

Clearview Solar I, LLC

Clearview Solar

Exhibit Y

Preliminary Landscape Plan

Case No. 20-1362-EL-BGN

CLEARVIEW SOLAR LANDSCAPE STRATEGIES

Clearview Solar Landscape Mitigation Narrative

Introduction

The Clearview Solar Project is in northwest Champaign County, Ohio. It is generally bordered by Champaign Logan Shelby Road to the west, Champaign Logan Road to the north, SR-235 to the east and Elm Tree Road to the south, and the site is bifurcated by Snapptown Road. Flat to gently rolling topography composed of existing agricultural land and occasional stands of trees and hedgerows characterizes the site. A small tree-lined creek runs north-south through the eastern portion of the site.

The goals for landscape mitigation are threefold, with the primary goal of, over time, diffusing the view of the solar panels and reducing their presence on the landscape. Secondly, the planting design should fit into the existing rural vernacular by picking up on cues from the existing landscape features. Thirdly, the landscape should provide enduring ecological and sustainable value to the region.

Design Approach

The landscape mitigation design begins with an understanding of the existing landscape conditions and features that can serve as inspiration for the proposed design, to assure that it fits the existing context and appears to blend in versus stand out. The linear nature of the existing perimeter road network presents an opportunity to complement the existing hedgerows, and strategically plant new hedgerows that help to diffuse views of the solar panel arrays from near and afar.

The strategy, is to develop a modular system, consisting of native plants, that scales from low density to high density, that is deployed on site, based on the proximity of the solar panel arrays to existing residences, roads and other sensitive high visibility locations. The plant selections, from shorter native grasses, wildflower seed mixes and woody shrubs, to small and large trees, provide ecological benefits in the form of pollinator species for bees and other insects, food, and cover for small mammals. Once established, the plantings will absorb a great deal of storm water and filter chemical runoff from agricultural areas where possible. If practicable, fencing around the perimeter of the buildable area will be selected to allow wildlife to move freely through the planting modules and into the secured array areas to maximize their ability to

secure food and cover.

The Low-Density planting module will be utilized where arrays are set back from the road or residences significantly, and the sheer distance from homes and roads diminishes the impact of the arrays on viewsheds. Low density native planting consists of pollinator seed mixes that range in height from 2 – 4 feet tall with a mix of warm and cool season grasses, perennial wildflowers and help to diffuse views of the arrays from vehicular and pedestrian vantage points. Woody shrub masses are interspersed throughout the pollinator mix to provide additional screening and food and cover for wildlife.

The Medium-Density planting module will be used to provide additional screening where arrays are near the road network and existing residential property boundaries and existing topography and vegetation are not providing view mitigation. Medium density planting combines the plants in the low-density module with small trees to give more height and density. The small trees are multi-stemmed and provide additional texture / screening capability and range in height from 15 to 25 feet tall and wide at maturity. Additionally, the small trees provide forage and cover for native bird species.

The High-Density planting module will provide the highest degree of view filtering where the arrays are closest to residential property boundaries and roads and additional height and mass are needed to help diffuse the views of the arrays. The high-density module builds on the medium density module by adding shade trees to the plant mix. Shade trees will provide long-term density and height to help screen views from higher vantage points. Large shade trees also provide additional ecological benefits in the form of bird and small mammal nesting locations, food and cover for beneficial insects and greater stormwater absorption capability.

Plant Establishment and Maintenance

Key to providing a sustainable (maintainable) and enduring landscape of any sort, is to start with plant selection and installation to put the plants in a position to succeed. A small percentage of plant death is expected in the designed landscape; however, our installation and maintenance approach aim to achieve a high success rate. Our design does not rely on a 100% success rate

to meet our goal of diffusing views of the solar panel arrays. Plants will be replaced selectively to maintain an appropriate amount of screening. Our approach begins with native plant selections which generally take less input energy (and water and soil amendments) to establish and maintain long-term, since they are adapted to the local / regional soil, water, and climate conditions.

Given that we have a matrix of pollinator plants, grasses, shrubs, and trees proposed for this landscape, it will take a strategic approach to plant and establish them. Trees, small trees / large shrubs, and smaller woody shrubs should be planted first. Planting the larger materials first, will allow the more delicate seed mix to be planted without being disturbed. Also, this sequence gives the smaller trees and shrubs time to establish while the grasses and perennials are shorter in the first year or two, and are less likely to shade out the shrubs and trees, effectively, giving them a head start.

Planting from seed typically results in higher rates of success than plugs or containerized plants. Seeds have a better chance to adapt and establish with minimal resources of water and soil. Timing is an important consideration for any plant type. Seeding generally should occur between fall and late spring, which puts the plants in place when temperatures are right for germination. When dormant, bare-root woody plant materials can be planted between December 1 and April 15th. This reduces plant shock and stress, and the plants are in place when temperature and moisture become available. With respect to woody plant material, planting smaller “installed-size” plant material (bare-root, or small caliper or container), typically results in higher rates of plant survival, due to less impact / stress to the plant root system during transplant.

Tree and shrub planting would follow the current best practices outlined by the International Society of Arboriculture, (ISA) (<https://www.isa-arbor.com/education/onlineresources/cadplanningspecifications>) to make sure that the plants have the best chance of survival. Plant procurement is also very important and special attention will be paid to the selection of plant material for this project. Proper plant structure, root flare location, and disease-free plants are important characteristics for a successful planting. Plants that do not meet the specifications will be rejected and replaced.

Pollinator mixes typically require 2-3 years to fully establish themselves. During this period, periodic mowing will take place to keep annual and perennial weeds at bay and encourage the establishment of pollinator species. Woody plant materials (trees, shrubs) establish over the course of 1-2 years with faster growth rates beginning in years 3-5 as root systems begin to recover from transplant shock and emerge from the rootball and root into native soils.

Lastly, maintaining the designed species mix is important to allow the desirable plants to thrive. Therefore, removing invasive species is important to give the plants a chance to establish and limit room for invasive species to root. Onsite and nearby Invasive plants must first be identified by trained staff to be sure that the right plants are removed. It is good practice to remove existing invasive species prior to planting new landscapes. This gives the maintenance team will reference the Ohio Invasive Plants Council - “Invasive Plants of Ohio” document (<https://www.oipc.info/invasive-plants-of-ohio.html%20>) and the USDA – “Ohio State-listed Noxious Weeds” ([Ohio State-listed Noxious Weeds](#)) as a starting point for identifying and removing invasive species. maintenance team a good understanding of what invasive species they may encounter in the future. The invasive plants need to be removed with care to avoid damaging desirable plants. Educating and assisting adjacent property owners about invasive species and ways to control their introduction and spread, will be important to the overall success of maintaining the landscape.

Conclusion

The landscape mitigation design for the Clearview Solar Project aims to complement and enhance the existing rural vernacular landscape through designed hedgerows and native pollinator plantings, while reducing the visual impact of the photovoltaic panels on neighboring properties. Added benefits of pollinator support, wildlife cover and habitat and stormwater absorption, broaden the impact of the central, sustainable goals of the overall project.





