



Case File No. 17-0028 SoCore Energy



### **Applicant Information**

Property Owner: National Sports Center Foundation Mailing Address: 1700 105th Ave NE, Blaine, MN 55449

Contractor/Agent: SoCore Energy

Mailing Address: 225 W Hubbard St, Suite 200, Chicago IL, 60654

Daytime Phone: (773) 360-2244 E-mail: Liz.Kossik@socoreenergy.com

### Site Information

Site Address: Approximately 105th Ave & Flanders Street

Property Location: Northwest ¼ of Section 22, Township 31 N, Range 23 W of the Circle Pines, Minnesota

#### Introduction

SoCore Energy is requesting a Conditional Use Permit to build, own, and operate a photovoltaic energy system (solar farm) in the City of Blaine, MN. The site will consist of approximately 5.4 megawatts and 8 megawatts of energy storage on an estimated 23 acres. The modules will be installed on a ballast racking structure. The maximum height of the panels will be approximately 7' when tilted 25 degrees to the south, depending on soil conditions and final design.

A paved access road will provide year-round access to the site, and a gravel road will provide access to all major equipment throughout the array and the entire system will be surrounded by a 6-foot chain-link fence topped with 1.0 ft of barbed wire for security and safety, as required by the National Electric Code. It is SoCore's intention to cover the site with diverse native vegetation, most likely a low-growth summer meadow or fescue mix which naturally grow to shorter heights, but is subject to change upon a final decision from the Minnesota Pollution Control Agency.

In partnership with Connexus Energy, the project's location was chosen due to the proximity and feasibility for interconnection to their grid. The project will meet or exceed setback requirements, and will meet or exceed all requirements of the National Electric Code and Minnesota state laws to ensure it operates in a safe manner.

SoCore Energy is excited to work with Connexus Energy and communities throughout their service to provide distributed, small-scale, renewable energy resources to the grid as a hedge against long term fuel price volatility.



#### Construction Traffic Plan

All trucks involved in construction of the solar facility will turn onto 101st Ave from Radisson Rd and take an immediate left hand turn onto Flanders St. Trucks will enter and exit the construction site using the improved (existing) driveway at the west at the end of Flanders St. The first 400 feet of this drive will be 20 feet wide and paved with Asphalt for fire access and dust control.

