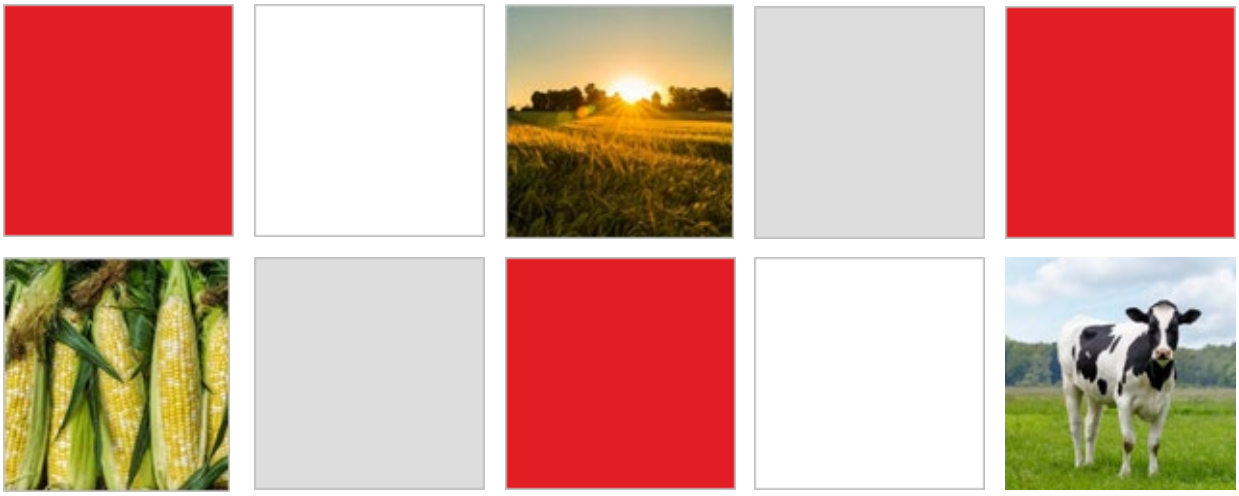
Appendix D
Agricultural Impact Mitigation Plan



LEMON HILL SOLAR, LLC

LEMON HILL SOLAR PROJECT, OLMSTED COUNTY, MINNESOTA

AGRICULTURAL IMPACT MITIGATION PLAN

Docket No: IP7156/GS-25-126

LEMON HILL SOLAR
A RANGER POWER PROJECT

Prepared By Merjent, Inc.
June 2025

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LIST OF ABBREVIATIONS AND TERMS

Acronym	Definition
AC	alternating current
AIMP	Agricultural Impact Mitigation Plan
Applicant	Lemon Hill Solar, LLC
BMP	best management practices
BWSR	Minnesota Board of Water and Soil Resources
Commission	Minnesota Public Utilities Commission
Contractor	construction contractor
DC	direct current
DOC	Minnesota Department of Commerce
gen-tie	generation interconnect
GIS	graphic information system
kV	kilovolt
Land Capability Class	LCC
Lemon Hill Solar, LLC	Lemon Hill Solar
MDA	Minnesota Department of Agriculture
Monitor	environmental monitor
MNDNR	Minnesota Department of Natural Resources
MW	megawatt
MWac	megawatts alternating current
NESC	National Electrical Safety Code
NHD	National Hydrography Data
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
O&M	operations and maintenance
Plan	Agricultural Impact Mitigation Plan
Project	Lemon Hill Solar Project
PUC	Minnesota Public Utilities Commission
PV	photovoltaic
SOBS	sites of biodiversity significance
SSURGO	Soil Survey Graphic Database

Acronym	Definition
SWPPP	stormwater pollution prevention plan
USDA	U.S. Department of Agriculture
VMP	Vegetation Management Plan

1.0 PURPOSE AND APPLICABILITY OF PLAN

The objective of this Agricultural Impact Mitigation Plan (Plan or AIMP) and the associated Vegetation Management Plan (VMP) is to identify measures that Lemon Hill Solar, LLC (Lemon Hill Solar or Applicant) and its construction contractor (Contractor) will take to avoid, minimize, mitigate, and/or repair potential negative agricultural impacts that may result from the construction, operation, and eventual decommissioning of the Lemon Hill Solar Project (Project). The Project will generate up to 180 megawatts of alternating current (MWac) photovoltaic (PV) solar energy. The Project is planned to be sited on approximately 1,945 acres of discontinuous land, primarily used for agricultural purposes, located in Olmsted County, Minnesota. The Preliminary Development Area, which refers to the areas hosting solar equipment and supporting infrastructure within the Site, will be approximately 966 acres. This Plan was prepared in support of the application for a Site Permit from the Minnesota Public Utilities Commission (Commission).

Land that is proposed for Project development will be leased by Lemon Hill Solar for a term of 40 years. As a result, agricultural use of the lands occupied by the Project will be suspended for the duration of Project operations. This Plan outlines measures to ensure a return to pre-Project agricultural productivity following the closure and decommissioning of the Project, including descriptions of best management practices (BMPs) that will be used during construction to minimize long-term impacts to soil. It is important to note that while Lemon Hill Solar and the Contractor fully intend to adhere to the specifics of this Plan, certain practices may vary as the Contractor identifies methods that work more efficiently and provide the highest degree of safety while constructing the facility. Lemon Hill Solar will consult with the Minnesota Department of Agriculture (MDA) to discuss any significant deviations from practices and/or methods as outlined in this Plan prior to any such alternative practices and/or methods being implemented.

The AIMP and VMP outline procedures to establish desired perennial vegetation within and directly adjacent to the Project perimeter fence, which will be installed around the PV solar arrays. Native and non-invasive plant species will be selected based on benefits to the soil, plant height at maturity, site use, site conditions, and recommendations from state agencies. The seed mixes will include native and regionally established species and will be selected with recommendations from plant specialists in coordination with the MDA, Minnesota Department of Natural Resources (MNDNR), and Minnesota Board of Water and Soil Resources (BWSR), as applicable, as described in the VMP.

Lemon Hill Solar will use an adaptive management approach for vegetation management, including managing invasive and weedy populations, as further detailed in the VMP. Minnesota Native Landscapes Corp. (MNL) is preparing the VMP with input from the MDA, MNDNR, BWSR, and the Department of Commerce (DOC). Merjent will work with Lemon Hill Solar to develop plans in the VMP for maintenance of the plantings at the Project site throughout the life of the Project. More information on maintenance of the native plantings is outlined in the VMP.

2.0 PROJECT OVERVIEW

2.1 PROJECT COMPONENTS

The Project will include the following major components, systems, and associated facilities:

- PV solar modules;
- Inverters;
- Step-up transformers (connecting solar panel inverters to collector lines/Project Substation);
- Electrical wiring (connecting PV solar modules to solar panel inverters);
- Single-axis trackers;
- Collector lines (connecting solar panel inverters to Project Substation);
- Security fencing and gates;
- Access roads;
- Stormwater treatment areas (associated with the Project);
- Operations and maintenance (O&M) Building;
- Supervisory control and data acquisition (SCADA) system;
- Project substation;
- Power transformer(s);
- Overhead 161 kilovolt (kV) Project gen-tie Line (Project substation to Dairyland's Substation);
- Switchgear;
- Metering equipment; and
- Ancillary equipment or buildings as necessary.

Lemon Hill Solar is proposing to construct, install, operate and maintain a 180-megawatt alternating current solar energy generating facility. The Project will consist of an east-west tracking solar panel system. The Project will be a large solar energy system which directly converts and then transfers solar energy into electrical energy intended for offsite consumption. The power generated by the Project will be transmitted by a 34.5 kV collection system to a substation that will be developed as part of the Project. Lemon Hill Solar will build a new substation and 161 kV gen-tie line, which will not exceed 1,500 feet in length, to a new utility substation that will be developed, owned and operated by Dairyland Power Cooperative (see Figure 2). The gen-tie line will be supported by several wood or direct embedded steel posts that are anticipated to consist of a standard horizontal braced post. A pad-mounted step-up transformer within the Project substation will increase the voltage to match the voltage at the new 161 kV Dairyland substation. The O&M building will be located within the Project boundary, near the proposed substation, in an upland area. The O&M building is anticipated to occupy 0.6 acre, and the exact location will be determined at a future date; the soils associated with the proposed O&M building footprint will be assessed at that time. This point of interconnection will provide sufficient outlet to accommodate all of the solar energy generation from the Project.

3.0 CONSTRUCTION

Project construction will begin with workforce mobilization and the initial site preparation work, including grading, vegetation removal, and any necessary tree removal. The preliminary grading plan is limited to the Preliminary Development Area, and includes the proposed O&M building site, substation site, and access roads.

Typical construction equipment such as scrapers, bulldozers, dump trucks, watering trucks, motor graders, vibratory compactors, and backhoes will be used during construction.

Construction activities will generally include the following:

- Site clearing and vegetation removal
- Earthwork
- Access road construction
- Solar array construction
- Installation of the collector line system and inverters
- Project substation construction
- Construction of permanent stormwater ponds
- Installation of project fencing

4.0 LIMITATIONS AND SUITABILITY OF SITE SOIL

In general, soil types can vary considerably in the physical and chemical characteristics that strongly influence suitability and limitations for construction, reclamation, and restoration. Overall major soil properties include:

- Soil texture;
- Drainage and wetness;
- Presence of stones, rocks, and shallow bedrock;
- Fertility and topsoil characteristics; and
- Slope.

Interpretative limitations and hazards for construction and reclamation are based to a large degree on the dominant soil properties, and include:

- Prime farmland status;
- Hydric soil status;
- Susceptibility to wind and water erosion;
- Susceptibility to compaction;
- Fertility and plant nutrition; and
- Drought susceptibility and revegetation potential.

4.1 LAND USE CONSIDERATIONS

Based on a historical review of the Site completed as part of the Phase I Environmental Site Assessment, nearly all of the Site and surrounding land has been in agricultural use since at least 1940. The Site is within the Dry Creek, Upper North Fork Whitewater River, and Silver Creek Hydrologic Unit Code 12 Watersheds (University of Minnesota Duluth, 2022). Most of the land in Olmsted County is used for farm operations (U.S. Department of Agricultural [USDA], 2024).

The Soil Survey Geographic Database (SSURGO) is the digitized county soil survey and provides a geographic information system (GIS) database relating mapped soil units to soil characteristics and interpretations. Based on SSURGO data, the majority of Olmsted County is made up of prime farmland (53%), not prime farmland (20%), farmland of statewide importance (18.5%), prime farmland if drained (8%), and prime farmland if protected from flooding or not frequently flooded during the growing season (0.5%). Predominant crops in Olmsted County include corn and soybeans. Upon decommissioning of the Project and expiration of leases and easements related to the Project, the land will be restored such that participating landowners could return the land back to agriculture uses.

4.2 IMPORTANT SOIL CHARACTERISTICS

Soil map unit polygons in the SSURGO database were clipped to the Site and internal infrastructure boundaries, including the major pieces of infrastructure:

- Fenced area hosting solar panels, racks, and arrays;
- Inverter locations;
- Collector lines;
- Access roads;
- Stormwater Basins;
- Laydown areas; and

- Project Substation and O&M building.

The acreage of major Project features sharing physical properties, classifications, and limitation interpretations important for construction, use, revegetation, and reclamation were determined by spatial query of GIS data. The analysis is limited to the approximate 966-acre Preliminary Development Area that may be affected by construction (see Figure 3). Soils within the 1,945-acre Site (see Figure 1) that are not anticipated to be affected by construction or operations are not included in the analysis but are indicated in Tables 4.3-1 through 4.5-1 below for completeness.

A soil map of the Site and a table of selected site soil characteristics including physical properties, classifications, and construction-related limitations are provided in Appendix A.

4.3 SELECTED PHYSICAL CHARACTERISTICS: TEXTURE, SLOPE, DRAINAGE AND WETNESS, TOPSOIL DEPTH, BEDROCK AND PRESENCE OF STONES AND ROCKS

The Site is approximately 1,945 acres in size. Table 4.3-1 shows physical characteristics of site soils broken down by acreage within the 966-acre Preliminary Development Area and the 1,945-acre Site (the 979 acreage difference accounts for soils within the Project Boundary, but outside the fence of the Preliminary Development Area) in Table 4.3-1.

Soil texture affects the behavior of soils including drainage, water retention, drought tolerance, compaction, rutting, and revegetation. Soil texture is described by the relative proportion of sand, soil, and clay in a soil, and soils are then grouped based on those proportions. Most of the soils within the Preliminary Development Area are in the Fine-Silty (699 acres, 70 percent) and Fine-Loamy (231 acres, 23 percent) textural families, indicating fine-textured soils dominated by a diverse mix of soil particles in the loam, silt, sand, and clay fractions as shown in Appendix A. Fine- to medium-textured soils typically have high water-holding capacity to support plant growth, if not in excessively steep or wet conditions.

Slope impacts constructability, soil erosion, revegetation, compaction, and rutting. A majority of the soils (768 acres, 77 percent) within the Preliminary Development Area are nearly level soils with representative slopes falling within the 0 to 5 percent slope range. Soils that fall within the 8 to 15 percent slope range (118 acres, 12 percent), the 5 to 8 percent slope range (93 acres, 9 percent), the 15 to 30 precent slope range (19 acres, 2 percent), and slope range greater than 30 percent (4 acres, less than 1 percent) comprise the remainder of the Preliminary Development Area.

The soil drainage class in Table 4.3-1 indicates the wetness in the soil profile along with the speed at which internal water moves through the soil. Soil drainage affects constructability, erosion by wind and water, and revegetation success. Most of the soils within the Preliminary Development Area are in the Well Drained (WD) drainage class (711 acres, 71 percent), with smaller areas mapped into Moderately Well Drained (MW) (138 acres, 14 percent), Somewhat Poorly Drained (SP) (106 acres, 11 percent), Poorly Drained (P) (39 acres, 4 percent), Excessively Drained (E) (3 acres, less than 1 percent), and Very Poorly Drained (VP) (1 acre, less than 1 percent). No soils within the Preliminary Development Area are in the Somewhat Excessively Well Drained (SE) drainage class. Soils in MW and WD typically are not droughty or wet and are typically well suited to intensive agriculture. P drainage classes are highly productive when drained and are frequently converted to agriculture by the installation of subsurface drain tile.

Topsoil is the most nutrient dense layer of soil, and its thickness affects plant nutrition, yield, and surface soil structure. To maintain soil productivity, larger temporary storage areas will be used for soils with thick topsoil to house the larger volume of topsoil removed from permanent infrastructure footprints. A majority of the soils within the Preliminary Development Area are characterized by the presence of moderately thick topsoil depth between 6 and 12 inches (552 acres, 55 percent), followed by soils with a topsoil depth greater than 12 inches (431 acres, 43 percent), and soils with a relatively shallow topsoil depth of 0 to 6 inches (17 acres, 2 percent).

Constructability and revegetation are affected by very shallow bedrock and rocks or stones in the soil profile. A majority of the soils within the Preliminary Development Area do not have a shallow depth to bedrock (937 acres, 94 percent), with the remaining soils having a shallow depth (65 acres, 6 percent). The Fenced Area comprises approximately 61 of the 65 acres of soils with shallow bedrock.

