

AGENDA

CITY OF MONONA
PUBLIC WORKS COMMITTEE
City Hall Conference Room
WEDNESDAY, February 6, 2013
6:30 P.M.

1. Call To Order
2. Roll Call
3. Approval of Minutes from December 5, 2012 (January 2013 meeting cancelled due to lack of agenda items)
4. Appearances
5. Old Business
 - A. Generator Project Screening – update, engineer follow-up
 - B. Schluter Park Channel – discussion, easement document
6. New Business
 - A. Monona Sustainability Presentation, Andy Hagen – Solar Connections panel proposal at various City facility locations
7. Miscellaneous Business
 - A. Public Works Operations Report
 - B. Topics for future discussion
8. Next Scheduled Meeting: Wednesday, March 6, 2013.
9. Adjournment

NOTE: Upon reasonable notice, the City of Monona will accommodate the needs of disabled individuals through auxiliary aids or services. For additional information or to request this service, contact Joan Andrusz at (608) 222-2525 (not a TDD telephone number), FAX (608) 222-9225, or through the City Police Department TDD telephone number 222-2535. The public is notified that any final action taken at a previous meeting may be reconsidered pursuant to the City of Monona ordinances. A suspension of the rules may allow for final action to be taken on an item of New Business. It is possible that members of and a possible quorum of members of other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information or speak about a subject, over which they have decision-making responsibility. No action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice.

PUBLIC WORKS COMMITTEE

December 5, 2012

Draft Minutes

The regular monthly meeting of the Public Works Committee for the City of Monona was called to order at 6:30p.m. by Chairperson Thomas.

Present: Alderperson Thomas, Alderman Speight, Mr. McConnell, Mr. Stolper (arrived 6:31pm), Ms. Busse, Mr. Franklin, Mr. Besch, Mr. Turino, Mr. Podell

Excused:

Also Present: Director Stephany, Gregg Borucki - SCS BT Squared, Andy Albright - Plan Design, resident Ernie Branch, resident Bruce Miller, resident Rob Kalejta, and resident John Disch

APPROVAL OF MINUTES

A motion was made by Ms. Busse, seconded by Mr. Turino to approve the Public Works Committee minutes of October 3, 2012 was carried.

APPEARANCES

Rob Kalejta, 4402 Outlook St. – appeared to request the City of Monona complete sediment removal maintenance of the Schluter Park channel, as outlined in easement document 919882. The channel is full of sediment and needs cleaning. The last cleaning took place in 1988.

OLD BUSINESS

5A: 2012 Generator Project Screening – Gregg Borucki and Andy Albright appeared in front of the committee to present and discuss the generator screening options as provided in the packet. Mr. Albright discussed various plantings and screening options for all of our neighborhood generators. Whatever options are chosen, all will require some form of annual maintenance to keep them presentable. Mr. Albright also discussed “ball park” figures that can be used to help determine screening costs. Mr. Borucki mentioned that the underground utility locations will have to be taken into consideration when the screening options are finalized.

It should be noted that the goal of the committee is to screen all seven of the City’s generators, and that each generator should be addressed individually based on it’s surrounding. Staff will ask the City Council to reallocate the remaining balance in the capital budget to address all seven locations in 2013. This topic will come back to the committee for the February 6, 2013 meeting.

5B: Sign Request at Outlook St. and Winnequah Rd. – this topic was discussed at the October 3, 2012 meeting. It was decided that the public works committee would address this topic again after the public safety committee had a chance to review the request.

Alderperson Thomas stated the public safety committee did consider the request, however, didn’t think the request would solve the defined problem and recommended against any new sign installation. Mr. Turino questioned this decision and thought the intersection should have at least a Yield sign.

A motion was made by Mr. Turino, seconded by Alderman Speight to recommend the City install a Stop or Yield sign on the southwest corner of the Outlook St. and Winnequah Rd. intersection was not carried. Motion failed.

NEW BUSINESS

6: Schluter Park Channel Cleaning – This topic is being discussed to address the recent request. Mr. Stolper started the discussion by asking the committee if it makes sense to spend money to conduct an engineering study to see if the eastern end of the channel can be converted to a sedimentation basin for the incoming storm water discharges.

Alderman Thomas asked staff to look into any grant opportunities to remove sediment and to convert a portion of the channel to a sedimentation basin. Alderman Speight added that the timing is perfect for the City to look into this issue, given the renewed commitment by the mayor and council to address storm water outfall maintenance throughout the City.

Mr. Stolper would like to address this issue in a timely manner and asked if there was any money available in the 2013 capital budget to potentially complete the needed engineering. The money that is usually dedicated to this type of work is currently allocated to the planned storm water modifications at Fireman's Park in 2013. Mr. Podell asked the committee if a portion of the park can be given up to accommodate a small sedimentation basin. This and other options can be looked at during the engineering phase.

Staff will begin work on getting engineering pricing and report back to the committee.

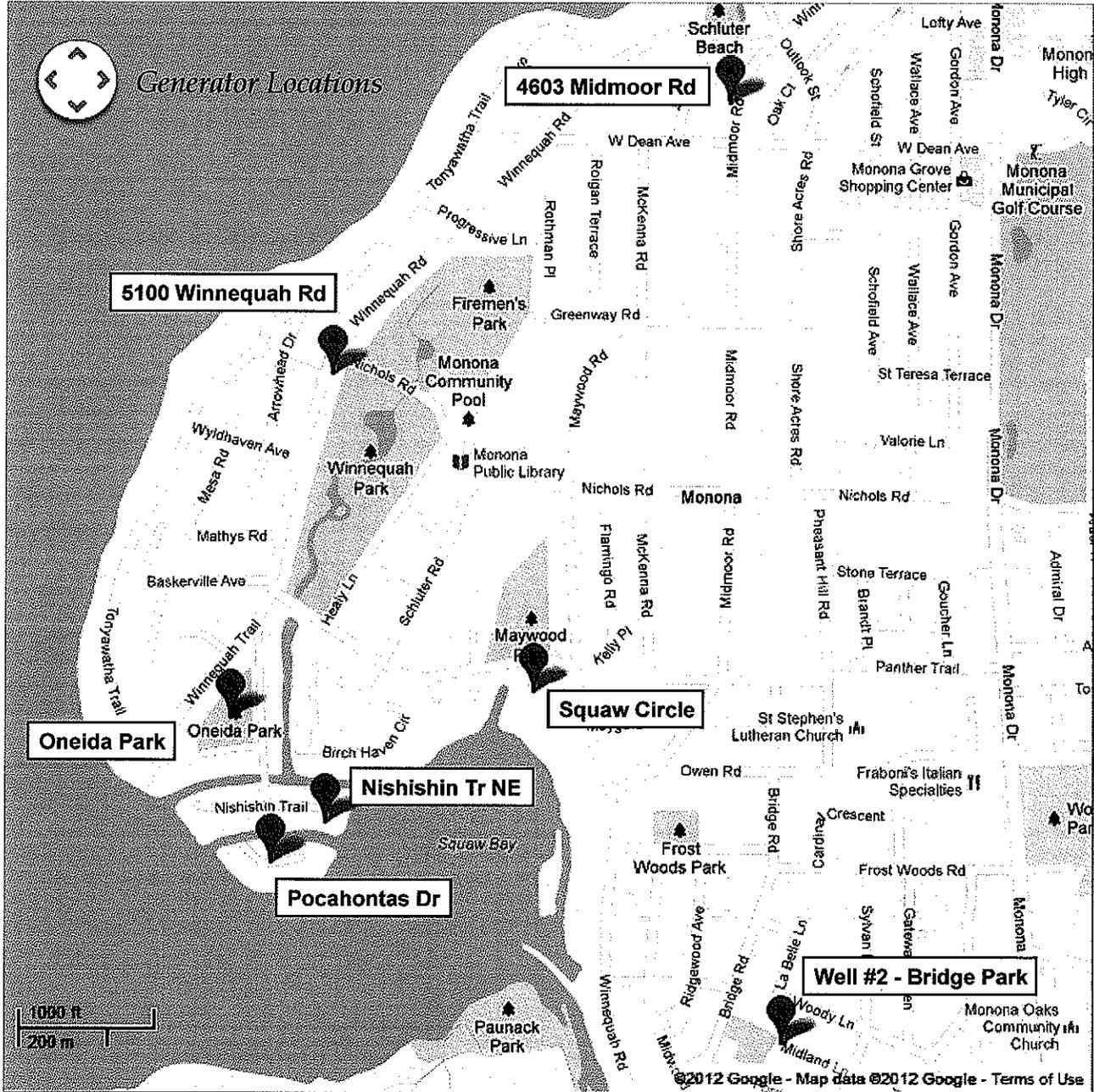
NEXT SCHEDULED MEETING: Wednesday, January 2, 2013.

ADJOURNMENT

A motion was made by Alderman Speight, seconded by Mr. Stolper to adjourn was carried (8:13pm).

