

Mayor:
Dan Roe



Address:
2660 Civic Center Dr.
Roseville, MN 55113

Councilmembers:
Jason Etten
Lisa Laliberte
Tammy McGehee
Robert Willmus

**City Council Agenda
Monday, May 14, 2018
City Council Chambers**

Phone:
651-792-7000

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www.cityofroseville.com

1. 6:00 P.M. Roll Call
Voting & Seating Order: Willmus, Etten, McGehee, Laliberte and Roe
2. 6:01 P.M. Pledge of Allegiance
3. 6:02 P.M. Approve Agenda
4. 6:05 P.M. Public Comment
5. Recognition, Donations and Communications
6. 6:10 P.M. Items Removed from Consent Agenda
7. Business Items
 - 7.A. 6:15 P.M. Government Alliance on Race and Equity Cohort Update
Documents:
[REQUEST FOR CITY COUNCIL ACTION AND ATTACHMENT.PDF](#)
 - 7.B. 6:45 P.M. Snow Event Parking Regulation Discussion
Documents:
[REQUEST FOR CITY COUNCIL ACTION AND ATTACHMENT.PDF](#)
 - 7.C. 7:15 P.M. Discuss City Campus Solar Options
Documents:
[REQUEST FOR CITY COUNCIL ACTION AND ATTACHMENT.PDF](#)
 - 7.D. 7:45 P.M. Twin Lakes East Collector Project – Authorization to Proceed with Final Design
Documents:
[REQUEST FOR CITY COUNCIL ACTION AND ATTACHMENT.PDF](#)
8. Approve Minutes
9. Approve Consent Agenda
10. 8:15 P.M. Council and City Manager Communications, Reports and

Announcements

11. 8:20 P.M. Councilmember Initiated Future Agenda Items and Future Agenda Review
12. 8:25 P.M. Adjourn

ROSEVILLE
REQUEST FOR COUNCIL ACTION

Date: **5/14/2018**
Item No.: **7.a**

Department Approval



City Manager Approval



Item Description: Government Alliance on Race and Equity Cohort Update

BACKGROUND

The City became part of the 2018 Government Alliance on Race and Equity (GARE) Cohort in January 2018. The Government Alliance on Race and Equity (GARE) is a national network of governments working to achieve racial equity and advance opportunities for all. The GARE Leadership team uses curriculum, expertise of practitioners and academia to share a field of practice to approach complex race issues and help governments take effective action toward racial equity.

The City of Roseville identified 14 employees across all departments and levels to participate in the yearlong cohort. In addition, there are 14 jurisdictions participating in the GARE cohort this year, with close to 200 participants. Some of those jurisdictions are in their second year of the program, and some, like Roseville are in their first year.

Members from the Roseville GARE team will present information and background on the work the Roseville team has focused on over the past several months.

POLICY OBJECTIVE

One of the City's strategic priorities is Inclusive Community and Governance. As part of this, leadership wants to give staff the tools, training and understanding of how to review city policies and procedures to address inequities.

BUDGET IMPLICATIONS

None.

STAFF RECOMMENDATION

Informational

REQUESTED COUNCIL ACTION

Receive the information.

Prepared by: Rebecca Olson, Assistant City Manager
Attachments: A. Roseville Demographics
B. Roseville Racial Equity Narrative
C. PowerPoint Presentation

Roseville's Racial Equity Narrative

March 2, 2018

The City of Roseville is dedicated to creating an inclusive community where the predictability of success is not based on race or ethnicity.

The actions of government at the federal, state, and local level have created racial disparities that continue to harm our community. Rectifying these disparities is critical to the development of a vibrant community and a high quality of life for all residents.

All City Departments will prioritize racial equity in their planning, delivery, and evaluation of programs, policies, and services.

The City of Roseville is committed to taking tangible steps to normalize, organize, and operationalize racial equity principles and tools, with an eye toward impactful and sustainable outcomes that create a more equitable community.

Roseville Demographics

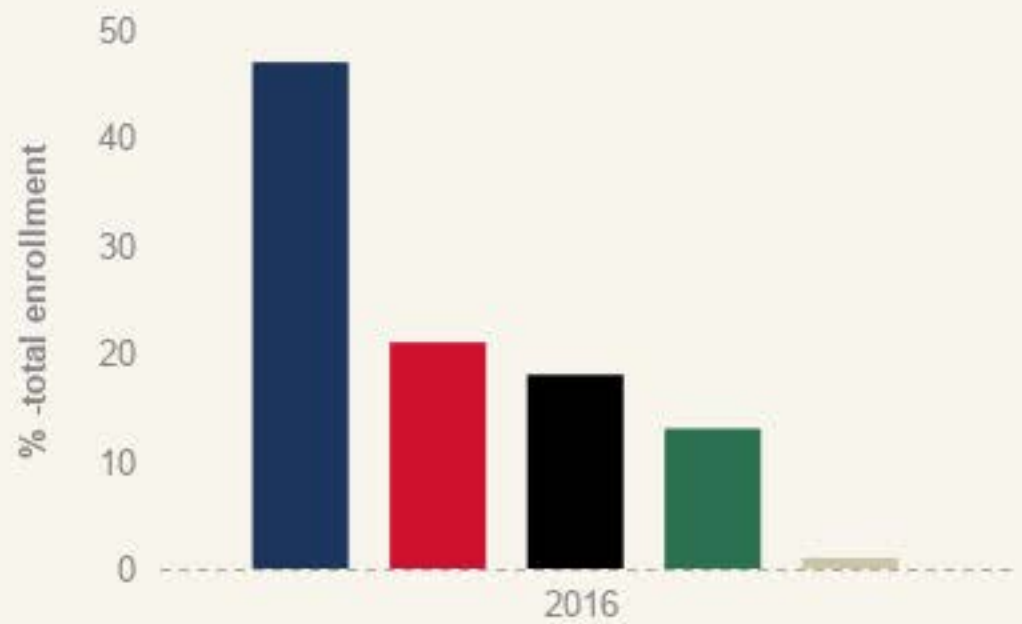
Who We Are

Current Population of Roseville



■ White (78%) ■ Persons of Color (22%)

Roseville Area Schools 2016 Enrollment



■ White ■ Asian ■ Black ■ Hispanic ■ American Indian

Population of Color	1960	1970	1980	1990	2000	2010
Minnesota	1.2%	1.8%	3.8%	6.3%	11.8%	16.8%
MSP Suburbs	0.4%	2.7%	2.4%	4.6%	10.0%	18.1%
Roseville	0.4%	1.0%	1.5%	4.9%	10.5%	20.7%
St. Paul	3.0%	4.6%	11.4%	19.7%	36.0%	44.1%
Minneapolis	3.2%	6.4%	13.3%	22.5%	37.5%	39.7%

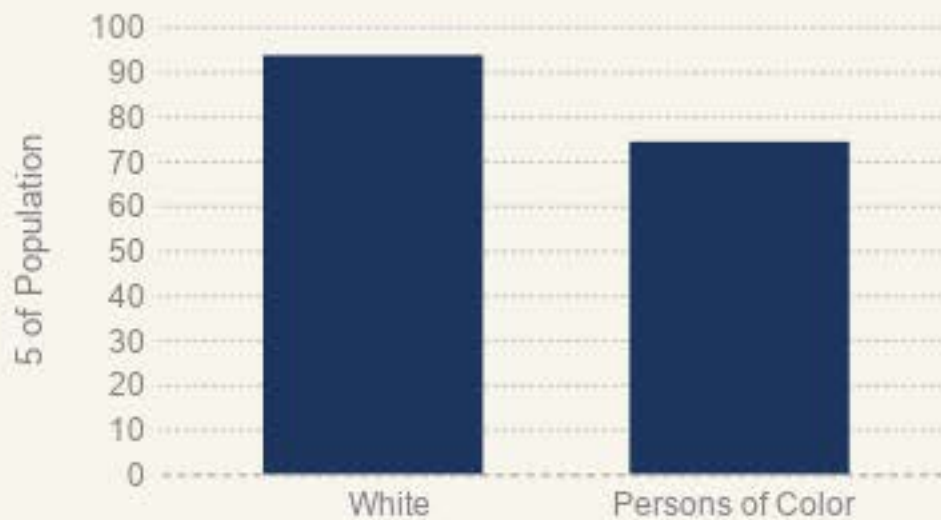
IMPORTANT POINT!

Roseville will continue to see an increase in racial diversity if trends continue

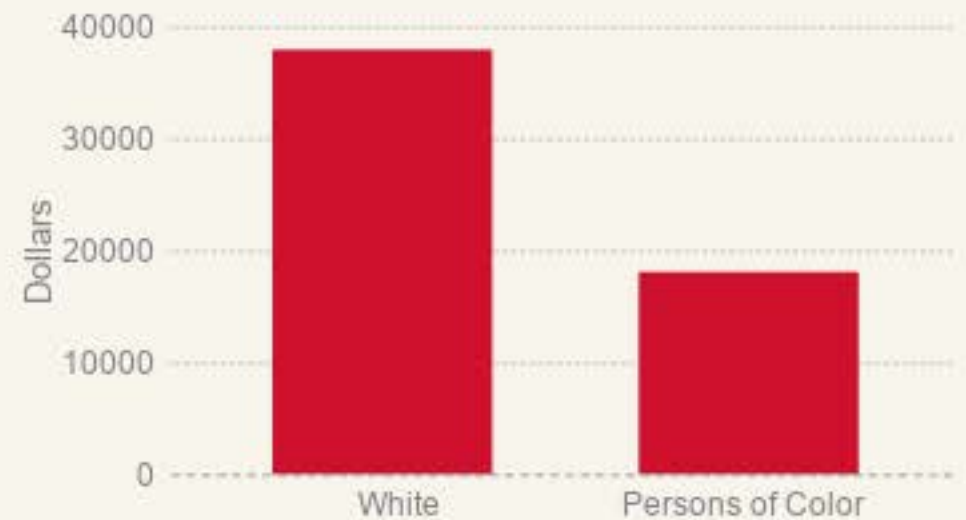


The demographics of Roseville are changing. Similar to other nearby communities, Roseville is seeing an increase in racial diversity among its residents. From 2000-2020, the rate of persons of color in Roseville increased from roughly 10% to 20%. If regional trends continue, it is anticipated that Roseville will continue to see an increase in racial diversity.

Disparities by Race and Ethnicity in the Twin Cities

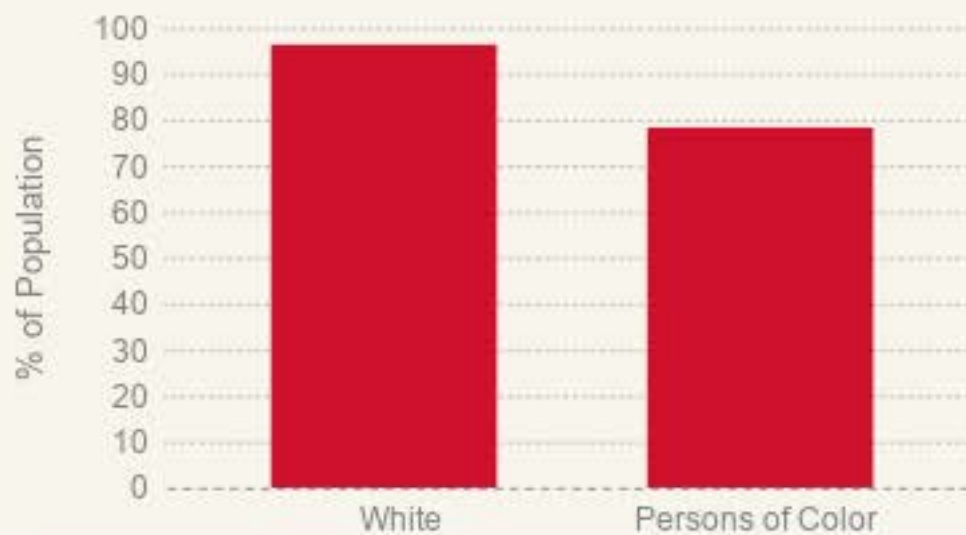


Above Poverty Threshold

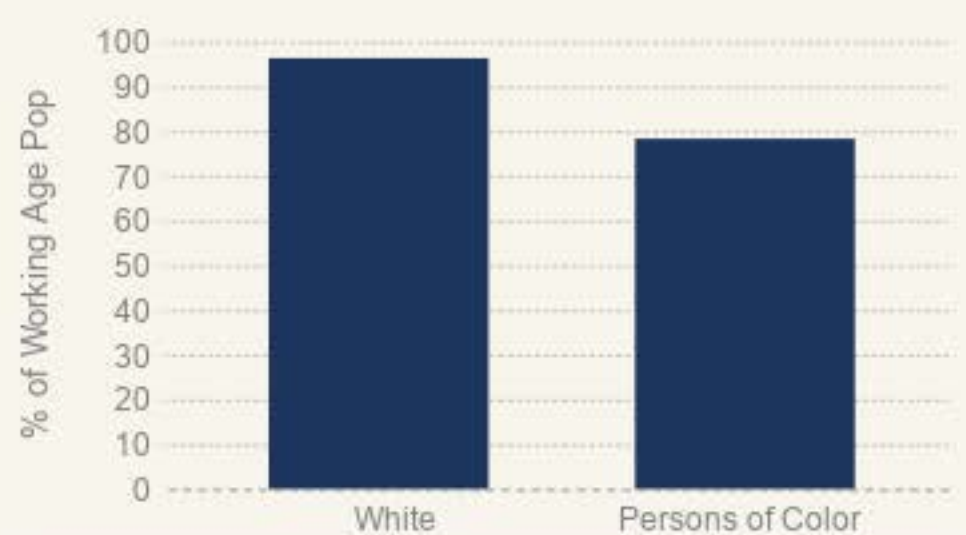


Per capita Income

Racial inequities are deep and pervasive across all indicators for success.



Age 25+ with High School Diploma



Employed

Source:

Roseville Area Schools Demographic Report
October 2016- Department of Teaching and Learning

American Fact Finder - Community Facts United States Census Bureau

MN Compass
www.mncompass.org/emographics/race#1-5107-g

**GOVERNMENT ALLIANCE ON
RACE AND EQUITY (GARE)
Cohort Update**



ABOUT GARE

The Government Alliance on Race and Equity is a national network of government working to achieve racial equity and advance opportunities for all.

FOSTER GREATER RACIAL EQUITY THROUGH:

- Making a commitment to achieving racial equity
- Utilizing the power and influence of institutions to create racial equity
- Developing partnership to help foster racial equity

GARE IN MINNESOTA

- 14 government units participating in 2018
- 9 first year, others range from second to fourth year

ROSEVILLE GARE LEADERSHIP TEAM

- 14 staff members
- A minimum of one individual from each Department
- Representatives from each organizational level

PROCESS TO DATE

- Multiple vehicles of training including classroom, “homework,” speaker series and collaboration
- Curriculum
 - History
 - Racial Equity Toolkit
 - Best practices

IMPORTANCE OF RACIAL EQUITY

- Yields a better community
- More effective provision of services to the community as a whole
- Morally the right thing to do

CONSIDERATIONS

- Racial Equity is not a zero sum game
- Other communities have made tremendous strides toward increasing racial equity through participating in GARE and use of Racial Equity Tools

Racial Equity Narrative

The City of Roseville is dedicated to creating an inclusive community where the predictability of success is not based on race or ethnicity.

The actions of government at the federal, state, and local level have created racial disparities that continue to harm our community. Rectifying these disparities is critical to the development of a vibrant community and a high quality of life for all residents.

All City Departments will prioritize racial equity in their planning, delivery, and evaluation of programs, policies, and services.

The City of Roseville is committed to taking tangible steps to normalize, organize, and operationalize racial equity principles and tools, with an eye toward impactful and sustainable outcomes that create a more equitable community.

NEXT STEPS

- Racial equity conversations beyond the GARE Leadership Team
- Leadership Team continue GARE training through the end of the year
- Develop a Racial Equity Action Plan
- Work with Racial Equity Toolkit and utilize tools
- Determine involvement in GARE next year



Q

&

A

Questions?

THANK YOU

ROSEVILLE
REQUEST FOR COUNCIL ACTION

Date: **5/14/2018**
Item No.: **7.b**

Department Approval



City Manager Approval



Item Description: Snow Event Parking Regulation Discussion

BACKGROUND

City Council has recently requested a review and discussion of the City’s parking regulations during snow events. This is in response to some consistent complaints of vehicles not being moved during snow events resulting in snow removal challenges.

The current City Code, Chapter 602.09, is attached which restricts parking “on any street for a period of 48 hours commencing immediately after any two inches or more continuous snowfall or until snow removal has been completed on any street, whichever occurs first.”

Also attached is the February 9, 2018 edition of “One Chief’s Perspective” in which Roseville Police Chief Rick Mathwig details the Police Department’s practice and procedure for enforcing the “snowbird” parking regulation and gives examples of when they did and did not issue citations in this past winter season.

This topic was last discussed by the Roseville City Council in April of 2007 when the Council considered some requests for additional parking restrictions including seasonal overnight parking restrictions. No changes were made to the policy at that time.

POLICY OBJECTIVE

The City has a Snow and Ice Control Policy which provides for a process of maintaining safe and accessible roadways during and after snow events.

BUDGET IMPLICATIONS

None.

STAFF RECOMMENDATION

Staff recommends Council review the current snow event, or “snowbird,” parking restrictions and provide further direction to staff.

REQUESTED COUNCIL ACTION

Review the current snow event parking restrictions and provide further direction to staff.

Prepared by: Marc Culver, Public Works Director
Attachments: A: City Code Chapter 602.09
B: February 9, 2018 edition One Chief’s Perspective
C: Roseville Snow and Ice Control Policy

CITY CODE TITLE 6 MOTOR VEHICLES AND TRAFFIC (excerpt from)

CHAPTER 602 STOPPING, STANDING AND PARKING (excerpt from)

602.09: NO PARKING AFTER SNOWFALL:

A. Parking Restricted: No person shall park any vehicle, except in compliance with directions of a police officer or in compliance with regulatory parking signs, on any street for a period of 48 hours commencing immediately after any two inches or more continuous snowfall or until snow removal has been completed on any street, whichever occurs first. (Ord. 687, 12-18-1972)

B. Removal of Illegally Parked Vehicles: Any vehicle parked in violation of this section is declared to be a nuisance which interferes with snow removal from public streets and any police officer may remove or cause to be removed, summarily, any such vehicle by means of towing or otherwise or such police officer may require the driver or owner to remove such vehicle off the paved, improved or traveled portion of such street.

C. Prosecution For Violation: The removal of a vehicle which is parked in violation of this section, either by a police officer or under the direction of a police officer, shall not preclude a prosecution for violation of any provision of this chapter. (Ord. 361, 2-26-1962)



One Chief's Perspective

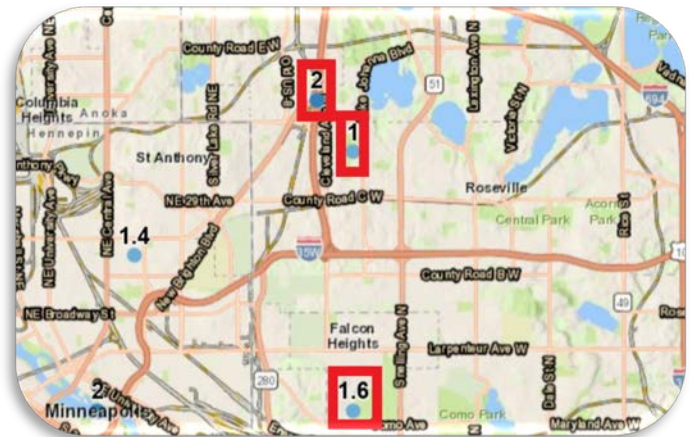
Roseville Police Department

2/9/2018

Snowplowing vs. Snowbird parking enforcement

Each winter it seems [Roseville Ordinance 602.09](#), which prohibits parking on a street after two inches of continuous snow has fallen, sneaks up on people. This year has been especially cumbersome.

There are two separate, but related decisions that take place after snow has fallen in Roseville. The first decision is made by Roseville Public Works on when to plow city streets. Their decision is based on these [policies](#) available on the City of Roseville website. They take current and predicted future weather conditions into consideration. They, for very good reasons, may choose to plow the snow when less than two inches of snow has fallen. The picture above is from the National Weather Service from January 31. It shows three different snow depths. The city plows were out clearing the streets but the Roseville Police Department did not have the legal authority to issue citations.



The second decision involves determining when to start “snowbird” enforcement. For many years, we have followed the National Weather Service local snow totals when determining whether or not two inches of snow has fallen in a “continuous snowfall”. There are at least two weather reporters in Roseville and several others in nearby communities. You can see above, that one reporter in the northern section of Roseville listed two inches but the reporter just south listed one inch. A reporter in nearby Falcon Heights listed 1.6 inches.

Our decision to begin issuing snowbird citations for vehicles parked on the streets becomes very challenging when weather reporters provide differing measurements. Why? Because our decision relies on the burden of proof in court; beyond a reasonable doubt. Does it *sound familiar to high profile criminal court cases*? It is because it's based on the same U. S. Constitution and Minnesota Rules of Criminal Procedure. The picture above gives ample reasonable doubt.

Our large snowfall on January 22 was very difficult to plow, based on the amount of snow falling each hour causing cars to be stuck in the middle of intersections, as was the case at Dale St. and County Road B. At least 2/3 of our patrol staff was tied up at that intersection for nearly an hour trying to get traffic moving. The community may not realize that we don't bring additional staff in to write snowbird citations and cannot put everything else aside to write them. They are written when officers have the time, after two inches of continuous snowfall. Car crashes, vehicles off the road, emergency medical problems and assists to the Minnesota State Patrol on the highways take precedence.

Another issue I'd like to touch on relates to heavy snow also preventing us from driving on side streets before they are plowed. *My squad has been stuck a few times in past years.* A stuck squad car puts the officer out of commission until a plow or tow truck can get to the officer. Based on this, officers may not get down a street until after it's plowed.

Service



Integrity



Respect



Innovation



One Chief's Perspective

Roseville Police Department
2/9/2018

The last issue that I am aware of for this winter season is related to two inches of "continuous snowfall." Earlier this winter, we experienced just over three inches of snow but the snowfall was not continuous as it was broken up by several hours of no snow.

Based on this information, the Roseville Police Department did not issue citations every time the city plows went out this winter. In one event, we cited over 176 automobiles. That said, we are out on the roads during every snowfall and if our officers are not assisting with vehicles off the road, crashes or other calls for help, we may be on your street enforcing Roseville's long-standing snowbird ordinance.

The National Weather Service is always looking for volunteers to help measure and map precipitation (rain, hail and snow). The trained volunteers take measurements and then submit the measurements on-line, where it is posted to the National Weather Service's website. The data is used by a wide variety of organizations, including the National Weather service, meteorologists, police departments, hydrologists, emergency managers, insurance adjusters, and mosquito control, to name a few. Anyone interested in becoming a volunteer observer can contact Michelle Margraf at 952-368-2520 or michelle.margraf@noaa.gov

More details on the community weather volunteer program can be found at www.cocorahs.org

Connecting with our Community... *Who's afraid of the Police?*



Last week, School Liaison Officer Crystal Jones accepted a Rap music challenge. She was pitted against RAHS Principal Christina Hester.

I've seen both videos and humbly believe Crystal out-performed her competition. It's too bad this photograph does not capture the great amount of cheers from the crowd of students.

I have previously [written](#) about the great program we have providing officers with gift cards to share with

needy families they meet. Last week, Sgt Travis Steinberg pulled money out of his own pocket to fund a night's stay in one of our local motels for a single mother out in the cold with her child. We were out of the gift cards. Great job, Travis.



Traffic Stop Data Collection Initiative

Last week we published our [2017 traffic stop data information](#). Please take a look and let us know what you think. In addition, we will talk about this information at the next [Imagine Roseville](#) meeting set for March 14, 2018. Hope to see you there.