LEGEND AREA A

- LOW DENSITY PLANTING - POLLINATOR MIX AND SMALL SHRUBS
- MEDIUM DENSITY PLANTING - POLLINATOR MIX AND LARGE SHRUB / SMALL TREES
- HIGH DENSITY PLANTING - POLLINATOR MIX, LARGE SHRUB / SMALL TREES AND LARGE TREES
- BUILDABLE AREA
- PROPERTY OWNERSHIP

0' 250' 500' 
SCALE IN FEET








LEGEND AREA B

- LOW DENSITY PLANTING - POLLINATOR MIX AND SMALL SHRUBS
- MEDIUM DENSITY PLANTING - POLLINATOR MIX AND LARGE SHRUB / SMALL TREES
- HIGH DENSITY PLANTING - POLLINATOR MIX, LARGE SHRUB / SMALL TREES AND LARGE TREES
- BUILDABLE AREA
- PROPERTY OWNERSHIP

0' 250' 500' SCALE IN FEET



LEGEND AREA C

-  LOW DENSITY PLANTING - POLLINATOR MIX AND SMALL SHRUBS
-  MEDIUM DENSITY PLANTING - POLLINATOR MIX AND LARGE SHRUB / SMALL TREES
-  HIGH DENSITY PLANTING - POLLINATOR MIX, LARGE SHRUB / SMALL TREES AND LARGE TREES
-  BUILDABLE AREA
-  PROPERTY OWNERSHIP

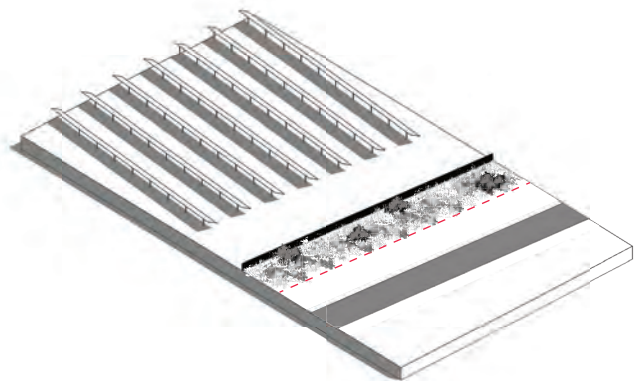
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SCALE IN FEET



LEGEND AREA D

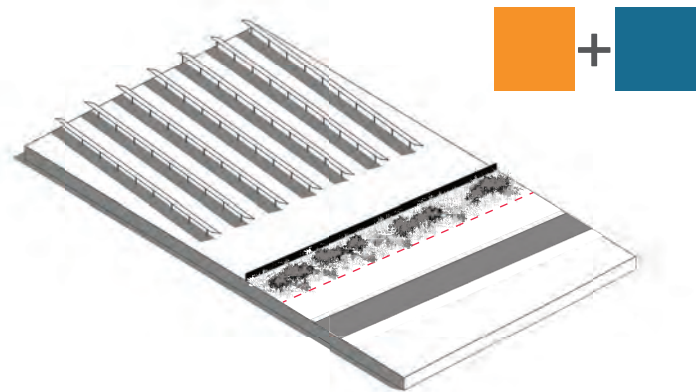
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- BUILDABLE AREA
- PROPERTY OWNERSHIP

0' 300' 600' SCALE IN FEET



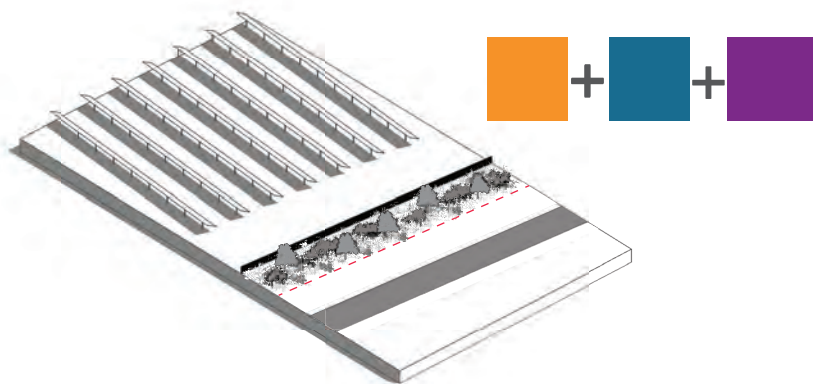
COMMON NAME	SCIENTIFIC NAME	SIZE AT PLANTING	BLOOM TIME
SHRUBS			
BLACK CHOKEBERRY	ARONIA MELANOCARPUS	18"-24" HT #3 CONT.	MAY
BAYBERRY	MYRICA PENSYLVANICA	18"-24"	
NINEBARK	PHYSOCARPUS OPULIFOLIUS	18"-24"	MAY TO JUNE
SMOOTH SUMAC	RHUS GLABRA	18"-24"	JUNE
ARROWWOOD VIBURNUM	VIBURNUM DENTATUM	18"-24"	MAY TO JUNE
NANNYBERRY	VIBURNUM LENTAGO	18"-24"	MAY
POLLINATOR MIX			
<u>PERMANENT GRASSES/SEDGES</u>			
SIDE-OATS GRAMA	BOUTELOUA CURTIPENDULA		JULY-AUG
PRAIRIE SEDGE SPECIES	CAREX SPP.		
CANADA WILD RYE	ELYMUS CANADENSIS		JULY-OCT
JUNE GRASS	KOELERIA MACRANTHA		JUNE-JULY
SWITCH GRASS	PANICUM VIRGATUM		JULY-SEPT
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM		JULY-OCT
<u>TEMPORARY COVER</u>			
COMMON OAT	AVENA SATIVA		JUNE-JULY
ANNUAL RYE GRASS	LOLIUM MULTIFLORUM		MAY-SEP
<u>FORBS</u>			
LEAD PLANT	AMORPHA CANESCENS		JUNE-AUG
COMMON MILKWEED	ASCLEPIAS SYRIACA		JUNE-AUG
BUTTERFLY WEED	ASCLEPIAS TUBEROSA		JUNE-AUG
WHITE WILD INDIGO	BAPTISIA ALBA		JUNE-JULY
PARTRIDGE PEA	CHAMAECRISTA FASCICULATA		JUNE-SEPT
LANCELEAF COREOPSIS	COREOPSIS LANCEOLATA		MAY-JULY
PRAIRIE COREOPSIS	COREOPSIS PALMATA		JUNE-AUG
WHITE PRAIRIE CLOVER	DALEA CANDIDA		MAY-JUNE
PURPLE PRAIRIE CLOVER	DALEA PURPUREA		JUNE-AUG
PURPLE CONEFLOWER	ECHINACEA PURPUREA		JUNE-AUG
RATTLESNAKE MASTER	ERYNGIUM YUCCIFOLIUM		JUNE-SEPT
ROUNDHEADED BUSHCLOVER	LESPEDEZA CAPITATA		JULY-SEPT
ROUGH BLAZINGSTAR	LIATRIS ASPERA		JULY-OCT
WILD LUPINE	LUPINUS PERENNIS V. OCCIDENTALIS		MAY-JULY
WILD BERGAMOT	MONARDA FISTULOSA		JULY-SEPT
STIFF GOLDENROD	OLIGONEURON RIGIDUM		AUG-OCT
WILD QUININE	PARTHENIUM INTEGRIFOLIUM		JUNE-SEPT
FOXGLOVE BEARD TONGUE	PENSTEMON DIGITALIS		APRIL-JUNE
HAIRY BEARD TONGUE	PENSTEMON HIRSUTUS		MAY-JUNE
GREY-HEADED CONEFLOWER	RATIBIDA PINNATA		JUNE-AUG
BLACK-EYED SUSAN	RUDBECKIA HIRTA		JUNE-SEPT
SWEET BLACK-EYED SUSAN	RUDBECKIA SUBTOMENTOSA		JULY-SEPT
PRAIRIE DOCK	SILPHIUM TEREBINTHINACEUM		JULY-SEPT
SHOWY GOLDENROD	SOLIDAGA SPECIOSA		SEPT-NOV
HEATH ASTER	SYMPHYOTRICHUM ERICIODES		AUG-OCT
SMOOTH BLUE ASTER	SYMPHYOTRICHUM LAEVE		AUG-OCT
NEW ENGLAND ASTER	SYMPHYOTRICHUM NOVAE-ANGLIAE		AUG-OCT
COMMON SPIDERWORT	TRADESCANTIA OHIENSIS		MAY-JULY
HOARY VERVAIN	VERBENA STRICTA		JUNE-SEPT
SMOOTH TALL IRONWEED	VERNONIA GIGANTEA		AUG-OCT
CULIVER'S ROOT	VERONICASTRUM VIRGINICUM		MAY-AUG