Daniel Stephany
Director of Public Works

City of Monona
Generator Screening Study
 Revised January 29, 2013

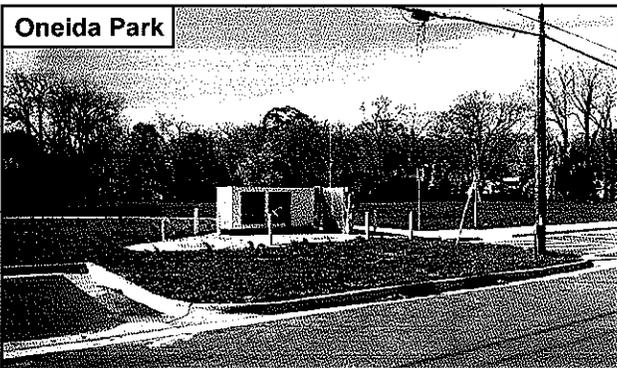
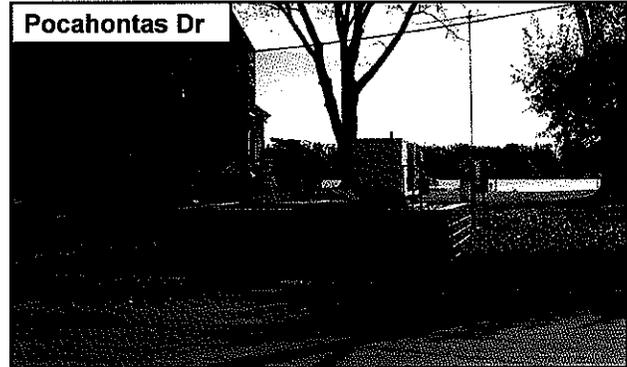
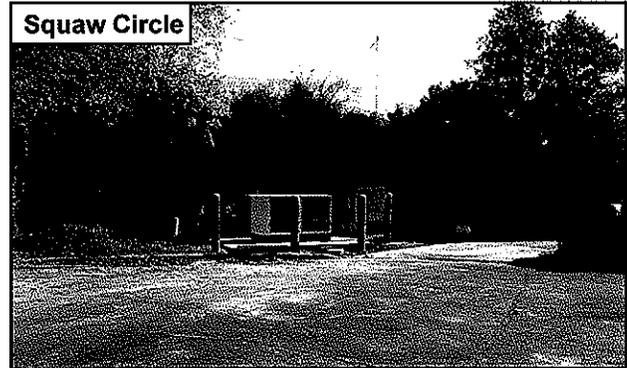
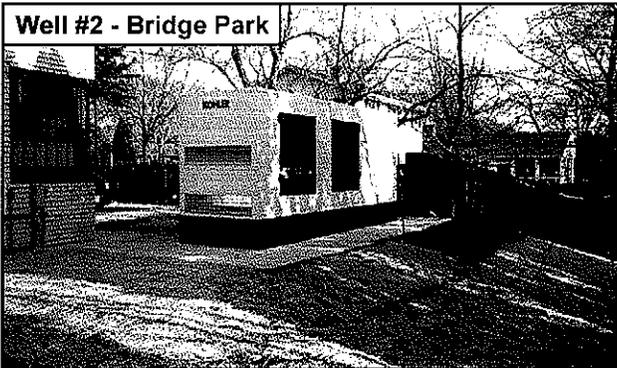
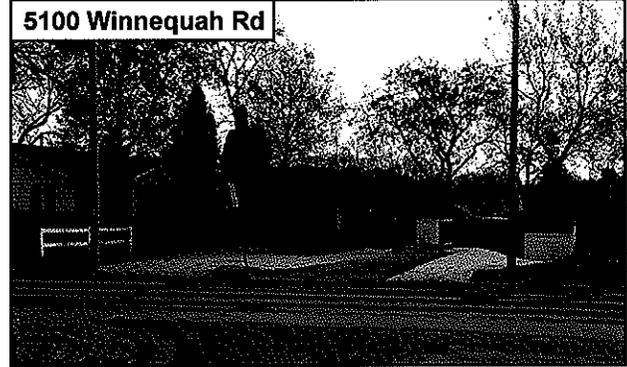
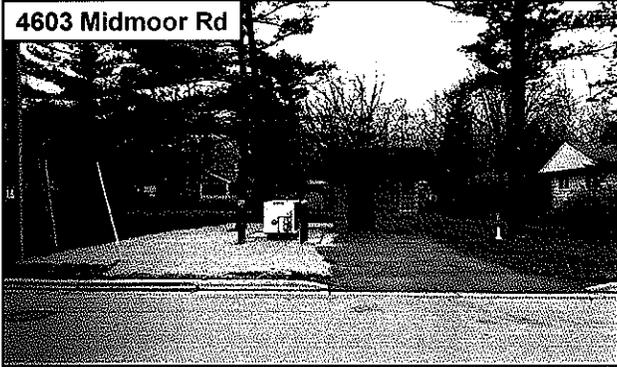


Prepared by:

SCS ENGINEERS

PLANdesign 
 LAND • VISION • PASSION

Existing Site Photos

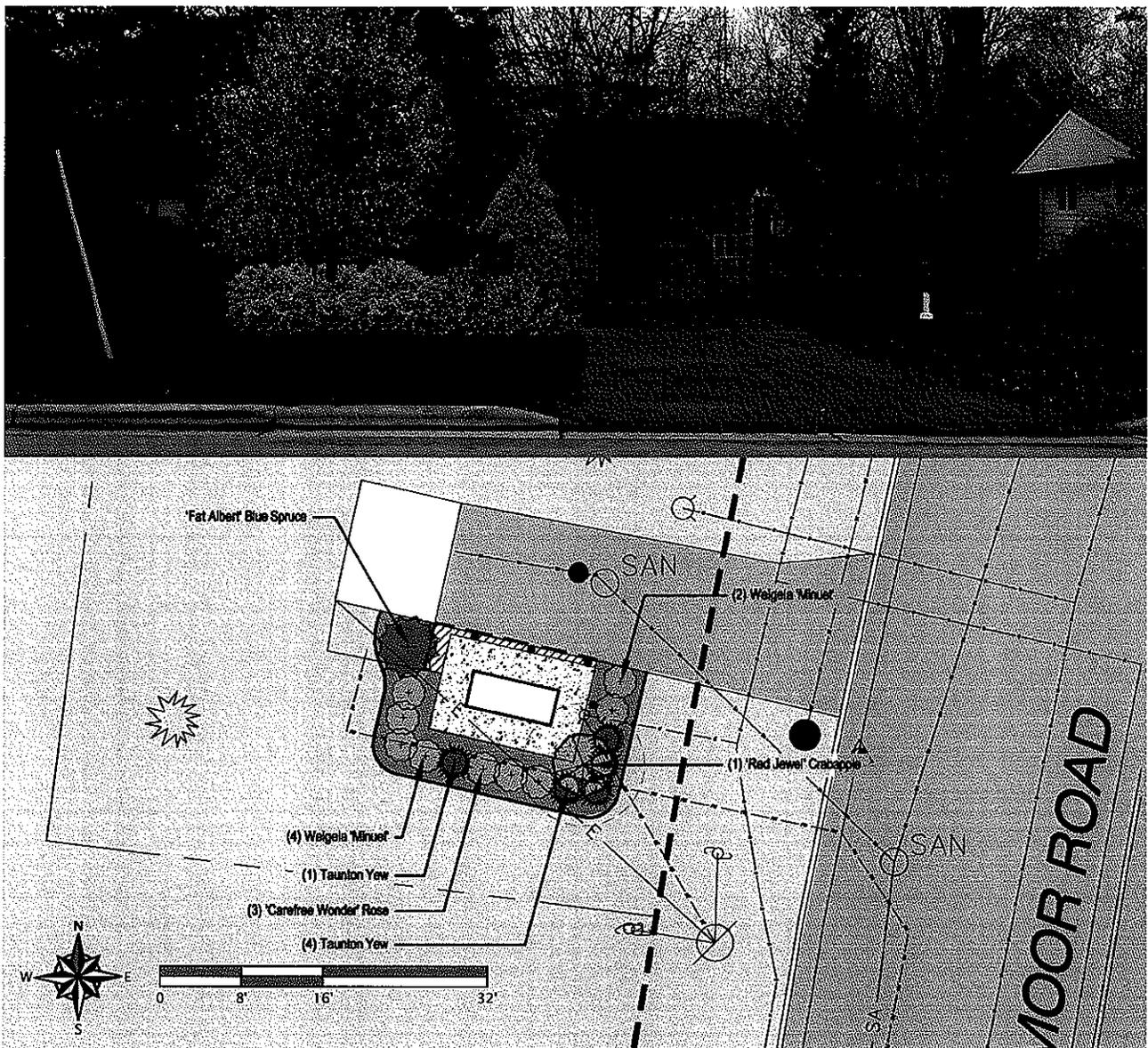


Screening Recommendations and Options

All cost opinions are for rough estimating only and will be affected by numerous variables and decisions yet to be made regarding materials, sizing, finishes, etc. Approximate fencing costs related to the following illustrations assume a 4-sided enclosure with a single 36-inch access gate. Planting bed costs are generalized to allow variations in types of plants, mulch, edging, etc.