Take Care, Chief Rick Mathwig

Service



Integrity



Respect



Innovation

CITY OF ROSEVILLE STREETS AND PARKING LOT SNOW AND ICE CONTROL POLICY

BACKGROUND

The Twin Cities metropolitan area averages 49” of snow per season. We have approximately a trace or more of snow on the average of 74 times each season and 1” or more an average of 9 times. Snowfalls of 3” and up occur about 4 times and 6” or more of snowfall an average of 1 time per season.

The City of Roseville annually budgets funds for the removal of snow and ice from the city maintained street system and city parking lots. Reasonable snow and ice control is necessary for routine travel and emergency services. The City will provide such control in a safe and cost effective manner, keeping in mind safety, budget, personnel, and environmental concerns.

Responsibility for directing and coordinating snow and ice control operations is assigned to the Street Maintenance Division of the Public Works Department. Snow and ice control will have top priority in the Public Works Department and is considered emergency in nature. The City will use in-house staff, equipment, and/or private contractors when necessary to provide this service. Snow and ice control may be suspended at any time the Public Works Superintendent, Street Maintenance Supervisor, or their designee determines that rising or falling temperature, visibility, and/or the rate of accumulation makes the control unsafe, ineffective, or unnecessary.

The City of Roseville has 123 centerline miles of roadway under its jurisdiction. The City also maintains 41 parking lots at various city facilities. Providing snow and ice control is a monumental task. Operators use 30,000-pound trucks with 14’ snowplows to move tons of snow. The obstacles and hazards as seen by snowplow operators are parked cars, garbage cans, vehicles traveling too fast and close to the plow, and especially important, children sliding and building snow forts too close to streets. At any given time during the winter months, there can be equipment plowing or applying ice control material on streets or parking lots. The following is a guide explaining our purpose and operations for winter snow removal and ice control.

Goals

- ◆ Monitor in conjunction with the Police Department and Parks & Recreation Department, weather and road conditions 24 hours per day.
- ◆ Maintain streets and parking lots in a safe driving condition.
- ◆ Allow for emergency vehicle access during snow and ice events.
- ◆ To have streets and critical parking lots plowed full width within 10 hours after the snow has quit falling.
- ◆ Perform snow removal and ice control tasks in a timely manner.
- ◆ Perform all maintenance tasks equally and in the best interest of Roseville taxpayers.
- ◆ To communicate with residents on how they can work together with Public Works in keeping streets safe and clear of snow.
- ◆ To inform the Police department, City Administration, and residents of the progress of snow removal operations as conditions permit.

SNOW AND ICE CONTROL POLICY

Streets

The start of snow and/or ice control operations for any storm is dependent upon immediate and anticipated conditions. Because of the many weather variables encountered, maintenance requirements differ for each snow and ice event. General winter maintenance requirements have been established for different snow and ice events as follows:

- ◆ Freezing rain, sleet, black ice, and freeze/thaw. These types of events are based on changing weather conditions. The Street Maintenance Supervisor will determine the required ice control response based on current and forecasted conditions. The response may vary from 1 unit to full fleet applying ice control material.
- ◆ Snowfall of less than 2". General snow plowing may not be necessary and normal ice control procedures may be adequate to produce safe winter driving conditions. The Street Maintenance Supervisor may deem plowing necessary if a series of less than 2" snowfalls has caused a buildup of snow on City streets.
- ◆ Snowfall of 2" to 6". Typically, snow removal begins as soon as practical after snowfall has ended. Once continuous accumulation reaches 2", the City's parking ban on City streets takes effect (see City Ordinance 602.09). Depending on the timing of the snowfall event, every effort is made to provide motorists with safe winter driving conditions prior to critical time periods. The most critical time periods are weekday morning and evening rush hours. The City will attempt to remove ice and snow from the City maintained collector and priority streets prior to rush hour periods. Normally, collector and priority streets are plowed first. Once the collector and priority areas are plowed and opened, the remaining streets in the residential, commercial, and industrial areas will be plowed and ice control applied.
- ◆ Snowfall greater than 6". Each plow route has a system of collector, priority, and secondary streets that link neighborhoods, major arterials, and facilities such as schools, health care facilities, etc. Depending upon the duration of any snowfall event, it may be necessary to continually clear priority streets in order to assure public safety. Once snowfall has ceased, priority streets within each route will be cleared before snow removal begins on secondary streets. Ice control measures will follow once streets are plowed full width.

Each year the Public Works Department Street Maintenance Division reviews and makes changes as deemed necessary to a map (Exhibit A) showing the city maintained street system and snow plow routes. Equipment is assigned to each route based on availability and the effort required for the control of snow and ice. The routes will be periodically revised to correspond with the budgetary, equipment, and personnel resources available. Within each route, the collector and priority streets are defined along with streets and highways within the city limits that are maintained by other government agencies. Streets and highways within the community that are maintained by Ramsey County and the Minnesota Department of Transportation will be maintained under the county and state maintenance policies.

Snow and ice removal operations will be conducted only when weather conditions do not endanger the safety of employees or equipment and operations are effective. Under

severe conditions, limited visibility, or where weather patterns suggest additional ice and snow, streets may not be plowed “full width” and plowing in some areas may be delayed. Factors that may delay snow and ice control operations may include severe cold, significant winds, limited visibility, and rapid accumulation of snow.

Parking Lots

General winter maintenance requirements for parking lots have been established for different snow and ice events as follows:

- ◆ Freezing rain, sleet, black ice, and freeze thaw. These types of events are based on changing weather conditions. Critical parking lots will have ice control material applied as soon as practical as determined by the Street Maintenance Supervisor or Park Maintenance Supervisor. The remainder of winter use parking lots will be monitored for safe conditions and ice control application after all streets and critical lots have been completed.
- ◆ Snowfall of less than 2”. Plowing may not be necessary and ice control procedures may be adequate to produce safe winter conditions. The Street Maintenance Supervisor and Park Supervisor will determine if snow depth or drifting will require plowing of parking lots.
- ◆ Snowfall greater than 2”. Snow removal on critical parking lots will begin as soon as practical after snowfall has ended. These lots will be plowed simultaneously or immediately after street plowing is completed. All other winter use parking lots will be plowed as equipment and personnel become available after emergency plowing is completed. During extremely heavy snow events, critical parking lots maybe plowed before snowfall has ended to allow for emergency vehicle access and city business to be conducted.
- ◆ Each year the Public Works Department Street Maintenance Division and the Parks & Recreation Department Maintenance Division will review and make changes to a map showing city parking lots (Exhibit F), their priority level (critical or winter use) and department of responsibility.

EQUIPMENT

The City will acquire, maintain, repair, and replace equipment on a timely basis, as the City’s established budget will allow. To provide for utilization of equipment in a cost-effective manner, the City may use city trucks, motor graders, front-end loaders, and other regular equipment as may be useful for control of snow and ice.

DISPATCHING EQUIPMENT

The start of snow and ice control operations for any storm is dependent upon immediate and anticipated conditions. The Street Maintenance Supervisor or his designee will determine the dispatching of equipment. Plowing and/or sanding operations may occur during a regular work shift 7:00 a.m. to 3:30 p.m. or on an emergency call-out basis.

HOW SNOW WILL BE PLOWED FROM COLLECTOR, PRIORITY, AND RESIDENTIAL STREETS

The City is divided into 11 plow routes and 2 cul-de-sac routes (Exhibit A). Snow will be plowed in a manner so as to minimize traffic obstructions. The center of the street will be plowed first. The snow will then be pushed from left to right with discharge going onto the boulevard area of the right-of-way. The street is cleared curb to curb. The Street Maintenance Division will not be responsible for plowing snow from any sidewalk

and/or driveway except under unusual circumstances. Putting snow on City streets from private property is in violation of Minn. Stat. 160.2715, Right-Of-Way Use Misdemeanors.

In cul-de-sacs, 1-ton trucks will try to minimize snow windrows in driveways and push the majority of the snow onto the boulevard.

SNOW STORAGE

Ongoing snow and ice control efforts require the use of City owned right-of-ways and easements for storage of plowed snow. The right-of-way generally extends 10' to 16' behind the curb. Depending upon volume of snow, storage within the right-of-way could create sight obstructions at intersections. Intersection conditions will be reviewed case by case and resolved by appropriate methods.

Where space does not allow for snow to be piled outside the driving lanes, the City will remove the snow by hauling. Timing of such hauling will be at the discretion of the Public Works Superintendent, Street Maintenance Supervisor, or their designee.

ICE CONTROL

The City of Roseville does not guarantee that streets or parking lots will be free of snow and ice after plowing. Bare, dry pavement should not be expected and may not be continuous on City streets throughout the winter months. The City attempts to maintain adequate traction for the motoring public.

Planning for a winter storm is difficult. The differences in rate of rain, sleet, snowfall, moisture content, temperature, time of day, and wind make each storm unique. Melting conditions may also require some level of ice control.

Ice control operations may consist of as few as a single truck applying material on isolated areas to the full fleet applying material citywide during a major ice control event. See Exhibit E for typical ice control routes.

In order to remain cost effective, the Street Division will provide ice control measures at intersections of collector streets, priority streets, residential streets, hills, and curves. Ice control material will also be applied as deemed necessary on residential streets and at the beginning of cul-de-sacs. A variety of ice control products are available and City staff is continually monitoring the effectiveness, environmental impact, and cost of each. The Public Works Superintendent and Street Maintenance Supervisor will determine the appropriate combination of chemicals and sand to effectively control ice in the given weather conditions. Effect on the environment is of the highest priority in selection of ice control products.

The City cannot be responsible for damage to grass or driveways caused by the ice control products and will not make repairs or compensate residents for ice control products damage to turf or driveways.

PARKING ON CITY STREETS

Providing quality snow removal on City streets requires the street to be free of vehicles or other obstacles. Parking on City streets is not allowed after a continuous 2" accumulation of snow for up to 48 hours or until the street is plowed full width, see City Ordinance

PLOWING AND/OR SANDING OF PRIVATE PROPERTY

Unless there is direct benefit to the City operations or unless emergency vehicles need access, there will be no plowing or ice control of private property with City equipment.

MAILBOXES

In those instances in which the U. S. Postal Service does not provide door-to-door delivery, it is necessary for property owners to install mailboxes on the city right-of-way immediately adjacent to the street curb. While the installation of mailboxes on City owned right-of-way is permitted, the mailbox owner assumes all risk of damage except where a mailbox is damaged through **direct contact** by snow removal vehicles. If the mailbox is damaged due to **direct contact** by a snow removal vehicle, the City at its option will repair or replace the mailbox. The City will replace with a standard metal mailbox and a 4' x 4' treated post. The City will reimburse up to \$40 provided the owner has contacted the Public Works Superintendent or Street Maintenance Supervisor within 72 hours for verification and authorization. The property owner will be required to submit an itemized statement of materials. Newspaper boxes installed under mailboxes do not allow for snow equipment to pass under and can cause an **indirect** hit to the mailbox. See Exhibit B for City and postal mailbox standards.

A property owner assumes all risks and responsibilities for replacement of mailboxes and supports that are constructed of materials such as, but not limited to, brick and mortar, stone aggregate, ornamental railings, or antique type support.

If a mailbox is damaged due to **indirect contact**, including the force of snow generated by the snow removal vehicle, the City assumes no responsibility. It is necessary for homeowners in this climate to use materials and construct mailboxes that will withstand the force of a snow windrow off the end of a snowplow.

MAIL DELIVERY

The snowplow operators make every effort to remove snow as close to the curb line as practical to provide access to mailboxes for the postal department. It is not possible to provide perfect conditions and minimize damage to mailboxes with the size of equipment the City operates. The final cleaning adjacent to mailboxes is the responsibility of each resident.

LANDSCAPING

Landscaping, including nursery and inanimate materials that are installed by a property owner or encroach on City right-of-way and are allowed by City ordinance will be the responsibility of the owner and the owner will assume all risk. Damage to trees, shrubbery, and other landscaping will not be considered for compensation. The City cannot control drift or discharge of snow from a snowplow or snow blower.

The City will assume no responsibility for damages incurred as the result of snow removal and ice control activities. The City at its option will repair by reseeding or replacing sod that is removed as the result of plowing activities. The City at its option may replace, trim, or remove landscaping including shrubbery, trees, and inanimate objects, which are hazardous to snow removal.

LAWN SPRINKLING, LIGHTING SYSTEMS, AND PERSONAL PROPERTY

The City will assume no responsibility for damage to above the ground or underground lawn sprinkling systems, exterior lighting systems, and similar landscaping installed in City owned right-of-way. The City will assume no responsibility for personal property that is being stored on the City right-of-way.

DRIVEWAYS

One of the most frequent and irritable problems in removal of snow from public streets is the snow deposited in driveways during plowing operations. Snow being accumulated on the plow blade has no place to go but in the driveway. The amount of snow deposited in the driveways may be significant but is unavoidable due to the nature of snow removal. The depth of snow in any given driveway is proportional to the depth of the given snowfall. The City will not clean driveways based on financial restraints and available personnel.

RESPONSIBILITY

Streets:

The Public Works Superintendent and Street Maintenance Supervisor with assistance from the police department will monitor the street conditions to determine the timing and the number of crews necessary to clear the City maintained public street system.

The Public Works Superintendent, Street Maintenance Supervisor, or in their absence the designated representative, has the responsibility of determining plow routes and sequencing of operations in accordance with the priorities as established in Exhibit A. The Street Maintenance Supervisor or his designee will retain the latitude to adjust sequencing or route assignments based on storm conditions, equipment availability, and/or other conditions warranting changes.

Parking Lots:

The Street Maintenance Division along with the Parks Maintenance Division will monitor conditions in parking lots to determine timing and equipment and staff necessary to provide snow and ice control in city parking lots.

The Street Maintenance Division is responsible for snow and ice control in all parking lots within the City Center Campus, including the City Hall lots, Fire Station #1 lots, maintenance garage lots, and Ice Skating Center lots.

The Parks Maintenance Division is responsible for snow and ice control on all other city parking lots. As in other areas of maintenance, divisions assist each other as available and necessary to carry out snow and ice control operations.

STAFFING

As snow and ice control on city streets and critical parking lots is considered emergency in nature, all maintenance divisions, including streets, utilities, and park maintenance staff will be called upon to ensure all necessary equipment is utilized for each snow and ice event as determined by the Public Works Superintendent or Street Maintenance Supervisor.

COMPLAINTS AND REQUESTS FOR FURTHER SERVICE

Complaints and requests for further services regarding snow and ice control or damage will be taken during normal working hours and handled in accordance with City procedures. Complaint and requests for further services should be directed to Public Works Street Department. Complaints and request for further services will be handled on a priority basis. Response time should not exceed 24 hours after snow has ceased unless conditions or operations prevent the Superintendent or Supervisor to respond.

Emergency requests for service should be directed to the Public Works Department at 651-792-7004 during regular business hours or after hours to the Roseville Police Department at 651-767-0640 where on-call staff will be notified to respond. It should be understood that responses are to ensure that the provisions of the policy have been fulfilled and that all residents have been treated uniformly.

















REVIEW OF POLICY

The City will keep on file comments and complaints received regarding this policy. This policy will be reviewed annually. The review will consider comments received since the last review.

EXHIBITS

- Exhibit A: Large citywide map with plow routes
- Exhibit B: City and postal installation requirements for mailboxes
- Exhibit C: Snowplow visibility diagram
- Exhibit D: Roadway clearing diagram
- Exhibit E: Map of Ice Control routes, 2-6 routes
- Exhibit F: Map of City Parking lots

Snow Plow Routes

- | | |
|--|---|
|  106- 11.11 miles |  147- 14.07 miles |
|  107- 9.97 miles |  144- a-3.03/b-6.80=9.83 miles |
|  109- 11.47 miles |  155- 10.41 miles |
|  112- 10.42 miles |  210/111- Civic Center, Oval and Fire Station #1 |
|  122- a-8.68/b-1.51=10.19 miles |  Cul-de-sac West Route |
|  125- 13.86 miles |  Cul-de-sac East Route |
|  145- 11.51 miles |  Cul-de-sac Route 122 |
|  146- 10.77 miles |  Collector Streets |



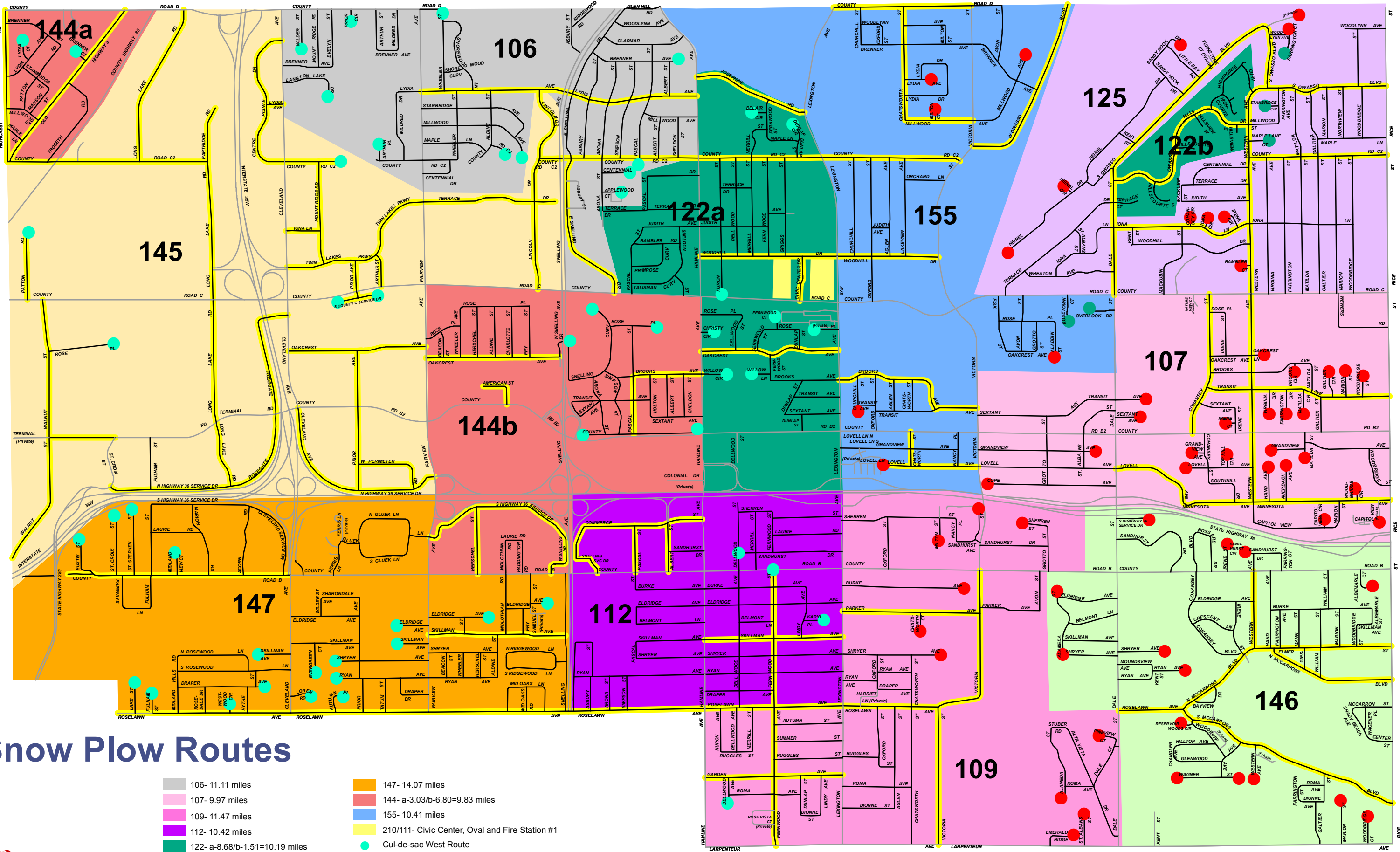
Prepared by:
Engineering Department
October 24, 2017

Data Sources and Contacts:
* Ramsey County GIS Base Map (10/3/17)
* City of Roseville Community Development
For further information regarding the contents of this map contact:
City of Roseville, Engineering Department,
2660 Civic Center Drive, Roseville MN

Disclaimer:
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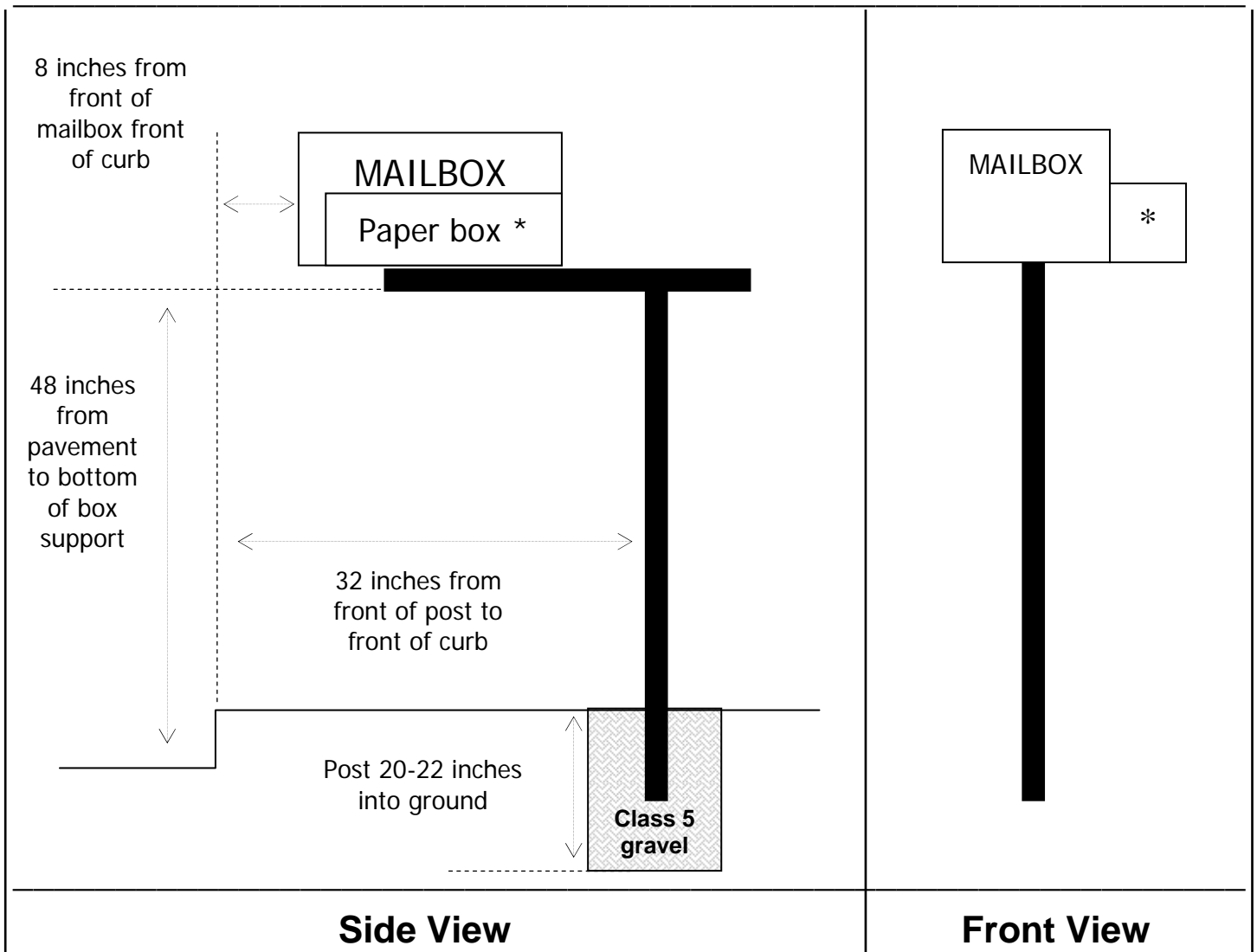
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mapdoc: SnowPlowRouteWeb.mxd
map: SnowPlowRouteWeb.pdf





