MONTROSE
PLANNING AND ZONING COMMISSION
AGENDA

Wednesday, May 8, 2019 – 7:00 PM

Montrose Community Center
200 Center Avenue South
Montrose, Minnesota 55363

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. Approval of Agenda
5. Approval of Minutes
   A. April 17, 2019 Planning and Zoning Commission Meeting Minutes
6. Old Business
   A. Discussion on Ordinance #2015-06, Amendment relating to Solar Energy Systems
7. New Business
   A. Updates From the City Planner
   B. Discussion About the July 17, 2019 Meeting
8. Next Meeting
   A. Wednesday, June 19, 2019 to be held at the Montrose Community Center - 7:00 p.m.
9. Adjournment

*** * Please note that a quorum of the City Council may be present at the Planning and Zoning Commission Meeting. * ***

City of Montrose
Planning and Zoning Commission Meeting
Montrose Community Center
200 Center Avenue South
Wednesday, April 17, 2019
7:00 P.M.

1. CALL TO ORDER

Pursuant to call and notice the Montrose Planning and Zoning Commission met in Regular Session on Wednesday, April 17, 2019 at 7:00 p.m.

Planning and Zoning Commission Chair, Ms. Tracy Gurneau, called the meeting to order at 7:00 p.m.

2. ROLL CALL

Present: Commissioner Justin Emery
Commissioner Sylvia Henry
Commissioner Tracy Gurneau
Commissioner Barry Rhineberger
Commissioner Mike Scanlon
City Council Liaison Lloyd Johnson
City Council Liaison Tom Marszalek

Staff Present: Ms. Deborah Boelter, City Clerk-Treasurer
Mr. Myles Campbell, City Planner

3. PLEDGE OF ALLEGIENCE

The Pledge of Allegiance was taken.

4. APPROVAL OF THE AGENDA

Commissioner Scanlon motioned to approve the April 17, 2019 Planning and Zoning Commission Meeting Agenda. Commissioner Rhineberger seconded the motion. Motion carried 5-0.

5. APPROVAL OF THE MINUTES

A. March 13, 2019 Planning and Zoning Commission Meeting

Commissioner Henry motioned to approve the Planning and Zoning Commission Meeting minutes of March 13, 2019. Commissioner Scanlon seconded the motion. Motion carried 5-0.

6. OLD BUSINESS

A. Ordinance Regulating Temporary Semi-Truck Parking

Commissioner Gurneau stated that at their April 8, 2019 Regular City Council Meeting, the City Council directed the Planning and Zoning Commission to review the final copy of the Ordinance regulating temporary semi-truck parking.

Ms. Boelter stated that the City Council were in agreement with the proposed amendments to the Ordinance as recommended by the Planning and Zoning Commission. They directed the Planning and Zoning Commission to review a "clean" copy of the Ordinance without the red highlights and tracking.

Commissioner Rhineberger stated that the draft copy before the Planning and Zoning Commission is missing the language that states, *"setback requirements will apply to the B-2 Highway District, I-1 Light Industrial District and the I-2 General Industrial District."* Mr. Campbell stated that the language Commissioner

Rhineberger is referring to was in the Ordinance presented to the City Council for their review. Mr. Campbell stated that it will be included in the Ordinance when it is given to the City Council at their May 13, 2019 Regular City Council Meeting for final approval.

Commissioner Rhineberger motioned to recommend that the Ordinance Regulating Temporary Semi-Truck Parking with the addition of the language that states, *"setback requirements will apply to the B-2 Highway District, I-1 Light Industrial District and the I-2 General Industrial District."* Commissioner Scanlon seconded the motion. Motion carried 5-0.

7. NEW BUSINESS

A. Discussion on Ordinance #2015-06, Amendment Relating to Solar Energy Systems

Mr. Campbell stated that the Planning and Zoning Commissioners asked City staff to evaluate the City's existing Ordinance language regarding Solar Energy Systems (SES). He continued by stating that the City's Ordinance currently covers both accessory and small-scale SES; as well as, commercial -operation level SES. The current Ordinance also provides definitions, site and design standards for each type of SES.

Mr. Campbell stated that after reviewing the City's SES Ordinance; as well as, the City's Comprehensive Plan for consistency, City staff would like to engage the Commissioners in a discussion as to what the City would like to see changed or preserved in its SES Ordinance and also how they see this land use type as it relates to the City's future development.

Commissioner Gurneau asked if the existing Ordinance regulates the size a residential lot if a property owner would like to have a personal solar farm. Mr. Campbell referred to Chapter 1018. ACCESSORY BUILDINGS, STRUCTURES, AND USES of the Ordinance.

Council Member Johnson shared his concerns regarding SES near residential districts and/or within City limits.

Commissioner Rhineberger stated that it is the responsibility of the City's Planning and Zoning Commission, and City Planner, to determine if a SES proposal is going to impede on future development.

Council Member Johnson shared his concerns regarding the visibility of the SES located south of United States Highway Twelve (U.S. Highway 12) and asked how the City of Montrose could require the property owner to better screen the SES.

Commissioner Rhineberger and Mr. Campbell stated that the Conditional Use Permit (C.U.P.) between the City and the property owner of the SES located south of U.S. Highway 12 would regulate the type of screening he was required to install.

The Planning and Zoning Commission directed staff to provide a copy of the C.U.P. to the Commissioners at their May 8, 2019 Meeting.

Commissioner Scanlon asked if Community SES provide any type of benefit for a City's energy costs. Mr. Campbell stated that a City can benefit by a savings in energy costs.

Commissioner Scanlon stated that Montrose is going to continue to grow in the future; so, the City has to ensure that it has the land available for growth and not for SES.

Commissioner Gurneau asked if the City has received any requests for private SES. Mr. Campbell stated that the City has not received any requests since he has become the City's Planner. He continued by reviewing the information in the City's Ordinance that regulates private SES.

Council Member Johnson asked what the City can do now to "police" the SES located south of U.S. Highway 12. Commissioner Rhineberger stated that if the property owner is in violation of the C.U.P., the City can take action to require the property owner to be in compliance with the conditions of the C.U.P.

Mr. Campbell stated that if the property owner would not take the necessary actions to comply with the conditions in the C.U.P., they would be in violation of their C.U.P. and lose it.

Council Member Johnson asked if the Ordinance requires residents to obtain approval from their neighbors before installing a private SES on their property. Mr. Campbell stated that the Ordinance does not require approval from a resident's neighbors to install a SES; however, the Ordinance does have visibility controls in place. Mr. Campbell referenced the Ordinance requirements for the installation of a private SES.

Commissioner Rhineberger stated that item i. on page eight (8) of the Ordinance says that the Site Plan has to show what type of screening is going to be installed around the SES, it doesn't say that they have to do it; so, he recommended that language be added to the Ordinance that requires a SES to install screening.

Mr. Campbell referenced item l. on page eight (8) in regards to screening the SES. He continued by stating that the language does not require that it is a solid fence that would hide the SES.

Council Member Johnson asked if the language could be changed to include a ten (10) foot tall fence. Commissioner Rhineberger stated that the City would be dealing with some Building Code issues if they would require ten (10) foot high fencing.

Council Member Johnson recommended that the setback requirements in item h. on page 9 be changed from one hundred (100) feet to 1,500 feet from residential areas. Commissioner Rhineberger stated that if the City would require a 1,500-foot setback from residential areas, then the Ordinance should simply state that the City does not allow SES in City limits.

The Planning and Zoning Commission Members discussed and were in agreement that they would like to leave the setback requirement at one hundred (100) feet.

Commissioner Scanlon reiterated that he believes that the City has to protect the land that they have for the use of future development and not necessarily SES.

