

INTRODUCTION

USS Webb Solar LLC (The Project) is a proposed 1.25MWac community solar energy system located on an approximately 16 acre main parcel (The Site) with two other participating parcels being used for access to the main parcel. The approximate coordinates for the center of the Site are: (42.080669°, -88.478354°), for more details regarding the location of the proposed community solar project please see the exhibit below titled "Public Land Survey System".

PURPOSE

This report was prepared by US Solar for the Kane County Zoning Administration with the purpose of providing a preliminary analysis of wetlands on and around the immediate vicinity of the Site. Exhibits prepared by US Solar for this preliminary report include a map of the Public Land Survey System, a topographic map of the Site showing United States Geological Survey (USGS) 1 foot contours, historic aerial images of the Site, a comprehensive map and analysis of the National Resource Conservation Service (NRCS) Soil data, a map of the Federal Emergency Management Agency Flood (FEMA) Zones, and a map of the United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) wetlands.

This report describes the results of the data collection efforts carried out by US Solar. This report is intended to provide the information requested by the Kane County Zoning Administration to support permitting needs. If the Project is granted a special use permit by the Kane County Board, US Solar will commission a formal field delineation of wetlands to comply with all local and county regulations for a building permit.

SITE LOCATION AND GEOGRAPHY

Public Land Survey System

The Site consists of a single parcel and will host all the functional components of the solar energy system, the total acreage of the parcel is 16 acres with approximately 10 acres of the parcel being proposed for solar. The Site is located in Hampshire Township 42N, Range 6E, Section 36. The northern boundary of the Site lies on the border of Section 36 and Section 25. The data shown on this exhibit was sourced by US Solar from the Illinois Geological Survey (ILGS).

Topographic Map

The Site is situated on relatively flat land. The maximum elevation change on the main parcel is approximately 10' with the highest elevation being 998' and the lowest elevation being 988'. The data presented in this exhibit was obtained from USGS by US Solar.

Historic Aerial Imagery

Included in this report is an exhibit showing historic aerial photographs of the Site. This exhibit includes imagery from Kane County GIS from 2001 to 2023. As shown in the exhibit, the Site has remained largely unchanged for the past 22 years. The land has consistently been used for agricultural purposes in that time, according to the Landowner the property has been used for agriculture since at least 1975. The imagery also shows that over the duration of the past 22 years the surrounding parcels have consistently been used for agricultural purposes and have largely remained unchanged as well, with only the location of a few homes to the northwest changing in that period.

SOILS

Soils Survey

US Solar has prepared a map of the soils on the Site using the NRCS Web Soil Survey. Additionally, included in this section is a table of the hydric soils from NRCS and Custom Soil Report have been prepared. Shown in the exhibit title “Soils” is a map of the soils on the Site including both the access parcels and the main parcel. This map was created by US Solar on December 8th, 2025 using NRCS data. A table highlighting the data obtained from NRCS Web Soil Survey can be found below.

Table 1 NRCS Data				
Mapunit Symbol	Mapunit Name	Farmland Class	Drainage Class	Hydric Rating
62A	Herbert silt loam, 0 to 2 percent slopes	Prime farmland if drained	Somewhat poorly drained	No
330A	Peotone silty clay loam, 0 to 2 percent slopes	Prime farmland if drained	Very poorly drained	Yes
193C2	Mayville silt loam, 5 to 10 percent slopes, eroded	Farmland of statewide importance	Moderately well drained	No
356A	Elpaso silty clay loam, 0 to 2 percent slopes	Prime farmland if drained	Poorly drained	Yes

HYDROLOGY

USFWS National Wetland Inventory (NWI)

Using the publicly available data from the NWI Wetland Mapper, US Solar has prepared an exhibit titled “Wetlands and Waterways”. The NWI data reveals that there are no wetlands directly on the Site. Shown in the exhibit are the wetlands in the immediate vicinity of the Project. On the surrounding parcels there is a singular Riverine Wetland to the north of the site and Freshwater Ponds, as well as a Freshwater Forested/Shrub Wetland to the west of the Site.

As stated previously in this report, this information was obtained through the USFWS National Wetland Inventory and if the Project is granted a Special Use Permit, US Solar will commission a formal field wetland delineation by Westwood Consulting Services to comply with all applicable local and County regulations for a Building Permit.





Federal Emergency Management Agency (FEMA) Flood Zones

US Solar downloaded and reviewed the FEMA National Flood Hazard Layer (NHFL) firmette for the Site, 17089C0130J. The data from FEMA shows that all flood zones in the immediate vicinity of the Site are Zone A, 1% Annual Chance of Flooding. It is most notable that the Site is listed as Zone X, area of minimal flood hazard. The map also shows that the only notable flood area in the immediate vicinity of the project is located on the parcel to the north of the project and will not be disturbed.



