SARTELL PLANNING COMMISSION AGENDA

Tuesday, January 2, 2024 | **Sartell City Hall** | **6:00 PM**

1. **Agenda Review and Adoption**

2. **Approval of Minutes of Previous Meeting**
   a. Regular Meeting Minutes November 6, 2023

3. **New Business**
   a. Interim Use Permit – Enterprise Energy

4. **Old Business**

5. **Other Business**
   a. Project Updates
      a. Mill Site Master Plan and Design Guidelines
   b. Planning Commission Updates
   c. Open Discussion

6. **Adjourn**

SARTELL PLANNING COMMISSION MINUTES

Monday, November 6, 2023 **Sartell City Hall** **6:00 PM**

Pursuant to due call and notice thereof, a Planning Commission meeting was held on November 6, 2023, at 6:00 p.m. at Sartell City Hall.

MEMBERS PRESENT:	Kelly Mager, Kelly Bartlow, David Wall, Colin Anderson, Christine Huston
MEMBERS ABSENT:	None
OTHERS PRESENT*:*	Kari Theisen, Project Manager, Jill Hollenkamp, Development Specialist, Ryan Fitzthum, Evan Carlson, Enterprise Energy, LLC

Mager called the meeting to order at 6:00 p.m.

1. AGENDA REVIEW AND ADOPTION

A motion was made by Huston and seconded by Bartlow to approve the agenda as presented. Motion carried with unanimously.

2. APPROVAL OF MINUTES

A motion was made by Wall and seconded by Anderson to approve the minutes of October 2, 2023. Motion carried unanimously.

3. NEW BUSINESS

a. Vacation, 2300 Wyoming Ct, resident is requesting to vacate the existing drainage and utility easements. The owner will be splitting the lot. Easements will be recorded if the Vacation is passed by PC and Council. Motion was made by Wall and seconded by Huston. Motion was carried unanimously.
b. Re-Zone, Preliminary and Final Plat – Champion – Theisen presented the property owned by the City. The purpose for platting is for future sale of the properties. The Landfill is on an out lot on the plat. Theisen explained the encroachments that are significant abutting the mobile home park and a few on 10th St S. Motion was made by Anderson and seconded by Mager (preliminary and final plat). Motion was carried unanimously. Motion was made by Wall and seconded by Mager (re-zone). Motion was carried unanimously.
c. Conditional Use Permit – Enterprise Energy. The permit has been modified to coincide with our updated ordinance. The permit establishes Findings of Fact. The property needs to be preliminary and final platted as part of the condition of the permit. The permit outlined the requirement to meet site design and screening requirements. Theisen discussed the decommissioning plan that was provided by the developer. Theisen discussed the setbacks they are proposing and how it meets or exceeds what the ordinance requires. Discussed the finding of facts. Theisen mentioned the amount of financial assurance the applicant is offering and how we could require the amount to be 125% of the total cost to decommission the site. This amount is a standard request for financial assurance in developments in the City. Discussion was to have Council define the amount of financial assurance required for the project. Motion was made by Wall and seconded by Huston to recommend approval of the Conditional Use Permit with the amount of financial assurance required defined by Council. Motion carried unanimously.

4. OLD BUSINESS

a. Zoning Appeal – Anderson expressed his concerns and thoughts on what was presented. Mager talked about processes that were put in place by elected officials. Asking him to follow the rules and ordinances that all property owners in the City of Sartell are required to follow. Homeowners are choosing not to make it compliant. There was discussion about how the attorney fees may be assessed back to property owners as they choose to keep moving forward. Motion made by Wall and seconded by Huston to recommend denial of the zoning appeal. Motion carried unanimously.

5. OTHER BUSINESS

A. Project updates

a. Passed the drafted Solar Ordinance on October 23, 2023

B. Planning Commission Updates

a. Posting for PC opening, Post closes November 17, 2023

C. Open Discussion

6. ADJOUN

Motion made by Wall and seconded by Bartlow to adjourn the meeting. Motion carried unanimously. Adjourned at 7:19 pm.

Minutes by Jill Hollenkamp – Development Specialist

STAFF MEMO

Lead Department and Contact: Community Development – Kari Theisen	Meeting Date: January 2, 2024	Agenda Item No. 03a
Agenda Section: New Business	Goal Area: Livable City	Item: Interim Use Permit - Enterprise Energy, LLC

PREVIOUS COUNCIL REVIEW OR ACTION: None.

BOARD/COMMISSION/COMMITTEE RECOMMENDATION: None.

BACKGROUND:

Applicant Information:	Enterprise Energy, LLC.
Current Zoning:	R-1 Single Family Residential District
Requested Plan:	Construction and operation of up to a 5 MW solar garden
Location:	PID: 92.57044.0343

CONDITIONAL USE PERMIT

The applicant has applied for an Interim Use Permit to allow the construction and operation of a 5 MW solar garden. The Solar Ordinance allows solar gardens in any zoning district with an approved interim use permit. The interim use permit shall not exceed thirty-five (35) years. The City has a 10 MW cap or limit on the amount of MW in the city, if the proposed 5 MW solar project is approved, the total would now be 10 MW. 3 MW are already constructed with the remaining 7 MW in the beginning stages of the solar development process.

The Interim Use Permit establishes findings of fact and conditions of the Permit. Those conditions include:

- Permit is subject to Title 11 Subdivision Regulations and Site Plan Approval Processes
- Meet all the requirements listed within the Solar Ordinance
- Meet screening requirements to the satisfaction of the City
- Compliance with fire and/or landscaping maintenance agreements if required, requested during site plan approval process.
- Meet solar site management requirements – Provided vegetation and management plan
- Provide a decommissioning plan with financial assurance in an amount defined by the City – Provided decommissioning plan, see full packet for amounts
- Duration of the permit not to exceed 35 years
- Revocation, continued use, and time limit conditions included within CUP

Setback Requirements:

- Meet the specific building setback requirements for the zoning district
  - 30 front, 10 side, 30 rear for R-1 Single Family Residential – solar arrays appear to meet this requirement. Will be officially reviewed during the site plan approval process
- 200 foot setback from any existing structures
  - Proposed Solar Garden exceeds these setbacks
- ¼ mile setback from minor and principal arterial roadways
  - Proposed Solar Garden is ¼ mile setback from Pinecone Road
- 100 foot setback from all other public roadways, trails and/or sidewalks
  - Proposed 100 foot setback from south property line for 17th Street North

- 200 foot setback from public parks
    - Proposed Solar Garden is exceeds this requirement

RECURRING REQUEST: No.

PROPOSED BUDGET/FISCAL IMPACT: Future development and review fees as the developer is required to plat the property.

OPPORTUNITY COST IF APPROVED: None.

ACTIONS REQUESTED: Motion and 2nd to recommend approval of the Interim Use Permit with an amount of the financial bond required not less than 125% of the total cost to decommission the site.

ATTACHMENTS: Interim Use Permit Resolution, Application, and Supporting Documents.

RESOLUTION NO. _____

RESOLUTION APPROVING AN INTERIM USE PERMIT FOR THE PURPOSES OF CONSTRUCTING AND OPERATING A 5 MW SOLAR GARDEN

WHEREAS, Enterprise Energy ("Applicant"); applied for An Interim Use Permit in the City of Sartell described as, **Exhibit A,** (the "Property"); and

WHEREAS, the Interim Use Permit ("Permit") will allow for the construction and operation of the Property for the use of a 5 MW solar garden; and

WHEREAS, the Applicant submitted a site plan as indicated in **Exhibit B**; and

WHEREAS, the Planning Commission met on January 2, 2024, and reviewed the request for an Interim Use Permit; and

WHEREAS, the City Council of the City of Sartell, set a public hearing for the purpose of hearing those present regarding the Permit for the Property, located in Stearns County, Minnesota; and

WHEREAS, The City Council conducted a public hearing on January 8, 2024, where all persons were heard.

NOW THEREFORE, THE COUNCIL FINDS AS FOLLOWS:

The Council approves the following:

FINDINGS OF FACT:

A. The Permit will not be injurious to the use and enjoyment of other property owners in the immediate vicinity and will not substantially diminish and impair property values within the immediate vicinity and is compatible with the existing neighborhood because the property would be utilized in a way that ensures restoration of the site to the pre-developed conditions once the Permit has expired and/or if the conditions are not being met. A financial guarantee is required as part of the conditions of this Permit ensuring that there are monetary funds to accomplish this requirement.

B. That the establishment of the Interim Use Permit does not impede the normal and orderly development and/or improvement of the surrounding vacant properties for uses predominant in the area. The Property will be developed in such a manner that ensures that the proposed solar garden site will be returned to its pre-developed condition. The Permit has a time period not to exceed thirty-five (35) years. This allows the Property to be utilized as proposed, and upon expiration of the Permit, the Property could be developed at a time when the surrounding vacant properties are developed. A Solar Garden is listed as an Interim Use within R-1 Single Family Residential Districts.

C. That adequate utilities, public and private access roads, drainage, and other necessary facilities have been or are being provided. The Applicant provided a document which indicates that the site will have a fifteen-foot (15) wide access road off of 17th Street North. Access to the site will be minimal after construction, reasons for access to the site would be for inspection and maintenance purposes.

D. That adequate measures have been or will be taken to provide sufficient off-street parking to serve the proposed use. The proposed use will not generate the need for off-street parking.

E. That adequate measures have been or will be taken to prevent or control offensive odor, fumes, dust, noise, and vibration so that none of these will constitute a nuisance and to control lighted signs and other lights in such a manner that nor disturbance to neighboring properties will result. The proposed solar garden must submit screening and vegetation requirements to the satisfaction of the City. This will be reviewed during the site plan approval process. The Applicant submitted a glare study which identified that there are little to no glare impacts of the system within a half-mile of the project boundary.

F. That soil conditions are adequate to accommodate the proposed use. The Applicant shall provide a soil map of the Property.

G. That proper facilities are provided which would eliminate any traffic congestion or traffic hazards which may result from the proposed use. The site plan ensures that parking and traffic will not overflow off site. The Applicant has provided information which indicates that all parking, to include construction, will be contained within the Property.

H. That a demonstrated need exists for the proposed use. The proposed 5 MW community solar garden assists the residents who would subscribe to the solar garden to help reach clean energy goals set by the State of Minnesota which ensures that there will be access to reliable, affordable, and safe energy resources. The City's Ordinance has a 10 MW cap on solar gardens, if this Permit is approved, would bring the total to 10 MW in the City at the time of Permit approval.

I. That the proposed use is following the future land use plan adopted by the City. The Future Land Use for the Property is R-1 Single-Family Residential District, Solar Gardens, are listed as an Interim Use.

The Council establishes the following as conditions of approval of the Permit:

CONDITIONS:

A. This Interim Use Permit is subject to Title 11 Subdivision Regulations and Site Plan Approval processes which will include, but not limited to review from, fire, police, zoning, public works, and engineering.

B. All requirements within 10-8-17 pertaining to Solar Gardens shall be met.

C. All screening requirements shall be met to the satisfaction of the City.

D. If fire and/or landscaping maintenance agreements are required, the Applicant shall comply with this requirement.

E. The Applicant shall meet the Solar Site Management requirements as stated in Minn. Stat, 216B.1642. Part of this requirement shall include making the site's vegetation management plan available to the public and report on the site management practices to the Board of Water and Soil Resources on or before June 1 of the year after operations commence and every third (3) year thereafter. The Applicant submitted a Site Management Plan with the Permit application.

F. A decommissioning plan shall be submitted to ensure that facilities are properly removed after the useful life of the solar panels and other facilities. Decommissioning shall occur when the solar panels are not in use for twelve (12) consecutive months. The plan shall include restoration of soil and vegetation to its pre-developed condition, and a financial guarantee ensuring that financial resources will be available to fully decommission the site. A bond, letter of credit, escrow or other financial security in a form and amount of 125% of the total cost to decommission the site as outlined in **Exhibit C**.

G. Duration of Permit: The Permit shall remain in effect for a time period not to exceed thirty-five (35) years.

H. Revocation: The City Council of the City of Sartell may revoke this Permit if determined that the terms and conditions of this Permit as issued are no longer being complied with. A certified copy of an order of the City revoking the Permit shall be filed with the County Recorder for the record.

I. Continued Use: The Permit may be utilized by subsequent occupants under the same terms as defined within this Permit. If the use ceases to operate for a period of one (1) year, then the Permit shall expire automatically without further notice, and the resumption of such use shall require submission of a new Permit.

J. Time Limit: The Interim Use Permit upon written notice being provided by the City to the Permittee but without further action by the Planning Commission or City Council, shall expire if the permit holder fails to initiate such Permit and fulfill each and every

condition attached thereto within two (2) years from the date of authorization, or if the use is discontinued for a continuous twelve (12) month period, unless a petition for an extension of time in which to complete or utilize the use that has been granted by Council. Such extension shall be requested in writing and filed with the City at least thirty (30) days before the expiration date of the original Permit. The request for extension shall state facts showing a good faith attempt to complete or utilize the use permitted in the Permit. Such petition shall be presented to the Planning Commission for a recommendation to the Council and acted upon by the Council.

BASED UPON THE ABOVE FINDINGS OF FACTS, BE IT HEREBY FURTHER RESOLVED:

The City Council of the City of Sartell, based on the Findings of Fact, and upon compliance with the Conditions, approves the Interim Use Permit to allow the construction and operation of a 5 MW solar garden in a R-1 Single Family Residential District on the Property.

ADOPTED BY THE SARTELL CITY COUNCIL THIS 8th DAY OF JANUARY 2024.

_____
Mayor

ATTEST:

_____
City Administrator

CITY SEAL

THIS INSTRUMENT DRAFTED BY:
City of Sartell
125 Pinecone Road North
Sartell, MN 56377
(320) 253-2171

EXHIBIT A
(Legal Description of Property)

LEGAL DESCRIPTION

80 Acres being West ½ of the Southeast ¼ of Section 8, Township 125, Range 028, Stearns County, MN.

PID: 92.57044.0343

EXHIBIT B
(Site Plan)

NWI WETLANDS

NO 100-YEAR FLOODZONE ONSITE

SCRUB BRUSH TREES TO BE CLEARED

ARRAY AREA PROTECTED WITHIN SECURITY FENCE ~4710' IN PERIMETER, WITH ~32 ACRES ENCLOSED WITHIN

1/4 MILE SETBACK FROM PINE CONE RD N

20' SIDEYARD SETBACK

16' EDGE TO EDGE SPACING

INFILTRATION BASIN

PARCEL BOUNDARY

SINGLE ROW OF BLACK HILLS SPRUCE AND SINGLE ROW OF DOGWOOD SHRUBS 16' O.C.; 80% OPACITY YEAR-ROUND AT MATURITY

EQUIPMENT PAD CONTAINING XCEL MV XFMR, XCEL BILLING METER, AND 24/7 ACCESSIBLE UTILITY AC DISCONNECT LOCATED WITHIN 10' OF XCEL BILLING METER

100' SETBACK FROM 17TH ST N

PCC: 45.6448884225°, -94.227723325°

NEW 15' WIDE ACCESS ROAD ~80' WITHIN 10' OF XCEL LINE

DELINEATED WETLAND

NEW 3-PHASE EXTENSION ~1340'

17TH ST N

PINE CONE RD N ~1960'

DOUBLE ROW OF BALSAM FIR AND DOGWOOD SHRUBS 16' O.C.; 80% OPACITY YEAR-ROUND AT MATURITY

TEMPORARY LAYDOWN AREA ~50,000 SQFT

DER LOCATED ~120' AWAY FROM OVERHEAD ELECTRIC SERVICE LINES; NO CLEARANCE CONCERNS

3 NEW XCEL POLES, AT LEAST 40' APART

N

40' 80' 160'

SCALE: 1" = 80'

ENTERPRISE ENERGY

2925 DEAN PARKWAY, EXECUTIVE STE 300
MINNEAPOLIS, MN 55416
612-470-7152
WWW.ENTERPRISEENERGY.COM

PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,664
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.533
QTY PV MODULES	13934
QTY INVERTERS	50
ARRAY TILT	±52°
ARRAY AZIMUTH	180°
PV MODULE SPECIFICATIONS	
MANUFACTURER	TRINA SOLAR
MODEL NUMBER	TSM-DEG19C.20
POWER (WDC-STC)	550
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL-DO/US-480
MAX OUTPUT POWER (kWAC / KVA)	100 / 105.3
OUTPUT VOLTAGE (VAC)	480
MAX INPUT VOLTAGE (VDC)	1,500

ENGINEER'S STAMP:

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

_____

NAME _____
DATE _____
REGISTRATION NUMBER _____

NO.	REVISION / ISSUE	DATE
0	INTERCONNECTION APPLICATION	09/28/23
1	CUP APPLICATION	10/27/2023
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

PROJECT NAME:

WEYER EAST CSG 5MW
EESOLAR10, LLC

LOCATION:

1500 PINE CONE RD
SARTELL, MN 56377
45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

EPC OPERATOR:

XCEL ENERGY

DRAWING TITLE:

SITE PLAN

SHEET: A001

SHEET SIZE: 22"x34"

EXHIBIT C
(Decommissioning Plan)

EESolar10, LLC Decommissioning Plan

Enterprise Energy, LLC

2925 Dean Parkway, Executive Ste 300
Minneapolis, MN 55416
(612) 470-7152

DECOMMISSIONING PLAN

The Solar Garden consists of many recyclable materials, including glass, semiconductor material, steel, aluminum, copper, and plastics. When the Solar Garden reaches the end of its operational life, the component parts will be dismantled and recycled as described below. We have a lease contract with the property owner, which requires us to decommission and restore the site at our expense. The decommissioning plan would commence at the end of the lease term or in the event of twelve (12) months of non-operation. At the time of decommissioning, the Solar Garden components will be dismantled and removed using minimal impact construction equipment, and materials will be safely recycled or disposed of. EESolar10, LLC will be responsible for all the decommissioning costs.

REMOVAL PROCESS

The decommissioning of the Solar Garden proceeds in the following reverse order of the installation:

1. The solar system will be disconnected from the utility power grid
2. PV modules will be disconnected and removed
3. Electrical cables will be removed and recycled off-site
4. PV module racking will be removed and recycled off-site
5. PV module support posts will be removed and recycled off-site
6. Electrical devices, including transformers and inverters, will be removed and recycled off-site
7. Concrete pads will be removed and recycled off-site
8. Fencing will be removed and recycled off-site
9. Reclaim soils in the access driveway and equipment pad areas by removing imported aggregate material and concrete foundations; replace with soils as needed

The Solar Garden site may be converted to other uses in accordance with applicable land use regulations at the time of decommissioning. There are no permanent changes to the site, and it will be returned in terrific condition. This is one of the many great things about community solar gardens. If desired, the site. can return to productive farmland after the system is removed.

DECOMMISSIONING CONSIDERATIONS

We ask that City of Sartell take note of 3 important considerations: 1) a community solar garden is not a public nuisance, 2) the resale and recycle value are expected to greatly offset the cost of decommissioning, and 3) City of Sartell and taxpayers are not at risk.

1) Our modules do not contain hazardous materials and the Solar Garden is not connected to government utilities (water, sewer, etc.). The Solar Garden will be fenced in for security and is sheltered from residences with existing screening. Additionally, almost all the land is permanent vegetation which improves erosion control, soil quality, and water quality. For these reasons, the Solar Garden, whether operational or non-operational, is not a public nuisance threat that would require government involvement in decommissioning or removal of the Solar Garden. Compare this to an abandoned home, barn, etc. that may regularly include hazardous materials and/or become a public nuisance.

2) Upon the end of the Solar Garden's life, the component parts may be resold and recycled. The aggregate value of the equipment is expected to exceed the cost of decommissioning and removal. Solar modules, for example, have power output warranties guaranteeing a minimum power output in Year 25 of at least 80% of Year 1. Since the value of solar panels is measured by their production of watts and the value of electricity, it is easy to calculate expected resale value. Even using extremely conservative assumptions, the value of the solar modules alone greatly exceeds the cost of decommissioning. This does not factor in the recycle value of other raw materials like steel, copper, etc. So, decommissioning is seen as a process that results in a net profit, incentivizing the Solar Garden owner to do it.

3) In the extremely unlikely, "worst-case" scenario where (1) the Solar Garden owner fails to decommission and neither our lender nor any power generation entities want the assets, and then (2) the landowner fails to decommission the Solar Garden (which the landowner would have the right to do under the Property lease), and then (3) the decommissioning financial surety was insufficient to decommission the Solar Garden, City of Sartell would have its standard police powers to enforce decommissioning. If that process ultimately resulted in City of Sartell gaining ownership of the property, City of Sartell could sell the parcel which would absolutely exceed the decommissioning cost.

DECOMMISSIONING FINANCIAL SURETIES

Despite the considerations of 1) the Solar Garden is not a public nuisance, 2) the resale and recycle value is expected to exceed the cost of decommissioning, and 3) City of Sartell and taxpayers are not at risk, we are cognizant that City of Sartell will require the posting of a bond, letter of credit, or the establishment of an escrow account as a condition of issuing EESolar10, LLC a Conditional Use Permit. Of course, City of Sartell would be the obligee of any required security.

We are offering a $25,000 bond for a decommissioning financial surety.

This financial surety provides an extra layer of security that the Solar Garden site will be returned to the appropriate condition at the end of the Solar Garden's useful life or earlier, should the Solar Garden cease operations for a twelve-month period. City of Sartell will be the designated obligee of the fund and the landowner will be provided a copy of the document, thereby establishing the obligation before construction commences.

INSURANCE INFORMATION

EESolar10, LLC will be required to meet insurance requirements under long-term contracts with several parties, including the site landowner, Xcel Energy and its Solar Garden lenders and investors. EESolar10, LLC will be listed on a policy that includes:

- Liability coverage that will include $1,000,000 in coverage against damage to rented property Excess liability coverage of an additional $1,000,000 per occurrence
- Property coverage in an amount necessary to cover the value of the Solar Garden and up to one year of lost revenue in the event the project is destroyed and needs to be rebuilt.

1.0 DECOMMISSIONING PLAN

1.1 General

EESolar10, LLC is a proposed 7.6-megawatt direct current (MW-dc) or 5.0-megawatt alternating current (MW-ac) solar electric generating facility using ground-mounted photovoltaic panels located in City of Sartell, Minnesota. The facility will be located in a fenced area of approximately 32 acres. The vast majority of the site is currently in agricultural use, most of it farmed in row crops. Following decommissioning of the facility, the land will be restored to its pre-construction condition to the extent practicable.

The decommissioning plan (plan) presents the following provisions that are intended to ensure that facilities are properly removed after their useful life. The plan includes provisions for the complete removal of all structures, foundations, underground cables, transformers, inverters, foundations, and the restoration of soil and vegetation. The Contractors will comply with the requirements of all permits during the decommissioning process. Disposal of structures and foundations will comply with any applicable County Solid Waste regulations.

1.2 Decommissioning and Reclamation

Solar projects typically have a life span of approximately 30-40 years, though some replacing or updating of equipment may occur during that time frame. The Owner will be responsible for the removal of all aboveground and underground equipment to full depth within the Project

area at the end of the solar project life span. The Owner will restore and reclaim the site to pre-construction topography and topsoil to the extent practical.

Decommissioning includes removing the solar panels, solar panel racking, steel foundation posts and beams, inverters, transformers, overhead and underground cables and lines, equipment pads and foundations, equipment cabinets, and ancillary equipment. The civil facilities, access road, security fence, and any drainage structures are also included in the scope. Standard decommissioning practices would be utilized, including dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements.

After all the equipment is removed, any holes or voids created by poles, concrete pads, and other equipment will be filled in with native soil to the surrounding grade and the site will be restored to pre-construction conditions, to the extent practicable. All access roads and other areas compacted by the equipment will be de-compacted to a depth necessary to ensure drainage of the soil and root penetration prior to fine grading and tilling to a farmable condition.

1.3 List of Decommissioning Activities

1.3.1 Timeline

Decommissioning is estimated to take approximately 25-30 weeks to complete. The decommissioning crew(s) will ensure that all equipment and materials are recycled or disposed of properly.

1.3.2 Removal and Disposal of Site Components

The removal and disposal details of the site components are found below.

Modules: Modules will be inspected for physical damage, tested for functionality, and disconnected and removed from racking. Functioning modules will be packed, palletized, and shipped to an offsite facility for reuse or resale. Non-functioning modules will be shipped to the manufacturer or a third party for recycling or disposal.

Racking: Racking and racking components will be disassembled and removed from the steel foundation posts, processed to an appropriate size, and sent to a metal recycling facility.

Steel Foundation Posts: All structural foundation steel posts will be pulled out to full depth, removed, processed to an appropriate size, and shipped to a recycling facility. The posts can be removed using backhoes or similar equipment. During decommissioning, the area around the foundation posts may be compacted by equipment and, if compacted, the area will be de-compacted in a manner to adequately restore the topsoil and sub-grade material to a density consistent for vegetation.

Overhead and Underground Cables and Lines: All underground cables and conduits will be removed to full depth in a way that will not impede the reintroduction of farming. Topsoil will be segregated and stockpiled for later use prior to any excavation and the subsurface soils will be staged next to the excavation. The subgrade will be compacted per standards. Topsoil will be redistributed across the disturbed area. Overhead lines will be removed from the project and taken to a recycling facility.

Inverters, Transformers, and Ancillary Equipment: All electrical equipment will be disconnected and disassembled. All parts will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

Equipment Foundation and Ancillary Foundations: The ancillary foundation for Slayton Solar are pile foundations for the equipment pads. As with the solar array steel foundation posts, the foundation Piles are typically removed full depth using a vibratory hammer mounted on a backhoe or similar type of equipment. During the excavation, the topsoil will be segregated from the subsoil, so that the soil can be replaced in the excavation and compacted to restore the pre-construction soil profile. Duct banks will be excavated to full depth. All unexcavated areas compacted by equipment used in decommissioning will be de-compacted in a manner to adequately restore the topsoil and sub-grade material to a density similar to the surrounding soils. All materials will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

Fence: All fence parts and foundations will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. The surrounding areas will be restored to pre-solar farm conditions to the extent feasible.

Access Roads: Facility access roads will be used for decommissioning purposes, after which removal of roads will be discussed with the Landowner, using the following process:

1) After final clean-up, access roads may be left intact through mutual agreement of the landowner and the Owner.

2) If a road is to be removed, aggregate will be removed and shipped from the site to be reused, sold, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. Clean aggregate can often be used as "daily cover" at landfills for no disposal cost. All internal service roads are constructed with geotextile fabric and eight inches of aggregate over compacted subgrade. Any ditch crossing connecting access roads to public roads will be removed unless the landowner requests it remains. The subgrade will be de-compacted using a chisel plow or other appropriate subsoiling equipment.

All rocks larger than four inches will be removed. The access roads and adjacent areas that are compacted by the equipment will be de-compacted.

1.3.3 Restoration/Reclamation of Site

The Owner will restore and reclaim the site to the pre-solar farm condition to the extent practical consistent with the site lease agreement. The Owner assumes that most of the site will be returned to farmland and/or pasture after decommissioning and will implement appropriate measures to facilitate such uses. If no specific use is identified, the Owner will vegetate the site with a seed mix approved by the local soil and water conservation district or similar agency. The goal of restoration will be to restore natural hydrology and plant communities to the extent practicable while minimizing new disturbance and removal of native vegetation. The decommissioning effort will implement best management practices (BMPs) to minimize erosion and to contain sediment on the Project to the extent practicable with the intent of meeting this goal include:

1. Minimize new disturbance and removal of native vegetation to the greatest extent practicable.

2. Remove solar equipment and all access roads up to full depth, backfill with subgrade material and cover with suitable topsoil to allow adequate root penetration for plants, and so that subsurface structures do not substantially disrupt groundwater movements.

