DRAFT APPROVAL – Planning Commission Conditions

At a meeting of the Spotsylvania County Board of Supervisors held on February 26, 2019 on a motion by _____, seconded by _____ and passed_____, the Board adopted the following resolution:

RESOLUTION NO. 2019-_____

Special Use Permit SUP18-0001
Charles Woolfrey Construction Inc., Robert S. Coleman, Jr., MWD Properties 2009, LLC, Goodwin Brothers Lumber Company LLC, Meadows Farms, Victor N. Meadows, II, David L. Meadows, Frederick L. Meadows, Berman J. Meadows, Betty Meadows, Jay Meadows, RiverOak Timberland Investments, LLC, Gary Thomas Woolfrey ("Owners") (Sustainable Property Holdings, LLC ("Applicant") - sPower Solar Energy Facility Site A):

WHEREAS, the Owners, through the Applicant, request Special Use Permit approval on multiple parcels to develop a 400 MW solar energy facility on Agricultural 3 (A-3) zoned properties together constituting a site of approximately 5,200 acres. The properties consist of 11501 W. Catharpin Rd., 12910 Orange Plank Rd., 10900 Buckland Rd., 13301 W. Catharpin Rd., 13001 W. Catharpin Rd., and 22 additional unaddressed parcels. The properties are located in western Spotsylvania County, south of Orange Plank Road, north of W. Catharpin Road, east of the Spotsylvania/Orange County line and west of Catharpin Rd. The properties are located outside of the Primary Development Boundary. The properties are identified for Rural Residential or Agricultural and Forestal Land Use development on the Future Land Use Map of the Comprehensive Plan. Tax Parcels 28-A-1, 28-A-78, 29-A-1, 17-A-7, 18-A-16, 30-A-1, 17-5-19, 17-A-3, 17-A-3A, 17-A-4, 17-A-48, 16-A-1, 17-A-47, 18-A-15, 18-A-20, 28-A-71, 28-A-77, 29-A-2, 29-A-2A, 29-A-22, 29-A-24, 29-A-25, 29-A-26, 29-A-27, 29-A-28, 29-A-7, and 28-A-79. Livingston Voting District; and

WHEREAS, staff has reviewed the subject application and recommends approval as stated in the staff report and the executive summary; and

WHEREAS, the Spotsylvania County Planning Commission held a public hearing on December 5, 2018, duly advertised in a local newspaper for a period of two weeks, and interested citizens were given an opportunity to be heard; and

WHEREAS, the Spotsylvania County Planning Commission voted to postpone the subject case to January 2, 2019 to provide an opportunity for the applicant to supply four plans recommended by staff for incorporation as conditions and to allow the Planning Commissioners additional time to review the application and consider public hearing input, with a vote of 5-2; and

WHEREAS, on January 2, 2019, the Spotsylvania County Planning Commission voted to postpone the vote on the subject case to January 16, 2019 to allow staff time to address comments from the Planning Commission, with a vote of 5-2; and

WHEREAS, the Spotsylvania County Planning Commission recommended denial with a vote of 5-2; and

WHEREAS, the Spotsylvania County Board of Supervisors held a public hearing on February 26, 2019, duly advertised in a local newspaper for a period of two weeks, and interested citizens were given an opportunity to be heard; and

WHEREAS, the Spotsylvania County Board of Supervisors considered the Special Use Permit request in accordance with Sec. 23-4.5.7, Standards of Review, and finds that the application with the recommended conditions satisfies the following standards:

1. That the proposed use is in accord with the comprehensive plan and other official plans adopted by the county;

2. That the proposed use or development of the land will be in harmony with the scale, bulk, coverage, density, and character of the area or neighborhood in which it is located;

3. That the proposed use will not hinder or discourage the appropriate development and use of adjacent land and buildings or impair the value thereof;

4. That the proposed use will not adversely affect the health or safety of persons residing or working in the neighborhood of the proposed use;

5. That the proposed use will not be detrimental to the public welfare or injurious to property or improvements within the neighborhood;

6. That the proposed use is appropriately located with respect to transportation facilities, water supply, wastewater treatment, fire and police protection, waste disposal, and similar facilities;

7. That the proposed use will not cause undue traffic congestion or create a traffic hazard; and

8. That the proposed use will have no unduly adverse impact on environmental or natural resources.

WHEREAS, general welfare and good zoning practice are served by approval of the Special Use Permit application;

NOW, THEREFORE, BE IT RESOLVED that the Spotsylvania County Board of Supervisors does hereby approve SUP18-0001 Sustainable Property Holdings, LLC - sPower Solar Energy Facility Site A with the conditions listed below:

A. General:

1. The solar energy facility ("Facility") to be developed on current Tax Parcels 28-A-1, 28-A-78, 29-A-1, 17-A-7, 18-A-16, 30-A-1, 17-5-19, 17-A-3, 17-A-3A, 17-A-4, 17-A-48, 16-A-1, 17-A-47, 18-A-15, 18-A-20, 28-A-71, 28-A-77, 29-A-2, 29-A-2A, 29-A-22, 29-A-24, 29-A-25, 29-A-26, 29-A-27, 29-A-28, 29-A-7 north of West Catharpin Road, and 28-A-79 ("Property") pursuant to special use permit SUP18-0001 ("Special Use Permit"), shall be developed in conformance with the Generalized Development Plan titled "Generalized Development Plans Spotsylvania Solar Energy Center A Special Use Permit—SUP 18-0001 Livingston Magisterial District Spotsylvania County, VA", as last revised November 20, 2018 ("GDP") which is attached hereto and incorporated herein by reference. To the extent that the conditions herein are contrary to the GDP, the conditions herein shall supersede the GDP and control. SUP18-0001, along with SUP18-0002 and SUP18-0003, constitute the Spotsylvania Solar Energy Center ("Project"). The verbs "shall" and "must" as used throughout this Special Use Permit denote a mandatory act or requirement.
2. This Special Use Permit is issued to Sustainable Property Holdings, LLC ("Applicant"). The Applicant is wholly owned or is otherwise controlled by its parent company, FTP Power, LLC, also known as "sPower". These conditions shall bind the Applicant, any and all owners, occupants, and users of the Property, which shall also herein be referred to at times collectively as the "Operators". All bonding or posting of sureties for the project shall be by and in the name of the parent company, FTP Power, LLC, and the then current owner of the Property.
3. The Applicant shall secure and at all times maintain public liability insurance for personal injuries, death, and property damage, and umbrella insurance coverage, for the duration of the Special Use Permit in the minimum amounts set forth below, and shall include the County as co-insured:
    a. Commercial General Liability covering personal injuries, death and property damage: $2,000,000 per occurrence/ $6,000,000 aggregate;
    b. Automobile Coverage: $1,000,000 per occurrence/ $2,000,000 aggregate;
    c. Excess Liability: $1,000,000;
    d. Workers Compensation and Employers Liability Insurance in accordance with applicable statutory amounts.
4. The Applicant's Commercial General liability insurance policy and excess liability policy shall specifically include the County and its officers, boards, employees, volunteers, attorneys, agents, and consultants as additional insureds.
5. The Applicant's insurance policies shall be issued by an insurance company licensed to do business in the State and with a Best's rating of at least A.
6. The Applicant shall provide the Zoning Administrator Certificates of Insurance annually, and the amounts of required insurance shall be reviewed every two years for adequacy of coverage by the County's carrier. As determined solely by the County's insurance carrier, insurance premiums or coverage shall be increased when necessary to protect the County.
7. The Applicant's insurance policies shall contain an endorsement obligating the insurance company to furnish the County with at least thirty (30) days prior written notice in advance of the cancellation of the insurance.
8. The Applicant's insurance renewal or replacement policies or certificates shall be delivered to the County at least fifteen (15) days before the expiration of the insurance that such policies are to renew or replace.

9. Prior to the issuance of a land-disturbing permit, the holder of the Special Use Permit shall deliver to the County a copy of each of the policies or certificates representing the insurance in the required amounts.
10. Access to the Property and the Facility for inspections or monitoring by the County, including its employees, agents and representatives, shall be provided to any of these parties within twenty-four (24) hours of the date and time written notice is provided to the Applicant.
11. The storage of electricity utilizing chemical batteries on the Property is prohibited.
12. The use of biosolids on the Property is prohibited.
13. Photovoltaic panels manufactured using the GenX chemical are prohibited on the Property.
14. Photovoltaic panels containing Cadmium Telluride, also referred to as "Cad Tel", are prohibited on the Property.
15. Inverters and solar panels, measured from the grade of the ground on which the structures sit to their highest possible point, shall not exceed a height of fifteen (15) feet.
16. After construction is complete and the Facility begins operating, lighting on the Property not included in or expressly exempted from the Spotsylvania County ordinances shall be located, screened or shielded so that adjacent residential lots and adjacent roads are not directly illuminated and shall not exceed 0.5 footcandles at the Property boundary.
17. Soil testing shall be performed in accordance with the "Proposed Soil Testing and Remediation Plan Operations Phase", prepared by sPower and dated December 13, 2018, incorporated by reference herein and attached hereto as "Exhibit A", and shall:
    a. Include sampling designed in accordance with the Environmental Protection Agency's "Guidance on Choosing a Sampling Design for Environmental Data Collection for Use in Developing a Quality Assurance Project Plan" Chapter 7.
    b. A sample frequency of at least 1 sample per 100 acres shall be collected.
    c. Samples shall be collected over a variety of site conditions and shall:
        1. Be mapped to display the site's location and differentiate panels within proximity based on the panel's manufacturer and model.
        2. Include one sample collected from each side of each onsite stream or river at its most upstream and most downstream locations.
        3. Samples shall be analyzed for Cadmium Telluride and all metals identified in the "Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs)" Attachment 1-4, Table 1.1.
        4. Samples shall be analyzed for type, acidity, and nutrient levels, including Nitrogen, Phosphorus, Potassium, Magnesium, Sulfur, and Calcium.
    d. Test reports shall be provided to the Zoning Administrator prior to the issuance of a land-disturbing permit and every five (5) years thereafter and shall be accompanied by an executive summary of the results.
    e. A test report shall be provided to the Zoning Administrator prior to and immediately following decommissioning.
    f. Abnormal results, as determined solely by the County, may warrant additional studies, as determined solely by the County, to be performed by the Operators, at the Operators' cost, including but not limited to an

Environmental Site Assessment, conducted in accordance with the applicable American Society for Testing and Materials, now known as ASTM International, standards and subsequent tests, as deemed necessary by the County or the Virginia Department of Environmental Quality. Results of all required testing shall be shared with the County free of charge and without demand therefor.

To the extent the "Proposed Soil Testing and Remediation Plan Operations Phase", prepared by sPower and dated 12/13/2018 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.

18. A sealed dry-waste container shall be maintained at the Facility for the disposal of any damaged solar panels.

19. When the Facility reaches the end of its operational life, or its use is otherwise discontinued or substantially reduced, the Operators shall decommission it according to the following requirements, as well as those found in the Spotsylvania County Code of Ordinances, Section 23-4.5.7, all of which requirements supersede the decommissioning plan submitted by the Applicant. To the extent these conditions are more restrictive or intense than those in Section 23-4.5.7, as determined solely by the County, these conditions shall control:

    a. The decommissioning of the Facility must include the complete removal of the Facility, including, but not limited to, all of the facilities and structures above and below ground on the Property related in any way to the collection, conduction, or storage of solar energy and their appurtenances, installed at any time during the construction or operation of the Facility. This must include, at least, the removal from the Property of all of the following: solar panels, panel trackers, anchors, supports, footers, mounts, inverters, inverter buildings, electrical conductors, electrical cables, substation components, internal fencing, structures, and all other equipment and structures on the Property unless otherwise limited herein.

    b. The decommissioning must also include at least the following: the Facility will be disconnected from the utility power grid; solar panels must be disconnected from the on-site electrical system; all work must be undertaken with conventional construction equipment; all materials must be disposed of safely; solar panels must be removed from their support frames and packaged in a manner that ensures that they sustain no damage during their disconnection and removal from the Property; all hazardous materials must be removed and disposed of or recycled in accordance with all applicable laws and regulations; all concrete must be removed and recycled offsite by a recycling facility or used onsite as fill material as part of a stabilization or regrading plan which meets all applicable laws and regulations as determined solely by the Program Administrator or Zoning Administrator, as applicable; and grading must be minimized to the maximum extent possible under all applicable laws and regulations as determined solely by the Program Administrator or Zoning Administrator, as applicable. To the extent possible, all solar panels and equipment must be delivered to a designated recycling facility for recycling and material re-use; all electrical interconnection, transmission, and distribution lines and cables must be recycled offsite at a recycling facility; all steel and metal including, but not

limited to, support posts and internal fencing must be recycled offsite by a recycling facility; and electrical and electronic devices including, but not limited to, inverters, transformers, panels, support structure, lighting fixtures, and their respective shelters must be recycled offsite by a recycling facility.

c. After removal of the above, the ground must be restored to the original topography prior to the beginning of the decommissioning. In other words, holes, ditches, ruts, and the like created by removing underground conduit, support footers, or any other decommissioning activity must be filled in to restore the topography of the Property and allow for stabilization.

d. At the outset of the decommissioning, the Operators shall produce to the County an inventory of all the materials on the Property which will be removed or are otherwise subject to the provisions herein. At the completion of the decommissioning, the Operators shall produce to the County a report detailing compliance with all of the requirements herein including, but not limited to, details of the removal and disposition of materials required herein, including an explanation of why any material was not recycled. This detailed report must explain how each requirement related to the decommissioning set out herein has been met and must be certified by a third party engineer licensed in Virginia.

e. The decommissioning of the Facility may include, at the discretion of the person depicted in the land records of Spotsylvania County as of the date of completion of decommissioning as the Property owner, the removal of perimeter fencing surrounding outside perimeter of the Property. All fencing internal to the perimeter fencing must be removed as set out above. The decommissioning must not include the following: removal of stream crossings, de-compacting or removing gravel roads or paths established for the operation of the Facility, or removal of permanent stormwater management features.

f. Further, the Property must be restored to the agricultural condition of the Property as of the date of approval of this Special Use Permit with the additional requirement that the Property must be stabilized so as to adequately control, prevent, and minimize, any and all erosion and sediment runoff. Stabilization must be completed according to all standards established under applicable laws and regulations as determined by the Program Administrator or Zoning Administrator, as applicable. Prior to stabilization, all soils compacted by decommissioning work or by construction or operation of the Facility, except gravel roads and paths established for the operation of the Facility, shall be de-compacted, scarified, and restored six (6) inches in depth.

g. All onsite decommissioning work must be performed only between the hours of 7:00 a.m. and 5:00 p.m. on Monday through Friday.

h. County staff shall be granted access to the Property on twenty-four (24) hour prior notice to monitor all decommissioning work.

i. The County must be provided a monthly report detailing the decommissioning work performed and progress toward completion.

j. The Operators, prior to the start of construction of the Facility, and throughout its operation until the decommissioning is complete, shall guarantee the decommissioning and stabilization of the Property by providing and maintaining for the County's benefit surety for performance of the decommissioning equal to the highest total estimated cost of decommissioning the Facility on the Property. Such surety must be irrevocable and must be maintained in full without decrease until the Facility decommissioning has been completed as required herein. The highest total estimated cost must be calculated by the Operators and include, at least, the following delineated by line item:

   i. Total cost related to complying with all the decommissioning work required by this Special Use Permit.
   ii. Costs related to creating, maintaining, and re-stabilizing all construction entrances identified on the Property, with a separate line item for each such construction entrance.
   iii. Costs for mobilization.
   iv. Costs for removal and disposal of all materials set forth above line itemed by category of facility. For example, "cost to remove conduit," "cost to remove panels," "cost to remove panel support structure" "cost to remove inverters," etc. Such costs must not be reduced by any estimated credits or setoffs for recycling, reuse, or otherwise.
   v. Costs to de-compact, scarify, and restore all soils required herein.
   vi. Costs to stabilize land disturbed by the decommissioning work and as otherwise required herein.
   vii. Costs to meet the recycling requirements herein excluding any anticipated credits or setoff generated by the recycling.
   viii. Costs of trucking, hauling, and equipment use.
   ix. Costs for soil testing pursuant to Condition A 15 (e) set out herein.
   x. Costs of all labor and estimated man-hours to perform the decommissioning work required herein.
   xi. Costs must assume an increase in labor and equipment costs of two percent (2%) a year every year until the completion of decommissioning and must assume commencement of decommissioning after year thirty (30) of operation.
   xii. Costs for contingencies and for weather delay.
   xiii. Costs for insurance.
   xiv. Costs associated with transportation traffic planning, traffic mitigation, and road restoration on all roads utilized for decommissioning within Spotsylvania County for the duration of the impact of decommissioning on Spotsylvania County roadways.
   xv. The certification of a third party engineer licensed in Virginia affirming that the Operators' cost estimate is sufficient to satisfy the decommissioning required herein.

k. The estimated costs cannot include or be reduced by any credits or setoffs. In other words, estimated costs must not be decreased by funds potentially

generated, whether from resale, recycling, reuse, or otherwise, by the removed materials.

l. Prior to the issuance of a land-disturbing permit to construct the Facility and in no case later than three (3) months after approval of this Special Use Permit, the Operators shall produce to the County an estimate of the above costs by line item and the surety guaranteeing the payment of those costs and the decommissioning work. The amount of the surety shall be no less than the Property's proportionate share of the Thirty-Six Million Seven Hundred Five Thousand Six Hundred Forty-One Dollars ($36,705,641.00) already estimated, and excluding recycling credits, as provided by the Applicant's "Project Decommissioning and Site Restoration Cost Estimate" attached hereto as "Exhibit G". The estimate shall be signed and sealed by a third party engineer licensed in Virginia and shall include a statement by the engineer that "The total estimated cost provides for the complete decommissioning of the Facility and stabilization of the Property as defined and required in SUP18-0001."

m. Surety must be provided either by a cash bond deposited with the County or by an irrevocable letter of credit provided for the County's benefit. Cash bond shall be in the form of a cashier's check or certified check deposited with the County which has cleared all issuing institutions. Any interest accruing on such funds shall be added to the total amount and retained by the County for decommissioning. This deposit shall be accompanied by a letter agreement, acceptable to, and issued by, the Zoning Administrator, confirming that the cash deposit is to be held by the County to guarantee the performance of the decommissioning work required herein and should the Facility be abandoned, or should the decommissioning work not be diligently undertaken or performed according to the requirements herein, all as determined solely by the County, the County may expend the deposited funds to undertake the decommissioning work required herein without more after providing written notice to the person identified as owner of the Property in the land records of Spotsylvania County as of the date of the notice. Within six (6) months of the completion of the decommissioning work required herein by a person or entity other than the County or a contractor engaged by the County, as confirmed by the Zoning Administrator, the cash bond and accrued interest, less any amounts expended by the County as allowed for herein, shall be released to the person identified as owner of the Property in the land records of Spotsylvania County as of the date of the completed decommissioning or as otherwise directed by that owner of the Property.

n. An irrevocable letter of credit shall mean an instrument provided by a lending institution guaranteeing payment to the County within seventy-two (72) hours of the County's written notice to the institution that the Facility has been abandoned or the decommissioning work has not been diligently undertaken or performed according to the requirements herein and demand to the institution for the funds, without more. This letter of credit shall have no expiration date or required renewal and shall remain in effect for the benefit of the County and shall under no circumstances be withdrawn before the decommissioning work required herein is completed or the amount guaranteed has been fully drawn by the County. The letter of credit shall

require that the County be notified six (6) months prior to any cancellation or alteration of the letter of credit. Should the County receive notice that the letter of credit will be cancelled or otherwise become unavailable or decrease, the County may, without more, and without notice to the Operators, immediately draw down the entirety of the letter of credit and convert the surety to a cash bond to be deposited with the County and subject to the terms herein; this shall be specifically reflected in the language of the irrevocable letter of credit. The County may expend the guaranteed funds without more to undertake the decommissioning work required herein after providing written notice to the person identified as owner of the Property in the land records of Spotsylvania County as of the date of the notice. Within six (6) months following the completion of the decommissioning work required herein by a person or entity other than the County or a contractor engaged by the County, as confirmed by the Zoning Administrator, the letter of credit shall be released by the County.

o. The estimated costs and surety to meet the above requirements shall be reviewed by the Zoning Administrator who shall determine if the estimates adequately reflect the decommissioning costs and that the surety will guarantee performance. Should the Zoning Administrator determine that estimated costs and surety are insufficient, he shall determine adequate surety and communicate the deficiencies to the Applicant who shall then provide the adequate surety prior to the issuance of any land-disturbing permit.

p. Should the funds guaranteed for the decommissioning work for any reason not be sufficient to complete the decommissioning work, the Operators jointly and severally remain liable to the County for the difference between the guaranteed funds and the amounts required to decommission the Property. The County shall not be liable to any party in any way for the funds drawn pursuant to the conditions set out herein and expended in relation to decommissioning.

q. Should the Facility be abandoned, or should the decommissioning work not be diligently undertaken or performed according to the requirements herein as determined solely by the County and should the County draw down funds for the purpose of performing the decommissioning work herein and mobilize its contractors to perform the decommissioning work or otherwise incur liability to its contractors for the performance of the decommissioning work, the Operators shall have no right to perform the decommissioning work required herein unless specifically authorized by the County in a writing confirms that the County has incurred no liability to any contractors to perform the work or any such liability is transferrable as deemed acceptable by the County.

r. The Operators shall immediately, upon written demand by the County or any person or entity authorized to act on behalf of the County, without more, grant or release to the County, or any person or entity authorized to act on behalf of the County, under terms deemed acceptable solely by the County, all necessary real property rights, personal property rights, either or both, as determined solely by the County, other than fee simple ownership or a leasehold interest of the real property, so that the County or any person or entity authorized to act on behalf of the County may undertake any

decommissioning work required herein that has not otherwise been performed as required herein. This shall include, but not be limited to, releasing any interest in the personal property, facilities, fixtures, and structures which are to be removed and recycled, disposed or otherwise demolished.

s. Should the amount of surety guaranteed herein at any point for any reason be reduced except as allowed for herein, this Special Use Permit shall be void.

t. Decommissioning shall begin immediately after the Facility has, for a period of three (3) months, ceased operating as a solar energy facility collecting and storing energy and then transferring and distributing it to the electrical grid (the "Decommissioning Commencement Date") and shall be diligently pursued, as determined solely by the County, and completed within one (1) year from the Decommissioning Commencement Date, providing a one-year decommissioning period. Prior to its expiration, the County may extend this one year decommissioning period by six (6) months if the County finds, in its sole discretion, that the Operators commenced decommissioning the Facility immediately after the Decommissioning Commencement Date, diligently and continuously worked to decommission the Facility throughout the decommissioning period, and are reasonably expected to complete decommissioning within the additional six-month period. This provision does not in any way limit the County's authority under Section 23-4.5.7.

u. Periods during which the Facility is not operational for maintenance, repair, or due to catastrophic events beyond the Operators' control, during which the Operators work diligently to return the Facility to full operating status, shall not trigger the decommissioning requirement herein. The Operators must provide written notice and evidence of the above to the County during the period in which the Facility is not fully operational. Such notice shall include the last day on which the Facility was fully operational. Failure of the Operators to provide such written notice or evidence precludes them from contesting the County's reasonable determination of the last day on which the Facility was fully operational. Regardless of the efforts of the Operators to return the Facility to full operational status, if the Property does not operate as a solar energy facility collecting and storing energy and then transferring and distributing it to the electrical grid after the catastrophic event, for a period of two (2) years, as determined by the County in its sole discretion, the Special Use Permit shall be void and the Operators shall commence decommissioning no later than the 730th day after the last day the Facility was fully operational.

20. Prior to the issuance of a land-disturbing permit, the Applicant shall request an informal review of the Facility by the Department of Defense's Siting Clearinghouse.

B. Construction:

1. The Applicant shall comply with the "Spotsylvania Solar Energy Center Traffic Mitigation Plan" prepared by sPower dated December 13, 2019, attached hereto as "Exhibit B" and incorporated by reference herein. To the extent that the "Spotsylvania Solar Energy Center Traffic Mitigation Plan" prepared by sPower

dated December 13, 2019 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.

2. The Applicant shall shuttle at least seventy percent (70%) of the workforce to and from the site during construction. Employees ride-sharing with a minimum of three (3) employees per vehicle may contribute to this requirement. Compliance with this requirement shall be demonstrated through the Applicant's monthly provision to the County of a transportation log which provides the following information: License Plate Number, Vehicle type (Oversize Load, heavy delivery, delivery, shuttle, employee vehicle carrying three (3) or more persons, employee vehicle carrying less than three (3) persons, guest, which is someone not related to the Project or its construction), Entry time, and Exit time. "Oversize Load" shall be defined as any vehicle that requires a Hauling Permit from the Virginia Department Motor Vehicles.
3. No less than seventy percent (70%) of material deliveries shall occur between the hours of 9:00 a.m. and 2:45 p.m. from August 1 through May 31 during construction of the facility. Compliance with this requirement shall be demonstrated through the Applicant's monthly provision to the County of a transportation log which provides the following information: License Plate Number, Vehicle type (Oversize Load, heavy delivery, delivery, shuttle, employee vehicle carrying three (3) or more persons, employee vehicle carrying less than three (3) persons, guest), Entry time, and Exit time.
4. The Applicant shall fully fund any temporary or permanent signage as requested or required by the County Transportation Planner or VDOT.
5. The Applicant shall acquire and provide to the County an approved permit from the National Park Service for commercial use of the intersection of Brock Road and Orange Plank Road and any other haul routes over affected National Park Service roads.
6. The Applicant shall document the condition of all haul routes, including public and private roads, by video recordings which shall at a minimum record the full width of the roadway plus a five-(5) foot buffer. The videos shall be recorded prior to the issuance of a land-disturbing permit on a clear day and be organized by road segment.
7. Construction and operational traffic shall only use the access points to the Property identified on the GDP.
8. Entrances 2 and 8 as depicted on the GDP page EX-2-2 shall be restricted access for employees and light deliveries only. Vehicles with more than two axles are prohibited from using theses entrances.
9. All construction activity on the Property shall be limited to the following:
    a. All clearing, grading, and construction of the Property shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 6:00 p.m. Saturday. The act of replacing a broken panel on an already established array, even if located within the 400 acres of then currently disturbed land area, and the repair work required to be undertaken within twenty-four (24) hours as set out in Sections C(1)(c), C(2)(c), and C(3)(c) herein, shall be exempt from this provision;
    b. Pile driving within 500 feet of any residential property boundary shall cease no later than 5:00 p.m. daily and shall be prohibited all day on every Sunday; and
    c.

10. Oversize load deliveries are prohibited on Orange Plank Road, West Catharpin Road, and Post Oak Road during prime school bus traffic between the hours of 6:10 a.m. and 8:40 a.m. and 2:45 p.m. and 4:30 p.m., or any amendment thereof due to inclement weather, during the Spotsylvania County Public Schools instructional year. The Applicant shall designate at least one public liaison and publicize a toll-free phone number and email address for communication with the liaison during construction. At a minimum, the information shall be published on the Applicant's website and provided to the County's Public Information Officer ("PIO") for publication on the County's website and other social media. The liaison shall act as a point of contact between citizens and construction crews. The liaison shall be available in person and by phone during active construction hours and shall respond to any questions related to the Facility or Property. The liaison role shall commence prior to issuance of a land-disturbing permit and remain a minimum of six (6) months following issuance of the final Certificate of Occupancy for the Facility. The liaison shall prepare a monthly report detailing the complaint, complaint date, resolution, and resolution date. The report shall be provided to the Zoning Administrator on the first business day of each month throughout the construction period and an additional six (6) months following issuance of the final Certificate of Occupancy for the Facility.
11. Advance notice shall be mailed by first class mail to properties within 1,000 feet of a pile driving location no less than seven (7) days prior to the start of such activities and shall include the estimated start date, estimated end date, and the liaison's contact information. The notice and a list of recipient addresses shall also be mailed to the Zoning Administrator no less than seven (7) days prior to the start of such activities.
12. The following noise-reducing practices shall be followed to reduce construction noise:
    a) Trucks and engine-powered equipment shall include mufflers and engine shrouds no less effective than those originally installed by the manufacturer;
    b) Trucks and engine-powered equipment shall be maintained in proper tune according to manufacturers' specifications;
    c) Truck engine exhaust braking shall be limited to emergencies; and
    d) The use of noise-producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only.
13. Construction staging areas, parking areas, portable sanitation facilities, and solid waste collection areas shall be set back a minimum of 500 feet from any residential property boundary, and the area shall be shielded from view, and shall employ sound dampening shrouds, barriers, fencing, and/or berms to reduce noise impacts.
14. The Applicant shall participate in a Joint Construction Traffic Reaction Team, which shall also include County Staff and should include the Virginia Department of Transportation (VDOT), the Spotsylvania County Sheriff's Office, and the Virginia State Police to identify and expeditiously resolve or mitigate traffic issues that arise during the construction phase of the Facility. The Applicant shall assist in resolving and implementing solutions to traffic issues.
15. Prior to issuance of a land disturbing permit, the Applicant shall secure a VDOT Land Use Permit and post surety for the estimated cost of repairs to public roads based on an estimate reviewed and approved by the County's Transportation Planner, currently Doug Morgan, and VDOT.

16. Any pavement damage to roads, including shoulders and aprons, attributable to construction of the Facility shall be repaired by the Applicant within 120 days of issuance of the final Certificate of Occupancy for the Facility at the Applicant's expense or within forty-eight (48) hours after receiving notice from the County's Transportation Planner that the damage has made a road unsafe.
17. Wildlife corridors shall be established through the preservation of on-site resource protection areas (singular is "RPA" while plural is "RPA's") and the supplementation of raised wildlife-compatible fencing in order to establish a minimum of three (3) passages, each of which each shall cross the entirety of the site to allow small wildlife unimpeded passage through the Facility, including:
    a. Raised wildlife-compatible fencing shall be used to connect the Whitehall Creek RPA, to the isolated wetland immediately west, to the intermittent stream further west on GDP page EX 1-7.
    b. Raised wildlife-compatible fencing shall be used to connect the Shanty Bridge Creek Stream with the two unnamed streams to the south, opposite of the enclosed array area on GDP page EX 1-5.

C. Erosion and Sediment Control

Unless specifically defined in this Section C, all terms and abbreviations used herein shall be as defined in Spotsylvania County Code of Ordinances, Chapters 6A, 8, and 19A.

1. Stormwater Conveyance Channels and Sediment Basins
    a. Stormwater conveyance channels ("SCC") and diversion ditches shall be designed for permanent stormwater control and shall utilize check dams or weirs to control sediment transport. Rock check dams shall be installed in SCC immediately following construction and the establishment of final grade. Check dams shall be installed per the Virginia Erosion and Sediment Control Handbook ("VESCH") or per Virginia Department of Transportation ("VDOT") detail EC-4 standards and details as applicable. Check dams should be evaluated for sediment accumulation after each runoff-producing storm event and remediated as necessary to maintain function.
    b. SCC, vegetated swales, or diversion dikes shall be installed to divert overland sheet flow or shallow concentrated flow to a stabilized outlet or a sediment trapping facility during construction. When used at the top of a slope, the structure shall protect exposed slopes by diverting storm run-off away from the slopes to a stabilized outlet or sediment trapping device. When used at the base of a slope, the SCC shall protect downslope areas by diverting sediment-laden runoff to a sediment-trapping facility or stabilized outlet.
    c. Sediment basins shall be equipped with measuring devices to accurately determine the sediment capacity of the basin. Sediment shall be removed from basins when accumulation reaches twenty-five percent (25%) of the required wet storage volume for each individual basin. In no case shall sediment cleanout levels be higher than one (1) foot below the bottom of the de-watering device. Remediation crews shall remove sediment or to be able to correct any Erosion and Sediment Control ("ESC") issues within twenty-four (24) hours. The daily presence of these crews shall be indicated

in the monitoring report. When Sediment Basins or traps are cleaned the intended use and location of the removed material shall be indicated in the monitoring report.

d. ESC measures shall be installed as a first step in any land disturbing activity area and shall be made functional before upslope land disturbance takes place. Unless subject to stricter standards set out herein, all ESC measures shall at a minimum comply with VESCH and VDOT standards and details as applicable. Unless subject to stricter standards set out herein, the overall ESC plan shall comply with VESCH minimum standards.

