Application

10354 - 2018 Roadway Modernization

10639 - Hwy 10 & Thurston Ave/Cutters Grove Ave Interchange Project

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	07/12/2018 3:16 PM

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What Grant Programs are you most interested in?	Regional Solicitation - Roadways Including Multimodal Elements			

Organization Information

Name:	ANOKA, CITY OF

Jurisdictional Agency (if different):

Organization Type: City

Organization Website: www.ci.anoka.mn.us

Address: 2015 1ST AVE N

*	ANOKA	Minnesota	55303
	City	State/Province	Postal Code/Zip

County: Anoka

Phone:* 763-576-2700 Ext.

Fax:

PeopleSoft Vendor Number 0000020920A2

Project Information

Project Name Hwy 10 and Thurston Avenue Interchange Project

Primary County where the Project is Located Anoka

Cities or Townships where the Project is Located: Anoka

Jurisdictional Agency (If Different than the Applicant): Minnesota Department of Transportation

Within the City of Anoka, Highway 10 transitions from a suburban freeway to a signalized expressway east of this project area, at Fairoak Avenue. The transition of highway type contributes to traffic back-ups and congestion that result in significant travel delays during morning and afternoon peak travel periods. This intersection experiences more crashes than expected on similar roadway types.

Thurston Avenue provides the only grade-separated crossing of the BNSF railroad within 5 miles and provides a key connection from Highway 10 to numerous businesses, including the Anoka Enterprise Industrial Park and Anoka Technical College. Given these land uses, Thurston Avenue and Highway 10 accommodate a high level of truck traffic.

Brief Project Description (Include location, road name/functional class, type of improvement, etc.)

A closely spaced all-way stop on Thurston Avenue, located less than 500 feet north of the intersection with Highway 10 restricts vehicle flow causing significant queuing numerous hours of the day. Traffic traveling south on Thurston Avenue oftentimes experience long delays to turn left onto Highway 10 from this all-way stop and the traffic signal at Highway 10.

This project will remove the traffic signal at Highway 10 and Thurston Avenue and replace it with a grade-separated, full-access, roundabout interchange. The all-way stop on Thurston Avenue to the north of Highway 10 will be moved approximately 500 feet to the north and also replaced with a roundabout. The project will also provide a bike and pedestrian trail way/sidewalk connection along Thurston Avenue to the south frontage road. These improvements will improve

capacity, mobility, reliability, safety, local connectivity, and walkability along Highway 10 and Thurston Avenue.

In 2014, the MnDOT Highway 10 Access Planning Study identified high priority/right-sized improvements and has received support from MnDOT, Metropolitan Council, Anoka County and the cities of Anoka and Ramsey. Converting the Highway 10 and Thurston Avenue traffic signal to an interchange was identified as a top priority. The City of Anoka continued to refine the overall vision of Highway 10 through the city in partnership with MnDOT and Anoka County.

In January 2017, the Metropolitan Council awarded $7M of Regional Solicitation federal funding for improvements to Highway 10/169 at Fairoak Avenue. This application is for improvements just to the west of the previous Fairoak Avenue project on Highway 10 at Thurston Avenue. This project, as submitted, is consistent with the Highway 10 Access Planning Study and all subsequent planning efforts.

As implemented, the project will address safety and congestion issues while yielding a strong return on investment.

(Limit 2,800 characters; approximately 400 words)

TIP Description Guidance (will be used in TIP if the project is selected for funding)

Highway 10 from Anoka/Ramsey City Limits to Cutters Lane. Interchange reconstruct, grade separate intersection at Thurston Ave, improve frontage and supporting road configurations to Green Haven Parkway.

Project Length (Miles)

to the nearest one-tenth of a mile

1.27

Project Funding

Are you applying for competitive funds from another source(s) to implement this project?	Yes
If yes, please identify the source(s)	MnDOT Highway Freight Program, MnDOT Transportation Economic Development Program, 2018 MN legislative session through a State of MN LRIP bonding bill
Federal Amount	$7,000,000.00
Match Amount *Minimum of 20% of project total*	$23,782,800.00
Project Total	$30,782,800.00
Match Percentage *Minimum of 20%* *Compute the match percentage by dividing the match amount by the project total*	77.26%
Source of Match Funds *A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources*	MnDOT, Anoka County, City of Anoka

Preferred Program Year

Select one: *Select 2020 or 2021 for TDM projects only. For all other applications, select 2022 or 2023.*	2022
Additional Program Years: *Select all years that are feasible if funding in an earlier year becomes available.*	

Project Information-Roadways

County, City, or Lead Agency	City of Anoka
Functional Class of Road	US 10 = Principal Arterial
Road System *TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET*	TH; City Street
Road/Route No. *i.e., 53 for CSAH 53*	10
Name of Road *Example; 1st ST., MAIN AVE*	TH 10, Thurston Ave, Cutters Grove Ave
Zip Code where Majority of Work is Being Performed	55303
(Approximate) Begin Construction Date	01/03/2022
(Approximate) End Construction Date	10/25/2024

TERMINI:(Termini listed must be within 0.3 miles of any work)

From: **(Intersection or Address)**	TH 10 at West City Limit
To: **(Intersection or Address)**	TH 10 at Cutters Lane

DO NOT INCLUDE LEGAL DESCRIPTION

Or At

Primary Types of Work	GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, LIGHTING, GUARDRAIL, PED RAMPS, BRIDGE

Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER,STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:	N/A
New Bridge/Culvert No.:	TBD
Structure is Over/Under (Bridge or culvert name):	N/A

Requirements - All Projects

All Projects

1.The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan (2015), the 2040 Regional Parks Policy Plan (2015), and the 2040 Water Resources Policy Plan (2015).

Check the box to indicate that the project meets this requirement. Yes

2.The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.

List the goals, objectives, strategies, and associated pages:

The project aligns with many aspects of the 2040 Tr ansportation Policy Plan including the following goals & strategies:

Goal: Safety and Security (pg 60)

Objective: Reduce crashes & improve safety & security for all modes of passenger travel & freight transport(pg 60)

Strategy: B1) Regional transportation partners will incorporate safety and security considerations for all modes & users throughout the processes of planning, funding, construction, and operation(pg 2.7)

(B4) Regional transportation partners will support the state's vision of moving toward zero traffic fatalities & serious injuries, which includes supporting educational and enforcement programs to increase awareness of regional safety issues, shared responsibility and safe behavior(pg 2.7)

Goal: Access to Destinations (pg 62)

Objectives: A) Increase the availability of multimodal travel options, especially in congested highway corridors; B) Increase travel time reliability & predictability for travel on highway and transit systems; E) Improve multimodal travel options for people of all ages & abilities to connect to jobs and other opportunities, particularly for historically underrepresented populations(pg 62)

Strategy: (C9) The Council will support investments in A-minor arterials that build, manage, or improve

the system's ability to supplement the capacity of the principal arterial system & support access to the region's job, activity, and industrial & manufacturing concentrations(pg 2.9)

(C16) Regional transportation partners should fund projects that provide for bicycle & pedestrian travel across/around physical barriers and/or improve continuity between jurisdictions(pg 2.10)

Goal: Competitive Economy(pg 64)

Objectives: C)Support the region's economic competitiveness through the efficient movement of freight(pg 64)

Strategy: D2)The Council will coordinate with other agencies planning & pursuing transportation investments that strengthen connections to other regions in Minnesota, the Upper Midwest, nation, and world including intercity bus and passenger rail, highway corridors, air service, and freight infrastructure (pg 2.11)

(D5)The Council and MnDOT will work with transportation partners to identify the impacts of highway congestion on freight & identify cost-effective mitigation(pg 2.11)

3.The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

List the applicable documents and pages:

- MnDOT Highway 10 Access Planning Study: http://www.dot.state.mn.us/metro/projects/hwy10study/executivesummary.html

- Anoka 2030 Comprehensive Plan - pages: 175, 176, 183, 185, 189

- Anoka County 2030 Transportation Plan - pages: 2.1, 2.2, 2.3, 2.4

- City of Anoka Capital Improvements Plan - page 4, 12, 13

4.The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

Check the box to indicate that the project meets this requirement. Yes

5.Applicants that are not cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes

6.Applicants must not submit an application for the same project elements in more than one funding application category.

Check the box to indicate that the project meets this requirement. Yes

7.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.
***Roadway Expansion:** $1,000,000 to $7,000,000*
***Roadway Reconstruction/ Modernization Modernization and Spot Mobility:** $1,000,000 to $7,000,000*
***Traffic Management Technologies (Roadway System Management):** $250,000 to $7,000,000*
***Bridges Rehabilitation/ Replacement:** $1,000,000 to $7,000,000*

Check the box to indicate that the project meets this requirement. Yes

8.The project must comply with the Americans with Disabilities Act (ADA).

Check the box to indicate that the project meets this requirement. Yes

9.In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have, or be substantially working towards, completing a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA.

The applicant is a public agency that employs 50 or more people and has an adopted ADA transition plan that covers the public right of way/transportation.			Date plan adopted by governing body
The applicant is a public agency that employs 50 or more people and is currently working towards completing an ADA transition plan that covers the public rights of way/transportation.	Yes	01/02/2019 Date process started	03/20/2020 Date of anticipated plan completion/adoption

The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public rights of way/transportation.

Date self-evaluation completed

The applicant is a public agency that employs fewer than 50 people and is working towards completing an ADA self-evaluation that covers the public rights of way/transportation.

Date process started

Date of anticipated plan completion/adoption

(TDM Applicants Only) The applicant is not a public agency subject to the self-evaluation requirements in Title II of the ADA.

10.The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes

11.The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.

Check the box to indicate that the project meets this requirement. Yes

12.The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes

13.The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes

14.The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

Roadways Including Multimodal Elements

1.All roadway and bridge projects must be identified as a principal arterial (non-freeway facilities only) or A-minor arterial as shown on the latest TAB approved roadway functional classification map.

Check the box to indicate that the project meets this requirement. Yes

Roadway Expansion and Reconstruction/Modernization and Spot Mobility projects only:

2.The project must be designed to meet 10-ton load limit standards.

Check the box to indicate that the project meets this requirement. Yes

Bridge Rehabilitation/Replacement projects only:

3.Projects requiring a grade-separated crossing of a principal arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOTs Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

Check the box to indicate that the project meets this requirement.

4.The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

Check the box to indicate that the project meets this requirement.

5.The length of the bridge must equal or exceed 20 feet.

Check the box to indicate that the project meets this requirement.

6. The bridge must have a sufficiency rating less than 80 for rehabilitation projects and less than 50 for replacement projects. Additionally, the bridge must also be classified as structurally deficient or functionally obsolete.

Check the box to indicate that the project meets this requirement.

Roadway Expansion, Reconstruction/Modernization and Spot Mobility, and Bridge Rehabilitation/Replacement projects only:

7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT (Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process.

Check the box to indicate that the project meets this requirement. Yes

Requirements - Roadways Including Multimodal Elements

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$994,200.00
Removals (approx. 5% of total cost)	$258,200.00
Roadway (grading, borrow, etc.)	$1,304,500.00
Roadway (aggregates and paving)	$1,600,500.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$984,000.00
Ponds	$266,000.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$3,861,200.00
Traffic Control	$1,491,300.00
Striping	$298,300.00
Signing	$298,300.00
Lighting	$627,500.00
Turf - Erosion & Landscaping	$1,491,300.00
Bridge	$3,114,400.00
Retaining Walls	$7,084,500.00
Noise Wall (not calculated in cost effectiveness measure)	$1,417,500.00
Traffic Signals	$0.00
Wetland Mitigation	$0.00

Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$2,982,600.00
Other Roadway Elements	$2,647,600.00
Totals	**$30,721,900.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	$60,900.00
Sidewalk Construction	$0.00
On-Street Bicycle Facility Construction	$0.00
Right-of-Way	$0.00
Pedestrian Curb Ramps (ADA)	$0.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$0.00
Pedestrian-scale Lighting	$0.00
Streetscaping	$0.00
Wayfinding	$0.00
Bicycle and Pedestrian Contingencies	$0.00
Other Bicycle and Pedestrian Elements	$0.00
Totals	**$60,900.00**

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	$0.00
Stations, Stops, and Terminals	$0.00
Support Facilities	$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	$0.00
Vehicles	$0.00
Contingencies	$0.00
Right-of-Way	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	$0.00
Subtotal	$0.00
Other Costs - Administration, Overhead,etc.	$0.00

Totals

Total Cost	$30,782,800.00
Construction Cost Total	$30,782,800.00
Transit Operating Cost Total	$0.00

Congestion on adjacent Parallel Routes:

Adjacent Parallel Corridor	MN 47/Ferry Street N
Adjacent Parallel Corridor Start and End Points:	
Start Point:	Highway 10
End Point:	McKinley Street
Free-Flow Travel Speed:	32
The Free-Flow Travel Speed is black number.	
Peak Hour Travel Speed:	20
The Peak-Hour Travel Speed is red number.	
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow (calculation):	37.5%
Upload the "Level of Congestion" map:	1531332979687_Hwy 10 Thurston Combined Parallel Congestion.pdf

Principal Arterial Intersection Conversion Study:

Proposed at-grade project that reduces delay at a High Priority Intersection:	Yes
(65 Points)	
Proposed at-grade project that reduces delay at a Medium Priority Intersection:	
(55 Points)	
Proposed at-grade project that reduces delay at a Low Priority Intersection:	
(45 Points)	

Not listed as a priority in the study:

(0 Points)

Congestion Management and Safety Plan IV:

Proposed at-grade project that reduces delay at a CMSP opportunity area:

(65 Points)

Not listed as a CMSP priority location: Yes

(0 Points)

Measure B: Project Location Relative to Jobs, Manufacturing, and Education

Existing Employment within 1 Mile: 7705

Existing Manufacturing/Distribution-Related Employment within 1 Mile: 2959

Existing Post-Secondary Students within 1 Mile: 2027

Upload Map 1531333526968_Hwy 10 Thurston Combined Econ.pdf

Please upload attachment in PDF form.

Measure C: Current Heavy Commercial Traffic

RESPONSE: Select one for your project, based on the Regional Truck Corridor Study:

Along Tier 1:

Along Tier 2: Yes

Along Tier 3:

The project provides a direct and immediate connection (i.e., intersects) with either a Tier 1, Tier 2, or Tier 3 corridor:

None of the tiers:

Measure A: Current Daily Person Throughput

Location Highway 10 at Cutters Lane

Current AADT Volume 56000

Existing Transit Routes on the Project 850, 852, 887, 888-Northstar Commuter Rail

For New Roadways only, list transit routes that will likely be diverted to the new proposed roadway (if applicable).

Upload Transit Connections Map 1531240731357_Hwy 10 Thurston Combined Transit.pdf

Please upload attachment in PDF form.

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	2823.0
Current Daily Person Throughput	75623.0

Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume	No
If checked, METC Staff will provide Forecast (2040) ADT volume	
OR	
Identify the approved county or city travel demand model to determine forecast (2040) ADT volume	2030 Twin Cities Regional Model with 2040 Trip Tables for the City of Anoka in Anoka County
Forecast (2040) ADT volume	89700

Measure A: Connection to disadvantaged populations and projects benefits, impacts, and mitigation

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):	
(up to 100% of maximum score)	
Project located in Area of Concentrated Poverty:	
(up to 80% of maximum score)	
Projects census tracts are above the regional average for population in poverty or population of color:	Yes
(up to 60% of maximum score)	
Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:	
(up to 40% of maximum score)	

1.(0 to 3 points) A successful project is one that has actively engaged low-income populations, people of color, children, persons with disabilities, and the elderly during the project's development with the intent to limit negative impacts on them and, at the same time, provide the most benefits.
Describe how the project has encouraged or will engage the full cross-section of community in decision-making. Identify the communities to be engaged and where in the project development process engagement has occurred or will occur. Elements of quality engagement include: outreach to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in the community engagement related to transportation projects; residents or users identifying potential positive and negative elements of the project; and surveys, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.

