

**CITY OF GRANT
PLANNING COMMISSION MEETING**

Tuesday, March 20, 2018

6:30 p.m.

Town Hall

Please be courteous and turn off all electronic devices during the meeting.

AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES: February 20, 2018
5. NEW BUSINESS
 - A. PUBLIC HEARING, Consideration of Minor Subdivision Application, 11425 & 11335 Grenelefe Avenue N
 - B. PUBLIC HEARING, Consideration of Variance Application, Ordinary High-Water Level Setback for Ground-Mounted Solar System, 11540 Ironwood Avenue N
 - C. Comprehensive Plan Discussion
6. OLD BUSINESS
7. ADJOURN

PLANNING COMMISSION MEETING MINUTES CITY OF GRANT

February 20, 2018

Present: Matt Fritze, James Drost, Jerry Helander, Jeff Schafer, Jeff Geifer and Robert Tufty

Absent: John Rog

Staff Present: City Planner, Jennifer Swanson; City Clerk, Kim Points

1. CALL TO ORDER

The meeting was called to order at 6:30 p.m.

2. PLEDGE OF ALLEGIANCE

3. APPROVAL OF AGENDA

MOTION by Commissioner Schafer to approve the agenda, as presented. Commissioner Tufty seconded the motion. MOTION carried unanimously.

4. APPROVAL OF MINUTES, December 19, 2017

MOTION by Commissioner Drost to approve the December 19, 2017 Minutes, as presented. Commissioner Schafer seconded the motion. MOTION carried unanimously with Commissioner Fritze abstaining.

5. NEW BUSINESS

A. PUBLIC HEARING, Consideration of Subdivision Application, 6808 117th Street N – City Planner Swanson advised the Applicant and Owner, Sandra Wegleitner, is requesting permission to subdivide the property located at 6808 117th Street North into two (2) parcels that will include one approximately 10-acre lot that will include the existing homestead and accessory buildings, and an approximately 39-acre parcel that will be vacant. There is an existing homestead located on the property.

A duly noticed public hearing was noticed for February 20th, 2018 at 6:30 PM, and notices were sent to individual property owners located within ¼-mile (1,320 feet) of the proposed subdivision.

Project Summary:

Owner & Owner:	Sandra Wegleitner
PID:	0603021110001
Address:	6808 117 th Street North
Zoning & Land Use:	A-1
Request:	Minor Subdivision to create two new lots: 10-Acre Lot (existing home and accessory buildings) 39-Acre Lot (vacant)

The Applicant is proposing a Minor Subdivision (lot split) of the existing 49 Acre parcel into two (2) lots; one to include the existing homestead and accessory buildings, and a larger vacant parcel. Based on the application submitted, the larger 39-acre parcel will be vacant, and no new structures are proposed as part of this application. It is unclear from the information submitted whether there is intent to sell the 39-acre lot for single-family residential uses, or whether there is a different intended purpose of the subdivision. There is an existing homestead located on the subject property that based on the application is intended to remain on the property and is not proposed for any changes, modifications, or alterations as part of this application.

City Planner Swanson stated the City's subdivision ordinance allows for minor subdivisions and lot line adjustments as defined in Section 30-9 and 30-10. The sections of the code that relate to dimensional standards and other zoning considerations are provided for your reference:

- Secs. 12-261
- Secs. 32-184
- Secs. 32-246

The existing parcel is located north of 117th Street North and is approximately 49 acres. Based on the Applicant's provided survey (Attachment B), the existing parcel's southerly property line extends to the southerly right-of-way line of 117th Street North on the south and includes the traveled portion of the roadway with the extents of the property. The property has approximately 1,040-feet of frontage and is generally regular in shape with a small exception parcel located at the southeast corner of the Subject Property. There is an existing homestead on the parcel located approximately 120-feet to the east of the westerly property line and setback approximately 110-feet from the denoted right-of-way line and is approximately 150-feet from the centerline of the traveled roadway. The existing roadway and right-of-way easement along the property's frontage are fully within the Subject Parcel's boundary as indicated on the survey provided in Attachment B. There is one (1) accessory building on the site with a total square footage of approximately 2,880 square feet. The existing home and accessory building are accessed by a single driveway which provides a connection to 117th Street North. The Exception parcel is approximately three (3) acres and is not part of this review or application except as noted within the density analysis found in subsequent sections of this staff report.

Based on the attached aerial from Washington County GIS (Attachment D), it appears that approximately the southerly two-thirds of the property have been used for agricultural production and that a ditch bisects this area from east to west and extends to adjacent properties. This ditch (or stream) is identified as a wetland per the National Wetland Inventory database. Approximately the northern third of the parcel is heavily vegetated and has not been used for agricultural production. The existing homestead and accessory building are located on the southwesterly corner of the property. Topographically the site slopes high to low from both the northern and southern edges which reinforces the drainage ditch/wetland area and extends to adjacent properties as a drainageway.

City Planner Swanson advised the adopted Comprehensive Plan sets a maximum density of 1 unit per 10 acres in the A-1 land use designation. The proposed minor subdivision/lot line rearrangement of the 49 acres results in one additional unit. The original 49 included the adjacent Exception parcel, which when considered collectively would result in three (3) lots on 49 acres, or a proposed gross density of approximately 1 unit per 16 acres. The minor subdivision as proposed meets the density requirements as established in the Comprehensive Plan. Further, the intent of the A-1 land use designation is to promote rural residential uses, and the proposed subdivision is consistent with that objective.

Dimensional Standards

The following site and zoning requirements in the A-1 district are defined as the following for lot standards and structural setbacks:

Dimension	Standard
Lot Area	5 acres
Lot Width (public street)	300'
Lot Depth	300'
FY Setback – County Road (Centerline)	150'
Side Yard Setback (Interior)	20'
Rear Yard Setback	50'
Maximum Height	35'

Lot Area and Lot Width

The proposed subdivision is depicted on Attachment B: Minor Subdivision. As shown the proposed subdivision would result in newly created Parcel A and Parcel B. The following summary of each created parcel is identified on the table below:

Lot Tabulation:

Parcel	Size	Frontage	Lot Width	Lot Depth
Parcel A	10 Acres	310.31'	310.31'	1,370'
Parcel B	39 Acres	733.53'	733.53'	1,690'

As proposed, both created lots meet the city's dimensional standards for size, frontage, and lot width and lot depth.

Setbacks

The existing homestead and accessory structures are located on proposed Parcel A, and are subject to the city's setback requirements given the new configuration of the lots. The existing principal structure is setback approximately 110-feet from the right-of-way line of 117th Street North which is a County road (CR-7). However, the City's ordinance requires that the setback be measured from the centerline of the roadway, and the existing home is setback approximately 150-feet from the centerline of the roadway and therefore meets the city's setback requirement. The existing home will be setback approximately 95-feet from the created easterly property line, 120-feet from the westerly property line, and 1,205-feet from the rear property line. ***As proposed the existing home will meet all setback requirements.***

The accessory building located is setback approximately 25-feet from the proposed easterly property line, 1,045-feet from the northerly property line (rear), and 230-feet from the easterly property line. As proposed, the accessory building will meet all setback requirements.

In addition to lot line setbacks, the City's ordinances require a buffer strip of 50-feet is required around wetlands, lakes and streams and that an additional 10-foot building setback from the buffer is also required. The existing home and accessory building are setback more than 250-feet from the approximate wetland/ditch as per the NWI, and as such meet the City's setback requirements.

The potential configuration of new structures and improvements was not identified on Parcel B. Given the extents of Parcel B there is enough area to site a new home, accessory buildings and other improvements outside of all applicable wetland setbacks. However, if future improvements are proposed that may impact or encroach upon the ditch or potential wetland area as identified on the NWI, then wetland delineation may be required. ***Staff would recommend including a condition that any future improvements on Parcel A or Parcel B may require completion of wetland delineation prior to site work or a building permit depending on the proposed location of such improvements.***

Since no new structures are proposed as part of this subdivision, staff would recommend including a condition that all future structures and improvements will be subject to the applicable setback rules and regulations in effect at the time of application.

There is an existing driveway that serves home and accessory building on Parcel A, and there is no existing access to proposed Parcel B. As indicated on Survey, there is a proposed new gravel drive to serve any new development on Parcel B that is located approximately 165-feet from the east property line and approximately 570-feet from the proposed west property line. Since the new driveway access and proposed subdivision are located on a County Road, staff forwarded a copy of the proposed application to the County for their review and comment. Washington

County reviewed the application and has indicated that they would generally support a new driveway access to proposed Parcel B, and would be required to obtain proper permits for the new driveway. In addition to comment regarding a new driveway access, the County further commented about the potential for Parcel B to subdivide further in the future. While they are generally comfortable with the creation of one new driveway to CR-7, they would not support any additional driveway accesses at this location and would require a shared access solution such as a new city street, shared driveways, etc. (See Attachment C)

As previously stated there is one (1) accessory structure on the site which totals approximately 2,880-square feet. The structure will be located on newly created Parcel A, which will be subject to the Accessory Structure standards contained in Section 32-313. On parcels between 9.6 and 14.99 acres, a combined square footage not to exceed 3,000 square feet and no more than four (4) buildings are permitted. The existing accessory building meets the requirements for permitted number and square footage.

Septic System – Soil Borings

The existing home is served by an individual septic system and private well that will continue to support the structures and uses on Parcel A. Since it is unknown whether the existing homestead and accessory building on Parcel A will remain, or is proposed to be redeveloped, ***staff would recommend including a condition that any redevelopment of the parcel with a new, or substantially larger, principal structure may necessitate a new septic system and at such time a septic permit must be obtained from Washington County.***

Soil borings and a septic report were not submitted with this application. Given the large size of the vacant parcel, and existing conditions of the site, staff believes it is likely that a septic system, homestead and well can be constructed on the parcel and meet all necessary setbacks and other applicable requirements. However, since this information was not submitted, staff cannot determine where or in what configuration a septic system and homesite would be located on the property. Since it is winter, it is difficult to have soil borings completed to demonstrate that a soil type would perc and meet all the requirements of the City and Washington County. To demonstrate the buildability of Parcel B, the Applicant will need to submit septic/soil borings to Washington County for their preliminary review. Since a new home is not currently proposed on Parcel B, the review would be conceptual, since a system would not be designed until a home was constructed. ***Staff would request the Planning Commission discuss their comfort level in approving the requested lot split without the soil borings given the large size of Parcel B. If the Planning Commission is not comfortable moving forward, then before a subdivision will be approved the Applicant must submit soil borings and preliminary/conceptual review from Washington County Environmental Services supporting the results. If the Planning Commission is comfortable moving forward, then Staff would recommend including a condition that a septic report and borings are required prior to any site work or building permit being issued from the City for Parcel B.***

There is an existing well on Parcel A that will continue to be used for the property. Since Parcel B is vacant and no home is designed yet the location of a new well has not been identified ***Staff would recommend including a condition that if and when a new home is proposed on Parcel B that the appropriate permits to install a well must be obtained prior to the city issuing a building permit, and that such well must be sited to meet all applicable setbacks.***

The subject property is located on 117th Street North which is County Road 7, and therefore is subject to Washington County's review and comment.

Additionally, as previously discussed, if and when development or redevelopment of the lots occur proper permits for installation of wells, septic systems, or driveways will be subject to review and approval of the appropriate permitting authorities.

Staff is requesting a recommendation from the Planning Commission reflecting one of the following options:

- Recommendation to the City Council of Approval with Draft Conditions
- Recommendation to the City Council of Denial with Findings
- Continue the discussion to the next available Planning Commission, and request additional information from the Applicant, if applicable

If the Planning Commission recommends Approval, the following draft Conditions are provided for your consideration:

1. All future structures and improvements will be subject to the applicable setback rules and regulations in effect at the time of application.
2. If new improvements on Parcel A or Parcel B appear to encroach or are within proximity to the identified wetland or its buffers based on the NWI, then a wetland delineation shall be required prior the City issuing any permit for site work or a building permit.
3. Any redevelopment of Parcel A with a new, or substantially larger, principal structure may necessitate a new septic system and at such time a septic permit must be obtained from Washington County prior to the City issuing a building permit.
4. A septic permit must be acquired from Washington County prior to the city issuing a building permit for a principal structure on Parcel B.
5. If and when a new home is proposed on Parcel B the appropriate permits to install a well must be obtained prior to the city issuing a building permit.
6. Any new access to Parcel A or Parcel B shall be subject to review and approval of Washington County.

This item will appear on the regular City Council Meeting agenda on March 6, 2018.

Commissioner Schafer moved to open the public hearing at 6:46 p.m. Commissioner Tufty seconded the motion. MOTION carried unanimously.

Mr. Michael Farrell, 11780 Great Oak Trail, came forward and expressed concern regarding the watershed as water does come over that property emptying into the lake that his home is on.