2. Monitoring and Reporting

a. The Applicant shall have one Responsible Land Disturber ("RLD") and at least one certified Erosion Control Inspector ("ECI") per land-disturbing activity area. These land-disturbing activity areas shall not exceed 400 acres in aggregate within the Project at any one time. Once land is stabilized, it shall not count towards the 400 acres of disturbed land. Stabilization and whether an area is fully stabilized shall be determined solely by the Erosion and Sediment Control/Virginia Stormwater Management Program Administrator ("Program Administrator"). The RLD and ECI shall both be required to be knowledgeable of environmental permit compliance requirements, be experienced in ESC and Storm Water Management ("SWM") Best Management Practice ("BMP") installation, operation, and maintenance requirements. The RLD will also keep a daily log of activity documenting all Facility activities, including, but not limited to, construction, environmental permit compliance and corrective measures implemented, site visitors (i.e. non-Project staff), waterbody and wetland crossings, and ESC installation and maintenance activities.

b. The RLD shall provide e-reporting to a central File Transfer Protocol ("FTP") site to which the Program Administrator shall be granted access. Reports will be submitted no later than next day following any inspections and shall include the inspection report for each disturbed area of development. Site inspections and reports shall be conducted and reported at a minimum as required by the Virginia Stormwater Management Program ("VSMP") permit. Any corrective actions done in the field shall be e-mailed to the Program Administrator within twenty-four (24) hours of completion.

c. Post-rainfall event inspections shall be required for any runoff-producing event (equal to or greater than one quarter (0.25) inches of rain within a twenty-four (24)-hour time period) and shall be maintained on site and logged in an e-report uploaded to a central FTP server to which the Program Administrator shall be granted access. Inspectors shall evaluate erosion control measures and sediment basins to determine if maintenance is required. Any remediation that is required shall be performed immediately and reported to the Program Administrator within twenty-four (24) hours.

d. Water quality testing shall occur through the use of a stream gauge, which collects data on rainfall, turbidity and sediment loads, and pollutant loads. These gauges shall be placed at each intake and discharge point on the site, as determined by the Program Administrator. The testing shall be reported in a monthly Water Quality Discharge Report which shall provide a summary of marginal increases or decreases of the measurements.

3. Site Stabilization Conditions

a. Windrows, filter socks, or slope breaks shall be constructed interior to array fields using soil, organic material, or mulch to reduce runoff velocity and sediment. These devices shall be a minimum six (6) inches in height above final grading. These devices shall be installed parallel to slope with a maximum spacing of 200 feet, or as needed based on slope and drainage area. These devices shall be maintained during site stabilization process and may remain during operation.

b. Sediment barriers such as silt fences, mulch berms, or brush barriers shall be used to temporarily intercept and detain small amounts of sediment from disturbed areas of limited extent and to decrease the velocity of sheet flows. Temporary sediment barriers shall be installed at the base of slopes adjacent to road crossings until disturbed vegetation has been reestablished.

c. Sediment barriers shall be inspected daily by the Applicant in accordance with Virginia Erosion and Sediment Control Program ("VESCP") and VSMP guidelines to identify any damage incurred during construction and after each runoff-producing rainfall as defined in C.2.c herein. The inspection reports shall be emailed to the Program Administrator within twenty-four (24) hours of a qualifying rainfall event. Sediment barriers that are not functioning properly must be cleaned and restored to good working condition or replaced immediately.

d. All disturbed soils shall be seeded and temporarily stabilized within seven (7) days after final grade is reached on any portion of the Property. Seed mixes used for permanent stabilization shall provide self-propagating, low maintenance groundcover that will minimize erosion and sedimentation while providing wildlife and pollinator habitat benefits.

e. Drill seeding shall be used as the primary mechanism for installation of seed. In areas where access is limited, hydroseed or spraying of seed is an approved method of application. In areas that are drill seeded, mulch shall not exceed a depth which inhibits germination, as field-determined. All seeding installation, bed preparations, seed mixes, lime, fertilizer, and mulch shall meet VESCH minimum standards and specifications for permanent and/or temporary seeding as applicable.

f. Slopes thirty-three percent (33% (3:1)) or steeper shall be stabilized with steep slope soil stabilization blankets or erosion control fabric, such as bonded fiber blankets or jute thatching. The blanket shall be

nontoxic to vegetation and to the germination of seed and shall be entwined and anchored to the slope.

D. Burning and Fire, Rescue, and Emergency Management

1. The Applicant shall follow the policies and procedures contained in the "Emergency Management Plan – Construction", prepared by sPower and dated November 19, 2018, attached hereto as "Exhibit C" and incorporated herein by reference, throughout the course of the Facility's construction. To the extent the "Emergency Management Plan – Construction", prepared by sPower and dated November 19, 2018 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
2. The burning of timber waste or any other matter shall be strictly prohibited.
3. The Applicant shall follow the policies and procedures contained in the "Emergency Response Plan – Operations", prepared by sPower dated November 19, 2018 attached hereto as "Exhibit D" and incorporated herein by reference. To the extent the "Emergency Response Plan – Operations", prepared by sPower and dated November 19, 2018 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
4. The Applicant shall follow the policies and procedures contained in the "Site Specific Safety Plan – Construction", prepared by sPower and dated November 19, 2018 attached hereto as "Exhibit F" and incorporated herein by reference. To the extent the "Site Specific Safety Plan – Construction", prepared by sPower and dated November 19, 2018 is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
5. The Applicant shall install signage within the Facility and provide a Wayfinding Map, that shows each road segment within the Facility with a designated name and/or identifier and each array with an individual identifier, to the Fire Chief, currently Jay Cullinan, prior to the approval of any site plan or land disturbing permit.
6. Access road aggregate material shall be placed in accordance with the requirements of the applicable specifications governing the type of material or construction being used and shall be compacted at optimum moisture, within ± two (2) percentage points of optimum per Appendix C of VDOT's Road & Bridge Specifications. These access roads shall further be designed and constructed to International Code Council Section 503 for adequate FREM access.
7. All internal crossings shall be permanent and be designed to a minimum of FAST Act standards for EV2 and EV3 class vehicles, with a rating defined as H-20 per the VDOT IIM-S&B-86.1 guidance document.
8. As each portion of the Facility becomes operational the Applicant shall install and maintain video cameras throughout said portion, and, upon completion, the entire Facility shall be covered by comprehensive remote surveillance. The cameras shall be monitored twenty-four (24) hours a day by the Applicant for potential security, hazard, and general maintenance concerns. These camera feeds shall be recorded and recordings shall be retained a minimum of six (6) months and shall be made available upon request in cases of emergency as determined by the County Fire Marshal or the County Sheriff,
9. Two (2) 50,000-gallon water tanks shall be located on the Property and those tanks shall provide off-site access for FREM use in an emergency at a location approved by

the Fire Chief. The tanks shall remain at least fifty-(50) percent full at all times in order to serve potential FREM needs.

10. A minimum twenty-(20) foot-wide fire break shall be maintained within the Property between the arrays, inverters, and generators and the Property boundary. Portions of the fire break that are vegetative shall be mowed and maintained to a height of four (4) inches or less. Fire breaks may include surface materials, such as gravel, provided they are devoid of all combustible materials.
11. The storage of mulched timber waste ("Mulch") on site shall be limited in accordance with the following:
    a. Mulch storage shall be set back a minimum of 500 feet from the Property boundary.
    b. Mulch storage shall not be located within any RPA.
    c. Stored Mulch shall be kept in piles or rows which shall not exceed ten (10) feet in height, fifteen (15) feet in width, and 150 feet in length.
    d. Stored Mulch shall not be compacted.
    e. Piles and rows of stored Mulch must be separated by a minimum of ten (10) feet from any other mulch pile or row.
    f. Piles and rows of stored Mulch shall be regularly wetted to maintain a minimum fifty percent (50%) moisture content.
    g. Piles and rows of stored Mulch shall be turned or reassembled at least once every ninety (90) days.
    h. Piles and rows of stored Mulch shall be monitored weekly by taking an internal temperature reading at the center of the pile; if mulch is stored in a row then internal readings shall be taken every twenty (20) linear feet.
    i. Piles and rows of stored Mulch shall be immediately wetted and turned or reassembled in the event an internal temperature reading reaches a minimum 160 degrees Fahrenheit.
    j. Piles and rows of stored Mulch shall be immediately turned or reassembled if the internal temperature reaches a minimum 140 degrees Fahrenheit.

E. Landscaping, Maintenance, Setbacks, and Buffers:
1. The Applicant shall follow the Invasive Species Management Plan which is attached hereto as "Exhibit E" and is incorporated by reference herein. To the extent the Invasive Species Management Plan is contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
2. Inverters and generators shall be set back a minimum of 400 feet from the boundary of the Property.
3. No structure, improvement, or equipment, including but not limited to, solar arrays and supporting structures, shall be located within 350 feet of the Property boundary. This shall not apply to construction or maintenance equipment, which is temporary in nature, during the periods when it is actively being used during construction or maintenance activities. This setback shall not apply along any boundary shared between the Property and another property owned by the Operators.

4. The minimum setback of any structure, improvement, or equipment, including but not limited to, inverters, generators, and solar arrays and supporting structures, from any VDOT right-of-way shall be fifty (50) feet. This shall not apply to construction and maintenance equipment which is temporary in nature during the periods when it is actively being used during construction or maintenance activities.
5. Fencing, berms, landscaping, access roads, bridges, and above-ground utility poles are exempt from these setbacks.
6. No trees shall be removed from any fifty- (50) foot setback area or fifty-(50) foot preserved buffer as shown on the GDP except for the removal of non-native species (which is anything not included in the native species list in the County's DSM), hand-clearing for safety or the removal of dead or dying trees, or any clearing necessary for ingress/egress or infrastructure connectivity.
7. Buffer plantings shall be planted in accordance with the GDP's Landscaping Plan except that:
    a) Only earth, which is defined as soil, shall be used to create any berms on the Property.
    b) Residential structures adjacent to the Property, which are not separated from the Property by a minimum of forty (40) feet of the Applicant's preserved woodlands, and which are located 300 feet or less from the Property's boundary shall be screened with a bermed buffer consisting of a minimum eight-(8) foot-high earthen berm planted with a minimum of one (1) evergreen tree with a minimum height of six (6) feet every ten (10) feet, one (1) large deciduous tree with a minimum trunk caliper of two (2) inches measured six (6) inches from the ground every fifteen (15) feet, one (1) understory deciduous tree with a minimum trunk caliper of two (2) inches measured six (6) inches from the ground every fifteen (15) feet, one (1) evergreen shrub with a minimum height of four (4) feet every ten (10) feet.
    c) Residential structures located 300 feet or less from the Property boundary which are separated from the Property by a minimum of forty (40) feet of the Applicant's preserved woodlands, or residential structures located 600 feet or less from the Property's boundary, or adjacent to VDOT right-of-way, shall be screened with a landscaped buffer consisting a minimum of one (1) evergreen tree with a minimum height of six (6) feet every fifteen (15) feet and one (1) large deciduous tree with a minimum trunk caliper of two (2) inches measured six (6) inches from the ground every ten (10) feet.
    d) At site plan, all buffers shall be designed by a certified landscape designer or landscape architect to minimize visibility, maximize survivability, and minimize losses from deer or other wildlife consumption.
    e) All berms shall be landscaped, and installed shall have a minimum six-(6) foot wide planting area on top of the berm.
    f) Aside from landscaping required atop all berms, other plantings shall be placed outside of any landscaped berm, relative to the interior of the Property boundary.
    g) Plant and tree species shall be installed as early as possible following establishment of erosion and stormwater management controls, and shall

be selected based upon their ability to provide the desired screening after two (2) years of growth.

h) A variety of native trees shall be used, to include a mix of deciduous and evergreen, which shall be environmentally friendly and compatible with local wildlife.

i) A variety of native plants shall be used, which shall be environmentally friendly and compatible with local wildlife.

j) Supplemental plantings in buffer areas that are needed to provide additional screening shall be in conformance with the County's DSM. Determination as to whether these supplemental plantings, and whether trees or plants, are needed to meet the screening requirements set out herein or in the GDP, shall be solely at the discretion of the Planning Director.

k) Landscaped berms shall be located outside of any fencing, relative to the interior of the Property boundary.

l) Landscaped berms shall be installed with each phase of the Facility's development during site grading and prior to the driving of pilings within 1,000 feet of the required berm.

m) Understory vegetation and seeding shall conform with the County approved seed list.

n) The planting on or within the Dominion easement, as set out in the GDP, on the north side of Catharpin Rd. shall be as depicted in the GDP and plantings shall be a minimum of four (4) feet tall at time of planting.

o) The landscaping bond as required by Article 6 of the DSM shall be in effect for three (3) years after the planting of landscaping. Because the landscaping is to be done in phases, this bond will not be fully released until the last of the landscaping is completed and three (3) years has elapsed from that date.

F. Biological:

1. A minimum of a four (4) person landscaping team with necessary equipment, supplemented by additional staffing and equipment as needed during high-growth rate periods, shall minimize uncontrolled and/or undesired growth.
2. The Applicant shall follow the requirements of Exhibit E as applicable to these provisions in F. To the extent the relevant portions of Exhibit E are contrary to the conditions herein, as determined solely by the County, the conditions herein shall supersede and control.
3. Herbicide use shall be limited to non-residual herbicides that break down in the soil within fourteen (14) days.
4. Herbicides and fertilizers shall be applied following manufacturers specifications and shall not be applied during rain, when wind speed exceeds ten (10) miles per hour, or within fifty (50) feet of any surface water body.
5. Fertilizers shall not contain phosphorus, except that fertilizers applied during construction in order to establish vegetative growth may contain phosphorus if determined necessary to support the growth. Fertilizer composition as regulated by Sec. 10.1-104.2 of the Code of Virginia shall be based upon soil testing. All fertilizers shall be applied by a Certified Fertilizer Applicator and fertilizer shall only be applied at rates, times, and by methods that are consistent with standards

and criteria for nutrient management promulgated pursuant to Sec. 10.1-104.2 of the Code of Virginia.

6. Pesticides shall be limited to biorational pesticides and shall be applied by a licensed pest control professional.
7. Only biodegradable soap and water may be used for cleaning of solar panels during operation of the Facility.
8. No disturbance is permitted to occur within the identified potential Small Whorled Pogonia Suitable Habitat and high-visibility fencing shall be placed coincident with this area clearly identifying that the area as protected.
9. The Applicant shall ensure employees are trained to identify the Loggerhead shrike and the Northern long-eared bat, and be instructed to contact the Virginia Department of Game and Inland Fisheries (VDGIF) should either species be identified.
10. The Applicant shall not plant and shall remove invasive species identified in Virginia Department of Conservation and Recreation's "Virginia Invasive Plant Species List" and the Department of Environmental Quality's invasive seed in the "Frequently Asked Questions (FAQ) Native vs. Invasive Plant Species for Erosion and Sediment Control" dated April 2017.
11. Seed mixtures shall be developed and identified on the Landscape Plan of the Site Plan based on guidance from the Department of Environmental Quality (DEQ) related to invasive species and utilizing the Department of Conservation and Recreation (DCR)'s Virginia Solar Site Native Plant Finder.
12. The Applicant shall spread pollinator supportive seed mixture within a minimum of fifty percent (50%) of new landscape buffers and adopt best management practices to increase pollinator activity during operation of the facility in order to achieve a minimum score of 145 points on the Virginia Department of Conservation and Recreation's "Virginia Solar Site Pollinator/Bird Habitat Scorecard" dated March 2018.
13. Rumble Strip Locations shall be in place during construction to reduce the introduction of invasive seeds.

G. Cultural:

1. No land disturbance is to occur within 100 feet of the cemeteries identified on GDP pages EX-1-4 and EX-1-6 and high-visibility fencing shall be placed coincident with this buffer clearly identifying the area as protected.
2. The Applicant shall grant trail easements for future trail development for the segments of the Virginia Central Railroad, Po River, Todds Tavern Spur, and Lake Anna State Park Connector located on the site, as depicted on GDP page Ex-2-3. The easements shall be granted to the County at no cost pursuant to the County's Trailways Master Plan. The trail easements shall not be obstructed by barriers including, but not limited to, fences and locked gates. The trail easements, consistent with the County's DSM, shall be granted and recorded among the land records of Spotsylvania County within six (6) months of the issuance of the Certificate of Occupancy for the Facility. The trail easements granted shall in no way legally or practically encumber the County's or other party's ability to construct or utilize the easements for the segments of the Virginia Central Railroad, Po River, Todds Tavern Spur, and Lake Anna State

Park Connector located on the site, as depicted on GDP page Ex-2-3 as determined by County Staff.

H. Water:

1. The Applicant shall only utilize public water during the construction and operations phases of the Facility. No on-site groundwater shall be used during the construction or operation of the Facility. Wells shall only be accessed to perform water testing.
2. Any connection by the Applicant to the public water system for bulk use (greater than a single ¾" meter) shall be controlled by the Spotsylvania County Utilities Department ("Utilities Department") in a manner that will not negatively impact the existing distribution system. Said connection shall include a pressure sustaining function and flow control function, with the setting of those functions at the discretion and direct control of the Utilities Department. The County does not guarantee any volume of bulk withdrawal available to the Applicant
3. For the Project, bulk withdrawal from the 531-foot pressure zone as determined by the Utilities Department shall be limited to between the hours of 10 p.m. and 4 a.m. with a maximum aggregate volume usage of 69,000 gallons per day from October to April and 56,000 gallons per day from May to September.
4. For the Project, bulk withdrawal from an upgraded public water system shall be limited to between the hours of 10 p.m. and 4 a.m. with a maximum aggregate volume usage of 166,000 gallons per day from October to April and 153,000 gallons per day from May to September. Upgraded public water system referenced above shall be defined as increasing the water transmission main size within the 531-foot pressure zone from twelve (12) inches to sixteen (16) inches from the existing Lake Bottom Booster Station to the main 12-inch loop feed within the Fawn Lake Subdivision. This will include all appurtenances (i.e., fire hydrants, pressure reduction valves, etc.) as required by the Utilities Department.

BE IT FINALLY RESOLVED that the Spotsylvania County Board of Supervisors' approval and adoption of any conditions does not relieve the applicant and/or subsequent owners from compliance with the provisions of any applicable Spotsylvania County Ordinances, rules, regulations, or adopted standards. To the extent anything in this Special Use Permit is less restrictive than the County's Ordinances, or its rules, regulations, or adopted standards, the lessened restriction shall be superseded and the County's Ordinances, or its rules, regulations, or adopted standards shall control and be applicable to the approved use, but the superseded condition shall not be deemed unlawful, unenforceable, or otherwise rendered void so as to void the Special Use Permit as set out below. The Spotsylvania County Board of Supervisors' decision to approve this Special Use Permit is predicated on the Spotsylvania County Board of Supervisors' understanding that the above conditions the Spotsylvania County Board of Supervisors hereby imposes upon this Special Use Permit are valid, lawful, and shall apply to the approved use for the life of the use; therefore, these conditions, independently and in the aggregate, are not severable from the Spotsylvania County Board of Supervisors' action to approve this Special Use Permit. Should any condition imposed by this Special Use Permit be found to be unlawful, unenforceable, or otherwise rendered void, this Special Use Permit shall be void and the use shall be deemed unlawful.

(SEAL) A COPY TESTE: _____

Aimee Mann
Deputy Clerk to the Board of Supervisors

AYES: _____ NOES: _____ ABSTAIN: _____

ADOPTED: _____ REJECTED: _____ STRICKEN: _____

Generalized Development Plans Spotsylvania Solar Energy Center A Special Use Permit—SUP 18-0001 Livingston Magisterial District Spotsylvania County, VA, dated November 20, 2018

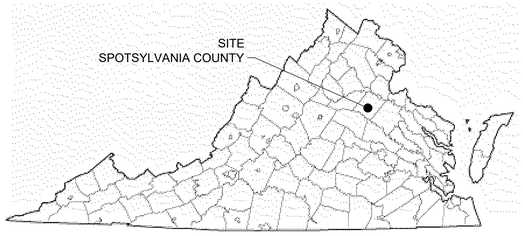
GENERALIZED DEVELOPMENT PLANS

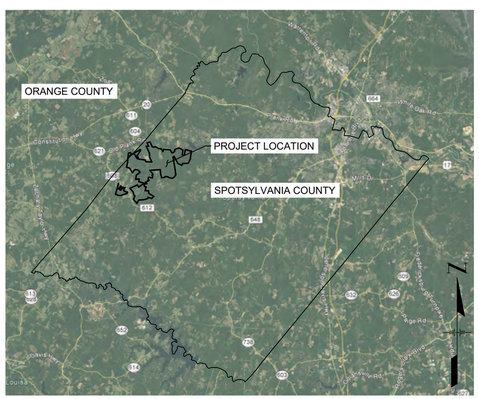
SPOTSYLVANIA SOLAR ENERGY CENTER A

SPECIAL USE PERMIT - SUP 18-0001

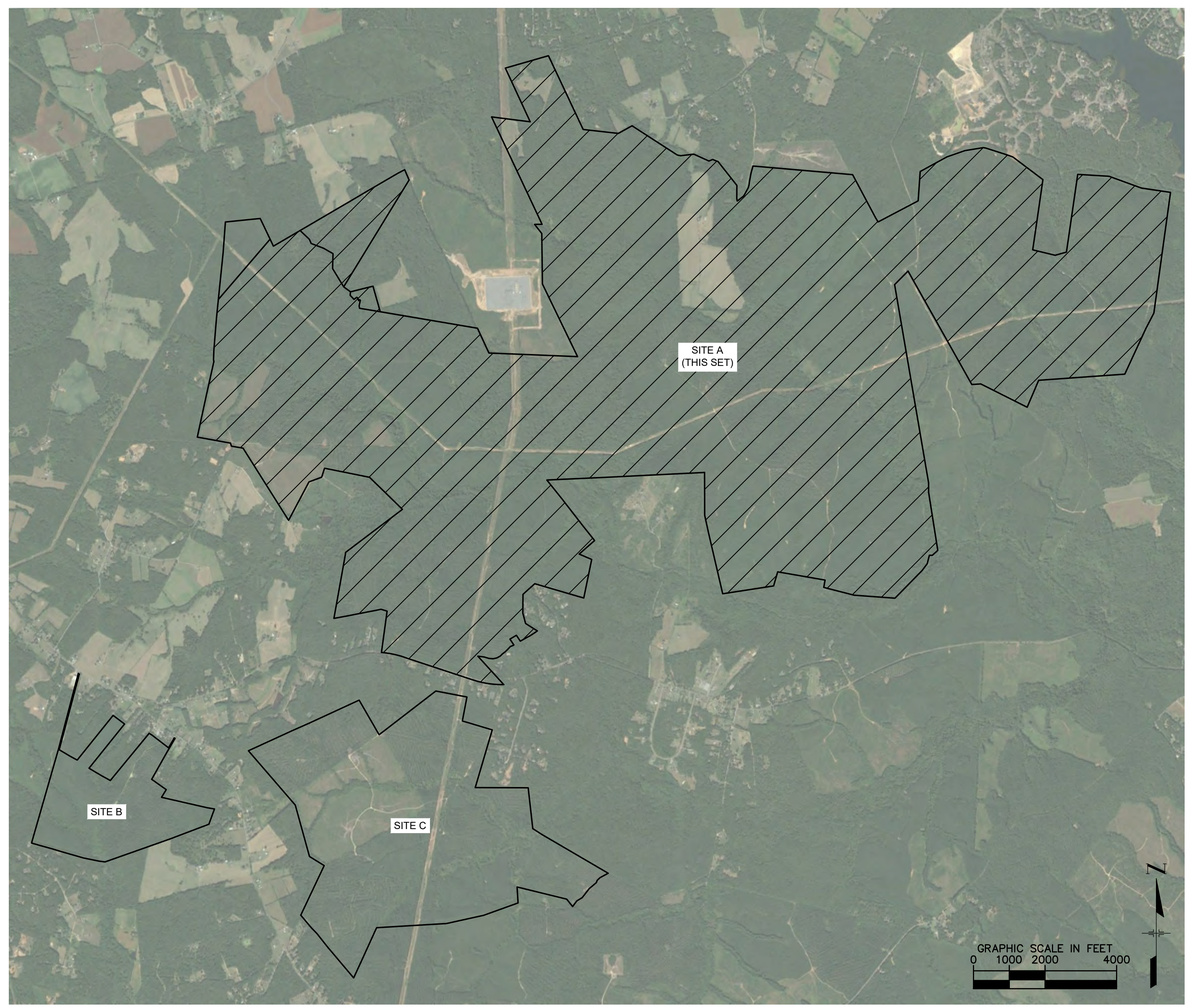
LIVINGSTON MAGISTERIAL DISTRICT

SPOTSYLVANIA COUNTY, VA





VICINITY MAP - SPOTSYLVANIA COUNTY, VA
1" = 30,000'



VICINITY MAP - PROJECT LIMITS
1" = 2,000'

SPOTSYLVANIA SOLAR ENERGY CENTER	
OWNER	sPOWER
EXISTING AND PROPOSED ZONING	AGRICULTURE 3 (A-3)
EXISTING USE	SILVICULTURE
PROPOSED USE	SOLAR ENERGY FACILITY
TOTAL POWER TO BE GENERATED	500 MEGAWATTS AC (MWac)
OVERALL PROJECT SITE DATA:	
PROPERTY AREA	6,350 ACRES
DISTURBED AREA	3,500 ACRES
POWER GENERATED	500 MWac
SITE A DATA:	
PROPERTY AREA	5,200 ACRES
DISTURBED AREA	2,800 ACRES
POWER GENERATED	400 MWac
SITE B DATA:	
PROPERTY AREA	245 ACRES
DISTURBED AREA	200 ACRES
POWER GENERATED	30 MWac
SITE C DATA:	
PROPERTY AREA	905 ACRES
DISTURBED AREA	500 ACRES
POWER GENERATED	70 MWac

OWNER/APPLICANT

sPOWER
2180 SOUTH 1300 EAST, SUITE 600
SALT LAKE CITY, UT 84106
PHONE: 801-679-3513
CONTACT: DANIEL MENAHEM
EMAIL: DMENAHEM@SPOWER.COM

CIVIL ENGINEER

KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400
RESTON, VA 20191
PHONE: 703-674-1337
CONTACT: SEAN MILLOT, P.E.
EMAIL: SEAN.MILLOT@KIMLEY-HORN.COM

Sheet List Table

Sheet No.	Sheet Title
C-01	GENERALIZED DEVELOPMENT PLAN COVER
EX-1-0	GENERALIZED DEVELOPMENT PLAN - OVERALL
EX-1-1	GENERALIZED DEVELOPMENT PLAN - 1
EX-1-2	GENERALIZED DEVELOPMENT PLAN - 2
EX-1-3	GENERALIZED DEVELOPMENT PLAN - 3
EX-1-4	GENERALIZED DEVELOPMENT PLAN - 4
EX-1-5	GENERALIZED DEVELOPMENT PLAN - 5
EX-1-6	GENERALIZED DEVELOPMENT PLAN - 6
EX-1-7	GENERALIZED DEVELOPMENT PLAN - 7
EX-1-8	GENERALIZED DEVELOPMENT PLAN - 8
EX-1-9	GENERALIZED DEVELOPMENT PLAN - 9
EX-2-0	PRESERVATION AREA PLAN
EX-2-1	LANDSCAPE AND BUFFER AREA PLAN
EX-2-2	ACCESS ROAD SERVICE AREAS
EX-2-3	COUNTY TRAIL OVERLAY MAP
CD-1	CIVIL DETAILS
SHEETS 1-17	ALTA SURVEY

OWNER INFORMATION - SITE A

OWNER	TAX MAP PARCEL NUMBER
RIVEROAK TIMBERLAND INVESTMENTS LLC	28-A-71
	29-A-2A
	29-A-2
	28-A-77
	16-A-1
	29-A-24
	29-A-25
	29-A-26
	29-A-27
	17-A-47
	29-A-28
	29-A-22
	18-A-15
	18-A-20
	29-A-7
CHARLES WOOLFREY CONSTRUCTION INC	28-A-1
	28-A-78
ROBERT S COLEMAN JR	29-A-1
GARY THOMAS WOOLFREY	28-A-79
GOODWIN BROTHERS LUMBER COMPANY, LLC	30-A-1
	18-A-16
MEADOWS ENTERPRISES	17-A-4
	17-A-3
	17-5-19
	17-A-3A
	17-A-48
MWD PROPERTIES 2009, LLC	17-A-7

PROJECT INFORMATION - SITE A

AIRPORTS

NO KNOWN AIRPORTS WITHIN A 5-MILE RADIUS OF SITE A.

CULTURAL RESOURCES

TWO KNOWN PLACES OF BURIAL ON OR NEAR PROXIMITY OF PROJECT. NO HISTORIC BUILDINGS EXIST AT THE PROJECT SITE.

TRAFFIC INFORMATION

- VOLUMES SUBJECT TO CHANGE BASED ON TRAFFIC IMPACT STUDY RESULTS
- SEE TRAFFIC IMPACT ANALYSIS AND EXHIBITS FOR ADDITIONAL TRAFFIC DISTRIBUTION AND RECOMMENDATIONS
- PROPOSED CONSTRUCTION TRAFFIC: 700 VEHICLES PER DAY

IMPERVIOUS AREAS*

	TOTAL	AREA (SF)	AREA (AC)
SOLAR PANEL POST** (0.11 SF EACH)	217,680	23,945	0.55
INVERTER PAD (40' X 10')	195	78,000	1.79
GRAVEL DRIVES (12' WIDTH)	215,439 LF	2,585,268	59.35
TOTAL IMPERVIOUS ACRES			61.69
TOTAL IMPERVIOUS % OF SITE			1.19%

*IMPERVIOUS AREAS SHOWN FOR THE SITE ARE FOR PRELIMINARY USE ONLY, NOT TO BE USED FOR DESIGN PURPOSES.
**PER DEQ REGULATIONS, ONLY POLE MOUNTINGS FOR THE SOLAR PANELS ARE TO BE USED TO CALCULATE IMPERVIOUS AREA. ASSUMED SPACING OF 15' SUBJECT TO FINAL ENGINEERING.

WATER QUALITY (VRRM)*

TP LOAD REDUCTION REQUIRED (LB/YR)	377.09
ACRES PLACED IN CONSERVATION AREA	1,173.01

***WATER QUALITY VALUES SHOWN FOR THE SITE ARE FOR PRELIMINARY USE ONLY, NOT TO BE USED FOR DESIGN PURPOSES.

SOLID WASTE DISPOSAL CALCULATIONS FOR CONSTRUCTION FOR SITES A, B, AND C

Step 3: Identification of Collection Method

Container Type (Compactors, Roll Off, Dumpsters, Carts)	Size (Cubic Yards)	Number of Containers	Number of Pickups Per Week	Material (Trash or Recycle)
Dumpster	40 YD	2	1	Trash
Dumpster	40 YD	4	2	Recycle

Spotsylvania County
Non Residential Waste Generation Report
The purpose of this report is to calculate the annual waste stream generated from a proposed project and to ensure adequate collection service is provided.

Step 1: Determination of Annual Waste Generation

Complete the table for the proposed project being submitted. In the column labeled "Floor Area" enter the amount of square feet being occupied by each use. Multiply each square footage figure by the corresponding value in the "Annual Waste Generation Rate" column, and then list the value in "Annual Tonnage" column. Add all values in the "Annual Tonnage" column and enter the total sum in "Combined Annual Waste Stream."

Building Use	Floor Area (square feet)		Annual Waste Generation Rate (tons/sq.ft.)		Annual Waste Generation Rate (Tons)
Office	2000	X	0.0013	=	3.25
Industrial		X	0.0016	=	0
Food/Retail		X	0.0057	=	0
Public Facility		X	0.00105	=	0
Institution/School		X	0.00105	=	0
Warehouse		X	0.00155	=	0
Combined Annual Waste Stream					3.25

Step 2: Determination of Minimum Storage Capacity

Determination of Minimum Storage Container and/or Dumpster Size (With Onsite Recycle Program)

Combined Annual Waste Stream		Cubic Yards Per Ton		Number of Annual Collections (Minimum 52)		Number of Containers (Minimum 2)		Minimum Size of Each Storage Container or Dumpster (Cubic Yards)
3.25	X	4.44	=	52	=	2	=	0.14

Determination of Minimum Storage Container and/or Dumpster Size (Without Recycle Program)

Combined Annual Waste Stream		Cubic Yards Per Ton		Number of Annual Collections (Minimum 52)		Number of Containers (Minimum 1)		Minimum Size of Each Storage Container or Dumpster (Cubic Yards)
3.25	X	4.44	=	52	=	1	=	0.28

Per design standard the project must provide accommodation for future onsite recycling.
Sufficient area shall be provided at the collection center to accommodate a minimum of two (2) containers or more, of equal capacity, with 1/2 of the total capacity used for refuse collection and 1/2 of the total capacity used for recycle collection.