Recommended Screening at Midmoor Road

Painted Generator with Mixed Plantings - Simple plantings accent the pump house rather than call attention to the generator, which is painted green to further "disappear" into the landscape. **Probable cost:** +/- \$1,800 (plant beds), plus painting materials & labor.



Other Concepts for Screening at Midmoor Road

Vinyl Fencing with Mixed Plantings (Optional) - A vinyl fence with wood grain finish provides an instant screen while simple plantings soften the visual impact of the enclosure and accent the pump house. This option offers minimal maintenance but may be cost-prohibitive. Probable cost: +/- \$1,800 (plant beds), plus \$4,400 for vinyl fencing.

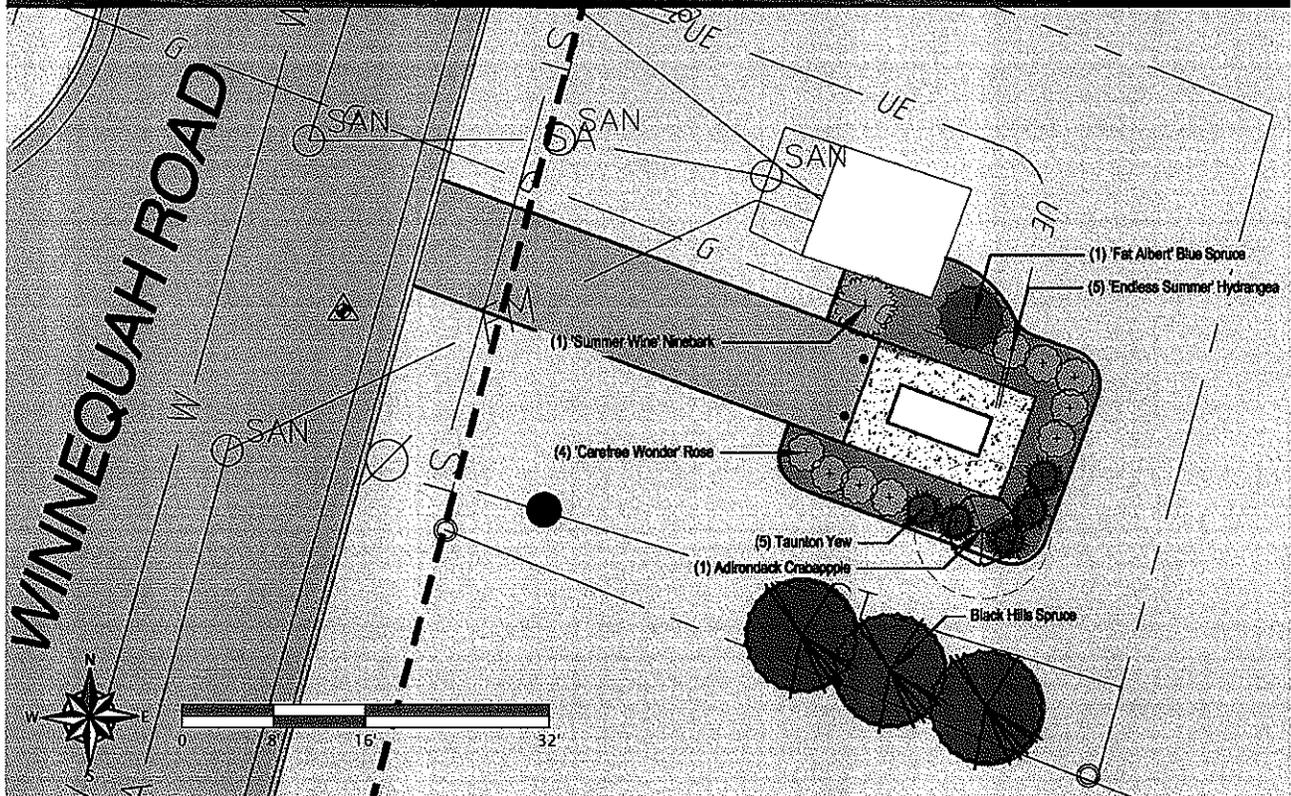


Tall Evergreen Shrubs with Ornamental Grasses (NOT RECOMMENDED) - This option illustrates how dense, low-maintenance plantings alone can eventually screen the generator year-round, but is not recommended due to the excessive massing required, which will eventually overpower the visual impact of the pump house. Probable cost: +/- \$2,600 (plant beds).



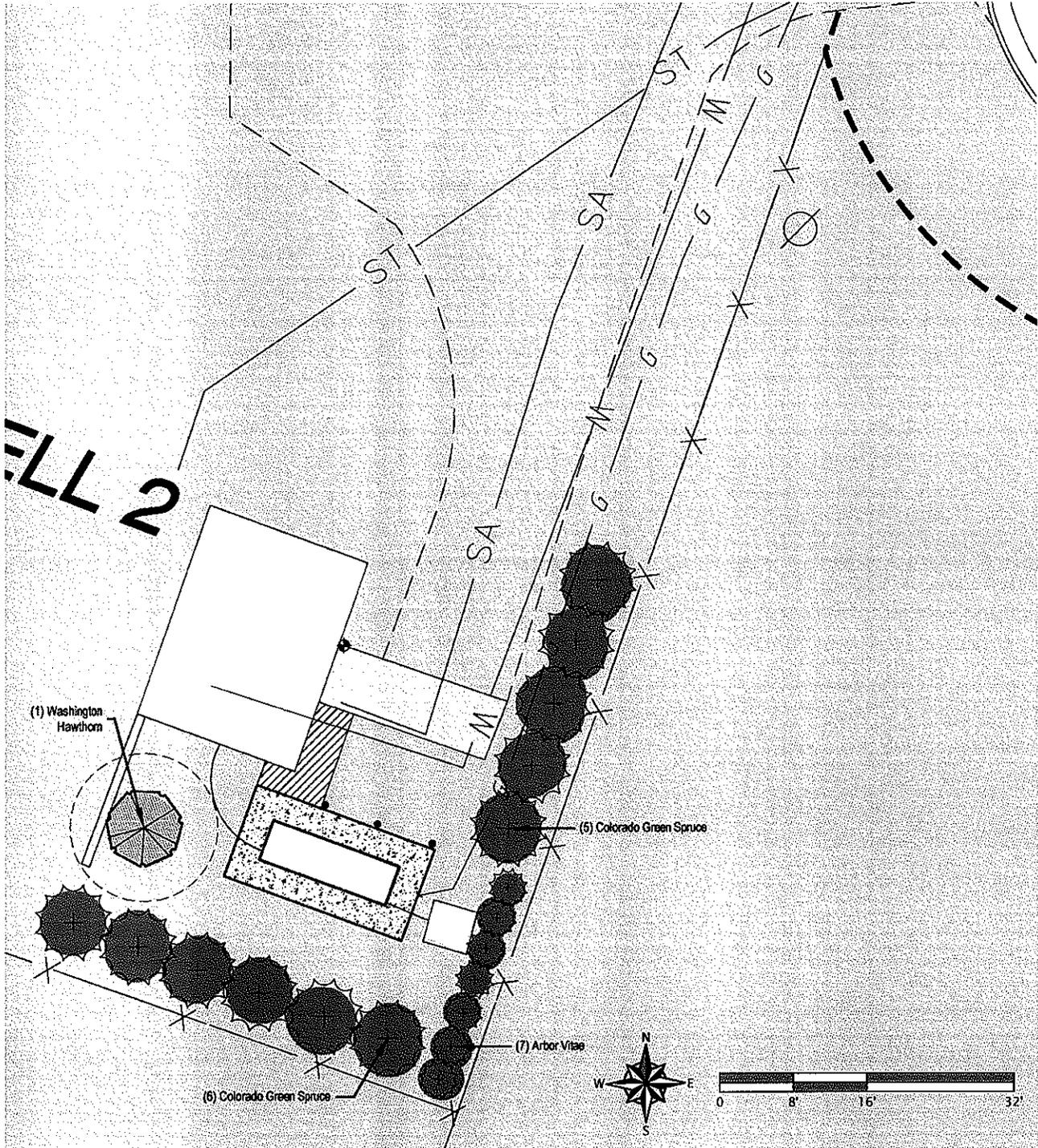
Recommended Screening at Winnequah Road

Painted Generator with Mixed Plantings - Simple plantings appear to accent the pump house rather than call attention to the generator, which is painted green to further "disappear." Tall evergreen trees along the south lot line reduce the generator's visual impact from the neighboring house. Probable cost: +/- \$2,400 (plant beds), plus painting materials & labor.