MEDIUM DENSITY PLANTING - POLLINATOR MIX AND LARGE SHRUB / SMALL TREES

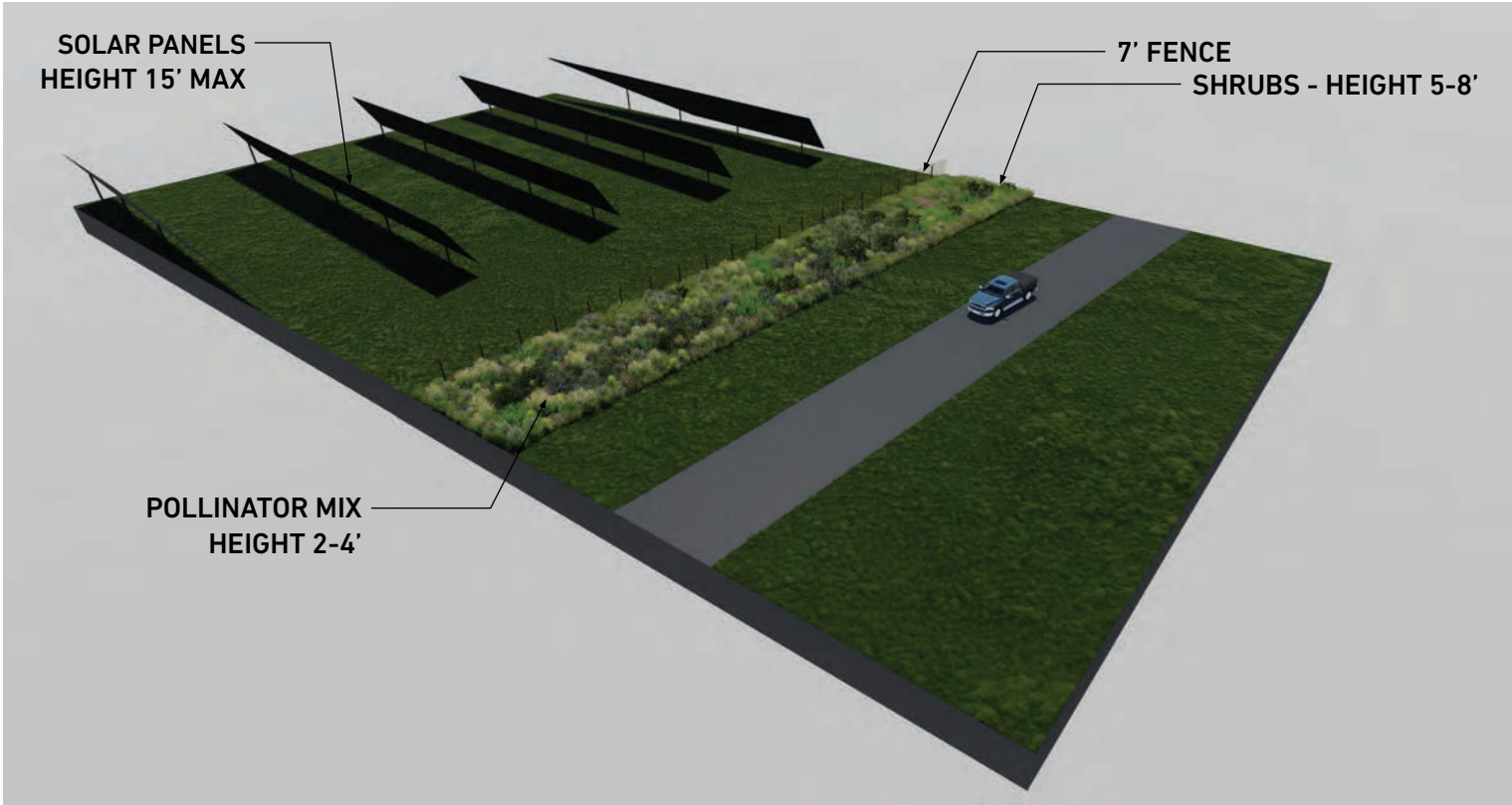


COMMON NAME	SCIENTIFIC NAME	SIZE AT PLANTING	BLOOM TIME
SMALL TREES			
SHABLOW SERVICEBERRY	AMELANCHIER CANADENSIS	36-48" HT/ #5 CONT.	APR-MAY
REDBUD	CERSIS CANADENSIS	36-48"	APR
GRAY DOGWOOD	CORNUS RACEMOSA	18"-24"	MAY TO JUNE
WITCH HAZEL	HAMAMELIS VIRGINIANA	18"-24"	OCT TO DEC
SHRUBS			
BLACK CHOKEBERRY	ARONIA MELANOCARPUS	18"-24" HT #3 CONT.	MAY
BAYBERRY	MYRICA PENNSYLVANICA	18"-24"	
NINEBARK	PHYSOCARPUS OPULIFOLIUS	18"-24"	MAY TO JUNE
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NANNYBERRY	VIBURNUM LENTAGO	18"-24"	MAY