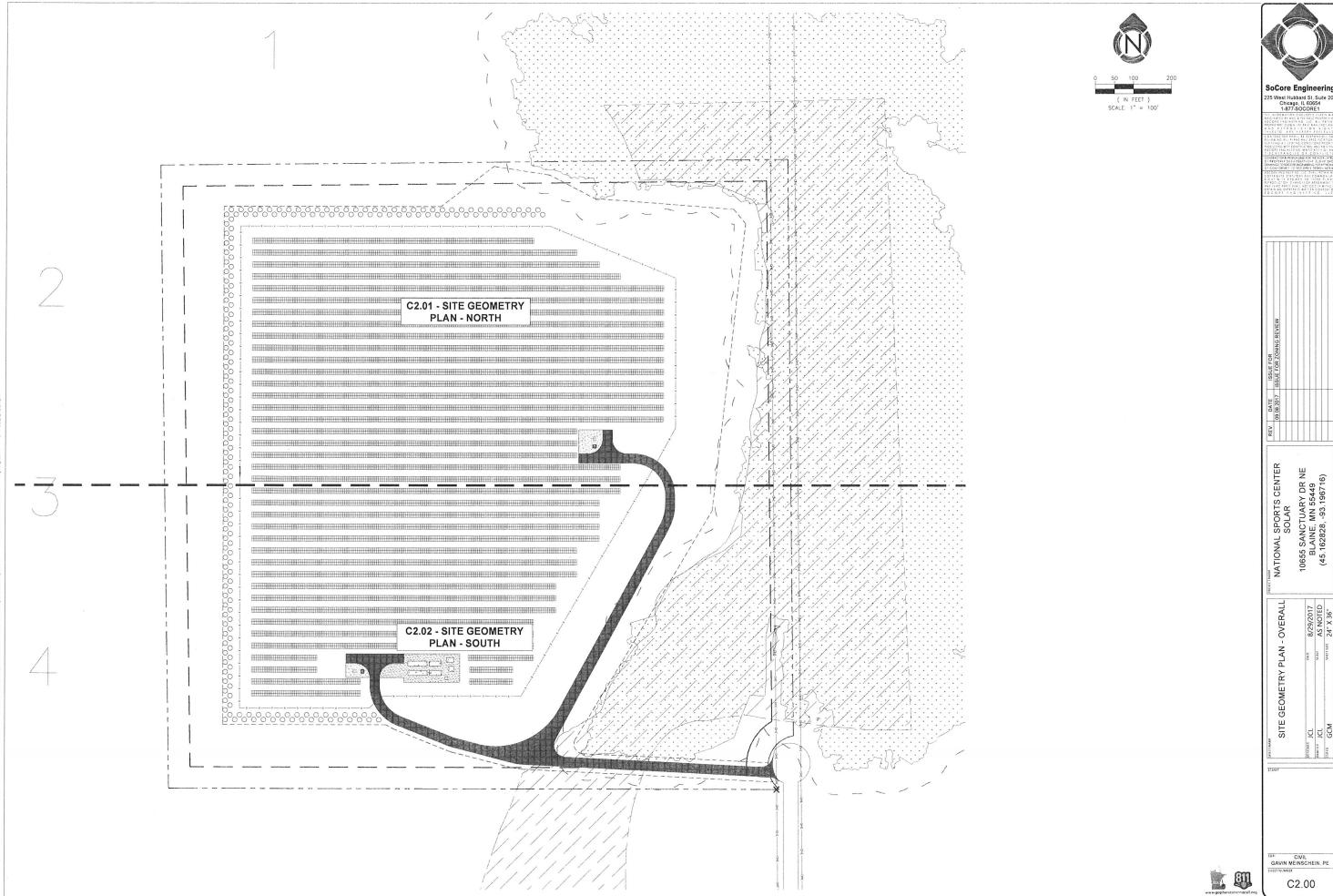
We approximate the following number of trucks will visit the site during the estimated 8-week construction period. These numbers are cumulative estimates for the entirety of construction:

- > 40 "Small" trucks (filling the on-site fuel tank, pumping the porta-johns, or delivering smaller materials like wire, etc).
- > 20 "Medium" trucks (box trucks or flatbeds delivering light equipment or individual electrical items)
- > 75 "Large" trucks (tractor trailers with modules, racking, large equipment)
- > 35 dump trucks (with civil materials or dumpsters)

