

Board of Zoning Appeals Department of Planning, Housing, and Zoning

County Commissioners Hearing Room

400 High Street Chestertown, Maryland

AGENDA

Monday, June 17, 2024 5:00 p.m.

Members of the public are welcome to attend meetings in person or listen to the meeting via the audio-only phone number and conference identification number listed below.

- 1. Dial 1-872-239-8359
- 2. Enter Conference ID: 621 932 826#

Members of the public are asked to mute their phones/devices, until the Commission Chair opens the floor for comment.

Members of the public may also watch the live video feed and view the video after the meeting at the County's YouTube channel: @kentcountygovernment2757.

MINUTES

March 18, 2024

APPLICATIONS FOR REVIEW:

24-18 MDL 153 Mason Solar – Special Exception – Utility-Scale Solar Energy System in AZD 9425 Fairlee Road, Chestertown – Sixth Election District – Zoned Agricultural Zoning District (AZD)

GENERAL DISCUSSION

ADJOURN

<u>APPLICANT OR REPRESENTATIVE MUST BE PRESENT</u>

APPLICANTS ARRIVING MORE THAN 10 MINUTES AFTER THE SCHEDULED HEARING WILL NOT BE HEARD AND WILL BE RESCHEDULED AT THE APPLICANT'S EXPENSE.

Meetings are conducted in Open Session unless otherwise indicated. All or part of the Board of Appeals meetings can be held in closed session under the authority of the MD Open Meetings Law by vote of the members. Breaks are at the call of the Chairman. Meetings are subject to audio and video recordings.

All applications will be given the time necessary to assure full public participation and a fair and complete review of all projects. Agenda items are subject to change due to cancellations.

Other business without assigned times may be discussed during the meeting.

PLEASE PLACE THE FOLLOWING IN THE KENT COUNTY NEWS: June 13, 2024

BILL SHOULD BE SENT TO: Kent County Department of Planning, Housing, & Zoning

c/o Beth Grieb 400 High Street

Chestertown, MD 21620 mgrieb@kentgov.org

ANY QUESTIONS, CALL: Carla Gerber, 410-778-7474

cgerber@kentgov.org

NOTICE OF PUBLIC HEARING KENT COUNTY BOARD OF APPEALS

On **Monday, June 17, 2024, at 5:00 p.m.,** the Kent County Board of Appeals will hold a public hearing in the County Commissioners' Hearing Room, 400 High Street, Chestertown, MD.

MDL 153 Mason Solar requesting a special exception to construct a 5-acre, utility-scale, solar array system within the Agricultural Zoning District. The property is located at 9425 Fairlee Road, Chestertown.

Members of the public may attend the meeting in-person or observe and/or comment by phone.

If you have any questions, please contact the Department at 410-778-7423. If you need communication assistance, please contact the Maryland Relay Service at www.mdrelay.org or 7-1-1 for voice/TDD.



DRAFT

Board of Zoning AppealsDepartment of Planning, Housing, and Zoning

MINUTES

March 18, 2024 5:00 PM

The Board of Appeals met on March 18, 2024, at 5:00 p.m. in the County Commissioners Hearing Room. Board members in attendance were Chair Dr. Albert Townshend, Vice Chair John Massey, Member Joan Horsey, and Alternate Member David Hill.

Thomas N. Yeager, Esq., Acting Board Attorney; William Mackey, AICP, DPHZ Director; Carl Gerber, AICP, Deputy Director; and Mark Carper, LEED Green Associate, Associate Planner were in attendance.

Applicants in attendance included Greg Watson, Alex Dolgas, Kyle Lindstrom, Lynn Winkler, Doug Sample, Gerald Docksteader, and Eric Colliflower. Kim Righi, Finance Director, and Mitch Mowell, Esq., represented Minary's Dream Alliance.

Members of the public who attended and signed in on the sign-in sheet included: Brad Applebaum, Elizabeth Clark, Karen S. Colliflower, Susan Crooks, Jim Cummings, Karen Kemp-Docksteader, Russ Frymiare, Bob McGinnis, Mary McGinnis, Pat Nugent of Washington College, Dr. O'Connor, School Board Member Frank Rhodes, Shore Rivers Riverkeeper Annie Richards, Nathan Shroyer, and Claudia Wayne.

Other members of the public who spoke at the meeting, identified themselves verbally, but did not sign in included: Mary Alice Ball, Russel Braundmeier, Wanda Boyd, Rachel Carmody, Gretchen Mann, Susan Newton-Rhodes, and Jasmine Robinson.

The meeting was called to order at 5:00 pm by Chair Townshend. A moment of silence was observed in memory of the Board's recently deceased attorney, Chris Drummond.

The Board first heard testimony from online participants Elizabeth Clark and Greg Watson who had been unable to testify at the January 22, 2024, hearing regarding Mr. Watson's appeal of the Planning Director's decision to deny a permit for a stone revetment at 12594 Coopers Lane in Worton.

Ms. Clark, an adjoining property owner, described issues with a prior living shoreline project on a neighboring property that had failed after several years despite being built by a reputable firm.

Mr. Watson stated he had consulted with four contractors, none of whom recommended a living shoreline for the site, and that he was seeking to protect his shoreline and dock.

After deliberation, Member Horsey made a motion to rescind the Board's January 22, 2024, decision affirming the Planning Director's denial. The motion was seconded by Member Massey and passed unanimously. Member Horsey then made a new motion to reverse the Planning Director's decision and allow the installation of 45 linear feet of stone revetment along the shoreline at 12594 Coopers Lane. The motion was seconded by Member Massey and passed unanimously.

DRAFT

Next, the Board considered the application of Jill Gaumer and Lynn Winkler for a pier length variance to install a 10' x 14' platform at the end of their existing pier at 24251 Drayton Landing Drive in Worton. Doug Sample of Riptide Marine Construction represented the applicants, stating the platform was needed for safer boat docking and that the pier would not be extended further into the creek. Staff noted that state and federal approvals had been obtained. After discussion of the variance criteria, Member Massey made a motion to grant the variance, which was seconded by Member Horsey and passed unanimously.

Finally, the Board heard the appeal of Gerald Docksteader and Eric Colliflower on the Planning Director's decision on permitted uses at Minary's Dream Alliance, 9155 American Legion Road in Chestertown.

Neighbors and members of the public spoke both for and against the appeal. Key issues discussed included consistency with the 2021 court order, septic capacity, tents/camping, and impacts on the neighborhood. Other members of the public asked questions from the audience, which was not considered as testimony.

Kim Righi, Finance Director for Minary's Dream Alliance, confirmed the organization's non-profit status. Mitch Mowell, Esq., presented arguments opposing the appeal. Following Mr. Mowell's presentation on behalf of Minary's Dream Alliance, members of the public were allowed to conduct cross-examination.

Deputy Director Carla Gerber clarified that the two appealed issues were 1) the sacred space / labyrinth / outdoor classroom area and 2) the parking lot, both of which the Planning Director determined to be permitted uses in the Critical Area Residential zone, subject to site plan review. She explained the difference between permitted and non-conforming uses.

The Board determined that the Planning Director was correct in finding the appealed uses to be permitted under the zoning ordinance. Member Massey made a motion to approve the Planning Director's decision, which was seconded by Member Horsey and passed unanimously.

/s/ Albert S. Townshend	_/s/ W. A. Mackey

Please note that 80% of this document was created by Claude 3 from Anthropic using a transcript created by Microsoft Teams. The DPHZ team then reviewed the document prior to its distribution to the Board.

William A. Mackey, AICP, Director DPHZ

The meeting was adjourned at approximately 8:40 pm.

Dr. Albert Townshend, Chairman



Planning Commission Department of Planning, Housing, and Zoning

May 3, 2024

Dr. Al Townsend Kent County Board of Appeals 400 High Street Chestertown, MD 21620

RE: MDL 153 Mason Solar, LLC – Special Exception

Utility-Scale Solar Energy System in the Agricultural Zoning District (AZD)

Dear Dr. Townsend,

At its meeting on May 2, 2024, the Kent County Planning Commission reviewed the application of MDL 156 Mason Solar, LLC, requesting a special exception for a utility-scale solar energy system in the Agricultural Zoning District (AZD) on a 335.16-acre farm owned by Thomas and Alice Mason. The property is located at 9425 Fairlee Road, Chestertown in the Sixth Election District. The proposed location of development is on the northeast corner of the intersection of Fish Hatchery Road and Fairlee Road, an entryway into the Village of Fairlee. The Mt. Pleasant Church and Mt. Pleasant Cemetery are in the immediate vicinity. The proposed 1 MW array of panels will be enclosed within a perimeter fence with an area of approximately 5 acres. The entrance will be from Fish Hatchery Road. The property is a mix of woodlands and cultivated fields.

Following discussion, the Planning Commission voted to make a favorable recommendation for the special exception of a utility-scale solar energy system in the AZD. The Planning Commission recommends the following conditions should the Board of Appeals grant approval:

- The applicant provides evidence that glare or reflection onto adjacent properties shall not interfere with traffic or create a safety hazard.
- The applicant demonstrates that the proposed energy system will not interfere with the view of, or from, sites of significant public interest, in particular Mt. Pleasant Church, and that the proposed development integrates into the existing landscape.

The decision was based on the following findings of fact:

- There will be no known impact to traffic patterns, there will be no known impact to community facilities and services, and it is anticipated that there will be minimal noise and no odor, noxious materials, or other nuisances.
- The proposal is consistent with the Comprehensive Plan in promoting sustainable building practices and providing an effective renewable resource strategy and with the general intent and the use, design, and environmental standards found in the Land Use Ordinance.
- The area of solar panel arrays will not exceed 5 acres.
- The solar collection system will be incidental to the use of the farm, and no known adverse impact to water quality, fish, or wildlife and plant habitat will result.

Sincerely,

Kent County Planning Commission

nnés J. Hibanon

Joe Hickman

Chair

FJH/mc

cc: Seth Shafer, PE, PMP, Pivot Energy
Ted Hastings, PMP, Becker Morgan Group
Anthony Kupersmith, Esq., McAllister, DeTar, Showalter &Walker, LLC



Department of Planning, Housing, and Zoning

TO: Kent County Planning Commission FROM: Mark Carper, Associate Planner

MEETING: May 2, 2024

SUBJECT: MDL 153 Mason Solar, LLC

24-18, Special Exception and 24-17, Concept Site Plan – Utility-Scale Solar in the AZD

Executive Summary

REQUEST BY APPLICANT

The applicant, MDL 153 Mason Solar, LLC, is requesting a special exception and concept site plan review to construct and operate a utility-scale solar energy system in the Agricultural Zoning District (AZD). The 335.16-acre farm is located at 9425 Fairlee Road, Chestertown, and is owned by Thomas and Alice Mason. The property is divided by Fairlee Road. The proposed development is on the 131-acre portion north of Fairlee Road.

PUBLIC PROCESS

Per Article VI, Section 5 and Article VII, Section 6 of the Kent County *Land Use Ordinance* the Planning Commission shall review and approve Major Site Plans and shall review and send a recommendation to the Board of Appeals on Special Exceptions.

SUMMARY OF THE STAFF REPORT

The proposed 1 MW array of panels will encompass approximately 5 acres near the intersection of Fairlee Road and Fish Hatchery Road. The property is a mix of woodlands and cultivated fields. The area is predominantly farmland, but the site is adjacent to the unincorporated Village of Fairlee. Residential properties abut the location of proposed development. The Mt. Pleasant Church and Mt. Pleasant Cemetery are across Fairlee Road from the proposed site of development. Plans for sediment and erosion control, stormwater management, landscaping, and Forest Conservation have been submitted.

STAFF RECOMMENDATION

Staff recommends sending a favorable recommendation for the special exception to the Kent County Board of Zoning Appeals with the following conditions:

- Provide evidence that glare or reflection onto adjacent properties and adjacent roadways shall not interfere with traffic or create a safety hazard.
- Demonstrate that the proposed energy system will not interfere with the view of, or from, sites
 of significant public interest, and that that the proposed development integrates into the existing
 landscape.

PRELIMINARY STAFF REPORT

TO: Kent County Planning Commission

SUBJECT: MDL 153 Mason Solar, LLC

24-18, Special Exception and 24-17, Concept Site Plan – Utility-Scale Solar in the AZD

DATE: April 22, 2024

DESCRIPTION OF PROPOSAL

The applicant, MDL 153 Mason Solar, LLC, is requesting a special exception and concept site plan review to construct and operate a utility-scale solar energy system in the Agricultural Zoning District (AZD). The 335.16-acre farm is located at 9425 Fairlee Road, Chestertown, and is owned by Thomas and Alice Mason. The property is divided by Fairlee Road. The proposed development is on the 131-acre portion north of the road.

The proposed 1 MW array of panels will encompass approximately 5 acres near the intersection of Fairlee Road and Fish Hatchery Road. The property is a mix of woodlands and cultivated fields. The area is predominantly farmland, but the site is adjacent to the unincorporated Village of Fairlee. Residential properties abut the location of proposed development. The Mt. Pleasant Church and Mt. Pleasant Cemetery are across Fairlee Road from the proposed site of development. Plans for sediment and erosion control, stormwater management, landscaping, and Forest Conservation have been submitted.

RELEVANT ISSUES

I. Special Exception General Review Criteria

A. Applicable Laws: Article V, Section 1.3.26.5 of the Kent County Land Use Ordinance establishes that solar energy systems, utility scale on farms, may be granted as a special exception in the Agricultural Zoning District (AZD).

Article VII, Section 2 of the *Kent County Land Use Ordinance* establishes the following standards for consideration of special exceptions:

The Board shall make findings on the following where appropriate:

- 1. The nature of the proposed *site*, including its size and shape and the proposed size, shape, and arrangement of *structures*;
- 2. Traffic Patterns;
- 3. Nature of surrounding area;
- 4. Proximity of dwellings, *houses of worship*, schools, public *structures*, and other places of public gathering;
- 5. The impact of the *development* or project on community facilities and services;
- 6. Preservation of cultural and historic landmarks, significant natural features and trees;
- 7. Probable effect of noise, vibration, smoke and particulate matter, toxic matter, odor, fire or explosion hazards, or glare upon surrounding properties;
- 8. The purpose and intent of this Ordinance as set forth in Article II;
- 9. Design, environmental, and other standards of this Ordinance as set forth in Article V;
- 10. The most appropriate use of land and structure;
- 11. Conservation of property values;
- 12. The proposed *development's* impact on water quality;
- 13. Impact on fish, wildlife and *plant habitat*;
- 14. Consistency with the *Comprehensive Plan*, Land Use Ordinance, and where applicable the Village Master Plan;

- 15. Consistency with the Critical Area Program; and
- 16. Compatibility with existing and planned land use as described in the *Comprehensive Plan*, Land Use Ordinance, and where applicable the Village Master Plan.

B. TAC and Staff Comment:

- The proposed entrance is from Fish Hatchery Road, where there is an existing compacted gravel culvert.
- Once construction is completed, there are no known disruptions expected to impact traffic patterns.
- There is no known impact on community facilities and services.
- The proposed facility will be adjacent to the Village of Fairlee.
- Mt. Pleasant Cemetery is across Fairlee Road from the proposed facility.
- Fish Hatchery Road and Fairlee Road (Route 298) run adjacent to and through the unincorporated village of Fairlee.
- Fish Hatchery Road and Fairlee Road are gateways into the Village of Fairlee.
- Mt. Pleasant Church, which is listed in the Maryland Inventory of Historic Properties (K-405), is located at the intersection of Fish Hatchery Road and Fairlee Road.
- The Kent County Comprehensive Plan lists "significant views" as an important village characteristic, elements of which may "...include an identifiable icon of the community's character, prominent views within the community, and special entranceway features and/or waterfront areas." (Page 31)
- A goal of the Comprehensive Plan is to ensure that "... all new development or redevelopment meets high standards for planning, workmanship, and design." (Page 31)
- A proposed strategy to fulfill that goal is to ensure "...that future development, redevelopment, and infill is completed in an environmentally and context sensitive manner. The County will encourage techniques ... to protect ... historic archeological and cultural resources, and scenic viewsheds. (Page 31)
- The proposed facility and associated buffer may impact the vista associated with this village entryway.
- The proposal may be inconsistent with the intent of the comprehensive plan to ensure development in a context sensitive manner.
- The applicant will need to demonstrate that the proposed energy system protects cultural resources and scenic viewsheds.
- The proposal is consistent with the goal of the comprehensive plan in promoting sustainable building practices and providing an effective renewable resource strategy.
- The proposal is consistent with the general intent of, use, design, and environmental standards found in the Kent County Land Use Ordinance.

II. Utility-Scale Solar Energy Systems Special Exception Review Criteria

A. Applicable Law: Article VII, Section 7. 57.25 of the Kent County Land Use Ordinance establishes the following standards by which a utility-scale solar energy system on farms in AZD and RCD may be authorized as a special exception:

- A solar collection device or combination of devices are designed and located to avoid glare or reflection onto adjacent properties and adjacent roadways and shall not interfere with traffic or create a safety hazard.
- b. Screening, capable of providing year-round screening, is provided along all sides that do not collect energy.

- c. Roof mounted solar collection devices shall not extend more than 10 feet from the top of the roof. The total height of the building, including the solar collection devices, shall comply with the height regulations established for each zoning district.
- d. Solar collection devices shall not exceed 38 feet in height.
- e. The solar collection system shall be incidental to the use of the farm.
- f. Installation of the solar collection system shall not adversely impact adjacent properties.
- g. All structures associated with the solar collection system shall be neither visually intrusive nor inappropriate to their setting.
- h. All solar collection devices shall register with the Department of Emergency Services and shall submit a map noting the location of the solar collection devices and the panel disconnect.
- i. Other than wire size, there shall be no alteration of utility infrastructure to accommodate the system.
- j. The area of solar panel arrays may not exceed 5 acres. The area of the solar panel arrays shall be measured as to the area within the solar panel arrays' security fence. Adjacent properties shall not aggregate solar collection panels to achieve an area exceeding 5 acres.
- k. In AZD, only the five-acre maximum area of solar panel arrays, as measured in Subsection j., is considered development and counted toward the maximum percentage of the property in lots.
- I. Tree removal shall be minimized and any removal shall be mitigated in accordance with the Critical Area Program requirements.
- m. The applicant shall demonstrate that a utility scale solar energy system shall not unreasonably interfere with the view of, or from, sites of significant public interest such as public parks, a national or state designated scenic byway, a structure listed in the Kent County Historic Site Survey, an historic district, or the Chesapeake Bay and its tributaries.

B. TAC and Staff Comment:

- The applicant has submitted an application for a special exception for utility-scale solar energy system in the AZD.
- No glare or sight analysis has been submitted.
- Year-round screening, as specified in the Land Use Ordinance, has been proposed, and the panel array will be lower than the maximum allowable height.
- The area of use, as defined by the perimeter fence per Article VII, Section 7, #57.25, §j. will not exceed 5 acres. The area of disturbance, encompassing the solar array and the landscape buffer, will not exceed 9.27 acres. There are no proposed changes to the remainder of the 335.16-acre property that is in agricultural production. The solar collection system will be incidental to the use of the farm.
- No tree removal is proposed.
- The applicant will need to demonstrate that the proposed energy system will not interfere with the view of, or from, sites of significant public interest.

III. Countywide Standards for Utility-Scale Solar Energy Systems

A. *Applicable Law*: Article VI, Special Provisions, Section 11, details the requirements for setbacks, installation and maintenance standards, landscaping and irrigation requirements, and sureties.

B. Staff Comments:

- The proposed setback for the solar array panels is the required minimum 200 feet from any lot line, road/right-of-way, gateway into town or village, or residential use or zoning district.
- The site plan states that installation and maintenance standards are to meet the standards as established in Article VI, Section 11.B.
 - Any solvents used for cleaning are to be biodegradable, and any unused solvents will be removed from the parcel.

- All broken or waste solar panels shall be removed from the parcel within 30 days of being taken out of service.
- Wiring will be underground except to connect to the public utility, and transmission wires for connection shall not cross a roadway overhead.
- The solar array shall be enclosed in a fence that will remain securely locked. Gates will provide a sign that identifies responsible parties and contact information.
- The solar array will generate little to minimal noise.
- The solar arrays shall conform to all local, state, and national laws.
- o Evidence that the solar panels are designed to avoid glare and/or reflection is to be provided.
- A Forest Stand Delineation and a Forest Conservation Plan have been submitted. A Forest Conservation deed restriction of 1.39 acres is proposed along the northern property line.
- A 60-foot-wide landscape buffer plan has been submitted and adheres to the requirements for size, species variety, and arrangement. In order to maintain natural drainage, the applicant is requesting a waiver from the requirement for a berm. The landscape plan must meet the required heights and arrangement of plants.
- No irrigation plan or vegetative maintenance agreement has been submitted.
- A landscaping surety must be provided for final site plan approval.
- The entrance is designed to ensure that neighboring properties, public rights-of-ways and roads are not exposed to an unscreened view through the entranceway.
- The project must comply with all applicable federal and state regulations.
- A decommissioning bond in accordance with Article VI, Section 11.K is required for final approval.

IV. Site Plan Review

A. *Applicable Laws*: Article VI, Special Provisions, Section 5.2, General Requirements, establishes that special exceptions require a Major Site Plan Review, to include Concept, Preliminary, and Final Plans.

At each stage of review the Planning Commission shall review the site plan and supporting documents taking into consideration the reasonable fulfillment of the following objectives:

- a. Conformance with the Comprehensive Plan and, where applicable, the Village Master Plan.
- b. Conformance with the provisions of all applicable rules and regulations of county, state, and federal agencies.
- c. Convenience and safety of both vehicular and pedestrian movement within the site and in relationship to adjoining ways and properties.
- d. Provisions for the off-street loading and unloading of vehicles incidental to the normal operation of the establishment, adequate lighting, and internal traffic control.
- e. Reasonable demands placed on public services and infrastructure.
- f. Adequacy of methods for sewage and refuse disposal, and the protection from pollution of both surface waters and groundwater. This includes minimizing soil erosion both during and after construction.
- g. Protection of abutting properties and County amenities from any undue disturbance caused by excessive or unreasonable noise, smoke, vapors, fumes, dust, odors, glare, stormwater runoff, etc.
- h. Minimizing the area over which existing vegetation is to be removed. Where tree removal is required, special attention shall be given to planting of replacement trees.
- i. The applicant's efforts to integrate the proposed development into the existing landscape through design features such as vegetative buffers, roadside plantings, and the retention of open space and agricultural land.
- j. The building setbacks, area, and location of parking, architectural compatibility, signage, and landscaping of the development, and how these features harmonize with the surrounding townscape and the natural landscape.

Article VI, Special Provisions, Section 5.3.B.10-11 establishes that for concept review the Planning Commission will comment and provide guidance as to the feasibility, design, and environmental characteristics of the proposal based on the standards set forth in this Ordinance, the Village Master Plans, and Comprehensive Plan.