This Highway 10 Access Planning Study, from which this project emerged, involved a public engagement process that included three public open houses. Since 2014 when the Study was completed, the City established the Anoka Solution Project website to provide information about progress and milestones (https://clients.bolton-menk.com/hwy10/). The website is updated frequently to reflect current information.

The City of Anoka has also met with affected property and business owners throughout project development. Input from these stakeholders was considered during alternative development and evaluation including, but not limited to minimizing negative impacts.

Response:

The City of Anoka and MnDOT are now in the NEPA process and are now completing a combined federal Environmental Assessment and State of Minnesota Environmental Assessment Worksheet. A public information meeting/public hearing will be held after the document has been distributed to the public and to the required and interested federal, Native American Tribes, state and local agencies for review.

Preliminary design layouts and other project document will be available for review at the meeting. Participants will be encouraged to ask questions and formally submit public comments about the project, which will become part of the record.

(Limit 1,400 characters; approximately 200 words)

2.(0 to 7 points) Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to safety; public health; access to destinations; travel time; gap closure; leveraging of other beneficial projects and investments; and/or community cohesion. Note that this is not an exhaustive list.

For City of Anoka residents, Highway 10 is a barrier between the north and the south sides of town. This is because local neighborhoods were separated when Highway 10 was constructed in 1962.

The population in the project area is above the regional average for population in poverty. According to city data, the project area is home to a 20% nonwhite race population.

The majority residential areas directly adjacent to Highway 10 in Anoka are multi-family, including apartments and townhouses. Two Metro Transit bus stops are located on Thurston Avenue, north of Highway 10.

Response:

Within the project area, the high-density housing on the south side of the Highway 10, employment and educational facilities on the north side, along with land uses east of the intersection, contribute to a high-level of bicycle and foot traffic. However, existing pedestrian facilities are limited and inadequate. The lack of continuous pedestrian routes and safe, convenient crossings of the highway make non-motorized travel difficult.

This project will close gaps in the non-motorized transportation network and implement continuous accommodations. This will result in safer conditions which will benefit all, including low-income populations, elderly, and persons with disabilities, and persons of color. Connections to transit and destinations on Highway 10 will be improved which will enhance access to essential daily functions, including jobs and services, including retail, medical, and restaurants.

Planned improvements will improve vehicles travel times. The proposed interchange will allow traffic to flow, decreasing travel times. This benefits cars, freight, and public transportation users through improved reliability of travel times and speeds.

This project supports currently funded roadway improvements identified in the Highway 10 Access Planning Study, including the overall Highway 10 Safety and Mobility Improvement Project that extends from the western City limit of Anoka to Main Street. This includes the intersection at Highway 10 and Fairoak Ave, which received $7M during the 2016 round of the Regional Solicitation program. Funding this Highway 10 and Thurston Ave intersection will further maximize the benefit of public investment along this critical regional corridor. Ideally, all improvements will be constructed in continuous phasing to use resources efficiently and to minimize disruptions to regional traffic and local businesses and residents.

(Limit 2,800 characters; approximately 400 words)

3.(-3 to 0 points) Describe any negative externalities created by the project along with measures that will be taken to mitigate them. Negative externalities can result in a reduction in points, but mitigation of externalities can offset reductions.
Below is a list of negative impacts. Note that this is not an exhaustive list.
Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.
Increased noise.
Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.
Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.
Increased speed and/or cut-through traffic.
Removed or diminished safe bicycle access.
Inclusion of some other barrier to access to jobs and other destinations.
Displacement of residents and businesses.
Construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings. These tend to be temporary.
Other

Response:

The project is not anticipated to result in negative externalities relative to pedestrian and/or bicycle access or air quality. The project will improve pedestrian and bicycle access considerably over existing conditions. The project will address congestion at the intersection of Highway 10 and Thurston Ave, which will increase speeds. However, addressing the congestion will improve safety by addressing conditions that contribute to rear end crashes. Additionally, the grade separation of Highway 10 and Thurston Ave will reduce conflict points, therefore reducing crash potential.

Creating grade separation of local roads and Highway 10 at both Thurston Ave/Cutters Grove Ave and at Fairoak Ave, the project will introduce noise impacts to nearby land uses. Noise analysis is currently underway as part of the NEPA process. All applicable federal and state noise requirements, including mitigations, will be followed as part of this project.

The improvements at Highway 10 and Thurston Ave will not result in the displacement or residents and/or businesses. The project will require acquiring some permanent right-of-way acquisition along Thurston Ave and Cutters Grove Ave, as well as to accommodate the new frontage road north of Highway 10 and west of Thurston Ave. The project will also require temporary easements, primarily during construction.

The City of Anoka currently owns multiple parcels in the southwest, northwest, and northeast quadrants of the Highway 10 and Thurston Ave intersections. This city owned land will be either permanently repurposed or temporarily used during construction. The city owned parcels are currently vacant.

(Limit 2,800 characters; approximately 400 words)

Upload Map 1531236246951_Hwy 10 Thurston Combined SocioEcon.pdf

Measure B: Affordable Housing

City	Segment Length (For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
Anoka	1.27	1.0	83.0	83.0

Total Project Length

Total Project Length (as entered in the "Project Information" form)	1.27

Affordable Housing Scoring

Total Project Length (Miles) or Population	1.27
Total Housing Score	83.0

Affordable Housing Scoring

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1964	0.71	1394.44	1097.984
1986	0.46	913.56	719.339
1998	0.1	199.8	157.323
	1	**2508**	**1975**

Total Project Length

Total Project Length (as entered in "Project Information" form) 1.27

Average Construction Year

Weighted Year 1974

Total Segment Length (Miles)

Total Segment Length 1.27

Measure B: Geometric, Structural, or Infrastructure Improvements

Improved roadway to better accommodate freight movements: Yes

Highway 10 is a High Priority Interregional Corridor on the National Truck Network, connecting the Twin Cities to St. Cloud metropolitan areas. The corridor is classified as Tier 2 in the Metropolitan Council's Highway Truck Corridor Study.

Response:

Thurston Avenue provides sole access to Anoka Enterprise Park - home to over 70 businesses, of which many generate freight. The interchange will reduce queue lengths on Thurston Avenue. Improved access spacing will improve and roadway reliability which will benefit freight movement. From a regional perspective, freight traffic will access Highway 10 without stopping for cross traffic on Thurston Avenue.

(Limit 700 characters; approximately 100 words)

Improved clear zones or sight lines:

Response:

(Limit 700 characters; approximately 100 words)

Improved roadway geometrics: Yes

The at-grade intersection causes several issues including poor sightlines, largely differing vehicle speeds, and short acceleration and weaving conditions. This project will convert an at-grade intersection to an interchange.

Response:

The exit ramps will extend 300 feet (with an addition of an auxiliary lane) for increased deceleration leading into the interchange roundabouts. This will provide speed control in an area that typically sees speeds exceeding the posted limit. The acceleration lanes will extend 1,100 feet, an appropriate length for vehicles and trucks to safely merge into 60 mph+ traffic.

(Limit 700 characters; approximately 100 words)

Access management enhancements:

Yes

The traffic signal at Highway 10 and Thurston Avenue will be replaced with an interchange. The four-way stop on Thurston Ave located less than 500 feet north will be shifted an additional 500 feet north to improve intersection spacing. It will also be improved to an intersection type with greater capacity to maintain movement for commuters and freight along Thurston Avenue. The project will close four private driveways - three at the west end and one at Cutters Lane. The public street access point (right-in/right-out) at Cutters Lane will also be closed.

Response:

(Limit 700 characters; approximately 100 words)

Vertical/horizontal alignment improvements:

Yes

The Highway 10/Thurston Avenue interchange will tie in to the Fairoak Avenue and Main Street portion of the Highway 10 project, located just east end of this project. This will result minimize disruption to the corridor project. Use of concrete center barrier and guardrail enables narrowing the highway footprint, limiting community impacts.

Response:

(Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

Yes

Response:

The project's stormwater management efforts will address all potential threats to the Mississippi and Rum Rivers, floodplains, wetlands, and local drainage ways. Open spaces between the ramps and highway will be used for stormwater management. Stormwater runoff will be conveyed from the roadway to the stormwater management system via curb and gutter and storm sewer.

Given the tight project limits, innovative stormwater management will be used to construct linear bioretention features to infiltrate stormwater, reduce pollutants and provide flood control. Native seeding will increase runoff volume retention, maximize nutrient uptake and help stormwater drain like it did before urbanization.

(Limit 700 characters; approximately 100 words)

Signals/lighting upgrades:

Yes

Response:

Lighting at the interchange intersection will be upgraded from existing high pressure sodium lights to exceptional energy efficient LED lights. Construction of local connections include upgrading to an urban design involving pedestrian scale lighting and lighting levels that accommodate high levels of pedestrian activities. The transit stops along Thurston Avenue will also be properly lit for safety and improved visibility.

(Limit 700 characters; approximately 100 words)

Other Improvements

Yes

Response:

The safety and mobility improvements achieved by the Highway 10/Thurston Avenue improvement cannot be overemphasized. With almost 800 crashes on this segment of Highway 10 in the last ten years, the result is a crash rate more than 3x that of similar metro area facilities.

(Limit 700 characters; approximately 100 words)

Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project (Seconds/Vehicle)	Total Peak Hour Delay Per Vehicle With The Project (Seconds/Vehicle)	Total Peak Hour Delay Per Vehicle Reduced by Project (Seconds/Vehicle)	Volume (Vehicles per hour)	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
116.0	7.0	109.0	5844	636996.0	NA	1531236884842_Hwy 10 Thurston Part 5 Attachments.pdf

Vehicle Delay Reduced

Total Peak Hour Delay Reduced	636996.0

Measure B:Roadway projects that do not include new roadway segments or railroad grade-separation elements

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
81.6	66.2	15.4
82	**66**	**15**

Total

Total Emissions Reduced:	15.4
Upload Synchro Report	1531237824623_Hwy 10 Thurston Part 5 Emissions.pdf

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

Measure B: Roadway projects that are constructing new roadway segments, but do not include railroad grade-separation elements (for Roadway Expansion applications only):

Total (CO, NOX, and VOC) Peak Hour Emissions without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
0	0	0

Total Parallel Roadway

Emissions Reduced on Parallel Roadways	0

Upload Synchro Report

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

New Roadway Portion:

Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons:	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0.0

Measure B:Roadway projects that include railroad grade-separation elements

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0

Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	

Measure A: Roadway Projects that do not Include Railroad Grade-Separation Elements

Crash Modification Factor Used: *(Limit 700 Characters; approximately 100 words)*	NA. See attached methodology
Rationale for Crash Modification Selected: *(Limit 1400 Characters; approximately 200 words)*	NA. See attached methodology
Project Benefit ($) from B/C Ratio	$19,564,905.00
Worksheet Attachment *Please upload attachment in PDF form.*	1531238279545_Hwy 10 Thurston All Safety Attachments.pdf

Roadway projects that include railroad grade-separation elements:

Current AADT volume:	0
Average daily trains:	0
Crash Risk Exposure eliminated:	0

Measure A: Multimodal Elements and Existing Connections

The existing atgrade intersection of Highway 10 and Thurston Avenue requires pedestrians to cross six lanes of traffic (over 100 feet of exposure) and often results in inconvenient wait times as the traffic signal gives priority to the mainline.

The project will separate non-motorized traffic along Thurston Avenue/Cutters Grove Avenue from Highway 10 and provide a uniform, continuous connection on the west side of this local street between McKinley Street in the north to the new frontage road south of Highway 10, east of Cutters Grove Avenue. This will improve connections between the residential area in the southwest quadrant of this intersection, and the concentration of jobs and the educational facilities on the on the north side of the highway, including Anoka Enterprise Park, Anoka Technical College, and Vista Outdoors.

Response:

The non-motorized accommodations will connect to bus stops located on Thurston Avenue and McKinley Street, which will benefit those using transit to access jobs and educational facilities. All non-motorized improvements will be ADA compliant.

A RBTN Tier 1 corridor encompasses the project area. This corridor follows Highway 10 and parallels the Mississippi River to the south of Highway 10. Non-motorized improvements made as part of this project would tie into a future RBTN Tier 1 corridor.

Currently, residential areas are located south of Highway 10 while educational and employment opportunities are located north of the highway. Likewise, transit stops are located north of Highway

10, separating area residents from key transit connections. Access to transit will be improved along Thurston Avenue. through the development of continuous pedestrian facilities that will connect the northern and southern sides of Highway 10. New pedestrian facilities will also provide opportunity for future transit stops within the project area.

Three Metro Transit bus routes serve the project area. Routes 850 and 852 Express serve Anoka and Coon Rapids; Route 887 serves St. Cloud by connecting to the Northstar train at several stops and downtown Minneapolis by bus. These routes generally provide peak hour commuter bus service and are described below. Route 850 provides service to the Anoka Enterprise Park, Vista Outdoors, and the Anoka Technical College. Route 852 provides service to these same locations, as well as further north on Thurston Ave and the surrounding area, providing service to the employers in this vicinity.

(Limit 2,800 characters; approximately 400 words)

Transit Projects Not Requiring Construction

If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.
Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment - Construction Projects

1)Layout (30 Percent of Points)

Layout should include proposed geometrics and existing and proposed right-of-way boundaries.

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

Yes

100%

Attach Layout 1531343881656_Hwy 10 Thurston Layout with Letters.pdf

Please upload attachment in PDF form.

Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points.

50%

Attach Layout

Please upload attachment in PDF form.

Layout has not been started

0%

Anticipated date or date of completion

2)Review of Section 106 Historic Resources (20 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge

100%

There are historical/archeological properties present but determination of no historic properties affected is anticipated. Yes

100%

Historic/archeological property impacted; determination of no adverse effect anticipated

80%

Historic/archeological property impacted; determination of adverse effect anticipated

40%

Unsure if there are any historic/archaeological properties in the project area.

0%

Project is located on an identified historic bridge

3)Right-of-Way (30 Percent of Points)

Right-of-way, permanent or temporary easements either not required or all have been acquired

100%

Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements required, parcels identified Yes

25%

Right-of-way, permanent or temporary easements required, parcels not all identified

0%

Anticipated date or date of acquisition

4)Railroad Involvement (20 Percent of Points)

No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable) Yes

100%

Signature Page

Please upload attachment in PDF form.

Railroad Right-of-Way Agreement required; negotiations have begun

50%

Railroad Right-of-Way Agreement required; negotiations have not begun.

