ST. FRANCIS PLANNING COMMISSION

ISD #15 DISTRICT OFFICE BUILDING
4115 AMBASSADOR BLVD.
JULY 20, 2016

7:00 PM

AGENDA

1. Call to Order/Pledge of Allegiance
2. Roll Call
3. Adopt Agenda July 20, 2016
4. Approve Minutes June 15, 2016
5. Public Comment
6. Public Hearing: Johnson & Lee Minor Subdivision
7. Public Hearing: Lauseng Solar Amendment
8. Public Hearing: Temporary Family Health Care Dwelling Amendment
9. Planning Commission Discussion
10. Adjournment

There may be a quorum of St. Francis Council Members present at this meeting.

CITY OF ST. FRANCIS
ST. FRANCIS, MN
PLANNING COMMISSION MINUTES
June 15, 2016

1. **Call to Order**: The Planning Commission meeting was called to order at 7:00 pm by Chairman Steinke.

2. **Roll Call:** Present were Ray Steinke, Brittney Berndt, Todd Gardner, Joel Olson and Greg Zutz.

3. **Adopt Agenda:** Motion to adopt by Zutz, second by Berndt to approve the June 15, 2016 agenda. Motion carried 5-0.

4. **Approve Minutes:** Motion by Olson, second by Gardner, to approve the April 20, 2016 minutes. Motion carried 5-0.

5. **Public Comment:** None

6. **Public Hearing Emmerich & Wallace Minor Subdivision** – New request for a minor subdivision located off 229th and Tamarack Street. This is a 39+ acre parcel that is wishing to divide in two. Applicant is splitting the lot in half and planning each site to accommodate one building. Soil boring exists, lots appear to have no issues in regards to building. Large wetland delineated as required, being reviewed. Request conforms to ordinances.

   Public Hearing – nobody requested to speak.
   No further discussion from Commission
   Recommendation by Olson to recommend approval with completion of the six requested Action items. Second by Berndt. Motion Carried 5-0

7. **Public Hearing Crown 2nd Preliminary Plat** – City owned parcel as it was left over land from a road project. Left as an Outlot with a current pond. To make Buildable/Marketable this process is necessary to move forward. Will maintain pond in an Outlot and the access to Hwy 47 will remain. Plat before you shows the largest potential building meeting zoning codes to identify a demonstrated use.

   Public Hearing – nobody requested to speak.
   Discussion: Clarification that pond is on the north side of property. Pond does need to stay as it was created for Hwy 47 and Aztec road development
   Recommendation by Zutz, to recommend approval with completion of the two requested Action items. Second by Olson. Motion Carried 5-0

8. **Public Hearing East Village Preliminary Plat –** Past County and public works location, currently owned by the City. Parcel currently is six separate parcels that is being combined into one plat for building/marketing purposes. Proposed as plat maintaining wetland easement. Although plat represents a historic access point, potentially moving to the east and in discussions with Casey's about access. Access is not a critical decision at this point but needed to be represented for County review. County trail on site, will keep as an easement. Right of way makes space for proposed trail similar to the existing trail on Bridge St. Review by the County is still underway. Furthest west and south parcel is a

fee title parcel owned by the city. In the past shown as a potential right of way. City will complete a vacation to make sure there is no public perception of rights or idea of a future road. Again, plat shows the largest potential use meeting zoning codes to identify a demonstrated use.

Public Hearing – nobody requested to speak.
Discussion: Question on the access point for clarification. Mr. Sparks identified that the County had completed a study on that area and the City Council adopted the final plan. City has every intent to follow. If there is no way to make it work, county has been open to negotiations. Zutz requested process of ponds and what sort of measures are expended for maintenance, care and mosquitos? Mr. Sparks made note that the Crown site pond is existing and the ponding at the Crown plat will be used as needed. Also it is in the interest of the City to make sure ponds are maintained and working well. City is currently part of the Minnesota Mosquito Control District and they do a great deal of work on local ponds. City also has landscape requirements including maintenance and a seed mix to hold slope and keep from becoming distressed looking.
Recommendation by Olson, to recommend approval with completion of the two requested Action items to 1.combine the 6 total parcels into 1 parcel, and 2.designate a single zoning code of B2 to the full parcel. Second by Berndt. Motion Carried 5-0

9. **Planning Commission Discussion**

Mr. Sparks updated the group on previous discussion regarding Rum River Terrace and concerns from residents about construction and association needs.

Mr. Sparks provided an update in regards to recent legislation. Items of interest include the Temporary Health Care Housing and Fence Viewing. It was requested that additional information be brought back to the Commission at the July 20, 2016 meeting.

Mr. Steinke announced he would be absent from the July meeting.

Mr. Zutz requested updates in regards to the Meridian development and the Assisted Living development. Per Mr. Sparks, the Meridian development is in the process of creating program changes due to recent changes in legislation. As their approval expires in July, they will continue to own the land and work on a potential site going forward. The Assisted Living project has until November to meet the next deadlines. They are finalizing their business plan and working to ensure their building proposed fits that plan. If drastic changes occur they would be back before the Planning Commission.

10. **Adjournment:** Adjourned by Steinke at 7:49 p.m.

_____ _____

Kate Thunstrom, Community Development Director Date

NORTHWEST ASSOCIATED CONSULTANTS, INC.

4150 Olson Memorial Highway, Ste. 320, Golden Valley, MN 55422
Telephone: 763.957.1100 Website: www.nacplanning.com

PLANNING MEMO

TO: St. Francis Planning Commission

FROM: Nate Sparks, Consulting Planner

DATE: July 14, 2016

RE: Johnson & Lee Minor Subdivision

BACKGROUND
Stacy Lee has made an application to divide a 39 acre parcel into two lots. The parcel is located north of 229th Avenue on the west side of Tamarack Street in the 23500 block of addresses. It is north of the property reviewed by the Planning Commission in June for a similar division. The property is zoned A-2, Rural Estate Agriculture. The property is currently owned by the Ann Johnson Family, who are co-applicants.

REQUEST REVIEW
The applicant is proposing to divide the existing 39 acre parcel into two lots that are each about 19.75 acres in size. The parcel is currently rural vacant land.

Transportation Elements
In the City's Transportation Plan, Tamarack Street is identified as a minor collector under municipal jurisdiction. Currently, the property line extends into the centerline of the Tamarack Street right-of-way. The applicant has provided a legal description for a 40 foot wide easement over the right-of-way. Minor Collectors are required to have a right-of-way width of 80 feet. Tamarack Street is identified as a future trail corridor. The proposed right-of-way width is sufficient to include the trail.

Lot Size and Dimensions
The A-2 District requires a minimum lot size of 10 acres. As proposed, both lots are depicted as being over 19 acres in size. With reductions from the right-of-way easements the two lots will both still exceed the minimum lot size requirements. The minimum lot width is 300 feet and both properties are about 654 feet in width.

Building Locations & Setbacks
The applicant has provided proposed building pads with a soil boring and then four soil borings for septic areas on each lot. The information appears to confirm that the lots can support houses. The building pads appear to be in conforming areas on the lot. The front yard setback must be 75 feet from the right-of-way easement for Tamarack Street.

Newly created lots in the Rural Service Area are required to have a 1 acre area suitable for building. This area is required to have a separation of three feet to mottled soils and have slopes less than 12%.

There is also a requirement that two septic system sites can be found on the site. The proposed lots meet these standards.

Drainage & Wetlands
There is a large wetland on the rear of the property. The applicant has had the wetland delineated. The delineation report is currently under review. The wetland area and buffer will need to be placed in an easement. Perimeter drainage and utility easements are also required.

Park Dedication
Park dedication will need to be paid in the amount of $2500. This is due prior to the recording of the minor subdivision.

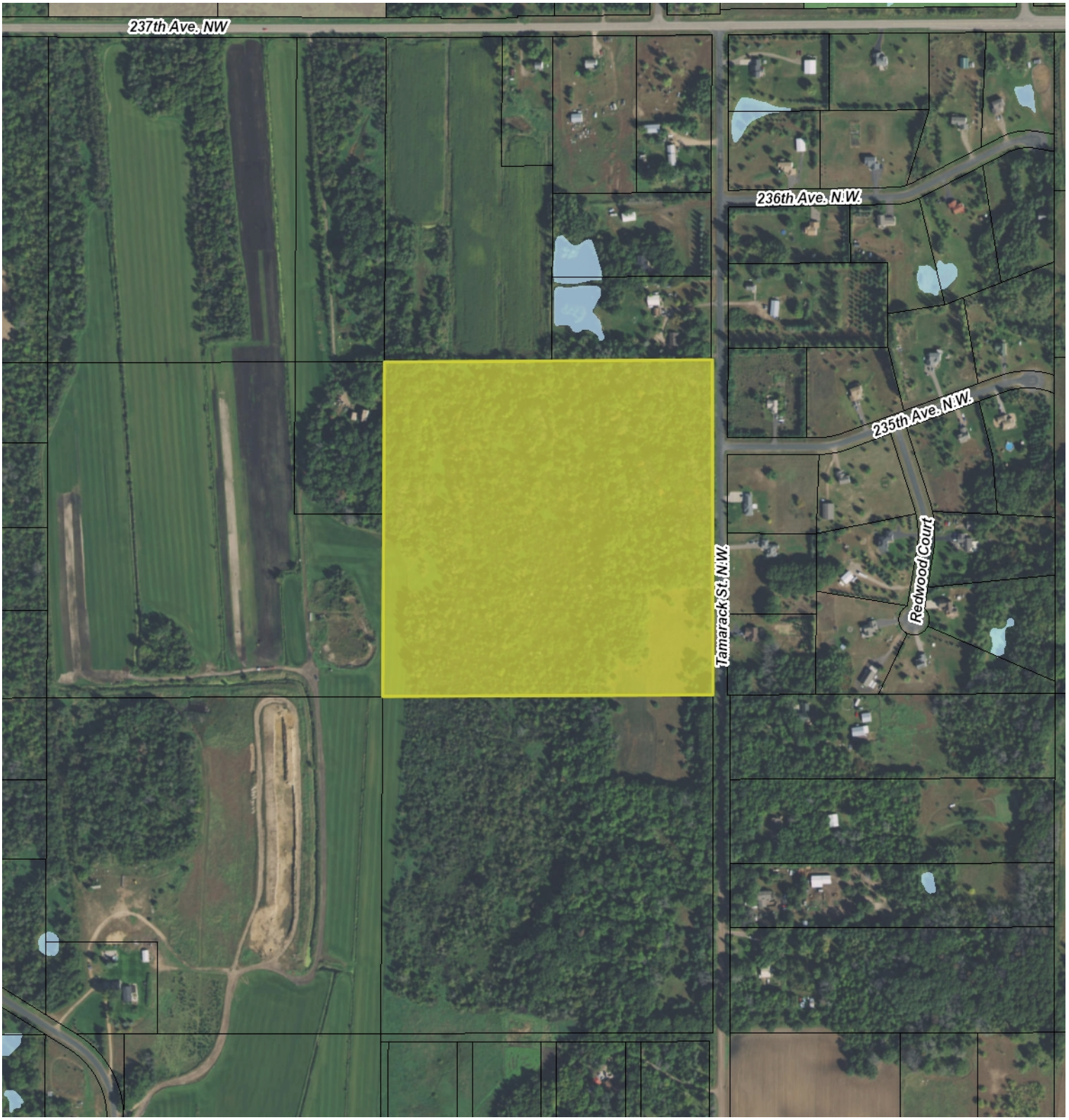
Minor Subdivision Review
The City allows metes and bounds divisions (minor subdivisions) in cases where any new resulting lots are 10 acres or more in size and 300 feet in width. This proposed division meets these general standards.

RECOMMENDATION
The proposed subdivision appears to be generally consistent with the City's Zoning and Subdivision Ordinances and the Comprehensive Plan, and therefore acceptable for approval.

REQUESTED ACTION
The Planning Commission should hold the public hearing and make a recommendation to the City Council. If the Planning Commission recommends approval, Staff advises doing so with the following conditions:

1. The subdivision shall be recorded with Anoka County within 90 days of approval.
2. Any recommendations by the City Engineer shall be satisfied.
3. The wetland delineation shall be approved. If the wetland line is adjusted, the easement shall be adjusted accordingly.
4. The proposed septic sites are subject to review and approval of the Building Official.
5. Park dedication shall be paid.
6. All new easements shall be recorded.

Attached:
Aerial Photo
Minor Subdivision Survey



0 527 Feet

Disclaimer:

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information, and data located in various city, county, and state offices, and other sources affecting the area shown, and is to be used for reference purposes only. The City of St. Francis is not responsible for any inaccuracies herein contained.

City of St. Francis

Johnson - Lee Minor Subdivision Parcel

OWNER

Stacy Lee
22340 Rum River Boulevard.
St. Francis, MN 55070
Phone: 763-458-7133
PID: 35-34-24-13-0001

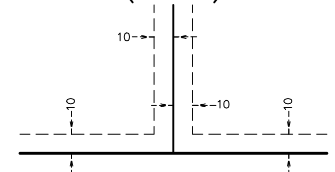
LEGEND

- Denotes Anoka County Monument, as noted
- Denotes Set Iron Pipe, Marked with RLS 40361
- Denotes Found Iron Pipe or Drill Hole, as noted
- Denotes Soil Boring
- Denotes Gravel Surface
- Denotes Bituminous Surface
- Denotes Existing 2 Ft. Contour
- Denotes Existing 10 Ft. Contour

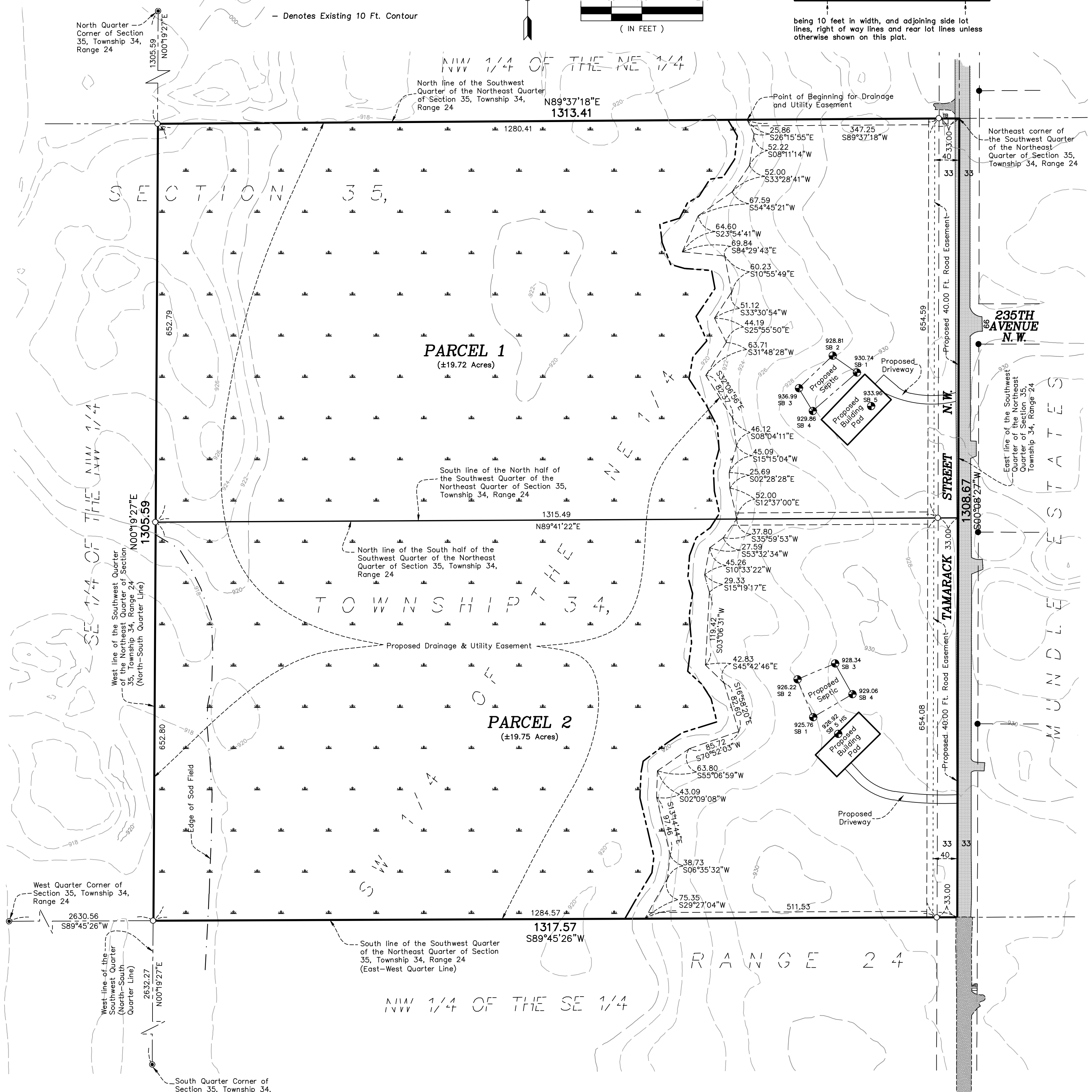
SITE DATA

TOTAL SITE AREA	±39.47 AC.
TOTAL NUMBER OF PARCELS	2
PARCEL 1 LOT AREA	±19.72 AC.
PARCEL 2 LOT AREA	±19.75 AC.

PROPOSED DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS: (No Scale)



being 10 feet in width, and adjoining side lot lines, right of way lines and rear lot lines unless otherwise shown on this plat.