Mr. Campbell stated the importance of a detailed and thorough Comprehensive Plan that outlines future land use; so, the City has a guide when considering any proposed SES.

Council Member Johnson stated that he would like the Ordinance to include language that requires all commercial SES to be screened from public view with trees.

Commissioner Scanlon recommended that the Ordinance include that the developer of a commercial SES be required to install a land berm to hide the SES from the general public.

Commissioner Rhineberger stated that he would like to see the Ordinance language include four (4) to five (5) specific screening options. He continued by stating that the screening has to be evaluated; so, it does not affect the function of the SES.

Commissioner Gurneau asked Mr. Campbell if he was clear on the direction the Planning and Zoning Commission would like to go with the SES Ordinance. Mr. Campbell stated yes.

B. Signage Ordinance

Ms. Boelter stated that the U.S. Highway 12 Development Committee has asked the Planning and Zoning Commission to review the Signage Ordinance. Ms. Boelter asked the Planning and Zoning Commission if they were in agreement that the Signage Ordinance would be the next Ordinance they would review. The Commission discussed and agreed to review the Signage Ordinance next.

8. NEXT MEETING

A. Wednesday, May 8, 2019 to be held at the Montrose Community Center – 7:00 p.m.

B. Wednesday, June 19, 2019 to be held at the Montrose Community Center – 7:00 p.m.

9. ADJOURNMENT

Commissioner Henry motioned to the adjourn the Planning and Zoning Commission Meeting at 7:55 p.m. Commissioner Scanlon seconded the motion. Motion carried 5-0.

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Tracy Gurneau
Chair
City of Montrose

ATTEST:

_____

Deborah R. Boelter, CMC
City Clerk-Treasurer
City of Montrose

NORTHWEST ASSOCIATED CONSULTANTS, INC.

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Telephone: 763.957.1100 Website: www.nacplanning.com

TO:	Deb Boelter
FROM:	Myles Campbell
DATE:	5.1.19
RE:	Solar Ordinance Amendments
FILE NO:	273.02 – 19.01
PID:	N/A

BACKGROUND

Planning Commissioners at previous meetings had asked staff to look into the City's existing ordinance language regarding Solar Energy Systems (SES). Staff brought the existing ordinance to discuss with commissioners to get an idea of what they would like to see changed with the ordinance. The majority of commissioners had little to no issues with the ordinance especially in regards to personal SES or Community SES, which were by and large regulated properly and had little to no impact on neighboring property owners.

Where there was more discussion between commissioners and staff was the role and regulation of commercial solar farm operations in the city. The two primary concerns raised in regard to this topic were the impact of solar farms on the staged development and growth of the city, and on their visibility and impact to neighboring residential properties and public right -of-ways. While not necessarily an urban land use, commissioners mostly had no issue with allowing these types of uses on an interim basis in the City of Montrose, so long as they did not hamper the expansion of the city and were sufficiently screened in order to lessen sightline impacts .

In response to these two concerns, staff has put together this planning report going over the potential options for how the city could look to revise its existing code. Both in regard to using the City's Comprehensive Plan as a means to direct solar farm locations away from areas of planned short-term development, and in requiring a screening component as a required aspect of any future commercial solar development.

The following items are attached for reference:

Exhibit A: Existing Solar Ordinance
Exhibit B: Chapter 1020: Fencing / Screening / Landscaping
Exhibit B: 2040 Interim-Full Build Maps

Screening

Currently, the only fencing screening requirements in the language around solar farms is section 1031.4.4.L and section 1031.4.4.H. The first requires what is primarily meant to be a safety fence around the perimeter of the solar farm and has no requirement that the fence screen line of sight. The second section relates primarily to setbacks, but also includes a sentence at the end that, "solar farms shall be screened from adjacent residential uses in accordance with Section 1020-5, Required Landscape Screening." This referenced section of the comprehensive plan requires a green belt planting strip between any business, industrial and institutional property and an abutting residential property. It also optionally calls for additional fencing to supplement the green belt but does not require any specifically.

When examining how we could screen visibility of solar farms from residential preoperties and public roads, the three primary options are fencing, plantings, or earthen berms. In addition, a combination of one or more could be utilized in situations where necessary. Each of these has its own pros and cons.

Fences

Pros:
- Cheap and easy to install
- Excellent screening at eye level

Cons:
- Limited to a max of 8 feet in height by existing code
- Depending on material, not much of a visual upgrade to solar panels

Plantings

Pros:
- Visually pleasing and exciting
- Different species can provide screening at different heights when staggered

Cons:
- Trees and shrubs can die or fail to grow if not properly maintained
- Little to no screening during the initial time it takes for the trees to grow.

Berms

Pros:
- Natural Appearance
- Little shading impact on the solar collectors if designed properly

Cons:
- Moving earth to construct berms is very expensive

- Berm would need to have variable heights along its length in places to account for grade changes along the road
- Would need to be reviewed closely to ensure no negative stormwater runoff impacts.

Staff has little issue with how residential screening is currently being handled in the ordinance, other than that it should be made into its own condition unrelated to setbacks. Section 1020-5 is a part of the code already designed to mitigate negative sightlines on residential districts, and using green belts in this situation would most likely be the preferable solution for abutting homeowners, as opposed to a large fence or berm. This section does not directly regulate sightlines from roadways however, only taking effect in cases where the right-of-way separates the screened use from another residential district.

Staff recommends that language be added to the solar ordinance specifically requiring screening from right-of-way either as a combination of plantings and a fence, or plantings and a berm. Plantings provide screening from multiple viewing angles and have better visual appeal over either berms or fences. However, plantings also take time to grow into their own, and if implemented poorly can still leave gaps. Combining plantings with either berms or fences eliminates the lack of short-term screening and would cover any remaining sightline gaps.

One thing worth noting however, is the fact that these farms are an interim use, and that the land will eventually be repurposed. While a berm-planting combination may provide the best multidirectional screening, it also changes the grading of the site permanently, impacting future development costs.

Setbacks

Currently there is a flat setback of 100 feet from all property lines for a commercial solar farm. The only change recommended by staff would be to slightly increase this setback in the rare cases of a solar farm abutting a residential district. Ideally, a solar farm would not be located so close to a district with residents and urban utility service, but were it to occur, an expanded 150-foot setback, in addition to the screening requirements would negate almost all nuisances or impacts on homeowners.

Consistency with Comp Plan and Logical Growth

Currently there is no language in the conditions for an interim use permit to be granted to a commercial solar farm regarding the anticipated growth areas of the city as identified in the Comprehensive Plan. Solar Farms are not inherently at odds with a growing city. They provide large amount of construction jobs in their creation and require maintenance workers through their life span. They also provide tax base over the 30-year period they operate, often on land that would otherwise remain vacant or agriculture focused. However, the risk they do pose to expanding cities is in how they impact the logical expansion of the city's utility systems, and in the overall patterns of growth and development.

Solar farms do not require urban utility service and typically do not provide for their construction like a commercial or residential subdivision might. And the cost to reroute these utilities or roads around the sites are significant to both the developer, and the city, who typically credits the developer for providing utilities that would exceed the capacity requirements of their own site.

Currently, a solar farm which meets all the physical and site standards of the ordinance is not examined in relation to the city's interim growth plan, which projects areas of the city which are expected to see development with the next 20+ years within its AUAR area. It could locate as far or as close to current development activity as it wanted and the city would not have grounds to reject the permit application if it met all other standards.

While commissioners did not want to see full prohibition of solar farms on an interim basis, staff has the following recommendations or options to give commissioners more justification to reject solar farm proposals on a case by case basis, which they feel would negatively impact the growth of the city.