3. Any topsoil that is removed from the surface for decommissioning will be stockpiled to be reused when restoring plant communities. Once decommissioning activity is complete, topsoil will be re-spread to assist in establishing and maintaining plant communities.

4. Stabilize soils and return them to agricultural use according to the lease agreements.

5. Prior to and after decommissioning activities, install erosion and sediment control measures, such as silt fences, bio-rolls, and ditch checks in all disturbance areas where the potential for erosion and sediment transport exists, consistent with stormwater management objectives and requirements.

1.4 Post-Restoration Monitoring

Decommissioning of the site will comply with permits for the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Storm Water (CSW) Permit, Spill Containment, and Countermeasure (SPCC) Plan, and Storm Water Pollution Prevention Plan (SWPPP), if grading activities are necessary and exceed applicable permit thresholds. Decommissioning may include post-restoration monitoring as required by the NPDES/SDS CSW Permit and SWPPP and other applicable requirements.

Decommissioning Costs Table

Project Name: EESolar 10, LLC
Date: October, 2023
Project Size 7.6 MW-DC | 5.0 MW-AC

	Quantity	*Unit*	*Unit Price*	*Line Item Price*
Mobilization/Demobilization	1	Lump Sum	**$36,947**	**$36,947**
Mobilization was estimated to be approximately 7% of total cost of other items. This number was developed from speaking with contractors.				
Permitting				
State Permits	1	Lump Sum	$10,000	$10,000
Subtotal Permitting				**$10,000**
Decommissioning will require a SWPPP and SPCC plan, cost is an estimate of the permit preparation cost.				
Civil Infrastructure				
Removal Gravel Surfacing from Road	68	Cubic Yards	$2.59	$177.34
Haul Gravel Removed from Road	68	Cubic Yards	$5.44	$372.47
Disposal of Gravel Removal from Road	102	Tons	$0.00	$0.00
Removal Geotextile Fabric from Road Area	103	Square Yards	$1.40	$143.79
Haul Geotech Fabric Removed from Beneath Access Roads	0.03	Tons	$3.99	$0.11
Disposal of Geotech Fabric Removed from Beneath Access Roads	0.03	Tons	$81.00	$2.29
Removal Culvert from Beneath Road	1	Each	$1,200.00	$1,200.00
Haul Culvert Removed from Road	1	Each	$3.99	$3.99
Disposal of Culverts	1	Each	$24.30	$24.30
Grade Road Corridor (Re-spread Topsoil)	190	Linear Feet	$1.59	$302.10
Erosion and Sediment Control for Road Restoration	146	Linear Feet	$3.29	$480.34
Till to Farmable Condition	0.06	Acres	$402.87	$24.17
Removal of Security Fence	4,748	Linear Feet	$12.43	$59,017.64
Subtotal Civil Infrastructure				**$61,748.54**
Structural Infrastructure				
Removal Steel Foundation Posts (Arrays, Equipment, Met Towers)	2110	Each	$13.38	$28,231.80
Haul Tracker Steel Post	155	Tons	$10.24	$1,587.20
Removal Drive Motor Posts	138	Each	$13.38	$1,839.75
Haul Drive Motor Posts	10	Ton	$10.24	$102.40
Removal Tracker Racking	144	Each	$160.00	$23,040.00
Haul Tracker Racking	167	Ton	$10.24	$1,709.63
Subtotal Structural Infrastructure				**$56,510.78**
Steel removal costs were calculated by using information from array manufacturers for installation rates and using the same rates to calculate total days to remove equipment. Hauling calculations are based on the locations of metals recyclers.				
Electrical Collection/Transmission System				
Removal of PV Modules	13,934	Each	$5.27	$73,432.18
Haul PV Modules for Disposal	360	Tons	$3.99	$1,437.11
Disposal of PV Modules	360	Tons	$81.00	$29,174.31
Removal of Inverters	50	Each	$48.00	$2,400.00
Removal of PCU Station (lnverters/Panelboard/Transformer)	1	Each	$4,000.00	$4,000.00
Haul PCU Equipment to Recycler	1	Each	$230.50	$230.50
Remove Equipment Pad and Foundations	1	Each	$784.49	$784.49
Haul Concrete Foundations	10	Tons	$3.99	$39.90
Disposal of Concrete from Transformer Foundation	10	Tons	$81.00	$810.00
Remove, Haul, and Dispose of Timber Transmission Poles	15	Each	$1,000.00	$15,000.00
Remove and Haul MV Power Cables	150	Linear Feet	$18.14	$2,721.00
Removal of DC Collector System Cables (copper)	5	Per MW	$1,950.00	$9,750.00
Removal of Underground (AC) Cables	1300	Linear Foot	$2.70	$3,510.00
Load and Haul Cables for Recycling	12.5	Ton	$8.25	$103.13
Subtotal Electrical Collection/Transmission System				**$143,392.61**

Electrical removal costs of PV Modules and Combiner Boxes were based on industry standards for installation rates of a two man work crew. PCU Station, MV Equipment and Scada Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and contractor provided information on installation rates. Cable removal assumed using trenching, standard industry production rates.

Site Restoration				
Stabilized Construction Entrance	1	Each	$2,000.00	$2,000.00
Perimeter Controls	4,748	Linear Feet	$3.29	$15,620.92
Till to farmable condition at array areas and basin	32	Acres	$150.48	$4,815.36
Clearing and grubbing for Trees	1.96	Acres	$7,259.43	$14,228.48
Remove Sedimentation Basin	1	Each	$6,997.80	$6,997.80
Subtotal Site Restoration				**$43,662.56**
Site restoration costs are based on past solar project experience.				
Project Management				
Project Manager - half time	25	Weeks	$1,900.00	$47,500.00
Superintendent	25	Weeks	$3,525.00	$88,125.00
Field Engineer	25	Weeks	$2,325.00	$58,125.00
Clerk	25	Weeks	$750.00	$18,750.00
Subtotal Project Management				**$212,500.00**
Standard industry weekly rates from RS Means. 2 week schedule used				
Subtotal Demolition/Removals				**$564,761.52**
Contingency (10%)				$56,476.15
Total Demolition/Removals				**$621,237.67**
Salvage				
Fencing	70	Tons	$348.75	$24,412.50
Steel Posts	155	Tons	$348.75	$54,056.25
Module Racking	167	Tons	$348.75	$58,226.09
PV Modules	13,934	Each	$32.76	$456,477.84
Inverters and Transformers	1	Each	$44,520.90	$44,520.90
Scada Equipment	1	Each	$5,000.00	$5,000.00
DC Collection Lines	30,110	Pounds	$0.75	$22,582.50
AC Collection Lines	1950	Pounds	$0.38	$741.00
Salvage values are a combination of the following factors; current market metal salvage prices, current secondary market for solar panel module recycling, discussions with national companies that specialize in recycling and reselling electrical transformers and inverters, and the assumption that care is taken to prevent any damage or breakage of equipment.				
Subtotal Salvage				**$666,017.08**
Net Demolition Minus Salvage				**-$44,779.41**

Notes:

1. Prices used in analysis are estimated based on research of current average costs and salvage values.
2. Prices provided are estimates and may fluctuate over the life of the project.
3. Contractor means and methods may vary and price will be affected by these.

Decommissioning Assumptions

To develop a cost estimate for the decommissioning of the Project, the following assumptions and pricing references were utilized. Costs were estimated based on current pricing, technology, and regulatory requirements. The assumptions are listed in order from top to bottom of the estimate spreadsheet. When publicly-available bid prices or Department of Transportation (DOT) bid summaries were not available for particular work items, we developed time and material-based estimates considering the composition of work crews and equipment and material required using RS Means. The costs taken from RS Means include bare rates for the labor hours, equipment hours along with material costs and Overhead and Profit margins. The RS Means database has an option to choose vicinity-specific rates. When materials have a salvage value at the end of the project life, the construction activity costs and the hauling/freight cost are separated from the disposal costs or salvage value to make revisions to salvage values more transparent. Salvage and resale credits are not included in this estimate.

1. The projected life of the Project is 25-35 years.

2. Decommissioning will utilize a full-time Project Manager or support staff.

3. Common labor will be used for most of the tasks except for heavy equipment operation.

4. Mobilization was estimated at approximately 7% of the total cost of other items.

5. Permit applications required include the preparation of a Storm Water Pollution Protection Plan (SWPPP) and a Spill Prevention Control and Countermeasure (SPCC) Plan.

6. Road gravel removal was estimated on a time and material basis using a 16-foot width and an 8-inch thickness for the access roads. Because the material will not remain on-site, a hauling cost is added to the removal cost. Road aggregate can often be disposed of by giving to landowners for use on driveways and parking areas. Many landfills will accept clean aggregate for use as "daily cover" and do not charge for the disposal.

7. Grade Road Corridor reflects the cost of mobilizing and operating light equipment to spread and smooth the topsoil stockpiled on-site to replace the aggregate removed from the road.

8. Erosion and sediment control along roads reflect the cost of silt fence on the downhill side of the roads and surrounding all on-site wetlands.

9. In most cases, topsoil is required to be stockpiled on the Project site during construction, therefore any such stockpiled topsoil can be used to replace the road aggregate, once removed. This will help in eliminating the costs for any borrowed landfill. Tilling to an agriculture-ready condition is estimated at $402.87 per acre (based on DOT bid prices for Soil Bed Preparation). The majority of the Project area is assumed to be tilled to an agriculture-ready condition. Because decommissioning activities are not expected to eliminate

the grasses and vegetation under the arrays or heavily compact the soils the restoration effort is expected to be limited. Array areas left as pasture will require little restoration effort because the arrays will have been planted with native plants and pollinator seed mixes. As a result, the soils will have been rejuvenated by having been removed from intensive farming.

10. Fence removal includes loading, hauling, and recycling or disposal. The fence and posts weigh approximately 10 pounds per foot.

11. Array support posts are generally lightweight "I" beam sections installed deep into the ground. Crew productivity is approximately 30 posts per hour, and the same crew and equipment should have similar productivity removing the posts, resulting in a per ton cost of approximately $13.38. When salvage values have not been recognized the costs for processing metal to size and the hauling cost to a more distant recycling facility are generally not included, but the minimum decommissioning financial security controls by such a large margin that the lower price for removals and freight are not shown.

12. The underground collector system cables are placed in trenches with a minimum of four feet of cover.

13. To reduce tracking of sediment off-site by trucks removing materials, we have included a stabilized construction entrance price to the “Site Restoration” section based on state DOT bid prices for similar items.

14. Perimeter control pricing is based on a sediment fence placed on the downgrade side of the work area perimeters and protecting wetlands and drainage swales within the project area.

15. No topsoil will be removed from the landowner's property or used on other landowner's property during decommissioning. The majority of the Project site is not anticipated to have been compacted by heavy truck or equipment traffic so no topsoil will need to be imported, and very few areas will need to be de-compacted.

N

70' 140' 280'

SCALE: 1" = 140'

ENTERPRISE ENERGY

2925 DEAN PARKWAY, EXECUTIVE STE 300
MINNEAPOLIS, MN 55416
612–470–7152
WWW.ENTERPRISEENERGY.COM

PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,664
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.533
QTY PV MODULES	13934
QTY INVERTERS	50
ARRAY TILT	±52°
ARRAY AZIMUTH	180°

PV MODULE SPECIFICATIONS	
MANUFACTURER	TRINA SOLAR
MODEL NUMBER	TSM–DEG19C.20
POWER (WDC–STC)	550
MAX SYSTEM VOLTAGE (VDC)	1500

PV INVERTER SPECIFICATIONS	
MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL–DO/US–480
MAX OUTPUT POWER (kWAC / KVA)	100 / 105.3
OUTPUT VOLTAGE (VAC)	480
MAX INPUT VOLTAGE (VDC)	1,500

ENGINEER'S STAMP:

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

_____

NAME _____
DATE _____
REGISTRATION NUMBER _____

NO.	REVISION / ISSUE	DATE
0	INTERCONNECTION APPLICATION	09/28/23
1	CUP APPLICATION	10/27/2023
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PROJECT NAME:

WEYER EAST CSG 5MW
EESOLAR10, LLC

LOCATION:

1500 PINE CONE RD
SARTELL, MN 56377
45.6460097183°, –94.2300408733°
STEARNS COUNTY, MN

EPC OPERATOR:

XCEL ENERGY

DRAWING TITLE:

ADJACENT PROPERTIES

SHEET:	SHEET SIZE:
A000	22"x34"

NWI WETLANDS

NO 100-YEAR FLOODZONE ONSITE

SCRUB BRUSH TREES TO BE CLEARED

ARRAY AREA PROTECTED WITHIN SECURITY FENCE ~4710' IN PERIMETER, WITH ~32 ACRES ENCLOSED WITHIN

1/4 MILE SETBACK FROM PINE CONE RD N

20' SIDEYARD SETBACK

16' EDGE TO EDGE SPACING

INFILTRATION BASIN

PARCEL BOUNDARY

SINGLE ROW OF BLACK HILLS SPRUCE AND SINGLE ROW OF DOGWOOD SHRUBS 16' O.C.; 80% OPACITY YEAR-ROUND AT MATURITY

EQUIPMENT PAD CONTAINING XCEL MV XFMR, XCEL BILLING METER, AND 24/7 ACCESSIBLE UTILITY AC DISCONNECT LOCATED WITHIN 10' OF XCEL BILLING METER

100' SETBACK FROM 17TH ST N

PCC: 45.6448884225°, -94.227723325°

NEW 15' WIDE ACCESS ROAD ~80' WITHIN 10' OF XCEL LINE

DELINEATED WETLAND

NEW 3-PHASE EXTENSION ~1340'

17TH ST N

PINE CONE RD N ~1960'

DOUBLE ROW OF BALSAM FIR AND DOGWOOD SHRUBS 16' O.C.; 80% OPACITY YEAR-ROUND AT MATURITY

TEMPORARY LAYDOWN AREA ~50,000 SQFT

DER LOCATED ~120' AWAY FROM OVERHEAD ELECTRIC SERVICE LINES; NO CLEARANCE CONCERNS

3 NEW XCEL POLES, AT LEAST 40' APART

N

40' 80' 160'

SCALE: 1" = 80'

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MINNEAPOLIS, MN 55416
612-470-7152
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PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,664
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.533
QTY PV MODULES	13934
QTY INVERTERS	50
ARRAY TILT	±52°
ARRAY AZIMUTH	180°
PV MODULE SPECIFICATIONS	
MANUFACTURER	TRINA SOLAR
MODEL NUMBER	TSM-DEG19C.20
POWER (WDC-STC)	550
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL-DO/US-480
MAX OUTPUT POWER (kWAC / KVA)	100 / 105.3
OUTPUT VOLTAGE (VAC)	480
MAX INPUT VOLTAGE (VDC)	1,500

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EESOLAR10, LLC

LOCATION:

1500 PINE CONE RD
SARTELL, MN 56377
45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

EPC OPERATOR:

XCEL ENERGY

DRAWING TITLE:

SITE PLAN

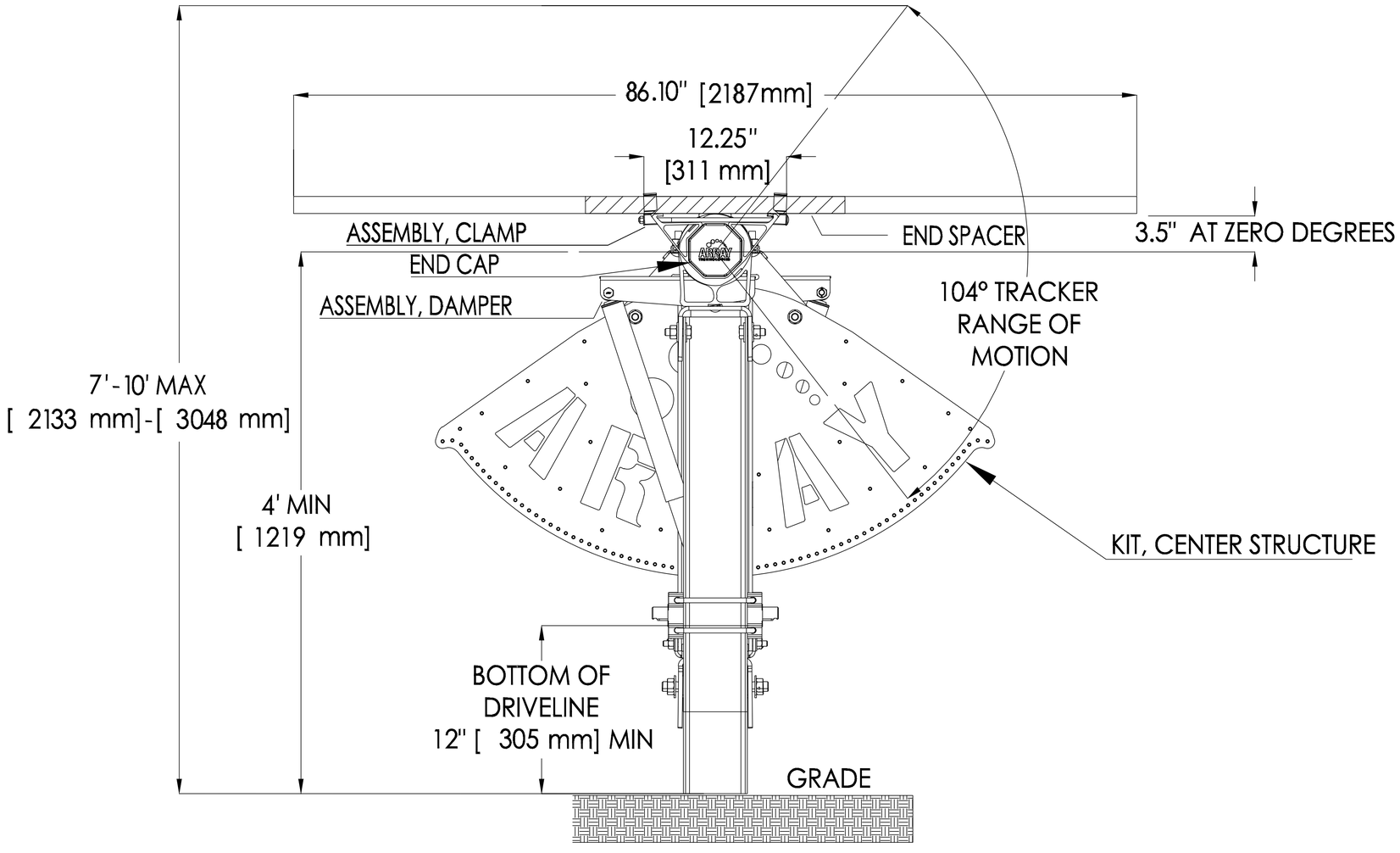
SHEET: A001

SHEET SIZE: 22"x34"

NOTE:

REFERENCE INDIVIDUAL FIELD ASSEMBLY DRAWINGS FOR DETAILS.
INSTALL END CLAMP SPACER ON END CLAMPS.
INSTALL END CAP AT END OF TUBE.

MINIMUM DISTANCES AND MODULE DATA



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MINNEAPOLIS, MN 55416
612-470-7152
WWW.ENTERPRISEENERGY.COM

PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,664
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.533
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QTY INVERTERS	50
ARRAY TILT	±52°
ARRAY AZIMUTH	180°
PV MODULE SPECIFICATIONS	
MANUFACTURER	TRINA SOLAR
MODEL NUMBER	TSM-DEG19C.20
POWER (WDC-STC)	550
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL-DO/US-480
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MAX INPUT VOLTAGE (VDC)	1,500

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EESOLAR10, LLC

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45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

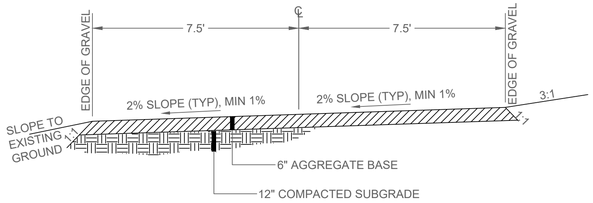
EPC OPERATOR:

XCEL ENERGY

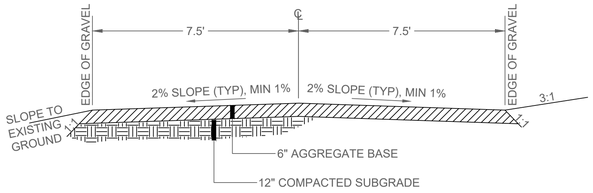
DRAWING TITLE:

SAT ELEVATION PROFILE

SHEET:	SHEET SIZE:
A002	22"x34"



ROAD WITH SUPERELEVATION

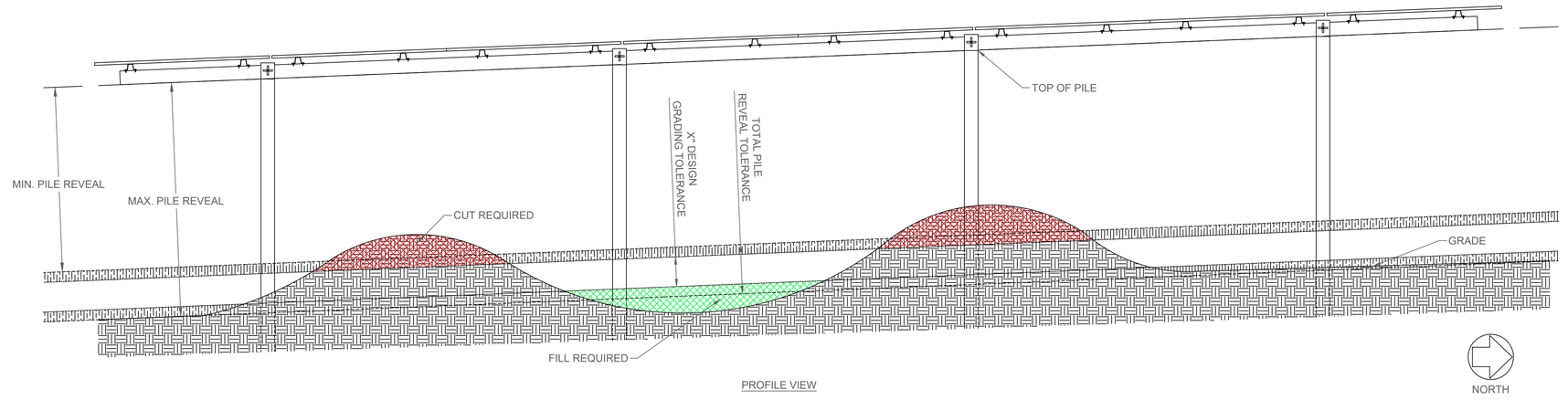


ROAD WITH CROWN

NOTES:

1. 2% CROSS SLOPE IS TYPICAL, BUT CAN BE ADJUSTED DOWN TO MATCH EXISTING GROUND SLOPE IN ORDER TO PROMOTE CONTINUED SHEET DRAINAGE ACROSS ROAD. CROSS SLOPE SHALL NOT BE LESS THAN 1%.
2. ROAD GRADES ARE TYPICALLY INTENDED TO MATCH ADJACENT GRADE ALLOWING DRAINAGE TO SHEET ON AND OFF OF ROADS EVENLY. CARE SHOULD BE TAKEN TO FIELD ADJUST ROAD GRADES OR DITCH AND LOW WATER CROSSING LOCATIONS AS NECESSARY TO PREVENT RUNOFF FROM CONCENTRATING ALONG ROAD EDGES CAUSING EROSION.
3. NO GEOTECH REPORT HAS BEEN COMPLETED. ROAD SECTION DESIGN SHOWN IS PRELIMINARY AND MAY CHANGE PENDING THE FINAL GEOTECH REPORT. STRUCTURAL DESIGN OR ANALYSIS HAS NOT BEEN PERFORMED REGARDING ACCESS ROAD DETAILS.

1 TYPICAL SOLAR ACCESS ROAD
NOT TO SCALE



PROFILE VIEW

2 TRACKER X-SECTION & GRADING TOLERANCE EXHIBIT
NOT TO SCALE

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MINNEAPOLIS, MN 55416
612-470-7152
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PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,664
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.533
QTY PV MODULES	13934
QTY INVERTERS	50
ARRAY TILT	±52°
ARRAY AZIMUTH	180°

PV MODULE SPECIFICATIONS	
MANUFACTURER	TRINA SOLAR
MODEL NUMBER	TSM-DEG19C.20
POWER (WDC-STC)	550
MAX SYSTEM VOLTAGE (VDC)	1500

PV INVERTER SPECIFICATIONS	
MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL-DO/US-480
MAX OUTPUT POWER (kWAC / KVA)	100 / 105.3
OUTPUT VOLTAGE (VAC)	480
MAX INPUT VOLTAGE (VDC)	1,500

ENGINEER'S STAMP:

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EESOLAR10, LLC

LOCATION:

1500 PINE CONE RD
SARTELL, MN 56377
45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

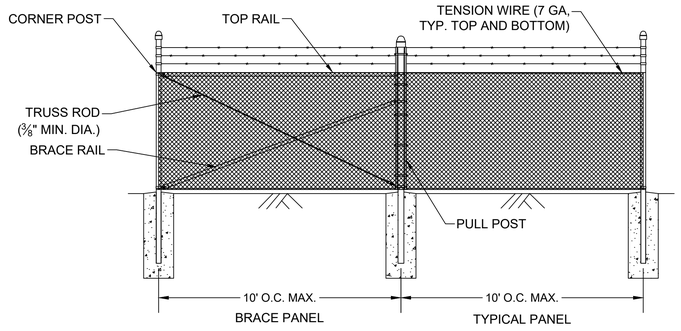
EPC OPERATOR:

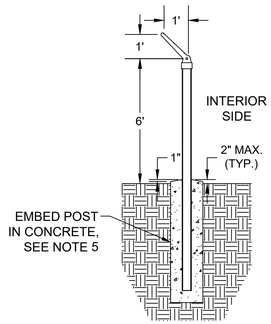
XCEL ENERGY

DRAWING TITLE:

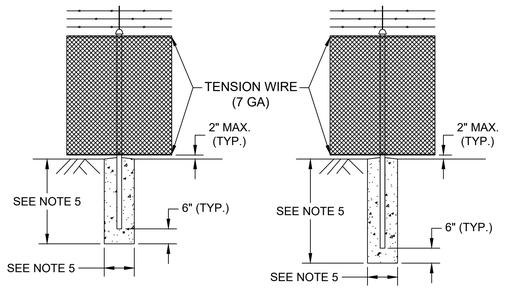
PRELIM CIVIL DETAILS

SHEET:	SHEET SIZE:
A003	22"x34"





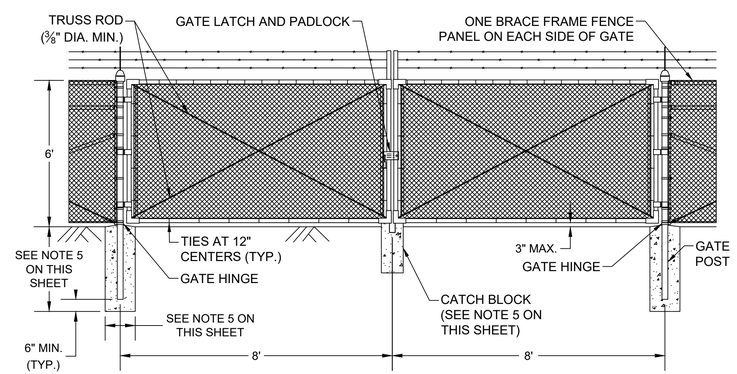
AT TYPICAL CONDITION



FENCE NOTES:

1. FENCE FABRIC SHALL BE NO MORE THAN 2" ABOVE FINISHED GRADE.
2. FABRIC - 9 GAUGE, 2" MESH; GALVANIZED ASTM A392, CLASS 1; TWISTED SELVAGE ON BOTTOM, KNUCKLED SELVAGE ON TOP.
3. ALL RAIL, WIRE AND GATES SHALL BE GALVANIZED.
4. BARBED WIRE TOPPING SHALL CONSIST OF THREE STRANDS OF 12.5 MINIMUM GAUGE WIRE HAVING 4-POINT BARBS OF 14 GAUGE WIRE AT 5 INCHES MAXIMUM SPACING IN COMPLIANCE WITH ASTM A121. BARBED WIRE SHALL BE INSTALLED WITH 45-DEGREE EXTENSION ARMS FACING OUTWARD, AWAY FROM THE SECURED AREA.
5. DETAILS AND DIMENSIONS ARE PRELIMINARY. POST SIZING, FOUNDATIONS, EMBEDMENT DEPTHS/FREQUENCY, AND MATERIALS ARE ALL TO BE CONFIRMED DURING FINAL DESIGN.