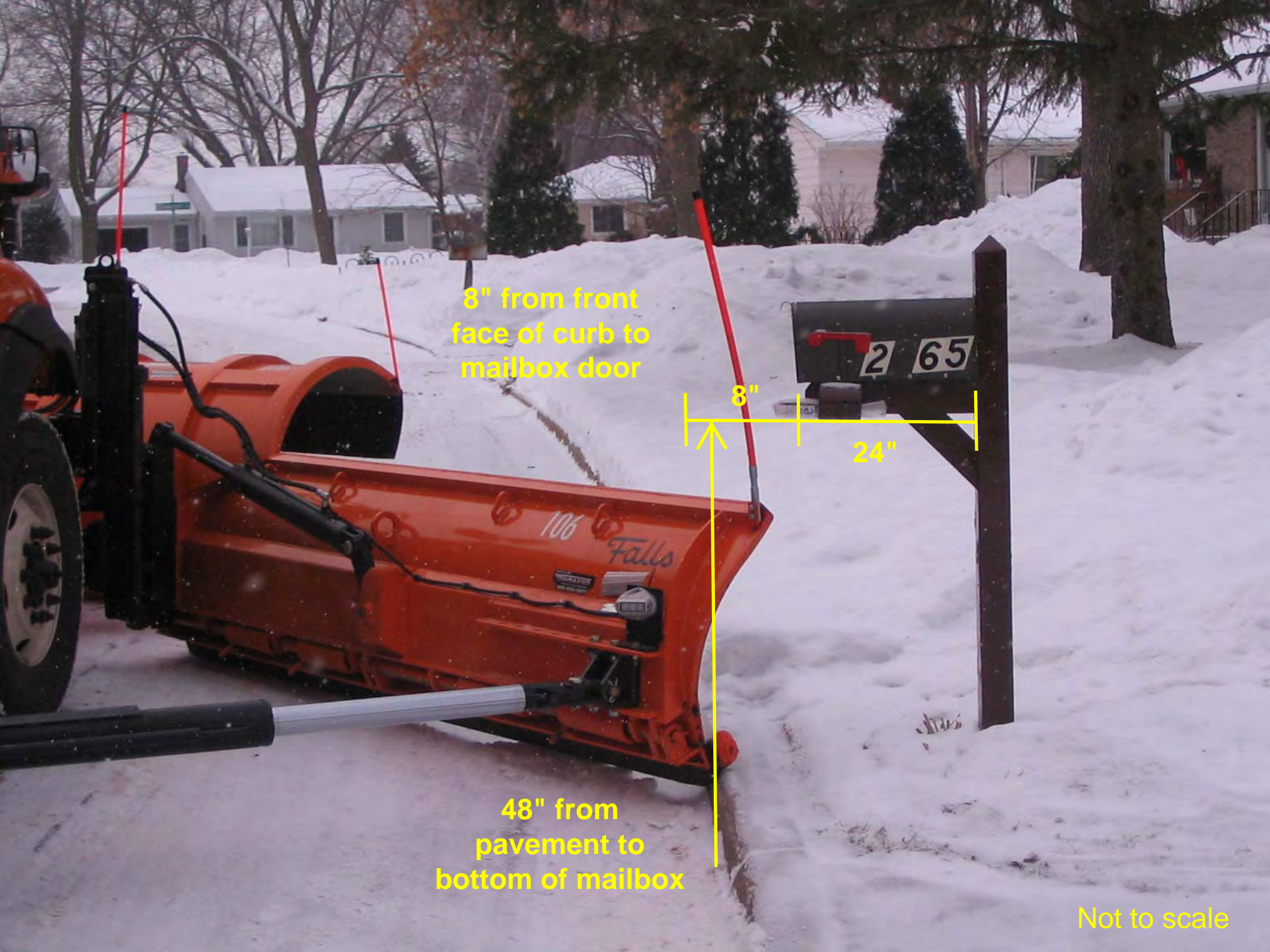
MAILBOX STANDARD INSTALLATION



(Not to scale)

NOTES:

- Box must be located so carrier can serve without leaving vehicle.
- Have box extend as far in front of support post as possible, but 8 inches from front of curb.
- Address must be on side of box from which carrier approaches in letters about 1" high. (Or on front where boxes are grouped.)



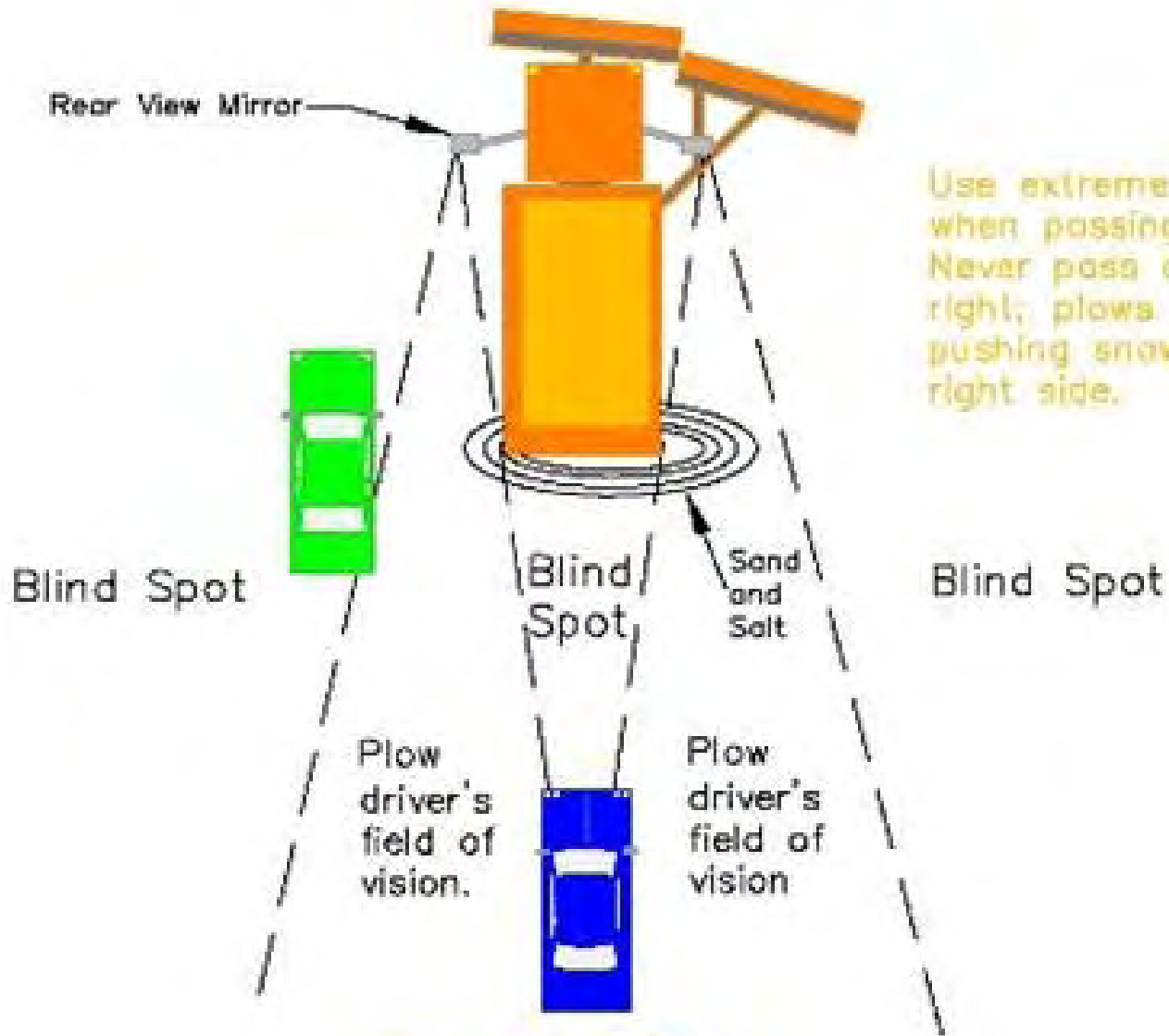
8" from front face of curb to mailbox door



48" from pavement to bottom of mailbox

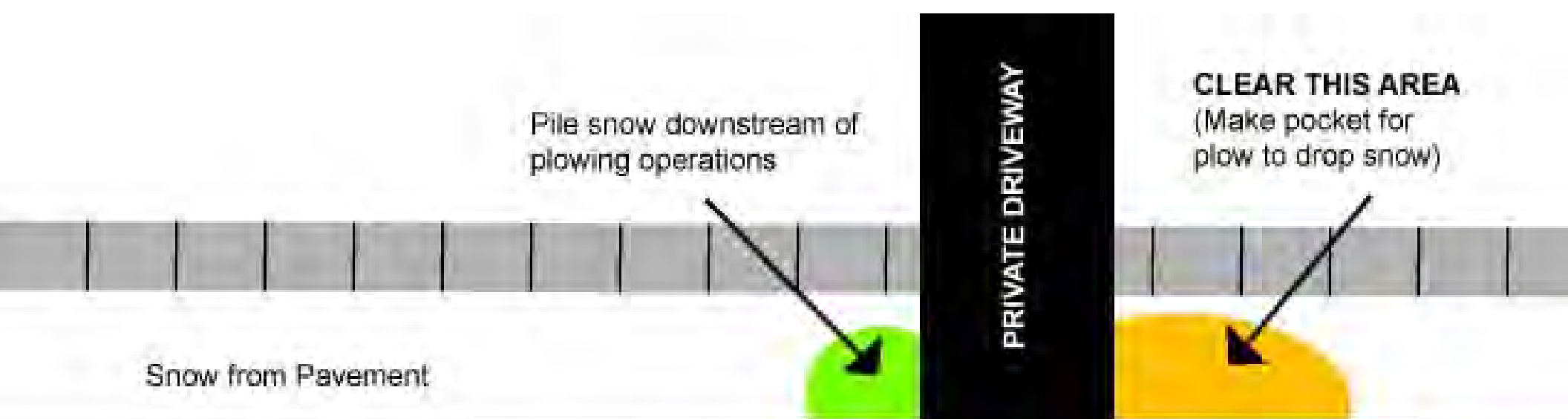
Not to scale

Don't assume plow drivers see you.
Their field of vision is limited.

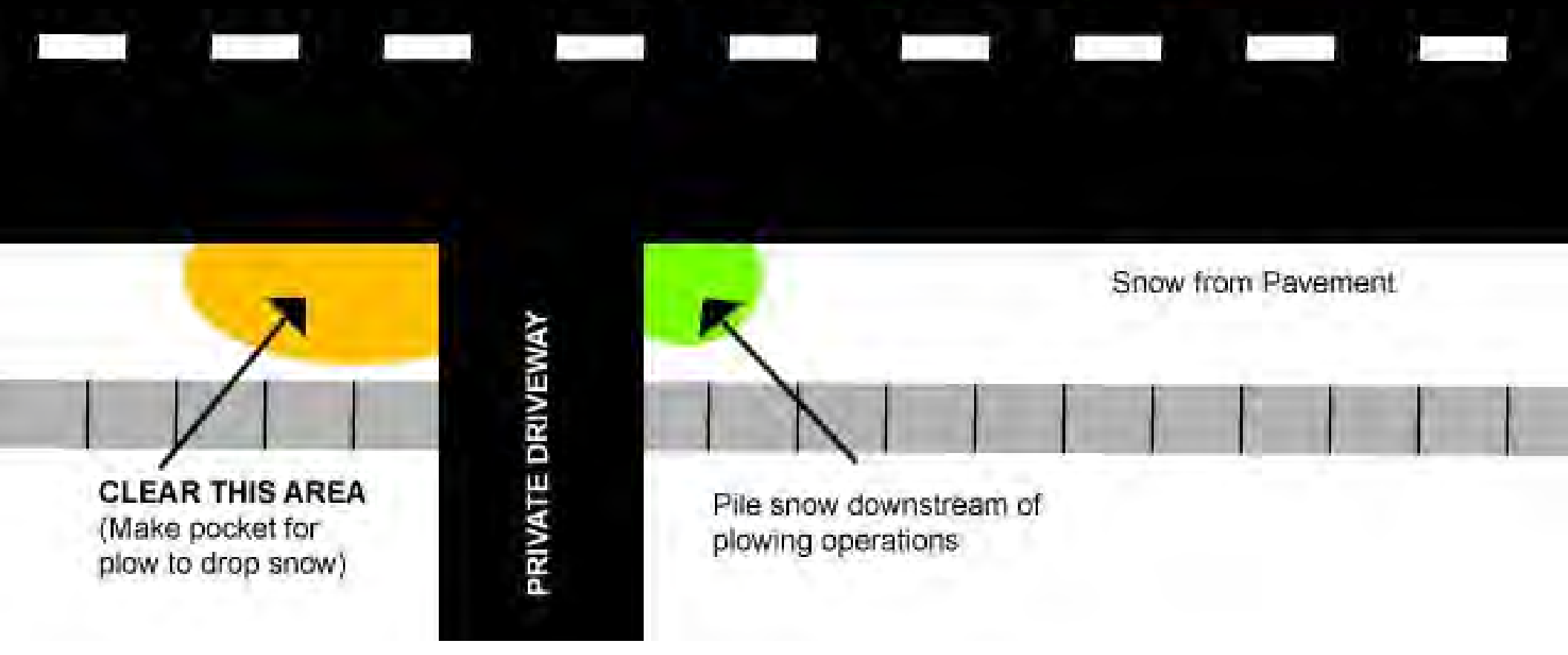


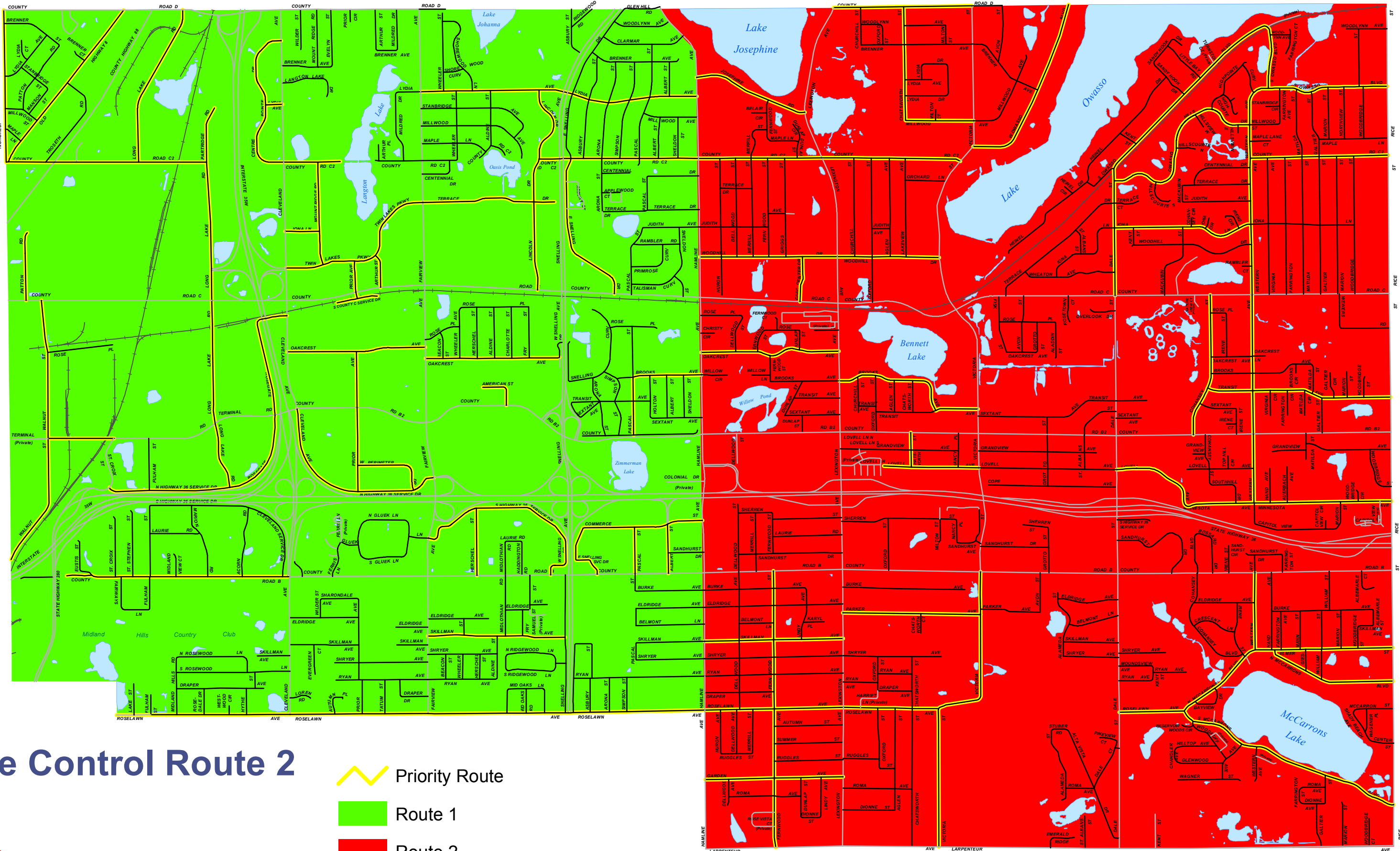
Use extreme caution when passing a plow. Never pass on the right; plows are usually pushing snow to the right side.

Stay back 200 feet.
If you can't see the plow's mirrors, the driver can't see you.






CLEARED ROADWAY AREA





Ice Control Route 2

-  Priority Route
-  Route 1
-  Route 2



Prepared by:
Engineering Department
October 31, 2017

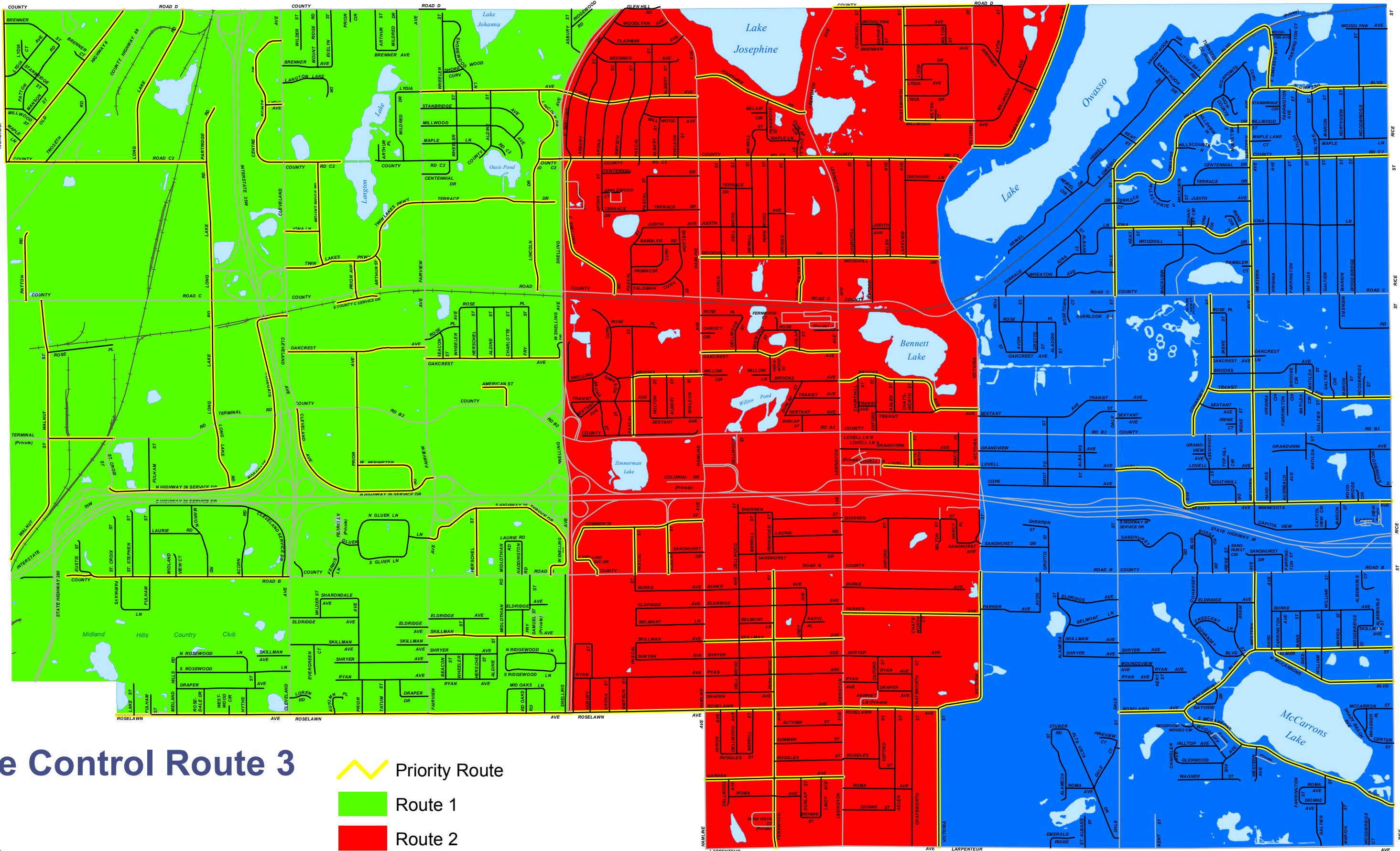
Data Sources and Contacts:
 * Ramsey County GIS Base Map (10/03/17)
 * City of Roseville Engineering Department
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

0 500 1000 1500 2000 Feet



mapdoc: IceControl_Routes.mxd
 map: IceControl_Route.pdf



Ice Control Route 3

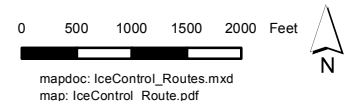
-  Priority Route
-  Route 1
-  Route 2
-  Route 3

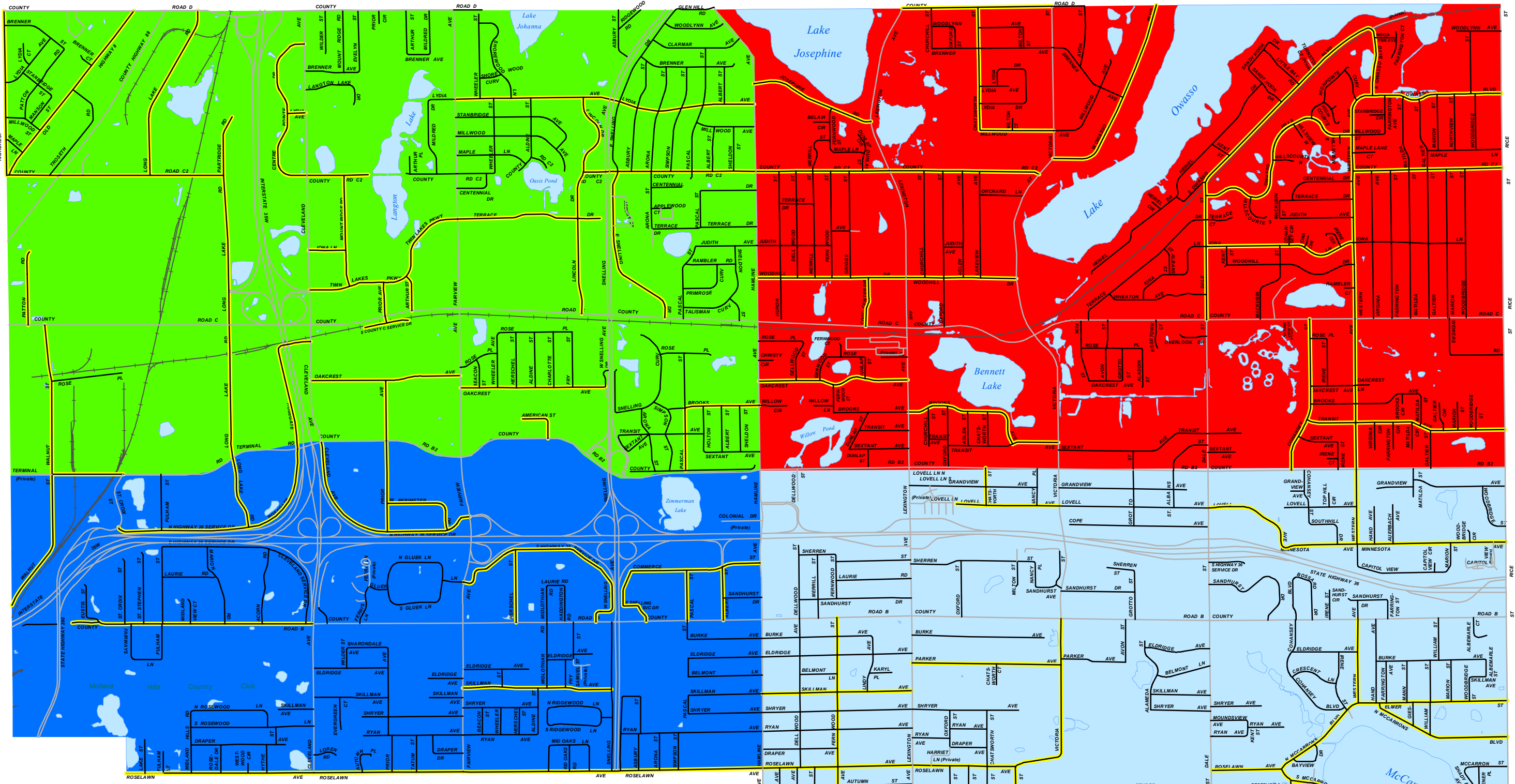


Prepared by:
Engineering Department
October 31, 2017




Data Sources and Contacts:
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Ice Control Route 4