Reference to Comprehensive Plan
The simplest change would be to add a condition to the effect of "any proposed solar farm that would fall within the City's interim build scenario, as outlined and shown on page x of the Comprehensive Plan, is subject to review by commission and council for its consistency with the Comprehensive Plan, and the expected growth of the city within the period of the interim use permit" This is the least drastic change to the ordinance, but also has the weakest language in regards to being a condition for approval/denial.

Something to this effect should be included no matter what other changes are made in regard to location of interim solar farms, however staff feels that on its own it is not a strong enough condition to base an approval or denial option on.

Conditions for consistency
As a subsection to the above language regarding consistency, potential conditions for the proposal to meet could include:

1. The site should not immediately abut an existing development which utilizes urban utilities.
2. The site should not impede the logical extension of urban utilities or public right-of-ways in the area of the city's interim build scenario. This is subject to review of both the planning commission as well as the city engineer and public works director.

These example conditions give a bit more justification to the above consistency requirement, by setting hard requirements that must be met by a proposed commercial solar development. The issue however, is that this remains a condition based on planning commission approval, meaning a solar developer will have already gone through the site selection process and need to completely reevaluate if they are denied based on inconsistency with the growth plan.

Urban Development as a Permit Termination Event

This is a more drastic standard than simply requiring consistency with the interim build, but it is also more clearly defined for a solar developer who was deciding where to locate his development in the city. This option would treat utility extensions reaching the boundary of a solar farm's property line as an event which would terminate the interim use of the property. Interim uses must, as part of both city and state standards, identify the date or event which would terminate the interim use with certainty. This effectively would be adding a second scenario for termination besides the 30-year period of the permit. This scenario would be clearly defined in the language of both the ordinance and the issued permit itself. When a utility reached the property line of the farm, no matter the amount of time they have left from a date-based termination, the interim use permit would cease to exist. However, we could include a permit extension for its full period in cases where the solar operator agreed to continue the extension of those utilities.

At first glance this appears like a draconian requirement, however, it being clearly defined in the ordinance would mean that a solar developer would be well aware of the risk inherent in developing closer to the city and would be better able to evaluate his location options, rather than taking an application to commission and having it found that it was inconsistent with the interim build. It would also effectively help to steer solar farms to those areas around the city which are not projected for meaningful growth in the next thirty years. As well as allowing for the city to have an ability to use land that is primed for development, with utilities in place, without having to wait 10 to 15 years for the interim use permit to run its course.

Conclusion

We should expect that solar farms will become more common in the near future, as both governments and private electric utilities move further from fossil fuels for energy generation. And they can play a useful role in areas like Montrose as an interim use which provides moderate tax base and some employment on sites with little other development potential. However, when planned for poorly solar farms can impede a city's development rather than co-exist with it. Commissioners need to have a say in where they can be located, in how they will not negatively impact their surroundings, and generally how they will work in the long-term interests of the city.

CITY OF MONTROSE
ORDINANCE #2015-06

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF MONTROSE CITY CODE RELATING TO SOLAR ENERGY SYSTEMS (SES)

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MONTROSE THAT THE FOLLOWING CHAPTERS AND SECTIONS OF THE ZONING ORDINANCE, RELATING TO SOLAR ENERGY SYSTEMS ARE AMENDED TO READ AS FOLLOWS:

CHAPTER 1002 RULES AND DEFINITIONS

Section 1002-2 Rules and Definitions. The following definitions shall be amended or added as follows:

"ACTIVE SOLAR ENERGY SYSTEM" – A solar energy system whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

"BUILDING INTEGRATED SES" - An active solar energy system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or substituting for an architectural or structural component of the building. Building-integrated systems include, but are not limited to, photovoltaic or thermal solar systems that are contained within roofing materials, windows, skylights and awnings.

"COMMUNITY SES" - A solar-electric (photovoltaic) array that provides retail electric power (or a financial proxy for retail power) to multiple community members or businesses residing or located off-site from the location of the solar energy system.

"GROUND MOUNTED SES" - Freestanding solar energy system (panels) that are mounted to the ground by use of stabilizers or similar apparatus.

"PHOTOVOLTAIC SYSTEM" - An active solar energy system that converts solar energy directly into electricity.

"RENEWABLE ENERGY SYSTEM" – An easement that limits the height or location or both, of permissible development on the burdened land in terms of a structure or vegetation, or both, for the purpose of providing access for the benefited land to wind or sunlight passing over the burdened land.

"ROOF OR BUILDING MOUNTED SES" - A solar energy system (panels) that are mounted to the roof or building using brackets, stands or other apparatus.

"ROOF PITCH" - The final exterior slope of a building roof calculated by the rise over the run, typically, but not exclusively, expressed in twelfths such as 3/12, 9/12 or12/12.

"SOLAR ACCESS" - A view of the sun, from any point on the collector surface that is not obscured by any vegetation, building, or object located on parcels of land other than the parcel upon which the solar collector is located, between the hours of 9:00 AM and 3:00 PM Standard time on any day of the year.

"**SOLAR COLLECTOR**" - A device, or combination of devices, structure, or part of a device or structure that transforms direct solar energy into thermal, mechanical, chemical or electrical energy.

"**SOLAR ENERGY**" - Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

"**SOLAR ENERGY SYSTEMS (SES)**" - An active solar energy system that collects or stores solar energy and transforms solar energy into another form of energy or transfers heat from a collector to another medium using mechanical, electrical, thermal or chemical means.

"**SOLAR FARM**" - A commercial facility that converts sunlight into electricity, whether by photovoltaics (PV), concentrating solar thermal devices (CST), or other conversion technology, for the primary purpose of wholesale sales of generated electricity. A solar farm is the primary land use for the parcel on which it is located.

"**SOLAR MOUNTING DEVICES**" – Racking, frames, or other devices that allow the mounting of a solar collector onto a roof surface or ground.

"**SOLAR SKYSPACE**" - The space between a solar energy collector and the sun, which must be free of obstructions that shade the collector to an extent which precludes its cost effective operation.

"**SOLAR SKYSPACE EASEMENT**" - A right, expressed as an easement, covenant, condition, or other property interest in any deed or other instrument executed by or on behalf of any landowner, which protects the solar skyspace of an actual, proposed, or designated solar energy collector at a described location by forbidding or limited activities or land uses that interfere with access to solar energy. The solar skyspace must be described as the three dimensional space in which obstruction is prohibited or limited, or as the times of day during which direct sunlight to the solar collector may not be obstructed, or as a combination of the two methods.

"**SOLAR STORAGE UNIT**" – A component of a solar energy device that is used to store solar generated electricity for later use.

"**STRUCTURE HEIGHT**" - A distance to be measured from the mean ground level to the top of the structure.

CHAPTER 1018. ACCESSORY BUILDINGS, STRUCTURES, AND USES

Section 1018-13. Active Solar Energy Systems. Active Solar Energy Systems shall be allowed as an accessory use in all zoning classifications where structures of any sort are allowed, subject to the requirements set forth below and within Chapter 1031.

1. **Height** – Active solar energy systems must meet the following height requirements.

    a. Building or roof mounted solar energy systems shall not exceed the maximum allowed height in any zoning district. For purposes for height measurement, solar energy systems other than building integrated systems shall be given an equivalent

exception to height standards as building mounted mechanical devices or equipment.

b. Ground or pole mounted solar energy systems shall only be allowed on lots one acre or greater in size, and shall not exceed 20 feet in height when oriented at maximum tilt.

2. **Setback** – Active solar energy systems must meet the accessory structure setback for the zoning district and primary land use associated with the lot on which the system is located.

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

   b. Ground mounted Solar energy Systems- Ground mounted solar energy systems may not extend into the side yard or rear yard setback when oriented at minimum design tilt.