Commissioner Tufty moved to close the public hearing at 6:48 p.m. Commissioner Schafer seconded the motion. MOTION carried unanimously.

Commissioner Tufty moved to recommend approval of Minor Subdivision application as presented. Commissioner Drost seconded the motion. MOTION carried unanimously.

This item will be on the regular Council agenda March 6, 2018.

B. Comprehensive Plan Discussion – City Planner Swanson stated in January, the Planning Commission held a work session to begin working through the Comprehensive Plan Update process. After a couple of brief presentations and introductions regarding the process at regular meetings, staff requested a work session with the planning commission to work through preliminary issue identification to assist staff with preparation of the draft plan.

At the work session, staff provided a short presentation that touched on few key issues such as: purpose of a Comprehensive Plan; 2015 System Statement as provided by the Metropolitan Council background and introduction to land use concepts. After the informal presentation, the Planning Commission was asked to work through a Strengths, Weaknesses, Opportunities and Threats (SWOT) exercise that staff will use to help refine the goals and strategies for the plan moving forward.

City Planner Swanson reviewed a tabulation of that SWOT exercise. Staff will be using the results of the SWOT to review existing goals and strategies contained within the plan and to identify new goals and strategies that should be considered in this Plan update. The existing goals and identified goals will be distributed to the Planning Commission at a later date.

6. OLD BUSINESS

There was no old business.

7. ADJOURNMENT

MOTION by Commissioner Schafer to adjourn the meeting at 6:45 p.m. Commissioner Tufty seconded the motion. MOTION carried unanimously.

Respectfully submitted,

Kim Points
City Clerk

DRAFT



Application Date:	2/14/18
Fee: \$400	Escrow \$4,000

check # 1521 \$4,400.00

MINOR SUBDIVISIONS

A minor subdivision is any subdivision containing not more than two lots fronting on an existing street, not involving any new street or road, or the extension of municipal facilities, or the creation of any public improvements, and not adversely affecting the remainder of the parcel or adjoining property.

PARCEL IDENTIFICATION NO (PIN): 0603021410001, 0603021420005 LEGAL DESCRIPTION: Northridge Acres Lot 4 and 7, Block 3		ZONING DISTRICT & COMP PLAN LAND USE: A1 & A2 LOT SIZE: Before: Lot 4 = 57.27 Acres, Lot 7 = 6.61 Acres After: Lot 4 = 42.99 Acres, Lot 7 = 20.88 Acres
PROJECT ADDRESS: 11425 & 11335 Grenelefe Ave N Grant, MN 55110	OWNER: Steve & Barb Cossack, Stephan R Cossack 2011 Irrevocable Family Trust Address: 5 High Point rd City, State: Dellwood, MN 55110 Phone: Barb 651-398-5979 Email: bcossack@comcast.net	APPLICANT (IF DIFFERENT THAN OWNER): Matt Owen Facilities & Property Manager for Mr. Cossack Address: 11335 Grenelefe ave N Grant, MN 55110 Cell: 651-248-3017 Email: matt.owen@priority.com
DESCRIPTION OF REQUEST: Lot line adjustment. Taking 14.28 acres from 11425 and adding it to 11335. No physical changes are being made to the lots.		
EXISTING SITE CONDITIONS: 11425: Asphalt driveway, well, and electrical service. (no structures, just grass and trees) 11335: Asphalt driveway, single family home, out garage, well, new septic system, gas and electrical service		
APPLICABLE ZONING CODE SECTION(S): Please review the referenced code section for a detailed description of required submittal documents, and subsequent process. 1. Chapter 30; Section 30-9		

Submittal Materials

The following materials must be submitted with your application in order to be considered complete. If you have any questions or concerns regarding the necessary materials please contact the City Planner.

AP – Applicant check list, CS – City Staff check list

AP	CS	MATERIALS
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<input type="checkbox"/>	<input type="checkbox"/>	<p>Site Plan: Technical drawing demonstrating existing conditions and proposed changes (Full scale plan sets shall be at a scale not less than 1:100)</p> <ul style="list-style-type: none"> ③ North arrow and scale ③ Name, address, phone number for owner, developer, surveyor, engineer ③ Streets within and adjacent to the parcel(s) including driveway access points ③ Topographic data at two (2) foot contour intervals and steep slopes ③ Proposed lot sizes (with dimensions) indicating setbacks for newly created lots ③ Buildable area with acres and square footage identified ③ Wetland limits (delineation) ③ Drainage plans ③ Soil tests for the installation of an on-site septic system
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Application for: **MINOR SUBDIVISION**
City of Grant

<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> ③ Septic system and well location ③ Building locations and dimensions with setbacks ③ Vegetation and landscaping ③ Wetland Delineation ③ Shoreland classifications: waterbodies, Ordinance High Water Level, 100 year flood elevation, and bluff line ③ Name of subdivision with lot and block numbers of property, if platted <p>COPIES: 20 copies (4 sets at 22" x 34" and 16 at 11" x 17" format)</p>
<input type="checkbox"/>	<input type="checkbox"/>	A <u>certificate of survey</u> , by a registered land surveyor for each parcel will be required. The survey must show newly created lots and the original lot, limits of any wetland, one acre of buildable area, and elevation of the building site above any lake, stream, wetland, etc.
<input type="checkbox"/>	<input type="checkbox"/>	Statement acknowledging that you have contacted the other governmental agencies such as Watershed Districts, County departments, State agencies, or others that may have authority over your property for approvals and necessary permits.
<input type="checkbox"/>	<input type="checkbox"/>	Mailing labels with names and address of property owners within 1,320 feet, contact Washington County Surveyor's Office: (651) 430-6875
<input type="checkbox"/>	<input type="checkbox"/>	Minor Subdivision submittal form completed and signed by all necessary parties
<input type="checkbox"/>	<input type="checkbox"/>	Paid Application Fee: \$400
<input type="checkbox"/>	<input type="checkbox"/>	Escrow Paid: \$4,000

Review and Recommendation by the Planning Commission. The Planning Commission shall consider oral or written statements from the applicant, the public, City Staff, or its own members. It may question the applicant and may recommend approval, disapproval or table by motion the application. The Commission may impose necessary conditions and safeguards in conjunction with their recommendation.

Review and Decision by the City Council. The City Council shall review the application after the Planning Commission has made its recommendation. The City Council is the only body with the authority to make a final determination and either approve or deny the application for minor subdivision.

This application must be signed by ALL owners of the subject property or an explanation given why this not the case.

We, the undersigned, have read and understand the above.



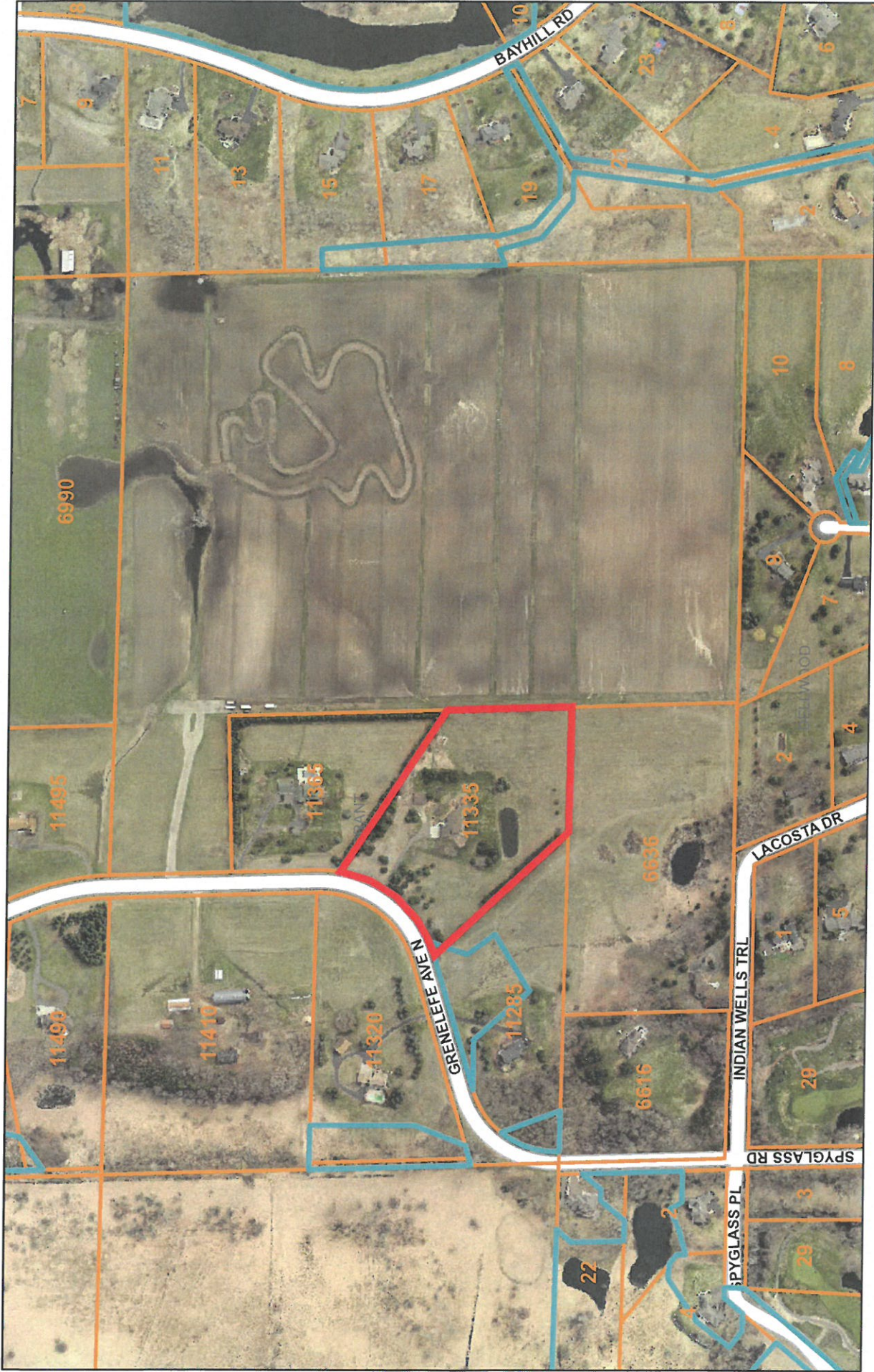
Signature of Applicant

1-5-2018

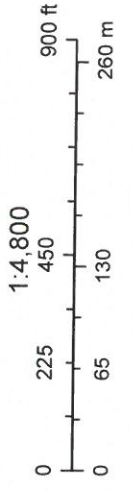
Date



Cossack Minor Subdivision



March 13, 2018



Matt Owen

From: Patrick Hughes <PHughes@ricecreek.org>
Sent: Friday, January 19, 2018 1:11 PM
To: Matt Owen
Subject: RE: Minor subdivision

Good Afternoon Matt,

My apologies for such a delayed response to your inquiry. Typically, the District sees a decrease in the amount of applications around the holidays and early winter in general, but that has not been the case so far, this year. The proposed lot line changes do not fall under the District's definition of subdivision, therefore a permit is not required. Please note that the District has a set of regulatory rules that require permits for single-family home subdivision, land disturbance, increase in impervious surface, wetland alteration, etc. If any grading or land development of these parcels becomes planned in the future, please contact the District again to see if a permit will be required for the work.

Thanks and have a great weekend!

Patrick Hughes
Regulatory Assistant
Rice Creek Watershed District
4325 Pheasant Ridge Dr. NE, #611
Blaine, MN 55449-4539
Ph: 763-398-3080
phughes@ricecreek.org



Please consider following the RCWD on Facebook.

From: Matt Owen [mailto:matt.owen@shipwithpriority.com]
Sent: Wednesday, January 17, 2018 12:01 PM
To: Patrick Hughes <PHughes@ricecreek.org>
Subject: Minor subdivision

Please let me know that you are receiving these emails. I have not heard back from you yet...

Hello,

We spoke a few months ago about this Minor Subdivision Application that I am submitting to the city of grant. I sent you the survey drawing with the proposed lot line changes... I need a statement from you (Rice Creek WS), acknowledging that I have contacted you and that you have no objections to this lot line change. Please email me back with any questions.

Thank you!
Matt Owen



STAFF REPORT

TO: Planning Commission Members
Kim Points, City Administrator/Clerk

Date: March 20, 2018

RE: Application for Minor Subdivision
11425 & 11335 Grenelefe Avenue
North, Grant, MN

CC: Dave Snyder, City Attorney

From: Jennifer Haskamp, Consulting City Planner

Background

The Applicant Matt Owen on behalf of the Owners, Steve and Barb Cossack, is requesting a lot line rearrangement of the properties located at 11425 and 11335 Grenelefe Avenue North. The requested arrangement will transfer approximately 14.28 acres of land from 11425 to 11335 Grenelefe Avenue and will not create any additional lots.