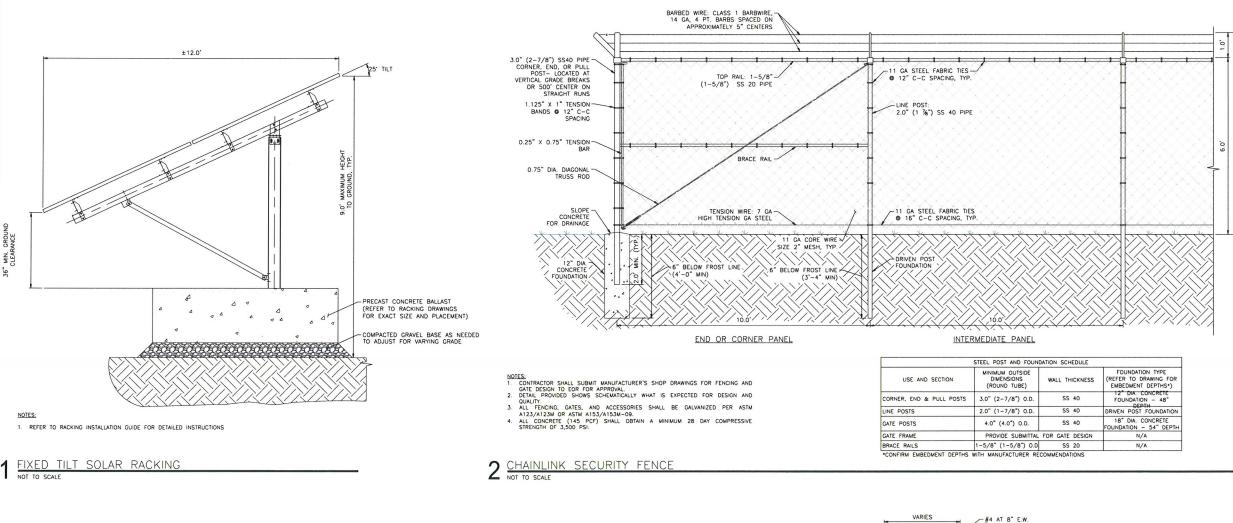
The Impact Sensitive Routes Map tool on the MNDOT website shows that none of the trucking routes mentioned above are within an impact sensitive area. No roads will need to closed during construction. After construction is complete the site will only be visited as necessary by smaller work trucks / passenger cars. (Typically, 4-6 times annually)

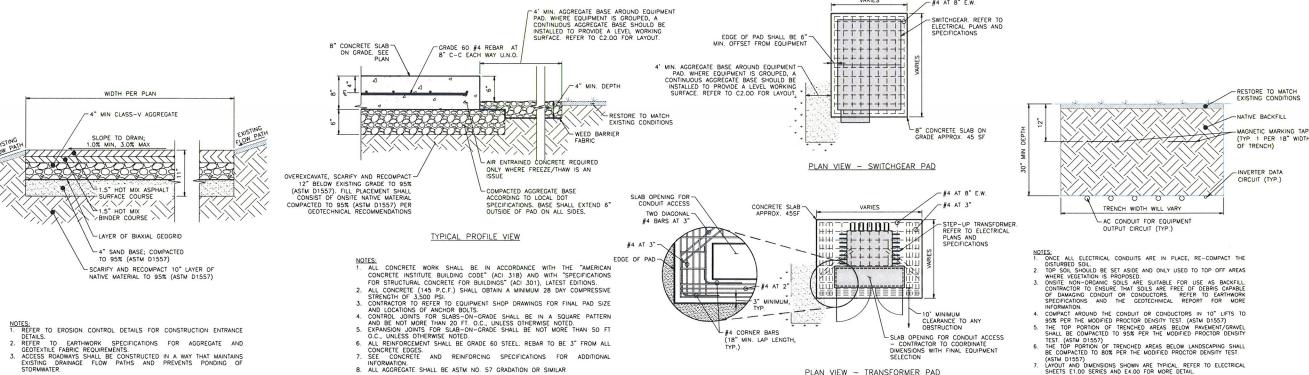
## Waste Disposal Plan

Construction material will be staged on site and installed as necessary. Material such as modules, wiring, steel, and concrete will remain on site for the lifetime of the project and recycled at the end of their useful life. Cardboard, silt fencing, and other light waste material will be transported off the site and disposed of properly upon completion of construction. No waste will need to be treated or stored on site.









(18" MIN. LAP LENGTH, TYP.)

