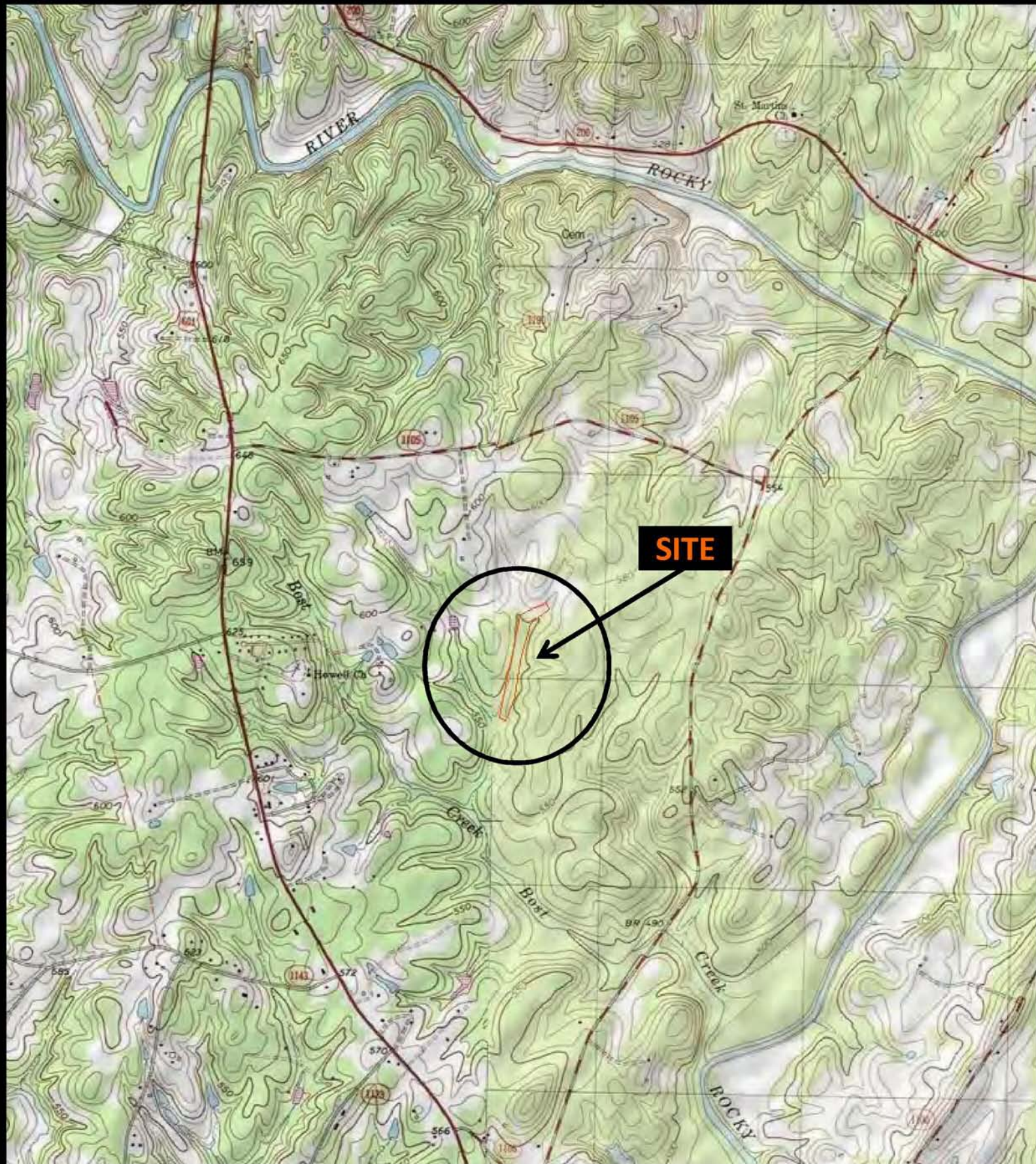


Bradley S. Luckey
Project Manager



David S. Brame, PWS
Project Manager

Attachments: Drawing 1 – USGS Topographic Map
Drawing 2 – USDA Web Soil Map
Drawing 2A – USDA Published Soil Map
Drawing 3 – NWI Map
Drawing 4 – FEMA FIRM
Drawing 5 – Wetland Flag Map
Wetland Determination Data Form



Drawing 1

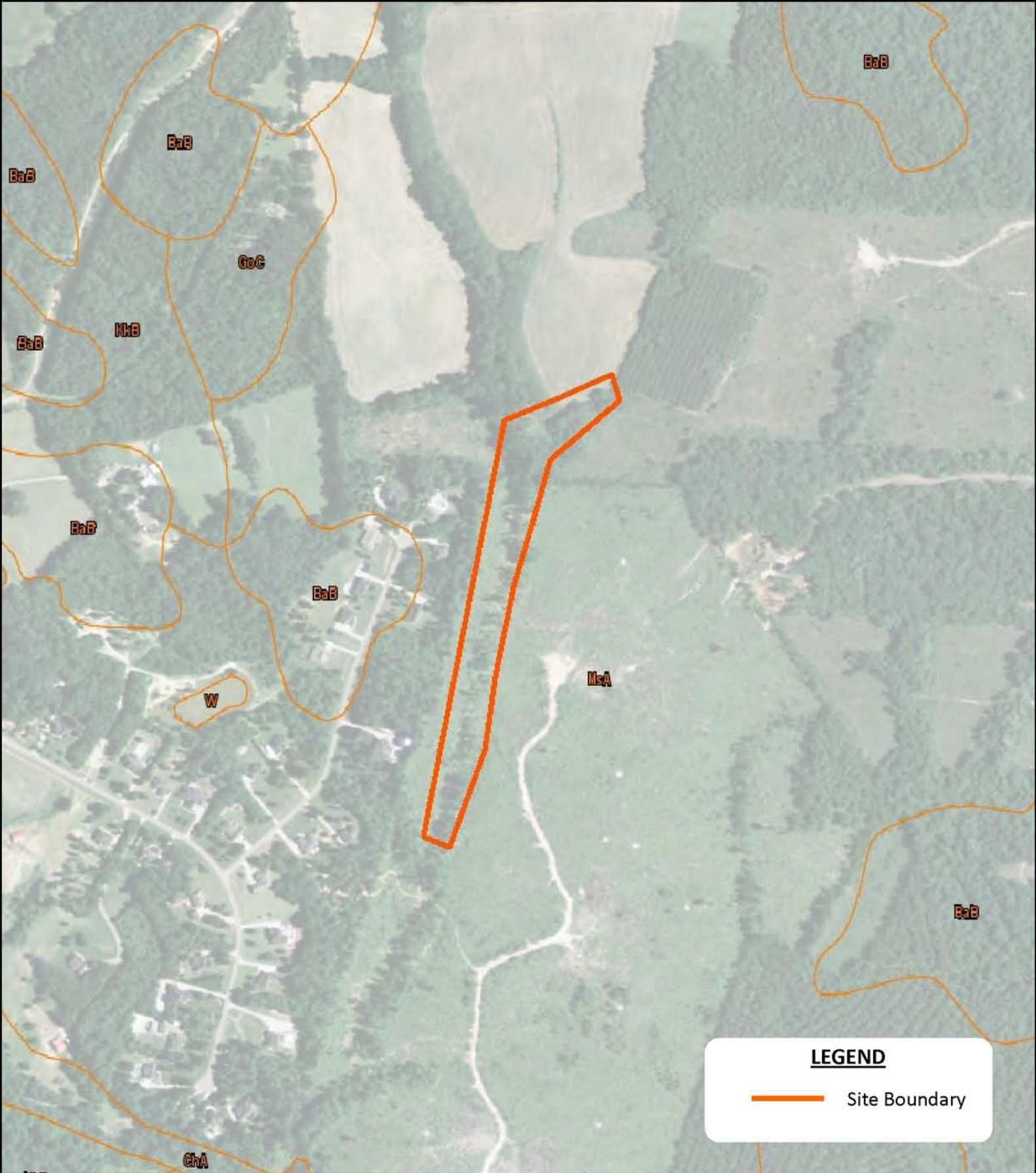
USGS Topographic Map
Concord SE and Locust, NC
Quadrangles

Scale: 1" = 2,000'