Table 4.3-1
Area of Soils with Selected Physical Characteristics, in Acres

Project Feature[1]	Total Acres[2]	Textural Family[3]									Slope Range[4]					Drainage Class[5]							Topsoil Thickness[6] (Inches)				Shallow Bedrock[7]
		Fine	Fine-Loamy	Fine-Silty	Coarse Silty	Coarse Loamy	Loamy	Loamy Skeletal	Fine-Silty over Sandy or Sandy-skeletal	Sandy	Slope 0-5%	Slope 5-8%	Slope 8-15%	Slope 15-30%	Slope > 30%	E	SE	W	MW	SP	P	VP	0-6	6-12	12-18	>18	
	Acres																										
Preliminary Development Area (Potential Disturbance)																											
Access Roads	20.76	0.00	4.44	14.30	1.01	0.64	0.00	0.37	0.00	0.00	14.44	1.45	4.14	0.55	0.17	0.00	0.00	15.45	2.65	2.05	0.61	0.00	0.18	12.78	5.30	2.49	0.67
Collector Lines	38.73	0.10	4.04	31.11	2.40	0.44	0.14	0.50	0.00	0.00	28.95	3.22	5.61	0.78	0.18	0.11	0.00	30.37	4.06	2.47	1.72	0.00	0.29	24.45	10.60	3.40	1.81
Fenced Area	929.06	0.00	221.67	644.06	24.24	25.07	0.87	12.47	0.68	0.00	714.73	87.18	107.28	16.45	3.41	2.02	0.00	661.74	129.78	100.78	34.06	0.68	16.78	508.03	272.16	132.09	61.21
Inverters	0.55	0.00	0.13	0.39	0.01	0.01	0.00	0.01	0.00	0.00	0.38	0.06	0.09	0.02	0.00	0.00	0.00	0.43	0.07	0.05	0.00	0.00	0.01	0.28	0.19	0.07	0.05
Stormwater Basin	6.36	0.00	1.05	3.38	0.79	0.08	0.10	0.83	0.12	0.00	3.65	0.69	1.01	0.98	0.02	0.50	0.00	3.09	1.18	0.51	0.96	0.12	0.00	3.62	1.16	1.57	1.06
Proposed Substation	5.57	0.00	0.00	5.57	0.00	0.00	0.00	0.00	0.00	0.00	5.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.38	0.00	0.00	3.12	2.44	0.00	0.00
Subtotal	1001.03	0.10	231.33	698.82	28.45	26.25	1.11	14.18	0.79	0.00	767.72	92.61	118.13	18.78	3.78	2.63	0.00	711.08	137.75	105.86	38.72	0.79	17.26	552.28	291.86	139.62	64.79
Land Under Control but Not Currently Planned for Development																											
Undisturbed	999.91	10.75	153.93	628.94	60.75	52.74	8.17	67.70	16.25	0.00	681.54	111.21	111.07	80.77	14.63	13.14	0.00	648.94	94.79	77.82	145.70	18.83	10.85	487.43	301.57	199.38	76.12
Grand Total																											
Total	2000.94	10.85	385.25	1327.76	89.20	78.99	9.28	81.87	17.04	0.00	1449.26	203.82	229.20	99.56	18.41	15.78	0.00	1360.02	232.55	183.69	184.41	19.62	28.11	1039.71	593.43	339.00	140.91

1. Due to the nature of the Project, certain Project features overlap and the associated acreages are accounted for twice (i.e., portions of collector lines will be located within the fenced area, acreage for each feature is accounted for, even in areas of overlap). This overlap accounts for a total sum of acres exceeding the Site of 1,945 acres.
2. Total acres of Project features that are anticipated to be disturbed by supporting construction equipment traffic, excavation, and grading. Data obtained by merging Project facility polygons with the SSURGO spatial data in ArcGIS. Summations were performed in ArcGIS Pro or Microsoft Excel.
3. Data available directly from the Natural Resources Conservation Service (NRCS) SSURGO spatial or attribute database via geospatial query of the spatial or attribute data.
4. Representative slope values are taken directly from the SSURGO database. The SSURGO database provides representative slope values for all component soil series. Slope classes represent the slope class grouping in percent that contains the representative slope value for a major component soil series. For example, a soil mapped in the 2-6% slope class has an average slope of 4% which is within the 0-5% slope range.
5. Drainage class as taken directly from the SSURGO database. E-excessively drained, SE - somewhat excessively drained W- well drained, MW- moderately well drained, SP- somewhat poorly drained, P- poorly drained, VP- very poorly drained
6.Topsoil thickness is the aggregate thickness of the A horizon described in the SSURGO database.
7. Bedrock depths based on SSURGO database. Soils with bedrock within 5 feet of surface grade were considered to have shallow bedrock.

4.4 SELECTED CLASSIFICATION DATA: PRIME FARMLAND, LAND CAPABILITY CLASSIFICATION, HYDRIC SOILS

Table 4.4-1 outlines selected classification data for soils; the data is broken down by acreage within the Preliminary Development Area and the remaining undisturbed area.

NRCS designated prime farmland has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses (USDA, no date). Most of the soils in the Preliminary Development Area are classified into prime farmland, farmland of statewide importance, and prime farmland if drained (705, 192, 56 acres, respectively; cumulatively 95 percent) (see Figure 5 and Table 4.4-1 for AIMP calculation methods). The remaining soils in the Preliminary Development Area are classified as not prime farmland (48 acres, 5 percent). The Preliminary Development Area does not contain prime farmland if protected from flooding or not frequently flooded during the growing season.

Subject to certain exceptions, Minnesota Rules 7850.4400, subp. 4 prohibits large energy power generating plants from being sited on more than 0.5-acre of prime farmland per MW of net generating capacity unless there is no feasible and prudent alternative. The Minnesota Department of Commerce (DOC) issued guidance in May 2020 that provides information on how to assess projects which exceed the 0.5-acre prime farmland per MW threshold under the rule. This includes describing why alternatives were not chosen, how avoidance of certain impacts influenced site selection, and showing a good faith consideration was given to nearby non-prime farmland areas. As part of Lemon Hill Solar's Site Permit Application, a detailed assessment of prime farmland impacts was included, which indicated no other feasible or prudent alternative to the proposed Project that satisfies the prime farmland exclusion rule.

Based on available data using the NRCS SSURGO, Olmsted County has a high percentage of soils classified as a type of prime farmland; the county is made up of prime farmland (53%), not prime farmland (20%), farmland of statewide importance (18.5%), prime farmland if drained (8%), and prime farmland if protected from flooding or not frequently flooded during the growing season (0.5%) (NRCS, 2024). The Preliminary Development Area is 70% prime farmland, 19% farmland of statewide importance, 6% prime farmland if drained, and 5% not prime farmland (see footnote 1 in Table 4.4-1; some project features overlap in AIMP calculation method). Lemon Hill Solar did seek and analyze other areas in Minnesota where the Project could be sited to be compliant with the prime farmland exclusion rule (see Site Permit Application, Section 2.3.4 and Appendix B). These alternatives were determined to not be feasible or prudent for siting the Project and were not carried forward as Project alternatives (see Appendix B of the Site Permit Application). Lemon Hill Solar selected the proposed Site due to minimal environmental impacts, proximity to the electrical grid and existing transmission infrastructure, willing landowners, and available capacity of the grid to which the Project will interconnect. Further, as outlined in the Project VMP, Lemon Hill Solar will use an adaptive management approach for vegetation management to provide the best care and protection for the prime farmland. Lemon Hill Solar is committed to ensuring the vitality of the soils during construction, operation, and eventual decommissioning of the Project.

Land Capability Class (LCC) is a system of grouping soils primarily based on their capability to produce commonly cultivated crops and pasture plants without deteriorating over a long period of time. Soils within the Preliminary Development Area are classified as LCC 1, 2e, 2w, 3e, 3w, 4e, 5w, 6e, 6s, 6w, 7e, 7s, and 8w. A numerical value of 1 or 2 indicates soils with no or few limitations that restrict the choice of plants or require very careful management. Soils in LCC Class 1 are typically considered prime farmland, and soils in LCC Classes 2 or 3 are typically considered prime farmland with conditions.

Hydric soils are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile. Hydric soils are a characteristic used to identify wetlands and can be used to indicate areas with potentially jurisdictional wetlands. Most of the soils in the Preliminary Development Area are non-hydric (962 acres, 96 percent), with the rest of the soils (39 acres, 4 percent) being hydric soils. Historical aerial photography indicates these areas are successfully cropped yearly indicating subsurface drainage. According to the MNDNR Public Waters Inventory maps, there is one public ditch within the Site (MNDNR, 2003). This public ditch was identified based on a review of aerial photography and confirmed during field survey. A total of 33 wetlands, 29 streams, and one open waterbody were identified in the Survey Area during desktop and field survey efforts. After the field delineations were completed, two additional parcels were added to the Site. Based on NWI data, wetlands are present in the northwestern parcel. Based on NHD data, one waterbody is present within the new area in the southeast portion of the Site. These parcels will be field delineated in spring 2025 and an updated wetland and waterbody delineation report will be provided to the Commission. Lemon Hill Solar will further evaluate ditch, water features, and potential drain tile locations and take this into account as final Project design and engineering are completed.

Table 4.4-1
Area of Soils within Selected Classification Data, in Acres

Project Feature[1]	Total Acres[2]	All Soils Prime Farmland	Farmland of Statewide Importance	Prime Farmland		Not Prime	Land Capability Class															Hydric Soil[3]
				If Drained	If Protected from Flooding or not Frequently Flooded During the Growing Season		1	2e	2s	2w	3e	3s	3w	4e	4s	5w	6e	6s	6w	7e	7s	8w	
	Acres																					
Preliminary Development Area (Potential Disturbance)																						
Access Roads	20.76	13.45	4.45	0.92	0.00	1.94	2.52	9.82	0.00	2.04	4.45	0.00	0.00	1.43	0.00	0.00	0.18	0.00	0.07	0.26	0.00	0.00	0.61
Collector Lines	38.73	26.79	8.19	1.91	0.00	1.84	4.03	20.67	0.00	3.99	8.19	0.00	0.00	0.77	0.00	0.00	0.36	0.02	0.25	0.35	0.09	0.00	1.72
Fenced Area	929.06	657.96	177.40	51.16	0.00	42.53	131.11	494.31	0.00	83.03	177.40	0.00	0.68	23.38	0.00	0.00	4.43	0.00	5.61	7.09	2.02	0.00	34.73
Inverters	0.55	0.38	0.12	0.00	0.00	0.06	0.10	0.25	0.00	0.03	0.12	0.00	0.00	0.05	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Stormwater Basin	6.36	2.57	1.39	0.68	0.00	1.71	0.85	0.93	0.00	1.36	1.39	0.00	0.12	0.38	0.00	0.00	0.33	0.00	0.40	0.11	0.50	0.00	1.08
Proposed Substation	5.57	4.19	0.00	1.38	0.00	0.00	1.07	3.12	0.00	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29
Subtotal	1001.03	705.35	191.55	56.05	0.00	48.08	139.67	529.10	0.00	91.83	191.55	0.00	0.79	26.01	0.00	0.00	5.30	0.02	6.32	7.81	2.61	0.00	39.42
Land Under Control but Not Currently Planned for Development																						
Undisturbed	999.91	511.66	184.32	95.87	0.00	208.06	92.84	356.58	0.00	141.86	184.32	0.00	16.25	43.97	0.00	2.19	40.87	0.31	69.23	35.37	12.84	2.58	164.52
Grand Total																						
Total	2000.94	1217.01	375.87	151.92	0.00	256.14	232.52	885.69	0.00	233.69	375.87	0.00	17.04	69.98	0.00	2.19	46.18	0.33	75.56	43.19	15.45	2.58	203.94

1. Due to the nature of the Project, certain Project features overlap and the associated acreages are accounted for twice (i.e., portions of collector lines will be located within the fenced area, acreage for each feature is accounted for, even in areas of overlap). This overlap accounts for a total sum of acres exceeding the Site of 1,945 acres.
2. Total acres of Project features that are anticipated to be disturbed by supporting construction equipment traffic, excavation, and grading. Data obtained by merging facility polygons with the SSURGO spatial data in ArcGIS. Summations were performed in ArcGIS Pro and Microsoft Excel.
3. Data available directly from the NRCS SSURGO spatial or attribute databases via geospatial query of the spatial or attribute data.

4.5 CONSTRUCTION-RELATED INTERPRETATIONS: HIGHLY ERODIBLE LAND (WIND AND WATER), COMPACTION PRONE, RUTTING PRONE, AND DROUGHT SUSCEPTIBLE WITH POOR REVEGETATION POTENTIAL

Table 4.5-1 outlines selected construction-related interpretative data for site soils broken down by acreage within the Preliminary Development Area and remaining undisturbed area.

Highly erodible land is identified as being susceptible to water or wind erosion. A relatively small percentage soils in the Preliminary Development Area are low relief, fine to medium textured soils with intermediate to poor water infiltration characteristics that can result in soil erosion by water (169 acres, 17 percent). Lemon Hill Solar will develop plans, including a project specific SWPPP, and implement BMPs as noted in Section 5, to mitigate the potential loss of soil.

Wind erosion was evaluated using the wind erodibility group. Highly wind erodible soils are medium textured, relatively well drained soils with poor soil aggregation, resulting in soils with surfaces dominated by particles that can be dislodged and carried by the wind. No highly wind erodible soils are present in the Preliminary Development Area.

Soils prone to compaction and rutting are subject to changes in soil porosity and structure due to mechanical deformation caused by construction activities, such as equipment traffic, equipment loading, or similar. Compaction and rutting are related to moisture content and texture and are worse when medium- and fine-textured soils are subject to heavy equipment traffic when wet. The majority of the soils in the Preliminary Development Area are not prone to compaction (856 acres; 85 percent); however, almost all of soils within the Preliminary Development Area are prone to rutting if they are trafficked when wet. Lemon Hill Solar will develop operational guidelines in the SWPPP to mitigate heavy traffic on soils when wet, to minimize potential compaction and rutting.

Soils susceptible to drought include coarse textured soils in moderately well to excessive drainage classes. Revegetation during seed germination and early seedling growth is severely compromised during dry periods on drought susceptible soils. Less than 1 percent (0.02 acre) of soils within the Preliminary Development Area are susceptible to drought.

Table 4.5-1:
Soils in Selected Construction – Related Interpretations, in Acres

Project Feature[1]	Total Acres[2]	Highly Erodible[3]		Compact Prone[4]	Rutting Hazard[5]			Drought Susceptible[6]
		Water	Wind		Slight	Moderate	Severe	
	Acres							
	Preliminary Development Area (Potential Disturbance)							
Access Roads	20.76	5.44	0.00	2.66	0.00	0.00	20.76	0.00
Collector Lines	38.73	7.44	0.00	4.19	0.00	0.02	34.20	0.02
Fenced Area	929.06	153.60	0.00	135.51	0.00	0.12	928.93	0.00
Inverters	0.55	0.14	0.00	0.05	0.00	0.00	0.55	0.00
Stormwater Basin	6.36	2.47	0.00	1.59	0.00	0.50	5.86	0.00
Proposed Substation	5.57	0.00	0.00	1.38	0.00	0.00	5.57	0.00
Subtotal	1001.03	169.09	0.00	145.37	0.00	0.64	995.87	0.02
Land Under Control but Not Currently Planned for Development								
Undisturbed	999.91	242.01	2.58	242.35	0.00	3.41	995.82	0.31
Grand Total								
Grand Total	2000.94	411.10	2.58	387.72	0.00	4.05	1991.68	0.33

1. Due to the nature of the Project, certain Project features overlap and the associated acreages are accounted for twice (i.e., portions of collector lines will be located within the fenced area, acreage for each feature is accounted for, even in areas of overlap). This overlap accounts for a total sum of acres exceeding the Site of 1,945 acres.
2. Total acres of Project features that are anticipated to be disturbed by supporting construction equipment traffic, excavation, and grading. Data obtained by merging facility polygons with the SSURGO spatial data in ArcGIS. Summations were performed in ArcGIS Pro and Microsoft Excel.
3. Highly Erodible Water includes soils in Land Capability Class 4e through 8e or that have a representative slope value greater than or equal to 9%. Highly Erodible Water includes wind erodibility groups 1 & 2.
4. Includes soils that are somewhat poorly drained to very poorly drained in loamy sands and finer textural classes.
5. Rutting potential hazard based on the soil strength as indicated by engineering texture classification, drainage class, and slope. In general, soils on low slopes in wetter drainage classes and compromised of sediments with low strength will have potential rutting hazards.
6. Includes soils with a surface texture of sandy loam or coarser that are moderately well to excessively drained.

4.6 SUMMARY OF MAJOR SOIL LIMITATIONS AT THE LEMON HILL SOLAR PROJECT

4.6.1 Prime Farmland

Most of the soils within the Site are nearly level, generally deep, well drained, fine textured loamy or silty soils. A majority of the soils (1,217 acres, 61 percent) within the Site are prime farmland without condition (i.e., the categories “prime farmland if drained” and “prime farmland if protected from flooding” are not included in this acreage) (see Figure 5 and Table 4.4-1 for AIMP calculation methods).). A little under a quarter of the soils are farmland of statewide importance (376 acres, 19 percent). The primary limitations for the soils during Project construction, operations and maintenance, and eventual decommissioning include compaction, rutting resulting from equipment traffic on wet soils, and the need to reserve and store large volumes of topsoil.

While certain soils classified as prime farmland will be impacted by the Project, Lemon Hill Solar will implement BMPs during construction as detailed in Section 5.0, the VMP, and SWPPP. BMPs include soil segregation and decompaction, consideration for wet weather conditions, and erosion and sediment control measures. Following construction, soils will be stabilized and allowed to rest; during the life of the Project, the site will be revegetated with a permanent cover of perennial, regionally appropriate vegetation to the benefit of wildlife and the soil. Revegetation will follow seeding, and management specifications agreed to by Lemon Hill Solar and as outlined in the VMP. Upon decommissioning, the land could be returned to its pre-construction agricultural use or to another use if economic conditions indicate another use is appropriate for the site. Lemon Hill Solar anticipates the site will be restored to agricultural use upon decommissioning of the Project.