B. Staff Comments:

- The proposal is consistent with the goal of the Kent County Comprehensive Plan in promoting sustainable building practices and providing an effective renewable resource strategy.
- The applicant must demonstrate that the proposed development will not interfere with the view of, or from, sites of significant public interest, and that the proposed development integrates into the existing landscape.
- The proposal is consistent with the general intent and the use, design, and environmental standards found in the Land Use Ordinance. The project must acquire all County, state, and federal permits and licenses.
- Internal traffic is anticipated to be minimal and will be restricted to maintenance of equipment and landscaping.
- There are no known unreasonable demands on public services and infrastructure.
- No sewage or refuse disposal activities are proposed.
- Noise is anticipated to be very limited and inaudible off site. No smoke, fumes, dust, or odors are anticipated.
- A stormwater management plan has been submitted.
- Sureties for soil and erosion control and stormwater management will be required for final site plan approval.
- No existing vegetation is to be removed. A 60-foot-wide landscape buffer will surround the fenced-in solay array.

STAFF RECOMMENDATION:

Staff recommends sending a favorable recommendation for the special exception to the Kent County Board of Zoning Appeals with the following conditions:

- Provide evidence that glare or reflection onto adjacent properties and adjacent roadways shall not interfere with traffic or create a safety hazard.
- Demonstrate that the proposed energy system will not interfere with the view of, or from, sites
 of significant public interest, and that that the proposed development integrates into the existing
 landscape.



Department of Planning, Housing, and Zoning

T0: Kent County Board of Zoning Appeals FROM: Mark Carper, Associate Planner

MEETING: June 17, 2024

SUBJECT: MDL 153 Mason Solar, LLC

#24-18 Special Exception – Utility-Scale Solar in AZD

NOTICE

SUBMISSION OF ADDITIONAL APPLICATION MATERIALS

Having reviewed the application as a concept plan and for special exception, the Planning Commission made a favorable recommendation for the requested special exception with the following recommended conditions:

- The applicant provides evidence that glare or reflection onto adjacent properties shall not interfere with traffic or create a safety hazard.
- The applicant demonstrates that the proposed energy system will not interfere with the view of, or from, sites of significant public interest, in particular Mt. Pleasant Church, and that the proposed development integrates into the existing landscape.

Pursuant to these recommended conditions, the applicant has since submitted the following items:

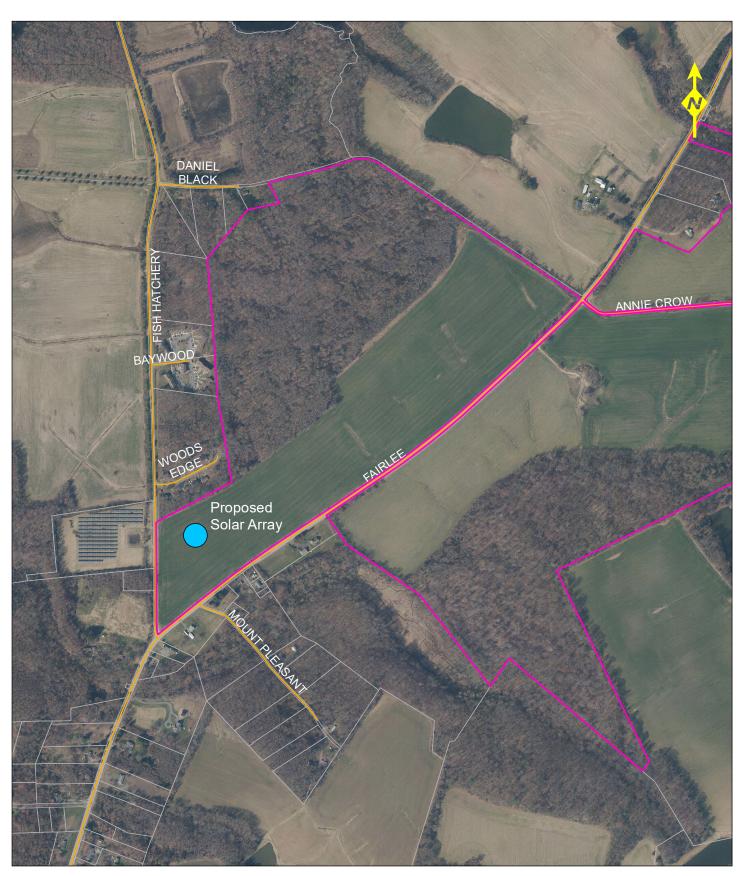
- A landscape buffer plan that includes a 3-foot berm and varied placements of the proposed vegetation,
- Renderings displaying the appearance of the proposed landscaping from two viewpoints at the time of planting and after 5 years of growth,
- A glare analysis for the proposed project, and
- Line-of-site analysis.

The viewpoints for the landscaping renderings appear to be for the proposed entryway from Fish Hatchery Road and from the intersection of Fish Hatchery Road and Fairlee Road. The evergreens — which include White Cedar, American Holly, and Emerald Green Arborvitae — are to be a minimum of 8 feet in height at the time of planting and are to be installed on top of the 3-foot berm.

The submitted glare analysis concludes that a 680-foot section of Fairlee Road may be subject to glare exposure for westbound, evening traffic. The potential exposure would be limited to a five-minute window between September and March. In calculating potential exposure, the glare analysis factors in a landscape buffer with an install height of 6 feet above ground level. The proposed minimum height of the evergreens on the landscape plan is to be 8 feet high atop a 3-foot berm. This may reduce or eliminate the exposure risk for this section of road. None of the other stationary or motorist viewpoints under study are shown to be susceptible to glare exposure.

STAFF RECOMMENDATION

Staff recommends approval of the special exception on the condition of approval of a final site plan.



Source: Kent County Department of Planning, Housing, and Zoning. Aerial taken Spring 2022. Map prepared April 2024.

BOARD OF APPEALS APPLICATION

Kent County Department of Planning, Housing and Zoning

Kent County Government Center 400 High Street • Chestertown, MD 21620 410-778-7423 (phone) • 410-810-2932 (fax)

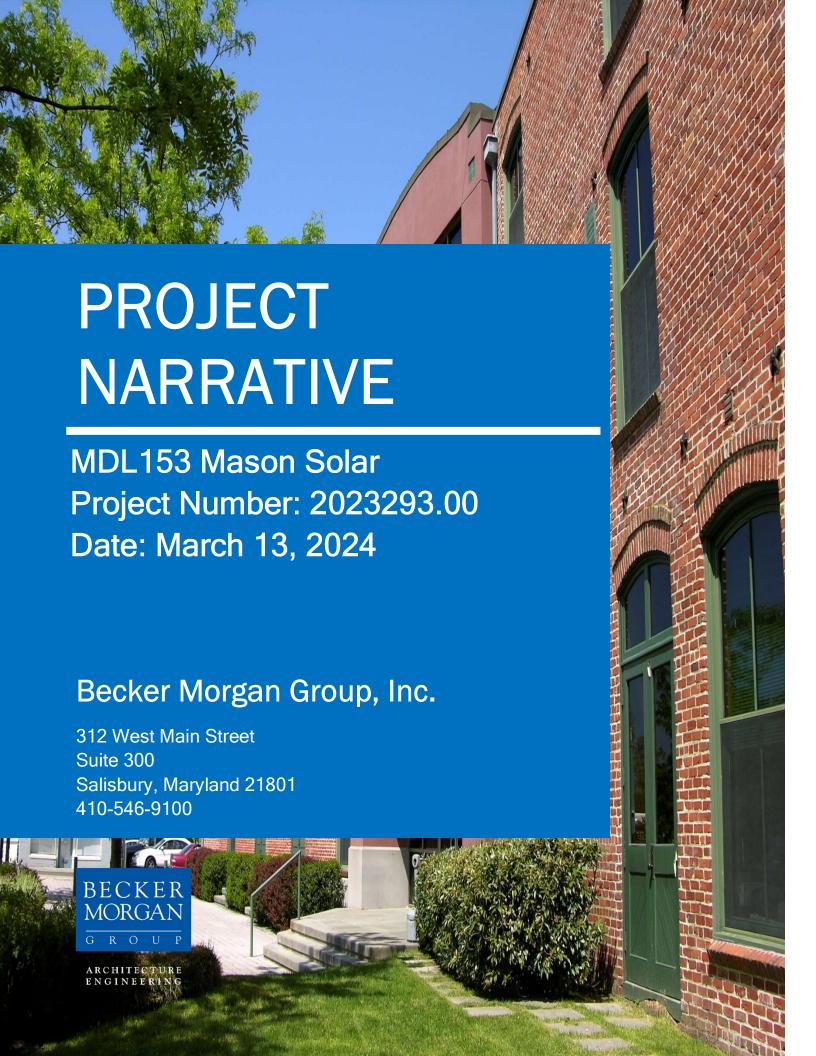
IN THE MATTER OF THE APPLICATION OF: (Name, Address and Telephone Number of Applicant))	Case Number/Date Filed:			
(realic, Address and Telephone realised of Applicancy)	Filed by:			
MDL153 Mason Solar	Applicant: Planning Commission:			
0.405.5.1	Date of Hearing:			
9425 Fairlee Road	Parties Notified:			
Chestertown, MD 21620	Notice in Paper:			
Email: jspencer@pivotenergy.net	Troperty Tostea.			
Please provide the email of the one person who will be a person will be contacted by staff and will be the person additional information to any other interested parties.	responsible for forwarding the comments or requests for			
TO THE KENT COUNTY BOARD OF APPEALS: In	accordance with Article 1 Part 8 Section 11			
of the Kent County Zoning Ordinance, as amended, reque	est is hereby made for:			
Appealing Decision of Kent County Zoning Adm Special Exception Nonconforming U				
DESCRIPTION OF PROPERTY INVOLVED:				
Located on: (Name of Road, etc.) Fish Hatchery Road	d and Fairlee Road			
In the 6 Election District of Kent County.				
Size of lot or parcel of Land: 335.16 Map: 36 Parcel: 9 Lot #:	Deed Ref: 774/ 474			
List buildings already on property: N/A				
If subdivision, indicate lot and block number: N/A				
If there is a homeowner's association, give name and addr				
in there is a nomeowher s association, give name and add	01 4650 01 4650 01410 117			
PRESENT ZONING OF PROPERTY: Agricultural	Zoning District (AZD)			
DESCRIPTION OF RELIEF REQUESTED: (List here	in detail what you wish to do with property that requires			
the Appeal Hearing.) N/A				
If appealing decision of Zoning Administrator, list date of	their decision:			
Present owner(s) of property: Thomas & Alice Maso	On Telephone:			

	r, please indicate your interest in this property: MDL 153 Mason Solar, LLC is to
Lease a portion of th	ne property to install and solar array.
Has property involved ev	ver been subject to a previous application? N/A
If so, please give Applica	ation Number and Date: N/A
PLEASE FILL IN BELO	OW, OR ATTACH HERETO, A SKETCH OF THIS PROPERTY.
List all property measure	ements and dimensions of any buildings already on the property.
Put distances between p	resent buildings or proposed buildings and property lines.
NAMES OF ADJOINIT	NG PROPERTY OWNERS:
Owner(s) on the North:_	Kent Housing Associates, LP
20.5	726 Yorklyn Road, Suite 150, Hockessin, DE 19707
Owner(s) on the South:_	Fairlee Road borders the property to the south
Owner(s) to the East:	Hoadgland Family Limited Partnership
	9522 Fairlee Road, Chestertown, MD 21620
Owner(s) to the West:	Fish Hatchery Road borders the property to the west
Homeowners Association	n, name and address, if applicable: N/A
ZONING APPEALS	APPLICATION, I GRANT MEMBERS AND ALTERNATE OF THE BOARD OF THE RIGHT TO ENTER ONTO THE PROPERTY FOR THE PURPOSE OF THE APPLICATION OR APPEAL.
Signature of Owner/Ann	olicant/Agent or Attorney Date
organiture or Owner, App	neum, right of ritionity

Please file this form at 400 High Street, Chestertown, MD 21620 accompanied by \$350.00 filing fee made payable to the County Commissioners of Kent County. The filing fee for appeals of a Zoning Administrator's decision is \$250.00. If you have any questions, please contact the Clerk at 410-778-7467.

NOTICE: Neither the Board of Appeals nor the Planning Department is required to make out this Application. If the Planning Department assists you, it cannot be held responsible for its contents.

Applicants arriving more than 10 minutes after the scheduled hearing will not be heard and will be re-scheduled at the applicant's expense.



1.0 GENERAL SITE INFORMATION

PROJECT NAME: MDL153 – Mason Solar

PROJECT LOCATION:

Address: 9425 Fairlee Road

City, State, Zip: Chestertown, Maryland 21620

County: Kent

Nearest Intersection: Fairlee Road and Fish Hatchery Road

Primary Street: Fairlee Road

Secondary Street: Fish Hatchery Road

TAX MAP/GRID/PARCEL: Tax Map 36, Grid 2A, Parcel 9

DEED(S): 774/474

PLAT(S) 3/655

JURISDICTION: Kent County

DATE PREPARED: March 13, 2024

PREPARED BY: Becker Morgan Group, Inc.

Address: 312 West Main Street, Suite 300

City, State, Zip: Salisbury, Maryland 21801 Contact Person: Edward (Ted) Hastings, PMP

Phone: 410-546-9100

Email: thastings@beckermorgan.com

LANDOWNER: Thomas & Alice Mason
Address: 23991 Melitota Road
City, State, Zip: Chestertown, MD 21620

Contact Person: Thomas Mason

email: N/A

DEVELOPER: MDL153 – Mason Solar, LLC Address: 6865 Deerpath Road, Suite 330

City, State, Zip: Elkridge, Maryland 21075 Contact Person: Joshua Spencer, P.E., PMP

Phone: (850) 450-9895

Email: jspencer@pivotenergy.net

PROPOSED BUILDING AREA: N/A

LOT SIZE: 335.16 acres

TYPE OF PROJECT: Community Solar System

2.0 EXISTING SITE CONDITIONS:

Total Site
 131.32 ± North of Fairlee Road (Total Parcel 335.16 acres±)

Wooded 64.33 acres±Agricultural Use 66.99 acres±

Impervious None

Hydraulic Soils Rating
 C Soils (project area)

FEMA 24029C0260D

• Flood Zone Determination Zone X – Areas outside the 0.2% annual chance flood.

Existing Zoning
 AZD – Agricultural Zoning District

Adjacent Zoning

North
 V - Village & AZD - Agricultural Zoning District
 South
 V - Village & AZD - Agricultural Zoning District

East AZD – Agricultural Zoning District

■ West V – Village

Environmental Concerns: None Found

Road Frontage(s)
 Fairlee Road and Fish Hatchery Road

Site Access
 Fish Hatchery Road

State Wetlands
 Yes, but well outside the project area.

Streams No.
Stream Buffer No.
Water N/A
Sewer N/A
Natural Gas N/A

Electric Delmarva Power

Communications
 N/A

SYNOPISIS

The existing site is predominantly an active farm field with 64.33-acre wooded area located on the northernly portion of the parcel. Numerous wetlands areas are in the wooded area but outside the project area. An existing compacted gravel culvert crossing located off Fish Hatchery Road will be utilized for the site access.

3.0 PROPOSED SITE CONDITIONS:

The site is to be the location for a 1 MW Solar Array. The array footprint will be a maximum of five acres in size inclusive of the fencing encompassing the entire array. The site is in conformance with the following requirements as stated in SECTION 11. COUNTYWIDE STANDARDS FOR UTILITY-SCALE SOLAR ENERGY SYSTEMS:

- 200 feet from any lot line
- 200 feet from any road and/or right-of way
- 200 feet from any road / right-of-way within ½ mile of a town or village boundary that is the gateway into a town or village
- 200 feet from any residential use or zoning district
- The solar array shall be enclosed by a fence or other appropriate barrier at the interior edge of the required landscape buffer, or immediately adjacent to the solar array. The fence or barrier shall:
 - o Secure the facility at all times to prevent unauthorized persons or vehicles from gaining access.
 - All access gates will provide a sign that identifies the responsible parties or owners with current contact information.
- Landscaping will be provided as follows:
 - A 60-foot-wide landscaped buffer will be provided on all sides of the array.
 - We are respectfully requesting a waiver for the 3-foot-tall berm to protect and maintain the existing drainage patterns of the site. The conditions for elimination of the berm as stated in SECTION 11. COUNTYWIDE STANDARDS FOR UTILITY-SCALE SOLAR ENERGY SYSTEMS will be met and shown in a landscaping plan, as designed by a licensed Landscape Architect.
- The Forest Conservation requirements will be met by on-site conservation. A Forest Stand Delineation has been submitted to Kent County for review.
- Stormwater management will be met by utilizing non-structural practices and by following MDE Stormwater Design Guidance for Solar Panel Installations. A Stormwater Report has been submitted to Kent County for review.
- The limits of disturbance for the site does not contain any wetlands, wetland buffers, streams, and stream buffers.
- Installation and maintenance will follow the Solar Standards, as stated in Section 11.
- Noise levels produced will be below the 45 dBAs threshold, as measured at the property line.

COMPLIANCE WITH KENT COUNTY ARTICLE VII, SECTION 7.57.25

- A single axis tracking system is being proposed for this site. The panels will remain perpendicular to the sun, therefore reducing glare to any surrounding properties and roadways.
- Screening is being provided on all sides of the array in accordance with Section 11. View of the array will be completely obscured by both landscaping and fencing.
- The array will not exceed 38 feet in height.
- The array is situated so that the rest of the land can continue to be utilized for agricultural use.
- The installation for the system will take place entirely on the parcel it is to be located with only one access off of Fish Hatchery Road.
- The area within the fencing is no larger than the 5-acre.
- Other than wire size, there shall be no alteration of utility infrastructure to accommodate the system.
- No trees are to be removed as part of the project.
- The site is located outside the Critical Areas.

COMPLIANCE WITH KENT COUNTY COMPREHENSIVE PLAN

The project has taken into consideration Maryland's Twelve Planning Visions, as stated in the Kent County Comprehensive Plan and are as follows:

- Quality of Life and Sustainability: The use of solar energy generating facilities help protect the environment by creating emission free energy source that does not impact the environment.
- Public Participation: Pivot Energy intends to send a letter to the adjoining property owners explaining
 the project and that DP&L customers would be eligible to sign up for the Community Solar benefits
 with a potential savings up to 10% on their electric bill.
- Growth Areas: Not applicable to this project.
- Community Deign: Not applicable to this project.
- Infrastructure: This additional electric infrastructure will allow residents to subscribe to the solar program to decrease their current electric bill.
- Transportation: Not applicable to this project.
- Housing: Not applicable to this project.
- Economic Development: Not applicable to this project.
- Environmental Protection: Though this project will utilize existing farmland, once the life cycle of the solar array is completed, the site will be decommissioned and returned to the existing conditions.
 The site could be returned to agricultural use after the removal of the system.
- Resource Conservation: A portion of the site will be put into a forest conservation area as a result of this project.

- Stewardship: The Community Solar provides the community with an opportunity to reduce their electric bill while protecting the natural resources since the site can be returned to agricultural use once the site has been decommissioned.
- Implementation: This site is in line with the State of Maryland goal of 50% of the State's energy coming from renewable sources by the year 2030.

SCHEDULE (PRELIMINARY)

Approval from all Agencies November 2024

Obtain Permits January 2025 – February 2025

Notice to Proceed February 2025

Start Construction March 2025

End Construction October 2025

Note: These dates are estimated and may vary dependent on availability of materials and contractors.

Technical Memorandum

To: Josh Spencer, Pivot Energy

From: Stephen Barrett
Date: May 14, 2024

RE: Glare Study, Solar PV Project, Fairlee Road, Chestertown, Maryland

Executive Summary

Pivot Energy is developing a nominal 1 MWac ground-mounted solar photovoltaic (PV) project off of Fairlee Road in Chestertown, MD. Pivot has engaged Barrett Energy Resources Group (BERG) to analyze potential impacts of glare from the project on nearby sensitive receptors.

BERG has utilized the Solar Glare Hazard Analysis Tool (SGHAT) which was developed by the US Department of Energy (DOE) for the Federal Aviation Administration (FAA) to protect aviation sensitive receptors. For this project, SGHAT has been used to assess potential glare impacts on 12 sensitive receptors which include motor vehicles and residences near the project site.

The modeling report is included in Attachments A. It shows that glare was recorded for one of the 12 receptors – the eastern section of Fairlee Road. This Technical Memorandum describes the project, methodology, and results.

Project Description

The Fairlee Road Solar Photovoltaic (PV) Project would be located on undeveloped farmland north and east of the intersection of Fairlee Road (State Route 298) and Fish Hatchery Road in Chestertown Maryland as shown in **Figure 1**. The project is comprised of a ground-mounted, single axis tracking system and electrical distribution equipment. The proposal also includes a 60-foot wide landscape buffer.

WWW.BARRETTENERGYGROUP.COM



Figure 1. Fairlee Road Solar Project Locus

FAA Solar Policy

In 2013, the Federal Aviation Administration (FAA) published "Interim Policy, FAA Review of Solar Energy System Projects on Federally-Obligated Airport," which sets forth methods for assessing glare and the standards for determining impact for projects proposed on airport property. It also requires the use of modeling to assess glare and directs project proposers to the Solar Glare Hazard Analysis Tool (SGHAT) which was developed by the US Department of Energy at the request of the FAA. The Policy was issued as Final in May 2021. The US Department of Defense (DOD) has also adopted SGHAT and the associated requirements to analyze glare under Instruction (DODI) 4165.57. Given the critical safety issues associated with aviation, the model produces a highly credible result that is being used to evaluate other glare sensitive receptors.

Glare Methodology and Standard of Impact

Prediction of potential glare occurrence from a solar PV project requires knowledge of the sun position, observer location, and the solar module/array characteristics (e.g., location, extent, tilt, azimuth or orientation, etc.). The path of glare is governed by the law of reflection which states that the angle of incidence equals the angle of reflection (see **Figure 2**). Vector algebra is then used to determine if glare would be visible from the prescribed observation points.

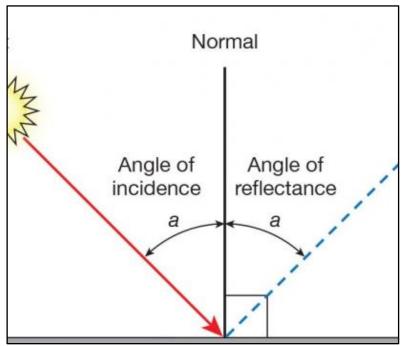


Figure 2. Law of Reflection

Figure 3 provides a simple representation of how the sun can produce glare on an automobile for a specific time and location. In accordance with the Law of Reflection, the angle of the light source from the sun must be equal to the angle of the reflection on a receptor. Therefore, when receptors are close to the ground (like a house or car), the reflection is only possible when the sun is also close to the ground (i.e., near sunrise or sunset). As the sun moves, the incidence of glare ends.

Duration of glare is longer for a stationary receptor as the avoidance of glare is dependent on the movement of the sun. For stationary receptors, impacts can last for hours. Duration is considerably shorter for moving objects, like aircraft and motor vehicles, as they transit in and out of a zone of influence. Impacts on moving receptors are typically measured in seconds.

The SGHAT model is a credible tool for predicting glare based on the characteristics of the project and the identified receptor. It produces results including relative glare intensity identified by color based on three categories: green (low potential for an after-image), yellow (potential for an after-image), and red (retinal burn). These categories apply to the FAA Policy and are not specifically relevant for glare assessment of other receptors. For non-aviation receptors, like those associated with the Fairlee Road Solar Project, the results are simply used to determine if glare is predicted or not.