A duly noticed public hearing was noticed for March 20, 2018 at 6:30 PM, and notices were sent to individual property owners located within ¼-mile (1,320 feet) of the proposed subdivision.

The following staff report is provided for your review and consideration of the subject application

Project Summary

Applicant & Owner:	Matt Owen (Applicant on behalf of Owners) Steve & Barb Cossack (Owners)
PID:	0603021410001, 0603021420005
Address:	11425 & 11335 Grenelefe Avenue North
Zoning & Land Use:	A-1 & A-2
Request:	Lot Line Rearrangement (Minor Subdivision) to transfer approximately 14.28 acres from Parcel B creating a larger Parcel A. (see survey)

The Applicant is proposing a lot line rearrangement that will transfer approximately 14.28 acres of land from Parcel B (11425 Grenelefe) to Parcel A (11335 Grenelefe) result in two lots each in excess of 20-acres (See attached survey). No description was provided with respect to the intent or reason for the lot line rearrangement, and no details were provided within respect to any proposed improvements to either lot. There are no new structures included or proposed as part of this application; however, based on previous discussions with the Applicant the intent is to eventually build a principal residential structure on Parcel B which is currently vacant. There is an existing home located on Parcel A that at this time is proposed to remain in its current configuration but may be subject to redevelopment in the future.



Review Criteria

The City's subdivision ordinance allows for minor subdivisions and lot line adjustments as defined in Section 30-9 and 30-10. The sections of the code that relate to dimensional standards and other zoning considerations are provided for your reference:

Secs. 32-246

Section 30-10 specifically regulates resubdivision and rearrangement applications, particularly as they relate to land which has already been platted. The proposed lot line rearrangement is of land contained within the Northridge Acres plat, and therefore staff would recommend review of this section prior to the meeting.

Existing Site Conditions

Parcel A

Parcel A is described as Lot 7, Block 3 of Northridge Acres and is located on the south curve of Grenelefe Avenue North before the roadway transitions to Granada Avenue. The existing parcel A is bordered by Grenelefe Avenue North on the west and contains approximately 390-feet of frontage. There is an existing home on Parcel A setback approximately 210-feet from the road (westerly property line), 166-feet from the northeasterly property line (side), 415-feet from the southeasterly property line (rear) and 200-feet from the southwesterly property line. The existing lot configuration is irregular in shape, and primary access is from the southerly curve in Grenelefe Avenue N. There is one accessory building, which is noted as a garage, on Parcel A with a total square footage of approximately 1,320 square feet. The existing home and detached garage are accessed by a single driveway that is approximately 225-feet from the roadway. The topography of the site generally slopes from north to south through Parcel A. A freshwater pond classified in the National Wetland Inventory is located approximately 115-feet south of the existing principal structure. Trees line both the northern property line, partially southern property line, and many are dispersed around the existing home.

Parcel B

Parcel B is described as Lot 4, Block 3, Northridge Acres, is irregular in shape and is in a configuration often referred to as a "flag" lot. The Parcel extends to Grenelefe Avenue North with approximately 355-feet of frontage, with the majority of the parcel's acreage located to the east of 11335 and 11365 Grenelefe Avenue N. The majority of Parcel B is vacant, with only a primary access and associated landscaping present. There are no existing structures on Parcel B, but there is a path/road improvement that appears to be gravel which loops through the property. The land is relatively flat with a general slope of north to south and the site is sparsely vegetated and appears to have some agricultural use based on arials obtained on Washington County GIS (see attached). There appears to be a wetland present in the north eastern corner of the Parcel B per the National Wetland Inventory.

Comprehensive Plan Review

The proposed minor subdivision/lot line rearrangement of the total 63.88 acres results in no additional units. Parcels designated as A-1 and A-2 may be subdivided with a maximum of 1 dwelling unit per 10 acres. The



proposed rearrangement does not affect density and exceeds the permitted density ranges of both land use designations. Further, the intent of the A-1 & A-2 land use designation is to promote rural residential and agricultural uses. The proposed lot line rearrangement is consistent with those objectives.

Zoning/Site Review

Dimensional Standards

The following site and zoning requirements in the A-1 and A-2 districts are defined as the following for lot standards and structural setbacks:

Dimension	Standard
Lot Area	5 acres
Lot Width (public street)	300'
Lot Depth	300'
FY Setback – County Road (Centerline)	150'
Side Yard Setback (Interior)	20'
Rear Yard Setback	50'
Maximum Height	35'

Lot Area and Lot Width

The proposed subdivision is depicted on Attachment A. As shown the proposed subdivision would result in newly created Parcel A and Parcel B. The following summary of each created parcel is identified on the table below:

Lot Tabulation:

Parcel	Size	Frontage/Lot Width	Lot Depth
Parcel A	20.88 Acres	390.96'	~1,144'
Parcel B	42.99 Acres	355.0'	1753.32'

As proposed, both created lots meet the city’s dimensional standards for size, frontage/lot width and lot depth.

Setbacks

The existing homestead and accessory structures are located on Parcel A, are subject to the city’s setback requirements because of the proposed rearrangement. The existing principal structure is setback approximately 210-feet from the right-of-way line of Grenelefe Avenue North and exceeds the City’s minimum setback from a roadway. The created lot lines will extend the bounds of Parcel A resulting in greater setbacks from the rear yard lot line, and as identified in the Existing Conditions, the existing home and accessory building in the current configuration meet the City’s setback standards. Given that the area to be transferred to Parcel A is located at the rear of the lot and will effectively extend the area, it is assumed that the Applicant may propose to construct an accessory building on this portion of the property. *While there are no building plans provided or submitted as part of this application, staff would recommend including a condition that all future structures and improvements will be subject to the applicable setback rules and regulations in effect at the time of application.*



Access & Driveways

No new access or driveways are proposed as part of this application. There is an existing driveway that serves the existing home on Parcel A, and a driveway that provides access to Parcel B.

Accessory Structures

As previously stated there is one (1) accessory structure on the Parcel A which is approximately 1,320-square feet. As proposed in the lot line rearrangement, Parcel A and Parcel B will both be greater than 20 acres. Per section 32-313, parcels greater than 20-acres are permitted an unlimited number of accessory buildings and there is no restriction of total allowable square footage. It should be noted that other regulations, such as impervious surface coverage, setbacks, watershed district standards, along with any other regulatory standards will still be applicable, and proper permitting will be required for any new structure.

Utilities (Septic & Well)

Septic System – Soil Borings

The existing home on parcel A is currently served by a septic system that will continue to be used for the existing homestead. Both the septic system and well are located on Parcel A. *Staff would recommend including a condition that any redevelopment of Parcel A with a new, or substantially larger, principal structure may necessitate a new septic system and at such time a septic permit must be obtained from Washington County.* The Applicant did not provide or submit soil borings for Parcel B. The resulting vacant Parcel B is in excess of 20-acres, and when considered in conjunction with the provided information and aerial data appears to contain adequate area on which a septic system could be constructed. *Staff would recommend including a condition of approval that a septic permit must be acquired from Washington County prior to the city issuing a building permit for a principal structure on Parcel B.*

Wells

There is an existing well on Parcel A that will continue to be used for the property. Since Parcel B is vacant and no home is designed yet for the lot no well has been installed. *Staff would recommend including a condition that if and when a new home is proposed on Parcel B that the appropriate permits to install a well must be obtained prior to the city issuing a building permit.*

Subdivision Standards

The Applicant is proposing to rearrange/re-subdivide the lots into a new configuration. As stated within Section 30-10 resubdivision of lots that have been platted is permitted provided the that the right to do so was established within Sec. 30-10 (c). A copy of the Final Plat for Northridge Acres Block 3 was not provided, or a copy of a Development Agreement, which must be submitted to demonstrate that the rearrangement is permitted. *Staff would recommend that a condition be added that evidence/documentation in a form acceptable to the City as detailed within Section 30-10 (c) be submitted prior to approval of any subdivision.*

Additionally, the Applicant is proposing to rearrange the subject properties and will not re-plat the resulting lots. As such, some of the requirements such as substantially straight lot lines, etc., are not considered in this staff report. The Planning Commission and City Council must determine if the proposed transfer by metes



and bounds, and the irregular shape of the rearrangement is acceptable. This discretion is provided for within Section 30-9 (1) which states the following, “In the case of a subdivision resulting in two or less parcels situated in a locality where conditions are well defined, the city council may exempt the subdivider from complying with some of the requirements of this section.”

Other Agency Review

As previously discussed, if and when development or redevelopment of Parcel A and Parcel occurs proper permits for installation of wells, septic systems, or driveways will be subject to review and approval of the appropriate permitting authorities.

Requested Action

Staff is requesting a recommendation from the Planning Commission reflecting one of the following options:

- Recommendation to the City Council of Approval with Draft Conditions
- Recommendation to the City Council of Denial with Findings
- Continue the discussion to the next available Planning Commission, and request additional information from the Applicant, if applicable

If the Planning Commission recommends Approval, the following draft Conditions are provided for your consideration:

Draft Conditions

The following draft conditions are provided for your review and consideration:

1. The Applicant shall provide acceptable verification in the form of a Final Plat or Development Agreement of Northridge Acres that the platted lots are permitted to be rearranged.
2. All future structures and improvements, accessory and principal, must comply with the city’s wetland buffer setback requirements for Parcel A and Parcel B.
3. All future structures and improvements will be subject to the applicable setback rules and regulations in effect at the time of application for both parcels.
4. Any redevelopment of Parcel A with a new, or substantially larger, principal structure may necessitate a new septic system and at such time a septic permit must be obtained from Washington County prior to the City issuing a building permit.
5. A septic permit must be acquired from Washington County prior to the city issuing a building permit for a principal structure on Parcel B.
6. If and when a new home is proposed on Parcel B the appropriate permits to install a well must be obtained prior to the city issuing a building permit.

Attachments:

Attachment A: Application, dated 2/14/18

Attachment B: Minor Subdivision exhibit, dated 1/23/2018

Attachment C: Correspondence Email from RCWD, dated 1/19/2018

City of Grant
 P.O. Box 577
 Willernie, MN 55090



Phone: 651.426.3383
 Fax: 651.429.1998
 Email: clerk@cityofgrant.com

Application Date:	2/7/18
Fee: \$400	Escrow: \$3,000

Pol Check # 12220/12221
 \$3,400.00

VARIANCE REQUEST

In certain cases a variance from the strict enforcement and adherence to the zoning ordinance may not be possible due to practical difficulties associated with a property. A practical difficulty means that the proposed use of the property and associated structures in question cannot be established under the conditions allowed by the zoning ordinance and that no other reasonable alternate use exists. The following application is provided for such circumstances and will be determined by the Board of Adjustment for the City of Grant.

PARCEL IDENTIFICATION NO (PIN): 0403021240003		ZONING DISTRICT & COMP PLAN LAND USE:
LEGAL DESCRIPTION: <small>Section 04 Township 030 Range 021 PT SW1/4-NE1/4 & SE 1/4-NW1/4 DESC AS FOLL COM AT NW COR OF S1/2-NW1/4 SD SEC THN N88DEG32'52"E BRG WACO COOR SYS CZ ALG N LN SD S1/2-NW1/4 DIST 1562.70FT THN S06DEG10' 57"E DIST 269.61FT THN S09DEG 33'53"E DIST 157.50FT THN S12 DEG13'38"E DIST 370.66FT TO POB THN</small>		LOT SIZE: 28.12 ACRES / 1225011 SQFT
PROJECT ADDRESS: 11541 IRONWOOD AVE N STILLWATER, MN 55082	OWNER: Name: ANNA M FIRSHMAN Address: 11541 IRONWOOD AVE N City, State: STILLWATER, MN 55082 Phone: (612) 578-0938 Email: afirshman@gmail.com	APPLICANT (IF DIFFERENT THAN OWNER): ALL ENERGY SOLAR 1642 CARROLL AVE ST. PAUL, MN 55104 651-888-4173 kristensaes@gmail.com
BRIEF DESCRIPTION OF REQUEST: Request for a 36' variance to the 150' OHW setback from a natural body of water for a ground-mounted solar PV system.		
EXISTING SITE CONDITIONS: Existing topography includes waterbodies, natural swales, mature vegetation.		
APPLICABLE ZONING CODE SECTION(S): Zoning Code Section 12-260, Sec. a., 1 Please review the referenced code section for a detailed description of required submittal documents, and subsequent process. 1. Chapter 32, Sec. 32-60. Variances.		

Submittal Materials

The following materials must be submitted with your application in order to be considered complete. If you have any questions or concerns regarding the necessary materials please contact the City Planner.