Cover crops may be used post-construction to support soil health by preventing erosion, supporting soil physical and biological properties, supplying nutrients, suppressing weeds, improving availability of soil water, and breaking pest cycles. Initial post-construction revegetation efforts, establishment activities including selection of suitable plants and seeding times, and maintenance of vegetation during operations are detailed in the VMP.

4.6.2 Topsoil Storage

Topsoil thickness across the Site ranges from 0 to greater than 18 inches (see Table 4.3-1). Storing topsoil in large, deep stockpiles is not recommended as deep piles of topsoil may not have the same biotic interaction as existing topsoil. To prevent compaction and retain original soil characteristics, Lemon Hill Solar will use larger areas of shallower topsoil stockpiles. Where feasible, topsoil will be conserved by preselecting areas to receive excess topsoil from nearby areas, grading and preparing the seed bed, as appropriate, and revegetating to maintain a rhizosphere suitable for plant growth. Topsoil storage locations will be based on final design.

4.6.3 Subsoil Storage

Subsoil storage will occur in the same process as described in Section 4.6.2 above. In addition, subsoil may be used to fill on-site low spots.

4.6.4 Compaction and Rutting

Compaction and rutting are potential limitations to constructing the Project in the Preliminary Development Area. Lemon Hill Solar will design construction access and manage construction traffic to minimize the number of trips occurring on a given soil and location and will implement

wet weather procedures as outlined in Section 5.3 below when rutting is observed. If compaction becomes an issue, decompaction of the soil by tilling or ripping may be performed if safely distanced from existing buried utilities or other infrastructure. While not anticipated to be a significant issue, if some deep compaction occurs (i.e., in high traffic areas), Lemon Hill Solar will remediate areas of deep compaction during decommissioning.

5.0 BMPS DURING CONSTRUCTION AND OPERATION

The Project will be constructed and operated on property leased by Lemon Hill Solar. The Project is located on farmland occupying flat to gently rolling older till plains in Olmsted County, Minnesota (see Figures 1-4). Expected Project phasing is listed below.

Construction activities will be limited to the leased area; therefore, no direct impacts to adjacent lands are expected. A portion of the Site is currently nearly level or has slightly rolling terrain (see Table 4.3-1); as such, wherever feasible, Lemon Hill Solar will minimize the amount of grading within the Preliminary Development Area. To the extent feasible, the PV arrays will be designed to follow the existing grade of the Project Site, minimizing the required earthmoving activities (see Figure 4).

The majority of the Project's topography will be left unchanged; however, grading activities are expected in order to raise or lower certain areas within the Project site. Other earthmoving activities include work on the access roads, trenches for the DC and AC collector line system, and foundations for the Project Substation or other equipment, as necessary (see Figure 4). The following sections describe measures the Contractor will implement to minimize the impacts to the integrity of the topsoil and topography of the Project site.

Typical Project Construction Phasing:

- Prior to construction, identification of clearing and grading limits, and sensitive areas to be avoided;
- Installation of sediment and erosion controls outlined in project plans and approvals, including any necessary site-specific modifications that have been identified;
- Completion of earthwork, access road construction, drain tile adjustment, if needed, and initial stabilization of exposed soils;
- Construction of permanent stormwater treatment basins;
- Installation of the solar array and electrical components (may be concurrent with above);
- Application of prescribed seed mixes and temporary stabilization; and
- Cleanup and permanent stabilization of the site.

5.1 ENVIRONMENTAL MONITOR

In coordination with the MDA or other applicable agencies, Lemon Hill Solar will contract with a third-party environmental monitor (Monitor) to regularly observe earthmoving activities and construction to ensure appropriate measures are taken to segregate and handle the topsoil.

The Monitor's responsibilities may include:

- Conduct regular inspections during Project construction. The Monitor will select a day of the week at random to inspect earthwork and perform the following duties:
    - Observe construction crews' activities to ensure that topsoil is being segregated and managed appropriately;
    - Monitor for potential soil compaction concerns (except within access roads); the inspection may focus on areas returning to agriculture use after construction and make specific recommendations for decompaction;

- Provide recommendations to Lemon Hill Solar's Contractor related to earthwork activities;
- Assist in determining if weather events have created "wet weather" conditions and make recommendations to the Contractor on the ability to proceed with construction;
- As needed, attend construction and safety meetings upon accessing the construction site.

The Monitor will report potential and/or actual issues regarding the implementation of BMPs to Lemon Hill Solar, its Contractor, and the MDA. The Contractor will use discretion to either implement a corrective action or stop work, depending on the issue to be resolved.

5.2 SOIL SEGREGATION AND DECOMPACTION

One of the primary means to protect and preserve the topsoil during Project construction will be to separate the topsoil from the other subsoil materials when all earthmoving activities, excavation, or trenching are taking place. There may be limited situations where excavated subsoil will be temporarily stored on adjacent, undisturbed topsoil. In these situations, subsoil will be returned to the excavation with as little disturbance of the underlying topsoil as practicable. A thin layer of straw mulch may be placed as a buffer between the subsoil and undisturbed topsoil, where practicable, to provide separation of the subsoil and underlying topsoil during the excavation backfill process.

Based on SSURGO data, most of the Preliminary Development Area has moderately thick topsoil, 6 to 12 inches in depth (552 acres, 55 percent). Actual topsoil thickness will be confirmed with geotechnical soil tests and by visual observation prior to the start of earthwork activities. Lemon Hill Solar will identify the appropriate depth of topsoil that should be removed and segregated from other subsoil materials during earthwork. This information will be provided to the Monitor, along with recommendations of specific segregation methods.

Lemon Hill Solar's preliminary recommendation is that topsoil be stripped up to 12 inches in thickness in areas of construction grading. Topsoil greater than 12 inches in depth will be treated similarly to the underlying subsoil. During the activities that require temporary excavations and backfilling (i.e., trenching for cable installation) the subgrade material will be replaced into the excavations first and compacted as necessary, followed by topsoil replaced to the approximate locations from which it was removed. Topsoil will then be graded to the approximate pre-construction contours. Lemon Hill Solar will strive to avoid compaction in other areas where it is not required by the design.

Following completion of earthwork activities that require topsoil and subsoil segregation, excess topsoil material will be re-spread on the Project site at pre-established locations to maintain the overall integrity and character of the pre-construction farmland. The location and amount of topsoil will be documented to facilitate reallocating of topsoil during Project decommissioning. This practice is described in more detail below for each of the earthmoving activities that are anticipated for this Project.

5.3 WET WEATHER CONDITIONS

When periods of wet weather occur during Project construction, construction activities may be temporarily halted if significant adverse impacts to soil could occur. Lemon Hill Solar's Contractor

will have responsibility for halting activities if weather conditions are such that heavy equipment would cause significant soil compaction or rutting of the Project site or pose a risk to worker safety.

Following initial grading at the site, activities that do not require heavy equipment could still proceed in wet weather conditions. The Contractor will be responsible for ensuring that topsoil erosion, rutting, compaction, or damage to drain tiles is avoided to the extent possible. The Contractor will ensure that proper techniques and practices are used to loosen soil appropriately, when needed. Soil loosening with chisel plows prior to disking and planting is a typical method of soil preparation in areas proposed for seeding. Agricultural equipment capable of operating within the space between panel lines, when panels are oriented vertically, will be used to loosen soil, prepare a seedbed, and plant approved seed mixes.

5.4 ADAPTIVE MANAGEMENT DURING CONSTRUCTION

As with all forms of adaptive management and as outlined in the VMP, changes may be made to the Plan during construction should unforeseeable conditions arise that render the Plan unworkable. Using this approach will allow the Project to continue despite potential barriers. Should weather or site conditions during construction require different BMPs than those that are described in this section, Lemon Hill Solar will work with the MDA and other appropriate agencies, as needed, to discuss and select potential new approaches to the specific conditions that are encountered.

Lemon Hill Solar will remain flexible and implement new procedures that will help maintain the quality of the Project land while protecting the safety of the workers.

5.5 INITIAL GRADING, ROAD CONSTRUCTION, AND ARRAY CONSTRUCTION

The first phase of Project construction will include general civil work where the Contractor will perform initial cut and fill activities. Lemon Hill Solar will identify the appropriate depth of topsoil, up to 12 inches, that should be stripped and segregated during initial grading activities. Based SSURGO data, the majority of topsoil in the Preliminary Development Area is 6 to 18 inches deep; topsoil depth will be confirmed with field tests prior to grading activities. If needed, Lemon Hill Solar will provide field data and a recommendation on specific segregation methods to the MDA for review and input.

The Contractor will first level topsoil that sits higher than other areas to ensure that site topography falls within the tolerances allowed for by the solar array design. During this civil work, topsoil will be pushed outside of the graded areas and stored in pre-designated spots for later use. Once topsoil is removed from the graded areas, the subsoil materials will be removed from on-site high spots, as required, and relocated to low spots, where there is less potential for runoff and erosion. Prior to relocating subgrade materials to the low spots, topsoil in the low areas will be stripped and set aside before the fill is added, then re-spread over the new fill. Topsoil and subsoil will remain segregated to avoid mixing and maintain the integrity of both soil types. The subsoil will be compacted in place. When compaction is complete, the topsoil will be spread over the reconditioned subsoil areas. The newly spread topsoil will be loosely compacted or tracked to give a smooth surface and employ the wind and stormwater erosion prevention BMPs.

After most of the initial earthwork activities are complete, the Contractor will construct the Project access road network. This work will start with stripping topsoil materials from the new roadbed areas to a depth of at least 12 inches. Topsoil will be windrowed (placed into rows of stockpiles adjacent to the edge of the road) and loosely compacted or tracked. The Contractor will install

stormwater and wind erosion BMPs. The Contractor will then compact the sub-grade materials. After gravel is installed and compacted to engineers' requirements, the Contractor will shape Project drainage ditches as identified on the final grading plan. Previously stripped and windrowed topsoil will be re-spread on previously designated areas throughout the Preliminary Development Area.

Following grading and road construction, the Contractor will install foundation piles for the solar PV array racking system and the inverters. Foundation piles will be driven directly into the soil with pile driving equipment. The installation vehicles will operate on the existing ground surface; impacts will be limited and similar to a vehicle driving over the soil surface. Only minor soil disturbance is expected from this activity. In the event that gravel and/or concrete pads are required as part of PV array or inverter installation, topsoil will be removed, set aside for temporary storage, and then spread into pre-designated locations for later use.

5.6 FOUNDATIONS

The Contractor will perform foundation work for the Project Substation and O&M Building. Where foundations are needed, the Contractor will strip topsoil, grade the site as needed, install the pile or similar foundations based on final specifications, compact subgrade materials, regrade soils around the area, and then install clean rock on the surface. Topsoil stripped from the Project Substation area will be temporarily stored outside of the substation area and collected into pre-designated locations for later use. These topsoil piles will be windrowed or piled and loosely compacted and/or "tracked" with stormwater and wind erosion BMPs in place. Once substation construction is sufficiently complete, the topsoil piles will be thinly distributed in designated areas adjacent to the substation and the topsoil revegetated with an appropriate seed mix.

5.7 TRENCHING

Trenching may be required for the installation of DC and AC collector lines across the Site. Where collector lines are buried, the Contractor will install cables in trenches approximately 4-feet deep using the "open trench" method. Topsoil and subsoil materials will be excavated from the trench using typical excavating equipment (i.e., backhoe or similar) and segregated, as previously described. Lemon Hill Solar anticipates that native subsoil will be relatively rock free (see Table 4.3-1) but will confirm this with field studies. If needed based on the results, the bottom of each trench may be lined with clean or foreign fill to surround the cables. After cables have been installed on top of bedding materials in the trench, 1 foot of screened, native backfill will be placed on the cables followed by unscreened native subsoil and topsoil. This material will be compacted as necessary. At minimum, the top 1 foot of each trench will be backfilled with topsoil to return the surface to its finished grade after settling.

5.8 TEMPORARY EROSION AND SEDIMENT CONTROL

By adhering to the Project-specific SWPPP required under the National Pollutant Discharge Elimination System permit administered by the Minnesota Pollution Control Agency, Lemon Hill Solar will minimize the risk of excessive soil erosion on lands disturbed by construction.

Prior to construction, Lemon Hill Solar will work with engineers and the Contractor to outline the reasonable methods for erosion control BMPs and prepare the SWPPP. These measures will primarily include:

- Implementing perimeter controls (i.e., silt fencing on the downside of all hills, near waterways, and near drain tile inlets);
- Check dams and straw waddles may be used to slow water during rain events in areas that have the potential for high volume flow;
- Erosion control blankets may be installed on any steep slopes; and,
- Topsoil and subsoil material will be piled and loosely compacted while stored. The BMPs employed to mitigate wind and stormwater erosion on soil stockpiles will also include installing silt fence on the downward side of the piles as needed and installation of straw waddles if these stockpiles are located near waterways.

The SWPPP will identify designated on-site SWPPP inspectors to be employed by the Contractor for routine inspections, as well as for inspections after storm events as outlined in the SWPPP.

5.9 DRAIN TILE IDENTIFICATION, AVOIDANCE, AND REPAIR

Lemon Hill Solar will avoid drain tiles and ditches, where feasible, through prudent design and construction practices. Where drain tiles and ditches need to be crossed by Project facilities (i.e., collector lines), Lemon Hill Solar will seek to avoid impacts to these tiles and ditches via construction methods such as prompt repair of tiles after trenching or directional boring where trenching is not practicable. Based on current conditions, the Site appears to be adequately draining and discharging off-site through the use of drain tiles and ditches. To minimize unforeseen repairs or damages to existing drain tile lines and/or drain tile systems, Lemon Hill Solar is committed to preserve soil drainage performance on neighboring, non-participating properties and restoring drain tile systems on participating properties as needed during operations, or upon decommissioning if tiles are not deemed necessary during solar operations.

5.10 PRE-CONSTRUCTION TILE MAPPING AND REPAIR

Prior to construction, Lemon Hill Solar will map existing drainage infrastructure to avoid or identify potential impacts. As part of these efforts, Lemon Hill Solar will reach out to all participating landowners to ask for their knowledge of tile locations, drain tile maps, and awareness of existing tile that was placed without written record. Lemon Hill Solar will communicate with landowners on a parcel-by-parcel basis as construction approaches. Field location services and historical satellite imagery may be used, if necessary, to identify drain tiles that have the potential to be impacted by construction activities.

Lemon Hill Solar will maintain or improve site drainage based on existing conditions. Drain tiles within the construction areas that service upstream properties will be maintained or relocated as needed to maintain drainage in the Site. In the event drain tile main damage is unavoidable, and such damage would create adverse effects to a participating or neighboring property, Lemon Hill Solar will relocate or repair the existing drain tile during construction. Construction personnel will visually identify damaged drain tile. New or modified drain tile systems installed by Lemon Hill Solar will be documented using global positioning system equipment and maintained in Project construction files and the decommissioning Plan. Tile repairs will be completed using industry accepted methods with materials of the same or better quality as that which was damaged; repairs may incorporate the use of a fabric and heavy walled portion of PVC pipe to connect non-damaged portions of the tile.

5.11 PROJECT DESIGN CONSIDERATIONS

Lemon Hill Solar will make reasonable efforts to prevent damage to drain tile mains through locating the mains and incorporating the identified locations into engineering designs. In the event damage to a drain tile main occurs and such damage would create adverse drainage effects to participating or neighboring property, Lemon Hill Solar will re-route or repair the existing drain tile main during the construction process.

5.12 CONSTRUCTION DEBRIS

Lemon Hill Solar and the Contractor will remove construction-related debris and unused material. Below-grade, unusable materials will be removed and loaded onto trucks for disposal at a designated off-site location. If feasible, the Contractor will use locally sourced dumpsters and removal services. To the extent practicable, recyclable materials will be sorted and recycled at a local facility.

Debris/trash collection points and/or dumpsters will be located in the laydown yards, as well as at strategically designated locations in proximity to where work is being performed. The Contractor will inspect and clear fence lines of loose or wind-blown debris on a daily basis to ensure that debris and trash does not leave the Site. In the unlikely event that contaminated materials are encountered during construction, specialized dumpsters and handling instructions specific to the type of contaminated materials discovered will be employed. If encountered, contaminated materials will be disposed of at an appropriate facility in accordance with applicable laws, ordinances, regulations, and standards.

