

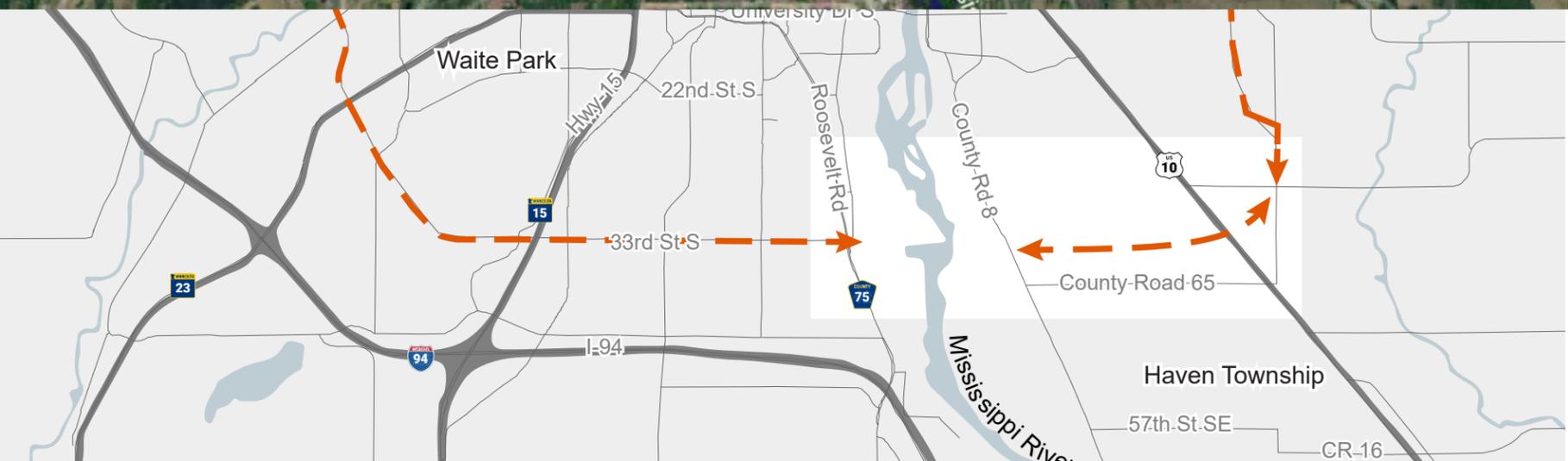
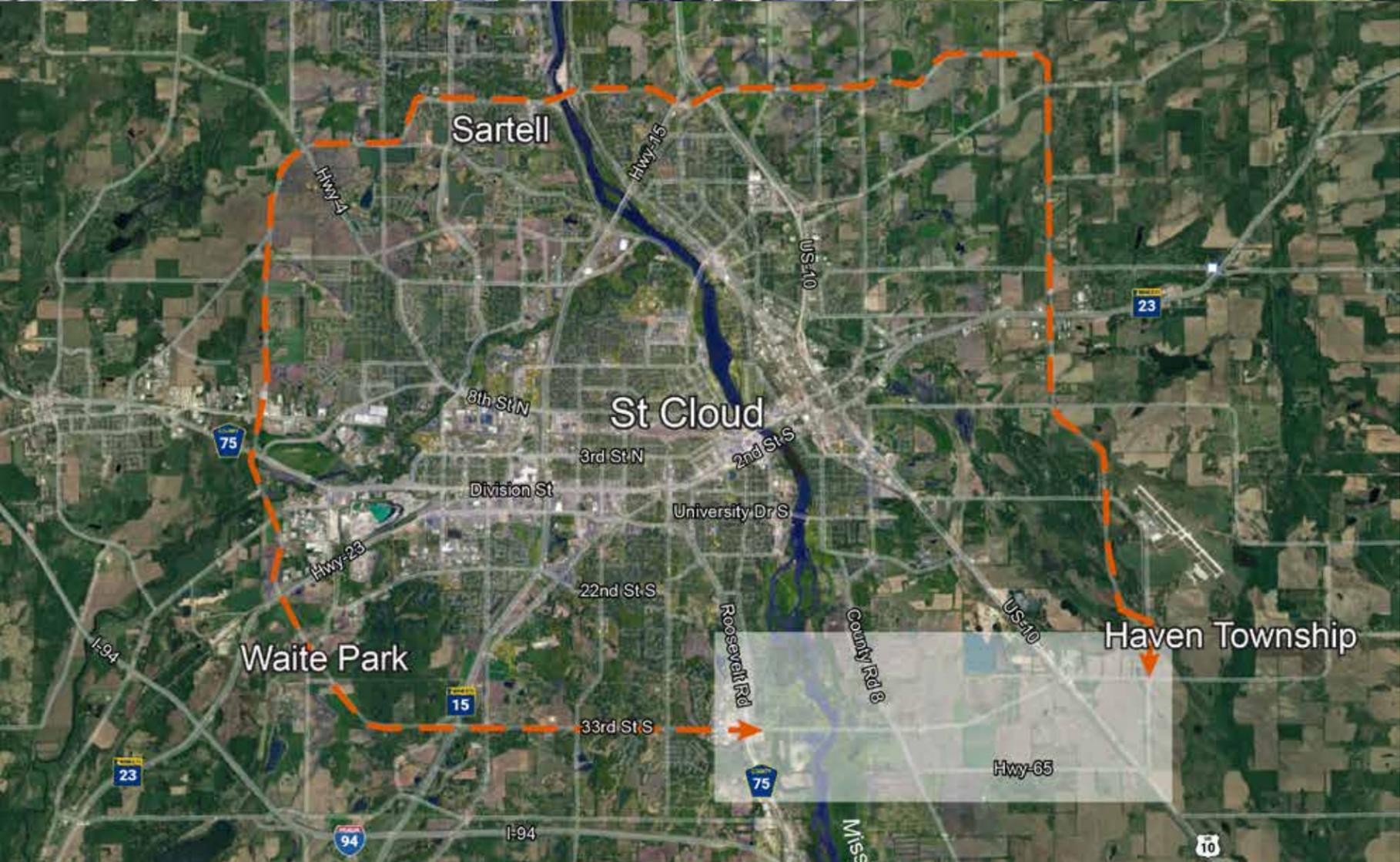


Mississippi  
River Bridge  
Planning Study



# BACKGROUND REPORT

Draft March 2021



Mississippi River Bridge Planning Study  
**BACKGROUND REPORT**  
Draft March 2021

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**Purpose of Study**

For several decades, the cities and counties of the St. Cloud region have been developing a concept and planning for an urban beltline roadway corridor. The roadway is envisioned to be a four-lane urban minor arterial highway that surrounds the urban core of the region, and provides for improved mobility, connectivity, and access.

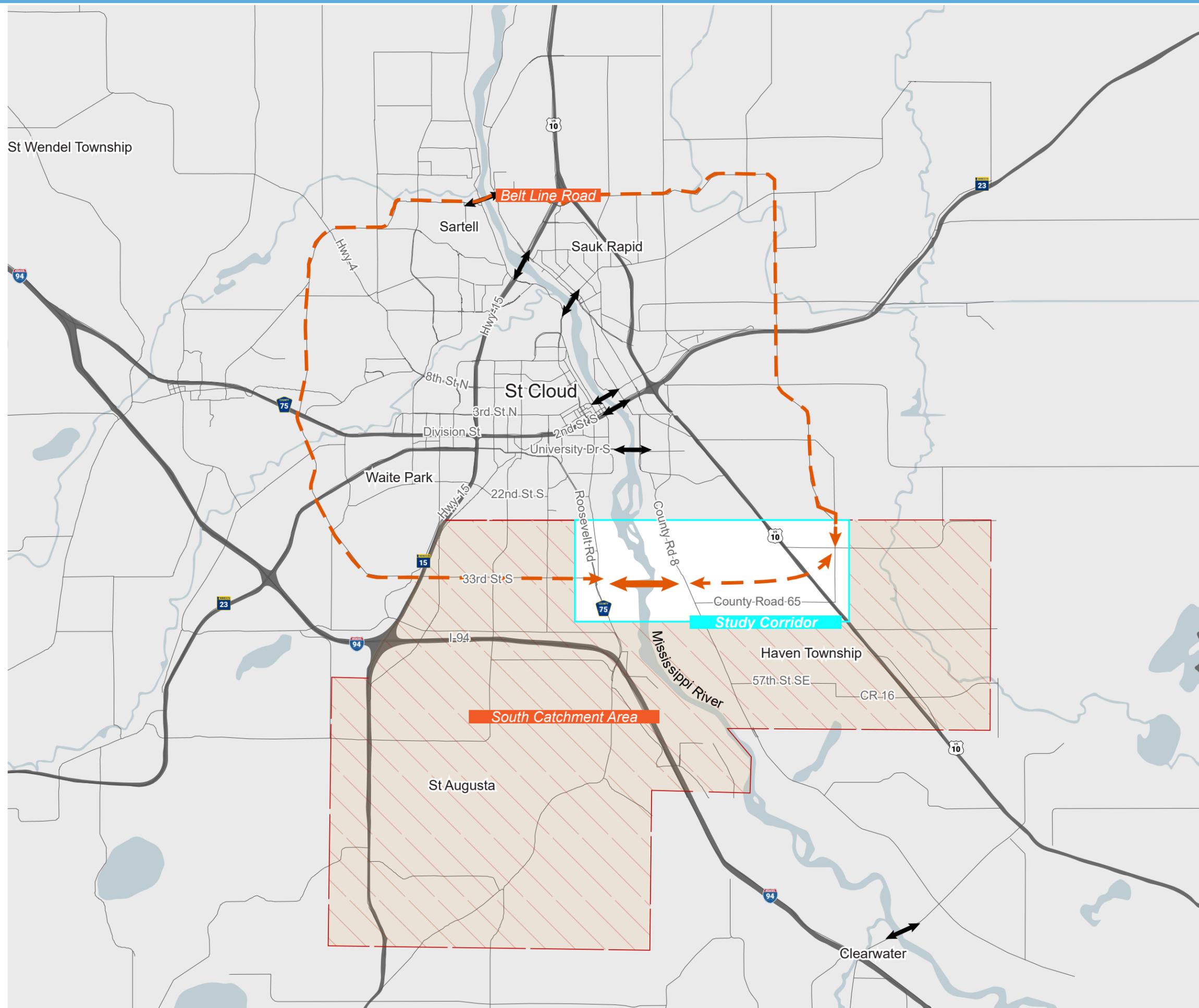
Ultimate development of the corridor will require a new bridge crossing of the Mississippi River, within a four-mile-long segment connecting Stearns County State Aid Highway 75 (CSAH 75) with U.S. Highway 10 (US 10) in the southern portion of the region. This beltline was first illustrated in the 1992 St. Cloud Comprehensive Plan (Figure 1-2). The St. Cloud Area Planning Organization (APO) used a similar conceptual alignment in its 2019 Long Range Transportation Plan (LRTP). The final alignment of some segments of the beltline corridor have yet to be determined.

The APO identified the need for this proposed river crossing based on:

1. A lack of east-west minor arterial continuity south of the University Drive bridge
2. Forecasted 2045 congestion on the University Drive bridge and on other parallel corridors in the urban core
3. A consistently stated preference by the public for a continuous corridor that bypasses the urban core that will both relieve congestion in the urban core and facilitate traffic flow around the region

(right) Figure 1-1: Metro Area Context

-  South Catchment Area
-  Study Corridor Area
-  Mississippi River
-  Existing Bridge Crossing
-  33rd Street Bridge Proposed Crossing
-  Proposed Beltline Road



The main objective of this Mississippi River Bridge Planning Study is to update previous planning efforts. In the process it will determine which, if any, of the previously identified potential alignments are still viable, and explore any potential new alignments or sub-alternatives that may be identified in this study process to arrive at a preferred alignment or alignments. An environmentally and culturally sensitive alignment for the beltline corridor within the study area will be identified. With this study, the APO builds on previous studies to analyze previously considered alignments and settle on a recommended alignment or alignments for the bridge crossing, roadway corridor, and interchange with US 10. The intent is not to design the project in detail, but to identify a recommended corridor and protect it from future development. Given the cost and complexity of such a project, the bridge and connecting roadway may not be constructed for some time.

This study seeks to balance economic, political, social, and environmental issues. The economic lens analyzes the stimulus of future land use and related development potential, balanced with the cost of the bridge and roadway. It also recognizes the economic cost to the region of not building the bridge and roadway, keeping in place the congestion and lack of regional connectivity. The political lens recognizes the needs and desires of various jurisdictions – Stearns County, Sherburne County, Haven Township, the City of St. Cloud, Minnesota Department of Transportation (MnDOT), the U.S. Federal Highway Administration, Minnesota Department of Natural Resources (MnDNR), US Army Corps of Engineers, and other agencies, groups, property owners, and individuals with interests in the roadway corridor. The social lens takes into account potential impacts to minority populations, those living in poverty, people with disabilities, people with limited English proficiency, households with limited mobility, the elderly, and children. The environmental lens addresses impacts

to farmland; sensitive natural resources; fish and wildlife; rare, endangered or threatened species; migratory birds; wetlands; floodplains; water quality; cultural resources; and the combination of these and the visual and noise impacts associated with crossing a stretch of a State designated Scenic river. Formal environmental review documentation is not part of this planning effort but will be initiated as the project enters the scoping phase.



Figure 1-2: The beltline road illustrated in the 1992 Plan. The Mississippi River Bridge Planning Study is outlined in blue for the purpose of this study.

## Executive Summary

### Purpose of the Study

For over 30 years, an urban beltline roadway surrounding the urban core has been part of the long range plan for the St. Cloud region. This beltline will require a new bridge crossing of the Mississippi River, south of St. Cloud connecting CSAH 75 with US 10. This river crossing will provide continuity and relieve congestion while addressing a consistently stated preference by the public for a roadway that bypasses the urban core.

The main objective of this Mississippi River Bridge Planning Study is to update previous studies, explore various alignments and select a preferred alignment. The intent is not to prepare construction plans for the project, but to identify a recommended corridor and protect it from future development. This will also support property owners along the corridor, as they plan for the efficient use of their land, even though the construction of the bridge and roadway may be several years in the future.

The study seeks to explore and balance economic, political, social, and environmental issues, as detailed in the full Background Report.

### Land Use & Development

The west side of the Mississippi River in the study area lies within the City of St. Cloud. Existing land uses west of CSAH 75 are light industrial and commercial. East of CSAH 75 to the Mississippi River the uses include residential, a golf course, light industrial, gravel mining, construction recycling, and a regional park.

On the east side of the Mississippi River in Haven Township the existing land uses are almost entirely agricultural, with scattered rural residential uses. On the east bank of the river is a large open space area owned by the DNR. A few commercial and light industrial uses are located along US 10.

Land use and zoning on the west side of the river are governed by the City of St. Cloud. Future land use there will maintain

commercial and industrial, residential, golf course, and park uses with the existing gravel operation (Hardrives) expected to become City park in the future. On the east side of the river Haven Township and Sherburne County have zoning authority. Land uses could remain agriculture and rural residential for the foreseeable future. The Haven Township portion of the study is part of an orderly annexation agreement with St. Cloud – at some point most of that area is expected to be annexed into the City of St. Cloud. The parties are currently discussing potential modifications to the annexation agreement.

In the South Catchment Area, a few miles beyond the immediate study area, there is existing industrial development located along the CSAH 75 (Roosevelt Road) and I-94 corridors, an existing industrial area on US 10 and 32nd Street in Haven Township, and a cluster of businesses on TH 15 in St. Augusta. Existing retail development is concentrated in the CSAH 75 corridor, including the area around the I-94 interchange.

Demographic and economic analysis of the study area and the larger area surrounding it predicts modest commercial growth with concentrations of employment on the west side of the Mississippi, but continued sparse development in Haven Township on the east side.

The St. Cloud metropolitan area is growing. The southern portion of the metropolitan area – likely to heavily utilize the new bridge crossing – is outpacing the growth of the remainder of the St. Cloud region. There are more family households in this area and the median home value and median household income are significantly higher than the metropolitan area. Employment in this southern area grew almost 40% from 2010 to 2018, outpacing the rate of residential growth. The number of people coming into the area to work is greater than the number of people who live in the area and work elsewhere.

All the new and existing development in this area would benefit greatly from the

new bridge crossing at 33rd Street. This is primarily due to improved access for employees and customers from the east of St. Cloud.

Because the west side of the river has generally more intense land uses than the east side in Haven Township, five major property owners in St. Cloud were interviewed as part of the background for this study – four private business owners and staff from the City of St. Cloud. Most of the City property is part of the River Bluffs Regional Park south of 33rd Street and is not developed with intense land uses. The purpose of the interviews was to hear of plans for the properties and concerns they may have about the future roadway and bridge. Transportation System & Bridge

### Transportation System & Bridge

In the context of the beltway around the St. Cloud Metropolitan area, a new bridge would be especially important to people coming from St. Cloud's east side and commuters from communities further out like Princeton and Milaca, destined for the employment corridors on the west side of the river in St. Cloud and Waite Park. Now, their closest access to I-94 is via the University Drive Bridge and CSAH 75. The University Drive Bridge is already over capacity and continues to see increased traffic demands as the city grows to the south. The alternative of going south to the Hwy 24 bridge in Clearwater then north on I-94 is inconvenient.

The 2003 St. Cloud Comprehensive Plan and a 2005 environmental scoping document looked at several alternatives for the bridge crossing and roadway alignment in the 33rd Street corridor, which are the starting point for analysis in the current study.

In 2008, a scoping document identified and evaluated alternatives for the southwest segment of the beltline and recommended a minor arterial as the best type of roadway to balance transportation needs, mobility, and access. The connecting roadway between that southwest segment and the current

bridge crossing being studied is 33rd Street between CR 136 and CSAH 75, which is classified as a minor arterial and intended to be a 4-lane divided roadway.

Relevant principles and policies from a 2001 study suggest the roadway in the study area will be signalized with minimal private access and will include turn lanes, minimum 150-foot-wide right-of-way, 45-50 mph design speed, separated bike and trail on one side, and one-half-mile minimum intersection spacing.

The intersection of 33rd Street and CSAH 75 was recently improved to a four-lane divided roadway with turn lanes, including the connection to Clearwater Road on the east side. Numerous trails connect at this intersection.

The east end of this study corridor will connect to US 10 with a new interchange. The exact location and configuration of that interchange will require further study.

The St. Cloud regional transportation model projects that by 2045 total traffic in the region will increase by more than 50%, with an increase of 60% on the six Mississippi River bridge crossings serving the St. Cloud area. Five of the six most congested roadway segments in the region will include bridges crossing the Mississippi River, and even the sixth bridge crossing will be over capacity.

Running a transportation model with known committed roadway projects improves the situation but shows all six bridges would still be over capacity. The 33rd Street Mississippi River bridge was not included in this analysis because funding is not yet identified for the project.

Adding a new 33rd Street bridge shows there is still a significant increase in congestion when compared to existing conditions, but the central area of St. Cloud region would see the most congestion relief as vehicles choose to bypass the central core. The model predicts the 33rd Street bridge would carry approximately

42,500 vehicles a day (about the same as I-94 carries today). All six current bridges would still be operating over capacity, but it is estimated the construction of the 33rd Street Bridge would remove approximately 35,000 ADT from these bridges.

### Environmental Issues

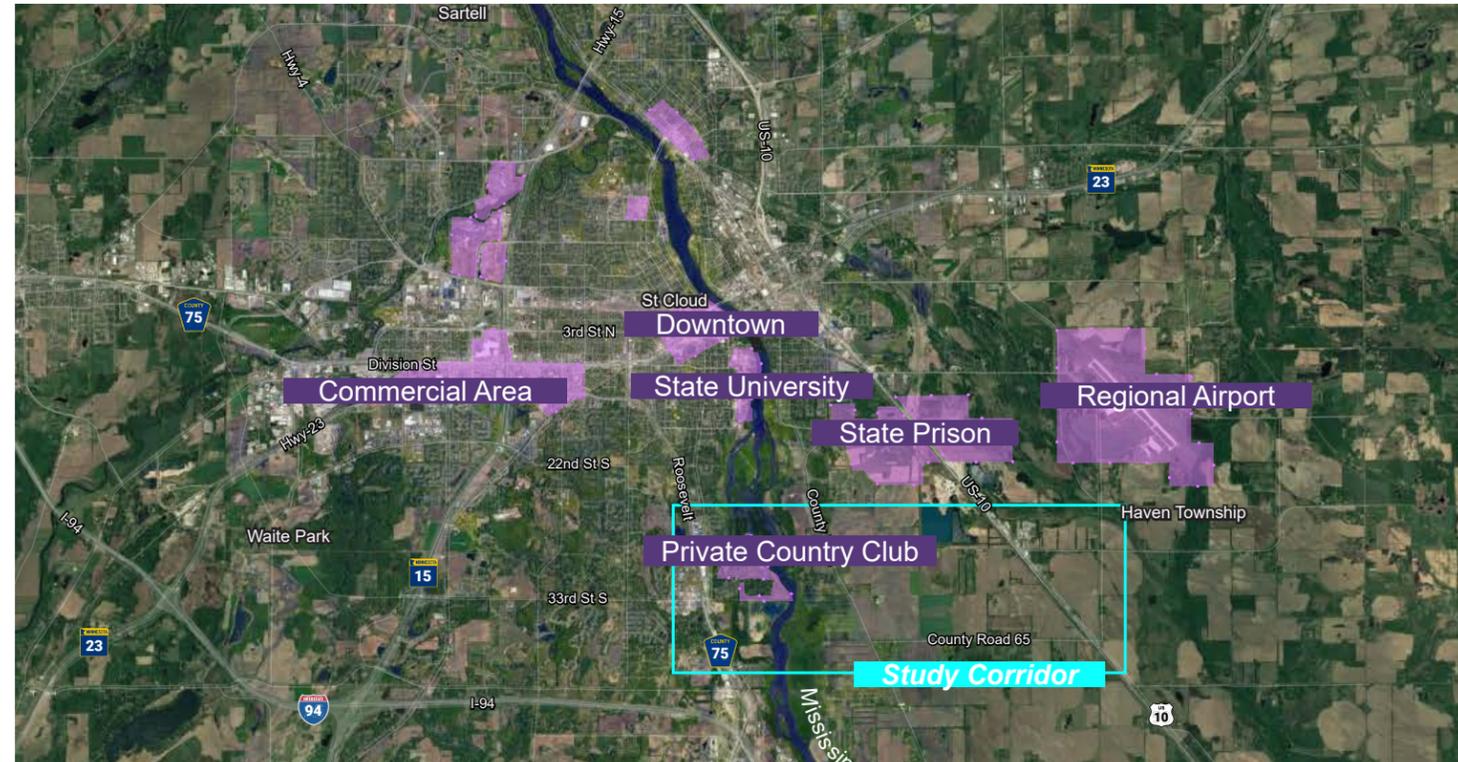
To effectively analyze the impact of various alignments, an environmental scan was performed to better understand the existing resources and needs of the area that will be served by this crossing. The following environmental issues were documented and preliminarily analyzed:

- Cultural Resources, including known archaeological and historic sites
- Section 4(f)/6(f) Properties, including the MnDNR managed State water trail
- Airport, including the potential need for an airspace study depending on the alignment(s) studied
- Water Resources, including potential impacts to navigation, MnDNR Wild and Scenic designation of this stretch of the river, floodplains, shorelands, and wetlands
- Stormwater, noting the EPA TMDL for mercury which is not generally associated with roadway projects
- Agricultural Districts, including consideration of Prime Farmland and Farmland of Statewide Importance located in Sherburne County
- Visual, which will include consideration of views in the Mississippi River corridor of any new bridge and roadway
- Fish, Wildlife, Vegetation, and Ecological Resources, which will require further study of impacts once a detailed design is identified
- Noise, which will need to be verified with noise models
- Environmental Justice, which includes the need for future study of disproportionate potential impacts on minority, low-income and other identified populations



**Location and Context**

For traffic and other regional issues, the study area for the Mississippi River Bridge Planning Study encompasses the entire St. Cloud metropolitan area. For the planning and design of the roadway and bridge crossing, the study area is a roughly two-by-five-mile area about a mile north and south of 33rd Street on the west side of the river (37th Street on the east side), extending from near CSAH 75 on the west to US 10 on the east. The study area is further divided into four segments, representing the West Side, the Bridge Crossing, Haven Township, and the US 10 Interchange areas.