USS Webb Solar LLC

Kane County, IL

-  Parcels with Site Control
-  Project Premises
-  PLSS Section Boundary
-  PLSS Range Boundary



0 300 600 900 1,200
Feet

US/SOLAR
323 N Washington Ave, #350
Minneapolis, MN 55401

Public Land Survey System

AI Little, 2025. Sources: US Solar, ILGS, Kane County/Kucera, Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



USS Webb Solar LLC

Kane County, IL

□ Parcels with Site Control

▨ Project Premises

— 1ft Contour



0 300 600 900 1,200

Feet

US/SOLAR
323 N Washington Ave, #350
Minneapolis, MN 55401

Topography

USS Webb Solar LLC

Kane County, IL

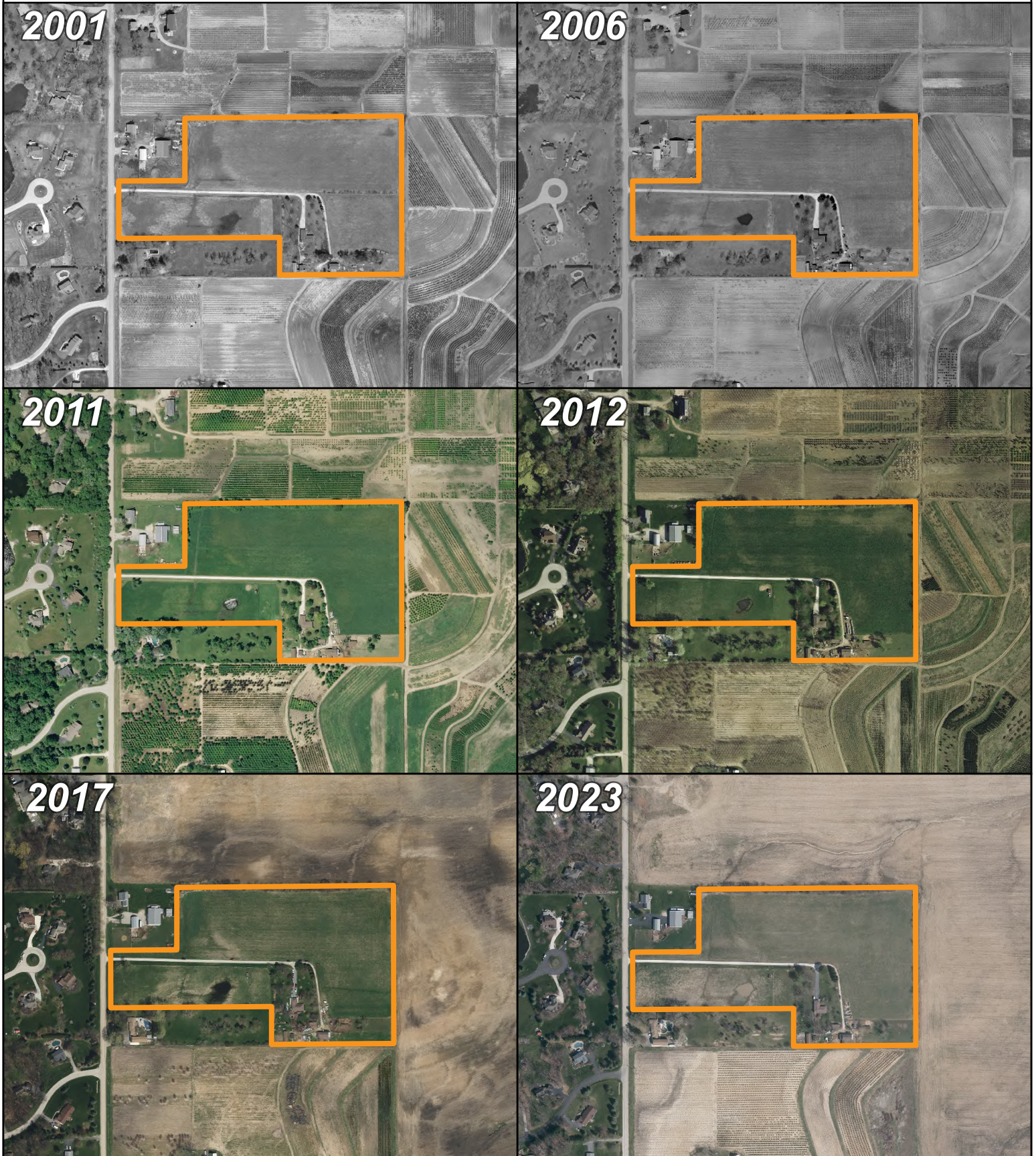
US/SOLAR
323 N Washington Ave, #350
Minneapolis, MN 55401

 Parcels with Site Control

AI Little, 2025. Sources: US Solar, Kane County GIS.