3. **Visibility** – Active solar energy systems shall be designed to blend into the architecture of the building or be screened from routine view from public right-of-ways other than alleys. The color of the solar collector is not required to be consistent with other roofing materials.

   a. **Building Integrated Photovoltaic Systems** - Building integrated photovoltaic solar energy systems shall be allowed regardless of whether the system is visible from the public right-of-way, provided the building component in which the system is integrated meets all required setback, land use or performance standards for the district in which the building is located.

   b. **Solar Energy Systems with Mounting Devices** - Solar energy systems using roof mounting devices or ground-mount solar energy systems shall not be restricted if the system is not visible from the closest edge of any public right-of-way other than an alley. Roof-mount systems that are visible from the nearest edge of the street frontage right-of-way shall not have a highest finished pitch steeper than the roof pitch on which the system is mounted, and shall be no higher than twelve (12) inches above the roof.

   c. **Coverage** - Roof or building mounted solar energy systems, excluding building-integrated systems, shall allow for adequate roof access to the south-facing or flat roof upon which the panels are mounted. The surface area of pole or ground mount systems shall not exceed 35% of the building footprint of the principal structure.

4. **Approved Solar Components** - Electric solar energy system components must have a UL listing and solar hot water systems must have an SRCC rating.

5. **Plan Approval Required** - All solar energy systems shall require administrative plan approval by City zoning official.

a. **Plan Applications** - Plan applications for solar energy systems shall be accompanied by to-scale horizontal and vertical (elevation) drawings. The drawings must show the location of the system on the building or on the property for a ground-mount system, including the property lines.

   i. **Pitched Roof Mounted Solar Energy Systems** - For all roof-mounted systems other than a flat roof the elevation must show the highest finished slope of the solar collector and the slope of the finished roof surface on which it is mounted.

   ii. **Flat Roof Mounted Solar Energy Systems** - For flat roof applications a drawing shall be submitted showing the distance to the roof edge and any parapets on the building and shall identify the height of the building on the street frontage side, the shortest distance of the system from the street frontage edge of the building, and the highest finished height of the solar collector above the finished surface of the roof.

b. **Plan Approvals** - Applications that meet the design requirements of this ordinance, and do not require an administrative variance, shall be granted administrative approval by the zoning official and shall not require Planning Commission review. Plan approval does not indicate compliance with Building Code or Electric Code.

6. **Compliance with Building Code** - All active solar energy systems shall meet approval of local building code officials, consistent with the State of Minnesota Building Code, and solar thermal systems shall comply with HVAC-related requirements of the Energy Code.

7. **Compliance with State Electric Code** - All photovoltaic systems shall comply with the Minnesota State Electric Code.

8. **Compliance with State Plumbing Code** - Solar thermal systems shall comply with applicable Minnesota State Plumbing Code requirements.

9. **Utility Notification** - All grid-intertie solar energy systems shall comply with the interconnection requirements of the electric utility. Off-grid systems are exempt from this requirement.

10. **Minimum Design Standards** – The following design thresholds are necessary for efficient operation of a solar energy system:

    a. **Fixed-Mounted Active Solar Energy Systems** must be mounted to face within 45 degrees of south (180 degrees azimuth).

    b. **Solar Electric (photovoltaic) Systems** - Solar collectors must have a pitch of between 20 and 65 degrees.

    c. **Solar Hot Water Systems** - Solar collectors need to be mounted at a pitch between 40 and 60 degrees.

d. **System Location** - The system is located where the lot or building has a solar resource.

11. **Standards for an Administrative Variance** - A variance shall be granted by the zoning official if the applicant meets the following safety, performance and aesthetic conditions:

a. **Aesthetic Conditions** - The solar energy system must be designed to blend into the architecture of the building or be screened from routine view from public right-of-ways other than alleys to the maximum extent possible while still allowing the system to be mounted for efficient performance.

b. **Safety Conditions** - All applicable health and safety standards are met.

CHAPTER 1031. ALTERNATIVE ENERGY SYSTEMS

Section 1031-1. Purpose and Intent. Montrose finds that it is in the public interest to encourage the use and development of renewable energy systems (including SES) that have a positive impact on energy conservation with limited adverse impact on nearby properties. As such, the City supports the use of Solar Collection systems and the development of Solar Farms. The City intends the following standards to ensure that Solar Farms can be constructed within the City while also protecting public safety and the natural resources. The City of Montrose finds that the development of Solar Farms should be balanced with the protection of the public health of the City. Consistent with the Comprehensive Plan, it is the intent of the City with this section to create reasonable standards for households and businesses to use Solar Energy resources.

Section 1031-2. Severability. The provisions of this section shall be severable and the invalidity of any paragraph, subparagraph or subdivision thereof shall not make void any other paragraph, subparagraph or subdivision of this section.

Section 1031.3. Applicability. These regulations are for all SES and Solar Farms on properties and structures under the jurisdiction of the zoning ordinance except that the City requires the owner or operator of solar farms that would generate more than fifty (50) megawatts of power to get approval for such a system from the Minnesota Public Utilities Commission (PUC).

Section 1032.4. Types of SES.

1. Roof or Building Mounted SES: accessory to the primary land use, designed to supply energy for the primary use.

a. Roof or Building Mounted SES are permitted accessory uses in all districts in which buildings are permitted.

b. The owner or contractor shall receive a building or mechanical permit before installing a Roof or Building Mounted SES.

2. Ground Mounted SES: accessory to the primary land use, designed to supply energy for the primary use.

a. Ground Mounted SES are permitted accessory uses in all districts in which

buildings are permitted, provided the lot is one acre or greater in size.

b. Ground Mounted SES require a City land use or site permit and are subject to the accessory use standards for the district in which it is located, including setback, height and impervious surface coverage limits.

c. The City does not consider the collector surface of a Ground Mounted SES that is not in a DNR designated Shoreland District as impervious surface. Any collector surface of a Ground Mounted SES foundation that is in a DNR designated Shoreland District and compacted soil or other component of the solar installation that rests on the ground is considered impervious surface.

d. The height of a Ground Mounted SES shall not exceed twenty (20) feet at maximum tilt.

e. No Ground Mounted SES shall cover or encompass more than ten percent (10%) of the total property area or lot size.

3. Community SES: Roof or Building Mounted and Ground Mounted Community SES shall be accessory to the primary land use and designed to supply energy for off-site uses on the distribution grid, but not for export to the wholesale market or connection to the electric transmission grid. These systems shall be subject to the following conditions:

a. Roof or Building Mounted and Ground Mounted Community SES are permitted accessory uses in all districts in which buildings are permitted.

b. Prohibitions: The City prohibits Community SES within:

(1). Shoreland Districts as designated by the Department of Natural resources (DNR) and the Montrose Zoning Map.

(2) Wetlands to the extent required by the Minnesota Wetland Conservation Act,

(3) The Floodplain Overlay District.

(4) Residential Districts

d. An interconnection agreement must be submitted to the utility company and proof be provided to the City that the utility company has deemed the agreement "complete".

e. All structures must meet the setback, height and coverage limitations for the zoning district in which the system is located.

f. Ground Mounted SES must meet all required standards for structures in the district in which the system is located.

g. Site Plan Required: The owner or operator shall submit to the City a detailed site plan for both existing and proposed conditions. These plans shall show the location of all areas where solar arrays would be placed, the existing and proposed structures, property lines, access points, fencing, landscaping, surface water drainage patterns, floodplains, wetlands,

the ordinary high water mark for all water bodies, any other protected resources, topography, electric equipment and all other characteristics requested by the City.

h. Power and communication lines. Power and communication lines running between banks of solar panels and to electric substations or interconnections with buildings shall be buried underground. The City may grant exemptions to this requirement in instances where shallow bedrock, water courses or other elements of the natural landscape interfere with the ability to bury lines.

i. Decommissioning Plan: The City requires the owner or operator to submit a decommissioning plan for Community SES to ensure that the owner or operator properly removes the equipment and facilities upon the end of project life or after their useful life. The owner or operator shall decommission the solar panels in the event they are not in use for twelve (12) consecutive months. The plan shall include provisions for the removal of all structures and foundations, the removal of all electrical transmission components, the restoration of soil and vegetation and a soundly-based plan ensuring financial resources will be available to fully decommission the site. The disposal of structures and/or foundations shall meet all City requirements. The City also may require the owner or operator to post a bond, letter of credit or establish an escrow account to ensure property decommissioning.