Step 3: Identification of Collection Method

Container Type (Compactors, Roll Off, Dumpsters, Carts)	Size (Cubic Yards)	Number of Containers	Number of Pickups Per Week	Material (Trash or Recycle)
Dumpster	10	1	0.5	Trash

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APPROVAL

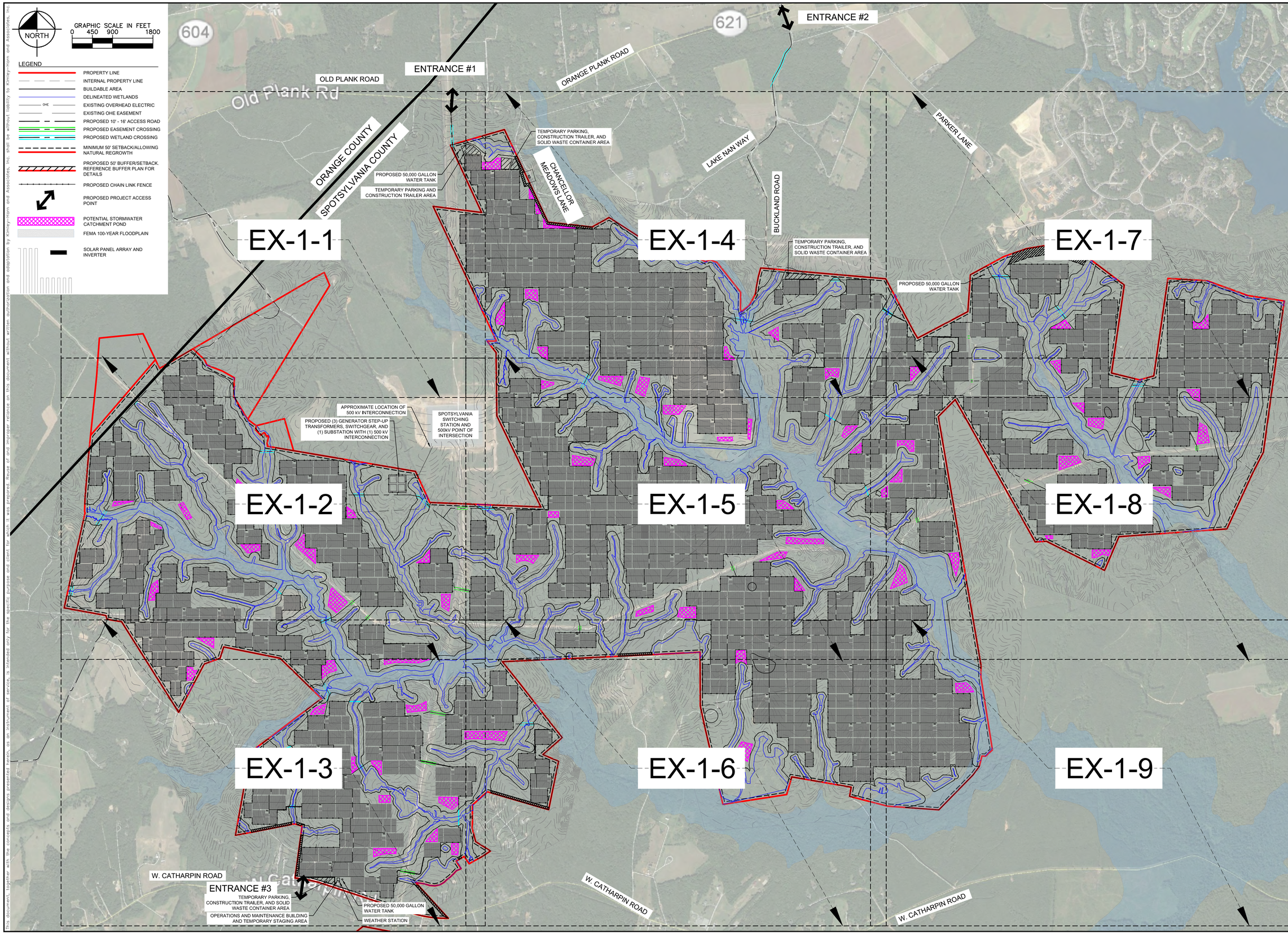
COMMONWEALTH OF VIRGINIA
SEAN MILLOT
Lic. No. 0402052332
11/20/2018
PROFESSIONAL ENGINEER

KHA PROJECT 116626000
DATE 11/20/2018
SCALE AS SHOWN
DESIGNED BY JRB
DRAWN BY JRB
CHECKED BY SMM

SUP 18-0001
GENERALIZED DEVELOPMENT PLAN COVER

SPOTSYLVANIA SOLAR ENERGY CENTER A
PREPARED FOR S-POWER
SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
C-01



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10/26/2018
PROFESSIONAL ENGINEER

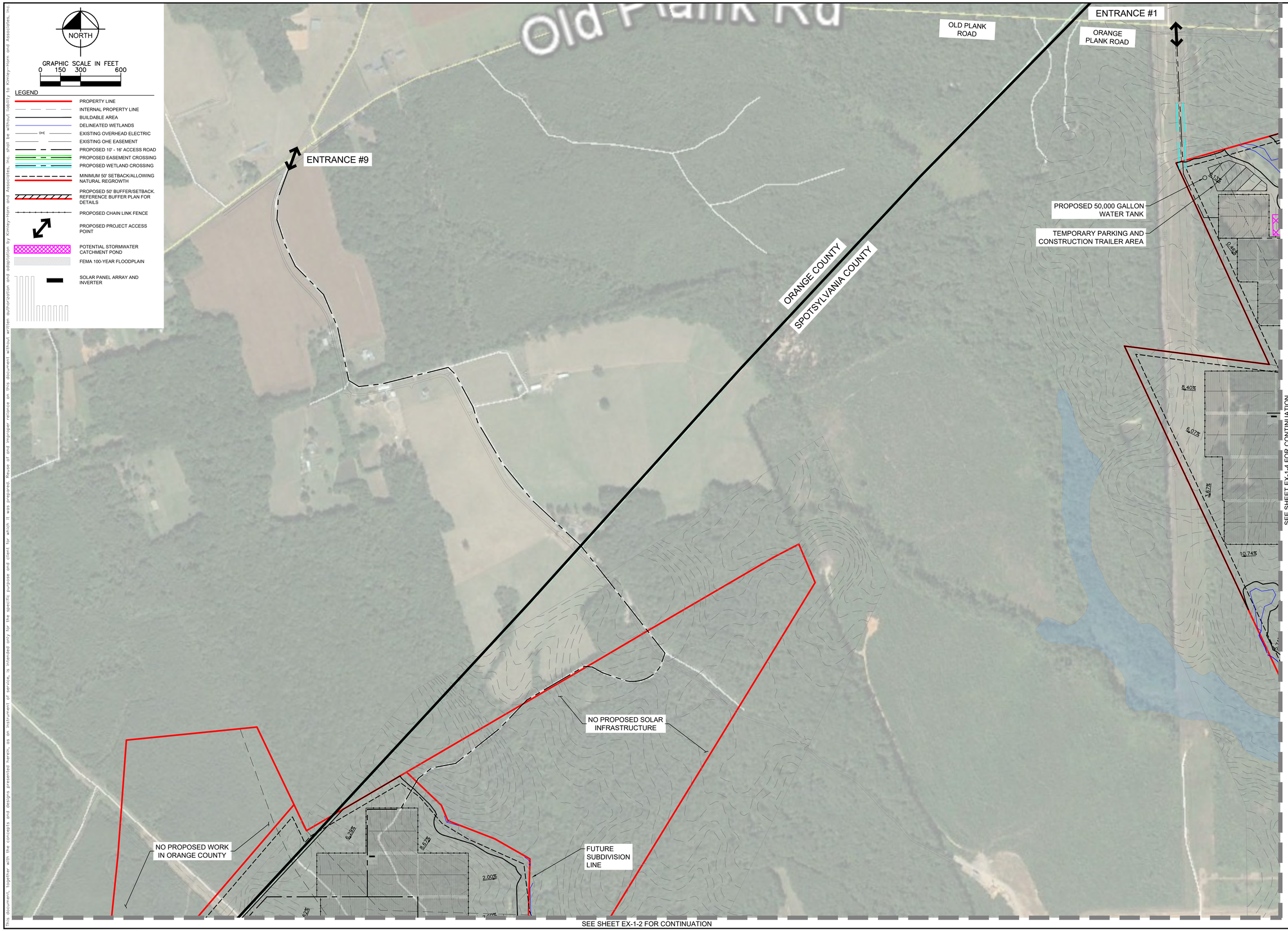
KHA PROJECT	116626000
DATE	10/26/2018
SCALE	AS SHOWN
DESIGNED BY	JRB
DRAWN BY	JRB
CHECKED BY	SMM

SUP 18-0001 GENERALIZED DEVELOPMENT PLAN - OVERALL

SPOTSYLVANIA SOLAR ENERGY CENTER A
PREPARED FOR
S-POWER

SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
EX-1-0



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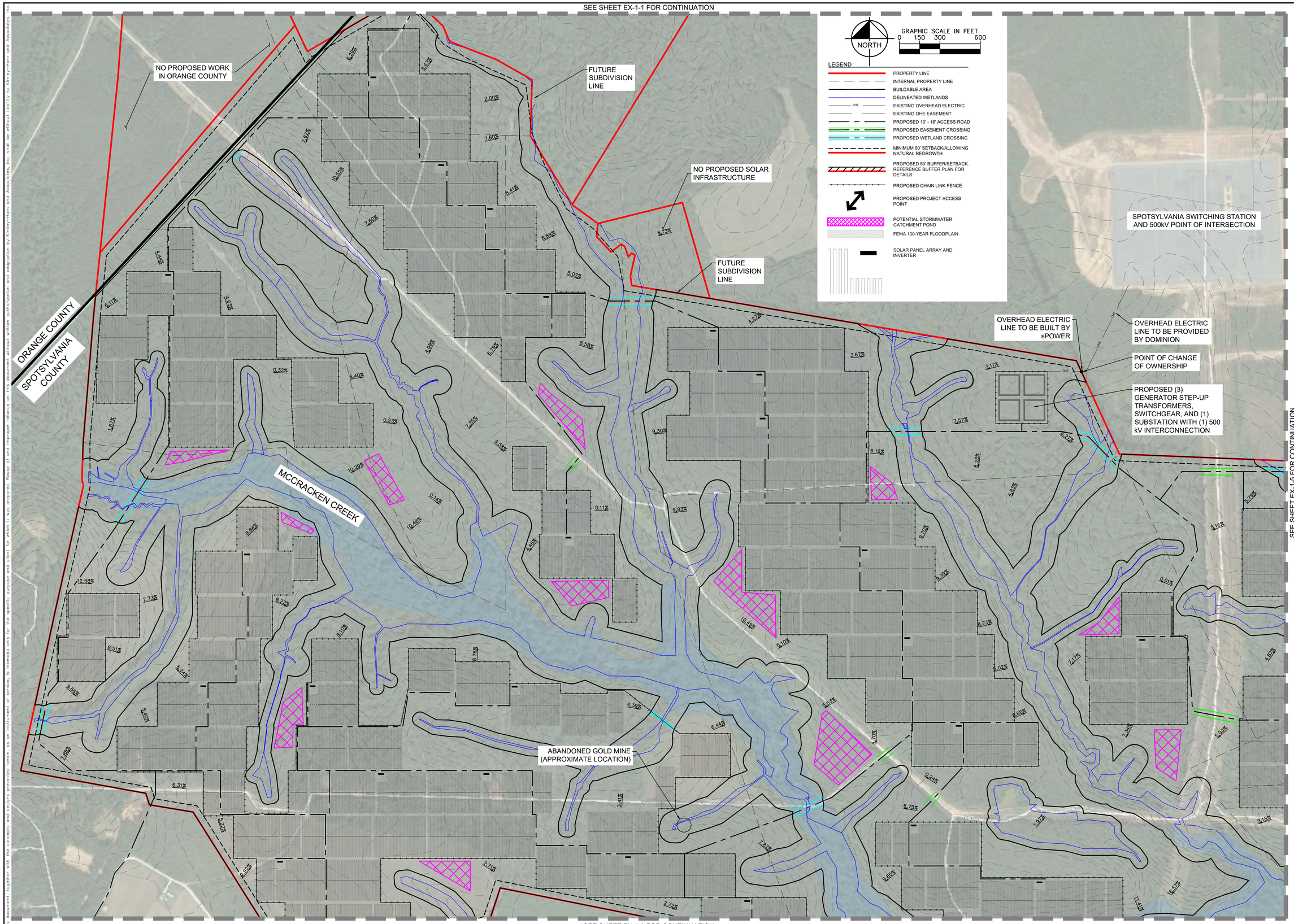
SUP 18-0001 GENERALIZED DEVELOPMENT PLAN - 1

SPOTSYLVANIA SOLAR ENERGY CENTER A
PREPARED FOR
S-POWER

SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
EX-1-1

SEE SHEET EX-1-1 FOR CONTINUATION



SEE SHEET EX-1-5 FOR CONTINUATION

SEE SHEET EX-1-3 FOR CONTINUATION

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SUP 18-0001 GENERALIZED DEVELOPMENT PLAN - 2

SPOTSYLVANIA SOLAR ENERGY CENTER A

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S-POWER

SPOTSYLVANIA COUNTY VIRGINIA

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EX-1-2

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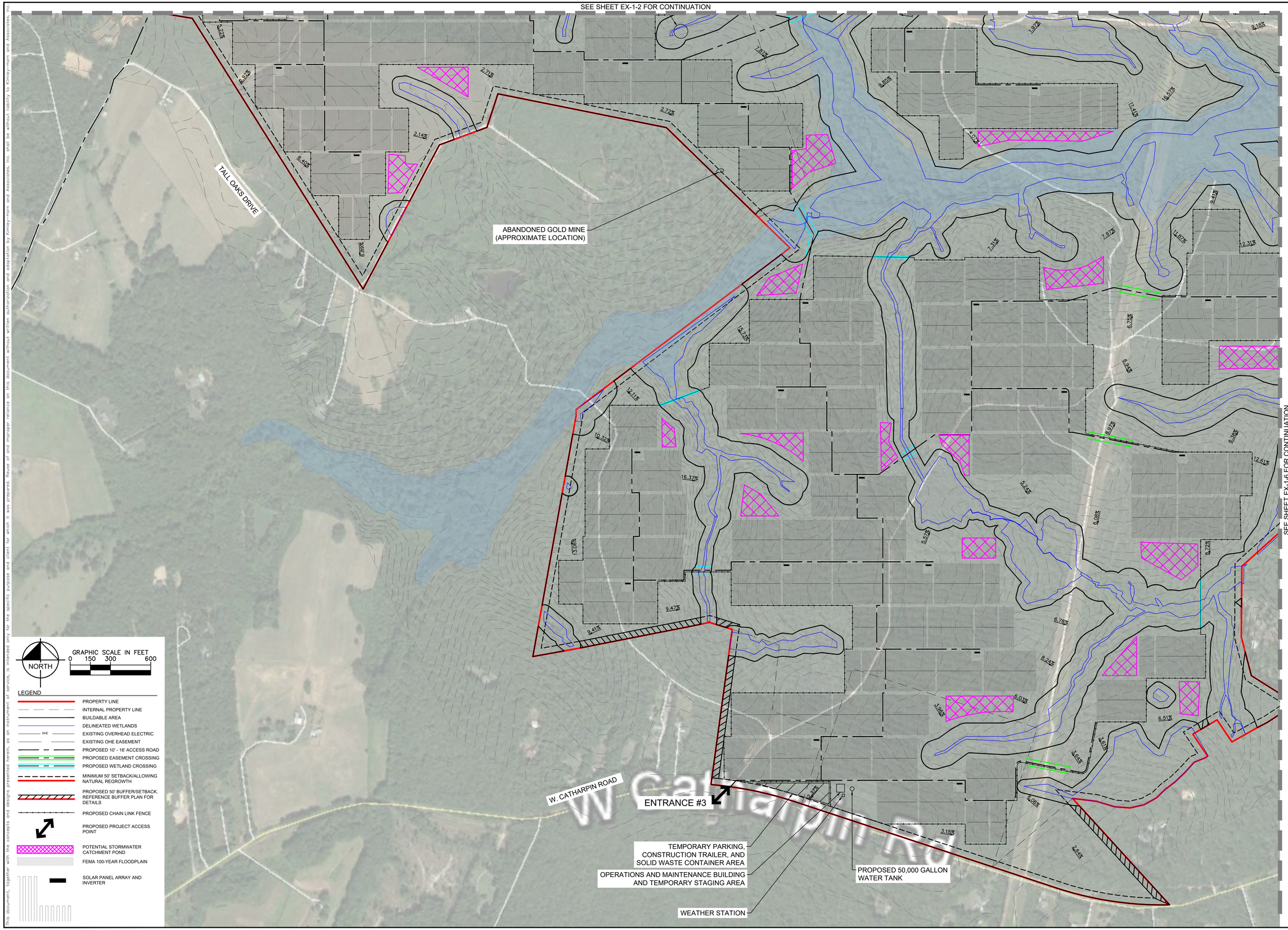

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SPOTSYLVANIA SOLAR ENERGY CENTER A

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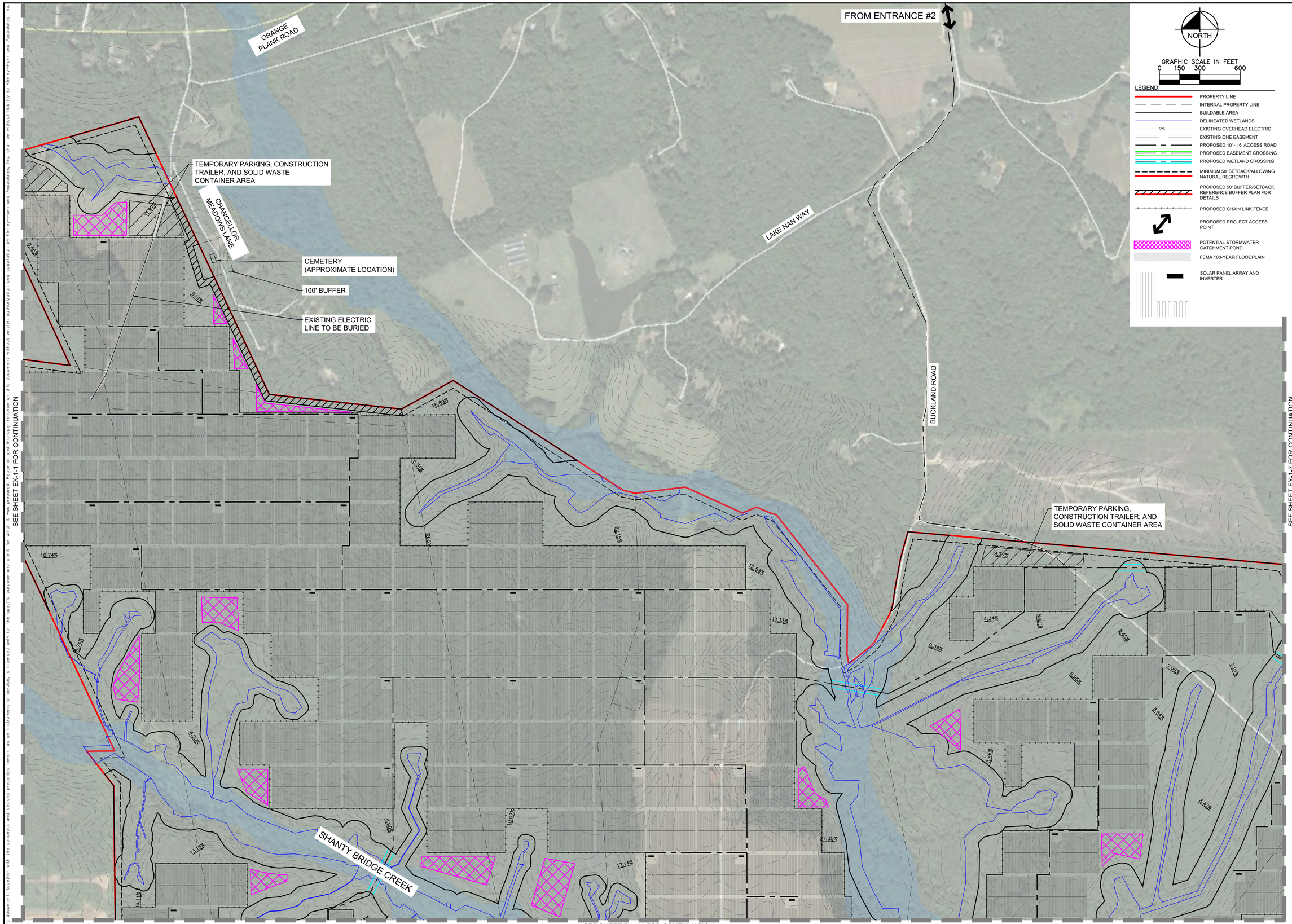
SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
EX-1-3



SEE SHEET EX-1-1 FOR CONTINUATION

SEE SHEET EX-1-7 FOR CONTINUATION

SEE SHEET EX-1-5 FOR CONTINUATION

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SPOTSYLVANIA SOLAR ENERGY CENTER A

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SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
EX-1-4

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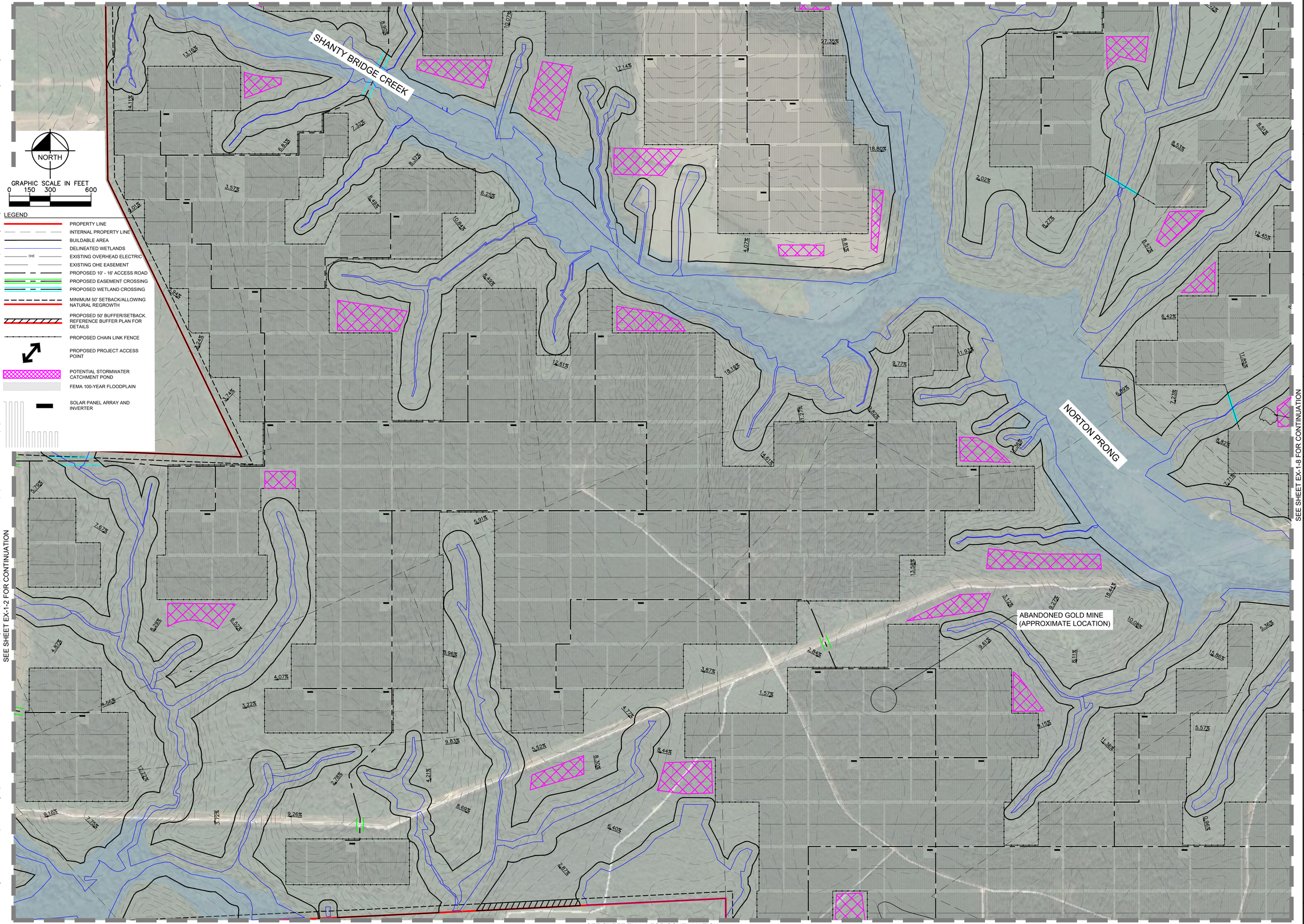

SEE SHEET EX-1-2 FOR CONTINUATION

SEE SHEET EX-1-8 FOR CONTINUATION

SEE SHEET EX-1-6 FOR CONTINUATION

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SUP 18-0001 GENERALIZED DEVELOPMENT PLAN - 5

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EX-1-5

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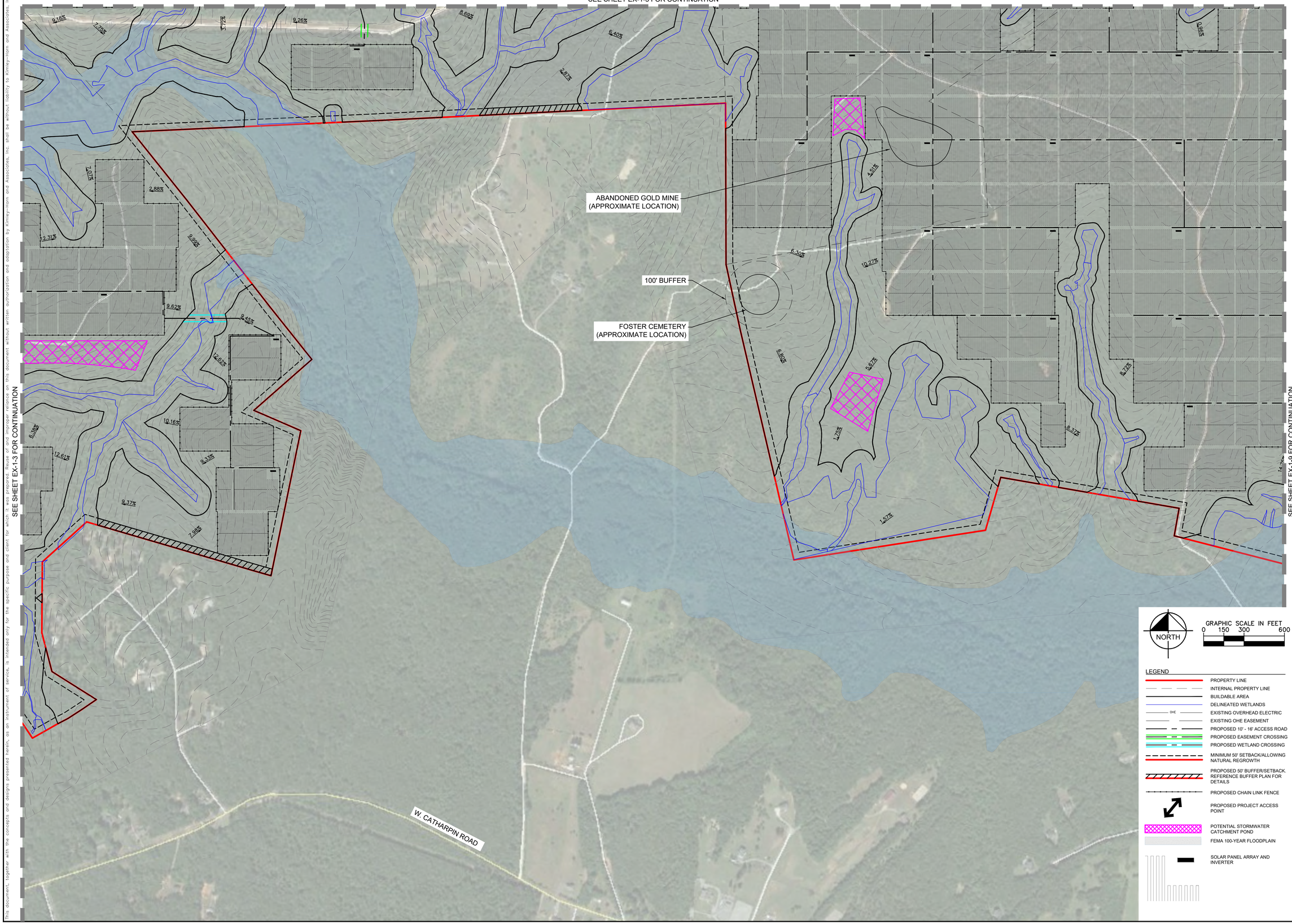

SEE SHEET EX-1-3 FOR CONTINUATION

SEE SHEET EX-1-9 FOR CONTINUATION

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SUP 18-0001 GENERALIZED DEVELOPMENT PLAN - 6

SPOTSYLVANIA SOLAR ENERGY CENTER A

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SPOTSYLVANIA COUNTY VIRGINIA

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SUP 18-0001 GENERALIZED DEVELOPMENT PLAN - 7

SPOTSYLVANIA SOLAR ENERGY CENTER A
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SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
EX-1-7

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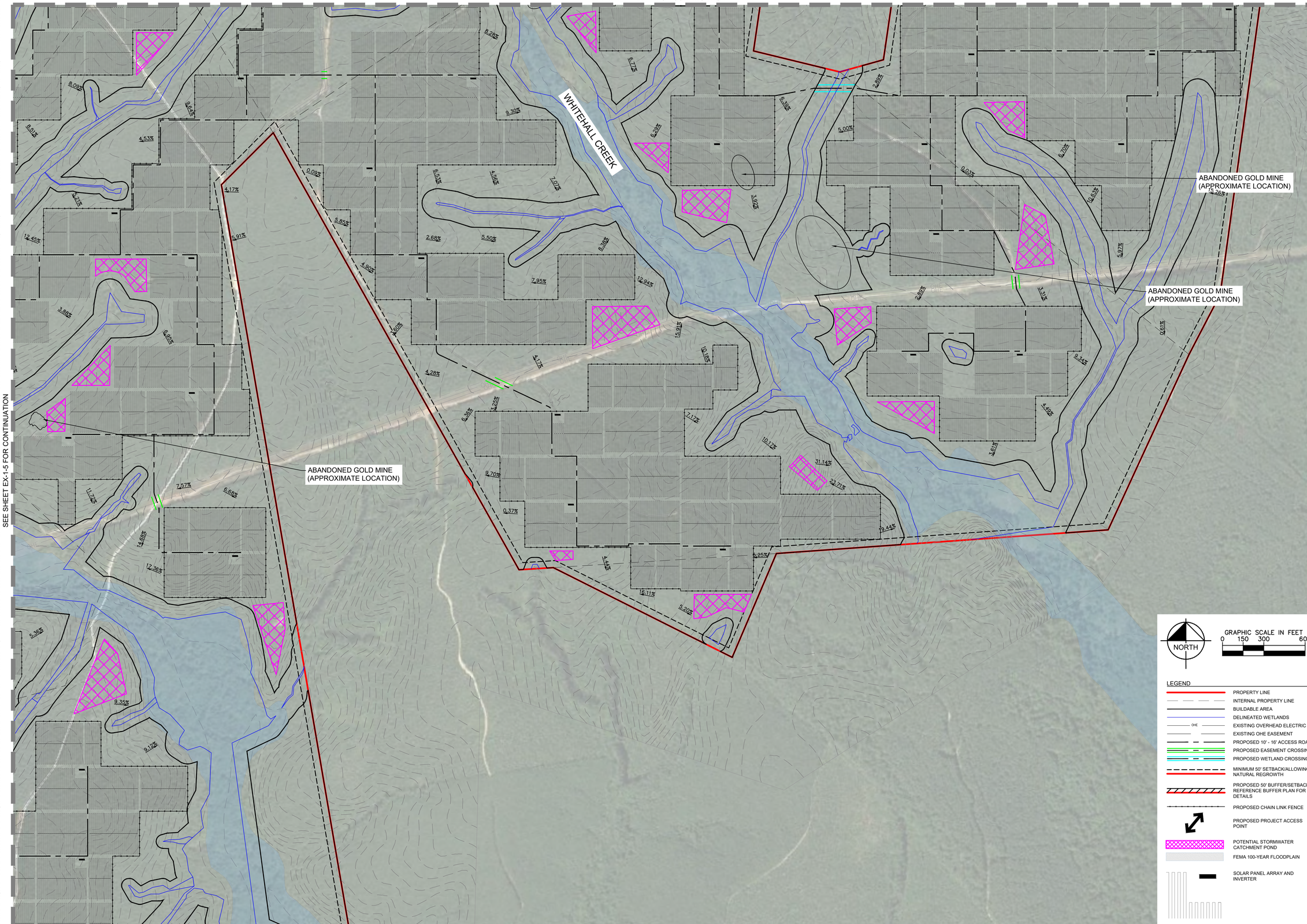