USGS Topographic Map

McBride Place Energy
8 Acre Evaluation Area
Midland, North Carolina
PEI No. 1689



LEGEND

— Site Boundary

Drawing 2

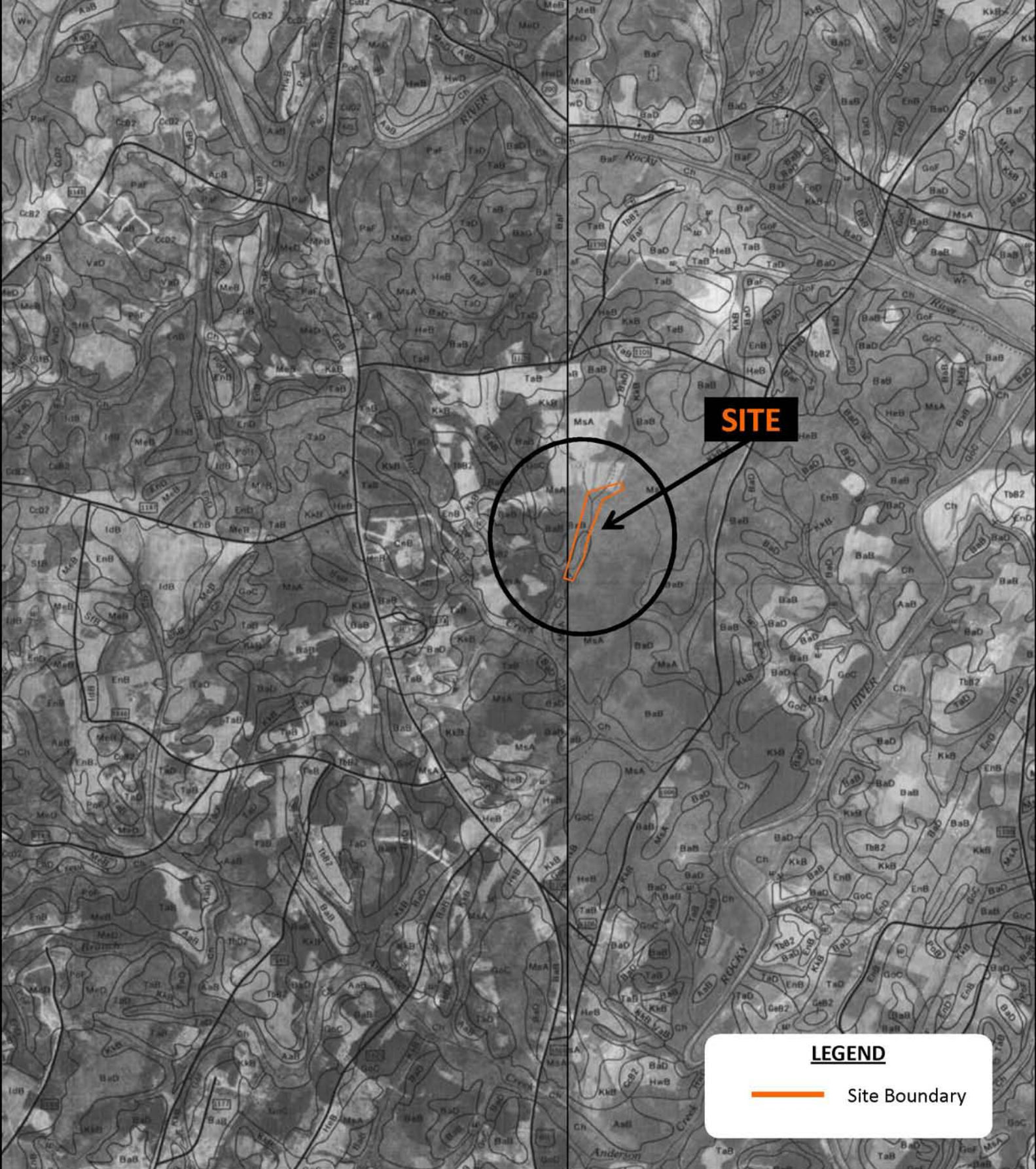
USDA Web Soil Survey
Of Cabarrus County

Not to Scale



USDA Soils Map

McBride Place Energy
8 Acre Evaluation Area
Midland, North Carolina
PEI No. 1689



SITE

LEGEND

— Site Boundary

Drawing 2A

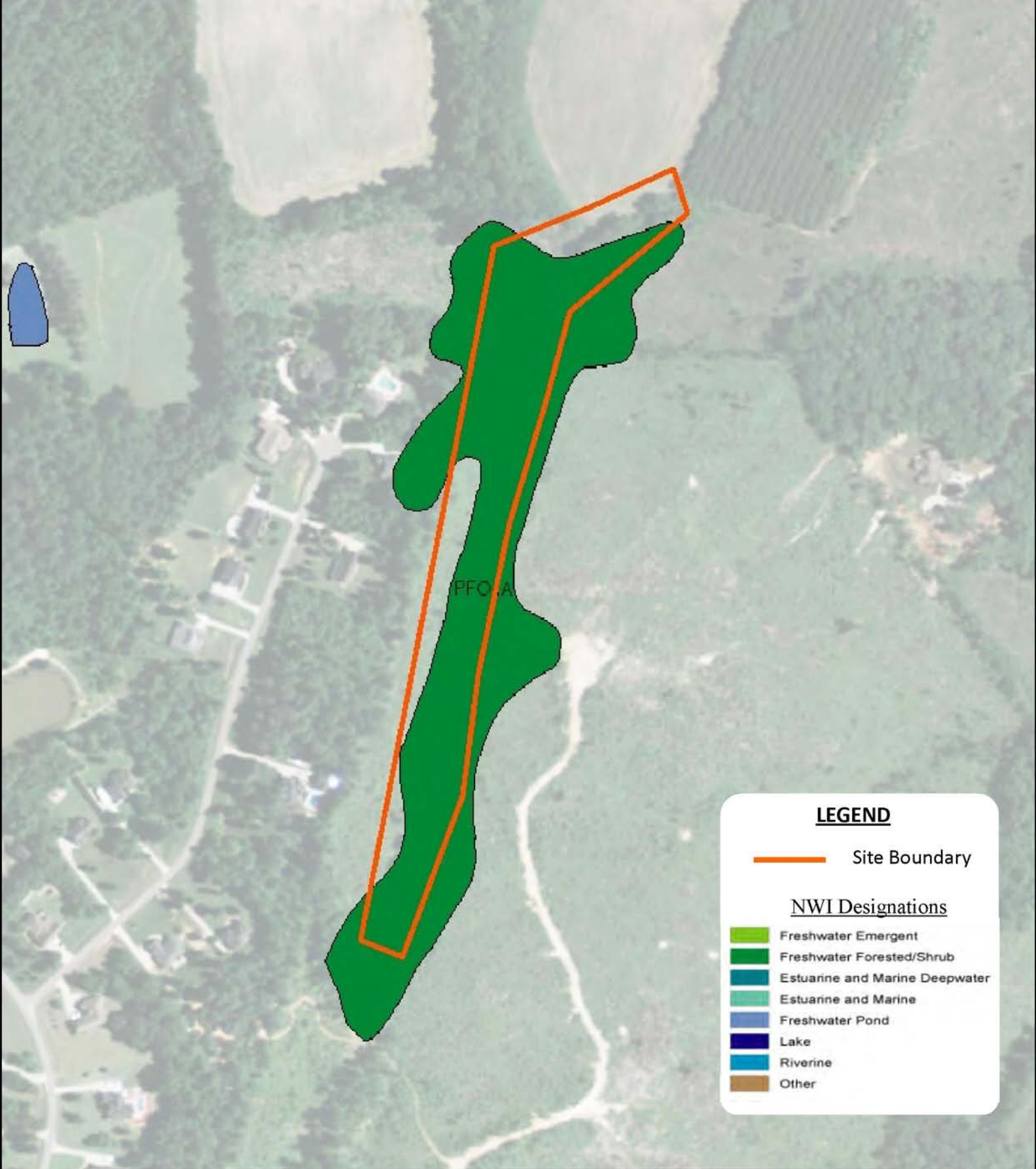
USDA Soil Survey of
Cabarrus County, Published 1988
Sheet Nos. 6 and 7
Not to Scale



**PILOT ENVIRONMENTAL
INC.**

USDA Soils Map

McBride Place Energy
8 Acre Evaluation Area
Midland, North Carolina
PEI No. 1689



LEGEND

— Site Boundary

NWI Designations

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Drawing 3

USFWS NWI
Wetlands Mapper

Scale: 1" = 300'



NWI Map

McBride Place Energy
8 Acre Evaluation Area
Midland, North Carolina
PEI No. 1689









PANEL
3710554700J
eff. 11/5/2008

PANEL
3710555700J
eff. 11/5/2008

PANEL
3710554600J
eff. 11/5/2008

PANEL
3710555600J
eff. 11/5/2008

LEGEND

-  Site Boundary
-  1% Annual Chance Flood Hazard
-  Regulatory Floodway
-  Special Floodway
-  Area of Undetermined Flood Hazard
-  0.2% Annual Chance Flood Hazard
-  Future Conditions 1% Annual Chance Flood Hazard
-  Area with Reduced Risk Due to Levee

Drawing 4

FEMA FIRM Panel
Number 3710555600J,
Effective 11.05.2008
Scale: 1" = 1,000'



FEMA FIRM

McBride Place Energy
8 Acre Evaluation Area
Midland, North Carolina
PEI No. 1689

LEGEND

-  Site Boundary
-  Intermittent Stream
-  Data Point

SA 1

DP-1

THE LOCATIONS OF FEATURES SHOWN ON THIS MAP ARE PRELIMINARY. THE USACE HAS INDICATED THAT A USACE JD WILL BE ISSUED WITHOUT FIELD VERIFICATION OF THE SITE. THIS MAP IS SUBJECT TO CHANGE PENDING RECEIPT OF THE USACE JD. FEATURES SHOWN ON THIS EXHIBIT HAVE NOT BEEN GEOLOCATED OR SURVEYED.