6.0 DECOMMISSIONING

At the end of commercial operations, Lemon Hill Solar will be responsible for removing all of the solar arrays and other associated facilities. In accordance with the Decommissioning Plan (Appendix F of the Site Permit Application), decommissioning activities will take approximately 40 weeks to complete and will include the following:

- Removing, salvaging/recycling, and disposing of the above-ground solar panels, racking systems, inverters, transformers, and other ancillary electric equipment;
- Removing of the substation components and overhead gen-tie line;
- Removing, salvaging/recycling, and disposing of below-ground electrical cables to a depth of four feet (cables buried below four feet may be left in place);
- Removing concrete pads and foundations supporting electrical equipment and other structures;
- Removing the O&M building;
- Removing the Facility perimeter fencing after all equipment has been removed from the Facility;
- Removing gravel roadway material and restoration of the roadway conditions to pre-development conditions; and

- Grading, decompacting soils, adding/respreading topsoil, and re-seeding the Facility accordance Site Permit and Vegetation Management Plan or landowner preference.

7.0 REFERENCES

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FIGURE 1

LEMON HILL SOLAR SITE

merjent

0 0.75 1.5 Miles

1:60,000

For Environmental Review Purposes Only

Figure 1 - Project Location
Lemon Hill Solar Project

Ranger Power

Olmsted County, Minnesota

Site

Township Boundary

Section Line

Municipal Boundary

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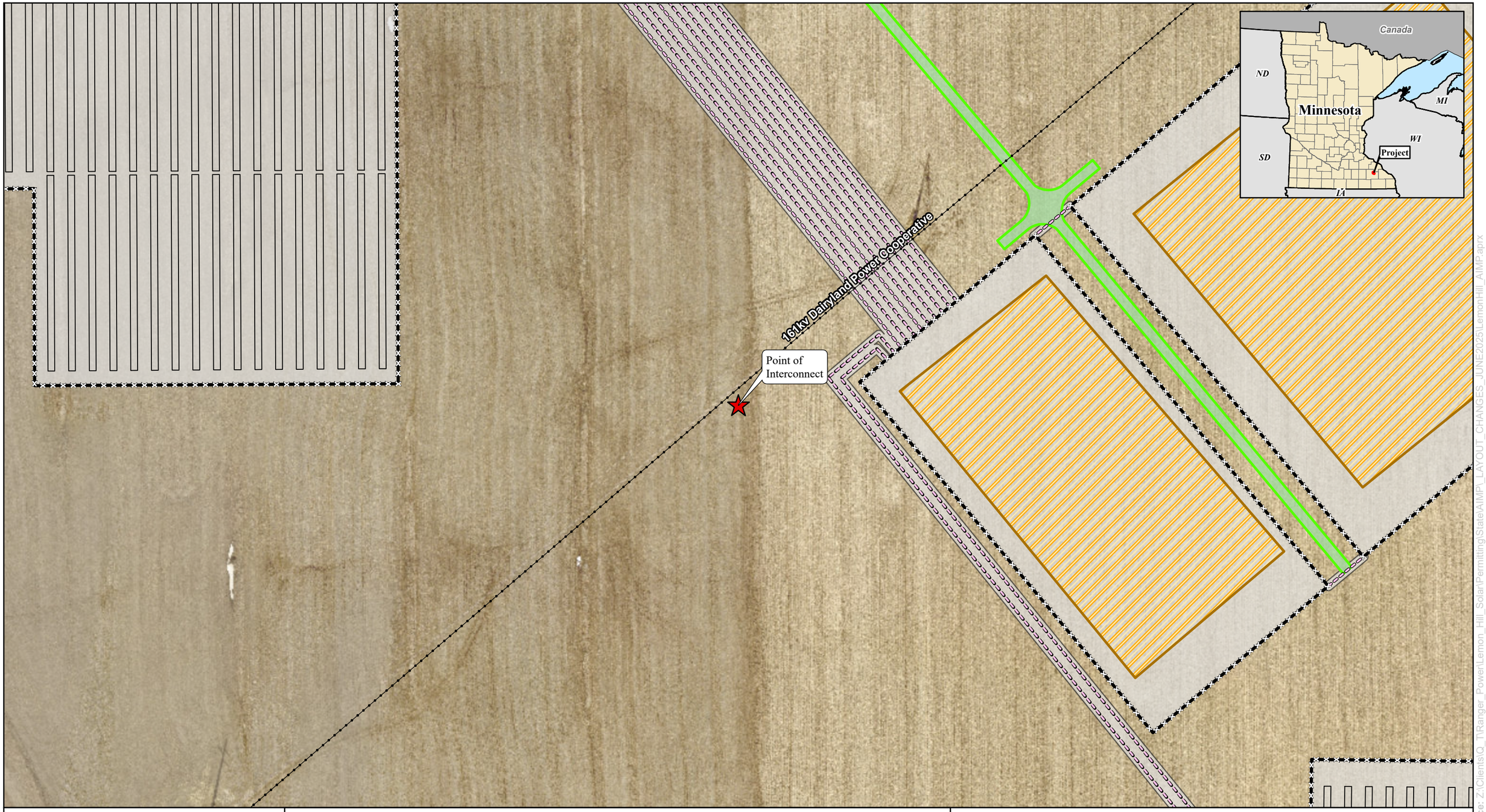
Date: (6/23/2025)

FIGURE 2

LEMON HILL SOLAR INTERCONNECT FACILITIES



LEMON HILL SOLAR
A RANGER POWER PROJECT

Emerjent

0 50 100 Feet

1:1,200

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W E
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For Environmental Review Purposes Only

Figure 2 - Project Interconnect Facilities
Lemon Hill Solar Project
Lemon Hill Solar, LLC
Olmsted County, Minnesota

- Preliminary Development Area
- Site
- Proposed Substation
- Proposed Solar Panel
- Fence Line
- Proposed Collector Line
- Proposed Access Road
- Proposed Inverter
- Point of Interconnect
- Existing 161kV Transmission Line

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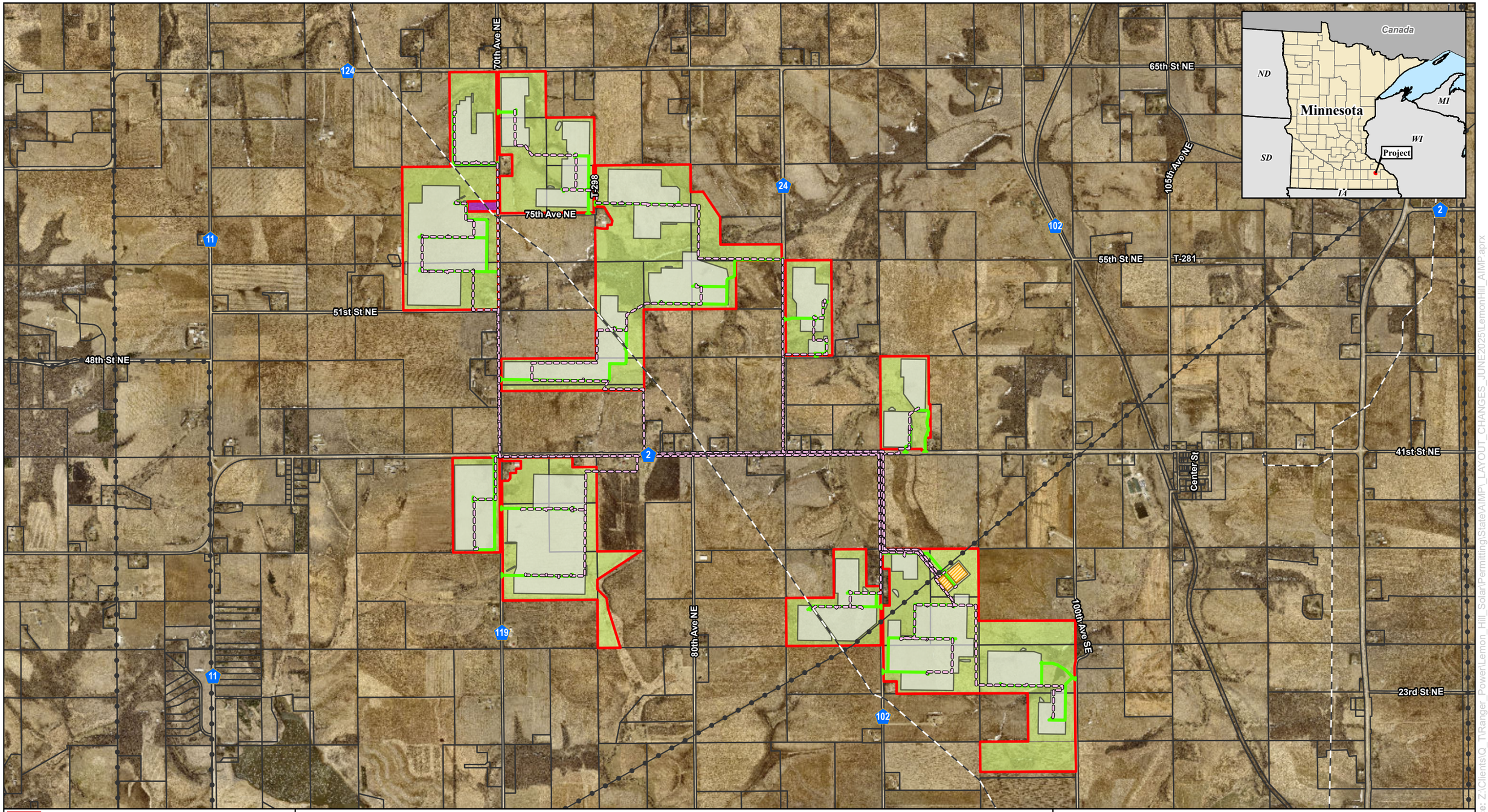
FIGURE 3

LEMON HILL SOLAR PRELIMINARY DEVELOPMENT AREA



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0 1,500 3,000 Feet

1:30,000

N W E S

For Environmental Review Purposes Only

Figure 3 - Preliminary Development Area
Lemon Hill Solar Project
Lemon Hill Solar, LLC
Olmsted County, Minnesota

- Site
- Preliminary Development Area
- Proposed Substation
- Proposed Access Road
- Proposed Collector Line
- Existing Transmission Line
- Existing Pipeline
- Participating Land Owner
- Non-Participating Land Owner

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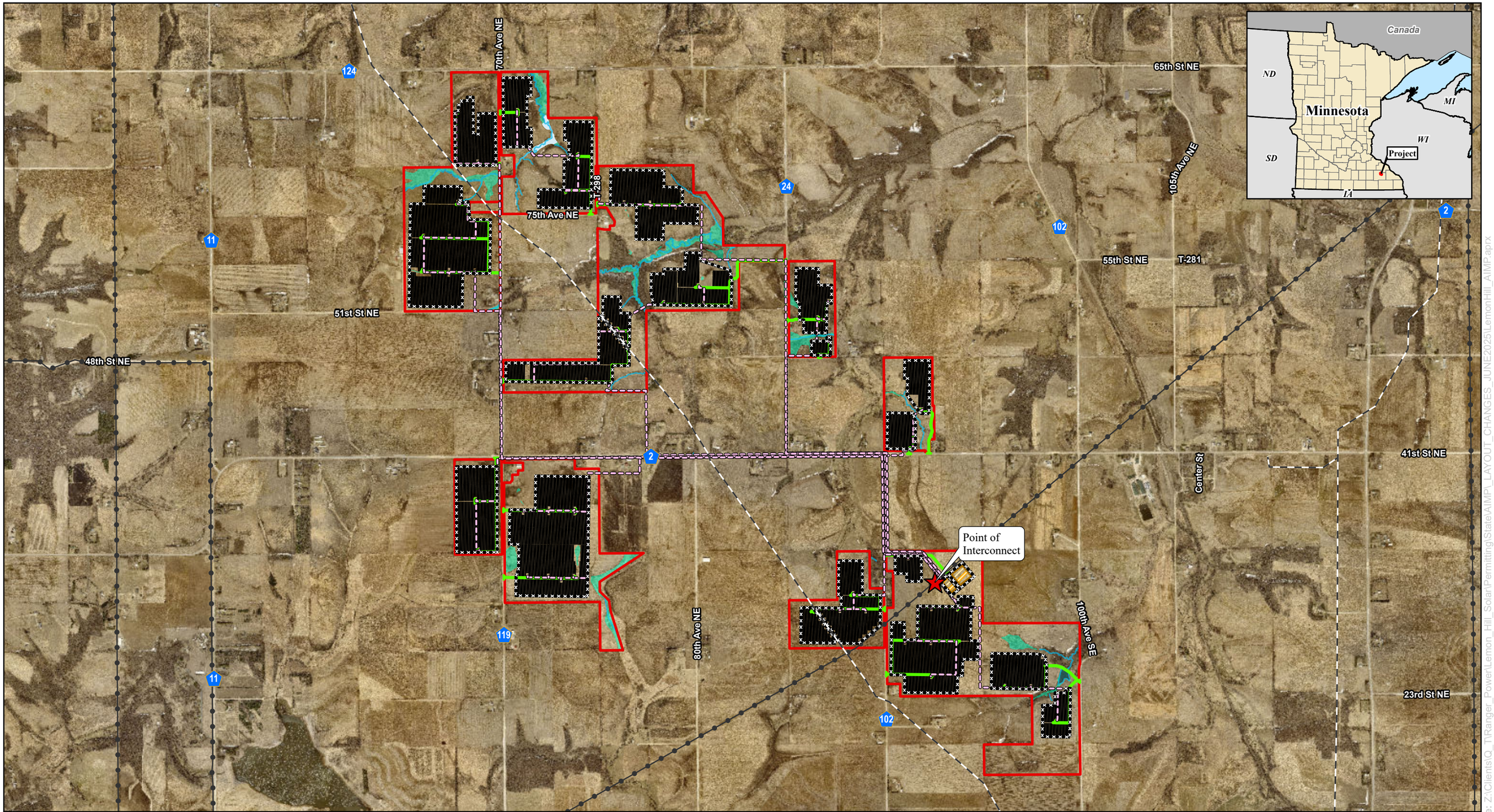
FIGURE 4

LEMON HILL SOLAR PRELIMINARY FACILITY DESIGN



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For Environmental Review Purposes Only

Figure 4 - Preliminary Facility Design
Lemon Hill Solar Project

Lemon Hill Solar, LLC

Olmsted County, Minnesota

- Site
- Proposed Substation
- Proposed Solar Panel
- Proposed Access Road
- Proposed Collector Line
- Fence Line
- Point of Interconnect
- Existing Transmission Line
- Existing Pipeline
- Delineated Waterway
- Delineated Wetland <> NEW PARCELS
- Desktop Wetland

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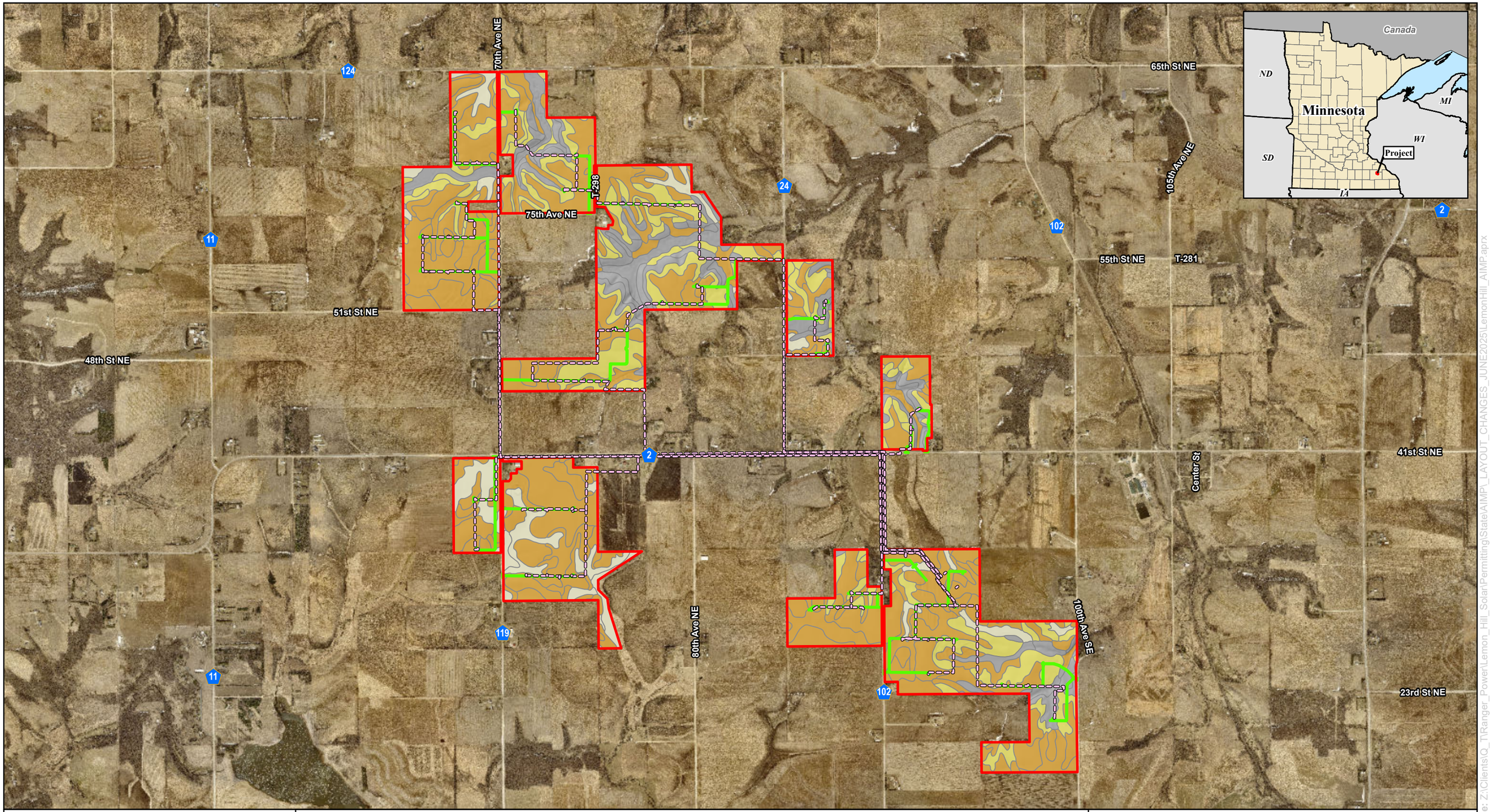
Date: (6/23/2025)