(left) Figure 1-3: Study Corridor Context

Significant features proximal to the study corridor:

- Regional Airport
- I-94
- State University
- State Prison
- Division Street (TH 23) Commercial Area
- Downtown St. Cloud

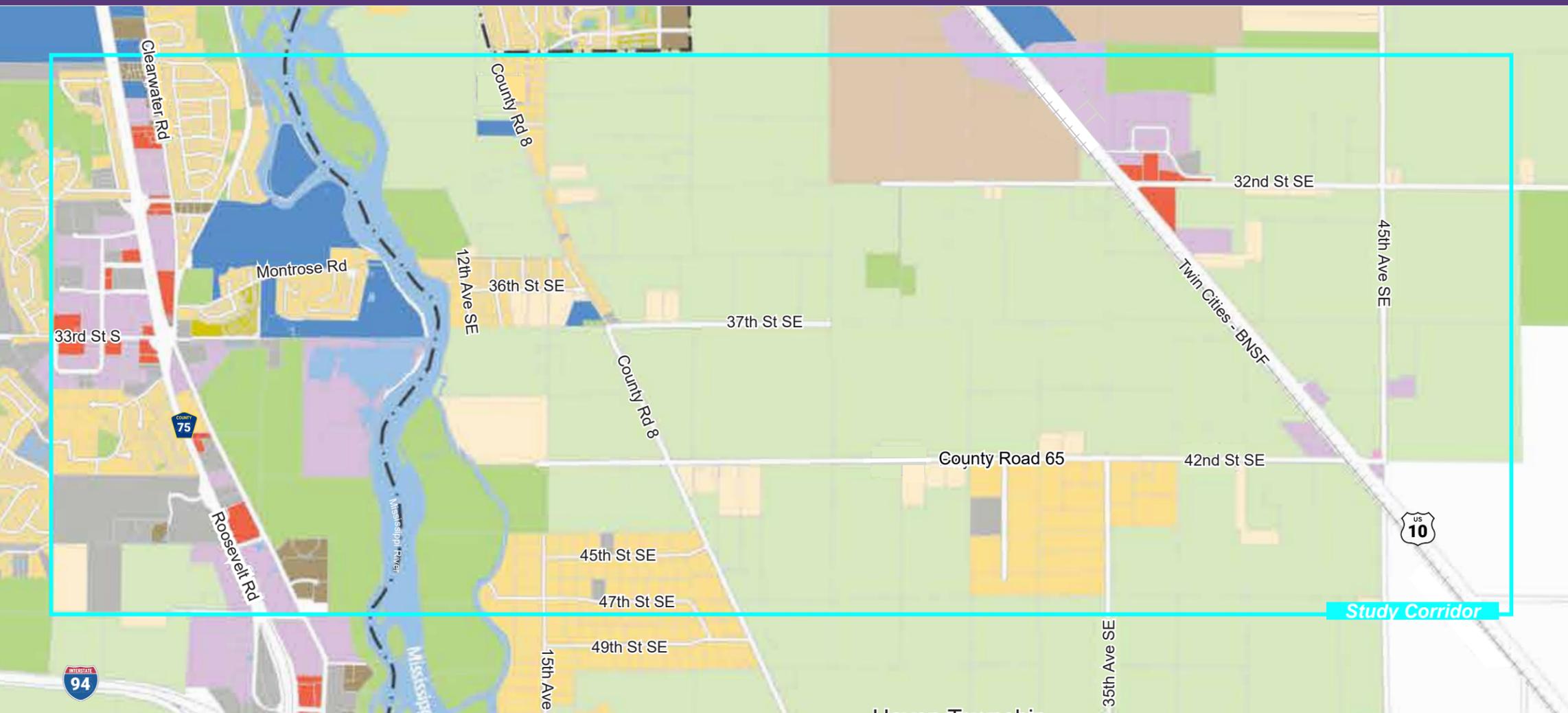


(left) Figure 1-4: Segments of Study Corridor

Significant features within the study corridor:

- Industrial and commercial area
- Intersection of 33rd and CSAH 75
- Suburban and Townhouse style neighborhood
- St. Cloud Country Club Golf Course
- Quarry
- Mississippi River
- Large-lot style neighborhoods
- Agricultural fields
- Intersections of 32nd and 42nd Streets and US 10

# Land Use & Development

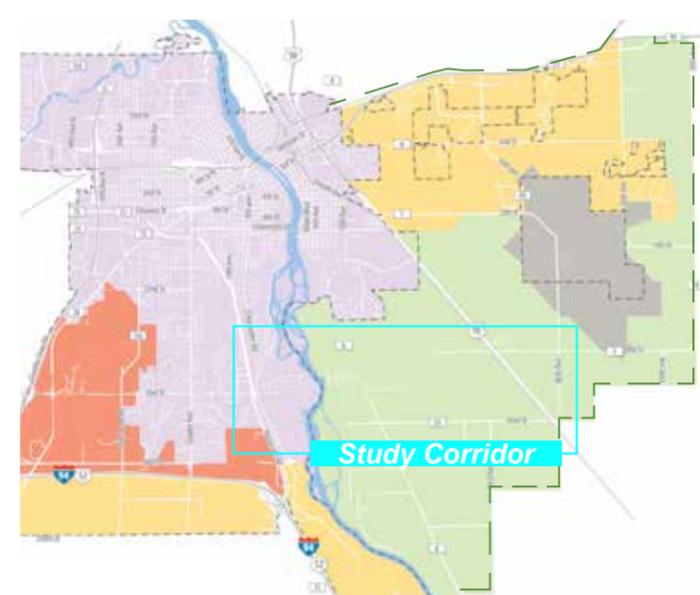


(left) Figure 2-1: Existing Land Use from 2015 St. Cloud Comprehensive Plan

- Agriculture
- Parks and Open Space
- Rural Residential
- Single Family Detached
- Single Family Attached
- Commercial
- Light Industrial-Business Park
- Quarry
- Public/Semi-public
- Vacant

Significant features:

- Commercial Industrial and Public/Semi-Public (Country Club) on the west
- Agricultural and large-lot residential on east



(left) Figure 2-2: Growth Area Framework from 2015 St. Cloud Comprehensive Plan

- City Core
- Primary Growth Area
- Secondary Growth Area
- Rural Preservation Area
- Ultimate Airport Property Boundary
- - - Planning/Growth Area Boundary
- Study Corridor

Significant features:

- Preservation
- Between City Core and Airport, Secondary Growth Area

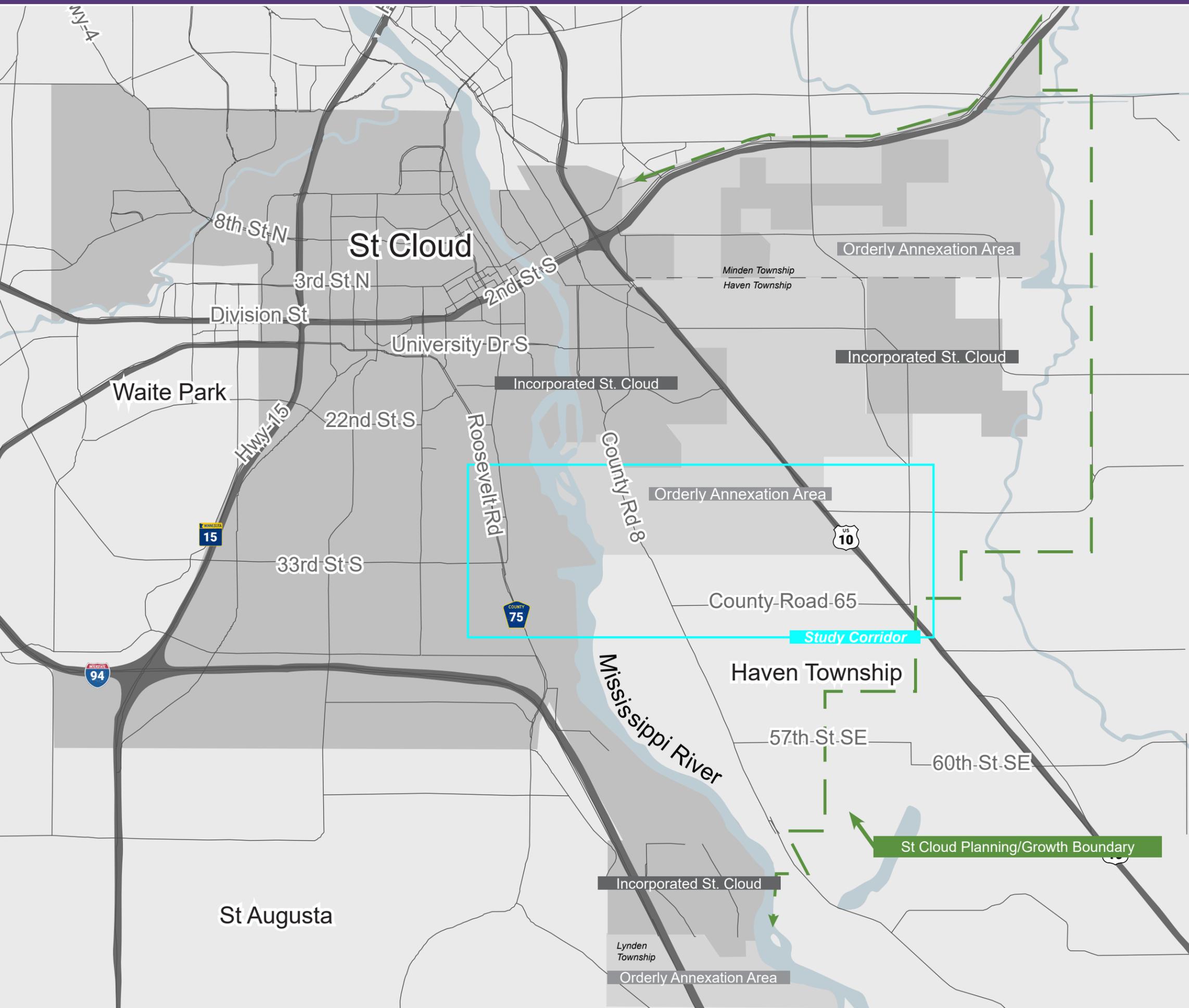
### Existing Land Use

The west side of the Mississippi River in the study area is entirely within the City of St. Cloud. Existing land use in the area west of the intersection of CSAH 75 and 33rd Street is light industrial and commercial. Along the 33rd Street corridor between CSAH 75 and the Mississippi River the land uses on the north side are residential and semi-public use (St. Cloud County Club). At the intersection of CSAH 75 and south along 33rd Street, the land use is light industrial. Important properties south of 33rd Street are the River Bluff Regional Park and Granite City Aggregate.

On the east side of the river in Haven Township the existing land uses are almost entirely

Agricultural, with a few lots of Rural Residential and Single Family uses. The distinction between the two is that Single Family lots are in platted subdivisions. There are a few commercial and light industrial uses along US 10. On the east bank of the river, the DNR owns a large open space.

The 2015 St. Cloud Comprehensive Plan guides future land use for the City of St. Cloud and three areas outside the current City limits in Minden Township, Haven Township, and Lynden Township. The first two areas are covered by an Orderly Annexation Area (OAA) agreement; Lynden Township is not. These areas are illustrated in Figure 2-3. The Bridge



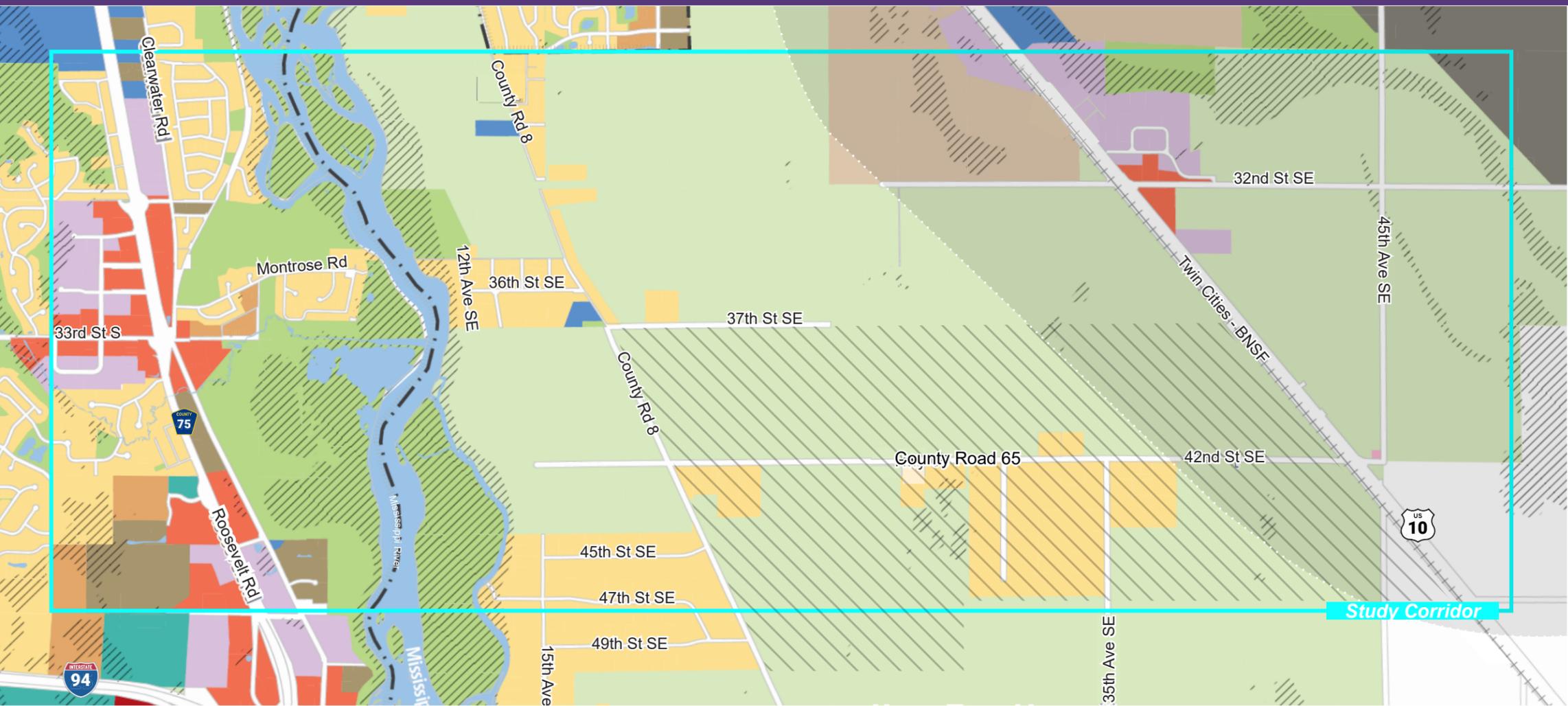
Plan study area is in the Haven Township OAA. The Plan summarizes that agreement:

*“The City of St. Cloud and Haven Township entered into an OAA in 2010 to encourage development contiguous to existing City boundaries and to “limit non-farm rural development.” Under the agreement, the areas identified are to follow land uses according to the Sherburne County Land Use Plan with the intent of protecting the areas from scattered and piecemeal residential development, Haven will protect current agricultural uses by limiting housing to one home per 40 acres without a plat, and to five-acre lots in areas substantially wooded. Haven will maintain existing commercial and industrial district and protect and promote existing commercial activities. Tracts within the OAA area may only be annexed through a petition of a majority of property owners or the City may initiate annexation proceedings after the OAA expires in 2025.*

*“Much of the Haven Township OAA is located within the Rural Preservation Area identified in the Growth Areas Framework. As such, it is not anticipated that significant development pressure will occur within this area over the life of the Comprehensive Plan. Portions of the Haven Township OAA are located to the east of the St. Cloud Regional Airport are identified for future single-family residential and commercial development and should the City annex any areas within the Haven Township OAA boundaries, development should occur in accordance to the Land Use Plan.”*

(left) Figure 2-3: Planning/Growth Boundary & OAA from 2015 St. Cloud Comp Plan

- St. Cloud Municipal Area
- Orderly Annexation Areas (OAA)
- - - St. Cloud Planning/Growth Boundary
- Study Corridor



the site plans for each of these projects will need to be reviewed in detail to see if there are impacts or conflicts with the roadway. Several other development projects are off the corridor or even outside the Study area boundary and would not be directly affected by the future roadway.

(left) Figure 2-4: Future Land Use from 2015 St. Cloud Comprehensive Plan (including Aggregate Reserve and Airport Impact Area from Sherburne County Land Use Plan)

- Agriculture
- Parks and Open Space
- Rural Residential
- Single Family Residential - Detached
- Single Family Residential - Attached
- Commercial
- Light Industrial-Business Park
- Quarry
- Public/Semi-public
- Environmental Constraints
- Aggregate Reserve
- Airport Impact Area

(below) Figure 2-5: Development Projects

**Future Land Use**

West of the intersection of CSAH 75 and 33rd Street South, the Future Land Use Plan maintains commercial and light industrial uses. Immediately east of the intersection are commercial uses, with existing residential on the north side of 33rd Street. All other areas out to the river are guided for park and open space.

On the east side of the river in Haven Township land use for the entire study area is guided Rural except for existing residential uses, which are guided Single Family.

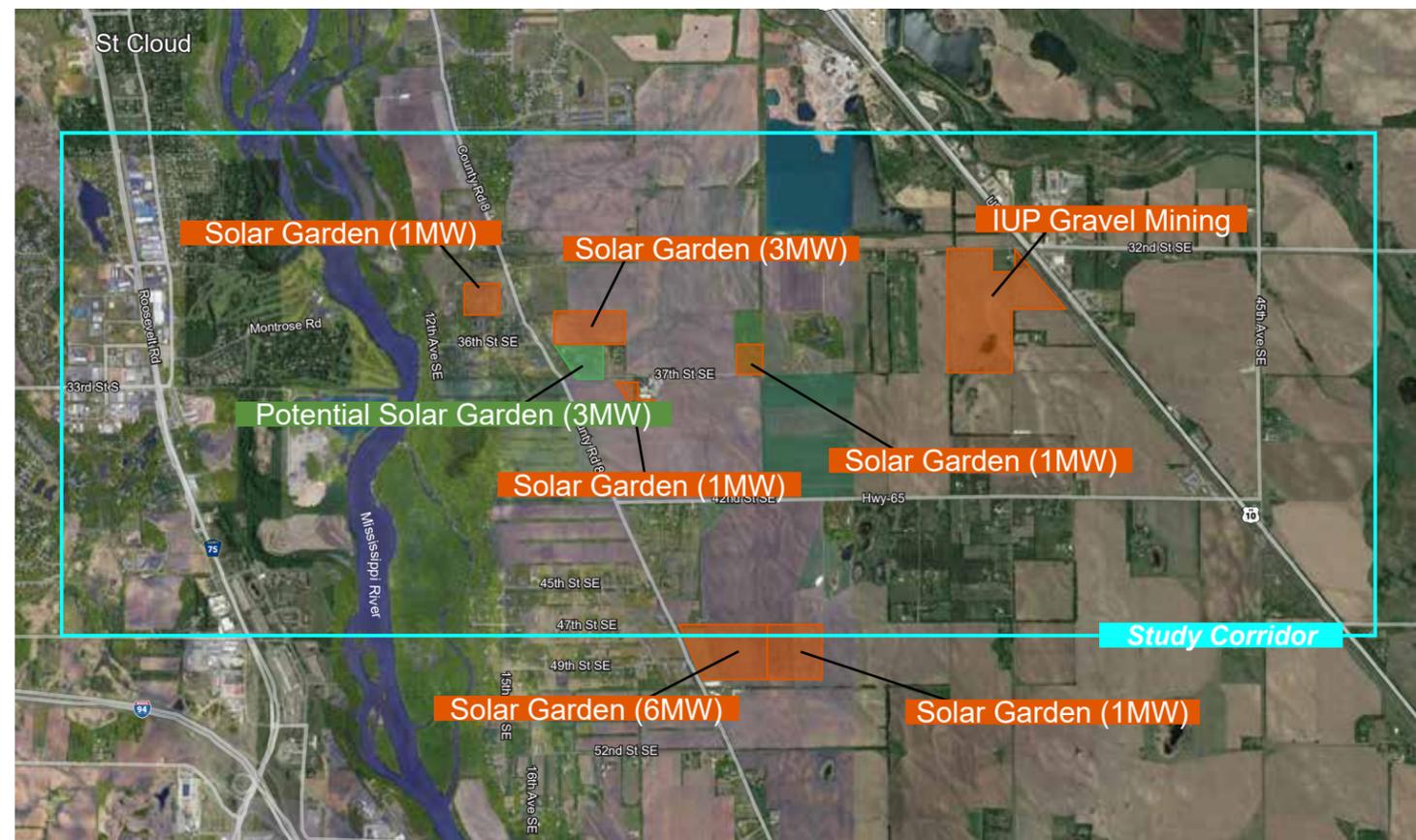
**Development Plans – West Side**

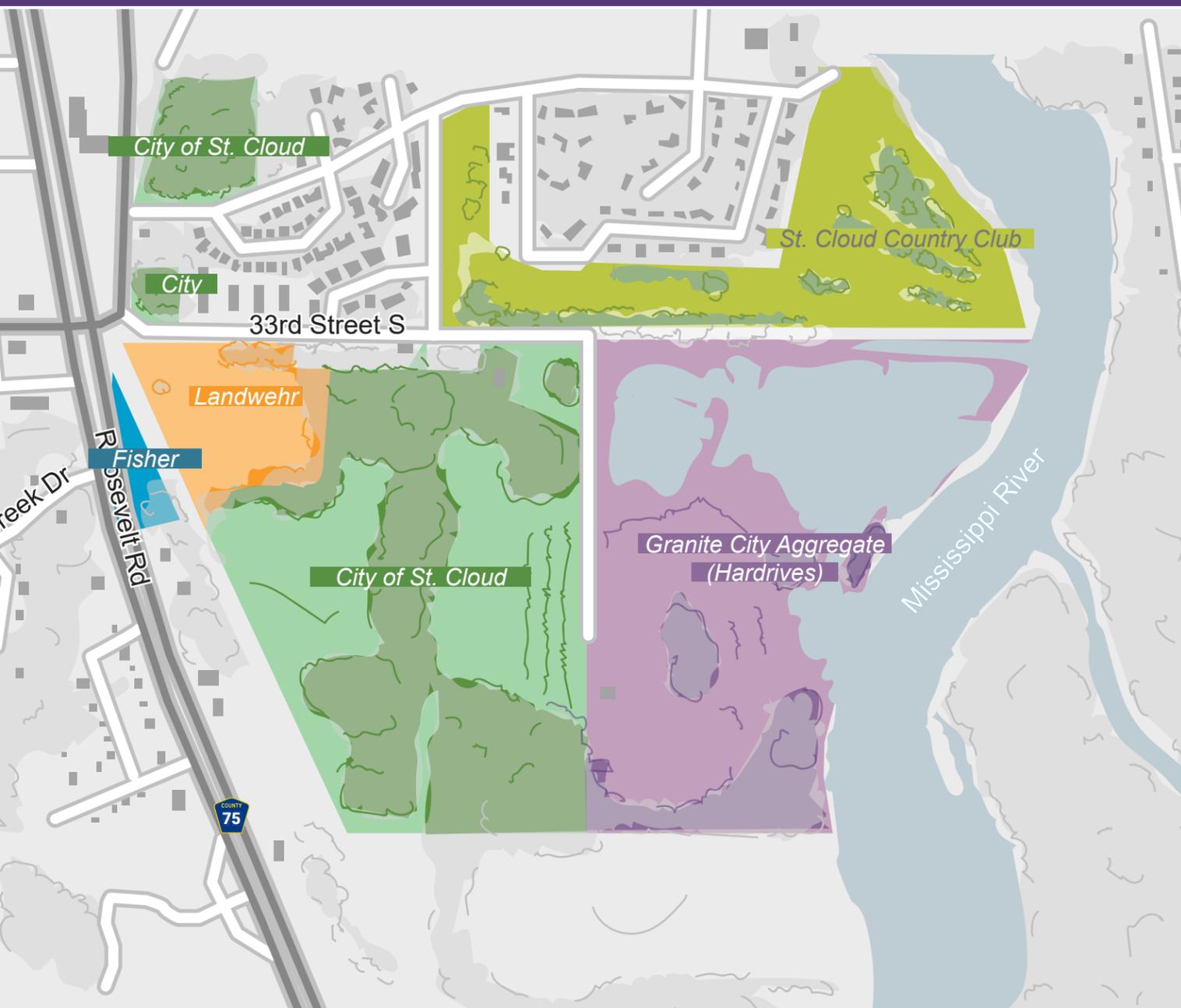
Several properties on the west side of the Mississippi River in St. Cloud are likely to be more significantly impacted by a new roadway and bridge than on the east side in Haven

Township because these properties are already developed with intense uses and rely on access to 33rd Street, which will likely be different with the new roadway. Interviews with several of the key property owners on the West Side are included below under the section titled Property Owner Interviews.