PARCEL DESCRIPTION (per Anoka County Tax Records):

The Southwest Quarter of the Northeast Quarter, Section 35, Township 34, Range 24, Anoka County, Minnesota.

Proposed Description Parcel 1:

The North Half of the Southwest Quarter of the Northeast Quarter, Section 35, Township 34, Range 24, Anoka County, Minnesota.

Proposed Description Parcel 2:

The South Half of the Southwest Quarter of the Northeast Quarter, Section 35, Township 34, Range 24, Anoka County, Minnesota.

(Abstract Property)

GENERAL NOTES:

1) The field work for this survey was completed on June 7th, 2016

2) Bearings shown hereon are based on the West line of the Southwest Quarter of the Northeast Quarter, Section 35, Township 34, Range 24, which is assumed to bear North 00 degrees 19 minutes 27 seconds East.

3) The wetlands shown hereon were delineated by Kjolhaug Environmental Services, Inc. in June of 2016.

4) Soil Borings done by Tradewell Soil Testing.

5) Existing contours shown per Minnesota Department of Natural Resources LIDAR.

6) No Title Commitment was furnished for this survey.

PROPOSED EASEMENTS:

Drainage & Utility Easement for Wetland:

An easement lying over, under, and across that part of the Southwest Quarter of the Northeast Quarter of Section 35, Township 34, Range 24, Anoka County, Minnesota, lying westerly of the following described line:

Commencing at the Northeast corner of said Southwest Quarter of the Northeast Quarter; thence South 89 degrees 37 minutes 18 seconds West, assumed bearing along the North line of said Southwest Quarter of the Northeast Quarter, a distance of 347.25 feet to the point of beginning of said line to be described; thence South 26 degrees 15 minutes 55 seconds East, 25.86 feet; thence South 08 degrees 11 minutes 14 seconds West, 52.22 feet; thence South 33 degrees 28 minutes 41 seconds West, 52.00 feet; thence South 54 degrees 45 minutes 21 seconds West, 67.59 feet; thence South 23 degrees 54 minutes 41 seconds West, 64.60 feet; thence South 84 degrees 29 minutes 43 seconds East, 69.84 feet; thence South 10 degrees 55 minutes 49 seconds East, 60.23 feet; thence South 33 degrees 30 minutes 54 seconds West, 51.12 feet; thence South 25 degrees 55 minutes 50 seconds East, 44.19 feet; thence South 31 degrees 48 minutes 28 seconds West, 63.71 feet; thence South 32 degrees 06 minutes 56 seconds East, 82.37 feet; thence South 08 degrees 04 minutes 11 seconds East, 46.12 feet; thence South 15 degrees 15 minutes 04 seconds West, 45.09 feet; thence South 02 degrees 28 minutes 28 seconds East, 25.69 feet; thence South 12 degrees 37 minutes 00 seconds East, 52.00 feet; thence South 35 degrees 59 minutes 53 seconds West, 37.80 feet; thence South 53 degrees 32 minutes 34 seconds West, 27.59 feet; thence South 10 degrees 33 minutes 22 seconds West, 45.26 feet; thence South 15 degrees 19 minutes 17 seconds East, 29.33 feet; thence South 03 degrees 06 minutes 31 seconds West, 119.42 feet; thence South 45 degrees 42 minutes 46 seconds East, 42.83 feet; thence South 16 degrees 58 minutes 20 seconds East, 82.60 feet; thence South 70 degrees 52 minutes 03 seconds West, 85.72 feet; thence South 55 degrees 06 minutes 59 seconds West, 63.80 feet; thence South 02 degrees 09 minutes 08 seconds West, 43.09 feet; thence South 13 degrees 14 minutes 44 seconds East, 97.46 feet; thence South 06 degrees 35 minutes 32 seconds West, 38.73 feet; thence South 29 degrees 27 minutes 04 seconds West, 75.35 feet to the South line of said Southwest Quarter of the Northeast Quarter and said line there terminating.

Said easement contains an area of ±1,186,653 sq.ft. (±27.24 acres)

Road Easement for Tamarack Street N.W.:

An easement lying over, under, and across the East 40.00 feet of the Southwest Quarter of the Northeast Quarter of Section 35, Township 34, Range 24, Anoka County, Minnesota.

Said easement contains an area of ±52,345 sq.ft. (±1.20 acres)

Drainage & Utility Easement along Tamarack Street N.W.:
An easement lying over, under, and across the West 10.00 feet of the East 50.00 feet of the Southwest Quarter of the Northeast Quarter of Section 35, Township 34, Range 24, Anoka County, Minnesota.

Said easement contains an area of ±13,086 sq.ft. (±0.30 acres)

Drainage & Utility Easement along the North Line of Parcel 1:
An easement lying over, under, and across that part of the North 10.00 feet of the Southwest Quarter of the Northeast Quarter of Section 35, Township 34, Range 24, Anoka County, Minnesota, lying West of the East 50.00 feet and lying easterly of the following described line:

Commencing at the Northeast corner of said Southwest Quarter of the Northeast Quarter; thence South 89 degrees 37 minutes 18 seconds West, assumed bearing along the North line of said Southwest Quarter of the Northeast Quarter, a distance of 347.25 feet to the point of beginning of said line to be described; thence South 26 degrees 15 minutes 55 seconds East, 25.86 feet; thence South 08 degrees 11 minutes 14 seconds West, 52.22 feet; thence South 33 degrees 28 minutes 41 seconds West, 52.00 feet; thence South 54 degrees 45 minutes 21 seconds West, 67.59 feet; thence South 23 degrees 54 minutes 41 seconds West, 64.60 feet; thence South 84 degrees 29 minutes 43 seconds East, 69.84 feet; thence South 10 degrees 55 minutes 49 seconds East, 60.23 feet; thence South 33 degrees 30 minutes 54 seconds West, 51.12 feet; thence South 25 degrees 55 minutes 50 seconds East, 44.19 feet; thence South 31 degrees 48 minutes 28 seconds West, 63.71 feet; thence South 32 degrees 06 minutes 56 seconds East, 82.37 feet; thence South 08 degrees 04 minutes 11 seconds East, 46.12 feet; thence South 15 degrees 15 minutes 04 seconds West, 45.09 feet; thence South 02 degrees 28 minutes 28 seconds East, 25.69 feet; thence South 12 degrees 37 minutes 00 seconds East, 52.00 feet; thence South 35 degrees 59 minutes 53 seconds West, 37.80 feet; thence South 53 degrees 32 minutes 34 seconds West, 27.59 feet; thence South 10 degrees 33 minutes 22 seconds West, 45.26 feet; thence South 15 degrees 19 minutes 17 seconds East, 29.33 feet; thence South 03 degrees 06 minutes 31 seconds West, 119.42 feet; thence South 45 degrees 42 minutes 46 seconds East, 42.83 feet; thence South 16 degrees 58 minutes 20 seconds East, 82.60 feet; thence South 70 degrees 52 minutes 03 seconds West, 85.72 feet; thence South 55 degrees 06 minutes 59 seconds West, 63.80 feet; thence South 02 degrees 09 minutes 08 seconds West, 43.09 feet; thence South 13 degrees 14 minutes 44 seconds East, 97.46 feet; thence South 06 degrees 35 minutes 32 seconds West, 38.73 feet; thence South 29 degrees 27 minutes 04 seconds West, 75.35 feet to the South line of said Southwest Quarter of the Northeast Quarter and said line there terminating.

Said easement contains an area of ±3,018 sq.ft. (±0.07 acres)

Drainage & Utility Easement along the South line of Parcel 1:
An easement lying over, under, and across that part of the South 10.00 feet of the North half of the Southwest Quarter of the Northeast Quarter of Section 35, Township 34, Range 24, Anoka County, Minnesota, lying West of the East 50.00 feet and lying easterly of the following described line:

Commencing at the Northeast corner of said Southwest Quarter of the Northeast Quarter; thence South 89 degrees 37 minutes 18 seconds West, assumed bearing along the North line of said Southwest Quarter of the Northeast Quarter, a distance of 347.25 feet to the point of beginning of said line to be described; thence South 26 degrees 15 minutes 55 seconds East, 25.86 feet; thence South 08 degrees 11 minutes 14 seconds West, 52.22 feet; thence South 33 degrees 28 minutes 41 seconds West, 52.00 feet; thence South 54 degrees 45 minutes 21 seconds West, 67.59 feet; thence South 23 degrees 54 minutes 41 seconds West, 64.60 feet; thence South 84 degrees 29 minutes 43 seconds East, 69.84 feet; thence South 10 degrees 55 minutes 49 seconds East, 60.23 feet; thence South 33 degrees 30 minutes 54 seconds West, 51.12 feet; thence South 25 degrees 55 minutes 50 seconds East, 44.19 feet; thence South 31 degrees 48 minutes 28 seconds West, 63.71 feet; thence South 32 degrees 06 minutes 56 seconds East, 82.37 feet; thence South 08 degrees 04 minutes 11 seconds East, 46.12 feet; thence South 15 degrees 15 minutes 04 seconds West, 45.09 feet; thence South 02 degrees 28 minutes 28 seconds East, 25.69 feet; thence South 12 degrees 37 minutes 00 seconds East, 52.00 feet; thence South 35 degrees 59 minutes 53 seconds West, 37.80 feet; thence South 53 degrees 32 minutes 34 seconds West, 27.59 feet; thence South 10 degrees 33 minutes 22 seconds West, 45.26 feet; thence South 15 degrees 19 minutes 17 seconds East, 29.33 feet; thence South 03 degrees 06 minutes 31 seconds West, 119.42 feet; thence South 45 degrees 42 minutes 46 seconds East, 42.83 feet; thence South 16 degrees 58 minutes 20 seconds East, 82.60 feet; thence South 70 degrees 52 minutes 03 seconds West, 85.72 feet; thence South 55 degrees 06 minutes 59 seconds West, 63.80 feet; thence South 02 degrees 09 minutes 08 seconds West, 43.09 feet; thence South 13 degrees 14 minutes 44 seconds East, 97.46 feet; thence South 06 degrees 35 minutes 32 seconds West, 38.73 feet; thence South 29 degrees 27 minutes 04 seconds West, 75.35 feet to the South line of said Southwest Quarter of the Northeast Quarter and said line there terminating.

Said easement contains an area of ±3,135 sq.ft. (±0.07 acres)

Drainage & Utility Easement along the North line of Parcel 2:
An easement lying over, under, and across that part of the North 10.00 feet of the South half of the Southwest Quarter of the Northeast Quarter of Section 35, Township 34, Range 24, Anoka County, Minnesota, lying West of the East 50.00 feet and lying easterly of the following described line:

Commencing at the Northeast corner of said Southwest Quarter of the Northeast Quarter; thence South 89 degrees 37 minutes 18 seconds West, assumed bearing along the North line of said Southwest Quarter of the Northeast Quarter, a distance of 347.25 feet to the point of beginning of said line to be described; thence South 26 degrees 15 minutes 55 seconds East, 25.86 feet; thence South 08 degrees 11 minutes 14 seconds West, 52.22 feet; thence South 33 degrees 28 minutes 41 seconds West, 52.00 feet; thence South 54 degrees 45 minutes 21 seconds West, 67.59 feet; thence South 23 degrees 54 minutes 41 seconds West, 64.60 feet; thence South 84 degrees 29 minutes 43 seconds East, 69.84 feet; thence South 10 degrees 55 minutes 49 seconds East, 60.23 feet; thence South 33 degrees 30 minutes 54 seconds West, 51.12 feet; thence South 25 degrees 55 minutes 50 seconds East, 44.19 feet; thence South 31 degrees 48 minutes 28 seconds West, 63.71 feet; thence South 32 degrees 06 minutes 56 seconds East, 82.37 feet; thence South 08 degrees 04 minutes 11 seconds East, 46.12 feet; thence South 15 degrees 15 minutes 04 seconds West, 45.09 feet; thence South 02 degrees 28 minutes 28 seconds East, 25.69 feet; thence South 12 degrees 37 minutes 00 seconds East, 52.00 feet; thence South 35 degrees 59 minutes 53 seconds West, 37.80 feet; thence South 53 degrees 32 minutes 34 seconds West, 27.59 feet; thence South 10 degrees 33 minutes 22 seconds West, 45.26 feet; thence South 15 degrees 19 minutes 17 seconds East, 29.33 feet; thence South 03 degrees 06 minutes 31 seconds West, 119.42 feet; thence South 45 degrees 42 minutes 46 seconds East, 42.83 feet; thence South 16 degrees 58 minutes 20 seconds East, 82.60 feet; thence South 70 degrees 52 minutes 03 seconds West, 85.72 feet; thence South 55 degrees 06 minutes 59 seconds West, 63.80 feet; thence South 02 degrees 09 minutes 08 seconds West, 43.09 feet; thence South 13 degrees 14 minutes 44 seconds East, 97.46 feet; thence South 06 degrees 35 minutes 32 seconds West, 38.73 feet; thence South 29 degrees 27 minutes 04 seconds West, 75.35 feet to the South line of said Southwest Quarter of the Northeast Quarter and said line there terminating.

Said easement contains an area of ±3,160 sq.ft. (±0.07 acres)

Drainage & Utility Easement along the South line of Parcel 2:
An easement lying over, under, and across that part of the South 10.00 feet of the Southwest Quarter of the Northeast Quarter of Section 35, Township 34, Range 24, Anoka County, Minnesota, lying West of the East 50.00 feet and lying easterly of the following described line:

Commencing at the Northeast corner of said Southwest Quarter of the Northeast Quarter; thence South 89 degrees 37 minutes 18 seconds West, assumed bearing along the North line of said Southwest Quarter of the Northeast Quarter, a distance of 347.25 feet to the point of beginning of said line to be described; thence South 26 degrees 15 minutes 55 seconds East, 25.86 feet; thence South 08 degrees 11 minutes 14 seconds West, 52.22 feet; thence South 33 degrees 28 minutes 41 seconds West, 52.00 feet; thence South 54 degrees 45 minutes 21 seconds West, 67.59 feet; thence South 23 degrees 54 minutes 41 seconds West, 64.60 feet; thence South 84 degrees 29 minutes 43 seconds East, 69.84 feet; thence South 10 degrees 55 minutes 49 seconds East, 60.23 feet; thence South 33 degrees 30 minutes 54 seconds West, 51.12 feet; thence South 25 degrees 55 minutes 50 seconds East, 44.19 feet; thence South 31 degrees 48 minutes 28 seconds West, 63.71 feet; thence South 32 degrees 06 minutes 56 seconds East, 82.37 feet; thence South 08 degrees 04 minutes 11 seconds East, 46.12 feet; thence South 15 degrees 15 minutes 04 seconds West, 45.09 feet; thence South 02 degrees 28 minutes 28 seconds East, 25.69 feet; thence South 12 degrees 37 minutes 00 seconds East, 52.00 feet; thence South 35 degrees 59 minutes 53 seconds West, 37.80 feet; thence South 53 degrees 32 minutes 34 seconds West, 27.59 feet; thence South 10 degrees 33 minutes 22 seconds West, 45.26 feet; thence South 15 degrees 19 minutes 17 seconds East, 29.33 feet; thence South 03 degrees 06 minutes 31 seconds West, 119.42 feet; thence South 45 degrees 42 minutes 46 seconds East, 42.83 feet; thence South 16 degrees 58 minutes 20 seconds East, 82.60 feet; thence South 70 degrees 52 minutes 03 seconds West, 85.72 feet; thence South 55 degrees 06 minutes 59 seconds West, 63.80 feet; thence South 02 degrees 09 minutes 08 seconds West, 43.09 feet; thence South 13 degrees 14 minutes 44 seconds East, 97.46 feet; thence South 06 degrees 35 minutes 32 seconds West, 38.73 feet; thence South 29 degrees 27 minutes 04 seconds West, 75.35 feet to the South line of said Southwest Quarter of the Northeast Quarter and said line there terminating.

Said easement contains an area of ±4,587 sq.ft. (±0.11 acres)

Carlson McCain
ENVIRONMENTAL · ENGINEERING · SURVEYING
3890 Pheasant Ridge Drive NE,
Suite 100, Blaine, MN 55449
Phone: 763-489-7900 Fax: 763-489-7959

MINOR SUBDIVISION

TAMARACK STREET N.W. MINOR SUBDIVISION

St. Francis, Minnesota

Stacy Lee
22340 Rum River Boulevard
Anoka, MN, 55303

REVISIONS

1.
2.
3.
4.
5.
6.

DRAWN BY:	BJS-JAB
ISSUE DATE:	06/14/2016
FILE NO:	1178

I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly licensed land surveyor under the laws of the State of Minnesota

Name: Jason A. Bongard
Signature: [signature]
Date: 06/14/2016 License #: 45775

NORTHWEST ASSOCIATED CONSULTANTS, INC.

4150 Olson Memorial Highway, Ste. 320, Golden Valley, MN 55422
Telephone: 763.957.1100 Website: www.nacplanning.com

PLANNING MEMO

TO: St. Francis Planning Commission

FROM: Nate Sparks, Consulting Planner

DATE: July 14, 2016

RE: 2660 239th Ave NW – Ordinance Amendment / Conditional Use Permit
Private Solar Energy System

Background
Cathy Lauseng and True North Solar have made an application for a conditional use permit to place a private ground-mounted solar energy system on rural residential property located at 2660 239th Ave NW. The use requires an ordinance amendment to be permitted.

The applicant is seeking to install approximately 888 square feet of ground mounted solar panels on their property. This is intended as a 15.8 kilowatt solar array. The panels are proposed to be nine feet in height. The property in question is zoned RR, Rural Residential.