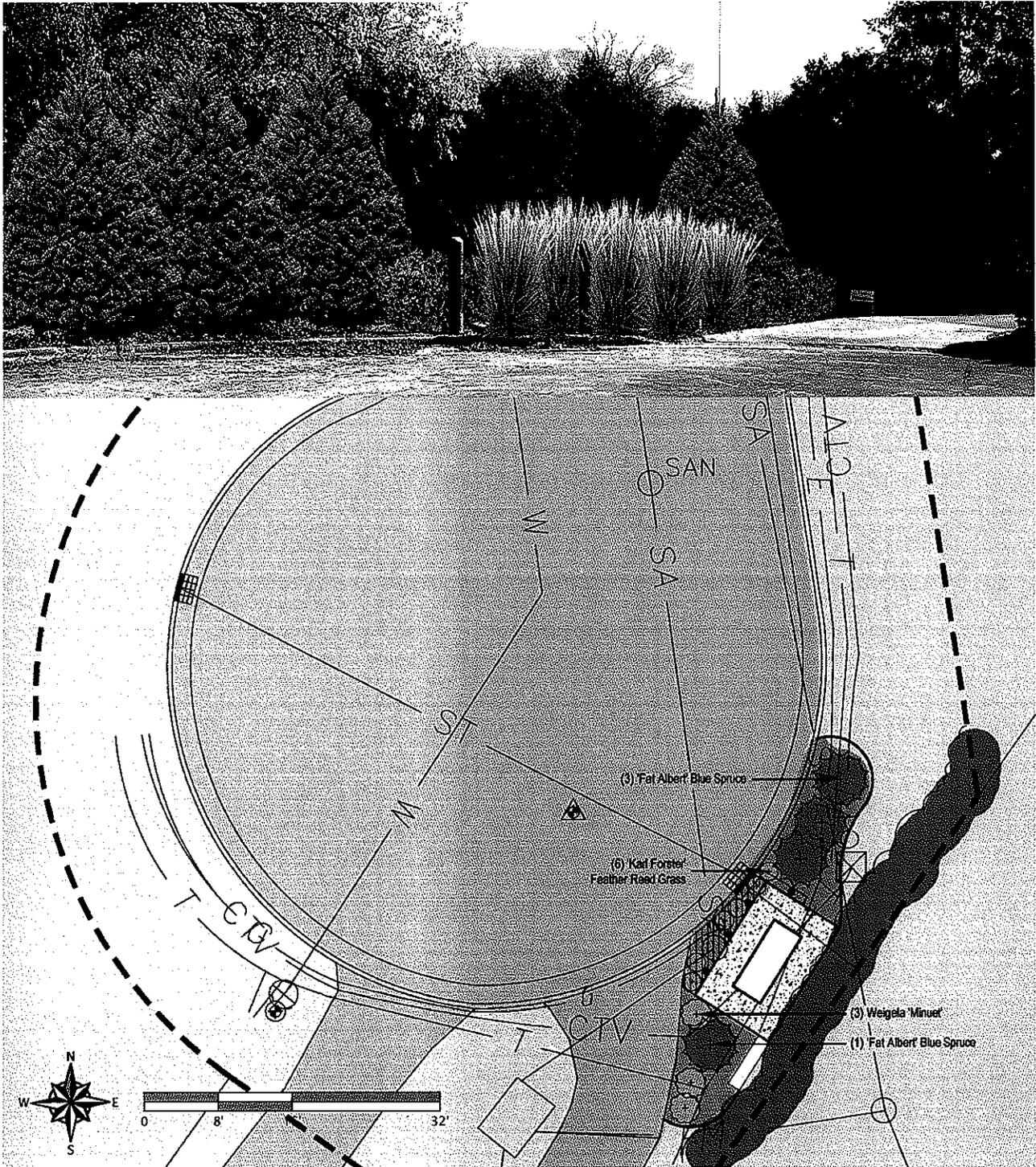
Recommended Screening at Well #2 - Bridge Park

Privacy Fence and Plantings - In addition to the privacy fence already installed, a mix of tall evergreen shrubs and evergreen trees along the lot line help minimize the visual impact from neighboring houses. Probable cost of plant beds: +/- \$5,000.



Recommended Screening at Squaw Circle

Mixed Plantings - Simple plantings reduce the visual impact of the generator and utility boxes. **Probable cost:** +/- \$1,800 (plant beds).



Recommended Screening at Nishishin Trail

Generator with Applique and Mixed Plantings - Simple plantings reduce the visual impact of the retaining wall while stylized artwork applied to the generator celebrates the lake. Pipes painted blue further reduce the visual impact, and a split-face concrete block veneer is applied to the face of the manhole to match the rest of the retaining wall.
Probable cost: +/- \$1,000 (plant beds), plus +/- \$1,200 (applique), plus materials & labor for painting pipes and materials & labor for block veneer.



Alternate Concept: Privacy Fence with Plantings (NOT RECOMMENDED) - The visual barrier to the water is significantly heightened by the fence, which becomes more of an eye-sore than the generator itself.



Recommended Screening at Pocahontas Drive

Generator with Applique and Mixed Plantings - Simple plantings reduce the visual impact of the retaining wall while stylized artwork applied to the generator celebrates the lake. Probable cost: +/- \$1,000 (plant beds), plus +/- \$1,200 (applique), plus materials & labor for painting pipes.



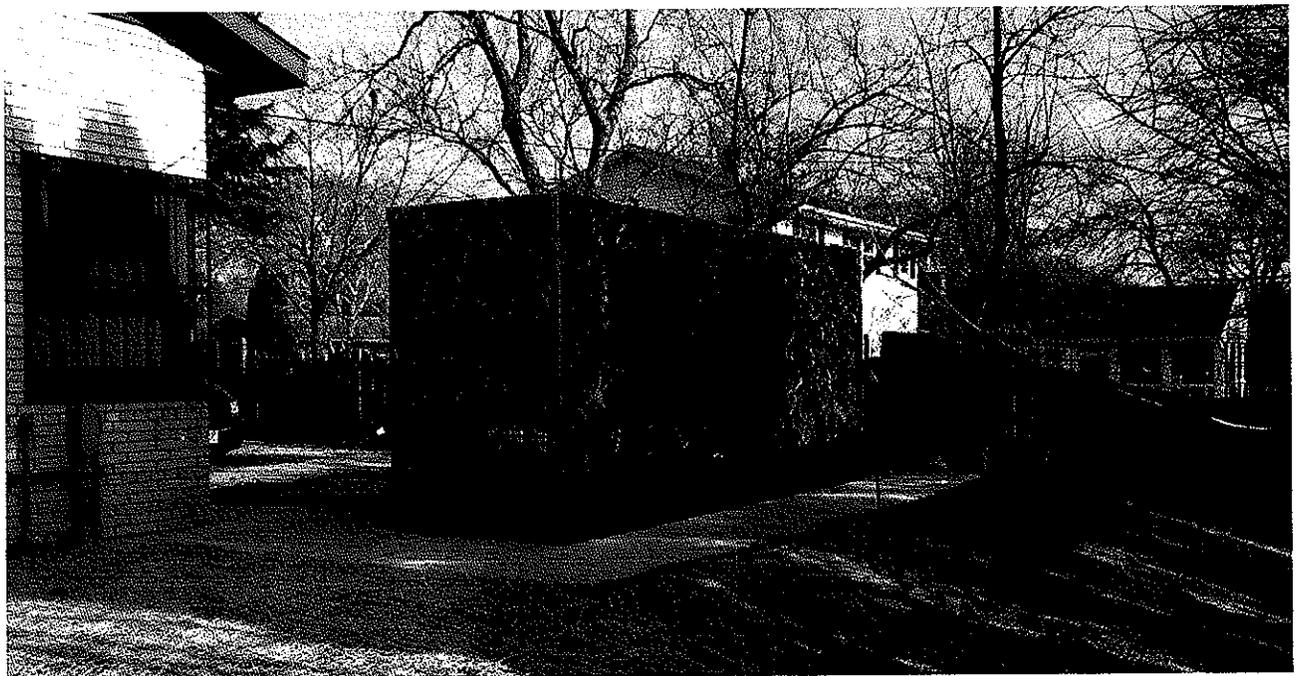
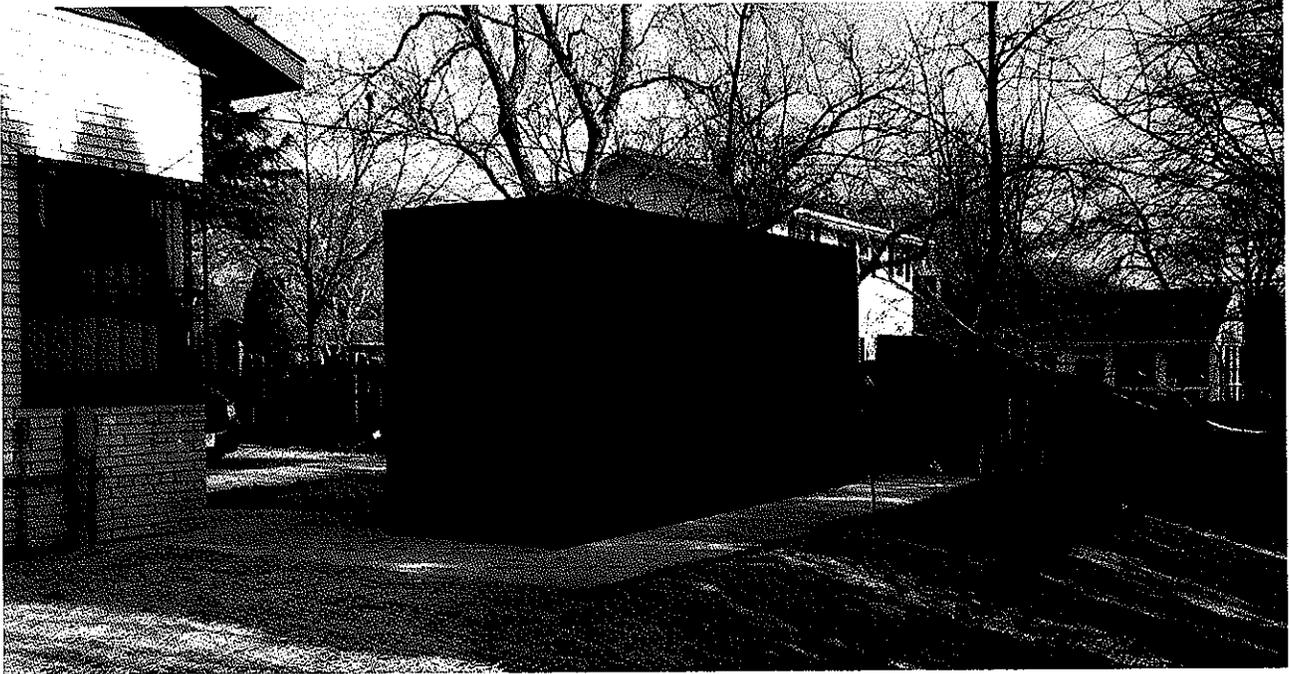
Recommended Screening at Oneida Park