**Development Plans – Haven Township**

Within the corridor study area in Haven Township there are several recently approved or potential development projects within or bordering the Study Area. These are illustrated in Figure 2-5. Of these, four directly about 37th Street; three are solar garden and the fourth is a gravel mining operation. As alignments for the future roadway are being developed





(above) Figure 2-6: Property owner stakeholders on west side of river

- City of St. Cloud
- St. Cloud Country Club
- Granite City
- Fisher
- Landwehr

### Property Owner Interviews

Six interviews were conducted as part of the background for this study – four with private business owners on the west side of the river, staff from the City of St. Cloud, and the Greater St. Cloud Development Corporation leadership. Most of the City property is part of the River Bluffs Regional Park, south of 33rd Street, and is not developed with intense land uses. The City also owns two larger parcels on the north side of 33rd Street which may be a factor in future development. The intent

of the interviews was to hear of plans for the properties and of concerns they may have about the future roadway and bridge.

RKL Investments LLC property  
Nate Landwehr, video call 12-23-20

Landwehr Construction owns 15 acres in three contiguous parcels in the southeast quadrant of 33rd Street and Clearwater Road, near the intersection with CSAH 75. They operate their construction company from the site. The use is a construction office and yard with several small buildings and garages, outdoor storage of trucks, construction equipment, and supplies. The property has one driveway access to 33rd Street, approximately 150 feet east of Clearwater Road.

Landwehr is building a new facility elsewhere in St. Cloud and will sell or develop the current property. Landwehr indicated any new use on the site would likely be auto-oriented to take advantage of its location at a major intersection, but as a commercial use, not industrial like the current use. The City of St. Cloud was potentially interested in buying the land but did not have the budgeted funds available in their XXXX fiscal year.

Landwehr’s key concerns with a new roadway being built past the property are to continue to have easy access to the CSAH 75/Clearwater Road intersection and to maximize the value of the property.

Fisher property  
Curt Fisher, video call 12-23-20

Fisher owns the 3.5-acre site in the southeast quadrant of 33rd Street and CSAH 75. The site has a driveway access to the north onto 33rd Street about 50 feet east of Clearwater Road and a right-in/right-out access to CSAH 75 on the west side of the property.

The site has one 20,000 square feet building, parking lots on the north and west sides of the building, and truck docks on the south side. The building is leased to FedEx as a distribution site for the St. Cloud area

and as a retail customer drop-off facility for packages. Fisher indicated FedEx just got a 10-year extension on the lease. Beyond that, the building and site may continue as a FedEx facility or some other commercial use or combination of uses. The building has the ability to be expanded. Mr. Fisher would like FedEx representatives to be included in future communication and outreach related to the Bridge study.

Since the site will be used by FedEx for some years to come, access for trucks is critical. Ideally, Fisher would like a full movement access onto CSAH 75 so that trucks could access the site from both the north and south (vs. the current a right-in/right-out access, northbound only) but understands that is a separate question from the future 33rd Street roadway. He needs to keep access to 33rd Street in the future for the site to function for FedEx or other commercial uses.

The Fisher site shares access to 33rd Street with the Beaver Island Trail and trail parking lot just east of the property. The trail parallels the east side of Fisher’s access drive and would need to be routed through any new configuration of roadways and intersections that come out of this Bridge study.

Granite City Aggregate LLC (Hardrives) property  
Adrian Johnson and John Shogren, Minnesota Paving and Materials, video call 12-23-20

The 102-acre Granite City site is currently used as a shop and recycling site for the paving and mining businesses operated by Minnesota Paving. They recently purchased Hardrives, who share the site with Minnesota Paving. The company uses this site as their primary shop, servicing trucks and large paving and construction equipment from around Minnesota. Easy access to I-94 is therefore important to them. The site does not generate a lot of traffic, but the traffic it generates includes heavy trucks, rollers, pavers, milling machines, crushers, and similar equipment.

The site also includes recycling and crushing of concrete and asphalt, resulting in large piles of material.

A new 33rd Street corridor would straddle or bisect the Granite City property. A key question is access to the whole site – whether Granite City would have an intersection to be able to access both sides of a new roadway or whether the roadway might be elevated on its way to bridging the river, allowing access under the road or bridge to the entire property.

Long term, Granite City might relocate and sell the property, although finding a site for this kind of use might be difficult since it is not usually a welcome neighbor. There is an inevitable conflict between the regional road and the nature of Hardrives truck traffic. The City of St. Cloud might consider a land swap, finding another site for Granite City, perhaps near the airport, and the City would use this site to expand River Bluffs Regional Park. Regardless of the study’s outcomes, the City’s EDA should work cooperatively with Hardrives to proactively find a win-win relocation site.

The north end of the property includes a pond that was created when the area was mined for material. The material has been depleted and no additional mining will occur at that location.

City of St. Cloud  
 Matt Glaesman, Community Development Director

The City of St. Cloud owns four properties on the west side of the river on or near 33rd Street. The largest two parcels comprise the 189-acre Mississippi River Bluff Regional Park. The City adopted a master plan in 2004 converting the City parcels and adjacent Granite City/Hardrives site into active riverfront uses and enhancing the existing natural features as illustrated in Figure 2-7. The plan



(right) Figure 2-7: Planned Plum Creek Regional Park

acknowledges a future bridge crossing. The pumping station for two parallel force mains conveying waste from the urban core to the City's wastewater treatment facility is located 200 feet south of 33rd Street South. The City's lone public compost facility accesses 33rd Street South just east of the pump house, which generates significant trips from residents, commercial haulers, and municipal operations.

The City owns another 9.6-acre vacant parcel at Clearwater Road and Montrose Road which is utilized as park and open space near the location Beaver Island Trail at Clearwater Road. The site was previously mined.

The St. Cloud Housing and Redevelopment Authority (HRA) owns a 2-acre vacant parcel in the northeast quadrant of 33rd Street and Clearwater Road. The site was acquired during the initial phase of the HRA's adjacent Plum Creek townhomes and is zoned and planned for expansion of the Plum Creek townhomes. Residential development has not advanced in light of the potential use as public right-of-way for road realignment or expansion. The site was previously mined.

#### St. Cloud Country Club

*Jami Bestgen, Country Club President; Megan Nash, General Manager; and Mike Mavetz, video call 1-4-21*

The Country Club is in the process of updating their long-range plans and the future of 33rd Street is one of the issues being discussed. They are wondering if their land will be needed for the project, which cannot be answered at this point. An answer to that question is still awhile away and would be determined after a final alignment and design is prepared. The project team shared the general assumption that the roadway itself might be 80-100 feet

wide and the right-of-way a minimum of 150 feet wide.

Interviewees noted property taken for the roadway could have a significant impact on the holes next to the waterway on its southern boundary – holes #13, #14, and #15 would be directly compromised by narrowing the property while other holes could be indirectly impacted. When asked to quantify this, they suggested that anything greater than a 50-foot encroachment could mean the holes would no longer function and the course would have to be reconfigured. Even if little or no property is taken, the presence of a major roadway on that edge of the Country Club would have an impact on the experience of golfing and diminished property values due to the noise and visual impacts of the roadway. In addition, if the roadway was elevated to begin its crossing of the river, the visual impacts would be even greater. The roadway could be impacted by the golf course as well – stray golf balls striking cars, resulting in damage or injury.

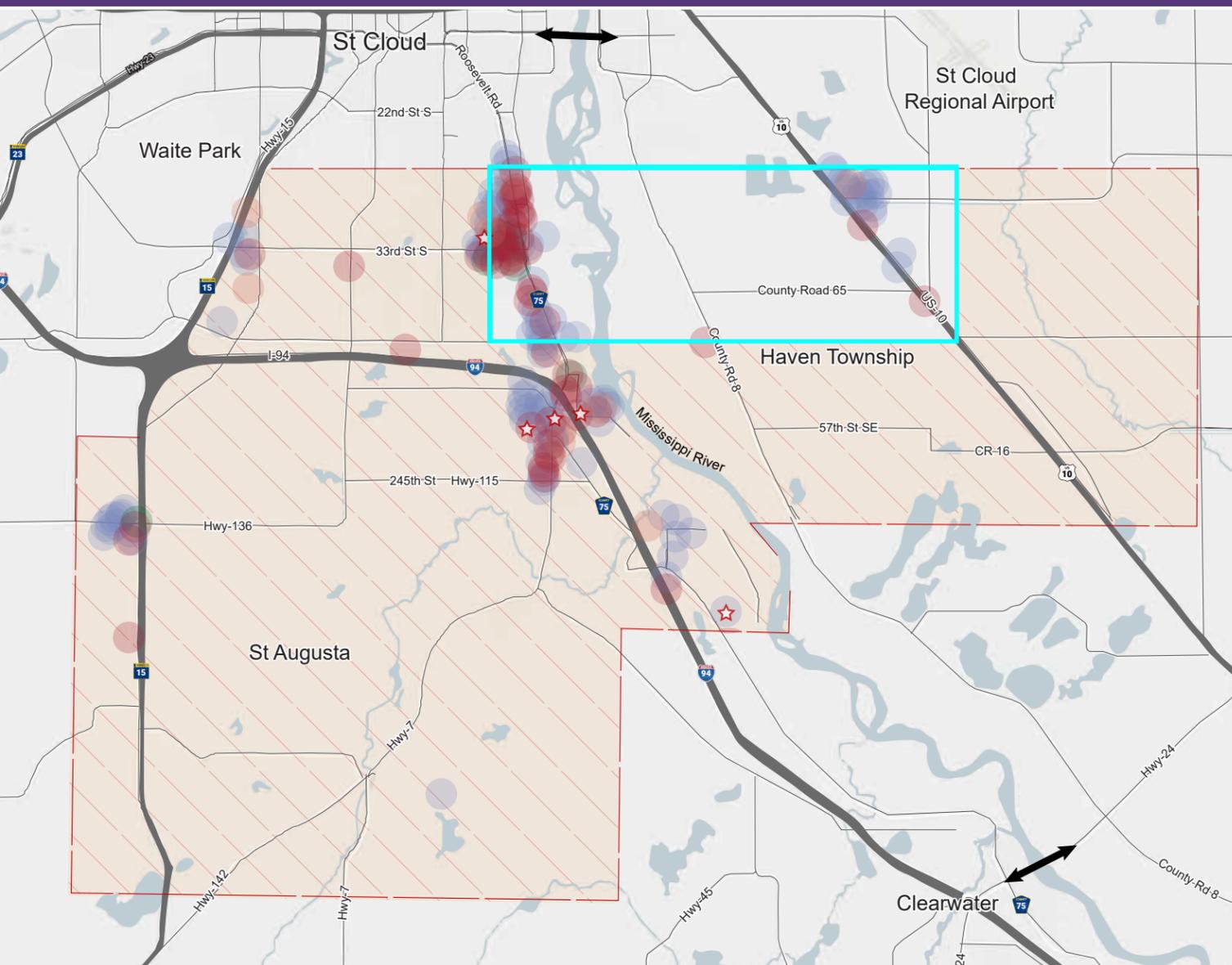
Due to these impacts the Country Club leadership concluded that they would greatly prefer the roadway follow an alignment that curves to the south from about Lancewood Drive east, around the gravel company pond before reaching the Country Club property. The project team also discussed the possibility that if the roadway takes a curved southern route, there would be a portion of the City property

abutting 33rd Street that would be severed from the larger City parcel that might be added to the Country Club land.

#### Greater St. Cloud Development Corporation (GSDC)

*Patti Gartland, President, phone call 12-2-20*

The GSDC is a private collaboration of approximately 250 regional business and community leaders within Benton, Sherburne and Stearns Counties, leading a community-wide effort to harness the resources of the region. Among the goals of the GSDC is to facilitate collaboration among and between these businesses and organizations to maintain the greater St. Cloud area one of the best places to live and work in America. Patti emphasized that St. Cloud businesses need employees to sustain and grow their businesses, and that the St. Cloud region has a long tradition of supporting all modes of transportation investment. The completion of the southeastern leg of the beltline and a new bridge crossing will greatly improve access and expand the commuter shed for new employees supporting St. Cloud businesses, especially in the growing southern part of the region.



(above) Figure 2-8: Existing retail and industrial development

- Industrial development
- Retail development
- ★ Development since 2010
- Existing river crossing
- Study Corridor Area
- South Catchment Area

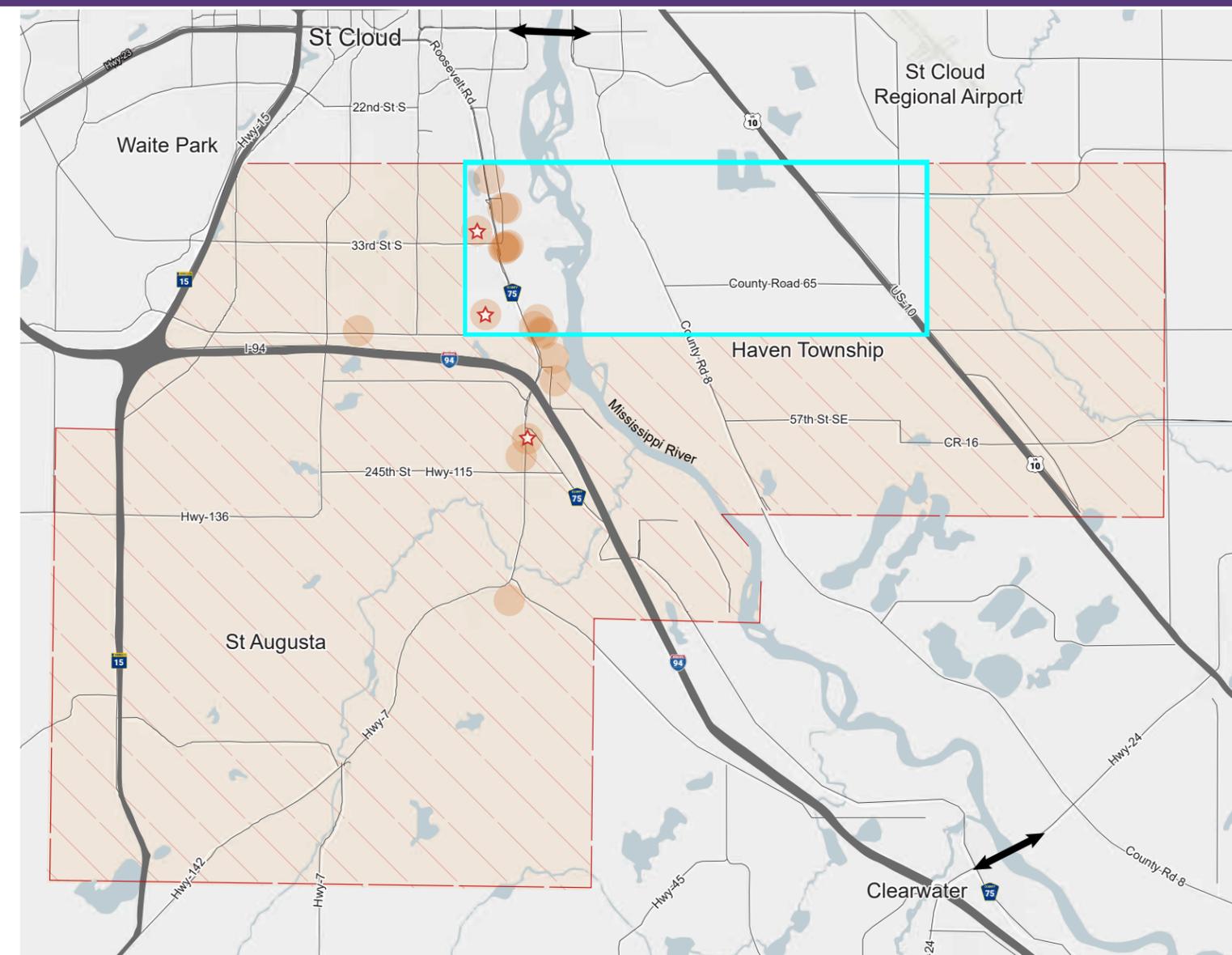
industrial area on US 10 and 32nd Street (CSAH 3) in Haven Township, and a cluster of businesses on TH 15 in St. Augusta. Existing retail development is concentrated in the CSAH 75 corridor, including the area of the interchange with I-94.

**Market Analysis**

For the market analysis, the primary Study Area consists of the land that is within a mile of the 33rd Street South alignment, if it were to extend eastward from its terminus at CSAH 75. The South Catchment Area encompasses and expands on the Study Corridor to include St. Augusta, parts of south St. Cloud, and parts of Haven Township, a section of the St. Cloud metropolitan area that is likely to heavily utilize the new bridge crossing.

Commercial

Existing industrial development in the South Catchment Area is primarily located along the CSAH 75 and I-94 corridors, with an additional



(above) Figure 2-9: Existing housing development

- Residential development
- ★ Development since 2010
- Existing river crossing
- Study Corridor Area
- South Catchment Area

New commercial development has occurred at a modest pace in the South Catchment Area. Five commercial developments have been built between 2010 and 2020—four of which are new industrial buildings and one is a new office

building. All of these developments are located in the three job centers.

Residential

The vast majority of the existing apartment developments in the South Catchment Area are in the CSAH 75 corridor. There is no existing multifamily development east of the Mississippi River.

Only three new apartment buildings have been built over the last decade, all on the west side of the Mississippi River. All are market rate, general occupancy apartments at a three-story scale. They range in size from 81 dwelling units to 203 units.

### Demographics of Residents

The St. Cloud metropolitan area is a growing regional center in central Minnesota. The estimated growth in the Study Corridor and South Catchment area is somewhat outpacing the growth of the St. Cloud region.

The South Catchment Area overall is sparsely populated, but its demographics indicate that the development of the area includes some affluent neighborhoods. A higher percentage of households in the South Catchment area are families. The median home value and median household income are significantly higher than those of the metropolitan area. In the South Catchment area, a higher proportion of the population is under the age of 15 as compared to the entire metropolitan area. Likewise, a higher proportion of the population is also over the age of 35 as compared to the entire metropolitan area.

Figure 2-10: Measures of Race/Hispanic Origin

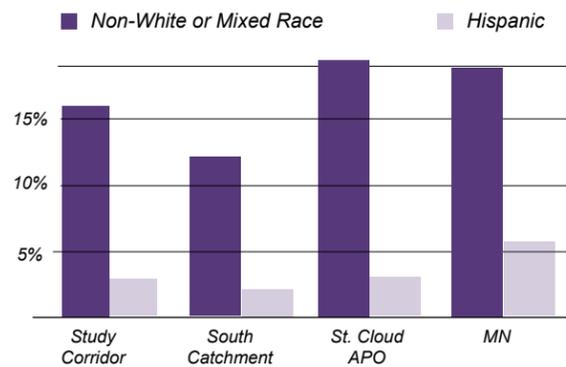


Figure 2-11: Median Home Value

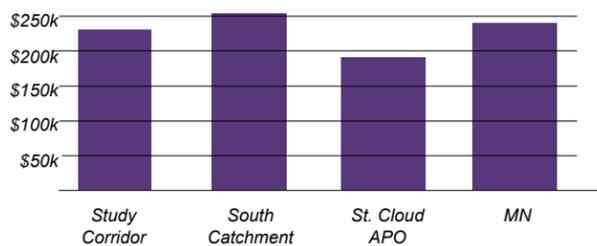


Figure 2-12: Families and Households (HH)

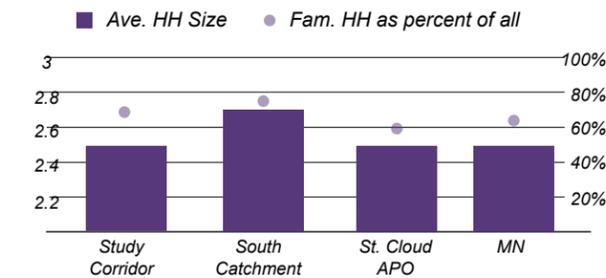


Figure 2-13: Measure of Income

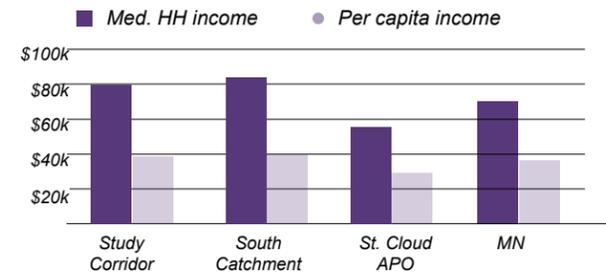


Figure 2-14: Age Distribution

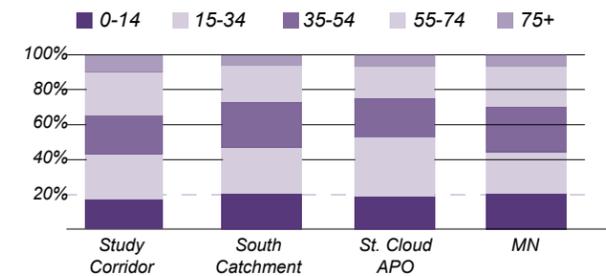


Figure 2-15: Educational Attainment

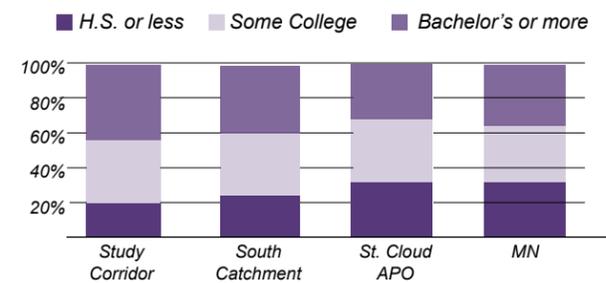
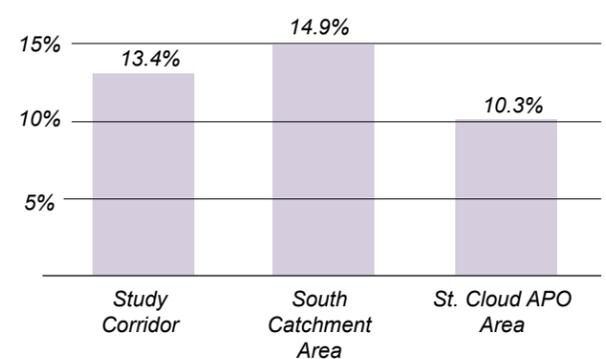


Figure 2-16: Population Growth 2010 to 2020



### Demographics of Workers

Employment in the South Catchment Area grew almost 40% from 2010 to 2018, outpacing the rate of residential growth. The number of people coming into the area to work is greater than the number of people who live in the area and work elsewhere.