Current Zoning Regulations
The zoning ordinance does not make mention of solar energy systems. Typically, uses not expressly permitted by the ordinance are not permitted. Building mounted or building integrated solar panels could be considered to be mechanical equipment and permitted in that fashion. However, there is no such way to find an allowance in the ordinance for ground mounted solar panels. The applicant's representative has stated that building mounted solar panels will not work for this property.

Accessory Structure Limitation
Properties located in the Rural Service Area are permitted a certain number and square footage of accessory structures based on the size of the lot. This parcel is slightly over six acres in size, which allows for two detached accessory structures up to 4,000 square feet in size. The applicant currently has more than one detached building with about 5,300 square feet. Therefore, if the City were to consider ground mounted solar panels to be an accessory structure, this property is already beyond the limitations.

Ordinance Amendment
The only manner in which this proposal could be accommodated is with an ordinance amendment that permits ground mounted solar panels in excess of the structural size limitations.

Similar Uses
The City permits ground mounted wind energy conversion systems with a conditional use permit. Such systems are permitted with a conditional use permit on property greater than 5 acres in size.

System height can be up to 100 feet provided setback 1.5 times the height of the structure can be met. There is also a requirement that the system be located no closer than 300 feet from a dwelling unit on a neighboring property.

The City currently allows accessory uses such as swimming pools and tennis courts without counting the square footage towards the accessory structure limitation.

Potential Amendments
The Planning Commission may wish to discuss solar energy systems and how this use fits within the zoning ordinance. As it is written, it would appear to be acceptable if integrated into the building. If the Commission finds that solar energy systems should not be permitted as accessory uses on any property, an amendment specifying this should be discussed. If the Commission finds that the roof mounted and building integrated panels are the only accessory solar energy systems desired, it would be advisable to specify this in the mechanical equipment ordinance to avoid future confusion on the issue. If the Commission wants to permit ground mounted solar systems, an amendment would be appropriate, as well. This discussion should be limited to accessory solar energy systems related to the applicant's request. Draft ordinance language is attached for discussion meeting the applicant's goals. Other discussions related to this topic could be identified and held at a future date.

The Planning Commission should discuss the following topics:

Building Mounted Solar
The Planning Commission should consider if building mounted solar panels are permitted accessory uses consistent with the City Staff interpretation. If this is the case, it may be advisable to discuss any necessary limitations. Some communities restrict panels from street facing building fronts or roof slopes. Others state only a certain percentage of the roof may be covered.

Ground Mounted Solar
Ground mounted solar may be permitted as an accessory use subject to the limitations of the accessory structure ordinance. If the Commission finds that it may be acceptable to introduce this use, the Commission should discuss the limitations to be placed on it.

Cities approach ground mounted solar systems in different ways. Some consider it to be an accessory use subject to accessory structure limits. Others consider it to be separate. In some cases, a conditional or interim use permit is required.

Rural and Urban
The Commission may wish to discuss if the ground mounted solar panels are appropriate in all districts or only in certain districts. For example, the City governs accessory uses on urban residential lots differently than rural parcels. Then the City also has greater restrictions on Marginal Land PUD rural lots than general rural residential lots, with only allowing one detached accessory building up to 1200 square feet regardless of size.

Issues & Concerns
In area communities that discuss this topic, many times there are concerns raised about glare, noise, and safety. Generally, these issues are not problems with modern and properly installed solar energy

systems. Another concern often raised is the visual impact to neighboring properties. Some feel that this type of use is out of character in certain residential areas, especially on a larger scale.

Other Ordinances
Many area cities have been considering amendments to their zoning ordinances related to solar energy systems. Not all communities have chosen to do so, though. Cities that have adopted new ordinances have done so in different manners. Some ordinances were more related to the community solar gardens being placed in Xcel Energy's utility service areas. There are also cities similar to St. Francis that have found certain levels of permission in other code text that does not directly address solar energy systems. Some highlights of recent ordinances include:

Blackduck restricts ground mounted solar to 120 square feet on urban residential properties.

Orono only permits roof mounted solar energy systems. Ground mounted panels are not permitted.

Isanti County has been amending their ordinances. Currently, they permit ground mounted less than 15 feet in height when not exceeding 10% of the lot area in certain districts.

West Lakeland Township in Washington County permits ground mounted solar systems with a CUP and limited to 10% of the lot area.

Martin County allows ground mounted system provided they do not exceed 50% of the footprint of the principal structure.

Rosemount permits roof mounted to cover up to 80% of the roof. Ground mounted is limited to structural lot coverage limitations of the zoning district.

St. Michael allows roof mounted systems to cover up to 80% of the roof. Ground mounted systems are permitted in a size related to the lot size between 200 and 800 square feet.

Wright County requires solar systems greater than 10 kw in capacity to have a CUP. Less than 10 kw are permitted as an accessory use.

Scandia permits ground mounted solar systems up to 15 feet in height that meet the structural size lot coverage limitations.

Monticello allows ground mounted solar energy systems that are limited to 20% of the rear yard and requires a CUP in non-residential districts.

Planning Commission Discussion
The Planning Commission should discuss the applicant's request and the potential amendments necessary for the request. The Commission should discuss whether or not to:

- Continue to permit roof mounted/building integrated solar panels
    - Limitations on size, side of buildings
- Permit ground mounted solar panels
    - Permitted, conditional, or interim use

- Size limitations
  - Follow accessory building requirements
  - Separate standards

The uses permitted within areas used for residential purposes are the typical uses found in residential areas. The City only allows uses such as home based business, kennels, or wind energy systems when in receipt of a conditional or interim use permit.

On residential lots, the City allows accessory buildings up to the size limits that are related to the size of the lot. These limitations set how much of the lot can be covered by structures. Certain accessory uses such as swimming pools and tennis courts are not generally counted in the square footage for accessory buildings. Swimming pools are typically 500 to 1000 square feet in area and tennis courts are about 2,800 square feet. If the Commission were to find that solar panels should be allowed as ground mounted structures exempt from the accessory building size requirements, a separate limitation would need to be considered.

The applicant, in this case, has over 5,000 square feet of accessory buildings on a lot that permits 4,000. They would like to add 888 square feet of solar panels to the lot. The 888 square feet is about 22% of the 4,000 permitted.

Draft ordinance language is attached. The premise of the draft is to meet the desires of the applicant. Also, certain general standards are provided to allow for consistency throughout the code. In this case, a limited size (200 square feet) is identified that may be permitted in all districts in all cases. To exceed this amount is only permitted on rural residential and agricultural property or commercial/industrial. In these cases, a CUP is required. Limits are proposed at 25% of the allowed accessory structure limits in rural areas or 1000 square feet or 10% of the lot, whichever is less, in commercial/industrial settings.

Requested Action
The Planning Commission should discuss the proposed amendment and determine if this use is appropriate for inclusion in the Zoning Ordinance, at this time. A sample ordinance that meets the intent of the applicant's request is attached for review. The Commission should recommend appropriate ordinance language to the Council and forward it with a recommendation of approval for the conditional use permit.

If the Planning Commission were to decide to not consider any amendments or only consider amendments that do not meet with the intent of the applicant's request, it would be appropriate to recommend denial of this request. The ordinance discussion could then continue independent of this application.

St. Francis Planning Commission
Draft Solar Ordinance

SOLAR ENERGY SYSTEMS

A. Accessory Use. Solar Energy Systems are permitted as an accessory use in all districts.

B. Roof mounted and building integrated solar system. Roof mounted and building integrated solar energy systems are permitted on all structures provided:

1. Roof mounted solar panels shall meet the height requirements of the zoning district.
2. No more than 80% of the roof shall be covered in solar panels.
3. Solar panels and associated structures shall not project beyond the edge of the roof.
4. Building integrated systems shall not be placed on the street facing front of any structure.
5. For commercial and industrial uses, roof mounted systems shall meet the requirements established for rooftop mechanical equipment.

C. Ground mounted solar energy systems. Ground mounted solar energy systems are permitted as follows:

1. Ground mounted systems shall comply with all regulations related to accessory buildings and structures, except as follows:
    a. The system is exempt from accessory structure number and area limitations except as provided herein.
    b. Ground mounted systems shall not exceed ten feet in height.
2. Ground mounted systems 200 square feet in area or less are a permitted accessory use in all districts.
3. Ground mounted systems greater than 200 square feet in area may be permitted in RR, ML-PUD, A-1, A-2, and A-3 Districts when in receipt of a conditional use permit and meeting the following standards:
    a. The system shall be screened from neighboring properties.
    b. The system shall not exceed 25% of the structure size limits for accessory buildings for the lot.
4. Ground mounted systems greater than 200 square feet but less than 1000 square feet may be permitted on all commercial, industrial, institutional, and multi-family parcels when in receipt of a conditional use permit and meeting the following standards:
    a. The system shall not exceed 10% of the area of the lot.
    b. The system shall be screened from neighboring residential properties.

DEFINITIONS

Solar Energy System: A device or set of devices of which the primary purpose is to collect solar energy and convert and store it for useful purposes including heating and cooling buildings or other energy-using processes, or to produce generated power by means of any combination of collecting, transferring, or converting solar-generated energy.

Solar Energy System, Building-Integrated: A solar energy system that is an integral part of a building substituting for an architectural or structural component of the building such as roofing materials, windows, skylights, and similar.

Solar Energy System, Ground Mounted: A free standing solar energy system mounted directly to the ground.

Solar Energy System, Roof Mounted: A solar energy system affixed to the roof of a structure.

DESCRIPTION OF REQUEST: (attach additional information if needed)

This Building Permit was received by [signature]
MAY 31 2016
City of St. Francis
23340 Cree Street NW
St. Francis, MN 55070

Project Name: Lausenq 15.84 KW DC Ground Mount Solar Array

Nature of Proposed Use: Production of Electricity

Reason(s) to Approve Request: City Code does not address solar or their installation.

PREVIOUS APPLICATIONS PERTAINING TO THE SUBJECT SITE:
(attach additional information if needed)

Project Name: Lausenq 15.84 KW DC Solar Array | Date of Application: 5/31/16

Nature of Request: Building Permit

PROPERTY INFORMATION:

Street Address: 2660 239th Ave. NW | Property Identification Number (PIN#): 28-34-24-43-0005

Legal Description (Attach if necessary): | Lot(s): 4 | Block: 2 | Subdivision: Highland Meadows

OWNER INFORMATION:

Name: Cathy Lausenq | Business Name:

Address: 2660 239th Ave. NW

City: St. Francis, MN 55070 | State: MN | Zip Code: 55070

Telephone: 660-624-1584 | Fax: | E-mail: Catlausenq@gmail.com

Contact: Cathy Lausenq | Title: Owner

APPLICANT INFORMATION: (if different from owner)

Name: Donna Pickard | Business Name: TruNorth Solar, LLC

Address: 5239 Edina Industrial Blvd.

City: Edina | State: MN | Zip Code: 55439

Telephone: 952-500-0789 | Fax: | E-mail: dpickard@trunorthsolar.com

Contact: Donna Pickard | Title: Permissions Manager

NOTE: Applications must be signed by all property owners. Applications only accepted with ALL required support documents and fees. Please request and follow appropriate Development Checklist(s) for desired application.

Kate,

After some calculations, we have determined that there is one large accessory building on the property that covers 5390 sq. ft. of space.

The solar array we propose takes up 888 sq. ft. of footprint space (two separate arrays located within 15 ft of each other.)

Under your ordinances, that would mean we are not allowed to put in a personal use solar array for our customer at 2660 239th Ave NW St Francis, MN 55070. (Dan and Catherine Lauseng)

I would like to point out a few things that I hope will change your mind about the solar array being labeled as an accessory structure.

- The total array height will be under 9 ft. tall
- The ground under the array will remain natural. Grass will grow there and the surface will remain entirely porous.
- There is a bank of trees to the north of the array that blocks the entire system from the street.
- Systems this size are being accepted for install by jurisdictions around the entire state of Minnesota. I will attach a few photos of systems we have installed for your reference.

While it is possible to put solar arrays on roof surfaces (TruNorth has done hundreds of roof-top solar arrays), this particular accessory building has its sloped roof surfaces facing east/west, which is not conducive to the best solar resource.
Please consider letting us install this ground-mount array for Catherine and Dan. They are very excited about the project and we have been given permission from Connexus (electric utility) to proceed.

Thank you,

Donna Pickard

Solar Permissions Manager

TruNorth Solar LLC

Mobile: 952-500-0789

City of St. Francis

23340 Cree Street
St. Francis, MN 55070
Phone: 763-235-2317 or 763-753-2630
Email: aschreder@stfrancismn.org

This Building Permit was received by: [illegible]

MAY 11 2016

City of St. Francis
23340 Cree Street NW
St. Francis, MN 55070

Permit Application

Building _____ HVAC _____

Plumbing _____ Septic _____

Permit No.: _____

Site Address: 2660 239th Ave NW, St. Francis, MN

Property Identification Number: 28-34-24-43-0005 Year Built: _____

Owner Name: Catherine Lauseng

Address: 2660 239th Ave. NW

City/State: St. Francis, MN

Homeowner email: dlauseng@gmail.com

Contractor email: dpickard@trunorthsolar.com

Contractor: TruNorth Solar

Address: 5239 Edina Industrial Ave

City/State: Edina, MN 55439

State License No.: BC639643

Lead Certified Firm No.: NAT-106925-1

Contact: Donna Pickard Phone: 952-500-0789 Fax: _____

Description of Work:
48 panel, ground-mounted solar array. See diagrams and engineering documents for details.

Valuation (labor & materials): 8205.12 Repetitive Plan Id No. (SS1300.0160): _____

The undersigned acknowledges that he/she has read this application and the above information is correct and accurate. Applicant also understands by signing this application that he/she could be held responsible as representative of this project for any violation of compliance with all applicable laws and ordinances of the City of St. Francis.

Donna Pickard
Print Name

Donna Pickard
Signature of Applicant or Authorized Agent

☐ Owner ☑ Contractor

5/11/16
Date

Notice: This is an ***application*** only. Permit will be issued after City approval and payment of fees.
Work is not authorized to begin prior to issuance.

********** FOR OFFICE USE ONLY **********

Signatures Required:	Signature/Date
☐ Engineering:	_____
☐ Planning:	_____
☐ Building:	_____
Type of Construction:	_____
Occupancy Classification:	_____

*Please provide a minimum 24 hour notice for inspections

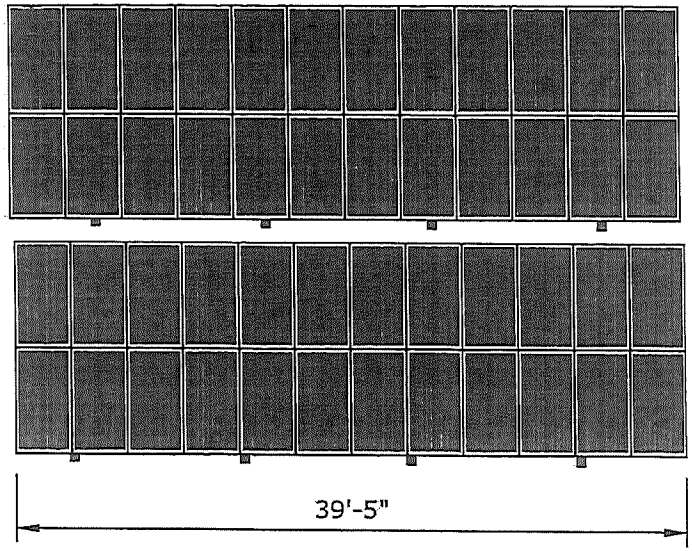
Fee Schedule:

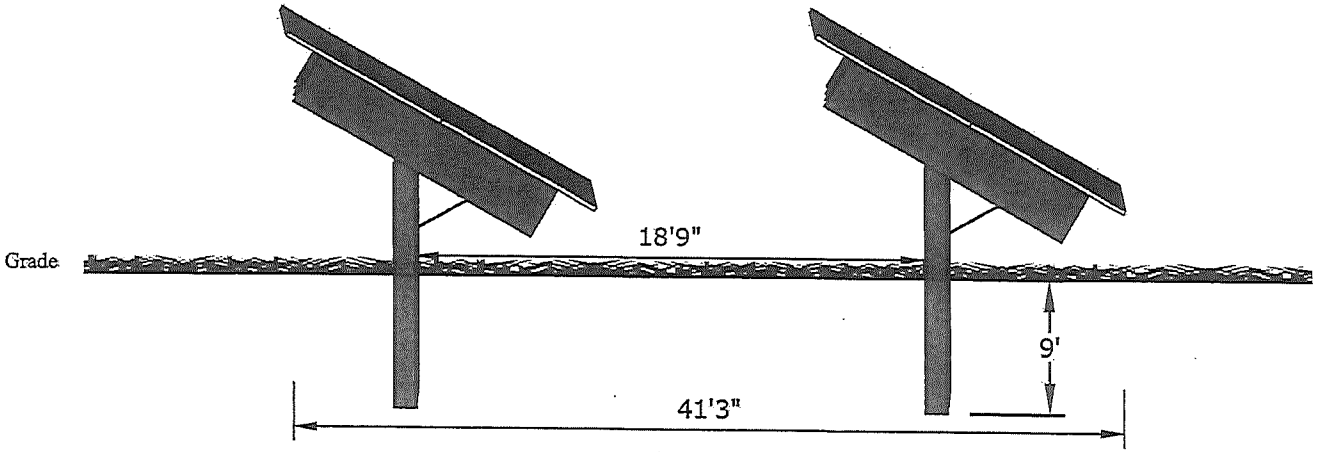
Permit: _____	Water: _____
Plan Review: _____	Sewer: _____
Surcharge: _____	Meter: _____
Zoning: _____	HVAC: _____
Plumbing: _____	Misc.: _____