0%

Anticipated date or date of executed Agreement

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	$30,782,800.00
Enter Amount of the Noise Walls:	$1,417,500.00
Total Project Cost subtract the amount of the noise walls:	$29,365,300.00
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
Existing Conditions for Hwy 10 Thurston (Aerial).pdf	Existing conditions photos of project intersection. Includes aerial and at grade photos.	5.1 MB
Hwy 10 Thurston Letters of Support.pdf	Letters of support from city, county, and MnDOT	979 KB
Hwy 10 Thurston Project Phasing Map.pdf	Project phasing map showing proposed Hwy 10 and Thurston project in relation to other, funded projects	2.6 MB
Hwy 10_Thurston One Page Description.pdf	One page project description	556 KB
Met_Council_Generated_Maps_Combined.pdf	Compilation of all maps made through the Metropolitan Council's Make-a-Map application	1.2 MB

Level of Congestion

Roadway Reconstruction/Modernization Project: Hwy 10 & Thurston Ave Seg. 1 | Map ID: 1529593970524

Project Points
Project
Principal Arterials
A Minor Arterials
Principal Arterials Planned
A Minor Arterials Planned

0 0.075 0.15 0.3 0.45 0.6 Miles

Created: 6/21/2018
LandscapeRSA1

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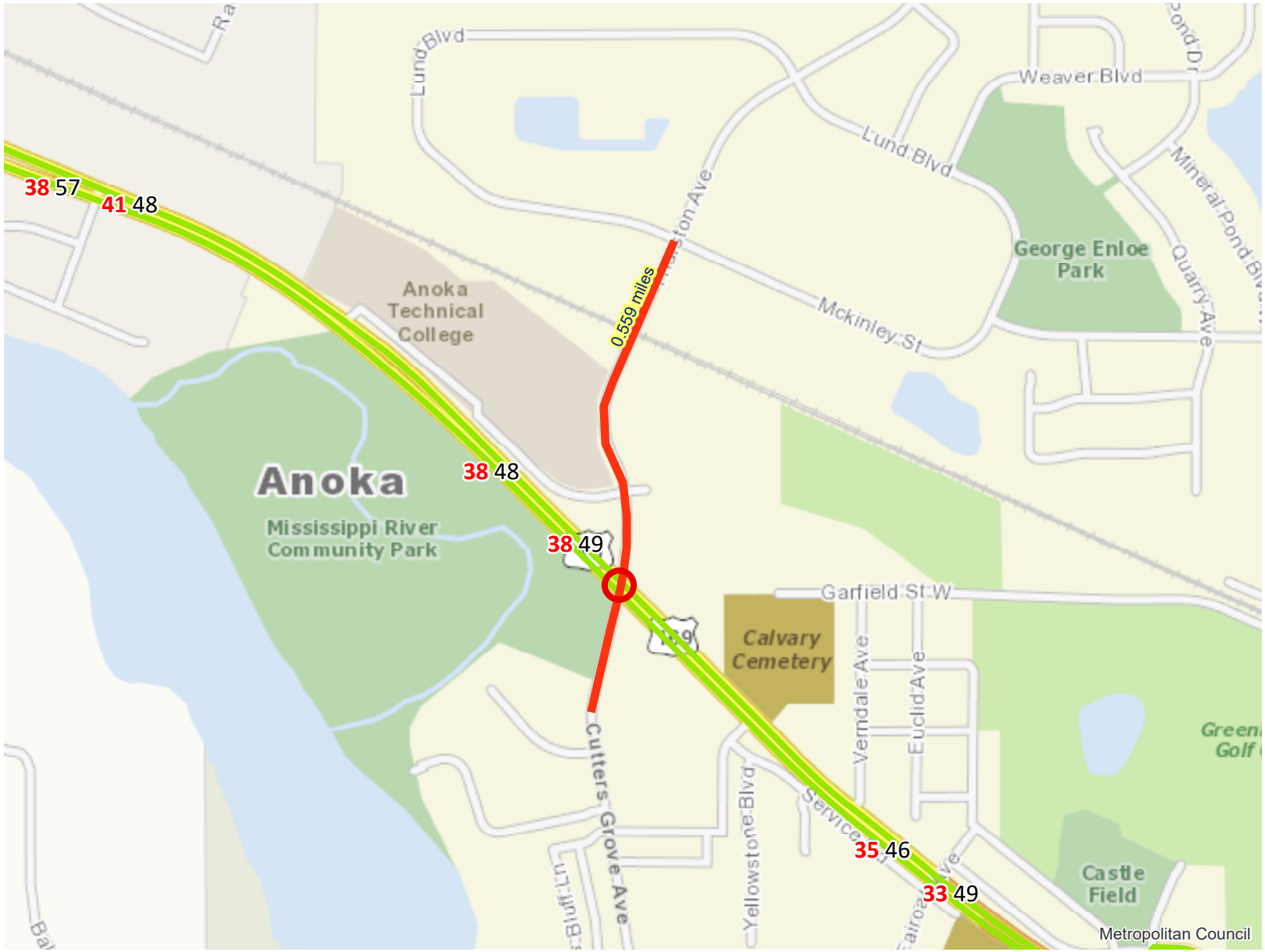
Level of Congestion

Roadway Reconstruction/Modernization Project: Hwy 10 Thurston Seg 2 | Map ID: 1529598229787



Project Points
Project
Principal Arterials
A Minor Arterials
Principal Arterials Planned
A Minor Arterials Planned

0 0.1 0.2 0.4 0.6 0.8 Miles

Created: 6/21/2018
LandscapeRSA1

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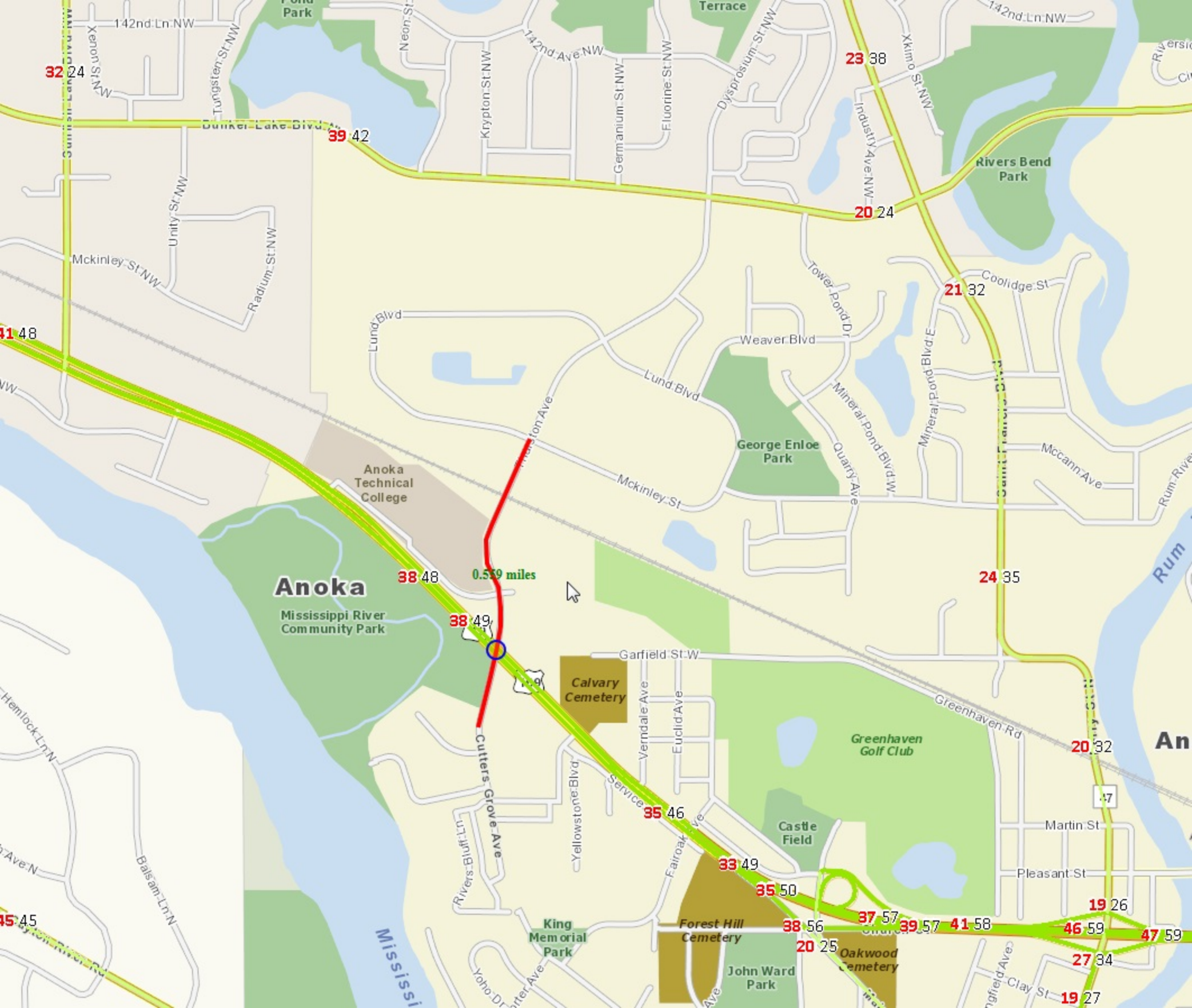

142nd Ln NW
Xenon St NW
Tungsten St NW
Neon St
Krypton St NW
142nd Ave NW
Germanium St NW
Fluorine St NW
Dysprosium St NW
Xkimo St NW
Industry Ave NW
Bunker Lake Blvd
Rivers Bend Park
Unity St NW
Mckinley St NW
Radium St NW
Lund Blvd
Weaver Blvd
Tower Pond Dr
Coolidge St
Mineral Pond Blvd E
Mineral Pond Blvd W
Quarry Ave
George Enloe Park
Mccann Ave
Anoka Technical College
Mckinley St
Anoka
0.559 miles
Mississippi River Community Park
Garfield St W
Calvary Cemetery
Greenhaven Rd
Greenhaven Golf Club
Cutters Grove Ave
Verndale Ave
Euclid Ave
Yellowstone Blvd
Service
Rivers Bluff Ln
Fairoak Ave
Castle Field
Martin St
Pleasant St
King Memorial Park
Forest Hill Cemetery
Oakwood Cemetery
John Ward Park
Clay St
Hemlock Ln N
Balsam Ln N
Rum

Regional Economy

Roadway Reconstruction/Modernization Project: Hwy 10 & Thurston Ave Seg. 1 | Map ID: 1529593970524

Results

WITHIN ONE MI of project:
Postsecondary Students: 2027

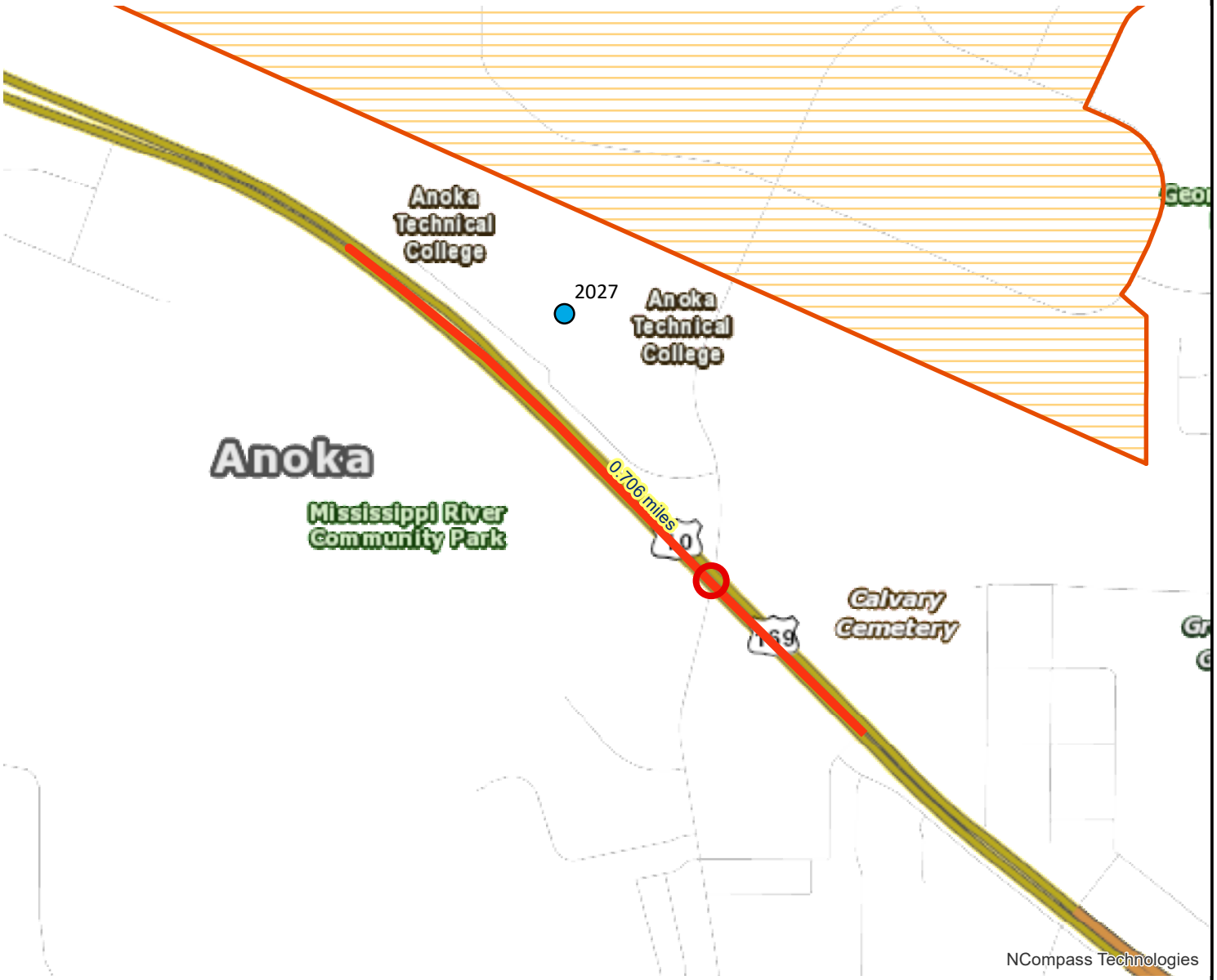
Totals by City:

Anoka
Population: 6746
Employment: 4308
Mfg and Dist Employment: 1640

Champlin
Population: 2179
Employment: 73
Mfg and Dist Employment: 3

Dayton
Population: 2107
Employment: 221
Mfg and Dist Employment: 9

Ramsey
Population: 5053
Employment: 3103
Mfg and Dist Employment: 1307



Project Points
Project
Postsecondary Education Centers
Manfacturing/Distribution Centers
Job Concentration Centers

0 0.075 0.15 0.3 0.45 0.6 Miles

Created: 6/21/2018
LandscapeRSA5

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METROPOLITAN COUNCIL

Regional Economy

Roadway Reconstruction/Modernization Project: Hwy 10 Thurston Seg 2 | Map ID: 1529598229787