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SUP 18-0001 GENERALIZED DEVELOPMENT PLAN - 8

SPOTSYLVANIA SOLAR ENERGY CENTER A
PREPARED FOR
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SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
EX-1-8

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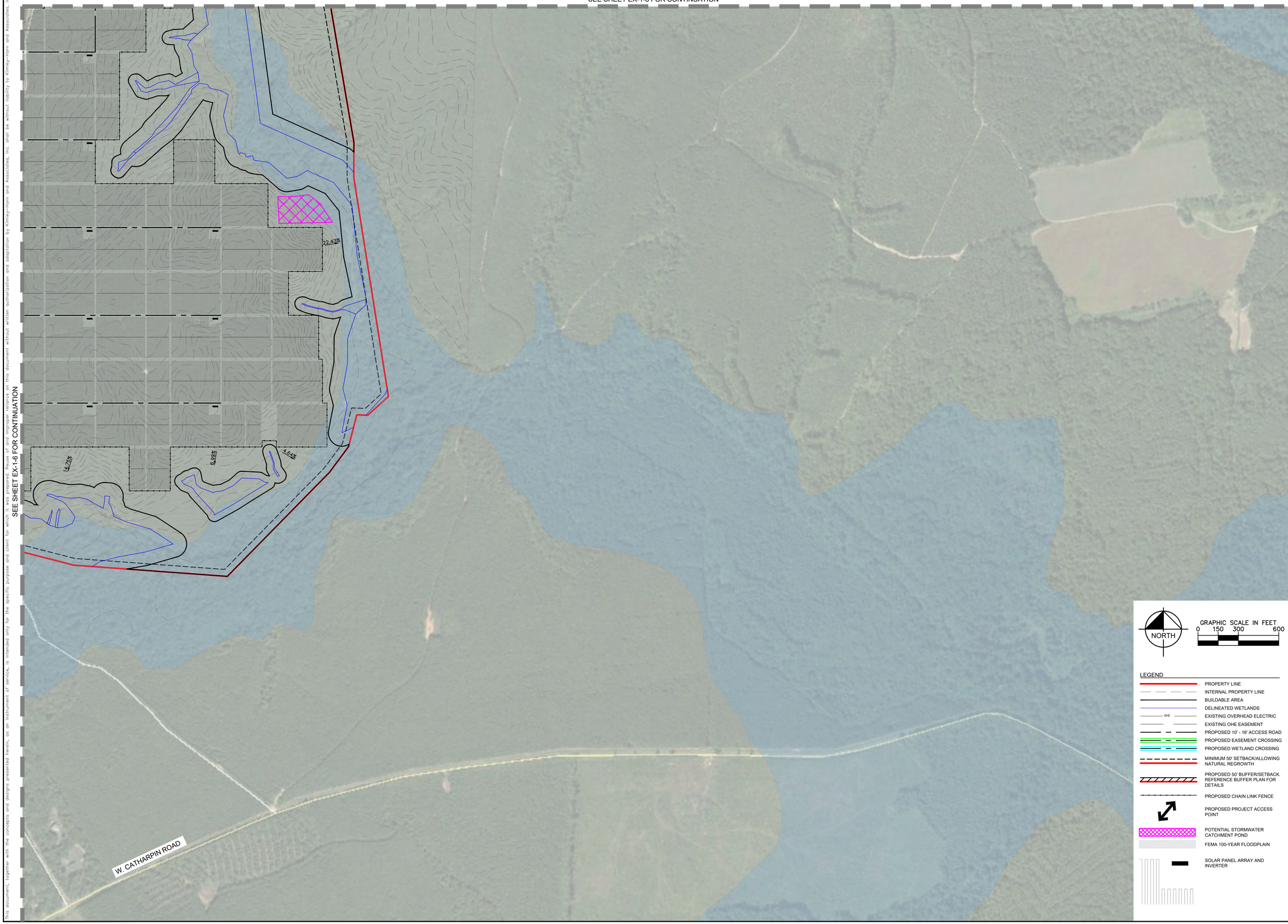

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SUP 18-0001 GENERALIZED DEVELOPMENT PLAN - 9

SPOTSYLVANIA SOLAR ENERGY CENTER A

PREPARED FOR
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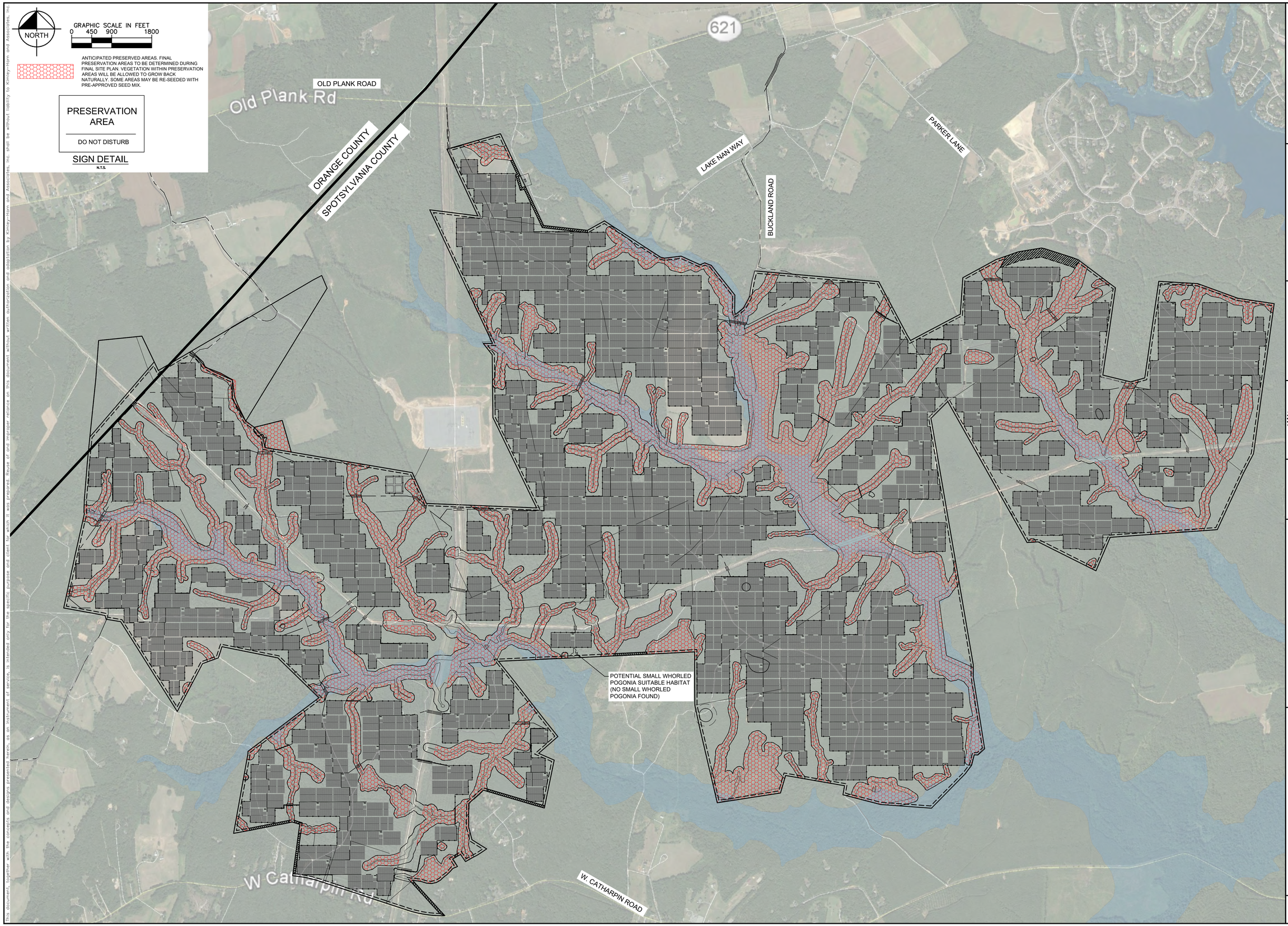
SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
EX-1-9



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SUP 18-0001 PRESERVATION AREA PLAN

SPOTSYLVANIA SOLAR ENERGY CENTER A

PREPARED FOR
S-POWER

SHEET NUMBER
EX-2-0

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NORTH

GRAPHIC SCALE IN FEET
0 450 900 1800

PROPOSED BERM #1 WITH PLANTINGS PER OPTION 1 OR OPTION 2 (SEE DETAIL THIS SHEET)

PROPOSED BERM #2 WITH SIX FOOT (6') HIGH EVERGREEN TREES PLANTED ON TOP OF BERM AT FIFTEEN FEET (15') ON-CENTER (SEE DETAIL THIS SHEET)

PROPOSED RE-VEGETATION WITH PLANTINGS PER OPTION 1 OR OPTION 2 (SEE DETAIL THIS SHEET)

PROPOSED RE-VEGETATION WITH SAPLINGS

50' MINIMUM SETBACK WITH PRESERVED VEGETATION

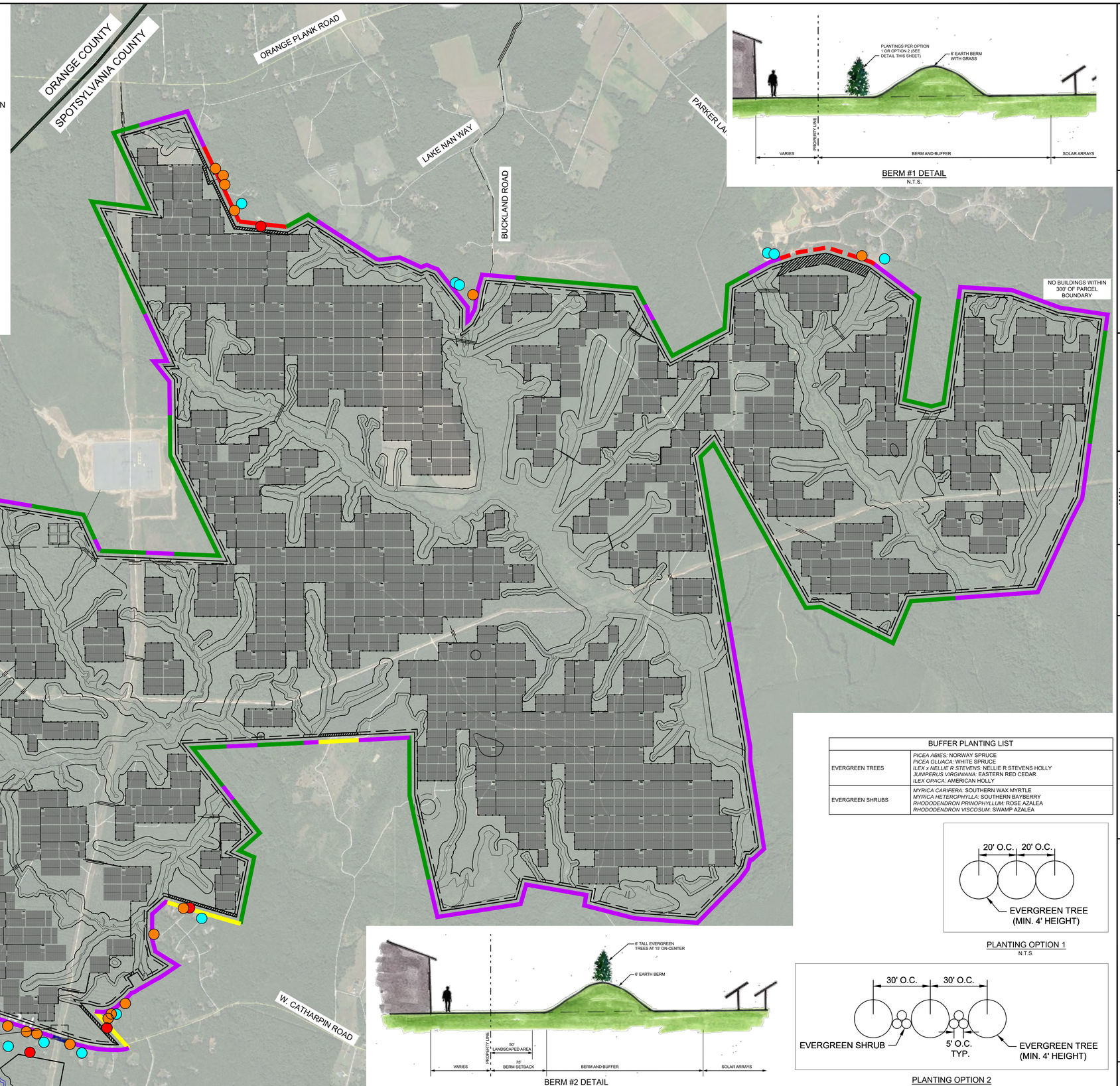
50' MINIMUM SETBACK ALLOWING VEGETATION TO GROW BACK NATURALLY

BUILDING WITHIN 100' OF PARCEL BOUNDARY

BUILDING WITHIN 200' OF PARCEL BOUNDARY

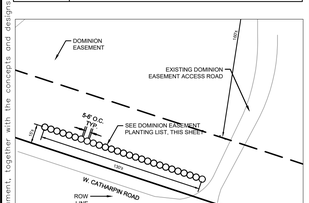
BUILDING WITHIN 300' OF PARCEL BOUNDARY

NOTES:
1. BUFFER LOCATIONS SHOWN ARE APPROXIMATE AND ARE BASED ON INITIAL PANEL PROXIMITY TO ROADWAYS AND ADJACENT PROPERTIES.
2. PLANTINGS SHALL BE PER OPTION 1 AND/OR OPTION 2 DEPENDING ON PLANT AVAILABILITY AT TIME OF INSTALLATION.



BERM #1 DETAIL
N.T.S.

DOMINION EASEMENT PLANTING LIST	
EVERGREEN SHRUBS	*MYRICA PENSYLVANICA:* NORTHERN BAYBERRY *OSMANTHUS FRAGRANS:* SWEET OSMANTHUS *ILEX CORNUTA 'DWARF BURFORD':* DWARF BURFORD HOLLY *THUJA 'EMERALD GREEN':* EMERALD GREEN ARBORVITAE



DOMINION EASEMENT PLANTINGS
N.T.S.

BUFFER PLANTING LIST	
EVERGREEN TREES	*PICEA ABIES:* NORWAY SPRUCE *PICEA GLUACA:* WHITE SPRUCE *ILEX x NELLIE R STEVENS:* NELLIE R STEVENS HOLLY *JUNIPERUS VIRGINIANA:* EASTERN RED CEDAR *ILEX OPACA:* AMERICAN HOLLY
EVERGREEN SHRUBS	*MYRICA CARIFERA:* SOUTHERN WAX MYRTLE *MYRICA HETEROPHYLLA:* SOUTHERN BAYBERRY *RHODODENDRON PRINOPHYLLUM:* ROSE AZALEA *RHODODENDRON VISCOSUM:* SWAMP AZALEA

PLANTING OPTION 1
N.T.S.

BERM #2 DETAIL
N.T.S.

PLANTING OPTION 2
N.T.S.

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APPROVAL

COMMONWEALTH OF VIRGINIA
SEAN MILLOT
Lic. No. 0402052332
10/26/2018
PROFESSIONAL ENGINEER

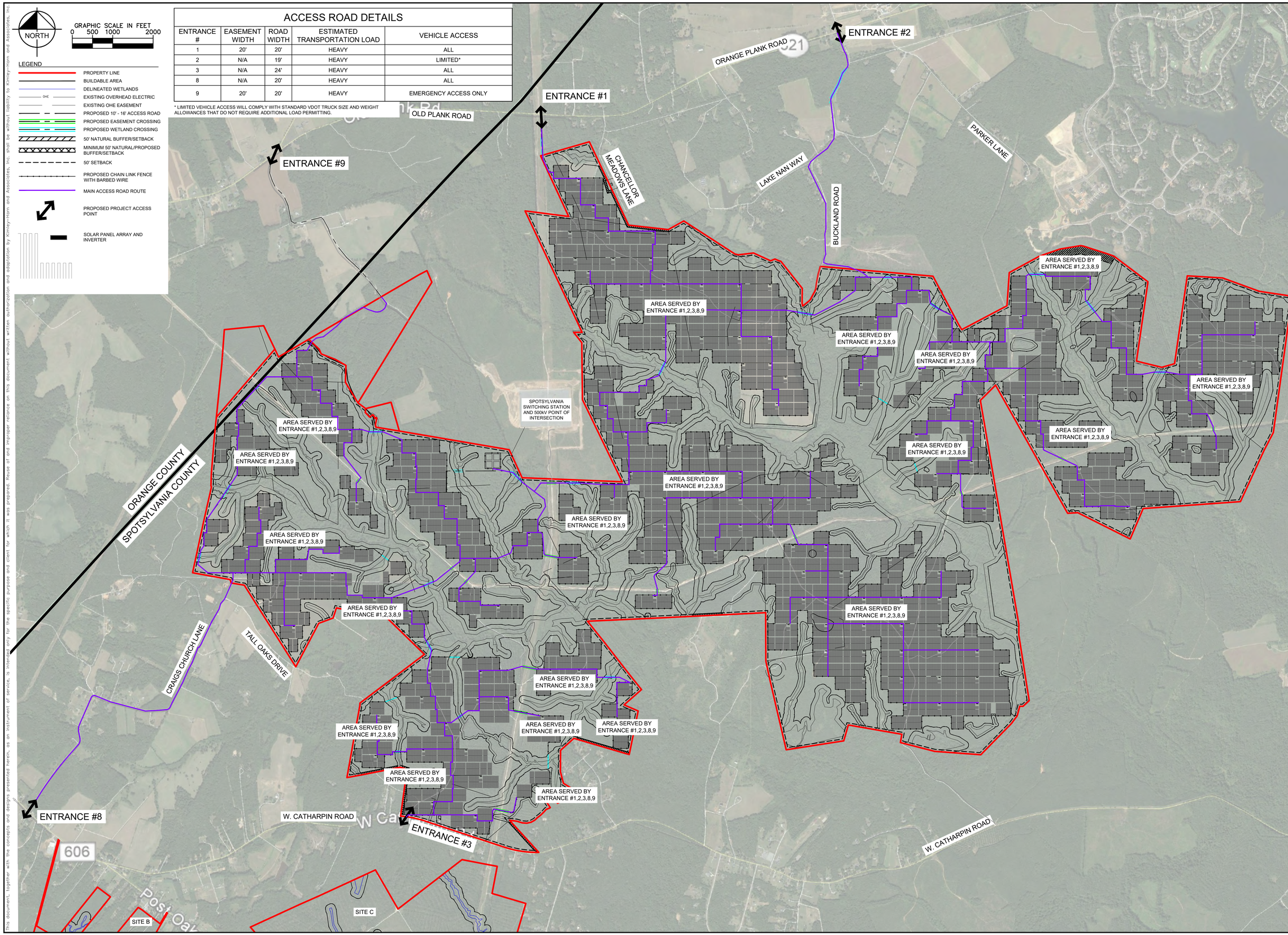
KHA PROJECT	116626000
DATE	10/26/2018
SCALE	AS SHOWN
DESIGNED BY	JRB
DRAWN BY	JRB
CHECKED BY	SMM

SUP 18-0001 LANDSCAPE AND BUFFER AREA PLAN

SPOTSYLVANIA SOLAR ENERGY CENTER A

PREPARED FOR
S-POWER

SHEET NUMBER
EX-2-1



ACCESS ROAD DETAILS

ENTRANCE #	EASEMENT WIDTH	ROAD WIDTH	ESTIMATED TRANSPORTATION LOAD	VEHICLE ACCESS
1	20'	20'	HEAVY	ALL
2	N/A	19'	HEAVY	LIMITED*
3	N/A	24'	HEAVY	ALL
8	N/A	20'	HEAVY	ALL
9	20'	20'	HEAVY	EMERGENCY ACCESS ONLY

* LIMITED VEHICLE ACCESS WILL COMPLY WITH STANDARD VDOT TRUCK SIZE AND WEIGHT ALLOWANCES THAT DO NOT REQUIRE ADDITIONAL LOAD PERMITTING.

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12/17/2018
PROFESSIONAL ENGINEER

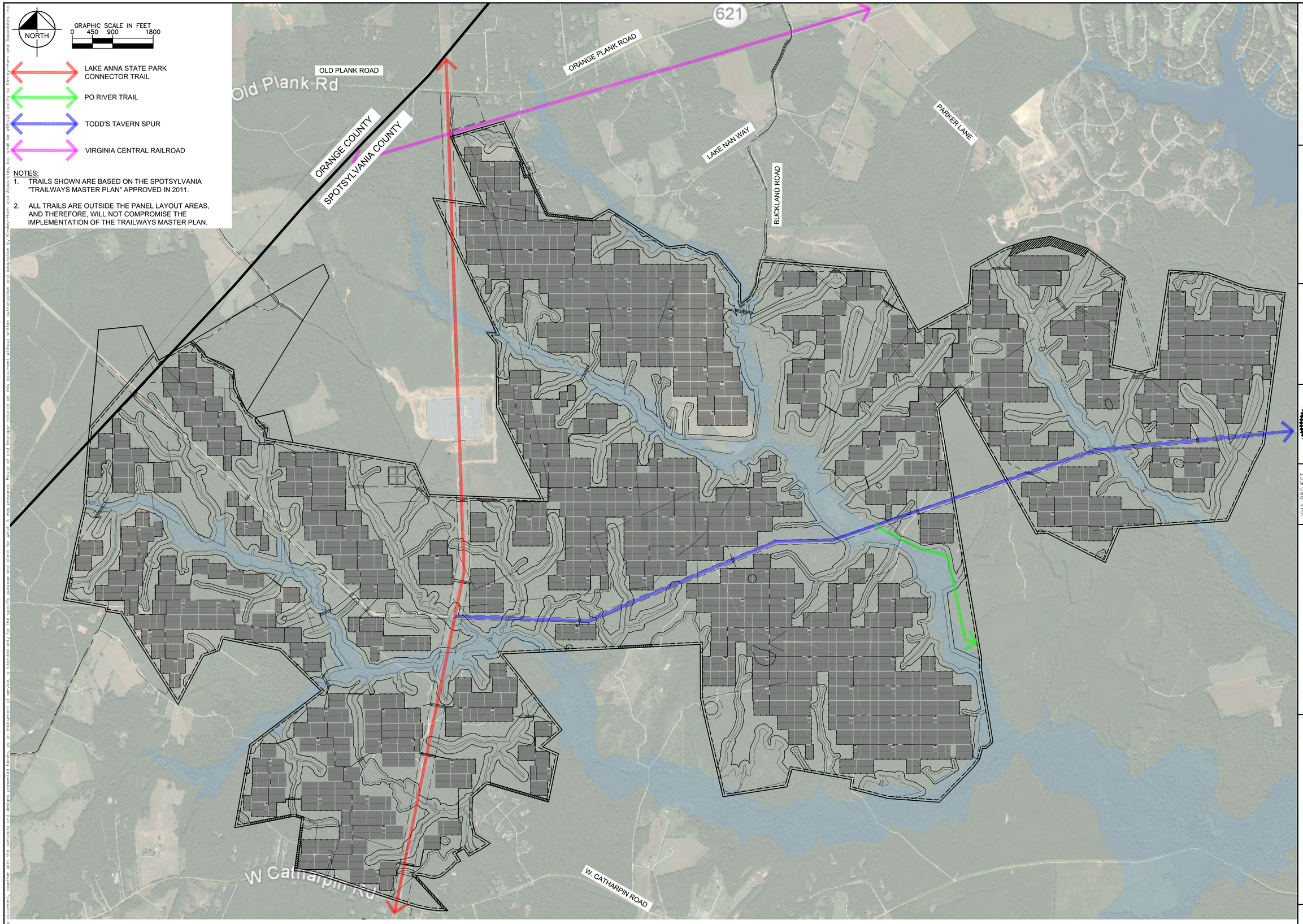
KHA PROJECT	116626000
DATE	12/17/2018
SCALE	AS SHOWN
DESIGNED BY	JRB
DRAWN BY	JRB
CHECKED BY	SMM

SUP 18-0001
ACCESS ROAD SERVICE AREAS

SPOTSYLVANIA SOLAR ENERGY CENTER A
PREPARED FOR
S-POWER

SPOTSYLVANIA COUNTY VIRGINIA

SHEET NUMBER
EX-2-2



NOTES:

1. TRAILS SHOWN ARE BASED ON THE SPOTSYLVANIA "TRAILWAYS MASTER PLAN" APPROVED IN 2011.
2. ALL TRAILS ARE OUTSIDE THE PANEL LAYOUT AREAS, AND THEREFORE, WILL NOT COMPROMISE THE IMPLEMENTATION OF THE TRAILWAYS MASTER PLAN.

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APPROVAL

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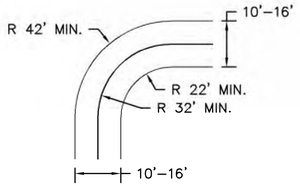
10/26/2018
PROFESSIONAL ENGINEER

KHA PROJECT	116626000
DATE	10/26/2018
SCALE	AS SHOWN
DESIGNED BY	JRB
DRAWN BY	JRB
CHECKED BY	SMM

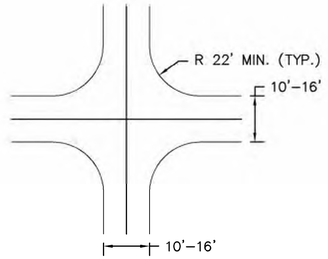
SUP 18-0001 COUNTY TRAIL OVERLAY MAP

SPOTSYLVANIA SOLAR ENERGY CENTER A
PREPARED FOR
S-POWER

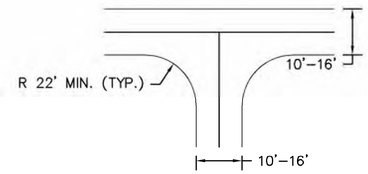
SHEET NUMBER
EX-2-3



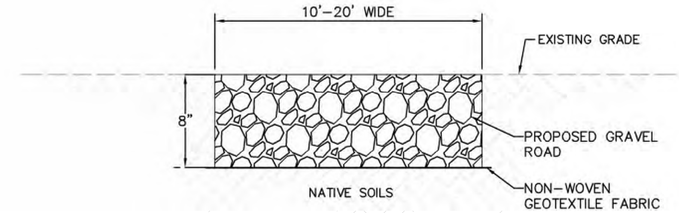
TYPICAL SITE ACCESS ROAD 90° TURN
N.T.S.



TYPICAL SITE ACCESS ROAD 4-WAY INTERSECTION
N.T.S.

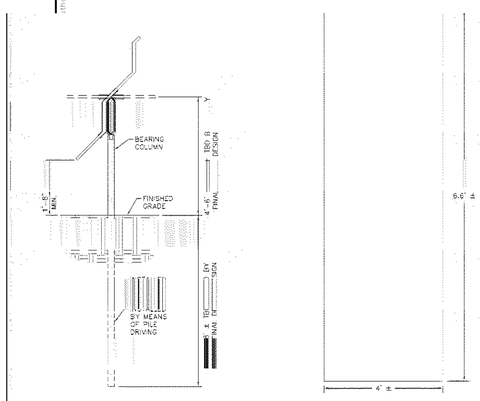


TYPICAL SITE ACCESS ROAD "T" - INTERSECTION
N.T.S.

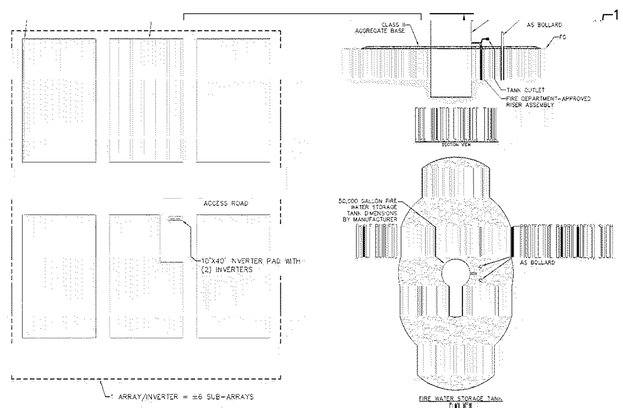


NOTES:
1. REMOVE ALL GRASSES AND ORGANICS WITHIN ACCESS ROAD AREA.
2. SCARIFY, MOISTURE CONDITION, AND RE–COMPACT EXISTING NATIVE SOILS TO 90% OF THE MATERIAL'S ASTM D–1557 MAXIMUM DRY DENSITY.
3. COMPACTION SHALL BE VERIFIED BY TESTING BY THE GEOTECHNICAL CONSULTANT.

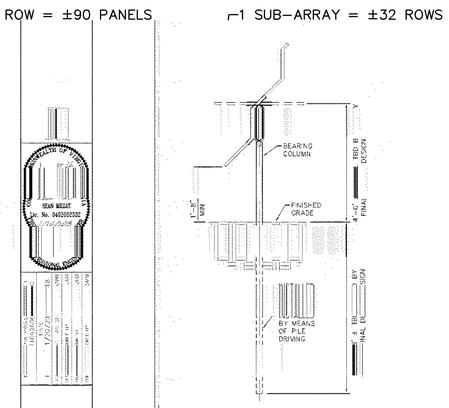
TYPICAL SITE ACCESS ROAD - GRAVEL ROAD SECTION
N.T.S.



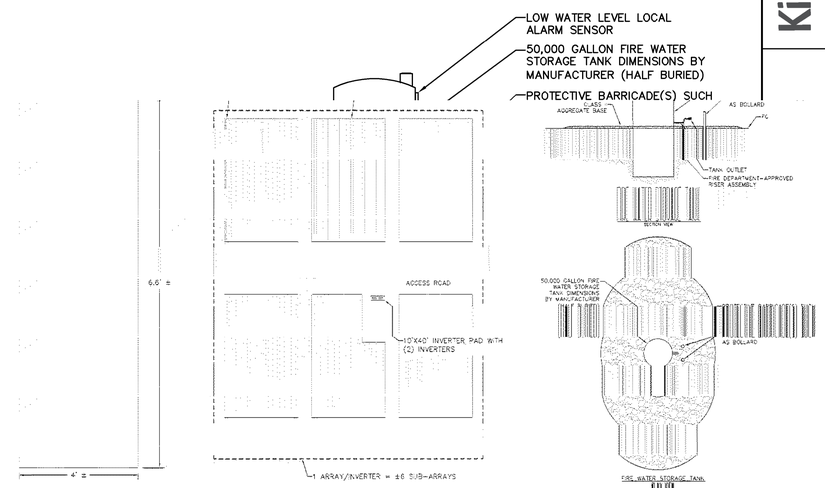
TRACKER RACK AND FOUNDATION DETAIL
N.T.S.
NOTE: ACTUAL CONSTRUCTION DETAIL OF TRACKER RACK AND FOUNDATION MAY VARY FROM THIS DETAIL.