NOTES:

1. REFER TO EROSION CONTROL DETAILS FOR CONSTRUCTION ENTRANCE DETAILS.

2. REFER TO EARTHWORK SPECIFICATIONS FOR AGGREGATE AND GEOTEXTILE FABRIC REQUIREMENTS.

3. ACCESS ROADWAYS SHALL BE CONSTRUCTED IN A WAY THAT MAINTAINS EXISTING DRAINAGE FLOW PATHS AND PREVENTS PONDING OF STORMWATER. 3 ASPHALT ACCESS DRIVE

4 ELECTRICAL EQUIPMENT PAD NOT TO SCALE

8. ALL AGGREGATE SHALL BE ASTM NO. 57 GRADATION OR SIMILAR

CONDUIT TRENCH DETAIL NOT TO SCALE 5

-10' MINIMUM CLEARANCE TO ANY OBSTRUCTION

SLAB OPENING FOR CONDUIT ACCESS

- CONTRACTOR TO COORDINATE
DIMENSIONS WITH FINAL EQUIPMENT
SELECTION

PLAN VIEW - TRANSFORMER PAD

INFORMATION.

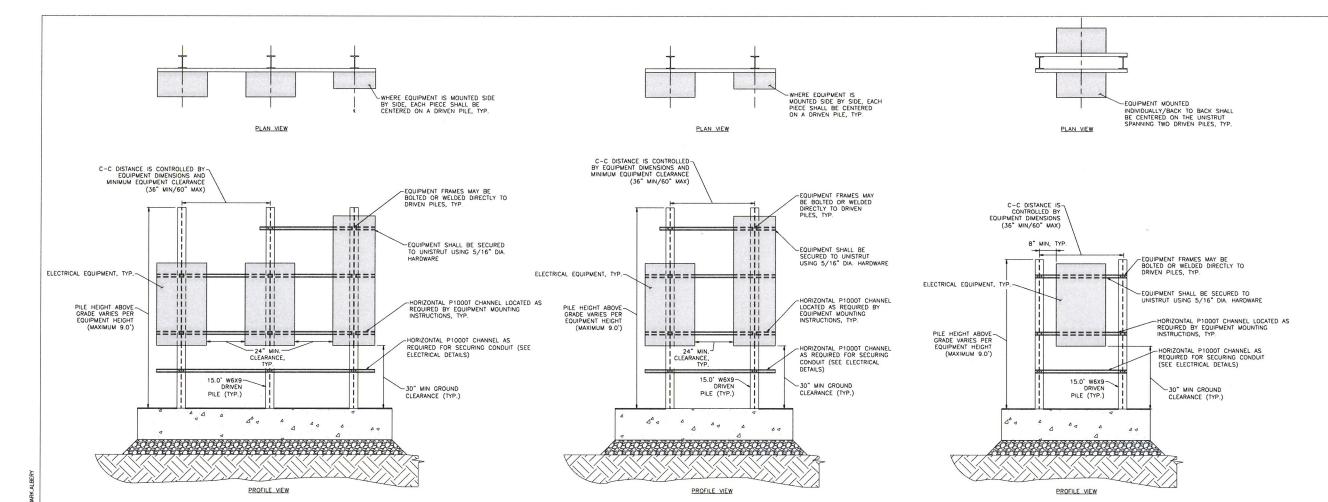
COMPACT AROUND THE CONDUIT OR CONDUCTORS IN 10" LIFTS TO 95% PER THE MODIFIED PROCTOR DENSITY TEST. (ASTM D1557) THE TOP PORTION OF TRENCHED AREAS BELOW PAVEMENT/CRAVEL SHALL BE COMPACTED TO 95% PER THE MODIFIED PROCTOR DENSITY TEST. (ASTM D1557) THE TOP PORTION OF TRENCHED AREAS BELOW LANDSCAPING SHALL BE COMPACTED TO 80% PER THE MODIFIED PROCTOR DENSITY TEST. (ASTM D1557)

LAYOUT AND DIMENSIONS SHOWN ARE TYPICAL. REFER TO ELECTRICAL SHEETS E1.00 SERIES AND E4.00 FOR MORE DETAIL.

