

# Appendix A

Map LU-1: Current Land Use (2016) ..... 39

Map LU-2: 2040 Land Use ..... 41

Map LU-3: Opportunity Sites..... 43

Map LU-4: Significant Public Views ..... 44

Map LU-5: Thive MSP 2040 Community Designation 45

Map LU-6: Gross Solar Potential.....46

# Appendix B

Figure LU-1: Current Land Use Table (2016) ..... 48

Figure LU-2: 2040 Land Use Table ..... 48

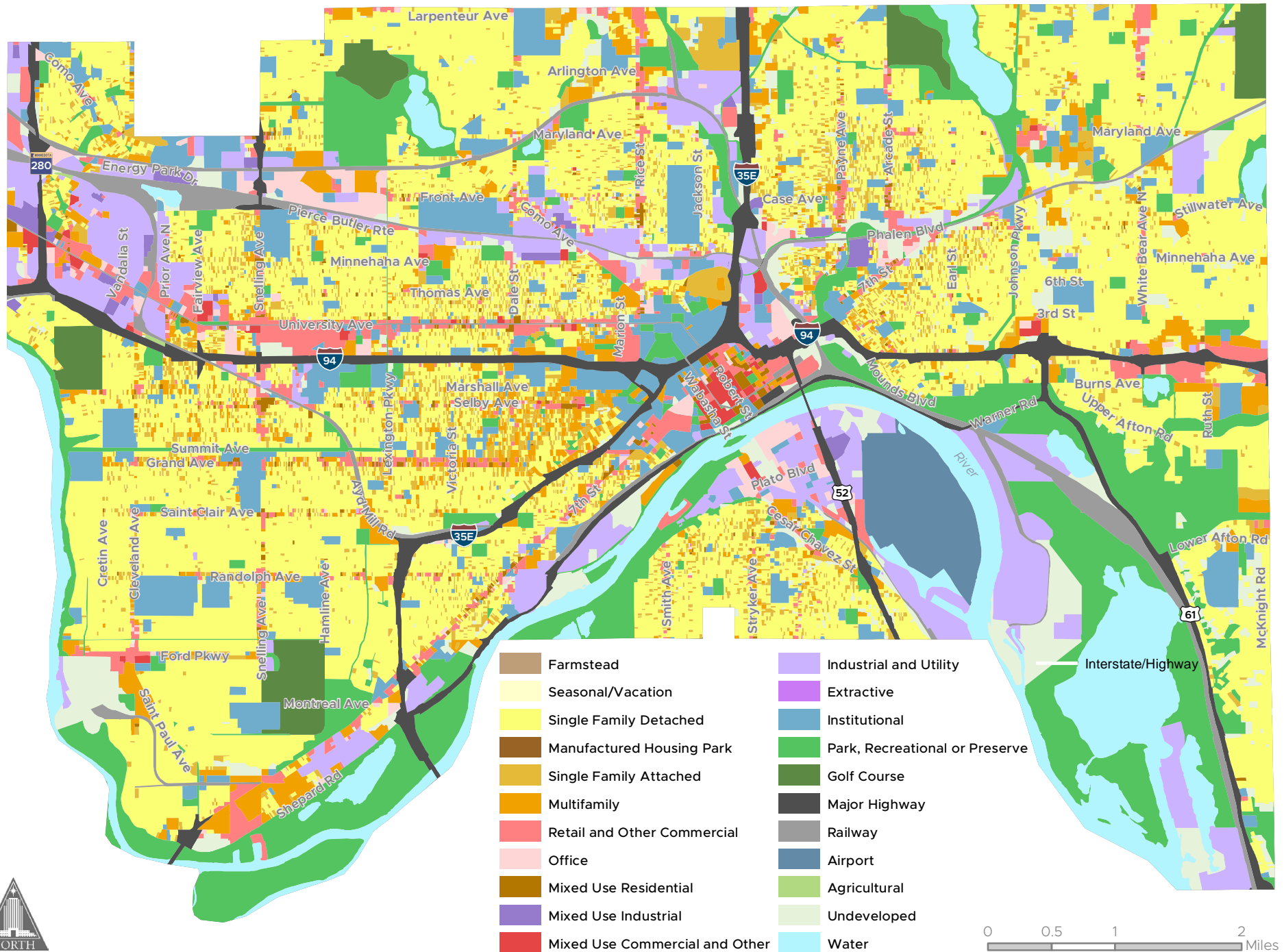
Figure LU-3: Figure LU-3: 2040 Employment Density  
and General Land Use Mix ..... 49