Workers in the South Catchment area are predominantly male and are younger, less educated, and higher paid than workers in the metropolitan area as a whole.

Employment Growth 2010 to 2018

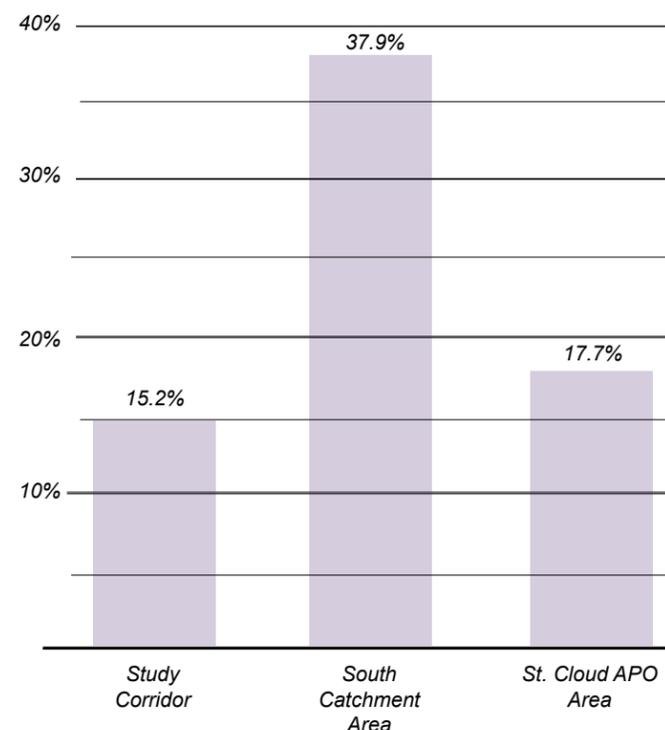


Figure 2-17: Share of Workers by Gender

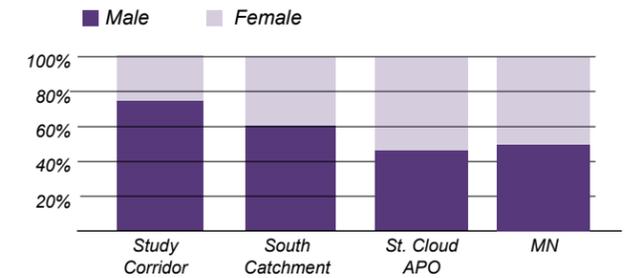


Figure 2-18: Share of Workers by Monthly Income

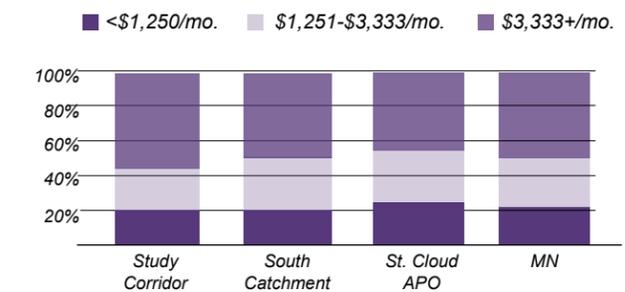


Figure 2-19: Share of Jobs by Worker Age

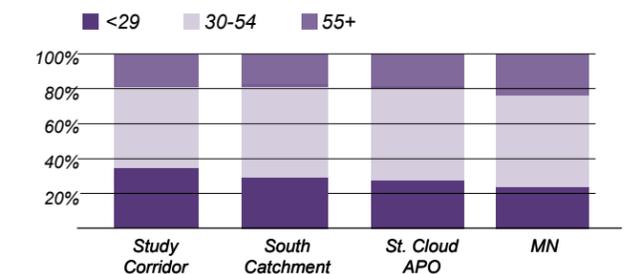
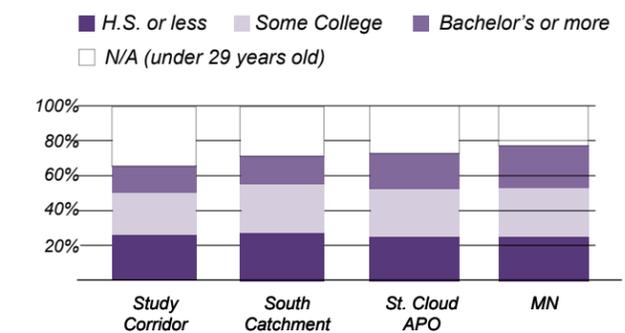
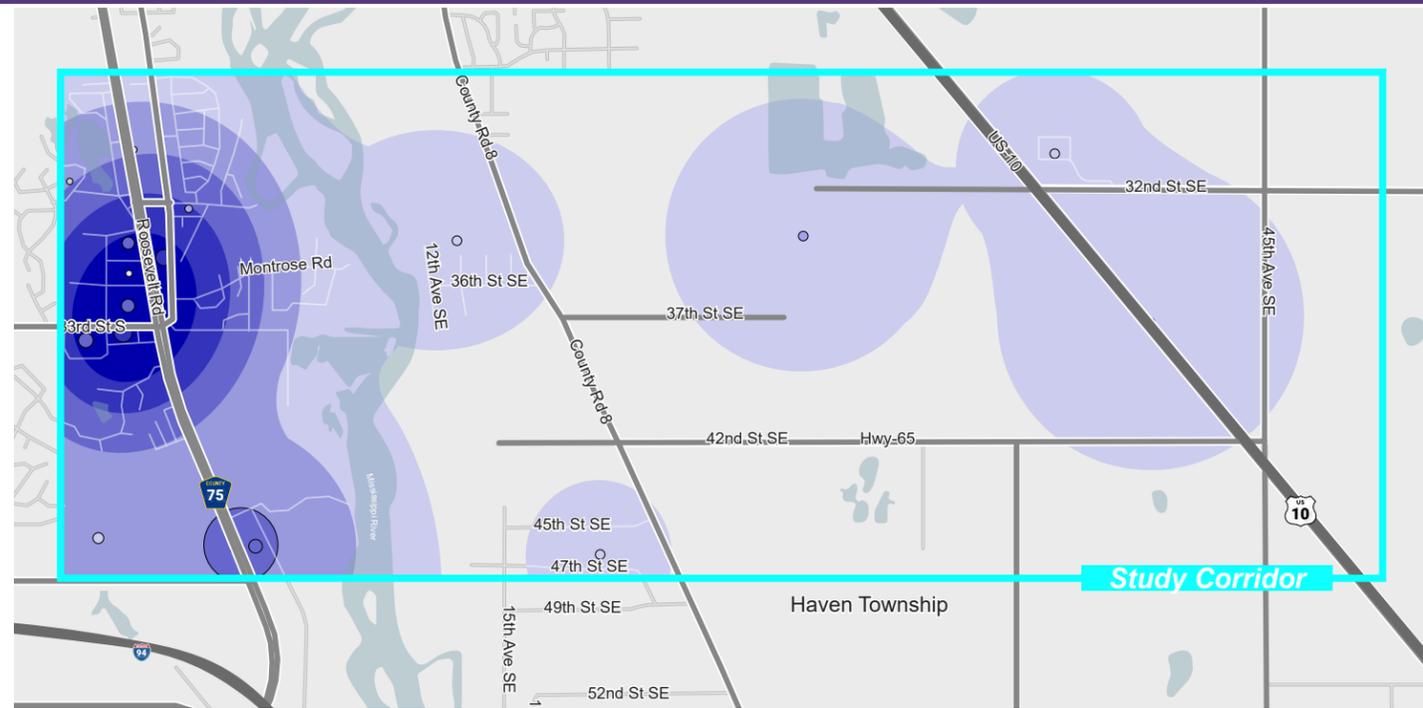


Figure 2-20: Share of Jobs by Educational Attainment



The demographics of workers in the South Catchment Area reflect the types of industries that are prevalent. 54% of jobs are in four male-dominated industries—Transportation/Warehousing, Construction, Manufacturing, and Wholesale Trade. That compares with 27% of jobs in the metropolitan area that are in those industries. Transportation/Warehousing and Construction jobs are particularly overrepresented in the South Catchment Area.

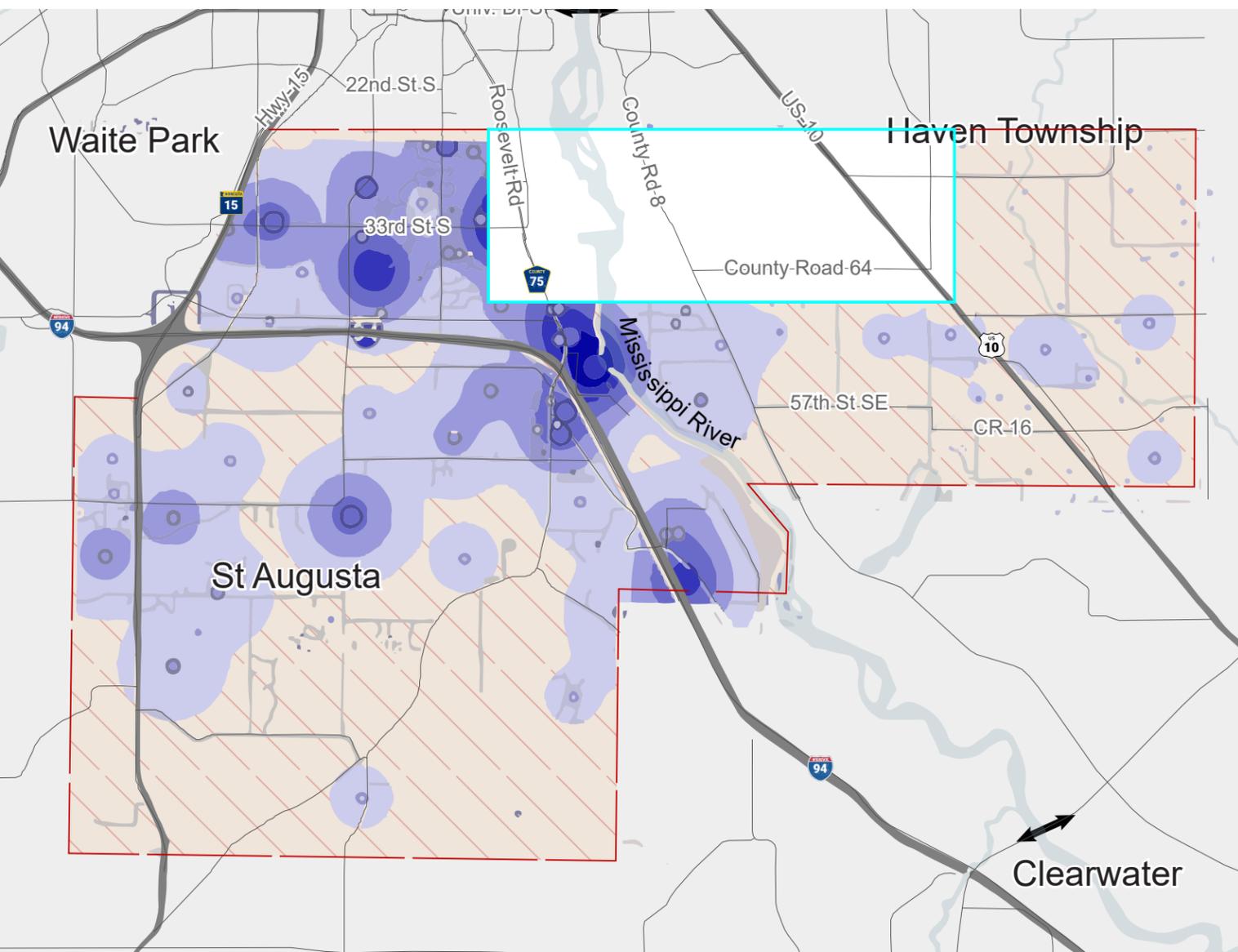
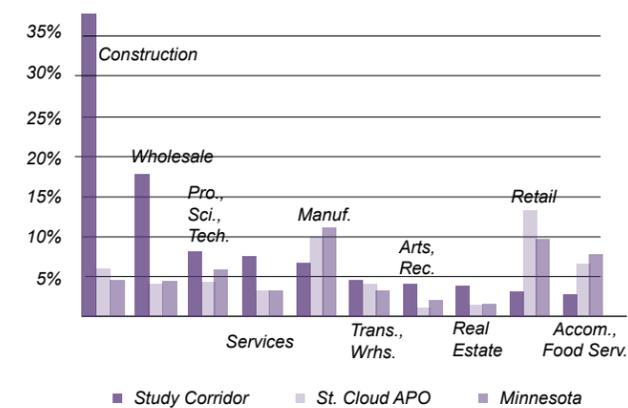
In terms of their location, the three primary existing job centers in the South Catchment Area are all in St. Cloud. They are in the areas of the 33rd Street/CSAH 75 intersection, the I-94/CSAH 75 intersection, and the Interstate 94/Opportunity Drive intersection.



(left) Figure 2-23: Employment Centers in Study Corridor

- 5 - 131 jobs per square mile
- 132 - 510 jobs per square mile
- 511 - 1,142 jobs per square mile
- 1,143 - 2,027 jobs per square mile
- 2,028 - 3,165 jobs per square mile

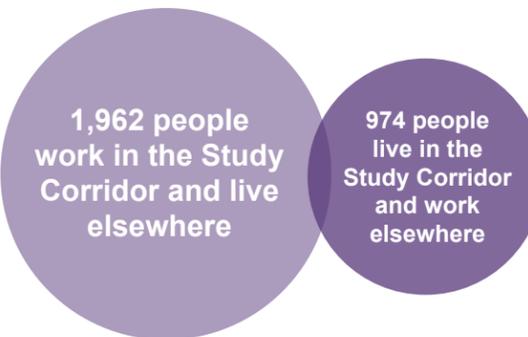
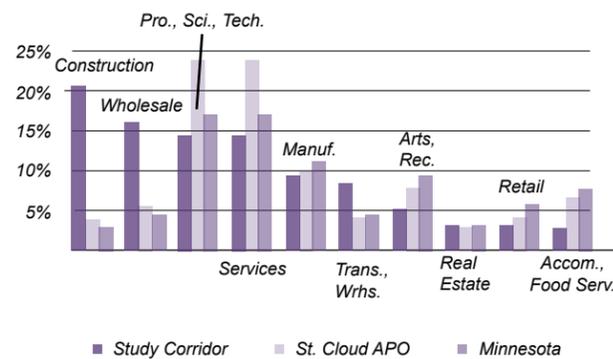
Figure 2-24: Top 10 Industries by Employment in Study Corridor



(left) Figure 2-21: Employment Centers in South Catchment Area

- 5 - 134 jobs per square mile
- 135 - 522 jobs per square mile
- 523 - 1,169 jobs per square mile
- 1,170 - 2,076 jobs per square mile
- 2,077 - 3,241 jobs per square mile
- ➡ Existing river crossing
- ▭ Study Corridor Area
- ▭ South Catchment Area

Figure 2-22: Top 10 Industries by Employment in South Catchment Area



# Transportation System & Bridge

### Regional Beltline

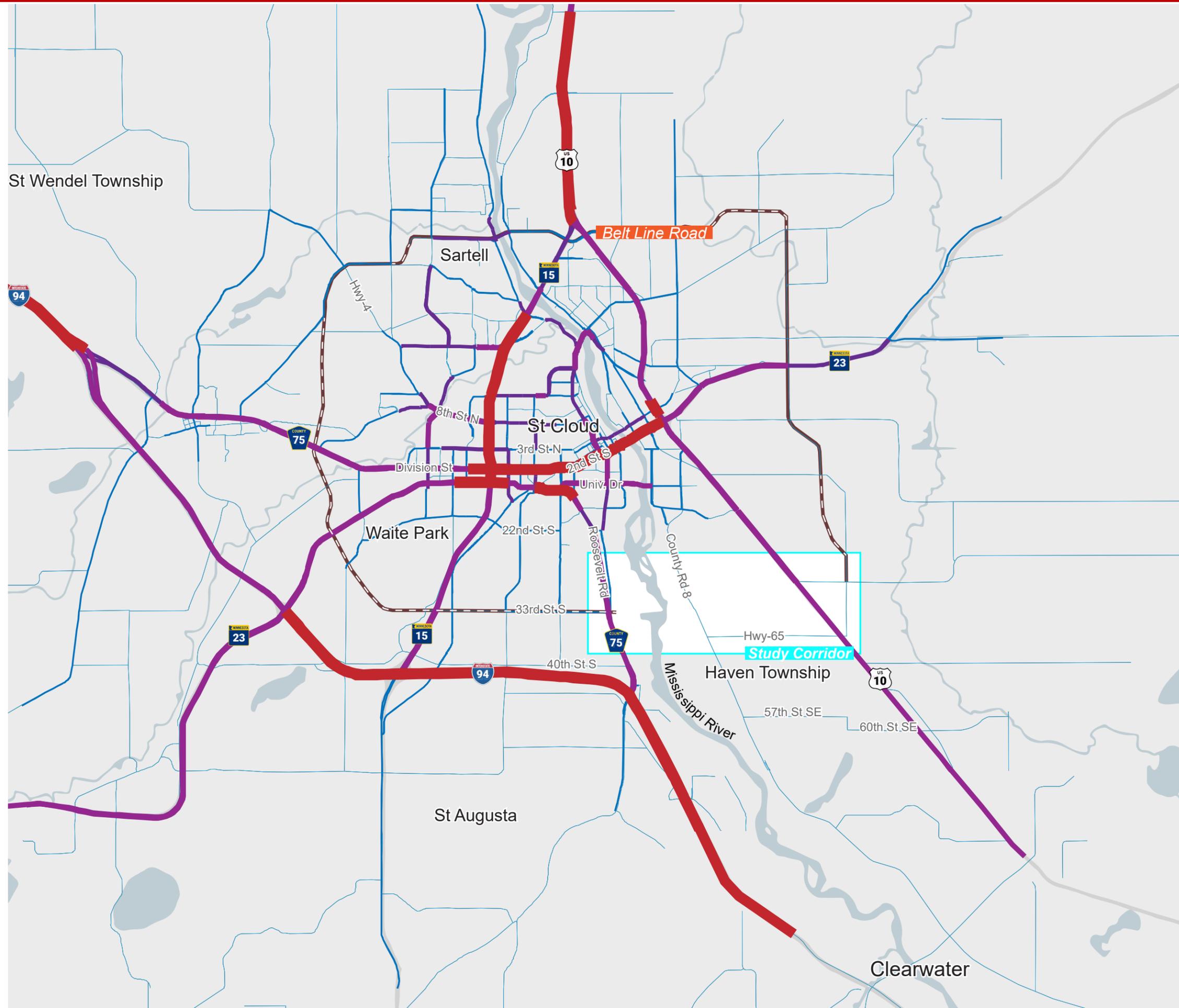
For decades, plans for the St. Cloud beltline have included a Mississippi River crossing located somewhere south of the City's core in a primary growth area for St. Cloud. Some segments of the beltline road are already built while others require widening of the roadway or construction of new roadway segments altogether. Existing roadways on either side of the study corridor and previous planning studies can help inform development of roadway within the Study Corridor.

A new bridge in this 33rd Street corridor would be especially important to St. Cloud's east side, as currently their only access to I-94 and the businesses surrounding it are via the University Drive Bridge and traveling south on CSAH 75. Use of this route is problematic as the University Drive Bridge is already over capacity at peak times during the day and continues to see increased traffic demands as the city continues to grow to the south.

Figure 3-1 shows the most recent traffic counts available via the MnDOT Traffic Mapping Application. The existing portion of 33rd Street west of CSAH 75 had 7,500 vehicles per day in 2017. 33rd Street east of CSAH 75 did not have any existing traffic volume data available.

(right) Figure 3-1: Existing Automotive Traffic (Annual Average Daily Traffic, MNDOT, 2017)

- Roadway under 3,000 ADT
- 3,000 - 10,000 ADT
- 10,000 - 15,000 ADT
- 15,000 - 25,000 ADT
- 25,000 - 50,000 ADT
- Belt Line Road
- Unbuilt and planned Belt Line Road segment
- Study Corridor



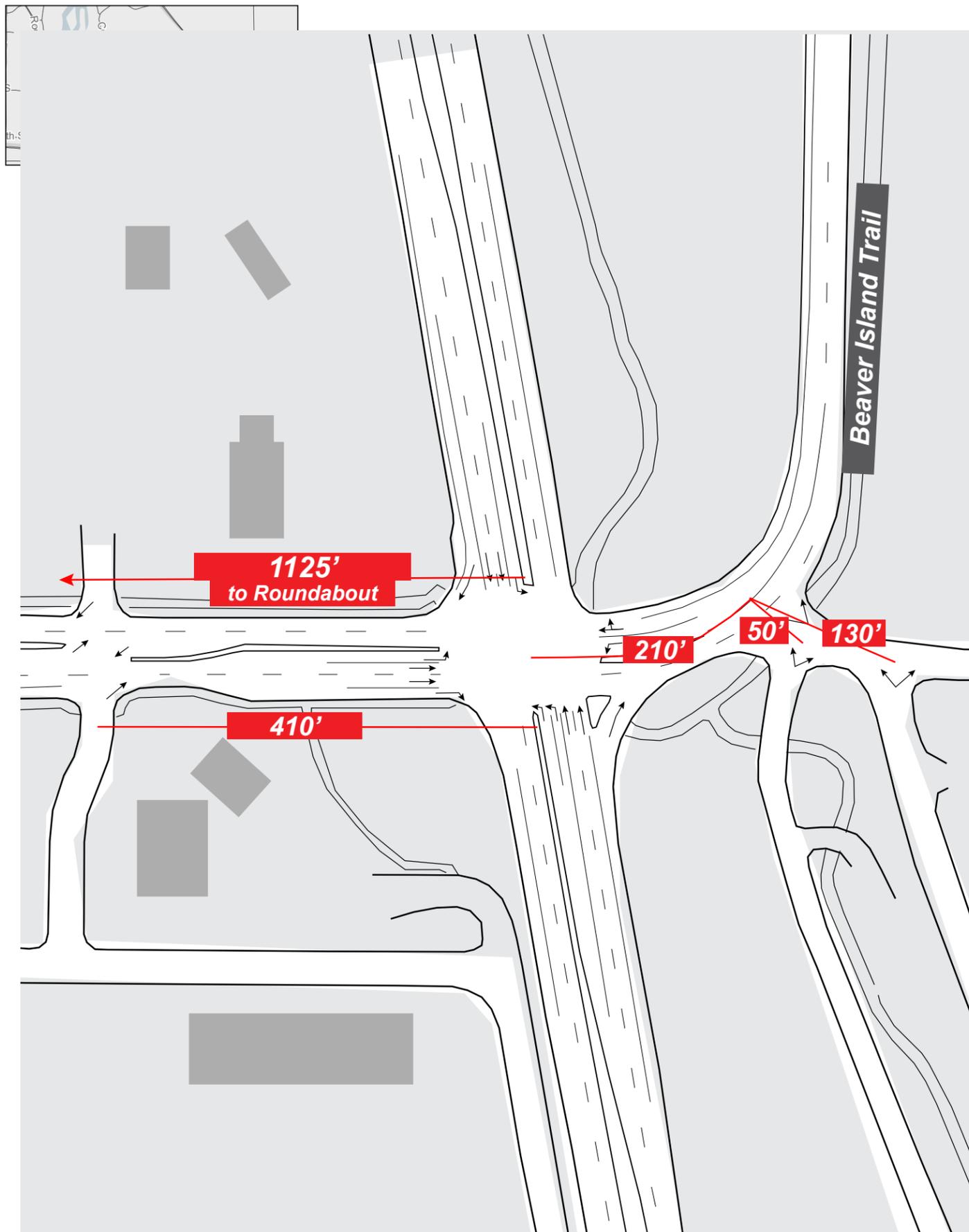


Figure 3-5: Intersection of 33rd Street and CSAH 75 (Roosevelt Road)

**Existing Conditions**

Intersection of 33rd Street and CSAH 75 (Roosevelt Road)

The intersection of CSAH 75 and 33rd Street is a critical intersection in south St. Cloud. It serves as the gateway to residential development to the west and is the primary interstate access route for the core of St. Cloud and the residents on the east side of the Mississippi River who use CSAH 75 to access I-94. All legs of this intersection have been improved in the last ten years. CSAH 75 is a four-lane divided roadway which was expanded in 2019 with dual northbound to westbound left turn lanes. The speed limit on CSAH 75 is 50 mph.