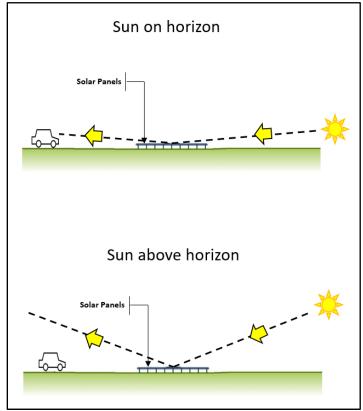


Figure 3. Geometric Representation of Potential Glare Impacts from the Sun

SGHAT Model Setup for Proposed Project

Regardless of the receptor to be analyzed, the model set-up entails locating the solar project, inputting its design characteristics, and identifying sensitive receptors for analysis. The position and movement of the sun throughout the year is built into the model.

For the Fairlee Road Solar Project, BERG used the PV project polygon tool to draw the footprint of the solar array on SGHAT's interactive Google map. The specific attributes of the solar array were then input into the model. As the project proposes a single axis tracking system, SGHAT includes relevant fields for those elements, including for this project design an array orientation of o°, maximum tracking angle of 60° and a resting (stowage) angle of o°. The average panel height 8 feet above ground level (agl), and a panel surface with anti-reflective coating were also input. Forested areas were programmed into the model and the tree heights set at 30 feet as a conservative estimate. A landscape buffer is proposed to surround the project which would have an installed height of 6 feet agl.

To evaluate potential impacts of glare, BERG identified representative motor vehicle receptors associated with Fairlee, Fish Hatchery and Mt. Pleasant Roads, as well as nearby stationary receptors such as residences and businesses as shown in **Figure 4**. The model's route tool was

used to locate the segments of the roadways for analysis. The observation point tool was used to select individual stationary points located on the Google map. For the motorist analysis, the driver's eye level height above the roadway was set at 8 feet based on Federal Highway Administration standards. For the residential and business receptors, the viewpoint was set at 5 feet above ground level to represent a person standing on the property.

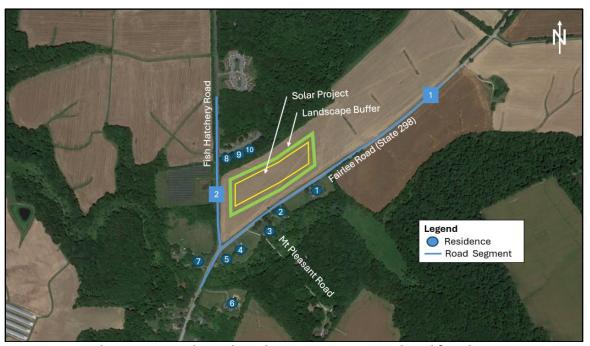


Figure 4. Motorist and Stationary Receptors Analyzed for Glare

The glare analysis button was activated, and the model evaluated glare from various sun angles at 1-minute intervals throughout the year to predict if glare could be observed by the sensitive receptors.

Glare Model Results

The SGHAT Report with model results is provided as Attachments A. It shows potential glare on one of the 12 receptors analyzed – the eastern segment of Fairlee Road (see **Figure 5**). Glare is predicted to occur for motor vehicles traveling west daily from September to March between 5 and 6pm. The period when glare could be observed is only during a 5-minute window each day.

The glare segment is approximately 68o feet long. If a motor vehicle is traveling at the speed limit (50 miles per hour), the time to transit the glare segment is 9.3 seconds.



Figure 5. Segment of Fairlee Road Where Glare Is Predicted

Conclusions

Barrett Energy Resources Group (BERG) has used the SGHAT modeling tool developed by the US Department of Energy to assess the potential effects of glare from a solar PV project on sensitive receptors near the proposed Fairlee Road Solar Project. For this project, SGHAT has been used to assess potential glare impacts on 12 sensitive receptors which include motor vehicles and residences near the project site.

The SGHAT model registered potential glare for one of the 12 receptors – the eastern segment of Fairlee Road. Glare exposure is limited to a 5-minute window each day between September and March. Should a car pass through the glare during that window, the maximum exposure given the speed limit would be 9.3 seconds.



Attachment A Glare Modeling Results

Sensitive Receptors

FORGESOLAR GLARE ANALYSIS

Project: Fairlee Solar Project

A ground-mounted single axis tracking solar photovoltaic system

Site configuration: Preferred

Client: Pivot Energy

Created 13 May, 2024 Updated 13 May, 2024 Time-step 1 minute Timezone offset UTC-5 Minimum sun altitude 0.0 deg DNI peaks at 1,000.0 W/m² Category 500 kW to 1 MW (1,000 kW / 8 acre limit) Site ID 119083.20459

Ocular transmission coefficient 0.5 Pupil diameter 0.002 m Eye focal length 0.017 m Sun subtended angle 9.3 mrad PV analysis methodology V2



Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	0	0	min	hr	min	hr	kWh
Solar Array	SA tracking	SA tracking	321	5.3	118	2.0	2,642,000.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Fairlee Road	321	5.3	118	2.0
Fish Hatchery Road	0	0.0	0	0.0
Mt Pleasant Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0



Receptor	Annual Gr	Annual Green Glare		llow Glare
	min	hr	min	hr
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0



Component Data

PV Arrays

Name: Solar Array

Description: Ground-mounted single axis tracking solar facility

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 180.0° Max tracking angle: 60.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.5 Rated power: 1000.0 kW

Panel material: Smooth glass without AR coating

Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	39.234140	-76.164912	48.48	8.00	56.48
2	39.233533	-76.165921	45.90	8.00	53.90
3	39.232669	-76.168066	40.29	8.00	48.29
4	39.231896	-76.168056	35.31	8.00	43.31
5	39.232843	-76.165738	43.45	8.00	51.45
6	39.233383	-76.164859	48.68	8.00	56.68

Route Receptors

Name: Fairlee Road Path type: Two-way

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	39.235749	-76.159551	65.92	8.00	73.92
2	39.234698	-76.161118	63.33	8.00	71.33
3	39.233909	-76.162518	60.40	8.00	68.40
4	39.232542	-76.165194	38.63	8.00	46.63
5	39.231615	-76.166938	30.50	8.00	38.50
6	39.230655	-76.168467	24.47	8.00	32.47
7	39.230269	-76.168955	19.22	8.00	27.22
8	39.229595	-76.169373	15.74	8.00	23.74
8	39.229595	-76.169373	15.74	8.00	23.74
8	39.229595	-76.169373	15.74	0.00	15.74
8	39.229595	-76.169373	15.74	0.00	15.74
8	39.229595	-76.169373	15.74	0.00	15.74
8	39.229595	-76.169373	15.74	8.00	23.74
8	39.229595	-76.169373	15.74	8.00	23.74
8	39.229595	-76.169373	15.74	8.00	23.74
9	39.228889	-76.169749	18.99	8.00	26.99

Name: Fish Hatchery Road Path type: Two-way

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	39.235870	-76.168832	39.09	8.00	47.09
2	39.232213	-76.168756	34.29	8.00	42.29
3	39.230522	-76.168773	22.58	8.00	30.58



Name: Mt Pleasant Road

Path type: Two-way

Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	39.231162	-76.167556	27.37	8.00	35.37
2	39.230963	-76.166853	22.78	8.00	30.78
3	39.230489	-76.166284	21.92	8.00	29.92
4	39.230202	-76.165930	23.80	8.00	31.80

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	39.232597	-76.164418	39.94	5.00
OP 2	2	39.231845	-76.166140	33.74	5.00
OP 3	3	39.231081	-76.166631	22.99	5.00
OP 4	4	39.230714	-76.167843	25.67	5.00
OP 5	5	39.230360	-76.168498	23.90	5.00
OP 6	6	39.228688	-76.168179	33.45	5.00
OP 7	7	39.229999	-76.169723	19.71	5.00
OP 8	8	39.233471	-76.168481	40.18	5.00
OP 9	9	39.233651	-76.167875	41.98	5.00
OP 10	10	39.233836	-76.167403	41.66	5.00
OP 11	11	39.233836	-76.167403	41.66	5.00



Obstruction Components

Name: Landscape Screening

Top height: 6.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.234347	-76.164796	47.52
2	39.233607	-76.166008	45.28
3	39.232726	-76.168197	40.11
4	39.231804	-76.168133	34.73
5	39.232801	-76.165644	43.07
6	39.233366	-76.164742	49.24
7	39.234347	-76.164796	47.52

Name: Near OP 1
Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.232721	-76.164725	40.82
2	39.232538	-76.165060	38.86
3	39.232451	-76.164975	36.93
4	39.232656	-76.164674	40.32
5	39.232721	-76.164725	40.82



Name: Near OP 2
Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.231800	-76.166482	32.22
2	39.231684	-76.166383	33.31
3	39.231796	-76.166176	33.40
4	39.231825	-76.166192	33.69
5	39.231879	-76.166088	33.40
6	39.231973	-76.166144	33.34
7	39.231800	-76.166482	32.22

Name: Near OP 3 1 Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.231224	-76.167330	29.39
2	39.231125	-76.167115	27.03
3	39.231283	-76.167080	30.14
4	39.231386	-76.166906	30.68
5	39.231467	-76.166997	30.36
6	39.231224	-76.167330	29.39

Name: Near OP 3 2 Top height: 32.8 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.231548	-76.166892	30.47
2	39.231432	-76.166782	31.22
3	39.231424	-76.166635	30.25
4	39.231295	-76.166670	28.78
5	39.231168	-76.166809	27.04
6	39.231091	-76.166710	23.92
7	39.231328	-76.166485	27.62
8	39.231470	-76.166509	30.36
9	39.231619	-76.166777	30.79
10	39.231548	-76.166892	30.47

Name: Near OP 6
Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.229903	-76.169036	16.47
2	39.230310	-76.166182	21.84
3	39.229130	-76.166332	31.71
4	39.229321	-76.169369	15.52
5	39.229903	-76.169036	16.47



Name: Near OP 7
Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.232004	-76.169045	34.32
2	39.231655	-76.168851	31.27
3	39.230496	-76.168857	22.72
4	39.230267	-76.169034	19.81
5	39.229569	-76.169479	14.78
6	39.229623	-76.169592	14.60
7	39.230575	-76.168964	25.34
8	39.231456	-76.169018	32.24
9	39.231772	-76.169350	32.05
10	39.232004	-76.169045	34.32

Name: Near OPs 8 9 10 Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	39.233044	-76.168644	40.45
2	39.233709	-76.166863	42.87
3	39.234856	-76.164911	44.03
4	39.235014	-76.165190	42.56
5	39.233837	-76.167070	41.49
6	39.233322	-76.168664	39.55
7	39.233044	-76.168644	40.45



Glare Analysis Results

Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Gr	een Glare	Annual Yel	low Glare	Energy
	0	0	min	hr	min	hr	kWh
Solar Array	SA tracking	SA tracking	321	5.3	118	2.0	2,642,000.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

	min	hr	min	hr
Fairlee Road	321	5.3	118	2.0
Fish Hatchery Road	0	0.0	0	0.0
Mt Pleasant Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0



PV: Solar Array potential temporary after-image

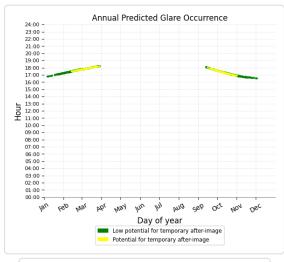
Receptor results ordered by category of glare

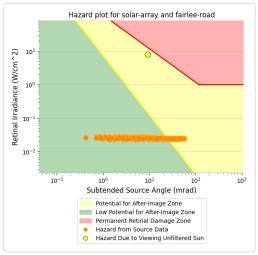
Receptor	Annual Gr	een Glare	Annual Yel	llow Glare
	min	hr	min	hr
Fairlee Road	321	5.3	118	2.0
Fish Hatchery Road	0	0.0	0	0.0
Mt Pleasant Road	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0

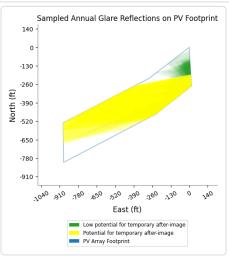


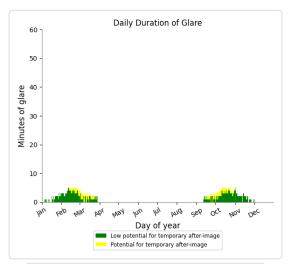
Solar Array and Route: Fairlee Road

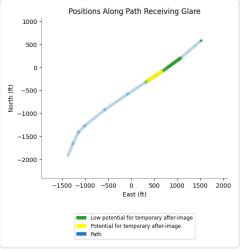
Yellow glare: 118 min. Green glare: 321 min.











Solar Array and Route: Fish Hatchery Road

No glare found



Solar Array and Route: Mt Pleasant Road

No glare found

Solar Array and OP 1

No glare found

Solar Array and OP 2

No glare found

Solar Array and OP 3

No glare found

Solar Array and OP 4

No glare found

Solar Array and OP 5

No glare found

Solar Array and OP 6

No glare found

Solar Array and OP 7

No glare found

Solar Array and OP 8

No glare found

Solar Array and OP 9

No glare found

Solar Array and OP 10

No glare found

Solar Array and OP 11

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. "Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time. Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

· Analysis time interval: 1 minute • Ocular transmission coefficient: 0.5 · Pupil diameter: 0.002 meters

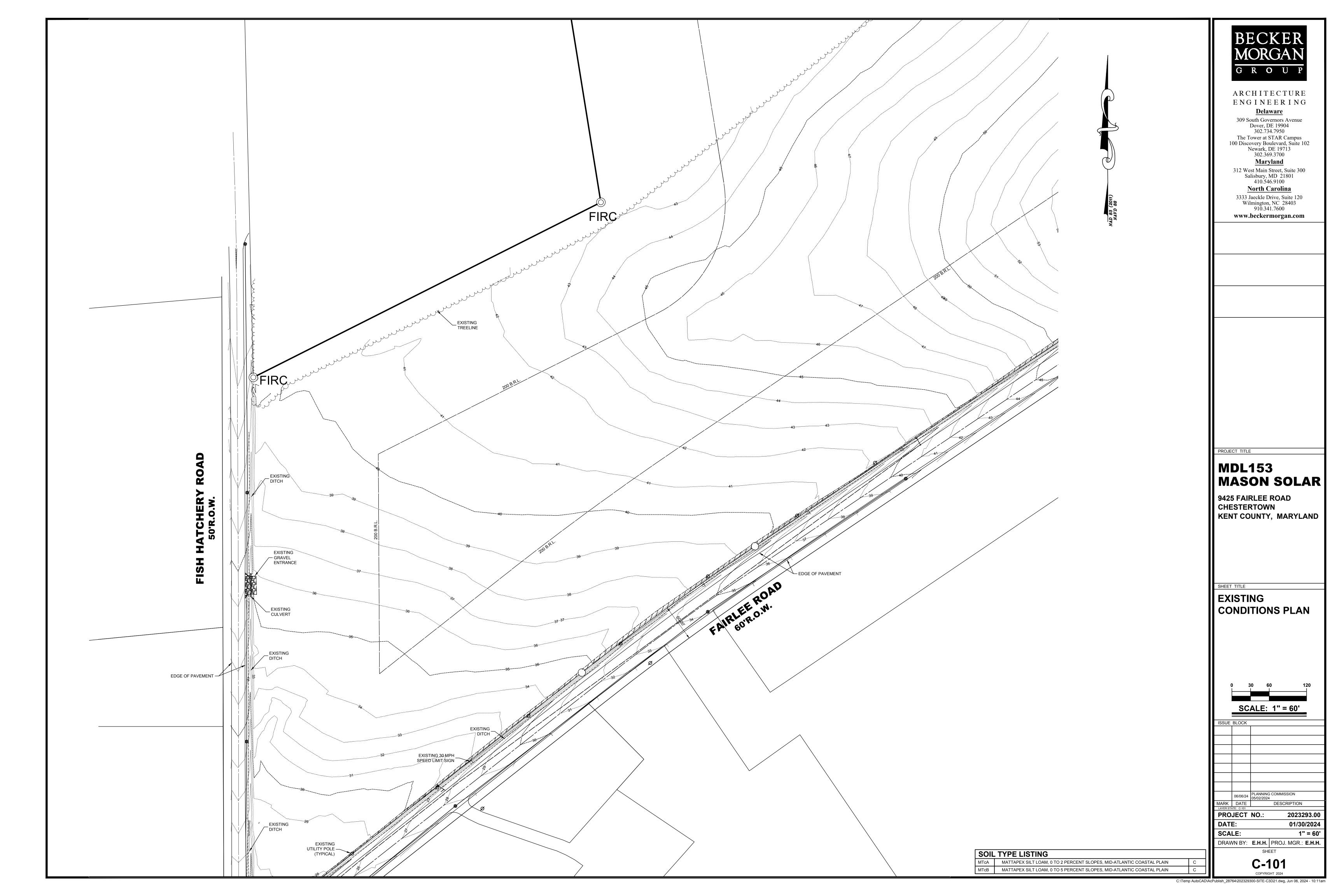
· Eye focal length: 0.017 meters · Sun subtended angle: 9.3 milliradians

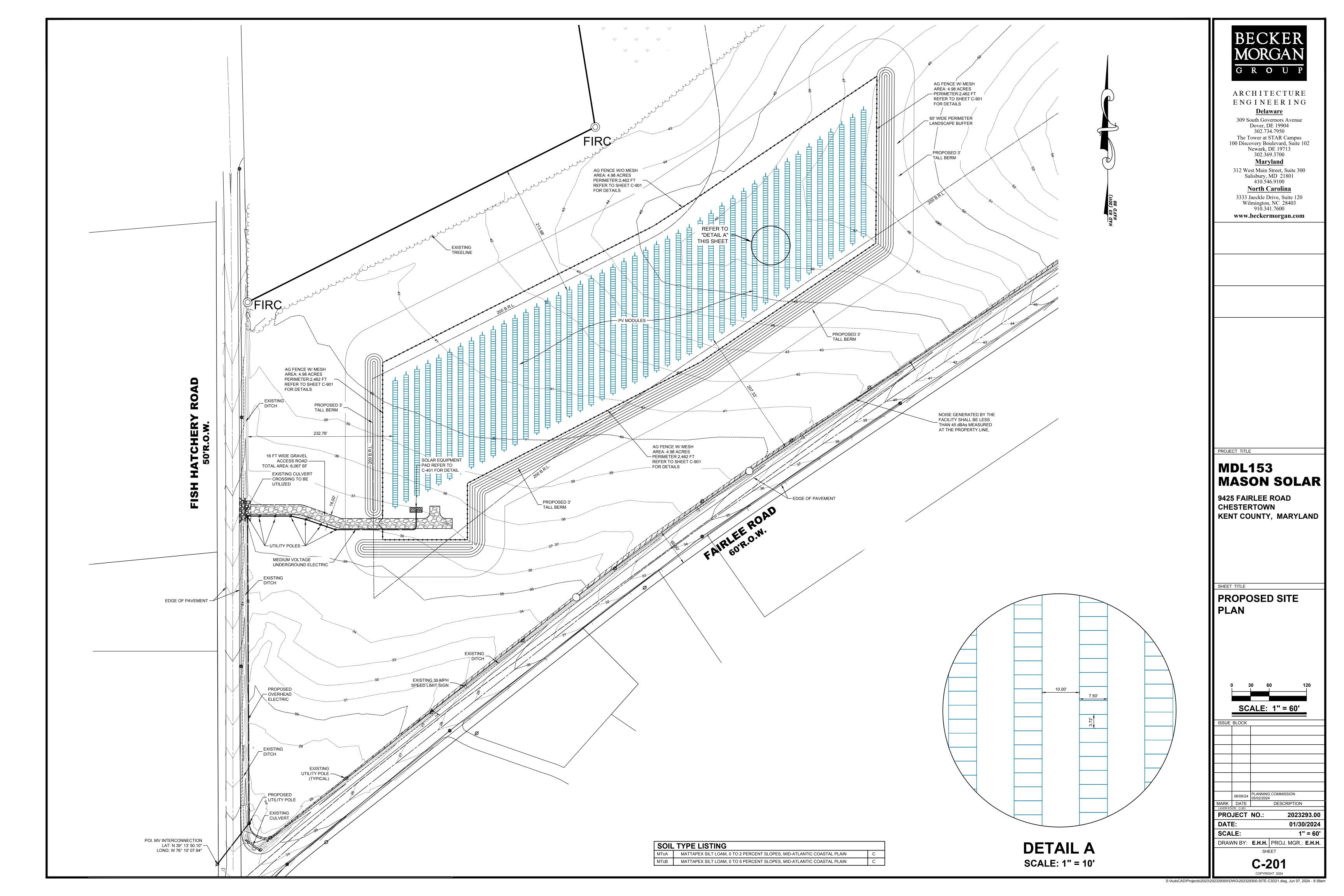
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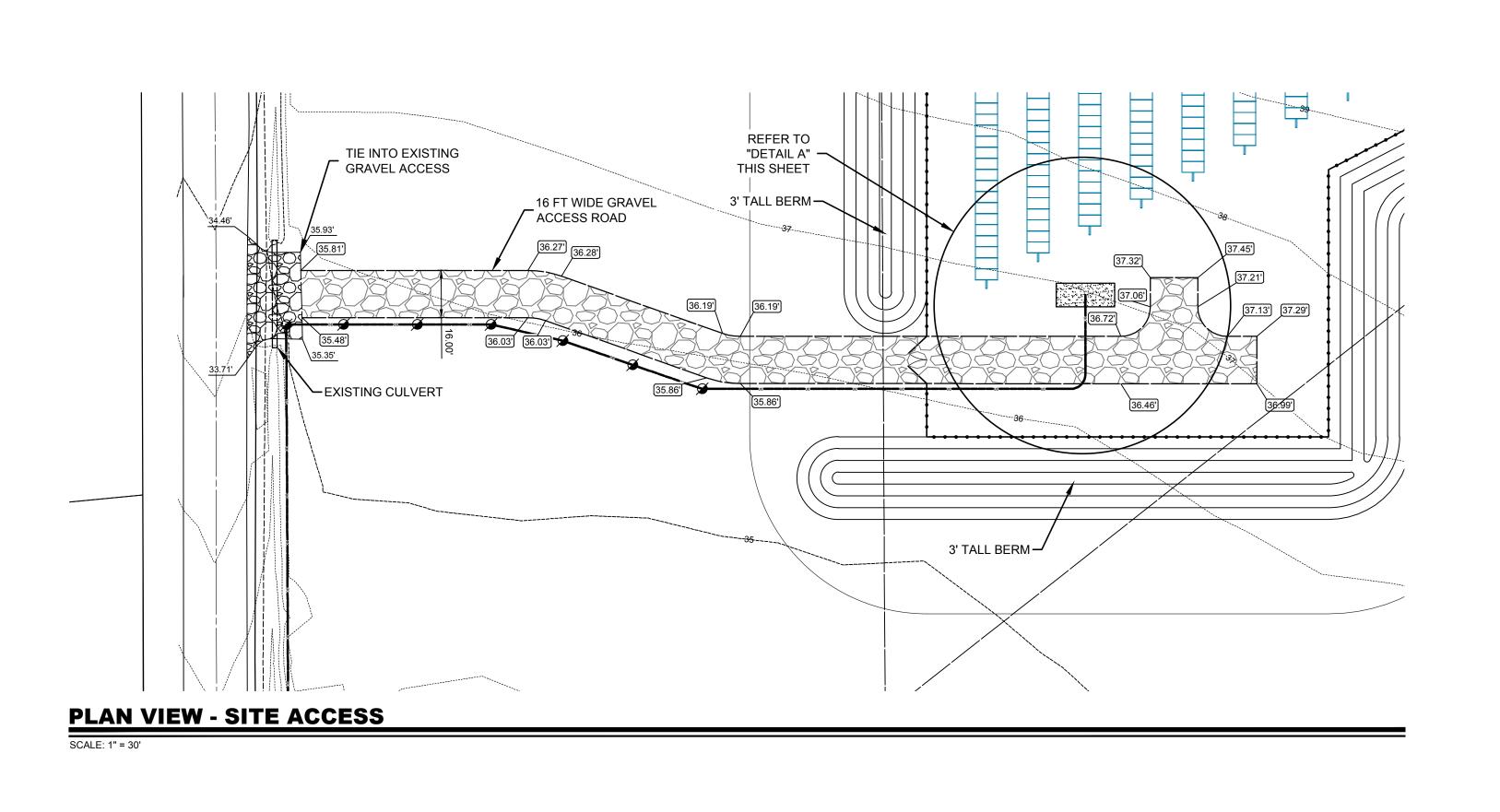