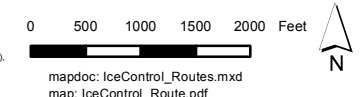
-  Priority Route
-  Route 1
-  Route 2
-  Route 3
-  Route 4



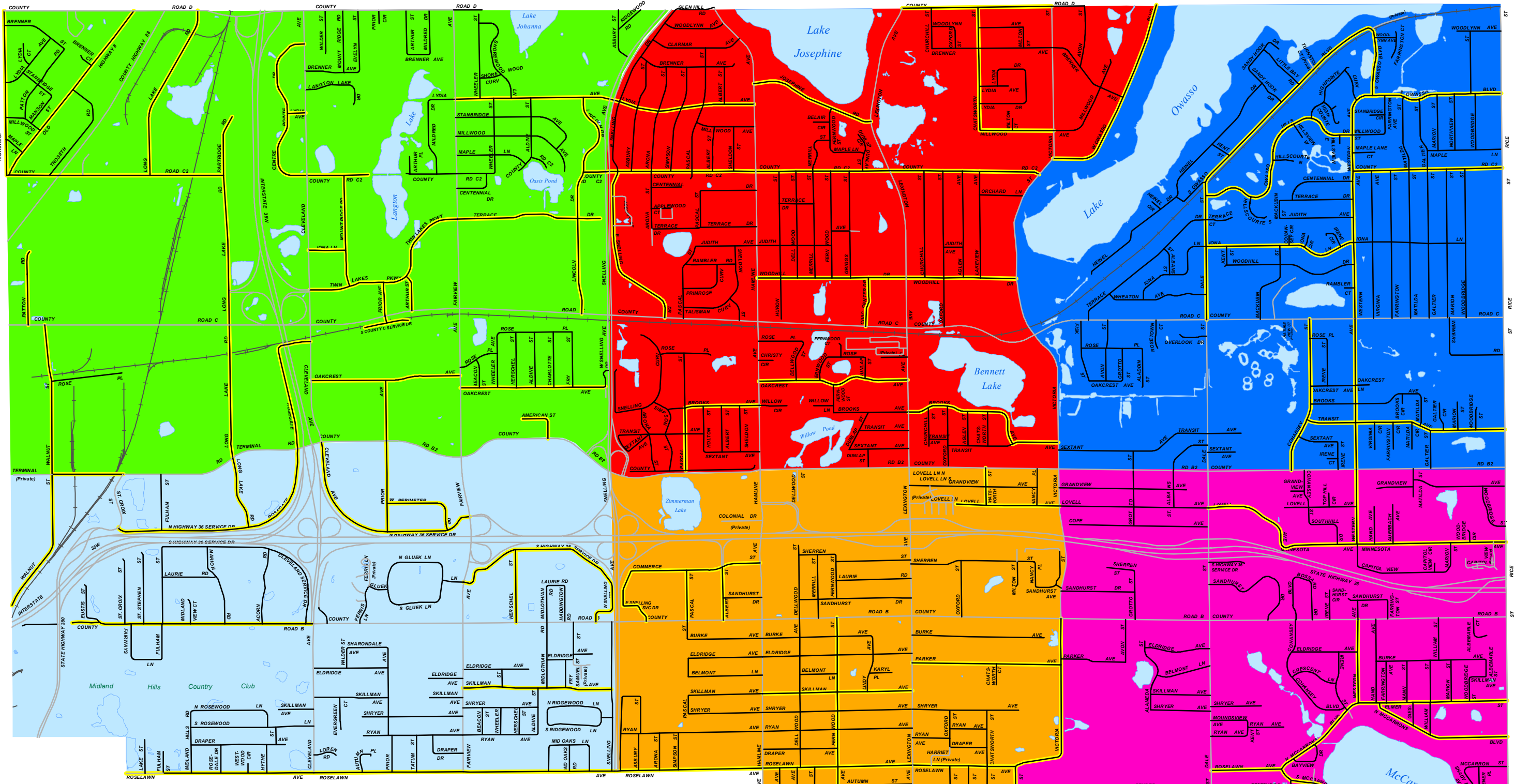
Prepared by:
Engineering Department
October 31, 2017

Data Sources and Contacts:
 * Ramsey County GIS Base Map (10/03/17)
 * City of Roseville Engineering Department
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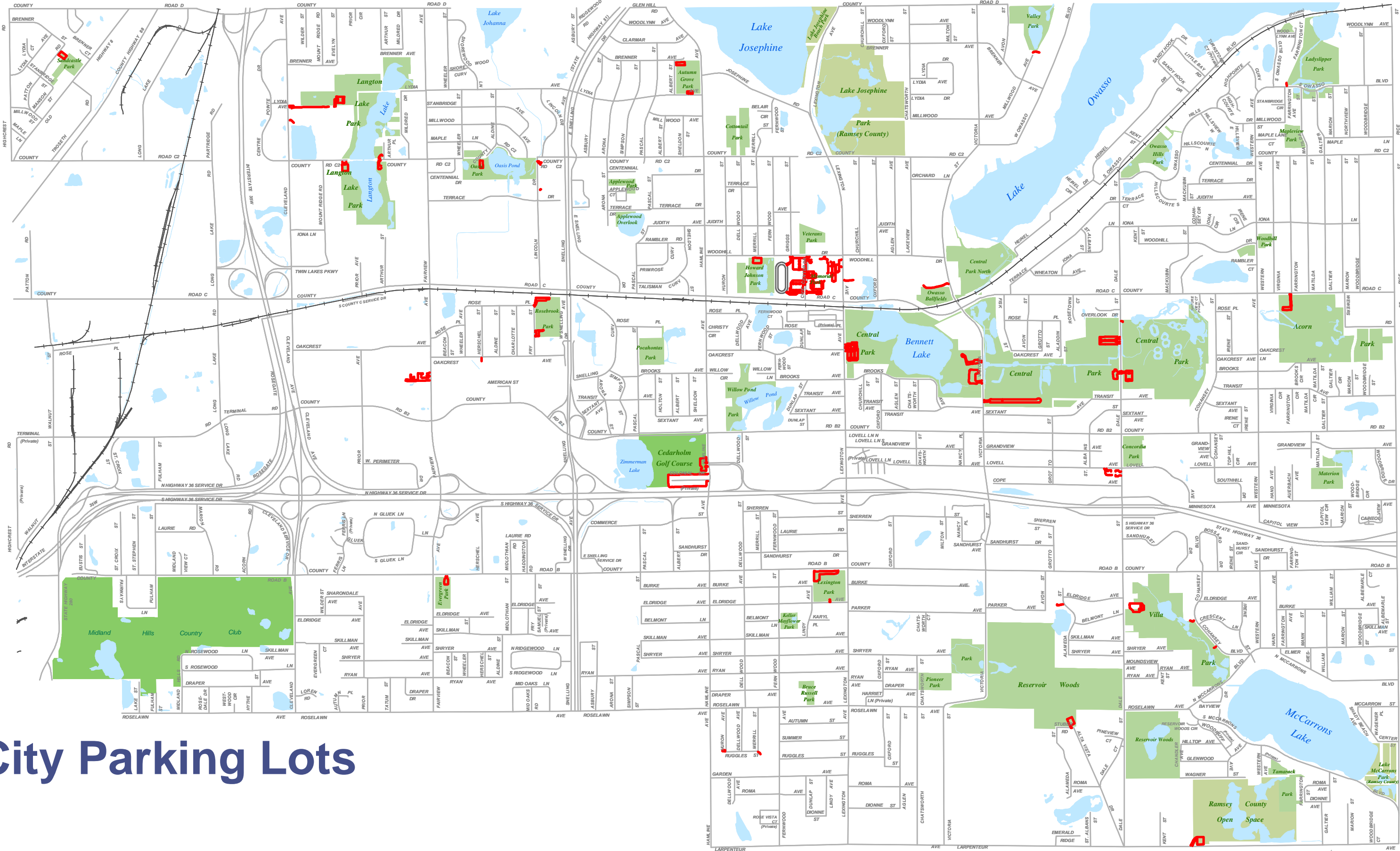


mapdoc: IceControl_Routes.mxd
 map: IceControl_Route.pdf



Ice Control Route 6

-  Priority Route
-  Route 1
-  Route 2
-  Route 3
-  Route 4
-  Route 5
-  Route 6



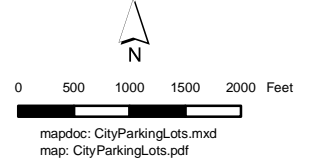
City Parking Lots



Prepared by:
Engineering Department
October 8, 2009

Data Sources and Contacts:
 * Ramsey County GIS Base Map (9/30/09)
 * City of Roseville Engineering Department
 For further information regarding the contents of this map contact:
 City of Roseville, Engineering Department,
 2660 Civic Center Drive, Roseville MN

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REQUEST FOR COUNCIL ACTION

Date: 5/14/2018

Item No.: 7.c

Department Approval

City Manager Approval

Item Description: Discuss City Campus Solar Options

1 **BACKGROUND**

2 City Staff has been researching and discussing solar installation opportunities for public
3 buildings for many years. In January 2013, staff met with Powerfully Green (installer) and
4 Newport Partners (financer) for the installation of solar photovoltaic (PV) on the City Hall and
5 Maintenance Building roof. Powerfully Green and Newport Partners were working with the
6 cities of Lindstrom and Champlin who received grants and Xcel Energy rebates for rooftop
7 projects in their cities. Roseville’s plan was to install two 40kW systems with the City paying
8 \$66,000 in upfront costs, with a total project cost of \$660,000. The payback of this system was
9 projected to be 10-12 years. City Council supported entering into a letter of intent with Newport
10 Partners to apply for grant funding with Xcel. The City was not selected for funding through this
11 process.

12
13 Staff continued to meet with developers and financers in 2014 to investigate the installation of
14 solar PV on rooftops within the City Hall campus. Grant funding was available through Made-
15 in-MN, and a low interest financing option was provided by the St Paul Port Authority. The City
16 submitted two grants, but was not selected through the lottery process.

17
18 At the same time, the City was investigating Community Solar. The program has some
19 community support and interest. The project would allow property owners to buy shares from a
20 City installed system and get a credit on their utility bill for the power system they bought into.
21 The residents encouraged the City to look at ways to participate in this program, and was the
22 impetus for a presentation in May of 2014 by the Great Plains Institute/CERTs. CERTs goal was
23 to educate everyone on Community Solar projects and how the City could engage the
24 community.

25
26 Staff sent out an RFP in January of 2015 that looked at all the rooftops in the City Hall campus
27 to determine how feasible all the locations were, and what total capacity was available. The RFP
28 received two responses, but neither were selected because part of the RFP was looking into grant
29 funding through Made-in-MN. The City applied for three buildings, but was not selected
30 through the lottery process.

31
32 The City reworked the RFP to look at a direct purchase, or Power Purchase Agreement (PPA),
33 for the installation of a rooftop solar system on the Skating Center. Two proposals came back
34 with the City selecting Sundial Solar. In August of 2015, the City Council authorized staff to
35 enter into a Letter of Intent with Sundial Solar for the installation of a 375kW Photovoltaic
36 system on the roof of the Skating Center. Staff worked with Sundial Solar on the detailed

37 engineering and design for the proposed system on the Skating Center.

38

39 In November 2015, staff brought the Skating Center project to the PWETC meeting to review
40 and make a recommendation on the PPA that would help fund the installation of the proposed
41 300kW solar PV system.

42 In early 2016, Sundial Solar approached City staff with a formal proposal to install a solar
43 system on the Skating Center roof. However, in order to meet building code requirements for an
44 arena, the roof substructure would require modification in order to support the additional weight
45 of the solar panels. This work would have required shutting down the arena for several weeks,
46 which was not acceptable given the use of the arena.

47 City staff and Sundial therefore began looking at alternatives on the City Campus for a similar
48 installation. Sundial came back in July 2016 with a proposal to install solar arrays on top of City
49 Hall and the Maintenance Facility. These two installations would combine for a total of 450 kW
50 watts, which is larger than the proposed 375 kW system originally proposed for the skating
51 center. This PPA was not supported by City Council as the timing didn't work out due to the
52 beginning of the facility needs study, and the potential conflict of roof/building maintenance.

53 Now in 2018, staff are revisiting the potential solar projects with the City Hall Campus. Staff met
54 with two developer/financers to discuss solar rooftop potential, and changes in the solar market
55 from 2016. Staff received a proposal from IPS-Solar for a Community Solar Subscription
56 Agreement. Staff is proposing to commit to up to 2 megawatts of Community Solar shares. IPS
57 Solar would seek out available shares and the agreement would be amended as each individual
58 development is secured. IPS Solar will be on hand to make a short presentation and answer
59 questions.

60

61 Staff also recently attended a seminar on a new program called Solar Possible which is a
62 collaborative solar purchasing program for state agencies, local governments, and schools. This
63 program is administered by the Minnesota Department of Administration and is receiving
64 technical support from the Clean Energy Resource Team (CERTs) and the Great Plains Institute.
65 A fact sheet on this program is attached. The City is participating as an interested party and
66 should receive proposals sometime this summer. At that time, if the proposals are reasonable,
67 staff will present these to the City Council for possible consideration of rooftop solar
68 installations somewhere on campus.

69 **POLICY OBJECTIVE**

70 Policy 6.2 of the Roseville 2030 Comprehensive Plan indicates the City should reduce negative
71 human impacts on the environment through citywide energy conservation and reduction of
72 pollution and waste.

73 **BUDGET IMPLICATIONS**

74 A more thorough review of budget implications will be presented when staff presents a final
75 draft of an agreement to approve and/or a proposed solar installation on campus. Staff's goal will
76 be to present proposals that will have at least a short term break even result, if not annual energy
77 savings over an extended period of time.

78 **STAFF RECOMMENDATION**

79 Receive a presentation from staff updating the Council on current City Campus solar options and
80 provide guidance to staff for future actions.

81 **REQUESTED COUNCIL ACTION**

82 Receive a presentation from staff updating the Council on current City Campus solar options and
83 provide guidance to staff for future actions.

Prepared by: Marc Culver, Public Works Director

Attachments: A: Presentation on Community Solar Gardens

B: Solar Possible Fact Sheet

C: DRAFT Community Solar Subscriber Agreement

D: Excerpts from March 27, 2018 PWETC Meeting Minutes

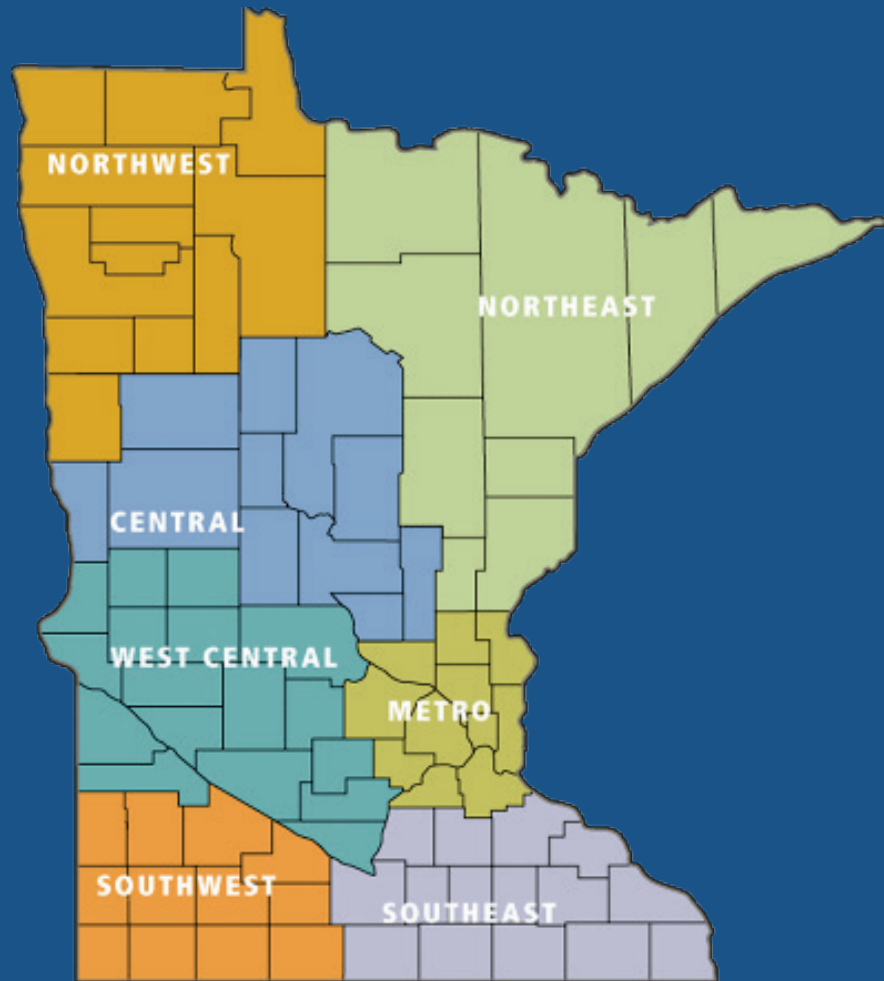
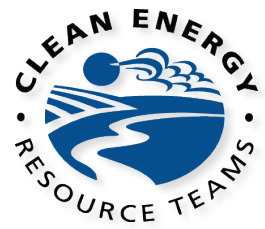


Clean Energy Resource Teams

Local Government
CSG Toolkit Resource



CERTs: We're here to help



CERTs Mission:

Connect individuals and their communities to the resources they need to identify and implement community-based clean energy projects





Community Shared Solar: Neighbors coming together



Point to yours!

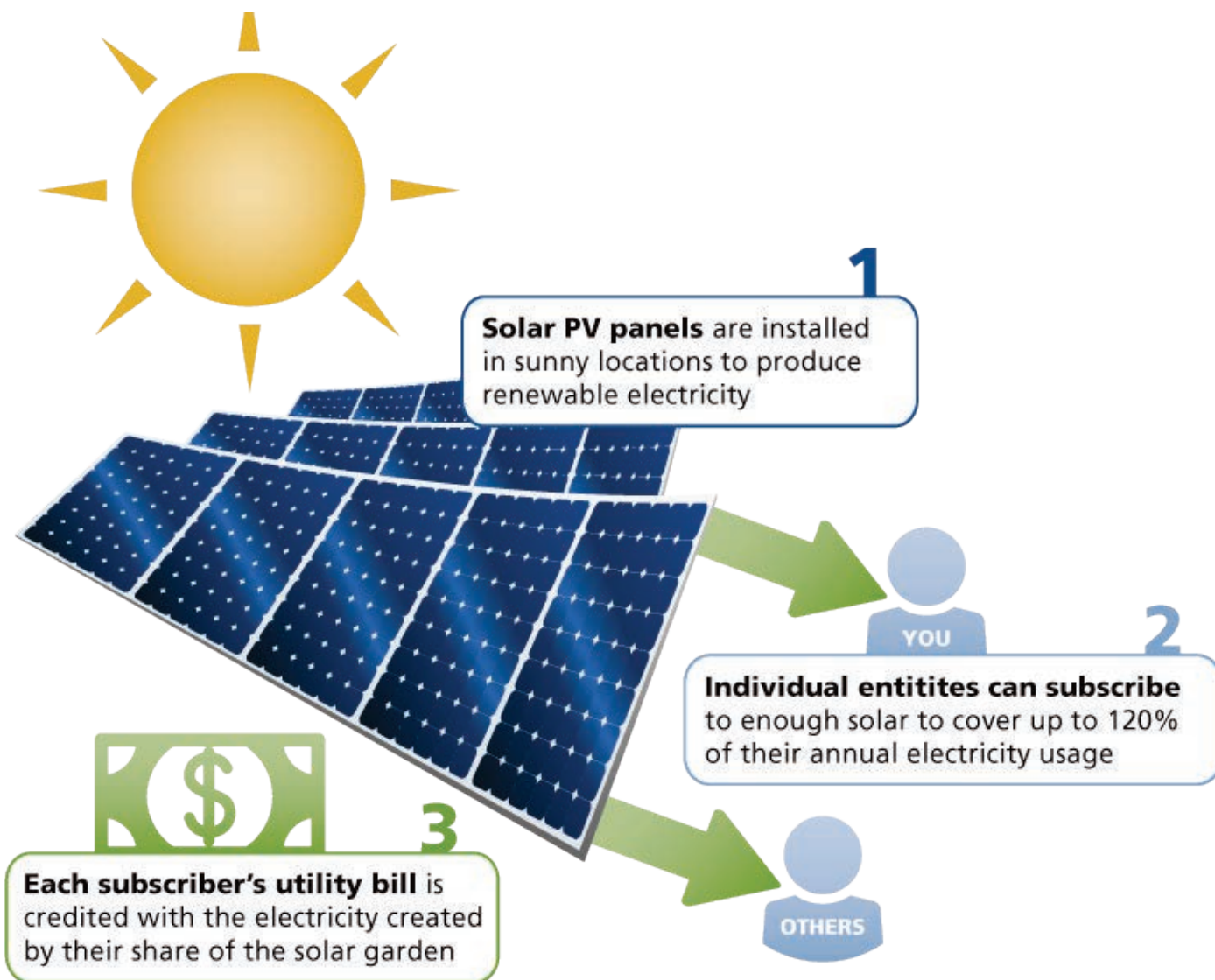




Community Shared Solar

Definition:

Centrally-located solar PV systems that provide electricity to participating subscribers





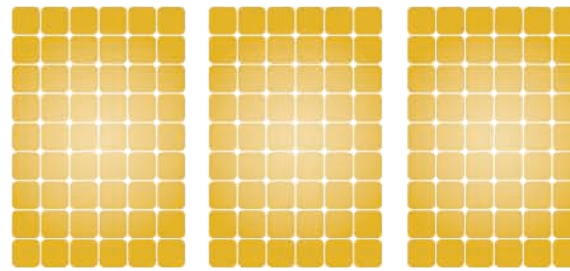
Designed to cover your needs

Electricity Use



A typical MN home uses 800 kWh each month, or 9,600 kWh each year

Solar Subscription



4 kW of solar could provide half the electricity used by the typical MN home

Utility Bill

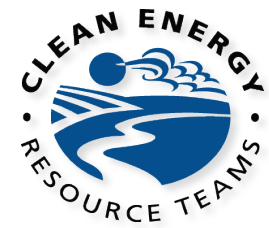


Solar power production is shown and credited on the subscriber's utility bill

The amount of electricity you use each year helps you decide how much solar to get. Your solar garden subscription can cover as little as 200 watts or up to 120% of your usage.



Why Community Shared Solar?