Total Fees: _____

TruNorth Solar 5239 Edina Industrial Blvd Edina, MN 55439 (612) 888-9599	Lausenig Project 2660 239th Ave NW St Francis, MN 55070 System Size: 15.84 kW DC Building Service: 120/240AC, 200 Amp, Single-Phase Account: 793593-237484 Meter: 88854638	Legend: Solar Panels Underground Conduit	Doc Title: Septic and Well Location Author: Dillon Hylton Date: 5/11/2016

Top View





Side View

TruNorth Solar
5239 Edina Industrial Blvd
Edina, MN 55439
(612) 888-9599

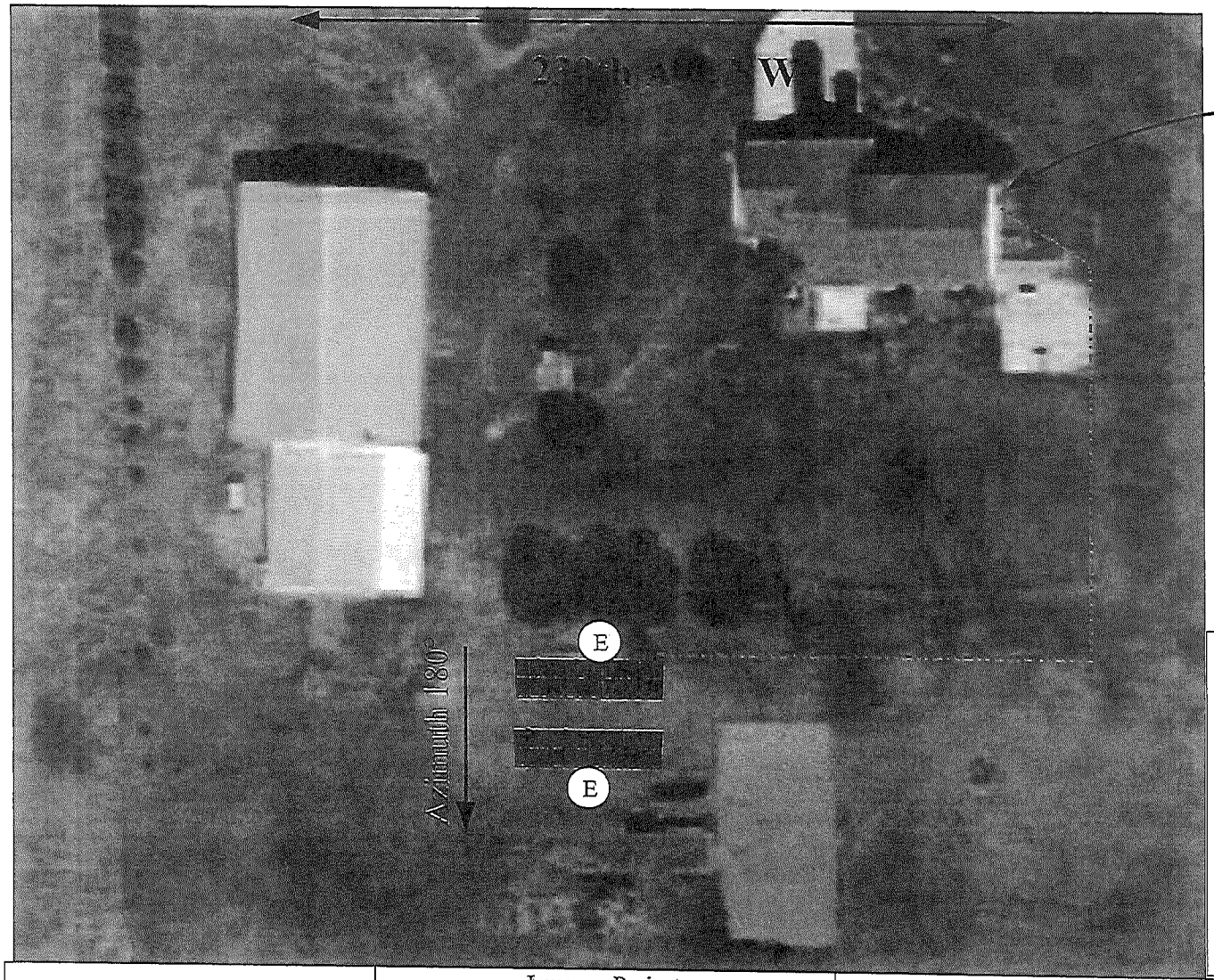
Lauseng Project
2660 239th Ave NW
St Francis, MN 55070

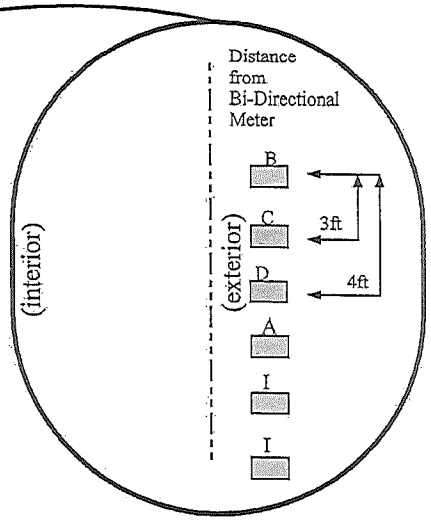
System Size: 15.84 kW DC
Building Service: 120/240AC, 200 Amp, Single-Phase
Account: 793593-237484
Meter: 88854638

Equipment

Inverter/ DC Power Optimizers:
48 - SolarEdge P400 DC Power Optimizers
2 - SolarEdge SE7600A-US Single Phase Inverter
Panels:
48 - Suniva OPT330-72-4-100 PV Modules

DOC TITLE: PERPECTIVE VIEW
AUTHOR: DILLON HYLTON
DATE: 5/11/2016
REVISION: 00





LEGEND:

N

A - PV AC Combiner
B - Bi-directional Meter
C - Production Meter
D - AC Disconnect
E - DC Power Optimizer (one behind each module)
I - Inverter

---—---- Underground Power Lines

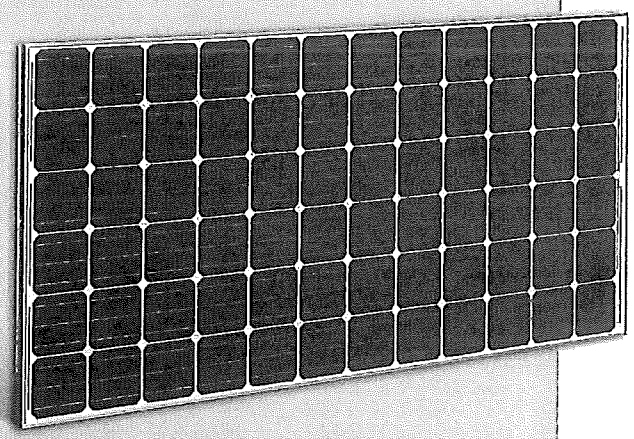
TruNorth Solar
5239 Edina Industrial Blvd
Edina, MN 55439
(612) 888-9599

Lauseng Project
2660 239th Ave NW
St Francis, MN 55070

System Size: 15.84 kW DC
Building Service: 120/240AC, 200 Amp, Single-Phase
Account: 793593-237484
Meter: 88854638

Equipment
Inverter/ DC Power Optimizers:
48 - SolarEdge P400 DC Power Optimizers
2 - SolarEdge SE7600A-US Single Phase Inverter
Panels:
48 - Suniva OPT330-72-4-100 PV Modules

DOC TITLE: SITE DIAGRAM
AUTHOR: DILLON HYLTON
DATE: 5/2/2016
REVISION: 01



Suniva®
The Brilliance of Solar Made Sensible

SUNIVA OPTIMUS® SERIES MONOCRYSTALLINE SOLAR MODULES

OPT SERIES: OPT 72 CELL MODULES (SILVER FRAME)

Optimus® modules are known for their superior quality and long-term reliability. These high-powered modules consist of Suniva's premium ARTisun® Select cell technology and are designed and manufactured in the U.S.A. and North America using our pioneering ion implantation technology. Suniva's high power-density Optimus modules provide excellent performance and value.

ENGINEERING EXCELLENCE

- Built exclusively with **Suniva's premium ARTisun Select cells**, providing one of the highest power outputs per square meter at an affordable price
- **The leading US-born, US-operated crystalline silicon cell and module manufacturer**, spun out of Georgia Tech's University Center of Excellence in Photovoltaics; one of only two such research centers in the U.S.
- Suniva's state-of-the art manufacturing and module lab facilities feature the most advanced equipment and technology

QUALITY & RELIABILITY

- Suniva Optimus modules are manufactured and warranted to our specifications assuring consistent high performance and high quality.
- Rigorous in-house quality management tests beyond standard UL and IEC standards
- Performance longevity with advanced polymer backsheet
- UL1703 listed Type 2 PV module
- Passed the most stringent salt spray tests based on IEC 61701
- Passed enhanced stress tests[1] based on IEC 61215 conducted at Fraunhofer ISE[2]
- PAN files are independently validated

FEATURES

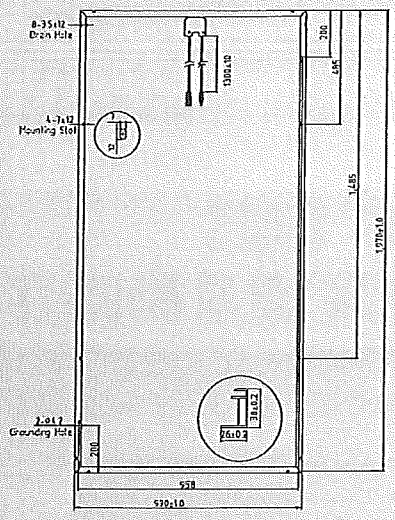
- Utilizes our premier American-made cell technology, ARTisun Select®
- Superior performance and reliability; enhanced stress tests conducted at Fraunhofer ISE
- Module families ranging from 325-340W
- Positive only power tolerance
- Marine grade aluminum frame with hard anodized coating
- Certified PID-free by PV Evolution Labs (PVEL)
- Made in North America
- Qualifies for Ex-Im Financing
- 1000V UL
- 25 year linear power warranty; 10 year product warranty

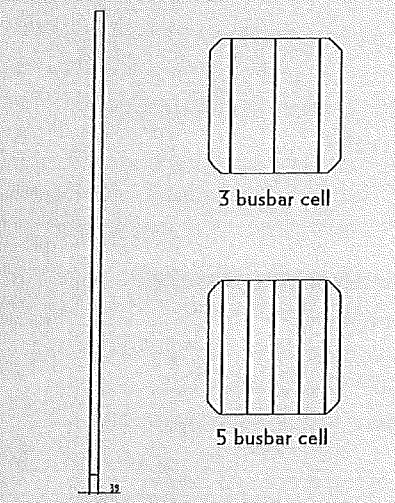
CERTIFICATIONS

MANUFACTURED IN
Georgia & Michigan

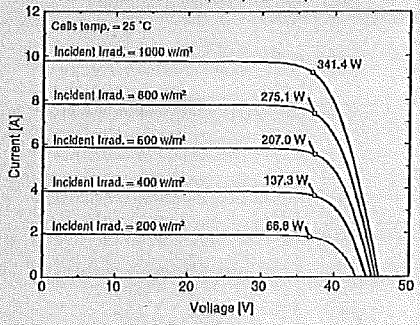
www.suniva.com

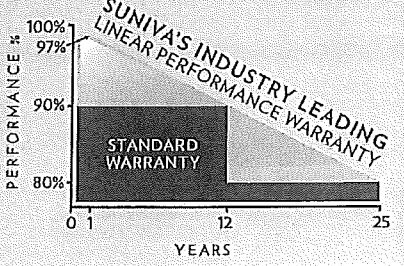
OPTIMUS SERIES: OPT 72 CELL MODULES





PV module: Suniva, OPT340-72-4-100





PLEASE RECYCLE

AUGUST 19, 2015 (REV. 6) [SAMD_0051]

ELECTRICAL DATA (NOMINAL)

The rated power may only vary by -0/+10W and all other electrical parameters by ± 5%

Module Type	OPT325-72-4-100	OPT330-72-4-100	OPT335-72-4-100	OPT340-72-4-100
Power Classification (Pmax)	325 W	330 W	335 W	340 W
Module Efficiency (%)	16.66%	16.92%	17.18%	17.43%
Voltage at Max. Power Point (Vmp)	37.5 V	37.6 V	37.7 V	37.8 V
Current at Max. Power Point (Imp)	8.67 A	8.78 A	8.89 A	8.99 A
Open Circuit Voltage (Voc)	45.8 V	45.9 V	45.9 V	46.0 V
Short Circuit Current (Isc)	9.42 A	9.54 A	9.66 A	9.78 A

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m² with AM 1.5 spectra at 25°C.

CHARACTERISTIC DATA

Type of Solar Cell	High-efficiency ARTisun Select cells, 3 and 5 busbar options available
Frame	Silver anodized aluminum alloy
Glass	Tempered (low-iron), anti-reflective coating
Junction Box	NEMA IP67 rated; 6 internal diodes
Cable & Connectors	12 AWG (4 mm²) PV Wire with multiple connector options available; cable length 1300 mm

MECHANICALS

Cells / Module	72 (6 x 12)
Module Dimensions	1970 x 990 mm (77.6 x 39 in.)
Module Thickness (Depth)	38 mm (1.5 in.)
Approximate Weight	23 kg (50.7 lbs.)

TEMPERATURE COEFFICIENTS

Voltage	ß, Voc (%/°C)	-0.335
Current	α, Isc (%/°C)	+0.047
Power	γ, Pmax (%/°C)	-0.420
NOCT Avg	(+/- 2 °C)	46.0

LIMITS

Max. System Voltage	1000 VDC for IEC, 1000 VDC for UL
Max Series Fuse Rating	15 Amps
Operating Module Temperature	-40°C to +85°C (-40°F to +185°F)
Storm Resistance/Static Load	Tested to IEC 61215 for loads of 2400 Pa (50 psf); hail and wind resistant

Suniva® reserves the right to change the data at any time. View manual at suniva.com.
[1]UV 90 kWh, TC 400, DH 2000. [2]Tests were conducted on module type OPT 60 silver frame.

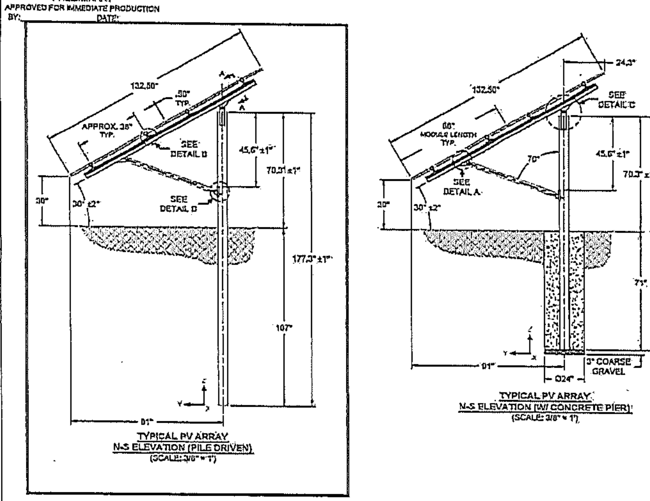
Please read installation manual before installing or working with module.