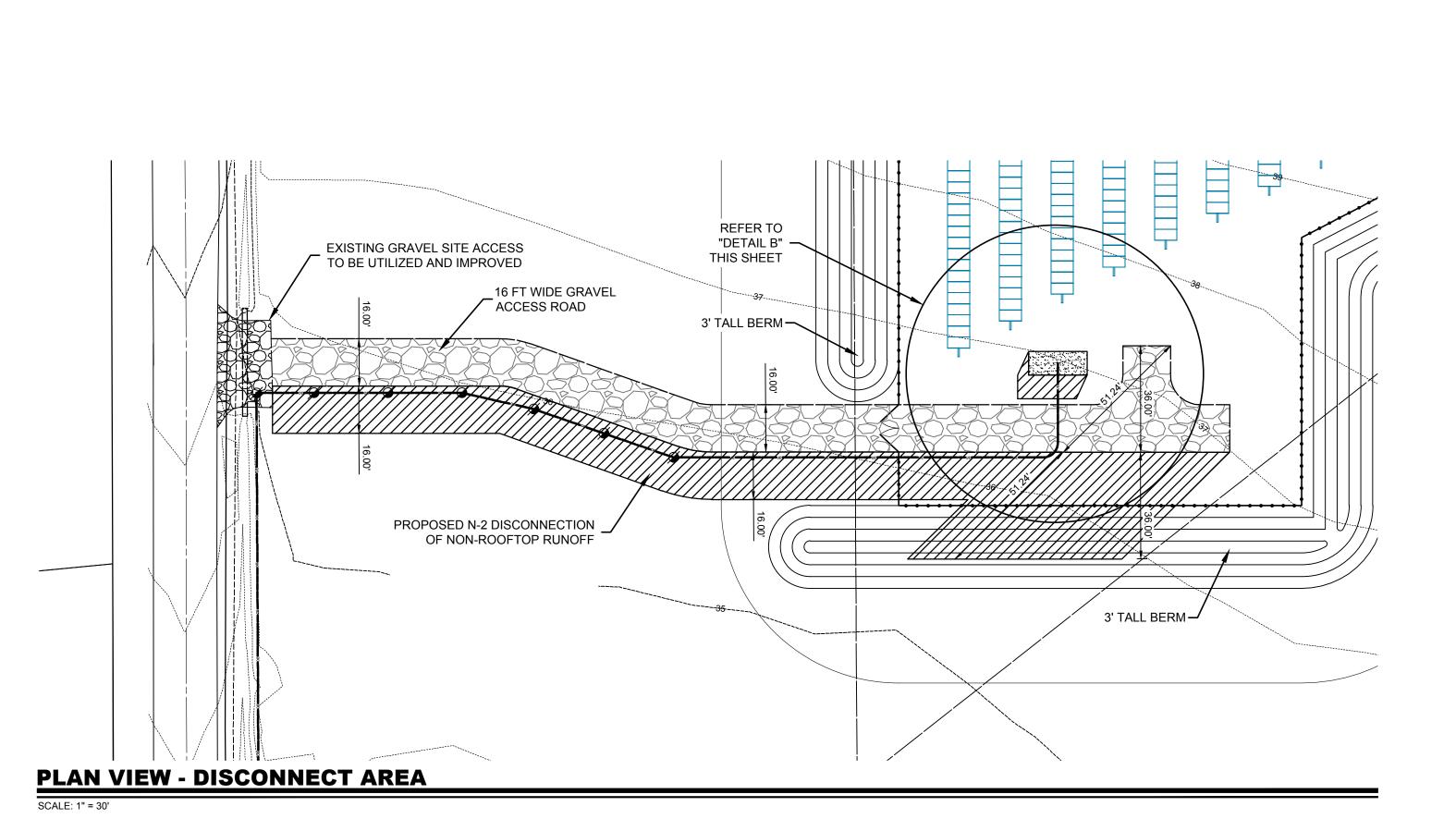
GENERAL NOTES: SOLAR ENERGY SYSTEMS MDL153 - MASON SOLAR A. SETBACKS TO ACCOMMODATE REQUIRED LANDSCAPE BUFFER 200 FEET FROM ANY LOT LINE 2. 200 FEET FROM ANY ROAD/AND OR RIGHT-OF WAY 3. 200 FEET FROM ANY ROAD/RIGHT-OF-WAY WITHIN ½ MILE OF A TOWN OR VILLAGE BOUNDARY THAT IS THE **GATEWAY INTO A TOWN OR VILLAGE** 4. 200 FEET FROM ANY RESIDENTIAL USE OR ZONING DISTRICT KENT COUNTY, MARYLAND 5. SETBACKS MAY BE REDUCED TO 100 FEET FOR NON-RESIDENTIAL DEVELOPMENT WITH WRITTEN CONSENT FROM THE PROPERTY OWNERS WHOSE PROPERTY IS ADJACENT TO THE AREA IN WHICH THE SETBACK REDUCTION IS SOUGHT. THE PLANNING COMMISSION SHALL BE THE REVIEW AGENCY TO DETERMINE THE THIRD ELECTION DISTRICT 6. SETBACKS SHALL BEMEASURED FROM THE OUTERMOST EDGE OF THE NEARESTSOLAR PANELSTRUCTURE ARCHITECTURE WITHIN THE SOLAR ARRAY INCLUDING SUBSTATIONS. ENGINEERING **INSTALLATION AND MAINTENANCE STANDARDS** SOLAR ARRAYS SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE FOLLOWING: 1. IF SOLVENTS ARE REQUIRED FOR CLEANING OF THE SOLAR MODULES, THEY MUST BE BIODEGRADABLE. ANY UNUSED SOLVENTS MUST BE REMOVED FROM THE SUBJECT PARCEL 309 South Governors Avenue 2. ALL BROKEN OR WASTE SOLAR MODULES SHALL BE REMOVED FROM THE SITE SUBJECT PARCEL WITHIN 30 Dover, DE 19904 TAX MAP 36 PARCEL 49 TAX MAP 36 PARCEL 56 DAYS OF BEING TAKEN OUT OF SERVICE, INCLUDING ANY LEACHING PANELS, AND THE SUBJECT PARCEL HOAGLAND FAMILY LIMITED PARTNERSHIP SHALL BE MAINTAINED IN GOOD ORDER. DEED BOOK 85 PAGE 198 The Tower at STAR Campus ANNA M POWERS & 3. ALL WIRING NOT ON THE SOLAR ARRAYS SHALL BE UNDERGROUND EXCEPT WHEN NECESSARY TO 100 Discovery Boulevard, Suite 102 MELISSA LIVELY & Newark, DE 19713 DARLENE R WALKER 4. TRANSMISSION WIRES TO CONNECT THE PROJECT TO THE UTILITY INFRASTRUCTURE SHALL NOT CROSS A DEED BOOK 617 PAGE 302.369.3700 TAX MAP 36 PARCEL 189 Maryland 5. ANY REQUIRED UTILITY RIGHT OF WAY SHALL BE SECURED THROUGH AN EASEMENT, LEASE, SERVICE HARRIE D BLACK AGREEMENT OR OTHER LEGALLY BINDING DOCUMENT 312 West Main Street, Suite 300 & MARILYN D BLACK VICINITY MAP 6. THE SOLAR ARRAY SHALL BE ENCLOSED BY A FENCE OR OTHER APPROPRIATE BARRIER AT THE INTERIOR SCALE: 1" = 2000 Salisbury, MD 21801 DEED BOOK 898 PAGE 50 EDGE OF THE REQUIRED LANDSCAPE BUFFER OR IMMEDIATELY ADJACENT TO THE SOLAR ARRAY. THE 410.546.9100 North Carolina a. SECURE THE FACILITY AT ALL TIMES TO PREVENT UNAUTHORIZED PERSONS OR VEHICLES FROM **LEGEND** 3333 Jaeckle Drive, Suite 120 b. ALL ACCESS GATES WILL PROVIDE A SIGN THAT IDENTIFIES THE RESPONSIBLE PARTIES OR OWNER **EXISTING** Wilmington, NC 28403 PROPOSED TAX MAP 36 PARCEL 5 910.341.7600 HOAGLAND FAMILY LIMITED PARTNERSHIP SANITARY GRAVITY SEWER LINE. 7. NOISE GENERATED BY THE FACILITY SHALL BE LIMITED BY THE PROJECT DESIGN TO 45 DBAS MEASURED —►EX. 10"S DEED BOOK 924 PAGE 207 TAX MAP 36 PARCEL 188 www.beckermorgan.com AT TH PROPERTY LINE, TO BE INDICATED ON THE SITE PLAN BY THE ENGINEER, EXCEPT WHEN A BACK-UP GENERATOR IS NEEDED FOR MAINTENANCE. CONSTRUCTION ON THE SITE IS EXEMPT FROM THIS ■EX. 10" F.M. DANIEL RICHARD BLACK JR & FLOW DIRECTION & MARY E BLACK 8. SOLAR ARRAYS, INCLUDING THE ELECTRICAL AND MECHANICAL COMPONENTS, SHALL CONFORM TO SANITARY SEWER MANHOLE (S.M.H. DEED BOOK 503 PAGE 300 RELEVANT AND APPLICABLE LOCAL, STATE, AND NATIONAL CODES. SANITARY SEWER CLEANOU 9. TO PROTECT ADJACENT PROPERTIES, AND NOT INTERFERE WITH ROADWAYS OR CREATE A SAFETY HAZARD. EVIDENCE SHALL BE PROVIDED THAT THE SOLAR PANELS ARE DESIGNED TO AVOID GLARE ——EX. 10" W—— WATER MAIN & SIZE TAX MAP 36 PARCEL 72 AND/OR REFLECTION WITH ANTI-REFLECTIVE COATING OR NON-GLARE TECHNOLOGY AND, IF NECESSARY, F.H. FIRE HYDRANT HAVE BEEN EVALUATED WITH A SOLAR GLARE HAZARD AND ANALYSIS TOOL. RAYMOND P CHAMBERS 10 NON-ARRAY USES SUCH AS POWER STORAGE ARE NOT PERMITTED WATER VALVE (W.V.) OR METER (W.M.) ----EUGENE F DEEMS JR ANDSCAPE BUFFER FOR UTILITY-SCALE SOLAR ENERGY SYSTEMS W.M. DEED BOOK 785 PAGE 82 1. ANY UTILITY SCALE SOLAR FACILITY SHALL COMPLY WITH THE REQUIREMENTS OF THE FOREST STORM DRAIN MANHOLE (S.D.M.H. CONSERVATION ACT. REFORESTATION PLANTING MAY BE INCORPORATED AS LANDSCAPING STORM DRAIN LINE (CMP OR RCP 2. THE GROSS USABLE AREA FOR PANELS WILL EXCLUDE WETLAND AREAS THAT ARE REGULATED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT OR THE U.S. DEPARTMENT OF THE INTERIOR. IMPACTS CATCH BASIN ASSOCIATED WITH ACCESS OR INTERIOR ROADS AND UTILITY CROSSINGS SHALL PROVIDE THE NECESSARY AUTHORIZATION FOR ANY DISTURBANCES. ITILITY POLE W/ OVERHEAD SERVICE -—*—*Ø-—--3. EXISTING TOPSOIL SHALL NOT BE REMOVED FROM THE SITE. (TELEPHONE OR ELECTRIC OR BOTH) 4. A VEGETATED BUFFER THAT IS A MINIMUM OF 60 FEET WIDE AROUND THE PERIMETER OF THE SITE AREA INDERGROUND ELECTRIC FRONTING ON ROAD OR RIGHTS OF WAY THAT ARE CONSIDERED GATEWAYS TO TOWNS OR VILLAGES AND A MINIMUM OF 50 FEET FOR ALL OTHER APPLICATIONS. THIS BUFFER MAY BE LOCATED WITHIN THE UNDERGROUND TELEPHONE SETBACK AND SHALL EXTEND AROUND THE ENTIRE PROJECT WITH THE EXCEPTION OF ANY BOUNDARIES TAX MAP 36 PARCEL 179 INDERGROUND GAS MAIN ----EX. 2" G----CONTIGUOUS TO PRESERVED, FORESTED LANDS THAT ARE RECORDED ON A PLAT. PAVEMENT TO BE REMOVED 5. HEALTHY EXISTING VEGETATION WITHIN THE DESIGNATED BUFFER AREA MAY BE USED TO SATISFY THE MICHAEL WALTER RADIUS: 2987.00 DEED BOOK 1023 PAGE 265 CONCRETE CURB & GUTTER ARC LENGTH: 278.46' 6. NON-NATIVE PLANT MATERIAL SHALL NOT TOTAL MORE THAN 10% OF ALL PLANTINGS. CHD. BRG: N 44° 21' 01" E CONCRETE SIDEWALK, SLAB / PAVING . WHERE A PHASED CONSTRUCTION PLAN IS PROPOSED, THE LANDSCAPE PLAN SHALL IDENTIFY THE CHD. LENGTH: 278.36' PHASING OF THE PLANTINGS APPLICABLE TO EACH CONSTRUCTION PHASE IMPERVIOUS SURFACED ROAD, DRIVE - EXISTING WOODS 8. NOT MORE THAN 25% OF ANY SINGLE PLANT SPECIES SHOULD BE INCLUDED IN THE BUFFER TO PROMOTE THE GROWTH OF A NATURAL LANDSCAPE AND AVOID MONOTONY AND UNIFORMITY OF THE THE INDIVIDUAL TREE OR BUSH N/A EVERGREEN DECIDUO VEGETATION SHALL BE THICKLY PLANTED AND OF SUCH SPECIES THAT IT WILL PROVIDE AN OPAQUE WIRE FENCE VISUAL BARRIER THAT OBSCURES THE UTILITY SCALE SOLAR ARRAY FROM SIGHT ONCE THE VEGETATION AGRICULTURAL FENCE REACHES MATURITY OR WITHIN FIVE YEARS, WHICHEVER COMES FIRST. A MIX OF EVERGREEN AND STOCKADE FENCE DECIDUOUS TREES.SHRUBS AND BENEFICIAL HABITAT SHALL BE INCLUDED: ---a. A MINIMUM OF TWO STAGGERED ROWS OF EVERGREEN TREES THAT AT INSTALLATION SHALL BE A TAX MAP 36 PARCEL 243 LEAST 6 FEET IN HEIGHT, EACH PLANTED NO MORE THAN 10 FEET APART. EVERGREEN TREE STRUCTURE (CONCRETE, WOOD SPECIES SHALL BE A VARIED MIXTURE OF COMPATIBLE TYPES AND ACHIEVE A HEIGHT OF EIGHT KENT HOUSING ASSOCIATES LP DEED BOOK 630 PAGE 172 DRAINAGE DITCH OR SWALE **--**b. IN ADDITION TO THE EVERGREEN TREES, NATIVE DECIDUOUS OR SHADE TREES WITH A MINIMUM EMBANKMENT SIDESLOPES (DOWN) SIZE AT INSTALLATION OF 2-INCH CALIPER SHALL BE INTERSPERSED TO ENHANCE THE EVERGREEN SCREENING ALONG WITH UNDERSTORY TREES WITH A MINIMUM SIZE OF INSTALLATION OF 1-INCH CALIPER OR 6 FEET IN OVERALL HEIGHT OR GREATER IF REQUIRED BY THE PLANNING COMMISSION **ELEVATION SPOT SHOT** c. SHRUBS WITH A MINIMUM SIZE AT INSTALLATION OF 24 INCHES IN HEIGHT OR 30 INCHES IN SPREAD. BENCH MARK THE BUFFER SHALL INCLUDE A FLOWERING GROUND COVER FOR POLLINATORS, WARM SEASON TAX MAP 36 PARCEL 211 PROPERTY OR RIGHT-OF-WAY LINE GRASSES AND OTHER BENEFICIAL HABITAT. THE GROUND COVER SEED MIXTURE SHALL INCLUDE A MINIMUM OF 10 PLANT SPECIES WITH A MINIMUM OF 2 FLOWERING SEASONS. LAWNS OUTSIDE THE KENT HOUSING ASSOCIATES LP CENTERLINE REQUIRED BUFFER ARE DISCOURAGED: PLANTINGS FOR POLLINATORS ARE ENCOURAGED IN ALL || MDL153 LIGHT POLE - EXISTING FARM FIELD e. THE HEIGHT OF PROPOSED PLANTING MAY REQUIRE ALTERNATIVES BASED UPON THE SITE CONSTRUCTION NOTE **MASON SOLAR** ELEVATION AND VISIBILITY FROM ADJACENT PROPERTIES AND ROADS AND/OR RIGHTS OF WAYS. IF NECESSARY, AN ELEVATION OR PERSPECTIVE ILLUSTRATION EXHIBIT SHALL BE PROVIDED WITH VIEWPOINTS FROM RELEVANT LOCATIONS AROUND THE SITE FOR THE PLANNING COMMISSION TO SITE INFORMATION 9425 FAIRLEE ROAD D. A LANDSCAPE BERM SHALL BE PROVIDED AT A MINIMUM OF THREE (3) FEET HIGH TO ASSIST IN SCREENING. THE . SITE NAME: MDL153 - MASON SOLAR DESIGN OF THE BERM SHALL BE SUCH THAT THE NATURAL DRAINAGE PATTERNS OF THE SITE WILL NOT BE CHESTERTOWN 2. SITE ADDRESS: 9425 FAIRLEE ROAD ALTERED. THE BERM REQUIREMENT MAY BE WAIVED IN PART OR TOTAL SUBJECT TO THE FOLLOWING CONDITIONS: 3. SITE OWNER: THOMAS & ALICE MASON KENT COUNTY, MARYLAND 1. A MINIMUM OF TWO STAGGERED ROWS OF EVERGREEN TREES THAT AT INSTALLATION ARE AT LEAST 8 23991 MELITOTA ROAD FEET IN HEIGHT AND PLANTED NO MORE THAN 10 FEET APART CHESTERTOWN, MD 21620 2. INTERSPERSED SHADE TREES HAVE A MINIMUM SIZE AT INSTALLATION OF 2.5-INCH CALIPER 4. DEVELOPER: MDL153 MASON SOLAR, LLC 3. UNDERSTORY STORY TREES WITH A MINIMUM SIZE AT INSTALLATION OF 1.5-INCH CALIPER OR 6 FEET IN JOSH SPENCER, PE, PMP 4. SHRUBS WITH A MINIMUM SIZE AT INSTALLATION OF 30 INCHES IN HEIGHT 6865 DEERPATH ROAD, SUITE 330 5. THE LANDSCAPING PLAN IS DEEMED TO SCREEN ELEVATIONS OF THE SITE ADEQUATELY WITHIN 2 YEARS. ELKRIDGE, MD 21075 IRRIGATION SHALL BE PROVIDED TO ASSIST IN MAINTAINING PLANT MATERIALS IN A HEALTHY CONDITION FOR 850-450-9895 ALL NEWLY CREATED LANDSCAPE BUFFER AREAS. PLANTS SHALL BE WATERED IN A MANNER ADEQUATE TO 5. ENGINEER: BECKER MORGAN GROUP, INC. ENSURE ESTABLISHMENT AND SURVIVAL. THE LANDSCAPE PLAN SHALL INCLUDE A WATERING SCHEDULE C/O EDWARD (TED) HASTINGS, PMP APPROPRIATE FOR THE PROPOSED PLANTINGS, WHICH MAY INCLUDE SERVICE BY ON-SITE IRRIGATION OR WATER 312 WEST MAIN STREET, SUITE 300 TRUCK, UNTIL THE PLANT MATERIAL IS SUFFICIENTLY ESTABLISHED TO SURVIVE ON NATURAL SOIL MOISTURE. AN TAX MAP 36 PARCEL 142 IRRIGATION SYSTEM IS SUBJECT TO THE FOLLOWING: SALISBURY, MD 21801 KENT HOUSING ASSOCIATES LP 1. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO PREVENT RUNOFF, LOW HEAD DRAINAGE, OVERSPRAY, 410-546-9100 DEED BOOK 630 PAGE 172 OR OTHER SIMILAR CONDITIONS WHERE IRRIGATION WATER FLOWS ONTO NONTARGETED AREAS SUCH AS 6. GEOGRAPHIC COORDINATES ARC LENGTH: 990.57' **COVER SHEET** ADJACENT PROPERTIES, ROADWAYS, OR STRUCTURES. 39°13' 57.18"N CHD. BRG: N 51° 32' 05" E 2. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE DESIGNED TO MINIMIZE WATER USAGE AND SHALL BE CHD. LENGTH: 989.54' LONGITUDE: 76° 10' 02.15"W MANUALLY SHUT OFF DURING WATER EMERGENCIES OR WATER RATIONING PERIODS. '. TAX MAP: 3. AN ALTERNATIVE FORM OF IRRIGATION FOR A PARTICULAR SITE MAY BE APPROVED THROUGH THE 8. PARCEL: APPLICABLE REVIEW PROCESS UPON DETERMINING THAT UNDERGROUND IRRIGATION IS NOT NECESSARY 9. DEED BOOK/PAGE: 774/474 OR AVAILABLE FOR THE TYPE OF PLANT MATERIAL BEING PROPOSED. 10.PARCEL AREA: A MAINTENANCE AGREEMENT FOR THE LANDSCAPE PLAN SHALL BE PROVIDED WITH A SURETY OR OTHER 335.16 ACRES ± FINANCIAL ASSURANCE TO COVER REPLACEMENT OF THE PLANTINGS AND IRRIGATION SYSTEMS. ALL PLANTINGS 11.LEASE AREA: 9.24 ACRES ± SHALL BE MAINTAINED IN A LIVE, HEALTHY CONDITION FOR THE DURATION OF THE SOLAR ARRAY LIFE AND SHALL 12. ARRAY AREA 4.98 ACRES BE REPLACED BY THE SOLAR ARRAY OPERATOR AS NECESSARY WITH APPROPRIATELY SIZED PLANT MATERIAL AS 13.LIMIT OF DISTURBANCE: 9.24 ACRES ± NECESSARY TO MAINTAIN ALL REQUIRED BUFFERING STANDARDS. 14. JURISDICTION: KENT COUNTY G. THE SURETY MAY BE PROVIDED ON A PHASED BASIS PER THE LANDSCAPE PHASING PLAN AND SHALL BE HELD 15. ZONE: AGRICULTURAL ZONING DISTRICT (AZD) BY THE COUNTY FOR A PERIOD OF THREE YEARS FOLLOWING PLANTING. AFTER WHICH THE COUNTY. UPON 16. MINIMUM YARD AND SETBACK REQUIREMENTS FOR UTILITY SCALE SOLAR IS AS FOLLOWS: SATISFACTORY INSPECTION OF THE LANDSCAPE BUFFER MAY RELEASE 50% OF THE SURETY, AND THE REMAINING 50% MAY BE RELEASED AFTER AN ADDITIONAL TWO YEARS. THE COUNTY THEN RESERVES THE RIGHT TO INSPECT FRONT: AND REQUIRE REPLACEMENT FOR THE DURATION OF THE SOLAR ARRAY. REAR: 200 FEET H. ENTRANCESTO THE PROJECT SHOULD BE DESIGNED TO ENSURE THAT NEIGHBORING PROPERTIES, PUBLIC SIDE: 200 FEET RIGHTS-OF WAYS AND ROADS ARE NOT EXPOSED TO AN UNSCREENED VIEW THROUGH THE ENTRANCEWAY. THE 17.FLOOD ZONE DETERMINATION: USE OF A WIRE MESH OR CHAIN-LINK GATE OR FENCE WITH VINYL INTERWOVEN STRIPS IS NOT ACCEPTABLE. (BASED ON FLOOD INSURANCE RATE MAPS PROVIDED BY FEMA) THE PROJECT SHALL COMPLY WITH ALL APPLICABLE FEDERAL AND STATE REGULATIONS, INCLUDING BY NOT LIMITED TO OBTAINING A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FROM THE PUBLIC SERVICE 24029C0260D COMMISSION IF REQUIRED, AND IN THE REMOVAL AND DISPOSAL OF THE UTILITY SCALE SOLAR ARRAY AND ALL OF EFFECTIVE DATE: JUNE 9, 2014 "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN I. THE PROJECT SHALL COMPLY WITH ALL OTHER APPLICABLE REGULATIONS, AS CONTAINED IN THE PUBLIC LAWS 18. WATER AND SEWER NOT PROPOSED FOR THE SITE. OF KENT COUNTY. SSUE BLOCK K. THE PROJECT SHALL COMPLY WITH THE BOND-RELATED REQUIREMENTS BELOW: 1. A BOND, SURETY LETTER, OR OTHER FINANCIAL INSTRUMENT FOR REMOVAL OF ALL SOLAR-RELATED STRUCTURES AND NON-VEGETATIVE IMPROVEMENTS ON THE SITE AND FOR THE RESTORATION OF THE SITE TO ITS PREPROJECT CONDITION SHALL BE SUBMITTED, TO BE BASED ON BONA FIDE WRITTEN APPROVED: ESTIMATES PREPARED BY THIRD-PARTY CONSULTANTS; 2. THE COST ESTIMATE SHALL ADDRESS PROVISIONS FOR THE SAFE REMOVAL AND PROPER DISPOSAL OF ALL COMPONENTS OF THE PROJECT, INCLUDING ANY COMPONENTS CONTAINING HAZARDOUS OR TOXIC MATERIALS INCLUDING LEACHATES; ARC LENGTH: 344.39' 3. AN ESTIMATE FOR REVIEW BY COUNTY SHALL BE SUBMITTED; CHD. BRG: N 53° 53' 11" 4. BOND SHALL BE MAINTAINED FOR THE LIFE OF THE PROJECT; KENT COUNT PLANNING DIRECTOR CHD. LENGTH: 344.31' 5. BONDING MAY BE IN COORDINATION WITH OTHER REQUIRED BONDING BY THE STATE OF MARYLAND, PSC, PULJ. PPRP. ETC. APPROVED: 6. IN THE EVENT THAT NO OTHER BONDING IS REQUIRED, THEN A BOND IN FAVOR OF THE COUNTY SHALL BE SHEET INDEX 06/06/24 MARK DATE C-001 7. SAID BONDING SHALL INCLUDE AN ESCALATOR PROVISION BASED ON CHANGES TO THE COST OF RESTORATION, WHICH SHALL BE EVALUATED AND UPDATED EVERY FIVE YEARS; **EXISTING CONDITIONS PLAN** C-101 PROJECT NO.: 2023293.00 8. SAID BOND SHALL BE FOR 110% OF THE ABOVE ESTIMATE(S) AND/OR UPDATED ESTIMATE(S) FROM **C-201** SITE PLAN **GRADING PLAN** C-401 DATE KENT COUNT PLANNING COMMISSION DATE: 01/30/2024 9. SAID BOND SHALL BE REDEEMABLE BY THE COUNTY UPON A FINDING THAT THE PROJECT HAS BEEN **EROSION AND SEDIMENT CONTROL PLAN** ABANDONED, WITH OR WITHOUT NOTICE FROM PROJECT OPERATORS, IF PROJECT HAS, IN FACT, BEEN SCALE: 1" = 200 C-502 **ESC NOTES & CONSTRUCTION DETAILS** ABANDONED BY ITS OPERATORS: AND APPROVED: 10. THE PROJECT WILL BE CONSIDERED TO BE ABANDONED, IF THERE IS NO ELECTRIC GENERATION PROVIDED **ESC CONSTRUCTION DETAILS** DRAWN BY: **E.H.H.** PROJ. MGR.: **E.H.H** TO THE GRID FOR A PERIOD OF TWELVE (12) CONSECUTIVE MONTHS. CONSTRUCTION NOTES AND DETAILS L-001 FOREST CONSERVATION PLAN LANDSCAPE PLAN KENT COUNT HEALTH DEPARTMEN **FENCE DETAIL** APPROVING ALITHORITY