4. Solar Farms: Solar Farms shall be Ground Mounted SES arrays that are the primary use on parcel on which it is located and are designed for providing energy to off-site uses or export to the wholesale market. Solar Farms, including those that are not permitted or regulated by the State of Minnesota Public Utilities Commission (PUC), shall be subject to the following conditions:

a. Solar Farms shall be permitted as an interim use in the Urban Reserve (UR), Institutional (INS) and Industrial (I-1 and I-2) zoning districts, and shall be processed according to the standards of Chapter 1006 of the Zoning Ordinance.

b. Shall be on properties of at least five (5) acres in size.

c. Stormwater management and erosion and sediment control shall meet the requirements of the City and best management practices.

d. Prohibitions: The City prohibits Solar Farms within:

(1). Shoreland Districts as designated by the Department of Natural resources (DNR) and the Montrose Zoning Map.

(2) Wetlands to the extent required by the Minnesota Wetland Conservation Act,

(3) The Floodplain Overlay District.

e. Foundations. The manufacturer's engineer or another qualified engineer shall certify that the foundation and design of the solar panels meets the accepted professional standards, given local soil and climate conditions.

f. Other standards and codes. All Solar Farms shall meet all applicable local, state and

federal regulatory standards, including the State of Minnesota Building Code, as amended; and the National Electric Code, as amended.

g. Power and communication lines. All power and communication lines running between banks of solar panels and to electric substations or interconnections with buildings shall be buried underground. The City may grant exemptions to this requirement in instances where shallow bedrock, water courses or other elements of the natural landscape interfere with the ability to bury lines.

h. Interconnection. The owner or operator of the Solar Farm must complete an interconnection agreement with the electric utility in whose service territory the system is located.

i. Site Plan Required. The owner or operator of the Solar Farm must submit to the City a detailed site plan for both existing and proposed conditions. These plans shall show the location of all areas where solar arrays would be placed, the existing and proposed structures, property lines, access points to the site, fencing, landscaping, surface water drainage patterns, floodplains, wetlands, the ordinary high water mark for all water bodies, any other protected resources, topography, electric equipment and all other characteristics requested by the City. The Plan shall be reviewed and approved by the City's Emergency Management Director.

j. The owner or operator of the Solar Farm must submit to the City a detailed emergency shutdown plan as part of the review process.

k. The City allows the installation of small operations, security and equipment buildings on the site of solar farms as permitted accessory uses to the Solar Farm.

l. The owner or operator shall contain all unenclosed electrical conductors located above ground within structures that control access. In addition solar farms shall be protected from entry by a minimum six (6) foot tall fence. Razor wire is prohibited on all fences. All electrical connections to the utility system must meet or exceed the National Electrical Safety Code.

m. Signage shall be posted at all entrance points to the property the Solar Farm is located on that includes at a minimum, the owner and operator's name, contact information and emergency phone numbers.

n. The Solar Farm owner or operator shall provide access to the Montrose Fire Department either in the form of a lock or key to all access points to the property the Solar Farm is located on.

o. Solar Farms that have panels that are 10 megawatts or more shall meet the review and design standards of the MN Department of Commerce and/or MN Public Utilities Commission (PUC) for Solar Farms, as applicable.

p. Decommissioning Plan: The City requires the owner or operator to submit a decommissioning plan for Solar Farms to ensure that the owner or operator properly removes the equipment and facilities upon the end of project life or after their useful life. The owner or operator shall decommission the solar panels in the event they are not in use for twelve (12) consecutive months. The plan shall include provisions for the removal of

all structures and foundations, the removal of all electrical transmission components, the restoration of soil and vegetation and a soundly-based plan ensuring financial resources will be available to fully decommission the site. The disposal of structures and/or foundations shall meet all City requirements. The City also may require the owner or operator to post a bond, letter of credit or establish an escrow account to ensure property decommissioning.

5. Additional standards. In addition to the standards allowed above, all SES shall meet the following standards.

   a. The owners or operators of SES that are connected to the electric distribution or transmission system, either directly or through the existing service of the primary use on the site, shall obtain an interconnection agreement with the electric utility in whose service territory the system is located. Off-grid systems are exempt from this requirement.

   b. Electric SES components that are connected to a building electric system must have an Underwriters Laboratory (UL) listing.

   c. All SES shall meet the standards of the Minnesota and National Electric Code.

   d. All Roof or Building Mounted SES shall meet the standards of the Minnesota Building Code.

   e. All SES using a reflector to enhance solar production shall minimize glare from the reflector that affects adjacent or nearby properties. Steps to minimize glare nuisance may include selective placement of the system, screening of the solar array from the public view, reducing use of the reflector system or other remedies that limit glare.

   f. Roof or Building Mounted SES shall not exceed the maximum allowed height in any zoning district. For purposes of height measurement, SES other than building-integrated systems shall be considered to be mechanical devices and are restricted consistent with other building mounted mechanical devices for the zoning district in which the system is being installed.

   g. Roof Mounted SES shall be placed on the roof to limit visibility from the public right-of-way or to blend into the roof design, provided that minimizing visibility still allows the property owner to reasonably capture Solar Energy.

   h. Setbacks. All equipment and structures shall meet the setback and coverage limitations for the zoning district in which the system is located, except that Solar Farms shall be setback from all property lines at least one hundred (100) feet. In addition, solar farms shall be screened from adjacent residential uses in accordance with Section 1020-5, Required Landscape Screening.

CHAPTER 1051: UR, URBAN RESERVE

Section 1051-3 Accessory Uses

N. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1051-5-5 Interim Uses.

D. Ground Mounted SES and Community SES, provided they are located on a lot one acre in size or greater, as regulated by Chapters 1018 and 1031 of this Ordinance.

E. Solar Farms as regulated by Chapter 1031 of this Ordinance, provided a ghost plat is provided to illustrate future roadways and utilities as identified in the AUAR and how these improvements could be made during the term of the interim use permit.

CHAPTER 1055: R-1 TRADITIONAL SINGLE FAMILY RESIDENTIAL DISTRICT

Section 1055-3 Accessory Uses

M. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1055-5 Interim Uses.

D. Ground Mounted SES, on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

CHAPTER 1059: R-2, SINGLE FAMILY MANUFACTURED HOME PARK DISTRICT.

Section 1059-3 Accessory Uses

C. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1059-5 Interim Uses.

C. Ground Mounted SES, on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

CHAPTER 1060: R-3, MEDIUM DENSITY RESIDENTIAL DISTRICT

Section 1060-3 Accessory Uses

M. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1060-5 Interim Uses.

C. Ground Mounted SES, on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

CHAPTER 1065: R-4, HIGH DENSITY RESIDENTIAL DISTRICT

Section 1065-3 Accessory Uses

M. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1065-5 Interim Uses.

C. Ground Mounted SES, on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

CHAPTER 1066: R-B RESIDENTIAL BUSINESS DISTRICT

Section 1066-3 Accessory Uses

M. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1066-5 Interim Uses.