1 CHAIN LINK SECURITY FENCE WITH BARBED WIRE AND POSTS
NOT TO SCALE



2 20 FOOT SWINGING ACCESS GATE
NOT TO SCALE

ENTERPRISE ENERGY

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MINNEAPOLIS, MN 55416
612-470-7152
WWW.ENTERPRISEENERGY.COM

PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,664
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.533
QTY PV MODULES	13934
QTY INVERTERS	50
ARRAY TILT	±52°
ARRAY AZIMUTH	180°
PV MODULE SPECIFICATIONS	
MANUFACTURER	TRINA SOLAR
MODEL NUMBER	TSM-DEG19C.20
POWER (WDC-STC)	550
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL-DO/US-480
MAX OUTPUT POWER (kWAC / KVA)	100 / 105.3
OUTPUT VOLTAGE (VAC)	480
MAX INPUT VOLTAGE (VDC)	1,500

ENGINEER'S STAMP:

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

_____

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REGISTRATION NUMBER _____

NO.	REVISION / ISSUE	DATE
0	INTERCONNECTION APPLICATION	09/28/23
1	CUP APPLICATION	10/27/2023
2		
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PROJECT NAME:

WEYER EAST CSG 5MW
EESOLAR10, LLC

LOCATION:

1500 PINE CONE RD
SARTELL, MN 56377
45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

EPC OPERATOR:

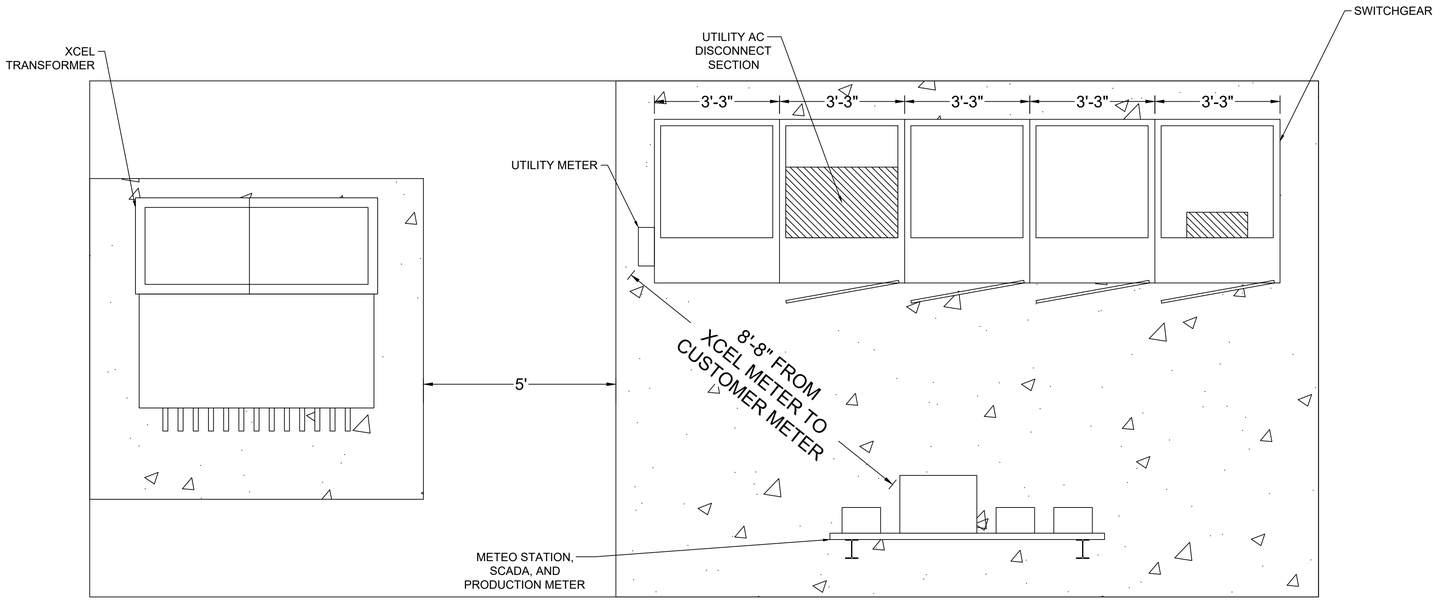
XCEL ENERGY

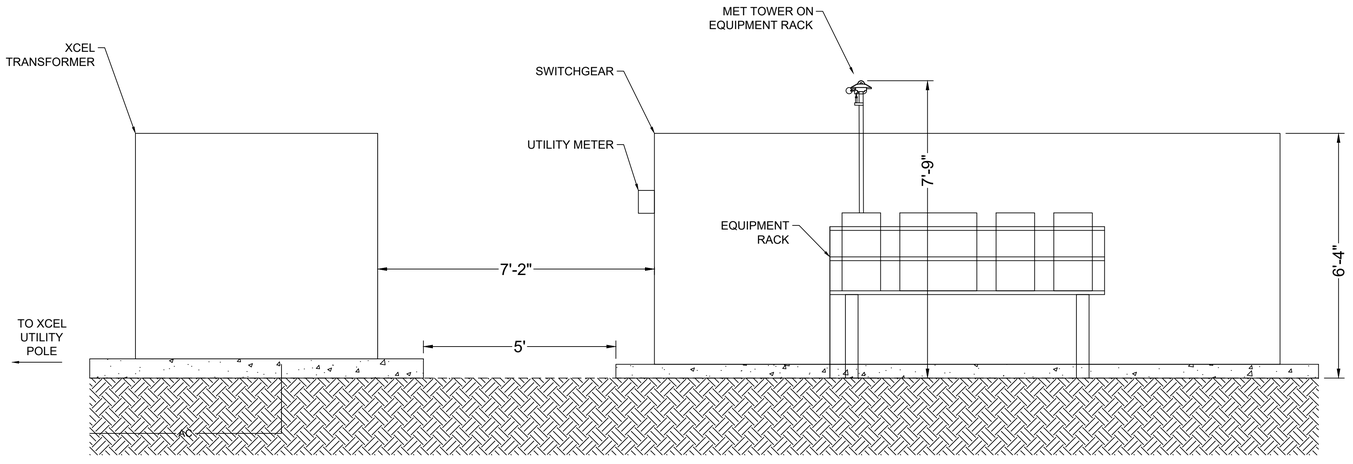
DRAWING TITLE:

FENCE DETAIL

SHEET: A004

SHEET SIZE: 22"x34"





ENTERPRISE ENERGY

2925 DEAN PARKWAY, EXECUTIVE STE 300
MINNEAPOLIS, MN 55416
612-470-7152
WWW.ENTERPRISEENERGY.COM

PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,664
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.533
QTY PV MODULES	13934
QTY INVERTERS	50
ARRAY TILT	±52°
ARRAY AZIMUTH	180°
PV MODULE SPECIFICATIONS	
MANUFACTURER	TRINA SOLAR
MODEL NUMBER	TSM-DEG19C.20
POWER (WDC-STC)	550
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL-DO/US-480
MAX OUTPUT POWER (kWAC / KVA)	100 / 105.3
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EESOLAR10, LLC

LOCATION:

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45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

EPC OPERATOR:

XCEL ENERGY

DRAWING TITLE:

EQUIPMENT PAD DETAIL

SHEET:	SHEET SIZE:
A005	22"x34"

ENTERPRISE ENERGY

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MINNEAPOLIS, MN 55416
612-470-7152
WWW.ENTERPRISEENERGY.COM

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AC SYSTEM SIZE (kWAC)	5,000
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QTY PV MODULES	13934
QTY INVERTERS	50
ARRAY TILT	±52°
ARRAY AZIMUTH	180°

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MANUFACTURER	TRINA SOLAR
MODEL NUMBER	TSM-DEG19C.20
POWER (WDC-STC)	550
MAX SYSTEM VOLTAGE (VDC)	1500

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MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL-DO/US-480
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EESOLAR10, LLC

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SARTELL, MN 56377
45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

EPC OPERATOR:

XCEL ENERGY

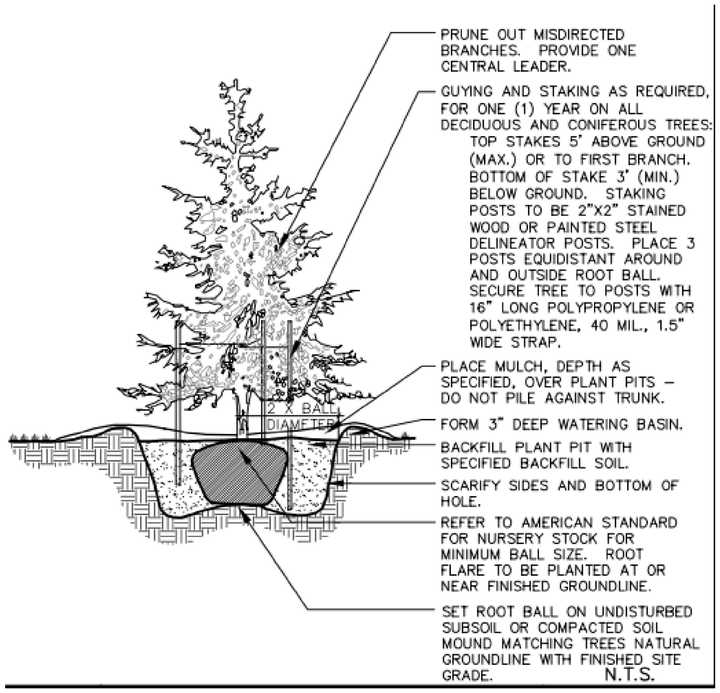
DRAWING TITLE:

TOPO AND DRAINAGE PATTERNS

SHEET:	SHEET SIZE:
A006	22"x34"

1 EVERGREEN TREES SCREENING

Scale: N.T.S.



3 EVERGREEN PLANTING DETAIL

Scale: N.T.S.

PLANTING SCHEDULE

TYPE : BLACK HILLS SPRUCE & BOLSOM FIR

HEIGHT : 6' MIN WITHIN 3 YEARS OF PLANTING

NUMBER OF ROWS: 1

SPACING: 16' O.C.

TYPE : DOGWOOD SHRUB

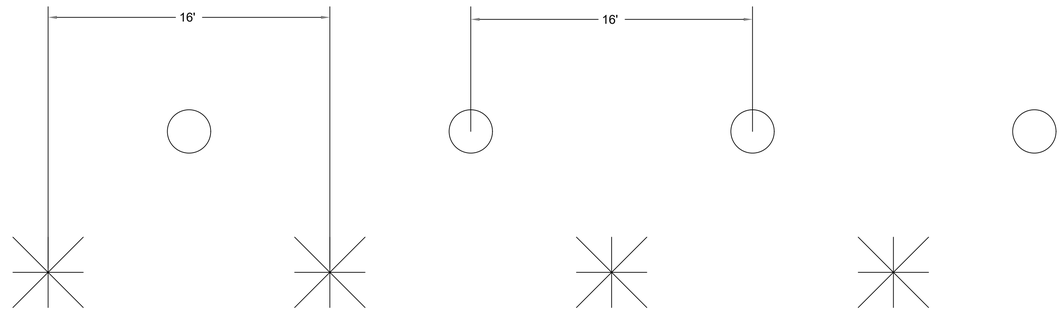
HEIGHT : 4' MIN WITHIN 3 YEARS OF PLANTING

NUMBER OF ROWS: 1

SPACING: 16' O.C.

2 DOGWOOD SHRUB SCREENING

Scale: N.T.S.



4 PLAN VIEW

Scale: N.T.S.

ENTERPRISE ENERGY

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MINNEAPOLIS, MN 55416
612-470-7152
WWW.ENTERPRISEENERGY.COM

PV SYSTEM OVERVIEW	
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MANUFACTURER	CHINT POWER SYSTEMS
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PROJECT NAME:

WEYER EAST CSG 5MW
EESOLAR10, LLC

LOCATION:

1500 PINE CONE RD
SARTELL, MN 56377
45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

EPC OPERATOR:

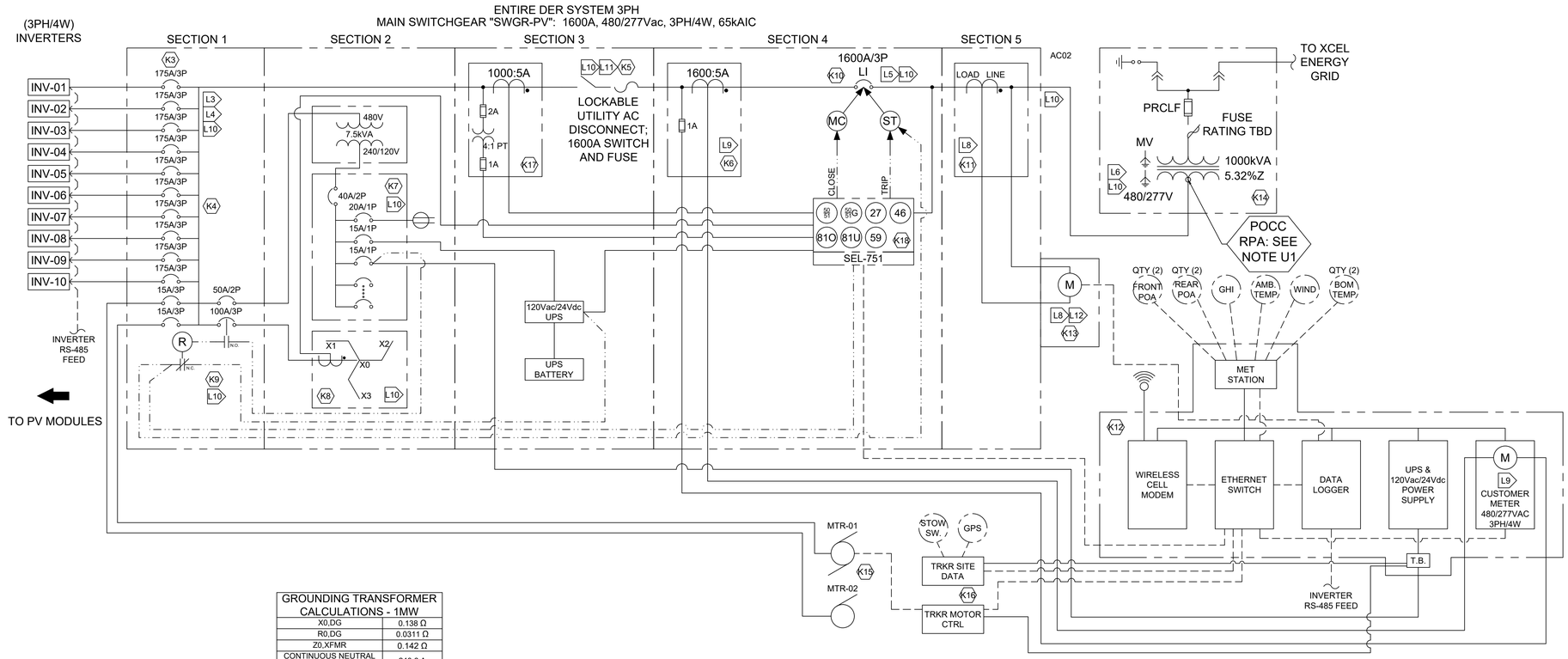
XCEL ENERGY

DRAWING TITLE:

TREE PLAN

SHEET: A007

SHEET SIZE: 22"x34"



GROUNDING TRANSFORMER CALCULATIONS - 1MW	
X0,DG	0.138 Ω
R0,DG	0.0311 Ω
Z0,XFMR	0.142 Ω
CONTINUOUS NEUTRAL CURRENT	240.6 A
5 SECOND WITHSTAND RATING	2514.2 A
*SEE SEPARATE CALCULATIONS PAGE FOR FORMULAS	

LEGEND

L# LABEL IDENTIFIER

KEYNOTE IDENTIFIER

UTILITY NOTES

U1. REFERENCE POINT OF APPLICABILITY (RPA). THIS IS THE LOCATION AT WHICH ANTI-ISLANDING AND SINGLE PHASE TESTING WILL OCCUR IN ACCORDANCE WITH IEEE STANDARDS 1547 AND 1547.1.

U2. THE METER SOCKET FOR THE MAIN BILLING METER SHALL BE MARKED WITH A STAMPED BRASS, ALUMINUM OR STAINLESS STEEL TAG INDICATING THE ADDRESS IN ACCORDANCE WITH THE REQUIREMENTS FOR "METER IDENTIFICATION" IN SECTION 4.14.4 OF THE XCEL ENERGY STANDARD.

U3. PV SYSTEM WARNING LABELS, PLACARDS AND BRASS TAGS SHALL MEET XCEL REQUIREMENTS AS SPECIFIED IN THE XCEL ENERGY STANDARD FOR ELECTRIC INSTALLATION AND USE MANUAL. XCEL ENERGY METER DEPARTMENT TO REVIEW AND APPROVE METER LOCATIONS. PLACARDS SHALL CLEARLY STATE LOCATION OF NEW MAIN BILLING METER.

U4. PV SYSTEM LABELS SHALL MEET NEC 2020 REQUIREMENTS AS SPECIFIED IN ARTICLE 690 (AND ELSEWHERE AS REQUIRED). ALL EQUIPMENT, CONDUCTORS, AND PROTECTIVE DEVICES HAVE BEEN DESIGNED TO MEET NEC 2020 CODE, SPECIFICALLY SECTIONS 690, 705, 310, 240, 250 AND OTHERS AS APPLICABLE.

U5. INVERTER DC GROUNDING CONFIGURATION IS A FUNCTIONALLY GROUNDED SYSTEM PER NEC 690.2 & 690.41(A). ONLY POSITIVE CONDUCTORS SHALL BE FUSED AT THE COMBINER INPUTS. POSITIVE CONDUCTOR INSULATION SHALL BE RED, NEGATIVE CONDUCTOR INSULATION SHALL BE BLACK - WHITE CONDUCTOR INSULATION SHALL NOT BE USED.

U6. XCEL ENERGY'S METERING REQUIREMENTS FOR MAIN BILLING METER: UTILITY METER CT CABINET SECTIONS SHALL BE UL-LISTED AND MEET THE CURRENT INSTALLATION REQUIREMENTS PER THE XCEL ENERGY STANDARD FOR ELECTRIC INSTALLATION AND USE MANUAL, SPECIFICALLY SECTIONS 4.10.7, 4.12.1 AND DRAWING TR-40. CUSTOMER TO FURNISH 1600A CT SECTIONS WITH REMOVABLE BUS SECTIONS AND MOUNTING PROVISIONS FOR WINDOW-TYPE CT'S PER SECTION 4.12.1 ITEM #5. CUSTOMER TO PROCURE A LABELING PLACARD WITH BLACK LETTERS ON YELLOW BACKGROUND STATING "PHOTOVOLTAIC SYSTEM CONNECTED" TO BE LOCATED ON OR IMMEDIATELY ADJACENT TO CT CABINET ENCLOSURES. THE CT'S FOR THE MAIN BILLING METER SHALL BE MOUNTED SUCH THAT THE H1 POLARITY MARKING FACES TOWARD THE XCEL UTILITY GRID. XCEL TO REVIEW AND APPROVE SHOP DRAWINGS FOR TECHNICAL AND METERING COMPLIANCE PRIOR TO PLACEMENT OF SWITCHGEAR ORDER.

U7. IF APPLICABLE, INSTALLER WILL ENSURE EACH CO-LOCATED PROJECT SHALL HAVE EACH EQUIPMENT DEMARCATED WITH UNIQUE IDENTIFIER ON ALL CONSTRUCTION DRAWINGS AND DRAWINGS OF RECORD, AND LIKEWISE SHALL BE LABELED AS SUCH IN THE FIELD.

U8. IF APPLICABLE, CO-LOCATED UTILITY TRANSFORMERS MAY BE FED BY MEDIUM VOLTAGE UNDERGROUND LINES DAISY CHAINED FROM ONE DUAL-INPUT TRANSFORMER TO ANOTHER

KEYNOTES

K1 PHOTOVOLTAIC MODULE DC ARRAY. MODULE MAKE/MODEL, WATTAGE, STRING LENGTH & ELECTRICAL SPECIFICATIONS AS SHOWN IN TABLES ON THIS SHEET. MODULES ARE UL1703 LISTED WITH PRE-INSTALLED QUICK CONNECTS ON MODULE LEADS. DO NOT ALTER THE QUICK CONNECTS AS THIS COULD VOID WARRANTY. STRING HOMERUN CONDUCTOR CONNECTORS SHALL MATCH FACTORY-INSTALLED MODULE LEAD CONNECTORS.

K2 PHOTOVOLTAIC INVERTER. INVERTER MAKE/MODEL, WATTAGE, VOLTAGE & ELECTRICAL SPECIFICATIONS AS SHOWN IN TABLES ON THIS SHEET. INVERTER IS UL1741 LISTED AND IEEE1547 COMPLIANT WITH INTEGRAL ANTI-ISLANDING PROTECTION, DC GROUND FAULT PROTECTION, AND DC & AC LOAD BREAK DISCONNECTS. ONLY POSITIVE DC INPUTS SHOWN FOR CLARITY. INVERTERS DO NOT REQUIRE AN OUTPUT NEUTRAL WIRE FOR NORMAL OPERATION PER INSTALLATION MANUAL. INVERTERS ARE LISTED TO UL1699B FOR AFCI PROTECTION.

K3 INVERTER OUTPUT BREAKER, TYP. BREAKERS SIZED PER INVERTER MANUFACTURER REQUIREMENTS.

K4 SWITCHGEAR AC INVERTER INPUT & 480Vac AUXILIARY LOAD SECTION. BREAKER SIZE & QUANTITIES AS SHOWN.

K5 UTILITY AC DISCONNECT IN SWITCHGEAR. VISIBLE-OPEN TYPE, LOCKABLE, AND 24/7 READILY ACCESSIBLE BOLTED PRESSURE SWITCH SIZED & FUSED AS SHOWN. EATON PRINGLE OR BOLTSWITCH STYLE BOLTED PRESSURE SWITCH OR APPROVED EQUAL.

K6 CUSTOMER CT AND VREF SECTION WITHIN SWITCHGEAR. CT SECTION SHALL HAVE PROVISIONS FOR WINDOW-TYPE CT'S OF RATIO AS SHOWN AS WELL AS PROVISIONS FOR METER VOLTAGE REFERENCES. CT'S SHALL BE METER GRADE AND 0.3% ACCURACY OR BETTER.

K7 40A 240/120VAC AUXILIARY PANEL "AUX-01". FED BY SECONDARY OF 7.5kVA AUXILIARY TRANSFORMER WITH SECONDARY PROTECTIVE BREAKER AS SHOWN. AUXILIARY PANEL SHALL HAVE BREAKERS OF SIZE/QUANTITY SHOWN.

K8 ZIGZAG TRANSFORMER PER XCEL ENERGY EFFECTIVE GROUNDING REQUIREMENTS. TRANSFORMER SHALL BE SIZED PER PV GROUND REFERENCING REQUIREMENTS AND SAMPLE CALCULATIONS DOCUMENT FROM XCEL ENERGY DATED NOVEMBER 15, 2015.

K9 BREAKER FEEDING ZIGZAG TRANSFORMER SHALL BE FITTED WITH (1) AUXILIARY CONTACT WHICH IS NORMALLY OPEN WHEN THE BREAKER IS CLOSED. WHEN THE ZIGZAG BREAKER OPENS AND CONTACT CLOSES, IT SHALL APPLY VOLTAGE TO THE ICE CUBE RELAY CIRCUIT CONNECTING TO THE MAIN AC BREAKER DISCONNECT SHUNT TRIP UNIT AND APPLY 24Vdc VOLTAGE TO OPEN THE MAIN BREAKER TO SHUT DOWN THE SITE. VOLTAGE APPLIED FROM RELAY SHALL ALSO SERVE AS A BREAKER STATUS TO THE MULTIFUNCTION RELAY.

K10 MAIN AC DISCONNECT BREAKER, SIZED AS SHOWN WITH LI TRIP ADJUSTABILITY. BREAKER SHALL BE FITTED WITH A SHUNT TRIP UNIT WHICH OPERATES UNDER APPLICATION OF 120VAC CONTROL VOLTAGE. CONTROL CIRCUIT SHALL BE ROUTED THRU THE ZIGZAG BREAKER CONTACT. UPON OPENING OF THE ZIGZAG BREAKER, VOLTAGE SHALL BE APPLIED AND THE SHUNT TRIP SHALL OPEN THE MAIN AC DISCONNECT BREAKER. BREAKER SHALL ALSO BE FITTED WITH A MOTORIZED CLOSING DEVICE FOR REMOTE CLOSING OF BREAKER.

K11 XCEL ENERGY MAIN BILLING METER CT SECTION, 480/277VAC 3PH/4W. REFERENCE UTILITY NOTE U6 FOR SPECIFIC UTILITY METERING AND CT CABINET REQUIREMENTS.

K12 CUSTOMER DATA ACQUISITION SYSTEM (DAS) ENCLOSURE. DAS ENCLOSURE TO HOUSE CUSTOMER METER, POWER SUPPLY & UPS, DATA LOGGER AND CELL MODEM AT A MINIMUM. DAS ENCLOSURE SHALL BE CONNECTED TO THE MET STATION ENCLOSURE, WHICH IN TURN RECEIVES SIGNALS FROM THE SENSORS AS SHOWN. SPECIFIC COMPONENTS AND CONFIGURATION PENDING DAS VENDOR FINAL DESIGN, AND SHOWN HERE FOR INFORMATIONAL PURPOSES ONLY.

K13 XCEL ENERGY 480/277VAC 3PH/4W MAIN BILLING METER ENCLOSURE AND METER MOUNTED ON AUXILIARY EQUIPMENT RACK. METER SHALL BE LOCATED APPROX. 20FT AWAY FROM MAIN PV AC DISCONNECT. REFERENCE UTILITY NOTES U2, U3, AND U6 FOR DETAILS AND REQUIREMENTS FOR XCEL MAIN BILLING METERING. A LABEL SHALL BE APPLIED SHOWING LOCATION OF METER.