(c) Huffman Electrical Systems

Photo from: http://www.greenbeltsolar.com/solar_shading_article.html



Photo from: <http://www.forrent.com/apartment-community-profile/1019896.php>, Rosedale Estates II



Who are the players?



SUBSCRIBERS: individuals or groups who get solar power



DEVELOPER: primary group organizing the solar garden



HOST SITE: location where solar garden is installed



FINANCE: sources of financing for the project



UTILITY: electricity provider where solar garden is located



SITE ASSESSOR: expert that studies solar garden location



INSTALLER: expert that installs the solar garden



OUTREACH PARTNERS: groups that find subscribers

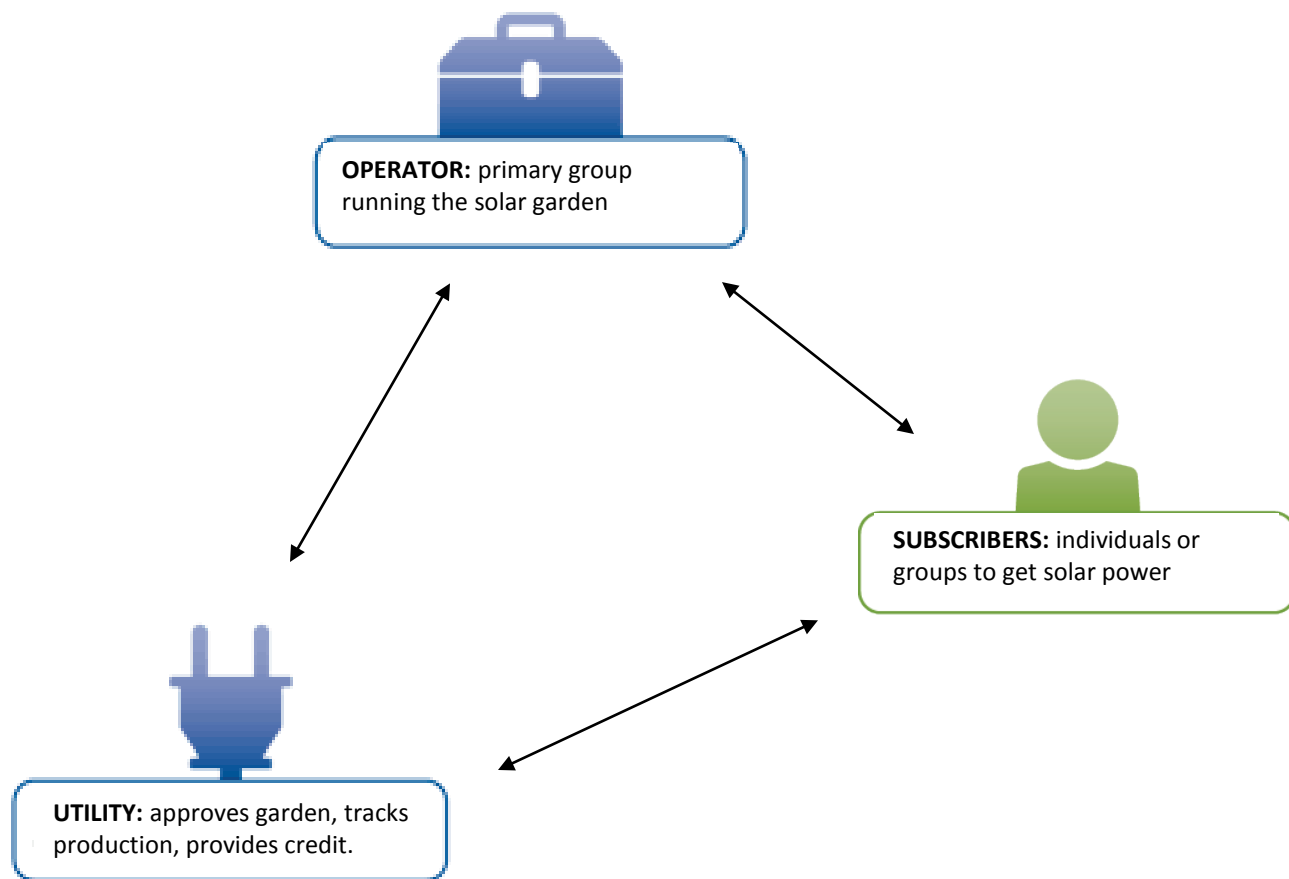


How does it work?



Xcel Energy Program

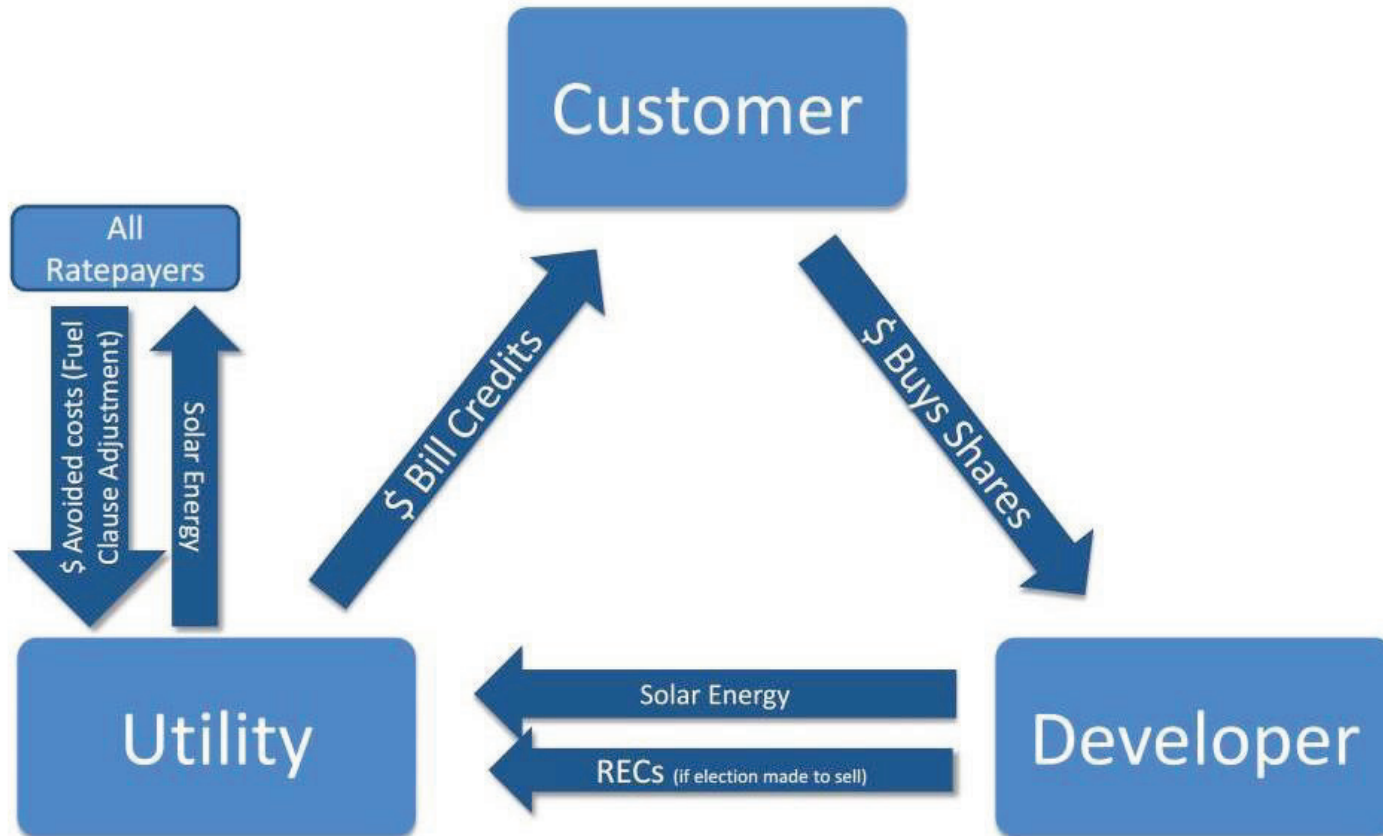
3rd Party Operator develops & runs garden. Maintains relationship w/ subscriber for payment. Utility provides subscriber w/ bill credit.





How does it work?

Solar Rewards Community MN Relationship Flow





How does it work?

Pay Up Front / Pre-Pay Model

Subscriber purchases a subscription for a onetime fee that covers the life of the



Lump sum
subscription paid
up front

January						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

March						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April						
S	M	T	W	T	F	S
	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

May						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

August						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

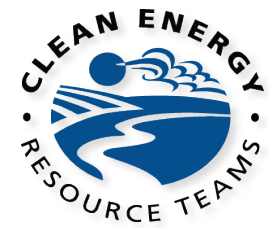
September						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

October						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Bill credit appears monthly over
25 year project timeline.



How does it work?

Pay As You Go

Subscriber pays in installments over time. Subscriber receives bill credit for their share of output on their energy bill the following month.



Two separate transactions each month. One is a bill credit. Another is a monthly subscription payment. Process is same over 25 year project timeline.

COMMUNITY SOLAR GARDEN ECONOMICS

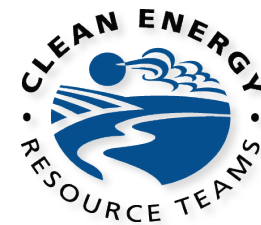
PPA Rate	\$0.0983	Total Subscription (kWh/yr)	1,000,000				
Escalator	2.0%	Term	25				
Bill Credit	\$0.1033	Degradation Factor	0.25%				
Bill Credit Escalator	2.3%						
Total Bill Credit (year 1)	\$0.1033						
Cashflow (Value of Solar)							
Year	Total kWh	Bill Credit	PPA Rate	x Bill Credit	PPA x kWh	Savings	Savings
1	1,000,000	\$0.1033	\$0.0983	\$103,300	\$98,300	\$5,000	\$5,000
2	997,500	\$0.1057	\$0.1003	\$105,412	\$100,015	\$5,396	\$10,396
3	995,006	\$0.1081	\$0.1023	\$107,567	\$101,761	\$5,806	\$16,202
4	992,519	\$0.1106	\$0.1043	\$109,766	\$103,536	\$6,229	\$22,432
5	990,037	\$0.1131	\$0.1064	\$112,009	\$105,343	\$6,666	\$29,098
6	987,562	\$0.1157	\$0.1085	\$114,299	\$107,181	\$7,118	\$36,216
7	985,093	\$0.1184	\$0.1107	\$116,636	\$109,052	\$7,584	\$43,800
8	982,631	\$0.1211	\$0.1129	\$119,020	\$110,955	\$8,066	\$51,865
9	980,174	\$0.1239	\$0.1152	\$121,453	\$112,891	\$8,562	\$60,428
10	977,724	\$0.1268	\$0.1175	\$123,936	\$114,861	\$9,075	\$69,503
11	975,279	\$0.1297	\$0.1198	\$126,469	\$116,865	\$9,605	\$79,108
12	972,841	\$0.1327	\$0.1222	\$129,055	\$118,904	\$10,151	\$89,258
13	970,409	\$0.1357	\$0.1247	\$131,693	\$120,979	\$10,714	\$99,972
14	967,983	\$0.1388	\$0.1272	\$134,385	\$123,090	\$11,295	\$111,267
15	965,563	\$0.1420	\$0.1297	\$137,132	\$125,238	\$11,894	\$123,161
16	963,149	\$0.1453	\$0.1323	\$139,936	\$127,424	\$12,512	\$135,673
17	960,741	\$0.1486	\$0.1349	\$142,796	\$129,647	\$13,149	\$148,823
18	958,339	\$0.1520	\$0.1376	\$145,715	\$131,909	\$13,806	\$162,629
19	955,944	\$0.1555	\$0.1404	\$148,694	\$134,211	\$14,483	\$177,112
20	953,554	\$0.1591	\$0.1432	\$151,734	\$136,553	\$15,181	\$192,292
21	951,170	\$0.1628	\$0.1461	\$154,836	\$138,936	\$15,900	\$208,192
22	948,792	\$0.1665	\$0.1490	\$158,001	\$141,361	\$16,640	\$224,832
23	946,420	\$0.1704	\$0.1520	\$161,231	\$143,827	\$17,404	\$242,236
24	944,054	\$0.1743	\$0.1550	\$164,527	\$146,337	\$18,190	\$260,426
25	941,694	\$0.1783	\$0.1581	\$167,890	\$148,891	\$19,000	\$279,425



Host Site Considerations

1. Do you have a good site?
<http://solar.maps.umn.edu/app/>
2. Term of lease – 25 years or longer
3. Form of payment - \$ / month? \$ / year? In form of a subscription?
4. How much do you need to be paid to make it worth it?
5. What costs might you incur for site prep, maintenance or restoration?
6. Roof or ground mount?





Host Site Considerations

Roof Lease

- How old is your roof? 25 year term (or longer)
- How much space do you have? 1 MW system needs around 150,000 sq ft.
- Penetrating or not? If it does, does it violate roof warranty?
- Maintenance and Access?
- Whose insurance covers what?
- Site restoration?

Land Lease

- How much space? 1 MW needs around 5-8 acres.
- Zoning code issues?
- Site prep, maintenance, restoration: Who does it? Who pays for it?
- Special site concerns regarding access, view shed, etc.?
- Could the land be used for a high-value purpose?

CERTs Resources



COMMUNITY SOLAR GARDEN SUBSCRIBER QUESTIONS

This document begins by briefly introducing Community Solar Gardens and what you should know as a potential subscriber. It then continues with questions that you can ask operators as you move forward. Let's go!

Q What are Community Solar Gardens?

Community Solar Gardens (also called Community Solar and Community-Shared Solar) are centrally-located solar photovoltaic (PV) systems that produce electricity for participating subscribers. They are a way for people in Minnesota to benefit from solar PV systems without installing their own stand-alone project. Programs vary by their local utility. Customers served by Xcel Energy will be able to participate in projects offered by private Community Solar Garden Operators.

Community Solar Garden Subscriber Disclosure Checklist

Public Utilities Commission issued an Order on April 7, 2014 on Xcel Energy's Community Solar Garden Project, Public Utilities Docket No. E002/M-13-867. The Order, among other points, requires Community Solar Garden Operators to disclose to prospective subscribers the project information listed below. Subscribers and Xcel Energy's service territory can contact the Community Solar Garden operator to obtain more information as part of any Community Solar Garden project. All prospective Community Solar Garden Operators must use this as a tool to review subscriber agreements.

Check to indicate they have reviewed this item. On the far right, operators and/or subscribers should indicate page numbers in the subscriber agreement the item is addressed.

Item	Page #:
1. Description of the Subscription including: <ul style="list-style-type: none"> (i.e., one-time) charges Terms of service Costs may increase during the course of service, and if so, how much will be charged to the Subscriber Subscriber is required to sign a term contract For early termination Community Solar Garden may charge to the Subscriber Shipping and any associated costs Community Solar Garden Operator and the Utility will work with each other Responsibility of the Community Solar Garden Operator Method by which notice to Subscribers will be issued When garden is out of service, including notice of estimated 	_____
2. Upgrades and repairs will be under direct supervision of the Community Solar Garden Operator and that maintenance will be performed in accordance with the recommendations of the manufacturer of the other operational components	_____
3. Community Solar Garden Operator is solely responsible for notifying the Subscriber about the accuracy of the information	_____
4. Community Solar Garden Operator is responsible for resolving any disputes with the Subscriber and is required to determine the amount of the Bill Credit	_____

Q What's the point of this document?

To assist potential subscribers in their decision making about which project might be right, CERTs and the Minnesota Department of Commerce – Division of Energy Resources have developed a document outlining the basics any Subscriber Agreement should address and highlighting the questions a potential subscriber may ask up front to ensure a clear understanding of their subscription and its terms.

Q What should you know before subscribing?

Before subscribing to any particular project, all subscribers should ask for and review the operator's subscriber agreement. All subscriber agreements should address elements included in the Community Solar Garden Subscriber Disclosure Checklist (see link at left). Additional questions that subscribers can ask are on the pages to come.

GET THE CHECKLIST

See what Community Solar Subscriber Agreements should include by downloading our subscriber checklist at MnCERTs.org/CSG-Disclosure

Next pages: Important subscriber questions & info

COMMUNITY SOLAR DEVELOPER & OPERATOR QUESTIONS

Community Solar Gardens (also called Community Solar and Community-Shared Solar) are centrally-located solar PV systems that provide electricity to multiple subscribers. They are a new and exciting way for people in Minnesota to benefit from solar photovoltaic (PV) systems without having to install their own stand-alone project.

Community Solar Gardens often feature key questions community groups, often working on behalf of multiple subscribers, could ask to learn more about Community Solar Gardens developers and operators.

Q COMMUNITIES SHOULD ASK

1. How long have you been in business? How many installations have you done? Do you have a track record?

2. How do you contact your strategic advantage in this new Minnesota market?

3. How do you comply with local, state, and federal laws and regulations, including tax, insurance, finance, install, operate, and maintain the system? Do you have a set of policies for these tasks? Do you plan to do them yourself?

4. How do you respond to an RFP with the opportunity for local contractors to be involved? Do you have a set of policies for performing the work NABCEP certified?

5. How do you plan on a pay-as-you-go plan (or a combination) for long-term subscription? Penalty for early termination?

6. How do you see with your model? How do you engage lower income customers in your projects? How do you price for less than 10 subscribers? How do you discuss financial reports and activities? Voting rights of the subscribers to subscribers and/or the community? If so, what will be the process that the project will be intact for the duration of the subscription? How do you track if anything happens to your company?



CERTs Resources

1. The Basics

Just getting started? This is the place to begin with key resources.

- What are they?
- Guide to CSGs
- Workshop video

2. Your Role

Walk through your options for getting involved.

- What are your goals?
- What roles suit you?
- Download Questionnaire

3. Finer Details

Dig a little deeper into community solar gardens.

- Frequently Asked Questions
- Guidance from Xcel Energy
- Renewable Energy Credits

4. Developers

Find developers, and ask them the right questions at the right time.

- Lists of questions & tips
- Find CSG developers
- Evaluating financials

5. Ready to Act

Steps you can take to move forward with community solar.

- Talking to council & community
- RFP examples
- Hosting agreements

6. Share Stories

We want to share your experience with other local governments!

- Blog posts
- Case studies
- Media outreach



Solar Possible

Collaborative Solar Purchasing for State Agencies, Local Governments & Schools

An initiative of the Clean Energy Resource Teams (CERTs), Great Plains Institute (GPI), and Department of Administration, Office of Enterprise Sustainability (OES).

Why participate in a joint RFP for solar?

Whether it be to achieve environmental goals, reduce energy costs, or show community leadership, solar can provide measurable benefits for state and local governments. However, the process for procuring solar can be difficult, including the following challenges:

- Limited staff time and resources to run an effective Request-for-Proposals (RFP) process
- Lack of knowledge on solar technologies, contract terms, and financing options
- Competing priorities that are more urgent than solar procurement

Collaborative government procurement of solar has been shown to address these barriers by reducing administrative costs for participants, providing opportunities for peer learning and action, providing a structured process for timely action, and potentially reducing solar system costs through bulk pricing.

What do we hope to accomplish?

Solar Possible will address the above barriers by coordinating a joint site(s)-specific RFP process among multiple state, local government and school participants, including the following key elements:

1. **Joint Site(s)-specific RFP.** Instead of each government entity running their own individual RFP process, this project will provide the opportunity for multiple entities to sign onto a single, joint RFP process, reducing government staff time and resources needed to procure solar.
2. **Technical assistance.** Throughout the project, CERTs will host in-person and webinar meetings to educate participants about solar technology, contract terms, and financing options, with the goal of empowering each participant to make an informed decision in response to vendor proposals. CERTs will also provide 1-on-1 technical assistance.
3. **Structured process.** This project will provide a series of action steps and deadlines to help government staff tackle solar procurement one step at a time and make the process more manageable among competing priorities.

NOTE: This initial RFP is targeted toward state, local governments, and schools within Xcel Energy electric territory in Minnesota, though the process may be repeated later for customers in other utility territories.

What is the Process and Timeline?

1. **Brief Note of Interest (Due March 30, 2018):** Participants will send a quick email to Peter Lindstrom at plindstr@umn.edu to indicate interest in being part of the project.
2. **Collect Letters of Intent (Due April 30, 2018):** Interested local governments and schools will sign a non-binding letter formally declaring their intent to participate in the site(s)-specific RFP process, including seeking to identify at least one potential site that is suitable for solar.
3. **Conduct Preliminary Solar Site Assessment Checklist for Each Site (May 2018):** Interested participants will conduct preliminary solar site assessments for one or more publicly owned facilities or properties, to identify suitability for solar and inclusion in the joint RFP. CERTs and GPI will conduct a webinar to help participants with the checklist process.
4. **Issue Site(s)-Specific Request for Proposals (Expected June 1st 2018):** A group of solar developers will be prequalified through a statewide Master Contract process. The joint site(s)-specific RFP will be issued to these developers, listing each participant who signed a letter of intent and each potential installation site(s).
5. **Conduct Developer Site Visits (June – July 2018):** CERTs and GPI will work with participants to schedule a site visit for each participating entity, to allow interested solar developers to identify any site-specific changes for their proposal.
6. **Offer Evaluation and Selection (August 2018):** The procurement lead will lead a process to evaluate and rank solar developers' proposals according to qualifications, experience, and price, and other factors. The procurement lead will determine whether to select one or multiple proposers depending on the quality and breadth of proposals received.
7. **Offers Provided (August 2018):** Participants will receive either one or possibly multiple offers to choose from. To help participants evaluate offers, CERTs and GPI will offer a webinar and technical assistance with the offer evaluation process, including reviewing potential risks, key contract terms, and financial costs and benefits. Technical assistance will be available until decisions are due in mid-October, 2018.
8. **Decisions to Move Forward (Due October 15th, 2018):** Participants will decide whether to move forward with their proposed project(s). Participants not moving forward will be able to exit the process without any penalty other than staff time already invested in participating.
9. **Installations (Fall 2018 – Spring/Summer 2019):** Participants moving forward with one or more projects will work with their selected developer to schedule the installation and establish logistics for on-site work.
10. **Project Promotion and Celebration (Spring/ Summer 2019):** CERTs and GPI will assist participants with communications to highlight and celebrate their installations as a result of the process.

Questions? Please Contact...

Peter Lindstrom
Local Government Outreach Coordinator
Clean Energy Resource Teams (CERTs)
612-625-9634, plindstr@umn.edu

Trevor Drake
Project Manager
Great Plains Institute
612-767-7291, tdrake@gpisd.net

03/13/2018

DRAFT

SUBSCRIPTION AGREEMENT FOR A SOLAR*REWARDS COMMUNITY PROJECT

This Subscription Agreement (hereafter “Agreement”) for participation in an approved Solar Rewards-Community Project of Northern States Power Company (hereafter “the Utility”) is entered into by New Energy Equity LLC, a Maryland limited liability company (hereafter “Operator”) and City of Roseville, MN, a municipal electric utility customer of the Utility (hereinafter “Subscriber”), pursuant to Minnesota Statutes 216B.1641 and Section 9 - Cogeneration and Small Power Production of the Utility’s Minnesota Electric Rate Book (hereinafter “the Tariff”), each of which as may be amended or supplemented from time to time. Operator and Subscriber may hereinafter be referred to individually as a Party or collectively as the Parties.

Pursuant to the terms and conditions of this Agreement, and in consideration of the mutual benefits provided herein to the Parties, the sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

RECITALS

A. Operator intends to construct, own and operate a community solar garden (the “Project”) at the location in the Utility’s Minnesota service territory (the “Site”) as described in Exhibit H, which exhibit may be updated by Operator prior to the Date of Commercial Operation upon notice to Subscriber.

B. Operator intends to apply for and seek approval for the Project to sell electricity and energy attributes to the Utility under the terms and conditions of the Utility’s Solar*Rewards Community program as set forth in the Tariff.