FIGURE 5

LEMON HILL SOLAR PRIME FARMLAND



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0 1,500 3,000 Feet

1:30,000

N W E S

For Environmental Review Purposes Only

Figure 5 - Prime Farmland
Lemon Hill Solar Project

Lemon Hill Solar, LLC

Olmsted County, Minnesota

Site

Proposed Access Road

Proposed Collector Line

Farmland Classification

All areas are prime farmland

Farmland of statewide importance

Prime farmland if drained

Not prime farmland

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Date: (6/23/2025)

APPENDIX A

LEMON HILL SOLAR PROJECT SOILS MAP

Appendix A: Selected Soil Physical Features, Classifications, Interpretations, and Limitations																	
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Access Road	0.170829257	16	Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded	coarse-silty	0-5	Moderately well drained	>18	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Access Road	0.225811701	176	Garwin silty clay loam	fine-silty	0-5	Poorly drained	>12-18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Access Road	0.555128086	19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	coarse-silty	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Access Road	0.895127217	203	Joy silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Access Road	0.382523017	23	Skyberg silt loam, 0 to 3 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>6-12	No	Prime farmland if drained	1	No	No	No	Yes	Severe	No
Access Road	1.170706731	24	Kasson silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	0.090774171	251F	Marlean silty clay loam, 25 to 40 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Access Road	0.058505607	299B	Rockton loam, 1 to 6 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	0.083199555	2A	Ostrander silt loam, 0 to 2 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Access Road	0.073541195	30B	Kenyon loam, 2 to 5 percent slopes	fine-loamy	0-5	Moderately well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	0.280583634	322D2	Timula silt loam, 12 to 20 percent slopes, moderately eroded	coarse-silty	>15-30	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Access Road	0.6807899	333	Vasa silt loam	fine-silty	0-5	Moderately well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Access Road	1.559343384	369B	Waubeek silt loam, 1 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	0.693288105	369C	Waubeek silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>12-18	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Access Road	0.065870214	468	Otter silt loam, channeled	fine-silty	0-5	Poorly drained	>18	No	Not prime farmland	6w	Yes	No	No	Yes	Severe	No
Access Road	0.108003097	473D	Dorerton loam, 12 to 25 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Access Road	0.172422227	473F	Dorerton loam, 25 to 40 percent slopes	loamy-skeletal	>30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Access Road	0.460174885	476C	Frankville silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>6-12	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Access Road	0.772303807	479	Floyd silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2w	No	No	No	Yes	Severe	No
Access Road	0.102858058	489A	Atkinson loam, 0 to 1 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	1	No	No	No	No	Severe	No
Access Road	0.039338166	489B	Atkinson loam, 1 to 6 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	0.005805806	491B	Waucoma loam, 2 to 6 percent slopes	fine-loamy	0-5	Well drained	>6-12	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	0.640968703	493B	Oronoco loam, 2 to 6 percent slopes	coarse-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	0.574176289	593D	Elbaville silt loam, 12 to 18 percent slopes	fine-loamy	>8-15	Well drained	>12-18	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Access Road	0.075299133	593E	Elbaville silt loam, 18 to 30 percent slopes	fine-loamy	>15-30	Well drained	>12-18	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Access Road	0.599425085	99B	Racine loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	0.184807094	99C	Racine silt loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	0-6	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Access Road	0.314279482	M517A	Clyde silty clay loam, 0 to 3 percent slopes	fine-loamy	0-5	Poorly drained	>18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Access Road	8.44099E-05	N150E	Brodale channery loam, deep, 20 to 30 percent slopes	loamy-skeletal	>15-30	Excessively drained	>6-12	Yes	Not prime farmland	7s	No	Yes	No	No	Severe	No

Appendix A: Selected Soil Physical Features, Classifications, Interpretations, and Limitations																	
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Access Road	4.748993278	N501B2	Downs silt loam, 2 to 6 percent slopes, moderately eroded	fine-silty	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Access Road	2.993911797	N501C2	Downs silt loam, 6 to 12 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Access Road	0.572687346	N501D2	Downs silt loam, 12 to 18 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Access Road	0.11353794	N518C	Lindstrom silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>18	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Access Road	1.269195068	N536A	Tama silt loam, driftless, 0 to 2 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Access Road	0.025466916	N536B	Tama silt loam, driftless, 2 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.010586146	131C	Massbach silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Moderately well drained	>6-12	Yes	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Collector Line	0.317738541	16	Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded	coarse-silty	0-5	Moderately well drained	>18	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Collector Line	1.278108704	176	Garwin silty clay loam	fine-silty	0-5	Poorly drained	>12-18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Collector Line	0.047467232	1819G	Dorerton-Rock outcrop complex, very steep	loamy-skeletal	>30	Well drained	>6-12	Yes	Not prime farmland	7e	No	Yes	No	No	Severe	No
Collector Line	1.800495055	19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	coarse-silty	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Collector Line	1.508589188	203	Joy silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Collector Line	0.443111334	23	Skyberg silt loam, 0 to 3 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>6-12	No	Prime farmland if drained	1	No	No	No	Yes	Severe	No
Collector Line	0.91901836	24	Kasson silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.022111464	244C	Lilah sandy loam, 6 to 12 percent slopes	not used	>5-8	Excessively drained	>6-12	No	Not prime farmland	6s	No	No	No	No	Moderate	Yes
Collector Line	0.175947132	251F	Marlean silty clay loam, 25 to 40 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Collector Line	0.096110096	299B	Rockton loam, 1 to 6 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.287494213	2A	Ostrander silt loam, 0 to 2 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Collector Line	0.052181601	309D	Schapville silty clay loam, 12 to 25 percent slopes	fine	>15-30	Well drained	>12-18	Yes	Not prime farmland	6e	No	Yes	No	No	Severe	No
Collector Line	0.134258108	30B	Kenyon loam, 2 to 5 percent slopes	fine-loamy	0-5	Moderately well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.044732785	312C	Shullsburg silt loam, 6 to 12 percent slopes	fine	>5-8	Somewhat poorly drained	>12-18	Yes	Farmland of statewide importance	3e	No	No	No	Yes	Severe	No
Collector Line	0.284364015	322D2	Timula silt loam, 12 to 20 percent slopes, moderately eroded	coarse-silty	>15-30	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Collector Line	0.880863884	333	Vasa silt loam	fine-silty	0-5	Moderately well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Collector Line	2.8966908	369B	Waubeek silt loam, 1 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	1.857591298	369C	Waubeek silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>12-18	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Collector Line	0.249961444	468	Otter silt loam, channeled	fine-silty	0-5	Poorly drained	>18	No	Not prime farmland	6w	Yes	No	No	Yes	Severe	No
Collector Line	0.121494476	472C	Channahon loam, 6 to 12 percent slopes	loamy	>5-8	Well drained	>6-12	Yes	Not prime farmland	6e	No	No	No	No	Severe	No
Collector Line	0.056845391	473D	Dorerton loam, 12 to 25 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Collector Line	0.128875025	473F	Dorerton loam, 25 to 40 percent slopes	loamy-skeletal	>30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No

Appendix A: Selected Soil Physical Features, Classifications, Interpretations, and Limitations																	
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Collector Line	0.645317714	476C	Frankville silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>6-12	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Collector Line	0.065374846	477B	Littleton silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Collector Line	0.409420963	479	Floyd silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2w	No	No	No	Yes	Severe	No
Collector Line	0.015779867	489A	Atkinson loam, 0 to 1 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	1	No	No	No	No	Severe	No
Collector Line	0.665447404	489B	Atkinson loam, 1 to 6 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.02093077	491B	Waucoma loam, 2 to 6 percent slopes	fine-loamy	0-5	Well drained	>6-12	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.439545181	493B	Oronoco loam, 2 to 6 percent slopes	coarse-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.282172121	593D	Elbaville silt loam, 12 to 18 percent slopes	fine-loamy	>8-15	Well drained	>12-18	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Collector Line	0.125013243	593E	Elbaville silt loam, 18 to 30 percent slopes	fine-loamy	>15-30	Well drained	>12-18	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Collector Line	0.162470187	99B	Racine loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.290344367	99C	Racine silt loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	0-6	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Collector Line	0.187812778	M517A	Clyde silty clay loam, 0 to 3 percent slopes	fine-loamy	0-5	Poorly drained	>18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Collector Line	0.089070142	N150E	Brodale channery loam, deep, 20 to 30 percent slopes	loamy-skeletal	>15-30	Excessively drained	>6-12	Yes	Not prime farmland	7s	No	Yes	No	No	Severe	No
Collector Line	13.75034296	N501B2	Downs silt loam, 2 to 6 percent slopes, moderately eroded	fine-silty	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	5.119194548	N501C2	Downs silt loam, 6 to 12 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Collector Line	0.208076399	N501D2	Downs silt loam, 12 to 18 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Collector Line	0.010158248	N518B	Lindstrom silt loam, 2 to 6 percent slopes	fine-silty	0-5	Well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Collector Line	0.225711629	N518C	Lindstrom silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>18	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Collector Line	2.4077462	N536A	Tama silt loam, driftless, 0 to 2 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Fence Line	0.178061813	131C	Massbach silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Moderately well drained	>6-12	Yes	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Fence Line	1.312983203	16	Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded	coarse-silty	0-5	Moderately well drained	>18	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Fence Line	6.02922591	176	Garwin silty clay loam	fine-silty	0-5	Poorly drained	>12-18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Fence Line	0.675584853	1846	Kato silty clay loam, depressional	fine-silty over sandy or sandy-skeletal	0-5	Very poorly drained	>12-18	No	Prime farmland if drained	3w	Yes	No	No	Yes	Severe	No
Fence Line	15.74701585	19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	coarse-silty	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Fence Line	33.11959471	203	Joy silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Fence Line	22.03728971	23	Skyberg silt loam, 0 to 3 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>6-12	No	Prime farmland if drained	1	No	No	No	Yes	Severe	No
Fence Line	42.92659569	24	Kasson silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Fence Line	3.68228612	251F	Marlean silty clay loam, 25 to 40 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Fence Line	3.691943767	299B	Rockton loam, 1 to 6 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No

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Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Fence Line	3.265689081	2A	Ostrander silt loam, 0 to 2 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Fence Line	2.246596732	2B	Ostrander loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Fence Line	18.38369801	30B	Kenyon loam, 2 to 5 percent slopes	fine-loamy	0-5	Moderately well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Fence Line	7.182687892	322D2	Timula silt loam, 12 to 20 percent slopes, moderately eroded	coarse-silty	>15-30	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Fence Line	51.2349812	333	Vasa silt loam	fine-silty	0-5	Moderately well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Fence Line	91.3190499	369B	Waubeek silt loam, 1 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Fence Line	40.26341341	369C	Waubeek silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>12-18	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Fence Line	5.607732447	468	Otter silt loam, channeled	fine-silty	0-5	Poorly drained	>18	No	Not prime farmland	6w	Yes	No	No	Yes	Severe	No
Fence Line	0.867508744	472C	Channahon loam, 6 to 12 percent slopes	loamy	>5-8	Well drained	>6-12	Yes	Not prime farmland	6e	No	No	No	No	Severe	No
Fence Line	3.351299278	473D	Dorerton loam, 12 to 25 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Fence Line	3.4088083	473F	Dorerton loam, 25 to 40 percent slopes	loamy-skeletal	>30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Fence Line	24.48845912	476C	Frankville silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>6-12	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Fence Line	8.100896618	477B	Littleton silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Fence Line	37.52026575	479	Floyd silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2w	No	No	No	Yes	Severe	No
Fence Line	14.72438039	489A	Atkinson loam, 0 to 1 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	1	No	No	No	No	Severe	No
Fence Line	13.37713904	491B	Waucoma loam, 2 to 6 percent slopes	fine-loamy	0-5	Well drained	>6-12	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Fence Line	1.856724144	492C	Nasset silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	0-6	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Fence Line	20.70470056	493B	Oronoco loam, 2 to 6 percent slopes	coarse-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Fence Line	4.369130548	493C	Oronoco loam, 6 to 12 percent slopes	coarse-loamy	>5-8	Well drained	>6-12	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Fence Line	0.124766698	516C	Dowagiac sandy loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	>6-12	No	Farmland of statewide importance	3e	No	No	No	No	Moderate	No
Fence Line	8.187103285	593D	Elbaville silt loam, 12 to 18 percent slopes	fine-loamy	>8-15	Well drained	>12-18	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Fence Line	0.209885587	593E	Elbaville silt loam, 18 to 30 percent slopes	fine-loamy	>15-30	Well drained	>12-18	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Fence Line	17.63331589	99B	Racine loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Fence Line	14.92223737	99C	Racine silt loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	0-6	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Fence Line	22.41899574	M517A	Clyde silty clay loam, 0 to 3 percent slopes	fine-loamy	0-5	Poorly drained	>18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Fence Line	2.023571305	N150E	Brodale channery loam, deep, 20 to 30 percent slopes	loamy-skeletal	>15-30	Excessively drained	>6-12	Yes	Not prime farmland	7s	No	Yes	No	No	Severe	No
Fence Line	226.8335754	N501B2	Downs silt loam, 2 to 6 percent slopes, moderately eroded	fine-silty	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Fence Line	91.08516711	N501C2	Downs silt loam, 6 to 12 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Fence Line	8.006743181	N501D2	Downs silt loam, 12 to 18 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No

Appendix A: Selected Soil Physical Features, Classifications, Interpretations, and Limitations																	
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Fence Line	0.114647326	N518C	Lindstrom silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>18	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Fence Line	39.8446652	N536A	Tama silt loam, driftless, 0 to 2 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Fence Line	15.97696288	N536B	Tama silt loam, driftless, 2 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Inverters	0.004055018	19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	coarse-silty	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Inverters	0.027545423	203	Joy silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Inverters	0.012794274	24	Kasson silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Inverters	0.0091828	299B	Rockton loam, 1 to 6 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Inverters	0.009182801	2A	Ostrander silt loam, 0 to 2 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Inverters	0.009182781	30B	Kenyon loam, 2 to 5 percent slopes	fine-loamy	0-5	Moderately well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Inverters	0.009182751	322D2	Timula silt loam, 12 to 20 percent slopes, moderately eroded	coarse-silty	>15-30	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Inverters	0.045911616	333	Vasa silt loam	fine-silty	0-5	Moderately well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Inverters	0.055095975	369B	Waubeek silt loam, 1 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Inverters	0.018365533	369C	Waubeek silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>12-18	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Inverters	0.009182801	473D	Dorerton loam, 12 to 25 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Inverters	0.032674249	476C	Frankville silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>6-12	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Inverters	0.024024686	479	Floyd silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2w	No	No	No	Yes	Severe	No
Inverters	0.007590729	489A	Atkinson loam, 0 to 1 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	1	No	No	No	No	Severe	No
Inverters	0.010774698	493B	Oronoco loam, 2 to 6 percent slopes	coarse-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Inverters	0.018365444	593D	Elbaville silt loam, 12 to 18 percent slopes	fine-loamy	>8-15	Well drained	>12-18	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Inverters	0.027458461	99B	Racine loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Inverters	0.009182731	99C	Racine silt loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	0-6	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Inverters	0.101009684	N501B2	Downs silt loam, 2 to 6 percent slopes, moderately eroded	fine-silty	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Inverters	0.055095036	N501C2	Downs silt loam, 6 to 12 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Inverters	0.018365324	N501D2	Downs silt loam, 12 to 18 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Inverters	0.036729541	N536A	Tama silt loam, driftless, 0 to 2 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Solar Panel	0.078971875	131C	Massbach silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Moderately well drained	>6-12	Yes	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Solar Panel	0.434657397	16	Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded	coarse-silty	0-5	Moderately well drained	>18	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Solar Panel	3.153525267	176	Garwin silty clay loam	fine-silty	0-5	Poorly drained	>12-18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Solar Panel	0.486222219	1846	Kato silty clay loam, depressional	fine-silty over sandy or sandy-skeletal	0-5	Very poorly drained	>12-18	No	Prime farmland if drained	3w	Yes	No	No	Yes	Severe	No