Drawing 5

World Imagery from ESRI
and
PEI Field Notes

Scale: 1" = 400'



Wetland Map

McBride Place Energy
8 Acre Evaluation Area
Midland, North Carolina
PEI No. 1689

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: MPE Solar City/County: Concord/Cabarrus Sampling Date: 10/8/15
Applicant/Owner: _____ State: North Carolina Sampling Point: DP-1
Investigator(s): Luckey/Brame, PEI Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): _____
Slope (%): 1 Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: _____ NWI Classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No ____	Is the Sampled Area within a Wetland? Yes ____ No <u>X</u>
Hydric Soil Present?	Yes ____ No <u>X</u>	
Wetland Hydrology Present?	Yes ____ No <u>X</u>	
Remarks:		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes ____ No <u>X</u>
Surface Water Present? Yes ____ No <u>X</u> Depth (inches): _____		
Water Table Present? Yes ____ No <u>X</u> Depth (inches): <u>>12"</u>		
Saturation Present? Yes ____ No <u>X</u> Depth (inches): <u>>12"</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION (Four Strata) - Use scientific names of plants.

 Sampling Point **DP-1**

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status		
1. <i>Acer rubrum</i>	30	Y	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>64</u> (A/B)	
2. <i>Ulmus alata</i>	5	N	FACU		
3.					
4.					
5.					
6.					
7.					
8.					
	35	= Total Cover		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 = FACW species X 2 = FAC species X 3 = FACU species X 4 = UPL species X 5 = Column Totals: (A) (B) Prevalence Index = B/A =	
Sapling/Shrub Stratum (Plot size: 30')					
1. <i>Ulmus alata</i>	10	Y	FACU		
2. <i>Acer rubrum</i>	5	Y	FAC		
3. <i>Ligustrum sinsense</i>	5	Y	FAC		
4.					
5.					
6.					
7.					
8.					
	20	= Total Cover			
Herb Stratum (Plot size: 30')				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > 50% 3 - Prevalence Test is ≤ 3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <i>Eulalia vimineauim</i>	50	Y	FAC		
2. <i>Solidago canadensis</i>	10	Y	FACU		
3. <i>Eupatorium capillifolium</i>	10	Y	FACU		
4.					
5.					
6.					
7.					
8.					
9.					
	70	= Total Cover			
Woody Vine Stratum (Plot size: 30')				Definitions of Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.	
1. <i>Toxicodendron radicans</i>	10	Y	FAC		
2.					
3.					
4.					
5.					
6.					
	10				
					Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP-1

[illegible]

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action I.D.: **SAW-2016-00185**

County: **Cabarrus**

U.S.G.S. Quad: **Upper Pee Dee**

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Agent: **Five M's LLC c/o Mr. Henry T. McBride, III**

Address: **1583 Ridgedale Road Harrisburg, Virginia 22801**

Telephone No.:

Property description:

Size (acres): **8 acres**

Nearest Town: **Midland**

Nearest Waterway: **Bost Creek**

Coordinates: **35.29794, -80.49874**

River Basin: **Upper Pee Dee**

Hydrologic Unit Code: **03040105**

Location Description: **The site is located at 9375 US Hwy 601 S, and 8500 Mount Pleasant Road, South, Midland in Carbarrus County, NC.**

Indicate Which of the Following Apply:

A. Preliminary Determination

- ☐ There are waters, including wetlands, on the above described project area, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The waters, including wetlands, have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.

B. Approved Determination

- ☐ There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☒ There are waters of the U.S. on the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- ☐ We recommend you have the waters of the U.S. on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.
- ☒ The waters of the U.S. within your project area have been delineated and the delineation has been verified by the Corps. If you wish to have the delineation surveyed, the Corps can review and verify the survey upon completion. Once verified, this survey will provide an accurate depiction of all areas subject to CWA and/or RHA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.
- ☐ The waters of the U.S. have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on _____. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ There are no waters of the U.S., to include wetlands, present on the above described project area which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Morehead City, NC, at (252) 808-2808 to determine their requirements.

Action Id.: **SAW-2016-00185**

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact **William Elliott** at **828-271-7980 ext. 4224**.

C. Basis for Determination

There are stream channels located on the property that exhibit indicators of ordinary high water marks. The stream channel on the property is an unnamed tributary to Bost Creek which flows into Bost Creek and then into the Rocky River. The Rocky River flows to the Upper Pee Dee River. Yadkin River joins the Uwharrie River to form the Pee-Dee River. Pee Dee River enters the Atlantic Ocean through Winyah Bay in South Carolina. Drainages in Iredell, Rowan, and Wilkes flow to Yadkin River (before its confluence with Uwharrie River). Drainages in Cabarrus, Mecklenburg, Stanley, and Union flow to Pee-Dee River.

D. Remarks: Jurisdictional "Waters of the US" have been identified on this property as depicted on the map entitled *Drawing 5 – Wetland Map* submitted with the Jurisdictional Request Package on December 9, 2015.

E. Attention USDA Program Participants

This delineation/determination has been conducted to identify the limits of Corps' Clean Water Act jurisdiction for the particular site identified in this request. The delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

F. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

Attached to this verification is an approved jurisdictional determination. If you are not in agreement with that approved jurisdictional determination, you can make an administrative appeal under 33 CFR 331. Enclosed you will find a request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers
South Atlantic Division
Attn: Jason Steele, Review Officer
60 Forsyth Street SW, Room 10M15
Atlanta, Georgia 30303-8801

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address within 60 days of the issue date below.

****It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.****

Corps Regulatory Official: William Elliott

Issue Date: **September 15, 2016**

Expiration Date: **September 14, 2021**

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at our website:

http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

CF: R. Susanne Todd, 1065 East Morehead St. Charlotte, NC 28204,

Bradley S. Luckey, PO Box 128Kernersville, NC 27285

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Five M's LLC		File Number: SAW-2016-00185	Date: September 15, 2016
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
X	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record)

REVISED: March 23, 2017

SAW-2016-00185

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

William Elliott, Project Manager
USACE, Asheville Regulatory Field Office
151 Patton Ave
RM 208
Asheville, NC 28801
828-271-7980

If you only have questions regarding the appeal process you may also contact:

Mr. Jason Steele, Administrative Appeal Review Officer
CESAD-PDO
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 10M15
Atlanta, Georgia 30303-8801
Phone: (404) 562-5137

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

<hr/> Signature of appellant or agent.	Date:	Telephone number:
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For appeals on Initial Proffered Permits send this form to:

District Engineer, Wilmington Regulatory Division, Attn: William Elliott, 69 Darlington Avenue, Wilmington, North Carolina 28403

For Permit denials, Proffered Permits and approved Jurisdictional Determinations send this form to:

Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Jason Steele, Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801 Phone: (404) 562-5137

McBride Place Energy Emergency Response Plan

**MPE, LLC Solar Farm Public Service Facility
Off Highway 601/Mt. Pleasant Road
Cabarrus County, NC**

e911 Addresses:

ENTRANCE 1: 9711 US Hwy 601 S

ENTRANCE 2: 8910 Mt Pleasant Rd S

ENTRANCE 3: 8380 Mt Pleasant Rd S

ENTRANCE 4: 4822 Joyner Road

ENTRANCE 5: 4825 Joyner Road

Knox Boxes shall be located at each of Site entrance. A sign shall be posted at each entrance with the correct e911 address.

McBride Place Energy, LLC
2002 Lee Highway, #16005
Bristol, VA, 24209
(571) 228-5105

Contents

- I. Overview**
- II. Hazardous Materials, Spills**
- III. Transformer/Inverter Fire Risk**
- IV. Fire and Emergency Response**
- V. Electrical Shock Risk**
- VI. McBride Place Energy Emergency Response Contacts**

I. Overview

A solar power plant is an automated facility that presents relatively minor emergency risks due to the nature of its construction and components. It is unlike traditional power-generating facilities that rely upon fuel storage, fuel combustion, or turbine power-generation. Thus the risks normally associated with power-generating plants, or other municipal treatment facilities do not exist at a typical solar farm.

II. Hazardous Materials, Spills

No hazardous materials are stored or used on the site, therefore no measures for spill containment or control are necessary. There are no combustion-generating processes used in the creation of solar power, so the potential of any accidental release of hazardous gas or particulate matter does not exist.

III. Transformer/Inverter Fire Risk

The proposed solar facility does include 50 inverters and 50 transformers through which electricity will pass and can present a rare fire hazard. This equipment is self-contained with no exposed electrical circuits. The solar plant is an automated facility so there is almost no personal injury risk in the event of a fire. In addition, the proposed location of the inverters and transformers places the nearest pair approximately 300 feet inside the security fence which further limits the exposure to persons in the vicinity of the facility. Electricity produced at the proposed solar facility will be delivered to the Union Power Cooperative (UPC) system through a solar farm-owned substation connected to a higher voltage UPC-owned breaker station located on-site. The substation and adjacent breaker station will be secured by an appropriate level of fencing material to reduce unauthorized access.