Figure LU-4: 2040 Residential Land Use Density  
Ranges.....49

Figure LU-5: Transit Density Goals.....50

Figure LU-6: General Housing Unit Development  
Estimates and Timeline Based on Opportunity Sites...50

## Map LU-1: Current Land Use



## Abbreviated Land Use Descriptions from Chapter

### Neighborhood Nodes

Neighborhood Nodes are compact, mixed-use areas that provide shops, services, neighborhood-scale civic and institutional uses, recreational facilities and employment close to residences. They may be neighborhood centers, transit station areas or urban villages, and have often developed adjacent to major intersections or at former street car stops. Neighborhood Nodes serve a neighborhood's daily needs, including access to food; reduce public infrastructure disparities; improve livability; and accommodate growth.

### Downtown

Downtown is the mixed-use core of Saint Paul, encompassing all the B4 and B5 Zoning Districts and most of Planning District 17.

### Mixed-Use

Mixed-Use areas are primarily along thoroughfares well-served by transit. The main distinguishing characteristic is a balance of jobs and housing within walking distance of one another.

### Urban Neighborhoods

Urban Neighborhoods are primarily residential areas with a range of housing types. Single-family homes and duplexes are most common, although multi-family housing predominates along arterial and collector streets, particularly those with transit. Multi-family housing, schools, neighborhood parks, religious institutions and cemeteries may also be scattered throughout Urban Neighborhoods. Limited neighborhood-serving commercial may also be present, typically at intersections of arterial and/or collector streets.

### Semi-Rural

Semi-Rural land is primarily large-lot, low-density residential, with more limited public infrastructure than elsewhere in the city. Development is limited by the river bluffs; preservation of green space, including the tree canopy, is emphasized.

### Industrial

Industrial land uses are a major source for employment in Saint Paul and are a significant net positive payer of property taxes, relative to the City services consumed. They have traditionally been defined as manufacturing, processing, warehousing, transportation of goods and utilities. More contemporary uses, driven by technological advances, include medical tech and limited production and processing.

### Major Parks and Open Spaces

Major Parks and Open Space land use includes regional parks, City parks larger than 200 acres, City parks adjacent to the river and parkways.