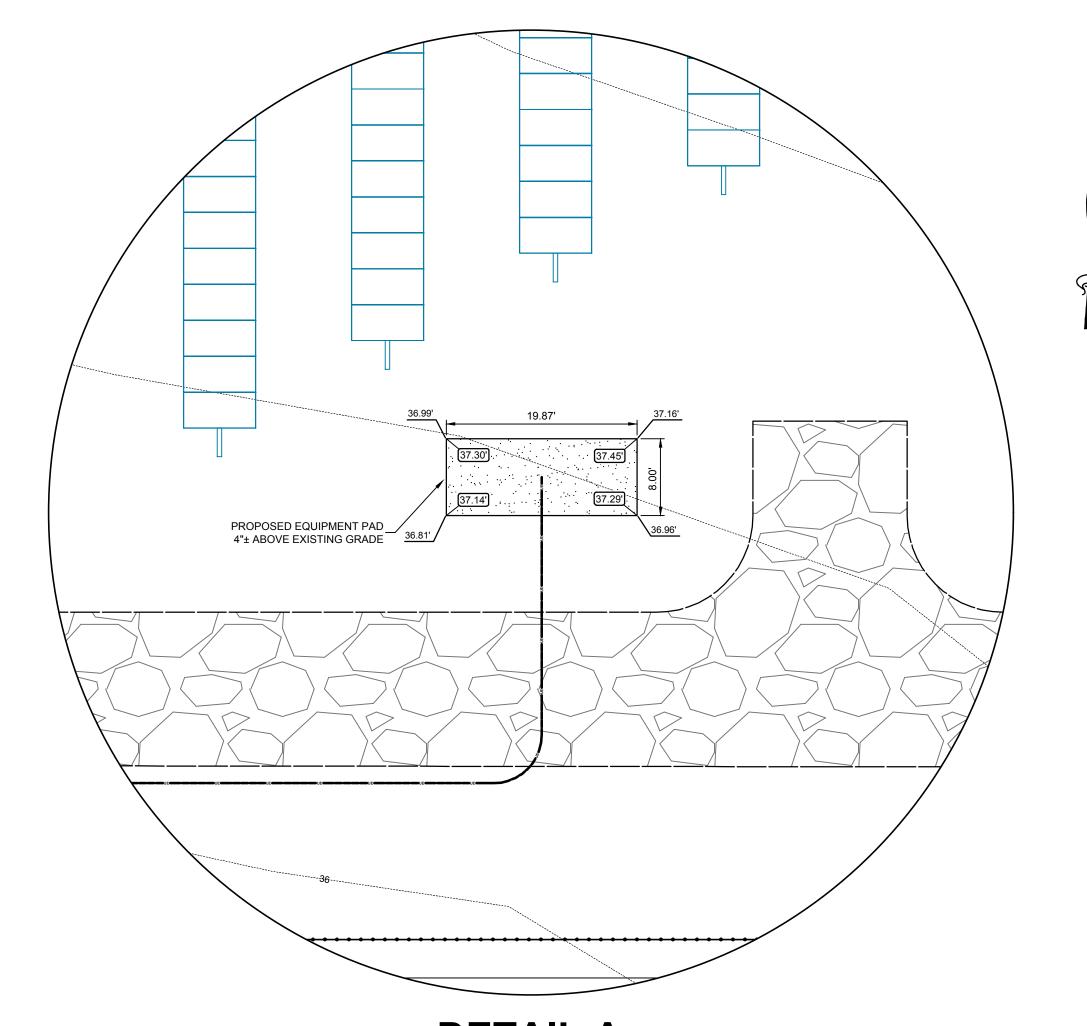
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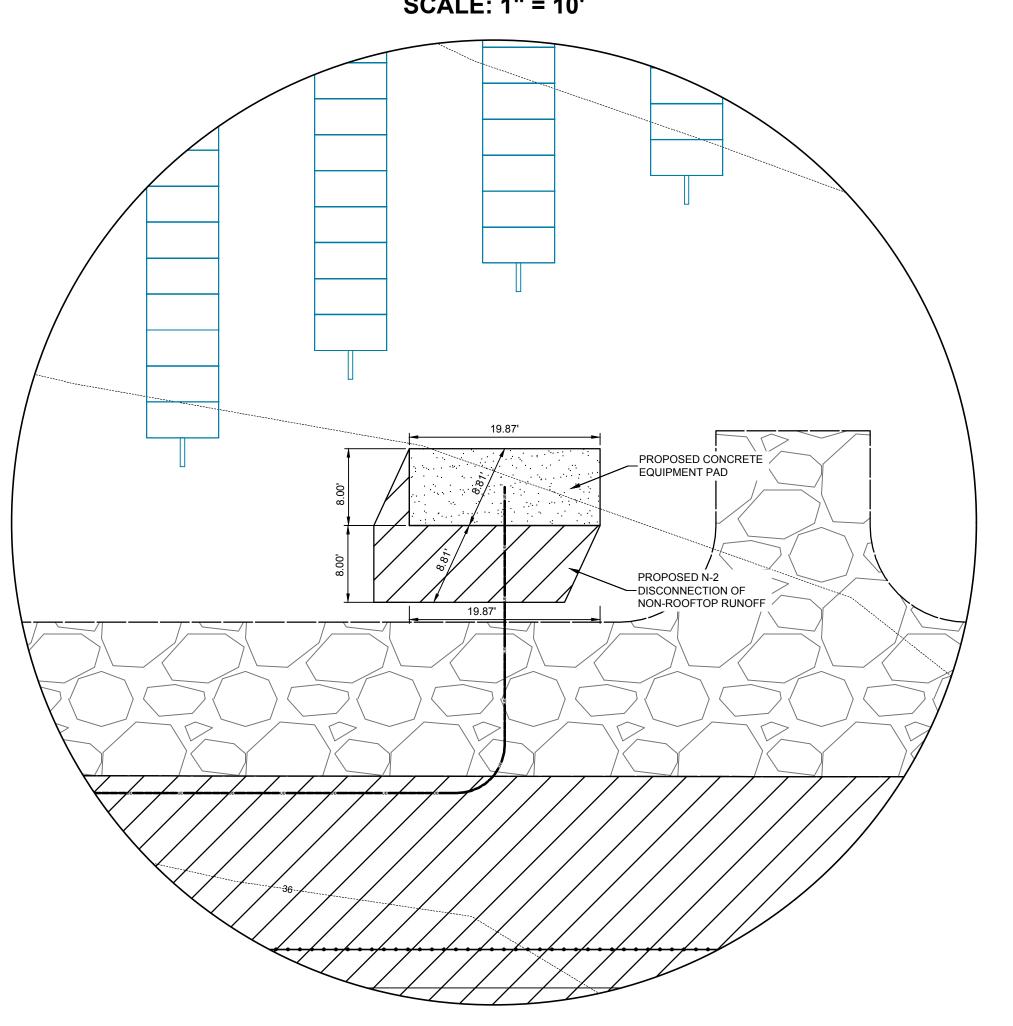








DETAIL A SCALE: 1" = 10'



DETAIL B SCALE: 1" = 10'



ARCHITECTURE ENGINEERING

Delaware

309 South Governors Avenue Dover, DE 19904 302.734.7950 The Tower at STAR Campus 100 Discovery Boulevard, Suite 102

Newark, DE 19713

302.369.3700

Maryland
312 West Main Street, Suite 300
Salisbury, MD 21801

410.546.9100

North Carolina

3333 Jaeckle Drive, Suite 120
Wilmington, NC, 28403

Wilmington, NC 28403 910.341.7600 www.beckermorgan.com

PROJECT TITLE

MDL153 MASON SOLAR

9425 FAIRLEE ROAD CHESTERTOWN KENT COUNTY, MARYLAND

SITE GRADING

SITE GRADING AND ACCESS ROAD CONSTRUCTION PLAN

ISSUE BLOCK

OBJUSTICAL PLANNING COMMISSION

06/06/24 PLANNING COMMISSION
05/02/2024

MARK DATE DESCRIPTION
LAYER STATE: C-401

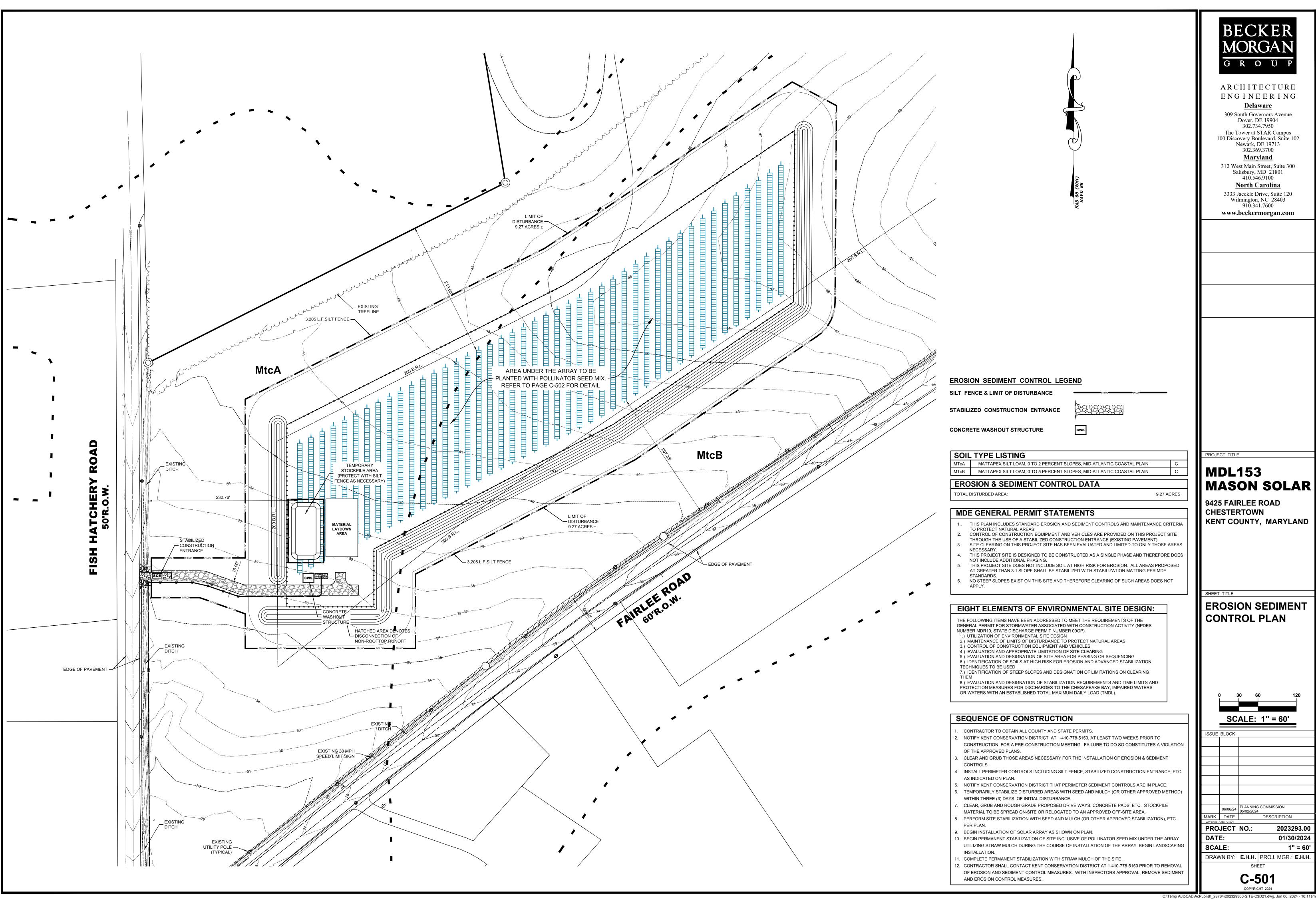
PROJECT NO.: 2023293.00

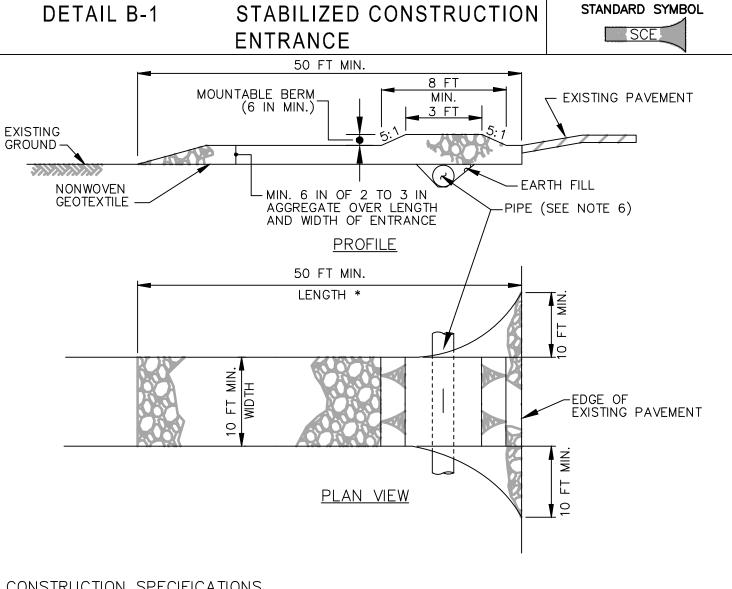
DATE: 01/30/2024
SCALE: AS SHOWN

DRAWN BY: **E.M.B.** PROJ. MGR.: **E.H.H**SHEET

C-401

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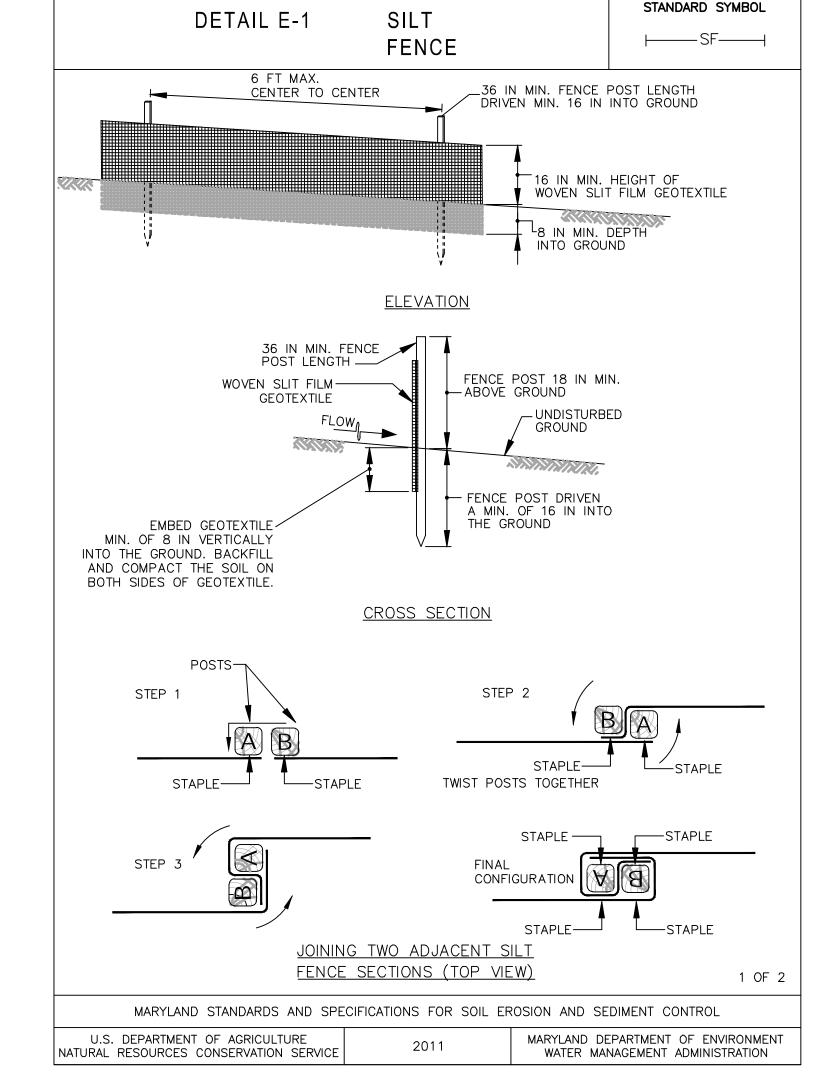