IV. Fire and Emergency Response

A fire at a solar farm is treated like any electrical fire at a remote location. There is little combustible material in a solar farm. It should be allowed to burn out and Fire Department personnel are directed to contain the fire at the perimeter fence, and access roads. No trash or debris are allowed to collect at the facility and vegetation management crews keep weeds at a minimum, which provides a large measure of fire prevention.

In any emergency situation, the respective utility will disconnect power to the site limiting the risk of additional harm from the flow of AC power from the grid.

If requested, McBride Place Energy, LLC ("MPE") will conduct fire and emergency response training for the local fire department during construction of the facility including prevention of electric shock. A detailed Fire Response Procedure is attached.

V. Electrical Shock Risk

The solar plant produces electrical voltage in varying voltages up to the levels in typical local distribution lines. All components are grounded and under normal circumstances do not pose a risk of shock. The equipment should be treated with the same safety approach applicable to any electrical device, such as common external electrical equipment or HVAC equipment on a house or building. In normal circumstances the components do not pose a shock risk unless some damage occurs. MPE monitors plants continuously and would be aware of any ground fault and would dispatch repair teams within a few days. A greater shock risk could be present during a period of damage. Unauthorized entry, intentional damage or

tampering could increase the risk of shock through contact.

Authorized personnel are trained in safety protocol to be followed when entering a plant. In the event of unauthorized entry or an emergency requiring entry by non-MPE rescue personnel, extreme caution should be observed. MPE personnel should be notified. A contact number is below and posted on every entrance. While risk of shock is low, contact with any component should be avoided.

VI. MPE Emergency Response Contacts

First Contact- Tal McBride C: 571.228.5105

email: tal@mcbrideenergy.com

Second Contact-Kevin Carpenter C: 713.852.7832

email: kevin@mcbrideenergy.com

FIRE DEPARTMENT RESPONSE **PROCEDURE**

McBride Place Energy, LLC.

2002 Lee Highway, #16005

Bristol, VA, 24209

(571) 228-5105

e911 Addresses:

ENTRANCE 1: 9711 US Hwy 601 S

ENTRANCE 2: 8910 Mt Pleasant Rd S

ENTRANCE 3: 8380 Mt Pleasant Rd S

ENTRANCE 4: 4822 Joyner Road

ENTRANCE 5: 4825 Joyner Road

Note: This is a draft plan. Specific project contact information will be added during construction of the project and local responder and contractor contacts are established.

FIRE DEPARTMENT RESPONSE PROCEDURE

McBride Place Energy, LLC

In the unlikely event that a transformer or inverter installed by McBride Place Energy, LLC ("MPE") catch fire the following response procedure should be followed. There is a First Responder which will be available by telephone at all times. This person will have contact information for all responsible parties at MPE. Should the First Responder not be the first person to contact MPE, the fire department will be in charge of contacting the responsible parties.

Water should never be used to contain a fire due to the risk of making the ground a conductor. Remember, if the sun is out, the panels are generating electricity. They cannot be turned off and are always electrified.

Procedure:

1. Fire has been observed by either first responder, local citizen, or fire department.
2. Either first responder or fire department contacts the appropriate parties at MPE.
3. Fire department arrives on scene and starts to assess the situation. **Fire department will not enter the array field until they have talked to either the Utility or MPE to avoid risk of electric shock.**
4. Fire department or first responder will call electric utility (Union Power Cooperative) to have them shut down the power to the site by opening recloser. This can usually be done remotely, but if this is not an option, the pole will have to be shut down manually by the appropriate energy service. Pole will be labeled on the laminated map provided by MPE.
5. Once utility has been contacted and power has been disconnected, Fire department will be in charge of securing the property by not allowing any persons on the site not involved directly with the problem. If there is an air break switch on the site, it will be pulled by an approved person in the fire department. The air brake switch can be accessed by breaking open red emergency key box which is attached to pole. This box also contains the key to the Personal Protection equipment cabinet which is attached to the pole. This pole will be located on the site map provided by MPE . After this, the fire department will contain the property by restricting any persons from entering the area. **Fire department will not advance on the array.** Fire department will be in charge of keeping the fire from leaving the solar farm property by containing it with conventional means.
6. After the fire has been contained and burned out, an assessment will be done to determine the cause of the fire. The fire department will examine the area to determine the location of the start of the fire and MPE will be in charge of finding the actual cause of the fire. Cleanup will then take place and all physically damaged material will be removed.
7. MPE will then secure and clean up the site and make the decision to repair or decommission the solar farm depending on the extent of the damage.

CONTACT LIST FOR FIRE RESPONSE

MPE, LLC Solar Farm
Highway 601/Mt. Pleasant Road
Cabarrus County, NC

e911 Addresses:

ENTRANCE 1: 9711 US Hwy 601 S
ENTRANCE 2: 8910 Mt Pleasant Rd S
ENTRANCE 3: 8380 Mt Pleasant Rd S
ENTRANCE 4: 4822 Joyner Road
ENTRANCE 5: 4825 Joyner Road

McBride Place Energy, LLC
2002 Lee Highway, #16005
Bristol, VA, 24209
(571) 228-5105

First Responder – Midland Fire District P: 704.888.0657 Fire Chief: Allen Burnette
Cabarrus County EMS: 704.920.2605

Contacts at McBride Place Energy, LLC

First Contact- Tal McBride C: 571.228.5105

email: tal@mcbrideenergy.com

Second Contact- Kevin Carpenter C: 713.852.7832

email: kevin@mcbrideenergy.com

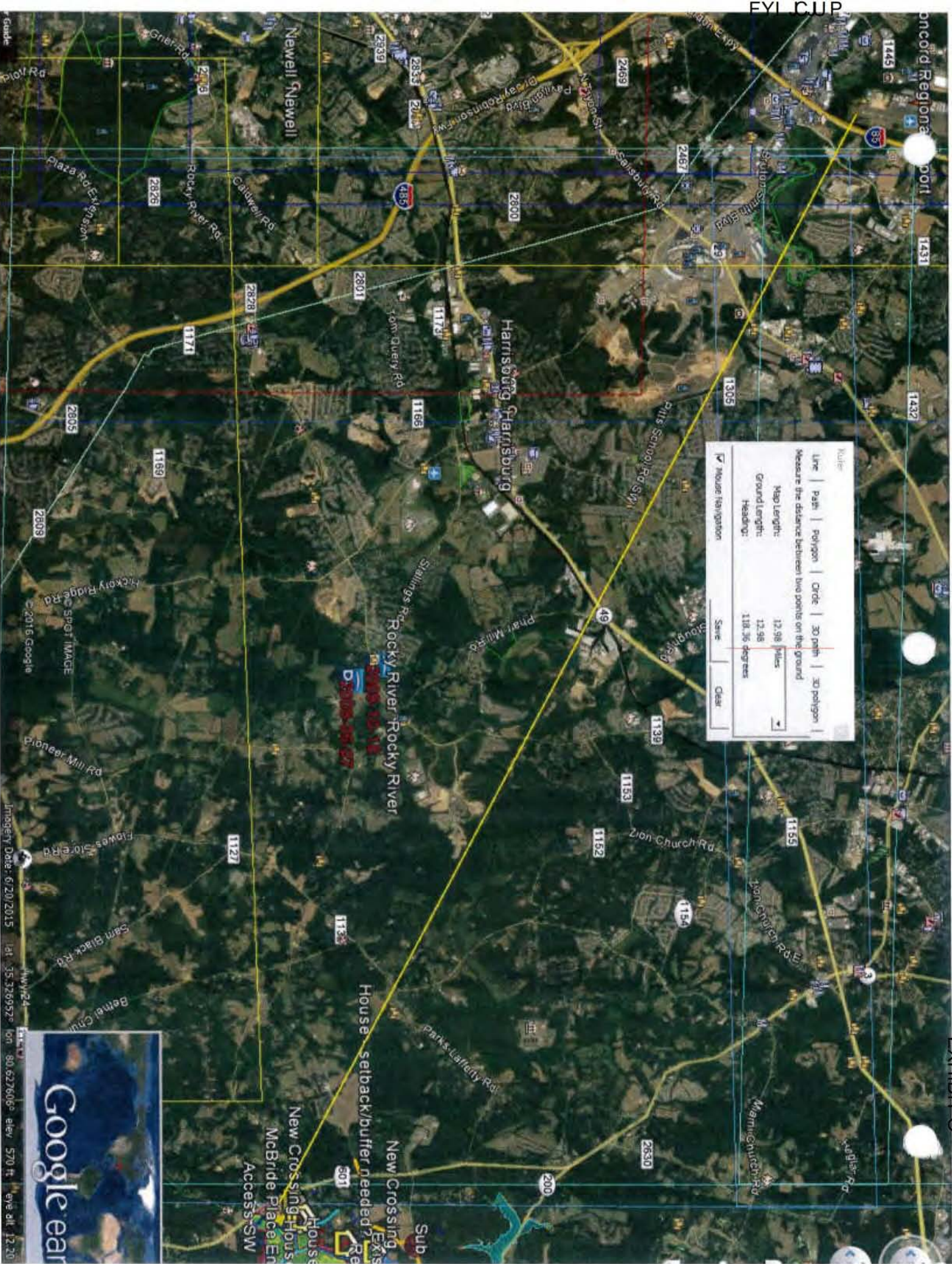
Cabarrus County Sheriff: Brad Riley P :704.920.3000