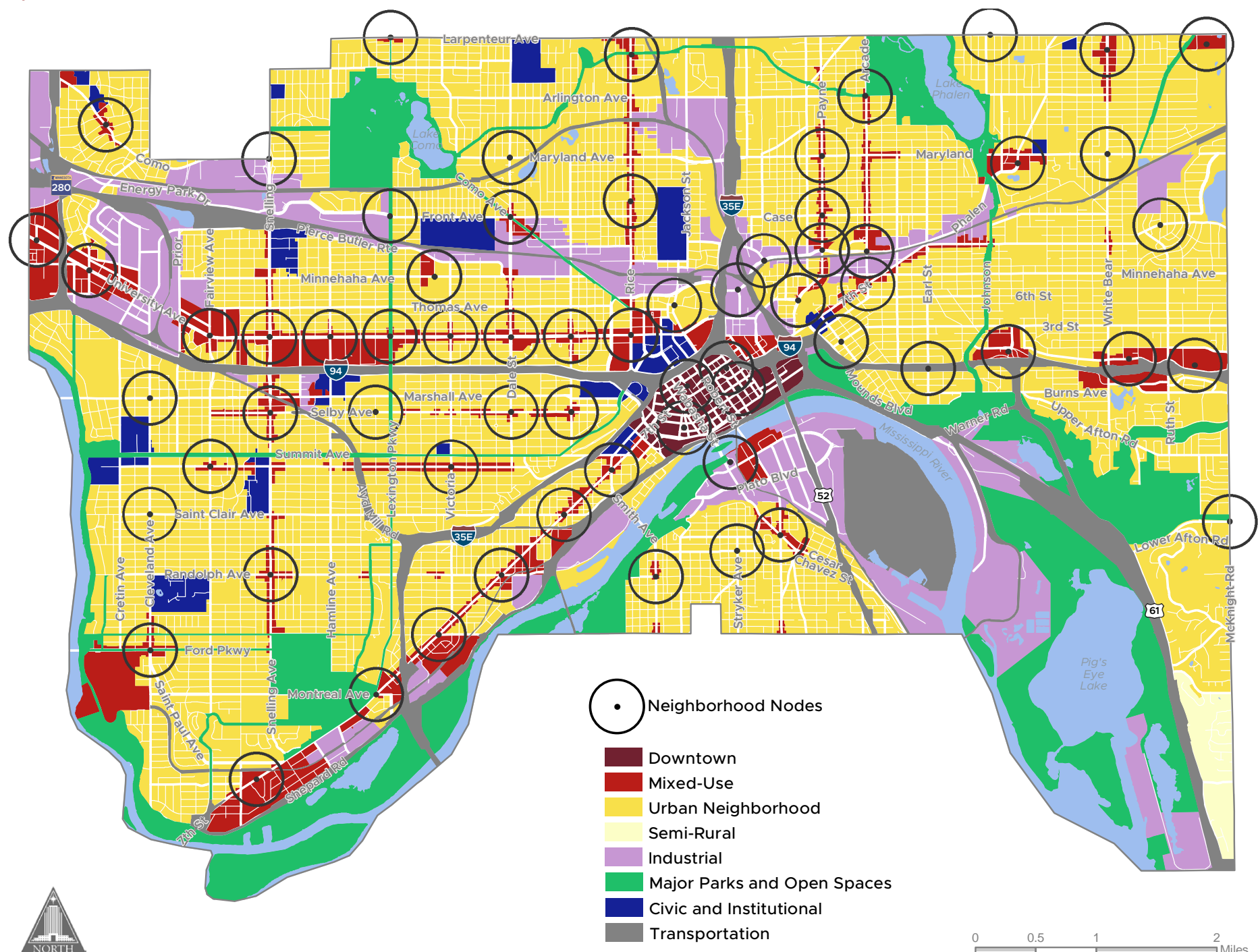
### Civic and Institutional

Civic and Institutional land use includes buildings and open space for major institutional campuses.

### Transportation

Saint Paul is a city with a rich infrastructure of multi-modal transportation systems. The Transportation land use category includes streets, walking and biking pathways, light rail and bus rapid transit routes, highways, railroads, the Mississippi River and the Saint Paul Downtown Airport.