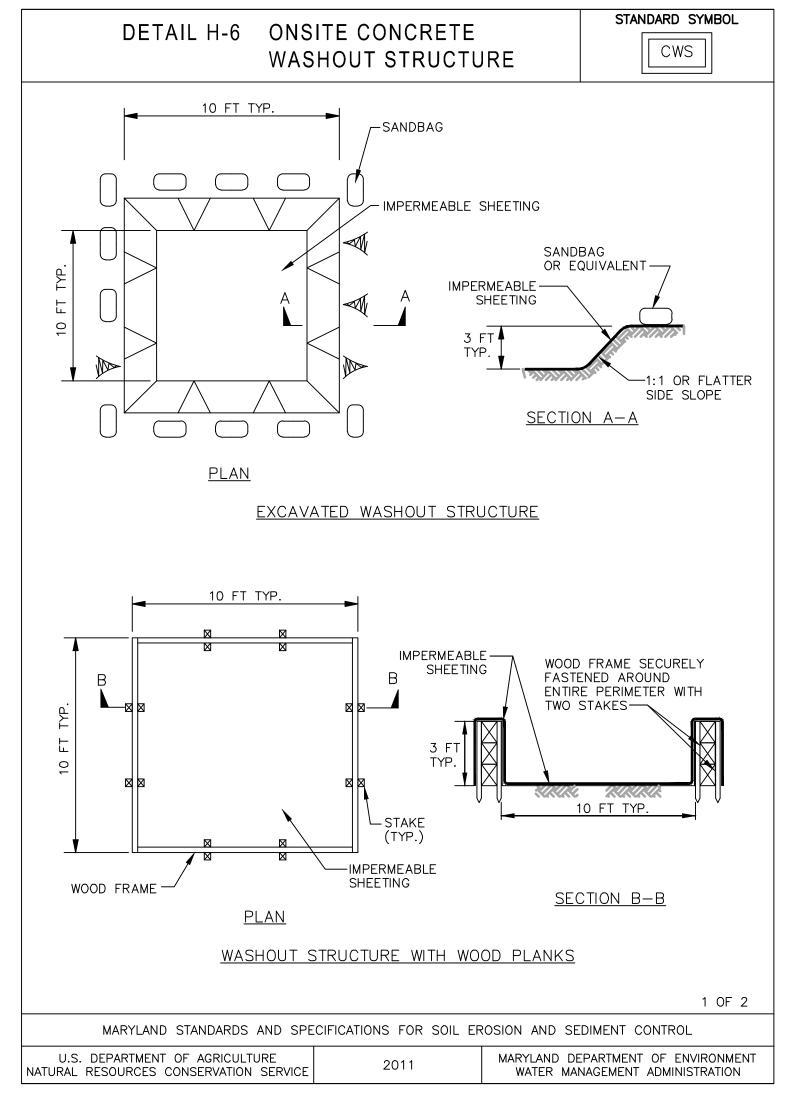


- CONSTRUCTION SPECIFICATIONS
- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- 3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- 4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NATURAL RESOURCES CONSERVATION SERVICE





			TEMPO	RARY SEEDING	SUMMARY		
		HARDINESS ZON SEED MIXTU	NE (FROM FIGU JRE (FROM TAI			FERTILIZER RATE	LIME RATE
N	О.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	(10-20-20)	LIIVIL TOATL
,	1	ANNUAL RYEGRASS	40	2/15 TO 4/30 8/15 TO 11/30	1/2"	436 lb/ac (10 lb/1000 sf)	2 ton/ac (90 lb/1000 st

		PE	RMANENT SEE	DING SUMM	ARY (POLLINAT	OR MIX)		
		UZZ BUZZ MIX ERNMX - 146			F	ERTILIZER RAT (10-20-20)	E	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	PRICE/LB	PERCENT	N	P ₂ O ₅	K ₂ O	2101210112
1	Lolium perenne, 'Crave', Tetraploid	40	7.08	26.4%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
2	Dactylis glomerata, Potomac	40	7.08	21.0%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
3	Poa pratensis, 'Ginger'	40	7.08	18.9%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
4	Bromus biebersteinii, 'Fleet'	40	7.08	12.0%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
5	Trifolium hybridum	40	7.08	5.7%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
6	Festuca elatior x Lolium perenne, Duo	40	7.08	5.0%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
7	Trifolium pratense, Medium, Variety Not Stated	40	7.08	4.8%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
8	Lotus corniculatus, 'Leo'	40	7.08	2.0%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
9	Chamaecrista fasciculata, PA Ecotype	40	7.08	1.4%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
10	Linum perenne	40	7.08	1.0%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
11	Coreopsis lanceolata	40	7.08	0.9%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
12	Chrysanthemum leucanthemum	40	7.08	0.5%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)
13	Solidago nemoralis, PA Ecotype	40	7.08	0.4%	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)	2 ton/ac (90 lb/1000 sf)

EROSION & SEDIMENT CONTROL NOTES:

- PRIOR TO THE START OF WORK. THE CONTRACTOR IS TO OBTAIN KENT CONSERVATION DISTRICT APPROVAL OF ANY PROPOSED PLAN CHANGES AND SEQUENCE OF CONSTRUCTION, SPECIFICALLY RELATING TO INSTALLATION, INSPECTION, MAINTENANCE AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.
- SEDIMENT CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL THE AREAS SERVED HAVE ESTABLISHED VEGETATIVE COVER. OR WITH THE PERMISSION OF THE MDE SEDIMENT CONTROL INSPECTOR.
- WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO AN APPROVED SEDIMENT TRAPPING
- ALL TEMPORARY STOCKPILES ARE TO BE LOCATED WITHIN AREAS PROTECTED BY SEDIMENT CONTROL MEASURES, AND ARE TO BE TEMPORARILY STABILIZED.
- ALL SEDIMENT CONTROL DIKES, SWALES, BASINS AND FLOW LINES TO BASINS WILL BE TEMPORARILY SEEDED IMMEDIATELY UPON INSTALLATION TO REDUCE THE CONTRIBUTION TO SEDIMENT LOADING.
- DISPOSAL OF EXCESS EARTH MATERIALS ON STATE OR FEDERAL PROPERTY REQUIRES MDE APPROVAL, OTHERWISE MATERIALS ARE TO BE DISPOSED OF AT A LOCATION APPROVED BY THE LOCAL AUTHORITY.
- TEMPORARY SOIL EROSION CONTROL AND SEDIMENT CONTROL MEASURES ARE TO BE PROVIDED AS PER THE APPROVED PLAN PRIOR TO GRADING OPERATIONS. LOCATION ADJUSTMENTS ARE TO BE MADE IN THE FIELD AS NECESSARY. THE MINIMUM AREA PRACTICAL SHALL BE DISTURBED FOR THE MINIMUM POSSIBLE TIME.
- IF GRADING IS COMPLETED OUT OF A SEEDING SEASON, GRADED AREAS ARE TO BE TEMPORARILY STABILIZED BY MULCH AND MULCH ANCHORING. MULCH MATERIAL SHALL BE UNWEATHERED, UNCHOPPED SMALL GRAIN STRAW SPREAD AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE. MULCH ANCHORING TO BE ACCOMPLISHED BY AN APPROVED METHOD, USE OF A MULCH ANCHORING TOOL IS RECOMMENDED WHERE POSSIBLE.
- IMPLEMENTATION OF THE SEDIMENT CONTROL PLAN SHALL BE IN ACCORDANCE WITH "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL".
- 0. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF THE APPROVED PLAN, AND ALL OTHER MEASURES NECESSARY TO CONTROL. FILTER, OR PREVENT SEDIMENT FROM LEAVING THE SITE.
- 1. IN CASE WHERE STORMWATER MANAGEMENT STRUCTURES ARE A PART OF SITE DEVELOPMENT, REMOVAL OF SEDIMENT CONTROL STRUCTURES MAY NOT BE ACCOMPLISHED BEFORE THE CONTRIBUTING DRAINAGE AREA TO THE STORMWATER MANAGEMENT STRUCTURE IS STABILIZED. ALSO, PROPER DEWATERING OF THE SEDIMENT FROM THE SITE.
- 12. ON SITES WHERE INFILTRATION TECHNIQUES ARE UTILIZED FOR THE CONTROL OF STORMWATER, EXTREME CARE MUST BE TAKEN TO PREVENT ALL RUNOFF FROM ENTERING THE STRUCTURE DURING CONSTRUCTION.
- 13. SEDIMENT CONTROL FOR CONSTRUCTION IN AREAS OUTSIDE OF DESIGNED CONTROLS:
 - (A) EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH. (B) IMMEDIATELY FOLLOWING PIPE INSTALLATION THE TRENCH SHALL BE BACKFILLED, COMPACTED AND STABILIZED AT THE END OF EACH WORKING DAY
 - (C) TEMPORARY SILT FENCE OR STRAW BALE DIKES SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE WORKING DAY. (D) REMOVE ONLY LENGTH OF SIDEWALK THAT CAN BE REPLACED DURING THE SAME WORKING DAY.
- . ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC
- 5. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, DETAILS OF TEMPORARY OR PERMANENT STABILIZATION SHALL BE COMPLETED AS FOLLOWS:

(A) WITHIN THREE (3) CALENDAR DAYS ON ALL SURFACES OF PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1).

(B) WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING FINAL GRADING, ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT WILL BE PERMANENTLY STABILIZED BY SEEDING OR MULCH. PERMANENT MULCH CAN INCLUDE BUT IS NOT LIMITED TO STONE, GRAVEL, BLACKTOP, OR CONCRETE SURFACING.

THE REQUIREMENTS OF SECTION B-4 (VEGETATIVE STABILIZATION) DO NOT APPLY TO THOSE AREAS WHICH ARE SHOWN ON THE PLAN AND ARE CURRENTLY BEING USED FOR MATERIAL STORAGE OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED OR TO INTERIOR AREAS OF A SURFACE MINE SITE WHERE THE STABILIZATION MATERIAL WOULD CONTAMINATE THE RECOVERABLE RESOURCE. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT THE STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL"

- 6. STABILIZATION OF ALL DISTURBED AREAS ARE TO MEET THE REQUIREMENTS OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL - SECTION B-4 VEGETATIVE STABILIZATION".
- THE OWNER/DEVELOPER OR REPRESENTATIVE IS TO CONTACT THE APPROPRIATE ENFORCEMENT AUTHORITY OR ITS
- AGENT AT THE FOLLOWING STAGES OF THE PROJECT: A. PRIOR TO THE START OF EARTH DISTURBANCE. B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE
- PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. C. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT. D. PRIOR TO THE REMOVAL OF SEDIMENT CONTROL PRACTICES.
- 8. CONTRACTOR SHALL CONTACT THE SITE INSPECTOR FOR APPROVAL OF ANY MINOR REVISIONS TO THIS SITE PLAN A MINIMUM OF FIVE (5) DAYS PRIOR TO MAKING FIELD CHANGES. ANY MAJOR CHANGE TO THESE PLANS WILL REQUIRE REVISED DRAWINGS BE SUBMITTED AND APPROVED.
- 19. FOR DEWATERING SMALL TEMPORARY EXCAVATIONS, THE CONTRACTOR MAY OPT TO INSTALL EITHER A TEMPORARY

20. SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS SHALL BE IN ACCORDANCE WITH SECTION B-4-2 OF THE "2011

- PUMPING PIT AND STILLING BASIN OR USE A SILT BAG DEVICE TO REMOVE SEDIMENTS FROM THE PUMPED WATER.
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL". 21. DUST CONTROL MEASURES SHALL BE IN ACCORDANCE WITH SECTION H-5 OF THE "2011 MARYLAND STANDARDS AND
- SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL". 22. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT STABILIZED AREAS CONTINUOUSLY MEET THE
- APPROPRIATE REQUIREMENTS OF "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION & SEDIMENT 23. APPROVED PLANS REMAIN VALID FOR THREE (3) YEARS FROM THE DATE OF APPROVAL, EXCEPT SURFACE MINES AND

LANDFILL PLANS WHICH REMAIN VALID FOR FIVE (5) YEARS FROM THE DATE OF APPROVAL UNLESS SPECIFICALLY

- EXTENDED OR RENEWED BY THE APPROVAL AUTHORITY. 24. A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) NOTICE OF INTENT (NOI) GENERAL PERMIT FOR CONSTRUCTION ACTIVITY IS REQUIRED FOR ALL CONSTRUCTION ACTIVITY IN MARYLAND WITH A PLANNED TOTAL DISTURBANCE OF 1 ACRE
- . AS MANDATED BY THE NOTICE OF INTENT (NOI) GENERAL PERMIT ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE), AN INSPECTION MUST BÉ PERFORMED ONSITE OF ALL SEDIMENT CONTROLS ON A WEEKLY BASIS AND AFTER EVERY RAINFALL EVENT. ALL SELF INSPECTIONS MUST BE MAINTAINED ALONG WITH ALL APPLICABLE GOVERNING AGENCY INSPECTION REPORTS IN A LOG BOOK, TO BE KEPT ONSITE AT ALL TIMES.
- 26. MODIFICATIONS TO AN APPROVED PLAN MAY BE REQUESTED BY THE OWNER/DEVELOPER OR REQUIRED BY THE APPROVAL OR ENFORCEMENT AUTHORITY MODIFICATION OF AN APPROVED PLAN MUST BE MADE IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL CRITERIA CONTAINED IN THE STANDARD AND/OR AS DIRECTED BY THE ENFORCEMENT AUTHORITY. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED.



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PROJECT TITLE

|| MDL153 **MASON SOLAR**

9425 FAIRLEE ROAD CHESTERTOWN KENT COUNTY. MARYLAND

SHEET TITLE

EROSION SEDIMENT CONTROL PLAN

0	50	10)0 I	20
_	SCA	LE:	1" =	100'

ISSUE	BLOCK	
	06/06/24	PLANNING COMMISSION 05/02/2024
MARK	DATE	DESCRIPTION
LAVEDOT	ATE: 0 500	

PROJECT NO.: 2023293.00 DATE: 01/30/2024 SCALE: 1" = 100'

DRAWN BY: **E.H.H.** PROJ. MGR.: **E.H.H.**

C:\Temp AutoCAD\AcPublish 28764\202329300-SITE-C3D21.dwg, Jun 06, 2024 - 10:11am

B-4-3 STANDARDS AND SPECIFICATIONS

FOR

SEEDING AND MULCHING

The application of seed and mulch to establish vegetative cover.

Purpose

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

<u>Criteria</u>

A. Seeding

Specifications

- a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
- b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws
- c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
- d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

Application

- a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
- i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1,
- Permanent Seeding Table B.3, or site-specific seeding summaries. ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil

B.15

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

- i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
- ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
- c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
- i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P₂O₅ (phosphorous), 200 pounds per acre; K₂O (potassium), 200 pounds per acre.
- ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
- iii. Mix seed and fertilizer on site and seed immediately and without interruption. iv. When hydroseeding do not incorporate seed into the soil.

1. Mulch Materials (in order of preference)

- a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
- b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
- i. WCFM is to be dyed green or contain a green dye in the package that will provide an
- appropriate color to facilitate visual inspection of the uniformly spread slurry. ii. WCFM, including dye, must contain no germination or growth inhibiting factors.
- iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
- iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic.
- v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

B.16

Application

- a. Apply mulch to all seeded areas immediately after seeding.
- b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
- c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
- a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending
- upon the size of the area and erosion hazard: i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas,
- this practice should follow the contour. ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

but is limited to flatter slopes where equipment can operate safely. If used on sloping land,

- iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly
- iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000

B-4-4 STANDARDS AND SPECIFICATIONS

FOR

TEMPORARY STABILIZATION

To stabilize disturbed soils with vegetation for up to 6 months.

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

<u>Purpose</u>

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
- 2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
- 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

		ne (from Figure (from Table B.)	,	_	Fertilizer Rate	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20)	Zime Rate
1	ANNUAL RYEGRASS	40	2/15 TO 4/30 8/15 TO 11/30			
					436 lb/ac	2 tons/ac
					(10 lb/1000 sf)	(90 lb/1000 sf)

SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.

B.18

FUZZ BUZZ MIX

ERNMX - 146

APPLICATION

RATE (lb/ac)

PRICE/LB

B-4-5 STANDARDS AND SPECIFICATIONS

FOR PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Summary. The Summary is to be placed on the plan.

Exposed soils where ground cover is needed for 6 months or more.

<u>Criteria</u>

A. Seed Mixtures

- General Use a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding
- b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
- c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per
- 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

Turfgrass Mixtures

- a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance
- b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
- i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each
- ranging from 10 to 35 percent of the total mixture by weight. ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where

B.21

rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

- iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per
- 1000 square feet. One or more cultivars may be blended. iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.
- Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"
- Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

c. Ideal Times of Seeding for Turf Grass Mixtures

seasons, or on adverse sites.

- Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)
- Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15
- (Hardiness Zones: 7a, 7b)
- d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will

B.22

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1

inch every 3 to 4 days depending on soil texture) until they are firmly established. This is

especially true when seedings are made late in the planting season, in abnormally dry or hot

ANNUAL RYEGRASS 12 LBS/ACRE AS A NURSE CROP. THE ANNUAL RYE GRASS MAY BE APPLIED AS TEMPORARY STABILIZATION.

PERMANENT SEEDING TO BE APPLIED IN CONJUNCTION WITH WITH A COVER CROP OF

B.17

Permanent Seeding Summary

			PERMANI	ENT SEEDIN	NG SUMMARY	•		
	HARDINESS Z SEED MIX	ONE (FROM FIG TURE (FROM T	SURE B.3): <u>7A</u> ABLE B.3):		F	ERTILIZER RAT (10-20-20)	E	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ O ₅	K₂O	LIME TO CLE
7	CREEPING RED FESCUE KENTUCKY BLUEGRASS		3/15 TO 5/15 8/15 TO 10/15	1/4" - 1/2"				
8	TALL FESCUE	100	3/01 TO 5/15 8/15 TO 10/15	1/4" - 1/2"	45 lbs per acre (1.0 lb/1000sf)	90 lbs per acre (2.0 lb/1000sf)		2 ton/ac (90 lb/1000 sf)
9	TALL FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	60 40 20	3/01 TO 5/15 8/15 TO 10/15	1/4" - 1/2"				

Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

the subsoil immediately prior to laying the sod.

- a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to
- the job foreman and inspector. b. Sod must be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and
- torn or uneven ends will not be acceptable. c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the
- d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its

Sod Installation

- a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate
- b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to
- prevent voids which would cause air drying of the roots. c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
- d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

B.23

3. Sod Maintenance

otherwise specified.

SPECIES

Lolium perenne, 'Crave',

Dactylis glomerata,

Solidago nemoralis, PA

Ecotype

Tetraploid

Potomac

- a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
- b. After the first week, sod watering is required as necessary to maintain adequate moisture c. Do not mow until the sod is firmly rooted. No more than $\frac{1}{3}$ of the grass leaf must be removed

by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

9425 FAIRLEE ROAD CHESTERTOWN KENT COUNTY, MARYLAND

LIME RATE

|--|

PROJECT TITLE

|| MDL153

MASON SOLAR

EROSION SEDIMENT CONTROL PLAN

ARCHITECTURE ENGINEERING Delaware

309 South Governors Avenue

Dover, DE 19904

302.734.7950

The Tower at STAR Campus

Newark, DE 19713

302.369.3700

Maryland

312 West Main Street, Suite 300

Salisbury, MD 21801

410.546.9100

North Carolina

3333 Jaeckle Drive, Suite 120

Wilmington, NC 28403

910.341.7600

www.beckermorgan.com

100 Discovery Boulevard, Suite 102

() 5	50 10	00	2
	SCA	ALE:	1" =	100'

		_		
ISSUE BLOCK				
	06/06/24	PLANNING COMMISSION 05/02/2024		
MARK	DATE	DESCRIPTION		

PROJECT NO.: 2023293.00 DATE: 01/30/2024 SCALE:

C:\Temp AutoCAD\AcPublish_28764\202329300-SITE-C3D21.dwg, Jun 06, 2024 - 10:11am

DRAWN BY: E.H.H. PROJ. MGR.: E.H.H SHEET

1" = 100

45 lbs per acre 90 lbs per acre 90 lbs per acre 2 ton/ac Poa pratensis, 'Ginger' 18.9% (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf) 40 7.08 45 lbs per acre 90 lbs per acre 90 lbs per acre 2 ton/ac Bromus biebersteinii, 12.0% (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf) 7.08 40 45 lbs per acre 90 lbs per acre 2 ton/ac Trifolium hybridum 40 7.08 5.7% (1.0 lb/1000sf) | (2.0 lb/1000sf) | (2.0 lb/1000sf) | (90 lb/1000 sf) 45 lbs per acre 90 lbs per acre 90 lbs per acre 2 ton/ac Festuca elatior x Lolium 5.0% (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf) 40 7.08 perenne, Duo 45 lbs per acre 90 lbs per acre 90 lbs per acre 2 ton/ac Trifolium pratense, Medium 4.8% (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf) Variety Not Stated 45 lbs per acre | 90 lbs per acre | 90 lbs per acre | 2 ton/ac Lotus corniculatus, 'Leo' 7.08 (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf) 45 lbs per acre 90 lbs per acre 90 lbs per acre 2 ton/ac Chamaecrista fasciculata, 7.08 1.4% (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf) PA Ecotype 45 lbs per acre 90 lbs per acre 2 ton/ac Linum perenne 1.0% | 43 lb3 per acre | 50 lb3 per acre | (2.0 lb/1000sf) | (2.0 lb/1000sf) | (90 lb/1000 sf) 40 7.08 45 lbs per acre 90 lbs per acre 90 lbs per acre 2 ton/ac Coreopsis lanceolata 7.08 (1.0 lb/1000sf) | (2.0 lb/1000sf) | (2.0 lb/1000sf) | (90 lb/1000 sf) 45 lbs per acre 90 lbs per acre 90 lbs per acre 2 ton/ac Chrysanthemum 7.08 (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf) leucanthemum

7.08

POLLINATOR MIX (UNDER ARRAY)

PERCENT

FERTILIZER RATE (10-20-20)

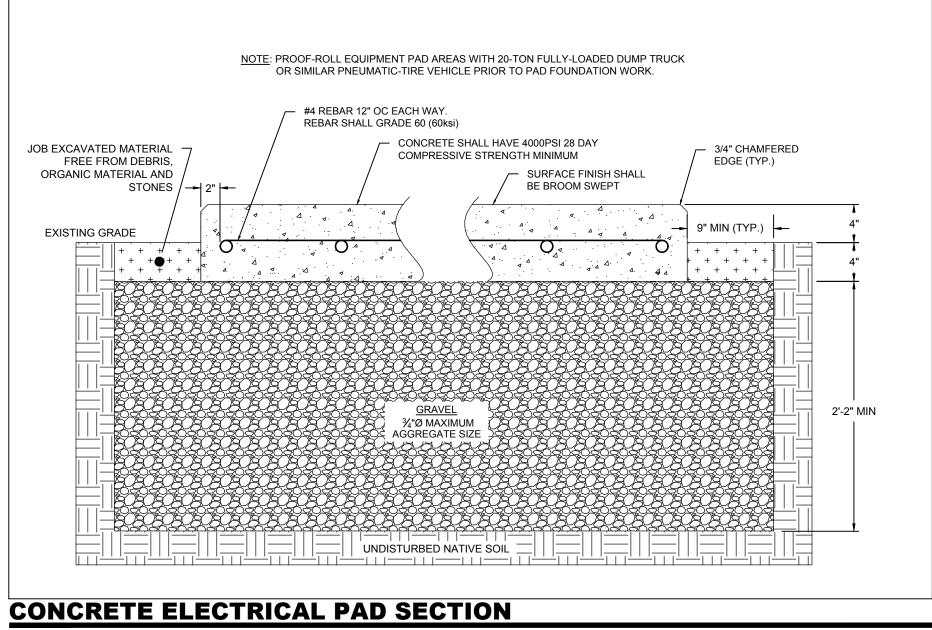
26.4% 45 lbs per acre 90 lbs per acre 90 lbs per acre (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf)