Painted Generator and Mixed Plantings - Simple plantings reduce the visual impact of the generator. Probable cost: +/- \$2,400 (plant beds), plus painting materials & labor.



Additional Ideas

Making the generators “blend” - Painting the generators (top) or using a self-adhesive vinyl applique (bottom) could help make the generators blend into the surrounding landscape. Painting would be very cost-effective using simple materials and in-house labor. The vinyl applique can cost between \$10 & \$12 per square foot plus graphic design services. The applique could most likely be installed with in-house labor.



Easement.

IN CONSIDERATION of one dollar and other good and valuable consideration to me (us) in hand paid, the receipt of which is hereby acknowledged, and in consideration of the acceptance of the terms of this agreement by the Village of Monona, the undersigned Charles Browne
Myrtle A. Browne

hereby grant and convey to the Village of Monona, Dane County, Wisconsin, a municipal corporation, and its successors and assigns, the right and privilege of constructing and maintaining a storm sewer line across the following described premises, to wit:

Along the common property line between lots 3 and 4, block 1, Replat "B" of Shore Acres.

Said easement to be approximately 15 feet wide, the centerline of which is to be on the common property line as described above.

IN WITNESS WHEREOF, I, (We) have hereunto set my (our) hand (s) and seal this 31 day of August, 1955.

In presence of:

Alton Price
Alton Price

Kathryn Engell
Kathryn Engell

Charles Browne (Seal)
Charles Browne

Myrtle A. Browne (Seal)
Myrtle A. Browne

State of Wisconsin)
) SS.
County of Dane)

Personally came before me this 31 day of August, 1955, the above named Charles Browne and
Myrtle A. Browne

to me known to be the person (s) who executed the foregoing instrument and acknowledged the same.

919882 JUN 1 1955

1 50 PM

Kathryn Engel
Notary Public, Dane County, Wisconsin
My comm. expires: 10-6-58
Kathryn Engel



Accepted this 31st day of August, 1955, by the
Village of Monona.

BY: Helen Unger (Seal)
Helen Unger

Subscribed and sworn to before me this 31
day of August, 1955.



Kathryn Engel
Notary Public, Dane County, Wisconsin
My comm. expires: 10-6-58
Kathryn Engel

It is agreed between the parties that as soon as possible following the completion of that portion of the proposed storm sewer which crosses above described premises, that said premises shall be restored to their original condition by the Village of Monona and its successors and assigns.

It is further agreed that any and all damages occurring to the premises as a result of subsequent maintenance by the Village of Monona, or its successors, and assigns, shall be promptly repaired by them.

RECORDED

JUN 11 1956

At 11:20 o'clock A.M.

W
COMPARED 9198832

Baronnet

to

Office of Register of Deeds
Dane County, Wisconsin

Received for Record Wise 11

A. D. 1956 at 11:30 of August A.M.

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City of Monona

5211 Schluter Road
Monona, Wisconsin 53716
Phone: 608-222-2525
Fax: 608-222-9225
Website: www.mymonona.com



January 29, 2013

To: Public Works Committee

Attn: Dan Stephany

Subject: Potential Solar Panel Locations

Attachments: plan commission comments, Monona Community Solar Project intro, site locations list, zoning map, solar array examples, implementation schedule

Dear Mr. Stephany,

As part of this Solar Connections Project preliminary review process, we are submitting this packet to Public Works Committee for your review and comment at the Feb. 6th meeting, followed by the Parks Committee on Feb. 12th. Plan Commission has reviewed the pre-application and provided feedback at their Jan. 14th meeting (see attached Plan Commission comments.) Andrew Hagen, Sustainability Committee staff, along with Kurt Reinhold and Jim Yockey, Solar Connections LLC, will be presenting the project at the Public Works Committee meeting.

The Monona Sustainability Committee and Solar Connections, LLC are bringing a solar proposal to the City of Monona that offers solar on a large scale in order to satisfy the City's 25x25 Energy Independence goals and to reduce operational costs for the city in the decades to come. We have identified eight sites that have the potential for an optimal load vs panel size ratio. Please note that all locations are still pending further investigation on feasibility and costs.

Project background:

Solar Connections will work with its partners to draft a comprehensive proposal that will include one or more large solar arrays (varying from 25 to 100 kilowatts in size) that will offset a portion of the City's MGE bill for that site (either a water utility pumping site or a municipal building with MGE service). The optimal project size, all locations combined, would total 200kw+. The solar equipment would be paid for, installed by, and owned by a partnering firm (yet to be determined) that will be able to make use of the federal tax benefits and pass the savings on to the City of Monona.

During a 6 or 7 year *Solar Services Agreement*, the City of Monona will pay their usual MGE bill with the solar energy savings being paid to the Solar Services Agreement. After 6 or 7 years, the City will have the opportunity to buy the fully depreciated solar equipment at a discount, or at Fair Market Value, whichever is higher. Any costs over and above the usual cost for that amount of electricity in years 1-6 will be subsidized by a unique Community Solar Fundraising program where residents can "buy a panel" for the city and receive a tax-deduction for their gift. A monthly payment system will be offered for those who want to make smaller donations that add up to equal the cost of a full solar panel.

We ask that the Public Works Committee provide preliminary feedback on the proposed site locations and direction on the extent of information that they would like to see in the next submittal.

Thank you for your time.

Sincerely,

Janine Glaeser, City of Monona Project Manager

Monona Community Solar Project (Intro): 2012

Introduction:

Solar Connections, LLC is bringing a solar proposal to the City of Monona that offers solar on a large scale in order to partially satisfy the City's Energy Independence goals and to reduce operational costs for the city in the decades to come.

Background Info:

Solar Connections, LLC



Share a Slice of Sun

Solar Connections, LLC was started by Kurt Reinhold in 2008 to investigate and pursue Community Solar business models that would be the most optimal way for individuals and organizations to take advantage of solar technology within the economic and regulatory framework in the State of Wisconsin. A 2009 Focus on Energy grant helped form this business plan, and a 2010 Focus on Energy grant helped investigate the different models for achieving Community Solar goals—namely, giving access to all who wish to invest in solar projects in the most affordable way possible (and to take advantage of economies of scale to allow the up-front cost and the return on investment to be optimized while conforming to Securities laws, Utilities laws, and IRS rules, on both state and federal levels).

Solar Connections has been fortunate to work with countless experts in the field of renewable energy, in utility law, in securities law, and many Wisconsin-based renewable energy specialists. Also, we have partnered with Sustainable Atwood and with Natural Step Monona to grow local community solar projects through education and project management. Also, being a member of RENEW Wisconsin allows us access to renewable energy enthusiasts (both professional and lay-person) throughout the state to advocate on topics that affect us all.

Kurt has a background in Science Education (taught high school Chemistry, Physical Science, and Biology), and for the past 15 years has been a physical therapist, specializing in industrial rehab, and opening and managing onsite clinics in factories all around North America. Kurt has taken time out from his PT career to follow his lifetime passion for solar energy. He has taught numerous workshops, both at the Midwest Renewable Energy Association (MREA) Energy Fair, and as a community organizer for solar development in and around the city of Madison. He has spoken in front of many area groups, including The Natural Step Monona, about Community Solar concepts and opportunities.

James Yockey has been active in the energy sector of the economy for over 20 years. He has formed his own business (URS, Inc) to help organizations maximize their energy independence and to reduce costs associated with traditional utility-provided gas and electrical services. He has worked with many Native American Tribes all over the country to create independent utility districts within their sovereign territories. He then took over the role as CEO for Seventh Generation Energy Systems in 2009, and helped expand the reach of SGES with the formation of a non-profit organization to promote renewable energy and to help educate the public about the opportunities that exist for both wind and solar power. He oversaw the creation of several large wind development projects, and dozens of smaller wind systems.