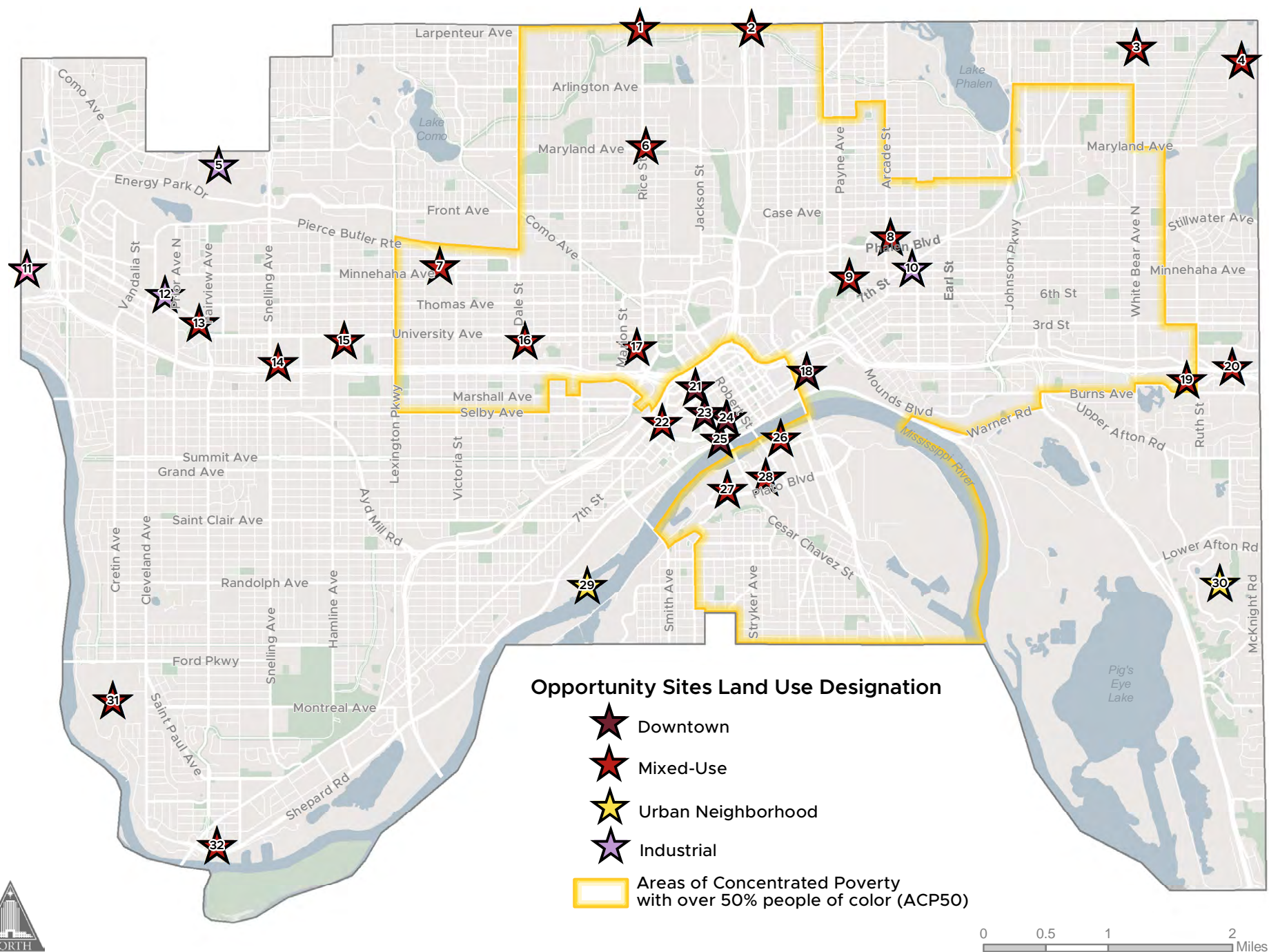
Map LU-2: 2040 Land Use



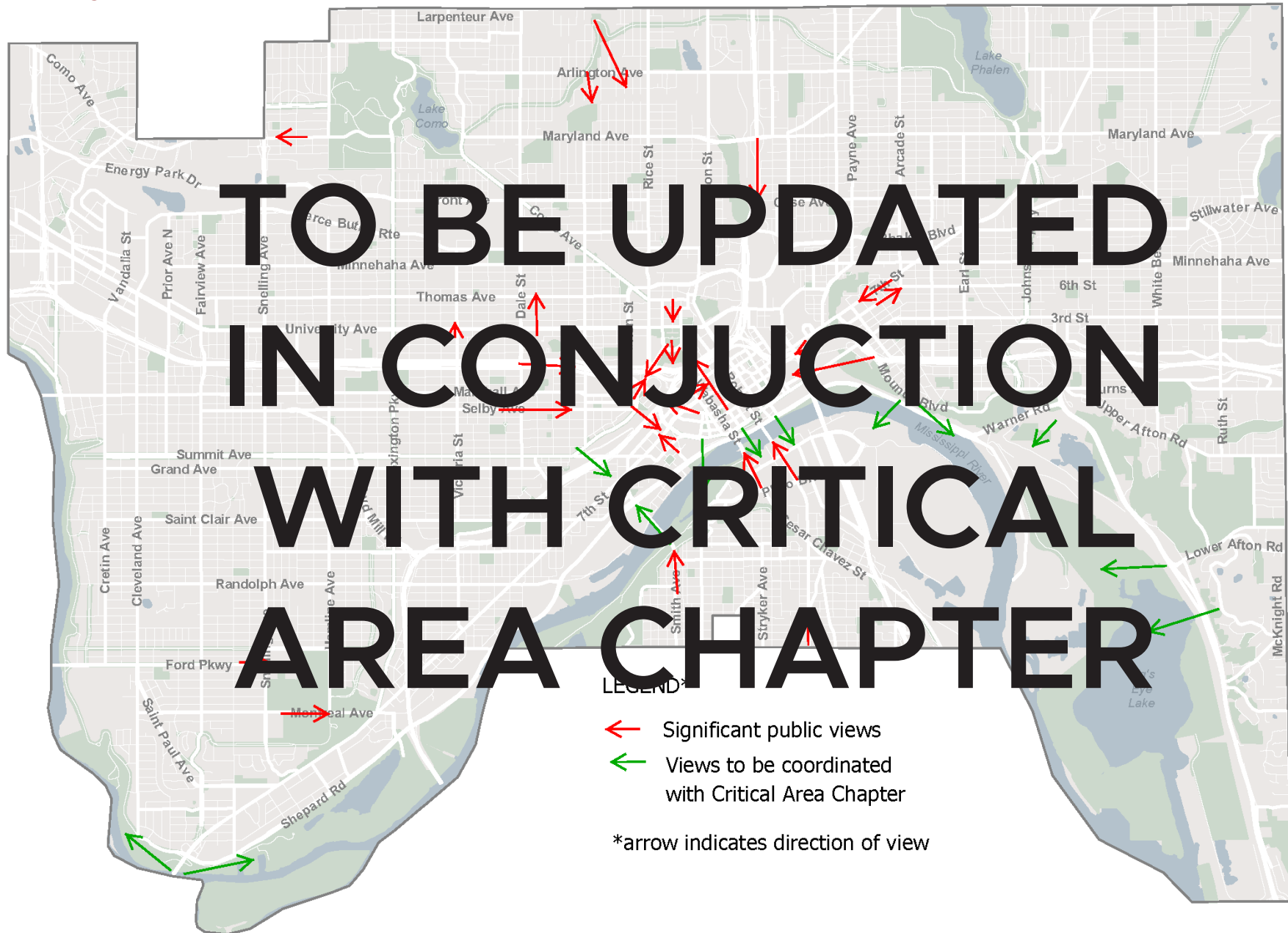
- |  |                                    |
|--|------------------------------------|
| ★ 1, Rice-Larpenteur Site                  | ★ 17, Sears Site                   |
| ★ 2, 35E-Wheelock                          | ★ 18, Prince Street                |
| ★ 3, Hillcrest Center - White Bear-Hoyt    | ★ 19, Suburban                     |
| ★ 4, Hillcrest Golf Course                 | ★ 20, Sunray Center                |
| ★ 5, State Fair Parking                    | ★ 21, McNally Smith School Site    |
| ★ 6, Rice-Maryland                         | ★ 22, Gateway Site                 |
| ★ 7, Minnehaha Mall                        | ★ 23, Wabasha Court                |
| ★ 8, Payne-Arcade Strip Mall               | ★ 24, Central Station              |
| ★ 9, Hamms Brewery                         | ★ 25, Ramsey-West Site             |
| ★ 10, Beacon Bluff Site 7th-Minnehaha      | ★ 26, West Side Flats 1            |
| ★ 11, Wayerhaueser Site                    | ★ 27, West Side Flats 2            |
| ★ 12, Amtrak Site                          | ★ 28, West Side Flats 3            |
| ★ 13, Goodwill Parking University-Fairview | ★ 29, Island Station               |
| ★ 14, Snelling-University Redevelopment    | ★ 30, Boys Totem Town              |
| ★ 15, Target Outlot                        | ★ 31, Ford Site                    |
| ★ 16, Unidale Mall                         | ★ 32, Johnson Brothers - Riverbend |