AP – Applicant check list, CS – City Staff check list

AP	CS	MATERIALS
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Site Plan: All full scale plans shall be at a scale not smaller than 1" = 100' and include a north arrow</p> <ul style="list-style-type: none"> ▪ Property dimensions ▪ Area in acres and square feet ▪ Setbacks ▪ Location of existing and proposed buildings (including footprint, and dimensions to lot lines) ▪ Location of current and proposed curb cuts, driveways and access roads ▪ Sanitary sewer (septic) and water utility plans ▪ Location of well and septic systems on adjacent properties ▪ Location of wetlands and other natural features ▪ Existing and proposed parking (if applicable) ▪ Off-street loading areas (if applicable) ▪ Existing and proposed sidewalks and trails <p>COPIES: 1 plan at 22"x34", 12 plans at 11"x17" (half scale)</p>

Application for: **VARIANCE**
City of Grant


<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Architectural/Building Plan (if Applicable): All full scale plans shall be at a scale not smaller than 1" = 100' and include a north arrow</p> <ul style="list-style-type: none"> ▪ Location of proposed buildings and their size including dimensions and total square footage ▪ Proposed floor plans ▪ Proposed elevations ▪ Description of building use <p>COPIES: 1 plan set 22"x34", 12 plan sets 11"x17" (half scale)</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Written Narrative: Describe your request and the practical difficulties that are present on the site and why a Variance is sought.</p> <p>COPIES: 15</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Statement acknowledging that you have contacted other governmental agencies such as Watershed Districts, County departments, State agencies, or others that may have jurisdiction over your project.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Mailing labels with names and address of property owners within ¼ mile (1,320 feet). Contact Washington County to obtain list/labels.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Paid Application Fee: \$400
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Escrow Paid: \$3,000

MATERIALS THAT MAY BE REQUIRED UPON THE REQUEST OF THE CITY PLANNER

<input type="checkbox"/>	<input type="checkbox"/>	<p>Survey of the property: An official survey, by a licensed surveyor, must be submitted with the application. The survey shall be scalable and in an 11" x 17" format.</p>
		<p>Wetland Delineation: A wetland delineation may be necessary depending on the reason for the variance, and stated site constraints.</p>
<input type="checkbox"/>	<input type="checkbox"/>	Electronic copy of all submittal documents

This application must be signed by ALL owners of the subject property or an explanation given why this not the case.

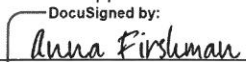
We, the undersigned, have read and understand the above.



Signature of Applicant

2/5/18

Date

DocuSigned by:


Signature of Owner (if different than applicant)

2/5/2018

Date



REQUEST FOR VARIANCE APPLICATION CHECKLIST

CITY OF GRANT

Mailing Address: P.O. Box 577
Willernie, Minnesota 55090
Town Hall: 111 Wildwood Road
Phone: (651) 426-3383 Fax: (651) 429-1998
E-mail: cityclrk@visi.com

What is a hardship?

According to the City of Grant's Zoning Ordinance (Ordinance 50), Section 301(176), a variance is "a modification or variation of the strict provisions of this Ordinance as applied to a specific piece of property in order to provide relief for a property owner because of undue hardship or particular difficulty imposed upon the property by this Ordinance. A variance shall normally be limited to height, bulk, density, and yard requirements."

Variations may be granted in cases of exceptional circumstances, when the strict enforcement of the Ordinance would cause unnecessary hardship.

"Hardship" as used in connection with the granting of a Variance means:

1. The proposed use of the property and associated structures in question cannot be established under the conditions allowed by the Zoning Ordinance or its amendments and no other reasonable alternate use exists.
2. The plight of the landowner must be due to physical conditions unique to the land, structure, or buildings involved and are not applicable to other lands, structures, or buildings in the same zoning district.
3. These unique conditions of the site cannot be caused or accepted by the landowner after the effective date of the Zoning Ordinance or its amendments.
4. Economic considerations alone shall not constitute a hardship.

City of Grant Zoning Ordinance (Ordinance 50), Section 503.01(2), Paragraph 2 - 3.

The variance, if granted, shall not alter the essential character of the locality.

Those applying for a Variance must describe the specific circumstances which would constitute a hardship. The application must include a written statement that describes the Variance request and addresses the three factors – reasonable use, unique circumstances, and essential character of the locality – of hardship.

Circumstances which normally constitute a hardship relate to lot size, setbacks, steep slopes and wetlands but cannot be created by the landowner, or a previous landowner. It is incumbent upon the applicant to explain the case for a hardship, which will form the basis for granting or denying the Variance request.



REQUEST FOR VARIANCE APPLICATION CHECKLIST

CITY OF GRANT

Mailing Address: P.O. Box 577
 Willernie, Minnesota 55090
 Town Hall: 111 Wildwood Road
 Phone: (651) 426-3383 Fax: (651) 429-1998
 E-mail: cityclrk@visi.com

Receipt No.

ESCROW: _____

FEE: _____

Makes checks payable to City of Grant.

GENERAL REQUIREMENTS:

INCLUDED IN SUBMITTAL

- | | | | | | | | | | | | | | | | |
|--|---|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|
| <ol style="list-style-type: none"> 1. Application Form 2. Fees 3. Escrow 4. Complete legal description 5. A letter describing the request and the hardship (see second page) 6. Public Hearing mailing list of property owners within 1,320 feet of the property boundaries.
Contact Washington County Surveyor's Office: (651) 430-6875. 7. Site Plan <ul style="list-style-type: none"> - 4 plan sets, 22" x 34" - 15 plan sets, 11" x 17" | <table border="0"> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> </table> | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
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Plan Sheet Requirements:

- Title block
- Name, address, phone number for owner, developer, surveyor, engineer
- Date of preparation and revision dates
- North Arrow
- Graphic scale not less than 1:100

SITE PLAN REQUIREMENTS

EXISTING AND PROPOSED:

INCLUDED IN SUBMITTAL

- | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|-----------------------------|
| <ol style="list-style-type: none"> 1. Show location of all lot lines and dimensions. Include area in acres and square feet. Provide a survey map, if available. 2. Show all adjacent roads, driveways and present building locations to scale. Indicate footage from lot lines, etc. 3. Show locations of existing wells, septic systems, ponds, streams, steep grades, and other pertinent topographic features. 4. Show to scale locations of proposed structures, wells, sanitary facilities, and septic systems, landscaping, driveways, parking areas, and other information that may apply to the specific proposal. 5. Show locations of neighbors' property and exact distance of neighbor's buildings and structures along with dimensions, wells, septic systems, driveways, ponding areas, and general topographic information. 6. Show plans of professional quality of your proposed structures, drawn to scale. (Check to verify setback requirements.) 7. Setbacks 8. Buildable area 9. Vegetation and landscaping 10. Wetland delineation 11. Waterbodies and Ordinary High Water Level and 100 year flood elevation 12. Bluff line 13. Additional information relevant to the request | <table border="0"> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> </tr> </table> | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
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City of Grant Planning Commission
City of Grant
111 Wildwood Road
Willernie, MN 55090

02/5/2018

All Energy Solar hereby requests a 36' variance to the City of Grant's Zoning Code Section 12-260, Sec. a., 1, structure setback from the ordinary high-water level based on the following examples of practical difficulty:

1. Roof-mounted Option: The roof is not at an ideal tilt angle and orientation, which would result in lower energy production if mounted on the roof. Energy production is directly related to the solar panel's tilt angle from the horizontal plane as well as the panel face's direction to due south. Direct sun access is the best with the proposed ground mount.
2. Visibility of Panels: The proposed location of the ground mount is less visible than if it were placed in an alternate location. Alternate locations would either make the ground mount visible from the public right-of-way or more visible when viewed from neighboring properties.
3. Other Ground-mounted Location Options: After analyzing locations for a ground-mounted solar system on the property, it was determined that the proposed ground mount location would provide for the most adequate access to sunlight. Other locations would require excessive removal of existing vegetation and alteration of the ground. Also, existing underground obstructions limit the placement of a ground mount in alternate locations within the setback requirement.
4. Topography: The topography of the property limit alternative locations based on the natural swale of the yard just south of the house and the floodplain zone north of the house due to the waterbodies abutting the property.
5. Minnesota Made Solar incentive: The homeowners have been awarded a rebate from the Minnesota Department of Commerce: Made in Minnesota Solar Rebate program that covers a portion of the cost of installing solar. This rebate is difficult to receive and makes the return on investment into a solar energy system more attainable. The rebate amount is based on the actual, real-time production of the solar array and a more efficient system will result in the best rebate amount possible. A system that is roof-mounted would be 8% less productive due to lack of adequate sunlight. The difference equates to a solar energy system warranted for 25 years that pays for itself in 6 years versus one that pays for itself in 18 years.
6. Minnesota Statute 462.357 Subdivision 6 Paragraph 2 states that "Practical difficulties include, but are not limited to, inadequate access to direct sunlight for solar energy systems." A roof-mounted system or an alternate ground mount location would not provide the most adequate access to sunlight, when compared to the sunlight access achieved via a ground-mounted system placed at the proposed location.



COMPANY INFORMATION
 ALL ENERGY SOLAR, INC
 1642 CARROLL AVE
 ST PAUL, MN 55104
 (800) 620-3370
 INFO@ALLENERSOLAR.COM

CLIENT INFORMATION
 ANNA M FIRSHMAN
 11541 IRONWOOD AVE N
 STILLWATER, MN 55082
 PO 16515

SYSTEM DETAILS
 NOTES:
 1. (1) SOLAREGE SE7600A-US
 INVERTER(S)
 2. ARRAY 1:
 180° AZIMUTH, 35° TILT
 (80) ITEK 295W = 8.85KW