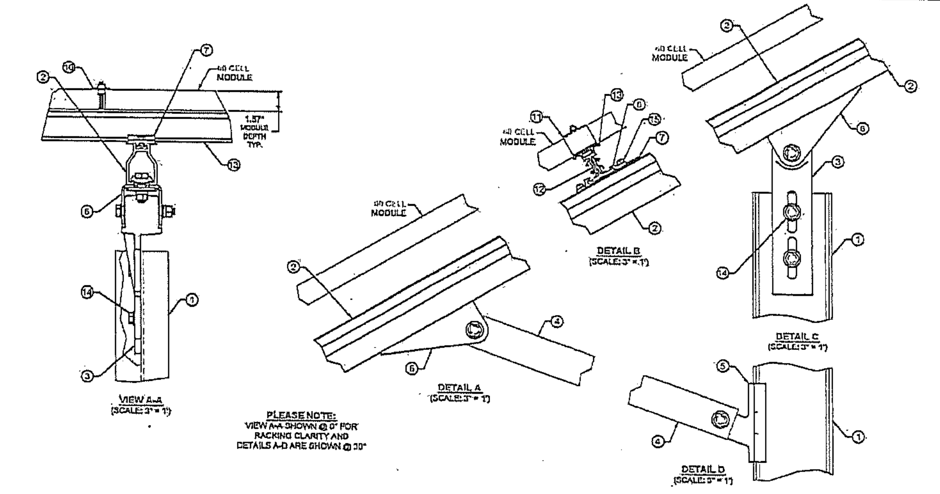
Product	Modules per pallet:	Modules per full 53 ft. truck load, double stacked
OPT - 72 cell	22	660

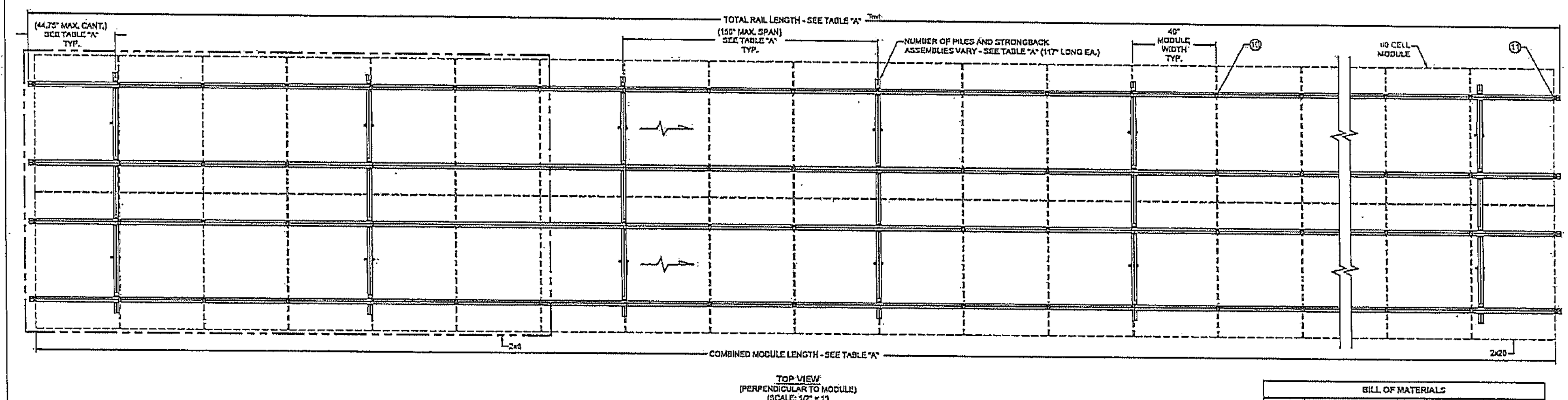
HEADQUARTERS
5765 Peachtree Industrial Blvd.,
Norcross, Georgia 30092 USA
Tel: +1 404 477 2700
www.suniva.com

Suniva®
The Brilliance of Solar Made Sensible®

PRELIMINARY
APPROVED FOR IMMEDIATE PRODUCTION
BY: DATE:







TOP VIEW
(PERPENDICULAR TO MODULE)
(SCALE: 1/2" = 1')

TABLE A - RAIL LENGTHS, MAXIMUM SPAN AND CANTILEVER					DRIVEN PILE			Ø24" CONCRETE PIER		
TABLE	COMBINED MODULE LENGTH	TOTAL RAIL LENGTH	QTY. OF 168" RAIL	QTY. OF 246" RAIL	SPAN	CANTILEVER	QTY. OF PILES	SPAN	CANTILEVER	QTY. OF PILES
2x6	242.5"	240"	-	4	108"	15"	3	108"	15"	3
2x7	283"	289"	8	-	114"	30.5"	3	120"	24.5"	3
2x8	323.5"	329.5"	8	-	120"	44.75"	3	126"	38.75"	3
2x9	364"	370"	4	4	108"	23"	4	144"	41"	3
2x10	404.5"	410.5"	4	4	114"	34.25"	4	108"	43.25"	4
2x11	445"	451"	-	8	122"	42.5"	4	128"	38.5"	4
2x12	485.5"	491.5"	-	8	108"	29.75"	5	144"	20.75"	4
2x13	526"	532"	8	4	114"	38"	5	150"	41"	4

This table configuration X two.

TABLE A - RAIL LENGTHS, MAXIMUM SPAN AND CANTILEVER					DRIVEN PILE			Ø24" CONCRETE PIER		
TABLE	COMBINED MODULE LENGTH	TOTAL RAIL LENGTH	QTY. OF 168" RAIL	QTY. OF 246" RAIL	SPAN	CANTILEVER	QTY. OF PILES	SPAN	CANTILEVER	QTY. OF PILES
2x14	566.5"	572.5"	8	4	122"	42.25"	5	120"	34.25"	5
2x15	607"	613"	4	8	108"	36.5"	6	132"	42.5"	5
2x16	647.5"	653.5"	4	8	114"	41.75"	6	144"	38.75"	5
2x17	688"	694"	0	12	122"	43"	6	152"	43"	5
2x18	728.5"	734.5"	12	4	114"	25.25"	7	132"	37.25"	6
2x19	769"	775"	8	8	120"	27.5"	7	144"	27.5"	8
2x20	809.5"	815.5"	8	8	122"	41.75"	7	150"	32.75"	6

BILL OF MATERIALS			
SYM	DESCRIPTION	MATERIAL	FINISH
1	I-BEAM	50ksi STEEL	HDG
2	STRONGBACK	ALUMINUM	N/A
3	STRONGBACK ATTACHMENT	A36 STEEL	HDG
4	STRUT	ALUMINUM	N/A
5	STRUT ARM ATTACHMENT	A36 STEEL	HDG
6	SLIDE ATTACHMENT	ALUMINUM	N/A
7	RAIL BRACKET	ALUMINUM	N/A
8	RAIL CLAMP	ALUMINUM	N/A
10	MODULE MID-CLAMP ASSY.	STAINLESS	N/A
11	MODULE END-CLAMP ASSY.	STAINLESS	N/A
12	SPLICE PLATE	ALUMINUM	N/A
13	UD RAIL	ALUMINUM	N/A
14	1/2" - 13x1-1/2"	GRD 5	HDG
15	5/16" HARDWARE	GRD 5	HDG

PE STAMP

GENERAL INFORMATION AND SYSTEM DETAILS

GENERAL INFORMATION:
SITE ADDRESS:
N/A
AZIMUTH: TRUE SOUTH ASSUMED
SYSTEM TYPE:
PPM-60 CELL-G-KIT
(POWER PEAK MOUNT)
TOTAL SYSTEM SIZE: VARIES
TOTAL # OF MODULES: VARIES
MODULE TILT: 30°
N-S SPACING: N/A
E-W GAP BETWEEN MOD.: .5"
E-W GAP BETWEEN ARRAYS:
MIN. 11"

BUILDING CODES:
STRUCTURAL: 2005 ASCE 7-05
EMBEDMENT: PER IBC 2012 1808.2
SOIL CLASS: 3

LOADS:
DESIGN WIND SPEED:
90 MPH (ASCE 7-05)
3 SEC GUST EFFECT: 0.85
OCCUPANCY CATEGORY: I
EXPOSURE: C
MWFRS WIND LOAD (SOUTH WIND):
26.01 PSF
MWFRS WIND LOAD (NORTH WIND):
-27.70 PSF
DESIGN SNOW LOAD: 50 PSF
MODULE DEAD LOAD: 2.55 PSF

MANUFACTURER'S TOLERANCES:
LATERAL POST PLACEMENT
(X-Z PLANE):
±2.0" FOR TILT ANGLES < 20°
±1.5" FOR TILT ANGLES ≥ 20°
LATERAL POST PLACEMENT
(Y-Z PLANE): ±4.0" WITHIN ARRAY
POST HEIGHT VARIATION
(X-Y PLANE): ±0.5"
POST VERTICALITY TOLERANCE:
< 2.0° ALL DIRECTIONS
POST ROTATIONAL TOLERANCE:
±5.0°
ARRAY TILT ANGULAR TOLERANCE:
±2.0°

MODULE INFORMATION

MODULE: GENERIC
MODULE MODEL: 60 CELL
MODULE SIZE: 65"x40"x1.57"
MODULE WEIGHT: 40.7 LBS.
MODULE OUTPUT: VARIES

REVISION TABLE

REV. #	DATE	APPROVAL	DETAILS

DPW | SOLAR

POWER-FAB
4000 B VASSAR DRIVE NE
ALBUQUERQUE, NM 87107

WERNER ELECTRIC

STOCK 60 CELL KITS
50 PSF SNOW

PPM-60 CELL-G-50PSF-KIT

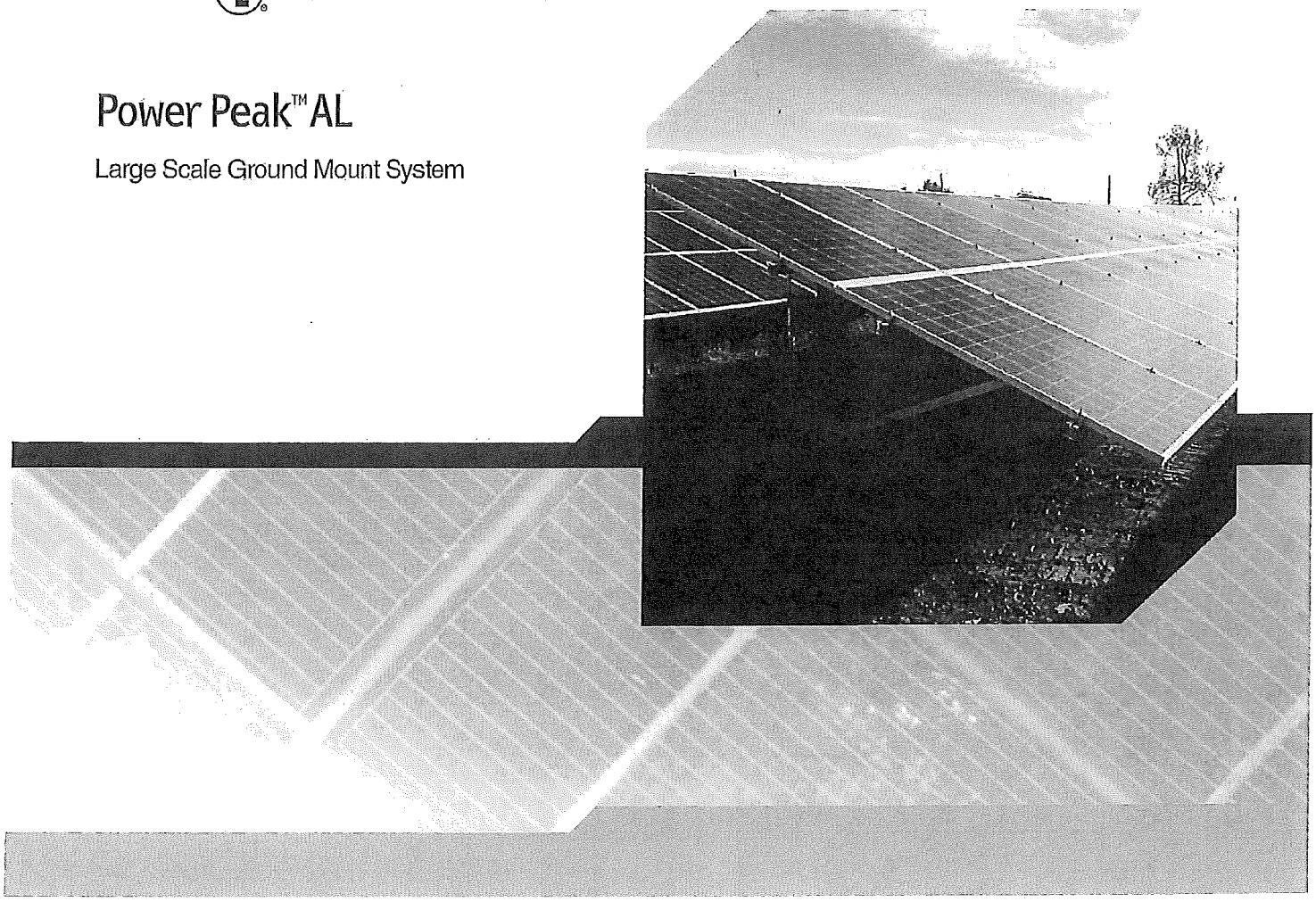
REV. _	3-25-15	ACRO
D-SIZE		DK
VARIES	1	1

DPW | SOLAR

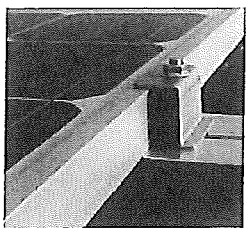
PREFORMED LINE PRODUCTS

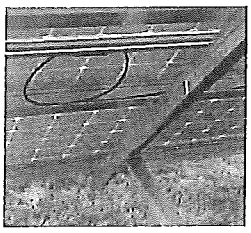
Power Peak™ AL

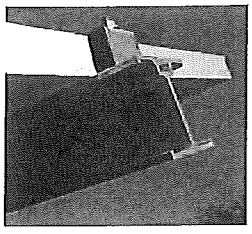
Large Scale Ground Mount System



COMMUNICATIONS ENERGY SPECIAL INDUSTRIES SOLAR







The Power Peak™ AL – PV Solar Mounting System

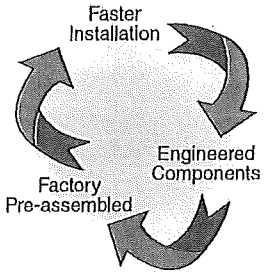
The **Power Peak™ AL** PV mounting system is designed for larger scale ground mount installations that require faster build rates. Combining high strength steel attachment components, lightweight module rails and the Lock-in-Place RAD™ clamp, the Power Peak provides a fast and secure mounting structure for most PV modules.

Power Peak mounting structures are optimized to site-specific conditions and assemble over pile driven galvanized "I" beams. Component attachments feature built-in field adjustments for post misalignment and include captive bolts. The single row, vertical post design greatly reduces the number of ground penetrations while providing increased ground clearance options.

The Power Peak mounting system assembles without any lifting equipment or machinery and pre-assembled components significantly reduce installation time and labor. Structures are specified and manufactured to match module string counts to reduce wiring time and materials. The unique module rails feature built in wire channels for a professional appearance.

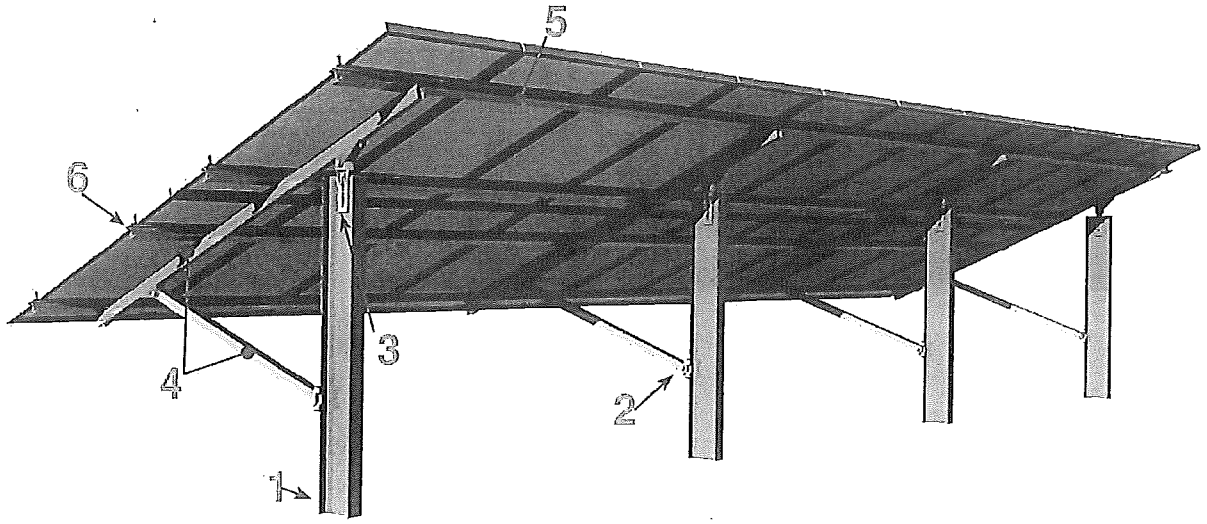
Technical Services Offered

- Permit ready drawings
- Quick turnaround on proposals
- Foundation designs
- Pile driving proposals
- Rack assembly proposals



Key Benefits

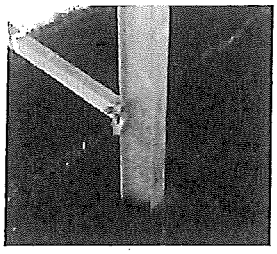
- Site Optimized Designs
  Reduces overall material costs
- Factory Pre-assembled Components
  Eliminates field measurements and handling of small hardware
- String Size Matched Sub-arrays
  Faster repetitive layouts, easier wiring
- Local Pre-drilled I-Beam Vertical Posts
  Eliminates on-site fabrication and reduces freight costs
- Racking Adjustments
  Easier to square the structure when posts twist or misalign
- Lightweight Components
  Eliminates heavy-duty lifting equipment and promotes "assembly-line" installation
- Integral Wire Management
  Reduces labor, meets code and provides a clean and professional appearance
- Module Clamp Assemblies
  Faster installation with a ¼" turn and no loose parts



Performance and Simplicity Connect

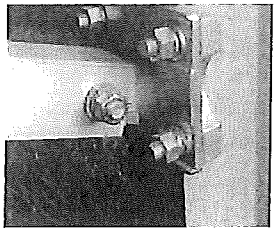
1 Standard I Beams

- Pile Driven with standard equipment
- Sized per site conditions to reduce overall system costs
- Sourced locally to reduce freight costs and delivery times
- Predrilled and galvanized - ***Ready to Install***



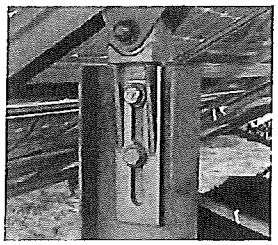
2 Strut Attachment

- Field adjustable
- Captive bolts – ***No loose parts***
- Hot dip galvanized corrosion protection
- Lateral adjustments resolve twisted posts



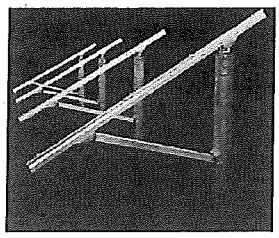
3 Strongback Attachments

- Vertical field adjustments (2.5 inches)
- Hot dip galvanized **corrosion protection**
- Built-in articulation for twisted posts (± 5 degrees)
- High strength steel



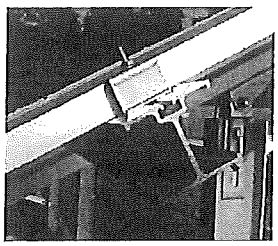
4 Strongback Assembly

- Unfold and hang for easy assembly to posts
- Factory pre-assembled – strong back / strut / rail brackets
- **Field adjustable for easy alignment**
- Lightweight, High Strength Aluminum



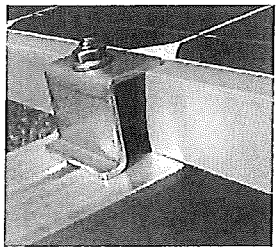
5 Module Rails

- Lightweight, High Strength Aluminum
- **Built-in Wire channels**
- Lift into place
- Long lengths minimize splices



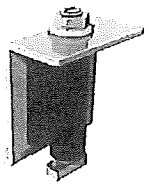
6 Module Clamps

- Pre-install clamps in rail then slide module in place.
- Heavy-duty stainless steel
- Factory pre-assembled – Lock-in-Place ***RAD™ clamp***
- Built-in electrical grounding option
- Secure module clamping

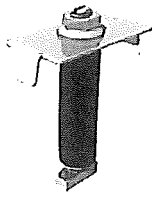


Pre-Assembled Components of Power Peak™ AL

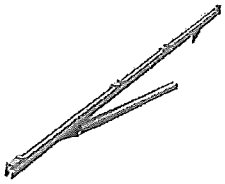
Each Power Peak system ships with factory pre-assembled components, resulting in reduced installation time and costs. Preset components not only avoid loose parts on site but also eliminate measuring and simplify the installation.