D. Ground Mounted SES, on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

CHAPTER 1070: B-1, CENTRAL BUSINESS DISTRICT

Section 1070-3 Accessory Uses

G. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1070-5 Interim Uses.

C. Ground Mounted SES, on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

CHAPTER 1071: B-2 HIGHWAY BUSINESS DISTRICT

Section 1071-3 Accessory Uses

G. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1071-5 Interim Uses.

B. Ground Mounted SES, on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

CHAPTER 1080: I-1, LIGHT INDUSTRIAL DISTRICT

Section 1080-3 Accessory Uses

F. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1080-5 Interim Uses.

B. Ground Mounted SES and Community SES on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

C. Solar Farms as regulated by Chapter 1031 of this Ordinance.

CHAPTER 1081: I-2, GENERAL INDUSTRIAL DISTRICT

Section 1081-3 Accessory Uses

E. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1081-5 Interim Uses.

B. Ground Mounted SES and Community SES on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

C. Solar Farms as regulated by Chapter 1031 of this Ordinance

CHAPTER 1082: INS, INSTITUTIONAL DISTRICT

Section 1082-3 Accessory Uses

H. Roof or Building Mounted Solar Energy System, as regulated by Chapters 1018 and 1031 of this Ordinance.

Section 1082-5 Interim Uses.

B. Ground Mounted SES and Community SES on lots one acre or larger in size, as regulated by Chapters 1018 and 1031 of this Ordinance.

C. Solar Farms as regulated by Chapter 1031 of this Ordinance

SUBD. 2 EFFECTIVE DATE.

This Ordinance shall become effective upon publication of this Ordinance in the official newspaper of the City.

ORDAINED by the City Council of the City of Montrose, Wright County, Minnesota this 8th day of June, 2015.

Greg Youmans, Mayor

ATTEST:

Wendy Manson, Deputy Clerk

Moved by:
Seconded by:

Published:
Zoning ordinance updated:

CHAPTER 1020

FENCING / SCREENING / LANDSCAPING

SECTION:

1020-1: PURPOSE: The purpose of this Chapter is to establish standards for the installation of fencing, screening, and landscaping as may be required by other chapters of this Ordinance and to protect the general health, safety, and welfare of the City.

1020-2: FENCES: Fences shall be permitted in all yards subject to the following:

A. **Permit Required**: No person except on a farm and related to agricultural uses, but not including hobby farms, shall construct any fence without first making an application for and securing an administrative permit for fences not exceeding six feet (6') in height, and a building permit for fences exceeding six feet (6') in height.

B. **Locations**; Boundary Line Fences:

1. A fence that requires periodic maintenance shall be located no closer than two feet (2') from any side or rear yard lot line on the property of the person constructing said fence. An exception to this may be allowed by administrative permit provided that an agreement addressing construction, maintenance, and repair responsibilities, as well as trespass rights, is established between the adjoining property owners and said agreement is determined acceptable to the City Attorney and filed with the Wright County Recorder against the titles of the respective properties. The fence agreement shall provide for amendment or cancellation only upon written approval from the Zoning Administrator.

2. A fence that is maintenance free, such as a chain link of steel, plastic or vinyl, and is acceptable as such to the zoning administrator, may be constructed up to the side or rear yard property line.

3. The City may require the owner of the property upon which a fence now exists, or may require any applicant for a fence permit to establish the boundary lines of the property by a survey thereof to be made by any land surveyor.

4. No fences shall be placed on or extend into public rights of way or onto public property.

C. **Construction and Maintenance:**

1. Every fence shall be constructed in a substantial, workmanlike manner and of substantial material reasonably suited for the purpose for which the fence is proposed to be used. Every fence shall be maintained in a condition of reasonable repair and shall not be allowed to become and remain in a condition of disrepair or danger, or constitute a nuisance, public or private. Any such fence which is, or has become dangerous to the public safety, health or welfare, is a public nuisance, and the Zoning Administrator shall commence proper proceedings for the abatement thereof.

2. That side of any fence considered to be its "face" (i.e., the finished side having no structural supports) shall face abutting property or street right-of-way.

3. Electric fences shall only be permitted in the UR District when related to agriculture, and on farms in other districts when related to agricultural purposes, but not as boundary fences.

4. Barbed wire fences shall only be permitted on farms related to agriculture except as provided for by Section 1020-2.H.3 of this Ordinance.

D. **Solid Walls**: Solid walls up to eight feet (8') in height that are not part of buildings may be constructed and maintained only within the buildable area of a lot.

E. **Traffic Sight Visibility Triangle**: On corner lots, no fence or screen shall be permitted within the traffic sight visibility triangle specified by Section 1016-7 of this Ordinance.

F. **Residential Fencing and Screening:**

1. Except as provided herein, fences shall be at least five percent (5%) open for passage of air, light, and drainage.

2. Except as provided herein, fences may not exceed six feet (6') in height.

3. Fences extending across front yards and side yards abutting a public right-of-way shall not exceed forty-eight inches (48") in height and shall be at least seventy five percent (75%) open space for passage of air and light and shall conform to the traffic visibility triangle requirements of Section 1016-7 of this Ordinance.

G. **Swimming Pool Protection**:

1. All in-ground pools regardless of capacity and all aboveground swimming pools that exceed five thousand (5,000) gallons shall require a building permit before installation.

2. Each application for a building permit (to construct a swimming pool) shall be accompanied by plans of sufficient detail to illustrate:

   a. The proposed location of the pool and its relationship to the principal building on the lot.

   b. The size of the pool.

   c. Fencing and other fixtures existing and proposed on the lot, including utility location and trees.

   d. The location, size, and types of equipment to be used in connection with the pool, including, but not limited to, filter unit, pump fencing, and the pool itself.

   e. The requirements contained in Sections 1020.G.2 and 1020.G.3 of this Ordinance will be satisfied including submission and approval of a site plan.

3. All swimming pools for which a permit is required shall be provided with safeguards to prevent children from gaining uncontrolled access. This can be accomplished with fencing, screening or other enclosure, or any combination thereof, of sufficient density as to be impenetrable. If fences are employed, they shall be at least four feet (4') in height. The bottoms of the fences shall not be more than four inches (4") from the ground nor shall any open space in the fence be more than four inches (4"). Fences shall be of a non-corrosive material and shall be constructed as to be not easily climbable. All fence openings or points of entry into the pool enclosure shall be equipped with gates or doors. All gates or doors to swimming pools shall be equipped with self-closing and self-latching devices placed at a sufficient height so as to be inaccessible to all small children. The fencing requirements of this Section need only be provided around the means of access on aboveground pools which have four feet (4') high, vertical or outward inclined side walls. Prior to filling the pool, the

approved fence and/or screen shall be completely in place and inspected and approved by the City Building Official.

4. In all residential districts, swimming pools shall be set back ten feet (10') from all adjoining lots and, except for fences and pump enclosures, shall be located at least ten feet (10') away from any other building or structure on the same lot and shall not be located within a drainage or utility easement. Swimming pools shall not be permitted in a front yard or in the area between the street right-of-way and the minimum required building side yard setback line.

H. **Business and Industrial Fencing**:

1. No fence shall be allowed in the front yard of a business use except by conditional use permit.

2. Except in a required front yard, business and industrial fences may be erected up to eight feet (8') in height. Fences in excess of eight feet (8'), not located in a required front yard, shall require a conditional use permit.

3. Business and industrial fences with barbed wire security arms shall be erected a minimum of six feet (6') in height (measured without the security arm). The security arm shall be angled in such a manner that it extends only over the property of the permit holder and does not endanger the public. Security fencing shall be prohibited within a required front yard or when located along a property line abutting a residential use.