OID2963186
 AZIMUTH
 N

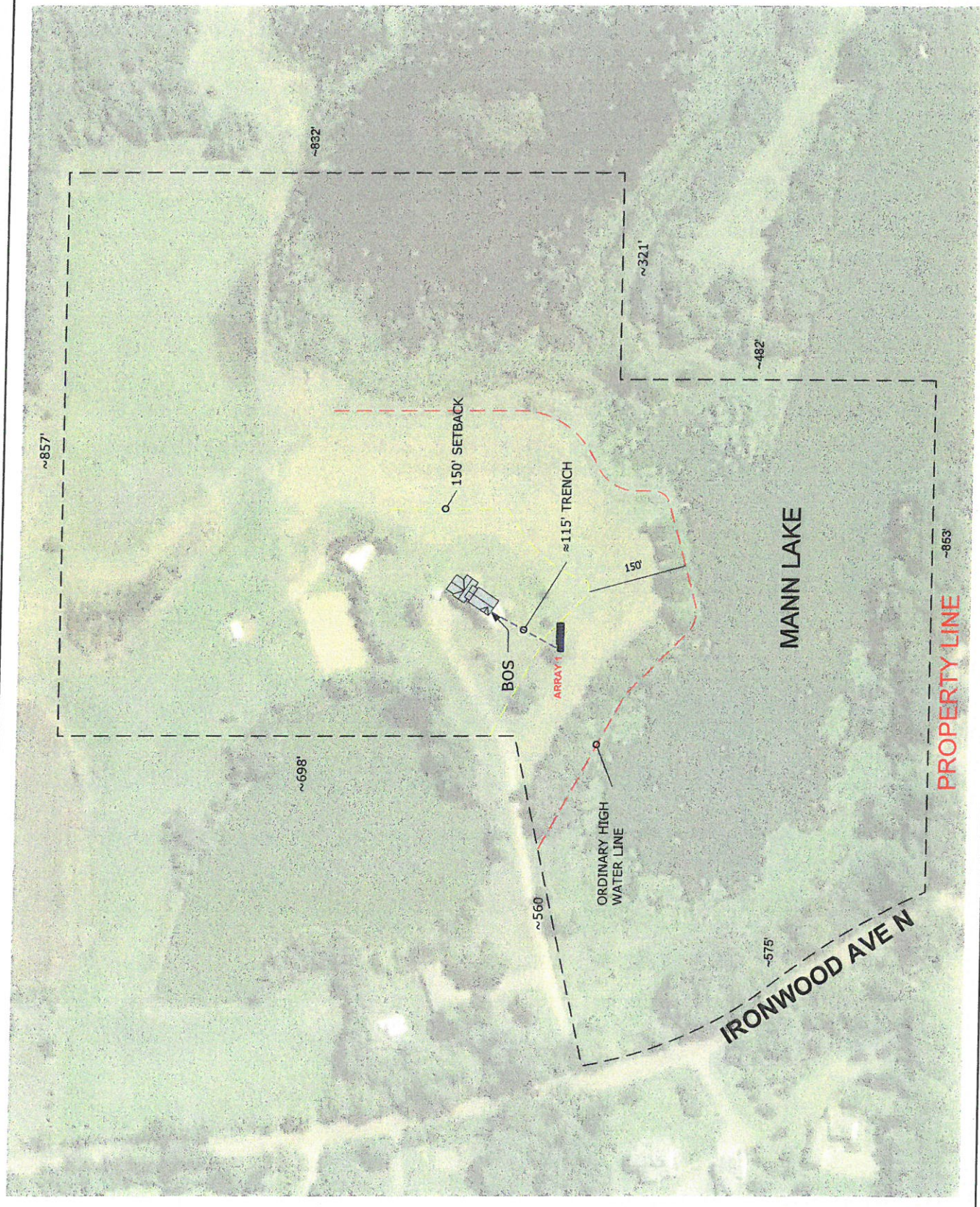


REVISIONS
 LAST: 08/31/17 MG

PROJECT-PAGE TITLE

PROPERTY MAP

PAGE NUMBER
 A1





COMPANY INFORMATION
 ALL ENERGY SOLAR, INC
 1642 CARROLL AVE
 ST PAUL, MN 55104
 (800) 620-3370
 INFO@ALLENERGYSOLAR.COM

CLIENT INFORMATION
 ANNA M FIRSHMAN
 11541 IRONWOOD AVE N
 STILLWATER, MN 55082
 PO 16515

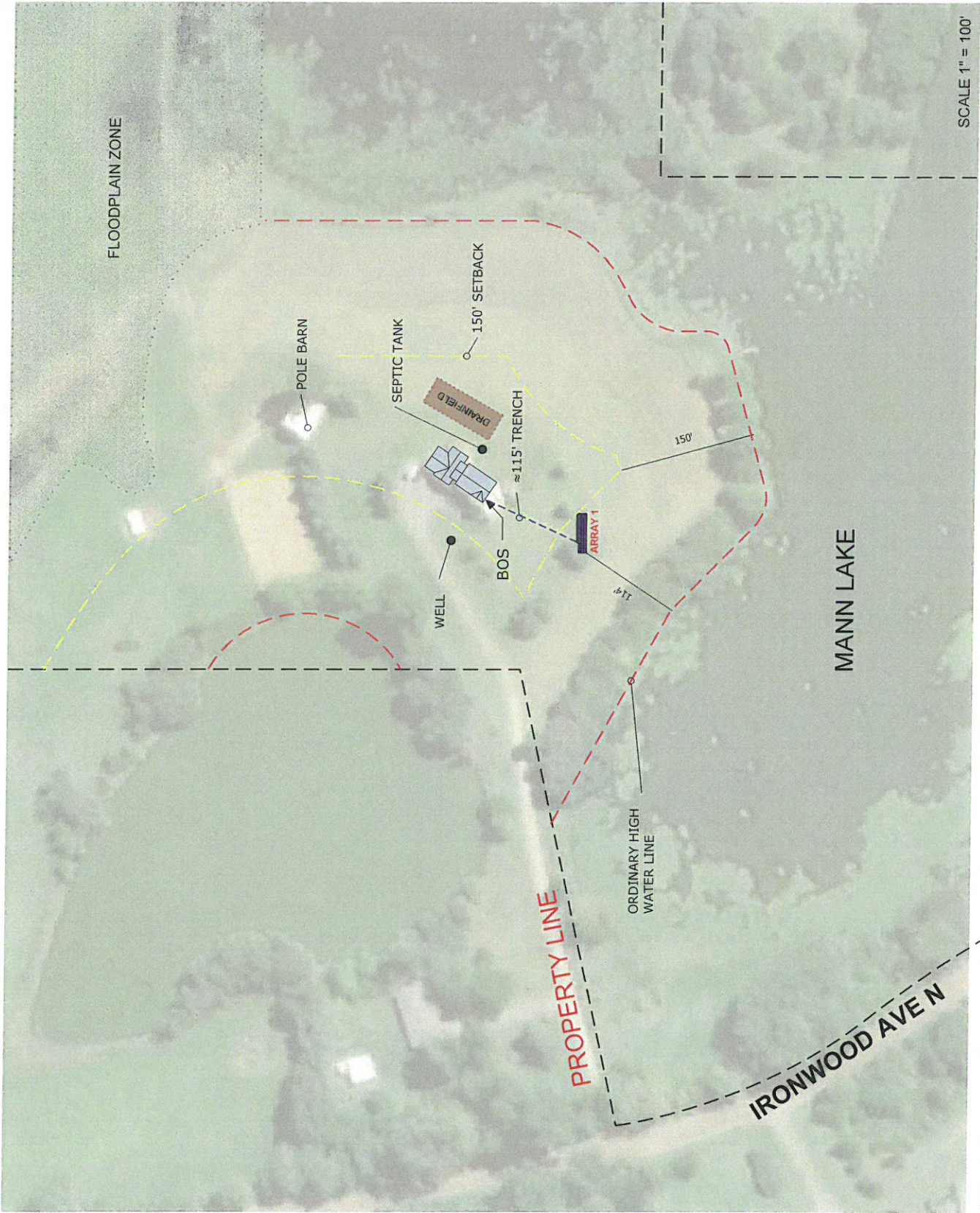
SYSTEM DETAILS
 NOTES:
 1. (1) SOLAREGE SE7600A-US INVERTER(S)
 2. ARRAY 1:
 160° AZIMUTH, 35° TILT
 (30) ITEK 295W = 8.85KW

OID2963186
 AZIMUTH
 N

REVISIONS
 LAST: 02/218 MG

PROJECT-PAGE TITLE
 PROPERTY MAP

PAGE NUMBER
 A2



SCALE 1" = 100'



COMPANY INFORMATION
 ALL ENERGY SOLAR, INC
 1642 CARROLL AVE
 ST PAUL, MN 55104
 (800) 620-3370
 INFO@ALLENERGYSOLAR.COM

CLIENT INFORMATION
 ANNA M FIRSHMAN
 11541 IRONWOOD AVE N
 STILLWATER, MN 55082
 PO 16515

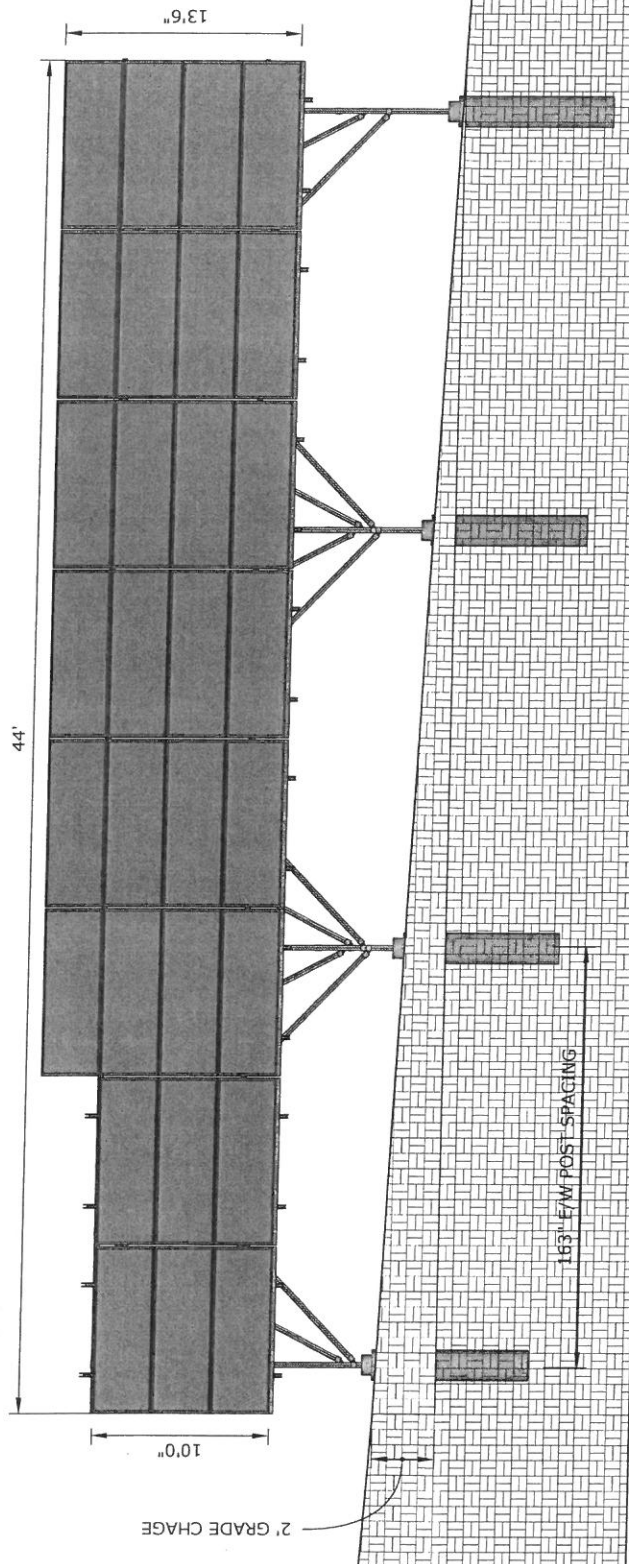
SYSTEM DETAILS

NOTES:
 1. ELEVATIONS MAY VARY DEPENDING ON GROUND ELEVATION BUT ARE DRAWN TO THE BEST OF OUR ABILITY
 2. SQFT OF ARRAY: 445 SQFT
 3. SCALE 1/4" = 10"

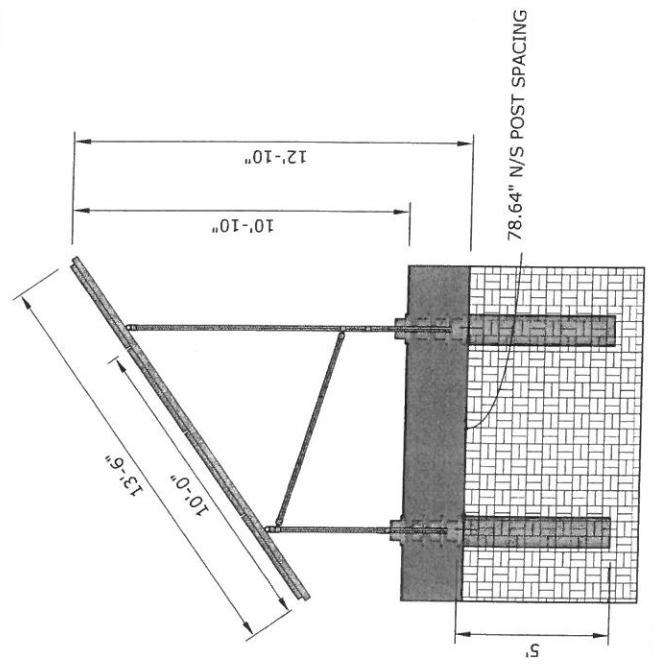
REVISIONS
 LAST: 02/5/18 MG

PROJECT-PAGE TITLE
 ELEVATION DRAWINGS
PAGE NUMBER
 A4

SOUTH ELEVATION



EAST ELEVATION



BRACING OPTION FOR HIGH LOAD OR LONGER SPAN APPLICATIONS

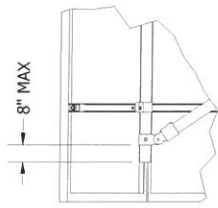
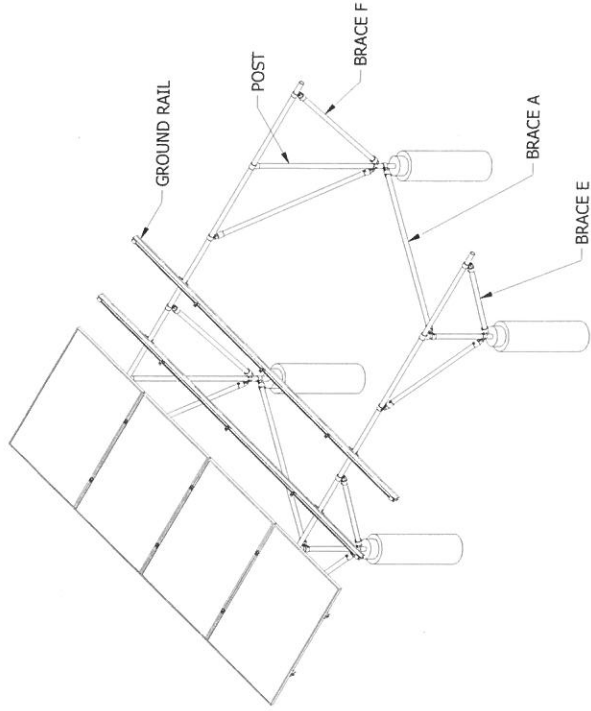
SEE ENGINEERING TABLES FOR PIER DEPTHS AND SPAN LIMITATIONS.