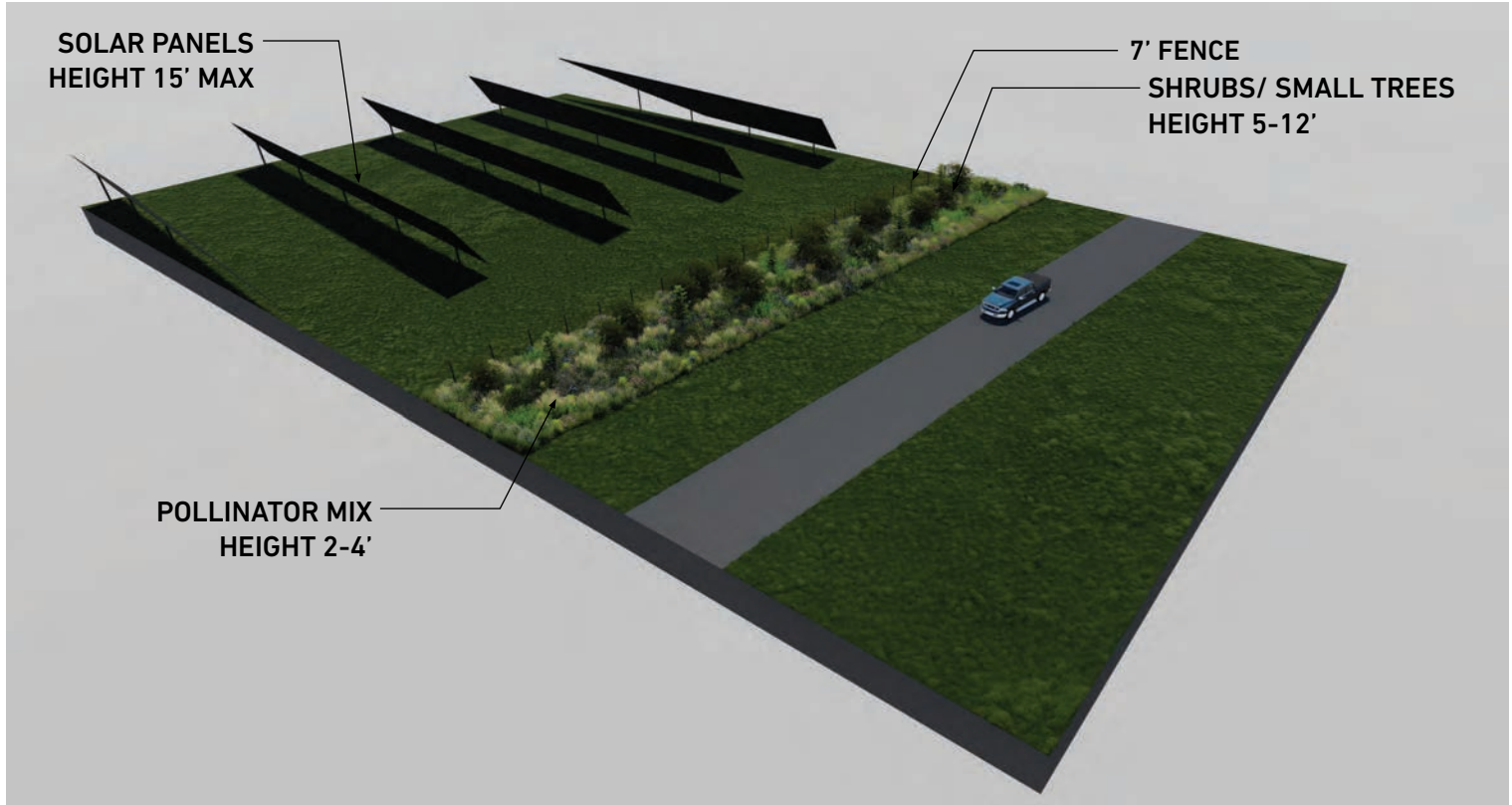
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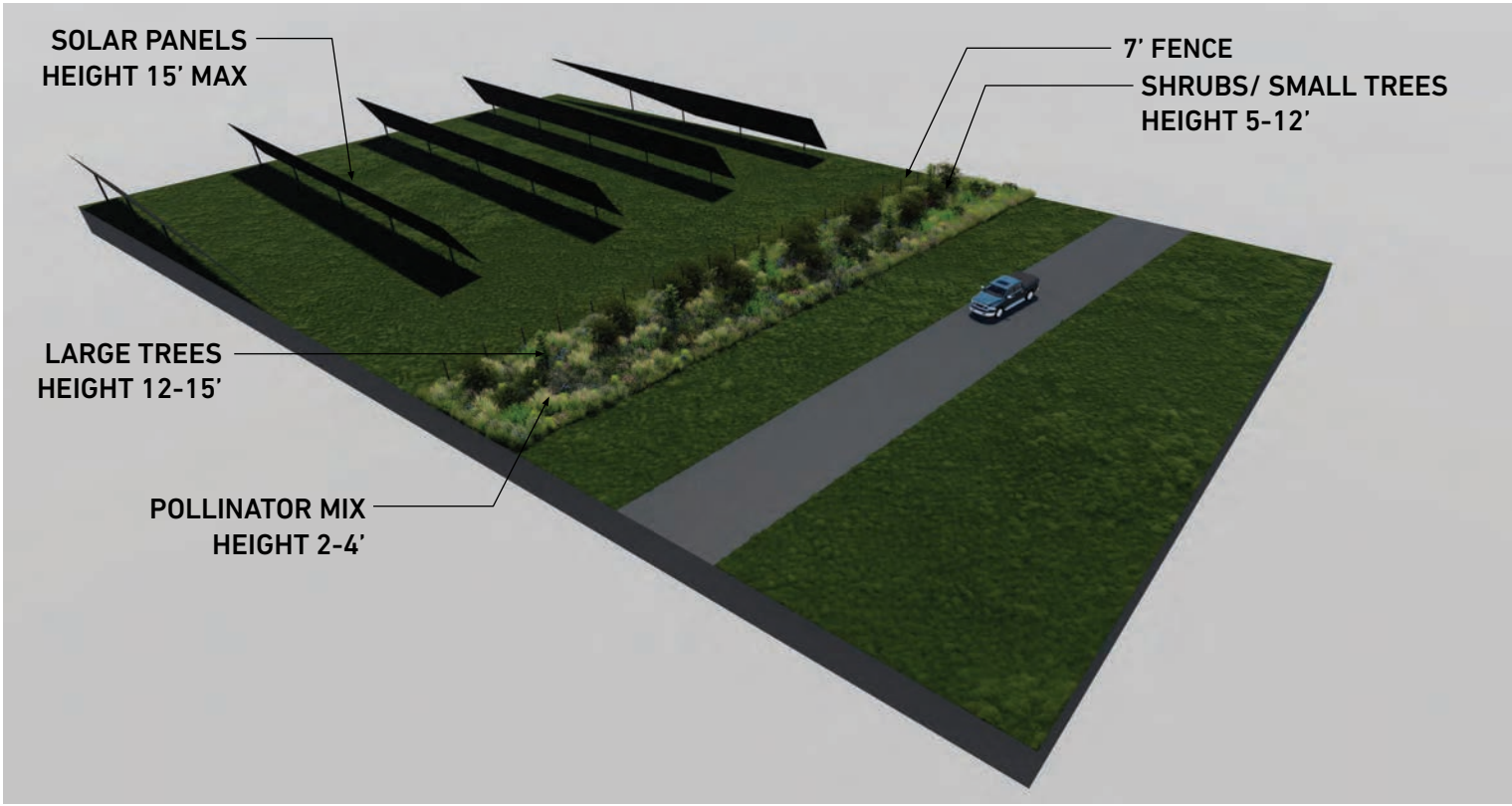
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GRAY DOGWOOD	CORNUS RACEMOSA	18"-24"	MAY TO JUNE
WITCH HAZEL	HAMAMELIS VIRGINIANA	18"-24"	OCT TO DEC
LARGE TREES			
RED MAPLE	ACER RUBRUM	3-4'	
BLACK CHERRY	PRUNUS SEROTINA	3-4'	
HACKBERRY	CELTIS OCCIDENTALIS	3-4'	
CHINQUAPIN OAK	QUERCUS MUEHLENBERGII	3-4'	
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3-4'	



LOW DENSITY PLANTING - POLLINATOR MIX



MEDIUM DENSITY PLANTING - POLLINATOR MIX AND LARGE SHRUB / SMALL TREES



HIGH DENSITY PLANTING - POLLINATOR MIX, LARGE SHRUB / SMALL TREES AND LARGE TREES



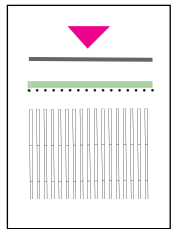
LOW DENSITY PLANTING - POLLINATOR MIX
SOLAR PANELS FROM A 30' DISTANCE ON AN EAST-WEST ROAD. PANELS SHOWN AT MAXIMUM 15' HEIGHT, 60 DEGREE TILT.