SoCore Engineeri 25 West Hubbard St, Suite 20 Chicago, IL 60654 1-877-SOCORE1 SPORTS CENTER SOLAR R TUARY DR NE MN 55449 , -93.196716) 10655 SANCT BLAINE, I (45.162828, NATIONAL 8/29/2017 AS NOTED 24" X 36" SITE DETAILS

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NOTES:

1. REFER TO ELECTRICAL EQUIPMENT SPECIFICATIONS FOR INFORMATION ON MOUNTING AND REQUIRED CLEARANCES.

2. MAXIMIZE DRIVEN PILE EMBEDMENT DEPTH (6.0" MIN.) WHILE MAINTAINING MINIMUM GROUND CLEARANCES SHOWN, LEAVING ENDUGH EXPOSED PILE FOR EQUIPMENT MOUNTING. FINAL DESIGN WILL BE CONTINCENT ON SPECIFIC EQUIPMENT PROVIDED. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING FINAL EQUIPMENT SPECIFICATIONS.

3. 5/16" & HARDWARE TYP, AT ALL MOUNTED EQUIPMENT CONNECTIONS TO UNISTRUT CHANNELS.

4. ALL WELDING ELECTROODES SHALL BE E-70XX. ALL SHOP AND FIELD WELDING SHALL BE MADE IN ACCORDANCE WITH A.W.S. D1.1-BB. "CODE FOR WELDING IN BULDING CONSTRUCTION" AND SHALL BE MADE BY QUALIFIED CERTIFIED WELDERS. CONTRACTOR TO REMOVE UNISTRUT GALVANIZATION PRIOR TO WELDING USING AN SSPC-SP STANDARD AND RE-GALVALIZE TO ASTM A123 AFTER WELDING.

6 ELECTRICAL EQUIPMENT FRAME

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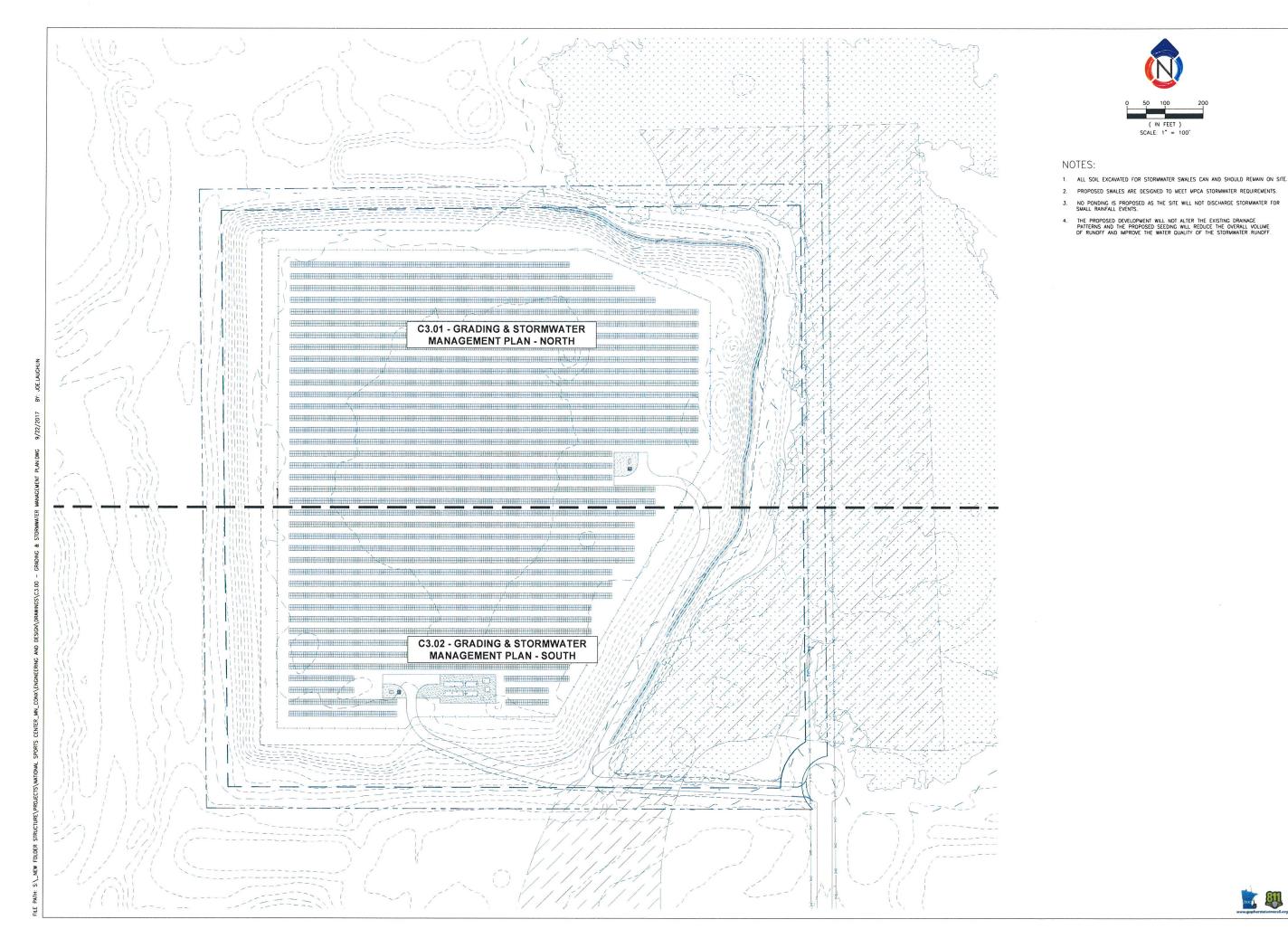
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> 8/29/2017 AS NOTED 24" X 36" SITE DETAILS