Jim and Kurt met in 2010 and have been working on combining forces to launch larger municipal solar projects that could be replicated all over the state. A version of their model did pass legal scrutiny for the City of Madison, but the change in mayors put that project on hold. A similar project is under consideration for Middleton and Milwaukee.

Project Partners with Solar Connections, LLC include **tenKsolar** and **Sustainable Atwood**. **The Natural Step Monona** may also play a role in the City of Monona's Community Solar project.

tenKsolar



After having experience with different types and brands of solar photovoltaic equipment, Jim and Kurt decided to team up with tenKsolar out of Bloomington, Minnesota (suburb of Minneapolis). They not only manufacture and assemble their components here in the midwest, they take a whole systems approach to optimizing the efficiencies inherent in the various materials that make up their tenKsolar (TKS) product. The result is a safer and more productive piece of technology that continues to hold all the warranties and reliability that have been the hallmark of solid-state crystalline silicon PV modules. NASA has relied on this basic crystalline PV technology to power their satellite and exploration missions for decades.

Two main advantages of the tenKsolar approach include, 1) A lower operating voltage (safer than the competition); and 2) Light-Smart Reflectors to concentrate the solar onto the module for maximal PV output per square meter of space.

Sustainable Atwood

**SUSTAIN
ABLE
ATWOOD**



Sustainable Atwood is a community-based non-profit organization that has agreed to host a Community Solar Fundraising Platform to help offset the cost of solar projects for municipalities who choose to participate in our public-private partnership model.

Solar Connections Municipal Community Solar Model Introduction

Overview: Solar Connections will work with its partners to draft a comprehensive proposal that will include one or more large solar arrays (25 to 100 kilowatts in size) that will offset a portion of the City's MGE bill for that site (either a water utility pumping site or a municipal building with MGE service). The solar equipment would be paid for, installed by, and owned by a partnering firm that will be able to make use of the federal tax benefits and pass the savings on to the City of Monona.

During a 6 or 7 year *Solar Services Agreement*, the City of Monona will pay their usual MGE bill with the solar energy savings being paid to the Solar Services Agreement. After 6 or 7 years, the City will have the opportunity to buy the fully depreciated solar equipment at a discount, or at Fair Market Value, whichever is higher. Any costs over and above the usual cost for that amount of electricity in years 1-6 will be subsidized by a unique Community Solar Fundraising program where residents can "buy a panel" for the city and receive a tax-deduction for their gift. A monthly payment system will be offered for those who want to make smaller donations that add up to equal the cost of a full solar panel.

This model is unprecedented in Wisconsin, due to the specific nature of its design and implementation strategy. MGE has reviewed the proposal and will allow their usual "net-metering" tariff to credit the City for excess solar power that may be exported to the grid. More information will be presented later on this structure. The environmental and financial benefits for this model are unparalleled in the renewable energy industry, especially in the State of Wisconsin.

End of Brief Introduction

From: Sonja Reichertz

Sent: Tuesday, January 29, 2013 10:12 AM

To: Janine Glaeser

Cc: Patrick Marsh; Ryan Krzos; Intern City Planner

Subject: Summary of Plan Commission Discussion January 14, 2013, re: Solar Panel Locations

Hi Janine,

Below, you will find an outline of Plan Commission comments, recommendations, and general notes for each of the potential sites for solar panel installation presented at the January 14, 2013 Plan Commission meeting.

1. City Hall, 5211 Schluter Rd (Zoning: Public Facilities)
Location option a) Roof mounted on City Hall
 - The Commission cited this location as an appropriate/favorable site.Location option b) Roof mounted on Winnequah School roof
 - The Commission cited this location as an appropriate/favorable site.
2. Monona Public Library, 1000 Nichols Rd. (Zoning: Public Facilities)
 - The Commission cited this location as an appropriate/favorable site.
 - The Commission was favorable of the fact that this location provides an educational element as information on energy generation could be gathered and displayed.
3. Community Center Main Building Parking Lot, 1011 Nichols Rd. (Zoning: Public Facilities)
 - If panels are installed at the Community Center, the structure should include fascia or an EFIS strip, or other architectural feature to match those on the Community Center building and other public facilities;
 - The Commission noted that a canopy structure in front of the Community Center because it could block the view of the Skate Park, raising concerns for safety and crime.
4. Community Center Pool Parking Lot, 1011 Nichols Rd. (Zoning: Public Facilities)
 - If panels are installed at this location, the structure should include fascia or an EFIS strip, or other architectural feature to match those on the Community Center building and other public facilities.
5. Rec Facility/Park at Ahuska Park, 400 E Broadway (Zoning: Community Design District)
Location option a) adj. beltline
 - the potential site near the beltline is planted with oak trees for use as an Oak Savanna for passive recreation and solar panels would be in conflict with this use.Location option b) adj. memorial
 - The ground mounted structure in the parking lot is in the expansion area for the park's parking lot;
 - there could be issues with blocking visibility of the Veterans Memorial in the Ahuska Park;
 - One Commissioner noted that if a canopy structure were behind the tennis courts at and did not block the Veteran's Memorial, this could be something to consider.Location option c) parking lot
 - any canopy structure needs to be harmonious with the park shelter's architecture.
 - canopy structure over parking could be a nice location to have events underneath with covered space that is functional for farmers markets, Christmas tree sales, and so forth.
6. Public Works Water Utility, Well #3, 6500 Raywood Rd (Zoning: Public Facilities)
 - The commission cited this location as an appropriate site.
7. Public Works Water Utility, Bridge Park Well #2, 6210 Bridge Rd (Zoning: Public Facilities)
 - The Commission cited this location as an appropriate site;
 - Considerations should include the arbor vitae trees on the site and the function and location of the existing berm.
8. Public Works Garage, 851 Femrite Drive (Zoning: Community Design District)
 - The Commission cited this location as an appropriate site.

General Comments

- Consensus of the Plan Commission was favorable of the proposal and use in general;
- The Commission noted if there is any pending roof replacement for the potential buildings, it should be done prior to installation of solar panels;
- Designs should consider screening of roof-mounted panels;
- Fencing and signage will need to be considered with ground-mounted panels;
- The Commission suggested re-visiting the design of park shelters currently proposed or approved (Oneida Park, Firemen's Park) and that solar panels could be re-introduced into their designs with this project;
- Some commissioners noted a preference for roof-mounted arrays on existing buildings rather than canopy structures;
- Other commissioners stated canopy structures should not be ruled out, but that particular attention would need to be paid to ensure harmonious design with the site, environment, and adjacent structures;
- Design should avoid an industrial look in order to blend with the recreational uses adjacent to many of the potential sites;
- For subsequent Plan Commission reviews, plans should indicate scale and other aesthetic considerations. A site plan should be submitted showing the location of the panel array and how many panels are included. Rough elevations should also be submitted to show the scale of panels in relation to the buildings and sites.

Please let me know if you have any questions. Also, please let me know when are ready to submit plans for a Public Hearing and Prehearing Conference before the Plan Commission and I will outline the process for plan submittal at that time.

Thanks,
Sonja

Sonja Reichertz
Planning Administrative Assistant
City of Monona
5211 Schluter Road
Monona, WI 53716
Ph: 608.222.2525
Fax: 608.222.9225
sreichertz@ci.monona.wi.us