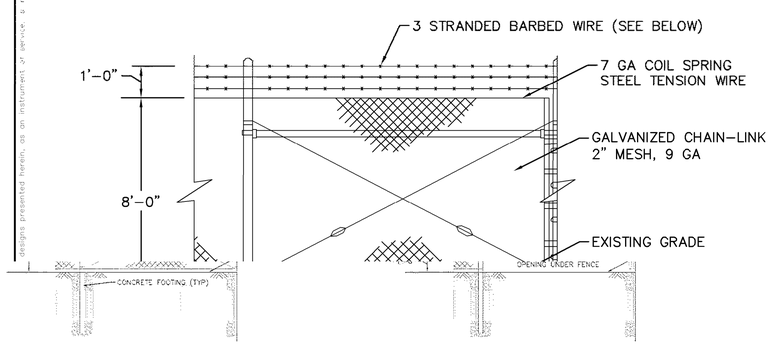
MODULE DETAIL
N.T.S.
NOTE: ACTUAL CONSTRUCTION DETAIL OF MODULE MAY VARY FROM THIS DETAIL.



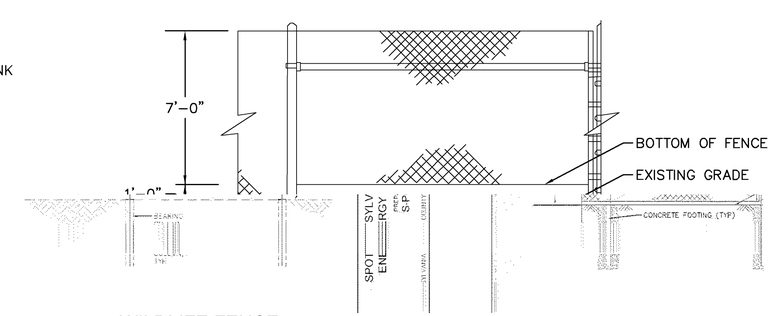
INVERTER BLOCK EXAMPLE
N.T.S.
NOTE: INVERTER PAD APPROXIMATELY 10'X40' WITH (2) 9'LX5.5'WX7.5'H INVERTERS SUBJECT TO FINAL ENGINEERING.



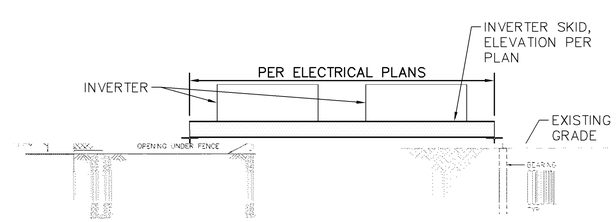
WATER TANK DETAIL
N.T.S.
NOTE: ACTUAL CONSTRUCTION DETAIL OF WATER TANK MAY VARY FROM THIS DETAIL.



CHAIN LINK SECURITY FENCE
N.T.S.
NOTE: BARBED WIRE AT TOP OF FENCE TO ONLY BE USED AT SUBSTATION. REMAINDER OF PROJECT FENCING WILL NOT HAVE BARBED WIRE.



WILDLIFE FENCE
N.T.S.
NOTE: WILDLIFE FENCE WILL SPACED EVERY 2000 FEET ALONG FENCE LINE SUBJECT TO ENGINEERING AND SITE DESIGN.



INVERTER DETAIL
N.T.S.
NOTE: INVERTER PAD APPROXIMATELY 10'X40' WITH (2) 9'LX5.5'WX7.5'H INVERTERS SUBJECT TO FINAL ENGINEERING.

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SUP 18-0001
CIVIL DETAILS

ANIA SOLAR CENTER A
ARED FOR
OWER
VIRGINIA

SHEET NUMBER
CD-1

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This document, together

Exhibit A: Proposed Soil Testing and Remediation Plan Operations Phase, dated December 13, 2018

Spotsylvania Solar Energy Center
Proposed Soil Testing and Remediation Plan
Operations Phase

1.0 Introduction

The purpose of this plan is to describe a Cadmium Telluride soil screening program, its methodology, protocols, and reporting procedures for the Spotsylvania Solar Energy Center proposed by sPower. The creation of this plan was proposed by Dewberry Engineers Inc. in their review of sPower cases SUP18-001, -002, and -003 dated November 26, 2018, for Spotsylvania County Staff.

1.1 Dewberry's Findings

In the November 26, 2018 review document submitted to Spotsylvania County Staff, Dewberry found:

> *Based upon our review of the above referenced documents, there is little evidence to suggest that CdTe based solar panels present risk to the population or environment. If they are handled properly during all phases of construction and disposal, they will not emit any toxicity into the environment.*
>
> *According to "Environmental Life Cycle Assessment of Cadmium Telluride Solar Cells: Cd Emissions", emissions of Cd can only happen during an accidental fire. Experiments have been conducted with fire and almost none of the Cd (0.04%) was actually released into the environment.*
> *Below are some risks associated with everyday life, where risks are prevalent.*
> *Some common uses of Cd that pose a risk include:*
> - *Ni-Cd batteries – these batteries use Cd, which is less stable than CdTe.*
> - *Coal & Petroleum – Coal and petroleum both contain Cd and it is emitting during burning.*
> - *Plastic – Cd is used as a stabilizer and for pigments in plastics.*
>
> *According to "The Health Risks of Cadmium in Cigarette Smoke":*
> - *Cadmium is present in water and foods because it is naturally occurring in water and soils.*
> - *Per the EPA, a safe level of Cadmium in drinking water is 5 ppb (parts per billion).*
> - *Cadmium occurs naturally in food: it is highest in vegetables, potatoes, meats, shellfish*
> - *Most foods in US contain 2 to 40 ppb.*
> - *Single cigarettes contain 1-2 mcg (micrograms) of Cadmium and produce 1,000 – 3,000 ppb in the smoke that is emitted. For each pack of cigarettes, the body will absorb approximately 1-3 mcg of cadmium.*
> - *It is estimated that the average person also ingested 30 mcg of Cadmium per day. The body only retains about 1-3 mcg of what it ingests.*

These findings support sPower's own findings regarding Cadmium Telluride panels and are in accordance with the assertion the panels present no risk to human or environmental health and safety.

1.2 Purpose

The purpose of the following protocol is to establish baseline levels of cadmium present at the proposed Spotsylvania Solar Energy Center site and monitor those levels through the life of the project. The protocol also outlines remediation action in the event baseline levels rise to quantities greater than environmental and human health and safety standards as a result of solar panel-related activities as per Virginia DEQ Tier II Screening Levels, and EPA Region 3 Residential Screening Levels.

2.0 Soil Testing

2.1 Baseline Sample Collection

2.1.1 Sample Collection Methodology

Soil samples collected during the geotechnical engineering effort will be analyzed for background (anthropogenic or naturally occurring) cadmium using the analyses described in Section 2.3 below. Samples will be collected from 1-2 feet below ground surface (bgs) and located in the area where CdTe panels will be used. A total of five (5) samples will be collected at random to define baselines conditions in these areas: 3 random locations within Site A, 1 location within Site B, and 1 location within Site C.

2.2 Operations Phase Sample Collection

2.2.1 Sample Collection Methodology

Sampling procedure shall be the following, derived from the Virginia Department of Environmental Quality Storage Tank Program Technical Manual 4th edition, section Z.5.1.1 "Collecting soil samples with a soil auger or a soil probe":

1. Advance a clean, decontaminated hand auger into the area of concern [5ft bgs] until the one auger bucket of material has been collected.
2. Don clean latex gloves and remove the first centimeter (approximately) from the bit end of the auger and discard that soil.
3. Remove the soil from the bit end and place that soil in the sampling containers that are appropriate for the analyses to be performed.
4. Label the sample containers.
5. Record information about soil texture, odor, color, and other soil characteristics.
6. Place soil remaining in the auger after sample collection back in the excavation.
7. Decontaminate the auger using a detergent solution and deionized water before another soil sample is collected.

Samples will be collected at 1-2 feet (bgs) using the auger methodology described above and collected at the frequency described in section 2.2.2 below.

2.2.2 Sample Location and Frequency

The potential for Cadmium Telluride to be released into the environment is extremely unlikely as noted in the Dewberry report (2018). sPower staff will collect 5 samples, samples in the CdTe panel arrays and at any operational facility where CdTe panels are stored: 3 samples within Site A, 1 sample within Site B, and 1 sample within Site C. During each sampling event, at least one sample should be taken from outside the solar array to serve as a control and document possible changes in the anthropogenic or naturally occurring baseline levels. Sample event frequency will be once every five (5) years. If requested, sPower will provide County Staff with at least 48-hour advance notice of all sampling events should the County wish to provide oversite of the sampling activity.

2.3 Sample Analysis

All samples collected in sections 2.1 and 2.2 will be sent to an Environmental Laboratory Program (ELAP) certified laboratory for analysis. Samples will be analyzed for Cadmium by USEPA Method 6020, or equivalent. Analysis results will be screened against the background levels as per Virginia DEQ Tier II Screening Levels, and EPA Region 3 Residential Screening Levels.

2.4 Reporting

sPower or their engineers will generate sampling reports for each sample event. Each report will contain at a minimum:

-sample location(s) map
-copy of the laboratory sample chain of custody
-laboratory analytical results
-summary report

Reports will be provided to the County via electronic copy and will be retained by the applicant for the life of the facility.

3.0 Remediation

In the event that the laboratory analysis indicates Cadmium levels above the Virginia DEQ Tier II Screening Levels, and EPA Region 3 Residential Screening Levels when compared against the control, sPower shall contact Spotsylvania County Staff within 24 hours of receiving the laboratory results. sPower and County Staff will then coordinate and determine next steps regarding further characterization and remediation of the sampled area, including, but not limited to: additional sampling and soil removal.

Exhibit B: Spotsylvania Solar Energy Center Traffic Mitigation Plan, dated December 13, 2019

Spotsylvania Solar Energy Center Traffic Mitigation Plan

December 13, 2019

The following Traffic Mitigation Plan (TMP) describes various policies for the management of traffic for the duration of construction of the proposed Spotsylvania Solar Energy Center. These strategies will address school bus avoidance, on-site and off-site parking and ridesharing programs, haul route pavement maintenance, temporary traffic control measures, safety and deliveries. sPower and the general contractor will work closely with Spotsylvania County and the Virginia Department of Transportation (VDOT) to ensure the safe and efficient movement of local traffic throughout the anticipated 18-month construction period.

School Bus Avoidance

Spotsylvania County Schools bus stops exist along Orange Plank Road, West Catharpin Road, Post Oak Road, and along various connecting side streets in the vicinity of the project area. These stops serve eleven different local area elementary, middle and high schools. The school year begins in early August and ends in late May.

sPower is prepared to take steps to ensure that students are kept safe and minimal interaction occurs between construction traffic and school bus operations. This will be achieved through a combination of the following strategies:

- Wide-load deliveries will be restricted between 6:10 AM and 8:40 AM and between 2:45 PM and 4:30 PM during the school year. sPower will educate drivers on school bus pickup hours and locations.
- Employees will be encouraged to participate in ridesharing programs to reduce commuter traffic to the site (see Parking and Ridesharing).
- Reduced speed limits during the school year near bus stop locations will be a suggested traffic calming measure to VDOT. Speed limits will be communicated via temporary signage along construction traffic routes and through driver education.
- Installation of temporary signage informing drivers of a school bus stop ahead and hours of operation for those stops along construction haul routes (Orange Plank Road, West Catharpin Road, and Post Oak Road).
- Informational handouts will be prepared and distributed to students and parents in coordination with Spotsylvania County Schools. These handouts will describe the truck routes, hours of operation, and construction schedule and duration, as well as basic safety precautions for walkers and students waiting at bus stops.
- Potential “high-risk” bus stops will be identified in coordination with Spotsylvania County Schools. These locations will be considered for temporary relocation or enhanced safety measures, such as signage to indicate safe waiting areas and warn of heavy truck traffic.

Parking and Ridesharing

On-Site Parking

On-site parking will be provided adjacent to construction entrances within the project. Open space free of solar panels and other infrastructure has been made available to allow for adequate parking on site. Parking area size will fluctuate based on the construction phasing and number of workers needed at each entrance. Construction parking areas will be set back a minimum of 500 feet from any adjoining residential structure.

The contractor will utilize multiple seat vehicles/shuttle buses/vans to transport employees to and from various construction areas within the site to reduce the number of vehicle trips between sites and optimize the use of parking areas around the project.

Off-Site Parking

The following off-site parking opportunities in the greater Fredericksburg area and along the I-95 corridor are under consideration:

- **Park and Ride and Virginia Railway Express (VRE) Parking Lots** – VDOT manages six park and ride lots for a combined total of over 5,000 parking spaces in the greater Fredericksburg area. sPower will work with VDOT representatives to identify lots with excess capacity.
- **Private Parking Lots** – Private parking lots with excess capacity during regular business hours may be considered for agreements for temporary parking. Potential locations could include the Spotsylvania Town Center, local churches, or other commercial shopping centers.

Based on the available off-site parking capacity, sPower and the contractor will identify one or more locations as hubs for employees to meet and utilize the encouraged ridesharing opportunities. The following strategies are under consideration to facilitate and promote ridesharing among employees:

- **Shuttle Service/Vanpool** – Shuttle and vanpool services may be contracted during construction. These services require established pick-up/drop-off areas and pre-scheduled departure times, which may be on a limited schedule. Potential shuttle and vanpool services for this project have been researched based on anticipated use, rental cost for vehicles and parking lot space, lost productivity due to increased travel times has concluded that shuttle service may not be logistically and financially viable. Additionally, there are safety concerns with site accessibility in the event of an emergency to provide employees with timely access to their vehicles.
- **App-Based Carpool Programs** – A number of app-based carpool programs, such as Scoop, RideAmigos, iCarpool, and Waze Carpool, currently offer employer partnership packages. These platforms facilitate carpooling by connecting users, optimizing commute routes, and tracking usage for incentive programs. In some cases, carpooling also allows for direct pick-up from residences, reducing the need for off-site parking. Carpooling allows greater flexibility for employees than shuttles or vanpools while still reducing the number of single occupancy vehicles on the road. sPower and the contractor will educate employees on the selected program and encourage them to utilize the resource to help mitigate traffic.

- **Carpool Promotional Materials –** sPower and the contractor will provide employees with brochures and other informational materials on the benefits of carpooling, such as lower stress, transportation cost savings, and reduced wear-and-tear on private vehicles.

Pavement Maintenance along Haul Routes

Portions of the surrounding public roadways will be designated as haul routes for deliveries during construction. The following procedures will be set in place for the assessment and maintenance of haul route pavements before, during, and after construction.

1. Prior to construction, representatives from Spotsylvania County, VDOT, sPower, and the contractor will coordinate to drive the designated haul routes to collect observations and video footage of current pavement conditions. The pre-construction pavement conditions will be documented for future reference.
2. At the conclusion of construction, representatives from Spotsylvania County, VDOT, sPower, and the contractor will coordinate to drive the designated haul routes to collect observations and video footage of current pavement conditions. The post-construction pavement conditions will be documented and compared to pre-construction conditions.
3. At project completion, sPower will restore road damage determined to be caused by construction vehicle negligence in coordination with Spotsylvania County and to the satisfaction of VDOT as permitted.
4. If pavement along a haul route becomes damaged due to construction traffic, as confirmed with VDOT, to the point where it has become unsafe for use, sPower will repair the damage at their expense within 48 hours upon notice from the County's transportation planner and/or VDOT.

Temporary Traffic Control Measures

Temporary traffic control measures will be implemented in accordance with the most recent version of the Virginia Work Area Protection Manual (WAPM). Traffic control for construction activity within the public right-of-way will be implemented in accordance with typical traffic control applications. Necessary construction activity within the public right-of-way will be identified as construction documents are prepared and traffic control plans will be included in the construction documents as necessary.

Traffic control measures will also be installed at active construction entrances. These will include but are not limited to the following:

- advanced warning signs
- flaggers at the entrance location to facilitate truck turns for wide-load deliveries
- If sight distance is limited on the approach to a construction entrance, additional warning signs will be installed.
- temporary traffic signals
- reduced speed limits
- Additional construction traffic warning signage
- channelizing devices

These VDOT-approved measures may be implemented as needed and will be addressed during the site plan process and the VDOT permitting process.

Deliveries

Deliveries shall occur between the hours of 9:00 AM and 2:45 PM during the months of August through May to the extent practical to avoid school bus activity. Deliveries shall occur between the hours of 8:00 AM and 6:00 PM during all other months.

Delivery instruction shall be provided to all suppliers and contractors.

Trained employees shall assist when deliveries are accessing the Project Site.

Banksmen shall ensure the safe passage of pedestrians and vehicular traffic when vehicles are being loaded and unloaded.

Delivery vehicles shall not wait or stack on County roads.

Suppliers and contractors shall utilize primary delivery routes identified in this Construction Traffic Plan to the extent possible. In the event delivery routes are not feasible, new routes shall be identified and coordinated with Spotsylvania County staff.

sPower and its contractor shall issue maps to suppliers identifying primary delivery routes.

Identification of surrounding truck stops shall be identified prior to construction to ensure that trucks can stage overnight prior to scheduled deliveries.

sPower and its contractor shall coordinate a daily delivery schedule for suppliers and provide, via electronic distribution, to Spotsylvania County and nearby residents when available.

Permits for oversized or overweight loads, if any, on primary delivery routes shall be obtained from VDOT and coordinated with Spotsylvania County. Such permit loads shall be subject to the conditions of the permit at the time of issuance.

Safety

Speed limit signs of 15 mph shall be clearly displayed at all ingress and egress points, as well as throughout the Project Site.

At least two weeks prior to construction, residents, schools, and businesses along primary delivery routes shall be notified of the construction activities.

A 24-hour contact shall be provided to Spotsylvania County staff and residents for both the contractor and sPower. The contact shall be responsible for responding to inquiries or concerns of surrounding residents and businesses, as well as the general public.

Where necessary, flagmen with communication devices shall be used to coordinate delivery and hauling activities at the Project Site.

General construction signs shall be places in pre-approved areas along primary delivery routes in the vicinity of the Project Site to notify residents of construction delivery locations.

Exhibit C: Emergency Response Plan – Construction, dated November 19, 2018

sPower

Emergency Response Plan - Construction

Spotsylvania Solar Energy Center – 500 MWac

Spotsylvania County, VA

November 19, 2018

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Appendices

Overall Site Plan and Site Access
Crisis Management Plan
Site Specific Safety Plan

1. General Information – Construction and Operation

The purpose of this plan is to discuss the procedures that will be implemented in the event of an emergency during the construction of the Spotsylvania Solar Energy Center.

1.1 Project Description

sPower is proposing to construct a 500 megawatt-AC photovoltaic (PV) single-axis tracker system. The final Project consists of three non-contiguous project sites (Site A, B, and C) that total approximately 6,350 acres, of which approximately 3,500 acres will be developed for the Project. The remaining 2,850 acres will be set aside as open space in Spotsylvania and Orange Counties, Virginia. It is located between Orange Plank Road on the north and W. Catharpin Road on the south. The approximate center of the site is located approximately 3.35 miles east of Mine Run, Virginia in Spotsylvania County, Virginia.

The Project's primary components include PV modules mounted on a single axis tracking system and solar inverters. The racking system foundations will utilize driven posts that would not require concrete. Other Project components include electrical cables, conduit, electrical cabinets, switchgears, step-up transformers, inverters, SCADA systems and metering equipment. The solar facility would be fenced and seeded in a low growth seed mix to reduce storm water runoff and erosion. **See Appendix 1:**

1.2 Project Team

Mortenson has the Engineering, Procurement, and Construction contract for the Spotsylvania Solar Energy Center. The Mortenson project team will consist of:

Table 1: Project Team Contact Info

Project Manager	TBD	Phone number (TBD)	email (TBD)
Superintendent	TBD	Phone number (TBD)	email (TBD)

Engineering and Permitting Manager	TBD	Phone number (TBD)	email (TBD)

1.3 Site Access

1.3.1 Site Address

Spotsylvania Solar Energy Center is in Spotsylvania County, VA. The address for the project is has not been established yet. The center of the project is located at latitude and longitude 38.24344° N and 77.77514°

1.3.2 Site Driveways

The Project is anticipated to have several site access locations, as the Project Site is not entirely accessible from a single site access location due to wetlands, streams, and topographical constraints. Primary access for Site A will be provided via Orange Plank Road (State Route 621) on the north and West Catharpin Road on the south; primary access for Site B will be provided via Post Oak Road (State Route 606) on the north; and primary access for Site C will be provided via West Catharpin Road on the north and Post Oak Road (State Route 606) and Chewing Place on the south. Site access locations will be improved and maintained to accommodate Spotsylvania County Fire, Rescue, and Emergency Services. Each access will be a 20-foot wide driveway with a 20-foot wide locked security gate. The security gate would be locked with a punch code key lock box, which would be dispatched to EMS services in the event of an emergency. This will be installed during construction and will remain for operation. Refer to section **4.4.1 Internal Site Access Roads and Driveways** for internal road and driveway specifications.

3.1 Emergency Services Authority

The project's onsite superintendent will be responsible for overseeing emergency services compliance. His duties will include ensuring that the measures in this plan are complied with, any and all agencies are properly notified in the event notification is required, and that all required plans and reports are prepared and submitted in a timely manner.

The Mortenson project superintendent will be the emergency point of contact for the Spotsylvania Solar Energy Center. The superintendent's contact information is as follows:

TBD
Cell:
Office:
Email:

The Safety Manager will be responsible for project safety during all construction activities. Along with the superintendent, the Safety Manager will ensure that the measures in this plan are complied with, any and all agencies are properly notified in the event notification is required, and that all required plans and reports are prepared and submitted in a timely manner. The Safety Manager shall arrange and assign a backup in the event of their absence.

The Safety Manager point of contact is as follow:

TBD
Cell:
Office:
Email:

The point of contact over seeing electrical work is as follow:

TBD: The current position is being interviewed for and will be able to provide qualifications upon the County's request.

The point of contact over seeing mechanical work is as follow:

TBD: The current position is being interviewed for and will be able to provide qualifications upon the County's request.

The point of contact over seeing excavation work is as follow:

TBD: The current position is being interviewed for and will be able to provide qualifications upon the County's request.

Emergency Response Contact(s):

Medical Facility	**Address**	**Phone Number**	**Available Services**	**Distance from Project Site**
Spotsylvania Regional Medical Center	4600 Spotsylvania Parkway Fredericksburg, VA 22408	(540) 498-4000	Emergency Services	13 miles east of Site A
Fredericksburg Medical Center (Kaiser Permanente)	1201 Hospital Drive Fredericksburg, VA 22401	(540) 368-3700	Urgent Care Services	13 miles northeast of Site A
Mary Washington Hospital	1001 Sam Perry Boulevard, Fredericksburg, VA 22401	(540) 741-1100	Emergency Services	13.23 miles northeast of Site A

County Fire and Rescue Station	**Address**	**Phone Number**	**Distance from Project Site**
Fire Company/Rescue Station 7 (Wilderness)	10501 Orange Plank Road, Spotsylvania, VA 22553	Fire: (504) 507-7970/7971 Rescue: (540) 507-7952/7953	3.30 miles northeast of Site A
Fire Company/Rescue Station 9 (Belmont)	7100 Belmont Road, Mineral, VA 23117	Fire: (540) 507-7974/7975 Rescue: (540) 507-7956/7957	4.30 miles southwest of Site B
Fire Company/Rescue Station 2 (Brokenburg)	11700/11701 Volunteer Lane, Spotsylvania, VA 22553	(540) 507-7942/7943	5.75 miles southeast of Site C

Fire Company/Rescue Station 5 (Chancellor)	6204 Plank Road, Fredericksburg, VA 22407	Fire: (540) 507-7966/7967 Rescue: (540) 507-7948/7949	6.55 miles northeast of Site A

Local Police and Sheriff Station	Address	Phone Number	Distance from Project Site
Spotsylvania Sheriff	9119 Dean Ridings Ln, Spotsylvania Courthouse, VA 22553	(540) 507-7200	10 miles east of Site A
Orange County Sheriff's Office	11350 Porter Rd, Orange, VA 22960	(540) 672-1200	15.4 miles west of Site C
Fredericksburg Police Department	2200 Cowan Blvd, Fredericksburg, VA 22401	(540) 373-3122	18.9 miles northeast of Site A
Spotsylvania Animal Control	450 Tv Dr, Fredericksburg, VA 22408	(540) 582-7115	12 miles east of Site A

3.2 Communication and Training Procedures

All employees and subcontractors will receive safety training before they begin work onsite. This training will include pertinent information regarding hazardous material management and fire prevention. The project's superintendent will be responsible for ensuring that all personnel receive this training.

sPower will provide site specific training to County Fire that outlines construction and operation activity, a solar facility overview (location, ingress/egress, equipment, site operation), best practices in responding to emergencies at the facility, and thorough review of construction and operation emergency response plans. County Fire will receive maps of roads and facilities to access to the site with description locations. These maps will be incorporated into training materials to ensure that County Fire and EMS providers understand how and where to access emergency situations at the Project Site. sPower will host three separate training sessions with county FREM personnel spread out over the course of several months to allow for maximum participation. If, after the three sessions there are still FREM personnel who were unable to attend previous trainings, sPower will coordinate with County staff and FREM to schedule additional meetings
Communication will be available at all office trailers or a wireless amplifier will be installed for safety communication at job site trailers. Construction staff will be provided with adequate communication on site including radios to team leaders that are in constant communication with staff. Since cell phone service is limited at the project site, repeaters or cell phone boosters may be installed to enhance cell phone coverage across the site.

4 Fire Prevention

4.1 Purpose & Need for Fire Prevention Plan (FPP)

- Eliminate the potential risks and/or causes of fires
- Prevent loss of life and property by fire
- Educate employees to promote a safe environment

- Be prepared should a fire occur
- Outline a procedure to follow for the safety of the individuals on site at the time of the occurrence
- Identify risk factors and hazards
- Set up proper storage procedures, training, and identification of personnel responsible for maintaining and servicing the equipment and systems on site that are used to prevent and/or control a fire.

4.2 Responsibilities and Procedures

Safety is everyone's responsibility on site. All employees are to be trained and should know how to prevent and respond to a fire emergency. All employees must:
Complete an on-site training program identifying the fire risks for the project site
Know the protocol and follow emergency procedures should an event occur
Review and report potential fire hazards to the Superintendent

4.2.1 Understanding Conditions Associated with Photovoltaic Solar Arrays

Photovoltaic (PV) solar arrays present a unique challenge for fire fighters. Unlike a typical electrical or gas utility, a PV array does not have a single point of disconnect. Whereas there are disconnects that will de-energize select parts of the system, as long as the PV panels are illuminated, the individual strings of PV panels are energized and capable of producing up to 1,500 volts. This is not just limited to PV panels being illuminated by the sun; illumination by artificial light sources, such as fire department lights, or the light for the fire itself are capable of producing electrical power sufficient to cause a lock-on hazard (Source: *UL Firefighter Safety and Photovoltaic Installations Research Project, November 29, 2011*). Below is a summary of the hazards associated with firefighting activities in photovoltaic solar arrays:

- Shock hazard due to the presence of water and PV power during suppression activities
- Outdoor rated electrical enclosures may not resist water intrusion from the high-pressure stream of a fire hose.
- PV panels damaged in the fire may not resist water intrusion.
- Damaged conductors may not resist water intrusion
- Shock hazard due to direct contact with energized components
- No means of complete electrical disconnect.

Due to the dangers presented above, it is not typical to practice fire suppression by means of water inundation within solar PV arrays.

4.2.2 Small Stage Fires

Small stage fires are small fires that are in the beginning stage and can be controlled with a fire extinguisher. An example would be a small trash can fire. In the event of a small stage fire at the project:

1. The person discovering the fire should immediately dispatch someone to activate the Incident Command Team.
2. All non-essential personnel should be removed from the hazard area.

3. All on-site vehicles are required to carry fire extinguishers. Fire extinguishment with a fire extinguisher or other means should be attempted if the person has been trained in the use of fire extinguishers and can do so without placing themselves in danger.
4. The Safety Manager or his designee will respond to the scene and determine if external resources or an evacuation are necessary. In the event of an evacuation, they will recruit/dispatch employees to assist with the evacuation and, have the Superintendent issue the following statement over the radio: "Attention, there is a fire emergency at (location name). Please evacuate (the affected area) and report to (designated meeting area).
5. Fire department shall be notified of incident including the nearest access point and location of fire. A site safety employee shall meet EMS services and escort the EMS response team to the incident. In the event EMS services do not respond at a single time, additional personnel shall be appointed to meet remaining EMS services at the access gate and escort them to the fire location.
6. Designated meeting areas shall be established at all primary site entrances. EMS services shall be notified of designated meeting area during small stage fires.
7. At this point, all employees in the affected area will stop work immediately, take steps to safely shut down equipment, exit the evacuation area, and report to the designated meeting area.
8. The Safety Manager will then take steps to ensure that no employee re-enters the evacuated area until the Fire Department arrives and assumes command.
9. The Safety Manager will issue an "All Clear" only when the Fire Department informs them that it is safe to do so.

4.2.3 Large Stage Fires

In the event of a large stage fire at the project:
The person discovering the fire should immediately contact the Safety Manager or Superintendent.

1. Call 911 to report the fire.
2. Fire department shall be notified of incident including the nearest access point and location of fire. A site safety employee shall meet EMS services and escort the EMS response team to the incident. In the event EMS services do not respond at a single time, additional personnel shall be appointed to meet remaining EMS services at the access gate and escort them to the fire location.
3. All personnel should be removed from the immediate danger area in anticipation of an evacuation.
4. Designated meeting areas shall be established at all primary site entrances. EMS services shall be notified of designated meeting area during large stage fires. The Safety Manager will respond to the scene and ensure that the fire department has been dispatched. Spotsylvania County Fire, Rescue and Emergency Management will be responding to 911 calls during construction and after construction has completed. They will then determine evacuation needs, recruit/dispatch employees to assist with the evacuation and, have the Superintendent issue the following statement over the radio: "Attention, there is a fire emergency at (location name). Please evacuate (the affected area) and report to (designated meeting area).
5. At this point, all employees in the affected area will stop work immediately, take steps to safely shut down equipment, exit the evacuation area, and report to the designated meeting area.
6. In this scenario, fire extinguishers are to be used for escape purposes only.
7. The Safety Manager will take the necessary steps to ensure that no employee re-enters the evacuated area until the Fire Department arrives and assumes command.

8. No employee is required or permitted to place themselves in harm's way in order to facilitate extinguishment, evacuation, or rescue. All rescue operations will be performed by trained professionals upon their arrival.
9. The Safety Manager will issue an "All Clear" only when the Fire Department informs them that it is safe to do so.

4.3 Vegetation Fire and Procedures

The site will be largely free of combustible vegetation with only a ground cover of maintained vegetation adjacent and beneath the solar tracker (Figure 1). Flying embers from off-site fire may inundate the Project area during fire events. The modified fuel areas and construction type and materials for all project features will resist ignition from ember showers. Ignition of the ground cover could result in a fast moving, but lower intensity fire that burn in a patchy manner on the site beneath the modules. The vegetation on the Gen-tie line right-of-way will be cleared around poles and access roads, where not prohibited by environmental constraints. This type of fire would be relatively short-duration as vegetative fuels are consumed rapidly. There would not be a sustained source of heat and or flame as there would be with surrounding wild fires.

Figure 1: Typical Ground Cover Under Solar Arrays

In the event of a vegetation fire under or near the modules or inverters:

- **DO NOT** attempt to extinguish the flames with water or other chemicals as an electric shock or arc could occur.
- If possible, safely attempt to shut down power at the inverter using the DC disconnect
- Let the fire burn vegetation and self-extinguish
- If flames continue away from modules or inverters, attempt to extinguish flames.

4.4 Fire Department Access

4.4.1 Internal Site Access Roads and Driveways

The internal site access roads will consist of compacted gravel roads. These access roads will be located to provide access to each of the sites Photovoltaic Module Inverter Station (a.k.a. power conversion stations). This is the location where the solar inverters and step up transformers will be located. Access roads located throughout the arrays are a minimum 12 feet wide and provide 50-feet turning radius and standard hammer-head turnarounds at inverter locations. These internal access roads are provided primarily for use by operations and maintenance personnel vehicles. All internal roads and crossings will be permanent and designed (at a minimum) to FAST Act standards, for EV2 and EV3 class vehicles, with a rating as defined as H-20 per the VDOT IIM-S&B-86.1 guidance document.