I. **Special Purpose Fences**: Fences for special purposes and fences differing in construction, height or setback that are not constructed within a required front yard may be permitted in any district as a conditional use permit subject to Chapter 1005 of this Ordinance.

1020-3: GENERAL LANDSCAPING AND MAINTENANCE:

A. All exposed ground areas, including street boulevards, and areas not devoted to off-street parking, drives, sidewalks, patios or other such improvements shall be landscaped with grass, shrubs, trees or other ornamental landscape materials within one year following the certificate of occupancy is issued.

B. All landscaped areas shall be maintained by the property owner and kept neat, clear and uncluttered, and where landscaping is required as part of City approvals, any plant material which is diseased or dies shall be replaced with like kind of the original size.

C. Fences and/or plantings placed upon utility easements are subject to removal by the City or utility company if required for maintenance or improvement of the utility. In such case, costs for removal and replacement shall be the responsibility of the property owner. Trees on utility easements containing overhead wires shall not exceed fifteen feet (15') in height, and such trees shall be the property owner's responsibility to maintain.

1020-4: REQUIRED LANDSCAPING: All new residential subdivisions with three (3) or more lots, residential structures with four (4) or more dwelling units, commercial uses, industrial uses, and institutional uses shall be subject to minimum landscaping and planting material specification requirements outlined in this Section.

A. **Landscape Plan Required.** A landscape plan shall be developed with an emphasis upon the boundary of the subject site, parking lots, and foundation of the principal structure, in accordance with the information requirements outlined in Section 1009-6.D of this Ordinance.

B. **Design Standards and Criteria.** All landscaping incorporated in the landscape plan shall conform to the following standards and criteria:

1. Types Of New Trees: Trees suitable for complying with this Chapter shall include those specified below:

Botanical Name	Common Name
Quercus (varieties)	Oak
Acer platanoides (and Varieties)	Norway Maple (and Schwedler, Emerald Queen, etc.)
Acer saccharum	Sugar Maple
Celtis occidentalis	Hackberry
Betula (varieties)	Birch
Gleditsia triacanthos	Honeylocust (Imperial, Majestic, Skyline, Sunburst & Thornless)
Tilia cordata (and Varieties)	Little Leaf Linden and Redmond, Greenspire, etc.
Tilia Americana	Basswood (American Linden)

Fraxinus Pennsylvania Lanceolata	Green Ash (and Summit, Marshall's)
Ginkgo biloba (male Tree only)	Ginkgo
Guymnocladus dioicus	Kentucky Coffee Tree

b. Minimum Size: All plants shall at least equal the following minimum sizes: (NOTE: Type and mode are dependent upon time of planting season, availability, and site conditions (soils, climate, ground water, manmade irrigation, grading, etc.)

	Potted/Bare Root or Balled or Burlapped
Shade trees	$2^1/_2$ inch diameter
Ornamental trees (flowering crabs, Russian olive, hawthorn, etc.)	2 inch diameter
Evergreen trees	6 feet
Tall shrubs and hedge material (evergreen or deciduous)	3 to 4 feet
Low Shrubs	
- Deciduous	24 to 30 inches
- Evergreen	24 to 30 inches
	24 to 30 inch
- Spreading evergreens	18 to 24 inches

c. Spacing:

(1) Plant material centers shall not be located closer than three feet (3') from the fence line or property line and shall not be planted to conflict with public plantings, sidewalks, trails, fences, parking areas, and driveways based on the judgment of the Zoning Administrator.

(2) Where plant materials are planted in two (2) or more rows, plantings shall be staggered in rows unless otherwise approved by the Zoning Administrator.

(3) Deciduous trees intended for screening shall be planted not more than forty feet (40') apart. Evergreen trees intended for

screening shall be planted not more than fifteen feet (15') apart.

(4) Where massing of plants or screening is intended, large deciduous shrubs shall be planted four feet (4') on center or closer, and/or, evergreen shrubs shall be planted three feet (3') on center or closer.

d. Design (except for pond slopes which shall be subject to the review and approval of the City Engineer):

(1) The landscape plan shall show some form of designed site amenities (i.e., composition of plant materials, and/or creative grading, decorative lighting, exterior sculpture, etc.) which are largely intended for aesthetic purposes.

(2) All areas within the property lines (or beyond, if site grading extends beyond) shall be treated. All exterior areas not paved or designated as roads, parking, or storage shall be planted into ornamental vegetation (lawns, ground covers, or shrubs) unless otherwise approved by the Zoning Administrator.

(3) Each single family lot is to be provided a minimum of two (2) shade trees.

(4) Turf slopes in excess of three to one (3:1) are prohibited.

(5) All ground areas under the building roof overhang shall be treated with a decorative mulch and/or foundation planting.

(6) All buildings shall have an exterior water spigot or irrigation system to ensure that landscape maintenance can be accomplished.

(7) Trees and shrubs shall not be planted in the right-of-way except as approved by the City Council.

(8) All plants required as part of an approved landscaping plan shall be maintained and kept alive. Dead plants shall be replaced in accordance with the approved landscape plan.

C. **Landscape Guarantee**: All new plants shall be guaranteed for twelve (12) months from the time planting has been completed. All plants shall be alive, of good quality, and disease free at the end of the warranty period or be replaced.

Any replacements shall be warranted for twelve (12) months from the time of planting.

1020-5: REQUIRED LANDSCAPE SCREENING:

A. All commercial, industrial, or institutional uses shall provide screening along the boundary of any abutting residential district or when the side or rear of the use (as determined by the Zoning Administrator) is separated from any residential district by a public right-of-way. All screening required by this Section shall be subject to Section 1016-7 of this Ordinance (traffic visibility) and is to consist of a green belt strip as provided below:

1. A green belt planting strip shall consist of evergreen trees and/or deciduous trees and plants and shall be a minimum of twenty feet (20') in width and of a sufficient density to provide a visual screen and reasonable buffer. This planting strip shall be designed to provide visual screening to a minimum height of six feet (6'). The grade for determining height shall be the grade elevation of the building or use for which the screening is providing protection, unless otherwise established by the Zoning Administrator. The planting plan and type of plantings shall require the approval of the Zoning Administrator.

2. A fence may also be installed, but not in lieu of the green belt planting strip. The fence shall be constructed of masonry, brick, or wood, except as otherwise provided herein. Such fence shall provide a solid screening effect and shall be a minimum of six feet (6') in height but shall not exceed eight feet (8') in height. The grade for determining height shall be the grade elevation of the building or use for which the screening is providing protection, unless otherwise established by the Zoning Administrator. The design and materials used in constructing a required screening fence shall be subject to the approval of the Zoning Administrator.

B. **Residential Buffer Yards:**

1. Lot Depth Requirements: Except for lots of record and preliminary platted lots having legal standing on the effective date of this Ordinance, double frontage residential lots shall have an additional depth of at least twenty feet (20'), designated as an additional drainage and utility easement, in order to allow space for buffering/screen planting along the back lot line.

2. Lot Width Requirements: Except for lots of record and preliminary platted lots having legal standing established on the effective date of this Ordinance, lots which border major collector or arterial streets on a side yard shall have an additional width of at least ten feet (10'), designated as

an additional drainage and utility easement in order to allow space for buffering and screening plantings along the lot line bordering such streets.

3. Screening Plan Required: For applicable subdivisions, a comprehensive screening plan shall be submitted. The plan shall identify all proposed buffer screening in both plan and sectional view.

4. Timing/Responsibility of Installation: Weather permitting, all buffer, bermings, and/or plantings shall be constructed or planted prior to the issuance of a final certificate of occupancy.