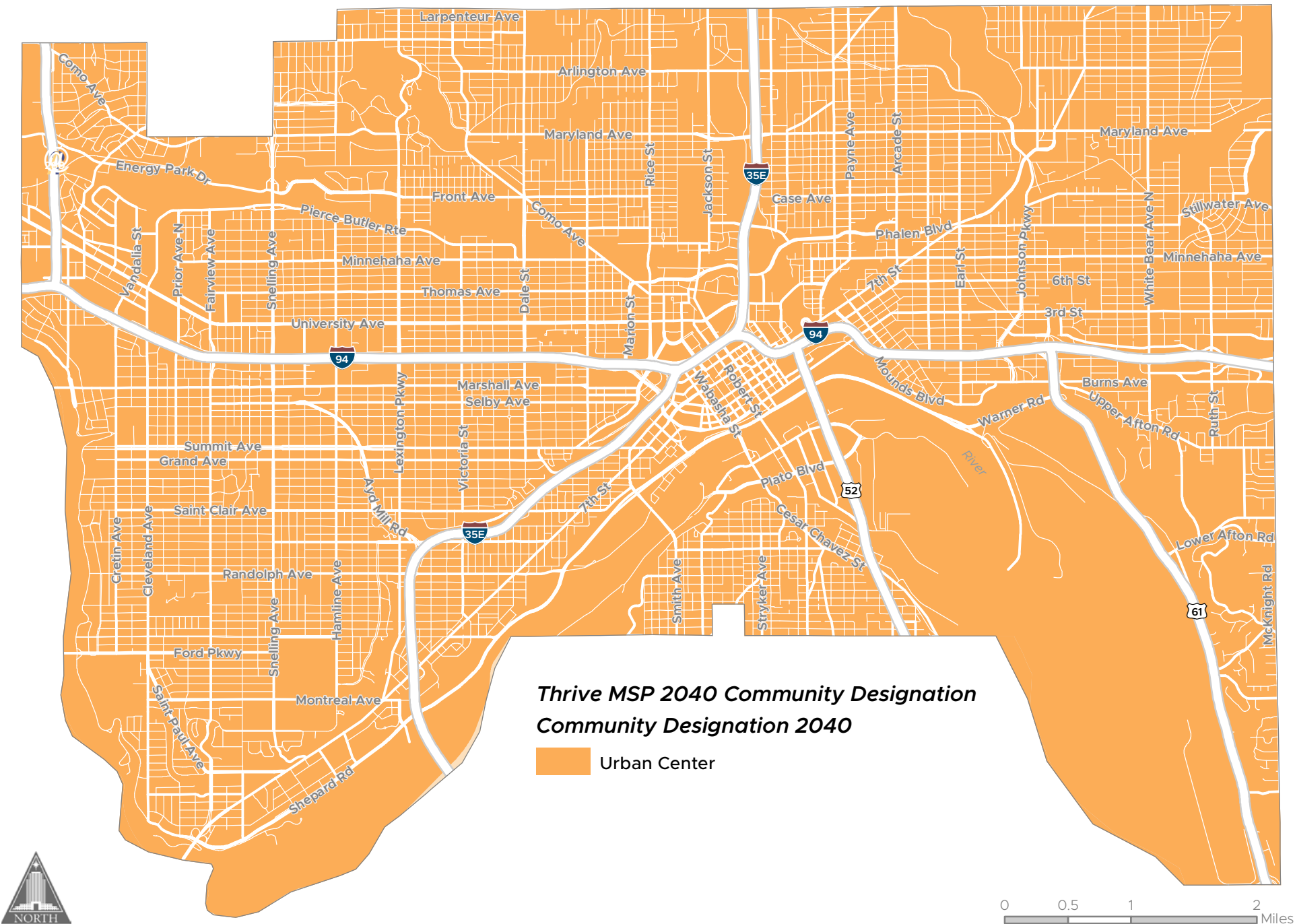
Map LU-3: Opportunity Sites



Map LU-4: Significant Public Views

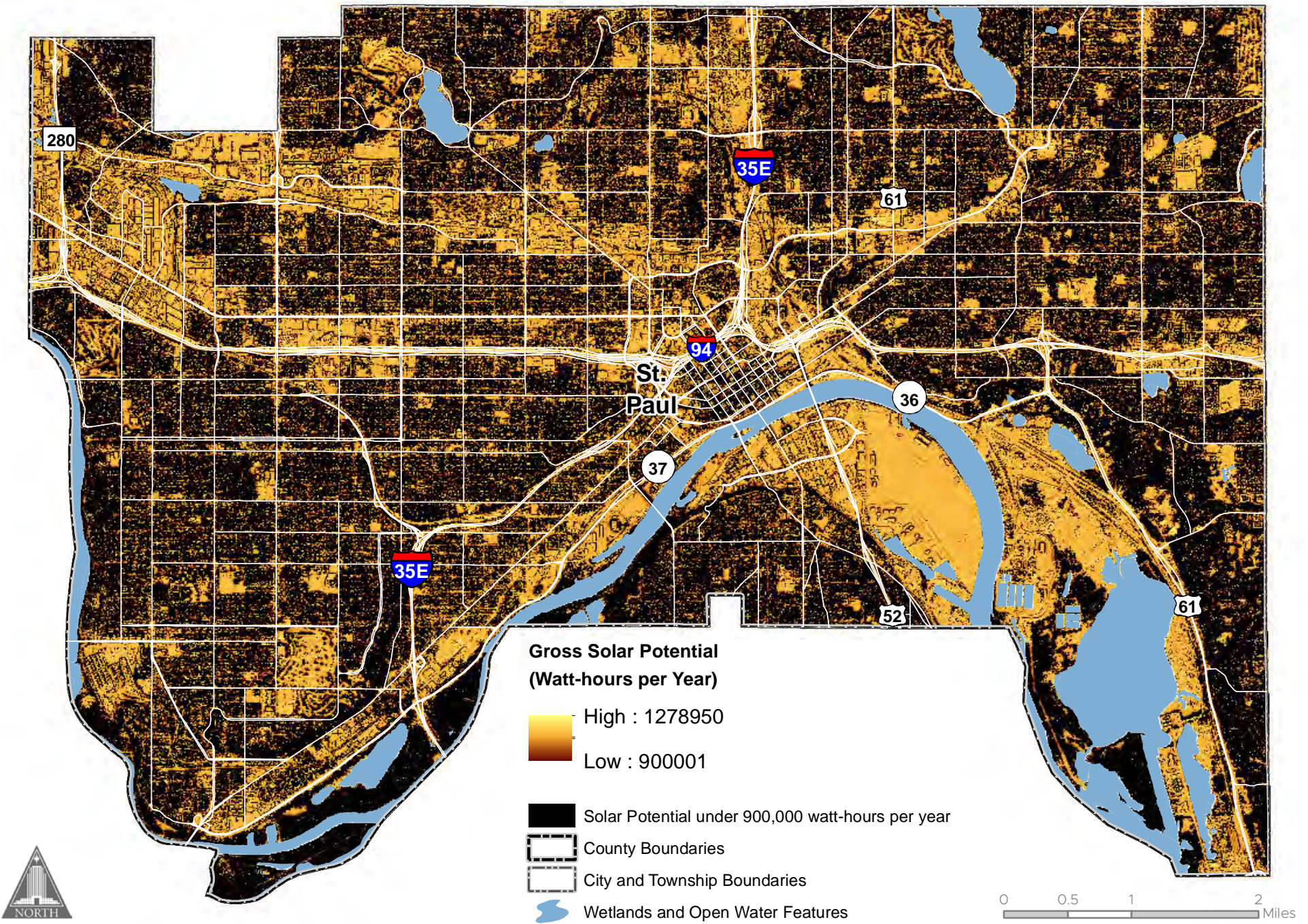


Map LU-5: Thrive MSP 2040 Community Designation





Map LU-6: Gross Solar Potential





## Gross and Rooftop Solar Resource Calculations

| Gross Potential (Mwh/yr) | Rooftop Potential (Mwh/yr) | Gross Generation Potential (Mwh/yr)** | Rooftop Generation Potential (Mwh/yr)** |
|--------------------------|----------------------------|---------------------------------------|---|
| 66,151,161               | 10,968,464                 | 6,615,116                             | 1,096,846                               |

\*The gross solar potential and gross solar rooftop potential are expressed in megawatt hours per year (Mwh/yr), and these estimates are based on the solar map for your community. These values represent gross totals; in other words, they are not intended to demonstrate the amount of solar likely to develop within your community. Instead, the calculations estimate the total potential resource before removing areas unsuitable for solar development or factors related to solar energy efficiency.

The gross solar generation potential and the gross solar rooftop generation potential for your community are estimates of how much electricity could be generated using existing technology and assumptions on the efficiency of conversion. The conversion efficiency of 10% is based on benchmarking analyses for converting the Solar Suitability Map data to actual production, and solar industry standards used for site-level solar assessment.

\*\*In general, a conservative assumption for panel generation is to use 10% efficiency for conversion of total insolation into electric generation. These solar resource calculations provide an approximation of each community's solar resource. This baseline information can provide the opportunity for a more extensive, community-specific analysis of solar development potential for both solar