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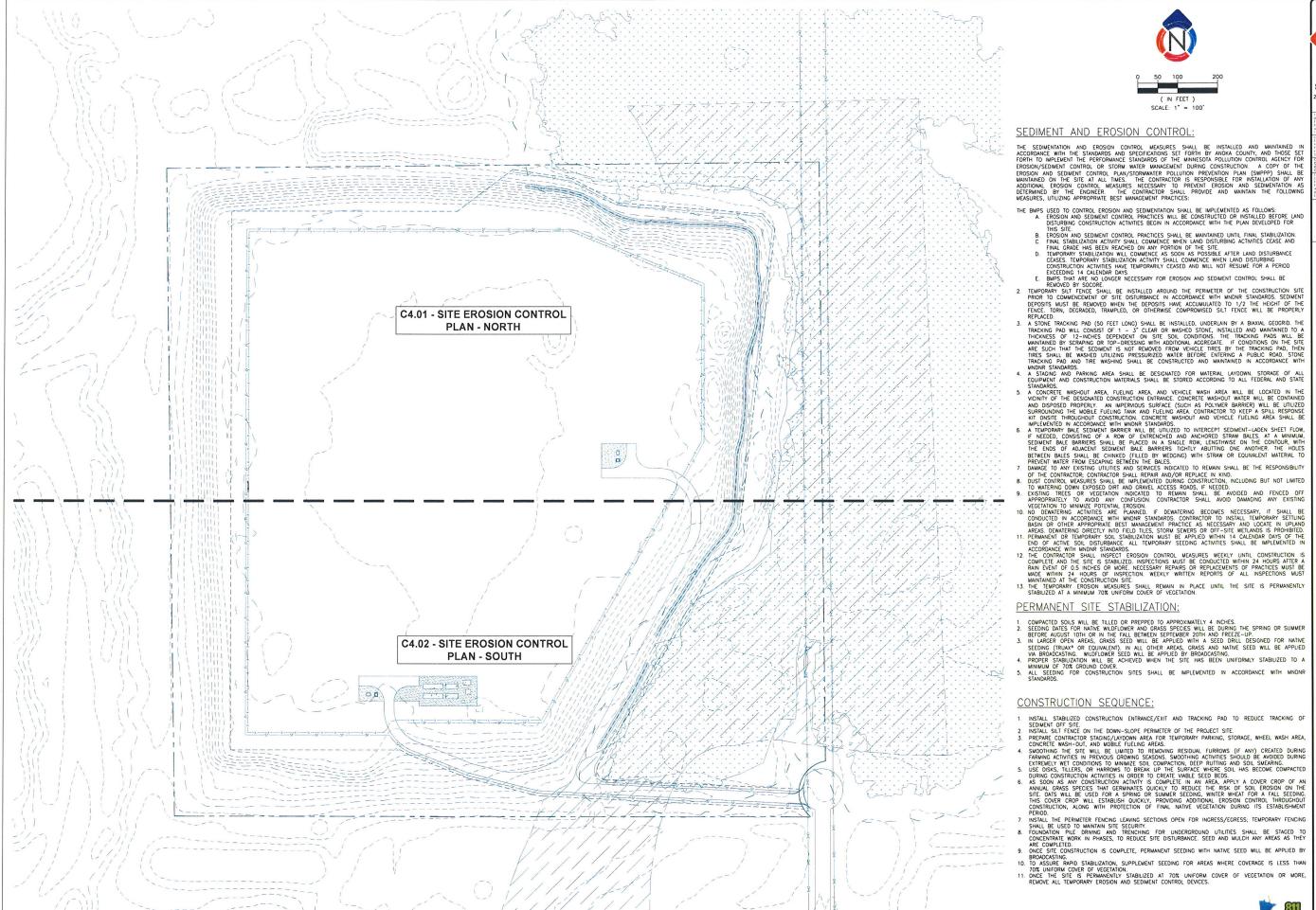
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10655 SANCTUARY DR NE BLAINE, MN 55449 (45.162828, -93.196716) NATIONAL SPORTS CENTER SOLAR