4.4.2 Access Aisles

From the internal access roads, access to all areas within the solar arrays is provided by access aisles. Access aisles are the clear spaces located between the individual rows of solar panels. Access aisles consist of unimproved native material and are not suitable for all emergency services vehicles. However, access aisles do provide emergency responders with access routes to all areas of the site via walking from a nearby access road or by the use of 4x4 vehicles.

4.5 Controlling Hazards & Prevention Practices

For a FPP to be effective, fire hazards need to be identified and controlled. Employees need to be educated on fire hazards associated with a PV power plant and what procedures to follow to prevent and control fire hazards. Employees need to know how to respond to the fires those hazards might cause.

4.6 Welding & Open Flame/Hot Work

Cutting, welding, and open flame work are naturally hazardous. Welding processes may use oxy-acetylene gas, electrical current, electron beams, and heat from fuel gas. It is critical that the highest level of attention be given to these activities to prevent fires at a PV power plant.

- Cutting and welding are to be done by authorized personnel.
- Torches, regulators, pressure-reducing valves and manifold are to be UL listed or FM approved.
- Welders are to wear eye protection and protective clothing as appropriate.
- Oxygen-fuel gas systems are to be equipped with listed and or approved backflow valves and pressure-relief devices.
- Prior to open flame or hot work activity, a Fire Watch Person shall be established.

Establish a Fire Watch Person when prior to welding, open flame or hot work activity.
Fire extinguishers shall be present at all times during welding and open flame/hot work.

4.7 Burning

sPower will comply with the State of Virginia and Spotsylvania County burning regulations and codes. sPower and its contractor shall mulch stumps, tree limbs and other woody debris where possible for use as erosion control BMPs. In the event material cannot be mulched or used on the Project Site, special incineration devices (i.e. open pit incinerators) that provide good and clean combustion performance shall be permitted, but at no time closer than 2,000 feet from any residence.

An AirBurner 2018 Model T-300 Trench Burner, or similar technology, will be deployed in designated areas during initial grading of the Project site. The following protocols will be implemented when trench burning occurs:

- A permit shall be acquired from Spotsylvania County.
- All combustible materials shall be removed within 35 feet of trench burning.
- A water truck shall be on standby.
- Trench burning shall not occur within 2,000 feet of any residence.
- Trench burners shall be equipped with fire extinguishers.
- Check wind forecasts for the day and do not burn on high wind days (sustained winds more than 25 mph) or when prohibited by Spotsylvania County Fire Department.
- Burning shall take into consideration sensitive receptors and prevailing wind direction at lower speeds (<25 mph).Burning shall cease 2 hours prior to end of work day.
- Employees that operate trench burners will be issued a hot work permit.
- Each trench burning shall be staffed by a minimum of 2 employees.
- A Fire Watch Person will be designated to monitor all trench burning activities.
- The Fire Watch Person shall remain within the immediate area of the trench burning at all times and shall not be assigned any other duties.
- The Fire Watch Person shall complete a “Hot Work Checklist” each day trench burning occurs.
- If the burn area is still producing smoke, it is technically stull burning and must be attended.

Trenches will be dug to depths indicated by the trench burner’s technological specs or Fire Marshall guidance, in order to limit exposure to wind and gusts. A blowing machine is utilized to pump air into the trench, increasing the fire temperature, and thus burning the material quickly and efficiently. This eliminates excess smoke and embers.

4.8 Class A Combustibles

These combustibles consist of common materials (wood, paper, cloth, rubber, and plastic) that can act as fuel and are found on most work sites.
To handle Class A combustibles safely to prevent fires:

- Dispose of waste daily (i.e. cardboard, wood pallets, packing materials etc.).
- No burning of these construction materials shall occur.
- Use trash receptacles with covers.
- Keep work areas clean and free of combustible materials.

- Store materials in the proper storage and recycling containers.
- Do a periodic check of the job site to make sure combustibles are being handled correctly.
- Water, multi-purpose dry chemical (ABC) and halon are approved fire extinguishing agents for Class-A Combustibles.

4.9 Class B Combustibles

These combustibles include flammable and combustible liquids (oil, grease, tar, oil-based paints and lacquers) flammable gases, and flammable aerosols.

To handle Class B combustibles safely to prevent fires:

- Use only approved pumps (with suction from the top) to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).
- Do not dispense Class B flammable liquids into a container unless the nozzle and container are electrically interconnected by contact or bonding wire. Either the tank or container must be grounded.
- Store, handle, and use Class B combustibles only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.
- Do not use a flammable liquid as a cleaning agent inside a building (the only exception is in a closed machine approved for cleaning with flammable liquids).
- Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits.
- Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
- Do not generate heat, allow an open flame, or smoke near Class B combustibles.

Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.
Water should not be used to extinguish Class B fires caused by flammable liquids, as it can cause the burning liquid to spread, making the fire worse. To extinguish a fire caused by flammable liquids, exclude the air around the burning liquid. The following fire extinguishing agents are approved for Class B combustibles: carbon dioxide, multi-purpose dry chemical (ABC), halon 1301 and halon 1211. (Halon is no longer being manufactured due to its designation as an ozone-depleting substance).

4.10 Class C Combustibles

Class C fires are fires that involve energized electrical equipment. In the event of a Class C fire, <u>ALWAYS</u> de-energize the circuit supplying the fire, and then use a non-conductive extinguishing agent such as carbon dioxide or Halon 1211. A multi-purpose dry chemical (ABC) extinguisher can also be used on Class C fires.
Do not use water, foam or other conducive agents when fighting electrical fires. Once the electricity is shut down to the equipment involved, the fire generally becomes a standard combustible fire.

4.11 Electrical Fire Hazards

Electrical equipment is a major cause of workplace fires and may result from loose ground connections, wiring with bad insulation, or overloaded fuses, circuits, motors or outlets.
To prevent electrical fires, the following measures will be taken:

- Use only appropriately rated fuses per manufacture's specifications.
- Check all electrical equipment to ensure it is properly grounded and insulated.
- Ensure adequate spacing while performing maintenance.
- Check wiring to ensure no damage to cables or connections.

4.12 Employee Training & Education

Job site fire rules are to be posted on the project the bulletin board along with the OSHA compliance postings, first aid, and site specific project information. The bulletin board is to be located at the contractor's field office and accessible to all employees.

Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats. Confirm all employees understand the function and elements of the fire safety plan, including types of potential emergencies, reporting procedures, evacuation plans, and shutdown procedures. Review any special hazards that might occur at the Spotsylvania Solar Energy Center, such as flammable materials, fuel storage, toxic chemicals, and water reactive substances.

Fire safety training will occur during the site safety training. Every employee must take this training before starting work. Training to include:

- Employee roles and responsibilities.
- Recognition of potential fire hazards.
- Alarm system and evacuation routes.
- Location and operation of manually operated equipment (fire extinguishers).
- Emergency response procedures.
- Emergency shutdown procedures.
- Information regarding specific materials to which employees may be exposed.
- Review OSHA requirements contained in 29 CFR 19010.38, Emergency Action Plans.
- Review OSHA requirements contained in 29 CFR 1910.39, Fire Prevention Plans.
- The location of the company FPP and how it can be accessed.
- Good fire-prevention housekeeping practices and equipment maintenance.

The Mortenson site safety person, as well as the Superintendents and Foreman, are responsible for fire safety training. Written documentation of the training received by each employee must be maintained.

4.13 Use of Portable Fire Extinguishers

A minimum of one portable fire extinguisher should be provided within 200 feet of anywhere in the work area during construction.

- Fire extinguishers should be inspected monthly.
- Fire extinguishers should not be obstructed and should be in conspicuous locations.

4.14 Site Maintenance & Housekeeping

- Combustible material should not be stored in mechanical rooms, electrical equipment rooms or the SCADA buildings.
- Outside dumpsters should be kept at least 5 feet away from combustible materials and the lid should be kept closed.
- Storage is not allowed in electrical equipment rooms, or near electrical panels.
- Electrical panel openings must be covered.
- Power strips must be plugged directly into an outlet and NOT daisy-chained and should be for temporary use only.
- Extension cords and flexible cords should not be substituted for permanent.

4.15 Equipment Fire Safety

- All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order.
- Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. These vehicle types shall maintain their factory-installed (type) mufflers in good condition.
- Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.
- The project proponent shall make an effort to restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, and torches to periods outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.
- All team supervisors and health and safety officials will have AED and first aid kits in vehicles.

4.16 Emergency Response

Project personnel will meet with local emergency response groups to review the Fire Safety Plan, discuss the type of work taking place, duration of project schedule and emergency procedures.
The following course of action should be taken if an emergency develops:

- Evacuation procedures and assembly are contained in the Evacuation plan, which will be posted in all office trailers. Maintain site security and control.
- Notify proper emergency services for assistance. Dial 911 or direct-dial emergency contact numbers if possible. Emergency numbers shall be posted at each office trailer.
- Notify Site Safety Manager and all affected personnel at the site through use of site radio or other communication devices.
- Once emergency personnel have been notified, an employee will then be designated to meet the emergency personnel at the point of ingress and then guide them to incident location. If emergency personnel come at different times, a secondary person will meet the subsequent crews at the ingress point.
- Only after emergency is declared over by the Site Safety Manager can all other radio communication resume.
- Prepare a summary of the incident as soon as possible and no later than 24 hours after the incident.

This FPP is in addition to Mortenson's standard Safety protocol and is to be a part of daily tool box topics, reviewed regularly, and included in general safety meetings and review with Safety Manager and on site personal.

5 Severe Weather

5.1. Severe Thunderstorm and Tornado Warnings

A severe thunderstorm or tornado warning is an urgent announcement that a severe thunderstorm or Tornado has been reported or is imminent in the area and will warn individuals to take cover. Local National Weather Service office issue severe thunderstorm or tornado warnings.

Notification systems for adverse weather, which may include NOAA radio, AM/FM radio, lightning detectors, wind speed indicators, will be maintained at the project Operations and Maintenance (O&M) building and/or MET stations throughout the project site.

In addition, weather will be monitored utilizing http://www.nws.noaa.gov/

5.1.1. Thunderstorms

Upon hearing the sound of thunder, personnel are close enough to a storm to be struck by lightning. Employees will be instructed to go to a designated safe shelter immediately. In addition:

- Crane activities will be shut down.
- Workers will be removed from elevated areas.
- If no shelter is nearby, workers will be instructed to get in a vehicle and keep the windows up.
- If indoors, unnecessary appliances will be unplugged and phone use will be strictly for emergencies.
- If personnel are caught outside and no shelter is available, they will be instructed as follows:
- Find a low spot away from trees, fences, and poles.
- Squat low to the ground on the balls of your feet, place your hands on your knees with your head between them, make yourself the smallest target possible and minimize your contact with the ground.

5.1.2 Tornados

Upon the issuance of a tornado warning, employees will evacuate the job site and report to the pre-designated shelter area, to be determined prior to employee arrival. In the event employees are outside and unable to evacuate to the shelter, the following procedure will be followed:

- Lie flat in a nearby ditch or depression, covering the head with the hands. Be aware of the potential for flooding.
- Employees are safest in a low, flat location and will be instructed to not get under an overpass or bridge.
- Employees will be instructed to never try to outrun a tornado in congested areas in a vehicle. It is safest to leave the vehicle for safe shelter.
- Employees will be instructed to watch out for flying debris.

5.2 Floods

It's important to be careful when driving during flood conditions. Nearly half of flood fatalities are vehicle-related. Six inches of standing water is enough to stall some cars, a foot of water can float a vehicle, and two feet of moving water is enough to sweep a car away. If the water level is rising around your vehicle, you should abandon the vehicle. Be wary of unknown road conditions. Do not try to cross flooded roadways if you do not know the depth of the water.

Determine whether your home or work place is in a predetermined flood plain. Stay informed about and know flood terminology:

- Flood Watch—Flooding is possible. Stay tuned to radio or TV for more information.
- Flash Flood Watch—Flash flooding is possible. Stay tuned to radio or TV for more information. Be prepared to move to higher ground.
- Flood Warning—Flooding is currently occurring or will occur soon. Listen for further instructions. If told to evacuate, do so immediately.
- Flash Flood Warning—Flash flooding is currently occurring or will occur soon. Seek higher ground on foot immediately.

5.2.1 Chemical and biological hazards

Liquefied Petroleum Gases (LPG) and underground storage tanks, along with other chemical containers, may break away and float downstream, causing hazards from their released contents. Floodwaters may also contain biohazards due to direct contamination by untreated raw sewage, dead animals, rotting food, etc. Avoiding contact, good personal hygiene practices, medical surveillance, and discarding all food that comes in contact with flood waters are all important controls.

5.2.2 Fire

Floods can damage fire protection systems, delay response times of emergency responders and disrupt water distribution systems. All of these factors lead to increased dangers from fire and decreasing firefighter capabilities.

5.2.3 Drowning

Anytime workers are exposed to moving water, their chances for accidental drowning increases. Even good swimmers are easily overcome by swift-moving water.

5.2.4 Hypothermia

Hypothermia is a condition brought on when the body temperature drops to less than 95°F. Standing or working in water that is cooler than 75°F will remove body heat more rapidly than it can be replaced, resulting in hypothermia. Symptoms of hypothermia include uncontrollable shivering, slow speech, memory lapses, frequent stumbling, drowsiness, and exhaustion.

6. Hazardous Materials

6.1 Hazardous Materials on Site

Mortenson does not anticipate utilizing many hazardous materials for the construction of the Spotsylvania Solar Energy Center. One (1) 1000-gallon temporary diesel fuel tank and Two (2) 250-gallon temporary gasoline tanks are the only anticipated hazardous materials to be stored on site during construction.

6.1.1 Container Management:

- All hazardous substance containers must be in good condition and compatible with the materials stored within.
- All hazardous substance containers must be accessible and spacing between containers must provide sufficient access to perform periodic inspections and respond to releases.
- Fuel stored on site shall have secondary containment and must be located greater than 250 feet from wetlands and RPA zones.
- Jersey barriers will be placed around fuel tanks where applicable for additional security.
- All fueling shall occur greater than 250 feet from wetlands and RPA zones.
- Empty hazardous substance containers (drums) must have all markers and labels removed and the container marked with the word “empty”.
- Any spills on the exterior of the container must be cleaned immediately.
- Flammable materials stored or dispensed from drums or totes must be grounded to prevent static spark.
- Do not overfill waste drums. 4” of headspace must remain to allow for expansion.

6.1.2 Good Housekeeping:

- All hazardous substances must be stored inside buildings or under cover.
- Store hazardous substances not used daily in cabinets, or in designated areas.
- All chemicals that are transferred from larger to smaller containers must be transferred by use of a funnel or spigot.
- All hazardous substance containers should be closed while not in use.
- Use drip pans or other collection devices to contain drips or leaks from dispensing containers or equipment.
- Implement preventative maintenance activities to reduce the potential for release from equipment.
- Immediately clean up and properly manage all small spills or leaks.
- Periodically inspect equipment and hazardous substance storage areas to ensure leaks or spills are not occurring.
- Use signage to identify hazardous substance storage or waste collection areas;
- Keep all work areas and hazardous substance storage areas clean and in good general condition.
- Verify weekly that spill control clean-up materials are located near material storage, unloading, and use areas.
- Update spill prevention and control plans and stock appropriate clean-up materials whenever changes occur in the types of chemicals used or stored onsite.

6.1.3 Secondary Containment:

Store all bulk chemicals (≥55 gallons) within appropriate secondary containment, or any sized chemical if there is a potential for release to the environment.
Secondary containment should be checked periodically, and any spills identified in secondary containment must be immediately cleaned up and removed.

6.1.4 Marking/Labeling:

Ensure all hazardous substances, including chemical wastes, are properly marked and labeled in accordance with all federal, state and local regulations.
Ensure that hazardous substances transferred to small containers are marked with the chemicals name (example- “Isopropyl Alcohol”) and hazard (example- “Flammable”).

6.2 Spill Response Plan

All spills shall be immediately addressed and reported to the appropriate agencies. In the unlikely event of a hazardous materials spill into an Resource Protection Area (RPA), wetland, or stream, Spotsylvania County EMS and the Zoning Department shall be notified immediately.

6.2.1 Minor Spills

Minor spills typically involve small quantities of oil, gasoline, paint, etc., which can be controlled by the first responder at the discovery of the spill. Below are the steps that should be taken to control minor spills:

- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Remove the absorbent materials promptly and dispose of properly.
- The practice commonly followed for a minor spill is:
- Contain the spread of the spill.
- Recover spilled materials.
- Clean the contaminated area and/or properly dispose of contaminated materials.

6.2.2 Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities. Below are the steps that should be taken to control semi-significant spills:

- Clean up spills immediately.
- Notify the project foreman immediately. The foreman shall notify the Engineer.
- Contain spread of the spill.
- If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
- If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

6.2.3 Significant/Hazardous Spills

For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps shall be taken:

- Notify the Engineer immediately and follow up with a written report.
- Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the proper county officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor shall notify the National Response Center at (800) 424-8802.
- Notification shall first be made by telephone and followed up with a written report.
- The services of a spills contractor or a Haz-Mat team shall be obtained immediately. Construction personnel shall not attempt to clean up the spill until the appropriate and qualified staff has arrived at the job site.

Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, OSHA, RWQCB, etc.

6.3 Education

Education regarding hazardous materials shall be conducted as part of the Mortenson site safety training for both new employees and as a refresher for existing employees transferring onto this project. The training shall:

- Educate employees and subcontractors on what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.

The Contractor’s Water Pollution Control Manager (WPCM) shall oversee and enforce proper spill prevention and control measures. The Mortenson superintendent will be the WPCM for this project.

6.4 Maintenance and Inspection

Hazardous material maintenance and inspection shall consist of the following:
Verify weekly that spill control clean-up materials are located near material storage, unloading, and use areas.

Update spill prevention and control plans and stock appropriate clean-up materials whenever changes occur in the types of chemicals used or stored onsite.

Exhibit D: Emergency Response Plan – Operations, dated November 19, 2018

1.0 INTRODUCTION

The purpose of the Emergency Response Plan is to establish responsibility and guidelines for taking action in the event of an emergency occurring at the Spotsylvania Solar Energy Center (Project) Site during operation of the Project. The Emergency Response Plan emphasizes sPower's dedication to providing a safe and healthy work environment. sPower employees and Operations and Maintenance (O&M) staff working at the Project Site shall familiarize themselves with the content of this Emergency Response Plan, so they can understand and comply with instructions and procedures outlined herein.

1.1 General Responsibilities

sPower is accountable for the safety of employees working under their supervision and are required to enforce the instructions and procedures outlined herein. All on-site personnel must take an active part in protecting themselves, fellow workers, and the general public. They are further required to participate in safety meetings and notify supervisors of any unsafe conditions that may exist at the Project Site. The following is a list of the general responsibilities of on-site personnel.

Operations and Safety Managers

More than any other employee, Superintendents and Supervisors carry the greatest burden of implementing, maintaining, and enforcing the Emergency Response Plan at the Project Site. Their responsibilities include:

- Ensure job specific emergency and evacuation procedures are provided at the Project Site.
- Evaluate workers qualifications and abilities.
- Ensure that workers have proper clothing and personal protective equipment.
- Provide all personnel and sPower vehicles with equipment necessary to respond to first aid, health and safety issues, fire or other emergency needs including equipping sPower vehicles with fire extinguishers, first aid kits and AED equipment.
- Provide first aid and ensure employees have access to medical treatment.
- Conduct safety meetings that emphasize the importance of safety and address specific jobsite safety issues.
- Plan and anticipate potential hazards of upcoming work.
- Conduct workplace safety inspections and be alert for possible accident producing conditions.
- Follow-up to ensure compliance with safety recommendations made by sPower, Spotsylvania County, the County Fire Marshal, the Police Department, and regulatory agencies.
- Provide training to County first responders that provides a solar facility functional overview (location, ingress/egress, equipment, site operation), evaluates operation activities and best practices in responding to emergencies at the facility, and reviews operation emergency response plans.

Worker Responsibilities

Each and every worker is responsible for the safety of themselves and their fellow workers. In addition to observing safe practices and exercising common sense, worker responsibilities include:

- Adhere to all instructions and procedures contained herein and established by Supervisors.
- Be constantly vigilant for unsafe activities or conditions around work activities and make the needed corrections.
- Set a good example for fellow workers.
- Consistently deliver work of high quality.
- Cooperate with Supervisors in preventing accidents.
- Make safety suggestions and/or report safety concerns to Supervisors.

Jobsite Visitors

On occasion, sPower will receive requests from County staff, emergency services, project sponsors, public organizations, or others to visit the Project Site. Jobsite visitors shall undergo site safety orientation prior to entering the Project Site.

1.2 General Guidelines

On-site personnel will have to take actions as their judgment dictates based upon the conditions that arise for each emergency. These guidelines are intended to assist them in making timely decisions and taking appropriate actions. On-site personnel shall call for assistance, based on the significance of the emergency. All work-related injuries/illnesses MUST be reported IMMEDIATELY to sPower.

- If the emergency requires external emergency responders to arrive on the Project Site, the initial responder must coordinate the response. For emergencies of a significant nature, such as fire or ambulance for major medical emergency, the initial responder shall call 911, and then use the Calling Tree.
- Subcontractor Management are responsible for getting injured parties to the hospital and emergency treatment at the nearest heath care facilities in the most efficient manner possible based on perceived injuries, using ambulance, paramedic units, or Air Evacuation as needed.
- For all first aid medical incidents, use the Calling Tree to notify Site Response Personnel to help provide support. For non-emergency situations like a minor injury, the initial responder shall use the Calling Tree.
- Subcontractor Safety Personnel shall accompany the injured party and use the local occupational medical clinic or hospital nearest the Project Site.
- Subcontractors must establish their own First Aid stations. They shall be made available to their workforce and provided in each trailer and in all trucks on the Project Site.

Alarm Descriptions

Emergency	Description
Medical	1 air horn blast with simultaneous cell phone notification
Fire	2 air horn blasts with simultaneous cell phone notification
Evacuation	3 air horn blasts with simultaneous cell phone notification
Seek Shelter	4 air horn blasts with simultaneous cell phone notification

2.0 MEDICAL EMERGENCY

2.1 Serious Injury

The following procedures apply for serious medical injuries such as loss of consciousness, heart attack, bone fractures, neck trauma, or severe burns.

1. One (1) air horn blast with simultaneous cell phone notification.
2. Broadcast "May-Day, May-Day" on radio.
3. Notify Operations and/or Safety Managers.
4. If life threatening, call **9-1-1.**
5. Provide name, exact location, number of injured persons, and brief description of incident
6. On-site personnel to meet EMS responders at site entrance and direct them to location of incident.
7. Do not leave or move the injured unless directed to by Safety Managers or EMS responders.
8. Administer first aid if necessary.
9. Document incident and keep on file.

2.2 Minor Injury

The following procedures apply for minor medical injuries.

1. One (1) air horn blast with simultaneous cell phone notification.
2. Initiate first aid if necessary.
3. Notify Operations and/or Safety Managers.
4. Call **9-1-1** if necessary.
5. Arrange for visit to medical facility as needed.

2.3 Attending an Incident

When attending an incident, the following procedures apply:

1. Clear a path to the injured person for Operations and/or Safety Managers and assign personnel to assist with signaling EMS responders to the location of the incident.
2. Identify location of Project Site entrance nearest to the incident and notify EMS responders.
3. Operations and/or Safety Managers shall meet EMS responders at site entrance.
4. Direct and accompany EMS responders to location of incident.
5. Follow all directions of EMS responders

6. Contact management staff of sPower and/or subcontractors.
7. Document incident and keep on file.

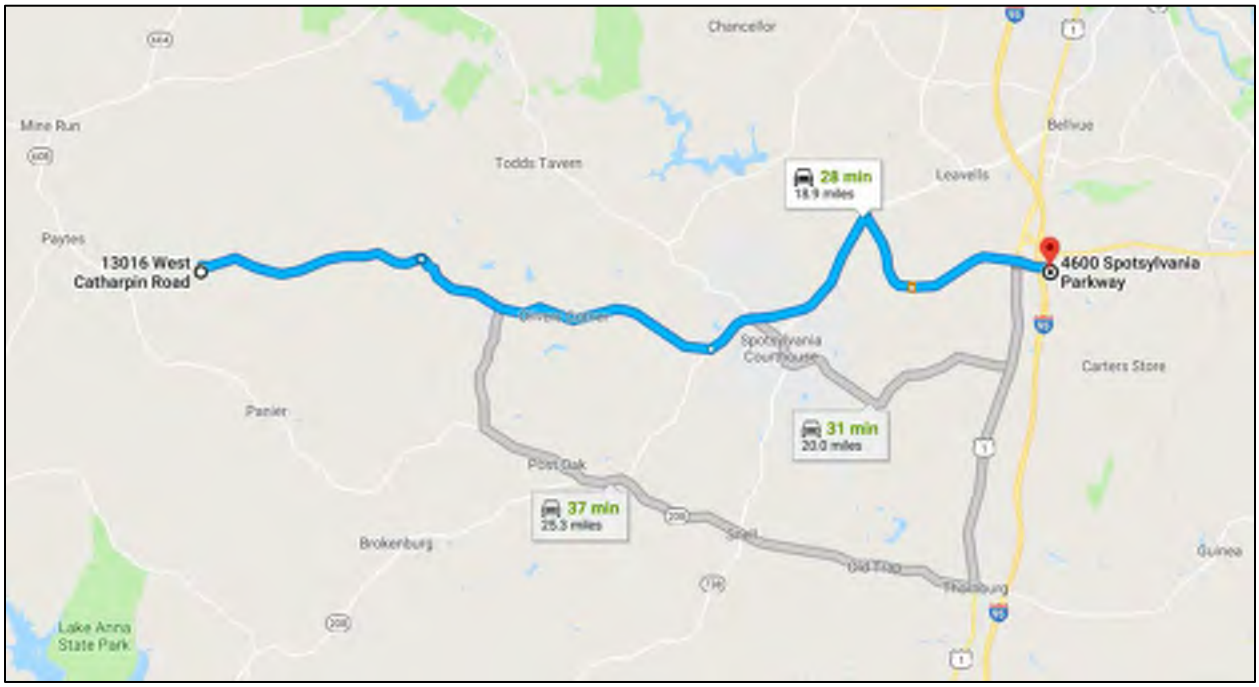
2.4 Medical Facilities

The nearest medical facility to the Project Site is:

Spotsylvania Regional Medical Center
4600 Spotsylvania Parkway
Fredericksburg, VA 22408

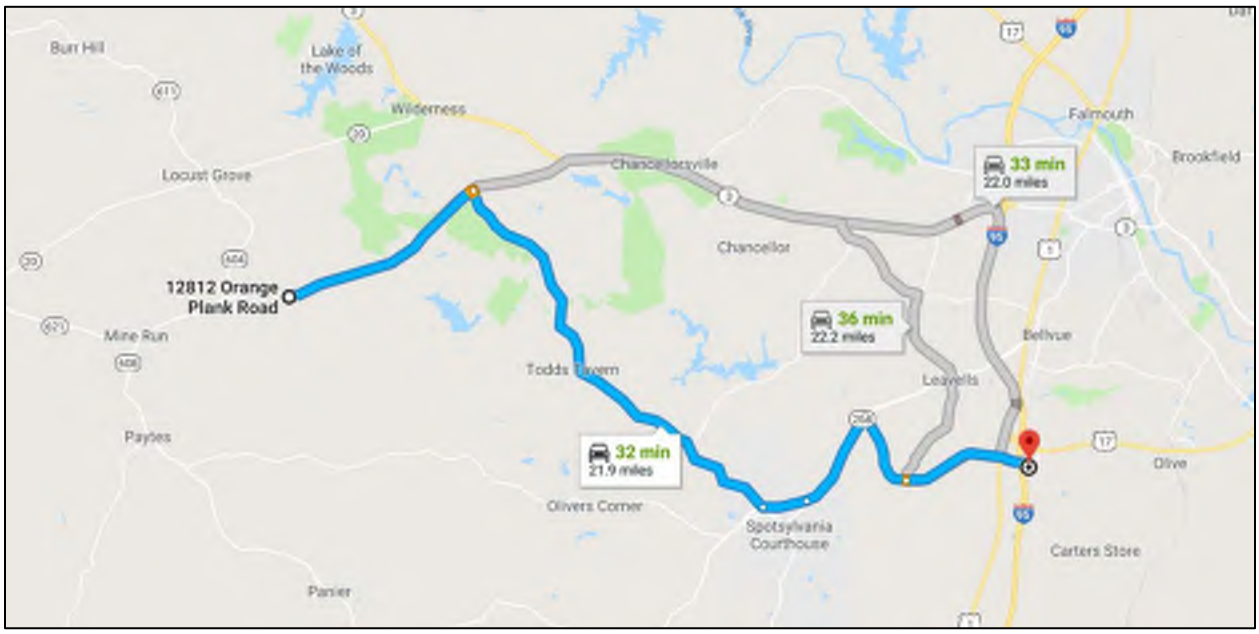
Direction from West Catharpin Road:

- Head east on West Catharpin Road
  - 4.3 mi
- Turn right onto Robert E. Lee Drive
  - 6.1 mi
- Turn left onto Courthouse Bypass (VA-208 E)
  - 4.1 mi
- Turn right onto Smith Station Road
  - 1.7 mi
- Continue onto Spotsylvania Parkway
  - 2.7 mi
- Destination is on the right



Directions from Orange Plank Road

- Head east on Orange Plank Road toward Chancellor Meadows Lane
  - 4.5 mi
- Turn right onto Brock Road
  - 9.8 mi
- Turn left onto Courthouse Bypass
  - 0.9 mi
- Continue onto Courthouse Road (VA-208 E)
  - 2.2 mi
- Turn right onto Smith Station Road
  - 1.7 mi
- Continue onto Spotsylvania Parkway
  - 2.7 mi
- Destination is on the right



3.0 HAZARDOUS MATERIAL SPILL

The hazardous materials that may be on the Project Site during operations include those usually associated with the operation and maintenance of vehicles and machinery, including diesel fuel, gasoline, hydraulic fluid, brake fluid, antifreeze, and lubricants. Other materials considered hazardous are chemicals used in portable toilets and the associated human waste. In the unlikely event of a hazardous materials spill into an Resource Protection Area (RPA), wetland, or stream, Spotsylvania County EMS and the Zoning Department shall be notified immediately.

3.1 Spill Prevention

The best defense against hazardous material spills is prevention. The following measures shall be implemented at the Project Site for spill prevention:

- All on-site personnel shall be trained to maintain and inspect their vehicles and equipment.
- All machinery found to be a potential source of a future spill shall be removed from the Project Site and repaired. Vehicles with chronic or continuous leaks must be removed from the Project Site and repaired before returning to operations. No leaking of any material from equipment or vehicles will be tolerated on the Project Site.
- On-site personnel shall make every effort to ensure compliance prior to an incident. On-site personnel are solely responsible for any spills of hazardous materials and the subsequent cleanup, disposal of waste, and restoration of any contaminated areas.
- Restrictions will be placed on all equipment refueling, servicing, and maintenance supplies and activities. All maintenance materials, oils, grease, lubricants, antifreeze, etc. shall be stored off-site. If they are required during field operations, they shall be placed in a designated area away from site activities and in an approved storage container.
- No refueling, storage, servicing, or maintenance of equipment shall take place within 100 feet of a drainage or sensitive environmental resources to reduce the potential of contamination by spills.
- No refueling or servicing shall be done without absorbent material or drip pans properly placed to contain spilled fuel.
- Any fluids drained from the machinery during servicing shall be collected in leak-proof containers and taken to an appropriate disposal or recycling facility. If these activities result in damage or accumulation of product on the soil, it must be disposed of as hazardous waste.
- Under no circumstances shall contaminated soil be added to a spoils pile and transported to a regular disposal site.
- During operations, all vehicles and equipment required on-site shall be parked or stored at least 100 feet away from rivers, streams, wetlands, known archaeological sites, and any other sensitive resource areas. All wash down activities must be accomplished away from sensitive environmental resources.

3.2 Spill Containment Equipment

The following equipment shall be at the Project Site with each construction crew in the event a spill occurs.

1. Emergency Spill Kit that includes at a minimum:
    a. Sorbent socks
    b. Disposal bags and ties
    c. Safety glasses
    d. Rubber gloves
    e. Sorbent drip pillow
    f. Sorbent pads, 18” x 18”
    g. Sorbent spill pillows, 24” x 18”
    h. Hazardous labels
    i. Bag of Lite-Dri Absorbent (or equal)
    j. Shovel and broom

2. Absorbent Pads - These pads (18" x 18") are 100% polypropylene fabrics that absorb 11 times their weight in liquids. Pads absorb 10 gallons of liquid per bale of 100 pads.