Electrical Services

- Union Power Cooperative: 800-922-6840

UPC Account Number - _____

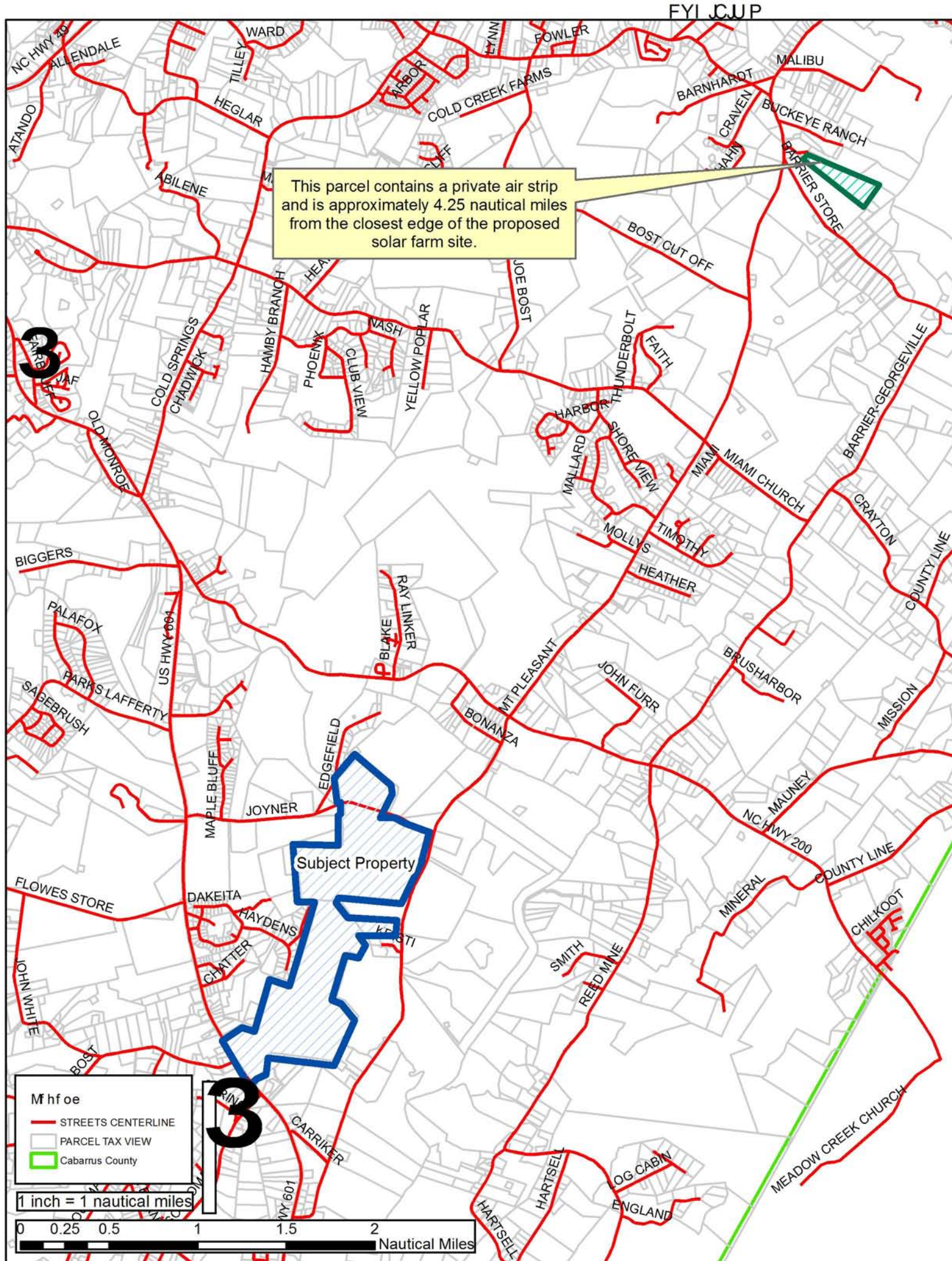
UPC Meter Number - _____



Mouse Navigation

Line	Path	Polygon	Circle	3D path	3D polygon
Measure the distance between two points on the ground					
Map Length: 12.98 miles					
Ground Length: 12.98					
Heading: 118.36 degrees					

Save Clear





TOWN OF MIDLAND

PO Box 589 * 4293-B Hwy. 24/27 E Midland, NC 28107
Town Office: 704-888-2232 * Town Fax: 704-888-2234
townofmidland@midlandnc.us * www.townofmidland.us

April 13, 2017

Cabarrus County Board of Adjustment
c/o Susie Morris
Cabarrus County Governmental Center
65 Church Street SE
P.O. Box 707
Concord, NC 28026-0707

Re: Application for Conditional Use Permit Approval – McBride Place Energy, LLC Solar Farm

To Whom It May Concern;

The Town of Midland, North Carolina, respectfully submits our recommendation for denial of the requested Conditional Use Permit for the McBride Place Energy, LLC Solar Farm being considered at the May 9, 2017 hearing before the Cabarrus County Board of Adjustment.

The Town of Midland jurisdiction is adjacent to the subject site and has officially adopted rules limiting such power generation to industrially zoned areas of land within the town limits. The Town's adopted plan projects the project site as remaining part of a future agricultural district with limited access to utilities.

Should the solar project be relocated to an officially adopted industrial land use area, then the Town will support the expansion of energy production facilities to serve our community.

Respectfully yours,

Kassie G. Watts, AICP, CZO
Planning, Zoning and Subdivision Administrator

Cc: File



29/03/2017 12:19 pm

CABARRUS COUNTY
ZONING

NOTICE
Pet # CUSE2017-00001
FOR DETAILS CALL
704 - 920 - 2141

29/03/2017 12:03 pm



EASEMENT FOR LANDSCAPE BUFFER

This Easement for Landscape Buffer (the "Easement") is entered into the ____ day of April, 2017, by and between Nancy A Kucera and Michael Kucera, wife and husband, (collectively "Owner") and McBride Place Energy, LLC, a Virginia limited liability company ("MPE").

RECITALS

1. Owner owns certain real property located in Cabarrus County, North Carolina described in Exhibit A (the "Owner Property").
2. MPE is developing a solar photovoltaic generating facility on property in Cabarrus County approximately as shown in Exhibit B ("Site"), immediately west, south and north of and adjacent to the Owner Property ("MPE Facility").
3. MPE is requesting a conditional use permit for the MPE Facility from Cabarrus County ("CUP"). It is expected that Cabarrus County will require MPE to provide a visual landscape buffer area up to 100 feet in width between the MPE Facility and adjacent properties, including the Owner Property. Owner currently has trees and other vegetation in place on the Owner Property along the Site suitable for screening the solar array in the MPE Facility and required landscaping.
4. MPE wishes to acquire an easement from Owner for a portion of the Owner Property 100 feet in width along certain of its north, west and south property lines adjacent to the Site in which Owner would retain and preserve the existing trees and other vegetation to serve as visual screening for the MPE Facility to meet the requirements of the CUP and related zoning regulations. The width of the Easement Property (as defined below) will be reduced to correspond to the County's final decision as to the dimensions of any screening and landscaping buffer set by the CUP or zoning permits for the MPE Facility on Owner Property if less than 100 feet. In the alternative, at Owner's option, MPE will purchase the Easement Property as described in this Easement.

NOW, THEREFORE, in consideration of the above premises and the mutual promises and other consideration described below, the adequacy and receipt of which is acknowledged, the parties agree as follows.

AGREEMENT

ARTICLE I – GRANT OF EASEMENT

1.1 Grant of Easement

(a) Owner hereby grants, conveys and sells to MPE the right, privilege and easement to maintain, use, and preserve all existing trees and other vegetation within, through, over, under and across that portion of the Owner Property described on Exhibit C (the “Easement Property”). This easement shall include the right to place or erect reasonable monuments to define the boundaries of the Easement Property. MPE’s easement rights include the right to plant additional trees, shrubs, bushes and grasses and other vegetation for landscaping and visual screening purposes in the Easement Property, and to water, fertilize, prune, trim, replace, weed and otherwise use the Easement Property to install and maintain vegetation consistent with the requirements of the CUP for visual screening of the MPE Facility from adjacent properties (all existing and new vegetation collectively the “Landscaping”). Owner further covenants and agrees that Owner will not remove, harvest, cut, or otherwise damage or kill any existing vegetation within the Easement Property by any means for the term of this Easement, or apply herbicides or pesticides in or near the Easement Property which may adversely affect any existing or new vegetation within the Easement Property.

(b) Owner further grants, conveys and sells to MPE nonexclusive rights to access to and ingress to and egress from the Easement Property from the Site, but not from other portions of the Owner Property. Owner further grants MPE the right of reasonable access to the Easement Property from MPE’s Site for the purpose of surveying and locating any of the Landscaping. NO right of entry or Access rights across Owner’s property, from Mt. Pleasant, are granted under this easement.