K14 XCEL-SUPPLIED INTERCONNECTION TRANSFORMER, SIZED AND WITH MAJOR SPECIFICATIONS AS SHOWN, OR EQUIVALENT PROVIDED FROM XCEL. TRANSFORMER COMPONENTS ON HIGH SIDE ARE ASSUMED. THE SECONDARY CONNECTION POINT ON THIS TRANSFORMER SHALL SERVE AS THE POINT OF COMMON COUPLING (POCC), POINT OF CHANGE OF OWNERSHIP, AND REFERENCE POINT OF APPLICABILITY (RPA) FOR THE PROJECT.

K15 480V/3PH TRACKER MOTORS. POWER MOTORS FROM THREE-PHASE BREAKERS IN SECTION 1 OF SWGR-PV. COMM. CABLE (SUPPLIED BY TRACKER MANUFACTURER) CONNECTED FROM MOTORS TO TRACKER MOTOR CONTROLLER ENCLOSURE.

K16 TRACKER SITE DATA ENCLOSURE AND TRACKER MOTOR CONTROLLER, SUPPLIED BY TRACKER MANUFACTURER. GPS AND STOW SWITCH, INCLUDING SENSOR LEADS INCLUDED AND SUPPLIED BY MANUFACTURER. POWER UNITS FROM 120V MINI POWER CENTER AS SHOWN.

K17 RELAYING CT'S FOR SEL751. RATIO AS SHOWN, RATED FOR RELAYING USE AND WITH A MIN. THERMAL RATING OF 2.0.

K18 MULTI-FUNCTION RELAY, SEL-751. CURRENT INPUTS FROM CT'S AS SHOWN - (3) FROM PHASE BUSSING ON SWITCHGEAR, AND (1) FROM ZIGZAG NEUTRAL. POWER RELAY WITH 120Vac/24Vdc UPS AS SHOWN. RELAY SHALL SERVE AS GROUND FAULT PROTECTION DEVICE FOR SYSTEM.

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PV SYSTEM OVERVIEW	
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MANUFACTURER	CHINT POWER SYSTEMS
MODEL NUMBER	SCA100KTL-DO/US-480
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PROJECT NAME:

WEYER EAST CSG 5MW
EESOLAR10, LLC

LOCATION:

1500 PINE CONE RD
SARTELL, MN 56377
45.6460097183°, -94.2300408733°
STEARNS COUNTY, MN

EPC OPERATOR:

XCEL ENERGY

DRAWING TITLE:

SINGLE LINE DIAGRAM

SHEET:	SHEET SIZE:
E001	22"x34"

Date: Monday, November 21, 2023
Land Use Authority: City of Sartell, MN

ENTERPRISE
ENERGY

Interim Use Permit

Application for Conditional Use Permit

Carlson Community Solar Garden

Enterprise Energy LLC for EESolar10 LLC

Now 92.57044.0343 after annexation

Enterprise Energy LLC, a Minnesota limited liability company ("Applicant") submits this permit application on behalf of EESolar10 LLC, a Minnesota limited liability company and subsidiary of Enterprise Energy. Applicant requests a permit to construct up ta 5MW Alternating Current community solar garden for a period of 35 years on land owned by Weyer Family Limited Partnership, a Minnesota limited liability partnership, legally described as the West ½ of the Southeast ¼ of Section 8, Township 125, Range 28W, Stearns County, MN, Tax ID 17.08950.0000. The site was selected due to its compliance with the zoning ordinance, its proximity to electrical infrastructure, it's physical characteristics and suitability for solar development, and landowner participation. The installation will operate as a "Community Solar Garden" as defined by Minn. Stat. 216B.1641 for a period of at least 25 years, and may continue operation for longer if permitted.

IUP for 35 years

ENTERPRISE ENERGY

Enterprise Energy
2925 Dean Parkway, Executive Suite 300
Minneapolis, MN 55416
(952) 212-0824

1. Summary of Project

A Community Solar Garden is a solar power plant that allows people who don't have a good spot for solar panels to be treated by the electric utility as though these solar panels are on their property. We lease land somewhere that is good for solar, such as this parcel, and pay to develop and install the Community Solar Garden. When the array puts power into the Grid, it receives a "bill credit" from the electric utility for that amount of power. The bill credit is a right to take that same amount of power out of the electric grid somewhere else in the same electric grid at no cost. We sell the bill credit to the people who don't have a good spot for solar, thereby allowing them to save money through solar even though they don't have a good spot for solar panels. The people who buy the bill credits are referred to as the "subscribers" since they subscribe to the Community Solar Garden by agreeing to buy the bill credits.

Max allowed height

The application is for a 5 MW (AC) Alternating Current of solar on the property. The installation will consist of approximately three thousand solar panels per MW. The installation will encumber approximately eight acres of land per MW and reach a height that will not exceed fifteen feet above grade, approximately 5-10 feet.

The solar panels are screwed to a steel racking system that holds them in rows. The rows are either arranged into an immobile configuration from East to West, facing the South at an approximately 30-degree angle, or they are arranged into rows from North to South, and pivot on a single axis following the sun from East to West.

The racking system is attached to driven I-beam that secures the installation to the ground. The I-Beam is driving directly into the ground to a depth of approximately 7 feed and does not require concrete footings. The racking and footings are within accepted processional standards

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given the local soil and climate, and are professional engineered to withstand winds exceeding 150 MPH.

Solar panels produce direct current (DC) electricity. The electrical grid uses alternating current (AC) electricity. The power produced from the array will be run through an "Inverter" that changes the power from direct current to alternating current. The process of inverting the electricity loses some efficiency. Therefore, it will produce more DC power than AC. This conversion is expressed as a DC/AC ratio. This project will have roughly a 1.5 DC/AC Ratio, meaning that for every MC AC that it produces, it produces 1.5MW direct current.

A community solar garden has one concrete equipment pad that takes up about 200 sf. The solar panels are connected by underground electric conduit that leads to the equipment pad where metering equipment is mounted. The amount of electricity that is produced by the solar development is measured by the solar development owner and the electric utility. The power

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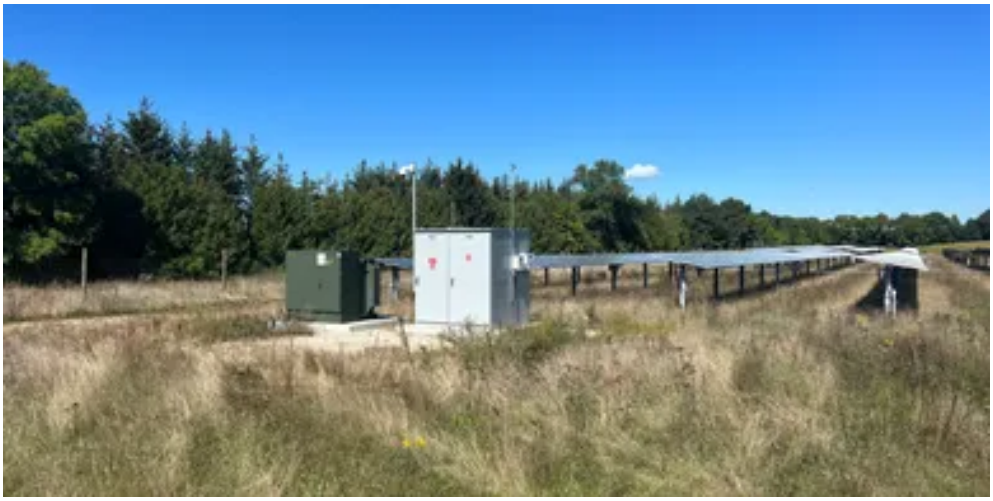
production and equipment are monitored 24/7 by a satellite or cellular based security system. An emergency shutoff switch is also on site.



After the power is metered at the equipment pad, it interconnects into the electric utility's existing three phase power distribution network. The solar installation includes a pole that houses overhead wires and leads to another pole that is controlled by the electric utility.

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Must meet our fence ordinance for materials, cannot be deer style.

The solar array will be contained within a 6 foot tall security fence that will either be a "deer style" or classic chain link style fence. The fence will meet electrical code requirements and prevent people from trespassing, while allowing birds, insects, rodents, and other wildlife to pass through.

2. Methods of Construction

We would like to begin construction as soon as Fall 2024 and complete within less than six months of starting construction. However, the actual construction process will only take about three months. We haven't set an exact groundbreaking date yet. The construction process begins with preliminary site testing for soil conditions for footings, as well as environmental, historical, and cultural diligence. A construction trailer and portable toilet will be placed on site when we begin groundbreaking.

Construction happens in phases, typically with two phases occurring at the same time when the first phase is halfway done. The first phase of the installation is the footings. There will be rows I-beams sticking out of the ground. When about half of the field has I-beams installed, the racking system begins being placed on the completed portion of the I-beams. When the raking is installed on about half of the field, electricians will begin installing the solar panels on the completed portion. When the solar panels about installed about halfway through the field, electricians will begin wiring the system together. After the installation is complete it will undergo about a month of testing from the installer and the electric utility before it becomes commercially operational.

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Construction will not require a water supply. All waist and debris from the project will be gathered on site and disposed of.

3. Access, Parking and Roads

Access to the site will be by a packed class five gravel road approximately fifteen feet wide with a 20-foot entrance. Construction parking will be located entirely within the parcel. No additional parking is required. Multiple simi truckloads of equipment such as solar panels and steel racking will be delivered through the construction process. Multiple pickup trucks, workers, passenger vehicles, bobcats and equipment will be on site most days during construction.

4. Operation

Access to the site will be minimal after construction. An engineer will need to access the property by pickup truck at least twice a year to examine the equipment. Maintenance crews will be on site at least twice a year to manage the vegetative cover and remove weeds.

The array will be monitored 24/7 365 days a year by a computer monitoring system that measures the power being produced on site. If a problem arises, the system will alert the system owner so that appropriate personnel can be dispatched to the site to resolve the issue.

5. Landscape Plan & Visual Impact

ENTERPRISE ENERGY

Enterprise Energy
2925 Dean Parkway, Executive Suite 300
Minneapolis, MN 55416
(952) 212-0824

The Minnesota state legislature has passed a law that encourages solar developers to plant solar arrays in pollinator friendly plantings, Minn Stat. 216B.1642. The Minnesota Board of Water and Soil Resources has issued guidelines for the establishment of such pollinator habitat underneath solar developments, including tools evaluating the establishment and maintenance of the pollinator plantings.

We propose to submit a vegetation management plan in compliance with the abovementioned guidelines. The vegetative management plan will create wildlife habitat for birds, rodents, and insects that cannot live in farmed soils due to pesticides, as well as carnivorous animals that eat them. Unlike row crops, the vegetative cover will have deep roots that will improve the permeability of the soil, promote soil health, slow down the velocity of water runoff, and prevent topsoil erosion, thereby naturally improving the quality of any surrounding waterbodies or wetlands.

The Minnesota board of Soil and Water has recognized these benefits outside of solar by creating the CREP program, which pays farmers to remove farmland from agricultural production to crate wildlife habitat like this solar installation creates for free. Removing overworked farmland from production and returning it to wildlife habitat is a windfall for the community and farmers. However, some opponents to solar have used the removal of agricultural land from production as a pretext for opposing solar installations. If the permitting authority prefers to keep the land in agricultural production, we will leave it in production by growing hay on the property for animal feed.

Vegetative screening may be used to obstruct the view of the solar array from surrounding properties. A demonstration is included with the site plan. However, alterations can be made in response to stakeholder input and incorporated into the land use permit as a condition to approval.

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6. Stormwater Management Plan

Stormwater management measures will be determined by a Minnesota licensed civil engineer as part of a full civil design set, which will be submitted for a building permit, and be subject to review and approval by environmental staff. The plan may include a SWPPP, stormwater runoff calculations, identify water retention basins, and utilize measures such as erosion control logs, and silt fences. The stormwater management plan will comply with local laws and rules, as well as the Minnesota Board of Soil and Water, DNR, MPCA, and other state and federal requirements.

7. Decommissioning Plan

The solar tenant and its successors shall be responsible for decommission of the solar installation upon the expiration of the lease, land use permits, or the cessation of power generation for a period longer than 12 months, at which point the solar installation will be deconstructed and removed. All footings, electrical components and underground wires, fences, and other solar equipment will be removed, and the land can be restored to agricultural production.

The solar installation will comply with any decommissioning security requirements or procedures that are required. The land lease for solar installation contains a contractual obligation for the solar tenant to decommission the solar installation and restore the property. It also requires that the tenant post a security for removal in the form of a bond, escrow, or letter of credit prior to construction, payable to the property owner, in the event that the land use authority does not require one. The purpose of the security is to ensure that sufficient money is set aside to remove the solar installation before it is built.

8. Fire Prevention Plan

The solar installation will comply with the international building code, including sections 605.11-605.11.2 regarding the location of underground electrical conduit, the national electric code, and all local electric and fire codes and ordinances. The solar installation will have emergency contact information posted on a sign at the fence entrance. The local fire department will be given an emergency key to the security fence. Solar production will be monitored 24/7 for electrical and mechanical issues.

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EESolar10, LLC Decommissioning Plan

Enterprise Energy, LLC

2925 Dean Parkway, Executive Ste 300
Minneapolis, MN 55416
(612) 470-7152

Matches our Ordinance

DECOMMISSIONING PLAN

The Solar Garden consists of many recyclable materials, including glass, semiconductor material, steel, aluminum, copper, and plastics. When the Solar Garden reaches the end of its operational life, the component parts will be dismantled and recycled as described below. We have a lease contract with the property owner, which requires us to decommission and restore the site at our expense. The decommissioning plan would commence at the end of the lease term or in the event of twelve (12) months of non-operation. At the time of decommissioning, the Solar Garden components will be dismantled and removed using minimal impact construction equipment, and materials will be safely recycled or disposed of. EESolar10, LLC will be responsible for all the decommissioning costs.

REMOVAL PROCESS

The decommissioning of the Solar Garden proceeds in the following reverse order of the installation:

1. The solar system will be disconnected from the utility power grid
2. PV modules will be disconnected and removed
3. Electrical cables will be removed and recycled off-site
4. PV module racking will be removed and recycled off-site
5. PV module support posts will be removed and recycled off-site
6. Electrical devices, including transformers and inverters, will be removed and recycled off-site
7. Concrete pads will be removed and recycled off-site
8. Fencing will be removed and recycled off-site
9. Reclaim soils in the access driveway and equipment pad areas by removing imported aggregate material and concrete foundations; replace with soils as needed

The Solar Garden site may be converted to other uses in accordance with applicable land use regulations at the time of decommissioning. There are no permanent changes to the site, and it will be returned in terrific condition. This is one of the many great things about community solar gardens. If desired, the site. can return to productive farmland after the system is removed.

DECOMMISSIONING CONSIDERATIONS

We ask that City of Sartell take note of 3 important considerations: 1) a community solar garden is not a public nuisance, 2) the resale and recycle value are expected to greatly offset the cost of decommissioning, and 3) City of Sartell and taxpayers are not at risk.

1) Our modules do not contain hazardous materials and the Solar Garden is not connected to government utilities (water, sewer, etc.). The Solar Garden will be fenced in for security and is sheltered from residences with existing screening. Additionally, almost all the land is permanent vegetation which improves erosion control, soil quality, and water quality. For these reasons, the Solar Garden, whether operational or non-operational, is not a public nuisance threat that would require government involvement in decommissioning or removal of the Solar Garden. Compare this to an abandoned home, barn, etc. that may regularly include hazardous materials and/or become a public nuisance.

2) Upon the end of the Solar Garden's life, the component parts may be resold and recycled. The aggregate value of the equipment is expected to exceed the cost of decommissioning and removal. Solar modules, for example, have power output warranties guaranteeing a minimum power output in Year 25 of at least 80% of Year 1. Since the value of solar panels is measured by their production of watts and the value of electricity, it is easy to calculate expected resale value. Even using extremely conservative assumptions, the value of the solar modules alone greatly exceeds the cost of decommissioning. This does not factor in the recycle value of other raw materials like steel, copper, etc. So, decommissioning is seen as a process that results in a net profit, incentivizing the Solar Garden owner to do it.

3) In the extremely unlikely, "worst-case" scenario where (1) the Solar Garden owner fails to decommission and neither our lender nor any power generation entities want the assets, and then (2) the landowner fails to decommission the Solar Garden (which the landowner would have the right to do under the Property lease), and then (3) the decommissioning financial surety was insufficient to decommission the Solar Garden, City of Sartell would have its standard police powers to enforce decommissioning. If that process ultimately resulted in City of Sartell gaining ownership of the property, City of Sartell could sell the parcel which would absolutely exceed the decommissioning cost.

DECOMMISSIONING FINANCIAL SURETIES

Despite the considerations of 1) the Solar Garden is not a public nuisance, 2) the resale and recycle value is expected to exceed the cost of decommissioning, and 3) City of Sartell and taxpayers are not at risk, we are cognizant that City of Sartell will require the posting of a bond, letter of credit, or the establishment of an escrow account as a condition of issuing EESolar10, LLC a Conditional Use Permit. Of course, City of Sartell would be the obligee of any required security.

We are offering a $25,000 bond for a decommissioning financial surety.

This financial surety provides an extra layer of security that the Solar Garden site will be returned to the appropriate condition at the end of the Solar Garden's useful life or earlier, should the Solar Garden cease operations for a twelve-month period. City of Sartell will be the designated obligee of the fund and the landowner will be provided a copy of the document, thereby establishing the obligation before construction commences.

INSURANCE INFORMATION

EESolar10, LLC will be required to meet insurance requirements under long-term contracts with several parties, including the site landowner, Xcel Energy and its Solar Garden lenders and investors. EESolar10, LLC will be listed on a policy that includes:

- Liability coverage that will include $1,000,000 in coverage against damage to rented property Excess liability coverage of an additional $1,000,000 per occurrence
- Property coverage in an amount necessary to cover the value of the Solar Garden and up to one year of lost revenue in the event the project is destroyed and needs to be rebuilt.

1.0 DECOMMISSIONING PLAN

1.1 General

EESolar10, LLC is a proposed 7.6-megawatt direct current (MW-dc) or 5.0-megawatt alternating current (MW-ac) solar electric generating facility using ground-mounted photovoltaic panels located in City of Sartell, Minnesota. The facility will be located in a fenced area of approximately 32 acres. The vast majority of the site is currently in agricultural use, most of it farmed in row crops. Following decommissioning of the facility, the land will be restored to its pre-construction condition to the extent practicable.

The decommissioning plan (plan) presents the following provisions that are intended to ensure that facilities are properly removed after their useful life. The plan includes provisions for the complete removal of all structures, foundations, underground cables, transformers, inverters, foundations, and the restoration of soil and vegetation. The Contractors will comply with the requirements of all permits during the decommissioning process. Disposal of structures and foundations will comply with any applicable County Solid Waste regulations.

1.2 Decommissioning and Reclamation

Solar projects typically have a life span of approximately 30-40 years, though some replacing or updating of equipment may occur during that time frame. The Owner will be responsible for the removal of all aboveground and underground equipment to full depth within the Project

area at the end of the solar project life span. The Owner will restore and reclaim the site to pre-construction topography and topsoil to the extent practical.

Decommissioning includes removing the solar panels, solar panel racking, steel foundation posts and beams, inverters, transformers, overhead and underground cables and lines, equipment pads and foundations, equipment cabinets, and ancillary equipment. The civil facilities, access road, security fence, and any drainage structures are also included in the scope. Standard decommissioning practices would be utilized, including dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements.

After all the equipment is removed, any holes or voids created by poles, concrete pads, and other equipment will be filled in with native soil to the surrounding grade and the site will be restored to pre-construction conditions, to the extent practicable. All access roads and other areas compacted by the equipment will be de-compacted to a depth necessary to ensure drainage of the soil and root penetration prior to fine grading and tilling to a farmable condition.

1.3 List of Decommissioning Activities

1.3.1 Timeline

Decommissioning is estimated to take approximately 25-30 weeks to complete. The decommissioning crew(s) will ensure that all equipment and materials are recycled or disposed of properly.

1.3.2 Removal and Disposal of Site Components

The removal and disposal details of the site components are found below.

Modules: Modules will be inspected for physical damage, tested for functionality, and disconnected and removed from racking. Functioning modules will be packed, palletized, and shipped to an offsite facility for reuse or resale. Non-functioning modules will be shipped to the manufacturer or a third party for recycling or disposal.

Racking: Racking and racking components will be disassembled and removed from the steel foundation posts, processed to an appropriate size, and sent to a metal recycling facility.

Steel Foundation Posts: All structural foundation steel posts will be pulled out to full depth, removed, processed to an appropriate size, and shipped to a recycling facility. The posts can be removed using backhoes or similar equipment. During decommissioning, the area around the foundation posts may be compacted by equipment and, if compacted, the area will be de-compacted in a manner to adequately restore the topsoil and sub-grade material to a density consistent for vegetation.

Overhead and Underground Cables and Lines: All underground cables and conduits will be removed to full depth in a way that will not impede the reintroduction of farming. Topsoil will be segregated and stockpiled for later use prior to any excavation and the subsurface soils will be staged next to the excavation. The subgrade will be compacted per standards. Topsoil will be redistributed across the disturbed area. Overhead lines will be removed from the project and taken to a recycling facility.

Inverters, Transformers, and Ancillary Equipment: All electrical equipment will be disconnected and disassembled. All parts will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

Equipment Foundation and Ancillary Foundations: The ancillary foundation for Slayton Solar are pile foundations for the equipment pads. As with the solar array steel foundation posts, the foundation Piles are typically removed full depth using a vibratory hammer mounted on a backhoe or similar type of equipment. During the excavation, the topsoil will be segregated from the subsoil, so that the soil can be replaced in the excavation and compacted to restore the pre-construction soil profile. Duct banks will be excavated to full depth. All unexcavated areas compacted by equipment used in decommissioning will be de-compacted in a manner to adequately restore the topsoil and sub-grade material to a density similar to the surrounding soils. All materials will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

Fence: All fence parts and foundations will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. The surrounding areas will be restored to pre-solar farm conditions to the extent feasible.

Access Roads: Facility access roads will be used for decommissioning purposes, after which removal of roads will be discussed with the Landowner, using the following process:

1) After final clean-up, access roads may be left intact through mutual agreement of the landowner and the Owner.

2) If a road is to be removed, aggregate will be removed and shipped from the site to be reused, sold, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. Clean aggregate can often be used as "daily cover" at landfills for no disposal cost. All internal service roads are constructed with geotextile fabric and eight inches of aggregate over compacted subgrade. Any ditch crossing connecting access roads to public roads will be removed unless the landowner requests it remains. The subgrade will be de-compacted using a chisel plow or other appropriate subsoiling equipment.

All rocks larger than four inches will be removed. The access roads and adjacent areas that are compacted by the equipment will be de-compacted.

1.3.3 Restoration/Reclamation of Site

The Owner will restore and reclaim the site to the pre-solar farm condition to the extent practical consistent with the site lease agreement. The Owner assumes that most of the site will be returned to farmland and/or pasture after decommissioning and will implement appropriate measures to facilitate such uses. If no specific use is identified, the Owner will vegetate the site with a seed mix approved by the local soil and water conservation district or similar agency. The goal of restoration will be to restore natural hydrology and plant communities to the extent practicable while minimizing new disturbance and removal of native vegetation. The decommissioning effort will implement best management practices (BMPs) to minimize erosion and to contain sediment on the Project to the extent practicable with the intent of meeting this goal include:

1. Minimize new disturbance and removal of native vegetation to the greatest extent practicable.

2. Remove solar equipment and all access roads up to full depth, backfill with subgrade material and cover with suitable topsoil to allow adequate root penetration for plants, and so that subsurface structures do not substantially disrupt groundwater movements.

3. Any topsoil that is removed from the surface for decommissioning will be stockpiled to be reused when restoring plant communities. Once decommissioning activity is complete, topsoil will be re-spread to assist in establishing and maintaining plant communities.

4. Stabilize soils and return them to agricultural use according to the lease agreements.

5. Prior to and after decommissioning activities, install erosion and sediment control measures, such as silt fences, bio-rolls, and ditch checks in all disturbance areas where the potential for erosion and sediment transport exists, consistent with stormwater management objectives and requirements.

1.4 Post-Restoration Monitoring

Decommissioning of the site will comply with permits for the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Storm Water (CSW) Permit, Spill Containment, and Countermeasure (SPCC) Plan, and Storm Water Pollution Prevention Plan (SWPPP), if grading activities are necessary and exceed applicable permit thresholds. Decommissioning may include post-restoration monitoring as required by the NPDES/SDS CSW Permit and SWPPP and other applicable requirements.

Decommissioning Costs Table

Project Name: EESolar 10, LLC
Date: October, 2023
Project Size 7.6 MW-DC | 5.0 MW-AC

	Quantity	*Unit*	*Unit Price*	*Line Item Price*
Mobilization/Demobilization	1	Lump Sum	**$36,947**	**$36,947**
Mobilization was estimated to be approximately 7% of total cost of other items. This number was developed from speaking with contractors.				
Permitting				
State Permits	1	Lump Sum	$10,000	$10,000
Subtotal Permitting				**$10,000**
Decommissioning will require a SWPPP and SPCC plan, cost is an estimate of the permit preparation cost.				
Civil Infrastructure				
Removal Gravel Surfacing from Road	68	Cubic Yards	$2.59	$177.34
Haul Gravel Removed from Road	68	Cubic Yards	$5.44	$372.47
Disposal of Gravel Removal from Road	102	Tons	$0.00	$0.00
Removal Geotextile Fabric from Road Area	103	Square Yards	$1.40	$143.79
Haul Geotech Fabric Removed from Beneath Access Roads	0.03	Tons	$3.99	$0.11
Disposal of Geotech Fabric Removed from Beneath Access Roads	0.03	Tons	$81.00	$2.29
Removal Culvert from Beneath Road	1	Each	$1,200.00	$1,200.00
Haul Culvert Removed from Road	1	Each	$3.99	$3.99
Disposal of Culverts	1	Each	$24.30	$24.30
Grade Road Corridor (Re-spread Topsoil)	190	Linear Feet	$1.59	$302.10
Erosion and Sediment Control for Road Restoration	146	Linear Feet	$3.29	$480.34
Till to Farmable Condition	0.06	Acres	$402.87	$24.17
Removal of Security Fence	4,748	Linear Feet	$12.43	$59,017.64
Subtotal Civil Infrastructure				**$61,748.54**
Structural Infrastructure				
Removal Steel Foundation Posts (Arrays, Equipment, Met Towers)	2110	Each	$13.38	$28,231.80
Haul Tracker Steel Post	155	Tons	$10.24	$1,587.20
Removal Drive Motor Posts	138	Each	$13.38	$1,839.75
Haul Drive Motor Posts	10	Ton	$10.24	$102.40
Removal Tracker Racking	144	Each	$160.00	$23,040.00
Haul Tracker Racking	167	Ton	$10.24	$1,709.63
Subtotal Structural Infrastructure				**$56,510.78**
Steel removal costs were calculated by using information from array manufacturers for installation rates and using the same rates to calculate total days to remove equipment. Hauling calculations are based on the locations of metals recyclers.				
Electrical Collection/Transmission System				
Removal of PV Modules	13,934	Each	$5.27	$73,432.18
Haul PV Modules for Disposal	360	Tons	$3.99	$1,437.11
Disposal of PV Modules	360	Tons	$81.00	$29,174.31
Removal of Inverters	50	Each	$48.00	$2,400.00
Removal of PCU Station (lnverters/Panelboard/Transformer)	1	Each	$4,000.00	$4,000.00
Haul PCU Equipment to Recycler	1	Each	$230.50	$230.50
Remove Equipment Pad and Foundations	1	Each	$784.49	$784.49
Haul Concrete Foundations	10	Tons	$3.99	$39.90
Disposal of Concrete from Transformer Foundation	10	Tons	$81.00	$810.00
Remove, Haul, and Dispose of Timber Transmission Poles	15	Each	$1,000.00	$15,000.00
Remove and Haul MV Power Cables	150	Linear Feet	$18.14	$2,721.00
Removal of DC Collector System Cables (copper)	5	Per MW	$1,950.00	$9,750.00
Removal of Underground (AC) Cables	1300	Linear Foot	$2.70	$3,510.00
Load and Haul Cables for Recycling	12.5	Ton	$8.25	$103.13
Subtotal Electrical Collection/Transmission System				**$143,392.61**

Electrical removal costs of PV Modules and Combiner Boxes were based on industry standards for installation rates of a two man work crew. PCU Station, MV Equipment and Scada Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and contractor provided information on installation rates. Cable removal assumed using trenching, standard industry production rates.