Appendix A: Selected Soil Physical Features, Classifications, Interpretations, and Limitations																	
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Solar Panel	13.76738561	19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	coarse-silty	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Solar Panel	28.80406288	203	Joy silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Solar Panel	20.48439035	23	Skyberg silt loam, 0 to 3 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>6-12	No	Prime farmland if drained	1	No	No	No	Yes	Severe	No
Solar Panel	37.34391034	24	Kasson silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Solar Panel	1.309536597	251F	Marlean silty clay loam, 25 to 40 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Solar Panel	3.421062837	299B	Rockton loam, 1 to 6 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Solar Panel	2.719762986	2A	Ostrander silt loam, 0 to 2 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Solar Panel	1.73843486	2B	Ostrander loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Solar Panel	17.43240939	30B	Kenyon loam, 2 to 5 percent slopes	fine-loamy	0-5	Moderately well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Solar Panel	6.127248113	322D2	Timula silt loam, 12 to 20 percent slopes, moderately eroded	coarse-silty	>15-30	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Solar Panel	45.17464679	333	Vasa silt loam	fine-silty	0-5	Moderately well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Solar Panel	83.07397394	369B	Waubeek silt loam, 1 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Solar Panel	35.27178826	369C	Waubeek silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>12-18	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Solar Panel	4.607751281	468	Otter silt loam, channeled	fine-silty	0-5	Poorly drained	>18	No	Not prime farmland	6w	Yes	No	No	Yes	Severe	No
Solar Panel	0.506037455	472C	Channahon loam, 6 to 12 percent slopes	loamy	>5-8	Well drained	>6-12	Yes	Not prime farmland	6e	No	No	No	No	Severe	No
Solar Panel	2.336001507	473D	Dorerton loam, 12 to 25 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Solar Panel	1.841146721	473F	Dorerton loam, 25 to 40 percent slopes	loamy-skeletal	>30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Solar Panel	20.20822394	476C	Frankville silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>6-12	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Solar Panel	6.47964883	477B	Littleton silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Solar Panel	33.29112803	479	Floyd silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2w	No	No	No	Yes	Severe	No
Solar Panel	10.70811409	489A	Atkinson loam, 0 to 1 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	1	No	No	No	No	Severe	No
Solar Panel	12.20677307	491B	Waucoma loam, 2 to 6 percent slopes	fine-loamy	0-5	Well drained	>6-12	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Solar Panel	1.481981203	492C	Nasset silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	0-6	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Solar Panel	17.07682384	493B	Oronoco loam, 2 to 6 percent slopes	coarse-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Solar Panel	3.593962504	493C	Oronoco loam, 6 to 12 percent slopes	coarse-loamy	>5-8	Well drained	>6-12	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Solar Panel	0.042525161	516C	Dowagiac sandy loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	>6-12	No	Farmland of statewide importance	3e	No	No	No	No	Moderate	No
Solar Panel	5.170691613	593D	Elbaville silt loam, 12 to 18 percent slopes	fine-loamy	>8-15	Well drained	>12-18	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Solar Panel	0.046860124	593E	Elbaville silt loam, 18 to 30 percent slopes	fine-loamy	>15-30	Well drained	>12-18	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Solar Panel	15.13886932	99B	Racine loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No

Appendix A: Selected Soil Physical Features, Classifications, Interpretations, and Limitations																	
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Solar Panel	13.08976878	99C	Racine silt loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	0-6	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Solar Panel	19.53921944	M517A	Clyde silty clay loam, 0 to 3 percent slopes	fine-loamy	0-5	Poorly drained	>18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Solar Panel	1.45889396	N150E	Brodale channery loam, deep, 20 to 30 percent slopes	loamy-skeletal	>15-30	Excessively drained	>6-12	Yes	Not prime farmland	7s	No	Yes	No	No	Severe	No
Solar Panel	192.0586213	N501B2	Downs silt loam, 2 to 6 percent slopes, moderately eroded	fine-silty	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Solar Panel	76.08368341	N501C2	Downs silt loam, 6 to 12 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Solar Panel	5.747765866	N501D2	Downs silt loam, 12 to 18 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Solar Panel	0.023333583	N518C	Lindstrom silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>18	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Solar Panel	30.77070492	N536A	Tama silt loam, driftless, 0 to 2 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Solar Panel	14.12406372	N536B	Tama silt loam, driftless, 2 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Stormwater Basin	0.142611853	176	Garwin silty clay loam	fine-silty	0-5	Poorly drained	>12-18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Stormwater Basin	0.118491671	1846	Kato silty clay loam, depressional	fine-silty, sandy or sandy-skeletal	0-5	Very poorly drained	>12-18	No	Prime farmland if drained	3w	Yes	No	No	Yes	Severe	No
Stormwater Basin	0.620274163	19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	coarse-silty	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Stormwater Basin	0.092533565	203	Joy silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Stormwater Basin	0.08389066	251F	Marlean silty clay loam, 25 to 40 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Stormwater Basin	0.242518933	2A	Ostrander silt loam, 0 to 2 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Stormwater Basin	0.169519877	322D2	Timula silt loam, 12 to 20 percent slopes, moderately eroded	coarse-silty	>15-30	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Stormwater Basin	0.561798802	333	Vasa silt loam	fine-silty	0-5	Moderately well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Stormwater Basin	0.032292015	369B	Waubeek silt loam, 1 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Stormwater Basin	0.050533578	369C	Waubeek silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>12-18	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Stormwater Basin	0.400901067	468	Otter silt loam, channeled	fine-silty	0-5	Poorly drained	>18	No	Not prime farmland	6w	Yes	No	No	Yes	Severe	No
Stormwater Basin	0.099615982	472C	Channahon loam, 6 to 12 percent slopes	loamy	>5-8	Well drained	>6-12	Yes	Not prime farmland	6e	No	No	No	No	Severe	No
Stormwater Basin	0.226771407	473D	Dorerton loam, 12 to 25 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Stormwater Basin	0.02296996	473F	Dorerton loam, 25 to 40 percent slopes	loamy-skeletal	>30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Stormwater Basin	0.46189012	476C	Frankville silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>6-12	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Stormwater Basin	0.240151811	477B	Littleton silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Stormwater Basin	0.1786936	479	Floyd silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2w	No	No	No	Yes	Severe	No
Stormwater Basin	0.082644422	493C	Oronoco loam, 6 to 12 percent slopes	coarse-loamy	>5-8	Well drained	>6-12	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Stormwater Basin	0.213136775	593D	Elbaville silt loam, 12 to 18 percent slopes	fine-loamy	>8-15	Well drained	>12-18	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Stormwater Basin	0.498106737	973D	Brodale-Sogn complex, 12 to 25 percent slopes	loamy-skeletal	>15-30	Excessively drained	>6-12	Yes	Not prime farmland	7s	No	Yes	No	No	Moderate	No

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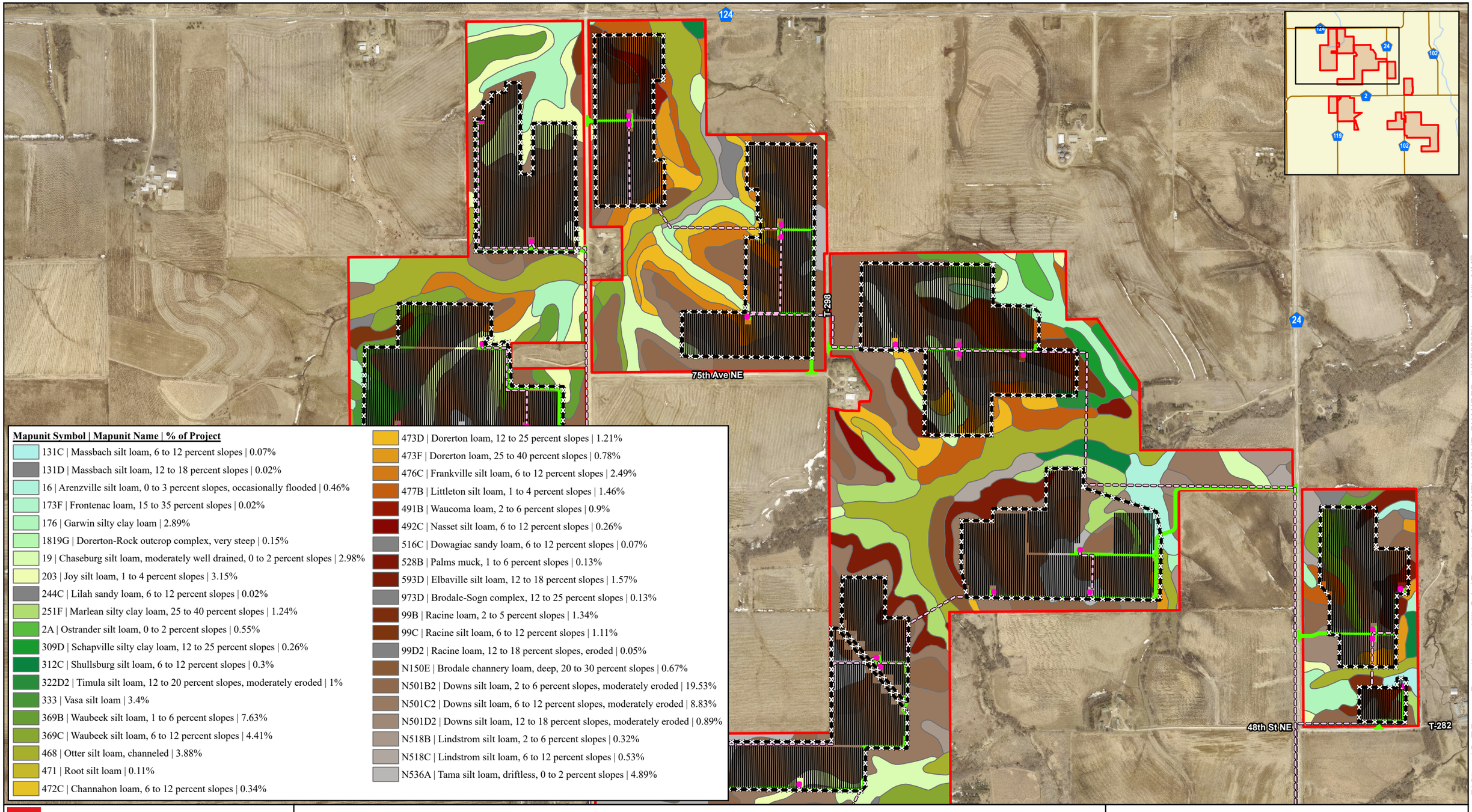
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Stormwater Basin	0.418740846	M517A	Clyde silty clay loam, 0 to 3 percent slopes	fine-loamy	0-5	Poorly drained	>18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Stormwater Basin	0.56280149	N501B2	Downs silt loam, 2 to 6 percent slopes, moderately eroded	fine-silty	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Stormwater Basin	0.796283689	N501C2	Downs silt loam, 6 to 12 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Stormwater Basin	0.040991815	N536A	Tama silt loam, driftless, 0 to 2 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Substation	1.376928778	176	Garwin silty clay loam	fine-silty	0-5	Poorly drained	>12-18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Substation	3.123320635	N501B2	Downs silt loam, 2 to 6 percent slopes, moderately eroded	fine-silty	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Substation	1.066514878	N536A	Tama silt loam, driftless, 0 to 2 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Non-Development Area	1.275235262	131C	Massbach silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Moderately well drained	>6-12	Yes	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Non-Development Area	0.375768994	131D	Massbach silt loam, 12 to 18 percent slopes	fine-silty	>8-15	Moderately well drained	>6-12	Yes	Not prime farmland	4e	No	No	No	No	Severe	No
Non-Development Area	7.524092774	16	Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded	coarse-silty	0-5	Moderately well drained	>18	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Non-Development Area	0.456057454	173F	Frontenac loam, 15 to 35 percent slopes	fine-loamy	>15-30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Non-Development Area	49.6572078	176	Garwin silty clay loam	fine-silty	0-5	Poorly drained	>12-18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Non-Development Area	2.808103723	1819G	Dorerton-Rock outcrop complex, very steep	loamy-skeletal	>30	Well drained	>6-12	Yes	Not prime farmland	7e	No	Yes	No	No	Severe	No
Non-Development Area	16.24599197	1846	Kato silty clay loam, depressional	fine-silty over sandy or sandy-skeletal	0-5	Very poorly drained	>12-18	No	Prime farmland if drained	3w	Yes	No	No	Yes	Severe	No
Non-Development Area	41.31732473	19	Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes	coarse-silty	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2w	No	No	No	No	Severe	No
Non-Development Area	27.93492367	203	Joy silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Non-Development Area	5.353969993	23	Skyberg silt loam, 0 to 3 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>6-12	No	Prime farmland if drained	1	No	No	No	Yes	Severe	No
Non-Development Area	29.14602399	24	Kasson silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Moderately well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	0.306854393	244C	Lilah sandy loam, 6 to 12 percent slopes	fine-loamy	>5-8	Excessively drained	>6-12	No	Not prime farmland	6s	No	No	No	No	Moderate	Yes
Non-Development Area	20.2859873	251F	Marlean silty clay loam, 25 to 40 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Non-Development Area	7.162891951	2A	Ostrander silt loam, 0 to 2 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Non-Development Area	2.106441497	2B	Ostrander loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	4.920063631	309D	Schapville silty clay loam, 12 to 25 percent slopes	fine	>15-30	Well drained	>12-18	Yes	Not prime farmland	6e	No	Yes	No	No	Severe	No
Non-Development Area	1.003703866	30B	Kenyon loam, 2 to 5 percent slopes	fine-loamy	0-5	Moderately well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	5.830990828	312C	Shullsburg silt loam, 6 to 12 percent slopes	fine	>5-8	Somewhat poorly drained	>12-18	Yes	Farmland of statewide importance	3e	No	No	No	Yes	Severe	No
Non-Development Area	11.90825838	322D2	Timula silt loam, 12 to 20 percent slopes, moderately eroded	coarse-silty	>15-30	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Non-Development Area	14.15210419	333	Vasa silt loam	fine-silty	0-5	Moderately well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Non-Development Area	56.80085104	369B	Waubeek silt loam, 1 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	44.94350978	369C	Waubeek silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>12-18	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No