GRADING & STORMWATER MANAGEMENT PLAN - OVERALL

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# Site Photo

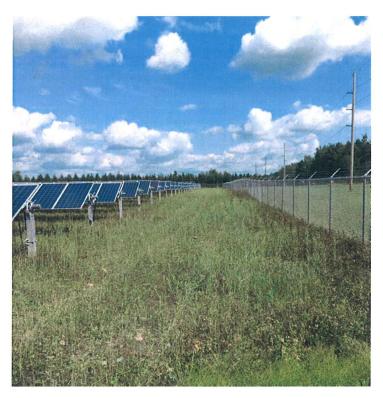
Photo 1-2. Fixed tilt system (facing south, taken from west) (Photo credit: SoCore Energy)



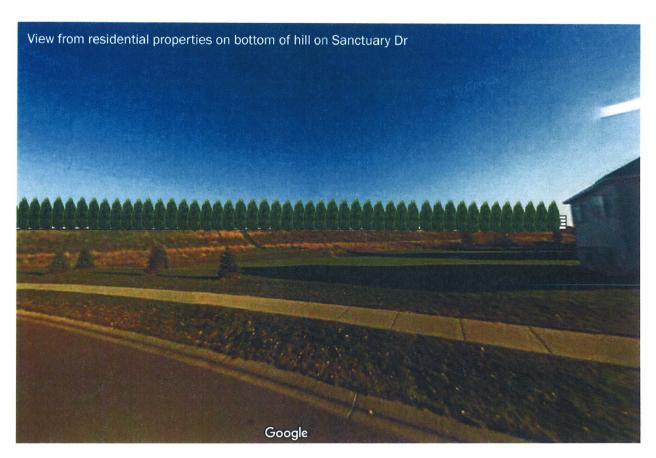


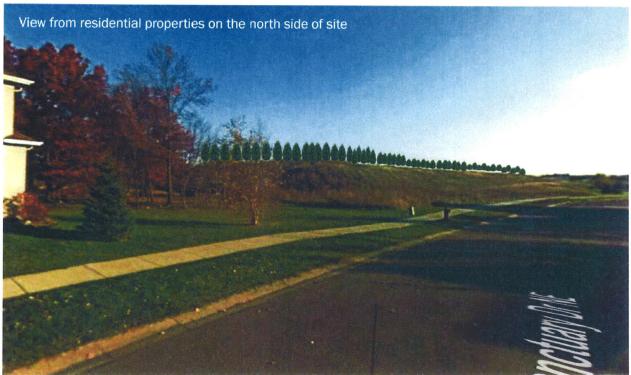
# Site Photo

Photo 3-4. Array behind proposed fencing (Photo credit: SoCore Energy)









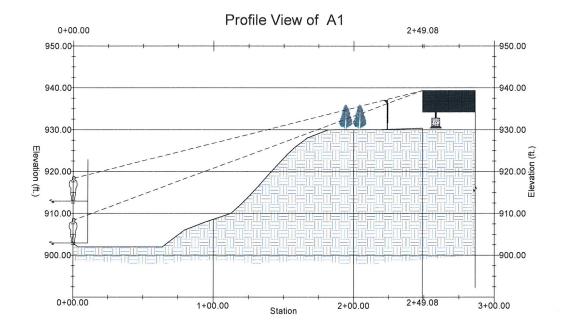