Site Restoration				
Stabilized Construction Entrance	1	Each	$2,000.00	$2,000.00
Perimeter Controls	4,748	Linear Feet	$3.29	$15,620.92
Till to farmable condition at array areas and basin	32	Acres	$150.48	$4,815.36
Clearing and grubbing for Trees	1.96	Acres	$7,259.43	$14,228.48
Remove Sedimentation Basin	1	Each	$6,997.80	$6,997.80
Subtotal Site Restoration				**$43,662.56**
Site restoration costs are based on past solar project experience.				
Project Management				
Project Manager - half time	25	Weeks	$1,900.00	$47,500.00
Superintendent	25	Weeks	$3,525.00	$88,125.00
Field Engineer	25	Weeks	$2,325.00	$58,125.00
Clerk	25	Weeks	$750.00	$18,750.00
Subtotal Project Management				**$212,500.00**
Standard industry weekly rates from RS Means. 2 week schedule used				
Subtotal Demolition/Removals				**$564,761.52**
Contingency (10%)				$56,476.15
Total Demolition/Removals				**$621,237.67**
Salvage				
Fencing	70	Tons	$348.75	$24,412.50
Steel Posts	155	Tons	$348.75	$54,056.25
Module Racking	167	Tons	$348.75	$58,226.09
PV Modules	13,934	Each	$32.76	$456,477.84
Inverters and Transformers	1	Each	$44,520.90	$44,520.90
Scada Equipment	1	Each	$5,000.00	$5,000.00
DC Collection Lines	30,110	Pounds	$0.75	$22,582.50
AC Collection Lines	1950	Pounds	$0.38	$741.00
Salvage values are a combination of the following factors; current market metal salvage prices, current secondary market for solar panel module recycling, discussions with national companies that specialize in recycling and reselling electrical transformers and inverters, and the assumption that care is taken to prevent any damage or breakage of equipment.				
Subtotal Salvage				**$666,017.08**
Net Demolition Minus Salvage				**-$44,779.41**

Last permit we required 125% of the total decommissioning cost for the financial assurance, they offered $25,000 as highlighted above

125% = $776,547.08

Notes:

1. Prices used in analysis are estimated based on research of current average costs and salvage values.
2. Prices provided are estimates and may fluctuate over the life of the project.
3. Contractor means and methods may vary and price will be affected by these.

Decommissioning Assumptions

To develop a cost estimate for the decommissioning of the Project, the following assumptions and pricing references were utilized. Costs were estimated based on current pricing, technology, and regulatory requirements. The assumptions are listed in order from top to bottom of the estimate spreadsheet. When publicly-available bid prices or Department of Transportation (DOT) bid summaries were not available for particular work items, we developed time and material-based estimates considering the composition of work crews and equipment and material required using RS Means. The costs taken from RS Means include bare rates for the labor hours, equipment hours along with material costs and Overhead and Profit margins. The RS Means database has an option to choose vicinity-specific rates. When materials have a salvage value at the end of the project life, the construction activity costs and the hauling/freight cost are separated from the disposal costs or salvage value to make revisions to salvage values more transparent. Salvage and resale credits are not included in this estimate.

1. The projected life of the Project is 25-35 years.

2. Decommissioning will utilize a full-time Project Manager or support staff.

3. Common labor will be used for most of the tasks except for heavy equipment operation.

4. Mobilization was estimated at approximately 7% of the total cost of other items.

5. Permit applications required include the preparation of a Storm Water Pollution Protection Plan (SWPPP) and a Spill Prevention Control and Countermeasure (SPCC) Plan.

6. Road gravel removal was estimated on a time and material basis using a 16-foot width and an 8-inch thickness for the access roads. Because the material will not remain on-site, a hauling cost is added to the removal cost. Road aggregate can often be disposed of by giving to landowners for use on driveways and parking areas. Many landfills will accept clean aggregate for use as "daily cover" and do not charge for the disposal.

7. Grade Road Corridor reflects the cost of mobilizing and operating light equipment to spread and smooth the topsoil stockpiled on-site to replace the aggregate removed from the road.

8. Erosion and sediment control along roads reflect the cost of silt fence on the downhill side of the roads and surrounding all on-site wetlands.

9. In most cases, topsoil is required to be stockpiled on the Project site during construction, therefore any such stockpiled topsoil can be used to replace the road aggregate, once removed. This will help in eliminating the costs for any borrowed landfill. Tilling to an agriculture-ready condition is estimated at $402.87 per acre (based on DOT bid prices for Soil Bed Preparation). The majority of the Project area is assumed to be tilled to an agriculture-ready condition. Because decommissioning activities are not expected to eliminate

the grasses and vegetation under the arrays or heavily compact the soils the restoration effort is expected to be limited. Array areas left as pasture will require little restoration effort because the arrays will have been planted with native plants and pollinator seed mixes. As a result, the soils will have been rejuvenated by having been removed from intensive farming.

10. Fence removal includes loading, hauling, and recycling or disposal. The fence and posts weigh approximately 10 pounds per foot.

11. Array support posts are generally lightweight "I" beam sections installed deep into the ground. Crew productivity is approximately 30 posts per hour, and the same crew and equipment should have similar productivity removing the posts, resulting in a per ton cost of approximately $13.38. When salvage values have not been recognized the costs for processing metal to size and the hauling cost to a more distant recycling facility are generally not included, but the minimum decommissioning financial security controls by such a large margin that the lower price for removals and freight are not shown.

12. The underground collector system cables are placed in trenches with a minimum of four feet of cover.

13. To reduce tracking of sediment off-site by trucks removing materials, we have included a stabilized construction entrance price to the “Site Restoration” section based on state DOT bid prices for similar items.

14. Perimeter control pricing is based on a sediment fence placed on the downgrade side of the work area perimeters and protecting wetlands and drainage swales within the project area.

15. No topsoil will be removed from the landowner's property or used on other landowner's property during decommissioning. The majority of the Project site is not anticipated to have been compacted by heavy truck or equipment traffic so no topsoil will need to be imported, and very few areas will need to be de-compacted.

Vegetation Installation and Management Plan for Weyer East CSG

November 2023

Table of Contents

Site Location & Name	Weyer East CSG 17th St. N near Pine Cone Road Sartell, MN 56388 Stearns County
Site Developer	Enterprise Energy, LLC 2925 Dean Parkway, Suite 300 Minneapolis, MN 55416
Developer Contact	Evan Carlson 612.470.7152 EvanC@Enterpriseenergy.com
Vegetation Restoration	Natural Resource Services, Inc 2885 Quail Road NE Sauk Rapids MN 56379 320.290.5363 & 16425 W. State Route 90 Princeville, IL 61559

Proposed Weyer East CSG

Overview of Site Conditions, Seeding, Trees & Shrubs

The proposed Weyer East Community Solar Garden is planned on ~32 acres of land north of 17th Street North and east of Pine Cone Road North in Sartell within Stearns County.

Most of the site land has been cropped annually, although only 48% of the site is considered prime farmland. The remaining 51% of the site and soil types transition from excessively drained to poorly drained sandy loam, ecologically considered a sandy wet prairie.

A small, delineated wetland is located largely outside the southwest corner of the array with a narrow section of under 15 square feet occurring within the array. This wetland boundary is shown on the larger site map found on page 6 of this plan.

The site will contain single axis tracking panels. The area within the fence will be seeded in an all-native, pollinator friendly mix appropriate to the soil conditions found at this site. This mix can be referenced on page 12 of this plan.

There is an existing narrow tree line along the north side of the array, noted in Figures 1 & 2. These deciduous trees and shrubs will be removed as they fall within the area of the proposed array but will be replaced with a screening of evergreens and shrubs around the entire CSG.

Figure 1, Existing vegetation at site.

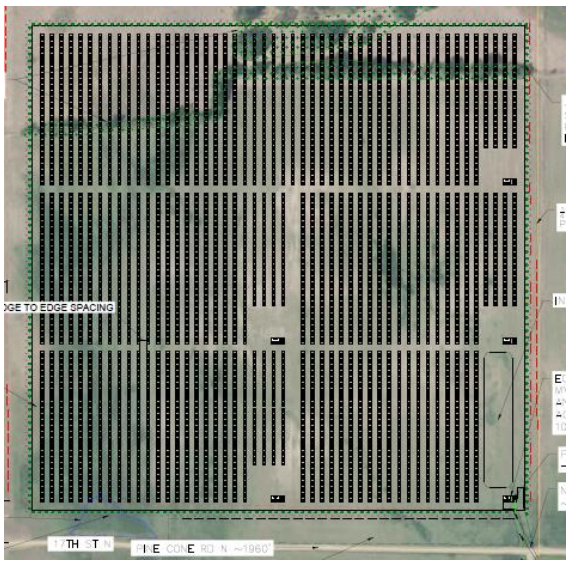


Figure 2, Planned array layout.

Following the tree removal, this section should be grubbed to aid in eliminating trees sprouting from the tree stumps and roots. This site may include a heavy tree seed bank in the soil that will require monitoring and removal using specialized herbicides such as Garlon 4 Ultra or similar. Annual repeat treatments should be anticipated until the site has stabilized following construction disturbance.

Weyer East CSG exterior will be screened with a single row of Black Hills spruce, *Picea glauca*, fronted by a single staggered row of red twig dogwood, *Cornus sericea* surrounding the entire array up to where the wetland area occurs. There, the Balsam Fir, *Abies balsamea,* will be used in a single row along with the separate row of red twig dogwood. These two native species are more tolerant than many others of the hydric (moist and wet) soils found in the SW corner.

These three native species will provide nesting habitat for small game and songbirds. The red twig dogwood will add spring blossoms for feeding insects as well as offering a colorful visual element to the site throughout the fall, winter and spring.

Permanent Seeding

This site will require a single seed mix that includes native grasses, sedges and wildflowers tolerant of the sandy, loamy yet moist soil conditions here. The native species selected will aid in improving and speeding stormwater and snowmelt infiltration. No fertilizers or soil amendments will be used on this site.

When construction is completed or at a minimum reduced to only foot traffic, site prep and permanent seeding can begin. All grading must be complete, and the site cleared of debris. Based on construction timing, the entire site may need to be mowed, allowed to green up, then sprayed using glyphosate and any additional specific herbicides, e.g., broadleaf herbicides, necessary to eliminate perennial weeds and tree seedlings.

The site should be allowed to stand undisturbed for a minimum of ten days before permanent seeding or 30 days if additional broadleaf herbicides were used. Adequate planning is important.

Following the required activation time, the site should be disked and harrowed. The site will be broadcast seeded with the mix noted on page 12. A cover crop of oats or winter wheat, seasonally determined, should be included at the time of seeding.

Weyer East Proposed CSG

Narrow potion of wetland within array, previously farmed.
17th St North and Pine Cone Road North

Indicates screening with Black Hills Spruce, Balsam Fir and Red Twig Dogwood surrounding the array.

Natural Resource Services

Site Preparation

1. Inspection of the project area to assess site conditions. Mow site and treat brushy areas with appropriate herbicide, as needed.

2. It is typical to only require a single herbicide application on a site that was recently farmed. This is done using glyphosate (Round-up® or equivalent) as per manufacturer's directions in areas with actively growing vegetation. Allow a minimum of 10 days before disturbing the soil or completing seeding activities.

3. When perennial broadleaf vegetation is present a triclopyr herbicide will be added (Garlon 3A® or equivalent) as per manufacturer's directions. When a broadleaf herbicide is used allow a minimum of 30 days before disturbing the site or completing seeding.

Seed and Seeding Installation

1. Construction debris, garbage and building materials will be removed and/or staged outside the intended seeding areas.

2. Disk soil as conditions allow, within the project area in preparation for seeding. Harrow or rake the soil to achieve the proper seedbed.

3. Following disking, the site will be broadcast seeded using the lowland mix throughout most of the site and the upland mix for the drier areas.

4. A cover crop of winter wheat will be seeded along with the other seed if seeding occurs in September through freeze-up. A cover crop of oats should be used for late spring and summer seedings.

5. Harrowing will be completed after all planned seed mixes and cover crop seeding is completed.

Array Screening Installation

The array will be surrounded by a single row of Black Hills Spruce trees, 6 feet tall B&B installed 16 feet on center at soil level after all seeding work has been completed. In the southwest corner at the edges of the wetland, the spruce will be substituted with 6 feet tall B&B Balsam Fir planted 16’ on center. The evergreens will meet or exceed the 6’ minimum height within three years.

Red Twig Dogwood, #3 container will be planted 16’ on center in a single staggered row in front of the Spruce or Balsam.

Example of evergreen tree screening

Grouping of Red Twig Dogwood

Maintenance of the Array

Maintenance of this site will be important for success. Active management of all areas of the Weyer East CSG are similar: The site should be inspected annually followed by maintenance necessary to encourage healthy growth.

1. During the germination year, the site will be mowed to control annual weed development. Optimum cutting height is typically 4 to 6 inches. The mowing should finely mulch the clippings to prevent smothering young plants.

2. In years following the first growing season, Integrated Vegetation Management (IVM) services are utilized to control annual, biennial and perennial weed species within the developing landscape. Typical IVM services include spot herbicide spraying, spot mowing, and herbicide wicking.

Native pollinator habitat on Midwest solar site

Recommended Vegetation Maintenance Procedures

Establishment Phase

Year 1:

Complete site mowings to control annual/biennial weed canopy and prevent production of viable seed.

- Three mowing trips are typical depending on soils, weather patterns and planting dates.
- Mowing to be done using specialized zero-radius mowers and/or flail mowers
- Target mowing height of 4-6 inches.

Year 2

- Complete site mowing to control annual/biennial weed canopy and prevent production of viable weed seed.
- Three mowing trips likely along with the use of herbicides as necessary during both trips.
- Mowing to be done using specialized zero-radius mowers and/or flail mowers

Year **3**

- Integrated Vegetation Management using mowing and spot spraying depending on growth and weed populations.
- Two to three trips anticipated in Year 3.

Maintenance Phase

Years 4 - 34: Integrated Vegetation Management

- Two IVM site visits are typical depending on vegetation status.
- Each visit will likely include mowing, spot herbicide applications and/or herbicide wicking.
- Equipment used includes tractor and/or ATV mounted sprayers.
- Includes a complete site mowing once every 3 years to mulch up biomass and recycle nutrients.

Monitoring

Consistent monitoring of the project is essential in order to evaluate vegetative establishment, weed presence and possible erosion concerns. This information helps determine which management technique to use, the proper timing of the implementation and whether or not any other remedial action is required.

Additional Notes on Vegetation Management:

- Vegetation management crews will control weed growth underneath the panels only where height is a concern. Mowing/trimming around every post is not necessary from a plant community health standpoint.

- Utilizing herbicide to provide targeted control of unwanted species should only be completed by licensed applicators with a comprehensive knowledge of herbicides, application techniques and species morphology. Applying the correct herbicide with the proper application device at the correct period in the plant's lifecycle is essential to successful control and to minimizing collateral damage.

- Additional mowing or trimming may be needed if shading of the panels occurs, either by native or non-native vegetation. As a general rule, this type of mowing, if needed, should be limited to the areas immediately in front of the panel's lower edge. Once weed management has been achieved, limit mowing of established blooming native wildflowers, otherwise this defeats the purpose of a native pollinator habitat.

Weyer East CSG
Proposed Array Seed Mix

Common Name	Scientific Name	% of Mix	Seeds/ft^2	Total	
Grasses					
Slender Wheatgrass	Elymus trachycaulus	6.00%	1.8	0.72	PLS lb
Sideoats Grama	Bouteloua curtipendula	26.67%	7.1	3.20	PLS lb
Blue Grama	Bouteloua gracilis	1.50%	2.6	0.18	PLS lb
Prairie Brome	Bromus kalmii	3.00%	1.1	0.36	PLS lb
Plains Oval Sedge	Carex brevior	2.25%	2.9	0.27	PLS lb
Pointed-broom Sedge	Carex scoparia	0.75%	2.8	0.09	PLS lb
Brown Fox Sedge	Carex vulpinoidea	0.75%	3.3	0.09	PLS lb
Silky Wild Rye	Elymus villosus	8.00%	1.9	0.96	PLS lb
Little Bluestem	Schizachyrium scoparium	25.71%	17.0	3.09	PLS lb
Prairie Dropseed	Sporobolus heterolepis	0.38%	0.3	0.05	PLS lb
Forbs					
Anise Hyssop	Agastache foeniculum	0.10%	0.4	0.01	PLS lb
Common Yarrow	Achillea millefolium	0.63%	4.9	0.08	PLS lb
Lead Plant	Amorpha canescens	1.44%	1.0	0.17	PLS lb
Canada Anemone	Anemone canadensis	0.06%	0.0	0.01	PLS lb
Wild Columbine	Aquilegia canadensis	0.22%	0.4	0.03	PLS lb
Common Milkweed	Asclepias syriaca	0.63%	0.1	0.08	PLS lb
Butterfly Milkweed	Asclepias tuberosa	0.16%	0.0	0.02	PLS lb
Canada Milkvetch	Astragalus canadensis	1.50%	1.1	0.18	PLS lb
Calico Aster	Symphyotrichum lateriflorum	0.13%	1.4	0.02	PLS lb
Partridge Pea	Chamaecrista fasciculata	2.50%	0.3	0.30	PLS lb
White Prairie Clover	Dalea candida	4.22%	3.5	0.51	PLS lb
Purple Prairie Clover	Dalea purpurea	6.25%	5.0	0.75	PLS lb
Prairie Blazing Star	Liatris pycnostachya	0.48%	0.2	0.06	PLS lb
Virginia Mountain Mint	Pycnanthemum virginianum	0.13%	1.2	0.02	PLS lb
Long-headed Coneflower	Ratibida columnifera	0.50%	0.9	0.06	PLS lb
Black-eyed Susan	Rudbeckia hirta	2.50%	10.1	0.30	PLS lb
Gray Goldenrod	Solidago nemoralis	0.22%	2.9	0.03	PLS lb
Prairie Spiderwort	Tradescantia bracteata	0.11%	0.0	0.01	PLS lb
Hoary Vervain	Verbena stricta	0.63%	0.8	0.08	PLS lb
Golden Alexanders	Zizia aurea	2.63%	1.3	0.32	PLS lb

Seeding Rate: 12 lbs./acre, 76.4 seeds per square foot.

ForgeSolar

Weyer East 5MW

CUP - 2023-10-27

Created Oct 27, 2023
Updated Oct 27, 2023
Time-step 1 minute
Timezone offset UTC-6
Minimum sun altitude 0.0 deg
Site ID 104151.18130

Project type Advanced
Project status: active
Category 1 MW to 5 MW

Misc. Analysis Settings

DNI: **varies (1,000.0 W/m^2 peak)**
Ocular transmission coefficient: **0.5**
Pupil diameter: **0.002 m**
Eye focal length: **0.017 m**
Sun subtended angle: **9.3 mrad**

PV Analysis Methodology: **Version 2**
Enhanced subtended angle calculation: **On**

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-

Component Data

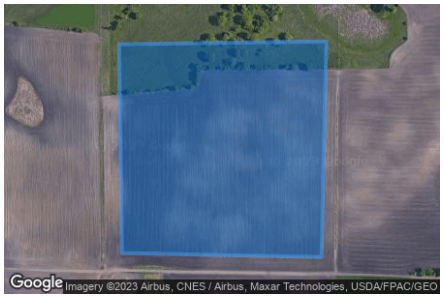
PV Array(s)

Total PV footprint area: 31.8 acres

Name: PV array 1
Footprint area: 31.8 acres
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0 deg
Maximum tracking angle: 52.0 deg
Resting angle: 0.0 deg
Ground Coverage Ratio: 0.33

Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	45.648155	-94.232156	1042.50	0.00	1042.50
2	45.648200	-94.227564	1040.42	0.00	1040.42
3	45.644855	-94.227671	1040.70	0.00	1040.70
4	45.644915	-94.232091	1042.25	0.00	1042.25



Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	45.644540	-94.227714	1040.31	0.00	1040.31
OP 2	45.644600	-94.231898	1041.10	0.00	1041.10
OP 3	45.655566	-94.228315	1043.45	0.00	1043.45
OP 4	45.655596	-94.235525	1043.26	0.00	1043.26

Summary of PV Glare Analysis

PV configuration and total predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-

PV & Receptor Analysis Results

Results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
OP: OP 3	0	0
OP: OP 4	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not automatically account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actua values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combinec area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Refer to the **Help page** for detailed assumptions and limitations not listed here.

Draft V 12.22.2023

THE CONCEPT PLAN WHAT CAN THE FUTURE LOOK LIKE?

The Mill District's BIG IDEAS

- Create The Mill District, a vibrant mixed-use destination rich with community amenities and a well-designed public realm that draws residents, workers, and visitors.
- Promote a mixed-use development model that supports a blend of creative spaces, office environments, retail outlets, and vertical mixed-use residential areas.
- Aim for an adaptable land-use plan, allowing for flexible design to accommodate various types of uses and functionalities as the needs of the community and market demand evolve over time.
- Advance the development of the site using a phased strategy, starting with the first phase concentrating on creating public areas and open spaces, followed by a second phase focusing on private development initiatives.
- The initial phase will feature a catalyst project that extends the trail from the Pedestrian Bridge along the Mississippi River. This phase will introduce new public spaces that can be programmed for various uses, incorporate wayfinding elements, and provide opportunities for engagement with the Mississippi River.
- Incorporate a business incubator initiative with small-scale buildings into the early stage of site development to serve as a draw to the area, setting the scene for the launch of the second phase.
- Partner with a developer well ahead of the second phase and as early as feasible to evaluate the viability and design of either an at-grade or an elevated crossing over the railroad.
- Add an additional vehicle access point to the site. This is crucial for improving general entry and exit and fulfilling emergency access needs, thereby bolstering the site's safety and usability for all individuals. Additionally, this enhancement would potentially increase the financial appeal of the investment by ensuring smoother operations and potentially higher traffic throughput.

The Mill District CONCEPT PLAN PREMISE

The concept plans and ideas within these documents serve as visual interpretations of previously discussed redevelopment visions and encapsulate the foundational principles and goals for the redevelopment of the property. They are intended to represent the conceptual phase of planning and should not be interpreted as final, ready-to-build site plans. There should be an awareness that there will be differences between these conceptual illustrations and future development plans.

As the project progresses from concept to construction, adaptations and modifications will likely occur due to various factors, such as planning requirements, technical constraints, market realities, and evolving community feedback. Despite these anticipated changes, the overarching type of envisaged development and baseline design standards will provide a consistent framework guiding the detailed planning and construction phases.

It is essential to affirm that the integrity of the intent of the redevelopment, as represented by the type of spaces and environments these plans suggest, is expected to be maintained throughout the development process. This consistency ensures that the final outcomes align with the strategic objectives these conceptual plans were designed to visualize.

The Mill District COMMON CONCEPT PLAN ELEMENTS

To align with the project's Principles and Goals, each proposed scenario incorporates certain common elements despite having distinct objectives. These shared aspects include:

Land Use Mix: Within the varied illustrative development concepts considered, there is a uniform commitment to combining open space, recreational, commercial, office, and residential spaces in a manner that aligns with the established Vision Principles and Redevelopment Objectives. This adherence ensures that the core intent of the redevelopment is maintained throughout each potential plan. However, these mixed-use elements' composition, magnitude, and spatial organization differ across the concepts presented below. Upon developing a site plan, the concepts may vary again to respond to a tailored development approach that can adapt to changes in market dynamics.

This nuanced flexibility is crucial, as it enables future concepts and developments o to be responsive to current and future demand, ensuring that the redevelopment remains relevant and progresses without stalling. By allowing for adjustments in the mix and scale of development, planners and developers can seamlessly pivot their approaches to best suit the prevailing economic climate while adhering to long-term strategic goals.

Ultimately, this approach advocates for a development that is physically diverse, economically flexible, and forward-thinking.

Phasing: The Mill District's development outlines a phased approach to improving and constructing projects. Immediate actions focus on initiating essential upgrades to public open spaces along the Mississippi River. In the second phase, projects of greater complexity requiring in-depth preparation will undergo thorough development review processes. This stage involves extensive planning and intricate design work to address more significant infrastructure requirements, large-scale construction, and potentially long-term redevelopment projects. These could include integrating residential, commercial, or mixed-use buildings and implementing advanced urban design strategies to create a cohesive and functional urban district. By adopting this phased development plan, the Mill District aims to lay the groundwork for a vibrant, multipurpose urban environment that thoughtfully evolves with the area's needs, preserving natural beauty while fostering economic and social vitality.

Housing Diversity: A variety of housing types are accommodated in all scenarios, spanning medium-density options like row townhomes to high-density units in mixed-use buildings. The specific mix, including rental and owner-occupied structures, must be carefully considered to meet market demand and ensure feasible redevelopment outcomes. It is essential to acknowledge the insights provided by key stakeholders who have indicated that the integration of additional row townhomes, alongside the potential inclusion of free-standing apartment units, will be critical elements of construction. The

stakeholders also emphasized that residential development is expected to precede the introduction of commercial spaces such as retail and office units.

Given the current and projected market conditions, the preference for prioritizing multi-family residential (free-standing) units is not surprising. The retail and office sectors are experiencing a challenging market, a trend anticipated to persist into the foreseeable future. In contrast, a significant demand for housing is expected over the next decade. Recognizing this disparity, a predominating focus on residential development makes practical and economic sense.

It is well-recognized that developers are often inclined toward building multi-family residential properties due to the relative ease of obtaining financing for such projects and their profitable nature. This commercial reality aligns with the current housing market assessment, further supporting the argument for an increased residential component in the upcoming phase.

Diversity in Office and Commercial Space: In the strategic development of the property, the inclusion of office and commercial spaces is anticipated. However, the scale and extent of these developments vary in each scenario envisioned. The approach is methodically staged, where the initial phase is dedicated to establishing residential communities, thereby setting a foundation for demographic stability and local demand for office and commercial uses. Once this residential base is secured, subsequent development will contemplate a more extensive rollout of office and commercial entities. This progression is designed to ensure that the growth of business amenities and workplaces is congruent with the needs of the population and the evolving character of the community and region. The timeline for expanding commercial and office spaces is thus strategically aligned with the overall master plan, considering factors such as market demand, community development progress, and economic trends to ensure a balanced and practical approach to the property's revitalization.