(c) MPE shall have the right to cut or trim trees or other tall plants within the Easement Property to the extent they interfere with the receipt of sunlight by the MPE Facility, but shall not have the right to harvest any of the existing trees on the Easement Property solely for timber or other products. In the event any such trees are to be removed from the Easement Property, MPE shall give Owner the first right to harvest such trees at Owner’s expense within a reasonable time period consistent with the CUP and to receive any revenues from any such harvest. If MPE removes any such trees, after Owner has elected not do so, MPE shall be entitled to any revenues from the sale of such trees or other plants.

1.2 Rights of Owner

Subject to the rights granted to MPE by this Easement, Owner reserves and retains the right to cultivate, use and occupy the Owner Property for its existing residential purposes. Owner may not excavate or construct or install any improvements, structures or fixtures within the Easement Property and shall not plant any trees or other vegetation whose growth may interfere with the Landscaping or MPE's rights under this Easement.

1.3 Duration; Survival of Covenants

The easement and related rights granted by this Agreement shall be effective upon April 1, 2017 and continue for a period ending upon the date on which MPE permanently removes its solar generation facilities on the Site and ceases use of the Site for the purposes allowed by the CUP. The parties acknowledge that the covenants, conditions, rights and restrictions in favor of MPE pursuant to this Easement including, but not limited to, the easements described in Section 1.1 and MPE's use of and benefit from those covenants, conditions, rights and restrictions, may constitute a portion of a larger solar energy project with which the Easement Property will share structural components, ingress and egress, utility access, and other support, all of which are specifically designed to be interrelated and integrated in operation and use for the full life of the MPE Facility, and that the covenants, conditions, rights and restrictions in favor of MPE pursuant to this Easement shall not be deemed nominal, invalid, inoperative or otherwise be disregarded while any portion of the MPE Facility remains operational.

1.4 Continuing Nature of Obligations

(a) The easements and related rights granted by Owner in this Easement to MPE are an easement in gross for the benefit of MPE, its successors and assigns, as owner of the rights created by the easements. The easements and other rights granted by Owner in this Easement are independent of any lands or estates or interest in lands, there is no other real property benefiting from the easements granted in this Easement and, as between the Easement Property and other tracts of property on which MPE may locate the MPE Facility, no tract is considered dominant or servient as to the other.

(b) The burdens of the easements and all other rights granted to MPE in this Easement shall run with and against the Easement Property and shall be a charge and burden on the Easement Property and shall be binding upon and against Owner and its successors, assigns, permittees, licensees, lessees, employees and agents. The Easement shall inure to the benefit of MPE and its successors, assigns, permittees, licensees and lessees.

ARTICLE II – PAYMENT

2.1 Easement Payment

In consideration of the easement and related rights granted by Owner in this Easement, MPE agrees to pay Owner Five thousand dollars (\$5,000.00) per acre for 14.0458 acres. The common boundary line between MPE's Site and the Owner's Property is established by survey to be 6118.33 feet. The easement shall be 100 feet wide by 6118.33 ft long. Five Thousand Dollars (\$5000.00) per acre yields an Easement price of Seventy thousand two hundred and twenty-nine dollar (\$70,229.00) which shall payable to Owner, on May 20th, 2017 or 10 days after the effective date of the CUP. Owner shall be entitled to a minimum total payment of not less than Seven thousand two hundred dollars (\$7200.00) per acre for the outright purchase of the 14.0458 acres, which yields a minimum purchase price of not less than One hundred and one thousand, one hundred and twenty-nine dollars and seventy-six cents (\$101,129.76). The actual final total purchase price, and value per acre, shall be determined by appraisal. The easement price paid, of \$70,229.00, shall be credited towards the final purchase and sale price paid by under this Easement and purchase and sale option agreement. A Three thousand dollar (\$3,000.00) earnest money payment, deposited on April 25th, 2017, shall also be credited towards the final easement price and/or the actual final total purchase price. Owner shall have no right or interest in the electricity generated by the MPE Facility or any related rights to payments to MPE arising from the generation, transmission or sale of such electricity.

2.2 Damages

The parties anticipate and acknowledge that Owner may suffer damage to property on the Owner Property during MPE's construction, installation and maintenance of Landscaping on the Easement Property. MPE shall repair any such damage at MPE's expense or pay Owner fair compensation for any such losses or damage, and, if the parties cannot reach agreement as to an amount which would constitute fair compensation, the issue shall be submitted to arbitration before an arbitrator mutually agreed to by the parties.

2.3 Option to Purchase

MPE agrees that Owner shall have the option ("Option") to require MPE (or its affiliate, 5M's, LLC, if common ownership with the adjacent property is required by Cabarrus County) to purchase the Easement Property at any time within six months of the date of this Easement for a price of \$7200 per acre, or approximately \$101,312 assuming 14.046 acres in the Easement Property. Terms of payment shall be determined by the parties within 15 days after exercise of the Option, and terms of the purchase shall otherwise be as customary for similar real estate purchases in the area. The precise amount of acreage included within the Easement Property to be purchased shall be determined by survey or equivalent measurements as soon as practicable after exercise of the Option. Owner may

mx-
NAK

exercise its Option by providing written notice to MPE at any time after the date of this Easement and within the six month Option period. The parties agree to close on the purchase as soon as practicable, and if at all possible within 90 days, after Owner exercises its Option. The easements and other rights granted by this Easement to MPE shall remain valid and effective until closing on the purchase and transfer of the Easement Property to MPE or 5M's, LLC. Any amount paid by MPE to owner pursuant to Section 2.1 shall be credited against the purchase price at closing.

ARTICLE III - MPE'S COVENANTS

MPE covenants, represents and warrants to Owner as follows:

3.1 Liens

MPE shall keep the Easement Property free and clear of all liens and claims of liens for labor, materials, services, supplies and equipment performed on or furnished to MPE or any Landscaping on the Easement Property in connection with MPE's use of the Easement Property. MPE may contest any such lien, but shall post a bond or utilize other available means to remove any lien which is created during the contested proceeding. MPE agrees to otherwise remove any lien or encumbrance for which it is responsible pursuant to this paragraph within 60 days of the creation of any such lien or encumbrance.

3.2 Permits and Laws

MPE and its designees shall at all times comply with all federal, state and local laws, statutes, ordinances, rules, regulations, judgments and other valid orders of any governmental authority with respect to MPE's activities pursuant to this Easement and shall obtain all permits, licenses and orders required to conduct any and all such activities, including, but not limited to, the CUP.

3.3 Hazardous Wastes

MPE shall not use, dispose of or release on the Easement Property or cause or permit to exist or be used, stored, disposed of or released on the Easement Property as a result of MPE's operations, any substance which is defined as a "hazardous material", "hazardous substance", "toxic substance" or "solid waste" in any federal, state or local law, statute or ordinance, except in such quantities as may be required in its normal business operations (including fertilizers, herbicides, and pesticides) and only if such use is not harmful to Owner and is in full compliance with all applicable laws.

3.4 Insurance

MPE shall obtain and maintain in force policies of insurance covering the Landscaping and MPE Facility and MPE's activities on the Easement Property once such activities commence, including specifically comprehensive general liability insurance with a minimum combined occurrence and annual limitation of no less than one million dollars. Such insurance coverage for the Landscaping, MPE Facility and Easement Property may be provided by an affiliate and as part of a blanket policy which covers the adjacent solar facility or other facilities or properties as well. Any such policies shall name Owner as an additional insured. MPE shall provide Owner with copies of certificates of insurance evidencing this coverage upon request by Owner.

3.5 Prior Easements

MPE acknowledges that there are or may be prior easements, rights-of-way, and liens on or against the Easement Property. MPE shall coordinate its activities under this Easement with other persons possessing rights under such easements, rights-of-way and liens so as not to interfere with such rights or persons or to create liability for Owner under any such easements, rights-of-way or liens.

ARTICLE IV – OWNER COVENANTS

Owner covenants, represents and warrants to Lessee as follows:

4.1 Title and Authority

Owner is the sole owner of the Easement Property in fee simple and each person or entity signing the Easement on behalf of Owner has the full and unrestricted authority to execute and deliver this Easement and to grant the easements and rights granted herein. All persons having any ownership interest in the Easement Property are signing this Easement as Owner. When signed by Owner, this Easement constitutes a valid and binding agreement enforceable against Owner in accordance with its terms. There are no encumbrances or liens against the Easement Property except as disclosed by Owner to MPE or which are reflected in an abstract or title report for the Easement Property provided to MPE prior to execution of the Easement.

4.2 Quiet Enjoyment

MPE shall have the quiet use and enjoyment of the Easement Property in accordance with the terms of this Easement without any interference of any kind by Owner or any person claiming through Owner. Owner and its activities on the Easement Property and any grant of rights Owner makes to any other person shall not interfere with any of MPE's

activities pursuant to this Easement, and Owner shall not interfere with any of MPE's activities pursuant to this Easement.