3. Absorbent Skimmers Booms - Skimmers will float indefinitely before or after saturation with oils. Skimmers are made of 100% meltdown polypropylene fill that repels water. They absorb ten times their weight and can be used in lakes, streams, or on the ground. Each skimmer has a harness kit attached that is made of yellow polypropylene rope with grommets that are used to connect skimmers. Each boom is 8-feet x 10-feet.

4. 55-gallon clean drums, lined with polypropylene material (over pack). The drum can be used to store spill response materials until needed. When a spill occurs, all soiled pads, pillows, skimmers, contaminated soil, etc. shall be placed in the drum for disposal after the cleanup is accomplished. It is the sPower's responsibility to make sure these materials are on-site at all times and personnel are trained in their use and disposal prior to spill response.

3.3 Spill Response Procedures

A formal notification process shall be initiated when a spill or potential spill is first observed. Immediate actions are necessary. The first individual who discovers a spill (spill observer) will be responsible for initiating notification and response procedures. All personnel responsible for responding to spills must have completed training in recognition and response to spills of hazardous materials. sPower is responsible for providing spill recognition and response training for all sPower project personnel.

<u>Spill Observer</u>

The first person to witness the spill shall follow these procedures:

1. Make an assessment of the incident as observed.
2. If the incident can be safely controlled, take steps to do so (e.g., turn off source of spill).
3. Notify sPower Management Team and provide as much information as possible.
4. Begin to fill out Spill Notification Checklist.

<u>sPower Operations and/or Safety Management</u>

Operations and/or Safety Managers shall follow these procedures in the event of a spill:

1. Notify Supervisors
2. Make sure all personnel are removed from the spill area.
3. Take immediate actions to minimize any threat to public safety (verify the spill area has been cordoned off).
4. Secure the source of the spill, if safely possible to do so.
5. Maintain close observation of the spill.

3.4 Vehicle and Machinery Spills

Incidents of loss of a petroleum product from equipment or vehicles shall be considered a spill. After the spill has been flagged to warn people to stay away, the volume and extent of the spill estimated, and initial notification procedures accomplished, the spill must be confined. Do not handle materials without wearing protective clothing.

Generally, follow the procedures listed below:

1. When the spill is discovered begin making notations on the Spill Notification Checklist.

2. Determine if the Spill Team Response is needed to complete cleanup.
    a. If the answer is NO, submit incident reports to Operations and/or Safety Managers
    b. If the answer is YES, go to step 3.

3. Activate the local spill response team.

4. Determine if additional cleanup contractors are necessary for a major incident.
    a. If the answer is NO and the incident is determined to be a minor spill, conduct internal cleanup, review and evaluate the cleanup, determine if the cleanup is beyond the local response team ability or equipment; if the answer is NO, complete the cleanup, restore the damaged areas, properly dispose of all waste, and submit incident reports to Operations and/or Safety Managers. If during cleanup, the incident is determined to be beyond the abilities of the local response team, hire additional contractors to help with the cleanup.
    b. If the answer is YES, hire additional contractors to help with the cleanup.

5. Arrange for proper testing and disposal of all waste if substance is unknown.

6. Closely monitor all cleanup activities.

7. Ensure proper disposal of absorbent materials, containers, and soils, as required.

8. Complete the cleanup and restore damaged areas.

9. Submit incident reports to Operations and/or Safety Managers.

Cleanup may range from very simple removal of minor spills, to installation of skimmers around large spills or between sensitive areas and spills for longer, prolonged cleanups. Cleanups can be on pavement or on soil surfaces. On-site personnel shall be trained in the proper use of the cleanup materials. All spills on pavement shall be thoroughly removed with absorbent socks, pillows, or pads and Lite-Dri (or equal) granules. After absorption, the granules shall also be removed. All materials used in cleanup, shall then become hazardous waste. Place all materials in a 55-gallon lined drum, seal it, and label the contents. The drum must then be sent to a designated disposal site. A chain of custody form must accompany the drum (provided by Disposal Company). It is strongly recommended that all contractors determine a disposal site in advance of a spill incident.

All spills on soil require the same treatment as on pavement, with the exception that contaminated soil is also part of the generated hazardous waste and must be handled as such and removed from the site.

3.5 Chemical Toilet Spill

Chemical toilets are self-contained and pose little threat to the construction site. Chemicals used in portable toilets are biodegradable and generally non-toxic to humans. However, they can pose a danger to wildlife and sensitive habitats by virtue of heavy concentration of chemical and human waste. They shall be pumped out at least one time per week. Toilets shall never be placed in or near an environmentally sensitive area. In the unlikely event that a portable toilet spills during transport or relocation, the same procedures for other hazardous material spills shall be used. Disposal of absorbent materials shall be handled the same as other spills, with proper disposal by the toilet supply company.

3.6 Reporting of Major Spills

Upon recognition of a major spill, notification is critical to immediate response. The first notification shall be given to the nearest Operations and/or Safety Managers so that appropriate spill response can begin immediately. After initial spill response has begun, notification and reporting to agency personnel shall occur. The following procedures should be followed when reporting major spills:

1. Never include information that has not been verified.
2. Never speculate as to the cause of the incident or make any acknowledgment of liability.
3. Do not delay reporting because of incomplete information.
4. Notify persons/agencies and document notification and the content of the message.
5. For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, O&M staff shall notify the National Response Center at (800) 424-8802.
6. Complete the Spill Notification Checklist as information is confirmed.

Other agencies which may need to be consulted include, but are not limited to, the County Fire Department, Public Works Department, Highway Patrol, County Police Department, Department of Toxic Substances, OSHA, RWQCB, DEQ, and or DGIF.

3.7 Disposal of Waste

Following the cleanup of a spill, the waste, absorbent materials, protective clothing, and any soil that has been contaminated must be removed to a designated hazardous waste disposal area. All contaminated materials shall be sealed in 55-gallon drums and labeled with the contents. If the contaminant is unknown, a sample of the material must be collected and analyzed before disposal. A permit or approval in writing must be obtained prior to disposal of the drum. A copy of the permit and a chain-of-custody form (obtained from the disposal contractor or testing laboratory) must accompany the material and copies must be attached to the Spill Notification Checklist submitted to Operations and/or Safety Managers. It is advisable for contractors to establish a

relationship with a disposal facility before an incident occurs. Local landfills may be able to receive some petroleum products. However, it is up to the contractor to perform sampling, testing, and coordination with landfills or a disposal company. Transporting hazardous waste is regulated by federal and state agencies under the Resource Conservation and Recovery Act (RCRA) and other statutes. The contractor is responsible for the proper disposal of all waste and understanding the responsibilities under federal and state statutes.

3.8 Final Reporting

Spill incidents that require cleanup must be reported on the Spill Notification Checklist. Notification must begin as soon as the incident occurs. The checklist shall be submitted to Operations and/or Safety Managers as soon as it is complete. Forms must be submitted no longer than five days after an incident is closed. A copy of the permit or disposal approval and the chain-of custody for the disposal must be attached to the Spill Notification Checklist. The forms shall be reviewed and filed in the contractor's file. No exceptions will be tolerated.

If a situation arises involving an unknown hazardous material, the Spill Notification Checklist can be used to report the incident. This incident may require a very different approach to removing the hazard and the contractor may be required to remove the material. The incident must still be reported by the contractor.

3.9 Follow-Up Investigation

A critique following a spill response is beneficial to evaluate the actions taken or omitted. Recommendations and suggested modifications will be made to prepare for the possibility of future spills.

3.10 Spill Notification Checklist

Spill Notification Checklists shall be provided at all construction trailers. At a minimum, the Spill Notification Checklists shall require the following information:

- Date
- Time
- Location
- Description of Spill (color, length, width, type)
- Type of Product
- Estimated Quantity
- Source of Spill (vehicle, machine, etc.)
- Describe initial containment procedures
- Weather conditions
- Note if spill reached any body of water
- Individuals notified of spill (include name, company, date, time, and response)

4.0 NATURAL DISASTERS

The Operations and/or Safety Managers will be monitoring weather daily via met stations located at the Project Site.

4.1 Flooding and Flash Floods

Flash flooding is a result of heavy localized rainfall such as that from slow moving, intense thunderstorms. Flash floods often result from small creeks and streams overflowing during heavy rainfall. These floods often become raging torrents of water which rip through river beds, or canyons, sweeping everything with them. Flash flooding can occur within 30-minutes and within six hours of a heavy rain event. In hilly terrain, flash floods can strike with little or no advance warning. Distant rain may be channeled into gullies and ravines causing flash flooding in minutes. In the event of a flash flood, the following procedures shall apply.

1. During periods of thunderstorms, always remain alert to heavy rains in your immediate area or upstream from your location. It does not have to be raining at your location for flash flooding to occur.

2. Do not drive through flooded areas. Even if it looks shallow enough to cross.

3. Do not cross flowing streams on foot where water is above your ankles.

4. Be especially cautious at night. It is harder to recognize water danger then.

5. Do not attempt to outrace a flood on foot. If you see or hear it coming, move to higher ground immediately.

6. Be familiar with the land features where you work. It may be in a low area, near a drainage ditch, or small stream.

7. Stay tuned to weather forecasts and updates for the latest statements, watches, and warnings concerning heavy rain and flash flooding in the Project Area.

8. Waiting 15 to 30 minutes, or until high water recedes, is a simple safety measure.

4.2 Tornado

Upon the issuance of a tornado warning, O&M staff will evacuate the Project Site and report to the predesignated shelter area, to be determined prior to O&M staff arrival. In the event O&M staff are outside and unable to evacuate to the shelter, the following procedure will be followed:

1. Lie flat in a nearby ditch or depression, covering the head with the hands. Be aware of the potential for flooding.

2. O&M staff are safest in a low, flat location and will be instructed to not get under an overpass or bridge.

3. O&M staff will be instructed to never try to outrun a tornado in congested areas in a vehicle. It is safest to leave the vehicle for safe shelter.

4. O&M Staff are instructed to beware of flying debris.

Following tornado or high wind events, the site facility will be evaluated by O&M personnel for damage. All repairs will be performed under standard operational procedures.

4.3 High Wind Event

In the event of a high wind advisory, all land clearing, grading, earth moving, excavation and burning activities shall cease during periods when:

- Winds are greater than 25 mph (averaged over one hour);
- Disturbed material is easily windblown; or
- Dust plums of greater than 20% or greater opacity impact public roads, occupied structures, or neighboring properties

Refer to the following table for procedures during varying wind speeds.

Wind Speed (averaged over one hour)	Action
0 – 15 mph	Normal Work
> 15 mph	Warning
25 mph	1. Civil/Mechanical work causing dust at property lines is stopped 2. Increase dust control measures 3. Increase personal protection equipment (e.g., goggles instead of standard safety glasses)
30 mph	1. Panel installation is stopped 2. Aerial lift activities are stopped
35 mph	1. All construction and maintenance activities are stopped 2. Crews evacuate from the Project Site
40 mph	1. Operational solar panels will automatically stow into the wind. Solar panels are controlled by on-site controllers and wind sensors, and the sPower Control Room in Salt Lake City, Utah.

4.4 Lighting Storm

In the event a lighting storm is within 10 – 30 miles and approaching the Project Site, the following procedures shall apply.

1. Notify Operations and/or Safety Manager, and all on-site employees.

2. Stop work safely and head to staging and laydown yards in vehicles.

3. Remain at staging and laydown yards, get update on weather conditions.

4. If storm/lighting is still approaching the Project Site, get in and stay in company or personal vehicles that have rubber tires only.

5. If safe enough to do so, take cover in on-site designated shelters.

6. Once storm passes, remain in cars/trucks for at least 30 minutes depending on passing storm severity, and wait for an "OK" from Construction Supervisors or Safety Managers in charge of monitoring the storm.

5.0 FIRE PREVENTION PLAN

5.1 Purpose and Need of Fire Prevention Plan

The purpose of this Fire Prevention Plan (FPP) is to:

- Eliminate the potential risks and/or causes of fires
- Prevent loss of life and property by fire
- Educate employees to promote a safe environment
- Be prepared should a fire occur
- Outline a procedure to follow for the safety of the individuals at the Project Site at the time of the occurrence
- Identify risk factors and hazards
- Set up proper storage procedures, training, and identification of personnel responsible for maintaining and servicing the equipment and systems at the Project Site that are used to prevent and/or control a fire

5.2 Responsibilities and Procedures

Safety is everyone's responsibility at the Project Site. All O&M staff working at the Project Site are to be trained and should know how to prevent and respond to a fire emergency. All on-site staff shall:

- Complete an on-site training program identifying the fire risks at the Project Site
- Understand the protocol and follow emergency procedures should an event occur
- Review and report potential fire hazards to the Operations and/or Safety Managers

5.3 Conditions Associated with PV Solar Arrays

While the PV panels that will be installed for the Project are not flammable, PV solar arrays present a unique challenge for fire fighters. Unlike a typical electrical or gas utility, a PV array does not

have a single point of disconnect. Whereas there are disconnects that will de-energize select parts of the system. As long as the PV panels are illuminated, the individual strings of PV panels are energized and capable of producing up to 1,500 volts. This is not just limited to PV panels being illuminated by the sun; illumination by artificial light sources, such as fire department lights, or the light for the fire itself are capable of producing electrical power sufficient to cause a lock-on hazard. Below is a summary of hazards associated with firefighting activities in PV solar arrays:

- Shock hazard due to the presence of water and PV power during suppression activities
  - Outdoor related electrical enclosures may not resist water intrusion from the high-pressure stream of a fire hose
  - PV panels damaged in the fire may not resist water intrusion
  - Damaged conductors may not resist water intrusion

- Shock hazard due to direct contact with energized components
  - No means of complete electrical disconnect

Due to the hazards described above, it is not typical to practice fire suppression by means of water inundation within PV solar arrays.

5.4 Types of Fires and Procedures

In the event of a fire at the Project Site, the general procedure is as follows:

- Person discovering the fire shall immediately dispatch to the Operations and/or Safety Managers.
- Attempt to extinguish the fire if safe and possible to do so.
- **DO NOT** attempt to extinguish fire near electrical equipment (e.g., PV solar arrays or inverters) with water or other chemicals as an electric shock or arc could occur.
- Call **9-1-1** and report the following:
  - "I am reporting a fire at the Spotsylvania Solar Energy Center".
  - Provide address and exact Project Site entrance.
  - Provide location (ex: The fire is at Block H1)
  - Injuries if any and need for ambulance.
- A designated O&M employee shall meet fire fighters at the Project Site entrance and direct them to the location of the fire
- Prepare a summary of the incident as soon as possible and no later than 24 hours after the incident.

5.4.1 Small Stage Fires

Fires that are in the beginning stage and can be controlled with a fire extinguisher. An example would be a small trash can fire. In the event of a small stage fire at the Project Site:

- The person discovering the fire should immediately dispatch to the Operations and/or Safety Managers and O&M staff.
- Call **9-1-1** and report the following:

  - "I am reporting a fire at the Spotsylvania Solar Energy Center".
  - Provide address and exact Project Site entrance.
  - Provide location (ex: The fire is at Block H1)
  - Injuries if any and need for ambulance.
- All non-essential personnel should be removed from the hazard area.
- All on-site vehicles are required to carry fire extinguishers. Fire extinguishment with a fire extinguisher or other means should be attempted if the person has been trained in the use of fire extinguishers and can do so without placing themselves in danger.
- The Operations and/or Safety Managers shall respond to the scene and determine if external resources or an evacuation is necessary. In the event of an evacuation, Operations and/or Safety Managers will recruit/dispatch employees to assist with the evacuation and, have the Operations and/or Safety Managers issue the following statement over the radio: "Attention, there is a fire emergency at (location name). Please evacuate (the affected area) and report to (designated meeting area).
- At this point, O&M staff in the affected area will stop work immediately, take steps to safely shut down equipment, exit the evacuation area, and report to the designated meeting area.
- The Operations and/or Safety Managers will then take steps to ensure that no employee re-enters the evacuated area until the Fire Department arrives and assumes command.
- The Operations and/or Safety Managers will issue an "All Clear" only when the Fire Department informs them that it is safe to do so.

5.4.2 Large Stage Fires

In the event of a large stage fire at the Project Site:

- The person discovering the fire should immediately contact the Operations and/or Safety Managers. The Safety Manager shall call **9-1-1** to report the fire.
- Call **9-1-1** and report the following:
  - "I am reporting a fire at the Spotsylvania Solar Energy Center".
  - Provide address and exact Project Site entrance.
  - Provide location (ex: The fire is at Block H1)
  - Injuries if any and need for ambulance.
- O&M staff should be removed from the immediate danger area in anticipation of an evacuation.
- The Operations and/or Safety Managers shall respond to the scene and ensure that the fire department has been dispatched. Spotsylvania County Fire, Rescue and Emergency Management will be responding to **9-1-1** calls during operations. They will then determine evacuation needs, recruit/dispatch employees to assist with the evacuation and, have the Operations and/or Safety Managers issue the following statement over the radio: "Attention, there is a fire emergency at (location name). Please evacuate (the affected area) and report to (designated meeting area).
- At this point, O&M staff in the affected area shall stop work immediately, take steps to safely shut down equipment, exit the evacuation area, and report to the designated meeting area.
- In this scenario, fire extinguishers are to be used for escape purposes only.

- The Operations and/or Safety Managers will take the necessary steps to ensure that no O&M staff re-enters the evacuated area until the Fire Department arrives and assumes command.
- No employee is required or permitted to place themselves in harm's way in order to facilitate extinguishment, evacuation, or rescue. All rescue operations will be performed by trained professionals upon their arrival.
- The Operations and/or Safety Managers will issue an "All Clear" only when the Fire Department informs them that it is safe to do so.

5.4.3 Vegetation Fires

Most likely to be caused by a spark from a nearby piece of equipment or flying ember from off-site. While combustible materials (e.g., mulch and low-lying vegetation) will be managed at the Project Site by sPower's O&M staff, ignition of the ground cover could result in a fast moving, but lower intensity fire that burns in a patchy manner beneath the PV solar arrays. Vegetation fires would be relatively short in duration as vegetative fuels are consumed rapidly. There would not be a sustained source of heat and or flame as there would be with surrounding wild fires. In the event of a vegetation fire near the PV solar arrays, the following procedures apply:

- Person discovering the fire shall immediately dispatch to the Operations and/or Safety Managers.
- **DO NOT** attempt to extinguish fire near electrical equipment with water or other chemicals as an electric shock or arc could occur.
- If possible, safely attempt to shut down power at the inverter using the DC disconnect.
- Let the fire burn vegetation and self-extinguish.
- If the fire continues away from the PV solar arrays or inverters, attempt to extinguish flames.
- Call **9-1-1** and report the following :
    - "I am reporting a fire at the Spotsylvania Solar Energy Center".
    - Provide address and exact Project Site entrance.
    - Provide location (ex: The fire is at Block H1)
    - Injuries if any and need for ambulance.
- A designated O&M employee shall meet fire fighters at the Project Site entrance and direct them to the location of the fire.

5.4.4 Inverter Fires

In the event of an inverter fire at the Project Site:

- Person discovering the fire shall immediately dispatch to the Operations and/or Safety Managers.
- Immediately contact sPower Control Room in Salt Lake City, Utah to notify them of the fire and instruct them to open the circuit with the inverter in it to isolate it from the grid.
- **DO NOT** attempt to extinguish fire near electrical equipment with water or other chemicals as an electric shock or arc could occur.
- Call **9-1-1** and report the following:

  - "I am reporting a fire at the Spotsylvania Solar Energy Center".
  - Provide address and exact Project Site entrance.
  - Provide location (ex: The fire is at Block H1)
  - Injuries if any and need for ambulance.
- A designated O&M employee shall meet fire fighters at the Project Site entrance and direct them to the location of the fire.
- If possible, O&M staff shall safely attempt to shut down power at the inverter using the DC disconnect.
- O&M staff protect surrounding areas from flying embers with fire extinguishers.
- Provide Safety Data Sheets (SDS) for the skid if needed.

5.5 Fire Department Access

Access for County Fire, Rescue, and Emergency Management will be provided at all Project Site entrances punch code key boxes. If a fire occurs while sPower's O&M staff are present at the Project Site, the O&M staff shall provide emergency dispatchers with the exact address and location of the nearest site access point and meet fire fighters at the entrance to escort them to the fire.

Internal site access roads will consist of compacted dirt roads. These access roads will provide direct access to each of the Project's inverters and transformers.

Access to all areas of the Project Site are provided via access aisles. Access aisles are the cleared areas located between individual rows of the PV solar arrays. Access aisles consists of unimproved native material and are not suitable for all emergency services vehicles. However, access aisles do provide emergency responders with access routes to all areas of the Project Site via walking from a nearby access road or by use of 4x4 vehicles.

5.6 Minimizing Fire Risks

sPower's O&M staff shall be responsible for implementing the following preventative measures for Class A, B, and C combustibles:

- Class A Combustibles – consist of common material (wood, paper, cloth, rubber, and plastic) that can act as fuel and are found on most work sites.

  - Dispose of waste daily.
  - Use trash receptacles with covers.
  - Keep work areas clean and free of combustible materials.
  - Store materials in the proper storage containers.
  - Conduct periodic checks of the Project Site to make sure combustibles are being handled correctly.
  - Water and multi-purpose dry chemicals (ABC) are approved fire extinguishing agents for Class A Combustibles.

- Class B Combustibles – consist of flammable and combustible liquids (oil, grease, tar, oil-based paints and lacquers), flammable gases, and flammable aerosols.

    - Only use approved pumps (with suction from the top) to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).
    - Do not dispense Class B flammable liquids into a container unless the nozzle and container are electrically interconnected by contact or bonding wire. Either the tank or container must be grounded.
    - Store, handle, and use Class B combustibles only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.
    - Do not use a flammable liquid as a cleaning agent inside a building (the only exception is in a closed machine approved for cleaning with flammable liquids).
    - Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits.
    - Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
    - Do not generate heat, allow an open flame, or smoke near Class B combustibles.
    - Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.
    - Water should not be used to extinguish Class B fires caused by flammable liquids, as it can cause the burning liquid to spread, making the fire worse. To extinguish a fire caused by flammable liquids, exclude the air around the burning liquid.
    - Carbon dioxide and multi-purpose dry chemicals (ABC) are approved fire extinguishing agents for Class B Combustibles.

- Class C Combustibles – consist of energized electrical equipment.

    - **ALWAYS** de-energize the circuit supplying the fire, and then use a non-conductive extinguishing agent such as carbon dioxide or multi-purpose dry chemicals (ABC).
    - **DO NOT** use water, form, or other conductive agents when fighting Class C Combustibles.
    - Once the electricity is shut down to the equipment involved, the fire generally becomes a standard combustible fire.
    - Use only appropriately rated fuses per manufacture's specifications.
    - Check all electrical equipment to ensure it is properly grounded and insulated.
    - Ensure adequate spacing while performing maintenance.
    - Check wiring to ensure no damage to cables or connections.

5.7 Employee Training and Education

Fire procedures are to be posted at the Project Site on a bulletin board along with the OSHA compliance postings, first aid, and site-specific project information. The bulletin board is to be located at the O&M Building located on-site.

O&M staff shall be trained in the practices of the FPP relevant to their duties. O&M staff shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats. Confirm all O&M staff understand the function and elements of the FPP, including potential emergencies, reporting procedures, evacuation plans, and shutdown procedures. Review any special hazards that might occur at the Project Site, such as flammable materials, fuel storage, toxic chemicals, and water reactive substances.

Fire safety training will occur during the site safety training. O&M staff are required to undergo training prior to starting work. Training shall include:

- Employee roles and responsibilities.
- Recognition of potential fire hazards.
- Alarm system and evacuation routes.
- Location and operation of manually operated equipment (fire extinguishers).
- Emergency response procedures.
- Emergency shutdown procedures.
- Information regarding specific materials to which employees may be exposed.
- Review OSHA requirements contained in 29 CFR 19010.38, Emergency Action Plans.
- Review OSHA requirements contained in 29 CFR 1910.39, Fire Prevention Plans.
- The location of the company FPP and how it can be accessed.
- Good fire-prevention housekeeping practices and equipment maintenance.

The Operations and/or Safety Managers are responsible for fire safety training. Written documentation of the training received by each employee must be maintained.

5.8 Site Maintenance and Housekeeping

- Fire extinguishers shall be inspected monthly.
- Fire extinguishers shall not be obstructed and should be in conspicuous locations.
- Combustible material shall not be stored in mechanical rooms, electrical equipment rooms, or the SCADA buildings.
- Outside dumpsters shall be kept at least five (5) feet away from combustible materials and the lid should be kept closed.
- Storage is not allowed in electrical equipment rooms, or near electrical panels.
- Electrical panel openings must be covered.
- Power strips must be plugged directly into an outlet and not daisy-chained and should be for temporary use only.
- Extension cords and flexible cords should not be substituted for permanent.

5.9 Equipment Fire Safety

- All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order.

- Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. These vehicle types shall maintain their factory-installed (type) mufflers in good condition.
- Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.
- The project proponent shall make an effort to restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to periods outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.

6.0 Heat Illness Prevention Plan

These procedures provide steps applicable to most outdoor work settings and are essential to reducing the incidence of heat related illnesses. In working environments with a higher risk for heat illness (e.g., during a heat wave, hot summer months exceeding 95 degrees Fahrenheit, or other severe working or environmental conditions), it is sPower's duty to exercise greater caution and ensure these procedures are implemented, including additional protective measures beyond what is listed in this document, as needed to protect employees affected by high heat conditions.

When the temperature exceeds 95 degrees, high heat procedures begin, the Operations and/or Safety Managers will hold short tailgate meetings to review the weather report, reinforce heat illness prevention with all workers and provide reminders to drink water frequently, to be on the lookout for signs and symptoms of heat illness, and inform them that shade can be made available upon request.

6.1 Definitions

"Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

"Heat Illness" means a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope, and heat stroke.

"Environmental risk factors for heat illness" means working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing and personal protective equipment worn by employees.

"Personal risk factors for heat illness" means factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

"Shade" means blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions, and that does not deter or discourage access or use.

"Temperature" means the temperature in degrees Fahrenheit obtainable by using a thermometer to measure the outdoor temperature in an area where there is no shade. While the temperature measurement must be taken in an area with full sunlight, the thermometer should be shielded while taking the measurement, e.g., with the hand or some other object, from direct contact by sunlight.

"Provision of water" Employees shall have access to potable drinking water. The water will be fresh, pure, suitably cool, and provided to employees free of charge. The water shall be located as close as practicable to the areas where employees are working. Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour. The frequent drinking of water shall be encouraged.

6.2 Provisions of Water (Water Distribution Plan)

Bottled water is provided for all on-site personnel. All sPower sub-contractors are required to provide a written Heat Illness and Water Distribution Plan, as well as the required potable water and ice for their personnel on site daily.
Means and Methods for Providing Drinking Water to All Employees

1. The on-site manager will ensure that there is a minimum of two quarts per employee per hour in the work area at all times during the shift. This can be achieved by having bottled water chilled in coolers or using 5 to 10-gallon jugs.

2. If water jugs or bottled water is unavailable, all employees will be furnished a camelback for drinking water purposes prior to going to work.

3. When the temperature exceeds 90 degrees the employees will ensure an ample supply of water is readily available.

4. The on-site manager must insure that the drinking water moves as the work does.

5. The on-site manager is responsible for properly cleaning water jugs at a minimum every shift. Cleaning must be in accordance with the water jug cleaning procedure. If camelbacks are in use, the employee is responsible for care and cleaning.

6. The on-site manager will announce all drinking water locations in the daily tool box meeting. When the temperature is expected to be over 90 degrees the supervisor will discuss signs and symptoms, hydration, and other pertinent heat illness topics.

7. When the temperature is 95 degrees or more, the on-site manager or designee will increase the number of mandatory water drinking breaks.

8. During the site-specific safety orientation, the importance of frequently drinking water will be stressed.

6.3 Accessing Shade

1. The on-site manager will be given enough shade tents to cover 75 percent of their employees at the same time.

2. The on-site manager will also be given picnic tables, chairs, or benches so the employees will have a place to sit under the shade tent.

3. The interior of a vehicle may only be considered a shaded area if the air conditioning is both on and works properly.

4. The on-site manager will make the employees aware of the shaded locations in the daily tool box meeting. They will also make sure that the shade areas move with the workforce.

6.4 Handling a Heat Wave

During a heat wave or heat spike (increase in afternoon temperature of more than 10 degrees) the Project Site will be closed, and the work will need to be rescheduled or done at different hours. If the work can't be completed at a different time, the on-site manager will hold an emergency tailgate meeting to inform all employees of the heat conditions, emergency response procedures, and mitigation techniques.

6.4.1 High Heat Procedures

1. The on-site manager will ensure effective communication by voice, observation, or electronic means is maintained so that employees can contact a supervisor when necessary.

2. Employees will monitor other employees for alertness and signs and symptoms of heat illness.
3. Fellow employees will police each other to ensure their co-workers are drinking water frequently throughout the shift. New employee will be assigned a "buddy" or experienced coworker for the first 14 days of the employment.

6.4.2 Acclimatization

Acclimatization is the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load to which the body is accustomed is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee's body hasn't yet adjusted.

Inadequate acclimatization can imperil anyone exposed to conditions of heat and physical stress significantly more intense than what they are used to. Employers are responsible for the working conditions of their employees, and they must act effectively when conditions result in sudden exposure to heat their employees are not used to.

1. sPower Team will monitor the weather and in particular be on the lookout for sudden heat wave(s) or increases in temperatures to which employees haven't been exposed to for several weeks or longer.

2. During the hot summer months, the work shift will start at first light.

3. For new employees, on-site managers will try to find ways to lessen the intensity of the employees work during a two-week break-in period (such as scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early-morning or evening). Steps taken to lessen the intensity of the workload for new employees will be documented.

4. New employees will remain vigilant and alert for the presence of heat related symptoms.

5. New employees will be assigned a "buddy" or experienced coworker to watch each other closely for discomfort or symptoms of heat illness.

6. O&M teams will observe closely (or maintain frequent communication via phone or radio) and be on the lookout for possible symptoms of heat illness.

7. sPower site orientation for employees and supervisors will include the importance of acclimatization, how it is developed and how these company procedures address it.

6.4.3 Alternate High Heat Work Schedule

When ambient temperatures remain at and exceed 95 degrees the Operations and/or Safety Managers shall discuss revisions to the work schedule (start time, end-of-shift time, multiple shifts with varying start times). When the alternate high heat schedule is in effect, personnel will meet each morning to go over the following items:

Heat Index 1 Heavy physical work with acclimated worker	**RESPONSE**	**Heat Index 2** Moderate or lite physical work with

		unacclimated worker
89 – 95°F	• Supply water to workers on an "as needed basis"	77 – 84°F
96 – 102°F	• Post Heat Stress Alert Notice • Encourage workers to drink extra water • Start recording hourly temperature and relative humidity	85 – 93°F
103 – 108°F	• High Heat Procedures in effect notice • Notify workers to consume more water • Ensure workers are trained to recognize symptoms	94 – 99°F
109 – 111°F	• Provide 15 minutes relief per hour • Provide adequate cool water (50 -59°F) • At least 1 cup (240 ml) water every 20 minutes • Workers with symptoms should seek medical attention	100 – 102°F
112 – 115°F	• Provide 30 minutes relief per hour in addition to the provisions listed previously.	103 – 108°F
116 – 120°F	• If feasible, provide 45 minutes relief per hour in addition to the provisions listed previously • If a 75% relief period is not feasible then stop work until the Heat Index is 107°F or less	109 – 111°F
121°F+	• Stop work until the Heat Index is 107°F or less	112°F+

6.4.4 Handling a Sick Employee

1. When an employee displays possible signs or symptoms of heat illness, the sPower Operations Manager will be notified. An employee trained in first aid will check the sick employee and determine whether resting in the shade and drinking cool water will suffice or if emergency service providers will need to be called.

2. Do not leave a sick worker alone in the shade, as he or she can take a turn for the worse!

3. Call emergency service providers immediately if an employee displays signs or symptoms of heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), does not look OK or does not get better after drinking cool water and resting in the shade.

4. While the ambulance is in route, initiate first aid (cool the worker: place in the shade, remove excess layers of clothing, place ice pack in the armpits and join area and fan the victim).