MEDIUM DENSITY PLANTING - POLLINATOR MIX AND LARGE SHRUB / SMALL TREES
SOLAR PANELS FROM A 30' DISTANCE ON AN EAST-WEST ROAD. PANELS SHOWN AT MAXIMUM 15' HEIGHT, 60 DEGREE TILT.



HIGH DENSITY PLANTING - POLLINATOR MIX, LARGE SHRUB / SMALL TREES AND LARGE TREES
SOLAR PANELS FROM A 30' DISTANCE ON AN EAST-WEST ROAD. PANELS SHOWN AT MAXIMUM 15' HEIGHT, 60 DEGREE TILT.



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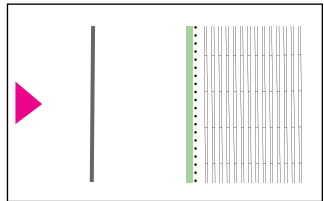
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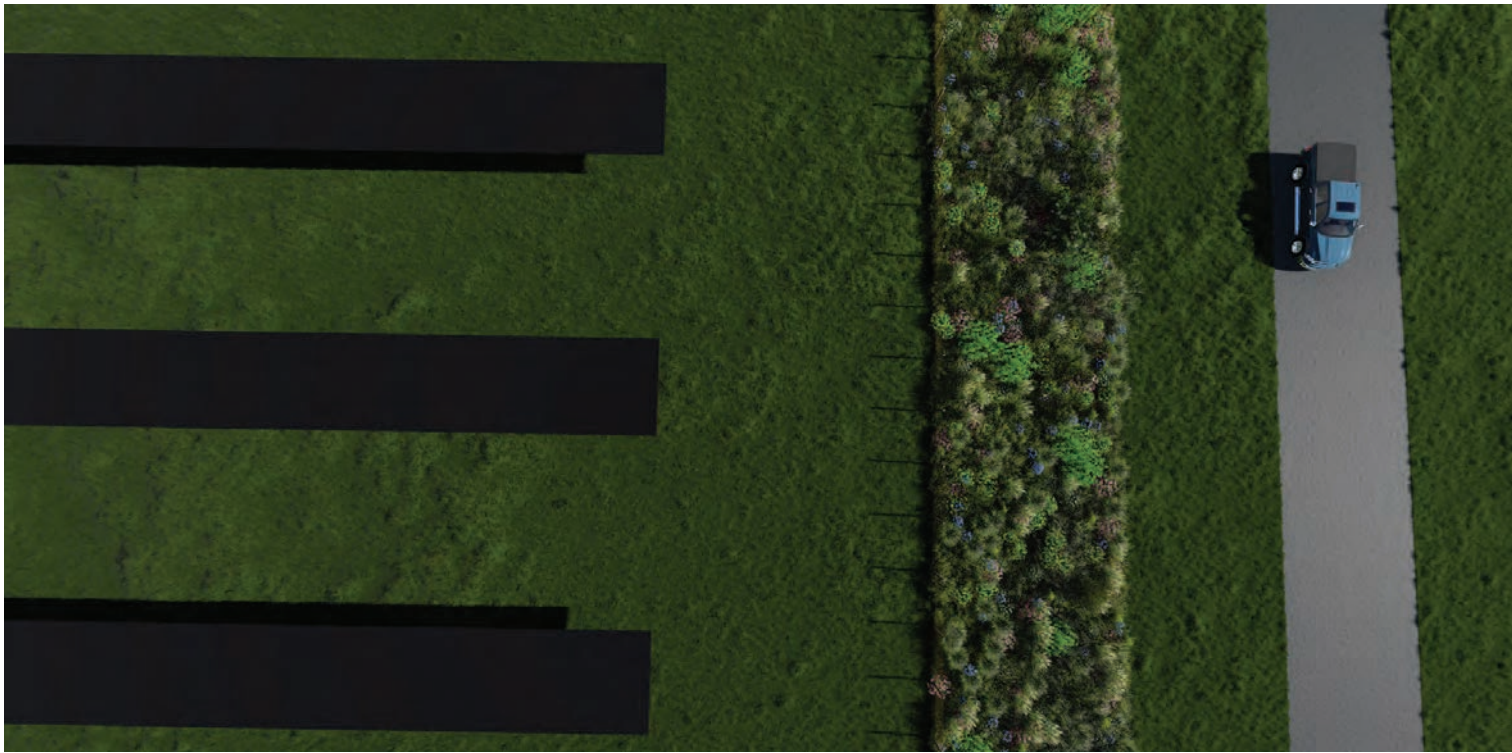
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LOW DENSITY PLANTING - POLLINATOR MIX
SOLAR PANELS IN PLAN VIEW. PANELS SHOWN FLAT.



MEDIUM DENSITY PLANTING - POLLINATOR MIX AND LARGE SHRUB / SMALL TREES
SOLAR PANELS IN PLAN VIEW. PANELS SHOWN FLAT.