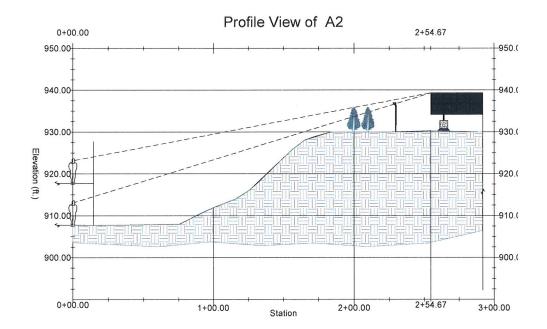


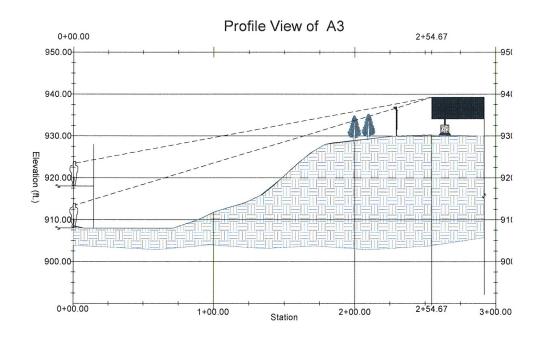
LEGEND AND ABBREVIATIONS:

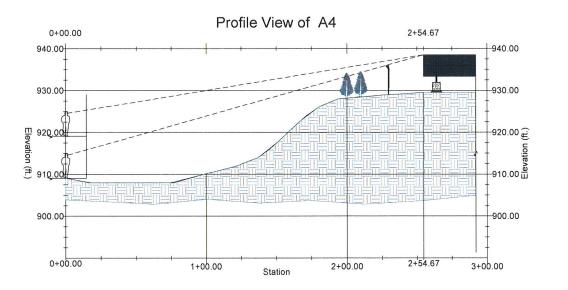
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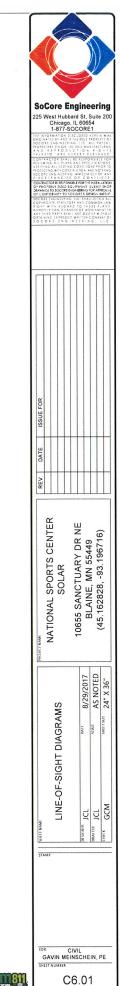
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LEW FOLDER STRUCTUREY/PROJECTS/NATIONAL SPORTS CENTER\_MA\_CONX\ENGINEERING AND DESIGN\DRAWINGS\C2.12 - LINE OF SIGHT DIAGRAMS.DWG 9/22/2017