5. Do not let a sick worker leave the site, as they can get lost or die (when not being transported by ambulance and treatment has not been started by paramedics) before reaching a hospital.

6. If an employee does not look OK and displays signs or symptoms of severe heat illness (loss of consciousness, incoherent speech, convulsions, red and hot face), and the worksite is located more than 20 min away from a hospital, call emergency service providers, communicate the signs and symptoms of the victim and request Air Ambulance.

6.4.5 Procedures for Employee and Supervisory Training

1. sPower will ensure that all supervisors are trained prior to being assigned to supervise other workers. Training will include this company's written procedures and what steps supervisors will follow when employees' exhibit symptoms consistent with heat illness.

2. sPower will ensure that all employees and supervisors are trained prior to working outside. Training will include the site-specific orientations, lunch and learns, and tool box topics.

3. sPower Safety Manager will train employees on the steps that will be followed for contacting emergency medical services, including how they are to proceed when there are non-English speaking workers, how clear and precise directions to the site will be provided as well as stress the need to make visual contact with emergency responders at the nearest road or landmark to direct them to the worksite.

6.4.6 Procedures for Emergency Response

1. Prior to assigning a crew to a particular worksite, the Operations Manager will ensure that a qualified, appropriately trained and equipped person will be available at the Project Site to render first aid if necessary.

2. All on-site personnel will carry cell phones or other means of communication, to ensure that emergency medical services can be called and check that these are functional at the worksite prior to each shift.

3. When an employee is showing symptoms of possible heat illness, the supervisor will take immediate steps to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness).

4. During a heat wave or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing.

sPower site specific orientation for employees and supervisors will include every detail of these written emergency procedures.

Appendix A

Emergency Contact Information

Division	Name, Title	Email
Fire Prevention	Philip M. Sullivan, Deputy Fire Marshal	psullivan@spotsylvania.va.us
EMS Health and Safety	Mike Grubb, Division Chief	mgrubb@spotsylvania.va.us
Emergency Management	Matthew Embrey, Division Chief	membrey@spotsylvania.va.us

The following table lists the County Fire and Rescue Stations that are nearest to the Project Site.

County Fire and Rescue Station	Address	Phone Number	Distance from Project Site
Fire Company/Rescue Station 7 (Wilderness)	10501 Orange Plank Road, Spotsylvania, VA 22553	Fire: (504) 507-7970/7971 Rescue: (540) 507-7952/7953	3.30 miles northeast of Site A
Fire Company/Rescue Station 9 (Belmont)	7100 Belmont Road, Mineral, VA 23117	Fire: (540) 507-7974/7975 Rescue: (540) 507-7956/7957	4.30 miles southwest of Site B
Fire Company/Rescue Station 2 (Brokenburg)	11700/11701 Volunteer Lane, Spotsylvania, VA 22553	(540) 507-7942/7943	5.75 miles southeast of Site C
Fire Company/Rescue Station 5 (Chancellor)	6204 Plank Road, Fredericksburg, VA 22407	Fire: (540) 507-7966/7967 Rescue: (540) 507-7948/7949	6.55 miles northeast of Site A

The following table lists the medical facilities that are nearest to the Project Site.

Medical Facility	Address	Phone Number	Available Services	Distance from Project Site
Spotsylvania Regional Medical Center	4600 Spotsylvania Parkway Fredericksburg, VA 22408	(540) 498-4000	Emergency Services	13 miles east of Site A
Fredericksburg Medical Center (Kaiser Permanente)	1201 Hospital Drive Fredericksburg, VA 22401	(540) 368-3700	Urgent Care Services	13 miles northeast of Site A
Mary Washington Hospital	1001 Sam Perry Boulevard, Fredericksburg, VA 22401	(540) 741-1100	Emergency Services	13.23 miles northeast of Site A

The following table lists the Sheriff and Animal Control Facilities contacts for the Project.

Local Police and Sheriff Station	Address	Phone Number	Distance from Project Site
Spotsylvania Sheriff	9119 Dean Ridings Ln, Spotsylvania Courthouse, VA 22553	(540) 507-7200	10 miles east of Site A
Orange County Sheriff's Office	11350 Porter Rd, Orange, VA 22960	(540) 672-1200	15.4 miles west of Site C
Fredericksburg Police Department	2200 Cowan Blvd, Fredericksburg, VA 22401	(540) 373-3122	18.9 miles northeast of Site A
Spotsylvania Animal Control	450 Tv Dr, Fredericksburg, VA 22408	(540) 582-7115	12 miles east of Site A

The following table lists the sPower contacts for the Project.

Description	Name	Phone Number
sPower Safety Manager	Terry Barnhill	(661) 371-6019
sPower Operations and Maintenance Director	Robb Wilson	(520) 304-1544
sPower Operations Manager	TBD	TBD
sPower 24-Hour Control Room	Control Room	(855) 679-3553

[1] TBD contacts will be provided prior to construction.

Appendix B

Site Access Routes

(addresses to be provided prior to operation)

Exhibit E: Invasive Species Management Plan

Invasive Species Management Plan

1.0 INTRODUCTION

Sustainable Power Group (sPower) has prepared this Invasive Species Management Plan (Plan) in support of the Spotsylvania Solar Energy Center (Project) located in western Spotsylvania County, Virginia. The Plan provides guidelines for managing and preventing the spread and propagation of noxious and invasive species and weeds during construction and operation of the Project.

1.1 Project Description

The Project is a 500-megawatt (MW) solar energy facility that consists of three non-contiguous project sites (Site A, B, and C) that total approximately 6,350 acres, of which approximately 3,500 acres will be developed for the Project. The remaining 2,850 acres will be set aside as open space. The Project will utilize photovoltaic (PV) panels installed on single-axis trackers. Electricity will be delivered via transmission lines that will run from the Project to the adjacent Spotsylvania Switching Station owned by the Virginia Electric and Power Company.

1.2 Invasive Species

An invasive species is defined as a non-native species to an ecosystem whose introduction causes economical, medical, and/or environmental harm. The ability for non-native species to establish themselves and become invasive is incredibly difficult as they are usually not as well adaptive to the surroundings as native species and usually require a "leg-up" usually in the form of a disturbance event. Invasive spread is generally categorized into 5 stages:

1. Introduction
2. Colonization
3. Establishment
4. Dispersal
5. Invasive Spread

The best strategy for managing invasive is to 1) minimize their introduction and 2) foster and support native species which will naturally out-compete non-native species and prevent them from colonizing (stage 2). The following management plan is designed to accomplish both those objectives.

2.0 BEST MANAGEMENT PRACTICES

2.1 Prevention Measures

Preventing introduction of non-native species is often the most effective way of managing invasive species for a project. These prevention practices can also limit the spread of non-native species that may have already been present to new areas, both inside and outside of the project site.

2.1.1 Worker Environmental Training

Mandatory site environmental instruction for the Construction and Operations Teams, contractors, or related personnel entering the site during operation of the Project will include weed management awareness training. Personnel involved will include the Construction and Operations Teams, contractors, subcontractors, construction managers, construction personnel, and individuals bringing vehicles or equipment onto the Project Site. Proposed measures to prevent the spread of weeds in areas currently not infested, and controls on their proliferation when already present, will also be explained.

2.1.2 Rumble Strip Stations

Equipment and vehicles that have been cleaned prior to being staged on the Project Site require no further cleaning to prevent the spread of weeds. In the event of large-scale maintenance activities that require heavy vehicles and equipment to access the Project Site, the Construction and Operations Teams will set up rumble strip stations at ingress and egress locations to remove mud and dirt from vehicles and equipment. This will prevent the spread of weed seeds; trucks with mud and dirt containing seeds is one of the most common ways weed seeds are spread to new environments. Heavy equipment entering the Project Site on trailers during large-scale maintenance activities will also require cleaning prior to entering the Project Site. The Construction and Operations Teams will ensure that vehicles and equipment are free of soil and debris capable of transporting weed seeds, roots, or rhizomes before the vehicles and equipment are allowed to use access roads and enter the Project Site.

2.1.3 Site Soil Management

Prior to operations, contractors will stabilize disturbed areas of the Project Site utilizing ground stabilization methods such as application of mulch or hydro-mulch containing a native seed mix. Application of a pre-emergent, EPA-approved herbicide, designed to prevent weed growth without affecting existing vegetation, may also be included and would be applied per Federal, County and State regulations.

During the Operations Phase, the Operations and Maintenance Team will limit the amount of soil disturbance to the absolute minimum necessary.

2.1.4 Site Mowing

Mowing will primarily be used as a method to maintain vegetation height for fire safety concerns, rather than weed management. Mowing will prevent maturation ("going to seed") of unwanted species that may be present and limits their dispersal. During mowing activities, the Construction and Operations Teams will avoid transporting soil within the Project Site to avoid any dispersal of unwanted species.

2.1.5 Revegetation and Plantings

All revegetation products shall use seeding, seedling, and sapling material native to the region. All preventative measures as outlined in this Plan shall be implemented during revegetation activities and after during operation and maintenance phase of the Project.

3.2 Noxious Weed Control Methods

3.2.1 Physical Removal

Physical control methods range from manual hand pulling of weeds to the use of hand tools to provide enough leverage to pull out the entire plant and associated root systems. Hand or power tools can also be used to uproot, girdle, or cut plants. For localized weed control, this is the most effective method. Employees during both the Construction and Operation phases will be encouraged to use this method during the training mentioned in section 2.1.1.

3.2.2 Chemical Removal

Herbicide application is a widely used, effective control method for removing invasive weed species. Prior to application of herbicide, contractors will be required to obtain required permits from state and local authorities. Permits may contain additional terms and conditions that go beyond the scope of this Plan. Only a State of Virginia and federally certified contractor will be permitted to perform herbicide applications. Should their use be deemed necessary, herbicides will be applied in accordance with applicable laws, regulations, and permit stipulations.

5.0 DURATION

Implementation of this Plan will be required during the both the construction phase and the operational phase of the Project.

Exhibit F: Site Specific Safety Plan – Construction, dated November 19, 2018

Site Specific Safety Plan - Construction

Spotsylvania Solar Energy Center – 500 MWac

Spotsylvania County, VA

November 19, 2018

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1 Introduction

The purpose of this Site Specific Safety Plan is to provide guidelines and requirements that all personnel and laborers shall follow to insure the project is completed on schedule, under budget and with zero injuries/accidents. This Site Specific Safety Plan (SSSP) has been prepared, exclusively, to accommodate all phases of the construction activities associated with the development/redevelopment:

Jobsite Address:	**TBD Spotsylvania, VA**

1.1 Relevant Safety and Environmental Documents for Review

The following documents are available for review:

1. Name of Document:	**Injury & Illness Prevention Plan (IIPP)**
Location:	**Electronic and Onsite**
2. Name of Document:	**Crisis Management Plan**
Location:	**Onsite**
3. Name of Document:	**Heat Illness Prevention Plan**
Location:	**Onsite**

2 PURPOSE OF THIS DOCUMENT

2.1 The SSSP serves three "Key" functions:

The SSSP identifies key personnel and project organization.
The SSSP is the primary health and safety resource tailored specifically for the project and sets forth the minimum work practice standards for all work on the project including, but-not-limited-to requirements for: incident reporting, accident investigation and medical management, public safety, employee safety, transportation, waste management, excavation, equipment management, site security, emergency response and site evacuation, environmental conditions, construction safety, agency relations, sanitation, decontamination, hazard awareness and training and so forth.
The SSSP sets for the minimum environmental health and safety standards contractors will use to incorporate into their own individual HSP's or JHA's.

3 PROJECT MANAGEMENT AND STAFF ORGANIZATION

3.1 Table 1 - General Contractor Key Personnel

Mortenson Project Manager (PM)	
Name TBD	**Mobile:**
:	
	Office:
Mortenson Assistant Project Admin (PA)	
Name TBD	**Mobile:**
:	
	Office:
Mortenson Project Superintendent (PS)	
Name TBD	**Mobile:**
:	
	Office:
Division/Regional Safety Manager	
Name TBD	**Mobile:**
:	
	Office:
See Safety Hot Sheet for numbers.	**Fax:**

3.2 Table 2 - Owner/Developer Key Personnel

Owner/Developer			
Name:	**Adam Bowers**	**Phone:**	**(415) 378-0964**
Company:	**sPower**	**Mobile:**	
Address:	**5000 East Spring Street, Suite 130. Long Beach, CA 90815**		

3.2 Table 3 - Emergency Contacts – Agencies

Regional Water Resources Board		**Phone:**	**(703) 583-3800**
Address:	**Northern Regional Office Virginia Department of Environmental Quality**		

	13901 Crown Court. Woodbridge, VA 22193		
OSHA:		Phone:	(703) 392-0900
Address:	Manassas State Plan Office		
	9400 Innovation Drive, Suite 120. Manassas, Virginia 20110		
State Office of Emergency Services		General:	(804) 888-9100
Warning Center:		Phone:	(800) 438-2474
Hazardous Material Spills:		Phone:	(757) 664-6604
National Response Center:		Phone:	(800) 438-2474
Fish & Game, Environmental Division		Phone:	(540) 899-4169
Address:	Virginia Department of Game and Inland Fisheries Region 4 - Fredericksburg		
	1320 Belman Rd, Fredericksburg, VA 22401		
Police/Fire Department		Phone:	9-1-1
Local Hospital/Urgent Care Clinic		Phone:	(540) 498-4000
Address:	Spotsylvania Regional Medical Center		
	4600 Spotsylvania Parkway. Fredericksburg, VA 22408		

3.3 Personal Roles and Organizational Responsibilities

3.3.1 Management Team

The Management team for this Project includes: Mortenson Project Manager (PM), Mortenson Superintendent, and Owner's Representative.

All inquiries and decisions regarding this Project should be addressed to PM or Superintendent who will act as liaison to the Management Team.

Management Team Members, by name, for this Project include:

PM: TBD

SUPERINTENDENT TBD

3.3.2 Developer Personnel

Developer Representative: **Daniel Menahem**

The representative is the liaison between the developer and the PM and SUPERINTENDENT. However, any questions regarding the Project should be directed through the PM or SUPERINTENDENT.

3.3.3 General Contractor Personnel

All parties on the Project Site shall have "Stop Work Authority"

Mortenson Project Manager (PM)

PM is charged with the overall responsibility for the successful completion of field operations. PM's responsibilities include, but are-not-limited-to:

Prepare and organize project activities on-site.
Review and approve the site-specific HSP.
Provide operational needs, supplies, etc.
Coordinate cost controls.

Mortenson Engineer (PE)

The Project Engineer is charged with the responsibility to work with the developers, PM and the Superintendent to assure the quality and accuracy of the engineering plans. The Project Engineer responsibilities include but are-not-limited-to:

Oversees the engineering and design.
Manages construction drawings and works with owner to assure accuracy and completeness.
Coordinates with PM and Superintendent to interpret engineering drawings.
Provide and coordinate contractual obligations.
Provide materials and supplies.

Mortenson Superintendent (SBS)

Superintendent coordinates Contractor and Subcontractor activities on the site. The Superintendent's responsibilities include but are-not- limited-to:

Prepare and organize project activities onsite.
Supervise Contractors and Subcontractors for compliance with job scope and quality.
Supervise field operations and implement safety procedures.
Develop the SSSP if no Site Specific Safety Manager has been assigned to the site.
Enforce implementation of SSSP and established health and safety practices.

Site Specific Safety Manager (SSSM)

The SSSM is responsible for assuring daily compliance with the SSSP. Specifically, duties of the SSSM include but are-not-limited-to:

Establishes site safety controls.
Develops the SSSP.
Liaison with Contractors on the Project.
Point person for health and safety questions.
Performs daily inspection of the Project.
Monitors Contractor compliance.
Oversees security for the Project.

Field Personnel (FP)
All FP are responsible for assuring work activities are performed and completed in a safe manner without injury or near miss. Specifically, duties of the FP include but are-not-limited-to:

Attend daily task overview and morning stretch and flex.
Participate in JHA meetings.
Re-evaluate and asses work conditions
Continuous observation of the Project and co-workers.
Monitors other field personnel compliance.
Assists in security for the Project.
Report all near-misses

3.4 General Requirements

3.4.1 General Site Conditions and Requirements Applicable to All General and Subcontractor Personnel

As required by the state the work is being done in, each Subcontractor shall develop their Injury, Illness and Prevention Program (IIPP) and shall provide written documentation to Superintendent verifying existence of program.
Each Subcontractor shall provide a copy of their Hazard Communication Program to the Superintendent at the onset of activities at the Project.
Each Subcontractor is required to provide one employee per crew/shift that holds current standard first aid training. Standard first aid training covers first aid and CPR.
Any hazardous material products brought onto the project will be cleared with the SBS or SSSM. Material Safety Data Sheets (MSDS) will accompany each product and must be turned in to the Superintendent or Site Specific Safety Manage as soon as the material enters the Project. Each Subcontractor will be responsible for submitting a list of MSDS on the job. Mortenson shall post a composite MSDS list on the central job board.

3.4.2 Site Orientation Training

Prior to the commencement of work on site all management and field personnel must attend and complete Mortenson's Site Orientation Training. Upon completion of the Site Orientation Training verification sticker, to be placed on the hardhat, will be issued to all management and field personnel. The Site Orientation Training will elaborate on the safety requirements of the site and modified as necessary.

3.4.3 Site Security/Visitors

All visitors to the Project shall enter and exit through the security gate(s) located at the Mortenson trailer. A Visitors Sign-in Log will be available inside the Mortenson job trailer to sign in and out. All visitors must be accompanied by personnel that have completed the Site Orientation and are familiar with the site conditions. A visitor may request a Safety Orientation Verification Sticker if they regularly visit the project site.

3.4.4 Accident Reporting

All accident(s) and/or near misses will be reported to the Superintendent or the Site Specific Safety Manager as soon as possible after it occurs. A follow-up completed written accident investigation report will be submitted to the Superintendent or SSSM within 24 hours of the accident.

Accident investigation(s) will be handled by each Subcontractor using its own internal reporting system. A copy of this report will be submitted to the Superintendent or Site Specific Safety Manager, as described above.

Accident investigations involving hazardous materials or wastes will be handled jointly by each Subcontractor and the Superintendent or SSSM. This is to assure that the cause of the accident is completely determined and proper precautions implemented for other activities in the area or performing similar work, and the information is relayed to other Subcontractors.

All near-misses shall serve as a conversation point to be discussed in the daily task overview and morning stretch and flex, the following morning.

3.4.5 Safety Audits/Inspections

Each Contractor is expected to conduct reasonable and customary self-audits of their operations and promote safe work practices.

Each Contractor will be required to submit a copy of the job site safety inspection or job hazard analysis upon request. The inspection forms shall be turned into the Superintendent.

Mortenson has additional safety personnel onsite, actively monitoring work activities to insure all safety procedures are being followed. Anyone in violation of the safety procedures will be notified of the violation and given a warning. A second violation results in the violator being notified of the violation, and then sent home for the day. A third violation will result in work termination.

3.4.6 Tailgate/Toolbox Training

Each Subcontractor is expected to attend Mortenson Weekly Site Safety Meeting or conduct their own Weekly Site Safety Meetings for their own employees. A copy of the meeting records, which enumerates the content of the meeting along with the attendance roster, shall be turned into the Superintendent.

In addition to Weekly Site Safety Meeting, a daily task overview is provided to all employees during the morning stretch and flex, and prior to commencing work for the day.

3.4.7 Noise

Noise exposures above 85dBA may be expected when working near or operating machinery and equipment (e.g., graders, backhoes and generators).

If noise levels cannot be controlled under this limit, the Superintendent shall be notified and the work may be temporarily suspended until suitable controls can be implemented.

Personnel will be required to wear approved hearing protection to maintain exposures below 85dBA.

3.4.8 Sanitation Stations and Drinking Water

Superintendent will be responsible for providing sanitation stations. Each individual Subcontractor is responsible for providing potable drinking water to its own workers as required by Cal/OSHA's Heat Stress Standard.

3.4.9 First Aid Station

Each Subcontractor is required to provide a minimum of one first aid/CPR trained supervisor and first aid kit/supplies that meet Cal/OSHA Standards.

A central first aid station will be designated at the Mortenson trailer to facilitate off-site emergency response and off-site medical emergency facilities will be posted on the bulletin board in the Mortenson trailer. Subcontractors are required to advise their own employee(s) of the name and telephone number of the designated facility and the location of this information on the project site.

3.4.10 Fire Protection Plan

Each Subcontractor is required to have at least one 20-lb. ABC fire extinguisher properly tagged with a current inspection. A current inspection indicates servicing and/or inspection within the past twelve months.
Fire extinguishers shall be inspected at the start of the project and not less than once per month thereafter.

The following table enumerates the minimum fire protection necessary per item and activity. These minimum standards are required for every Subcontractor working on the project.

Table 4

Cranes, forklifts, aerial devices, loaders, backhoes, etc.	**10: BC**	**1 per piece of equipment**
Work generating sparks or open flames	**10: ABC**	**1 per operation**
Temporary heating devices	**4A: 40BC**	**1 per piece of equipment**
Fueling areas	**Dry chemical or carbon dioxide 20 ABC**	**2 per station**
Floors	**10: ABC**	**2 per floor <3,000 ft2 or every 100 ft. of travel**

Stored oxygen and acetylene shall be stored separately, at least a minimum of 20 feet or separated by a wall not less than 5 feet in height. Storage of cylinders means the caps are on tight.

If this project includes some burning and/or welding all burning and welding operations should provide a fire watch person and/or burning blankets and a fire extinguisher to protect adjacent areas. The superintendent shall be informed of any burning or welding prior to work commencing.

3.4.11 Excavation and Trenching

A competent person will be responsible for supervising excavations, drilling, and trenching. Type A, B, C soils will be checked by the competent person, daily, to determine the minimum type and level of protection necessary. Soil inspections shall be checked and documented daily by the competent person for the duration of the soil excavation. Any open trenches shall be properly protected.

Objects shall not be stored within 2 feet of the edge of all excavations.

3.4.12 Fall Protection

All employees shall wear a full body harness and double shock-absorbing lanyard system anytime a worker is required to disconnect and reconnect to travel around an obstacle. At no time will a worker be totally "unhooked".

Fall protection shall be provided on all fixed elevated surfaces above 6 feet for all trades. The 6 -foot fall protection rule does not pertain to ladders and scaffolding as long as they are used within OSHA standards.

Subcontractors that work from temporary elevated surface heights of 6 feet or more will be required to provide a written fall protection plan. Said plan shall be submitted and approved prior to Subcontractor starting any work.

3.4.13 Traffic Control

Orange/yellow-orange, or equivalent safety vests will be provided for all employees, flagmen and traffic monitors working around heavy moving or rotating equipment. The site specific orientation will further elaborate on traffic control.

There is a Zero-tolerance policy for violating the designated traffic control route and impacting any ongoing activities on adjacent properties. Any impacts to adjacent properties will result in the violator being terminated.

3.4.14 Confined Space Entry Requirements

Confined space work requiring an entry permit shall be performed only under the supervision of a competent person. Only trained and authorized employees shall be allowed to enter the confined space.

3.4.15 Housekeeping

Daily housekeeping is a part of this job safety plan with special emphasis placed on stairways. All stairways will be artificially lit and be clean of debris. Daily housekeeping is intended to promote a clean and well maintained project through the construction process. The project shall be kept clean of all debris and trash.

3.4.16 Scaffolds

All Subcontractors using scaffolding on this site will be required to attend the pre-scaffolding meeting. The meeting will lay out, in detail Morenson rules of

erecting, dismantling and the use of scaffolding. Subcontractors not attending this meeting will not be allowed the use of scaffolding on this site.

3.4.17 Electrical

All temporary power sources will be provided with Ground Fault Circuit Interrupters (GFCI), and all cords, plugs and receptacles shall be checked for damage daily. Testing of the ground and labeling of the cords will be performed as needed or at least monthly. Remove any damaged equipment from use and tag out of service until repaired.

Tools and equipment shall be routinely inspected and tested before use.

3.4.18 Cranes

Crane erection and maintenance and care shall comply with the manufacture's specifications and limitations. Rated local capacities and recommended operating speeds shall be visible to the operator. Crane certifications must be in the cab at all times and all crane operators must have current certification.

Cranes shall be level and located on firm footing or cribbing when necessary and accessible areas within the swing radius of the rear-rotating superstructure of the crane shall be barricaded or cordoned off to avoid being struck by the crane.

Cranes shall be annually inspected and a record of this inspection shall be provided upon request.

3.4.19 Lifts

If scissor lifts are required on this project the following standards shall apply:

A scissor lift shall not travel in an elevated position with men in the basket.
Chains and gates shall be utilized whenever the scissor lift is in an elevated position.
All operating and maintenance instructions and recommendations must be followed.
The manufacturers operating manual shall with the equipment at all times.

3.4.20 Aerial Lifts, Snorkel Lifts, Boom Supported Work Platforms

If aerial lifts, snorkel lifts, or boom supported elevating work platforms are required on this project the following standards shall apply:

All personnel in the lifts shall be tied-off to an appropriate location on the lift.
Lifts shall not travel in an elevated position with men in the basket.

All operating and maintenance instructions and recommendations must be followed.
The manufacturers operating manual shall with the equipment at all times.

3.4.21 Forklifts

No modifications or additions that affect the capacity or safe operations of the equipment shall be made without the manufacture's written approval. In no case shall the original safety factor of the equipment be reduced and only trained and certified personnel shall be permitted to operate forklifts.

If a load is lifted by two or more trucks working in unison, the proportion of the total load carried by any one truck shall not exceed its capacity.

3.4.22 Tools

All tools should be kept in good operating condition and replaced if damaged. Impact tools, such as drift pins, wedges and chisels shall be kept free of mushroomed heads. The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

3.4.23 Lock Out/Tag Out

Before any modifications, maintenance, or repairs are done on equipment, tools, or power panels, the energy source shall be disconnected or turned off (turn valve, pull fuse, switch breaker) and locked out or blocked out with a padlock, chain or both to ensure energy source is locked off.

Place a tag at the disconnect point, identifying who you are, who you work for, and why you locked it off. Never move or remove another person's tag.
Be sure to release residual energy (i.e. lead line grounding circuits).
Test equipment or energy source to ensure it will not run. Turn on equipment or test circuits to ensure it is disconnected.
Restore energy safely when you are finished with your repairs. Remove lock and tag.

3.4.24 Protective Equipment (PPE)

The minimum PPE required includes hard hats, sturdy work boots, shirtsleeves (no tank tops), long pants, ear protection (if applicable), snake guards and safety glasses are to be worn at all times. Goggles, and/or face shields shall be worn as necessary for eye protection.

Respiratory protection shall be worn, as necessary, to prevent breathing harmful concentrations of paint, welding fumes, concrete and sheetrock dust, solvent vapors, etc.

The JHA's will address the necessary and proper task specific PPE required for various work activities.

3.4.25 Hot Work

A hot work permit will be required for any work activity performed in an enclosed environment, including but not limited to inside a building or a confined space, that generates sparks, open flames or creates in any way a potential fire hazard.

4 CONTINGENCY AND EMERGENCY RESPONSE PROCEDURES

4.1 Site Evacuation Plan / Assembly Area

Site evacuation procedures are required as part of an emergency response plan. Every job site should at the outset, determine a safe corridor for escape and assembly.

Examples of emergencies requiring a site evacuation include:

Explosion from underground pocket of flammable/combustible gases.
Equipment fire or explosion.
Inclement weather.
Toxic gas/vapor release from subsurface pocket of gases or containers.
Cave-in from excavated trenching.

Evacuation routes are established upwind and cross from the direction of wind flow as determined by either a windsock or other visual means of determining air movement. In the event of an evacuation signal, every worker is required to cease operations, note the wind pattern and move in a cross and upwind direction to the designated assembly point. The designated assembly points may vary and will be determined by the Safety Manager based on work activity, incident location and the final project layout.

4.2 Response to a Release of Hazardous Materials/Wastes, Liquids, Unusual Smell or Odor

If there is a release, i.e. oil, diesel, or other petroleum product, hazardous waste, or the perception of an unusual foul or irritating smell or odor, immediately evacuate the area by moving across and up-wind from the source to the designated assembly point. Remain there until cleared to return. Notify Mortenson Management Team prior to resuming operations.

If the identity of the released product/waste or odor is known and does not pose an immediate threat to the safety and/or health of the workers or the environment, notify the SSSM and implement steps to contain and control the release.

4.3 Fire

Alert and immediately evacuate personnel away from the immediate area. Notify Mortenson Management Team regarding any size fire that occurs on the Project. If necessary, the Management Team will notify the Fire Department by calling 9-1-1.

For small fires (a fire that can be controlled with one 20 lb., fire extinguisher), contain and extinguish the fire as quickly as possible.

For large fires, immediately evacuate the affected area and report to the designated assembly point.

4.4 Explosions

Following an explosion, immediately survey the affected area for injured workers. If safe to enter, remove the injured to a safe distance. Injured workers will be transported to the nearest emergency medical facility.

Immediately evacuate the affected area and report to the designated assembly point. If a fire develops, follow emergency procedures for fire control and evacuation, as described above.

4.5 Accidents

All accidents/incidents shall be reported to the SSSM/Superintendent immediately for investigation and follow-up. An incident written incident report shall be submitted to the SSSM/Superintendent within 24 hours.

For accidents involving personal injury, immediately apply appropriate first aid and transport the injured party to the designated medical facility. Never allow the injured employee transport him/herself. SSSM will summons emergency medical response for injuries requiring emergency assistance.

4.6 Vehicle Accidents

Stop the vehicle as soon and as safely as possible. Assess the damage to the vehicle and collateral damage to equipment and any other objects. If injuries are sustained, follow the accident procedures above. Report all vehicle accidents to your supervisor immediately.

An Incident Report online must be filled out for all accidents/incidents.

4.7 Equipment Failure or Power Outage

Turn off equipment or power. Assess damage and notify your supervisor. Wait for further instructions.

4.8 Natural Disaster/Earthquake

Complete the following:

Shut down all operations/equipment in a safe effective manner.
Check all personnel for injury and follow appropriate procedures
Inspect all fuel/oil/waste water tankage and/or containment structures for signs of leakage or damage.
Inspect all operational units for proper operations made, and manually check to insure all automatic and alarmed features are working properly.
Inspect all piping, valves, and fixed pumping units for damage.
Re-inspect electrical circuits and power supplies for damage.
Report to assembly point and wait further instructions.

4.9 Exposure Assessment

Subcontractors will become familiar with the potential hazards on the job, as described in the SSSP, train, manage and provide appropriate measures to protect their employees.

Each Subcontractor shall provide appropriate tools, i.e., PPE, equipment, environmental exposure monitors, to assess and assure that its own employees are working in a safe area and manner.

4.10 Liaison, Notification Requirement for Incidents, Accidents and Injuries

Should any of the events listed above occur, SSSM/Superintendent shall be contacted immediately. The SSSM will assist Subcontractors in resolving the issue and coordinate the preparation of a written report to the PM within 24 hours.

Mortenson will determine the appropriate reporting and notification procedures involving notification to local authorities.

s4.11 Medical Management Plan

4.11.1 Medical Support Facilities

Emergency medical facilities shall be identified and posted for emergency response. The following medical support personnel have been contacted and informed of this project. The contacts and corresponding telephone numbers of local clinics and hospitals are given below:

Local Hospital/Urgent Care Clinic:		
	Phone:	**(540) 498-4000**
Address:	**Spotsylvania Regional Medical Center**	
	4600 Spotsylvania Parkway. Fredericksburg, VA 22408	

Exhibit G: Project Decommissioning and Site Restoration Cost Estimate, dated December 13, 2018

5.0 PROJECT DECOMMISSIONING AND SITE RESTORATION COST ESTIMATE

The estimated costs for the decommissioning and restoration associated with the Spotsylvania Solar Energy Center project are shown below:

Description	Duration	Labor, Equipment, Materials	Net Recycling	Total Cost
SWPPP & Dust Control Measures	30.6	$428,328	$0	**$428,328**
Removal of Equipment	26.8	$16,499,447	($21,981,586)	**($5,482,139)**
Site Demolition	8.2	$605,830	($394,865)	**$210,965**
Site Reclamation	7.6	$3,987,671	$0	**$3,987,671**
Contingency, Escalation, PM, Insurance, Fees		$15,184,385	($3,356,468)	**$11,827,918**
Opinion of Probable Gross Decommissioning Cost		**$36,705,641**	**($25,732,919)**	**$10,972,743**