21.0% (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf)

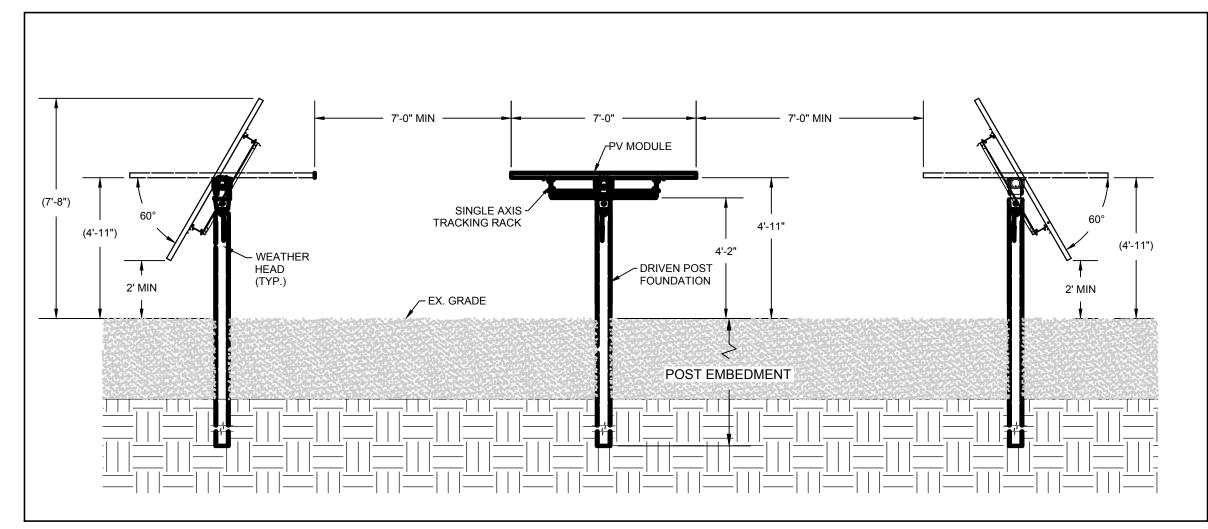
45 lbs per acre 90 lbs per acre 90 lbs per acre 2 ton/ac

45 lbs per acre | 90 lbs per acre | 90 lbs per acre | 2 ton/ac

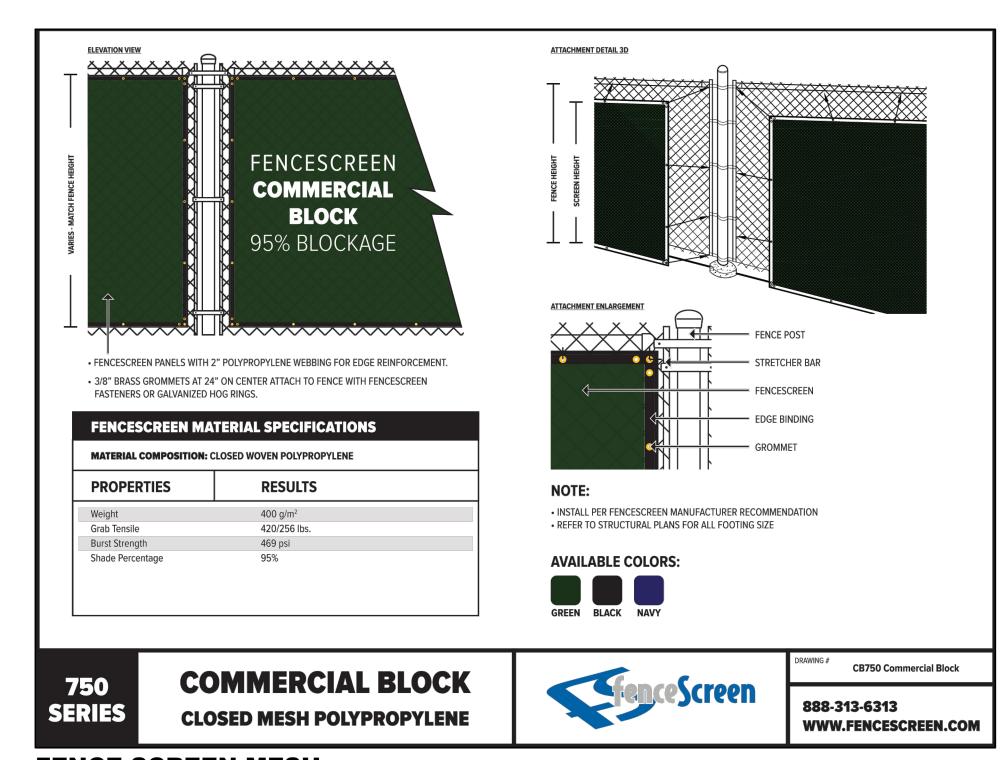
0.4% (1.0 lb/1000sf) (2.0 lb/1000sf) (2.0 lb/1000sf) (90 lb/1000 sf)



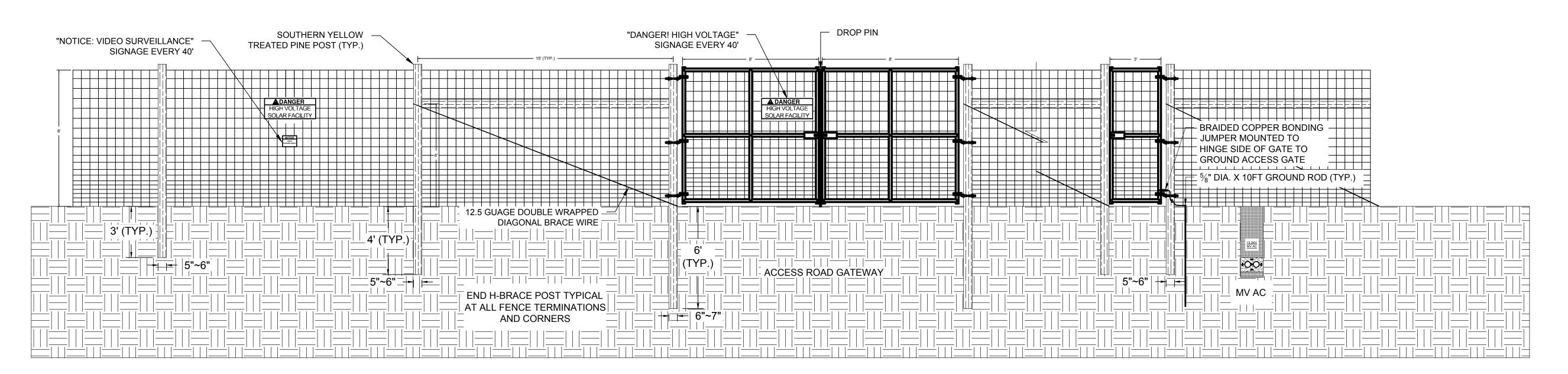
SHOWN FOR REFERENCE ONLY



TYPICAL ARRAY ELEVATION



FENCE SCREEN MESH



AG FENCE ELEVATION

G R O U ARCHITECTURE ENGINEERING Delaware 309 South Governors Avenue Dover, DE 19904

302.734.7950 The Tower at STAR Campus 100 Discovery Boulevard, Suite 102

302.369.3700 Maryland 312 West Main Street, Suite 300 Salisbury, MD 21801

Newark, DE 19713

410.546.9100 North Carolina 3333 Jaeckle Drive, Suite 120

Wilmington, NC 28403 910.341.7600

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|| MDL153 **MASON SOLAR**

9425 FAIRLEE ROAD CHESTERTOWN KENT COUNTY, MARYLAND

SHEET TITLE

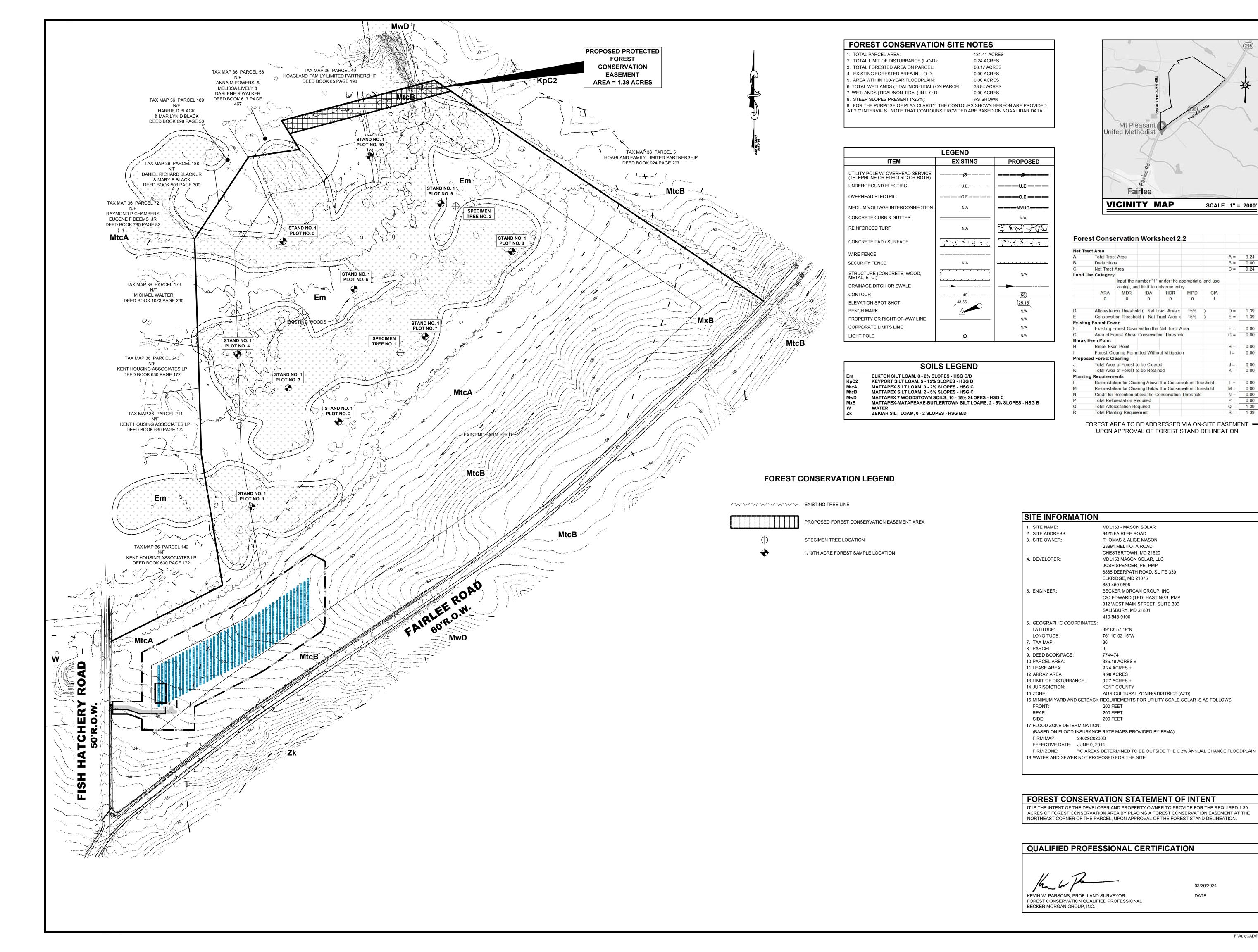
CONSTRUCTION **NOTES AND DETAILS**

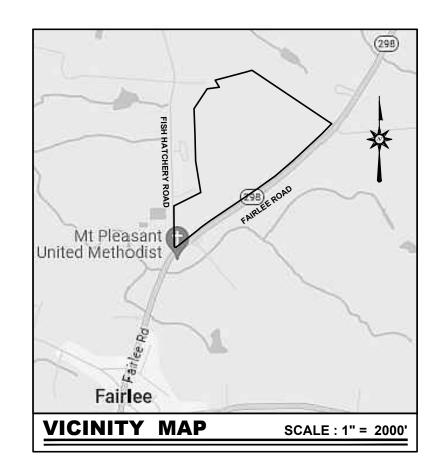
ISSUE	BLOCK	
	06/06/24	PLANNING COMMISSION

MARK DATE PROJECT NO.: 2023293.00 DATE: 01/30/2024

SCALE: DRAWN BY: **E.H.H.** PROJ. MGR.: **E.H.H.**

C-901





Fores	t Conse	rvation	Works	sheet 2.	2			
Net Tract								
Α.	Total Tract	un tenan					A =	9.24
В.	Deductions						B =	0.00
C.	Net Tract /	Area					C =	9.24
Land Use	Category							
		180		under the ap	100	land use		
		zoning, and	l limit to o	nly one entry	/			
	ARA	MDR	IDA	HDR	MPD	CIA		
	0	0	0	0	0	1		
D	A 55	T1 1 1	IV NIT		450/	,	-	4.00
D. F.		on Threshol			15%)	D =	1.39
		on Threshol	a (Net I	ract Area x	15%)	E =	1.39
Existing i F.	g Forest Cover Existing Forest Cover within the Net Tract Area F = 0.0							0.00
г. G	Existing Forest Cover within the Net Tract Area Area of Forest Above Conservation Threshold						G =	0.00
G. Break Ev		lest Above	Conservati	on meshor	1		G -	0.00
H.							H =	0.00
l. L	Forest Clearing Permitted Without Mitigation						1=	0.00
			iteu vviilio	ut willigation			1 -	0.00
J.	sed Forest Clearing Total Area of Forest to be Cleared						J =	0.00
K.	Total Area of Forest to be Retained						K =	0.00
101	Requireme		DO HOLOII					0.00
L.			ing Above	the Conserv	ation Thre	eshold	L=	0.00
Μ.							0.00	
N.	Credit for Retention above the Conservation Threshold N =						0.00	
Ρ.	Total Reforestation Required						P =	0.00
Q.	1						Q =	1.39
R.	Total Planting Requirement R = 1.39							

FOREST AREA TO BE ADDRESSED VIA ON-SITE EASEMENT UPON APPROVAL OF FOREST STAND DELINEATION

MDL153 - MASON SOLAR

THOMAS & ALICE MASON 23991 MELITOTA ROAD

CHESTERTOWN, MD 21620

MDL153 MASON SOLAR, LLC

6865 DEERPATH ROAD, SUITE 330

BECKER MORGAN GROUP, INC. C/O EDWARD (TED) HASTINGS, PMP 312 WEST MAIN STREET, SUITE 300

JOSH SPENCER, PE, PMP

ELKRIDGE, MD 21075 850-450-9895

SALISBURY, MD 21801 410-546-9100

39°13' 57.18"N

76° 10' 02.15"W

335.16 ACRES ±

9.24 ACRES ±

4.98 ACRES

200 FEET

200 FEET

24029C0260D

9.27 ACRES ±

KENT COUNTY

AGRICULTURAL ZONING DISTRICT (AZD)

774/474

9425 FAIRLEE ROAD

MASON SOLAR 9425 FAIRLEE ROAD **CHESTERTOWN** KENT COUNTY, MARYLAND SHEET TITLE SIMPLIFIED FOREST STAND **DELINEATION & FOREST CONSERVATION** PLAN

|| MDL153

	SCA	LE:	1" = 200'	I
ICCLIE	DI OCK			ı
ISSUE	BLOCK			
	·			
	·			
				·
MARK	DATE		DESCRIPTION	

G R O U

ARCHITECTURE

ENGINEERING

Delaware

309 South Governors Avenue

Dover, DE 19904 302.734.7950

The Tower at STAR Campus

Newark, DE 19713

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MARK DATE PROJECT NO.: DATE: **SCALE:** DRAWN BY: E.H.H. PROJ. MGR.: E.H.H.

03/26/2024

DATE

FSD-1

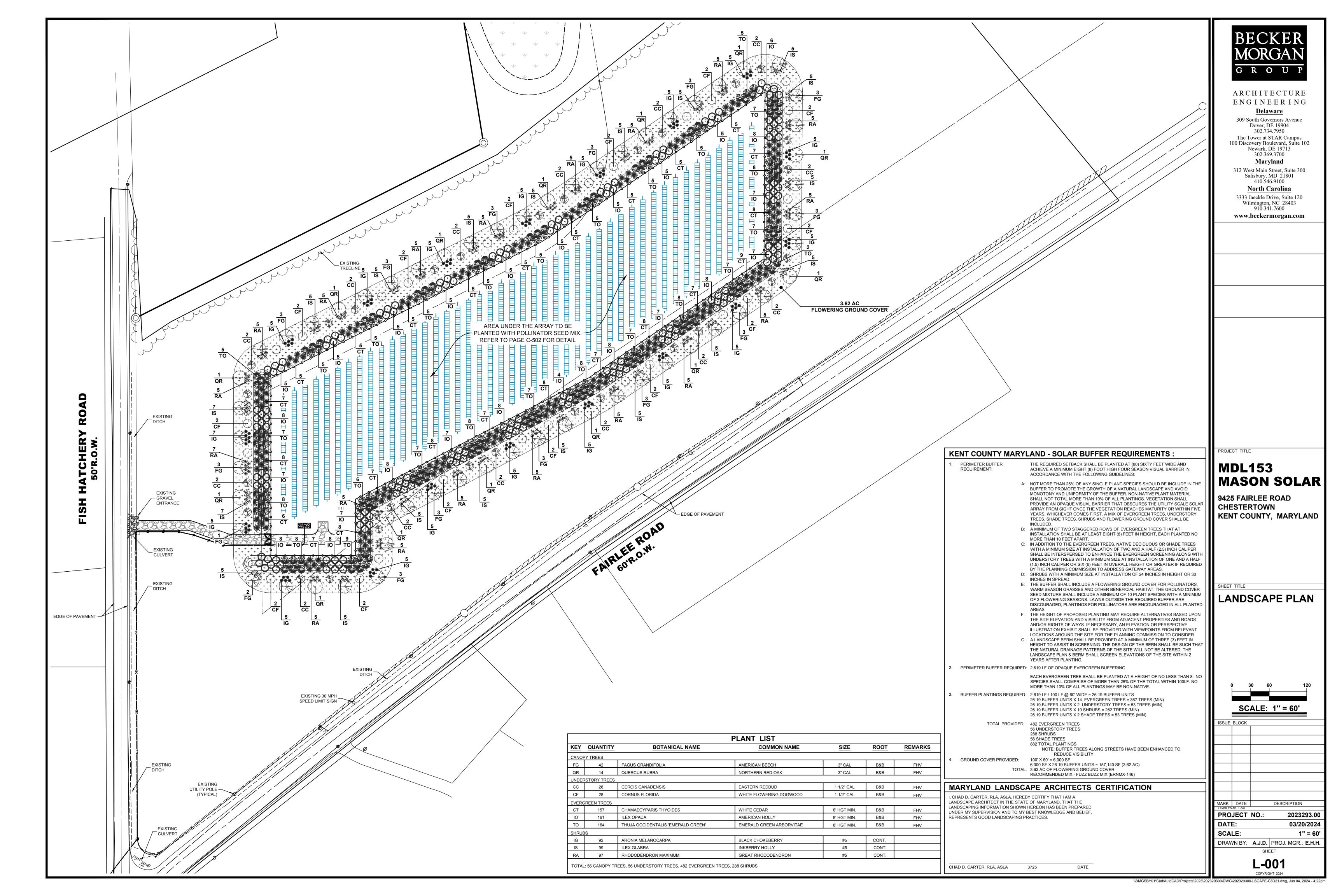
SHEET

2023293.00

01/30/2024

1" = 200'

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GENERAL LANDSCAPE NOTES:

QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN "AMERICAN STANDARDS FOR

EVERGREEN TREES SHALL HAVE A FULL, WELL-BRANCHED, CONICAL FORM TYPICAL OF THE SPECIES. ALL DECIDUOUS SHADE TREES SHALL BRANCH A MINIMUM OF 7'-0" ABOVE GROUND LEVEL. TREES SHALL BE

PLANT MATERIALS DELIVERED TO THE SITE IN UNCOVERED TRUCKS WILL BE REJECTED.

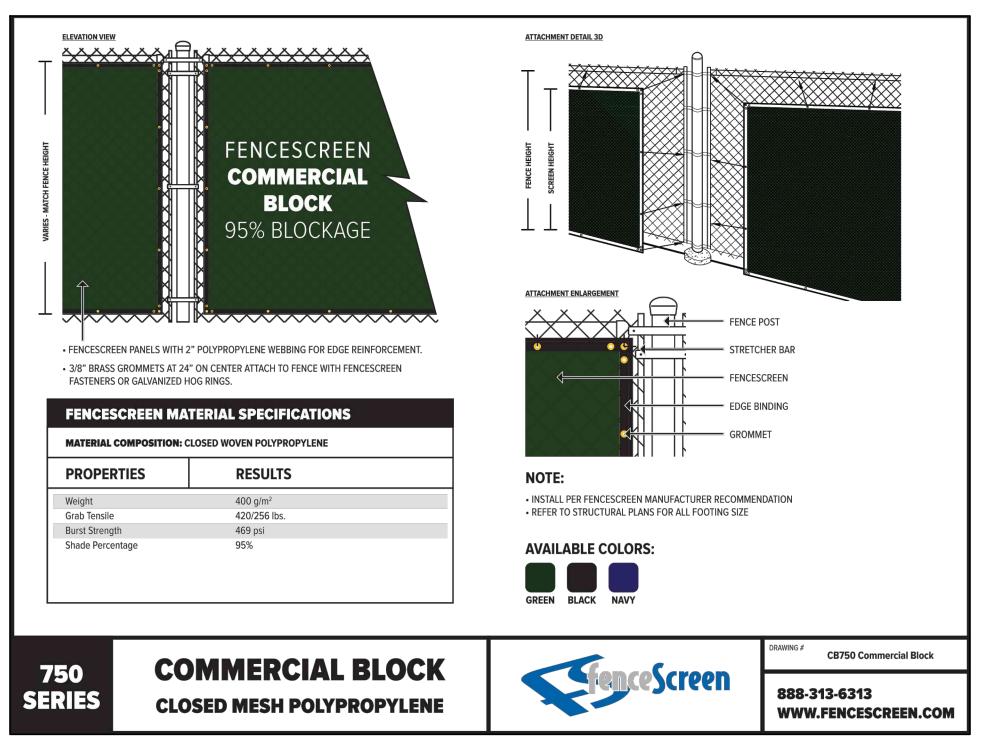
PLANTED AND STAKED IN ACCORDANCE WITH THE DETAIL SHOWN.

UNACCEPTABLE PLANT MATERIALS: MATERIALS WHICH HAVE DAMAGED OR CROOKED LEADERS, DEFORMED GROWTH HABIT, ABRASIONS OF THE BARK, SUN SCALD, WINDBURN, DISFIGURING NOT COMPLETELY CALLUSED WILL BE REJECTED. IN ADDITION, TREES HAVING THEIR CENTRAL LEADERS HEADED BACK WILL ALSO BE REJECTED. PLANTS WITH LOOSE OR CRACKED ROOT BALL OR CONTAINERS WILL BE REJECTED.

ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACKFILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER, STONES IN EXCESS OF ONE (1) INCH DIAMETER, ETC. SHALL BE USED FOR PLANTING.

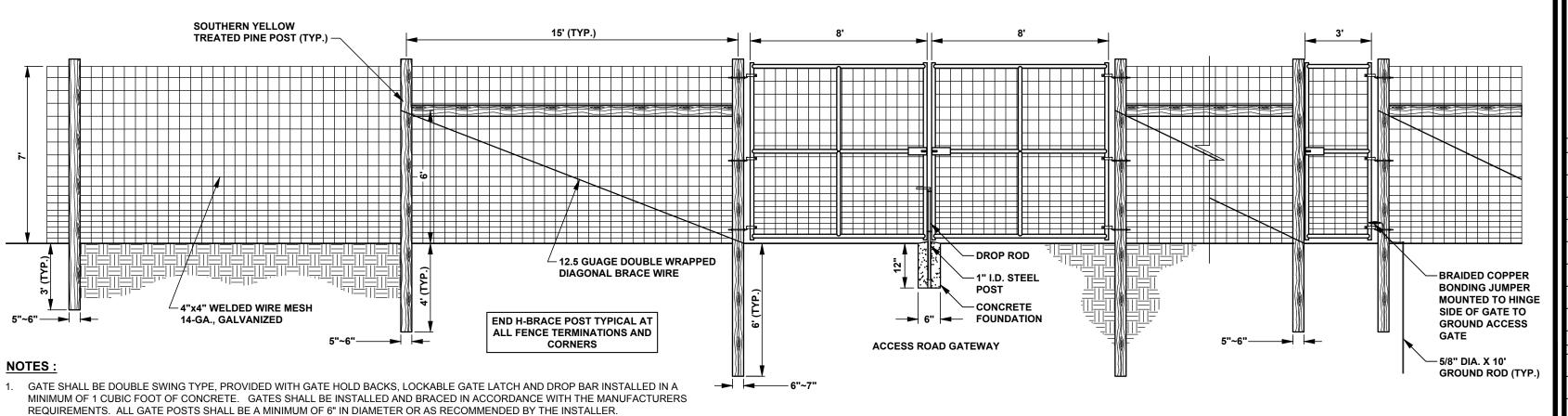
MULCH FOR PLANTING BEDS SHALL BE SHREDDED HARDWOOD BARK MULCH UNLESS OTHERWISE SPECIFIED ON THE PLANS AND SHALL HAVE NO LEAVES, YOUNG GREEN GROWTH, BRANCHES, TWIGS, GREATER IN DIAMETER OF 1/2", WEEDS, SHAVINGS OR FOREIGN MATERIAL SUCH AS STONES, ETC. SHALL BE MIXED WITH THE MULCH. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS WITH A LIGHTLY COMPACTED DEPTH OF THREE (3) INCHES. ALL CONTAINER PLANTS ARE TO HAVE ROOTS CUT ON FOUR SIDES AND/ OR SPREAD OUT IN NEW SOIL MIXTURE.

- ALL AREAS NOT STABILIZED IN PAVING OR PLANT MATERIALS SHOULD BE SEEDED AND MULCHED. (SEE EROSION & SEDIMENT CONTROL PLAN AND NOTES.)
- LANDSCAPE BEDS NOT DEFINED BY CURBS, SIDEWALKS, WALLS OR OTHER STRUCTURES SHALL BE ENCLOSED BY ALUMINUM EDGING UNLESS OTHERWISE INDICATED.
- AREAS DISTURBED BY LANDSCAPE OPERATIONS SHALL BE GRADED TO MATCH EXISTING TOPSOIL AND SEED OR
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND MAY MAKE MINOR ADJUSTMENTS IN SPACING AND/OR LOCATION OF PLANT MATERIALS. CONTRACTOR TO VERIFY "AS BUILT" LOCATION OF ALL
- NO PLANT, EXCEPT GROUNDCOVERS, SHALL BE WITHIN THREE (3) FEET FROM SIDEWALKS.
- NO TREE SHALL BE PLANTED CLOSER THAN TEN (10) FEET FROM ANY STRUCTURE OR BUILDING.
- NO TREE SHALL BE PLANTED WITHIN TEN (10) FEET OF UNDERGROUND UTILITIES OR FIRE HYDRANTS.
- . ONLY TREES THAT REACH A HEIGHT AND SIZE AT MATURITY OF SMALL TO MEDIUM SHALL BE PLANTED UNDER POWER LINES.
- THE CONTRACTOR SHALL WATER ALL PLANTS THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING, AND THEN WEEKLY OR MORE OFTEN, IF NECESSARY, DURING THE FIRST GROWING SEASON, UNLESS THE OWNER AGREES TO MAINTAIN AND WATER THEM.
- . TREES TO REMAIN ON-SITE SHALL BE PROTECTED WITH SNOW FENCE DURING CONSTRUCTION (SEE DETAIL). SNOW FENCING TO BE MAINTAINED DURING CONSTRUCTION BY CONTRACTOR.
- THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
- NO SUBSTITUTIONS SHALL BE MADE WITHOUT APPROVAL OF THE OWNER AND/ OR THE LANDSCAPE ARCHITECT.
- 15. ALL NEW TREES SHALL BE GUARANTEED TO SURVIVE FOR ONE FULL YEAR AFTER INSTALLATION (FULL COST). ALL STAKES AND GUYS SHALL BE REMOVED FROM TREES AND SITE AS EARLY AS THREE (3) MONTHS, BUT NO LONGER THAN ONE (1) YEAR AFTER PLANTING.



DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN. - CANVAS WEBBING OR PLASTIC HORTICULTURAL SET ROOT BALL 2" ABOVE TAPE. DO NOT STRETCH. GRADE. REMOVE EXCESS SOIL ON TOP OF THE BALL, JUST EXPOSING THE ROOT FLARE. MULCH - PLACE 3" -- 2"x2" WOODEN LAYER OF SPECIFIED STAKES. DRIVE MULCH. DO NOT PLACE SECURELY INTO IN CONTACT WITH TREE GROUND. 3 PER TRUNK. KEEP MULCH WEEDED AND REPLACE AS NEEDED. - FINISHED GRADE REMOVE TOP 1/3 OF BURLAP. SOIL MIXTURE - CONSISTING OF CUT & REMOVE ALL STRAPPING, 1/4 HUMUS AND 3/4 TOPSOIL ROPES, AND WIRE CAGES. UNDISTURBED SOIL -**DECIDUOUS TREE PLANTING DETAIL**

FENCE SCREEN MESH



SHRUB TRUNK. KEEP MULCH WEEDED AND / FINISHED REPLACE AS NEEDED. GRADE SOIL MIXTURE REMOVE TOP 1/3 OF BURLAP. CONSISTING OF 1/4 CUT & REMOVE ALL STRAPPING, HUMUS AND 3/4 ROPES, AND WIRE CAGES. FOR CONTAINER PLANTS, CUT ROOTS TOPSOIL ON FOUR (4) SIDES AND/ OR UNDISTURBED SOIL SPREAD OUT IN NEW SOIL MIXTURE.

SHRUB PLANTING DETAIL

NOTE: PRIOR TO MULCHING. APPLY

MULCH - PLACE 3" -

IN CONTACT WITH

LAYER OF SPECIFIED

MULCH. DO NOT PLACE

APPROVED PRE-EMERGENT WEED

CONTROL ON ALL SHRUB BEDS.

EVERGREEN TREE PLANTING DETAIL BMG NO.: L-03 NO SCALE

ROPES, AND WIRE CAGES.

REMOVE TOP 1/3 OF BURLAP. -

CUT & REMOVE ALL STRAPPING.

SET ROOT BALL 2" ABOVE -

GRADE. REMOVE EXCESS

SOIL ON TOP OF THE

BALL, JUST EXPOSING

MULCH - PLACE 3" —

LAYER OF SPECIFIED

MULCH. DO NOT PLACE

IN CONTACT WITH TREE

WEEDED AND REPLACE

TRUNK. KEEP MULCH

AS NEEDED.

THE ROOT FLARE.

SET ROOT BALL 2" ABOVE

GRADE. REMOVE EXCESS

SOIL ON TOP OF THE BALL, JUST EXPOSING

HE ROOT FLARE.

BMG NO.: L-02 NO SCALE

1/4 HUMUS AND 3/4 TOPSOIL

- CANVAS WEBBING OR

PLASTIC HORTICULTURAL

TAPE. DO NOT STRETCH.

2"x2" WOODEN

TREE.

STAKES. DRIVE

SECURELY INTO

GROUND. 3 PER

FINISHED

GRADE

7' HIGH AGRICULTURAL FENCE DETAIL

2. THE FENCING SHALL BE WELDED FIELD WIRE, 7 FEET HIGH. FABRIC TO BE 4"x4" SQUARE OPENING, 14 GAUGE (MIN.) GALVANIZED STEEL.

3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.

BMG NO.: L-0

G R O U

ARCHITECTURE ENGINEERING

Delaware

309 South Governors Avenue Dover, DE 19904 302.734.7950 The Tower at STAR Campus 100 Discovery Boulevard, Suite 102

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> Salisbury, MD 21801 410.546.9100 North Carolina 3333 Jaeckle Drive, Suite 120

Wilmington, NC 28403 910.341.7600 www.beckermorgan.com

PROJECT TITLE

|| MDL153 **MASON SOLAR**

9425 FAIRLEE ROAD **CHESTERTOWN** KENT COUNTY, MARYLAND

SHEET TITLE

LANDSCAPE PLAN

SCALE: 1" = 60"

SSUE BLOCK

DESCRIPTION MARK | DATE | PROJECT NO.: 2023293.00

DATE: 03/20/2024 SCALE: 1" = 60 DRAWN BY: A.J.D. PROJ. MGR.: E.H.H

\DWG\202329300-LSCAPE-C3D21.dwg, Jun 04, 2024 - 4:22pm



Ernst Conservation Seeds

8884 Mercer Pike Meadville, PA 16335 (800) 873-3321 Fax (814) 336-5191 www.ernstseed.com

Date: June 04, 2024

Fuzz & Buzz Mix - Standard - ERNMX-146

	Botanical Name	Common Name	Price/Lb
26.80 %	Lolium perenne, 'Tetra Sweet', Tetraploid	Perennial Ryegrass, 'Tetra Sweet', Tetraploid	3.60
21.00 %	Dactylis glomerata, Potomac	Orchardgrass, Potomac	3.60
18.90 %	Poa pratensis, 'Ginger'	Kentucky Bluegrass, 'Ginger' (pasture type)	4.20
12.40 %	Bromus biebersteinii, 'Fleet'	Meadow Brome, 'Fleet'	6.24
5.70 %	Trifolium hybridum	Alsike Clover	4.50
5.00 %	Festuca elatior x Lolium perenne, Duo	Festulolium, 'Duo'	3.60
4.80 %	Trifolium pratense, Medium, Variety Not Stated	Red Clover, Medium, Variety Not Stated	6.00
2.00 %	Lotus corniculatus, 'Leo'	Bird's Foot Trefoil, 'Leo'	10.80
1.00 %	Linum perenne	Perennial Blue Flax	48.00
0.90 %	Coreopsis lanceolata	Lanceleaf Coreopsis	28.80
0.60 %	Cichorium intybus	Blue Chicory	19.20
0.50 %	Chrysanthemum leucanthemum	Oxeye Daisy	40.80
0.40 %	Solidago nemoralis, PA Ecotype	Gray Goldenrod, PA Ecotype	264.00

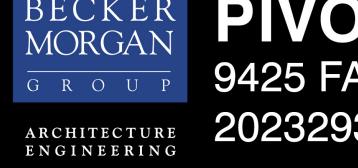
100.00 % Mix Price/Lb Bulk: \$6.34

Seeding Rate: Expect to apply about 40 lbs per acre with a cover crop of annual ryegrass 12 lbs/acre

Forage & Pasture Sites; Forage & Pasture Sites - Herbaceous Perennial; Solar Sites

The Fuzz & Buzz Mix-Standard was developed to address the unique nutritional needs of sheep, while providing a low-growing, easily maintained and sustainable vegetation solution for solar installations. The plant species were chosen with guidance from the American Solar Grazing Association (ASGA). The wildflowers in this mix support pollinators. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.





BECKER MORGAN
GROUP PIVOT - MDL153 - CONCEPTUAL VIEW FROM FISH HATCHERY ROAD
9425 FAIRLEE ROAD, CHESTERTOWN, MD 6.5.24 2023293.00

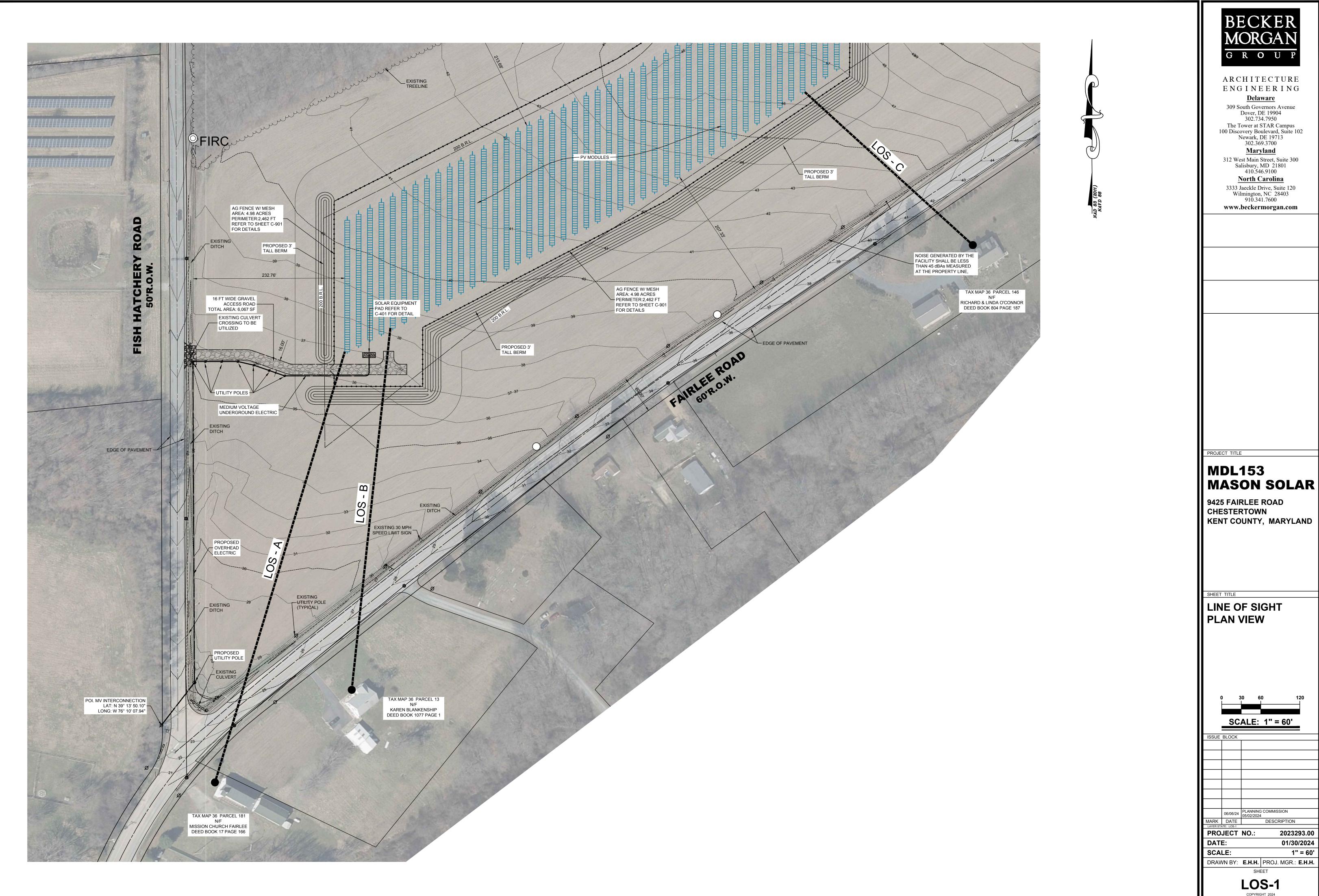




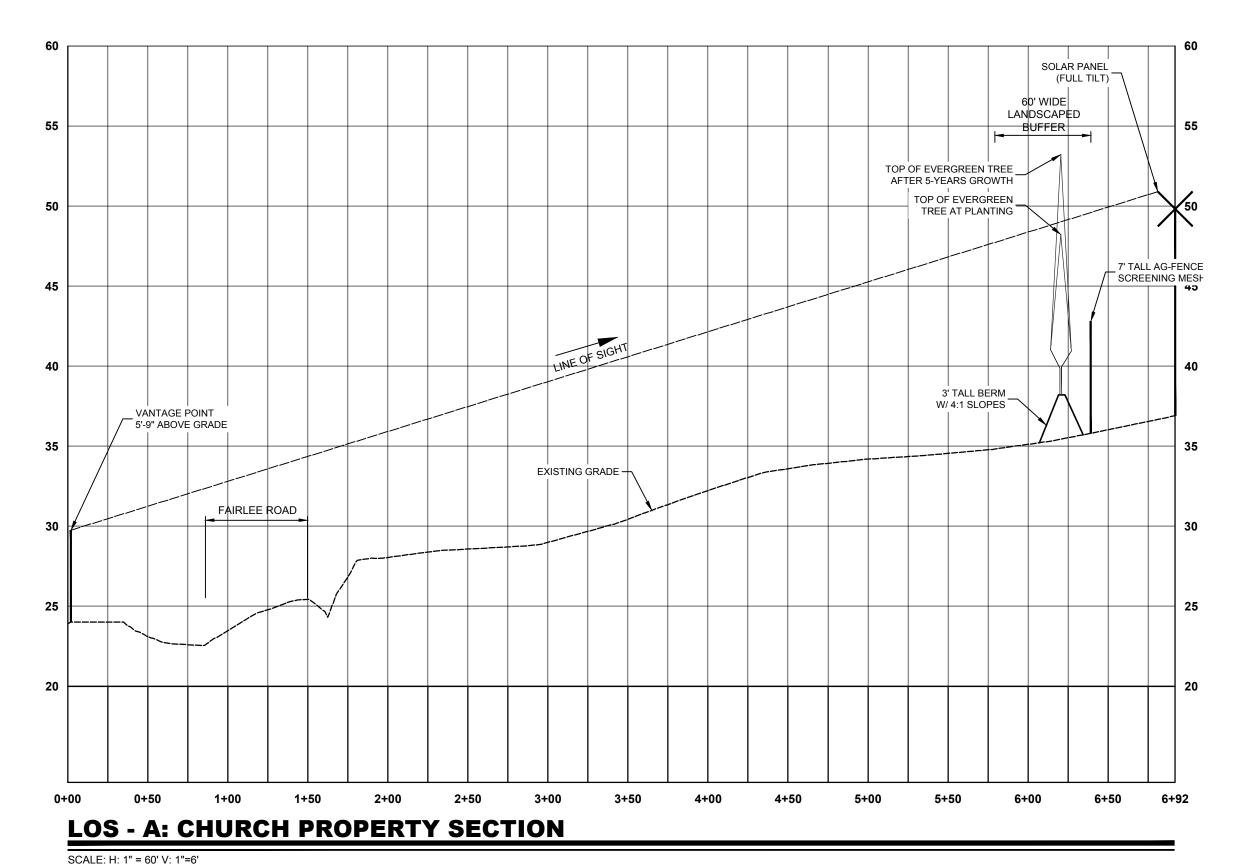
BECKER MORGAN
GROUP PIVOT - MDL153 - CONCEPTUAL VIEW FROM FISH HATCHERY ROAD
9425 FAIRLEE ROAD, CHESTERTOWN, MD 6.5.24 2023293.00



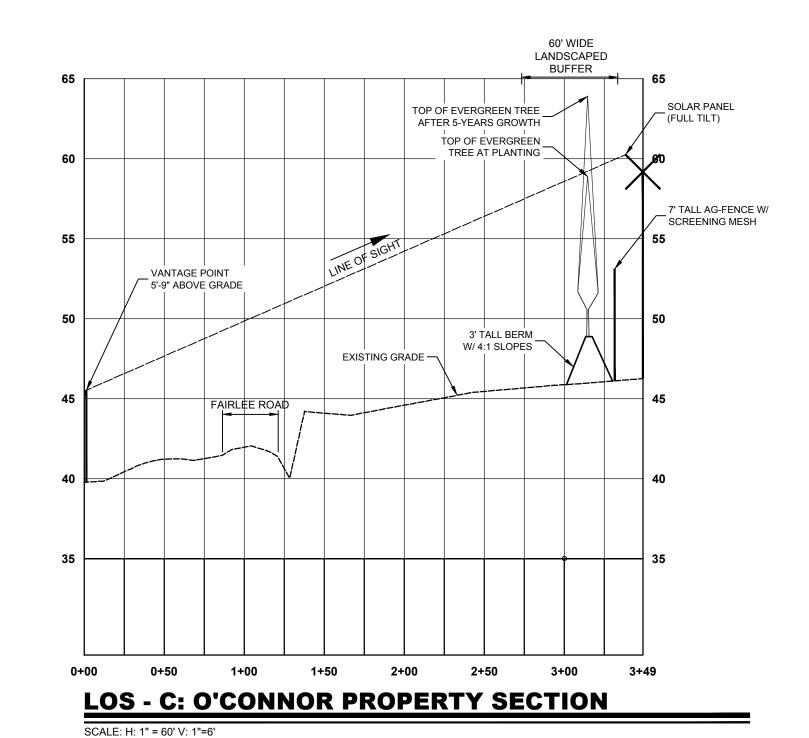




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60' WIDE LANDSCAPED BUFFER SOLAR PANEL _ TOP OF EVERGREEN TREE (FULL TILT) AFTER 5-YEARS GROWTH TOP OF EVERGREEN _ TREE AT PLANTING _ 7' TALL AG-FENCE W/ SCREENING MESH VANTAGE POINT 5'-9" ABOVE GRADE W/ 4:1 SLOPES EXISTING GRADE -FAIRLEE ROAD **LOS - B: BLANKENSHIP PROPERTY SECTION**



G R O U P ARCHITECTURE ENGINEERING **Delaware** 309 South Governors Avenue Dover, DE 19904 302.734.7950 The Tower at STAR Campus 100 Discovery Boulevard, Suite 102 Newark, DE 19713 302.369.3700 **Maryland** 312 West Main Street, Suite 300 Salisbury, MD 21801 410.546.9100 North Carolina 3333 Jaeckle Drive, Suite 120 Wilmington, NC 28403 910.341.7600 www.beckermorgan.com PROJECT TITLE

|| MDL153 MASON SOLAR

9425 FAIRLEE ROAD CHESTERTOWN KENT COUNTY, MARYLAND

SHEET TITLE LINE OF SIGN

SECTIONS

SCALE: 1" = 60'

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		<u> </u>
ISSUE	BLOCK	
		PLANNING COMMISSION 05/02/2024

MARK DATE PROJECT NO.: 2023293.00 DATE: 01/30/2024 SCALE: 1" = 60'

DRAWN BY: **E.H.H.** PROJ. MGR.: **E.H.H.**

LOS-2