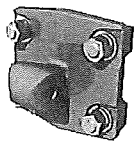
End Clamp Assembly



Mid Clamp Assembly



Strongback Assembly



Strut Attachment Assembly

The Power Peak AL is the newest member of DPW Solar's field-proven ground mount solutions including:

Multi-Pole Mounts (MPM-G2)

Large Ground Mounts (LGM)

DPW Solar's engineering staff is available to assist with your next project. Please visit www.DPWSolar.com and complete an RFQ Form or contact our product support team at (800) 260-3792.

DPW SOLAR

PREFORMED LINE PRODUCTS

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Albuquerque, New Mexico 87107
USA

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Fax: 505.881.0933
Web Site: www.DPWSolar.com
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1711 Bishop St. E
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Web site: www.preformed.on.ca
Email: sales@preformed.on.ca

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Section 4.

Chapter 5, Section 3(D)(29) is hereby amended to read as follows:

(29) Solar Energy Systems

(a) Solar Energy Systems

(i) All solar energy systems shall be operable and maintained in good repair.

(ii) Solar energy systems shall meet all required setbacks and height requirements of the underlying zoning district.

(iii) Solar energy systems shall be an integral part of the structure to which they are attached.

(iv) As a means of evidencing existing solar access conditions prior to installation, the owner of a solar energy system may file notarized photographs of the subject area with the Community Development Department prior to installation of said system.

(v) Solar energy systems shall be allowed on roofs of principal and accessory buildings, provided other requirements of this section are met.

(vi) Solar energy systems shall be designed to minimize glare with adequate screening and/or coatings, as appropriate.

(vii) Solar energy systems shall be located in such a way as to be screened from visibility of the public right of way, or shall be integrated into the architecture of the structure so as to be visually inconspicuous.

(viii) Ground-mounted solar energy systems shall be located only in the rear yard of residential property, and shall not occupy an area more than 20% of the size of the perimeter foundation of the principal building.

(b) Solar Energy Systems in Business (B) and Industrial (I) districts and the CCD District.

(i) Solar Energy Systems in the B, I, and CCD Districts shall comply with the provisions of Section 5.3(D)(29)(a) (i) through (vi).

(ii) Roof-mounted Solar Energy Systems in these districts shall be allowed as permitted accessory uses on principal and accessory buildings, provided such systems do not extend more than six (6) feet above the height of the roof where they are mounted.

(iii) Ground mounted Solar Energy Systems in these districts shall be allowed by Conditional Use Permit, and together with accessory buildings, shall not exceed an area of any parcel greater than that allowed for accessory buildings in the applicable zone.

(iv) Ground mounted Solar Energy Systems in these districts shall be allowed only when the property owner can show that roof-mounted systems are not feasible due to building structural issues.

Section 5.

Chapter 8, Section 4 (Definitions) is hereby amended to include the following terms as defined, or redefined:

CITY OF ORONO
HENNEPIN COUNTY, MINNESOTA

AN ORDINANCE NO. 119, THIRD SERIES
AMENDING ORONO MUNICIPAL CODE
CHAPTER 78, THE ORONO ZONING CODE,
BY ADDING SECTION 78-1379
ALTERNATIVE ENERGY SYSTEMS

THE CITY COUNCIL OF THE CITY OF ORONO, MINNESOTA ORDAINS:

SECTION 1. Orono City Code Chapter 78 - Zoning Regulations, Article X - Supplementary Requirements and Restrictions, Division 1 - Generally is hereby amended by adding Section 78-1379 Alternative Energy Systems, to read as follows:

"Sec. 78-1379. - Alternative Energy Systems

(1) ***Scope.*** Section 78-1379 applies to alternative energy systems in all zoning districts.

(2) ***Purpose and intent.*** The purpose and intent of this section is to establish standards and procedures by which the installation and operation of alternative energy systems shall be regulated within the city. The city finds that it is in the public interest to encourage alternative energy systems that have a positive impact on energy production and conservation while not having an adverse impact on the community.

(3) ***Definitions.*** For the purpose of Section 78-1379, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

(a) General Definitions

ACCESSORY. A system designed as a secondary use to existing buildings or facilities, wherein the power generated is used primarily for on-site consumption.

ALTERNATIVE ENERGY SYSTEM. A ground source heat pump, wind energy conversion system, hydronic furnace or solar energy system.

(b) Ground Source Heat Pump System Definitions

CLOSED LOOP GROUND SOURCE HEAT PUMP SYSTEM. A system that circulated a heat transfer fluid, typically food-grade antifreeze, through pipes or coils buried beneath the land surface or anchored to the bottom of a body of water.

GROUND SOURCE HEAT PUMP SYSTEM. A system that uses the relatively constant temperature of the earth or a body of water to provide heating in the winter and

cooling in the summer. System components include open or closed loops of pipe, coils or plates; fluid that absorbs and transfers heat; and a heat pump unit that processes heat for use or disperses heat for cooling; and an air distribution system. Also sometimes referred to as a *Geothermal System.*

HEAT TRANSFER FLUID. A non-toxic and food grade fluid such as potable water, aqueous solutions of propylene glycol not to exceed 20% by weight or aqueous solutions of potassium acetate not to exceed 20% by weight.

HORIZONTAL GROUND SOURCE HEAT PUMP SYSTEM. A closed loop ground source heat pump system where the loops or coils are installed horizontally in a trench or series of trenches no more than 20 feet below the land surface.

OPEN LOOP GROUND SOURCE HEAT PUMP SYSTEM. A system that uses groundwater as a heat transfer fluid by drawing groundwater from a well to a heat pump and then discharging the water over land, directly in a water body or into an injection well.

VERTICAL GROUND SOURCE HEAT PUMP SYSTEM. A closed loop ground source heat pump system where the loops or coils are installed vertically in one or more borings below the land surface.

(c) Solar Energy Systems Definitions

BUILDING-INTEGRATED SOLAR ENERGY SYSTEM. A solar energy system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or substituting for an architectural or structural component of the building including, but not limited to, photovoltaic or hot water solar systems contained within roofing materials, windows, skylights and awnings.

FLUSH-MOUNTED SOLAR ENERGY SYSTEM. A roof-mounted system mounted directly abutting the roof. The pitch of the solar collector may exceed the pitch of the roof up to 5% but shall not be higher than ten inches above the roof.

PASSIVE SOLAR ENERGY SYSTEM. A system that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

PHOTOVOLTAIC SYSTEM. A solar energy system that converts solar energy directly into electricity.

SOLAR ENERGY SYSTEM. A device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation or water heating.

(d) Wind Energy Conversion Systems Definitions

HORIZONTAL AXIS WIND TURBINE. A wind turbine design in which the rotor shaft is parallel to the ground and the blades are perpendicular to the ground.

HUB. The center of a wind generator rotor, which holds the blades in place and attaches to the shaft.

HUB HEIGHT. The distance measured from natural grade to the center of the turbine hub.

MONOPOLE TOWER. A tower constructed of tapered tubes that fit together symmetrically and are stacked one section on top of another and bolted to a concrete foundation without support cables.

RESIDENTIAL WIND TURBINE. A wind turbine of 10 kilowatt (kW) nameplate generating capacity or less.

SMALL WIND TURBINE. A wind turbine of 100 kW nameplate generating capacity or less.

TOTAL HEIGHT. The highest point above natural grade reached by a rotor tip or any other part of a wind turbine.

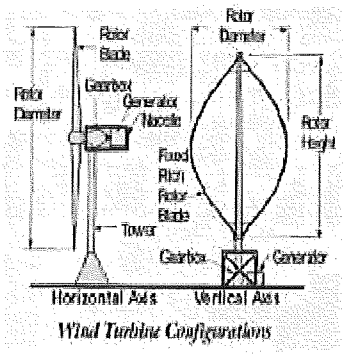
TOWER. A vertical structure that supports a wind turbine.

UTILITY WIND TURBINE. A wind turbine of more than 100 kW nameplate generating capacity.

VERTICAL AXIS WIND TURBINE. A type of wind turbine where the main rotor shaft runs vertically.

WIND ENERGY CONVERSION SYSTEM (WECS). An electrical generating facility that consists of a wind turbine, feeder line(s), associated controls and may include a tower.

WIND TURBINE. Any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy through the use of airfoils or similar devices to capture the wind.



Wind Turbine Configurations

(e) Hydronic Furnace Definitions

HYDRONIC FURNACE. An outdoor wood boiler that provides heating or hot water using a firebox surrounded by a water jacket enclosed within an insulated shed. A fire is started inside the firebox, and the water temperature is controlled by a thermostatically actuated damper.

(4) ***Ground Source Heat Pump Systems***

(a) *Zoning districts.* Ground source heat pump systems in accordance with the standards in this section are allowed as a permitted accessory use in all zoning districts.

(b) *Standards.*

1. *System requirements.*

a. Only closed loop ground source heat pump systems utilizing heat transfer fluids as defined in section 78-1379(3) are permitted. Open loop ground source heat pump systems are not permitted.

b. Ground source heat pump systems in water bodies owned or managed by the City of Orono are not permitted.

c. Ground source heat pump systems in private ponds constructed within uplands and that are not protected wetlands are permitted.

2. *Setbacks.*

a. All components of ground source heat pump systems including pumps, borings and loops shall be set back at least five feet from interior side and rear lot lines, at least ten feet from front lot lines, and maintain all State-mandated isolation distances.

b. Above-ground equipment associated with ground source heat pumps shall not be installed in the front yard of any lot or the side yard of a corner lot adjacent to a public right-of-way and shall meet all required accessory structure setbacks for the applicable zoning district.

3. *Construction.*

   a. All access shall be over the owner's land and due care shall be taken to avoid hazard, inconvenience or damage to public streets and nearby public or private property.

   b. Necessary precautions shall be taken in stockpiling excavated materials to avoid erosion, dust or other infringements upon adjacent property.

   c. All wiring, installation of pipes, grading and all other installations and construction shall be subject to inspection.

   d. Disturbed land shall be restored to its prior condition after completion of construction.

4. *Easements.* Ground source heat pump systems shall not encroach on public drainage, utility, roadway or trail easements.

5. *Noise.* Ground source heat pump systems shall comply with Minnesota Pollution Control Agency standards outlined in Minnesota Rules Chapter 7030 as amended.

6. *Screening.* Ground source heat pumps are considered mechanical equipment and are subject to the screening requirements of the applicable zoning district.

(c) *Safety.* Ground source heat pumps shall be certified by Underwriters Laboratories, Inc. and meet the requirements of the State Building Code.

(d) *Abandonment.* If the ground source heat pump system remains nonfunctional or inoperative for a continuous period of one year, the system shall be deemed to be abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense after a demolition permit has been obtained in accordance with the following:

1. The heat pump and any external mechanical equipment shall be removed.

2. Pipes or coils below the land surface shall be filled with grout to displace the heat transfer fluid. The heat transfer fluid shall be captured and disposed of in accordance with applicable regulations. The top of the pipe, coil or boring shall be uncovered and grouted.

3. Private pond ground source heat pump systems shall be completely removed from the bottom of the body of water.

(e) *Permits.* A City building permit and any other required agency permits shall be obtained for any ground source heat pump system prior to installation. Borings for vertical systems are subject to approval from the Minnesota Department of Public Health.

(5) ***Solar Energy Systems***.

(a) *Zoning districts.* Solar energy systems in accordance with the standards in this section are allowed as a permitted accessory use in all zoning districts.

(b) *Standards.*

1. *Exemption.* Passive or building-integrated solar energy systems are exempt from the requirements of this section and shall be regulated as any other building element.
2. *Roof-mounted systems allowed.* The only solar energy systems allowed in the city are those that are roof-mounted,
3. *Height.* Roof-mounted solar energy systems shall comply with the maximum height requirements in the applicable zoning district.
4. *Setbacks.* Roof-mounted solar energy systems shall comply with all building setbacks in the applicable zoning district and shall not extend beyond the exterior perimeter of the building on which the system is mounted.
5. *Roof Mounting.* Roof-mounted solar collectors shall be mounted parallel to the surface of the roof and within 3 feet of the roof surface, unless manufacturer's documentation is provided indicating that collectors must be angled to provide optimum performance. No portion of the collectors or their mounting system shall extend above the peak or ridge height of a pitched roof. On a flat roof, collectors and their mounting systems shall not extend more than 5 feet above the roof surface.
6. *Easements.* Solar energy systems shall not encroach on public drainage, utility, roadway or trail easements.
7. *Screening.* Solar energy systems shall be screened from view to the extent possible without impacting their function.
8. *Maximum area.* In all residential zoning districts, the collector and mounting system of a roof-mounted solar energy system shall cover no more than 70 percent of the roof to which it is affixed.
9. *Aesthetics.* All solar panels shall be designed, installed, positioned and constructed of materials so as not to cause any glare or reflective sunlight onto neighboring properties or structures, nor toward vehicular traffic on land or on a lake, and so as to not obstruct views. Reflection angles from collector surfaces shall be oriented away from neighboring windows. Where necessary, screening may be required to address glare.
10. *Feeder lines.* The electrical collection system shall be placed underground within the interior of each parcel. The collection system may be placed overhead near substations or points of interconnection to the electric grid.

(c) *Safety.*

1. *Standards and certification.*

   a. *Certification.* Solar energy systems shall be certified by Underwriters Laboratories, Inc. and the National Renewable Energy Laboratory, the Solar Rating and Certification Corporation or other body as determined by the Building Official. The city reserves the right to deny a building permit for proposed solar energy systems deemed to have inadequate certification.

b. The equipment or device must be designed and constructed in compliance with all applicable building and electrical codes, and (if for co-generation) must be in compliance with all state and federal regulations regarding co-generation of energy.

2. *Utility connection.* All grid connected systems shall have an agreement with the local utility prior to the issuance of a building permit. A visible external disconnect must be provided if required by the utility.

(d) *Abandonment.* If the solar energy system remains nonfunctional or inoperative for a continuous period of one year, the system shall be deemed to be abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense after a demolition permit has been obtained. Removal includes the entire structure including transmission equipment.

(e) *Permits.* A building permit shall be obtained for any solar energy system prior to installation.

(6) ***Wind Energy Conversion Systems***. Wind Energy Conversion Systems are not an allowed use or structure within any zoning districts in the city.

(7) ***Hydronic Furnaces***. Hydronic furnaces are not an allowed use or structure within any zoning districts in the city.

SECTION 2. Effective date. This Ordinance shall be effective upon adoption and publication according to law.

ADOPTED this 9th day of December, 2013 by the Orono City Council.
with a vote of 5 ayes and 0 nayes.

CITY OF ORONO

Lili Tod McMillan, Mayor

ATTEST:

Rachel Dodge, City Clerk

CITY OF BLACKDUCK

ORDINANCE # 2016-01

AN ORDINANCE AMENDING CHAPTER 15, SECTION 8 OF THE CITY CODE ENTITLED "LAND USE AND SUBDIVISION SPECIAL PROVISIONS" TO ADD SECTION 8.7 ENTITLED "SOLAR ENERGY SYSTEMS"

THE CITY OF BLACKDUCK DOES ORDAIN AS FOLLOWS:

Blackduck City Code Chapter 15, is amended to add Section 8.7 entitled "Solar Energy Systems" which shall read as follows:

Section 8.7 Solar Energy Systems

Section 1. Purpose and intent

A. It is the purpose of this Ordinance to regulate Solar Energy Sources to promote a sustainable quality of life for the city's residents, making careful and effective use of available natural, human and economic resources and ensuring that resources exist to maintain and enhance the quality of life for future residents. In accordance with that goal, the city finds that it is in the public interest to encourage solar energy systems that have a positive impact on energy production and conservation while not having an adverse impact on the community. Therefore, the purposes of this ordinance include:

i. To promote rather than restrict development of solar energy sources by removing regulatory barriers and creating a clear regulatory path for approving solar energy systems.

ii. To create a livable community where development incorporates sustainable design elements such as resource and energy conservation and use of renewable energy.

iii. To protect and enhance air quality, limit the effects of climate change and decrease use of fossil fuels.

iv. To encourage alternative energy development in locations where the technology is viable and environmental, economic and social impacts can be mitigated.