Pedestrian/Bicycle Facilities at 33rd Street and CSAH 75

Numerous trails connect at the CSAH 75 and 33rd Street intersection. From the west, there is a shared use path on the north side of 33rd Street and a sidewalk on the south side. That trail and sidewalk extend west to just past Southway Drive; from there west to TH 15 33rd Street is a two-lane roadway with no trail or sidewalk. The only east/west crossing of CSAH 75 is on the north side of the intersection. The east side of the intersection contains the confluence of two trails which follow old railroad beds. To the south, is the Beaver Island Trail, including a trailhead with parking. To the north, the Beaver Island Trail lies on the east side of Clearwater Road. There is also a trail on east side of CSAH 75 to the north. There are crossings at the east side of the CSAH 75/33rd intersection, the Clearwater Road/33rd intersection, and the business access to FedEx.

West of Intersection of 33rd Street and CSAH 75

To the west of the CSAH 75 and 33rd Street intersection is the start of an improved four lane 33rd Avenue beltway corridor. The first intersection is 400 feet west (centerline to centerline) and primarily serves local

businesses. This intersection was built as a 3/4 intersection, providing access from 33rd Street, but forcing traffic to make right turns or access the next intersection west (roundabout) to make lefts. The left turn lanes are narrow, approximately 10.5 feet wide, and have vertical delineators to discourage left turns. These features generally function best for automobiles and may be constrictive for anything larger than a pickup truck with small trailer.

The next intersection to the west is Southway Drive. This is the first of seven roundabouts on the expanded 33rd Street corridor from CSAH 75 to TH 15. Stretching west of Southway Drive is three more miles of the planned beltline corridor.

East of Intersection of 33rd Street and CSAH 75

To the east of the CSAH 75 and 33rd Street intersection is Clearwater Road, a parallel roadway to CSAH 75. This route is a combination of commercial and residential and is a direct link to downtown St. Cloud. The approach is slightly skewed and quickly makes a 90 degree turn north. In the middle of the curve of Clearwater Road, 200 feet east of the CSAH 75 and 33rd Street intersection, 33rd Street continues east. This section of 33rd Street is a dead end with two major business accesses within 100 feet of the Clearwater Road intersection. The remainder of the road serves residential and commercial properties. It also serves as access to the main sanitary lift station for St. Cloud.

Intersection with Highway 10

It is anticipated that if/when 33rd Street becomes a Mississippi River crossing it will connect with US 10, forming another segment of the arterial beltline segment. The alignment east of US 10 will require further study but has been mapped out illustratively in Mapping 2045, the St. Cloud APO's most recent Long Range Transportation Plan (LRTP) as shown in Figure 3-2.

The extension of the beltline east and northeast of US 10 past the St. Cloud Airport may require a new street connection and would need to be coordinate with future plans for the Airport.

**Previous Studies**

Previous studies have suggested alignment for a new bridge crossing and roadway corridor from CR 75 to US 10.

*St. Cloud Comprehensive Plan – Haven Township Master Plan (2003)*

Two potential corridors through Haven Township were shown in the 2003 Plan – both crossing the river in line with 33rd Street extended shown in Figure 3-8A. Concept 1 continued straight along 37th Street SE in Haven Township, curving north to join US 10 at an interchange near Sherburne CR 3 (32nd Street SE). Concept 2 (bottom right) curves south once on the east side of the river in Haven Township, crossing CR 65 at CR 8 and continuing along County Road 65/42nd Street SE before joining US 10 near the intersection of 42nd Street SE and 45th Avenue SE.

*St. Cloud Metropolitan Area Mississippi River Crossing Environmental Impact Statement Scoping Decision Document (2005)*

Four alternative alignments for the corridor and bridge crossing were considered in the 2005 scoping document shown in Figure 3-8B. They are similar to the two alignments in the 2003 St. Cloud Plan but add the option of curving the roadway south around the pond in the former gravel pit on the west side of the river before crossing the river. Alternative #4 in the scoping document is the same as Concept 1 in the St. Cloud Plan. Alternative #2 in the scoping document adds the curved option around the pond on the west side of the river. Alternative #1 in the scoping document is the same as Concept 2 in the St. Cloud Plan and Alternative #3 adds the curved option on the west side.

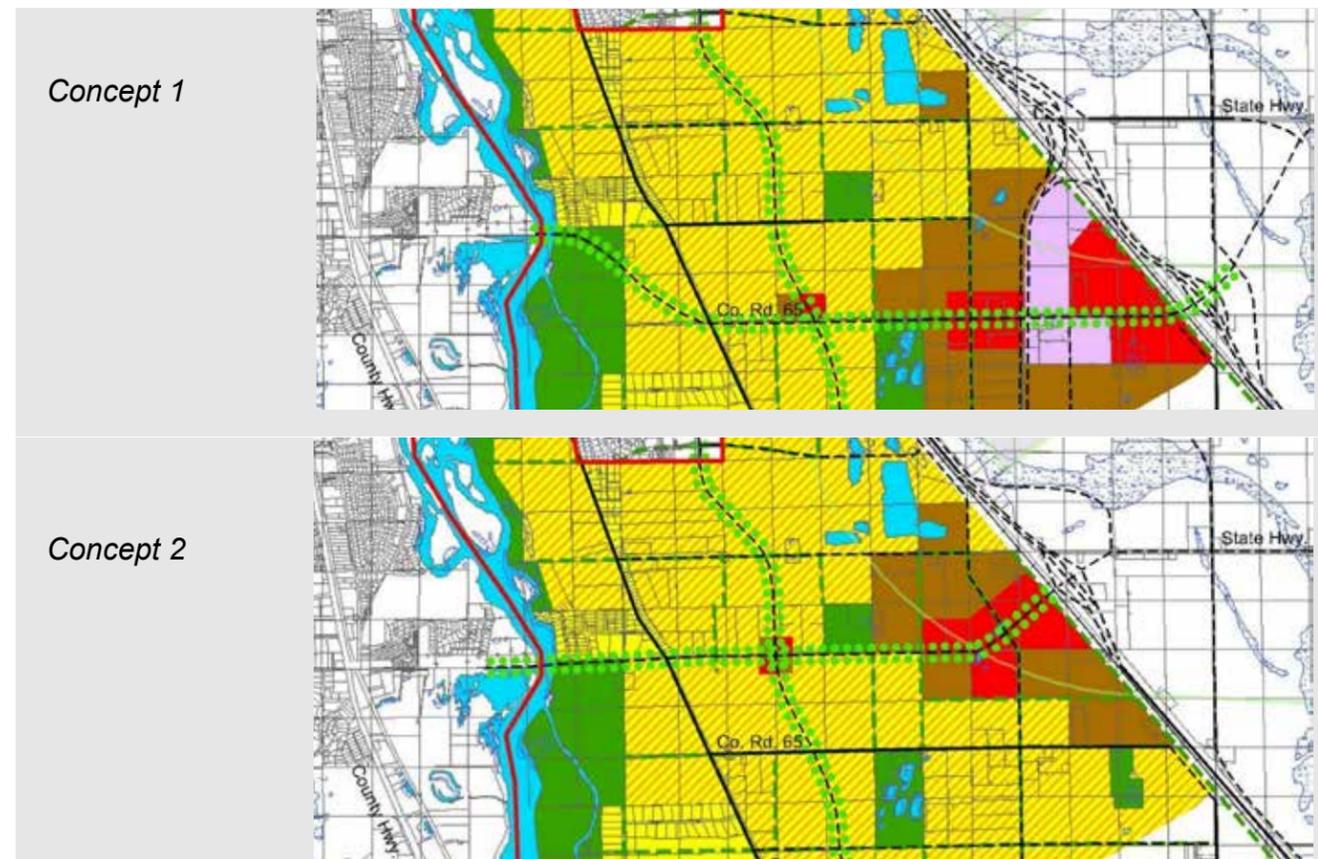


Figure 3-8A: Two potential corridors from 2003 St. Cloud Comprehensive Plan

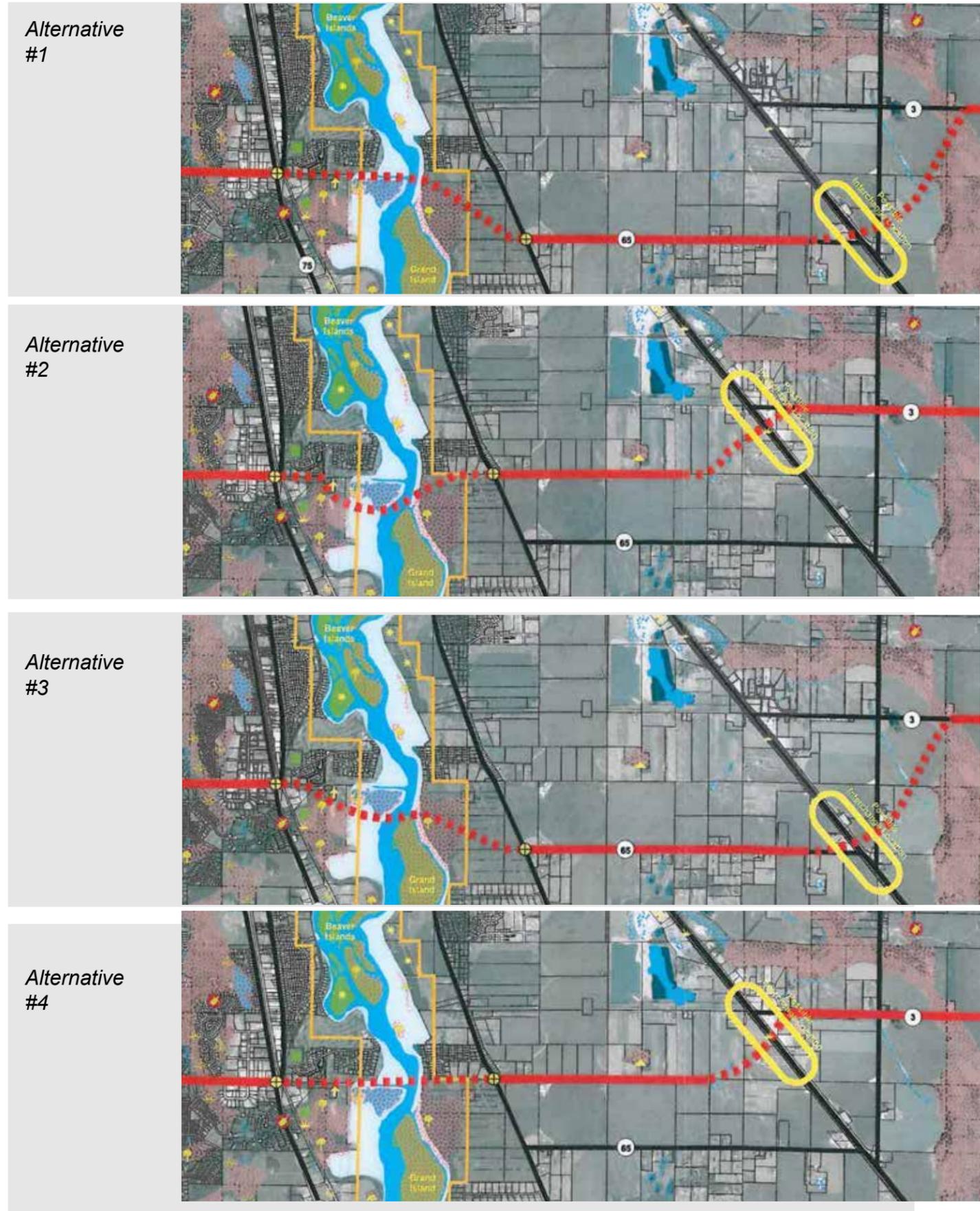


Figure 3-8B: Four potential corridors from 2005 EIS Scoping Document

Southwest Beltway Document

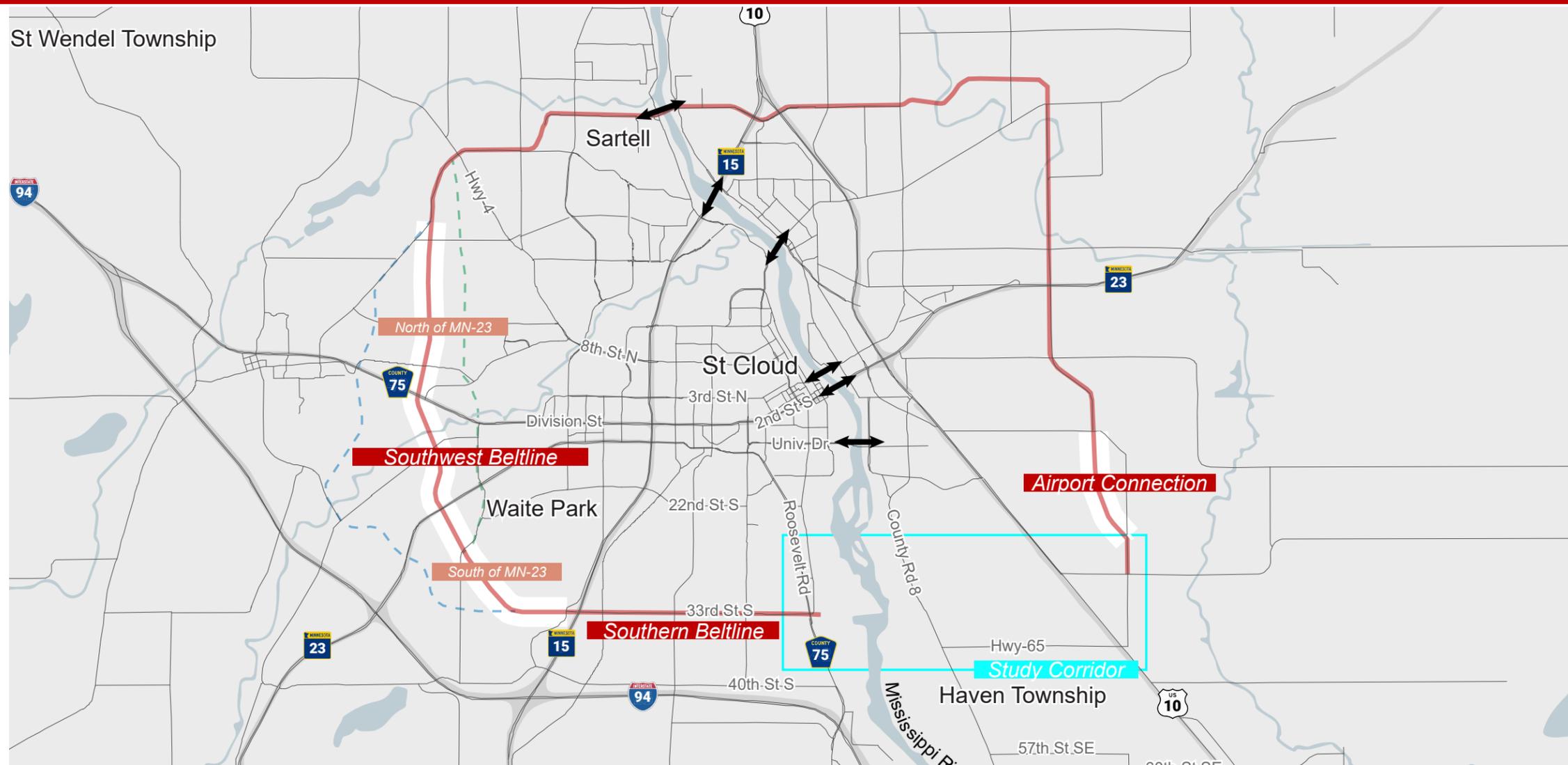
In 2008 a Southwest Beltway Scoping Document was written to identify and evaluate a range of alternatives for the proposed construction of a new minor arterial roadway connecting Stearns CSAH 4 to TH 15 within the southwest greater St. Cloud Metropolitan Area. The study area was west of TH 15 and included an evaluation of three beltline facility types including a freeway (full grade separation), expressway (high-speed multi-lane highway), and urban mobility corridor.

The urban mobility corridor facility type with a functional classification of minor arterial was determined to best address transportation needs and provide the desired balance between mobility and accessibility. The design criteria from this study is shown in Figures 3-3 and 3-4. 33rd Street between Oak Grove Road (CR 136) and CSAH 75 is currently classified as a minor Arterial and is in the process of becoming a 4-lane divided roadway.

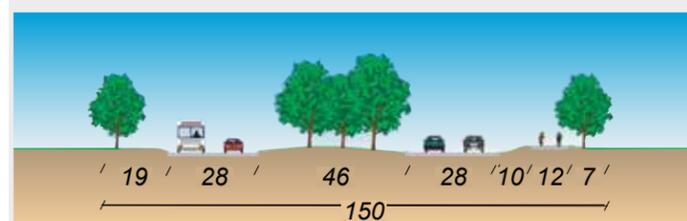
Potentially relevant access principles and policies of the 2001 Southwest Arterial Alignment Study are listed here:

- Signalized access should be managed to ensure that corridor mobility is maintained.
- Other access should be minimized
- Public intersections to be designed so that turning traffic is separated from through traffic
- Private access should be minimized or eliminated
- Agencies to oppose parcel splitting to reduce private access points
- Agencies to focus on providing access at designated full-access intersections consistent with spacing guidelines

The study also forecast traffic in 2030 and beyond under a No-Build scenario to evaluate travel demand within the Southwest Beltway area assuming growth based on the land use plan at the time of the study. The conclusion stated growth from Waite Park will create a 4% increase to the 33rd Street South corridor and a 2% increase in trips from the St. Joseph growth area to the 33rd Street South Corridor.



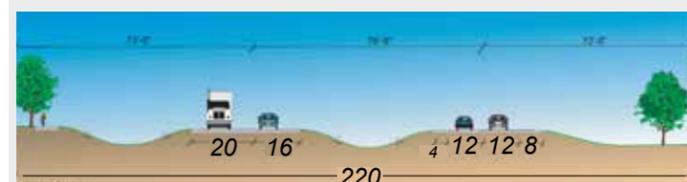
(above) Figure 3-2: Adjacent segments



Typical Urban Cross-Section North of MN-23 from the Southwest Arterial Alignment Study in Feet (2001)

Figure 3-3A: Southwest Belt Line North of MN-23 Design Criteria (2001)

Functional Class	Design Speed	Typical Section	Min. Trail Requirement	Access Spacing	Right-of-Way Width
Minor Arterial	45-50 mph	4-lane urban parkway divided	Separated bike and pedestrian trail on one side	½ mile minimum controlled intersections	150 feet



Typical Rural Cross-Section South of MN-23 from the Southwest Arterial Alignment Study in Feet (2001)

Figure 3-3B: Southwest Belt Line South of MN-23 Design Criteria (2001)

Functional Class	Design Speed	Typical Section	Min. Trail Requirement	Access Spacing	Right-of-Way Width
Minor Arterial	45-50 mph	4-lane rural divided	Separated bike and pedestrian trail on one side	½ mile minimum controlled intersections	150 to 220 feet

St. Cloud APO 2030 Transportation Plan

The following intersection spacing guidelines were included in the 2030 Plan but not the APO's most recent transportation plan.

The guidelines suggest a 33rd Street alignment for the southern beltline segment is preferred over 40th Street for its proximity from I-94.

Figure 3-4: Intersection Spacing Guidelines

<b>Principal Arterial</b>	Interstate/Freeway	2 - 5
	Non-Freeway	2 to 3
<b>Minor Arterial</b>	4-lane divided	0.7 to 1.5
	4-lane undivided	
<b>Collector</b>	4-lane undivided,	0.3 to 1
	3-lane	
	2-lane	

**Traffic Forecast Modelling**

The St. Cloud APO completed traffic forecast modelling as part of a recent plan called Mapping 2045. This plan estimated what congestion would look like in the year 2045 under a “No-Build” scenario (without any updates to existing roadway infrastructure) and two “Build” scenarios (one with, and one without beltline road included).

No Build Model

The No Build model forecasted traffic volumes considering the scenario that no new infrastructure is built to handle the expected population growth. This model shows that the number of trips will increase by 54% within the metropolitan planning area (MPA) by the year 2045. This is primarily due to residential development growth in the outer region of the metro (Sauk Rapids, Sartell, LeSauk Township, Saint Joseph, southern Saint Cloud, and southern Waite Park). Trips are expected to increase by 60% on the river crossings by 2045, adding additional pressure to the existing bridges over the Mississippi River. The six existing Mississippi River crossings within the St. Cloud area are the Sartell Bridge (Stearns CSAH 133/Benton CSAH 29), TH 15, the Sauk Rapids Bridge (St. Cloud 9th Avenue / Sauk Rapids 2nd Street), the Veterans Bridge (1st Street N/E Street German Street), TH 23, and University Drive. Figure 3-6 shows the top six over-capacitated roadway segments

(right) Figure 3-6: Projected most congested roadways in 2030 with No-Build Model:

- ① First Street NE, Sartell\* (264% over capacity)
- ② 15th Avenue SE (228% over capacity)
- ③ Univeristy Drive SE\* (215% over capacity)
- ④ Division St / MN-23\* (203% over capacity)
- ⑤ Saint Germain / 1st St\* (198% over capacity)
- ⑥ MN-15\* (194% over capacity)

\*Mississippi River Crossing

in the 2045 no-build model scenario. Five out of the six segments include bridges over the Mississippi River.