Results

WITHIN ONE MI of project:
Postsecondary Students: 2027

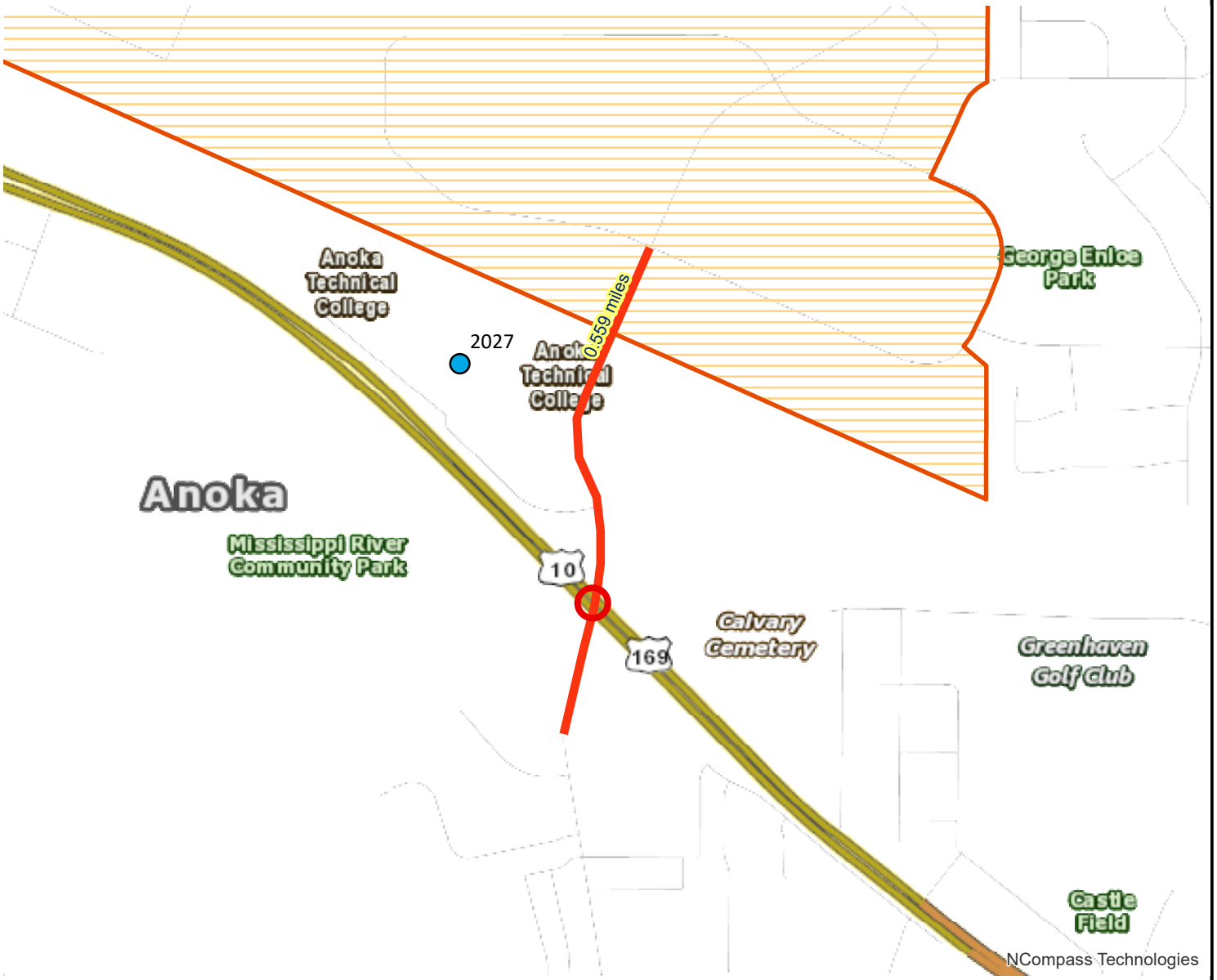
Totals by City:

Anoka
Population: 6746
Employment: 4308
Mfg and Dist Employment: 1640

Champlin
Population: 2179
Employment: 73
Mfg and Dist Employment: 3

Dayton
Population: 2107
Employment: 221
Mfg and Dist Employment: 9

Ramsey
Population: 5053
Employment: 3103
Mfg and Dist Employment: 1307



Project Points
Postsecondary Education Centers
Job Concentration Centers
Project
Manfacturing/Distribution Centers

0 0.1 0.2 0.4 0.6 0.8 Miles

Created: 6/21/2018
LandscapeRSA5

METROPOLITAN COUNCIL

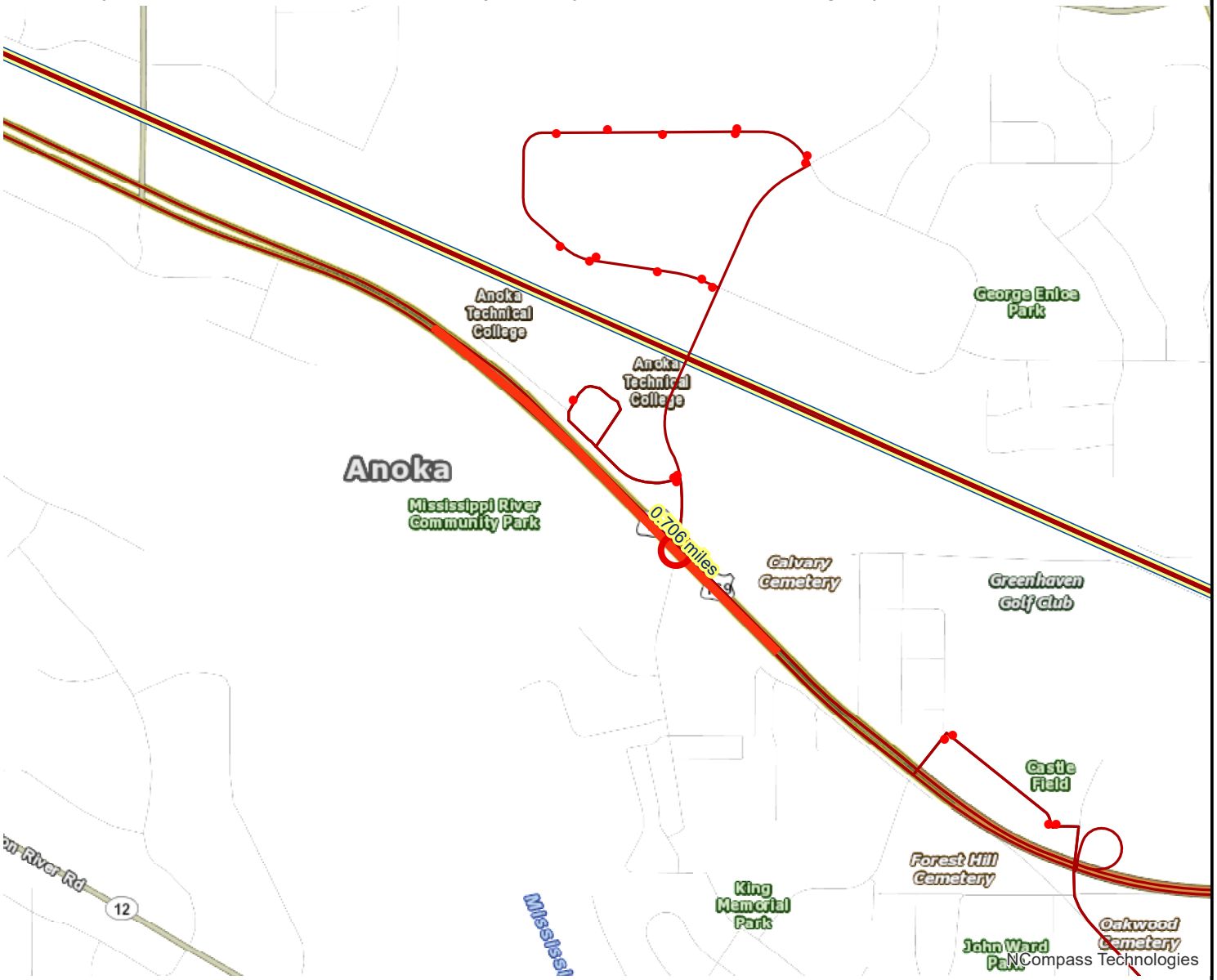
Transit Connections

Roadway Reconstruction/Modernization Project: Hwy 10 & Thurston Ave Seg. 1 | Map ID: 1529593970524

Results

Transit with a Direct Connection to project:
850 852 887 888

**indicates Planned Alignments*



Project Points
Active Stop
Transitway
Project
Transit Routes
Northstar Line

0 0.125 0.25 0.5 0.75 1 Miles

Created: 6/21/2018
LandscapeRSA3

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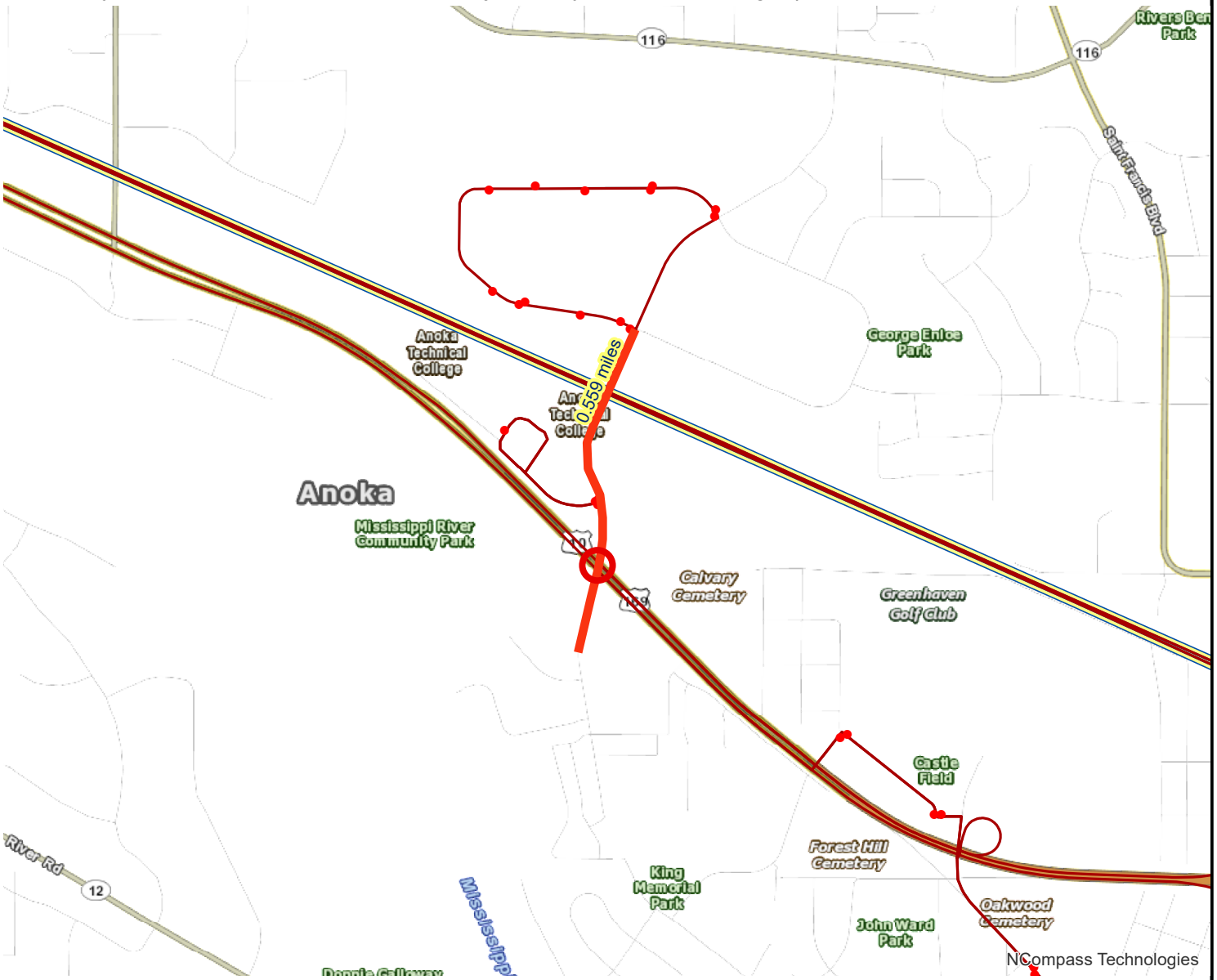
METROPOLITAN COUNCIL

Transit Connections

Roadway Reconstruction/Modernization Project: Hwy 10 Thurston Seg 2 | Map ID: 1529598229787



Results

Transit with a Direct Connection to project:
850 852 887 888

**indicates Planned Alignments*

Project Points
Active Stop
Transitway
Project
Transit Routes
Northstar Line

0 0.15 0.3 0.6 0.9 1.2 Miles

Created: 6/21/2018
LandscapeRSA3

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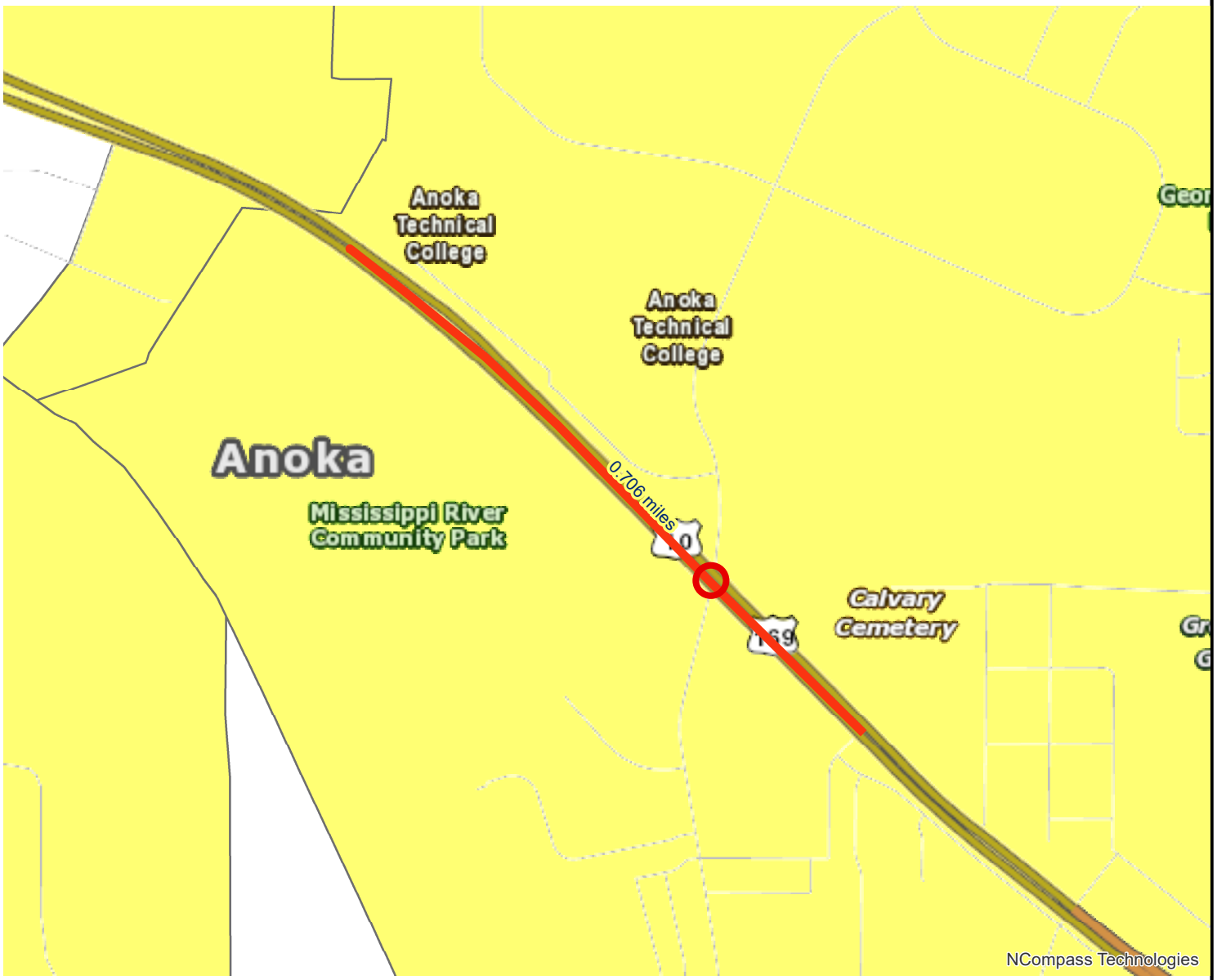
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: Hwy 10 & Thurston Ave Seg. 1 | Map ID: 1529593970524