COMPATIBLE WITH ALL PIER OPTIONS INCLUDING STANDARD PIERS AND GRADE BEAMS

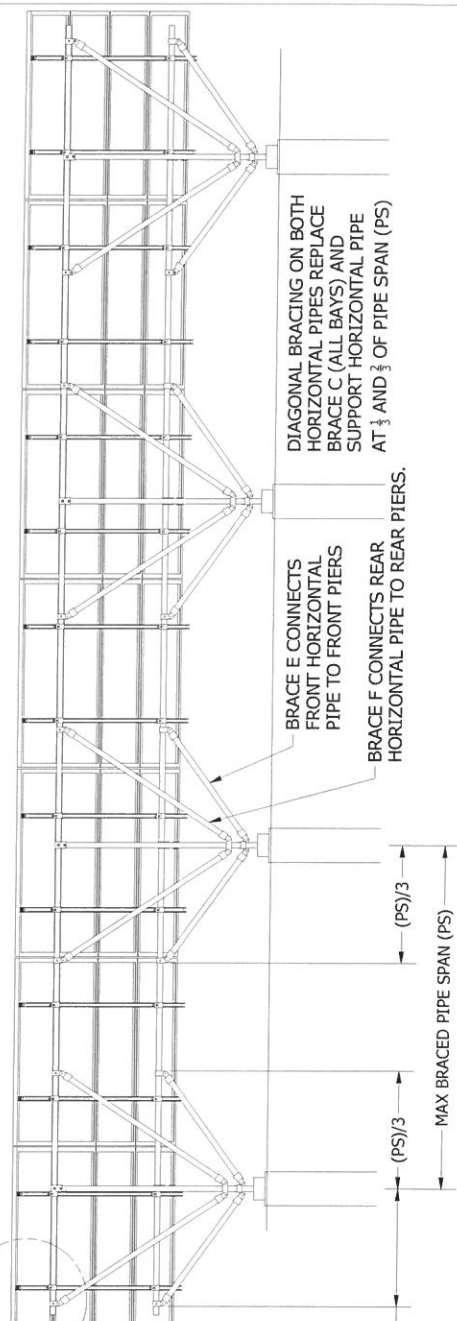
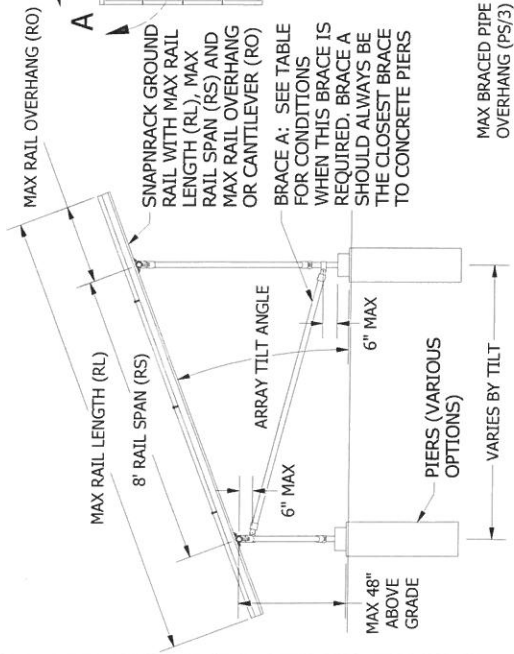
UNLESS OTHERWISE SPECIFIED IN ENGINEERING DOCS, THE FOLLOWING VALUES APPLY:

MAX RL: 162"
RS: 96"
MAX RO: 32"

REVISION:



DETAIL A



SnapNrack™
PV Mounting Systems

DESIGNER: G. McPheeters
DRAFTER: D. Ryan
APPROVED BY:

SCALE: DNS
DATE: 120113

PART NUMBER: S200 D03

DESCRIPTION: SERIES 200 BRACED OPTION

REV G

MAINSTREAM ENERGY CORP.
775 FERRO LANE SUITE 200 • SAN LUIS OBISPO, CA 94901 USA
PHONE (805) 828-7000 • FAX (805) 828-8701
THE INFORMATION IN THIS DRAWING IS CONFIDENTIAL AND PROPRIETARY TO MAINSTREAM ENERGY CORP. ANY REPRODUCTION OR DISSEMINATION OF THIS INFORMATION IS STRICTLY PROHIBITED.

Norman

Scheel

Structural

Engineer

5022 Sunrise Blvd.
Fair Oaks, CA 95628
(916) 536-9585
(916) 536-0260 (fax)

1989-2013
24 years of excellence

Norman Scheel, S.E.
LEED AP BD+C
LEED AP Homes
Fellow -SEAOC
Fellow-ASCE
E-mail: norm@nsse.com

Rob Coon
General Manager
E-mail: robcoon@nsse.com

Steve Smith P.E.
Project Manager
E-mail: stevesmith@nsse.com

Steven Cooksey
CAD Supervisor
E-mail: steve@nsse.com

Jackie Winslow
Office Manager
E-mail: jackie@nsse.com

Friday, January 31, 2014

SnapNrack
775 Fiero Lane, Suite 200
San Luis Obispo, CA 93401

SnapNrack™
PV Mounting Systems

Series 200 Ground Mount Summary Letter

To Whom It May Concern,

We have performed calculations for the 200 series ground mount PV system based on the information provided by SnapNrack. The report and calculations are also included with this letter. We did the calculations in accordance with the 2012 IBC, the ASCE 7-10, and the guidelines stated in the Solar America Board for Codes and Standards.

We performed calculations for the following wind, seismic, and snow load combinations and building parameters:

- ASCE 7-10 wind speeds from 100 to 170 mph for exposure C category
- ASCE 7-10 Seismic Design Category D
- ASCE 7-10 Snow Loads up to 120 psf ground snow

The calculations have also been completed in accordance with the 2006 IBC, 2009 IBC, and ASCE 7-05. To use the data contained in this packet for projects that are being evaluated to the older ASCE 7-05 wind speeds, refer to Appendix A for a wind speed conversion chart. Find the ASCE 7-05 (IBC 2006/2009) wind speed in the Chart in Appendix A, identify the corresponding ASCE 7-10 (IBC 2012) wind speed value, and proceed with using the charts contained in this packet with the adjusted wind speed value.

In our opinion, the mounting system, outlined in the SnapNrack Series 200 PV Mounting System Code Compliant Installation Manual, is acceptable and meets the loading requirements stated above. See the report and calculations included with this letter for more information.

If there are any further questions, please contact Norm Scheel.

Norman Scheel PE, SE
LEED-AP BD+C, LEED-AP Homes
Fellow SEAOC
Fellow A.S.C.E.



itek ENERGY SE SOLAR MODULES

Design & Engineering Data



Building Solar | Powering The Future

GENERAL DATA

Cell type	<ul style="list-style-type: none"> • 60 high-efficiency monocrystalline p-type cells • 6x10 cell matrix
Solar Glass	<ul style="list-style-type: none"> • Ultra-clear anti-reflective treatment • Tempered, with low iron content • Anti-glare prismatic subsurface texture
Backsheet	<ul style="list-style-type: none"> • Multi-layered • Engineered adhesion for maximum weather protection
Frame	<ul style="list-style-type: none"> • High-strength corrosion-resistant anodized aluminum • Compatible with standard racking, accommodating both top-down clamps and bottom-flange mounting
Cable	<ul style="list-style-type: none"> • 42" 90C 12 AWG PV wire
Junction Box	<ul style="list-style-type: none"> • 3 bypass diodes • 1000 VDC MC4 connectors
Grounding	<ul style="list-style-type: none"> • Certified for Wiley Electronics WEEB™ grounding clips • Eight standard grounding locations per module for reduced ground wire length

QUALIFICATIONS

UL Listing	UL 1703
Fire Rating	Type 2
PID Free	96+ hours



ELECTRICAL DATA*

	280 SE	285 SE	290 SE	295 SE	300 SE
Maximum Power - P_{max} (Wp)	280	285	290	295	300
Maximum Power Voltage - V_{MPP} (V)	32.3	32.4	32.6	32.8	32.9
Maximum Power Current - I_{MPP} (A)	8.6	8.7	8.8	8.9	9.0
Open Circuit Voltage - V_{oc} (V)	39.2	39.3	39.5	39.7	39.8
Short Circuit Current - I_{sc} (A)	9.3	9.4	9.5	9.6	9.7
Module Efficiency	16.70%	16.99%	17.29%	17.59%	17.89%

MECHANICAL DATA

Dimensions	1001mm X 1675mm X 50mm
Weight	43 lbs

MAXIMUM RATINGS

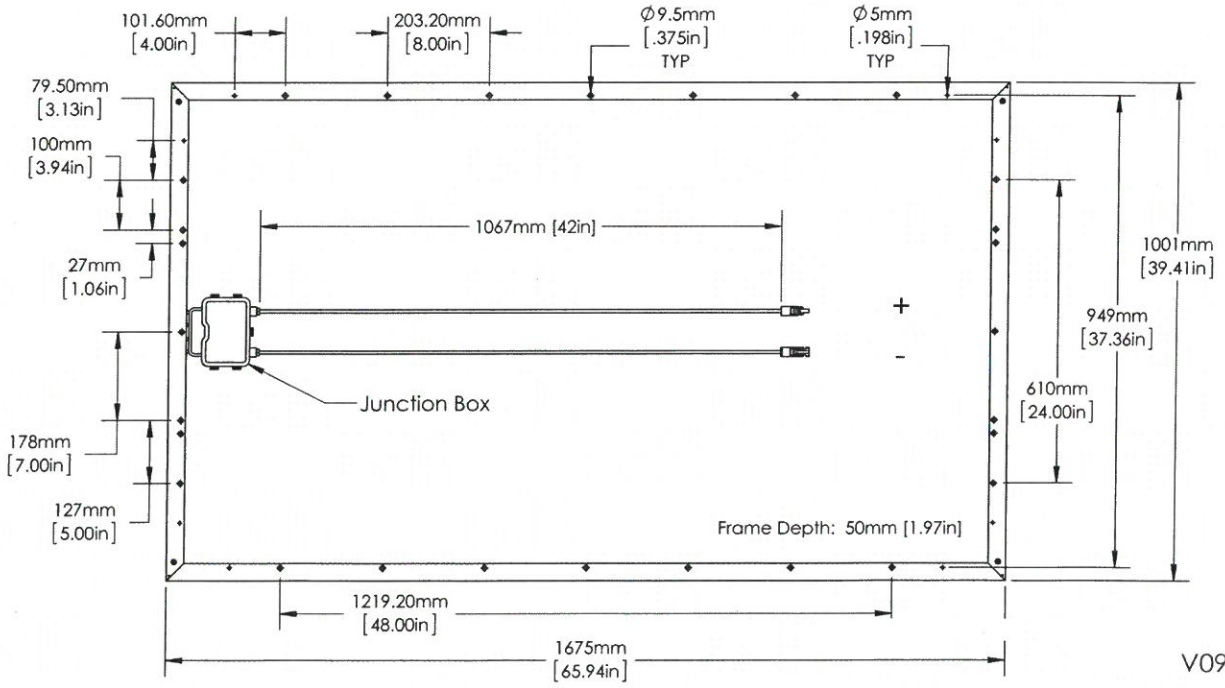
Operational Temperature	-40...+ 90°C
Maximum System Voltage	1000 VDC
Design Load (UL 1703)	up to 113 lbs/ft ²
Maximum Load (UL 1703)	551 kg/m ² (5400 Pa)
Maximum Wind Load	113 lbs/ft ²
Max Series Fuse Rating	15A
Max Reverse Current	15A

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	45.01°C
Temperature Coefficient of P_{MPP}	-0.39%/°C
Temperature Coefficient of V_{oc}	-0.29%/°C
Temperature Coefficient of I_{sc}	+0.04%/°C
Temperature Coefficient of V_{MPP}	-0.38%/°C

*Electrical characteristics may vary within ±2% of the indicated values at Standard Test Conditions (STC): Irradiance of 1,000W/m², AM 1.5 spectrum, cell temperature at 25°C.

NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

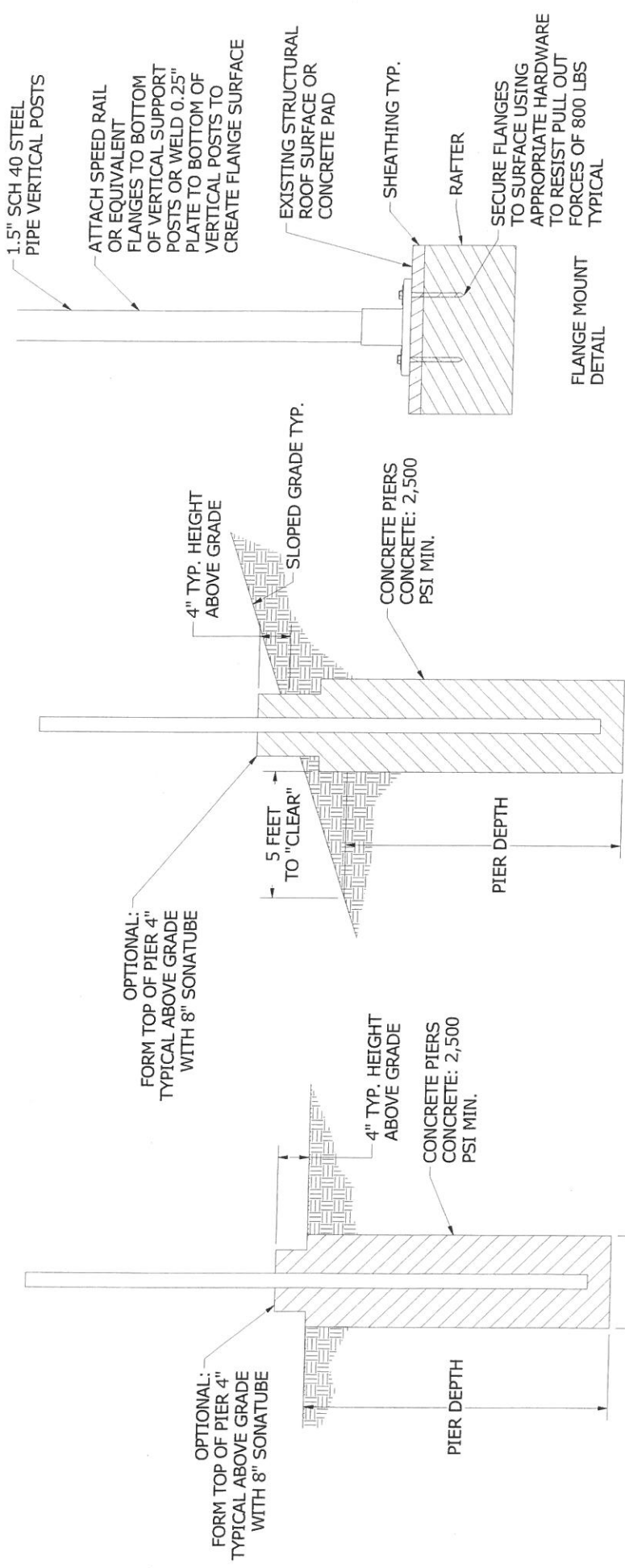


V09.22.16

NOTE:

FLANGE MOUNTS ARE A VIABLE OPTION FOR INSTALLATION OF GROUND MOUNT SYSTEMS ON CONCRETE PADS OR VARIOUS TYPES OF ROOF TOP STRUCTURES, BUT ARE NOT SPECIFIED IN DETAIL IN THE STANDARD ENGINEERING REVIEW FOR 2013.

REVISION:



SnapNrack™
 PV Mounting Systems

MAINSTREAM ENERGY CORP.
 775 FERRIS BLVD SUITE 200
 FERRIS, CA 94501
 PHONE: (925) 254-1747 FAX: (925) 254-9101
THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF MAINSTREAM ENERGY CORP. AND IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE.

DESIGNER: G. McPheeters
 DRAFTER: D. Ryan
 APPROVED BY:

SCALE: DNS
 DATE: 120113

PART NUMBER: S200 D06

DESCRIPTION: SERIES 200 PIER DETAILS

REV: G



STAFF REPORT

TO: Planning Commission Members
Kim Points, City Clerk
Dave Snyder, City Attorney
From: Jennifer Haskamp

Date: March 14, 2018
RE: Variance from ordinary high-water level from a natural body of water setbacks to install a PV solar system

Background

The Applicant (“Applicant”), All Energy Solar, on behalf of the Owner Anna Firshman (“Owner”) has requested a variance from the required ordinary high-water level (“OHWL”) setback on a natural environment lake for installation of a new ground-mounted solar PV system on the property located at 11541 Ironwood Avenue North, Stillwater, MN 55082. The proposed system is a residential ground-mounted system and would be located south of the existing principal structure and north of Mann Lake. The Applicant has indicated after studying the existing site, that the proposed location would achieve the most adequate conditions for solar collection, and as a result has requested this variance.

The following staff report summarizes the requested variance, and existing conditions of the site.

Project Summary

Applicant: All Energy Solar Owner: Anna M Firshman	Site Size: 28.12 Acres Location: 11541 Ironwood Avenue North, Stillwater, MN 55082 Zoning & Land Use: A-1
Request: Variance from setback requirements to construct a ground mounted solar PV system within the required 200-foot setback from a natural environment lake.	

The Applicant, on behalf of the Owner, is requesting a variance from the required setback from Mann Lake, which is classified as a natural environment lake. A summary of the Applicant’s narrative and submitted application is provided as follows:

- The proposed project would construct and install a new ground-mounted solar PV system on the subject parcel.
- The current property is used as a principal resident, and there is an existing home and an accessory structure on site.



- The site is naturally constrained by Mann Lake which is located to the south of the existing home and accessory building, and there are additional wetland areas on the northern portion of the property.
- The Applicant has stated that they have performed various analysis and concluded that the proposed location would result in the most adequate location for solar collection on the property.
- The Owner has been awarded a rebate from the Minnesota Solar Rebate program, and the Applicant states that rebates are based on the amount of “actual, real time production of the solar array and a more efficient system will result in the best rebate amount possible...”
- After site evaluation, the Applicant contends that the best location for the ground-mounted solar array is within the required setback. The Applicant’s materials identify that the proposed system would encroach into the required setback from the Ordinary High Water Level (OHWL) approximately 36-feet given a 150-foot setback. However, based on the City’s ordinances the required structural setback is 200-feet, thus resulting in an encroachment of approximately 86-feet into the required setback.

The following staff report is provided for your review and consideration:

Review Criteria

City Code Sections 32-59 and 32-60 establish the criteria to review and approve variance requests. The variance application process requires the Applicant to prepare a statement of reasons why the request is made describing the hardship (or practical difficulty) describing how, “the proposed use of the property and associated structures in question cannot be established under the conditions allowed by this chapter or its amendments and no other reasonable alternate use exists; however, the plight of the landowner must be due to physical conditions unique to the land, structure or building involved and are not applicable to other lands, structures or buildings in the same zoning district....Economic considerations alone shall not constitute a hardship.” The Applicant’s statement can be found in Attachment A.

Existing Site Conditions

The subject property is located on the east side of Ironwood Avenue North and is on the north side of Mann Lake. The existing home and accessory building are accessed by a single driveway from Ironwood Avenue North, which appears to be a shared driveway with the property directly west of the subject site. The site is sparsely vegetated with planted/landscaped trees primarily along the property lines and shorelines, offering some buffering and privacy from adjacent homes and roadways. Per the Applicant’s narrative topographical conditions include natural swales and a highpoint where the homesite is located. Based on the National Wetlands Inventory (NWI) the shoreline of Mann Lake is designated as a likely wetland area, which extends northwest into the property on the eastern half of the lot (See Attachment B). Mann Lake is listed on the Public Waters Inventory (PWI) as protected water #82-121 and is classified as a natural environment lake.



There is an existing principal structure and accessory building which are generally located near the center of the subject property. As indicated on an aerial view, the majority of the site appears to be mowed or in some type of low ground cover with intermittent manicured vegetation. In addition to Mann Lake, the northeastern portion of the property is designated within the FEMA flood zone or is within a wetland.

Zoning Standards

Recently the city amended its ordinances to allow for residential solar systems provided certain conditions were met. To address residential solar energy systems Chapter 32 was amended to add in Division 5 which provided definitions and regulations of both roof-mounted and ground-mounted residential solar installations. The following zoning review is provided for the proposed ground mounted system for consistency with **Section 32-457 Residential Solar Energy Systems subsection (c) Ground Mounted – solar equipment** establishes criteria for siting a ground mounted system and the sections which are applicable to the requested variance are the following:

- (1) Solar energy systems shall only be allowed as an accessory use on a parcel with an existing principal structure.

There is an existing principal structure on the property, and the proposed ground-mounted system will be accessory to the principal use. This criterion is met.

- (2) Solar energy systems shall be set back a minimum of 100 feet from a property line with an adjacent residential home, and shall be sited to meet all other applicable structural setback standards within the zoning district for the remaining lot lines.

The location of the proposed ground mounted system is setback approximately 150-feet from the westerly property line, which is adjacent to a neighboring residential use. The proposed location meets this ordinance requirement.

- (3) The ground equipment shall be constructed outside of all wetland and shoreland setbacks as adopted within this City's ordinances.

Lake (shoreland) and wetland setbacks are regulated in Chapter 12 Section 12-260. The ordinance provides that structures must be setback 200-feet from a natural environment lake. As proposed this criterion is not met, and therefore the Applicant has requested a variance. Further analysis regarding the variance from the setback standards can be found in subsequent sections of this report.

- (4) The footprint occupied by a solar energy system shall not exceed 1,000 square feet.

The proposed ground mount system includes approximately 569 square-feet of solar panels configured in a ground mount array. As proposed, this criterion is met.

- (5) The equipment or device may not exceed a height of 15 feet.



As shown in the submitted plan set it appears that the maximum height of the system is 12'10". The Applicant should confirm that this is the maximum tilt and represents the maximum height.

- (6) The zoning administrator may require landscaping or other means of screening to limit visual impacts of the Solar Energy System.
This criterion is not evaluated because the Applicant's narrative suggests that the system will not be visible from adjacent properties or public right of way. Further evidence of this statement, which may include cross sections or other topographic analysis, should be provided to determine appropriate screening if an acceptable location for the system is identified.

- (7) The equipment or device must be designed and constructed in compliance with all applicable building and electrical codes.
The Applicant provided evidence from an engineer that the system will be constructed according to building and electrical codes.

- (8) The equipment or device must comply with all state and federal regulations regarding co-generation of energy.
This is a general standard that staff would recommend be included as a condition of approval, if approval is recommended.

- (9) All solar arrays or panels shall be installed or positioned to not cause any glare or reflective sunlight onto neighboring properties, structures, or obstruct adjacent views.
The Applicant stated that the installation will not be visible from adjacent properties. As noted in item #6, further evidence that the installation is not visible should be provided.

- (10) The city may require compliance with any other conditions, restrictions or limitations deemed reasonably necessary to protect the public health, safety, and welfare and to promote harmony with neighboring uses.
To be determined after evaluation, and necessary conditions identified in the review process.

As noted in Item #3, the proposed ground mounted solar array will encroach into the OHWL setback of Mann Lake. The structure setbacks from natural environments are established in Chapter 12 of the City's Code, Section 12-260 subsection (a)(1) which breaks down the applicable standards for public waters by type, unclassified and classified water bodies.



The following description of the variance and standard is identified in the following table:

Classes of Public Waters	Required	Description
Natural Environment	200'	Lake, natural environment, means generally small, often shallow lakes with limited capacities for assimilating the impacts of development and recreational use. They often have adjacent lands with substantial constraints for development such as high-water tables, exposed bedrock, and unsuitable soils.

Requested Variance

The following review is provided for consideration of the requested variance. There are four (4) criteria established to define a 'hardship' or 'practical difficulty' within the ordinance, as provided in previous sections of this report, that must be evaluated when considering a variance request. For purposes of this report, the following criteria area numbered, and referenced in the remaining sections of this report.

1. The proposed use of the property and associated structures in question cannot be established under the conditions allowed by the Zoning Ordinance or its amendments and no other reasonable alternate use exists.
2. The plight of the landowner must be due to physical conditions unique to the land, structure, or buildings involved and are not applicable to other lands, structures, or buildings in the same zoning district.
3. These unique conditions of the site cannot be caused or accepted by the landowner after the effective date of the Zoning Ordinance or its amendments.
4. Economic considerations along shall not constitute a hardship.

Summary:

Standard	Required	Proposed	Variance	Description
OHWL	200' (structures)	114' +/-	86' +/-	The Applicant's site plan identifies the OHWL which is denoted with a red dotted line. It is unclear the source of the information to determine the OHWL. Additionally, the Applicant identified a 150-foot setback which is denoted with a yellow dashed line. The City's ordinance identifies a 200-foot setback, so this line would need to be adjusted and resubmitted for evaluation.

The Applicant states that the proposed location of the ground-mounted solar array is the best based on several conditions which is summarized as the following:

- (1) A roof-mounted system would not provide an ideal tilt angle and orientation, resulting in lower energy production compared with the current proposed location.