5. Design Standards:

   a. Plantings: All designated buffer yards shall be seeded or sodded except in areas of steep slopes where natural vegetation is acceptable as approved by the Zoning Administrator. All plantings within designated buffer yards shall adhere to the following:

      (1) Plant material centers shall not be located closer than three feet (3') from the fence line or property line, and shall not conflict with public plantings, sidewalks, trails, etc.

      (2) Landscape screen plant material shall be planted in two (2) or more rows. Plantings shall be staggered in rows unless otherwise approved by the Zoning Administrator.

      (3) Deciduous shrubs shall not be planted more than four feet (4') on center, and/or evergreen shrubs shall not be planted more than three feet (3') on center.

      (4) Deciduous trees intended for screening shall be planted not more than forty feet (40') apart. Evergreen trees intended for screening shall be planted not more than fifteen feet (15') apart.

   b. Walls And Fences: All walls and fences erected within designated buffer yards shall adhere to the following:

      (1) Only walls and fences formally approved as part of the subdivision and site plan process shall be permitted within the buffer yard.

      (2) At least fifty percent (50%) of the street side of a screening fence shall be landscaped with plant materials. Plant materials shall be at least equal to the fence height.

(3) Exposed fences shall run a maximum length of fifty feet (50') between landscaping areas or clusters.

(4) Fences and landscaping shall not be located within the traffic visibility triangle defined by Section 1016-7 of this Ordinance.

c. Earth Berms:

(1) Except in areas of steep slopes or where other topographic features will not permit, as determined by the City Engineer, an earth berm at least four feet (4') in height shall be installed in all designated buffer yards.

(2) Shall not exceed a three to one (3:1) slope unless approved by the City Engineer.

(3) Shall contain no less than four inches (4") of topsoil.

6. Maintenance:

a. Maintenance of the buffer strip planting and/or fence shall be the responsibility of the individual property owners or, if applicable, the homeowners' association.

b. All repairs to the fence or wall shall be consistent with the original fence design in regard to location and appearance.

c. Replacement of landscape materials or plantings in a buffer yard area shall be consistent with the original screen design.

d. All repair or plant replacement shall be done within forty five (45) days of written notification from the Zoning Administrator or if applicable, the homeowners' association.

1020- 6: TREE PRESERVATION: Prior to the issuance of building permits for all new and/or expanded multiple-family residential, commercial, industrial, and institutional uses, a tree preservation plan shall be submitted. The plan and its implementation shall be in accordance with the requirements as outlined in the Subdivision Ordinance and shall be subject to the review and approval of the City Engineer and Zoning Administrator. The City may exempt an applicant from the submission of a tree preservation plan upon demonstration by the applicant that such a plan is not considered relevant to the site in question.

1020-7: SCREENING OF MECHANICAL EQUIPMENT: All rooftop and ground-mounted mechanical equipment for residential buildings having five (5) units or more and for non-residential buildings shall comply with the following standards:

A. All rooftop and ground-mounted mechanical equipment shall be screened so as to mitigate noise in compliance with Section 1016-12 of this Ordinance.

B. All rooftop and ground-mounted mechanical equipment shall be designed (including exterior color) and located so as to be aesthetically harmonious and compatible with the building. Screening of and landscaping around the equipment may be required where the design, color, and location of the equipment are found to not effectively buffer noise or provide aesthetic harmony and compatibility. Screening shall be constructed of durable materials which are aesthetically compatible with the structure and which may be an integral part of the structure.

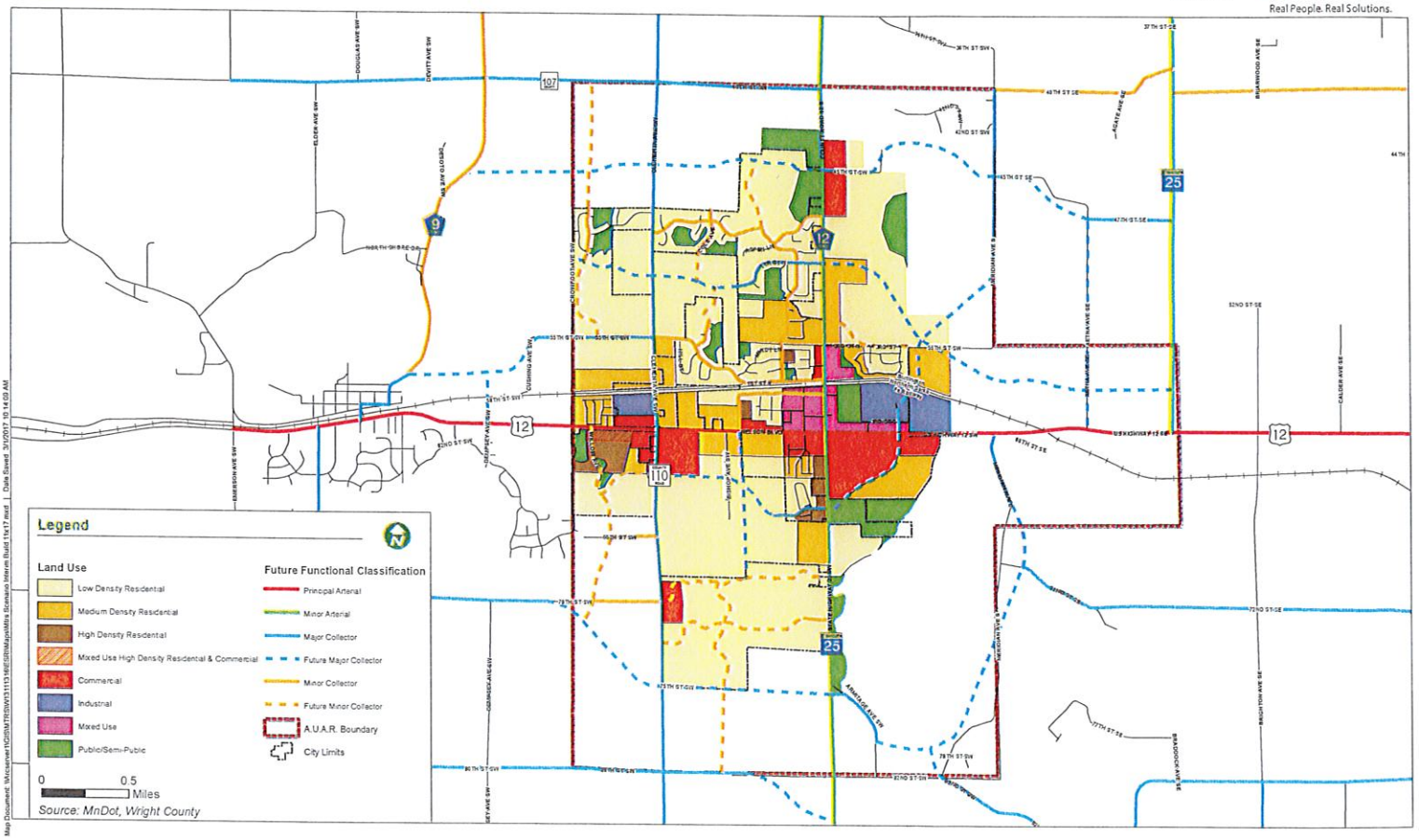
C. Rooftop mechanical equipment less than three feet (3') in height may be exempt from screening requirements by the Zoning Administrator.

AUAR INTERIM BUILD SCENARIO
City Of Montrose, Minnesota

Map 11-2A Interim Build

Figure 4
March 2017

BOLTON & MENK
Real People. Real Solutions.



MONTROSE
It's good to be home.

AUAR FULL BUILD SCENARIO
City of Montrose, Minnesota

Figure 5
March 2017

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Map 11-2B Full Build