4.3 Hazardous Materials

Owner shall not use, store, dispose of or release on the Easement Property or cause or permit to exist or be used, stored, disposed of or released on the Easement Property as a result of Owner's activities, any substance which is defined as a "hazardous substance", "hazardous material", "toxic substance", or "solid waste" in any federal, state or local law, statute or ordinance, except in such quantities as may be required in its normal business operations and only if such use is not harmful to MPE and is in full compliance with all applicable laws.

4.4 Cooperation

Owner shall cooperate with MPE to obtain non-disturbance and subordination agreements from any person or entity with a lien, encumbrance, mortgage, lease, easement or other exception to Owner's fee title to the Easement Property to the extent necessary to eliminate any actual or potential interference by any such lienholder with any rights granted to MPE under this Easement. Owner shall also cooperate with MPE to obtain and maintain any permits needed for the Landscaping. Owner shall also provide MPE with such further assurances and shall execute any estoppel certificates, consents to assignments or additional documents which may be reasonably necessary for recording purposes or requested by MPE or any of its lenders.

ARTICLE V – ASSIGNMENT; ENCUMBRANCE OF LEASE

5.1 Right to Encumber

(a) MPE may at any time mortgage all or any part of its interest in the easement and rights under this Easement and/or enter into a collateral assignment of all or any part of its interest in the Easement or rights under this Easement to any entity ("Lender") without the consent of Owner. Any Lender shall have no obligations under this Easement until such time as it exercises its rights to acquire MPE's interests subject to the lien of Lender's mortgage by foreclosure or otherwise assumes the obligations of MPE directly.

(b) Owner and MPE agree that, once all or any part of MPE's interests in the Easement are mortgaged or assigned to a Lender, they will not modify or terminate this Easement without the prior written consent of the Lender.

(c) Owner agrees that any Lender shall have the right to make any payment and to do any other act or thing required to be performed by MPE under this Easement, and any

such payment, act or thing performed by Lender shall be effective to prevent any forfeiture of any of MPE's rights under this Agreement as if done by MPE itself.

5.2 No Termination Rights

(a) Owner acknowledges that it has no right to terminate this Easement or any of the rights or interests granted to MPE in the Easement Property, and that Owner's sole remedy in the event of an alleged breach by MPE of its obligations under this Easement shall be to seek an order for specific performance or an action for damages. Owner shall not seek an injunction or similar legal or equitable relief which would constrain, impede or prevent MPE from free use of the Easement Property or from exercising or using any of its rights or interests under this Easement without first notifying Lender in writing of its intent to do so and providing Lender 30 days in which to remedy the circumstances creating the basis for Owner's request for relief. If within such (30) day period the Lender notifies the Owner that it must foreclose on MPE's interest or otherwise take possession of MPE's interest under this Easement in order to effect a remedy, Owner shall permit the Lender a reasonable period of time necessary for the Lender, with the exercise of due diligence, to foreclose or acquire MPE's interest under this Easement and to perform or cause to be performed all of the covenants and agreements to be performed and observed by MPE. The time within which Lender must foreclose or acquire MPE's interest shall be extended to the extent Lender is prohibited by an order or injunction issued by a court or the operation of any bankruptcy or insolvency law from commencing or prosecuting the necessary foreclosure or acquisition.

(b) The acquisition of all or any part of MPE's interests under the Easement by any Lender through foreclosure or other judicial or nonjudicial proceedings in the nature of foreclosure, or by any conveyance in lieu of foreclosure, shall not require the consent of Owner, and upon the completion of the acquisition or conveyance Owner shall acknowledge and recognize Lender as MPE's proper successor under this Easement.

5.3 Specific Performance

Owner acknowledges and agrees that should Owner breach any of its obligations hereunder or otherwise fail to permit MPE to exercise any of the rights and privileges granted herein, MPE shall have the right to seek specific enforcement of this Easement. In that event, Owner agrees that MPE has no adequate remedy at law.

ARTICLE VI – MISCELLANEOUS

6.1 Notices

Notices, consents or other documents required or permitted by this Easement must be given by personal delivery, telecopier or certified mail and shall be sent to the respective parties as follows:

To Owner: Nancy and Michael Kucera
6308 Gold Wagon Lane
Charlotte, NC 28277

To MPE: McBride Place Energy, LLC
P.O. Box 16005
Bristol, VA 24209
tal@mcbrideenergy.com

6.2 No Third Party Beneficiaries

Except for the rights of Lenders set forth above, no provision of this Easement is intended to nor shall it in any way inure to the benefit of any third party so as to constitute any such person a third party beneficiary under this Easement, or of any one or more of the terms of this Easement, or otherwise give rise to any cause of action in any person not a party to this Easement.

6.3 Entire Agreement

It is mutually understood and agreed that this Easement constitutes the entire agreement between Owner and MPE with respect to its subject matter and supersedes any and all prior oral or written understandings, representations or statements, and that no understandings, representations or statements, verbal or written, have been made which modify, amend, qualify or affect the terms of this Easement. This Easement may not be amended except in a writing executed by both parties.

6.4 Governing Law

This Easement is made in North Carolina and shall be governed by the laws of the State of North Carolina without regard to its conflict of laws provisions.

6.5 Cooperation

Each of the parties, without further consideration, agrees to execute and deliver such additional documents and take such action as may be reasonably necessary to carry out the purposes and intent of this Easement and to fulfill the obligations of the respective parties.

6.6 Counterparts

This Easement may be executed in two or more counterparts and by different parties on separate counterparts, all of which shall be considered one and the same agreement and each of which shall be deemed an original. An executed signature may be delivered by electronic means in pdf form or similar format.

(SIGNATURE PAGES TO FOLLOW)

MCBRIDE PLACE ENERGY, LLC, a
Virginia limited liability company

MCBRIDE PLACE ENERGY, LLC, a
Virginia limited liability company

By:

Henry T. McBride III

Its:

Managing Member

STATE OF Virginia)
) ss.

COUNTY OF Richmond

I certify that the following person personally appeared before me this day and acknowledged to me that he is the Manager of McBride Place Energy, LLC, a Virginia limited liability company, and that he signed the foregoing document on behalf of the company: McBride Place Energy LLC. Witness my hand and official stamp or seal this the 26 day of April, 2017.

My Commission Expires: January 31, 2018

Karen Sue Deavers
Notary Public

Karen Sue Deavers
Print Name



By: Nancy A Kucua

By: Inde, Michael Kuen

I certify that the following persons personally appeared before me this day, acknowledging to me that they signed the foregoing document: Nancy A. Kucera and Michael Kucera, wife and husband. Witness my hand and official stamp or seal this 25 day of April, 2017.

My Commission Expires: 2/9/2021

R. Jesse Todd
Notary Public

R. Susanne Todd
Print Name

EXHIBIT A

OWNER PROPERTY

Lying and being in No. 10 Township, Cabarrus County, North Carolina on both sides of SR 1006 (Mt. Pleasant Road) and being a 244.4291 acre tract as shown upon a Boundary Survey for Michael and Nancy Kucera, the property of Joseph Fries as surveyed by Mapmakers Surveying, Rick Wills -NC/SC Professional Land Surveyor, dated March 8, 2006 and being more particularly described as follows:

Beginning at a nail in the center of the 60 foot right of way of SR-1006 a corner of Eugene Bost et al (Deed Book 3947, Page 187) in the line of Pharr Family Limited Partnership, (Deed Book 1275, Page 129) said nail being S. 00-02-13 W. 781.25 feet from a nail in the center of SR 1006 and runs thence with the center of the road S. 00-06-59 E. 349.80 feet to a nail in the center of the road; thence S. 10-40-54 W. 137.27 feet to a galvanized iron pipe; thence S. 40-17-37 E. 72.65 feet to an iron rod; thence with the line of Robert Rowland, (Deed Book 1746, Page 134), S. 38-50-33 E. crossing a new iron pin on line at 1136.79 feet and a new iron pin on line at 2336.79 feet and an iron pipe in a stump on line at 3406.8 feet for a distance of 3536.72 feet to a point in the approximate center of the Rocky River, a corner of Phillip Drye, (Deed Book 3749, Page 270); thence with the line of Phillip Drye and the center of the Rocky River 5 courses as follows: 1st: S. 31-17-58 W. 381.04 feet to a point; 2nd: S. 16-41-08 W. 185.98 feet to a point; 3rd: S. 25-23-33 W. 289.74 feet to a point; 4th: S. 48-47-13 W. 232.15 feet to a point and 5th: S. 61-44-24 W. 432.05 feet to a point in the approximate center of the Rocky River, a corner of Autrey Hinson, (Deed Book 1595, Page 287); thence with the center of the Rocky River and the line of Autrey Hinson 3 courses as follows: 1st: S. 69-41-50 W. 371.94 feet to a point; 2nd: S. 59-37-47 W. 572.60 feet to a point; 3rd: S. 63-31-43 W. 166.32 feet to a point in the center of the Rocky River, a corner of Carl Moore (Deed Book 1282, Page 309); thence with the approximate center of Bost Creek 61 courses as follows: 1st: N. 25-48-50 W. 177.16 feet to a point; 2nd: N. 05-25-07 W. 168.35 feet to a point; 3rd: N. 07-06-13 E 53.56 feet to a point; 4th: N. 40-27-04 E. 31.16 feet to a point; 5th: N. 69-39-09 E. 39.54 feet to a point; 6th: S. 84-11-05 E. 96.72 feet to a point; 7th: N. 82-29-46 E. 91.45 feet to a point; 8th: N. 67-14-49 E. 54.23 feet to a point; 9th: N. 12-40-03 E 57.56 feet to a point; 10th: N. 07-39-12 E 135.82 feet to a point; 11th: N. 23-53-30 E. 59.49 feet to a point; 12th: N. 49-18-21 E. 158.30 feet to a point; 13th: N. 38-38-36 E. 216.25 feet to a point; 14th: N. 23-29-21 E. 54.74 feet to a point; 15th: N. 27-20-56 W. 35.54 feet to a point; 16th: S. 82-25-22 W. 103.71 feet to a point; 17th: S. 57-58-57 W. 249.54 feet to a point; 18th: S. 79-06-25 W. 92.57 feet to a point; 19th: N. 69-41-45 W. 58.44 feet to a point; 20th: N. 15-38-47 W. 56.38 feet to a point; 21st: N. 33-32-32 E. 40.40 feet to a point; 22nd: N. 75-11-15 E. 40.66 feet to a point; 23rd: S. 81-14 18 E. 63.82 feet to a point; 24th: N. 50-58-23 E. 79.17 feet to a point; 25th: N. 04-57-54 E. 40.17 feet to a point; 26th: N. 50-22-49 W. 41.41 feet to a point;