Build Model

The build model forecasted traffic volumes with the consideration that 56 new roadway lane miles were added in expansion projects through various local agencies. As a fiscally-constrained model, the Build Model only includes projects which fit within the fiscal constraint for each jurisdiction. Because the estimated cost of the 33rd Street bridge crossing exceeded the estimated funding that would be available for capacity-expansion

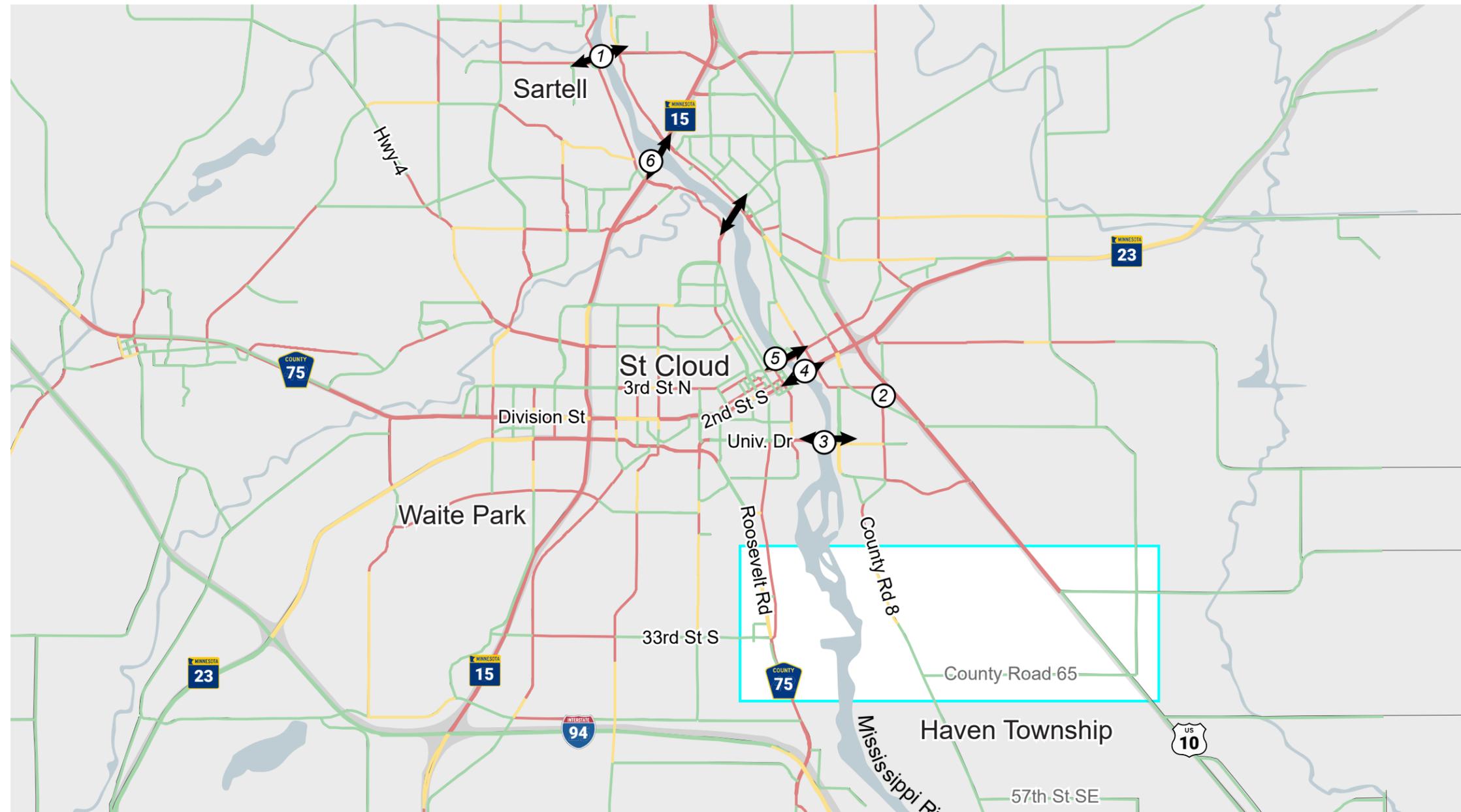
projects, the bridge was not included. For purposes of fiscal constraint analysis, only funding that can reasonably be assumed to be available can be included. Funding that is uncertain – such as funds awarded through a competitive grant program – cannot be included.

Figure 3-6 shows the volume to capacity ratio and Average Daily Traffic (ADT) of the 2045 Build scenario. Volume to capacity (V/C) is a ratio that compares the roadway demand (number of vehicles) to the roadway supply (carrying capacity). When a V/C = 1.0, the roadway is operating at its full capacity. If V/C is greater than 1.0 then the roadway is over

capacity and experiencing congestion. The build model shows all six bridges operating over capacity even after taking into account probable expansion projects.

(below) Figure 3-6: Automotive congestion levels (V/C Ratio) with Build Model:

- Under Capacity (<0.84)
- Approaching Capacity (0.85-0.99)
- Over Capacity (>1.00)
- ↔ Existing river crossing
- Study Corridor



Build with Beltline

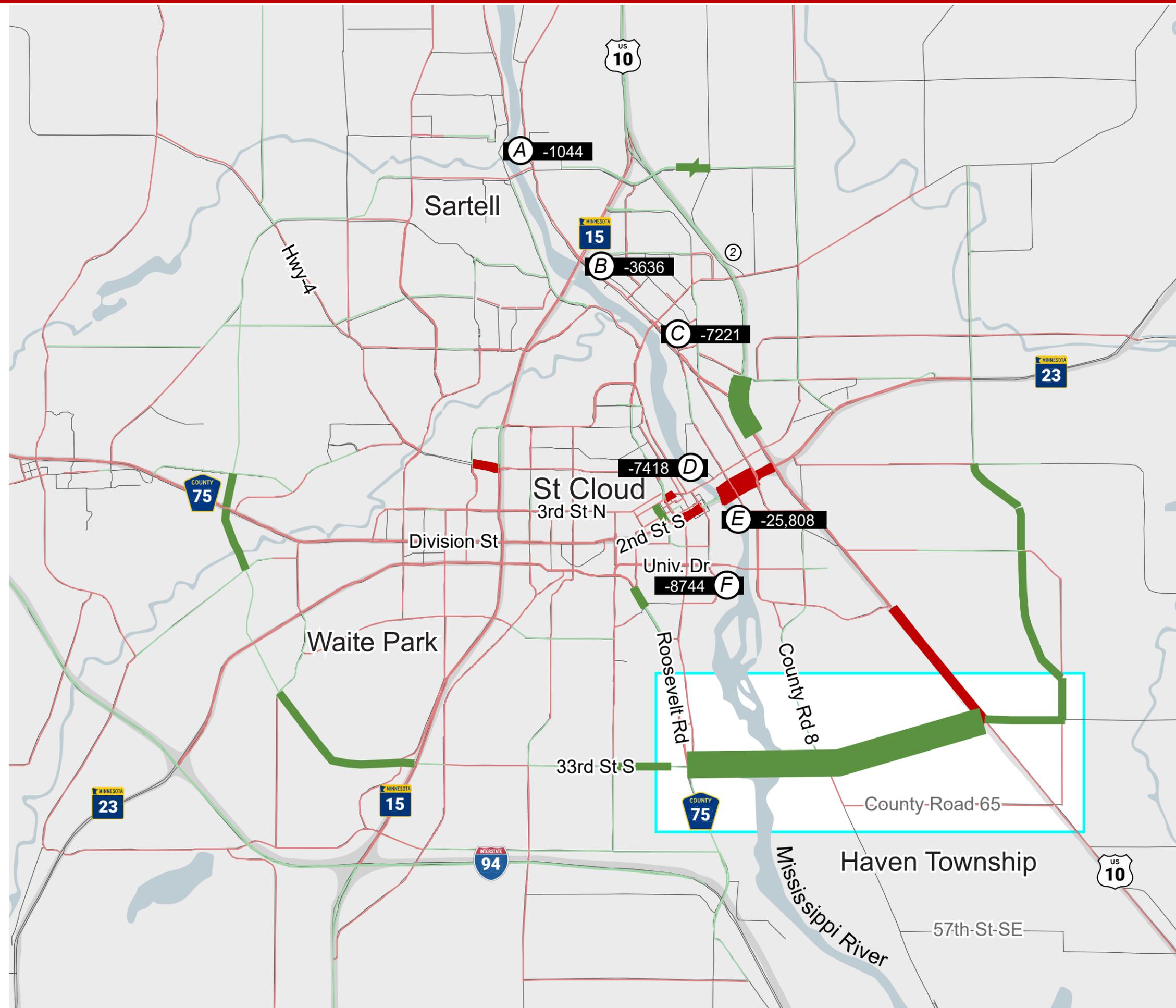
The Build with Beltline model forecasted traffic volumes considering the scenario that - in addition to the lanes added under the “Build Model” - the Beltline Road was completed. The idea of creating a beltline around the St. Cloud Metropolitan area has been around for at least two decades. This model show that even if the beltline reduces the number of congested lane miles forecast for 2045, there is still a significant increase in congestion when compared to existing conditions. The central area of the MPA would see the most congestion relief as vehicles choose to bypass the central core of St. Cloud. Figure 3-6 shows the V/C ratio and Average Daily Traffic (ADT) volumes for the 2045 Build Model and Figure 3-7 shows the change in traffic volumes of the 2045 Build model to the Beltline Model.

In this scenario, the 33rd Street Bridge Crossing would carry approximately 42,500 vehicles a day. All six current bridges would still be operating over capacity; however, the 33rd Street Bridge would remove approximately 35,871 ADT from these bridges (north to south):

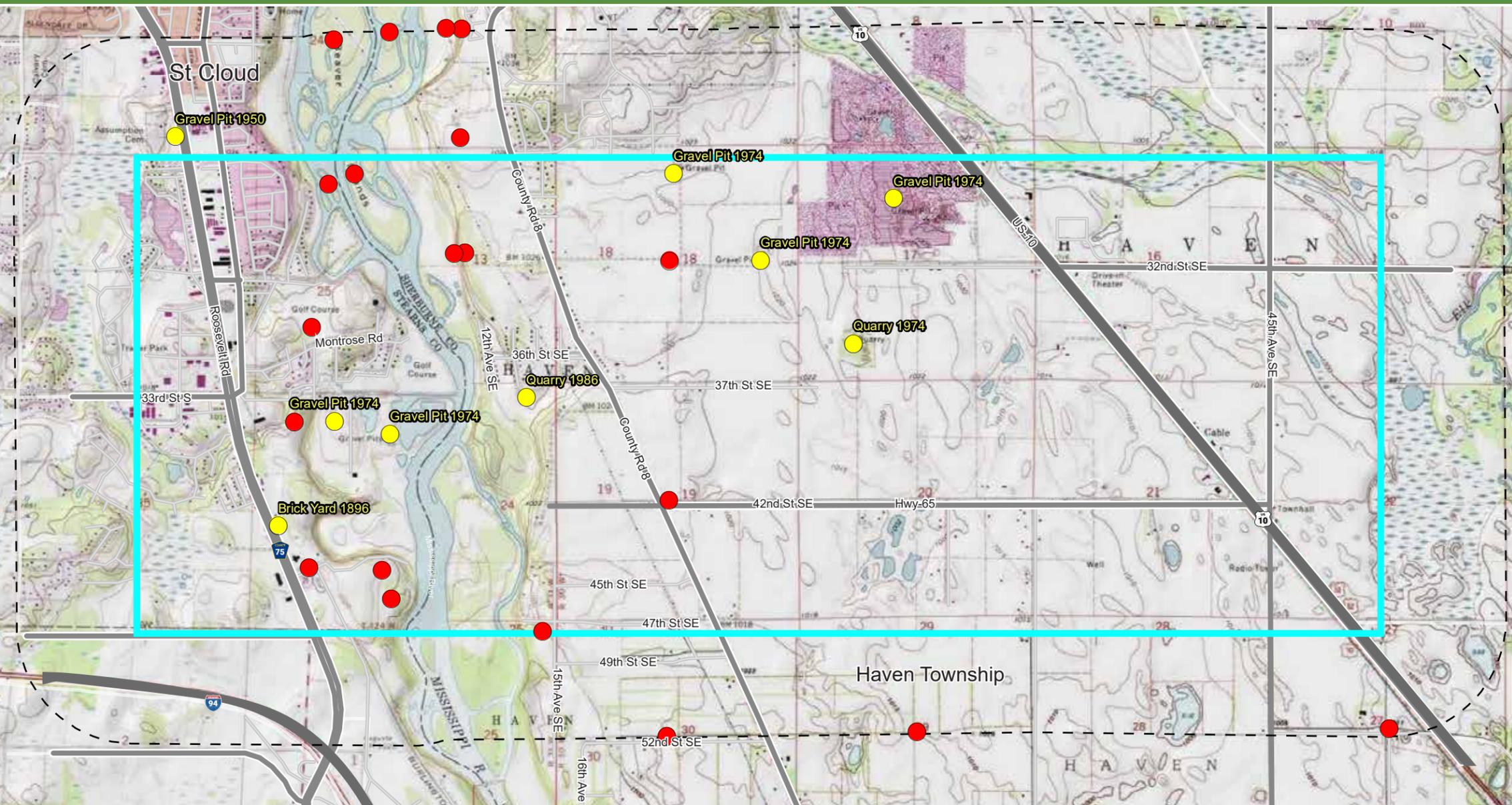
- A. Sartell Bridge (-1044 trips)
- B. TH-15 (-3636 trips)
- C. Sauk Rapids Bridge (-7221 trips)
- D. Veterans/St. Germain (-7418 trips)
- E. TH-23/Division (-25,808 trips)
- F. University Dr (-8744 trips)
- TOTAL: 6 bridges (-35,871 trips)**

(right) Figure 3-7: Change in traffic projections between Build Model and Build with Beltline Model (trips):

- █ Loss between 20,000 and 30,000
- █ Loss between 10,000 and 20,000
- █ Loss between 100 and 10,000
- █ Gain between 100 and 10,000
- █ Gain between 10,000 and 20,000
- █ Gain between 20,000 and 30,000
- █ Gain between 30,000 and 45,000
- Study Corridor



# Environmental Analysis



(left) Figure 4-1: State Historic Preservation Office (SHPO) data:

- Quarry, Brick Yard, or Gravel Pit\*
- Approximate SHPO Historic Site
- Study Corridor
- ⋯ Half-mile Project Area Boundary

\*earliest appearance noted

Water Resources

Management of the Mississippi River will involve a variety of federal, state, and local agencies to varying degrees. Key management agencies in this segment of river are listed in Figure 4-3B. Items of concern include Navigation (MnDNR), Wild and Scenic Designation (MnDNR and local ordinances), Floodplains (FEMA and local agencies) and Wetlands (LGU and USACE). Due to the Mississippi River’s designation as a State Wild and Scenic River, Sherburne and Stearns County have defined a special land use district requiring considerations for tree removals and grading and filling. The City of St. Cloud has created a Scenic Rivers Overlay District to manage development with the goal to preserve the values of the designated scenic Mississippi River within the city limits.

Stormwater

A Total Maximum Daily Load (TMDL) study has been approved by the Environmental Protection Agency (EPA) for mercury in fish impairments, however the MPCA does not require additional design or construction mitigation measures to be taken since mercury is not generally associated with stormwater discharges on roadway construction projects.

Agricultural Districts

Large areas of Prime and Farmland of Statewide Importance are located in Sherburne County along the river. Considerations in design should be giving to avoid designated farmland when practicable and minimizing severing or triangulation of farmland.

**SUMMARY**

Cultural Resources

Known archaeological and historic sites have been identified, however further investigation will be required to identify any potentially unknown resources. In particular, land around the Mississippi River will have an inherently higher potential for archaeological discoveries. A more intensive review should be performed, including a site visit to identify any unknown properties. If properties are discovered, a determination of eligibility for listing on the National Register of Historic Properties (NRHP) should be completed for any properties that may be impacted.

Section 4(f)/6(f)

Section 4(f) and Section 6(f) properties are park and recreational lands that were purchases with federal funds. If some portion of that land is repurposed as part of a transportation project, as may be the case here, there is a process to be followed to consider alternatives or reduce impacts. River Bluffs Regional Park is a 6(f) property. Direct and indirect impacts would need to be considered in terms of Section 4(f) for Federal involvement and 6(f) regardless of funding sources or permits. The MnDNR maintains a state water trail along the Mississippi River

through this area for recreational paddling. The Mississippi River water trail provides public access points and has a recreational value. Impacts to the water trail could be considered a 4(f) use and coordination with the MnDNR as the official with jurisdiction will be required.

Airport

The project will need to review impacts to the St. Cloud Regional Airport as the project enters preliminary design development. An airspace request will need to be submitted through the FAA’s online portal and FAA Form 7460-1 to determine any restrictions or requirements for design and construction.

Visual

Introducing a new transportation element to the Mississippi River Scenic viewshed will change the perspective from land and for river users. Both Stearns and Sherburne Counties, and the City of St. Cloud have ordinances regulating development and construction of structures within the segment of river designated as Wild and Scenic.

Fish, Wildlife, Vegetation, and Ecological Resources

The Mississippi River has a coolwater thermal regime and its fish community can be characterized as having cool and warm-water fish. Spawning migrations through the project area will determine the need for proposed in-water exclusion dates for pier work or in-water approach work.

The northern long eared bat may utilize forested habitat in or around the proposed project area. Endangered plants and suitable habitat within the project study buffer as well as a butterfly of special concern. Two endangered and bird species of concern, the Loggerhead Shrike and Red-shouldered Hawk and six migratory birds within the project area will require consideration during design and construction. The Blanding's Turtle is likely to be present. The MnDNR has specific guidance for construction-related avoidance measures for the Blanding's Turtle. The Creek Heelsplitter mussel and the Black Sandshell are also listed as a Species of Special Concern. Species-specific surveys may be required within the project area.

The Dry Barrens Prairie is located within the project study area and is categorized between critically imperiled and imperiled in Minnesota. The Tamarack Swamp was identified within the study buffer and is categorized between imperiled and vulnerable to extirpation in Minnesota. The Harry W. Cater Homestead Prairie Scientific and Natural Area is in Sherburne County just east of the project study area.

Precautions to prevent the spread of zebra mussels into or out of the project area may need to be in place prior to project construction.

Noise

Existing noise levels will need to be verified and proposed noise levels modeled. Noise impacts related to preservation of the Scenic designation of the Mississippi River will need to be considered.

Environmental Justice

Potential environmental justice and Title VI sensitive areas are located within the project area. Identification of sensitive communities will allow for proper planning to avoid, minimize or mitigate disproportionately high and adverse effects.

**Previous Scoping Documents**

In 2005, the St. Cloud Metropolitan Area Mississippi River Crossing Environmental Impact Statement (EIS) Scoping Decision Document was prepared by the St. Cloud Area Planning Organization (APO) for a potential Mississippi River Crossing within the St. Cloud Metropolitan Area. The EIS Scoping report called for further study in the following areas:

- Contaminated Sites
- Cumulative Impacts
- Economic Impacts
- Endangered, threatened, and special concern species
- Environmental Justice
- Farmlands
- Fish and Wildlife
- Floodplains
- Land Use
- Noise
- Park, Recreational, and Section 4(f)/6(f) Lands
- Right-of-Way Acquisition and relocation
- Social and neighborhood impacts, community facilities
- Stream and waterbody modification
- Traffic
- Vegetation
- Visual Impacts
- Water Quality
- Wetlands
- Wild and Scenic River (State)

A baseline has been prepared for each of the items above in this section of the background report. Further study will be conducted as crossing alternatives are developed and considered.

The Southwest Beltway Project Scoping Report was prepared in 2008 for the St. Cloud APO. The study focused on the southwest segment of the proposed Beltway west of TH 15. This study was reviewed and any pertinent information included in the following discussion.

**Other Information and Analysis**

An environmental scan was completed of the project study area, as shown in Figure 4-1. The scan included a review of County, State and federal databases, available GIS data, and other available environmental data.

**Cultural Resources**

In 2004 the City of St. Cloud Parks and Recreation Department performed a site inventory to define the land cover classification for roughly 280 acres within this study area as part of the Plum Creek Regional Park Land Cover Classification and Planning Guidance development. The City's goal was to classify the land cover of the area around Plum Creek to protect and restore the natural resources for a future Regional Park. The existing land cover classifications in the Plum Creek Regional Park Land Cover Classification and Planning Guidance were developed using Minnesota Land Cover Classification System (MLCCS) data, aerial photography, and field investigations.

The information provided within this guidance can be utilized to manage future restoration and recreation development in the area. Contained within the guidance are maps of the existing natural community classifications and areas defined as having a higher potential for habitat restoration. These areas have been included on Figure 4-2 Wildlife and Vegetation.

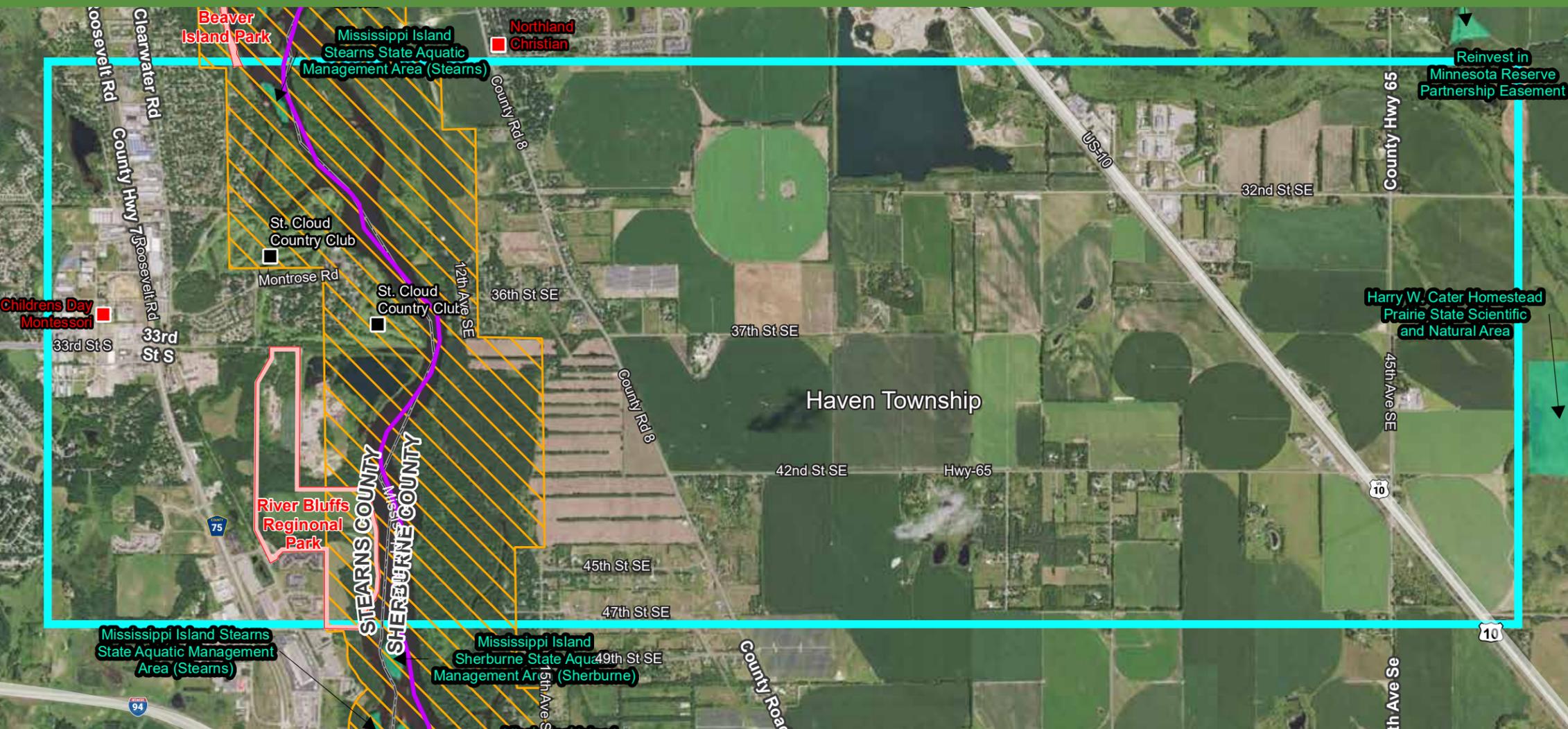
The project study area was reviewed for known historic properties and archaeological

features. This preliminary search was performed to locate known resources to ensure consideration of effects to those properties in the decision-making process for the future river crossing. The review included archaeological, historic, and architecturally significant properties (i.e., properties listed or eligible for listing on the National Register of Historic Places (NRHP)). Preliminary findings are mapped in Figure 4-1. A series of archaeological sites are listed within the project area, the majority located in Stearns County. US 10 and the Fort Ripley Military Road: Haven Township Segment are both eligible for the NHRP. One homesite listed as eligible, the Henry Kilian Sr. House is located within the project study area.