Results

Project census tracts are above the regional average for population in poverty or population of color:
(0 to 18 Points)



Project Points
Project
Area of Concentrated Povertry > 50% residents of color
Area of Concentrated Poverty
Above reg'l avg conc of race/poverty

0 0.075 0.15 0.3 0.45 0.6 Miles

Created: 6/21/2018
LandscapeRSA2

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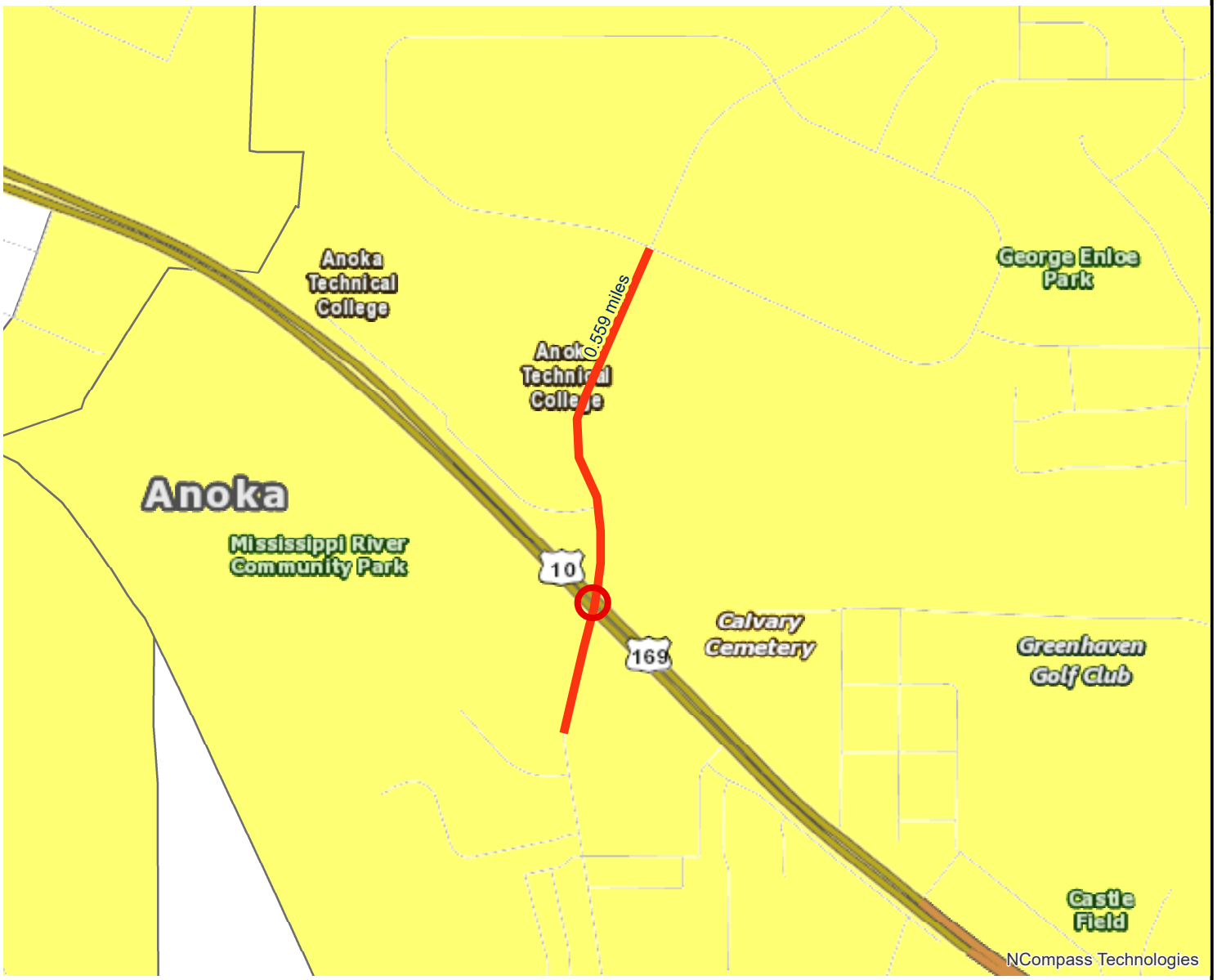
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: Hwy 10 Thurston Seg 2 | Map ID: 1529598229787

Results

Project census tracts are above the regional average for population in poverty or population of color:
(0 to 18 Points)



Project Points
Project
Area of Concentrated Povertry > 50% residents of color
Area of Concentrated Poverty
Above reg'l avg conc of race/poverty

0 0.1 0.2 0.4 0.6 0.8 Miles

Created: 6/21/2018
LandscapeRSA2

For complete disclaimer of accuracy, please visit http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

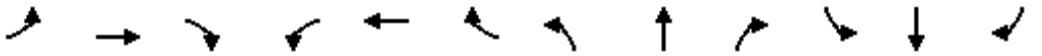
Attachments for Part 5. Congestion Reduction/Air Quality

Please note that the “Measures of Effectiveness” Report is unable to calculate delay for a roundabout so the HCM 6th Edition Roundabout Report was used to determine delay/vehicle at the proposed roundabouts under the build condition.

Additionally since the project will grade separate TH 10 and Thurston Avenue two build models were created so that the emissions could be correctly calculated for both TH 10 and Thurston Avenue.

Lanes, Volumes, Timings
1: Cutters Grove/Thurston Avenue & TH 10

07/03/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	2180	55	50	2460	192	72	35	95	425	65	165
Future Volume (vph)	50	2180	55	50	2460	192	72	35	95	425	65	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		470	780		420	275		200	205		205
Storage Lanes	1		1	1		1	1		2	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	3433	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			159			141			174			250
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		21102			11849			1112			4899	
Travel Time (s)		479.6			269.3			25.3			111.3	
Lane Group Flow (vph)	54	2370	60	54	2674	209	78	38	103	462	71	179
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			Free
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	12.0	34.5	34.5	12.0	27.5	27.5	12.0	23.5	23.5	12.0	32.0	
Total Split (s)	12.0	89.0	89.0	12.0	89.0	89.0	12.0	23.5	23.5	26.0	32.0	
Total Split (%)	8.0%	59.1%	59.1%	8.0%	59.1%	59.1%	8.0%	15.6%	15.6%	17.3%	21.3%	
Yellow Time (s)	3.0	5.5	5.5	3.0	5.5	5.5	3.0	3.5	3.5	3.0	3.5	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	7.5	7.5	5.0	7.5	7.5	5.0	5.5	5.5	5.0	7.0	
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	8.3	89.1	89.1	6.8	87.6	87.6	7.0	7.1	7.1	26.8	25.3	150.5
Actuated g/C Ratio	0.06	0.59	0.59	0.05	0.58	0.58	0.05	0.05	0.05	0.18	0.17	1.00
v/c Ratio	0.56	1.13	0.06	0.68	1.30	0.21	0.95	0.23	0.43	0.76	0.23	0.11
Control Delay	89.8	95.9	0.1	107.5	166.9	6.3	155.9	71.9	5.5	67.1	54.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.8	95.9	0.1	107.5	166.9	6.3	155.9	71.9	5.5	67.1	54.7	0.1
LOS	F	F	A	F	F	A	F	E	A	E	D	A
Approach Delay		93.5			154.4			70.6			49.0	
Approach LOS		F			F			E			D	
Queue Length 50th (ft)	52	~1452	0	53	~1815	30	78	19	0	224	61	0
Queue Length 95th (ft)	#124	#1636	0	#124	#1952	74	#189	40	0	280	106	0
Internal Link Dist (ft)		21022			11769			1032			4819	
Turn Bay Length (ft)	360		470	780		420	275		200	205		205
Base Capacity (vph)	99	2094	1001	82	2059	980	82	423	342	610	377	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0

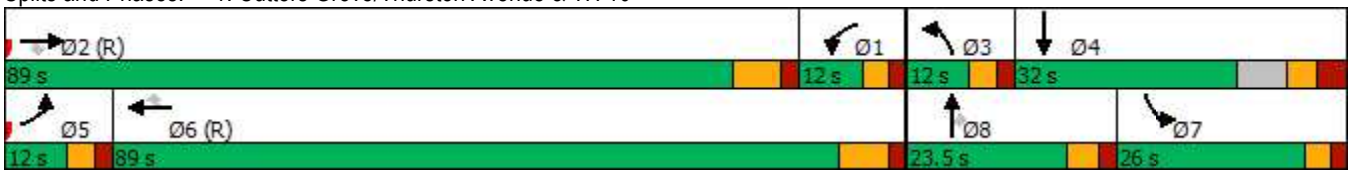
Lanes, Volumes, Timings
1: Cutters Grove/Thurston Avenue & TH 10

07/03/2018

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.55	1.13	0.06	0.66	1.30	0.21	0.95	0.09	0.30	0.76	0.19	0.11

Intersection Summary			
Area Type:	Other		
Cycle Length: 150.5			
Actuated Cycle Length: 150.5			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green			
Natural Cycle: 145			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.30			
Intersection Signal Delay: 115.9		Intersection LOS: F	
Intersection Capacity Utilization 98.9%		ICU Level of Service F	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Cutters Grove/Thurston Avenue & TH 10



Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	All
Future Volume (vph)	5844
Total Delay / Veh (s/v)	116
CO Emissions (kg)	57.20
NOx Emissions (kg)	11.13
VOC Emissions (kg)	13.26

Detailed Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	EB	WB	NB	SB	All
Future Volume (vph)	2285	2702	202	655	5844
Control Delay / Veh (s/v)	94	154	71	49	116
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	94	154	71	49	116
Total Delay (hr)	59	116	4	9	188
Stops / Veh	0.77	0.71	0.46	0.69	0.72
Stops (#)	1759	1929	92	451	4231
Average Speed (mph)	25	19	8	21	22
Total Travel Time (hr)	366	318	5	29	718
Distance Traveled (mi)	9248	6064	43	608	15962
Fuel Consumed (gal)	434	345	5	34	818
Fuel Economy (mpg)	21.3	17.6	8.2	17.9	19.5
CO Emissions (kg)	30.33	24.13	0.36	2.38	57.20
NOx Emissions (kg)	5.90	4.70	0.07	0.46	11.13
VOC Emissions (kg)	7.03	5.59	0.08	0.55	13.26
Unserved Vehicles (#)	254	565	0	0	819
Vehicles in dilemma zone (#)	0	0	0	0	0

Zone 1 Totals

Number of Intersections	1
Control Delay / Veh (s/v)	116
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	116
Total Delay (hr)	188
Stops / Veh	0.72
Stops (#)	4231
Average Speed (mph)	22
Total Travel Time (hr)	718
Distance Traveled (mi)	15962
Fuel Consumed (gal)	818
Fuel Economy (mpg)	19.5
CO Emissions (kg)	57.20
NOx Emissions (kg)	11.13
VOC Emissions (kg)	13.26
Unserved Vehicles (#)	819
Vehicles in dilemma zone (#)	0
Performance Index	199.9

HCM 6th Roundabout
1: Cutters Grove/Thurston Avenue & TH 10 07/03/2018

Intersection	
Intersection Delay, s/veh	6.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	114	263	219	712
Demand Flow Rate, veh/h	116	268	224	726
Vehicles Circulating, veh/h	598	174	526	135
Vehicles Exiting, veh/h	263	576	188	307
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.6	5.3	7.7	6.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	R
RT Channelized					
Lane Util	1.000	1.000	1.000	0.748	0.252
Follow-Up Headway, s	2.609	2.609	2.609	2.535	2.535
Critical Headway, s	4.976	4.976	4.976	4.544	4.544
Entry Flow, veh/h	116	268	224	543	183
Cap Entry Lane, veh/h	750	1155	807	1256	1256
Entry HV Adj Factor	0.983	0.981	0.979	0.981	0.978
Flow Entry, veh/h	114	263	219	533	179
Cap Entry, veh/h	737	1134	790	1232	1228
V/C Ratio	0.155	0.232	0.278	0.432	0.146
Control Delay, s/veh	6.6	5.3	7.7	7.3	4.2
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	2	1

Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	All
Future Volume (vph)	1203
Total Delay / Veh (s/v)	0
CO Emissions (kg)	5.12
NOx Emissions (kg)	1.00
VOC Emissions (kg)	1.19

Detailed Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	EB	WB	NB	SB	All
Future Volume (vph)	105	242	201	655	1203
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	105	242	201	655	1203
Average Speed (mph)	30	30	30	30	30
Total Travel Time (hr)	14	18	1	20	54
Distance Traveled (mi)	425	543	42	608	1618
Fuel Consumed (gal)	18	24	3	29	73
Fuel Economy (mpg)	23.5	22.9	14.8	21.2	22.1
CO Emissions (kg)	1.26	1.66	0.20	2.00	5.12
NOx Emissions (kg)	0.25	0.32	0.04	0.39	1.00
VOC Emissions (kg)	0.29	0.38	0.05	0.46	1.19
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

Zone 1 Totals

Number of Intersections	1
Control Delay / Veh (s/v)	0
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	0
Total Delay (hr)	0
Stops / Veh	1.00
Stops (#)	1203
Average Speed (mph)	30
Total Travel Time (hr)	54
Distance Traveled (mi)	1618
Fuel Consumed (gal)	73
Fuel Economy (mpg)	22.1
CO Emissions (kg)	5.12
NOx Emissions (kg)	1.00
VOC Emissions (kg)	1.19
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	3.3

Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	All
Future Volume (vph)	4640
Total Delay / Veh (s/v)	0
CO Emissions (kg)	41.27
NOx Emissions (kg)	8.03
VOC Emissions (kg)	9.57

Detailed Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	EB	WB	All
Future Volume (vph)	2180	2460	4640
Total Delay / Veh (s/v)	0	0	0
CO Emissions (kg)	25.39	15.89	41.27
NOx Emissions (kg)	4.94	3.09	8.03
VOC Emissions (kg)	5.88	3.68	9.57

Attachments for Part 5. Congestion Reduction/Air Quality

Please note that the “Measures of Effectiveness” Report is unable to calculate delay for a roundabout so the HCM 6th Edition Roundabout Report was used to determine delay/vehicle at the proposed roundabouts under the build condition.

Additionally since the project will grade separate TH 10 and Thurston Avenue two build models were created so that the emissions could be correctly calculated for both TH 10 and Thurston Avenue.

Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	All
Future Volume (vph)	5844
Total Delay / Veh (s/v)	116
CO Emissions (kg)	57.20
NOx Emissions (kg)	11.13
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Detailed Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	EB	WB	NB	SB	All
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NOx Emissions (kg)	5.90	4.70	0.07	0.46	11.13
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Unserved Vehicles (#)	254	565	0	0	819
Vehicles in dilemma zone (#)	0	0	0	0	0

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Total Delay / Veh (s/v)	116
Total Delay (hr)	188
Stops / Veh	0.72
Stops (#)	4231
Average Speed (mph)	22
Total Travel Time (hr)	718
Distance Traveled (mi)	15962
Fuel Consumed (gal)	818
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CO Emissions (kg)	57.20
NOx Emissions (kg)	11.13
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Unserved Vehicles (#)	819
Vehicles in dilemma zone (#)	0
Performance Index	199.9

HCM 6th Roundabout
1: Cutters Grove/Thurston Avenue & TH 10 07/03/2018

Intersection	
Intersection Delay, s/veh	6.5
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	114	263	219	712
Demand Flow Rate, veh/h	116	268	224	726
Vehicles Circulating, veh/h	598	174	526	135
Vehicles Exiting, veh/h	263	576	188	307
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.6	5.3	7.7	6.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LT	R
Assumed Moves	LTR	LTR	LTR	LT	R
RT Channelized					
Lane Util	1.000	1.000	1.000	0.748	0.252
Follow-Up Headway, s	2.609	2.609	2.609	2.535	2.535
Critical Headway, s	4.976	4.976	4.976	4.544	4.544
Entry Flow, veh/h	116	268	224	543	183
Cap Entry Lane, veh/h	750	1155	807	1256	1256
Entry HV Adj Factor	0.983	0.981	0.979	0.981	0.978
Flow Entry, veh/h	114	263	219	533	179
Cap Entry, veh/h	737	1134	790	1232	1228
V/C Ratio	0.155	0.232	0.278	0.432	0.146
Control Delay, s/veh	6.6	5.3	7.7	7.3	4.2
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	2	1

Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	All
Future Volume (vph)	1203
Total Delay / Veh (s/v)	0
CO Emissions (kg)	5.12
NOx Emissions (kg)	1.00
VOC Emissions (kg)	1.19

Detailed Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	EB	WB	NB	SB	All
Future Volume (vph)	105	242	201	655	1203
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	105	242	201	655	1203
Average Speed (mph)	30	30	30	30	30
Total Travel Time (hr)	14	18	1	20	54
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NOx Emissions (kg)	0.25	0.32	0.04	0.39	1.00
VOC Emissions (kg)	0.29	0.38	0.05	0.46	1.19
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

Zone 1 Totals

Number of Intersections	1
Control Delay / Veh (s/v)	0
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	0
Total Delay (hr)	0
Stops / Veh	1.00
Stops (#)	1203
Average Speed (mph)	30
Total Travel Time (hr)	54
Distance Traveled (mi)	1618
Fuel Consumed (gal)	73
Fuel Economy (mpg)	22.1
CO Emissions (kg)	5.12
NOx Emissions (kg)	1.00
VOC Emissions (kg)	1.19
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	3.3

Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	All
Future Volume (vph)	4640
Total Delay / Veh (s/v)	0
CO Emissions (kg)	41.27
NOx Emissions (kg)	8.03
VOC Emissions (kg)	9.57

Detailed Measures of Effectiveness

07/03/2018

1: Cutters Grove/Thurston Avenue & TH 10

Direction	EB	WB	All
Future Volume (vph)	2180	2460	4640
Total Delay / Veh (s/v)	0	0	0
CO Emissions (kg)	25.39	15.89	41.27
NOx Emissions (kg)	4.94	3.09	8.03
VOC Emissions (kg)	5.88	3.68	9.57

EXPLANATION OF METHODOLOGY

Crashes were increased at the intersection of TH 10 and Thurston Avenue due to the assumption that the grade separation project at Fairoak Avenue would be completed. Currently the first signalized intersection that traffic traveling westbound along TH 10 comes to in Anoka is Fairoak Avenue. If this intersection is grade separated, and therefore would no longer stop traffic, the crashes currently occurring at Fairoak Avenue due to the signal are anticipated to be moved to Thurston Avenue. It was found in the Highway 10 Access Planning Study that after Fairoak Avenue is completed, crashes are anticipated to increase by 37% at Thurston Avenue. This increase was applied to the existing crashes and is reflected in the crash totals of the HSIP Benefit/Cost worksheet.

Since there were no applicable crash modification factors for the proposed design, instead it was assumed that as a single lane roundabout design the proposed intersection would operate at the average statewide crash rate for a single lane roundabout. As found in “A Study of the Traffic Safety at Roundabouts in Minnesota,” this crash rate is 0.32. It was found that in order for the intersection of to operate with a crash rate of 0.32 crashes would need to be decreased by 72% therefore this was the percentage change in crashes shown in the HSIP worksheet.

HSIP worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	T.H. 10	T.H. 10 at Thurston Avenue			Anoka County	1/1/2013	12/31/2015

Description of Proposed Work

Accident Diagram Codes			1 Rear End	2 Sideswipe Same Direction	3 Left Turn Main Line	5 Right Angle	4,7 Ran off Road	8, 9 Head On/ Sideswipe - Opposite Direction	Pedestrian	6, 90, 99 Other	Total
Study Period: Number of Crashes	Fatal	**F**									
	Personal Injury (PI)	**A**									
		B	10				1				**11**
		C	4	1						7	**12**
	Property Damage	**PD**	58	1						1	**60**
% Change in Crashes *Use Desktop Reference for Crash Reduction Factors	Fatal	**F**									
	PI	**A**									
		B	-72%				-72%				
		C	-72%	-72%						-72%	
	Property Damage	**PD**	-72%	-72%						-72%	
Change in Crashes = No. of crashes **X** % change in crashes	Fatal	**F**									
	PI	**A**									
		B	**-7.20**				**-0.72**				**-7.92**
		C	**-2.88**	**-0.72**						**-5.04**	**-8.64**
	Property Damage	**PD**	**-41.76**	**-0.72**						**-0.72**	**-43.20**

Year (Safety Improvement Construction) **2025**

Project Cost (exclude Right of Way)	**$ 29,365,300**
Right of Way Costs (optional)	
Traffic Growth Factor	**3.0%**
Capital Recovery	
1. Discount Rate	**5%**
2. Project Service Life (n)	**30**

Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
F			**$ 1,140,000**	
A			**$ 570,000**	
B	**-7.92**	**-2.64**	**$ 170,000**	**$ 449,210**
C	**-8.64**	**-2.88**	**$ 83,000**	**$ 239,259**
PD	**-43.20**	**-14.41**	**$ 7,600**	**$ 109,540**
Total				**$ 798,009**

B/C= 0.67

Using present worth values,

B= $ 19,564,905

C= $ 29,365,300

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Technology **August 2015**

XXX	TH 10 at Thurston Ave Intersection Crashes along TH 10
XXX	TH 10 at Thurston Ave Intersection Crashes along Thurston Ave
XXX	TH 10 Segment Crashes

Anoka County

Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.

												PERSON1			PERSON2			PERSON3		
SYS	NUM	REF_POINT	RD_DIR	MONTH	DAY	YEAR	TIME	SEV	NUM_VEH	TYPE	DIAG	VTYPE	DIR	ACT	VTYPE	DIR	ACT	VTYPE	DIR	ACT
02	00000010	**223+00.515**	E	2	1	2013	1855	N	2	1	1	3	3	11	1	3	1			
02	00000010	**223+00.515**	E	7	22	2013	0431	C	1	6	98	53	5	1	1	3	1			
02	00000010	**223+00.515**	N	8	28	2013	1450	C	1	6	98	1	3	5	53	98	1			
02	00000010	**223+00.515**	Z	10	21	2013	0628	N	3	1	1	1	3	1	31	3	11	1	3	
02	00000010	**223+00.515**	W	10	26	2013	1856	N	3	1	1	1	7	11	4	7	1	4	7	
02	00000010	**223+00.515**	W	12	6	2013	2203	C	1	26	90	1	7	1						
02	00000010	**223+00.515**	W	2	17	2014	1736	N	2	1	5	3	1	1	1	7	1			
02	00000010	**223+00.515**	W	5	19	2014	2340	N	2	1	5	1	7	1	4	5	9			
02	00000010	**223+00.515**	W	10	17	2014	1822	N	2	1	1	1	7	11	1	7	1	1	7	
02	00000010	**223+00.515**	Z	10	24	2014	1550	N	2	1	1	3	8	1	2	8	1			
02	00000010	**223+00.515**	Z	3	24	2015	1414	N	2	1	1	2	1	5	1	1	11	1	1	
02	00000010	**223+00.515**	E	3	31	2015	1442	N	2	1	1	2	3	9	1	3	9			
02	00000010	**223+00.515**	W	7	24	2015	1328	N	3	1	1	3	7	10	4	7	11	1	7	
02	00000010	**223+00.515**	N	7	23	2015	1656	C	2	2	1	4	1	5	1	1	5	4	1	
02	00000010	**223+00.515**	Z	9	16	2015	0749	C	2	1	1	3	3	11	3	3	1	3	3	
02	00000010	**223+00.455**	E	6	5	2013	1124	N	2	1	1	1	3	11	1	3	10			
02	00000010	**223+00.450**	E	3	6	2014	0617	N	2	1	1	4	3	11	35	3	11			
02	00000010	**223+00.439**	Z	4	30	2015	0755	N	2	1	1	1	3	1	2	3	1	2	3	
02	00000010	**223+00.420**	E	12	11	2013	0720	N	2	1	1	1	3	1	1	3	1	1	3	
02	00000010	**223+00.420**	W	9	26	2014	1608	N	2	1	2	1	7	1	1	7	14	1	7	
02	00000010	**223+00.418**	Z	12	6	2013	0731	N	4	1	1	2	3	1	1	3	1	1	3	
02	00000010	**223+00.401**	E	8	15	2015	1825	N	2	1	1	1	3	1	1	3	1			
02	00000010	**223+00.382**	W	9	21	2015	1604	N	2	1	1	1	7	1	1	7	1			
02	00000010	**223+00.335**	E	1	2	2014	1545	N	2	1	1	3	3	11	1	3	1			
02	00000010	**223+00.320**	E	8	8	2013	1542	N	2	1	1	4	3	1	2	3	1			
02	00000010	**223+00.275**	Z	7	16	2013	1157	B	2	1	1	3	3	10	3	3	1	3	3	
02	00000010	**223+00.265**	E	9	7	2013	1543	C	1	12	4	1	3	1						
02	00000010	**223+00.265**	E	10	6	2014	0705	N	2	1	1	1	3	1	3	3	10			
02	00000010	**223+00.192**	E	10	17	2013	1715	N	3	1	1	2	3	11	3	3	11	1	3	
02	00000010	**223+00.111**	Z	10	8	2013	1215	C	1	32	8	1	3	13	1	3	13			
02	00000010	**223+00.111**	E	9	10	2014	0700	N	3	1	2	3	3	1	1	3	1	1	3	
02	00000010	**223+00.037**	E	9	29	2015	1542	N	4	1	1	1	3	1	3	3	1	3	3	
02	00000010	**223+00.028**	E	11	17	2015	1442	B	2	1	5	1	3	1	1	5	6			
02	00000010	**223+00.025**	Z	1	23	2013	1542	N	2	1	1	2	7	1	1	7	1			
02	00000010	**223+00.025**	W	1	21	2014	0721	C	4	1	1	4	7	11	3	7	10	4	7	
02	00000010	**223+00.000**	W	12	7	2013	0855	N	1	26	90	1	8	5						
02	00000010	**223+00.000**	E	1	29	2014	0800	C	2	1	4	2	3	16	1	3	1			
02	00000010	**223+00.000**	Z	3	4	2014	0723	N	2	1	1	1	7	5	31	7	1			

TH 10 from Thurston Avenue to Round Lake Blvd (2013 - 2015) - created on 06-21-2016 by rile1che

Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.

														PERSON1			PERSON2			PERSON3		
SYS	REF_POINT	MONTH	DAY	YEAR	TIME	SEV	NUM_KILLED	NUM_VEH	SL	TYPE	DIAG	LOC1	TCD	VTYPE	DIR	ACT	VTYPE	DIR	ACT	VTYPE	DIR	ACT
02	223+00.980	1	7	2015	1832	N	0	2	60	1	2	1	98	3	7	1	4	7	14			
02	223+00.961	1	6	2015	1019	N	0	2	60	1	2	1	98	1	7	1	1	7	1			
02	223+00.959	10	18	2013	2113	B	0	1	60	7	8	1	98	3	7	1	51	98	39			
02	223+00.942	7	19	2014	1935	N	0	2	30	1	8	1	4	1	7	1	1	4	5			
02	223+00.909	8	2	2013	1703	C	0	2	60	1	1	1	98	1	3	1	3	3	1			
02	223+00.909	8	2	2013	1728	N	0	4	60	1	1	1	98	2	7	11	1	7	11	3	7	
02	223+00.904	5	22	2014	0627	N	0	2	60	1	1	1	98	3	3	11	1	3	13			
02	223+00.888	9	9	2013	0757	C	0	2	55	1	1	1	1	1	7	1	1	7	1			
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02	223+00.439	4	30	2015	0755	N	0	2	55	1	1	1	1	1	3	1	2	3	1			

Thurston Ave/Cutters Grove Ave from Cutters Lane to McKinley, Anoka County (2013-2015)

Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.