Appendix A: Selected Soil Physical Features, Classifications, Interpretations, and Limitations																	
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Non-Development Area	69.23368799	468	Otter silt loam, channeled	fine-silty	0-5	Poorly drained	>18	No	Not prime farmland	6w	Yes	No	No	Yes	Severe	No
Non-Development Area	2.193095239	471	Root silt loam	coarse-loamy	0-5	Poorly drained	>18	No	Not prime farmland	5w	Yes	No	No	Yes	Severe	No
Non-Development Area	5.587803682	472C	Channahon loam, 6 to 12 percent slopes	loamy	>5-8	Well drained	>6-12	Yes	Not prime farmland	6e	No	No	No	No	Severe	No
Non-Development Area	19.94355339	473D	Dorerton loam, 12 to 25 percent slopes	loamy-skeletal	>15-30	Well drained	>6-12	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Non-Development Area	11.82339711	473F	Dorerton loam, 25 to 40 percent slopes	loamy-skeletal	>30	Well drained	>6-12	No	Not prime farmland	7e	No	Yes	No	No	Severe	No
Non-Development Area	23.39058412	476C	Frankville silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>6-12	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Non-Development Area	19.95251043	477B	Littleton silt loam, 1 to 4 percent slopes	fine-silty	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2e	No	No	No	Yes	Severe	No
Non-Development Area	18.75094362	479	Floyd silt loam, 1 to 4 percent slopes	fine-loamy	0-5	Somewhat poorly drained	>18	No	All areas are prime farmland	2w	No	No	No	Yes	Severe	No
Non-Development Area	11.53170298	489A	Atkinson loam, 0 to 1 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	1	No	No	No	No	Severe	No
Non-Development Area	0.132383536	489B	Atkinson loam, 1 to 6 percent slopes	fine-loamy	0-5	Well drained	>12-18	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	4.133012089	491B	Waucoma loam, 2 to 6 percent slopes	fine-loamy	0-5	Well drained	>6-12	Yes	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	0.028903222	492B	Nasset silt loam, 2 to 6 percent slopes	fine-silty	0-5	Well drained	0-6	Yes	All areas are prime farmland	2e	No	Yes	No	No	Severe	No
Non-Development Area	3.270555325	492C	Nasset silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	0-6	Yes	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Non-Development Area	41.86937738	493B	Oronoco loam, 2 to 6 percent slopes	coarse-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	8.678803216	493C	Oronoco loam, 6 to 12 percent slopes	coarse-loamy	>5-8	Well drained	>6-12	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Non-Development Area	1.151335123	516C	Dowagiac sandy loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	>6-12	No	Farmland of statewide importance	3e	No	No	No	No	Moderate	No
Non-Development Area	2.583522577	528B	Palms muck, 1 to 6 percent slopes	loamy	0-5	Very poorly drained	>18	No	Not prime farmland	8w	Yes	No	Yes	Yes	Severe	No
Non-Development Area	21.88521216	593D	Elbaville silt loam, 12 to 18 percent slopes	fine-loamy	>8-15	Well drained	>12-18	No	Not prime farmland	4e	No	Yes	No	No	Severe	No
Non-Development Area	10.4217908	593E	Elbaville silt loam, 18 to 30 percent slopes	fine-loamy	>15-30	Well drained	>12-18	No	Not prime farmland	6e	No	Yes	No	No	Severe	No
Non-Development Area	1.948852289	973D	Brodale-Sogn complex, 12 to 25 percent slopes	loamy-skeletal	>15-30	Excessively drained	>6-12	Yes	Not prime farmland	7s	No	Yes	No	No	Moderate	No
Non-Development Area	8.22575548	99B	Racine loam, 2 to 5 percent slopes	fine-loamy	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	6.636963021	99C	Racine silt loam, 6 to 12 percent slopes	fine-loamy	>5-8	Well drained	0-6	No	Farmland of statewide importance	3e	No	No	No	No	Severe	No
Non-Development Area	0.912164325	99D2	Racine loam, 12 to 18 percent slopes, eroded	fine-loamy	>8-15	Well drained	0-6	No	Not prime farmland	4e	No	No	No	No	Severe	No
Non-Development Area	4.473560858	M510A	Maxfield silt loam, 0 to 2 percent slopes	fine-loamy	0-5	Poorly drained	>18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Non-Development Area	20.13784164	M517A	Clyde silty clay loam, 0 to 3 percent slopes	fine-loamy	0-5	Poorly drained	>18	No	Prime farmland if drained	2w	Yes	No	No	Yes	Severe	No
Non-Development Area	10.88679525	N150E	Brodale channery loam, deep, 20 to 30 percent slopes	loamy-skeletal	>15-30	Excessively drained	>6-12	Yes	Not prime farmland	7s	No	Yes	No	No	Severe	No
Non-Development Area	148.6585845	N501B2	Downs silt loam, 2 to 6 percent slopes, moderately eroded	fine-silty	0-5	Well drained	>6-12	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	79.00892835	N501C2	Downs silt loam, 6 to 12 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Non-Development Area	8.886591956	N501D2	Downs silt loam, 12 to 18 percent slopes, moderately eroded	fine-silty	>8-15	Well drained	>6-12	No	Not prime farmland	4e	No	Yes	No	No	Severe	No

Appendix A: Selected Soil Physical Features, Classifications, Interpretations, and Limitations																
Feature Type	Acres	Map Unit Symbol	Map Unit Name	Select Soil Physical Features						Select Soil Classification				Construction/Reclamation Interpretations and Limitations		
				Particle Size Family	Slope Range (%)	Drainage Class	Topsoil Thickness (in.)	ShallowBedrock	Prime Farmland	Land Capability Classification	Hydric Soil Rating	Highly Erodible Water	Highly Erodible Wind	Compact Prone	Rutting Hazard	Drought Susceptible
Non-Development Area	6.184466811	N518B	Lindstrom silt loam, 2 to 6 percent slopes	fine-silty	0-5	Well drained	>18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	10.13587141	N518C	Lindstrom silt loam, 6 to 12 percent slopes	fine-silty	>5-8	Well drained	>18	No	Farmland of statewide importance	3e	No	Yes	No	No	Severe	No
Non-Development Area	54.64260206	N536A	Tama silt loam, driftless, 0 to 2 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	1	No	No	No	No	Severe	No
Non-Development Area	10.40536745	N536B	Tama silt loam, driftless, 2 to 6 percent slopes	fine-silty	0-5	Well drained	>12-18	No	All areas are prime farmland	2e	No	No	No	No	Severe	No
Non-Development Area	0.689340484	W	Water	n/a	n/a	n/a	n/a	n/a	Not prime farmland	n/a	n/a	n/a	n/a	n/a	n/a	n/a



Mapunit Symbol | Mapunit Name | % of Project

- 131C | Massbach silt loam, 6 to 12 percent slopes | 0.07%
- 131D | Massbach silt loam, 12 to 18 percent slopes | 0.02%
- 16 | Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded | 0.46%
- 173F | Frontenac loam, 15 to 35 percent slopes | 0.02%
- 176 | Garwin silty clay loam | 2.89%
- 1819G | Dorerton-Rock outcrop complex, very steep | 0.15%
- 19 | Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | 2.98%
- 203 | Joy silt loam, 1 to 4 percent slopes | 3.15%
- 244C | Lilah sandy loam, 6 to 12 percent slopes | 0.02%
- 251F | Marlean silty clay loam, 25 to 40 percent slopes | 1.24%
- 2A | Ostrander silt loam, 0 to 2 percent slopes | 0.55%
- 309D | Schapville silty clay loam, 12 to 25 percent slopes | 0.26%
- 312C | Shullsburg silt loam, 6 to 12 percent slopes | 0.3%
- 322D2 | Timula silt loam, 12 to 20 percent slopes, moderately eroded | 1%
- 333 | Vasa silt loam | 3.4%
- 369B | Waubeek silt loam, 1 to 6 percent slopes | 7.63%
- 369C | Waubeek silt loam, 6 to 12 percent slopes | 4.41%
- 468 | Otter silt loam, channeled | 3.88%
- 471 | Root silt loam | 0.11%
- 472C | Channahon loam, 6 to 12 percent slopes | 0.34%
- 473D | Dorerton loam, 12 to 25 percent slopes | 1.21%
- 473F | Dorerton loam, 25 to 40 percent slopes | 0.78%
- 476C | Frankville silt loam, 6 to 12 percent slopes | 2.49%
- 477B | Littleton silt loam, 1 to 4 percent slopes | 1.46%
- 491B | Waucoma loam, 2 to 6 percent slopes | 0.9%
- 492C | Nasset silt loam, 6 to 12 percent slopes | 0.26%
- 516C | Dowagiac sandy loam, 6 to 12 percent slopes | 0.07%
- 528B | Palms muck, 1 to 6 percent slopes | 0.13%
- 593D | Elbaville silt loam, 12 to 18 percent slopes | 1.57%
- 973D | Brodale-Sogn complex, 12 to 25 percent slopes | 0.13%
- 99B | Racine loam, 2 to 5 percent slopes | 1.34%
- 99C | Racine silt loam, 6 to 12 percent slopes | 1.11%
- 99D2 | Racine loam, 12 to 18 percent slopes, eroded | 0.05%
- N150E | Brodale channery loam, deep, 20 to 30 percent slopes | 0.67%
- N501B2 | Downs silt loam, 2 to 6 percent slopes, moderately eroded | 19.53%
- N501C2 | Downs silt loam, 6 to 12 percent slopes, moderately eroded | 8.83%
- N501D2 | Downs silt loam, 12 to 18 percent slopes, moderately eroded | 0.89%
- N518B | Lindstrom silt loam, 2 to 6 percent slopes | 0.32%
- N518C | Lindstrom silt loam, 6 to 12 percent slopes | 0.53%
- N536A | Tama silt loam, driftless, 0 to 2 percent slopes | 4.89%

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N W E S

For Environmental Review Purposes Only

Appendix A - Soils in the Project and Development Area
Lemon Hill Solar Project

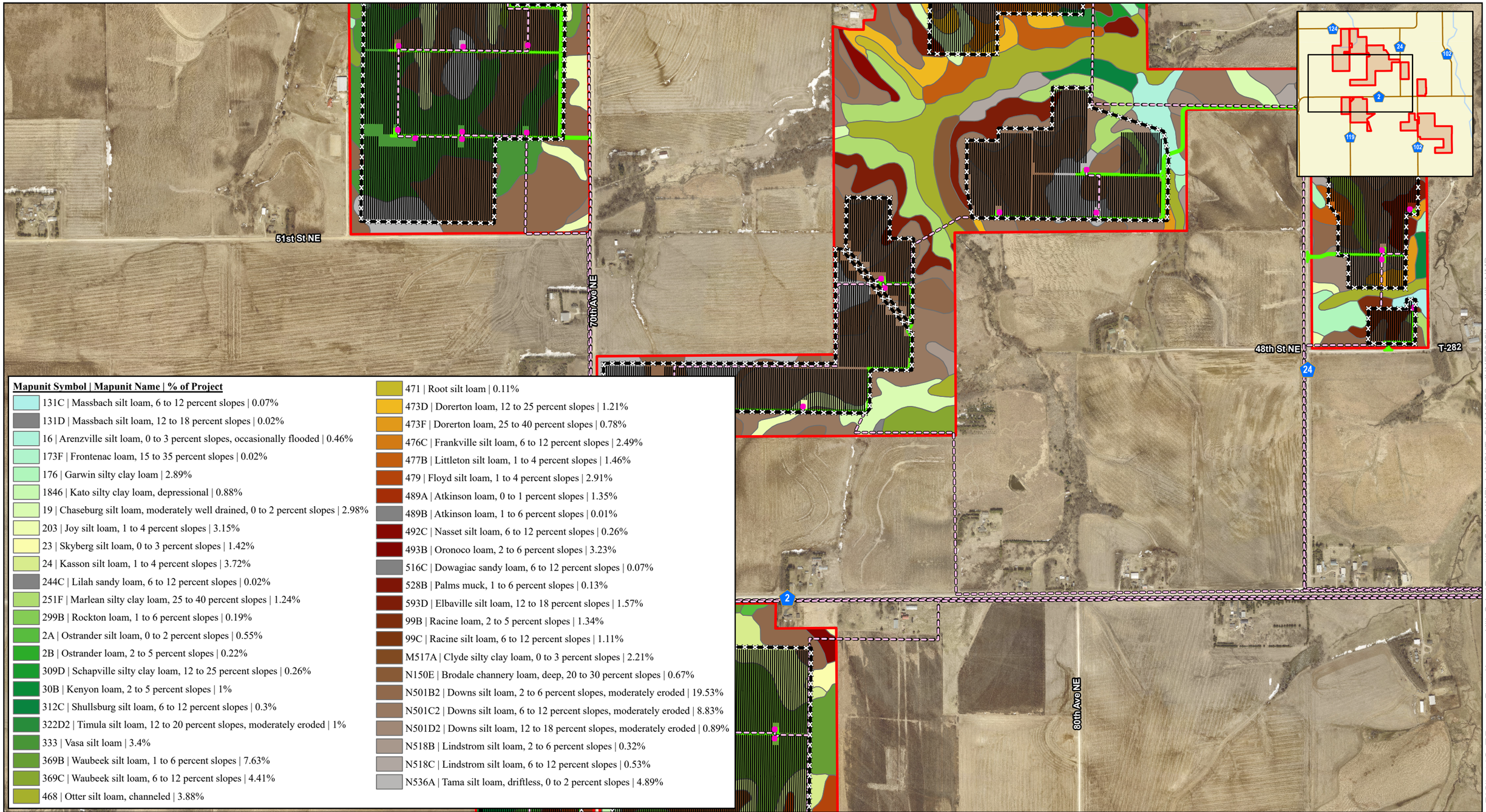
Lemon Hill Solar, LLC

Olmsted County, Minnesota

- Site
- Proposed Substation
- Proposed Access Road
- Proposed Solar Panel
- Proposed Inverter
- Proposed Collector Line
- Fence Line

Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\Permitting\State\AIMP_LAYOUT_CHANGES_JUNE2025\LemonHill_AIMP.aprx

Date: (6/23/2025)



Mapunit Symbol | Mapunit Name | % of Project

- 131C | Massbach silt loam, 6 to 12 percent slopes | 0.07%
- 131D | Massbach silt loam, 12 to 18 percent slopes | 0.02%
- 16 | Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded | 0.46%
- 173F | Frontenac loam, 15 to 35 percent slopes | 0.02%
- 176 | Garwin silty clay loam | 2.89%
- 1846 | Kato silty clay loam, depressional | 0.88%
- 19 | Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | 2.98%
- 203 | Joy silt loam, 1 to 4 percent slopes | 3.15%
- 23 | Skyberg silt loam, 0 to 3 percent slopes | 1.42%
- 24 | Kasson silt loam, 1 to 4 percent slopes | 3.72%
- 244C | Lilah sandy loam, 6 to 12 percent slopes | 0.02%
- 251F | Marlean silty clay loam, 25 to 40 percent slopes | 1.24%
- 299B | Rockton loam, 1 to 6 percent slopes | 0.19%
- 2A | Ostrander silt loam, 0 to 2 percent slopes | 0.55%
- 2B | Ostrander loam, 2 to 5 percent slopes | 0.22%
- 309D | Schapville silty clay loam, 12 to 25 percent slopes | 0.26%
- 30B | Kenyon loam, 2 to 5 percent slopes | 1%
- 312C | Shullsburg silt loam, 6 to 12 percent slopes | 0.3%
- 322D2 | Timula silt loam, 12 to 20 percent slopes, moderately eroded | 1%
- 333 | Vasa silt loam | 3.4%
- 369B | Waubeek silt loam, 1 to 6 percent slopes | 7.63%
- 369C | Waubeek silt loam, 6 to 12 percent slopes | 4.41%
- 468 | Otter silt loam, channeled | 3.88%
- 471 | Root silt loam | 0.11%
- 473D | Dorerton loam, 12 to 25 percent slopes | 1.21%
- 473F | Dorerton loam, 25 to 40 percent slopes | 0.78%
- 476C | Frankville silt loam, 6 to 12 percent slopes | 2.49%
- 477B | Littleton silt loam, 1 to 4 percent slopes | 1.46%
- 479 | Floyd silt loam, 1 to 4 percent slopes | 2.91%
- 489A | Atkinson loam, 0 to 1 percent slopes | 1.35%
- 489B | Atkinson loam, 1 to 6 percent slopes | 0.01%
- 492C | Nasset silt loam, 6 to 12 percent slopes | 0.26%
- 493B | Oronoco loam, 2 to 6 percent slopes | 3.23%
- 516C | Dowagiac sandy loam, 6 to 12 percent slopes | 0.07%
- 528B | Palms muck, 1 to 6 percent slopes | 0.13%
- 593D | Elbaville silt loam, 12 to 18 percent slopes | 1.57%
- 99B | Racine loam, 2 to 5 percent slopes | 1.34%
- 99C | Racine silt loam, 6 to 12 percent slopes | 1.11%
- M517A | Clyde silty clay loam, 0 to 3 percent slopes | 2.21%
- N150E | Brodale channery loam, deep, 20 to 30 percent slopes | 0.67%
- N501B2 | Downs silt loam, 2 to 6 percent slopes, moderately eroded | 19.53%
- N501C2 | Downs silt loam, 6 to 12 percent slopes, moderately eroded | 8.83%
- N501D2 | Downs silt loam, 12 to 18 percent slopes, moderately eroded | 0.89%
- N518B | Lindstrom silt loam, 2 to 6 percent slopes | 0.32%
- N518C | Lindstrom silt loam, 6 to 12 percent slopes | 0.53%
- N536A | Tama silt loam, driftless, 0 to 2 percent slopes | 4.89%