A variety of unevaluated quarry sites exist within the project area. These quarry and pit sites were identified by reviewing historic plats and atlases for both Counties. Maps for Stearns County went back to 1871 whereas the maps for Sherburne County only went as far back as the turn of the 20th century. The earliest date of the map on which the quarry/pit was depicted is listed on Figure 4-1.

Alternatives developed for the river crossing could have either direct or indirect effects on these resources as well as effects on unknown historic and archaeological sites. Further investigation will be required to identify any potentially unknown resources. In particular, land around the Mississippi River will have an inherently higher potential for archaeological discoveries. The future river crossing project will require review under Section 106 of the National Historic Preservation Act (16 USC 470 et seq.) and its implementing regulations (36 CFR Part 800). A first step to an alternatives analysis will include development of an Area of Potential Effect (APE) for the alternatives under consideration. At that time, more intensive review should be performed, including a site visit to identify any unknown properties. If properties are discovered, a determination of eligibility for listing on the NRHP should





(left) Figure 4-2: Parks, Trails, and Open Spaces

- State Trail\*
- DNR State Park Trail
- ▨ DNR Scenic River
- ▭ U.S. Protected Areas Database
- ▭ Section 6(f) Properties
- School
- Golf Course
- ▭ Study Corridor

The project study area was reviewed for potential Section 6(f) properties using the MnDNR’s list of LAWCON grant funded properties. River Bluffs Regional Park received a grant through the State of Minnesota Local Grants Program. If any alternatives developed results in the conversion of land from River Bluffs Regional Park, coordination all requirements of the National Park Service (NPS) (Section 6(f) involvement) and the MnDNR will need to be followed to approve the conversion. 6(f) properties are shown on Figure 4-2.

Airport

The St. Cloud Regional Airport is located just outside of the easterly project study limits within the City of St. Cloud. To protect aircrafts approaching public Airports, the Federal Aviation Administration (FAA) requires airspace studies be completed to review the impact a proposed project may have on the airport’s critical approach zones. To determine if an airspace study will be required, the FAA’s Notice Criteria Tool was utilized to identify potential airport obstruction issues both temporarily during the construction of the crossing and the approach roads, and post-construction for proposed bridge and roadway infrastructure. According to the FAA Notice Criteria Tool, work within the project study area has a potential to exceed a standard distance as defined by 14 CFR 77.9 (b) for the St. Cloud Regional Airport and will likely require an airspace study. The airspace study will require coordination with the regional FAA office and

be completed for any properties that may be impacted.

If potential historic sites are affected by the studied alternatives, a separate study (Section 4(f) Evaluation) of the historic resources protected by Section 4(f) of the Department of Transportation Act of 1966 should be completed as necessary.

Section 4(f) Resources

In addition to protecting historic resources as described above, Section 4(f) provides protections for publicly owned parks, trails, recreational areas, and wildlife and waterfowl refuges. Generally, 4(f) guidance applies to highway projects where the Federal Highway Administration (FHWA) is the U.S. DOT agency involved, either through funding or approval requirements. The Section 4(f) process requires avoidance unless there is no prudent

and feasible alternative to the use. If avoidance is not possible, then Section 4(f) requires all possible planning to minimize harm to the park property.

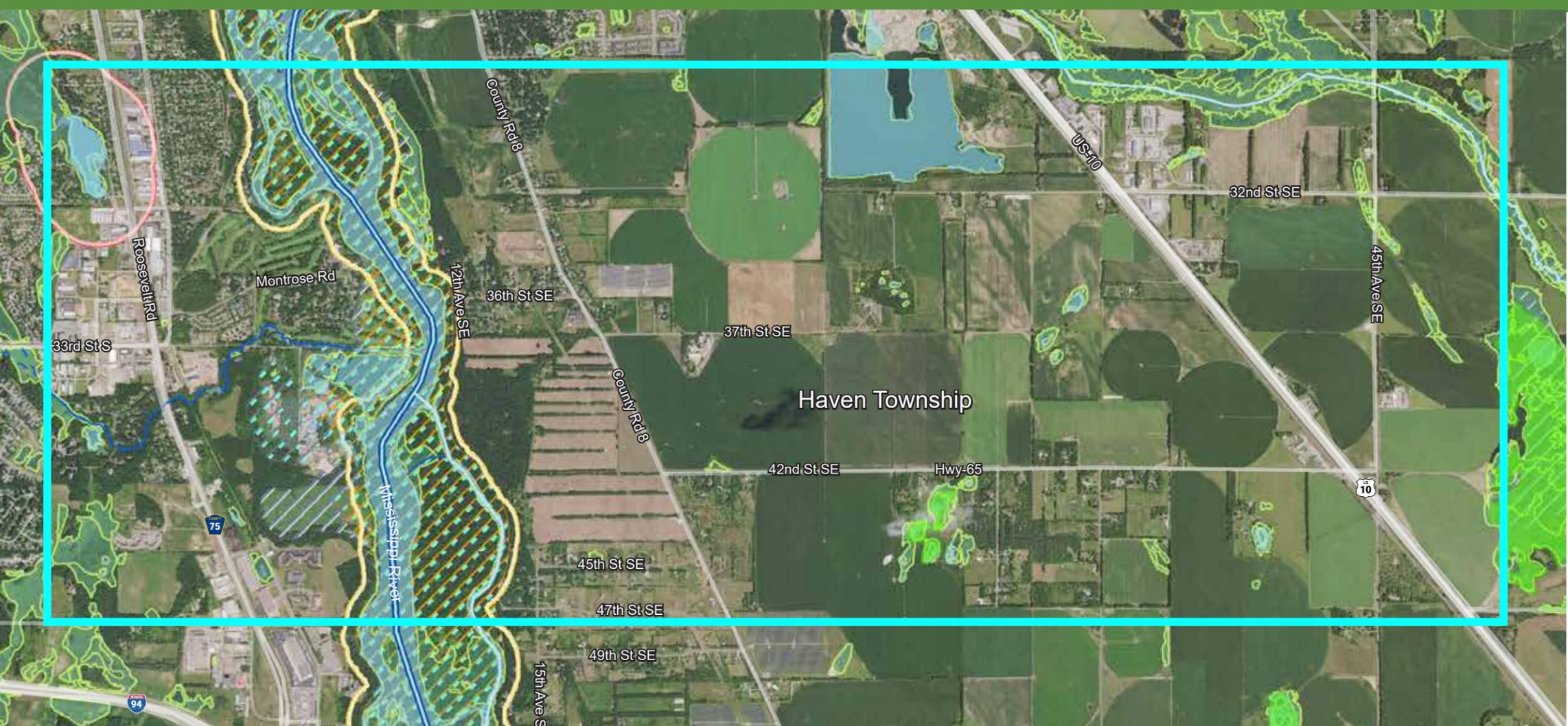
River Bluffs Regional Park is located just south of 33rd Street and the St. Cloud Country Club and depending upon the FHWA involvement, could be considered a 4(f) property. Impacts, direct or indirect, to River Bluffs Regional Park need to will be considered. Direct impacts would include physical encroachments while constructive use may include impacts such as noise, access restrictions, vibration, ecological intrusions, and visual impacts.

The MnDNR maintains a state water trail along the Mississippi River through this area for recreational paddling (canoes, kayaks, and paddleboards). The Mississippi River water trail provides public access points and has a recreational value. Impacts to the

water trail could be considered a 4(f) use and coordination with the MnDNR as the official with jurisdiction will be required. The location of the parks and trail within the project study area are defined on Figure 4-2.

Section 6(f) Resources

The MnDNR administers the Local Grants Program, including funding through the Land and Water Conservation (LAWCON) Fund. Any conversion of LAWCON property from parkland to roadway would require National Park Service (NPS) approval coordinated through the MnDNR. Conversions are considered federal actions that required their own NPS NEPA processes. Due to the NPS involvement, the 6(f) process can be lengthy, and if avoidance is not possible, the process should be started early. Conversion property would need to be replaced by an equivalent property, ideally located adjacent to the existing park.



(left) Figure 4-3: Water Resources

- Stearns County 1000' Shoreland Overlay
- Stearns County 300' Shoreland Overlay
- Impaired Stream
- DNR Protected Watercourse
- DNR Protected Waters
- DNR Protected Wetlands
- National Wetland Inventory Feature
- FEMA 100-year Floodway
- FEMA 100-year Flood Zone
- FEMA 500-year Flood Zone
- Perennial Stream
- Intermittent Stream
- Waterbody
- Study Corridor

**Water Resources**

Management of the Mississippi River is multifaceted and involves a variety of federal, state, and local agencies. Each agency is involved in different management activities and to varying degrees. In this segment of river, key management agencies are shown in Figure 4-3A and Figure 4-3B.

Navigational Channel

Neither the United States Army Corps of Engineers (USACE) nor the United States Coast Guard (USCG) maintain a navigational channel on this portion of the Mississippi River. The Minnesota Department of Natural Resources has jurisdiction over structures spanning the river through its designation as a Wild and Scenic River and a State Water Trail. This segment of the Mississippi River can accommodate small boats, canoes, and kayaks. The land within the river includes the Beaver Islands, a combination of privately owned and public property located within the braided channels of the Mississippi River from the St. Cloud Dam to the St. Cloud Country Club. River use in this area is recreational, supported by several boat launches and campgrounds, managed by the MnDNR and Stearns County.

the St. Cloud Regional Airport management.

This process should begin as the project enters preliminary design development. An airspace request will need to be submitted through the FAA's online portal and FAA Form 7460-1 to determine any restrictions or requirements for design and construction. Elevations for the proposed bridge, including any overhead support within the superstructure (i.e. overhead trusses, arches), or bridge/roadway lighting will be considered for permanent impacts. Temporary impacts would include construction equipment heights, including tower cranes which can require vertical clearances of 200 feet or more. Terrain height will factor into whether the project affects the navigable airspace.

Figure 4-3A: Key management agencies, management activities

<b>Federal</b>	Fish and Wildlife Service (USFWS)	Endangered Species Act Section 7
	Army Corps of Engineers (USACE)	Clean Water Act/Section 404 Permit/Channel Alterations
	Environmental Protection Agency (EPA)	Water Quality
	Federal Emergency Management Agency (FEMA)	Floodplains
<b>State</b>	Minnesota Department of Natural Resources (MnDNR)	Wild and Scenic, Navigation Channel, Water Appropriation
	Minnesota Pollution Control Agency (MPCA)	Clean Water Act/Section 401 Permit
	Minnesota Environmental Quality Board (EQB)	Water Quality
	Board of Soil and Water Resources (BWSR)	Wetlands
<b>Local</b>	Stearns County	Wild and Scenic, Floodplains, Overlay District
	Sherburne County	Wild and Scenic, Floodplains, Overlay District
	Mississippi River - St. Cloud Watershed	Water Quality
	Stearns County Soil and Water Conservation District	Water Quality
	Sherburne County Soil and Water Conservation District	Water Quality

No adjacent bridges exist to serve as controlling structure to set the required navigational clearances. North of this study area is the St. Cloud Dam and approximately 10 miles south is the Minnesota Department of Transportation's (MnDOT's) Trunk Highway 24 Bridge in the City of Clearwater. This bridge has a clearance over the water surface of 40 feet or more depending on river levels.

#### Floodplain Assessment

The current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) have been reviewed for this area (Map Number 27145C0645E in Stearns County, Minnesota dated February 16, 2012 and Map Number 27141C0020F in Sherburne County, Minnesota dated November 16, 2011). Base flood (100-year or Zone A) floodplain boundaries are delineated for the Mississippi River on Figure 4-3.

The crossing will span the Mississippi River, connecting Sherburne and Stearns Counties. The project area encompasses the river crossing and will need to consider both the proposed structure and the bridge approaches in both Counties. The project will need to consider elevations of the new crossing structure and the approach roadways. Roadway grades will have a direct impact on the amount and location of fill required for the approaches, therefore the 100-year flood elevation will need to be considered in early design concepts for the roadway.

The bridge type study will need to consider span lengths and pier placement. The size, number and location of piers will have a direct effect on the proposed river water levels. Any changes in headwater or tailwater elevations will need to be determined. The proposed river crossing bridge would require modeling of the 100-year recurrence to simulate the existing and proposed post-construction conditions. The results of this modeling will be used to determine the limits for the existing floodplain and determine any effects the proposed crossing will have on future river water levels. The 100-year flood elevation for the Mississippi

River in the study area ranges from 965 to 967 feet.

The potential for flood damage upstream needs to be considered for any development within the floodplain. Incompatible development would include placement of fill (including structures) within the Regulatory Floodplain, which is defined as all lands situated below the Regulatory Flood Elevation.

Stearns and Sherburne Counties have floodplain ordinances that regulate floodplain development and conform to the Minnesota Department of Natural Resources Floodplain Management guidelines. The City of St. Cloud also has designated a Floodplain Overlay District prohibiting construction of certain features in the Floodway. Public services of approved hydraulic design (including roads and bridges) are permitted in the floodway. The Flood Fringe District (FF) includes those areas designated as Zone AE outside of the floodway and the General Floodplain District (GF) is shown as designated as Zone A on the Flood Insurance Rate Maps. The City has designated that all permitted uses in the FW are permitted within the GF district.

#### Wild and Scenic Rivers

Rivers can be designated as Wild and Scenic under either the National or State systems. No rivers included in the National Wild and Scenic River System are located within the project area. However, the segment of the Mississippi River from the City of St. Cloud to Clearwater has been classified as "scenic" through the Minnesota Department of Natural Resources Wild and Scenic River Program. The Wild and Scenic classifications are defined in Minnesota Statute (M.S.) 103F.311. Rivers designated as 'scenic' are free-flowing and travel primarily through land that is undeveloped, which provides a natural character and wilderness feel for the user. The MnDNR has been tasked with preserving the scenic nature of this segment of the Mississippi River by controlling the agricultural, residential, and other land use development. Excavation or fill in the segment of the Mississippi

River designated as scenic, placement of navigational obstructions, or construction of permanent structures will require a permit, authorized by the Commissioner of the MnDNR per Minnesota Statutes Section 103G.315. Through M.S. 103F.335, the MnDNR also requires the City of St. Cloud, Haven Township, and Sherburne County, the local government units with jurisdiction over this segment of the Mississippi River to adopt or modify their local zoning ordinances and land use districts maps as necessary to comply with the Mississippi River Management Plan. The land use ordinances have been adopted by each local authority to preserve and protect designated rivers and their adjacent lands. MnDNR, along with the local governmental units enforce the Wild and Scenic River Act and the related management plans through the ordinances and regulations put in place, however in the event that a conflict is encountered between any the Minnesota Wild and Scenic Rivers Act provisions and existing laws or ordinances, the more protective provision will apply.

The City of St. Cloud Developed a Land Use and Zoning Ordinance for the Scenic River District (12.3) with the goal to 'protect and preserve the outstanding scenic, recreational, natural, historic and scientific values of the designated scenic Mississippi River in St. Cloud' through control of development within the City limits. Regulations are in place regarding lot areas, setback distances, bluffland and water frontage for development. The ordinance also regulates changes to vegetation and topography. The construction of a public road is considered a Conditional Use within the Scenic Rivers Overlay District and are subject to land development restrictions including slopes, floodway, and vegetative cutting and clearing. Specific roadway setbacks are provided: 50 ft from federal, state or county trunk highway right-of-way, 30 ft from road or public street right-of-way, and 63 ft from centerline of any road easement.

Sherburne County ordinances control development in bluff lands and river lands with the specific goal of preserving the outstanding

scenic value of the Mississippi River. The Sherburne County ordinance references the need to meet the requirements in the Management Plan for the Mississippi River (MR 6105.0800-6105.0960).

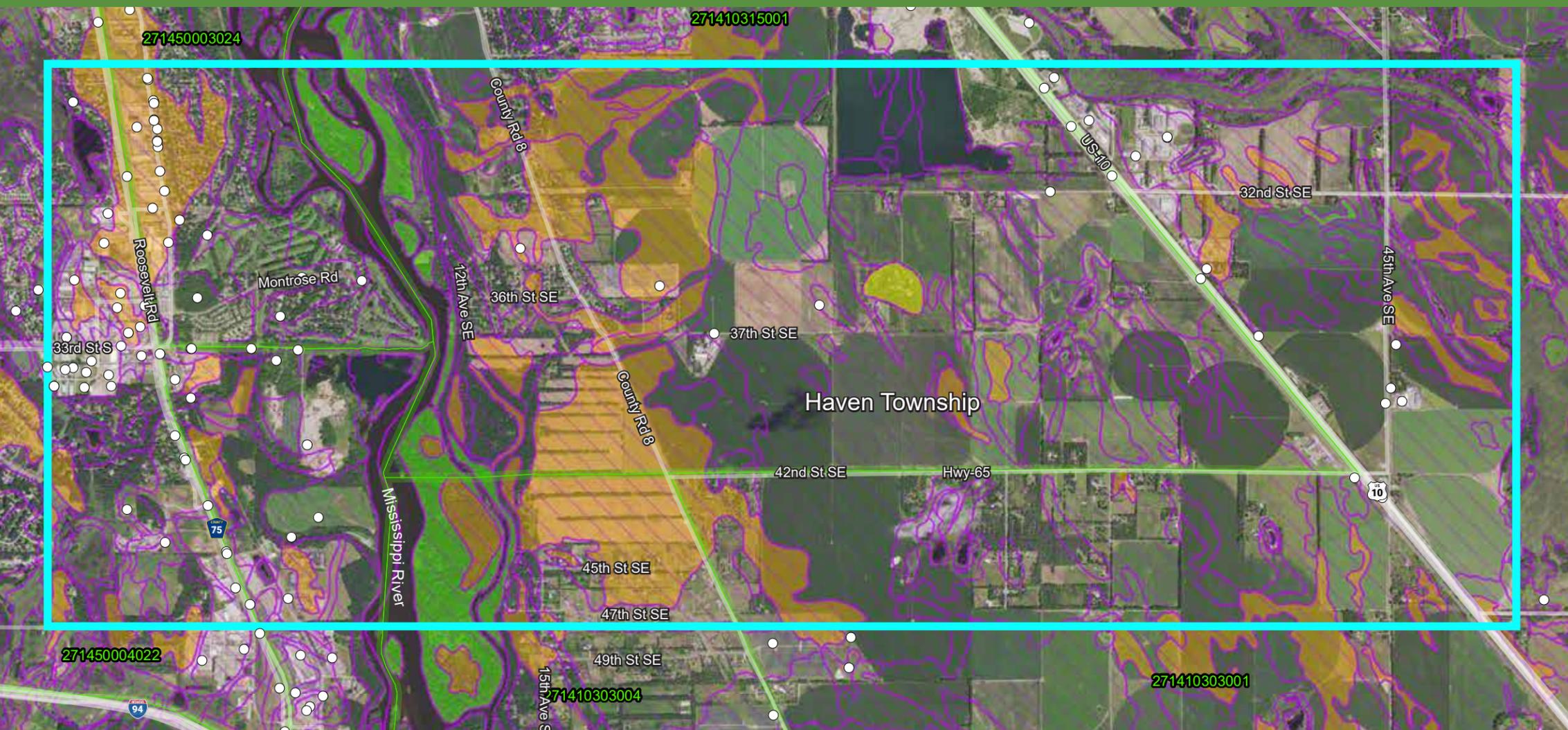
Specifically, the Sherburne's Wild and Scenic ordinance states that no structure shall be placed in any floodway and that "Structures proposed within a floodplain shall be consistent with the statewide Standards and Criteria for Management of Floodplain Areas of Minnesota (Minnesota Rules 6120.5000-6120.6200) and Section 13 of the Sherburne County Zoning Ordinance". Public roads are listed as a Conditional Use subject to the conditions and criteria of Minnesota Rules 6105.0910 and 6105.0200. Similar to Stearns County, clear cutting is allowed for public roads, but consideration should be given to tree removals and grading and filling within the designated land use district.

The Haven Town Board has upheld protections for the portions of the Mississippi Scenic River within its jurisdiction. The Township has adopted an ordinance for the controlling of bluff land and river land development, in order to 'protect and preserve the outstanding scenic, recreational natural, historical and scientific values of the Mississippi in Haven Township'. Similar to ordinances put in place by the City of St. Cloud and Sherburne County, the Township regulates development, setback of structures and alternations of the natural vegetation and topography. Public roadways within the Scenic Land Use District are considered an Interim Use, subject to the conditions and criteria of Minnesota Regulations NR 79 (i) for land use under the Minnesota Wild and Scenic River System. Minimum setbacks for roads defined by Haven Township include 70 feet from federal, state, or county trunk highway right-of-way and 67 feet from a town road.

#### Critical Areas

As this stretch of the Mississippi is designated





(left) Figure 4-4: Soils, Environmental Justice Screening, and MPCA Data

- DNR Karst Feature Inventory\*
- MPCA What's In My Neighborhood
- EPA Environmental Justice Screening
- Depth to Bedrock - 5ft
- Predominantly Hydric Soil
- Partially Hydric Soil
- Non-Hydric Soil
- All Areas are Prime Farmland
- Farmland of Statewide Importance
- Study Corridor

Soils mapped within the Project by the NRCS Soil Survey are shown on Figure 4-5 of the Level 1 study. Wetlands identified during the aerial investigation are primarily located within areas mapped as partially hydric and predominantly hydric soils (Figure 4-4).

A total of sixty-nine wetlands were identified and aerially delineated within the project study area. The wetland boundaries are shown on Figure 4-3. The wetlands are summarized in the Within the Level 1 wetland study, identified wetlands are described in detail and were classified based on NWI mapping and aerial imaging.

The USACE is responsible for the protection and preservation of Waters of the United States, including wetlands, under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act (CWA). The USACE requires that project proposers review the proposed action and determine whether such an action may affect a waterbody or wetland under the jurisdiction of the USACE.

The USACE has regulatory authority over Waters of the U.S. including adjacent wetlands. In Minnesota, LGUs may have additional regulations over certain types of wetlands and waterways. Prior to beginning work at this site or disturbing or altering wetlands, waterways, or adjacent lands in any way, the necessary permits will need to be obtained and other agency regulatory reviews completed with

as 'Scenic', it is not located in the Mississippi National River and Recreation area or the Mississippi River Critical Areas.