HIGH DENSITY PLANTING - POLLINATOR MIX, LARGE SHRUB / SMALL TREES AND LARGE TREES
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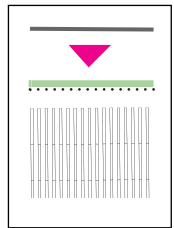
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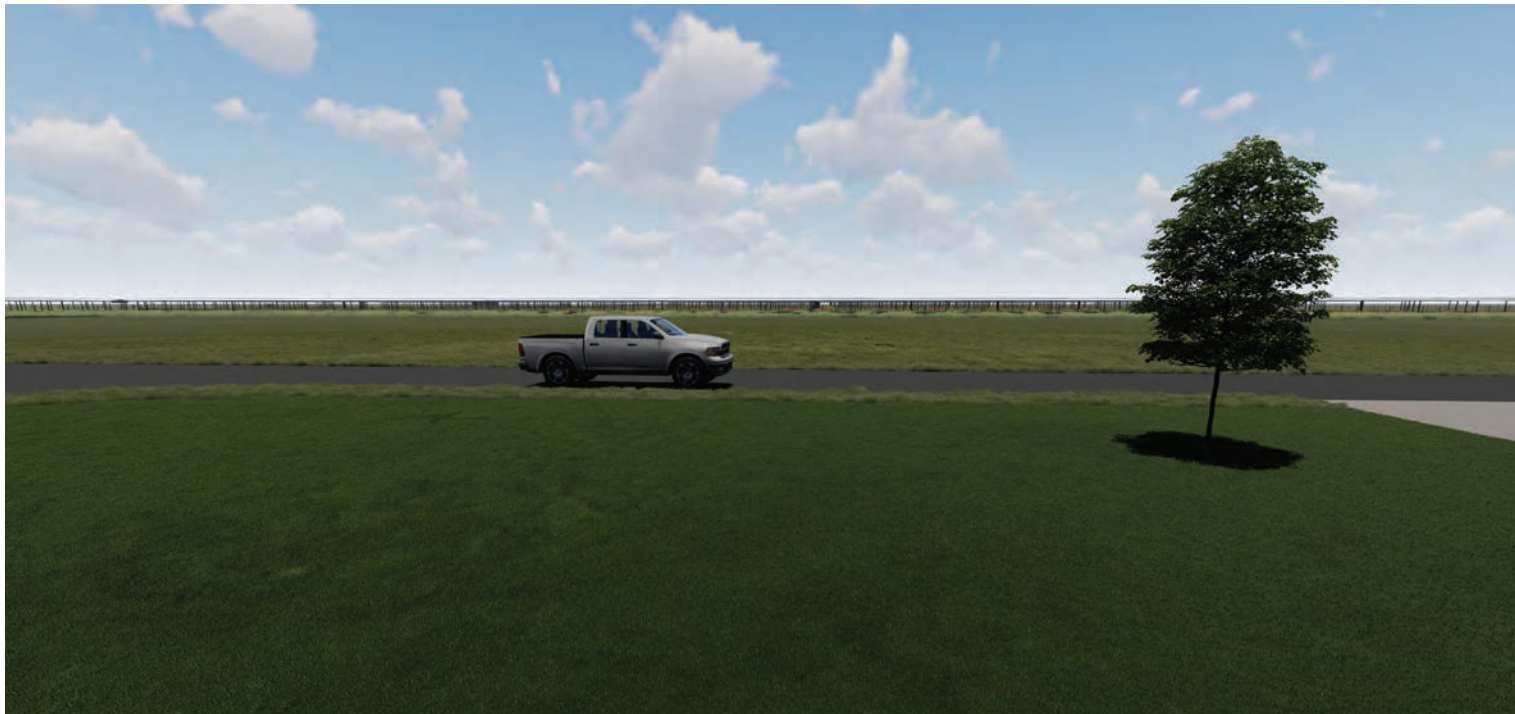
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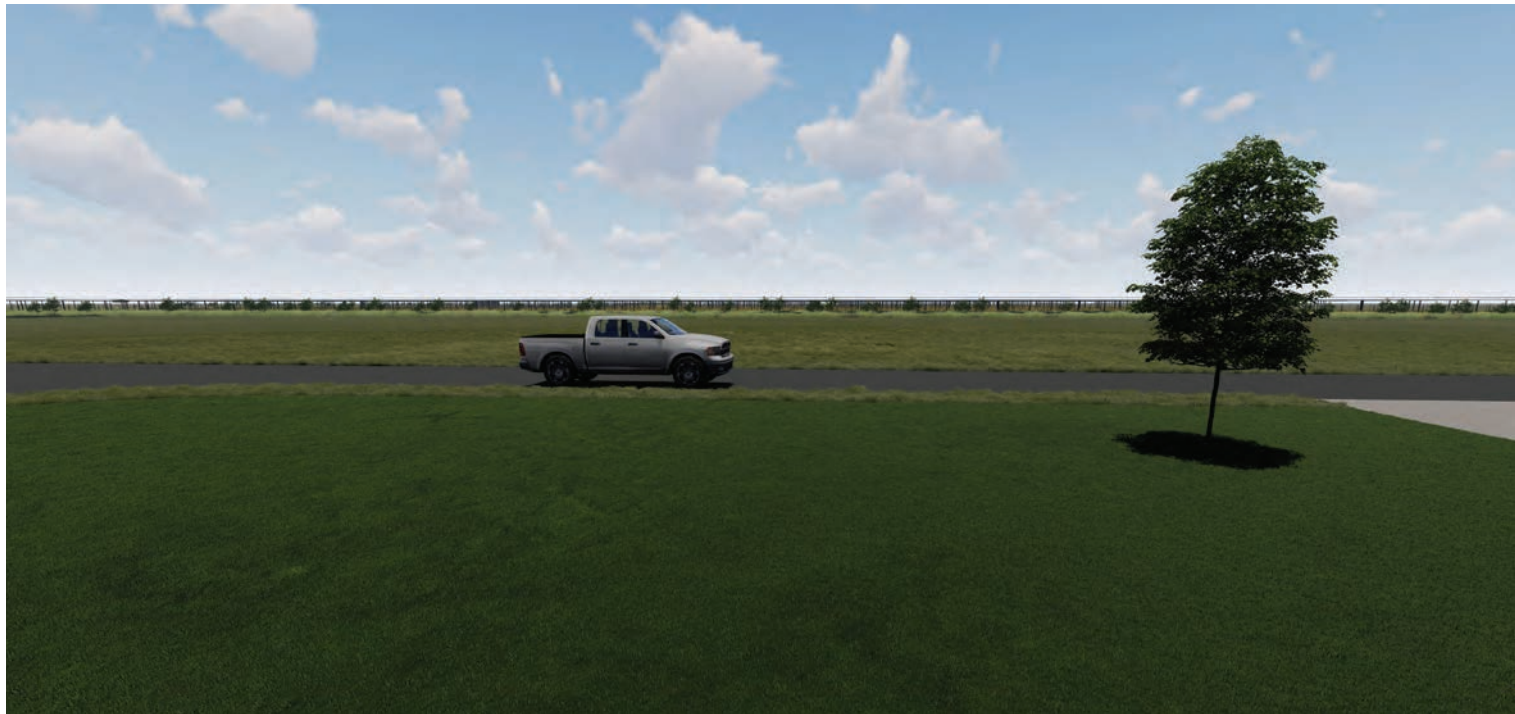
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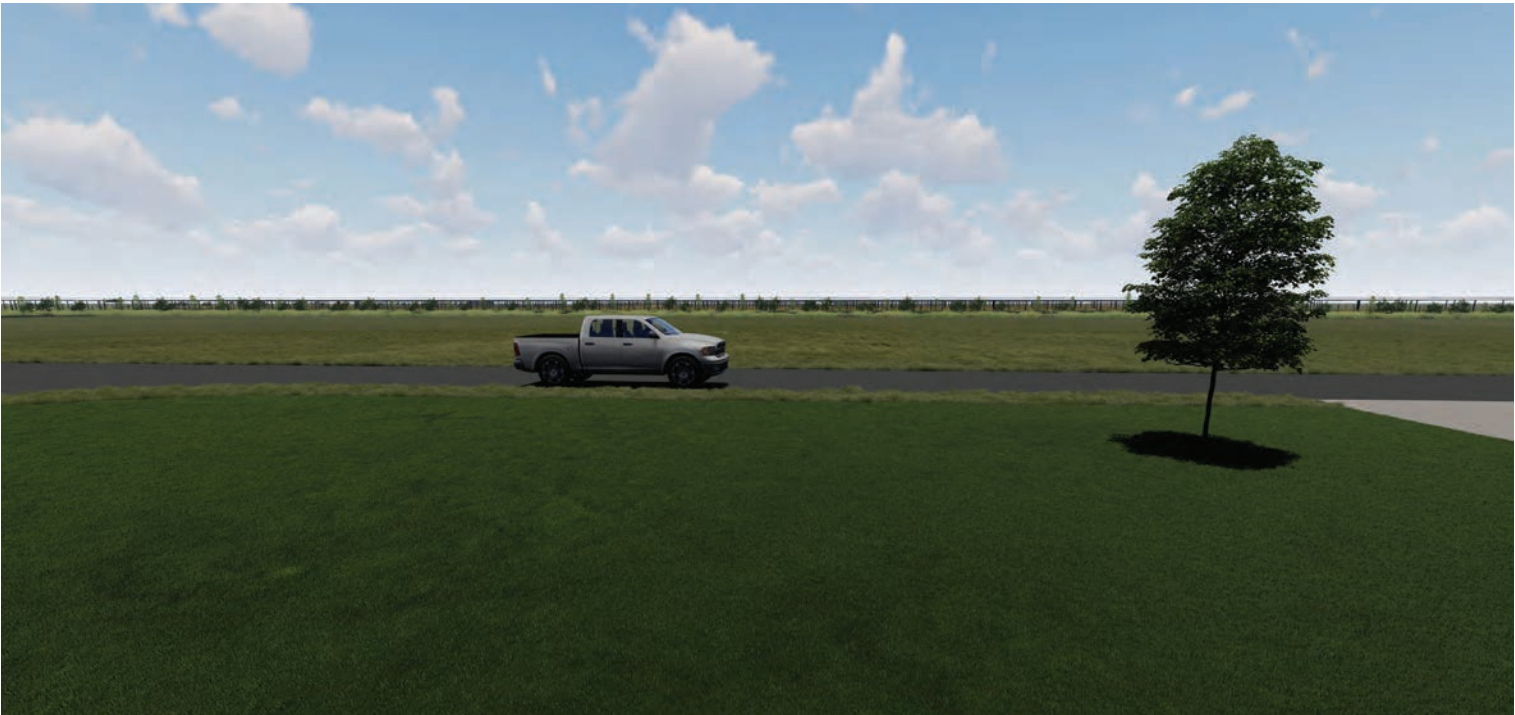
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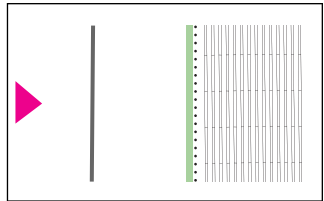