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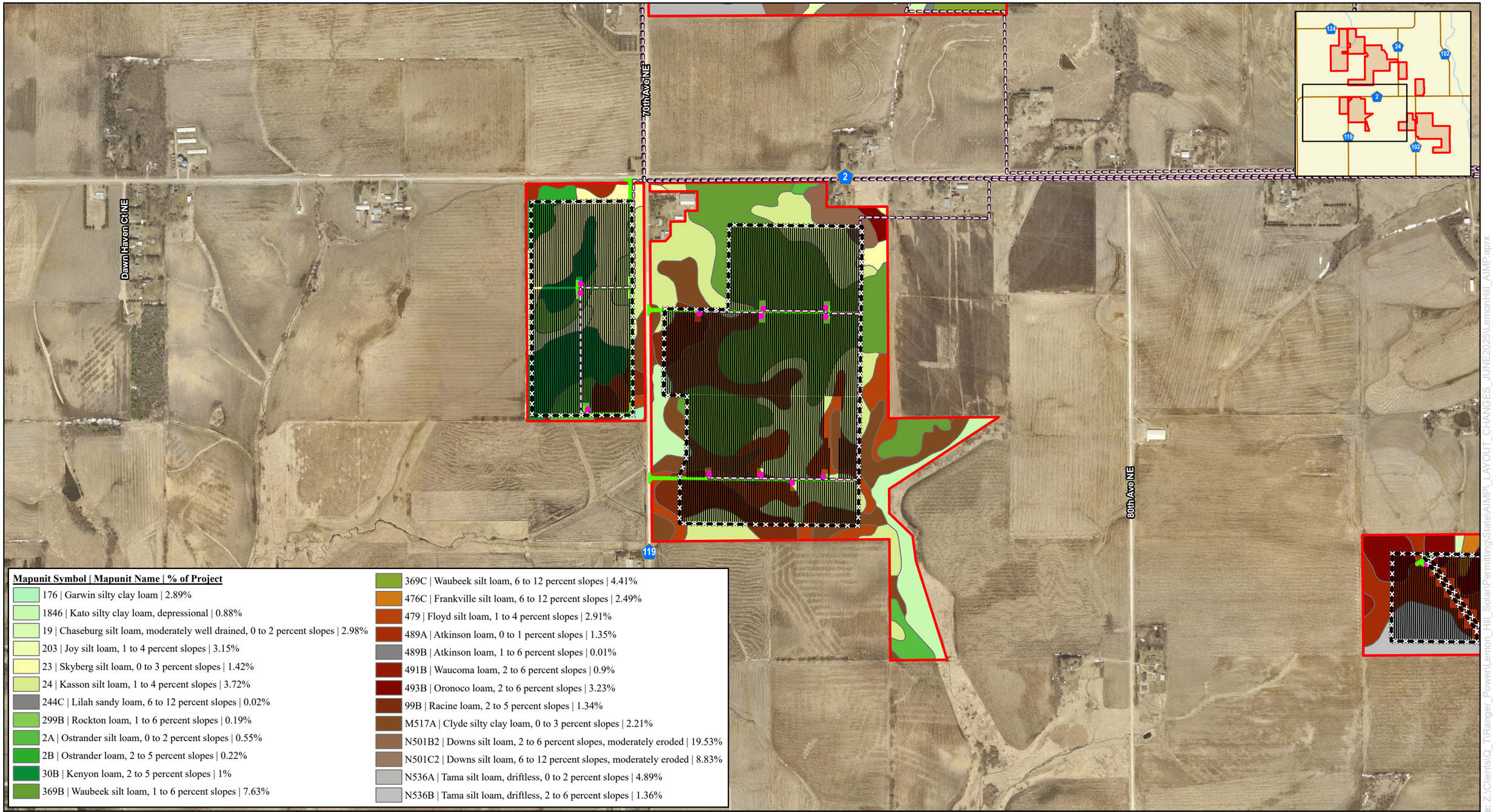
For Environmental Review Purposes Only

Appendix A - Soils in the Project and Development Area
Lemon Hill Solar Project

Lemon Hill Solar, LLC

Olmsted County, Minnesota

- Site
- Proposed Substation
- Proposed Access Road
- Proposed Solar Panel
- Proposed Inverter
- Proposed Collector Line
- Fence Line



Mapunit Symbol | Mapunit Name | % of Project

- 176 | Garwin silty clay loam | 2.89%
- 1846 | Kato silty clay loam, depressional | 0.88%
- 19 | Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | 2.98%
- 203 | Joy silt loam, 1 to 4 percent slopes | 3.15%
- 23 | Skyberg silt loam, 0 to 3 percent slopes | 1.42%
- 24 | Kasson silt loam, 1 to 4 percent slopes | 3.72%
- 244C | Lilah sandy loam, 6 to 12 percent slopes | 0.02%
- 299B | Rockton loam, 1 to 6 percent slopes | 0.19%
- 2A | Ostrander silt loam, 0 to 2 percent slopes | 0.55%
- 2B | Ostrander loam, 2 to 5 percent slopes | 0.22%
- 30B | Kenyon loam, 2 to 5 percent slopes | 1%
- 369B | Waubeek silt loam, 1 to 6 percent slopes | 7.63%
- 369C | Waubeek silt loam, 6 to 12 percent slopes | 4.41%
- 476C | Frankville silt loam, 6 to 12 percent slopes | 2.49%
- 479 | Floyd silt loam, 1 to 4 percent slopes | 2.91%
- 489A | Atkinson loam, 0 to 1 percent slopes | 1.35%
- 489B | Atkinson loam, 1 to 6 percent slopes | 0.01%
- 491B | Waucoma loam, 2 to 6 percent slopes | 0.9%
- 493B | Oronoco loam, 2 to 6 percent slopes | 3.23%
- 99B | Racine loam, 2 to 5 percent slopes | 1.34%
- M517A | Clyde silty clay loam, 0 to 3 percent slopes | 2.21%
- N501B2 | Downs silt loam, 2 to 6 percent slopes, moderately eroded | 19.53%
- N501C2 | Downs silt loam, 6 to 12 percent slopes, moderately eroded | 8.83%
- N536A | Tama silt loam, driftless, 0 to 2 percent slopes | 4.89%
- N536B | Tama silt loam, driftless, 2 to 6 percent slopes | 1.36%

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For Environmental Review Purposes Only

Appendix A - Soils in the Project and Development Area
Lemon Hill Solar Project

Lemon Hill Solar, LLC

Olmsted County, Minnesota

- Site
- Proposed Substation
- Proposed Access Road
- Proposed Solar Panel
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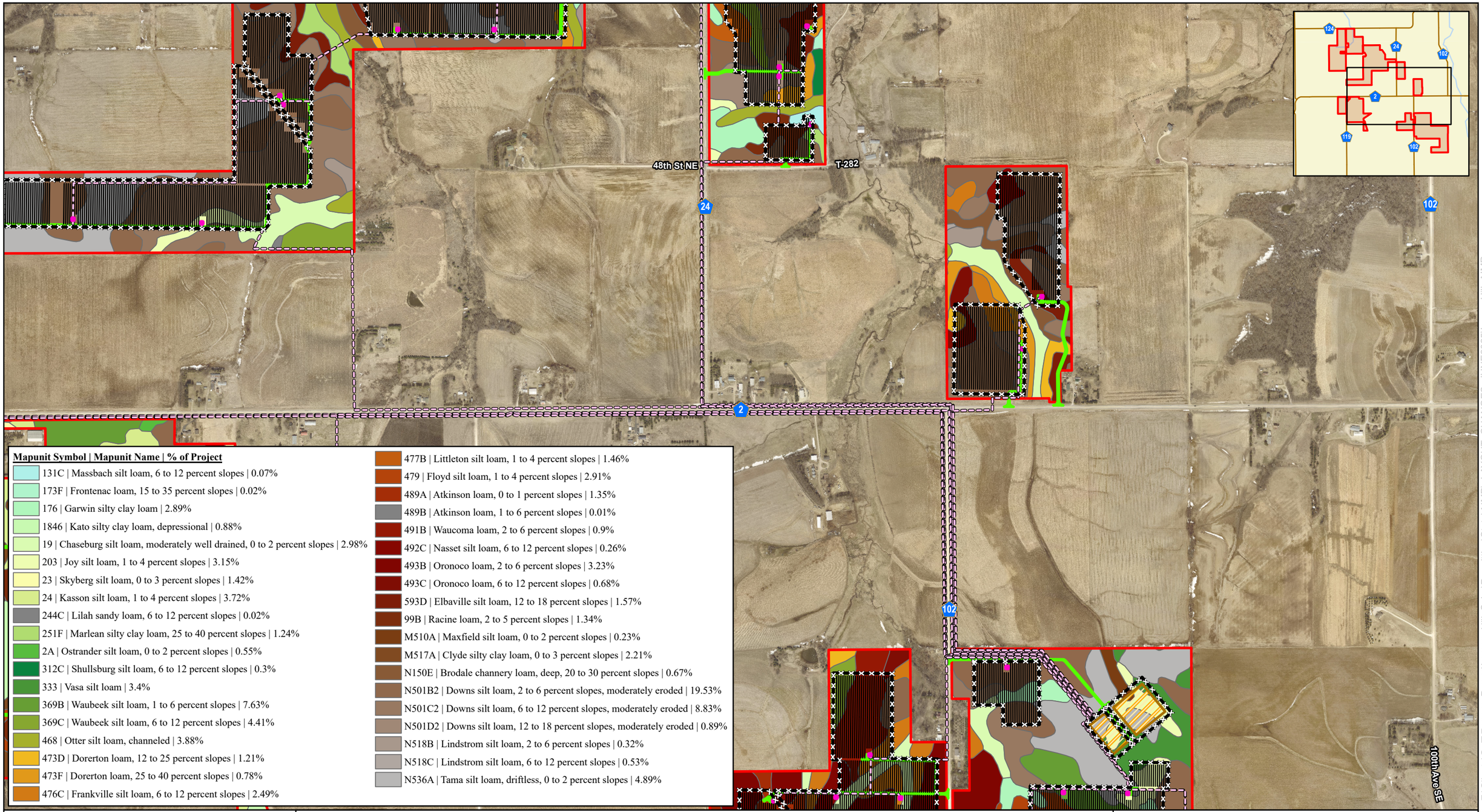
- Proposed Collector Line
- Fence Line

Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\Permitting\State\AIMP_LAYOUT_CHANGES_JUNE2025\LemonHill_AIMP.aprx

Date: (6/23/2025)



Mapunit Symbol | Mapunit Name | % of Project

- 131C | Massbach silt loam, 6 to 12 percent slopes | 0.07%
- 173F | Frontenac loam, 15 to 35 percent slopes | 0.02%
- 176 | Garwin silty clay loam | 2.89%
- 1846 | Kato silty clay loam, depressional | 0.88%
- 19 | Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | 2.98%
- 203 | Joy silt loam, 1 to 4 percent slopes | 3.15%
- 23 | Skyberg silt loam, 0 to 3 percent slopes | 1.42%
- 24 | Kasson silt loam, 1 to 4 percent slopes | 3.72%
- 244C | Lilah sandy loam, 6 to 12 percent slopes | 0.02%
- 251F | Marlean silty clay loam, 25 to 40 percent slopes | 1.24%
- 2A | Ostrander silt loam, 0 to 2 percent slopes | 0.55%
- 312C | Shullsburg silt loam, 6 to 12 percent slopes | 0.3%
- 333 | Vasa silt loam | 3.4%
- 369B | Waubeek silt loam, 1 to 6 percent slopes | 7.63%
- 369C | Waubeek silt loam, 6 to 12 percent slopes | 4.41%
- 468 | Otter silt loam, channeled | 3.88%
- 473D | Dorerton loam, 12 to 25 percent slopes | 1.21%
- 473F | Dorerton loam, 25 to 40 percent slopes | 0.78%
- 476C | Frankville silt loam, 6 to 12 percent slopes | 2.49%
- 477B | Littleton silt loam, 1 to 4 percent slopes | 1.46%
- 479 | Floyd silt loam, 1 to 4 percent slopes | 2.91%
- 489A | Atkinson loam, 0 to 1 percent slopes | 1.35%
- 489B | Atkinson loam, 1 to 6 percent slopes | 0.01%
- 491B | Waucoma loam, 2 to 6 percent slopes | 0.9%
- 492C | Nasset silt loam, 6 to 12 percent slopes | 0.26%
- 493B | Oronoco loam, 2 to 6 percent slopes | 3.23%
- 493C | Oronoco loam, 6 to 12 percent slopes | 0.68%
- 593D | Elbaville silt loam, 12 to 18 percent slopes | 1.57%
- 99B | Racine loam, 2 to 5 percent slopes | 1.34%
- M510A | Maxfield silt loam, 0 to 2 percent slopes | 0.23%
- M517A | Clyde silty clay loam, 0 to 3 percent slopes | 2.21%
- N150E | Brodale channery loam, deep, 20 to 30 percent slopes | 0.67%
- N501B2 | Downs silt loam, 2 to 6 percent slopes, moderately eroded | 19.53%
- N501C2 | Downs silt loam, 6 to 12 percent slopes, moderately eroded | 8.83%
- N501D2 | Downs silt loam, 12 to 18 percent slopes, moderately eroded | 0.89%
- N518B | Lindstrom silt loam, 2 to 6 percent slopes | 0.32%
- N518C | Lindstrom silt loam, 6 to 12 percent slopes | 0.53%
- N536A | Tama silt loam, driftless, 0 to 2 percent slopes | 4.89%

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N W E S

For Environmental Review Purposes Only

Appendix A - Soils in the Project and Development Area
Lemon Hill Solar Project

Lemon Hill Solar, LLC

Olmsted County, Minnesota

- Site
- Proposed Substation
- Proposed Access Road
- Proposed Solar Panel
- Proposed Inverter
- Proposed Collector Line
- Fence Line

Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\Permitting\State\AIMP_LAYOUT_CHANGES_JUNE2025\LemonHill_AIMP.aprx

Date: (6/23/2025)

Mapunit Symbol | Mapunit Name | % of Project

- 176 | Garwin silty clay loam | 2.89%
- 1846 | Kato silty clay loam, depressional | 0.88%
- 19 | Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | 2.98%
- 203 | Joy silt loam, 1 to 4 percent slopes | 3.15%
- 23 | Skyberg silt loam, 0 to 3 percent slopes | 1.42%
- 24 | Kasson silt loam, 1 to 4 percent slopes | 3.72%
- 2A | Ostrander silt loam, 0 to 2 percent slopes | 0.55%
- 322D2 | Timula silt loam, 12 to 20 percent slopes, moderately eroded | 1%
- 333 | Vasa silt loam | 3.4%
- 369B | Waubeek silt loam, 1 to 6 percent slopes | 7.63%
- 369C | Waubeek silt loam, 6 to 12 percent slopes | 4.41%
- 468 | Otter silt loam, channeled | 3.88%
- 473D | Dorerton loam, 12 to 25 percent slopes | 1.21%
- 473F | Dorerton loam, 25 to 40 percent slopes | 0.78%
- 476C | Frankville silt loam, 6 to 12 percent slopes | 2.49%
- 477B | Littleton silt loam, 1 to 4 percent slopes | 1.46%
- 479 | Floyd silt loam, 1 to 4 percent slopes | 2.91%
- 489A | Atkinson loam, 0 to 1 percent slopes | 1.35%
- 491B | Waucoma loam, 2 to 6 percent slopes | 0.9%
- 493B | Oronoco loam, 2 to 6 percent slopes | 3.23%
- 493C | Oronoco loam, 6 to 12 percent slopes | 0.68%
- 528B | Palms muck, 1 to 6 percent slopes | 0.13%
- 593E | Elbaville silt loam, 18 to 30 percent slopes | 0.55%
- 99B | Racine loam, 2 to 5 percent slopes | 1.34%
- M510A | Maxfield silt loam, 0 to 2 percent slopes | 0.23%
- M517A | Clyde silty clay loam, 0 to 3 percent slopes | 2.21%
- N501B2 | Downs silt loam, 2 to 6 percent slopes, moderately eroded | 19.53%
- N501C2 | Downs silt loam, 6 to 12 percent slopes, moderately eroded | 8.83%
- N501D2 | Downs silt loam, 12 to 18 percent slopes, moderately eroded | 0.89%
- N536A | Tama silt loam, driftless, 0 to 2 percent slopes | 4.89%
- N536B | Tama silt loam, driftless, 2 to 6 percent slopes | 1.36%
- W | Water | 0.04%

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