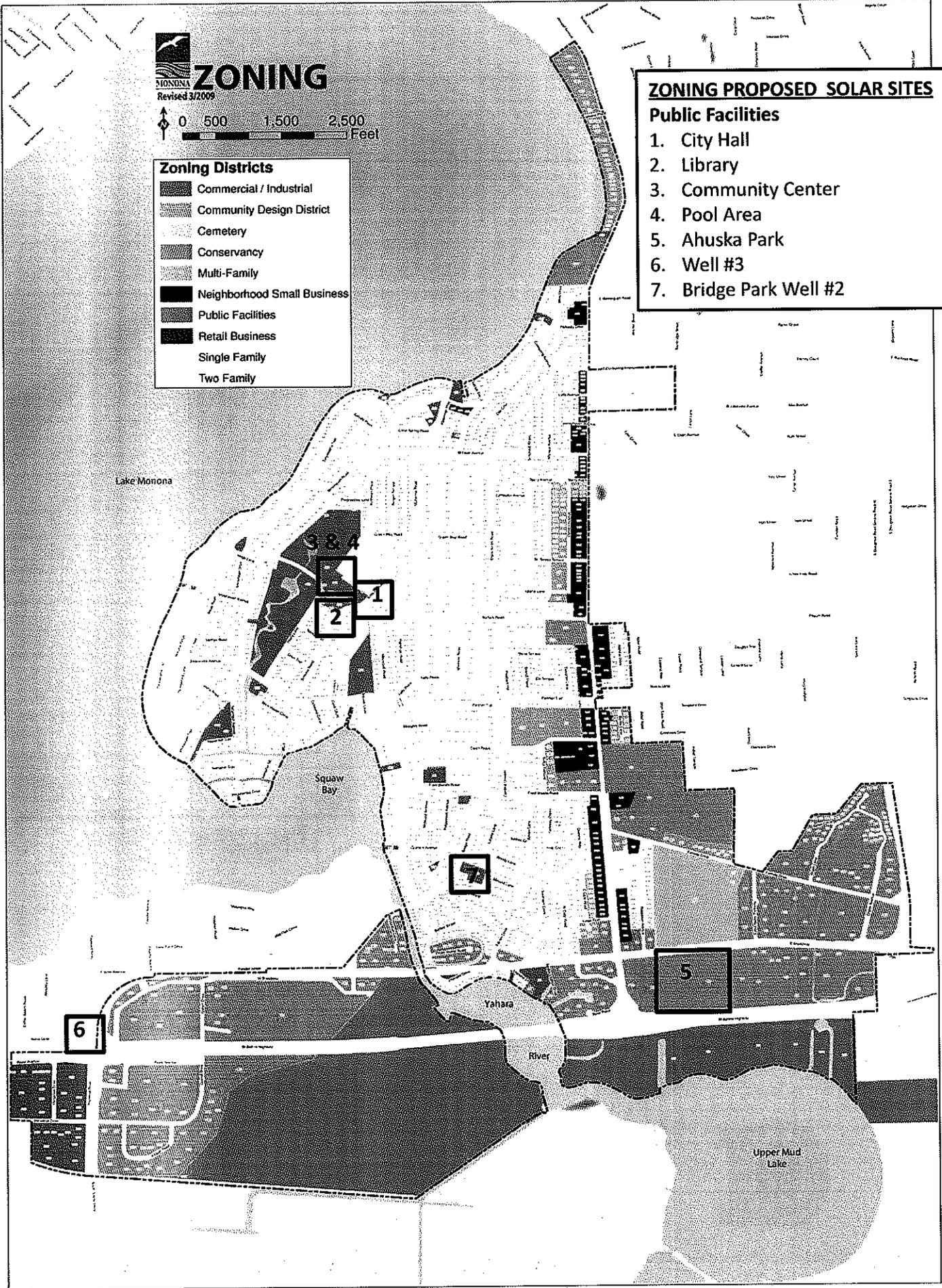
ZONING

Revised 3/2009



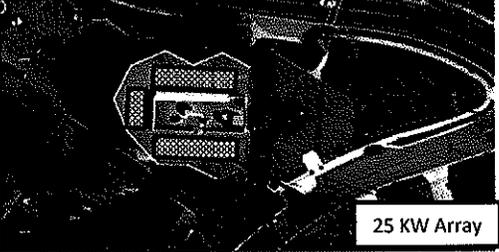
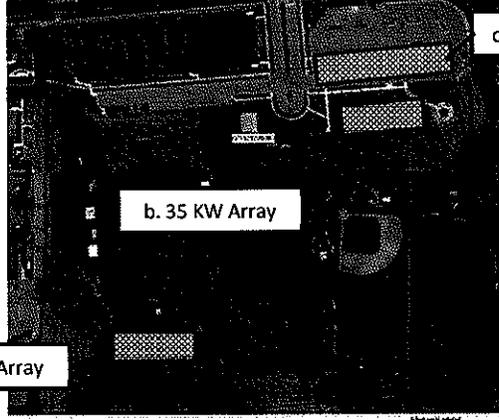
| Zoning Districts | |
|------------------|-----------------------------|
| | Commercial / Industrial |
| | Community Design District |
| | Cemetery |
| | Conservancy |
| | Multi-Family |
| | Neighborhood Small Business |
| | Public Facilities |
| | Retail Business |
| | Single Family |
| | Two Family |

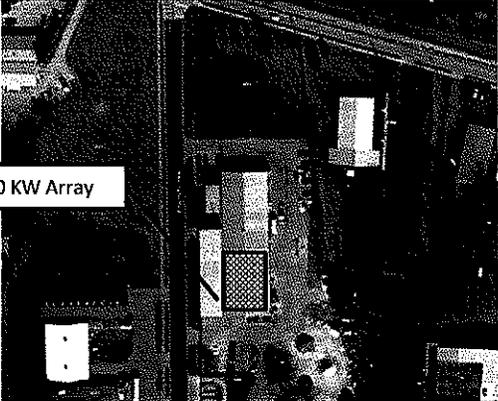
- ZONING PROPOSED SOLAR SITES**
- Public Facilities**
1. City Hall
 2. Library
 3. Community Center
 4. Pool Area
 5. Ahuska Park
 6. Well #3
 7. Bridge Park Well #2

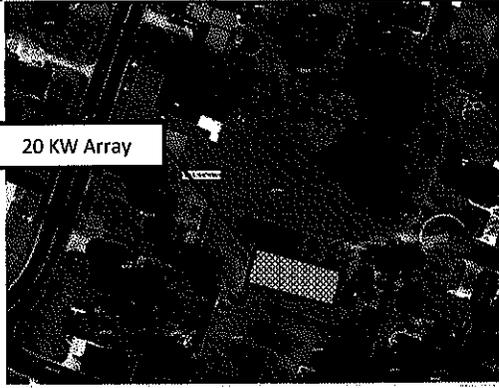
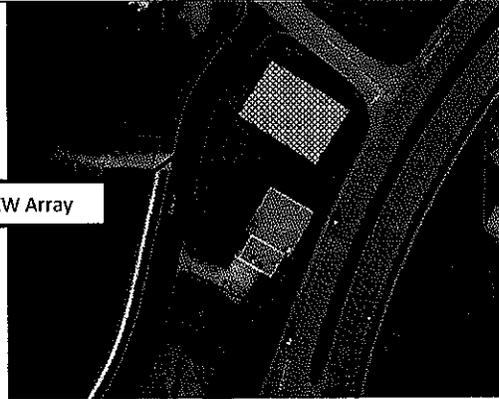


**Potential Sites &
Options for Solar Panel Loads**

| Location | Address / Area | Image | Application | KW | Notes |
|-----------|----------------------------------------|-------|-----------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CITY HALL | 5211 Schluter Rd. | | a. Roof mounted; | a. 10-30 KW | Roof mounted on reservoir: <i>Also serves as educational tool. Panels would be visible from library and connected to kiosk in library lobby.</i> |
| | or | | or | | |
| | b. Winnequah School: lease school roof | | b. Roof mounted: lease roof from school | b. 100KW for City + 40 kw for school | |

| | | | | | |
|----------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|--|
| LIBRARY | 1000 Nichols |  <p>25 KW Array</p> | Roof Mounted | 25 KW | |
| COMMUNITY CENTER – MAIN BUILDING | 1011 Nichols |  <p>40 KW Array</p> | Canopy Structure over Parking | 40 KW | |
| REC FACILITY / PARK | 400 E. Broadway a.adj. beltline or b. adj. memorial or c.parking lot |  <p>a. 35 KW Array</p> <p>b. 35 KW Array</p> <p>c. 35 KW Array</p> | a. ground mounted or b. ground mounted or c. canopy structure | 35 KW | |

| | | | | | |
|-------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>COMMUNITY CENTER POOL</p> | <p>1013 Nichols</p> |  <p>90 KW Array</p> | <p>Canopy structure over parking</p> | <p>90 KW</p> | <ol style="list-style-type: none"> 1. Visible and Aesthetic; 2. Affords covered parking for public; 3. Smaller adder in cost; 4. Heat abatement from asphalt heat sink. 5. Easier to do fundraising for (?) |
| <p>PW GARAGE</p> | <p>PW Garage</p> |  <p>50 KW Array</p> | <p>Roof mounted</p> | <p>50 KW</p> | |

| | | | | | |
|------------------|------------------|------------------------------------------------------------------------------------|----------------|-------|--------------------------------------------------------------------------------------------------------------------------------------|
| PW Water Utility | 6210 Bridge Rd. |  | Ground mounted | 20 KW | |
| PW Water Utility | 6500 Raywood Rd. |  | Ground mounted | 50 KW | Panels would be in right of way area. Monona already maintains this right of way. May require an agreement with the City of Madison. |
| TOTAL RETROFIT: | | | GRAND TOTAL | | |

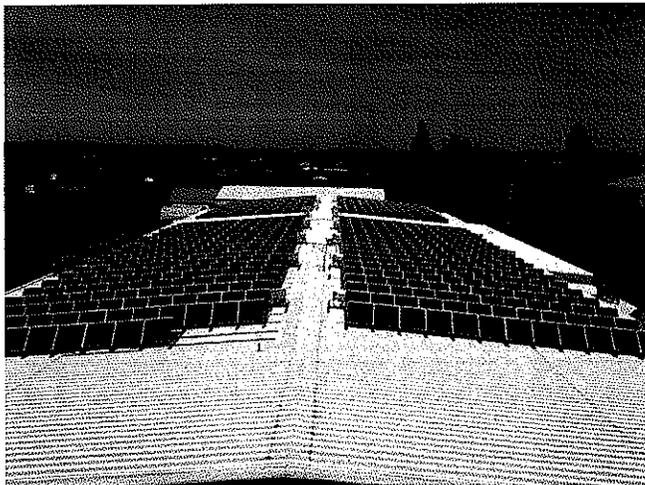
Typical Solar Panel Types and Layouts



After having experience with different types and brands of solar photovoltaic equipment, Jim and Kurt decided to team up with tenKsolar out of Bloomington, Minnesota (suburb of Minneapolis). They not only manufacture and assemble their components here in the midwest, they take a whole systems approach to optimizing the efficiencies inherent in the various materials that make up their tenKsolar (TKS) product. The result is a safer and more productive piece of technology that continues to hold all the warranties and reliability that have been the hallmark of solid-state crystalline silicon PV modules. NASA has relied on this basic crystalline PV technology to power their satellite and exploration missions for decades.