C. The Project will be interconnected with the electrical grid and Operator intends to sell all of its power production to the Utility pursuant to a standard Solar*Rewards Community contract between Operator and Utility, a copy of which will be provided to Subscriber and shall be attached to this Agreement as Exhibit B (the “Solar*Rewards Contract”). It is expressly understood by the Parties herein that this Subscription Agreement is subject to the terms and conditions of Exhibit B, and that Subscriber’s benefits under this Agreement may be further defined and possibly limited by the terms of Exhibit B, which terms and conditions are fully incorporated herein as if set forth here in full, and which terms may be from time to time amended or revised directly or as a result of statutory and/or regulatory changes.

D. Subscriber represents and warrants that he/she is a qualifying retail customer of Utility and desires to enter into this Subscription Agreement for the purposes of receiving monetary benefits from the Project, including receiving

credits on Subscriber's monthly Utility bills (the "Bill Credits") for Subscriber's Utility account ("Utility Account") in keeping with the Solar*Rewards Contract. Subscriber's Utility Account(s) are located at: 1116 NW 4th Avenue, Faribault, MN 55021 with account number: 51-5092288-4 and premise 303127015; and account number: 51-0853559-1 and premise 303590976.

E. Capitalized terms used in this Agreement shall have the meanings set forth in Exhibit A or otherwise as specifically defined herein.

THE SUBSCRIPTION AGREEMENT

I. SUBSCRIPTION PURCHASE

1.1 Operator agrees to sell and Subscriber agrees to purchase a subscription to the Project that is intended to entitle Subscriber to receive Bill Credits on a monthly basis equivalent to Subscriber's Percentage Share (as defined below) of the Project's DC-rated monthly output, pursuant to the terms of the Tariff and Solar*Rewards Contract and for the term of this Agreement (the "Subscription"). The value of the Bill Credits shall be calculated under the Tariff, as amended from time to time, which calculations shall include the size of Subscriber's Percentage Share (defined below), the Project's monthly energy production, and the values set forth in the Tariff for Subscriber's applicable retail rate ("ARR") and any renewable energy credits ("RECs") or other energy attributes produced by the Project that are sold by Operator to the Utility.

1.2 Subscriber's Subscription shall be for up to 40% (the "Subscriber's Percentage Share") of the monthly output of the Project's 3,625,475 kilowatts of DC-rated nameplate capacity.

1.3 As consideration for this Subscription Agreement, Subscriber agrees to pay Operator on a per kWh (AC) basis an amount equal to the product of the Subscriber's Percentage Share of the monthly output from the Project (as and when the output is produced) times the Energy Price in effect at the time of delivery as set forth in Article IX.

II. TERM AND TERMINATION

2.1 The term of this Agreement shall begin on the "Effective Date," as established by the date of the last signatory below, and shall expire on the same date as the expiration of the Solar*Rewards Contract referred to above (the "Term"), unless terminated sooner by one or both of the Parties.

2.2 If the Date of Commercial Operation has not occurred within two years of the Effective Date, then either Party may terminate this Agreement, without liability, upon providing notice to the other Party.

2.3 In addition to Operator's termination right in Article XIII, Operator may terminate this Agreement:

- a. Upon 60 days prior notice to Subscriber before the Date of Commercial Operation based on one or more of the following events or conditions existing with the Project:
 - i. Site conditions (including environmental or geotechnical conditions or ecological concerns such as presence of wildlife species) that could not have been reasonably known as of the date of the Subscription Agreement and that could reasonably be expected to materially increase the cost of constructing the Project or adversely affect the electricity production from the Project.
 - ii. A material adverse change in the rights of Operator to construct the garden, or the financial prospects or viability of the project, due to market conditions or cost of equipment.
 - iii. The local utility does not approve the interconnection agreement for the Project or provide an interconnection upgrade cost that makes the Project financially viable.
 - iv. Permits, land preparation, easements, other liens or encumbrances, or other Site restrictions that would materially impair or prevent, or have a material adverse effect on, the installation, operation, maintenance or removal of the Project.
- b. Upon notice to Subscriber, in the event that the Solar*Rewards Contract is terminated for any reason other than as provided in Section 2.4(b) below.

2.4 In addition to Subscriber's termination right in Article XIII, Subscriber may only terminate this Agreement, upon sixty (60) days prior notice to Operator, if:

- a. Operator fails to perform under this Agreement due to an event of Force Majeure materially affecting Subscriber's Subscription which lasts more than twelve (12) months; or
- b. The Solar*Rewards Contract has been terminated due to a breach by Operator or Utility and such termination has been approved by the Minnesota Public Utilities Commission.

III. UTILITY AGREEMENT

3.1 Subject to the terms and conditions of the Solar*Rewards Contract, Operator will sell 100 percent of the Project's energy production to Utility.

3.2 The sale of energy to Utility shall begin on the Project's Date of Commercial Operation under the Solar*Rewards Contract, which shall also correspond with the date the Subscriber's Bill Credits begin to accrue, and shall continue for the term of the Solar*Rewards Contract.

3.3 Operator shall have sole responsibility for resolving any disputes with Utility regarding the amount of energy production from the Project, and shall also have sole discretion over any such resolution.

3.4 Subscriber shall be solely responsible for resolving any disputes with Utility regarding the rate applied to energy production and the amount of the Bill Credits paid to Subscriber, as defined and governed by the Tariff. Any conflict between the terms of this Agreement and the Tariff shall be resolved in favor of the Tariff.

IV. General Representations and Warranties

Each Party represents and warrants to the other Party:

4.1 If the Party is an entity, that it is duly organized, validly existing, and in good standing in the jurisdiction of its organization and is qualified to do business in the State of Minnesota.

4.2 That the Party has full legal capacity to enter into and perform this Agreement.

4.3 That the execution of this Agreement has been duly authorized and the person executing this Agreement on behalf of the Party has full authority to bind the Party.

4.4 To the best of its knowledge, there is no pending litigation, governmental action, proceeding, investigation or other legal process affecting or involving the Party's ability to carry out its obligations under this Agreement.

V. OPERATOR REPRESENTATIONS AND OBLIGATIONS

5.1 Operator represents and warrants that it shall design, construct, operate and maintain the Project consistent with prudent industry standards, codes and regulatory requirements and will use commercially reasonable efforts to maximize the production from the Project over the term of this Agreement.

5.2 Installation, operation, repairs and maintenance of Project's solar equipment shall be under the supervision of NABCEP certified professionals directly employed or working under the direction of Operator, and the Project's interconnection with the electrical grid shall be undertaken by an electrical contractor licensed in the State of Minnesota directly employed or working under the direction of Operator.

5.3 Operator shall maintain the Project's equipment and interconnection with the electrical grid consistent with industry standards and recommendations from equipment manufacturers.

5.4 Operator shall maintain or cause to be in effect insurance coverage for liability and casualty losses associated with design, construction, operation or maintenance of the Project with a company or companies licensed or otherwise authorized to do business in Minnesota, as required by the Tariff.

5.5 Operator shall provide timely notice of any unscheduled disruption in Project's energy production to Subscriber with an estimate of the duration of such disruption and any loss of energy production.

5.6 For purposes of questions, comments, complaints or other information regarding the Project, Subscriber may contact Operator as follows:

New Energy Equity LLC
2530 Riva Road
Suite 200
Annapolis, Maryland 21401

From time to time, Operator may designate another contact for the Project upon notice to Subscriber.

VI. SUBSCRIBER REPRESENTATIONS AND OBLIGATIONS

6.1 Subscriber represents and warrants that it is a retail electrical customer of the Utility on the account described in Recital D above, meeting all of the criteria necessary for a subscriber to a Solar*Rewards Community project.

6.2 Subscriber represents and warrants the premises served by the Utility Account(s) listed for its Subscription in Recital D are in the same county or an adjacent county as the Project.

6.3 Subscriber represents and warrants that the size of its Subscription when combined with any distributed generation resources, including other subscriptions under the Solar*Rewards Community program, serving Subscriber's premises and associated with Subscriber's Utility Account(s) is not greater than 120 percent of Subscriber's average total annual electrical demand

over the most recent 24 months for Subscriber's Utility Account(s). Subscriber agrees not to install or procure any distributed generation resources, including other subscriptions under the Solar*Rewards Community program, serving Subscriber's premises and associated with Subscriber's Utility Account that when combined with Subscriber's Subscription under this Agreement, may generate energy exceeding 120% of the average annual energy consumption over the prior 24-month period for Subscriber's Utility Account.

6.4 Subscriber agrees to provide such Utility Account information and usage data as may be required by the Utility or Operator for purposes of verifying Subscriber eligibility and providing Subscriber's Bill Credits. Subscriber agrees to promptly notify Operator of any actual or anticipated changes to Subscriber's usage data or factors that would materially impact Subscriber's eligibility for the Subscription.

6.5 Subscriber agrees to execute Utility's Solar*Rewards Community Subscriber Agency Agreement and Consent, which is attached hereto as Exhibit D.

6.6 Subscriber acknowledges and agrees that, aside and apart from the calculations of Bill Credits, it will have no interest in any environmental or compliance value associated with its Subscription in the energy production of the Project (including RECs), any tax benefits arising from ownership or operation of the Project, or any incentives associated with the Project under the Minnesota Department of Commerce's Made in Minnesota program, Utility's Solar Rewards program, or similar programs, other than those set forth herein. Subscriber acknowledges that RECs associated with the Project will be sold by Operator to the Utility under the Solar*Rewards Contract and the value of such RECs will be included in the Bill Credits paid to Subscriber by Utility.

VII. ANNUAL REPORT

Operator shall provide Subscriber with an annual report on the Project no later than April 1 of each year for the previous 12-month period from January through December. The annual report will include detailed information on the following aspects of the Project in addition to such information as the Operator shall deem relevant to the Subscriber's understanding of the Project and its operation:

- (1) Total annual energy production;
- (2) Typical Meteorological Year (TMY) data for the location closest to the Project site at which complete TMY data is available;
- (3) Analysis of the effect TMY data had on energy production;
- (4) Warranty actions or insurance claims submitted on behalf of the Project;
- (5) Delinquencies or default actions taken against any subscribers; and

(6) Estimated environmental benefits for the report period and aggregated benefits since the start of commercial operations.

VIII. ASSIGNMENT OF SUBSCRIPTIONS

8.1 Subscriber shall not assign this Agreement without the consent of Operator, such consent not to be unreasonably withheld.

8.2 In the event that Subscriber will no longer obtain electric service from Utility through a Utility Account set forth in Recital D above and either (i) Subscriber is moving to or has available a different location and Utility Account that (in combination with Subscriber's other Utility Accounts, if applicable) satisfies all criteria under the Solar*Rewards Community program, including the requirements set forth in Article VI, or (ii) Subscriber satisfies all criteria under the Solar*Rewards Community program, including the requirements set forth in Article VI, with its other Utility Account(s) set forth in Recital D above, Subscriber may update the Utility Account locations and numbers provided in Recital D upon 45 days prior written notice to Operator. Subscriber agrees that Subscriber's representations and warranties in Article VI shall be deemed to have been made as of the date of such notice with respect to Subscriber's updated Utility Account(s). Subscriber shall cooperate with Operator, including by providing additional information and executing additional documents, that Operator deems reasonably necessary to effectuate such updated Utility Account information. In the event that Subscriber will no longer obtain electric service from Utility through a Utility Account set forth in Recital D above and without such Utility Account, Subscriber will no longer satisfy the requirements of the Solar*Rewards Community program, including the requirements set forth in Article VI, Subscriber shall use commercially reasonable efforts to facilitate discussions between Operator and a successor Subscriber or occupant of the Subscriber's premises regarding the sale of a subscription to such new Subscriber or occupant pursuant to an assignment of this Agreement acceptable to Operator, such acceptance not to be unreasonably withheld, conditioned, or delayed. Subject to Section 8.3, in the event that Operator accepts such an assignment or enters into an agreement with such new Subscriber or occupant for the sale of a subscription on terms at least as favorable to Operator as this Agreement, then Subscriber shall have no further liability to Operator for Subscription fees beginning on the first date upon which Bill Credits accrue to the new Subscriber. Otherwise, Subscriber shall be liable to Operator for damages in accordance with the provisions of Article XIII and XIV.

8.3 Subscriber shall be responsible for determining eligibility of the Assignee and securing all necessary information regarding the Assignee's premises and Utility Account information as well as execution of Utility's Data Solar*Rewards Community Subscriber Agency Agreement and Consent Form and Data Privacy Policy form. Operator reserves the right to perform its own due diligence on the creditworthiness and eligibility of the Assignee to be a subscriber to the Project

under the terms of the Tariff and maintains the right to withhold consent to any proposed transfer, in its reasonable discretion, upon a determination by Operator of Assignee's ineligibility to be a subscriber to the Project under the terms of the Tariff or lack of satisfactory creditworthiness.

8.4 Operator shall update the Subscriber information with Utility within 5 business days of receiving notice of updated Utility Account information or notice that an approved transfer is complete for purposes of reallocating Bill Credits associated with the Subscription. Bill Credits will accrue to the updated Utility Account(s) beginning on the first date of the next calendar month beginning at least 5 business days prior to the date that Operator updates the Subscriber information with Utility.

IX. SUBSCRIPTION FEES AND EXPENSES

9.1 Subscription Fees

(a) Invoicing. Operator shall invoice Subscriber monthly. Operator shall deliver each invoice within thirty (30) business days after the end of each monthly billing period. Each invoice shall set out the amount of energy for the Subscriber's Subscription to the Project delivered in kWh (AC) during such billing period, the then-applicable Energy Price, as set forth on Exhibit F, and the total amount then due to Operator, including any taxes assessed on the sale of energy to Subscriber. Such invoice shall include sufficient details so that Subscriber can reasonably confirm the accuracy of the invoice. Subscriber shall pay the amount due to Operator within thirty (30) business days after receipt of each invoice. Payments not made within 30 days of receipt of Operator's invoice shall be subject to a penalty equal to one (1) percent per month of the invoiced amount until paid (not to exceed the maximum amount permitted by law).

(b) Operator agrees to work in good faith with Subscriber to establish a system of invoicing and payment that is as efficient as possible for Subscriber and is as consistent as possible with Subscriber's system for accounts payable.

X. ASSIGNMENT

10.1 Subscriber may not assign its interest or obligations under this Agreement except as provided in Article VIII.

10.2 Operator may assign any or all of its interests and obligations in this Agreement upon notice to Subscriber of such assignment. Any assignee shall be subject to the terms and conditions of this Agreement unless otherwise agreed to in writing by Subscriber. Upon request of Operator or assignee, Subscriber shall promptly execute a new Solar*Rewards Community Subscriber Agency Agreement and Consent with the assignee.

10.3 The Parties acknowledge that Operator may obtain construction and long-term financing, other credit support or tax equity financing, either directly or through an affiliate, from financing parties in connection with the development and ownership of the Project (the "Project Financing"). Both Parties agree in good faith to consider and to negotiate changes or additions to this Agreement that may be reasonably requested by the financing parties in order to support the Project Financing.

10.4 The Parties agree that, in accordance with Section 10.3, Operator may assign this Agreement to a tax equity partnership or a third party Project owner, or to financing parties as collateral to support the Project and Operator's obligations to such financing parties.

10.5 In connection with any such assignment by Operator, Subscriber agrees that an assignee or financing parties shall be entitled to (i) assume the rights and obligations of Operator under this Agreement; (ii) receive copies of certain notices hereunder that Subscriber may provide to Operator; (iii) have the same extended cure periods to cure any defaults by Operator hereunder; and (iv) be provided other similar or related benefits or protections as reasonably requested by the owner and/or financing parties to support the Project Financing.

XI. TAXES

Operator makes no representations concerning the taxable consequences to Subscriber with respect to Bill Credits or any other aspect of this Agreement.

XII. CALCULATION OF ESTIMATED BENEFITS TO SUBSCRIBER

Subscriber acknowledges receiving a calculation of estimated benefits from this project and understands that said calculation is an estimate of the ongoing costs and benefits subscriber may anticipate (the "Calculation of Estimated Benefits"). Said Calculation of Estimated Benefits is attached hereto as Exhibit G, and Subscriber specifically acknowledges that the Calculation of Estimated Benefits is an estimate based upon several variables that may change, resulting in a change in the amount and nature of the benefits. Subscriber acknowledges and agrees that Operator does not warrant or guarantee the amount of output to be produced by the Project for any period or the benefits to Subscriber under this Agreement and that no amount will be paid by Operator for any under-performance or failure of the Project.

XIII. DEFAULT

The following shall constitute an event of default by a Party (an “Event of Default”):

13.1 The Subscriber fails to make any material payment due under this Agreement within thirty (30) days after delivery of notice from the other Party that such payment is overdue.

13.2 Except as provided in 13.1 above, the Party materially fails to perform or comply with any representation, warranty, obligation, covenant or agreement set forth in this Agreement and such failure continues for a period of thirty (30) days after delivery of notice thereof from the other Party, provided if it cannot reasonably be cured within such thirty (30) day cure period, the defaulting Party will have such additional time as needed (not to exceed an additional ninety (90) days) provided that the defaulting Party promptly commences and diligently pursues cure and continues such cure to completion, and provided that such extended period of cure does not materially adversely affect the other Party.

13.3 The Party is subject to a petition for dissolution or reorganization voluntary or involuntary, under the U.S. Bankruptcy Code. In the case of an involuntary proceeding filed against a Party by a third party, such Party shall have sixty (60) days to have such proceeding or petition dismissed before it matures into an Event of Default.

13.4 Remedies for Default

13.4.1 Upon the occurrence of, and during the continuation without cure of, a Subscriber Event of Default, (i) Operator shall have the right to withdraw Subscriber’s Subscription from the Solar*Rewards Community program upon written notice to Subscriber, (ii) Operator shall have the right to terminate this Agreement upon thirty (30) days prior written notice to Subscriber, and (iii) Subscriber shall be liable to Operator for damages (as defined below).

13.4.2 Upon the occurrence of, and during the continuation without cure of, an Operator Event of Default, Subscriber shall have the right to terminate this Agreement upon thirty (30) days prior written notice to Operator.

13.4.3 Operator may exercise any remedy it may have at law or equity, including recovering from Subscriber all resulting damages, which damages shall include, but not be limited to, lost revenues, projected payments for Energy generated for the remainder of the Contract Term; any loss or damage to Operator due to lost or recaptured environmental attributes or environmental incentives associated with the Project, including, without limitation, lost revenue from the sale of environmental attributes to third parties (including any damages due to the early termination of any agreement for such sale), and the recapture of the investment tax credit under Section 48 of the Internal Revenue Code, and accelerated

depreciation for the Project; and all other amounts of any nature due under this Agreement (collectively, “the Damages”).

XIV. REMEDIES; LIMITATION OF LIABILITY; INDEMNIFICATION

14.1 Subject to the limitations set forth in this Agreement, the Parties each reserve and shall have all rights and remedies available to it at law or in equity with respect to the performance or non-performance of the other Parties hereto under this Agreement.

14.2 EXCEPT AS EXPRESSLY ALLOWED HEREIN, NO PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR SPECIAL, INDIRECT OR PUNITIVE DAMAGES OF ANY CHARACTER, RESULTING FROM, ARISING OUT OF, IN CONNECTION WITH OR IN ANY WAY INCIDENT TO ANY ACT OR OMISSION OF A PARTY RELATED TO THE PROVISIONS OF THIS AGREEMENT, IRRESPECTIVE OF WHETHER CLAIMS OR ACTIONS FOR SUCH DAMAGES ARE BASED UPON CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY AT LAW OR EQUITY.

14.3 Each Party shall defend, indemnify and hold harmless the other Party and the directors, officers, shareholders, partners, members, agents and employees of such other Party, and the respective affiliates of each thereof, from and against all loss, damage, expense liability and other claims, including court costs and reasonable attorney’s fees (collectively “Liabilities”) resulting from any third party actions relating to the breach of any representation or warranty in this Agreement and from injury to or death of persons, and damage to or loss of property to the extent caused by or arising out of the negligent acts or omissions of, or the willful misconduct of, the indemnifying party. The party seeking indemnification hereunder shall notify the indemnifying Party in writing of any Liability asserted, or known to be under commencement, by a third party as soon as possible and cooperate with the indemnifying Party. The indemnifying Party shall immediately take control of the defense and investigation of Liabilities at the indemnifying Party’s sole expense.

XV. DISPUTE RESOLUTION AND AMENDMENT

15.1 The Parties shall make good faith efforts to resolve any claims, disputes or other matters related to this Agreement by mediation. If mediation does not resolve the claim or dispute, either Party may propose resolution by binding arbitration by written notice to the other Party. Within 30 days of such written notice, the Parties shall agree on a single arbitrator or each Party shall select an arbitrator that will select a third-party arbitrator for the dispute. Arbitration shall take place in the seven-county metropolitan area of Minneapolis-St. Paul. The Parties shall equally share the cost of any arbitrator fees or any filing fees.

15.2 This Agreement may be amended only by written agreement of both Parties.

XVI. FORCE MAJEURE

16.1 "Force Majeure" shall mean any event or circumstance not within the control of the Parties to the extent that the circumstance could not be prevented or avoided by a Party, the event is not due to a Party's negligence or willful misconduct, or such an event is not the result of any failure of a Party to perform any of its obligations under this Agreement. Force Majeure events may include but are not limited to acts of God, war, terrorism, riot or civil unrest, labor strikes, fire, floods, epidemics, or hazardous materials existing on the Site prior to Operator's start of construction or during the period of Project's commercial operation.

16.2 Except as provided in Section 2.4(a) above, neither Subscriber nor Operator shall be considered in default or breach in the performance of their obligations under this Agreement to the extent that performance of any such obligation is prevented or delayed by a Force Majeure circumstance or event.

XVII. NOTICES

Any notice required, permitted, or contemplated under this Agreement shall be in writing and addressed to the Party to be notified at the address set forth below or at such other address or addresses as a Party may designate for itself from time to time by notice hereunder. Such notices may be sent by personal delivery or recognized overnight courier, and shall be deemed effective upon receipt.

If to Operator:
New Energy Equity LLC
2530 Riva Road
Suite 200
Annapolis, Maryland 21401

If to Subscriber:
City of Roseville
2660 Civic Center Drive
Roseville, MN 55113

XVIII. MISCELLANEOUS

18.1 This Agreement constitutes the entire agreement among the Parties relating to the Project and Subscription and supersedes any and all prior oral or written understandings.

18.2 This Agreement will be governed by and construed in accordance with the laws of the State of Minnesota without regard to conflicts of law provisions.

18.3 Any provision of this Agreement found to be void, illegal or otherwise unenforceable shall not affect the validity or enforceability of the other provisions which shall not be affected and will continue in force.

18.4 This Agreement may not be amended, changed, modified, or altered unless such amendment, change, modification, or alteration is in writing and signed by each Party to this Agreement or its successor in interest. This Agreement inures to the benefit of and is binding upon the Parties and their respective successors and permitted assigns.

18.5 Each Party will perform all obligations under this Agreement as an independent contractor. Nothing herein contained shall be deemed to constitute any Party a partner, agent or legal representative of another Party or to create a joint venture, partnership, agency or any relationship between the Parties.

18.6 Nothing contained in this Agreement shall be construed as an intent by Operator to dedicate the Project to public use or subject itself to regulation as a "public utility" (as such term may be defined under any applicable law).

18.7 This Agreement may be executed in counterparts, which shall together constitute one and the same agreement. Facsimile or portable document format (".PDF") signatures shall have the same effect as original signatures, and each Party consents to the admission in evidence of a facsimile or photocopy of this Agreement in any court or arbitration proceedings between the Parties.

18.8 Subscriber is an "accredited investor" as that term is defined in Rule 501 of the securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"). Subscriber is the sole party in interest agreeing to purchase rights to Bill Credits and is acquiring its right to Bill Credits for its own account, for investment purposes only and not with a view to the resale or other distribution thereof, in whole or in part, and agrees that it will not transfer, sell or otherwise dispose of its right to Bill Credits in any manner that will violate the Securities Act, the rules and regulations of the Securities and Exchange Commission, or the laws and regulations of the State of Minnesota, or any other state or municipality having jurisdiction thereof. Subscriber is aware that Subscriber's right to acquire Bill Credits and this Agreement have not been registered under the Securities Act or registered or qualified under the securities laws of Minnesota, or the state in which Subscriber resides or is located based in part upon the representations of Subscriber contained herein.