27th: N. 16-41-03 W. 136.84 feet to a point; 28th: N. 43-25-40 W. 163.63 feet to a point; 29th: N. 55-35-11 W. 119.82 feet to a point; 30th: N. 36-15-41 W. 213.78 feet to a point; 31st: N. 26-43-22 W. 55.80 feet to a point; 32nd: N. 46-19-32 W. 152.24 feet to a point; 33rd: N. 29-44-08 W. 82.78 feet to a point; 34th: N. 09-52-24 W. 73.47 feet to a point; 35th: N. 32-37-48 W. 82.14 feet to a point; 36th: N. 27-52-16 W. 117.16 feet to a point; 37th: S. 78-31-41 W. 85.70 feet to a point; 38th: N. 65-55-07 W. 94.08 feet to a point; 39th: N. 61-08-04 W. 106.72 feet to a point in the center of a bridge; 40th: N. 45-26-11 W. 111.44 feet to a point; 41st: N. 89-19-22 W. 85.93 feet to a point; 42nd: S. 23-35-45 W. 73.45 feet to a point; 43rd: S. 02-07-07 E. 102.32 feet to a point; 44th: S. 46-16-10 W. 193.09 feet to a point; 45th: S. 20-09-22 W. 73.41 feet to a point; 46th: S. 50-07-48 W. 39.34 feet to a point; 47th: S. 78-10-54 W. 85.57 feet to a point; 48th: S. 73-12-29 W. 144.05 feet to a point; 49th: S. 39-06-56 W. 89.38 feet to a point; 50th: S. 16-45-16 W. 85.66 feet to a point; 51st: S. 46-28-41 W. 37.66 feet to a point; 52nd: N. 76-37-20 W. 110.08 feet to a point; 53rd: N. 64-51-50 W. 74.38 feet to a point; 54th: S. 79-59-30 W. 55.92 feet to a point; 55th: N. 28-41-41 W. 61.45 feet to a point; 56th: N. 63-47-17 W. 148.26 feet to a point; 57th: N. 54-30-34 W. 94.24 feet to a point; 58th: N. 75-54-03 W. 110.25 feet to a point; 59th: S. 75-55-17 W. 51.42 feet to a point; 60th: N. 54-36-52 W. 66.64 feet to a point; 61st: N. 27-20-58 W. 90.15 feet to a point in the center of the creek, a corner of Ronald Mooney, (Deed Book 713, Page 292), in the line of Five M's LLC, (Deed Book 2703, Page 185), 6 courses as follows: 1st: N. 25-54-51 E. crossing a galvanized iron pipe on line at 24.26 feet for a distance of 1011.38 feet to a galvanized iron pipe; 2nd: N. 39-43-07 W. 725.88 feet to a galvanized iron pipe; 3rd: N. 69-46-26 W. 371.86 feet to a galvanized iron pipe; 4th: N. 15-15-19 E. 1584.96 feet to a galvanized iron pipe; 5th: S. 64-59-22 E. 412.24 feet to a galvanized iron pipe; 6th: N. 30-29-47 E. 625.01 feet to an iron bar, a corner of Five M's LLC and Eugene Bost, et al, (Deed Book 3947, Page 189); thence 3 courses with the line of Eugene Bost, et al, 1st: S. 14-45-08 E. 500.63 feet to an iron rod; 2nd: S. 88-07-10 E. 740.44 feet to an iron rod; 3rd: S. 88-10-52 E. crossing a new pin in the western edge of Mt. Pleasant Road at 207.71 feet for a distance of 237.72 feet to the point of beginning.

For back reference see Deed Book 2399, Page 16. Property Identification Number: 5556435871

EXHIBIT B

FACILITY AND SITE

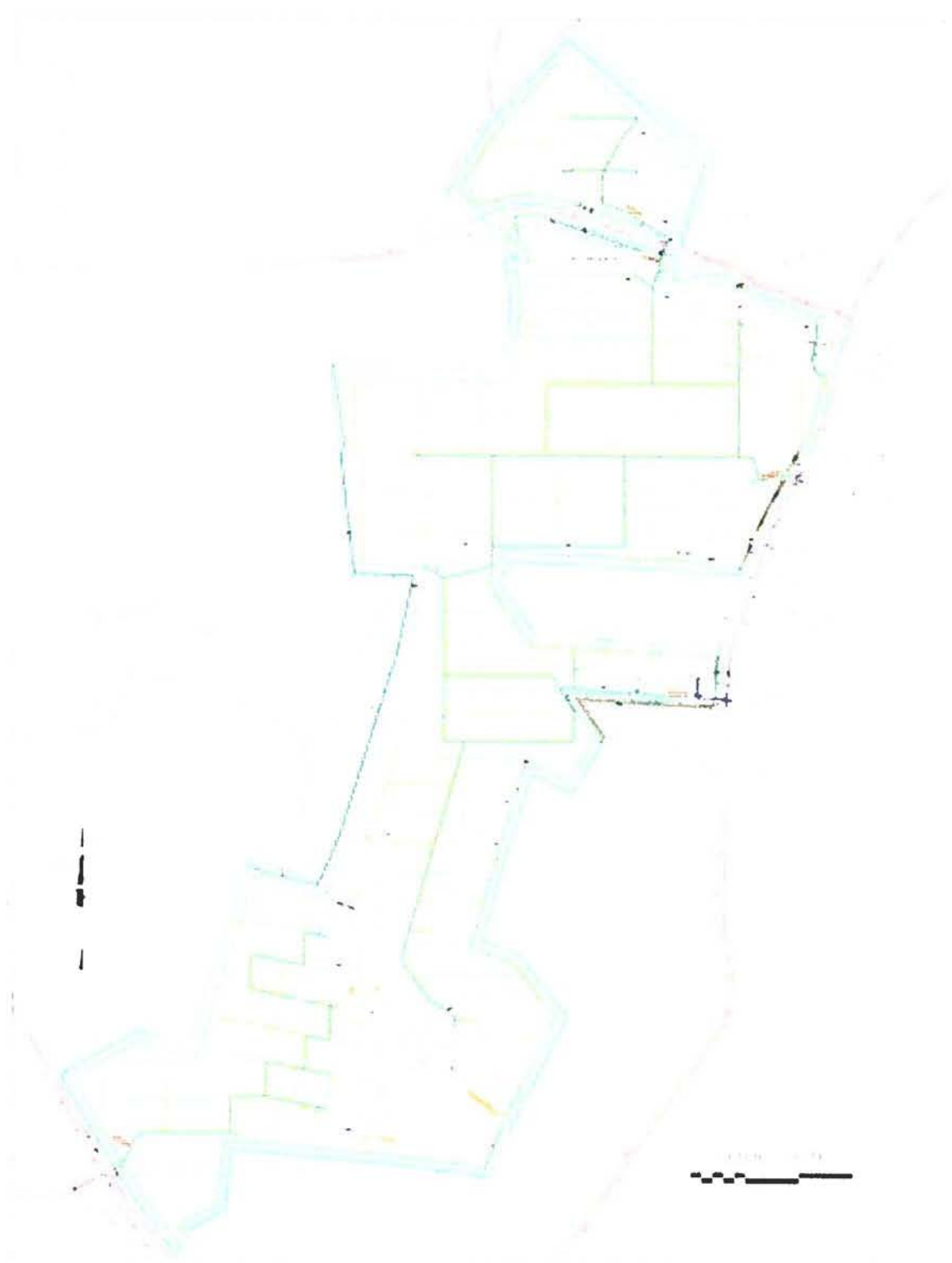


EXHIBIT C

EASEMENT PROPERTY

A 100 foot strip along the boundary of the Owner Property with the existing adjacent property of 5M's, LLC as shown in the attached diagram.