Two main advantages of the tenKsolar approach include:

- 1) A lower operating voltage (safer than the competition)
- 2) Light-Smart Reflectors to concentrate the solar onto the module for maximal PV output per square meter of space.



Typical Roof Mounted Array Layout



Metal frame canopy structure array above parking



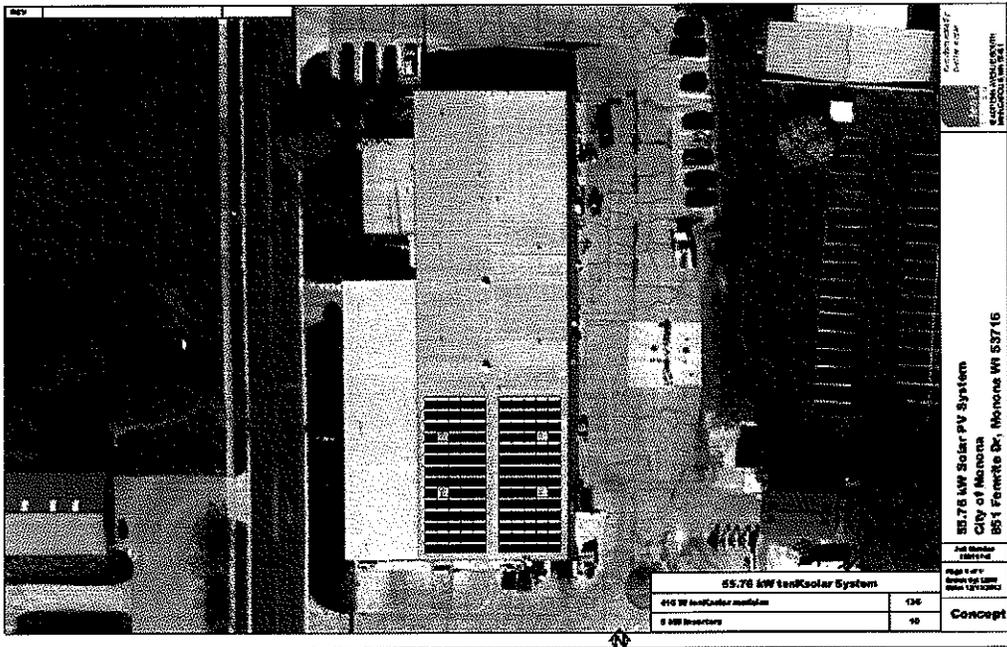
Wood frame canopy structure array for deck area



Ground mounted array layout, would require fencing

Preliminary Solar Layout for the 851 Femrite Site.

Example of solar arrays detail for next Plan Commission review.



Solar Connections, LLC
 (608) 957-6801
Solarconnections@gmail.com

Revised Implementation Schedule for Community Solar Project -- Monona, Wisconsin
17-Dec-12

| Phase | Tasks | Q4 2012 | | Q1 2013 | | | Q2 2013 | | | Q3 2013 | | | Q4 2013 | | |
|------------------|-----------------------------------------------------------------------------------------------|---------|-----|---------|-----|-----|---------|-----|-----|---------|-----|-----|---------|-----|-----|
| | | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Data Collection | 1. MGE Bill/s and GS Data (Initial Site Selection) | | | | | | | | | | | | | | |
| | 2. Vetting Sites with Facilities Manager/s | | | | | | | | | | | | | | |
| | 3. Discuss Concepts with Key Staff (Finance/Legal) | | | | | | | | | | | | | | |
| | 4. Additional Data Collection (Legal Description of Property, etc) for each site | | | | | | | | | | | | | | |
| Pre-Proposal | 5. Meet again with Staff (facilities and finance/legal) to go over Terms Sheet for Proposal | | | | | | | | | | | | | | |
| | 6. Solar Connections works with investor pool and finalizes Solar Services Agreement Proposal | | | | | | | | | | | | | | |
| | 7. Council and Committee Presentation of Unsolicited Proposal | | | | | | | | | | | | | | |
| | 8. Due Diligence to negotiate and finalize terms of Proposal | | | | | | | | | | | | | | |
| Pre-Installation | 9. Permitting and Initial Costs for project | | | | | | | | | | | | | | |
| Installation | 10. Assembly and Connection of Solar Equipment | | | | | | | | | | | | | | |
| | 11. Interconnection with MGE and Final Commissioning | | | | | | | | | | | | | | |
| | 12. Fund-raising by Non-Profit | | | | | | | | | | | | | | |

City of Monona – Department of Public Works

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Monona, Wisconsin 53716
Phone: 608-222-2525
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OPERATIONS REPORT – January 29, 2013

MONONA DRIVE RECONSTRUCTION

Phase III - *updated*

- The third phase of Monona Drive reconstruction encompasses the section of Monona Drive from Nichols/Pflaum Road north to Winnequah Road, with construction starting in April 2013. The City of Monona will be replacing nearly one mile of water main and sewer main during this phase.
- RG Huston provided the low bid, which still needs to be accepted by the WDOT. Once approved, Huston is requesting an early March start date.
- MG&E, cable and phone utilities have started their underground work in late fall 2012 to ensure no delays to the project start date in April 2013.
- Jim Foley will once again serve as the project manager for the WDOT. Brad Schultz from SCS BT Squared will provide inspection and administration services for the City's water and sewer replacement work.

2012 DREDGING PROJECT – *updated*

- The dredging contractor, Veit & Company, has completed all lagoon dredging Phases. Veit, however, will need to complete some maintenance dredging in 2013. The Maintenance dredging will not affect anyone's access to the lagoons or require pier or dock removal from any property. Engineering surveys of all final dredged areas and depths have been completed to date by SCS BT Squared. Demobilization began on Tuesday, Dec. 18th and the remainder of the dredge pipe and equipment will be trucked from the site in early 2013.
- The dewatering site on Nichols Road and "Blue Park" adjacent to the dewatering basin will remain closed for the duration until restoration has been completed in the spring. Please do not enter the dewatering area.

2012 GENERATOR PROJECT - *updated*

- This project is complete. Staff will coordinate the screening of all seven utility generators in 2013.

Metropolitan Urban Fiber Network

- MUFN – Monona's Phase 1 will include the installation of a fiber network between City Hall, Library, and the Community Center and then to the MUFN network via Nichols Rd. Phase 2 will include connection of the Public Works Garage to the MUFN network via Broadway.

PUBLIC WORKS – OPERATIONS – *updated*

- Due to the recent warm, rainy weather, the ice rink is closed.
- Tree trimming is ongoing throughout the winter as needed.
- Street sign maintenance is ongoing throughout winter as needed.
- Storm catch basin grate cleaning is ongoing as needed.
- Pot hole patching is ongoing throughout winter as needed.
- Christmas tree pickup was completed last week. Our contractor has started a special brush pickup throughout the City as a result of the late December snowstorm. They should be completed by the end of this week.
- Staff will assist with updating the documentation of the safety program throughout the winter.
- The new confined space entry Davit System has been received and is ready for use. Staff completed training on the system this past week.
- General maintenance and repair of parks, equipment, and infrastructure will be completed throughout the winter.

GIS MAPPING – updated

- The GIS department is hiring a part time intern to input street sign data and pipe material data into the Web GIS layers to fully utilize the website and make the information available for our field operations staff. The new staff member will be on board mid-February 2013.
- Water utility pipe layer has been designed, and the GIS Intern will work to update all pipe information, including type, size, and date. Other water pipe layers, including valve locations and storm water outfalls will be further developed.
- We continue to scan all record utility as-built drawing and will enter them into our digital database, ultimately linking them to the street locations on our live GIS website.

2013 Capital Budget Projects – updated

- SCADA – Phase I SCADA upgrades to the water system have been completed. Staff has started the 2013 Phase II coordination with LW Allen. An update will be provided to the public works committee upon completion of the upgrade.
- Approximately 320' of cast iron water main will be replaced this spring on Broadway Avenue near Menards. This work will occur under the MMSD project specifications.
- The Cove Channel storm main outfall replacement project will be put out to bid this February, with work expected to be completed this spring/summer. Bids for this project are due on February 21, 2013.
- Staff is preparing the water supply system VFD installation specifications for the well and booster pumps. This project will be put out to bid in late winter and will be completed by fall this year.
- Well #1 pump rebuild will begin in mid-February and should take no more than 45 days to complete. An update will be provided upon completion.
- The Fireman's Park storm sewer repairs will occur under the shelter replacement project specifications. This project, under the parks director guidance, will receive bids in February.
- The street maintenance and parking lot maintenance repair specifications are being updated at this time. Bids and estimates will be received in February, with work being completed by late summer.