																	PERSON1			PERSON2			PERSON3		
SYS	REF_POINT	RD_DIR	MONTH	DAY	YEAR	TIME	SEV	NUM_KILLE	NUM_VEH	JUNC	SL	TYPE	DIAG	LOC1	TCD	ACC_NUM	VTYPE	DIR	ACT	VTYPE	DIR	ACT	VTYPE	DIR	ACT
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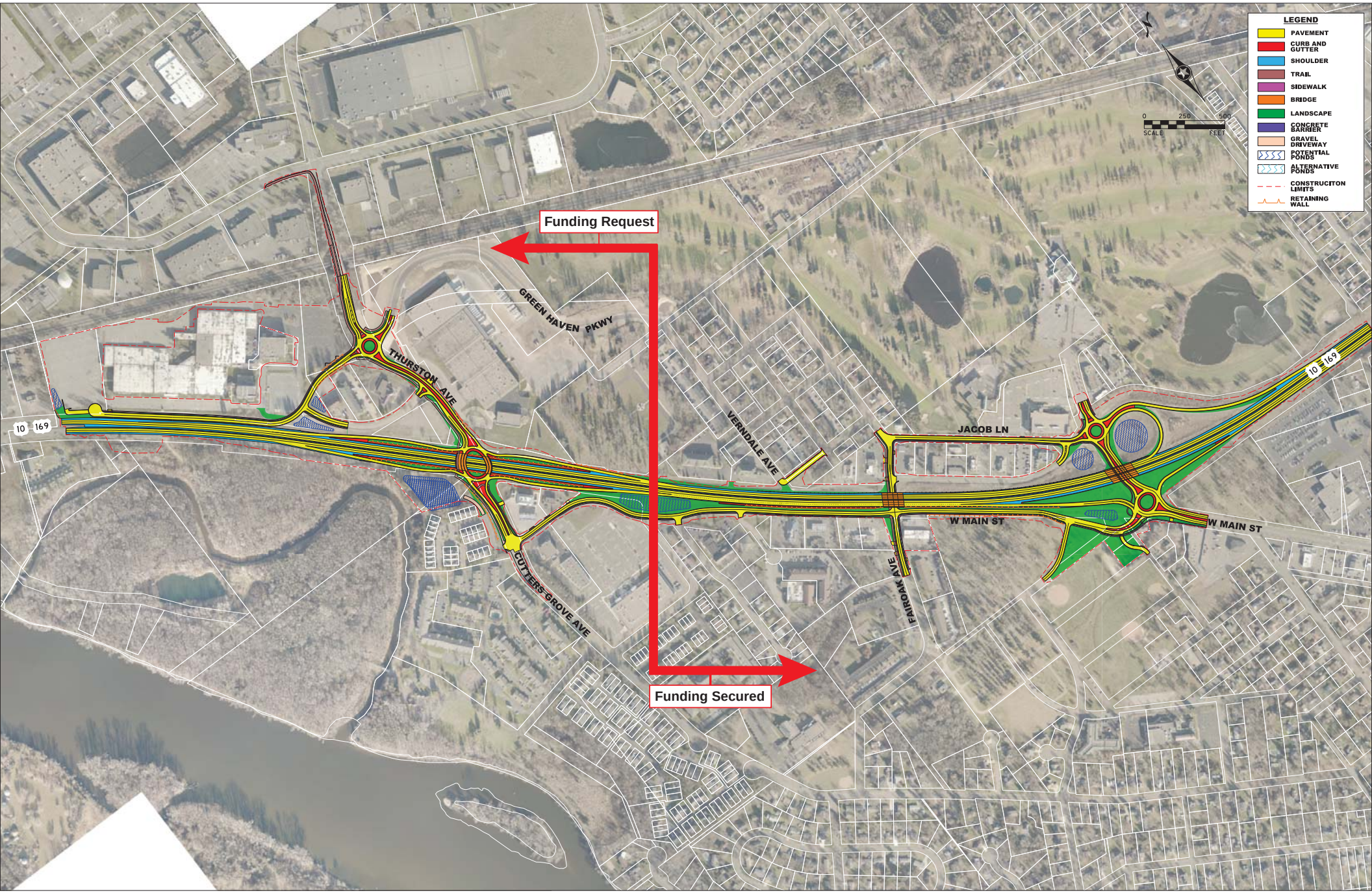
10	000+00.000	W	2	28	2014	1616	N	0	2	2	10	1	5	6	98	140590244	1	7	1	1	5	1			


LEGEND
PAVEMENT
CURB AND GUTTER
SHOULDER
TRAIL
SIDEWALK
BRIDGE
LANDSCAPE
CONCRETE BARRIER
GRAVEL DRIVEWAY
POTENTIAL PONDS
ALTERNATIVE PONDS
CONSTRUCITON LIMITS
RETAINING WALL
0
250
500
SCALE
FEET
Funding Request
Funding Secured
GREEN HAVEN PKWY
THURSTON AVE
VERNDALE AVE
JACOB LN
W MAIN ST
W MAIN ST
CUTTERS GROVE AVE
FAIROAK AVE
10
169
10
169

ANOKA
REAL. CLASSIC.

Public Services – Engineering

July 3, 2018

Metropolitan Council
Transportation Advisory Board
390 Robert St North
St. Paul, MN 55101

RE: Support for US Highway 10 Area Improvements at Thurston Avenue in the City of Anoka

Dear Members of the Transportation Advisory Board:

The City of Anoka supports the advancement of the Thurston Avenue improvements on US Highway 10. In 2010 the Cities of Anoka and Ramsey, MnDOT, and Anoka County completed the Highway 10 Access Planning Study. Improvements throughout the City of Anoka were identified, including Thurston Avenue at US Highway 10, which remain the top regional priorities. The well-documented safety and mobility deficiencies of this important corridor must be resolved.

As such, the city is applying for funding to construct a new interchange, frontage roads, and pedestrian improvements along US Highway 10 at Thurston Avenue. The City of Anoka will act as the legal sponsor for the Thurston Avenue improvements on US Highway 10 and will ensure matching funds and adequate construction of the proposed project. To date, the City of Anoka has committed $2M toward the local match requirements.

The City of Anoka is committed to ensuring that identified improvements within the city's jurisdiction are constructed to improve safety and reduce traffic congestion. The proposed project improvements will greatly improve the safety and reliability of the US Highway 10 corridor for both local and regional businesses and residents and will support projected population and traffic growth for the region.

Sincerely,

Greg Lee

Greg Lee
City Manager, City of Anoka

CITY HALL * 2015 FIRST AVE N * ANOKA, MINNESOTA 55303-2270
PHONE (763) 576-2980 FAX (763) 576-2988 WEB www.ci.anoka.mn.us

Anoka County
TRANSPORTATION DIVISION
Highway

Douglas W. Fischer, PE
County Engineer

July 10, 2018

Mr. Greg Lee
Anoka City Manager
City of Anoka
2015 First Avenue North
Anoka, MN 55303-2270

Re: Support for Highway 10 Area Improvements
Thurston Avenue in the City of Anoka

Dear Mr. Lee:

Anoka County supports the advancement of the Thurston Avenue improvements on Highway 10 in the City of Anoka. The well-documented safety and mobility deficiencies of this important corridor must be resolved. Together, the cities of Anoka and Ramsey, MnDOT, and Anoka County completed the *Highway 10 Access Planning Study* in 2010. Completion of improvements through the City of Anoka were identified and remain the top regional priorities.

We understand the City of Anoka is applying to the Regional Solicitation program for federal transportation funding to construct a new interchange, frontage roads, and pedestrian improvements along Highway 10 at Thurston Avenue. Although Anoka County does not have an intersecting roadway within the boundaries of the proposed project, the County recognizes the regional significance of the improvements associated with this project and the benefit to the County and region.

With those impacts in mind, Anoka County is a committed funding partner, having committed $2M towards the Thurston Avenue improvements. The County has committed a total of $4M to the overall TH 10 improvements within the City of Anoka; including this project, and those proposed at Fairoak Ave and Main St. The County believes the proposed improvements will greatly improve the safety and reliability of the TH 10 corridor for the region, in addition to improving the vitality of businesses and industries of the region.

Sincerely,

For

Douglas W. Fischer, P.E.
Transportation Division Manager / County Engineer

MnDOT Metro District
1500 West County Road B-2
Roseville, MN 55113

June 24, 2018

Greg Lee
Anoka City Manager
Anoka City Hall
2015 First Avenue North
Anoka, MN 55303-2270

Re: Letter of Support for the City of Anoka
Metro Council/Transportation Advisory Board 2018 Regional Solicitation Funding Request for the Highway 10 Area Improvements at Thurston Av.

Dear Mr. Lee,

This letter documents MnDOT Metro District's support for Anoka's funding request to the Metro Council for the 2018 regional solicitation for 2022-23 funding for the City's proposed construction of frontage roads, pedestrian improvements, and an interchange for US 10 at Thurston Av.

As proposed, this project would impact MnDOT right-of-way on US 10. As the agency with jurisdiction over US 10, MnDOT will support the City of Anoka and will allow the improvements proposed in the application for the Highway 10 Area Improvements project at Thurston Av. Details of a future maintenance agreement with the City of Anoka will need to be determined during project development to define how the improvements will be maintained for the project's useful life.

MnDOT has awarded both freight and TED program funding to this project. While no additional funding from MnDOT is currently committed for this project, Metro District does have other roadway investments planned to occur nearby. I would request that you coordinate project development with MnDOT Area staff so that our agencies can work together to best leverage our respective efforts.

MnDOT Metro District looks forward to continued cooperation with the City of Anoka as this project moves forward and as we work together to improve safety and travel options within the Metro Area.

If you have questions or require additional information at this time, please reach out to your Area Manager at Sheila.Kauppi@state.mn.us or 651-234-7718.

Sincerely,

Scott McBride
Metro District Engineer

CC: Sheila Kauppi, Metro District North Area Manager
Lynne Bly, Metro Program Director
Dan Erickson, Metro State Aid Engineer


GREEN HAVEN PKWY
THURSTON AVE
VERNDALE AVE
CUTTERS GROVE AVE
10
169
10
169
0
250
500
SCALE
FEET

HIGHWAY 10/THURSTON AVE INTERCHANGE EXISTING CONDITIONS

Project intersection, looking northwest

View of all-way stop from Thurston Ave southbound. Delays inhibit movement to and from Highway 10

Existing all-way stop at Thurston Ave and Vista Way. Traffic light less than 500' creates back-ups through this intersection. This intersection will be moved 500’ north and align with new Greenhaven Parkway.

ANOKA
REAL. CLASSIC.

Public Services – Engineering

July 3, 2018

Metropolitan Council
Transportation Advisory Board
390 Robert St North
St. Paul, MN 55101

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Greg Lee

Greg Lee
City Manager, City of Anoka

CITY HALL * 2015 FIRST AVE N * ANOKA, MINNESOTA 55303-2270
PHONE (763) 576-2980 FAX (763) 576-2988 WEB www.ci.anoka.mn.us

Anoka County
TRANSPORTATION DIVISION
Highway

Douglas W. Fischer, PE
County Engineer

July 10, 2018

Mr. Greg Lee
Anoka City Manager
City of Anoka
2015 First Avenue North
Anoka, MN 55303-2270

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Douglas W. Fischer, P.E.
Transportation Division Manager / County Engineer

MnDOT Metro District
1500 West County Road B-2
Roseville, MN 55113

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Anoka City Hall
2015 First Avenue North
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Sincerely,

Scott McBride
Metro District Engineer

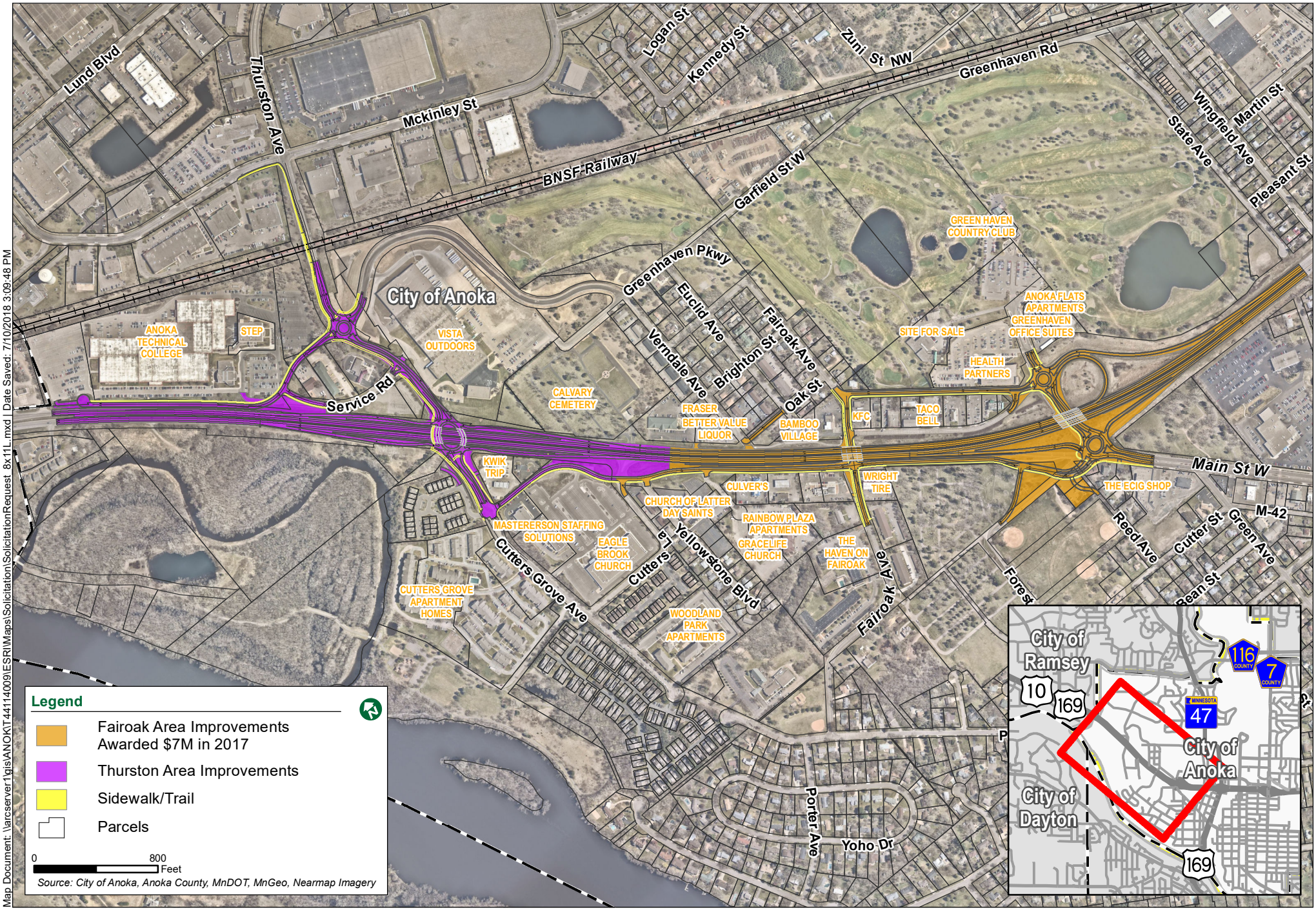
CC: Sheila Kauppi, Metro District North Area Manager
Lynne Bly, Metro Program Director
Dan Erickson, Metro State Aid Engineer

HWY 10/169 Safety and Mobility Improvements Project

Solicitation Request

Project Phases

July 2018



Map Document: \\arcserver1\gis\ANOK\T44114009\ESRI\Maps\Solicitation\SolicitationRequest_8x11L.mxd | Date Saved: 7/10/2018 3:09:48 PM

Highway 10 and Thurston Avenue Interchange

Applicant, Location, & Route: City of Anoka in Anoka County for Hwy 10 and Thurston Avenue

Application Category:

Roadways including Multimodal Elements – **Roadway Reconstruction/Modernization & Spot Mobility**

Funding Information:

STP Requested Award Amount: $7,000,000
Local Match: $2,000,000
Project Total: $30,782,800.00

Additional Funding Sources:

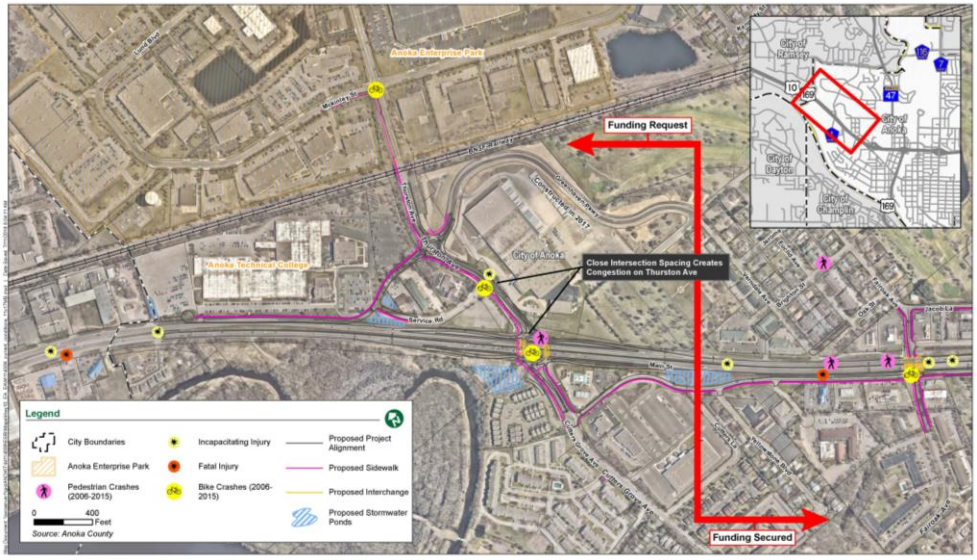
- Anoka County
- MnDOT
- MN Transportation Economic Development Program
- MnDOT Highway Freight Program

Project Benefits:

- Integrates and extends existing and planned infrastructure
- Supports regional commerce through efficient freight movement
- Promotes non-motorized transportation in an area that provides jobs and services
- Reduces conflict points and crash potential
- Improves intersection spacing and capacity
- Improves connections to regional destinations

Project Description

This project will remove the traffic signal at Hwy 10 and Thurston Ave and replace it with a grade-separated, full-access, roundabout interchange. The four-way stop on Thurston to the north of Hwy 10 will be moved approximately 500' to the north and also replaced with a roundabout.