Section 2. Definitions

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section:

Accessory a system designed as a secondary use to existing buildings or facilities, wherein the power generated is used primarily for on-site consumption.

Building-integrated solar energy system a solar energy system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or substituting for an architectural or structural component of the building including, but not limited to, photovoltaic or hot water solar systems contained within roofing materials, windows, skylights and awnings.

Flush-mounted solar energy systems a roof-mounted system mounted directly abutting the roof. The pitch of the solar collector may exceed the pitch of the roof up to 5% but shall not be higher than 10 inches above the roof.

Roof-mounted solar energy system a solar energy system mounted directly or abutting the roof of a principal or accessory building.

Ground-Mounted Solar energy system a freestanding solar system mounted directly to the ground using a rack or pole rather than being mounted on a building.

Maximum Area for above Ground-Mounted Solar energy systems relates to the solar panels only (not their mounting poles/hardware) and the total area that the panels occupy.

Passive solar energy system a system that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

Photovoltaic system a solar energy system that converts solar energy directly into electricity.

Solar Energy radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

Solar energy system a device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation or water heating.

Solar Resource a view of the sun from a specific point on a lot or building that is not obscured by any vegetation, building, or objects for a minimum of four hours between the hours of 9:00am and 3:00 pm standard time on any day of the year.

Solar Collector a device, structure or a part of a device or structure for which the primary purpose is to transform solar radiant energy into thermal, mechanical, chemical, or electrical energy.

Solar Collector Surface any part of a solar collector that absorbs solar energy for use in the collector's energy transformation process. Collector surface does not include frames, supports and mounting hardware.

Solar Daylighting a device specifically designed to capture and redirect the visible portion of the solar spectrum, while controlling the infrared portion, for use in illumination interior building spaces in lieu of artificial lighting.

Solar Energy radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

Solar Energy Device a system or series of mechanisms designed primarily to provide heating, cooling, electrical power, mechanical power, solar daylighting or to provide any combination of the foregoing by means of collecting and transferring solar generated energy into such uses either by active or passive means. Such systems may also have the capability of storing such energy for future utilization. Passive solar energy systems shall clearly be designed as a solar energy device such as a trombe wall and not merely a part of a normal structure such as a window.

Solar Heat Exchanger a component of a solar energy device that is used to transfer heat from one substance to another, either liquid or gas.

Solar Hot Air System (also referred to as Solar Air Heat or Solar Furnace) an active solar energy system that includes a solar collector to provide direct supplemental space heating by heating and re-circulating conditioned building air. The most efficient performance typically uses a vertically mounted collector on a south-facing wall.

Solar Hot Water System (also referred to as Solar Thermal) a system that includes a solar collector and a heat exchanger that heats or preheats water for building heating systems or other hot water needs, including residential domestic hot water and hot water for commercial processes.

Community Solar Garden a solar-electric (photovoltaic) array that provides retail electric power (or a financial proxy for retail power) to multiple community members or businesses residing or located off-site from the location of the solar energy system, under the provisions of Minn. Statute 216B.1641 or successor statute.

Solar Mounting Devices racking, frames, or other devices that allow the mounting of a solar collector onto a roof surface or the ground.

Solar Storage Unit a component of a solar energy device that is used to store solar generated electricity or heat for later use.

Section 3. Permitted Accessory Use - Active solar energy systems shall be allowed as an accessory use in all zoning classifications where structures of any sort are allowed, subject to certain requirements as set forth below. Active solar energy systems that do not meet the visibility standards in C. below will require a conditional use permit.

A. Height – Active solar energy systems must meet the following height requirements:

1. Building or roof-mounted solar energy systems shall not exceed the maximum allowed height in any zoning district. For purposes for height measurement, solar energy systems other than building-integrated systems shall be given an equivalent exception to height standards as building-mounted mechanical devices or equipment.

2. Ground or pole-mounted solar energy systems shall not exceed 20 feet in height when oriented at maximum tilt.

B. Set-back – Active solar energy systems must meet the accessory structure setback for the zoning district and primary land use associated with the lot on which the system is located.

1. Roof-mounted Solar energy systems – In addition to the building setback, the collector surface and mounting devices for roof-mounted solar energy systems shall not extend beyond the exterior perimeter of the building on which the system in mounted or built, unless the collector and mounting system has been explicitly engineered to safely extend beyond the edge, and setback standards are not violated. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building on a side yard exposure.

2. Ground-mounted Solar energy systems – Ground-mounted solar energy shall be set back a minimum of 10 feet from rear property lines and a minimum of 30 feet from all dwellings located on adjacent lots.

CITY OF BLACKDUCK

ORDINANCE # 2016-01

C. Visibility – Active solar energy systems shall be designed to blend into the architecture of the building or be screened from routine view from public right-of-ways other than alleys. The color or the solar collector shall blend with the color of the roof or other structure. Reflection angles from collector surfaces shall be oriented away from neighboring windows. Where necessary, screening may be required to address glare.

D. Screening – Solar energy systems shall be screened from view to the extent possible without reducing their efficiency. Screening may include walls, fences or landscaping.

E. Location – In residential zoning districts, ground-mounted solar energy systems are limited to the rear yard. In non-residential zoning districts, ground-mounted solar energy systems may be permitted in the front yard of any lot or the side yards on corner lots but shall not encroach less than 30 feet to public rights-of-way.

F. Easements – Solar energy systems shall not encroach on public drainage, utility roadway, or trail easements

G. Exemptions – Both passive and building integrated solar energy systems are exempt from the standards of this ordinance based on the findings that these are site design principals or building components commonly part of other buildings.

H. Minimum Lot Size. In R-1, Residential Zoning District, a minimum lot size of 7000 square feet is required for ground-mounted solar energy systems.

I. Maximum Area. In R-1, Residential Zoning District, ground-mounted solar energy systems shall be limited to a maximum area of 120 square feet.

J. Feeder Lines – The electrical collection system shall be placed underground within the interior of each parcel.

K. Utility Connection – All grid connected systems shall have an agreement with the local utility prior to the issuance of a building permit. A visible external disconnect must be provided if required by the utility.

L. Certification – Solar energy systems shall meet be certified by Underwriters Laboratories, Inc. and the National Renewable Energy Laboratory, the Solar Rating and Certification Corporation or other body as determined by the appropriate authorizing agency. The City reserves the right to deny a building permit for proposed solar energy systems deemed to have inadequate certification.

M. Compliance with Other Codes – Solar energy systems shall meet approval with the Minnesota building, electrical and plumbing codes.

N. Deviations – Any deviation from the required standards of this ordinance would be through a variance.

O. Abandonment – If the Solar energy system remains nonfunctional or inoperative for a continuous period of one year, the system shall be deemed to be abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense. Removal includes the entire structure including transmission equipment.

CITY OF BLACKDUCK

ORDINANCE # 2016-01

P. Permits – A building permit and interim conditional use permit, if required, shall be obtained for any solar energy system prior to installation.

Section 4. Interpretation In interpreting this ordinance and its application, the provisions of these regulations shall be held to be the minimum requirements for the protection of public health, safety and general welfare. This ordinance shall be construed broadly to promote the purposes for which it was adopted.

Section 5. Conflict – This ordinance is not intended to interfere with, abrogate or annul any other ordinance, rule or regulation, statute or other provision of law except as provided herein. If any provision of this ordinance imposes restrictions different from any other ordinance, rule, or regulation, statute or provision of law, the provision that is more restrictive or imposes high standards shall control.

Section 6. Separability - If any part or provision of this ordinance or its application to any developer or circumstance is judged invalid by any competent jurisdiction, the judgement shall be confirmed in its operation to the part, provision or application directly involved in the controversy in which the judgement shall be rendered and shall not affect or impair the validity of the remainder of these regulations or the application of them to other developers or circumstances.

Section 7. Repealer: All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

Section 8. Effective: This ordinance shall take effect and be in force from and after its passage and publication in accordance with law.

First Reading:
Passed:

Attest:

Approved:

Christina Regas, City Administrator

Daryl Lundberg, Mayor

CITY OF ST. MICHAEL
WRIGHT COUNTY, MINNESOTA
ORDINANCE NO. 1507

AN ORDINANCE AMENDING SECTION 155.073 OF THE ST. MICHAEL CODE TO ADD DEFINITIONS FOR SOLAR ENERGY SYSTEMS, AND ADD COMMUNITY SOLAR GARDEN AS AN INTERIM USE WITH CONDITIONS IN THE A-1, GENERAL AGRICULTURE ZONING DISTRICT, AND AMENDING SECTION 155.105 OF THE ST. MICHAEL CODE BY ADDING COMMUNITY SOLAR GARDEN TO THE TABLE OF USES.

THE CITY COUNCIL OF THE CITY OF ST. MICHAEL HEREBY ORDAINS:

SECTION 1. Section 155.073(A) of the St. Michael Code is hereby amended to read as follows:

§155.073 SOLAR ENERGY SYSTEMS

(A) Definitions. The following definitions apply to this section:

Community Solar Garden – A community solar energy system that generates electricity by means of a ground-mounted or building-integrated solar energy system and that provides retail electric power (or a financial proxy for retail power) to multiple households or businesses residing or located off-site from the location of the solar energy system in accordance with the requirements of Minnesota Statutes 216B.1641 or successor statute. A community solar garden may be either a principal or accessory use.

Solar Energy System - A device or structural design feature, a substantial purpose of which is to provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generating, or water heating.

Solar Energy System, Building Integrated - A solar energy system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or substituting for an architectural or structural component of the building, examples of which are roofing materials, windows, skylights, and awnings.

Solar Energy System, Ground-Mounted – A freestanding solar system mounted directly to the ground using a rack or pole rather than being mounted on a building.

SECTION 2. Section 155.073(B) of the St. Michael Code is hereby amended to read as follows:

(B) Permitted Accessory Use – A solar energy system that is not a Community Solar Garden shall be allowed as an accessory use in all zoning classifications where structures of any sort are allowed, subject to the requirements set forth below.

(1) Height – A solar energy system must comply with the following height requirements:

(a) A building- or roof- mounted solar energy system shall not exceed the maximum allowed height for the zoning district in which the system is located.

(b) A ground- or pole-mounted solar energy system shall not exceed 10 feet in height when oriented at maximum tilt.

(2) Setbacks and yard requirements – A solar energy system must comply with the accessory structure setbacks for the zoning district in which the system is located.

(a) Roof-mounted solar energy system - In addition to the building setback requirement, the collector surface and mounting devices for each roof-mounted solar energy system shall be set back from the edge of the roof of the structure upon which the system is located a minimum of one (1) foot. Non-residential properties shall set back a solar energy system such additional distance from the edge of the roof of the structure upon which the system is located as required by the Building Official. Exterior piping for a solar hot water system may extend beyond the perimeter of the building on a side or rear yard exposure.

(b) A ground- or pole-mounted solar energy system must be located in the rear yard and may not extend into the setbacks when oriented at minimum design tilt.

(3) Visibility – A solar energy system shall be designed to blend into the architecture of the building or be screened from routine view from public right-of-ways other than alleys. A roof-mounted building-integrated solar energy system must occupy the entire field of the roof section.

(a) Building Integrated Solar Energy System – A building-integrated solar energy system is permitted regardless of whether the system is visible from the public right-of-way if the building component into which the system is integrated meets all required setback, land use or performance standards for the zoning district in which the building is located.

(b) Solar Energy System with Mounting Devices – A roof-mounted solar energy system shall not have a highest finished pitch more than five (5) percent steeper than the roof pitch on which the system is mounted, and shall be no higher than twelve (12) inches above the roof.

(4) Coverage – A roof or building mounted solar energy system, excluding a building-integrated solar energy system, shall not cover more than 80% of any field of the roof

upon which the system is mounted, and shall be set back from the edge of the roof of the structure upon which the system is located as required by the Building Official. The surface area of a pole or ground mount system shall not exceed the requirements set forth in the following table:

Lot Size (acre)	Maximum Surface Area
Less than 1	400 s.f.
1.00-1.99	600 s.f.
2.0 or greater	800 s.f.

(5) Plan Approval Required

(a) No solar energy system may be installed without prior written approval by the Zoning Administrator.

(b) Plan Application – A plan application for a solar energy system shall be accompanied by to-scale horizontal and vertical (elevation) drawings. The drawings must show the location of the system on the building for a roof mounted system or the location of the system upon the property for a ground-mount system, including the property lines.

1. Pitched Roof-Mounted Solar Energy System – The drawings for a roof-mounted system upon a pitched roof must show the elevation of the highest finished slope of the solar collector and the slope of the finished roof surface on which it is mounted.

2. Flat Roof-Mounted Solar Energy System - The drawings for a roof-mounted system upon a flat roof must show the distance to the roof edge and any parapets on the building and shall identify the height of the building on the street frontage side, the shortest distance of the system from the street frontage edge of the building, and the highest finished height of the solar collector above the finished surface of the roof.

(6) Compliance with Other Codes - All solar energy systems shall comply with requirements imposed by the City Building Official and with requirements set forth in the Minnesota State Electrical Code.

(7) Utility Notification - No solar energy system shall be installed until written evidence has been given to the Zoning Administrator establishing that the owner of the property upon which the system is located has notified the utility company of the intent to install an interconnected customer-owned generator. Off-grid systems are exempt from this requirement.

(8) Abandonment. A ground-or pole-mounted solar energy system shall be considered abandoned after one (1) year without energy production. A solar energy system and its related accessory facilities shall be removed within 60 days after written notice by the City that the solar energy system has been deemed abandoned.

SECTION 3. Section 155.073(C) is hereby amended to read as follows:

(C) Interim Use – a Community Solar Garden may be allowed as in interim use in the A-1, General Agriculture Zoning District in accordance with the procedures and regulations set forth in §155.441, provided that:

(1) Location: The Community Solar Garden must be located on property designated Agriculture in the Comprehensive Plan, or a majority of the property must be contiguous to property designated Closed Landfill in the Comprehensive Plan.

(2) Duration: The maximum duration of the Interim Use is 30 years.

(3) Size: The maximum size Community Solar Garden system, or group of systems, is 5 mW (megawatts).

(4) Setbacks: All above-ground equipment or structures must meet minimum principal building setbacks as measured from the closest point at maximum orientation, and must be setback a minimum of 100 feet from an existing residential structure. Interior lot line setbacks may be waived at the City's sole discretion if a Community Solar Garden is proposed over multiple properties.

(5) Height: Community Solar Gardens may not exceed 15 feet in height at maximum design tilt.

(6) Proximity: A Community Solar Garden shall not be located closer than 2,640 feet (½ mile) to any other Community Solar Garden.

(7) Glare: All solar panels shall be designed and located to prevent reflective glare toward any inhabited buildings on adjacent properties, as well as adjacent public roadways.

(8) Landscaping: Vegetative landscape screening shall be provided around the perimeter of the Community Solar Garden consistent with § 155.031(F) of this Code, except where topography, existing vegetation, or other factors provide sufficient screening to adjacent properties as determined solely by the City.

(9) Storm Water: Community Solar Gardens must comply with Chapter 152 of the City Code. Top soils shall not be removed during development, unless part of a remediation effort. Soils shall be planted with and maintained in perennial vegetation to prevent erosion, manage run off and build soil. Seeds shall include a mix of grasses and wildflowers native to the region of the project site.

(10) Utilities: All power and communication lines not existing at the time of submitting an application, whether constructed on the property or extending beyond the property as necessary to service the Community Solar Garden or connect to the distribution utility, shall be buried underground unless otherwise approved by City.

(11) Storage: There shall be no outdoor storage of any parts, supplies, or unused equipment.

(12) Easement Dedications: The property owner shall dedicate to the City permanent road, drainage and utility, and trail easements as determined by the City consistent with the City's Comprehensive Plans, including, but not limited to, the Land Use, Park, Trail & Open Space, Sanitary Sewer, Water, Stormwater, and other plans as may be adopted or amended from time to time.

(13) Waiver of Assessment: The property owner shall sign a waiver of assessment in form and with content approved by the City and recorded at Wright County such that if a public improvement project is constructed adjacent to a Community Solar Garden, the City shall have the right to assess said costs regardless of the benefit to the property owner or the Community Solar Garden.

(14) Submittals: In addition to all other submittal requirements, the application shall include specifications and plans for all major planned equipment, including panels, poles, and racking systems.

(15) Utility Notification: No building permit shall be issued, or any installation started, for a Community Solar Garden until evidence has been submitted that establishes, as determined by City, that the owner has received approval from the utility distribution company.

(16) Decommissioning: A decommissioning plan shall be required to ensure that all equipment, including panels, poles and racking systems, are properly removed in the event they are not in use for twelve (12) consecutive months or by the end of the Interim Use Permit. The plan shall include provisions for removal of all structures, foundations, and utilities, restoration of soil and vegetation, and a financial plan showing how applicant will finance said removal. A minimum $5,000 cash escrow in addition to a letter of credit consistent with City policy in an amount determined by the City Council necessary to ensure proper decommissioning shall be filed with the City.