0 500 1,000 1,500 2,000
Feet





USS Webb Solar LLC

Kane County, IL

- 193C2 - Mayville silt loam, 5 to 10 percent slopes, eroded
- 330A - Peotone silty clay loam, 0 to 2 percent slopes
- 356A - Elpaso silty clay loam, 0 to 2 percent slopes
- 62A - Herbert silt loam, 0 to 2 percent slopes
- Parcels with Site Control



0 300 600 900 1,200
Feet

US/SOLAR
323 N Washington Ave, #350
Minneapolis, MN 55401

Soils

Al Little, 2025. Sources: US Solar, SSURGO, NRCS, Kane County/Kucera, Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Kane County, Illinois**

USS Webb Solar LLC



December 8, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


Custom Soil Resource Report Soil Map



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot


 Closed Depression

 Gravel Pit


 Gravelly Spot


 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kane County, Illinois
Survey Area Data: Version 19, Aug 31, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 1, 2023—Sep 1, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
62A	Herbert silt loam, 0 to 2 percent slopes	5.2	31.8%
193C2	Mayville silt loam, 5 to 10 percent slopes, eroded	6.2	38.2%
330A	Peotone silty clay loam, 0 to 2 percent slopes	1.7	10.6%
356A	Elpaso silty clay loam, 0 to 2 percent slopes	3.2	19.4%
Totals for Area of Interest		16.3	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

Custom Soil Resource Report

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Kane County, Illinois

62A—Herbert silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 6nvd
Elevation: 540 to 1,150 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 180 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Herbert and similar soils: 92 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Herbert

Setting

Landform: End moraines, ground moraines
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess or other silty material and in the underlying till

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 12 inches: silt loam
H3 - 12 to 26 inches: silty clay loam
H4 - 26 to 36 inches: clay loam
H5 - 36 to 60 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 6 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Hydric soil rating: No

Minor Components

Elpaso

Percent of map unit: 3 percent
Landform: End moraines, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R108XA008IL - Ponded Loess Sedge Meadow
Hydric soil rating: Yes

Drummer

Percent of map unit: 3 percent
Landform: Ground moraines, outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R108XA013IL - Wet Outwash Prairie
Hydric soil rating: Yes

193C2—Mayville silt loam, 5 to 10 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2szg0
Elevation: 700 to 1,030 feet
Mean annual precipitation: 30 to 37 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 140 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Mayville and similar soils: 93 percent
Minor components: 7 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mayville

Setting

Landform: Ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Concave
Parent material: Loess over loamy till

Typical profile

Ap - 0 to 6 inches: silt loam
BE - 6 to 12 inches: silt loam

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Bt1 - 12 to 28 inches: silty clay loam

2Bt2 - 28 to 32 inches: clay loam

2C - 32 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: About 12 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: F095XB010WI - Loamy and Clayey Upland

Forage suitability group: High AWC, adequately drained (G095AY008WI)

Other vegetative classification: High AWC, adequately drained (G095AY008WI)

Hydric soil rating: No

Minor Components

Elpaso, drained

Percent of map unit: 7 percent

Landform: Till plains, ground moraines

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: R108XA007IL - Wet Loess Upland Prairie, R108XA009IL - Ponded Calcareous Loess Sedge Meadow

Hydric soil rating: Yes

330A—Peotone silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2sn05

Elevation: 500 to 1,020 feet

Mean annual precipitation: 33 to 43 inches

Mean annual air temperature: 46 to 55 degrees F

Frost-free period: 140 to 195 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Peotone, drained, and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Peotone, Drained

Setting

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Silty and clayey colluvium

Typical profile

Ap - 0 to 7 inches: silty clay loam

Bg1 - 7 to 27 inches: silty clay loam

Bg2 - 27 to 50 inches: silty clay

Cg - 50 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 20 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

Minor Components

Peotone, long duration ponding

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F095XB004WI - Wet Loamy or Clayey Lowland

Hydric soil rating: Yes

356A—Elpaso silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zs
Elevation: 580 to 1,020 feet
Mean annual precipitation: 34 to 42 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Elpaso, drained, and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elpaso, Drained

Setting

Landform: Ground moraines, till plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Loess over till

Typical profile

Ap - 0 to 21 inches: silty clay loam
Btg1 - 21 to 44 inches: silty clay loam
2Btg2 - 44 to 69 inches: silty clay loam
2C - 69 to 79 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: R108XA008IL - Ponded Loess Sedge Meadow

Custom Soil Resource Report

Hydric soil rating: Yes

Minor Components

Harpster, drained

Percent of map unit: 4 percent

Landform: Depressions on till plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: R110XY025IL - Ponded Calcareous Sedge Meadow

Hydric soil rating: Yes

Peotone, drained

Percent of map unit: 2 percent

Landform: Depressions on till plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow

Hydric soil rating: Yes

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Custom Soil Resource Report

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USS Webb Solar LLC

Kane County, IL

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Project Premises
- Parcels with Site Control



0 300 600 900 1,200
Feet

US/SOLAR
323 N Washington Ave, #350
Minneapolis, MN 55401

Wetlands and Waterways

AI Little, 2025. Sources: US Solar, USFWS, Kane County/Kucera, Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community



USS Webb Solar LLC

Kane County, IL

 1% Annual Chance of Flooding

 Parcels with Site Control

 Project Premises



0 300 600 900 1,200
Feet

US/SOLAR
323 N Washington Ave, #350
Minneapolis, MN 55401

Flood Zones