18.9 Service Contract. The Parties intend that this Agreement be treated as a “service contract” within the meaning of Section 7701(e)(3) of the Internal Revenue Code.

18.10 Confidentiality. During the Term of this Agreement and for a period of five (5) years following termination of this Agreement, Subscriber agrees to (1) hold the Operator’s Confidential Information in confidence and take all reasonable precautions to protect such Confidential Information including, without limitation, all precautions that Subscriber employs with respect to its own confidential and proprietary materials, but in no event less than reasonable care; (2) not make any use whatsoever at any time of the Operator’s Confidential Information except in connection with its performance under this Agreement; and (3) not copy, decompile, disassemble or reverse engineer any of Operator’s Confidential Information. For purposes of this Agreement, “Confidential Information” means any and all information, whether in oral, written, graphic or electronic form, provided by the Operator to Subscriber, including but not limited to, ideas, plans, drawings, works of authorship (including, without limitation, contract term sheets, drafts and final agreements), knowhow, processes, formulae related to the current, future, and proposed products and services of Operator, engineering, financial information, procurement requirements, customer lists, pricing, investors, employees, business and contractual, relationships, business forecasts, sales and merchandising, marketing plans, information the Operator provides regarding third parties, any third party proprietary information rightfully held and disclosed by the Operator, information that, by its nature or circumstances surrounding its disclosure, should be reasonably regarded as confidential, or any document that refers or relates to Confidential Information; provided that such term shall not include the following: (a) information already known or in Subscriber’s possession prior to the date the Parties began discussions; (b) information hereafter rightfully furnished to Subscriber by a third party; (c) information that is or becomes publicly available without breach of this Agreement; or (d) information independently developed by Subscriber without reliance on the Confidential Information.

[Signature Page to Follow]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date:

OPERATOR:

New Energy Equity LLC

NAME: _____

TITLE: _____

DATE: _____

SUBSCRIBER:

City of Roseville, MN

NAME: _____

TITLE: _____

DATE: _____

EXHIBITS:

- A. Definitions
- B. Solar*Rewards Contract
- C. [Not Used]
- D. Solar*Rewards Community Subscriber Agency Agreement and Consent Form
- E. [Not Used]
- F. Table of Energy Prices
- G. Calculation of Estimated Benefits to Subscriber
- H. Name and Location of CSG Solar Garden

Exhibit A - Definitions

“Agreement” has the meaning set forth in the preamble.

“ARR” has the meaning set forth in Section 1.1.

“Bill Credit(s)” has the meaning set forth in the recitals.

“Calculation of Estimated Benefits” has the meaning set forth in Article XII.

“Damages” has the meaning set forth in Section 13.4.3.

“Confidential Information” has the meaning set forth in Section 18.8.

“Date of Commercial Operation” has the meaning set forth in the Solar*Rewards contract.

“Effective Date” has the meaning set forth in Section 2.1.

“Energy Price” means, for any Subscription year, the applicable amount in \$/kWh (AC) set forth on Exhibit D.

“Event of Default” has the meaning set forth in Article XIII.

“Force Majeure” has the meaning set forth in Section 16.1.

“Liabilities” has the meaning set forth in Section 14.3.

“Operator” has the meaning set forth in the preamble.

“Party” has the meaning set forth in the preamble.

“Project” has the meaning set forth in the recitals.

“Project Financing” has the meaning set forth in Section 10.3.

“RECs” has the meaning set forth in the Solar*Rewards Contract.

“Securities Act” has the meaning set forth in Section 18.8.

“Site” has the meaning set forth in the recitals.

“Solar*Rewards Contract” has the meaning set forth in the recitals.

“Subscriber” has the meaning set forth in the preamble.

“Subscriber’s Percentage Share” has the meaning set forth in Section 1.2.

“Subscription” has the meaning set forth in Section 1.1.

“Tariff” has the meaning set forth in the preamble.

“Term” has the meaning set forth in Section 2.1.

“Utility” has the meaning set forth in the preamble.

“Utility Account” has the meaning set forth in the recitals.

“Solar*Rewards” Contract has the meaning set forth in the recitals.

EXHIBIT B
“SOLAR*REWARDS” CONTRACT

SEE ATTACHED.

EXHIBIT C

[Not Used]

EXHIBIT D

Solar*Rewards Community Subscriber Agency Agreement and Consent Form

SEE ATTACHED.

EXHIBIT E

[Not used.]

EXHIBIT F
ENERGY PRICE

PPA Rate: \$.0983
PPA Rate Escalator: 2.00%

<i>Contract Year</i>	<i>Energy Price (\$/kWh AC)</i>
1	\$0.0983
2	\$0.1003
3	\$0.1023
4	\$0.1043
5	\$0.1064
6	\$0.1085
7	\$0.1107
8	\$0.1129
9	\$0.1152
10	\$0.1175
11	\$0.1198
12	\$0.1222
13	\$0.1247
14	\$0.1272
15	\$0.1297
16	\$0.1323
17	\$0.1349
18	\$0.1376
19	\$0.1404
20	\$0.1432
21	\$0.1461
22	\$0.1490
23	\$0.1520
24	\$0.1550
25	\$0.1581

EXHIBIT G

Calculation of Estimated Benefits to Subscriber

SEE ATTACHED.

EXHIBIT H
Name and Location of CSG Solar Garden

CSG Site Name: TBD

CSG Site Address:

CSG Site City, State, Zip:

CSG Xcel Application #:

System Size: 3,625,475 Watts DC

Estimated Completion Date: August 31, 2018

1 **EXCERPTS FROM THE MARCH 27, 2018 MEETING**
2 **OF THE CITY OF ROSEVILLE'S**
3 **PUBLIC WORKS, ENVIROMENT AND TRANSPORTATION COMMISSION**
4

5 **1. City Campus Solar Discussion**

6 Mr. Culver reported they have two different solar options to present. He began by
7 highlighting a new program called Solar Possible, which provides collaborative solar
8 purchasing for State agencies, local governments, and schools.
9

10 Chair Cihacek stated this program is similar to a previous initiative that Roseville
11 participated in with the Metropolitan Council.
12

13 Mr. Culver agreed and stated this is a joint effort between Clean Energy Resource Teams
14 (CERTs), Great Plains Institute (GPI), and the Minnesota Department of Administration,
15 Office of Enterprise Sustainability (OES). Agencies can express interest, but it is not
16 binding. With the previous initiative through the Metropolitan Council, the City submitted
17 a letter of interest and received the proposals, but then decided they were not going to
18 participate due to some risk elements.
19

20 Chair Cihacek stated 31 communities have contracted, but not everyone got the offer they
21 would have liked. This new program works the same and after submitting the requested
22 information, they can determine if they want to proceed.
23

24 Mr. Culver reported this collaborative procurement will reduce staff time, provide
25 structured technical assistance and education, and deliver better pricing for equipment and
26 financing with more competitive contract terms. However, better pricing is not guaranteed,
27 there is also less ability for customization and individual control, and they may not move
28 as fast as a single actor. Solar Possible is for the installation of solar panels at individual
29 sites. OES helps State government to achieve sustainability goals. The request for proposal
30 (RFP) gives the City better competition and transparency, and it is it streamlined. The goal
31 is to prequalify vendors through the RFP process and set price ceilings. Roseville is in the
32 Xcel service territory and the RFP will cover the following three conceptual installations:
33 ground mount; low sloped roof; and, pitched roof. The RFPs will be scored and two
34 vendors per utility service area will be chosen.
35

36 Chair Cihacek inquired if vendors will provide proposals on sites submitted by the City.
37

38 Mr. Culver confirmed this. He stated Solar Possible participants will be required to provide
39 the following site-specific data: 1) general information such as the site location and
40 orientation, square footage of the space, and solar resource data; 2) ground mount versus
41 roof top data; and, 3) utility data.
42

43 Chair Cihacek commented he has several concerns with this proposal. The two vendors
44 per area limitation is going to narrow the pool to only large providers. This is outside the
45 prequalification of vendors and it is not logistically possible. When there are 31 cities
46 submitting up to five or six sites, it is going to be hard to prepare a proposal on all of them

47 and the chances of success are predominantly low. The City and State have two different
48 contracting laws which do not supersede each other. He also does not understand how they
49 can cap the price without knowing the site conditions and other variables. It is a good idea,
50 but to be successful, they need more than two vendors. Also, having one team for a seven-
51 county site will be very difficult. He would also be interested to know who serves on the
52 selection panel. It will be a great deal if it works out because it will not take a lot of staff
53 time and energy.

54
55 Mr. Culver commented the next step is to submit an informal communication of interest to
56 CERTS and by the end of April they would submit a non-binding letter of intent. They
57 will provide information on the actual roof sites and solar readiness, which is information
58 they already have. The developer can visit the sites and ask questions of participants. He
59 is unsure if there is a limit on the number of participants. The proposals would then be
60 evaluated, selected, and provided to the participants. At that point, there is a no-
61 consequence, exit opportunity. If they decide to move forward, they will make an
62 agreement with the developer and begin installations.

63
64 Chair Cihacek inquired who would do the legal review.

65
66 Mr. Culver noted both parties would do this. The RFP will include some minimal terms for
67 legal and operational issues. The City of Roseville would not enter into any agreement
68 with having the City attorney review it.

69
70 Chair Cihacek noted he is still unsure how this benefits the City when they have to review
71 the legal terms and provide site specific information.

72
73 Mr. Culver responded there would be more options to the City if the system were larger.
74 There would most likely be an opportunity for savings in administration and operational
75 expenses.

76
77 Chair Cihacek stated he is skeptical but supports submitting a letter of intent because it
78 commits them to nothing. He does not want to be overly optimistic about the outcome. He
79 would be more interested in what they are currently doing by working with vendors and
80 addressing the concerns of the City Council.

81
82 Member Wozniak inquired if the City would consider partnering with other entities in the
83 City on a Solar Project, such as the school district or large commercial establishments.

84
85 Mr. Culver responded it might be an option. The school is going through a facility upgrade
86 and he is unsure when they would be ready to make their rooftops available. They have
87 been patient with solar discussions so far, but the longer they wait, the older the rooftops
88 get.

89
90 Member Seigler noted the longer they wait, the less expensive it gets. If they can store and
91 release the energy efficiently, it is worth more than 10 cents per kilowatt.

92

93 Chair Cihacek stated the more the utility rates increase, the more value solar has for them.
94 There are benefits to waiting and benefits to action and they need to determine the best
95 plan for them.

96
97 Mr. Culver stated there are a lot of incentive programs out there and they do not know how
98 long they will last. Solar panels may also become more efficient over time and that will
99 make it more attractive in the future.

100
101 He invited Mr. Patrick Weir from IPS Solar to present the second option to the
102 Commission.

103
104 Mr. Weir from IPS Solar highlighted information related about their company and reported
105 they are located in Roseville and are NAPCEP certified. They offer full service solar
106 development and focus mainly on community and commercial solar gardens. They partner
107 with New Energy Equity and WGL Energy. They develop and construct the solar site and
108 then partner with a stable utility company, who becomes the long-term owner.

109
110 Chair Cihacek inquired if there is a relationship with the partners from the beginning or if
111 they are reassigned when the project is completed.

112
113 Mr. Weir responded they are reassigned. The buyers want a group of projects that they
114 have subscribers to and sites.

115
116 He continued his presentation and reported they have done 75 megawatts in community
117 solar so far in Minnesota. He explained community solar gardens have an offsite garden,
118 solar is tracked by Xcel energy and they issue bill credits to the consumer at the rate of
119 \$0.1033 per kilowatts per hour (kWh). The consumer then pays back the developer
120 \$0.0983 per kWh and this presents a guaranteed five percent savings the first year. He
121 provided a list of current community solar subscribers and pictures of community solar
122 gardens they have done in Minnesota. He provided a rendering of Roseville City Hall with
123 solar panels on the rooftop. When roof repairs are needed, they can take the panels off,
124 stack them near the corners of the buildings to allow them to get at most of the roof.

125
126 Chair Cihacek inquired when the City will need to replace the roof.

127
128 Mr. Culver responded the roof on City Hall was refurbished in 2014 and they are on a 20-
129 year life cycle before major repair is needed. With solar panels on the roof, there is less
130 wear. If they had 25-year panels on the roof, they would try to delay it as much as possible.
131 If they did not have panels on the roof, it would be redone in about 2036.

132
133 Member Wozniak inquired what the proposed size of this installation would be.

134
135 Mr. Weir responded the installation on City Hall would be about 204 kilowatts, on Public
136 Works it would be 299 kilowatts, and on the Skating Center it would be 230 kilowatts. The
137 total for all three buildings would be about 735 kilowatts.

138

139 Mr. Culver stated the Public Works roof is a little more complicated because it consists of
140 three different roof ages. The largest roof in the middle was redone in 2014 and the oldest
141 part is scheduled for major reconstruction next year. The remaining part is scheduled to
142 be redone in about 10 years.

143
144 Chair Cihacek inquired how they do roof maintenance.

145
146 Mr. Culver responded they do annual patching as needed. When it is replaced, they remove
147 all the rock, replace the liner, and reset everything. If there are solar panels on the roof,
148 they would have to be removed and then replaced after the work is done. It usually takes
149 one to two weeks to replace the roof but could possibly be done in a more compressed time
150 if needed.

151
152 Chair Cihacek inquired what the financial loss would be for the two weeks the solar panels
153 would be down and if it is possible to put them in ground applications during that time.

154
155 Mr. Weir responded they have in their contract that for 72 hours there would be no
156 financial loss. After that they would factor in an average daily production lost. They would
157 not be able to install them on the ground that quickly and it would be cost prohibitive to
158 build something to hold the solar panel on the ground.

159
160 He continued his presentation and provided two offers to the City for a community solar
161 garden. One option would not involve any installed solar panels (off site Community Solar
162 Garden) and the other option would involve installing a Community Solar Garden on the
163 various rooftops with an added lease payment. Xcel looks at the last two years bills and
164 averages kilowatt usage hours and allows the City to sign up for Community Solar Garden
165 shares at 120 percent of that average annual consumption. The City has about 3,400,000
166 kWh annually.

167
168 Member Seigler inquired what size solar installation would be required for 3,400,000 kWh.

169
170 Mr. Weir responded it would be about a 2.5 megawatt system. The benefit is in the savings
171 to the City, not the size of the solar garden.

172
173 Mr. Culver clarified they would only be able to put about 700 kWh on the rooftop, but they
174 could subscribe to any other community solar garden system in the surrounding area up to
175 3.4 megawatts.

176
177 Member Seigler stated if they had 100 percent of their electricity that was allocated towards
178 solar, the savings would be \$17,000 the first year.

179
180 Mr. Weir confirmed this and noted the credits no longer fluctuate with Xcel and will
181 increase at 2.3 percent each year. The PPA rate is what is paid back to the developer. IPS
182 offers to escalate at two percent each year and the savings grow slowly over time.

183

184 Member Seigler inquired if they would ever own anything and what would happen if a
185 storm wiped out the system.
186

187 Mr. Weir noted the City would not own any of it and there is no risk to the City. It is not
188 on their property and they are just a subscriber to a community solar garden. They are
189 trying to get a developer to offer the City a PPA for using the City's rooftop. It could be a
190 win-win situation.
191

192 He highlighted the rooftop option with the added lease payment benefit to the City. The
193 roof lease payments begin at \$10,000 annually and go up slowly over time. The City needs
194 to evaluate the risk and parameters and determine if the added value is worth the risk of
195 having the panels on the roof.
196

197 Mr. Culver stated they will continue to look at the cost-risk to it. They would be getting
198 an annual lease payment and the major roof maintenance would come one time during the
199 25 years. If it costs \$6,000 to manage the solar panels during the roof maintenance, this
200 will affect their savings. There is risk, and the risk of losing money goes down the further
201 into it they get.
202

203 Member Seigler commented they could buy into the community solar garden and put solar
204 panels on the roof after that.
205

206 Chair Cihacek noted they would already have their energy needs met with the 120 percent
207 solar. The lowest risk option would be to lease the space and then put a system up.
208

209 Member Seigler inquired what would happen if the panels are damaged on the roof top at
210 the fault of the City.
211

212 Mr. Weir responded the equipment is owned by them, it is usually on them, but if it was
213 caused by negligence by the City, that may be different.
214

215 Chair Cihacek stated it would be included in the cost analysis and they could look at
216 purchasing additional liability insurance. They still need to do some risk scenarios based
217 on the size of the design to determine what the risk is.
218

219 Mr. Culver stated the size of the system they are considering includes panels on the Skating
220 Center and they would need to bring that roof up to code. This needs to be considered when
221 preparing the cost scenarios.
222

223 Chair Cihacek noted there is also a potential benefit of heating and cooling costs decreasing
224 by the solar panels shading the roof.
225

226 Member Trainor inquired if there is capacity available in existing solar gardens for the City
227 to buy into.
228

229 Mr. Weir responded there is some capacity available and they are always looking for more
230 hosts. They could sign a letter of intent for 3,400,000 kWh which would serve as a
231 reservation for the City to participate. Once they determine where the City is allotted into
232 the different solar gardens, an addendum would be added that indicates the wattage coming
233 to the City from each location.

234
235 Member Seigler inquired who the owners of the gardens are and if the investors get a tax
236 credit.

237
238 Mr. Weir explained the owners do get a tax credit. They typically come from WGL Energy,
239 but they recently did a contract with Xcel Energy as well.

240
241 Chair Cihacek clarified they will be using private equity to build. They will have a private
242 financier who is a private equity partner and getting a tax credit for the equity contribution.
243 The completed garden will then be sold to the utility company.

244
245 Mr. Weir agreed with Chair Cihacek and noted sometimes the tax credits will go to the
246 owner and other times they go to the developer, depending upon how long it takes.

247
248 Member Seigler inquired if the solar panels secure the debt and if bankruptcy affects
249 anything.

250
251 Mr. Weir responded if they are putting panels on the roof, they would be past the
252 development period and would have a financial partner by then. All of the solar gardens in
253 Minnesota are owned by utility companies and they get the tax credits.

254
255 Mr. Culver inquired what the typical life cycle of a solar panel was.

256
257 Mr. Weir responded they are under warranty for 25 years but will produce for 30 to 40
258 years. NASA has panels that are over 40 years old. They degrade 0.25 percent per year
259 and that is why the kilowatt hours go down each year.

260
261 Mr. Culver stated at the end of 25 years, they might possibly have an option to purchase
262 them and produce energy for another 10 to 15 years.

263
264 Mr. Weir noted they could also negotiate a contract and get a payment from Xcel.

265
266 Member Misra inquired if the projects done in 1991 are all original panels.

267
268 Mr. Weir stated they are all original panels and mostly residential, and they are still
269 producing. However, the efficiency and size of the panels have changed over time.

270
271 Chair Cihacek inquired about next steps.

272

273 Mr. Weir explained they could provide a subscription agreement with them which can then
274 be shared with the City Attorney for review. They are willing to do more evaluation to
275 help decide what makes the most sense.

276
277 Member Wozniak inquired if other rooftop locations had been considered, such as the gas
278 canopy, the salt storage structure or the property across Woodhill that was recently
279 purchased. He also inquired how rooftop solar costs compare with other installations.

280
281 Mr. Culver responded the Fire Station is the only other location that has been talked about.

282
283 Mr. Weir stated carports add about 25 or 30 percent to the cost because a structure needs
284 to be built to hold it. This is typically done in warm climates where energy is expensive
285 and there is a limitation on land. Ground and roof mounts are similar in cost.

286
287 Member Misra inquired if modifications would be required on the existing structures.

288
289 Mr. Weir stated modifications would not be needed, but they would want a structural
290 engineer to look at the Skating Center more in depth. Some additional bracing may need
291 to be added to the bracing inside.

292
293 Chair Cihacek stated he would be interested to see a subscriber agreement and other
294 information that considers risk factors, what the City needs to do to mitigate the risk, how
295 it impacts the financial payout, and other scenarios with both leased and non-leased
296 options. They could then have the City Attorney look at it and consider a revised option
297 to adjust for risk.

298
299 Member Seigler inquired if the City's flat roofs would be considered small, medium, or
300 large, and if large would be the most efficient.

301
302 Mr. Weir responded the City's roofs are considered medium and a large roof is the most
303 efficient. Typically, a high school's roof is large and can handle 1 megawatt.

304
305 Chair Cihacek noted the leases correlate with the rate size. If they reduce the rate size by
306 10 percent, the lease payment decreases. He also requested a scenario of five to 10 percent
307 less than what is designed so they have the capacity to move panels.

308
309 Mr. Weir agreed that 10 percent less than the currently designed scenario would be
310 appropriate.

311
312 Member Misra stated she would also like to know what other rooftops have encountered
313 in terms of liability and other issues.

314
315 Mr. Culver commented Maplewood has existing rooftop panels and just went through an
316 analysis. He will reach out to them for additional feedback.

317
318 Mr. Weir agreed to collect the information requested.

319
320
321
322
323
324
325

Member Misra inquired if they use the same type of panel regardless of climate.

Mr. Weir commented it is the same panel. After 10 to 15 years, the inverters need replacement. Other than that, not much typically goes wrong. They can withstand a 100 mile per hour hailstorm.



REQUEST FOR COUNCIL ACTION

Date: 5/14/2018

Item No.: 7.d

Department Approval

City Manager Approval

Item Description: Twin Lakes East Collector Project – Authorization to Proceed with Final Design

BACKGROUND

At the April 11, 2016 City Council meeting staff presented a preliminary design concept for the Twin Lakes East Collector Project. This project (Attachment A) was looked into as an additional improvement related to the redevelopment of Twin Lakes Parkway. It has been indicated on several occasions and by multiple parties, that it would be advantageous to make improvements to the transportation network east of Fairview Avenue in order to encourage traffic to use Terrace Drive/Lincoln Drive/County Road C2 as a preferred route to Snelling Avenue from the intersection of Twin Lakes Parkway and Fairview Avenue.

Since the 2016 Council meeting, staff has further developed the project. The revised proposed final design (Attachment C) includes the following improvements:

- Geometric improvements to the intersection of County Road C-2 and Lincoln Avenue to make the thru movement north bound to east bound (Attachment D). Southbound on Lincoln Drive would be the only stopped condition.
- Addition of a second left turn lane on eastbound County Road C-2 to northbound Snelling Avenue.
- Elimination of the geometric improvements at the intersection of Terrace Avenue and Lincoln Avenue. This intersection would remain a 4 way stop. It was determined the geometric changes would provide little benefit.
- Mill and overlay of the project area.
- Re-striping of Lincoln Drive to a three lane section with a center left turn lane.
- Watermain replacement to the watermain under County Road C2 using directional boring to install a new main. The existing main is over 60 years old.

The major goal of this project is to facilitate traffic moving east to west between Cleveland Avenue and Snelling Avenue as an alternate to County Road C. The geometric improvements as proposed would enhance this movement. By redesigning the Lincoln/County Road C2 intersection, the east to west movement becomes more intuitive and should help traffic navigate the corridor more efficiently. Further, the addition of a second left hand turn lane on County Road C2 for northbound Snelling Avenue should help alleviate some of the stacking that occurs during peak traffic and which will likely grow as the Twin Lakes Area redevelops.

In order to provide a second left turn lane on County Road C-2 to Snelling Avenue, the full access on County Road C2 to 2875 Snelling Avenue and 2887 Snelling Avenue would be

32 reduced to a right in, right out. Full access would still be provided off Lincoln Drive for both
33 properties.

34 The addition of the second left turn lane also requires some signal modifications to the
35 westbound signal light at Snelling Avenue. The Minnesota Department of Transportation
36 currently has the signal light on its list for replacement in 2020 at which time the entire signal
37 system would be replaced. Staff recommends the project with the signal modification take place
38 ahead of the overall signal replacement project to assist with traffic impacts related to the I-35W
39 MnPass project which will begin in 2019.