(17) Payment In Lieu of Taxes: Notwithstanding that Minnesota Statutes Section 272.02, Subdivision 24 (or its successor) classifies real property upon which a solar energy generating system is located that is used primarily for solar energy production (subject to the production tax under Minnesota Statutes Section 272.0295) as class 3a, the Applicant shall agree to a minimum tax payment or Payment In Lieu of Taxes Agreement to compensate the City for any prospective tax revenue that may be lost due to such reclassification or as a result of any ownership status.

SECTION 4. Section 155.105 of the St. Michael Code is hereby amended to add Community Solar Garden as an interim use under the Agricultural Uses section of the Table of Uses between Agriculture and Feedlot-Commercial as follows:

AGRICULTURAL USES												
Agriculture[1]	P	P	P	P								
Community Solar Garden	I											§155.073
Feedlot – commercial	C	C										

This Ordinance shall take effect upon its passage and publication according to law.

CITY OF ST. MICHAEL, MINNESOTA

By: _____
Mayor

ATTEST:

By: _____
City Clerk

CITY OF SCANDIA
ORDINANCE NO.: 162

AN ORDINANCE AMENDING ORDINANCE NO. 122, THE SCANDIA DEVELOPMENT CODE, CHAPTER 1, DEFINITIONS AND CHAPTER 2, SECTIONS 2.0, REGARDING DISTRICTS AND 4.0 STANDARDS FOR USES

The City Council of the City of Scandia, Washington County, Minnesota hereby ordains:

Section 1. Amendment. Ordinance No. 122, the City of Scandia Development Code ("Development Code" or "Code"), Chapter One, Section 4.2, Definitions, shall be amended to add the following definitions:

(1) Community Solar Garden: A community solar energy system that generates electricity by means of a ground-mounted or building-integrated solar system and that is supplied to multiple community members or businesses residing or located off-site from the location of the solar energy system under the provisions of Minnesota statutes 216B.1641 or successor statute.

(2) Solar Collector: A device, structure or a part of a device or structure for which the primary purpose is to capture sunlight and transform it into thermal, mechanical, chemical or electrical energy.

(3) Solar Energy: Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

(4) Solar Energy System: A device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for heating or cooling, electricity generation, or water heating.

(5) Solar Energy System, Building-Integrated: A solar energy system that is an integral part of a principal or accessory building, replacing or substituting for an architectural or structural component of the building. Building integrated systems include, but are not limited to, photovoltaic or hot water solar energy systems that are contained within or substitute for roofing materials, windows, skylights, awnings and shade devices.

(6) Solar Energy System, Ground-Mounted: A freestanding solar system mounted directly to the ground using a rack or pole rather than being mounted on a building.

(7) Solar Energy System, Passive: A system that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

(8) Solar Farm: a commercial facility that converts sunlight into electricity, whether by photovoltaic (PV), concentrating solar thermal devices (CST), or other conversion technology, for the principal purpose of wholesale sales of generated energy.

Section 2. Amendment. Ordinance No. 122, the City of Scandia Development Code ("Development Code", or "Code"), Chapter Two, Section 4.0, Standards for Uses, shall be amended to add the following subsections:

4.33 Passive solar energy systems. Passive solar energy systems are exempt from the requirements of this section and shall be regulated as any other building element.

4.34 Solar Farms and Community Solar Gardens. Solar farms and community solar gardens shall comply with all of the following standards:

(1) Districts and Permits

(A) Solar farms and community solar gardens are allowed within the Agriculture Core (AG C), Agriculture Preserves (AP), and General Rural (GR) zoning districts and require a Conditional Use Permit.

(B) The City prohibits solar farms and community solar gardens within the following districts:

1. Within areas designated as Shoreland Districts by the Department of Natural Resources and the City of Scandia Shoreland Ordinance.
2. Within six hundred (600) feet of areas designated or formally protected from development by Federal, State or County agencies as wildlife habitat, wildlife management areas, or designated as National Wild and Scenic land or corridor.
3. Within wetlands to the extent required by the Minnesota Wetlands Conservation Act.
4. Within the Floodplain District.

(2) Accessory solar farm and community solar garden uses are exempt from the Residential and Agricultural Accessory Structure standards regarding the square footage and number of structures permitted on a parcel, but must conform to the setback and lot coverage standards in this Development Code.

(3) Permit Application

(A) Existing Site Plans Required. The applicant for a solar farm or community solar garden shall submit a detailed site plan of existing conditions, showing site boundaries; existing access roads, driveways, and easements; existing structures; setbacks; surface water drainage patterns, floodplains, Shoreland districts, delineated wetlands, toe and top of bluffs, ordinary high water mark and other protected natural resources; existing vegetation, soil types, topography (2-foot contour intervals), and all other items required in Chapter

1, Section 5 of this Code for Conditional/Interim Use Permit applications or by the City. The Existing Site Plan shall include a graphic scale not less than 1:100 and a north arrow.

(B) Proposed Site Plan Required. The applicant shall also submit a site plan of proposed conditions, including the proposed number, location and spacing of solar panels; proposed height of panels; location of access roads; planned location of underground or overhead electric lines connecting the solar farm to the building, substation or other electric load; new electrical equipment other than at the existing building or substation that is the connection point for the solar farm; proposed stormwater management facilities; proposed erosion and sediment control measures, and other information as required by the City. The Proposed Site Plan shall include a graphic scale not less than 1:100 and a north arrow.

The application shall also include a vertical sketch elevation of the premises accurately drawn to a scale identified on the drawing, depicting the proposed solar energy conversion system. The sketch shall depict the proposed system's relationship to structures on adjacent lots within 150 feet of the parcel boundary (if any). The sketch elevation shall include a graphic scale not less than 1:50, or as needed to clearly show the vertical relationship between the proposed solar facilities and structures on adjacent lots.

(C) Use of Public Roads. The applicant shall obtain all necessary approvals from the appropriate road authority for site access and driveways.

(D) Interconnection Agreement. The applicant shall complete an interconnection agreement with a local utility and provide a copy of the agreement to the City before approval of electrical, building, or other required permits. The system operator shall provide a visible external disconnect if required by the utility.

(E) Liability Insurance. The applicant shall maintain a current general liability policy covering bodily injury and property damage with limits of at least $1 million per occurrence and $1 million in the aggregate, and provide proof that it meets the insurance requirement to the city.

(F) Decommissioning Plan. The applicant shall submit a decommissioning plan to ensure that facilities are properly removed after their useful life. If the solar energy system remains nonfunctional or inoperative for a continuous period of one year, the system shall be deemed to be abandoned and shall constitute a public nuisance. The plan shall include provisions for removal of all structures and foundations, restoration of soil and vegetation, and a plan ensuring financial resources will be available to fully decommission the site. The City may require the posting of a bond, letter of credit or the establishment of an escrow account to ensure decommissioning.

(G) Payment In Lieu of Taxes. Notwithstanding that Minnesota Statutes Section 272.02, Subdivision 24 (or its successor) classifies real property upon which a solar energy generating system is located that is used primarily for solar energy production (subject to the production tax under Minnesota Statutes Section 272.0295) as class 3a, the City may require the applicant to enter into a Payment In Lieu of Taxes Agreement to compensate the City for any prospective tax revenue that may be lost due to such reclassification.

(2) Performance Standards

(A) Solar farms which have a generating capacity of 50 megawatts of power or more shall fall under the jurisdiction of the Minnesota Public Utilities Commission. The limitations on the number or cumulative generating capacity of community solar garden facilities is regulated by Minnesota Statutes 216B.164 and related regulations.

(B) Solar farms and community solar gardens shall be located on a parcel of at least 5 acres.

(C) Solar farms and community solar gardens shall be in compliance with any applicable local, state and federal regulatory standards, including the State of Minnesota Uniform Building Code, as amended; the National Electric Code, as amended; the State Plumbing Code, as amended; the Minnesota Energy Code, as amended.

(D) All solar farms and community solar gardens shall comply with the principal structure setback standards and lot coverage standard for the applicable zoning district in which they are located.

(E) Solar farms and community solar gardens shall be setback a minimum of 200 feet from the centerline or 150 feet from the right-of-way of minor arterial roadways, whichever is greater.

(F) Ground-mounted solar energy systems shall not exceed fifteen feet (15') in height. Building-integrated solar energy systems shall not exceed the maximum height permitted in the zoning district.

(G) Solar farms and community solar gardens shall be screened from view from the public right of way to the extent possible by setbacks, berming, existing vegetation, landscaping, or a combination thereof.

(H) Solar farms and community solar gardens are subject to stormwater management and erosion and sediment control best practices and NPDES permit requirements, and shall obtain required permits from the MPCA, local Watershed District, City and others.

(I) The manufacturer's engineer or another qualified engineer shall certify that the foundation and design of the solar panels is within accepted professional standards, given local soil and climate conditions.

(J) Power and communication lines that are not defined in this ordinance as Essential Services and running between banks of solar panels and to electric substations or interconnections with buildings that are on adjacent parcels shall be buried underground. Exemptions may be granted by the City in instances where shallow bedrock, water courses or other elements of the natural landscape interfere with the ability to bury lines, or the distance to a substation or other point of interconnection reasonable precludes burial.

(K) All solar farm and community solar garden facilities shall be designed and located in order to prevent reflective glare toward any inhabited buildings on adjacent properties, as well as adjacent street rights-of-way. Steps to control glare nuisance may include selective placement of the system, screening on the side of the solar array facing the reflectors, reducing use of the reflector system, or other remedies that limit glare. Solar farms utilizing a reflector system shall conduct a glare study to identify the impacts of the system on occupied buildings and transportation rights-of-way within a half mile of the project boundary. The glare study shall also address aviation impacts.

(L) The surface area of ground-mounted systems in combination with driveways, structures and other impervious surfaces on the parcel shall not exceed the maximum lot coverage standard of the applicable zoning district.

(M) A clearly-visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations. All mechanical equipment, including any structure for batteries or storage cells, shall be completely enclosed by a minimum eight (8) foot high fence with a self-locking gate, and provided with screening in accordance with the landscaping provisions of the Development Code.

(N) If the solar energy system remains nonfunctional or inoperative for a continuous period of one year, the system shall be deemed to be abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense after obtaining a demolition permit. Removal includes the entire structure including transmission equipment.

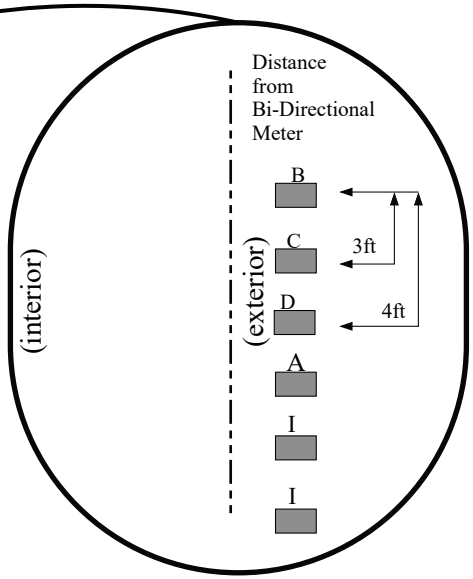
Section 3. Effective Date. This ordinance shall be in full force and effect upon its adoption and publication according to law.

Passed and adopted by the City Council of the City of Scandia this June 16th, 2015.

Randall Simonson, Mayor

ATTEST:

Kristina Handt, Administrator/Clerk



LEGEND:

N

A - PV AC Combiner
B - Bi-directional Meter
C - Production Meter
D - AC Disconnect
E - DC Power Optimizer (one behind each module)
I - Inverter

Underground Power Lines

TruNorth Solar
5239 Edina Industrial Blvd
Edina, MN 55439
(612) 888-9599

Lauseng Project
2660 239th Ave NW
St Francis, MN 55070

System Size: 15.84 kW DC
Building Service: 120/240AC, 200 Amp, Single-Phase
Account: 793593-237484
Meter: 88854638

Equipment
Inverter/ DC Power Optimizers:
48 - SolarEdge P400 DC Power Optimizers
2 - SolarEdge SE7600A-US Single Phase Inverter
Panels:
48 - Suniva OPT330-72-4-100 PV Modules

DOC TITLE: SITE DIAGRAM
AUTHOR: DILLON HYLTON
DATE: 5/2/2016
REVISION: 01

NORTHWEST ASSOCIATED CONSULTANTS, INC.

4150 Olson Memorial Highway, Ste. 320, Golden Valley, MN 55422
Telephone: 763.957.1100 Website: www.nacplanning.com

PLANNING MEMO

TO: St. Francis Planning Commission

FROM: Nate Sparks

RE: Temporary Family Health Care Facilities

DATE: July 14, 2016

Background
This spring, the Legislature passed, and the Governor signed, a law requiring municipalities to allow "Temporary Family Health Care Dwellings" under MN Stat Section 462.3593. The new law defines these dwellings, requires their accommodation, but includes an "opt-out" provision that permits the municipality to exempt themselves from the provisions.

New Statute
The statute itself was developed and put forward by a New Brighton firm that builds these units, called "Next Door Housing". The statute includes an exemption for any municipality that already has an ordinance that allows temporary health care dwellings as a permitted use, the statute applies. The statute is also specific about applying in cases where a municipality has ordinances that would otherwise prohibit the use through a reference to its accessory use provisions or recreational vehicle regulations.

The new law includes the following aspects:

- Definitions of caregiver, person needing care, and "relative" providing care;
- Specifies that the subject of the statute is a "mobile" residential dwelling;
- Specifies that the unit must be built off-site;
- Specifies that the unit is no more than 300 square feet, and has no permanent foundation;
- That the unit is "universally" designed and meets accessibility standards;
- That the unit access plumbing and electrical through the principal home, or "other comparable means".
- That the unit uses exterior materials compatible to "standard residential construction" and has an energy rating of R-15;
- Is sized to be movable with a one-ton pickup truck;
- Provides that such units will be permitted uses;
- Provides for an application and permitting process, including notice to "adjacent" property owners;
- Provides that the unit must meet setbacks and floor area ratio requirements;
- Provides that the unit is occupied by only one person;

- Provides for one six-month permit term, and one additional six month term;
- Provides for municipal inspection and a revocation process;
- Provides for a maximum $100 fee for the initial permit, and $50 fee for the additional term extension;
- Incorporates MN Stat Section 15.99 for permit review.
- Provides for the opt-out ordinance as noted below.

Opt-out provision
The new statute, as a part of MN Stat 462 is incorporated into the municipal planning and zoning regulations, and will become effective on September 1, 2016. The municipality will have to opt out of the regulation prior to that date to avoid its effect. Because this appears to be a zoning regulation, any opt-out will need to be processed as an amendment to the zoning ordinance, requiring the typical hearing and ordinance adoption. The only opt-out is an explicit opt-out. The League of Minnesota Cities has drafted a model opt-out ordinance, which is attached to this report.

Accessory dwelling units generally
The issue of accessory dwelling units for the purpose of providing living space for family members needing care has been widely discussed. The context for most of these discussions has been for attached units that constitute some form of second dwelling on single family parcels. There are various arguments, pro and con, for these units.

Issues under the new law
Apart from the issues raised by accessory dwellings, the Temporary Family Health Care Dwelling addresses a separate aspect of this issue – mobile, detached "trailer" units that are hauled to the subject residential property, installed with connections to the electrical and plumbing services from the main house, and then detached and removed, theoretically, when their use is no longer needed.

The statute provides for a single six-month period of installation, and the option for one additional six-month period. The statute also provides for an extensive process of permitting and locational regulations that would supersede a community's normal review process. It is not clear how the statute might apply to somebody who wishes to apply for a third six-month period – it would appear that the statute prohibits that extension.

Potential Actions

1. The City may choose to do nothing, and allow the statute to go into effect. In this case, all of the details of the law, including size, location, construction, delivery, timing, and process would be regulated by the statute.

2. The City may decide that it wishes to allow Temporary Family Health Care Dwellings, but prefer ordinance details more tuned to the City's specific requirements and zoning objectives. Examples of alternatives preferred by the municipality might be providing for site-built facilities, differences in size or materials, differences in location or screening requirements, the use of interim use permits or conditional use permits, or alternative notice requirements, just to name a few. In such a case, the City should take action to adopt an ordinance opting-out of the statute, and proceed to adopt its own regulations. It will be important that the municipality opt-out of the state law, or the statute may have the effect of pre-empting the preferred alternative.

3. The City may decide that only attached accessory units are suitable in their community or wish to revisit this topic at a future date and choose to pass the opt-out ordinance with no further discussion on the matter, at this time.

Staff Recommendation

Staff recommends the Planning Commission forward this ordinance on to the City Council with a recommendation of approval. If the Commission wishes to discuss ordinance alternatives in the future, such direction can be given.

ORDINANCE ___
AN ORDINANCE AMENDING THE ST. FRANCIS ZONING ORDINANCE TO OPT-OUT OF THE TEMPORARY FAMILY HEALTH CARE DWELLING STATUTES

THE CITY OF ST. FRANCIS ORDAINS:

Section 1. That Code Section 10-18-11 shall hereby be added to read as follows:

10-18-11: TEMORARY FAMILY HEALTH CARE DWELLINGS. Pursuant to authority granted by Minnesota Statutes, Section 462.3593, subdivision 9, the City of St. Francis opts-out of the requirements of Minn. Stat. §462.3593, which defines and regulates Temporary Family Health Care Dwellings.

Section 2. Effective Date. This Ordinance shall take effect 30 days after its publication.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF ST. FRANCIS THIS _____ DAY OF ____, 2016.

APPROVED:

_____
Steve Kane
Mayor of St. Francis

ATTEST:

_____
Barbara I. Held
City Clerk

(seal)