Shorelands

Sherburne County, Stearns County, and the City of St. Cloud have classified the land adjacent to the Mississippi River as shoreland districts. This designation enacts several use standards that will need to be considered in design, including:

- Topographic and vegetative screening of structures.
- Shielding or otherwise directing lighting to prevent direct illumination out across public waters.
- Alterations of vegetation and topography will be regulated to prevent erosion into public waters
- Roads, driveways and parking areas must meet structure setbacks and must not be placed within bluff and shore impact zones when other reasonable and feasible placement alternatives exist

Wetlands

Non-isolated wetlands and most waterways are considered Waters of the U.S. and are therefore subject to regulation by the USACE under the CWA and the jurisdictional regulatory authority lies with the USACE. The MnDNR has regulatory authority over certain wetlands, navigable waters and adjacent lands under Statute 103G and Rule 6115.0250. All wetlands are protected under the Wetland Conservation Act Rules Chapter 8420 and administered by a Local Governmental Unit (LGU). LGUs can be a City, County, Watershed District or Soil and Water Conservation District depending on project location.

Stantec conducted a Level 1 aerial environmental survey in December 2020 titled Off-site Wetland Determination for the Mississippi River Bridge Planning Study; Sherburne and Stearns County, Minnesota to

examine the proposed Project locations for areas meeting wetland criteria as set forth in the USACE 1987 Wetland Delineation Manual and applicable Regional Supplements. Stantec recommends this report be submitted to the LGU and USACE for a preliminary jurisdictional review and concurrence.

The survey area is comprised of a mixture of agricultural land, river bottom, residential land, forest, and lands with industrial purposes, including buildings, roadways, and other associated infrastructure. It also included deep marsh, farmed, hardwood swamp, seasonally flooded, shallow marsh, shallow marsh, shallow open water and shrub-carr, wetland types. Upland within the Project area consisted primarily of agricultural land and residential properties. Overall, the existing study area is relatively flat, with steeper slopes along the banks of the Mississippi River.

regard to the proposed work to comply with applicable regulations.

Bridges often carry utilities to consolidate infrastructure across a river or channel. Any utilities located on the bridge will require a separate license from the MnDNR for “the passage of any utility crossing over, under, or across any state land or public water”.

#### Stormwater

Stormwater on the bridge will not be able to drain directly to the Mississippi River without treatment. Roadway contaminants (gasoline, oil, salt, etc.) or accidental spills of hazardous materials on roadway have the potential to occur. Construction of bridge and/or roadway improvements may require incorporation of stormwater management practices consistent with current regulations and agency practices.

The Minnesota Pollution Control Agency (MPCA) has identified that this segment of the Mississippi River is on the Impaired Waters List for mercury in fish tissue. The pollutant present in the Mississippi River involves concentrations of mercury in fish tissue that exceeded the water quality standard, therefore a fish consumption advisory for this river was recommended by the Minnesota Department of Health (MDH). A Total Maximum Daily Load (TMDL) study has been approved by the Environmental Protection Agency (EPA) for mercury in fish impairments, however the MPCA does not require additional design or construction mitigation measures to be taken since mercury is not generally associated with stormwater discharges on roadway construction projects.

Construction of a crossing would likely require a National Pollutant Discharge Elimination System (NPDES) construction stormwater permit be obtained from the MPCA and all design and construction would be expected to follow the NPDES construction stormwater permitting requirements.

### **Agricultural Districts**

A review of Stearns and Sherburne County zoning maps show that no agricultural preserves are located within the project area. If federal funds are used in the construction of the crossing, the Farmland Protection Act (FPPA) will apply. The FPPA is intended to minimize the extent to which federal activities contribute to the unnecessary and irreversible conversion of agricultural land to non-agricultural uses. The Minnesota Department of Agriculture (MDA) does not require review of projects when under ten acres of agricultural land are to be acquired. The soils in the study area have been mapped in Figure 4-5 to illustrate Prime Farmland and Farmland of Statewide Importance. Large areas of Prime and Farmland of Statewide Importance are located in Sherburne County along the river. Considerations in design should be giving to avoid designated farmland when practicable and minimizing severing or triangulation of farmland.

### **Geology**

Several rock outcrop areas within the project study area are denoted on Figure 4-4 as 5 feet to bedrock or less. Surface elevations of the project area range from 1,020 feet along US 10 in Sherburne County, to 1002 feet at the top of the river bluff, 956 feet near the river's edge, and 990 feet above mean sea level, upslope from the river to the west. According to the Geologic Atlas of Stearns County (1995), the depth to bedrock ranges from 0 to 50 feet throughout most of the study area. The area is predominantly Cretaceous Sedimentary rock. Portions of the study area are characterized by several active gravel and granite mining operations as well as abandoned rock quarries. According to the MPCA website, karst conditions do not exist in proximity to the project study area and does not exist in a region where sinkhole and surface karst feature development is anticipated.

### **Contaminated and Hazardous Sites**

The MPCA *What's in my Neighborhood* database was queried to identify potentially contaminated sites within the project study area. The sites are shown on Figure 4-5. Land use in and around the study area includes agricultural land, which provides a potential for pesticide contamination, or dump sites. Former quarries and pits are also located throughout the project study area, which could result in petroleum spills.

As alternatives are developed, a Phase I Environmental Site Assessment (ESA) should be conducted to determine if any potential contamination source impacts are within the project limits. A Phase II Study may be needed to define the limits of a contaminated site to allow for avoidance or minimization of contaminated soil or groundwater.

### **Fish, Wildlife, Vegetation, and Ecological Resources**

The project study area includes a mix of agricultural, bluff, and undeveloped river corridor. The Mississippi River is a large riverine watercourse with fisheries resources that provide ecological and recreational value. The Mississippi River has a coolwater thermal regime and its fish community can be characterized as having cool and warm-water fish.

According to the MnDNR website, the segment of river near St. Cloud contains smallmouth bass (*Micropterus dolomieu*), walleye (*Sander vitreus*), northern pike (*Esox lucius*), and some muskellunge (*Esox masquinongy*). The MnDNR Montrose Area Fisheries Office noted that muskellunge have occurred below the dam in electroshock surveys, but that they are likely drifting down from upstream waters where natural reproduction occurs. This segment of river also is seeing an increasing number of channel catfish (*Ictalurus punctatus*).

Smallmouth bass are protected by a special fishing regulation from the St. Cloud Dam

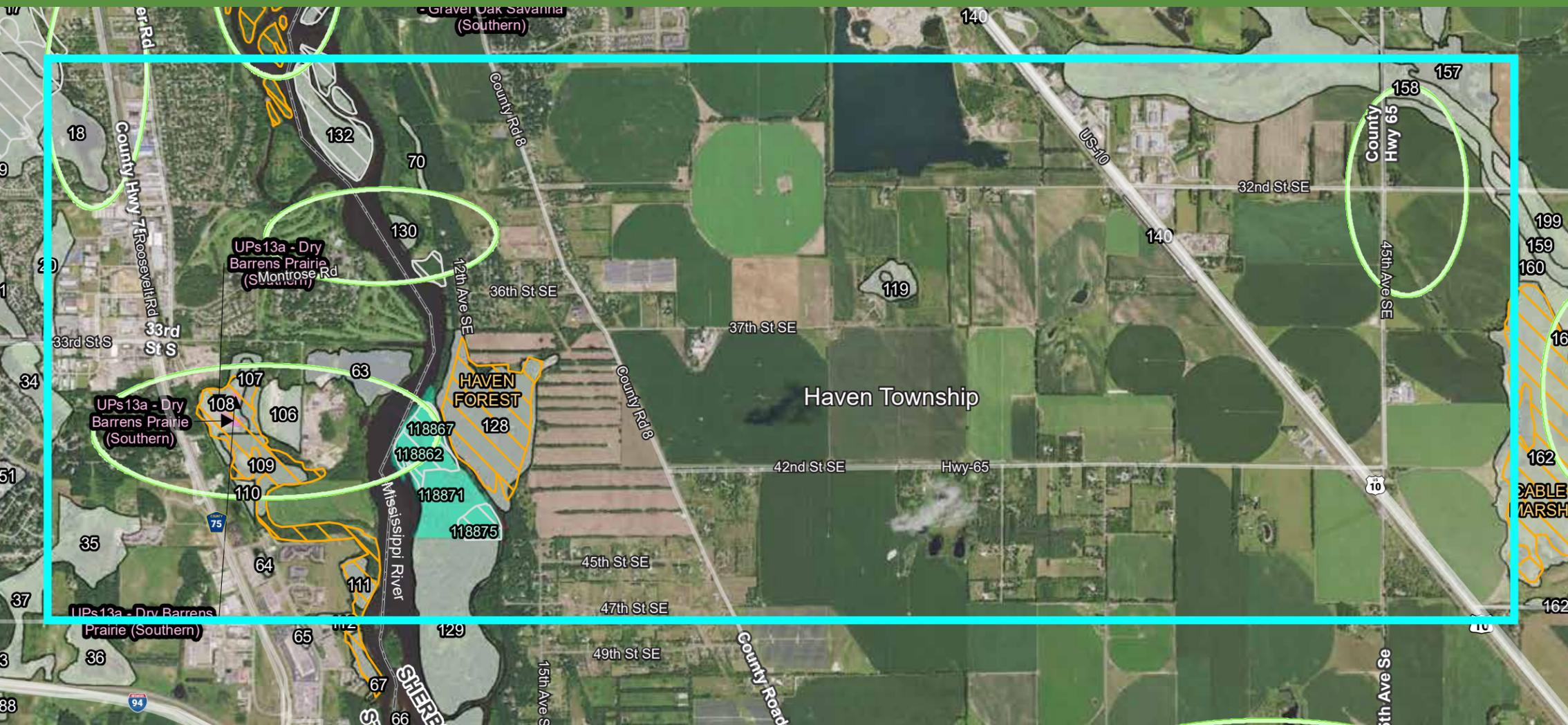
to the confluence of the Crow River. Due largely to the diversity of habitat available and variability of flows, this segment of the Mississippi supports good reproduction and survival. No stocking of any species is being done by the MnDNR anywhere in the Mississippi River. Fishing pressure is estimated at a rate of about 25 hours per acre, which is comparable to small area lakes. This segment of the Mississippi River provides an opportunity for bank angling as well as small vessel fishing.

As construction is planned, understanding when the recreationally important fish species move through the project area for their spawning migrations will be key. Spawning migrations through the project area will determine the need for proposed in-water exclusion dates for pier work or in-water approach work.

The northern long eared bat (*Myotis septentrionalis*) is a federally listed Threatened Species in Minnesota and may utilize forested habitat in or around the proposed project area. A determination will need to be made during the environmental study phase of the project which considers tree removal quantities and time frames to minimize impacts to both bat species. A survey for the presence or absence of the bats may be required prior to the commencement of construction if project clearing occurs during the summer and pup rearing period.

The Minnesota Natural Heritage Information System (NHIS) database was queried on November 13, 2020 for state listed Rare Features and High-Quality Native Plant Communities and Natural Areas. The search revealed Butternut (*Juglans cinerea*), an endangered plant that has been documented within the project study buffer, but outside of the project area. This tree is likely to be present within the forest cover near the Mississippi River. The Tubercle rein orchid (*Platanthera flava* var. *herbiola*) did not have any known





(left) Figure 4-5: Wildlife and Vegetation

- Approximate NHIS Data Location
- DNR Native Prairie
- DNR Forest Stand Inventory
- St. Cloud Environmental Sensitive Area
- MCBS Site with Moderate Biodiversity Significance
- MCBS Site with Medium Biodiversity Significance

Swamp was identified within the study buffer and is categorized between imperiled and vulnerable to extirpation in Minnesota. One High Quality Natural Area, the Harry W. Cater Homestead Prairie Scientific and Natural Area is in Sherburne County just east of the project study area.

There has been one report of zebra mussels having been introduced into the watershed (recorded upstream of the dam). As a result, precautions to prevent the spread of zebra mussels into or out of the project area may be in place prior to project commencement.

The City of St. Cloud has an ordinance in place for land use within Environmentally Sensitive Areas (ESA) with the goal to 'provide and encourage measures of protection to those properties identified as ESAs and provide for equitable economic return in consideration of protection and preservation of ESA.' In accordance with City ordinance 12.4, no development can occur in these areas without approval of an ESA site plan. The City adopted ESAs are included in Figure 4-2, Wildlife and Vegetation. The ESA regulation was adopted through a partnership of local environmentalists, the City of St. Cloud, and State agencies to supplement other State and Federal regulations and ensure that advocates are involved in review for development occurring within ESAs. ESAs defined through this local cooperative partnership include areas within the City of St. Cloud and Haven Township.

occurrences within the project study area, but suitable habitat may be present. There is an historical occurrence along the lower third of the project study area of the Whitney's Underwing (*Catocala whitneyi*), a butterfly of special concern.

Two birds were identified, the Loggerhead Shrike (*Lanius ludovicianus*), an endangered species and the Red-shouldered Hawk, a species of concern both documented within the project study area buffer. The USFWS Information for Planning and Consultation (IPac) system was also queried in December 2020 and listed six migratory birds within the project area, the Bald Eagle (*Haliaeetus leucocephalus*), the Black-billed Cuckoo (*Coccyzus erythrophthalmus*), the Golden-winged Warbler (*Vermivora chrysoptera*), the Lesser Yellowlegs (*Tringa flavipes*), the

Rusty Blackbird (*Euphagus carolinus*), and the Wood Thrush (*Hylocichla mustelina*). Nationwide conservation measures exist for avoiding or minimizing impacts to birds, particularly during breeding windows. All birds listed above (except the Bald Eagle) are Birds of Conservation Concern (BCC) Rangewide, which means that they are of concern throughout the range. The Bald Eagle is not BCC but is listed through the IPac system under the Bald and Golden Eagle Act. Eagles are also protected under the Migratory Bird Treaty Act.

The Blanding's Turtle (*Emydoidea blandingii*) is a threatened species of reptile located within the project area and buffer and is likely to be present. The MnDNR has specific guidance for construction-related avoidance measures for the Blanding's Turtle. The Creek Heelsplitter

(*Lamigona compressa*) mussel and the Black Sandshell (*Lasmigona compressa*) are also listed as a Species of Special Concern in Minnesota. The MnDNR NHIS identified the Creek Heelsplitter as occurring within a stream that flows within the project study buffer and the Black Sandshell has been documented within the Mississippi River. 5-mile radius of the project area. Depending on the location of the crossing, Black Sandshell species-specific surveys may be required within the project area.

Two High Quality Native Plant Communities and Natural Areas were identified by the NHIS survey: the Dry Barrens Prairie (Ups13a) and Tamarack Swamp (FPs63a). The Dry Barrens Prairie is located within the project study area and is categorized between critically imperiled and imperiled in Minnesota. The Tamarack

**Visual**

This project proposes to construct a new crossing of the Mississippi River within a segment of the Mississippi river designated as Scenic. Introducing a new transportation element to the viewshed will change the perspective from land and for river users. Sherburne County and the City of St. Cloud have ordinances regulating development and construction of structures within the segment of river designated as Wild and Scenic. These regulations are described in the Wild and Scenic Rivers Section of this report. An Advisory Committee consisting of local, municipal, provincial, and federal agencies and stakeholders could play an essential role in providing input related to placement, elevation (as is practicable) and aesthetics of a proposed bridge.

An Aesthetic Vision Report should be prepared to document the context sensitive design process for a new Mississippi River crossing to synthesize input from the Advisory Committee, and to propose an aesthetic vision to guide designers during the next phase of the project. Renderings of the proposed bridge and views from key locations on and adjacent to the river should be developed to help the public understand the visual impacts of different locations and bridge types.

**Noise**

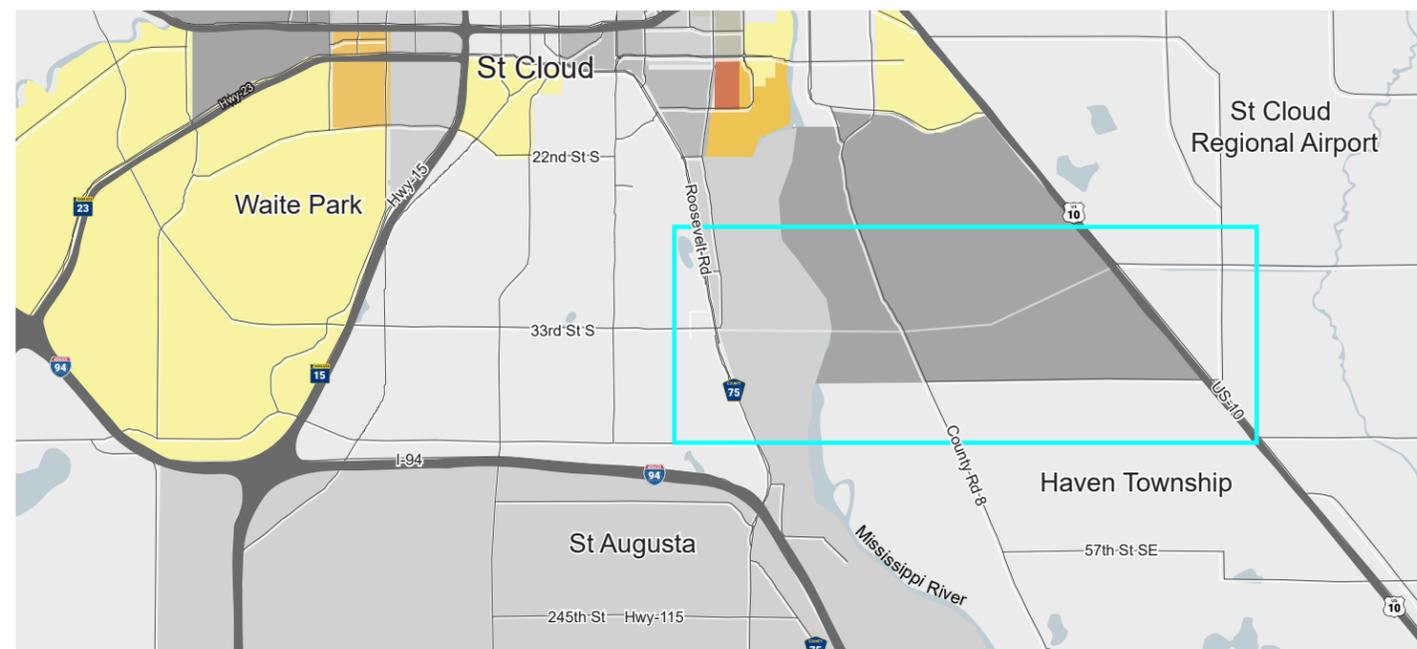
Noise is defined as any unwanted sound. Sound travels in a wave motion and is measured as a sound pressure level. This sound pressure level is commonly measured in decibels. Decibels (dB) represent the logarithm of the ratio of a sound energy relative to a reference sound energy. For highway traffic noise, an adjustment, or weighting, of the high- and low-pitched sound is made to approximate the way that an average person hears sound. The adjusted sound levels are stated in units of “A-weighted decibels” (dBA). A sound increase of 3 dBA is barely noticeable by the human ear, a 5 dBA increase is clearly noticeable, and a 10 dBA increase is heard as twice as loud. For example, if the sound energy is doubled

(i.e., the amount of traffic doubles), there is a 3 dBA increase in noise, which is just barely noticeable to most people. On the other hand, if traffic increases by a factor of ten times, the resulting sound level will increase by about 10 dBA and be heard to be twice as loud.

Traffic noise impacts in Minnesota are evaluated by measuring and/or modeling the traffic noise levels that are exceeded 10 percent and 50 percent of the time during the hours of the day and/or night that have the loudest traffic scenario. Traffic volume, types of vehicles, operating speed, topography, and distance from the road to the receptor influences the traffic noise level at the receptor. The sound level decreases as distance from a source increases. Sound level decreases due to increasing distance from a line source (roadway), a general rule is: beyond approximately 50 feet from the sound source, each doubling of distance from the line source over hard ground (such as pavement or water) will reduce the sound level by 3 dBA, whereas each doubling of distance over soft ground (such as vegetated or grassy ground) results in a sound level decrease of 4.5 dBA. Noise is of particular concern related to preservation of the Wild and Scenic designation of the Mississippi River.

**Social Impacts**

Executive Order (EO) 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations,” dated February 1, 1994, requires that environmental justice be addressed in all federal planning and programming activities. The purpose of EO 12898 is to identify, address, and avoid disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and low-income populations. The proposed crossing project has potential federal permit requirements and may utilize federal funding. If either were to occur, the project would be considered a federal project for the purpose of compliance with this Executive Order. EO 12898 requires that the proposed actions be reviewed to determine if



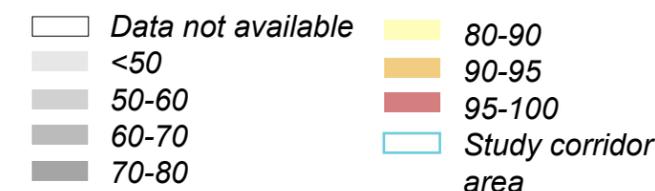
there are “disproportionately” high or adverse impacts on minority or low-income populations. “Disproportionate” is defined in two ways: the impact is “predominantly borne” by the minority or low-income population group, or the impact is “more severe” than that experienced by non-minority or non-low-income populations.

The first step in the environmental justice determination process is to determine whether any minority and/or low-income populations are present within the project area. For the purposes of environmental justice, a low-income population or minority population is defined as a population of people or households located in close geographic proximity meeting the racial or income criteria set forth in Department of Transportation Order 5610.2(a) and FHWA Order 6640.23A. Data was obtained from the EPA’s Environmental Justice Screening Tool (EJSCREEN) and is shown on Figure 4-6.

Identification of Minority Populations

The term “minority” is defined using race and ethnicity definitions from the 2010 Census. Minority communities are generally defined as one where the minority population is either 10 percentage points higher than the county average; or greater than 50 percent of the total geographic unit; or determined based on

Figure 4-6: Minority populations (State percentiles, December 2020)



input for local officials or stakeholders. For this analysis, the presence of minority populations was assessed using block group level data. The Figure 4-7 outlines population and race information for Census Block Groups.

According to the minority criteria definition, minority populations may be within the project vicinity east of the Mississippi River.

Identification of Low-Income Populations

For the purposes of this study, the term “low-income” is defined as persons with income below the 2017 poverty level. Data for the following map printed through the EPA’s EJSCREEN includes 2013-2017 ACS 5-year summary file data, which is based on 2017 Census boundaries.

Figure 4-7: Number of Environmental Justice Sensitive Areas (APO, January 2020)



Given the data presented in Figure 4-6, it is reasonable to conclude that low-income populations exist within Census Tract 4603, Block Group 1 and possibly in the vicinity of the project.

**Other Considerations**

The APO’s FY 2021-2024 Transportation Improvement Program published in August 2020 reviewed environmental justice and Title VI sensitive areas including minority populations, low-income households, people with disabilities, limited English proficient populations, zero vehicle households, people over age 65, and people under age 18. The project study area represented six of the seven factors present.

This project has the potential to provide long term benefits to the region by preserving a piece of the larger transportation network. However, the City, Counties and APO will need to consider the temporary adverse impacts that construction could have on local populations living near the project corridor. As alternatives are developed, familiarity of project staff, including officials from the APO and the City of St. Cloud, with the local landowners will help to further identify a presence or absence of a low-income population within the project area. Identification of sensitive communities will allow for proper planning to avoid, minimize or mitigate disproportionately high and adverse effects of project construction to ‘the greatest extent practicable’ as described in Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by the President on February 11, 1994.