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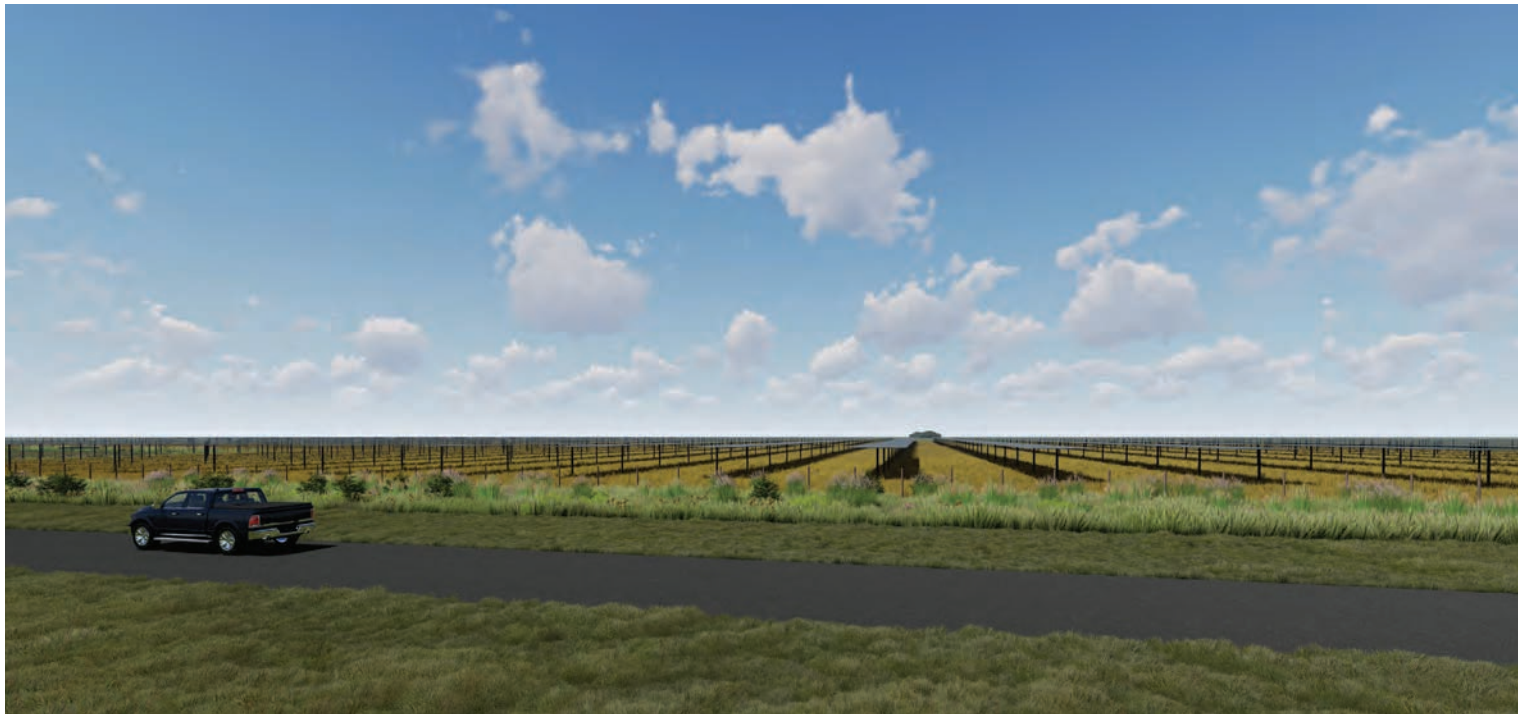
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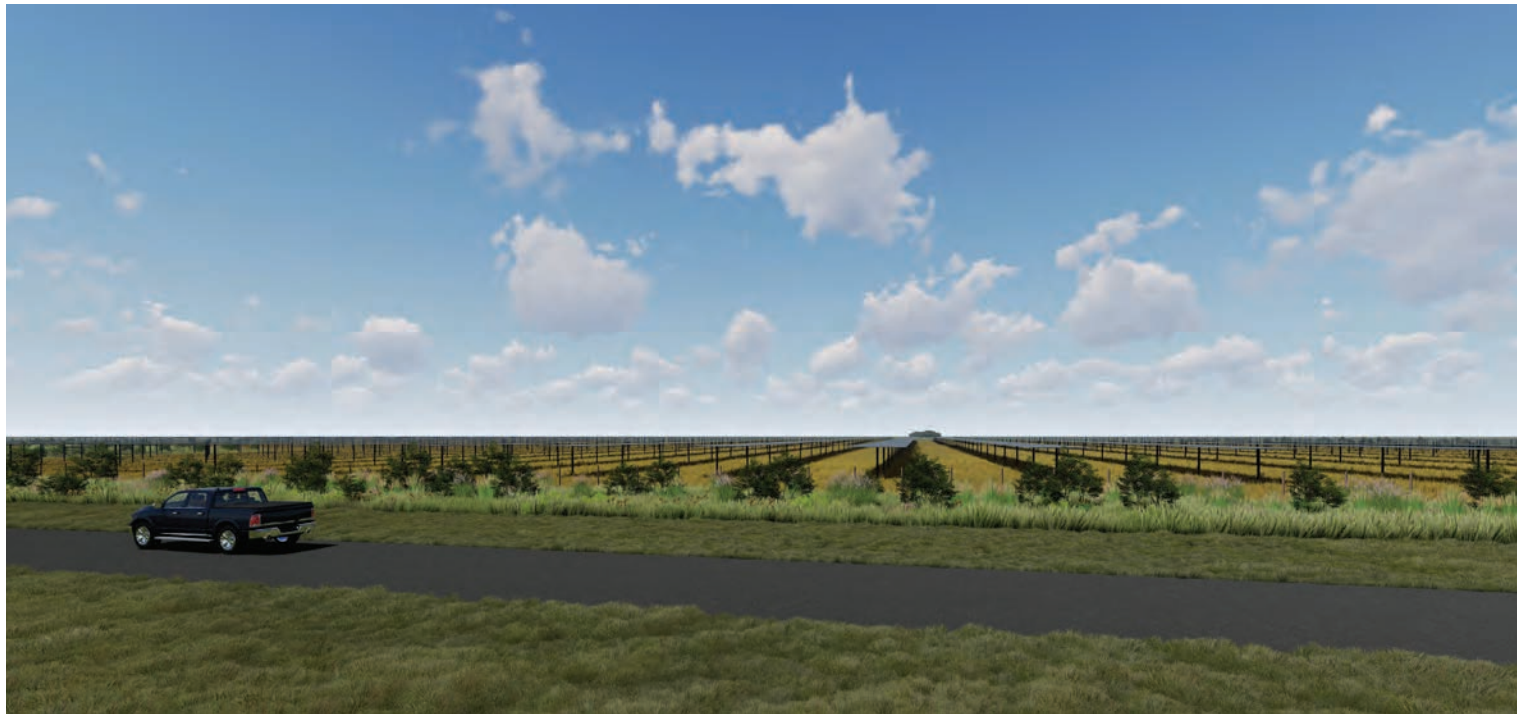
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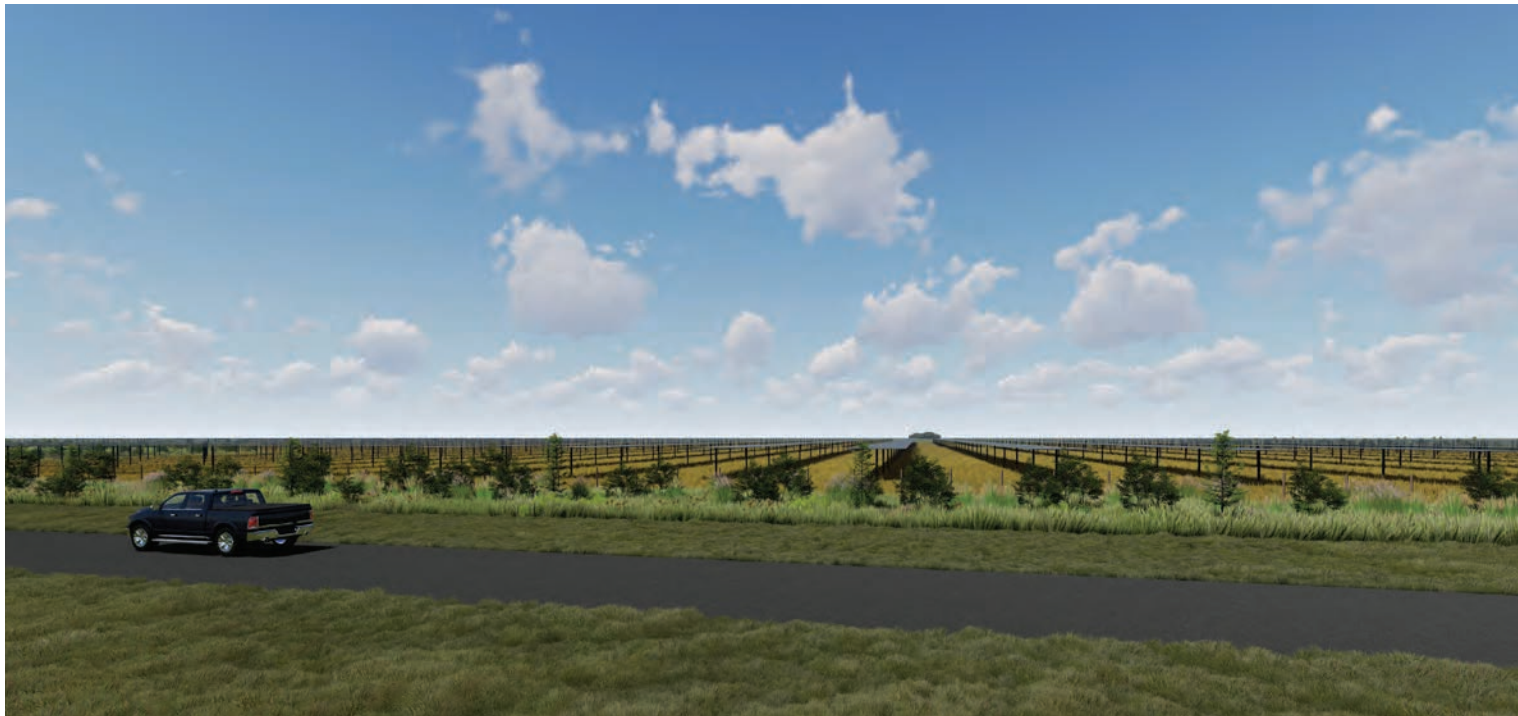
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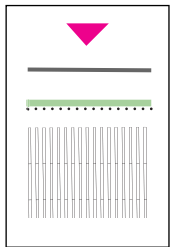
LOW DENSITY PLANTING - POLLINATOR MIX
SOLAR PANELS FROM A 60' DISTANCE ON AN EAST-WEST ROAD. PANELS SHOWN FLAT AT MINIMUM 9' HEIGHT.



MEDIUM DENSITY PLANTING - POLLINATOR MIX AND LARGE SHRUB / SMALL TREES
SOLAR PANELS FROM A 60' DISTANCE ON AN EAST-WEST ROAD. PANELS SHOWN FLAT AT MINIMUM 9' HEIGHT.



HIGH DENSITY PLANTING - POLLINATOR MIX, LARGE SHRUB / SMALL TREES AND LARGE TREES
SOLAR PANELS FROM A 60' DISTANCE ON AN EAST-WEST ROAD. PANELS SHOWN FLAT AT MINIMUM 9' HEIGHT.



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Summary: Application - Part 30 of 31 Ex. Y Preliminary Landscape Plan electronically filed by Christine M.T. Pirik on behalf of Clearview Solar I, LLC