Waterfront Orientation: In each scenario being considered for development, there is a shared recognition of the Mississippi River's intrinsic value. The intention is to cultivate the riverfront as a principal recreational asset that enhances the area's appeal. This recognition goes beyond mere acknowledgment; it involves a concerted effort to integrate the river into the fabric of the community, thereby enriching the quality of life for residents and elevating the experience for visitors.

Plans for development along the river include creating accessible green spaces, walking paths, and bike trails that encourage outdoor activities and connectivity. Additional ideas consider the possibility of water-based recreation and leisure amenities that complement the natural setting. Thoughtful landscaping and conservation efforts aim to preserve the ecological integrity of the river while providing spaces for community events and activities.

The guiding principle in all scenarios is the balanced harmonization of development with environmental stewardship, ensuring that the Mississippi River remains a vibrant focal point and enduring attraction. As such, it is envisioned that the riverfront will serve as a picturesque backdrop and as a dynamic and interactive extension of community life, fostering a strong bond between the people and the river that shapes their environment.

Open Space Network: A considerable area is devoted to open spaces in each concept, reflecting a deliberate strategy to cultivate welcoming and multipurpose environments. The aim is to craft a series of

open areas that cater to a variety of activities and serve the community in multiple capacities, such as recreation, social gatherings, and cultural events. The development of these open spaces is slated to begin in the project's earliest phase to ensure they are foundational to the area's evolving landscape. This initial investment in open spaces is intended to set a precedence for quality public areas that foster a sense of place and belonging among residents and visitors alike.

In subsequent phases, the plan entails expanding and enhancing these open spaces. The goal is to create a network of interconnected green spaces that provide aesthetic value, promote well-being, and facilitate movement and interaction throughout the community. Such a network is envisioned to include plazas, walkways, and greenways that seamlessly link different parts of the development, enhancing the overall cohesion and vitality of the district.

This phased approach ensures that as the built environment grows and diversifies, the integration of open spaces remains a priority, continually reinforcing the area's character and sense of community. By steadily expanding and enriching these spaces, the development plan underscores a commitment to supporting an engaging and dynamic public realm that resonates with the values and needs of the community.

Street and Access Considerations: Each concept contains measures to improve accessibility within the area, focusing on establishing a network of streets conducive to pedestrian and cyclist use. This is complemented by plans for creating an uninterrupted trail system that runs alongside the waterfront, providing scenic routes for both recreational and commuting purposes. This commitment to multi-modal access emphasizes a community design that is not solely car-centric but promotes sustainable and healthy forms of transportation.

In the initial phase, the designs suggest leveraging at-grade rail crossings to facilitate movement and use of the Mill District nearly immediately. This approach is mindful of immediate feasibility and cost-effectiveness while providing essential connectivity from the outset. Simultaneously, the concepts adopt a proactive stance towards evaluating alternative access solutions that may be more suitable for later stages of the development. Such alternatives could include overpasses or other innovative access points designed to reduce potential conflicts between vehicular, rail, and non-motorized traffic.

By incorporating this phased strategy, the plans account for the anticipated increase in residents, visitors, and overall activity as the area expands and progresses. Proactively planning for alternative access points demonstrates an understanding that the area's infrastructure needs are likely to evolve. As such, laying the groundwork for these future improvements is essential to ensuring that the area continues to meet the accessibility demands of its users effectively.

Honoring History. Each development concept carries a shared vision of honoring the former paper mill's historical significance while threading its legacy into the future landscape. As part of this vision, a concerted effort is to preserve the old mill's remaining structure and repurpose it into a viable commercial space. The intention is to give the historic building a new lease on life by transforming it into dynamic use along the Mississippi River.

This adaptive reuse strategy aims to maintain the building's architectural integrity and industrial character while adapting the interiors to meet modern commercial standards. By doing so, the plans

ensure that the structures will not stand as static monuments to the past but continue to be integral and functional parts of the community's fabric.

In addition to preservation and repurposing, the placemaking elements of street and building names reflecting the site's heritage amplify this homage to history. Collectively, these efforts seek to create a unique environment where the past enriches the present, and the historically-infused commercial spaces attract visitors and locals alike – drawing not only on the allure of novelty but also the deep-rooted stories embedded in their walls.

Through such sensitive repurposing, the site's industrial spirit is retained and reinterpreted, laying the foundation for a destination that carries forward the site's narrative in a commercially vibrant and community-focused setting. This approach preserves the tangible aspects of the site's history and leverages them as catalysts for economic development and cultural enrichment within the emerging district.

Site Remediation: Each development scenario is constructed with a conscious regard for environmental restoration as a foundational element. Acknowledging the significance of ecological health and sustainability, measures for the comprehensive removal of existing concrete and thorough site remediation are incorporated into all plans. Addressing these environmental concerns is essential for preparing the land to meet the regulatory and safety standards required for upcoming commercial and residential applications.

The process of removing concrete and remediating the land is not only a preparatory step but also a commitment to environmental stewardship. Moreover, by undertaking such initiatives, the development plans aim to enhance the desirability and functionality of the area, making way for a revitalized property that optimizes its potential for redevelopment.

The Mill District General Development Land Allocation and Definition:

The concept plans for The Mill District lay out a versatile structure intended to cultivate a harmonious and multifaceted urban setting. Although a comprehensive market analysis wasn't conducted during the visioning and conceptualization stage, certain assumptions were made to propose a tentative schedule of land uses aimed at achieving an optimal mix desired by the community.

Nonetheless, given that the implementation of this plan could span 2 to 20 years, the distribution of space may shift in response to market trends, regulatory approvals, and overarching development objectives. This allows the plan to be refined and adapted throughout the project's realization.

Public Park/Waterfront Space:

Ten acres are allocated for green spaces and access to waterfront amenities, providing recreational and leisure opportunities for residents and visitors.

Land use types of the space include walking and biking trails (both paved and natural paths); picnic areas, playgrounds; performance spaces (concerts, plays, or movie nights); access points for canoes, kayaks, paddleboards, and potentially rental services, along with docks for personal watercraft; fishing piers; public art and installations (sculptures, murals and interactive installations; gardens and landscape features; courts and fields for sports such as curling, bocce ball, ice skating with areas for spectators; benches, swings, or lookout points strategically placed for optimal views of the water and surrounding landscape.

Retail/General Business Areas:

Four acres are allocated for mixed-use buildings, offering retail spaces at street level and the option for multi-family (MF) housing on upper floors, enhancing the community's vibrancy.

Land use types of the space include café and eateries; locally-owned restaurants offering both indoor and outdoor seating; specialty food shops including bakeries; juice bars, coffee shops, or sandwich counters; artisan market; boutique apparel and gift shops; service businesses like spa or salon; microbrewery and wine bar; interactive experience stores that offer an experience, such as a cooking class, DIY arts and crafts, or a tasting event alongside their product offerings; health and wellness outlets and studios.

Office Spaces:

Three acres for office developments, potentially incorporating multi-family residential units above, could cater to businesses and professionals while offering convenient living options.

Land use types of the space include office spaces with multiple floors, topped by residential units that might consist of shared amenities such as fitness centers and rooftop gardens; office developments with an attached plaza containing retail and dining options, with residential units occupying the higher stories; co-working and co-living spaces aimed at freelancers and entrepreneurs, with community-oriented apartment living incorporated within the same building artist lofts and creative studios.

Townhome Development:

Four acres were allocated for townhome housing, providing a residential neighborhood feel within the urban mixed-use context.

Land use types of this space include Classic row townhomes, which are two or three stories with a classic architectural style; luxury townhomes with high-end finishes, spacious floor plans, and upscale amenities; stacked townhomes where units are stacked on top of each other, often resembling a low-rise apartment complex; senior living townhomes, tailored to older adults, with features like single-level living, low maintenance, and accessibility in mind.

Infrastructure and Shared Services:

Five acres to establish necessary support for the community, including shared parking facilities, decorative ponds that contribute to the area's aesthetics, and streets that ensure connectivity and accessibility across the development.

The Mill District THE OPPORTUNITY PHASES

The Mill District Concept Plans are centered around the transformation of what has been identified as the primary mill site" of 26 acres of publicly held land, which has been strategically divided into two distinct phases for redevelopment. The rationale behind bifurcating the plan lies in the necessity to progress with initiatives that are currently in progress, such as the opening of a new pedestrian bridge, the application for grants and subsequent funding of river trails, and the effort to ensure proper access to the hydro facility. Transitioning to the commencement of phase two will require thorough considerations regarding transport accessibility, the condition of the property, and the extent of developer participation. These aspects are pivotal but will necessitate additional time for evaluation and planning.

Establishing two separate phases makes it possible to advance with critical Phase One catalytic projects and promptly attract people to the site, avoiding undue delays in the revitalization process.

<insert map showing generalized phasing areas>

Mill District Phase One

Phase One of the Mill District includes thoughtfully designed open spaces, meandering trails, and convivial gathering spots, all created and implemented by the City of Sartell and partners to enable residents and visitors to immerse themselves in Sartell's history, learn more about the property's papermaking legacy, and appreciate the homage to the Mississippi River that is central to the town's identity.

<general map of the property highlighting this area>

<insert pictures demonstrating the vision – trails, benches, docks, incubators>.

BATAVIA BUSINESS INCUBATOR CASE STUDY

The Batavia Boardwalk Shops, managed by Batavia MainStreet, represents a retail incubator program purposely designed to bolster small businesses and emergent brands. The initiative offers a nurturing platform that significantly reduces the financial and operational risks typically associated with opening a new storefront. By doing so, it creates a supportive, encouraging backdrop for business development and growth. Participants of the program enjoy an array of benefits, including but not limited to:

- Reduced overhead costs: The program allows entrepreneurs to avoid the substantial financial commitments that come with long-term commercial leases, utility bills, and other operational expenses related to a permanent retail space.

- Business development support: Through mentorship and access to educational resources, startups receive invaluable guidance on how to navigate the complexities of running a retail business, fine-tune their business plan, and develop effective sales and marketing strategies.

- Community and networking opportunities: Being part of the Boardwalk Shops means joining a community of fellow entrepreneurs. This network can lead to shared insights, potential collaborations, and peer learning opportunities.

- Market exposure: The physical presence in a retail incubator enables brands to engage directly with customers, receive immediate feedback, and build brand recognition in the local market.

Overall, the Batavia Boardwalk Shops program provides a unique opportunity for businesses at various stages of their journey to experiment with retail operations, cultivate customer relationships, and potentially establish a long-term presence in the local economy, all within a guided and less risky framework.

Phase One Mill District – Greenway

The Mill District Phase One – The first stage of development, referred to as Phase One, will establish a 10-acre mixed-use community space that honors the site's heritage as a paper mill and incorporates views of the Mississippi River. This stage is designed to create a balance between active areas for exercise and social events and quiet spaces for relaxation, set against the backdrop of the river.

Phase One will act as a foundational step, introducing versatile public amenities, including business and retail hubs, social gathering spaces, trails with scenic overlooks, and a waterfront dock for large events and daily use. A shared access road will be built to serve the hydro facility and connect to the greenway network, helping to minimize early expenses while providing collective advantages to the local population. Enhanced bicycle and pedestrian pathways will be created, linking the current pedestrian bridge and expanding the trail network.

To increase visibility and engagement with the site, Phase One may also see the establishment of small business incubators (See Batavia Case Study). These centers are designed to attract and nurture budding entrepreneurs, providing essential business exposure. The overarching aim is to lay down an ecosystem that encourages innovation and business development, setting the stage for future economic growth in the area. Public amenities are expected to begin development promptly within Phase One, as further assessments of facilities and transportation options are carried out in the subsequent stage, Phase Two.

These strategic initiatives are expected to transform the area into a vibrant hub of activity, inviting people to appreciate its historical and natural attractions. The local community will likely benefit from revitalizing business and culture, contributing to a diverse and energetic atmosphere. These plans also prioritize the preservation of the site's ecological and historical integrity.

Mill District Phase One Stats:

Acreage: Approximately 10 Acres

Current Zoning: Industrial

Current Future Land Use: Office/Warehouse and Industrial

Current Future Land Use Plan – Office/Warehouse and Industrial Description: Office Warehouse/Industrial development is evolving from a heavy use of more moderate manufacturing to office and warehouse uses. The former paper mill site and former landfill site offer the best opportunity for the potential for larger tract office redevelopment. Most future industrial development is expected to be less intense and be directed to the Office, Warehouse, and Light Manufacturing areas. The purpose of the Office/Warehouse is to identify portions of Sartell and its growth areas that contain or should be developed for light manufacturing, warehouse, and office use. These areas could include warehouse uses, light manufacturing, facilities where offices are integral to the business, and free-standing professional businesses and offices. They may also include limited retail and service uses supporting office uses and employees, such as restaurants and convenience stations. The Industrial category aims to identify portions of Sartell that contain heavy industrial uses. Uses could include manufacturing, assembly, truck terminals, and other businesses that provide goods but not directly to the public. The corresponding zoning district is I-2. To minimize noise, light, and other nuisances to adjacent commercial and residential uses, industrial uses should be well-buffered and screened. The scale and intensity of industrial uses should be based on the context and respect for the character of adjoining neighborhoods.

Suggested Future Land Use and Zoning: Park

Future Land Use Park Use Description: Land dedicated to active or passive recreational uses. These lands may be publicly or privately owned, including playgrounds, public parks, nature preserves, wildlife management areas, golf courses, recreation centers, etc.

Mill District Phase One Concept Plan and Program

» Opportunity Corridor: Establishing vibrant spaces by the Mississippi River specifically designed to nurture emerging enterprises through business incubators (See Batavia Incubator Case Study) while fostering a dynamic marketplace with opportunities for pop-up shops and various food vendors to thrive. These areas will support budding entrepreneurs and small businesses and enhance the riverfront experience for the community and visitors.

» Open Space: The immediate proximity to the Mississippi River offers an exceptional setting conducive to developing a substantial communal space for large-scale gatherings. This picturesque riverside location is perfect for hosting community events, recreational activities, and social functions, enhancing the area's appeal as a destination for residents and visitors to come together and engage with the natural beauty of the riverfront.

» Walkways, Trails, and Promenades: Pedestrian walkways and generous hardscaped trails knit this site together, offer shaded, comfortable means of circulation through the site, and provide access to the pedestrian bridge and opportunities for smaller performances and spaces for vendors. The hardscape

materials selected for the trails and walkways should consider sustainability with permeable paving that allows infiltration and durable materials for future maintenance, fire protection, and utility access.

» Storytelling: The selection and design of paving and hardscaping features across the site offer a unique canvas for narrative-driven elements such as inscriptions and engravings. These details will serve to weave the rich story of the area's past, highlighting its legacy of papermaking and logging. Furthermore, they will educate and inform visitors about the historical importance of the Mississippi River itself. These storytelling opportunities will imbue the site with a more profound sense of place and connect present and future generations to its cultural heritage.

» Passive and active recreation: The design prudently accommodates a spectrum of options to accommodate different activities, ranging from large-scale community events to intimate gatherings and areas for quiet reflection, strolling, or landscape admiration. There is also the provision of a floating dock geared towards facilitating water-based activities for boaters and canoeists.

» Floodable areas: The floodway-adjacent northern section of the property should be landscaped with vegetation that can withstand flooding, adhering to a planting strategy focused on resilience.

» The redevelopment of the Mill District necessitates a 100-foot setback/buffer from the Mississippi River to any new developments to comply with the City's shoreland ordinance as regulated by the DNR. This buffer or setback may incorporate trails and park amenities, including picnic tables and boardwalks. However, it should exclude any elements that would require the construction of structures or footings.

»The DNR shoreland ordinance specifies minimum lot standards that must be adhered to for lots developed within this area. An existing building/structure on the property is classified as non-conforming but is permissible since it pre-dates the current regulations. Should the City not meet the state's minimum standards in this area, there is a possibility that grant funds could be jeopardized. The use of the non-conforming structure may continue. Ordinarily, proposals to increase the degree of non-conformity of a structure are not accepted. A portion of the building is located within a special flood hazard area; thus, compliance with the City's floodplain ordinance is required. Lot divisions should consider the ability to meet the necessary setbacks and floodplain regulations as much as feasible.

»This section of the Mississippi River is not located within a scenic district, allowing for the possibility of docks (space must not be rented). The DNR has decided to limit public use of docks but still encourages the presence of access points. The DNR suggests having only one access point with a dock system to minimize adverse effects. This approach helps reduce vegetation removal and potential erosion or habitat destruction in the nearby environment. A single access point enables recreational use with the most negligible environmental impact. It is important to note that the dock can be up to 8' wide to accommodate foot traffic in both directions.

Mill District Phase Two

Phase Two of The Mill District is a carefully curated collection of versatile environments, fostering residential comfort, professional endeavors, and recreational enjoyment. This developer-led phase thoughtfully interweaves the fabric of everyday life with opportunities for community engagement and relaxation that deeply respect and reflect Sartell's profound history and the picturesque beauty of the regional landscape.

<general map of the property highlighting this area>

<insert pictures which demonstrate the vision – buildings, open spaces, parking garages>

Phase Two Mill District

The Mill District Phase Two: Phase Two is envisioned to reinvigorate the area into an active mixed-use neighborhood that accentuates pedestrian-friendly pathways and community areas to promote walkability and social interaction. This stage will proceed after strategic collaboration and careful planning with stakeholders, including developers and financial institutions, to refine the concept plan for the effective use of space and determine the appropriate infrastructure needs for the site that align with community expectations.

The Mill District area was once mostly covered with the papermill (xxxx,000 sf) and accessory uses, including the treatment facilities and coal-burning building. Since the demolition of the papermill structures started in 2013, the property has been noticeably vacant and continues to be blighted with vegetative growth. The site holds signs of previous use, with a strong majority of the area containing substantial concrete footings and foundations. This site contains the primary entrance to the property through an at-grade BNSF rail crossing and is bordered on the east side by the BNSF rail line and right of way.

Phase Two provides the greatest opportunity to meet the community goals established through the visioning process by putting to life the vision of a vibrant, walkable, welcoming place with a variety of uses anchored by a flexible and programmable public space. As part of the planning process, four options were studied to create the density of uses that could make a unique destination with a range of retail, cultural spaces, and amenities, as well as provide the housing necessary to develop the critical mass of people living and working within the district. In particular, Concept Plans One and Two rose to the top due to their ability to include a dense mixed-use program with greater height towards the rail

line and reduction of height along the Mississippi River, and incorporating two different rail crossing designs (elevated and at grade).

This area can be used as a “Live, Work and Play” district, including retail, restaurants, open space, offices, hotels, or housing that provides a transition to existing neighborhoods. The community has emphasized the significance and importance of hosting plaza spaces, recreation, entertainment, small vendors, and community amenities.

As part of the execution of Phase Two, in-depth consideration will be given to creating internal access points that facilitate movement across the railway line, thereby improving connectivity within the area. The existing concrete remnants will be assessed for repurposing or removal to complement the urban redesign. Investment in critical infrastructure upgrades will be a focal point to support a functional and visually appealing space.

Furthermore, Phase Two will be characterized by a collaborative partnership with a developer with extensive expertise in handling complicated urban sites and successful redevelopment projects. This partnership is critical for navigating the complex dynamics of transforming a space with intricate historical and physical attributes into a revitalized urban area. The developer's experience will be instrumental in realizing a development that not only addresses the challenges of the site but also delivers an outstanding and sustainable addition to the community.

Ultimately, Phase Two's objective is to create a dynamic urban fabric that weaves together residential, commercial, and leisure spaces into an integrated and inviting neighborhood. The purposeful design and development will seek to foster vibrant street life, offer diverse amenities, and promote an environment where residents and visitors alike can thrive. This development phase is a commitment to building a future-focused community that respects its past while boldly forging a path toward a progressive and communal urban lifestyle.

Mill District Phase Two Stats:

Acreage: Approximately 16 Acres

Current Zoning: Industrial and Office/Warehouse

Current Future Land Use Plan – Office/Warehouse and Industrial Description: Office Warehouse/Industrial development is evolving from a heavy use of more moderate manufacturing to office and warehouse uses. The former paper mill site and former landfill site offer the best opportunity for the potential for larger tract office redevelopment. Most future industrial development is expected to be less intense and be directed to the Office, Warehouse, and Light Manufacturing areas. The purpose of the Office/Warehouse is to identify portions of Sartell and its growth areas that contain or should be developed for light manufacturing, warehouse, and office use. These areas could include warehouse uses, light manufacturing, facilities where offices are integral to the business, and free-standing professional businesses and offices. They may also include limited retail and service uses supporting office uses and employees, such as restaurants and convenience stations. The Industrial category aims to identify portions of Sartell that contain heavy industrial uses. Uses could include manufacturing, assembly, truck terminals, and other businesses that provide goods but not directly to the public. The corresponding zoning district is I-2. To minimize noise, light, and other nuisances to

adjacent commercial and residential uses, industrial uses should be well-buffered and screened. The scale and intensity of industrial uses should be based on the context and respect the character of adjacent neighborhoods.

Suggested Future Land Use: New Land Use Designation Mixed-Use Village

Suggested Zoning: Light industrial flexibility (distillery manufacturing, hydro facility expansion) residential and commercial mixed-use.

Option One

NOTE: The mixed-use concept illustrated can be modified when the roadway crossing is vetted as the most desirable and economically feasible roadway configuration among stakeholders and upon funding.

Option Two (Elevated Roadway)

NOTE: This concept shows an elevated entrance onto the property. Engineering studies have not been completed to evaluate this proposal. The mixed-use concept illustrated can be modified when the roadway crossing is vetted as the most desirable and economically feasible configuration among stakeholders and upon funding.

Phase Two Concept Plan and Program

Both concept plans for Phase Two include a mixed-use program with various uses to support the vision for a walkable, mixed-use district.

» Pedestrian oriented, with walkability in mind, featuring a range of building heights from one to five stories. Taller structures will be situated closer to the railway, with a progressive reduction in building height toward the Mississippi River. This design strategy will ensure that the riverside aesthetic is preserved and that views of the river are maximized for residents and visitors.

» The residential component aims to provide a variety of options by offering both rental and owner-occupied units, spanning from multifamily dwellings housed in mixed-use buildings to distinct townhome complexes. By presenting this array of residential choices, the development actively seeks to appeal to a broad demographic, encompassing different age brackets and catering to a multitude of lifestyle preferences. Such an inclusive approach to housing is designed to cultivate a richly varied community landscape.

This diversity in housing styles fulfills a range of living needs and establishes a stable foundation of local patronage for the businesses within the Mill District. A wide-ranging residential population ensures a consistent customer base that can support and invigorate local commerce, including retail shops, dining venues, and service providers.

Recognizing that residential components are typically at the forefront of mixed-use development and construction activity, there is merit in contemplating the initiation of standalone multifamily residences. These units can serve as the initial building blocks of the community, offering immediate housing options that can quickly establish a core resident base. As this base grows and stabilizes, it can provide the necessary support for further development projects, including mixed vertical uses, which would facilitate the success of commercial and office entities, retail venues, and restaurants.

Ultimately, this considerate approach to residential development addresses the immediate housing needs and anticipates the community's future growth. It underscores a vision flexible and responsive to evolving market demands, ensuring a well-rounded development that nurtures the local economy and fosters a connected and inclusive community ethos.

» The concepts strategically include an array of dining, shopping, and service venues within its compact commercial zones, designed to cater to both the community of the small neighborhood and the wider central Minnesota population. The plan addresses the need for diversified eating establishments and retail diversity by offering a selection of commercial choices. This design approach holds particular significance as it acknowledges a gap in the current market, especially noting the limited number of riverfront dining options along the Mississippi River in the central Minnesota region. By introducing businesses that capitalize on the picturesque waterfront setting, the development seeks to fill this void and draw attention to the district as a desirable spot for dining and leisure.

» An array of recreational amenities, with indoor and outdoor facilities intended for public enjoyment and private events, are contemplated in phase two. This diverse selection is meticulously planned to accommodate a broad spectrum of recreational pursuits, ensuring appeal across different age groups, interests, and activity levels.

Outdoor spaces may feature additional landscaped areas, trails, and promenades, encouraging active lifestyles and providing serene settings for relaxation and community interaction. The design of these areas considers the natural surroundings, aiming to create harmonious extensions of the local environment that invite residents and visitors alike to connect with nature.

Indoor amenities could encompass fitness centers, event halls, and spaces for arts and crafts or educational workshops, offering year-round opportunities for personal development, healthful living,

and social engagement. These facilities are envisioned to be versatile and adaptable, hosting various events, from fitness classes and community meetings to private functions and cultural events.

In catering to an array of recreational preferences, the development enriches the community's quality of life and positions itself as an attractive destination for leisure and special occasions. These amenities serve to deepen the sense of place and community, forging spaces where memorable experiences are created and shared. The proactive inclusion of such facilities in the development plan reflects an understanding of the importance of recreation and social spaces in fostering a vibrant and cohesive community.

» Understanding the growing trend of telecommuting and the burgeoning gig economy, the design plan aims to provide residential options that support work-from-home practices without requiring occupants to invest in dedicated office space. Shared facilities within the multifamily complexes, such as conference rooms, coworking spaces, and potentially even small business centers, offer a suitable environment for productivity and professional growth.

By offering these amenities, the development caters to the residents' immediate needs and facilitates the transition for aspiring entrepreneurs toward larger-scale operations, such as intellectual collaboratives or physical storefronts within the community. This inclusion of work-friendly residential features reflects an effort to anticipate and respond to the shifting landscape of employment and entrepreneurship, fostering a development that supports the residents' professional aspirations and living needs.

Parking

» Optimize on-street parking to facilitate efficient and convenient access to shopping and retail areas. Incorporating on-street parking will additionally serve as a traffic calming strategy, promoting pedestrian activity and enhancing overall street safety.

» Shared parking solutions that allow multiple user groups to utilize both surface lots and garage structures. For instance, evening businesses such as restaurants can benefit from parking spaces that office-based and daytime businesses vacate, accommodating peak demand times effectively. This approach ensures optimal usage of available parking at different times of the day.

» Parking facilities are vertically integrated within the multi-use buildings, aligning with the design of mixed-use development. These integrated parking solutions span multiple levels, often as part of the structure itself, to offer convenient access to the building's residential, office, retail, and other functional spaces. This approach maximizes space efficiency and reduces the building's footprint, blending seamlessly with the overall architectural design.

Draft V 12.22.2023

INTRODUCTION & OVERVIEW WHY DO WE NEED GUIDELINES?

The Mill District Design Guidelines have been crafted to align with the Concept Plan developed for the former paper mill property. The primary function of these guidelines is to inform the development of the publicly owned site to evolve into an environment conducive to living, nature enjoyment, recreational use, and professional activity.

These guidelines aim to offer a structured methodology for development that is in keeping with the desired character and functionalities intended for the Mill District, as described in its vision principles and redevelopment objectives. The guidelines encompass a variety of design principles designed to integrate the built environment with the local area's distinctive features.

The guidelines include a spectrum of considerations, such as adopting sustainable design, maintaining architectural consistency, and promoting a pedestrian-friendly neighborhood. The objective is to facilitate planned development that meets the diverse requirements of the neighborhood while respecting the historical significance of the old mill site and its relationship with the Mississippi River. The guidelines have been developed to be neutral, ensuring they provide a pragmatic, inclusive framework that mirrors the collective aspirations for the Mill District.

The guidelines provided serve as a conceptual framework and best practices for urban development in the Mill District rather than prescriptive legal mandates ready for direct incorporation into the City's code. The transformation of these guidelines into an enforceable ordinance necessitates a thorough and meticulous process that accommodates the specificity and regulatory requirements innate to legal codes.