Response: While the roof-mounted system is stated as not 'ideal', it does not eliminate it as a viable solution. Based on Criteria #1, a hardship is not established based on the narrative and materials submitted.

- (2) It is less visible from the right of way or neighboring parties compared with other ground-mounted locations.

Response: Section 32-457(c)(2) and (6) identify visual impact of neighboring properties as a consideration. However, the ordinance allows for screening through vegetation and other means. Further, no evidence was provided to support this statement as no other alternate locations were identified in the submitted materials. Based on Criteria #1, a hardship is not established based on the materials submitted.

- (3) The current proposed ground-mounted location provides the most adequate access to sunlight and other locations would require excessive removal of existing vegetation and alterations of the ground.

Response: The Applicant stated that other locations were evaluated, and that the proposed location is far superior in generating adequate access to sunlight. The aeriels and submitted materials do not demonstrate significant vegetation on-site so it is unclear what vegetation would need to be removed. Further the majority of the vegetation appears to be planted and heavily landscaped. If alternate locations had been identified a more thorough review of this statement could be made. Based on Criteria #1 and #3, a hardship is not established based on the materials submitted.

- (4) Topographical conditions including; the natural swale south of the house and the floodplain to the north limit alternative locations.

Response: Staff agrees that there are significant site constraints on the property which limit the area on which a ground-mounted system could be located. However, the materials submitted lack the detail to be able to confirm this statement. No topographical data was provided to confirm that there would not be adequate area to site the system in alternate locations outside of applicable setbacks. Additionally, based on the materials submitted the Applicant acknowledges that there are alternate locations, they are just not their preferred locations. Based on Criteria #1 and #2, a hardship is not established based on the materials submitted.

- (5) A roof mounted system would be 8% less productive due to the lack of adequate sunlight and furthermore, effects the owner's ability to receive a rebate from the Minnesota Department of Commerce: Made in Minnesota Solar Rebate Program. According to the applicant the difference equates to a system warranted for 25 years that pays for itself in six years compared to one that pays for itself in 18 years. The time in which a solar system pays for its self is directly related to how much solar radiation it receives daily and that is directly attributed to the location and tilt angle of the solar PV system.



Response: While staff understands the desire to install the most efficient system possible, the Criteria for a variance explicitly states that economic considerations alone do not constitute a hardship. Further, the statement confirms that other locations are available, that would still be productive, just not as productive as the selected location. Based on Criteria #4, a hardship is not established based on the materials submitted. However, staff does believe this is a reasonable basis to support the variance request provided other practical difficulties could be demonstrated.

- (6) An excerpt from Minnesota Statute 462.357, Subd. 6, Paragraph 2 stating that “practical difficulties include, but are not limited to, inadequate access to direct sunlight for solar energy systems”.

Response: Preceding this statement within the statutes is also a statement that a variance request on this basis must also be in harmony with the City’s ordinances. Ironically Section 12-255 Shoreland Zoning and Protection provides a list of reasons why the ordinance is established, and the most applicable based on information submitted and provided, are to (2) Regulate the alteration of shorelands of public waters; and to (3) Regulate alterations of the natural vegetation and the natural topography along shorelands. There is no information provided by the Applicant that would suggest installing the system within the shoreland setback area would not be in opposition to the intent and purpose of the ordinance. Based on information provided, the Applicant does not demonstrate how the proposed variance would be in harmony with the city’s ordinances.

Additional Considerations:

Setbacks and Buildable Area

Based on the information submitted, it is difficult to determine whether there are additional/alternate site locations that could support the proposed structure outside of applicable setbacks because the site plan does not denote the setback accurately. Additionally, no source was provided to the OHWL, and it is unclear what information was used to establish the boundary. As such, staff would recommend that an updated site plan be prepared if the Planning Commission considers recommendation of the variance to accurately demonstrate the encroachment. Regardless of the site plan, the lot is approximately 28 acres and based on the scale of the proposed solar array as shown on the site plan there appears to be enough area outside of setbacks where the ground mounted solar system could be constructed. To provide additional clarity, staff researched the FEMA flood zone areas as well as the National Wetland Inventory to determine the extent of the impact on the site based on those data sources (See Attachments B and C). As shown on the maps, there appears to be significant areas outside of the designated floodplain and wetland area. In addition, the Applicant noted the presence of underground systems/utilities which staff assumes is the septic system and drainfields. While this does occupy a significant portion of the upland/buildable area, staff believes there still remains area outside of setbacks that would not conflict with the septic system. Since this analysis is completed without the benefit of an updated site plan, if the Applicant can demonstrate that this analysis is inaccurate then staff would recommend an exhibit be prepared that demonstrates the constraints and provides proper source data so that the information can be verified.



Visual Impact

As written, the Applicant acknowledges that the proposed location would be the most 'adequate' but does not discount that there are likely other areas on site where the system could be constructed. Several of the points of justification provided by the Applicant reference topography and visual access as part of the justification for siting the system in the proposed location. However, a topographic map and any supporting visual study were not submitted with the application to demonstrate the visual impact (or potential impact created in alternate locations). If this constraint is a reasonable justification from the perspective of the Planning Commission, then staff would recommend that an exhibit(s) be prepared demonstrating how the visual impact is reduced given the current location. The topographical and vegetation removal conditions are described as limiting factors but do not completely disallow the installation of the system in alternate locations. If topographical conditions are a limiting condition, then a map or figure should be provided that demonstrates this constraint.

Other Agency Review

The proposed location of the solar PV system is within the buffer pertaining to Mann Lake, which is listed on the Minnesota Department of Natural Resources Public Waters Inventory as (#82-121). If the planning commission and city council recommend approval of the variance then staff would recommend a condition that prior to construction the MNDNR will need to review installation of the proposed system and obtain all necessary permits.

Draft Findings and Conditions

The following draft findings related to the hardship (practical difficulty) are provided for your review and consideration:

- The Applicant's submitted materials do not demonstrate a hardship based on the City's criteria for consideration and evaluation.
- Alternate locations are available to site either a ground-mounted solar array or to install a roof-mounted system.
- No detail regarding topography of the site was provided, and therefore statements within the Applicant's narrative regarding prohibitive conditions cannot be verified.
- The proposed encroachment into the shoreland setback on a natural environment lake is not in harmony with the intent and purpose of the city's ordinances.
- The efficiency of the system and economic impact cannot be considered alone as justification for a hardship based on the City's criteria, and the Applicant did not demonstrate a hardship based on the remaining criteria.

Action requested:



Staff is seeking a recommendation from the Planning Commission regarding the application. Based on the information submitted Staff recommends denial of the variance. If the Planning Commission recommends denial, staff will prepare a resolution with the draft findings as provided. Alternatively, the Planning Commission could do the following:

- Recommend approval of the requested variance with findings and conditions.
- Table the action and request additional information from the Applicant. If the Planning Commission requests additional information, staff would request, at a minimum the following:
 - Updated site plan to reflect appropriate setback
 - Alternate locations considered, and corresponding site impacts/considerations
 - Visual Analysis to include cross sections demonstrating impact of existing location, and alternates considered
 - Updated narrative describing how the encroachment is in harmony with the intent and purpose of Article VII. Shoreland Zoning and Protection, Chapter 12.

Attachments

Attachment A: Application and Applicant's Narrative dated 2/7/2018

Attachment B: National Wetlands Inventory Wetlands Map

Attachment C: FEMA National Flood Hazard Map

National Flood Hazard Layer FIRMette

45°15.54'N



FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99 with BFE or Depth	Regulatory Floodway Zone AE, AO, AH, VE, AF
	Without Base Flood Elevation (BFE) Zone A, V, A99 with BFE or Depth	

OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X	Future Conditions 1% Annual Chance Flood Hazard Zone X	Area with Reduced Flood Risk due to Levee, See Notes, Zone X	Area with Flood Risk due to Levee Zone D
	0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X		Area with Reduced Flood Risk due to Levee, See Notes, Zone X	
	Area of Minimal Flood Hazard Zone X			
	Effective LOMFRs			

OTHER AREAS GENERAL STRUCTURES	Area of Undetermined Flood Hazard Zone X	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall
	Area of Undetermined Flood Hazard Zone X	
	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall	

OTHER FEATURES	Cross Sections with 1% Annual Chance Water Surface Elevation	Coastal Transect	Base Flood Elevation Line (BFE)	Limit of Study	Jurisdiction Boundary	Coastal Transect Baseline	Profile Baseline	Hydrographic Feature
	Cross Sections with 1% Annual Chance Water Surface Elevation							
	Coastal Transect							
	Base Flood Elevation Line (BFE)							
	Limit of Study							
	Jurisdiction Boundary							
	Coastal Transect Baseline							
	Profile Baseline							
	Hydrographic Feature							

MAP PANELS	Digital Data Available	No Digital Data Available	Unmapped
	Digital Data Available		
	No Digital Data Available		
	Unmapped		

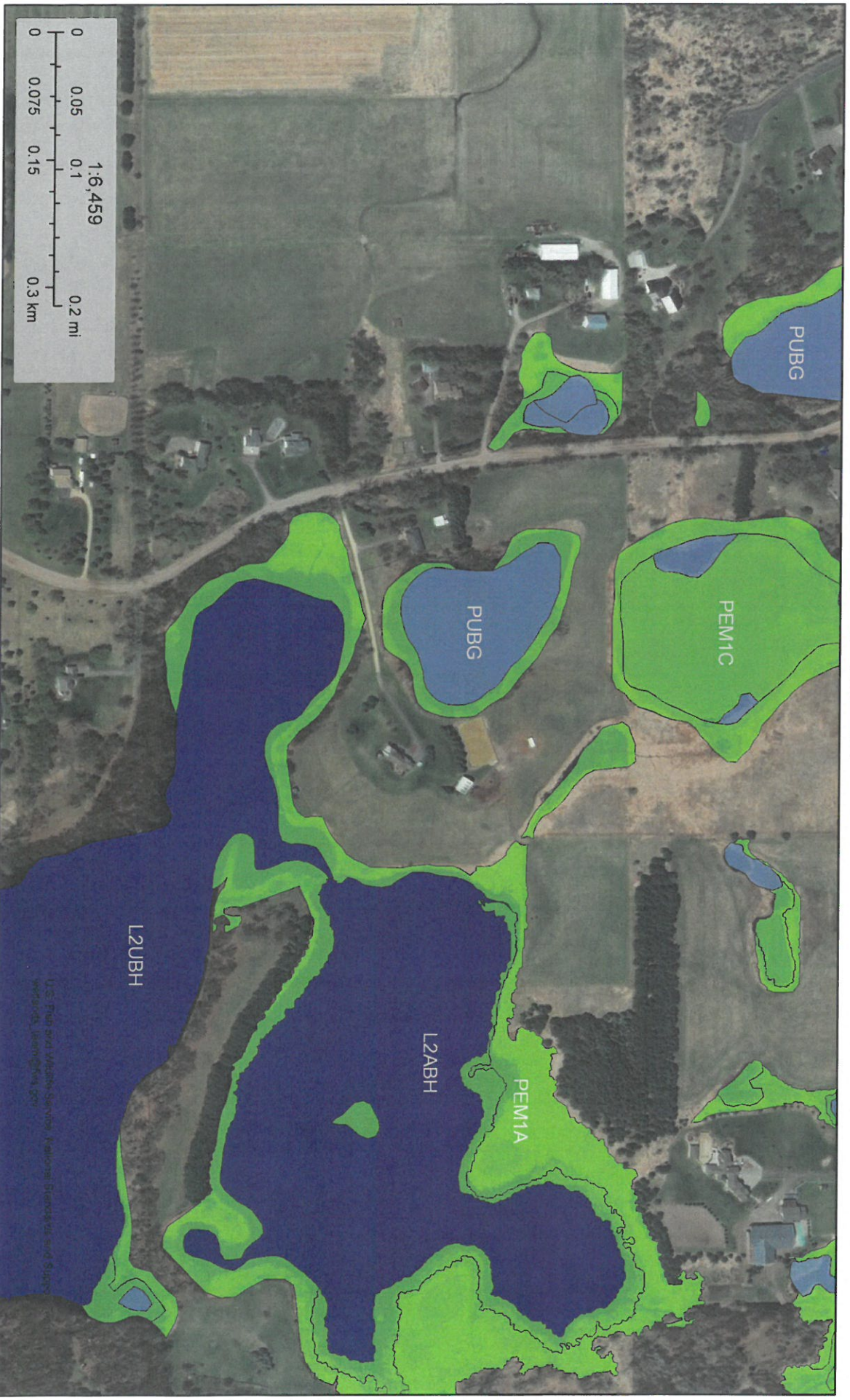


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **2/21/2018 at 4:09:41 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and undetermined areas cannot be used for regulatory purposes.



- Wetlands**
- Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.