gardens and rooftop or accessory use installations. For most communities, the rooftop generation potential is equivalent to between 30% and 60% of the community's total electric energy consumption. The rooftop generation potential does not consider ownership, financial barriers, or building-specific structural limitations.

Source: Metropolitan Council Local Planning Handbook - Solar Resource Calculation

## Appendix B: Tables Required by Metropolitan Council for Review

Figure LU-1: Current Land Use Table (2016)

| Land Use                        | Acres         | Percent of Total |
|---------------------------------|---------------|------------------|
| Agricultural                    | 14            | 0.0%             |
| Airport                         | 531           | 1.5%             |
| Golf Course                     | 654           | 1.8%             |
| Industrial and Utility          | 2,397         | 6.7%             |
| Institutional                   | 2,646         | 7.4%             |
| Major Highway                   | 1,322         | 3.7%             |
| Major Railway                   | 892           | 2.5%             |
| Mixed Use Commercial            | 165           | 0.5%             |
| Mixed Use Industrial            | 178           | 0.5%             |
| Mixed Use Residential           | 222           | 0.6%             |
| Multifamily                     | 1,611         | 4.5%             |
| Office                          | 478           | 1.3%             |
| Open Water                      | 2,384         | 6.6%             |
| Park, Recreational, or Preserve | 4,588         | 12.8%            |
| Retail and Other Commercial     | 1,383         | 3.9%             |
| Single Family Attached          | 1,795         | 5.0%             |
| Single Family Detached          | 13,067        | 36.4%            |
| Undeveloped                     | 1,555         | 4.3%             |
| <b>Total</b>                    | <b>35,882</b> |                  |