<text box that defines conceptual framework>

Transitioning these principles into ordinance form requires clear, specific, and standardized language in line with other local ordinances, minimizing ambiguity and enforcement issues. In addition, further public hearings are integral to collecting feedback and reaching agreement on the proposed laws, ensuring their practicality and fairness. Codifying these guidelines would maintain the original intent and provide a well-defined regulatory base, supporting the development and prosperity of Sartell in harmony with its distinctive Mississippi River setting and paper mill history.

USING THE GUIDELINES

The design guidelines outlined herein are proposed for use across all land identified as phases one and two in the concept plans. Their purpose is to articulate **fundamental urban design and placemaking** tenets to shape the redevelopment initiatives within the area depicted in the concept plans. At the same time, they are not exhaustive in their scope.

Considering that each future development proposal, whether for an entire property or segmented subphases, will have its own set of possibilities and challenges, these Guidelines are structured to encourage development attuned to fit within the context of the entire Mill District, contributing to the collective cohesiveness of the district. They aim to underpin an architectural synergy, cultivate an authentic sense of place, and ensure that individual projects complement the attributes and historical

backdrop of the Mill District. Compliance with all prevailing Sartell standards related to safety, accessibility, and the configuration of streets remains a requisite.

The Guidelines possess adaptability and may serve as optional benchmarks for developers seeking to tailor their projects to the City's aspirations. Alternatively, they can be integrated into the City's zoning regulations to set definitive standards for the district's development. Alternatively, they could be factored into development contracts to ensure that private-sector ventures align with the public objectives of the Mill District. Regardless of the approach, the Guidelines are intended to be an instrumental asset in orchestrating development congruent with the long-term strategic vision for the area.

<include case study – Kimberly Redevelopment>

DESIGN GOALS

Create vibrant nodes of activity.

The focus is on establishing dynamic centers of activity in the Mil District. These areas are primed to foster engagement and interaction, leading to active social spaces. They should be developed to invite a variety of uses throughout different times of the day, week, or year, attracting residents and visitors alike to enliven the environment.

<Image of activity>

Honor the history and character of the Mill District property.

Recognizing the significance of history is crucial, as the legacy and charm of the Mill District are fundamental to both the property and the City. Development initiatives ought to thoughtfully safeguard and embody the heritage of the locale, incorporating design elements that enhance and highlight its historical aspects.

<image of mill>

Ensure context-sensitive and sustainable design.

Practicing context-sensitive and sustainable design is critical, ensuring that new development harmonizes with its surroundings in form and function. Designs should respect the existing urban and environmental context and incorporate green building practices, resource efficiency, and adaptability to future environmental conditions. This thoughtful approach to development will help create a built environment that maintains aesthetic continuity, supports ecological balance, and meets the needs of current and future generations.

<text box that defines context sensitive>

<text box that defines sustainable design>

RECOMMENDED USE ZONES AND BUILDING TYPOLOGIES

DEVELOPMENT ZONES

Land within the Mill District can be divided into two areas, as follows:

- **Phase One – Mill District - Greenway Area** (highlighted words are possible names for certain areas)

<picture of phase one, include area name reference>

The greenway area, defined by the space extending from the edge of the Mississippi River and set back by approximately one hundred feet from this boundary, is predominantly allocated for scenic landscaping with provisions for passive recreation or as an area accommodating a multifaceted pathway that supports various recreational activities,

Apart from the central stretch of the greenway, the northern ("the woodyard area") and southern ("the coal dock area") extremities of the property will also encompass open green spaces. These public open space ends are designated explicitly for active recreational pursuits. They plan to include facilities such as curling and skating, providing year-round utility and outdoor activities that cater to diverse interests and enhance community engagement.

While the greenway will predominantly retain its naturalistic and leisurely orientation without being developed for larger-scale commercial, office, or residential purposes, it will support a range of limited and complementary accessory uses. Such uses include docks for water access, mobile food services like food trucks, and transient retail operations, including pop-up or incubator retail kiosks, which align with the space's overall recreational and community-focused intent.

<image of commercial pop-ups, food trucks>

This carefully considered planning preserves the Greenway's role as a recreational corridor and a buffer to the riverfront while ensuring that the northern and southern ends contribute to creating an inviting and versatile open space for various seasonal sports and community activities.

- **Phase Two – Mill District - Development Area**

<picture of phase two>

The Development Area encompasses approximately sixteen acres of the site earmarked primarily for the existing structure's new construction and redevelopment efforts. As described in the chapter < >, the scope of development in this phase is diverse. It is intended to accommodate a variety of uses, such as commercial, office, service-oriented, and residential housing, and is a canvas for strategic growth that can integrate a mixed-use environment, blending different property types to meet the community's needs.

The vision for the Development Area aligns with long-term planning goals, ensuring that all forthcoming projects proposed for the property contribute to a cohesive and revitalized district. It allows for adaptive reuse of the remaining historical buildings (including the hydro facility), embraces traditional architecture where appropriate, and encourages new development that resonates with the community's character.

Concepts One and Two

<Concept Plan One>

<Concept Plan Two>

The Mill District Development Area includes a variety of recommended building typologies representing the community's input into the design concepts. A description of each recommended use category is included below to guide future development. A more fine-grained approach to zoning strategy, development agreements, and the public realm will be defined through the implementation process.

Retail/General Business Areas:

<images of retail, restaurants>

Two to four acres should be generally allocated for one to five-story mixed-use buildings, offering retail spaces at street level and the option for multi-family (MF) housing on upper floors, enhancing the community's vibrancy.

Land use types of the space include café and eateries; locally-owned restaurants offering both indoor and outdoor seating; specialty food shops including bakeries; juice bars, coffee shops, or sandwich counters; artisan market; boutique apparel and gift shops; service businesses like spa or salon; microbrewery and wine bar; interactive experience stores that offer an experience, such as a cooking class, DIY arts and crafts, or a tasting event alongside their product offerings; health and wellness outlets and studios.

Office Spaces:

Two to four acres should generally be allocated for one to five-story office and service-oriented developments, potentially incorporating multi-family residential units above. This could cater to businesses and professionals while offering convenient living options.

Land use types of the space include office spaces with multiple floors, topped by residential units that might consist of shared amenities such as fitness centers and rooftop gardens; office developments with an attached plaza containing retail and dining options, with residential units occupying the higher stories; co-working and co-living spaces aimed at freelancers and entrepreneurs, with community-oriented apartment living incorporated within the same building artist lofts and creative studios.

Townhome Development:

A parcel of land ranging from three to five acres is usually reserved for townhome developments, creating a sense of residential community within the broader urban, mixed-use area. In these zones, the potential for stand-alone multifamily buildings, open to ownership or rental, should be assessed to ensure flexibility in response to market trends and contribute to the Mill District's long-term sustainability.

Land use types of this space include Classic row townhomes, which are two or three stories with a classic architectural style; luxury townhomes with high-end finishes, spacious floor plans, and upscale amenities; stacked townhomes where units are stacked on top of each other, often resembling a low-rise

apartment complex; senior living townhomes, tailored to older adults, with features like low maintenance, and accessibility in mind.

Infrastructure and Shared Services:

Four to six acres to establish necessary support for the community, including shared parking facilities, decorative ponds that contribute to the area's aesthetics, and streets that ensure connectivity and accessibility across the development.

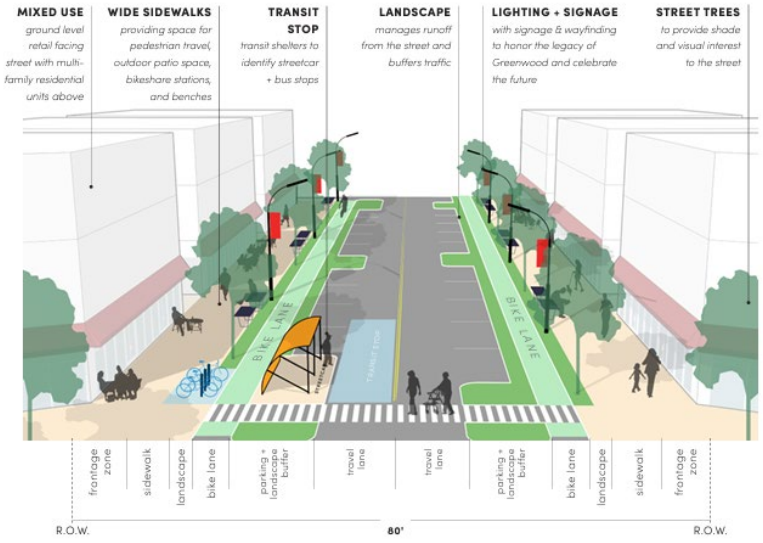
VEHICULAR CIRCULATION AND STREETS

In this case, a city's or a neighborhood's identity is often mirrored in its streetscape, from the proportion and maintenance of the streets themselves to the lighting and pathways that flank them. When thoughtfully and carefully planned, these elements cultivate a unique atmosphere and shape how a neighborhood is perceived by its residents and visitors. To foster a welcoming sense of place within the Mill District, a series of urban design components should be considered when the streets are designed, such as the alignment of building façades (also known as street walls), the scale of buildings, the presence and arrangement of street trees, design of intersections, pedestrian pathways, informational and directional signage, and the selection and placement of street furniture.

Principles of Street Design:

- Streets are multifunctional spaces that accommodate pedestrians, cyclists, and vehicles, including future public transit and freight delivery. Their design should be inclusive and equitable, catering to all users' diverse needs and safety.
- As one of the most conspicuous and frequently utilized public assets in any given area, streets play a substantial role in establishing the character of neighborhoods. It is essential to implement a design philosophy that recognizes their impact while promoting active street life.
- Providing on-street parking is recommended to alleviate the extensive off-street parking lots requirement. This practice can lead to more efficient use of available land for development, lessen the heat absorption caused by vast expanses of pavement, and reduce the overall amount of impervious surfaces that contribute to urban runoff.
- By adhering to these principles, streets in the Mill District can transform into more than just thoroughfares for transportation; they can become the backbone of community life, contributing positively to the District's environmental, economic, and social fabric.

<image of street section>



Note: This street section illustrates on-street parking on both sides of the street. Another option would be to have on-street parking only on one side of the street, providing a more expansive pedestrian zone with amenities, including cafes and outdoor dining.

Alleyways / Service

The desired location for loading and service/trash/etc. When there is no dedicated alleyway, curb cuts for access to service and loading may occur on side streets. It is recommended that service and loading not be accessed via a primary street where feasible. Parking in the alley should be restricted to allow for service vehicles. For residential development, it is recommended that a rear alley for access and parking be provided and that turning radius/visibility be anticipated in the design.

PARKING

PARKING LOCATION

<parking lots, off-street parking, alley pictures>

Parking facilities are essential to urban design, and their placement warrants careful consideration in the Mill District. Ideally, parking lots are situated out of direct view to preserve the aesthetics of building facades and maintain a clean and inviting streetscape. When parking areas are placed behind buildings, they blend seamlessly into the urban fabric, minimizing their visual impact on the surrounding environment.

- To ensure practicality alongside visual discretion, off-street parking—whether in shared structures or surface lots—should be readily accessible but discreetly positioned. These parking areas are preferably located behind buildings, where they are less prominent.
- Creative strategies such as constructing low walls, landscaped berms, or planting buffers can effectively screen parking facilities from public view. Such measures enhance the area's overall appeal and create a more pedestrian-friendly environment.
- Alleyways present an optimal solution for the functional needs of townhome communities and commercial and mixed-use areas. Situated at the rear, these service pathways offer a designated space for operations that are necessary yet visually and audibly unappealing, such as loading and trash pickup. By centralizing these activities in alleyways, residential and business areas maintain their charm and tranquility, with day-to-day operations occurring discreetly behind the scenes.

PARKING ACCESS

<Parking Access Pictures>

- In instances where a dedicated alleyway is unavailable, it is advisable to establish curb cuts on side streets to provide access to service areas, loading docks, and parking facilities. This approach minimizes disruption on main thoroughfares and maintains aesthetic continuity.
- It is generally preferable for service and loading zones to be situated on lesser-trafficked side streets rather than primary streets to enhance traffic flow and reduce congestion in high-traffic areas. Whenever practical, access points for these functions should be strategically positioned to avoid direct interference with the main traffic arteries.
- For residential developments, the optimal arrangement for parking access is from the rear of the property, utilizing an alleyway or private driveway whenever possible. This configuration helps preserve the streetscape and reduces the number of curb cuts on the primary street. Guest parking should predominantly be accommodated through on-street parking, ideally without compromising traffic flow and pedestrian accessibility along the street.

ARCHITECTURAL ELEMENTS

BUILDING FRONTAGES

The orientation and development of buildings along the street frontages can significantly influence the engagement and character of the Mill District's streetscape. Thoughtful placement of structures within the identified opportunity sites can create active and inviting spaces that draw people in and enhance their experiences as they move through the area. It is essential to recognize that how a building meets the street - its façade, entryways, and ground-level features - directly impacts how individuals interact with the space. Architectural details, transparency, street-level retail, and pedestrian-friendly amenities contribute to a sense of openness and accessibility.

Incorporating elements such as wide sidewalks, landscaping, and street furniture into frontage design serves aesthetic purposes. It supports functionality and safety, encouraging people to spend time in these areas for leisure, transit, or commerce.

The principal frontage for a building site.

<graphic of building frontage>

- To enhance the pedestrian experience and avoid the appearance of a massive parking lot between the building and the street, building setbacks to adjacent streets should be minimized wherever possible. When internal drives are utilized to organize buildings and pedestrian movement, setbacks to internal drives should be minimized wherever possible. However, where an established pattern of building setbacks exists, new buildings should be consistent with the surrounding building alignment.
- Pedestrian linkage should be established among multiple building entrances and the parking lot.
- All buildings should relate to street frontage using landscaping, pedestrian access, and other public spaces. Commercial buildings are encouraged to create an active street environment and a unified streetscape that encourages pedestrian activity.
- A combination of streetscape elements can be included: pedestrian seating, moveable tables, planters, pedestrian-scaled light fixtures (not more than sixteen feet tall), artwork or decorative paving, waste receptacles, bicycle racks, and other street furnishings.
- Drive-through passageways and canopies should be located at the rear or side of all buildings.

BUILDING MASSING AND BUILT FORM

<graphic of building massing/built form>

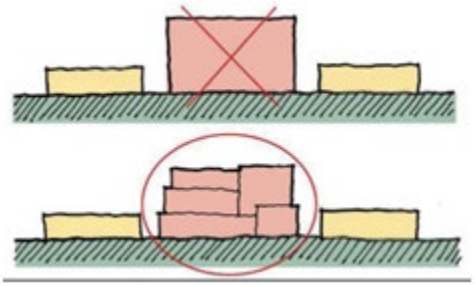
The architecture of buildings and their collective contribution to forming a street wall significantly influences the character of an area. Urban design theory often likens the street to a vast "outdoor room," where the capacity to shape this "room" is inherent in every thoroughfare. The "walls" of this room are composed of the buildings' main façades facing the street. The allocation and density of building mass across a site are pivotal factors that define the visual coherence of an area and the robustness of the street wall's presence.

<text box definition of street wall, image>

In large development projects that cover half a block or more, employing strategies such as subdividing extensive floor areas and adjusting building heights or maxing the length of a building —can be an effective design approach. Such designs promote a sense of scale and variation that enhances the overall streetscape.

To maintain the quality and consistency of the block edges and street walls, designers and planners should adhere to several guidelines:

- Gaps in the street wall should be minimized and primarily reserved for essential elements like walkways for pedestrian access, public squares, and driveways necessary for vehicle entry.
- For expansive projects not along the rail line, divide the development into a series of buildings that are suitably proportioned. Aim to ensure that individual buildings do not exceed a maximum length of three hundred feet, thereby avoiding monolithic structures and fostering a more human-scale and visually engaging environment.
- For buildings proposed along the rail line, constructing a continuous mass of buildings along the rail line can function as an effective acoustic barrier, mitigating the impact of noise from passing trains. This strategy entails developing structures in a connected sequence to form an unbroken architectural frontage adjacent to the railway corridor. The density and solidity of the buildings in this configuration could help absorb and deflect train noise, lessening the auditory intrusion into quieter residential areas or public spaces situated further from the rail line. Employing materials and structural methods conducive to sound insulation within these buildings can further enhance their effectiveness as a noise buffer.
  <image of building mass along rail line>
- The development landscape should be thoughtfully laid out with taller buildings strategically positioned closer to the rail line. This height placement allows for a tiered effect, where structures incrementally decrease in stature as they move towards the river.



A massive building's adverse visual (view) impacts should be minimized or mitigated using visual buffers, neighborhood-compatible architecture, building mass, and siting techniques. Large buildings should be broken into multiple buildings if possible, or into smaller buildings, massing elements through varied rooflines, varied façade planes, upper story setbacks, windows on front elevation, etc., to reduce the apparent size of the building.

ACTIVATION



Activation of a building refers to the process of making a structure more dynamic and engaging for its users. The concept is rooted in the idea that buildings should serve their primary purpose and contribute to the liveliness and appeal of the area they occupy. Activation can involve various strategies and design elements that make a space more inviting, functional, and capable of hosting a mix of activities. Here are some critical aspects of building activation:

- Mixed-Use Spaces: Incorporating different types of spaces, such as retail, office, residential, and public areas within a single building to encourage foot traffic and usage throughout the day and evening.
- Public Accessibility: Designing entrances, thoroughfares, and ground-floor areas that are welcoming and easily accessible to the public to foster interaction and inclusivity.
- Programming and Events: Hosting events, exhibitions, or performances that draw people into the building, creating opportunities for social engagement and cultural experiences.
- Amenities and Features: Offering amenities like cafés, seating areas, or green spaces where people can congregate, relax, or work in a casual setting, enhancing the day-to-day experience of the building.
- Interactive Elements: Utilizing technology or interactive installations, such as digital displays or public art, to catch the interest of passersby and create a memorable impression.
- Visual Appeal: Ensuring the building's façade and entry points are aesthetically pleasing and designed to beckon visitors and complement the urban landscape.
- Safety and Comfort: Implementing design features that promote safety, such as ample lighting, visibility, and shelter, making the building a secure and comfortable place to be at any time.
- Connectivity: Strategically placing and designing buildings to facilitate fluid connections with surrounding features, like parks, other structures, transit systems, or walking paths, to support the larger urban fabric.

- An obvious and welcoming building entry can be an important architectural feature that defines the visual character of a building and improves the pedestrian environment by enhancing the user's experience.
    - Primary building entrances should be oriented to a public street or a prominent public area.
    - Each primary building on a site, regardless of its size, should have a clearly defined, highly visible primary entrance featuring at least two (2) of the following:
        - Unique architectural feature (i.e., Prominent tower feature or peaked roof form and/or variation in building color/material);
        - Recess or projection.
        - Pedestrian weather protection (i.e., Canopy, overhang, or arcade).
        - Architectural details such as raised corniced parapets over the door, arches, lattice or tile work, and moldings integrated into the building structure and design.
        - Streetscape, including outdoor patio, integral planters, or wing walls that incorporate landscaped areas and/or places for sitting.
    - The building entry should incorporate architectural details to form an effective transition from the size of the overall building to the scale of pedestrians.
    - Glass doors and sidelights should be provided unless the design context defines other forms of entry.

Pedestrian Weather Protection

Exterior weather protection can enhance pedestrian safety and comfort and is most often provided in the form of overhead protection from rain, sun, and wind, such as awnings, overhangs, and arcades.

Awnings are elements added to the face of a building made of semi-permanent materials such as canvas or similar lightweight material, along with a metal support framework.

Overhangs are permanent structures supported by buildings to provide weather protection for building entry and pedestrian walkways.

Arcades are like overhangs except that arcades are supported by columns in the walkway and the building face.

- Exterior weather protection for building facades adjacent to sidewalks or pedestrian areas is encouraged.
- Exterior weather protection generally should not overhang from the building for more than five feet unless it incorporates transparent material to allow the ground-level exterior to be illuminated by natural light. Arcades may be extended for more than five feet in depth if the ceiling is more than one story in height.
- Awnings should be designed to project over individual window and door openings (i.e., mounted in the reveals of openings). Awnings that are a continuous feature extending over several windows, doors, masonry piers, or arches are strongly discouraged.
- Fabric awnings are encouraged; canvas awnings with a matte finish are preferred. Metal or glass awnings that are compatible with building design may be acceptable outside the downtown area. Awnings with a high gloss finish and illuminated plastic awnings are discouraged.

- Awning colors should be compatible with the overall color scheme of the façade. Solid colors or subtle striped patterns are preferred.


BUILDING FAÇADE ARTICULATION AND VARIATION



The exterior design of buildings should be carefully considered to ensure clear visual identification of their various functions and vertical divisions. This means designating distinctive characteristics for sections like lobbies, residential zones, and retail spaces and broader structural segments such as the base, middle, and top. Thoughtful articulation lessens the visual bulk of a building, allowing it to blend more harmoniously with its surroundings.

Building articulation and variation help to create an intermediate-level framework on the exterior of buildings, providing visual relief for large wall areas.

- Horizontal articulation is created by using materials such as stone or special masonry patterns (e.g., soldier coursing) that run along the façade of a building and tie the building together. Cornices and parapets play special roles in visually unifying the top of a building.
- Vertical articulation is created by regular spacing of vertical elements such as piers, pilasters, columns, and/or fenestration at regular intervals to visually transfer building weight to the ground and tie the base of a building to its top.
- Building modulation is a measured and proportioned inflection or setback in a building’s face. Modulation may be achieved through recessed or projecting wall offsets, entryways, porch or canopy structures, columns, piers, or other features.

To articulate a building's three primary segments - design features such as cornices, string courses (horizontal molding or band), step backs, and variations in recesses and projections can be utilized. Adjustments in floor height levels and the application of different colors or materials can also aid in

visually segmenting the structure. In addition, using awnings and balconies can further break up the massing while providing functional outdoor spaces, contributing to the aesthetic appeal and livability of the building.

The Base Section of a Building:

- The ground-level base section of a building plays a crucial role in shaping the interaction between the structure and the public space. It should be designed to be integrated with the street, using minimal setbacks to enhance the sense of continuity with the sidewalk and energize the public arena. Doorways along this section must prioritize safety, providing accessible and secure means of entrance and egress.
    - Detailed treatment of windows and doors should be provided at the ground level for facades oriented toward a public street or a pedestrian area. Such details may include decorative lintels, sills, door design, molding, or framing details. The character of windows should be expressed in window frames or special shapes, such as arches or mullions that divide the window into smaller panes. The character of the windows should be consistent with the overall building character.
    - Lighting: Distinctive wall-mounted light fixtures, such as lights with decorative shade or mounting, should be provided on the first floor of all sides facing public access points.
    - Knee walls: A two- to three-foot masonry or concrete knee wall should be provided around the base of the building where appropriate.
    - Cornices: Provide ornamental molding, entablature, frieze, or other roofline treatments.

- For retail spaces located at the base, maximizing transparency through large windows is essential for creating a welcoming ambiance. Storefronts should incorporate signage and awnings in designs that resonate with the local district's aesthetics. Entrances for retail units must stand out clearly from residential ones and be accentuated with features such as inviting recessed doorways, protective awnings, distinctive lighting, and the strategic use of windows, color, and materials to invite customers inside.
- Facades of all commercial, office, and institutional structures should incorporate transparent features (clear glass on windows and doors) over a minimum of ground-level surface area. Ground level is defined as two to eight feet measured vertically at street level.
    - For retail uses, a minimum of 50% should be transparent.
    - For other uses, a minimum of 35% should be transparent.

- Glass at the ground level should be clear and unobstructed to allow visual access to the building's active interior uses, such as retail display, product production, or office space that creates interest for pedestrians walking by to look at. Mirrored glass and dark-tinted glass are not acceptable.
- Where appropriate, a ground-level façade may employ sculptural, mosaic, or relief artwork or other design features over 50% of the ground-level surface area in lieu of clear glass. Large blank walls are to be avoided on all four sides of the exterior.

The Middle Section:

- The mid-section of a building should exhibit a visual distinction between the base and the top through thoughtful choices in materials, refined articulation of the façade, and/or color schemes. This distinction serves to create visual interest and break down the scale of the building.
- Balconies included in this segment must be thoughtfully integrated into the building's overall form, ensuring they enhance the structure's appearance while being deep enough to be functional and enjoyable for residents. Additionally, the design should mitigate safety concerns such as the risk of falling debris.
- Use of appropriately sized clear windows is encouraged to create a visual connection between interior building spaces and the surrounding site context. When necessary, tinted glass may be allowed to provide privacy while aesthetically and functionally serving the building. Mirrored glass is discouraged.

The Top Section:

- The uppermost section of a building, or the top, must be carefully crafted to create a defining roofline contributing to the city's silhouette. This section should be designed to be visually appealing and cleverly conceal rooftop infrastructure, such as mechanical units, from the view of those at street level.
- Building heights and the articulation of rooflines should be carefully considered to produce a visually engaging skyline. Variations such as parapets or changes in roof geometry can add distinctiveness to a building's silhouette and contribute positively to the area's architectural diversity.
- Roofs visible from an elevated perspective should be regarded with the same design attention as other building facades. The aim is to present an appealing appearance from higher viewpoints, treating the rooftop as an important visual plane.
- Where feasible, the implementation of accessible terraces on roofs is encouraged, enhancing the usability of these spaces. Any structures, such as shade trellises added to these areas, should be seamlessly incorporated into the roof design, contributing to the overall architectural harmony.
- The inclusion of green roofs is also encouraged as a sustainable building practice. These eco-friendly rooftops should be well-insulated to restrict heat and noise penetration and be landscaped with plant species that are low maintenance and water-efficient.
- Buildings are recommended to incorporate solar-ready features. This includes the provision for equipment like solar panel mounts, pre-installed conduits, and roof water faucets to streamline the addition of solar power systems in the future, reducing the associated costs and complexity.

- Materials with high solar reflectance yet low glare are recommended to reduce the urban heat island effect. The selection of such materials contributes to the urban environment's overall energy efficiency and comfort. These guidelines align with a forward-thinking approach to building design that emphasizes form and function, promoting sustainability, aesthetics, and the potential for interactive rooftop spaces.

By considering these details, the distinct segments of a building can each contribute to the architectural cohesion of urban streets while collectively forming a structure that is responsive to its urban context and contributes positively to the fabric of the district.

BUILDING CORNERS

<graphic of building corners>

Strategic junctions throughout the concept plan, such as pivotal street intersections or points where areas of greenery delineate structures, play an integral role in shaping the development's perception and distinctiveness. The architectural design of building corners at these crucial spots should be thoughtfully executed to forge defining gateways that contribute to the area's sense of entrance and imbue the neighborhood with a sense of identity and place.

<image of strategic junctions in phase 2>

Structures located at these prominent intersections warrant a particular architectural focus that underscores their role in framing the public domain. This can be accomplished through various design interventions. Alterations in the building's form or volume, for instance, can signal the significance of a corner site. In addition, employing distinct materials or façade treatments can create a visual contrast that adds depth and interest to the intersection. Enhanced ground-level transparency also draws the eye and engages passersby, reinforcing the intersection's status as a vibrant public realm component.

BUILDING MATERIALS


<graphic of building materials, brick, stone, glass>

The selection of building materials and colors demands meticulous consideration to ensure that the architectural form not only accentuates the distinct characteristics of each structure but also contributes positively to the streetscape's overall texture. These traditional building elements should be chosen to highlight the individuality of buildings while integrating them harmoniously into the urban fabric.