40 After the 2016 Council meeting, staff held a project open house on May 19, 2016 (Attachment
41 D). Only one comment was received (Attachment E).

42 At the April 11, 2016 Council meeting staff presented preliminary feedback from Scandinavian
43 Designs (Attachment F). Based on their comments and feedback from Council, staff looked into
44 the feasibility of their proposed options. Shifting the overall road alignment to the south to
45 maintain a westbound left turn lane into Scandinavian Designs is not feasible, as it would create
46 a conflict with the opposing left turn lane on County Road C2 for southbound Snelling. The
47 second option to leave the median opening is a safety concern since this could lead to rear end
48 collisions or potential stacking out into Snelling Avenue. Staff reached out to Scandinavian
49 Design for further comments on the revised layout but has not received any additional comments
50 at this time.

51 Other comments received were to potentially shift the north driveway access for Scandinavian
52 Designs to the intersection of Lincoln and C2. This option was deemed unfeasible due to the
53 driveway grades needed to make the connection and the poor sight distance that this would
54 create. Another comment received was to add a sidewalk on the south side of County Road C2
55 and the east side of Lincoln Drive. This option was considered unfeasible due to the limited right
56 of way, the amount of trees that would need to be removed, the amount of grading and retaining
57 wall needed and the overall cost of this improvement.

58 If the project is approved, staff will get bids later this summer to complete the project this year.

59 **POLICY OBJECTIVE**

60 This project would enhance the City's transportation network in this area and make some
61 improvements as identified in previous traffic studies of the Twin Lakes Area.

62 **BUDGET IMPLICATIONS**

63 Staff proposes using dollars returned to the City as part of the decertification of TIF 13 to fund
64 these improvements. Staff has earmarked \$400,000 from the TIF 13 funds for this project.

65 Preliminary construction costs are estimated for the geometric improvements and pavement
66 replacement is \$300,000. Signal modifications are estimated to be \$50,000.

67 Watermain improvements are estimated to cost \$70,000. These improvements would be funded
68 through the Water Utility Fund.

69 The full signal light replacement is schedule to be replaced in 2020. The cost for the City is
70 estimated to be \$250,000. This cost will occur even if the East Collector project does not move
71 forward as the signal is at the end of its 30 year design life. Municipal State Aid Funds are
72 available to fund this portion of the project.

73 **STAFF RECOMMENDATION**

74 Approve final design for Twin Lakes East Collector Project and advertise project for bid.

75 **REQUESTED COUNCIL ACTION**

76 Motion to approve final design for Twin Lakes East Collector Project and advertise project for
77 bid.

Prepared by: Jesse Freihammer, Asst. Public Works Director/City Engineer
Attachments: A: East Collector Location Map
B: Existing Layout
C: Preliminary Layout of Twin Lakes East Collector Improvement
D: Twin Lakes East Collector Open House Announcement
E: Open House Comments
F: Scandinavian Design Comments



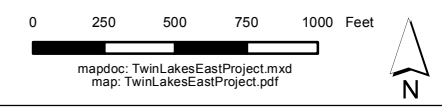
Twin Lakes East Project

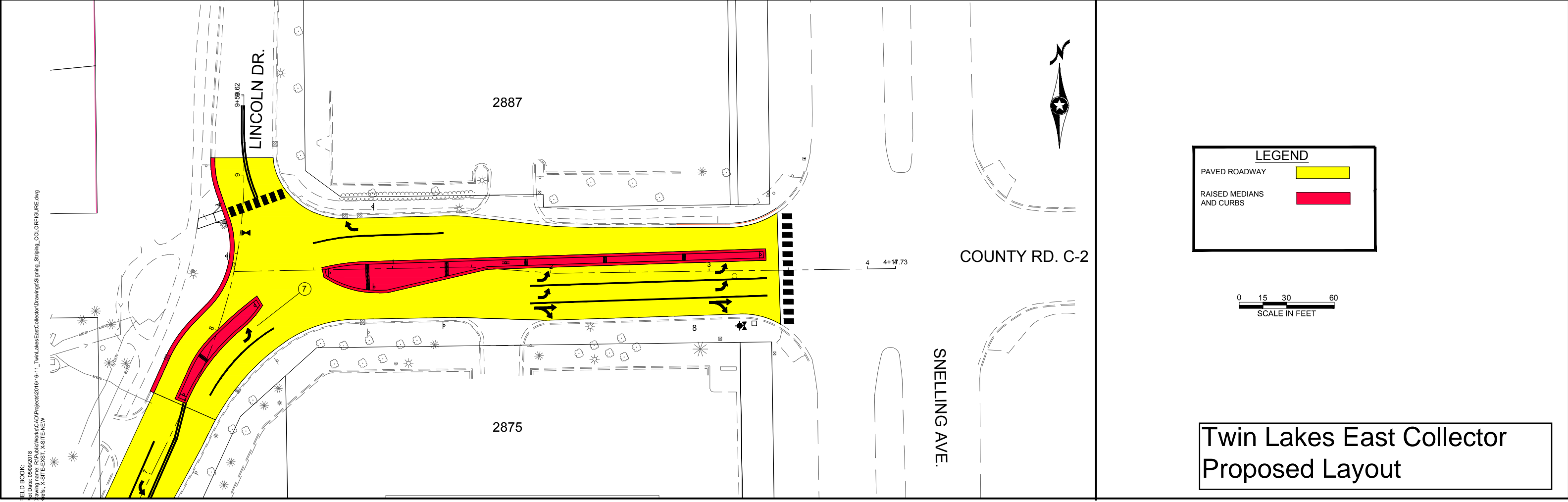
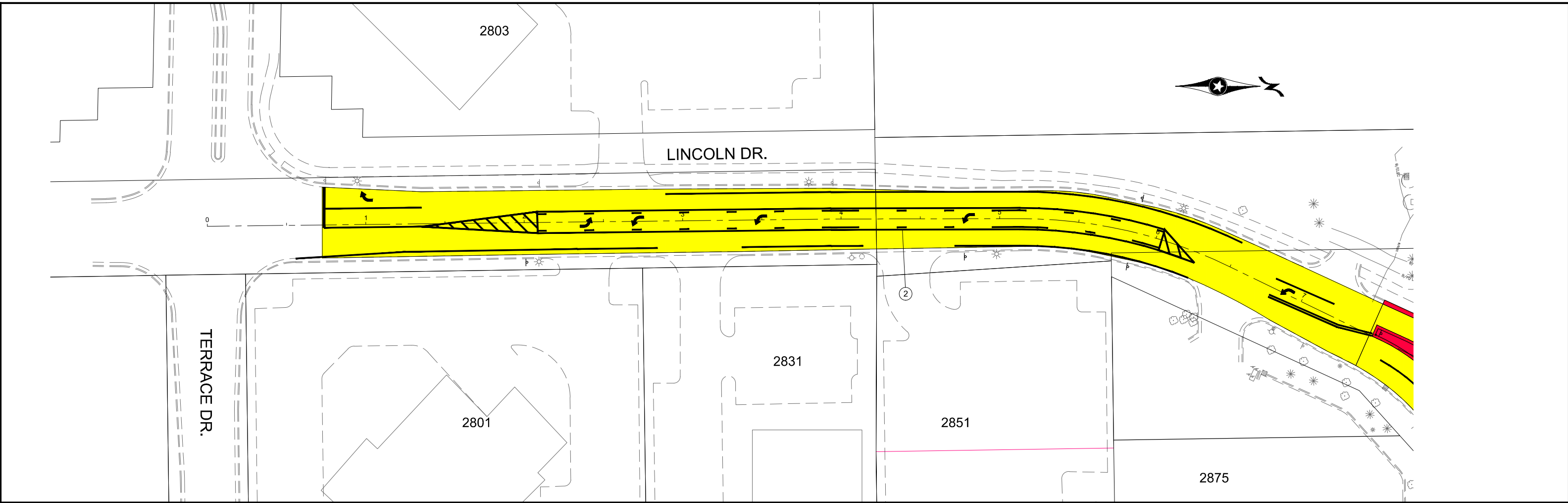
 Twin Lake Area East Collector



Data Sources and Contacts:
 * Ramsey County GIS Base Map (3/9/18)
 * City of Roseville Engineering Department
 For further information regarding the contents of this map contact:
 City of Roseville, Engineering Department,
 2660 Civic Center Drive, Roseville MN

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FIELD BOOK:
 Plot Date: 05/08/2018
 Drawing Name: R:\Public\Work\CAD\Projects\2016\16-11_TwinLakesEastCollector\Drawings\Signing_Striping_COLOUR\Figure.dwg
 User: XSITE\BOST.XSITE\NEW



Twin Lakes Area East Collector & Fairview Re-striping

Thursday, May 19, 2016

3:30 PM – 6:30 PM

**City Council Chambers
Roseville City Hall**

The City of Roseville will be holding an Open House to preview the proposed street improvement for the Twin Lakes Areas East Collector. This project area includes the intersection of Terrace Avenue & Lincoln Drive and County Road C2 & Lincoln Drive.

In addition, the City will be presenting some information on re-striping Fairview Avenue between County Road C and Twin Lakes Parkway/Terrace Avenue from a 4-lane roadway to a 3-lane section. This proposal is being done in conjunction with the extension of Twin Lakes Parkway. A new signal light is being installed at Fairview Avenue and Twin Lakes Parkway/Terrace Avenue which requires some re-striping.

The Open House will be held in the Roseville City Hall Council Chambers located at 2660 Civic Center Drive. The Open House will start at 3:30 PM and end at 6:30 PM.

The public is invited to attend this meeting to review design elements of the project and provide input. City staff will be on hand to answer questions and provide more information on the proposed improvements.

Staff anticipates presenting the feedback received at the Open House to the City Council when the final design is presented.

The information shared at the meeting will also be posted on the following City websites:

Twin Lakes Area East Collector - www.cityofroseville.com/TLEast

Twin Lakes Parkway/Fairview Striping - www.cityofroseville.com/twinlakespkwy

Questions or comments regarding the either project should be directed to City Engineer Jesse Freihammer at 651-792-7042 or jesse.freihammer@cityofroseville.com.



Twin Lakes Area East Collector

Thursday, May 19, 2016

Comments:

what will be done to "Calm" traffic as it
flows down the new street & meets with Fairview?
1) traffic circle
2) speed bumps
3) lower speed limit on FV (a 2 lane road
in a residential district) from 40 mph (for only 1/4
mile) to 30 mph
4) other

Return to: Jesse Freihammer, Engineering Department
(jesse.freihammer@cityofroseville.com)
2660 Civic Center Drive, Roseville, MN 55113

From: Jimmy Turner [<mailto:jimmyt@interline.com>]
Sent: Sunday, March 27, 2016 11:57 PM
To: Jesse Freihammer ; Marc Culver
Subject: Re: Lincoln & C2 Improvements

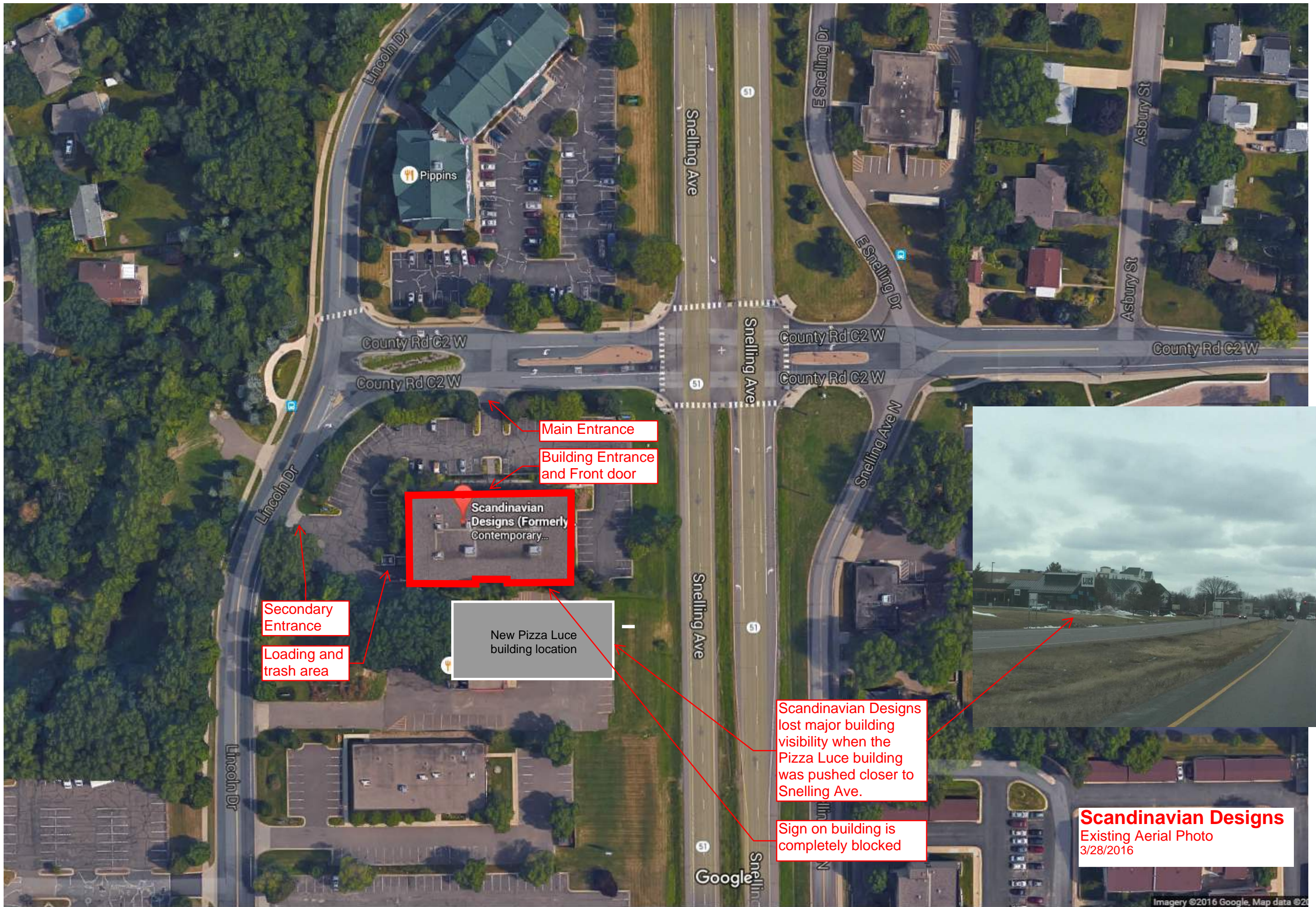
Jesse,

Marc reached out to me on Friday and mentioned that if I was unable to make it out there for the City Council meeting on Monday then I could send my concerns and suggestions to you. Unfortunately, I can't make the meeting. So I'm attaching our concerns via 11x17 pdf for Monday night's Council Meeting. Let me know if you need anything else. Our main concerns that I would bring up if I were present are as follows.

1. Losing access to our main entry (on CR C2 W) will further reduce the stores profitability. Since Pizza Luce completed construction on their building and positioned it close to Snelling Ave, the Scandinavian Designs building visibility has been completely blocked when heading northbound on Snelling Ave. Since then, sales have been down 22% and the store has been struggling. We are highly concerned that this decline will get worse if we make it even more difficult for our costumers to get to our store.
2. If customers get pushed to the side entrance, there will be some safety issues.
 - o customers will be entering and crossing paths with the delivery trucks, trash trucks and customer pick up vehicles.
 - o exiting the parking lot onto Lincoln Rd is already a safety concern due to lack of visibility. The trees and the curve in the road cause a lack of visibility when exiting. We do not want to compound this issue with more traffic at this back entrance.
3. We have created two options that I hope could help solve Public Works traffic flow concerns but also ease our concerns for our customers and the future business of Scandinavian Designs at this location. (See Option A and Option B in the attached pdf).

Thank you for reaching out and discussing our concerns.

Jimmy Turner
Director of Store Development + Design
Scandinavian Designs
2250 South McDowell Ext.
Petaluma, CA 94954



Main Entrance

Building Entrance and Front door

Scandinavian Designs (Formerly Contemporary...)

New Pizza Luce building location

Secondary Entrance

Loading and trash area

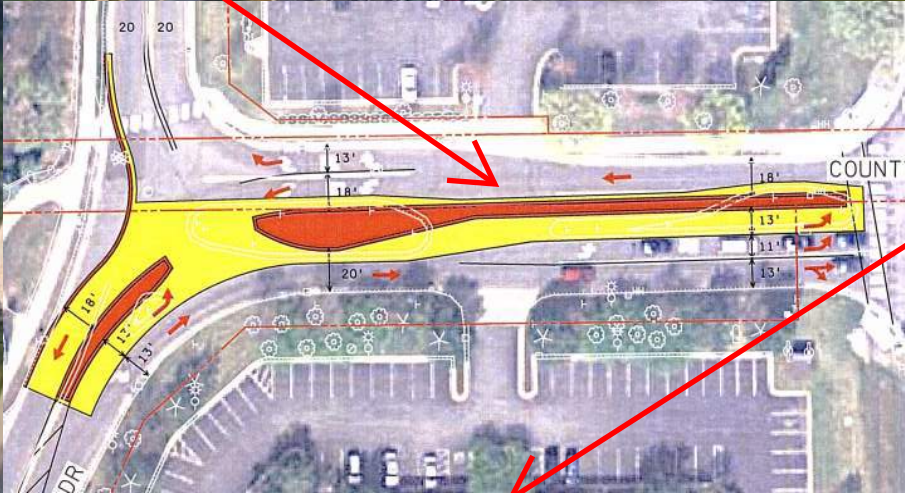
Scandinavian Designs lost major building visibility when the Pizza Luce building was pushed closer to Snelling Ave.

Sign on building is completely blocked

Scandinavian Designs
Existing Aerial Photo
3/28/2016

Median cuts off access to our main entrance in front of our building entrance

This option pushes traffic to this secondary entrance near the loading dock and trash area. If this becomes the main accessible entrance, **it will create a dangerous intersection.** Visibility is limited when you exit out of the parking lot here. You cannot see the vehicles heading northbound down Lincoln Drive due to the curve in the street and the trees lining the right of way.

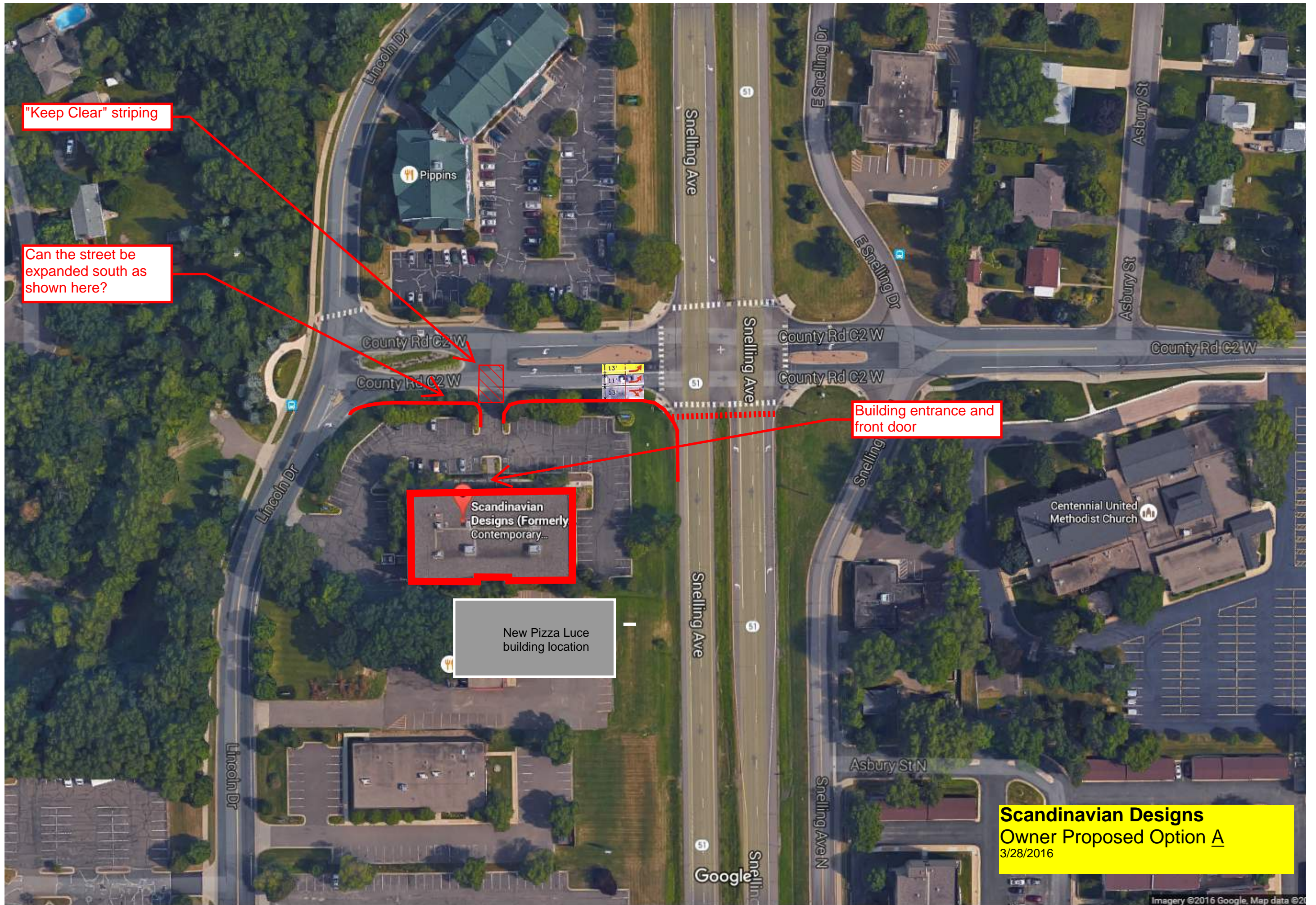


building entrance and front door

Scandinavian Designs (Formerly Contemporary...)

New Pizza Luce building location

Scandinavian Designs
Aerial Photo with City Proposed turning lane
3/28/2016



"Keep Clear" striping

Can the street be expanded south as shown here?

Building entrance and front door

Scandinavian Designs (Formerly Contemporary...)

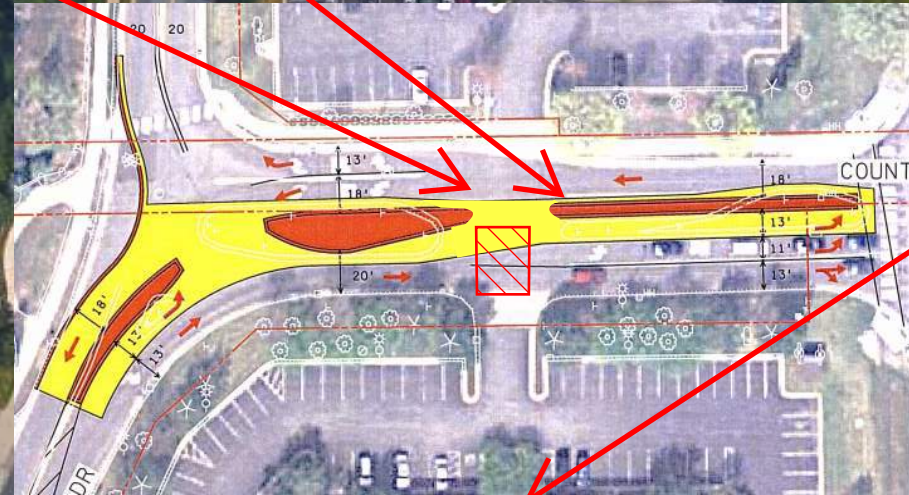
New Pizza Luce building location

Scandinavian Designs
Owner Proposed Option A
3/28/2016

Add a sign here: "No Left Turn from 4-6pm"

Add a break in the new median.
Add "Keep Clear" striping.

Building entrance and front door



Scandinavian Designs (Formerly Contemporary...)

New Pizza Luce building location

Scandinavian Designs
Owner Proposed Option B
3/28/2016