Figure LU-2: 2040 Land Use Table

| Land Use                    | Acres         | Percent of Total |
|-----------------------------|---------------|------------------|
| Civic and Institutional     | 863           | 2.4%             |
| Downtown                    | 412           | 1.1%             |
| Industrial                  | 3,439         | 9.6%             |
| Major Parks and Open Spaces | 4,158         | 11.6%            |
| Mixed-Use                   | 2,652         | 7.4%             |
| Semi-Rural                  | 262           | 0.7%             |
| Transportation              | 2,838         | 7.9%             |
| Urban Neighborhood          | 18,762        | 52.2%            |
| Water                       | 2,577         | 7.2%             |
| <b>Total</b>                | <b>35,962</b> |                  |

Figure LU-3: 2040 Employment Density and General Land Use Mix\*

| Land Use Type      | Employment Density (FAR)** | Commercial/Office/ Residential |
|--------------------|----------------------------|--------------------------------|
| Downtown           | 3.0-8.0                    | 20%/50%/30%                    |
| Mixed-Use          | 0.3-6.0                    | 30%/30%/40%                    |
| Urban Neighborhood | 0.3-2.0                    | 5%/5%/90%                      |
| Industrial         | 0.0-6.0                    | 80%/15%/5%                     |

\* Land use mix represents a generalized average for the land use type citywide. It is not a mandate or requirement for any individual development project.  
 \*\*FAR applies to only employment generating land uses. Minimum FAR includes existing employment uses, such as commercial parking and outdoor storage.

Figure LU-4: 2040 Residential Land Use Density Ranges\*

| Land Use Type      | Base Range        | At Neighborhood Node |
|--------------------|-------------------|----------------------|
| Downtown           | 30-300 units/acre |                      |
| Mixed-Use          | 15-75 units/acre  | 20-200 units/acre    |
| Urban Neighborhood | 7-30 units/acre   | 15-55 units/acre     |
| Semi-Rural         | 1-7 units/acre    | n/a                  |
| Citywide**         | 20 units/acre     |                      |

\*Density ranges represent a goal for new development averaged across the generalized future land use type. Individual projects may exceed targeted goals.

\*\*Metropolitan Council's requirement for communities with the urban core designation. All of Saint Paul falls within this category.



Figure LU-5: Transit Density Goals\*

| Distance from transit | Transit type               | Min (units/acre)** | Target (units/acre)*** |
|-----------------------|----------------------------|--------------------|------------------------|
| 1/2 Mile              | Fixed rail transitway      | 50                 | 75-150                 |
|                       | Bus rapid transitway       | 25                 | 40-75                  |
| 1/4 Mile              | Arterial bus rapid transit | 15                 | 20-60                  |
|                       | High-frequency transit     | 10                 | 15-60                  |

\*Average for new development in areas identified in a station area plan as appropriate for redevelopment.

\*\*Minimum represents an average goal for new development.

\*\*\*Individual projects may exceed target goals.

Figure LU-6: General Housing Unit Development Estimates and Timeline Based on Opportunity Sites\*

| 2040 Land Use      | 2020  |                       | 2030  |                       | 2040  |                       | TOTAL |                       |
|--------------------|-------|-----------------------|-------|-----------------------|-------|-----------------------|-------|-----------------------|
|                    | Acres | Development Estimates | Acres | Development Estimates | Acres | Development Estimates | Acres | Development Estimates |
| Downtown           | 1.9   | 17-173                | 6.1   | 55-551                | 0.0   | 0                     | 8.0   | 72-724                |
| Mixed-Use          | 37.4  | 273-2,332             | 193.6 | 1,460-13,274          | 194.5 | 1,475-13,539          | 425.5 | 3,208-29,144          |
| Urban Neighborhood | 0.7   | 4-19                  | 75.1  | 484-2,060             | 134.2 | 888-3,757             | 209.9 | 1,376-5,836           |
| Industrial         | 0.0   | 0                     | 15.3  | 0                     | 31.5  | 0                     | 46.9  | 0                     |
| TOTAL              | 40.1  | 295-2,524             | 290.1 | 1,999-15,995          | 360.2 | 2,363-17,296          | 690.3 | 4,657-35,705          |

\* The purpose of this table is to satisfy Metropolitan Council requirements to illustrate development capacity for population growth estimates. The figures in this table are estimated based on many broad assumptions. Redevelopment sites included in the analysis were generally larger than one acre. This information is likely to be less accurate over time as market conditions and redevelopment sites change. Some sites may have an approved master plan which guides development and will provides a more accurate development estimate.