- The choice of materials and texture has great visual significance and can affect the long-term appearance and maintenance of the built environment. Exterior building material is related to the durability of the building against weathering and damage from natural forces. Building material can be classified based on its application as:
    - Primary Material- The dominant material of a building's exterior walls. Primary material will typically comprise 75% to 90% of each exterior building face, excluding windows and doors; however, the architectural style and detailing of the building should dictate the appropriate composition of primary material.
    - Accent Material- A material utilized to provide architectural interest and variety on a building. Accent materials will typically comprise 10% to 25% of each building's face, excluding windows and doors, depending on architectural style and context. Accent materials are not to be utilized as a primary building material.
    - Choose high-quality and long-lasting materials that offer texture and avoid monotonous surfaces. The look and dimension of material elements should relate to human scale. Earth-tone building materials that have a pleasing visual texture, such as brick and stone, are strongly preferred.
        - Coordinated Palette of Colors- A coordinated palette of colors should be created for each development proposal, including one primary color with up to three major accent colors and a range of minor accent colors.
        - Primary Base Color -The use of a single primary color will serve to tie the buildings together. Using two primary colors should be limited to mixed-use or multistory buildings where the two colors are coordinated.
        - Earth Tones -Natural stone and unglazed brick represent the range of earth tones. Earth tones are preferred as the primary base color.
        - Accent Colors - Accent colors should complement the selected primary base color. Accent color intensity should be related to the amount of accent color proposed, with brighter colors having less accent area.
        - Bright colors - Bright colors include red, yellow, emerald green, bright blue, and other colors with intense hues. These colors can detract from the overall

building design and context. They should be used sparingly as accents that visually activate pedestrian areas or convey information as part of a sign.

- The following is a general guide to the acceptable use of exterior building materials. Use of alternate materials or the extent of material usage may be reviewed on a case-by-case basis, considering factors such as context and architectural style. Additional guidelines related to specific materials are provided below.
    - Brick and Stone- Brick and stone convey permanence and are preferred primary and accent building materials for all building types.
    - Glass - Using glass as a primary exterior building material may be appropriate within its surrounding context. Where used, transparent types of glass are preferred, and mirror/dark-tinted glass is discouraged.
    - Cast-in-place Concrete - Cast-in-place concrete may be appropriate secondary facades if sufficient articulation and detail are provided to diminish the appearance of a large, blank wall and give a high-quality architectural finish.
    - Pre-cast Concrete - Pre-cast is acknowledged as a durable and quality material. Concrete panels should incorporate architectural finishes that comply with the architectural articulation and detailed design guidelines. The appearance of panel joints should be minimized. On building faces adjacent to a public right-of-way or pedestrian area where the appearance of masonry is to be conveyed, masonry inlays are generally preferred to coated or painted form liner applications, which simulate the look of brick or stone; however, the appropriateness of either will be reviewed based upon the context of the design intent and the surrounding character of development.
    - Architectural Metal Cladding - Smooth metal panels with sufficient metal thickness to prevent “oil canning” or surface deterioration and promote durability are acceptable. The use of metal should account for the design intent of the building and the surrounding character of development.
    - Concrete Masonry Units - Concrete masonry unit (CMU) is acceptable as an accent. Split-face CMU may be used as a base material instead of limestone.
    - Wood - Wood may be appropriate in a specific historical or cultural context.
    - Fiber Cement - Fiber cement materials should be limited to accent applications only, except where used as a wood substitute. Fiber cement products will not be considered acceptable in fulfillment of masonry requirements.
    - Stucco - The use of stucco is acceptable for accent applications.
    - EIFS - EIFS or Dryvit material should not be used as a primary material. Where it is to be used, EIFS should be appropriate based on the design intent of the building and limited to accent applications above the pedestrian level (approximately ten above ground).
    - Siding - Horizontal aluminum and vinyl sidings should not be utilized for non-residential applications and may be used only as an accent material for residential applications.
    - Other - Contemporary or specialized building materials not addressed herein will be reviewed on a case-by-case basis and will be evaluated based on such factors as durability, quality, maintenance, architectural intent, compatibility with the provisions of these design guidelines, and environmental context.

- Continuity in material use is crucial, especially when wrapping around a building's corner. Transitions from one façade to another, where material changes occur, should be seamlessly integrated into the building's overall theme. These transitions should avoid appearing abrupt or disjointed, instead contributing to a cohesive design narrative that fluidly unites different aspects of the building's exterior.

MECHANICAL SCREENING

<graphic of building roof and ground mechanical screening>

In the interest of visual coherence and aesthetic integration with urban infrastructure, it is advisable to strategically manage the placement and appearance of mechanical systems within building designs.

- Where feasible, rooftop mechanical features such as exhaust vents and equipment should be grouped and positioned away from the building's perimeter, particularly in areas directly in the line of sight from the street below. This approach aims to minimize their impact on the building's external profile and preserve the visual quality of the streetscape.
- Further attention should be paid to conceal mechanical apparatuses, including those associated with elevators and stair access points on rooftops. Such elements should be obscured from nearby residential spaces and other vantage points. The design of these screening solutions should be harmonious with the building's overall roof structure, utilizing materials and colors that align with the established architectural palette and contributing to a seamless and considered building topography.
- At ground level, mechanical installations and areas used for material storage should also be shielded from public observation. Screens or barriers complementing the building's façade can serve this purpose, offering a continuous and unobtrusive visual experience. Moreover, when such equipment is located adjacent to residential or high-foot-traffic mixed-use zones, additional measures should be in place to mitigate noise pollution and ensure a comfortable and tranquil environment for occupants and passersby. These strategies underscore a commitment to the functional, environmental, and social considerations essential to contemporary urban design.
- All refuse disposal dumpsters should be screened on all sides,

PARKING STRUCTURES

<graphic of public parking structures, tucked, integrated>

Parking facilities, whether independent structures or integrated into multi-purpose developments, need careful design consideration to ensure they blend with the urban environment without detracting from the aesthetic and functional value of the streetscape or adjacent public realms. The external appearance of these structures should employ screening methods, such as active storefronts or artistic façades, to conceal the parking levels from public view and contribute a dynamic element to the street.

To maintain an orderly and visually pleasant urban landscape, the entrances to parking facilities should be strategically located to avoid prominent visibility, especially from main thoroughfares and areas with high volumes of pedestrians or vehicles. Proper placement helps in reducing potential traffic congestion and enhancing pedestrian safety. The visual impact of parking access points can be further softened and aesthetically improved through the addition of protective canopies, strategic landscaping, and thoughtful setbacks from the property line, fostering a welcoming transition from the street into the parking area.

Incorporating these design elements minimizes the visual prominence of parking structures. It promotes a cohesive urban fabric, where even utilitarian spaces are considered for their impact on the overall beauty and function of public spaces.

LANDSCAPE AND PUBLIC REALM

PLACEMAKING

<picture of umbrella alley>
<public swings>
<green pedestrian courtyards>

Placemaking is a multifaceted approach to the planning, designing, and managing public spaces that emphasizes their transformation into lively, attractive destinations resonating with the Mill District's unique character, history, and identity. It focuses on creating environments that people feel drawn to, spaces that are not only engaging and accessible but also cultivate social interaction and a shared communal identity.

A successful placemaking initiative involves crafting spaces that naturally become focal points of activity, where individuals are compelled to gather, interact, and engage in the public realm. These vibrant places establish and reinforce the connection to the locale, acting as extensions of the community fabric and contributing to an enhanced sense of belonging among residents and visitors.

The ingredients of placemaking are varied and include various features contributing to a well-considered and functional urban landscape. Beyond physical attributes, they encompass the emotional and experiential qualities that make a space memorable and meaningful. Key placemaking components contain elements like thoughtfully designed streetscapes that integrate harmoniously with their surroundings, incorporating amenities such as well-placed and comfortable seating, practical and aesthetic lighting, clear and attractive signage, landscaped areas that add natural beauty, and public art that expresses local culture and stimulates conversation.

STREETSCAPE FURNISHINGS

Benches

<graphic of benches along river, public spaces>

- Benches provide an essential function in public spaces and, when thoughtfully designed, also contribute to the cultural storytelling of a place. In the case of locations with a rich industrial and logging heritage, such as sites previously occupied by paper mills and logging operations, the design and materials of the benches can be a powerful tool for honoring and reflecting on this past.
- Design elements such as etchings, carvings, or inlays on the bench surfaces can depict scenes of the historical paper milling and logging activities or integrate actual tools used in those industries as decorative or functional components of the benches. Informational plaques can be attached to benches or integrated into their design, offering insights into the processes of paper production and logging, significant historical events, and the economic impact of these industries on the region.
- Placing benches in strategic areas—like viewpoints overlooking the Mississippi River, where logs might once have been floated downstream, or within a repurposed mill site turned public space (the woodyard)—can serve as an acknowledgment of the natural resources and labor that were foundational to the community's development.

TABLES, CHAIRS, AND UMBRELLAS

<graphic of tables/chairs, seating areas>

Tables and chairs can enrich public spaces, offering rest with views of the Mississippi River—a nod to the natural resource that once supported the local paper mill and logging industries. Both movable and fixed furniture arrangements can be interspersed along the riverfront, within streetscapes, and across public plazas and parklands, framed by specific paving designs, carefully chosen plants, and intentional lighting setups that speak to the area's industrial heritage.

- In areas directly connected to the Mississippi River, tables and chairs should be designed to be easily removed or secured, ensuring unimpeded access to emergency services. These furnishings can create inviting spots for people to gather and take in the views of the Mississippi River, along boardwalks or promenades that line the water's edge.
- Installations can be designed using materials reminiscent of the paper and logging industries, such as timber and metal, subtly reflecting the manufacturing processes of the paper mills and the logging life.
- The use of umbrellas or other shading devices is encouraged to offer shade from the sun or other weather elements.

BIKE RACKS

<graphic of bike racks>

- Bicycle racks should be securely fastened to a hard surface, utilizing fixtures such as tamper-proof bolts or alternative fastening methods that are resistant to standard methods of

vandalism. This ensures the racks provide a reliable and safe place for cyclists to secure their bikes.

- Suitable locations might include public gathering areas like critical rest stops along bike paths and substantial destinations known for their high activity levels and foot traffic. By situating bicycle racks in places where people naturally converge, the Mill District can foster a bicycle-friendly environment that supports sustainable transportation choices.
- Racks should be conveniently situated in proximity to primary buildings or complex entrances, enhancing ease of access and visibility, which, in turn, can increase the use of bicycle transit.

WASTE AND RECYCLING RECEPTACLES

<graphic of waste receptacles>

Waste receptacles intended for public use must be constructed from robust materials capable of withstanding the elements and daily wear and tear while securely attached to the ground to prevent displacement. The selection of materials for these receptacles should be sensitively aligned with the architectural and natural characteristics found along the Mississippi River, paying homage to the area's historical significance and the previous industrial activities, such as those related to the paper mill and logging operations that once thrived there.

- The design and finish of these receptacles should be thoughtfully coordinated with the array of existing streetscape features, including benches, streetlights, and railings, as well as the architectural styles of nearby buildings, many of which may reflect periods when the Mississippi River served as a critical commercial artery for the region. In doing so, they will serve a functional role and contribute to the environment's visual continuity and historical narrative.
- To preserve the aesthetic integrity of the streetscape and minimize maintenance, the receptacles should feature a decorative shell or housing with a high-quality finish. This finish should be selected for its ability to resist vandalism and graffiti, ensuring that the receptacles remain pristine for extended periods.

LIGHTING

<lighting examples>

Proper illumination plays a fundamental role in forging safe, welcoming, and aesthetically pleasing environments for pedestrians. Effective lighting strategies extend beyond streetlights to encompass a range of light sources that enhance sidewalks, pedestrian pathways, alleys, and the entry points of buildings. Thoughtfully designed lighting schemes ensure that these areas are secure after dark and inviting, contributing positively to the overall ambiance of the riverside neighborhood.

- All spaces frequented by pedestrians and vehicles should be well-lit to encourage ease of movement and provide security. Light fixtures should be strategically positioned near one another in high pedestrian traffic areas.

- The selection and design of the lighting fixtures should reflect the architectural themes present within the development, while subtly drawing inspiration from the area's connection to the Mississippi River. This could include design elements that mirror the flowing water of the river or materials that evoke the historical context of the previous industrial use and logging industries.
- Pedestrian light poles can serve multifunctional purposes; they can be designed to support banners that celebrate local events, informative signage, or even hanging flower baskets that introduce natural elements and seasonal color.

Bollards are an essential element of urban design, acting as a physical and visual separation between spaces designated for vehicles and those intended for pedestrian use. They contribute to ensuring a safe environment around sensitive buildings, delineating boundaries, and emphasizing traffic-calming areas. When integrating bollards near the Mississippi River and a site with rich historical significance, designing these features to reflect the area's past while serving their practical purposes is beneficial.

<bollard illustrations>

- The design of bollards should be cohesive with the suite of street furnishings present, echoing the stylistic choices of benches, lighting, and railing. Durable materials compatible with the waterfront environment should be chosen, potentially incorporating elements such as rivets or metalwork that hint at the industrial heritage of past paper mill and logging operations prevalent in the region.
- To assist individuals with visual impairments and enhance overall safety, bollards should have distinct details that are detectable at the base or waist height, such as tactile or color-contrasting patterns.
- Care must be taken to ensure that bollards are positioned so that they do not present unintended obstacles to pedestrians, cyclists, and other nonmotorized traffic, allowing for a free and safe flow of movement through the area.
- Flexibility can be built into their design by installing removable or retractable bollards, which can be adjusted as needed. This feature is particularly useful in areas requiring occasional vehicle access for maintenance, deliveries, or special events.

RAILINGS & FENCING

<pictures of railings around eating areas, tree well railings, railings along river>

Railings play an integral role in guiding pedestrians along staircases, navigating through areas of steep inclines, and providing protection from potential hazards. They also have the utility to demarcate special zones, such as outdoor dining spaces or landscaped regions. Fences, meanwhile, serve to clarify the boundaries between public and private spaces or to designate different areas for specific uses or user groups. When incorporating these features along the Mississippi River and within an environment rich in historical context, attention to detail is critical in creating harmony with past and present.

- Railings and fences should both visually and materially harmonize with other street furnishings of the area, made from robust, corrosion-resistant materials. Recalling the historical past, designs could hint at the textures and forms of the previous paper mill and logging frameworks, ensuring that any structural additions resonate with the site's industrial legacy.

- Prohibited materials, such as practical chain link and barbed wire, do not align with aesthetic goals and are thus excluded from use.
- Tall, impenetrable security-style fences are discouraged, particularly in front yards or along the edges of streetscapes where the goal is to foster foot traffic and friendly pedestrian interactions. These can create a barrier-like feel that disrupts the openness and welcoming atmosphere integral to high walkability areas.
- Where fencing is necessary, especially in distinguishing private property areas, it should be implemented thoughtfully to balance privacy and visual connectivity. For instances where railings denote outdoor dining spaces within the streetscape, they should be designed to preserve sightlines into these vibrant communal areas, typically not exceeding a height of four feet. This ensures a level of openness that invites engagement with the energy and life of the public realm while also saluting the area's historic relation to the Mississippi River.

PUBLIC ART

<pictures of river art, paper making, logging industry, Sartell history>

Public art, encompassing sculptures, murals, mosaics, wall art, and other creative two- and three-dimensional forms, is a vibrant focal point in outdoor public environments. These works of art can function as interpretive mediums that tell the story of the surrounding area, drawing from the Mississippi River's influential presence and the site's historical significance as a hub of paper milling and logging activities.

- The scope of public art is broad, potentially integrating elements such as innovative landscaping, artistically designed fencing, bespoke brickwork or glass elements, ornamental gates, themed lighting, sculptural seating, curated street furniture, informational signage, color schemes, painted murals, and the incorporation of historical artifacts. Such elements can weave together the narrative of the riverfront's past with the aesthetic of the present.
- When situating public art, careful consideration must be given to preserving clear sight lines for all users, ensuring that the installations do not obstruct visual pathways for pedestrians or motorists.
- Public art selections should embrace a diverse array of artistic expressions, thereby creating an eclectic and dynamic environment. This can include traditional forms that honor the area's rich industrial heritage, abstract pieces that inspire contemplation and conversation, and interactive installations that connect visitors directly with the Mississippi River's legacy. These intentional art choices celebrate the multifaceted character of the region, fostering an inclusive and enriched cultural landscape.

HISTORY REFLECTION

<pictures of paper making, logging industry, Sartell history, Mississippi River>

Visual Identity

<historical pictures of paper mill, river>

Graphical representations of paper-making equipment such as paper machines, calendars, or pulp refiners can be distinctive motifs in street flags, murals, or other development-related markings. These symbols can be stylized to balance historical detail with contemporary aesthetic appeal.

Vintage photographs showcasing the original mill buildings, workers, logrolling, and early manufacturing processes can be used in marketing materials, promotional items, or interior decor.

Traditional patterns, for instance, those that represent the flow of water or the texture of handcrafted paper, can be subtly integrated into the landscaping or through interior and exterior designs or landscaping to reinforce the historical theme of the property.

Contextual Significance

Incorporate the mill's founding year in the name, such as "1907 Paper Co.," to immediately communicate legacy and endurance within the industry.

Pay homage to key individuals central to the mill's establishment or innovation. For example, "might be named after an inventor who contributed to the mill's technological advancements in paper production.

Reference parts of the building or phases of ownership (where copywrite infringement issues do not exist), including Woodyard, smokestack, Old Blue, the warehouse, Watab Pulp and Paper, chipper, refiner, boiler, Sartell Brothers, Charles S. Sartell, swinging bridge, wanigan barge boats, needles, log jam 1885, hobo jungle, NP Coal Dock,

(solicit more words and phrases from the public meetings)

STREETSCAPE LANDSCAPE MATERIALS

<pictures of sidewalk landscaping, buffers, boarders>

A thoughtful selection of landscaping materials is paramount in crafting a planting design that harmonizes with the local ecosystem and embodies Sartell's rich history by the Mississippi River and its paper mill legacy. Using local or adaptive species that necessitate minimal maintenance creates landscapes that resonate with the regional aesthetic and ecological narrative. This reinforces Sartell's natural beauty and conforms to the approved tree List, ensuring that the local landscaping thrives, and the environmental impact is considerate and sustainable.

- The strategic placement of canopy street trees along sidewalks and communal open spaces is a design practice that yields multiple benefits. Such trees provide much-needed shade, creating cool havens that enhance outdoor comfort during warmer months.
- Accent trees and carefully selecting ground plantings play a vital role in placemaking, introducing a touch of diversity and color. These natural elements can delineate spaces, guide movements, and create vignettes celebrating Sartell's identity.
- Shrubs, grasses, and perennial plants should be employed where buffers are required or a visual interest is needed. With their varied textures and seasonal colors, these plants act as living sculptures that can soften hard edges, provide privacy, and enhance ecological value. They can

be especially effective in areas along the Mississippi River, offering a nod to the natural filters that once cleaned the water before it was used in the paper-making process.

- In spaces where visibility and safety are key—such as public gathering areas—tall plants exceeding three feet should be avoided to ensure clear sightlines. This approach balances usability and aesthetics, prioritizing unobstructed views while fostering engaging, secure environments for community interaction and child's play.

GATEWAY ELEMENTS

<pictures of gateway elements near roadways, bridges, docks>

Gateways serve as the narrative thresholds of a place, the opening paragraphs to the stories of destinations. In the Mill District, these transitional elements are not merely functional but are symbolic entryways that reflect the essence of a neighborhood shaped by the Mississippi River and its paper mill heritage. Each gateway offers an opportunity to impart a first and lasting impression, capturing the imagination of newcomers, and resonating with the familiarity that comforts returning locals.

- Material choice and design are the quintessential mediums through which gateways can convey the Mill District's character. The integration of stone, steel, or wood in these structures can echo the natural textures of the riverbanks. At the same time, design elements such as water motifs or patterns reminiscent of paper fibers pay subtle tribute to the District's paper mill narrative. Gateways should be thoughtfully designed to encapsulate the area's history, growth, and aspirations.
- These features may be placed as prominent cornerstones within a plaza or arching over walkways. Alternatively, stand-alone landscape features such as sculptural installations that tell tales of the Mississippi River and the former paper mill could anchor these entrances. By featuring existing infrastructures like the pedestrian bridge that spans the Mississippi, gateways can transform these crossings into impactful gateways that transcend their utilitarian roles and become part of the Mill District's story.

SIGNAGE & WAYFINDING

<quaint wall and building signage, wayfinding signage, map signage>

Signage should capture the attention of those passing by and complement the architectural features of the buildings and streets, adding layers of visual intrigue without descending into visual clamor. These markers are essential in guiding people to the doors of businesses and residences, managing the delicate balance between visibility and tasteful restraint.

- The siting of signage within the Mill District l must be undertaken with sensitivity to the surrounding architecture, ensuring that it adds to rather than detracts from the Mississippi River, pedestrian bridge, or other property features.
- Signage should be implemented to allow the architectural features of the buildings to remain visible and appreciated.

- Compatibility with Building Elements: Signs should serve to identify a business while contributing to the attractiveness and pedestrian-friendly orientation of the street.
- Signage should be anticipated and incorporated into the building's architecture. Signs should be compatible with building design regarding relative scale, materials, and colors. xiv. The scale and size of the signage should be appropriate for the building upon which it is located. Small storefronts should have smaller signs than larger storefronts. Signs should not dominate a building façade.
- Signs should not cover or interrupt the architectural detail or ornamentation of a building's façade. Signs should not project above the edge of rooflines.
- Signs in multiple-tenant buildings should complement or enhance each other. Multiple-tenant sites should have coordinated signage.
- Customer entrances should be identified with pedestrian-oriented signs that allow pedestrians to read the sign easily and comfortably as they stand adjacent to the business.

- The selection of materials for sign construction should resonate with the history of the Mill District. Durable materials that are in harmony with both the lasting quality of the paper mill's structures and the resilience characteristic of the Mississippi River's environment are preferred. This choice of robust materials ensures continuity with the long-standing architectural history of Sartell's economic landscape.
    - Materials and Style:
        - Signs should be constructed of weather retardant and high-quality, durable materials. If wood is used, it should be adequately sealed to prevent moisture from soaking into the wood and causing the lettering to deteriorate.
        - Retail signs may be located on awnings over the establishment's entry and/or windows. The shape, design, and color of awnings should be coordinated with the architectural style of the building. Where multiple awnings are used, the design and color of all awnings should be coordinated.
        - Letter-type signs with individual letters affixed to the building exterior are preferred.
        - Internally-lit box signs with lettering printed on a translucent face are discouraged.
        - Window lettering, either vinyl applied or painted, is acceptable to add interest to storefronts. Temporary pin-ups and flyers that cover ground-level windows should be avoided.
        - Decorative overhanging or blade signs may be appropriate in a coordinated retail setting where the size is controlled and coordinated with a building's façade design. Decorative overhanging or blade signs should not exceed six square feet in size with a maximum height of three feet and should be placed at a minimum of ten feet above the sidewalk. They should extend no more than two feet from the face of the building.
        - Large signs that project from buildings are to be avoided.
    - Legibility:
        - Sign lettering should be highly legible. Crowded lettering or typefaces that are difficult to read should be avoided.

        - No more than two lettering styles should be used for small signs: not more than three for more prominent signs.
        - Signs with poor contrast are challenging to read. Lettering should contrast with the sign background for maximum aesthetic and effective graphics.
    - Sign Lighting:
        - Direct lighting of wall-mounted signage by exterior-mounted light fixtures is strongly encouraged, as such lighting allows signs to appear as an integral part of the building's façade.
        - Individually illuminated letters (internal or backlit) are preferred over internally illuminated box signs.
        - Signage lighting should not spill into adjacent residential areas or public rights-of-way.
        - Electric raceways, conduits, and junction boxes should be concealed from public view.
    - Colors:
        - Excessive and uncoordinated use of sign colors is to be avoided. Colors should be limited to not more than three on a single sign. Garish or fluorescent colors are discouraged.

PRIVATE OPEN SPACE

<pictures of the HUB, Cincinnati private open space>

In Sartell's Mill District, private buildings and residences should feature open spaces that intertwine personal areas with communal engagement. These spaces range from ground-level patios to the elevated retreats of balconies and rooftop decks.

- Private at-grade patios and stoops within the building setback zone provide a transitional space where personal realms meet the public domain. To enrich the public realm, patios, and stoops should offer direct street access, inviting interaction while respecting residents' privacy.
- The design of these ground-level havens relies on a balance of accessibility and security. Usable spaces where residents can relax or entertain should be enveloped in safety measures such as gates, railings, and thoughtfully placed landscaping. These elements collectively function as both a welcoming gesture and a protective boundary. They define the space as private, yet they do not sever the visual or social thread connecting the residents with the street.
- Private above-grade balconies and rooftop decks offer secluded outdoor areas that should be crafted to exemplary standards, ensuring they are not only accessible but also inviting throughout the different seasons.

DESIGN REVIEW PROCEDURE

Preliminary Staff Review

A key objective of this document is to improve the design review process and to facilitate applicants' obtaining design approval. Applicants may initiate the review process through formal design review submittals that do not fully comply with the design guidelines. Given the quantity and quality of materials required for formal review, beginning the design review process may prove costly and time-consuming without fully understanding the City's design expectations. Therefore, preliminary staff review of building design concepts before formal submittal of project materials is required for all projects to evaluate the applicant's conceptual design approach and assist the applicant in understanding the City's design guidelines and related policies.

It is important to note that completion of a preliminary staff review shall not constitute endorsement or approval of building plans or elevations. However, an initial staff review is expected to result in a higher quality submittal of materials for formal review that would more likely meet the design guidelines in this document.

The following materials should be submitted for a preliminary staff review:

• Statement of design concept

• Preliminary building elevation drawing or sketch

• Building material samples as appropriate

Formal Design Review Submittals

After the preliminary staff review and as part of the building permit or development approval process, applicants must submit materials for formal design review. Finalized materials may be forwarded to the Plan Commission and/or City Council for consideration as part of a development proposal. Based upon specific project components, applicants may be requested to submit some or all the following materials:

Statement of Design Intent- A brief written description of the project design intent prepared by the architect or designer. Discussing how the proposed building complies with the Building Design Guidelines may also be appropriate.

Building Elevations- Realistic, colored building elevations of all building faces and black and white line drawings will be required. Building elevations should be legible and scaled, with all exterior materials and colors identified and keyed on the elevation drawing. Include information on façade finishes, windows, trim, doors, architectural elements, roofing, mechanical screening, and other elements as appropriate. A keyed illustration of the footprint may also be appropriate for larger buildings.

Perspective Illustration- Realistic perspective drawing of the building, which may also indicate the outline of adjacent improvements as appropriate.

Material Samples- Physical samples may be submitted for all proposed exterior materials. Product brochures, specification sheets, and photos may be submitted. Materials and colors must be labeled and keyed to the elevation drawings.

Photos- Eye-level photographs of the subject property and features surrounding the site should be labeled, indicating the location and direction of the photos. Applicable images may include existing adjacent structures, vegetation, and other significant features.

The following materials are required if not otherwise provided as part of the engineering plan or landscape plan submittal:

Site Plan - A contextual site plan of the proposed project illustrating the perimeter footprint of adjacent buildings, roadways, parking, landscaping, and other key features.

Streetscape Documents- Illustration of pedestrian-oriented streetscape features, including catalog cuts of street furnishings, light fixtures, and proposed plant materials.