Existing Delays on Thurston Ave north of Hwy 10 traffic signal inhibit movement of goods from over 70 businesses

Project Benefits

The project will address heavy traffic volumes, severe back-ups, and traffic delays that now negatively impact accessibility and safety for pedestrians and bicyclists as well as vehicle traffic. Improvements will address capacity, reliability, safety, local connectivity, and walkability along Hwy 10 and Thurston Ave. The new interchange will support Hwy 10 and Thurston Ave's role in the regional transportation network and economy.

Other Information

In January 2017, the Metropolitan Council awarded $7M of Regional Solicitation federal funding for improvements to Hwy 10/169 at Fairoak Ave. This application is for improvements just to the west of Fairoak Ave on Hwy 10 at Thurston Ave. This project, as submitted, is consistent with the Highway 10 Access Planning Study and all subsequent planning efforts. This will provide funding for the Thurston Ave segment; other segments have been funded. As implemented, the project will address safety and congestion issues while yielding a strong return on investment.

Level of Congestion

Roadway Reconstruction/Modernization Project: Hwy 10 & Thurston Ave Seg. 1 | Map ID: 1529593970524

Project Points
Project
Principal Arterials
A Minor Arterials
Principal Arterials Planned
A Minor Arterials Planned

0 0.075 0.15 0.3 0.45 0.6 Miles

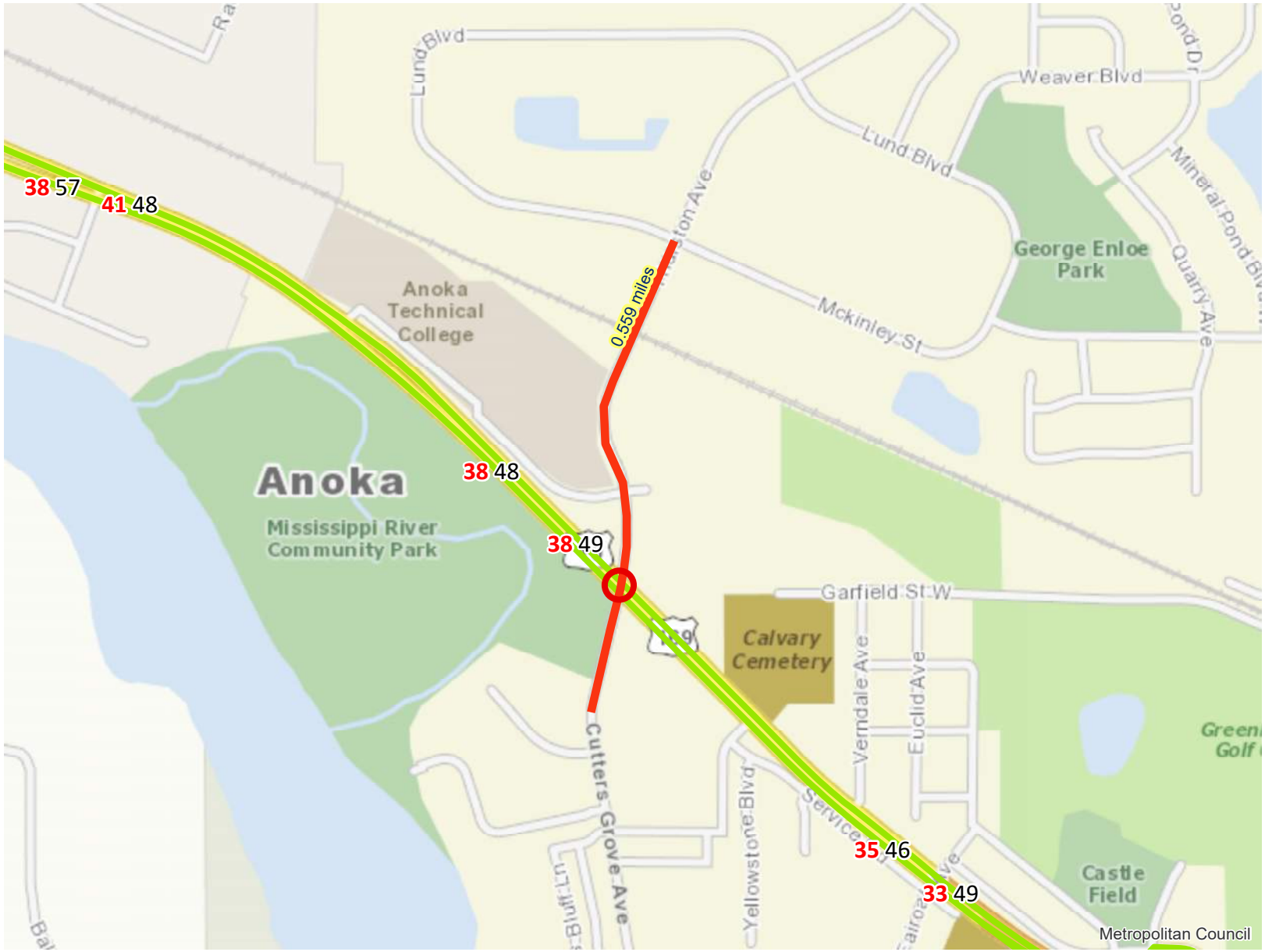
Created: 6/21/2018
LandscapeRSA1

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Level of Congestion

Roadway Reconstruction/Modernization Project: Hwy 10 Thurston Seg 2 | Map ID: 1529598229787



Project Points
Project
Principal Arterials
A Minor Arterials
Principal Arterials Planned
A Minor Arterials Planned

0 0.1 0.2 0.4 0.6 0.8 Miles

Created: 6/21/2018
LandscapeRSA1

METROPOLITAN COUNCIL

Regional Economy

Roadway Reconstruction/Modernization Project: Hwy 10 & Thurston Ave Seg. 1 | Map ID: 1529593970524

Results

WITHIN ONE MI of project:
Postsecondary Students: 2027

Totals by City:

Anoka
Population: 6746
Employment: 4308
Mfg and Dist Employment: 1640

Champlin
Population: 2179
Employment: 73
Mfg and Dist Employment: 3

Dayton
Population: 2107
Employment: 221
Mfg and Dist Employment: 9

Ramsey
Population: 5053
Employment: 3103
Mfg and Dist Employment: 1307

Project Points
Postsecondary Education Centers
Job Concentration Centers
Project
Manfacturing/Distribution Centers

0 0.075 0.15 0.3 0.45 0.6 Miles

Created: 6/21/2018
LandscapeRSA5

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Regional Economy

Roadway Reconstruction/Modernization Project: Hwy 10 Thurston Seg 2 | Map ID: 1529598229787

Results

WITHIN ONE MI of project:
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Population: 5053
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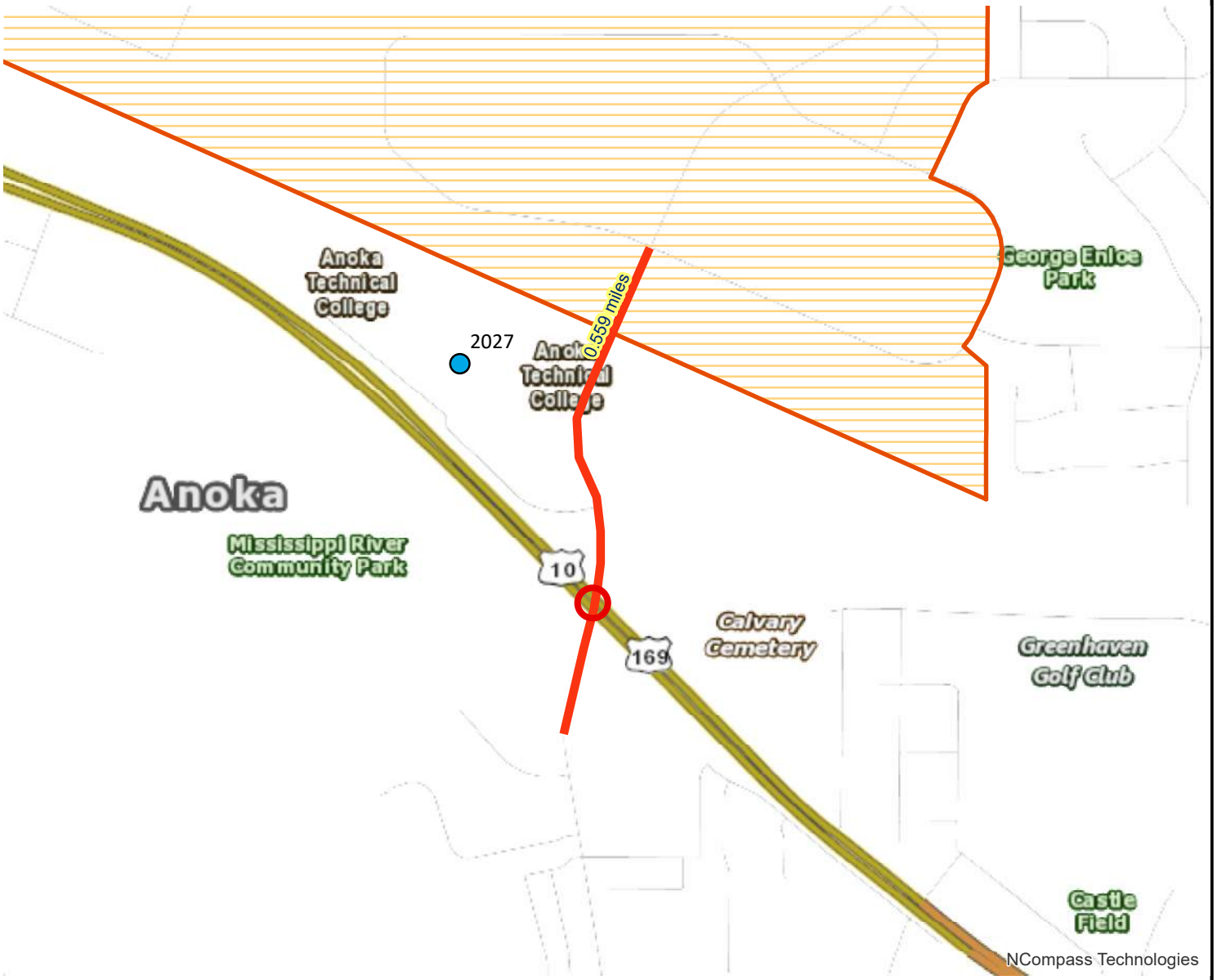

Project Points
Postsecondary Education Centers
Job Concentration Centers
Project
Manfacturing/Distribution Centers

0 0.1 0.2 0.4 0.6 0.8 Miles

Created: 6/21/2018
LandscapeRSA5

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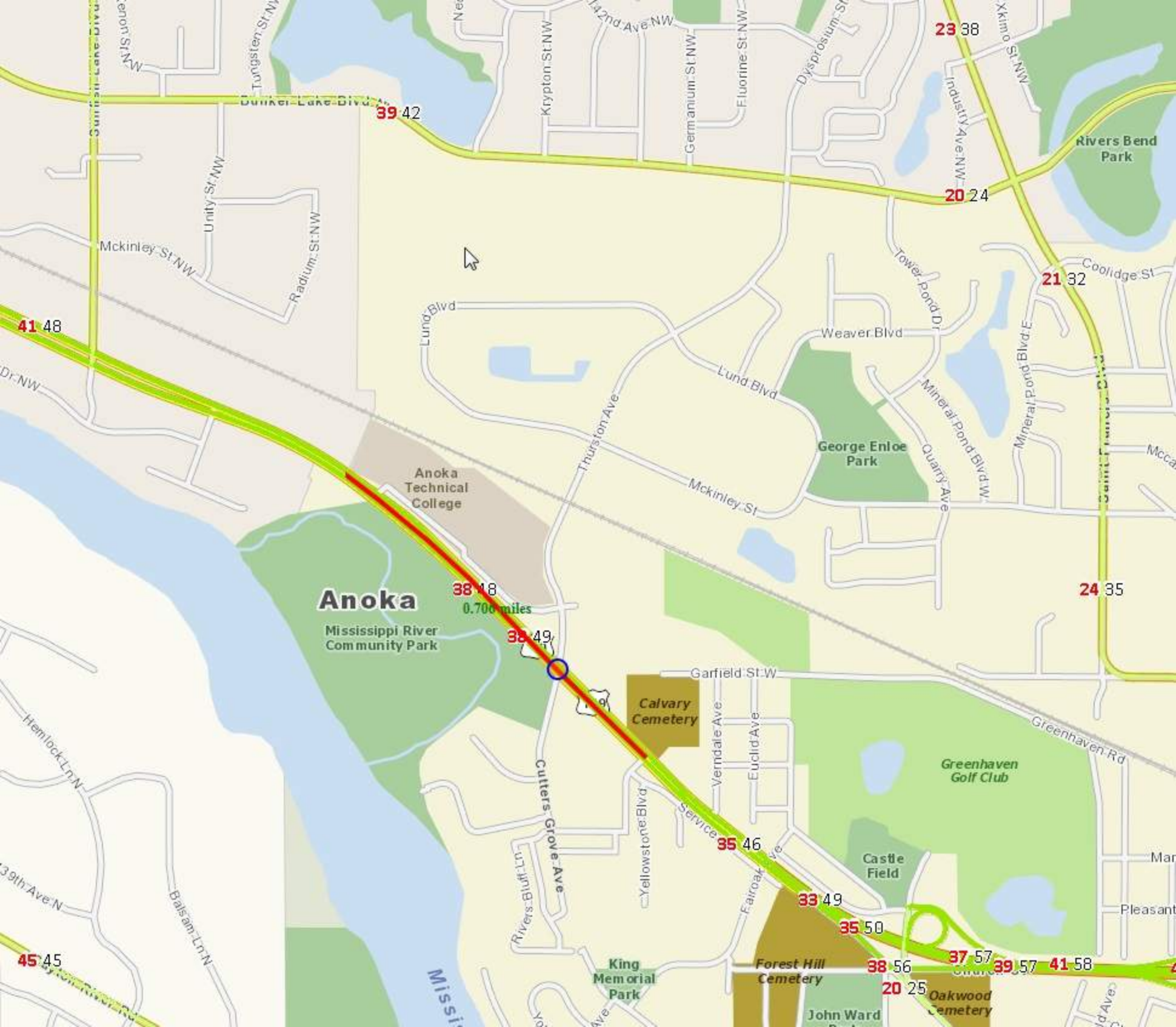
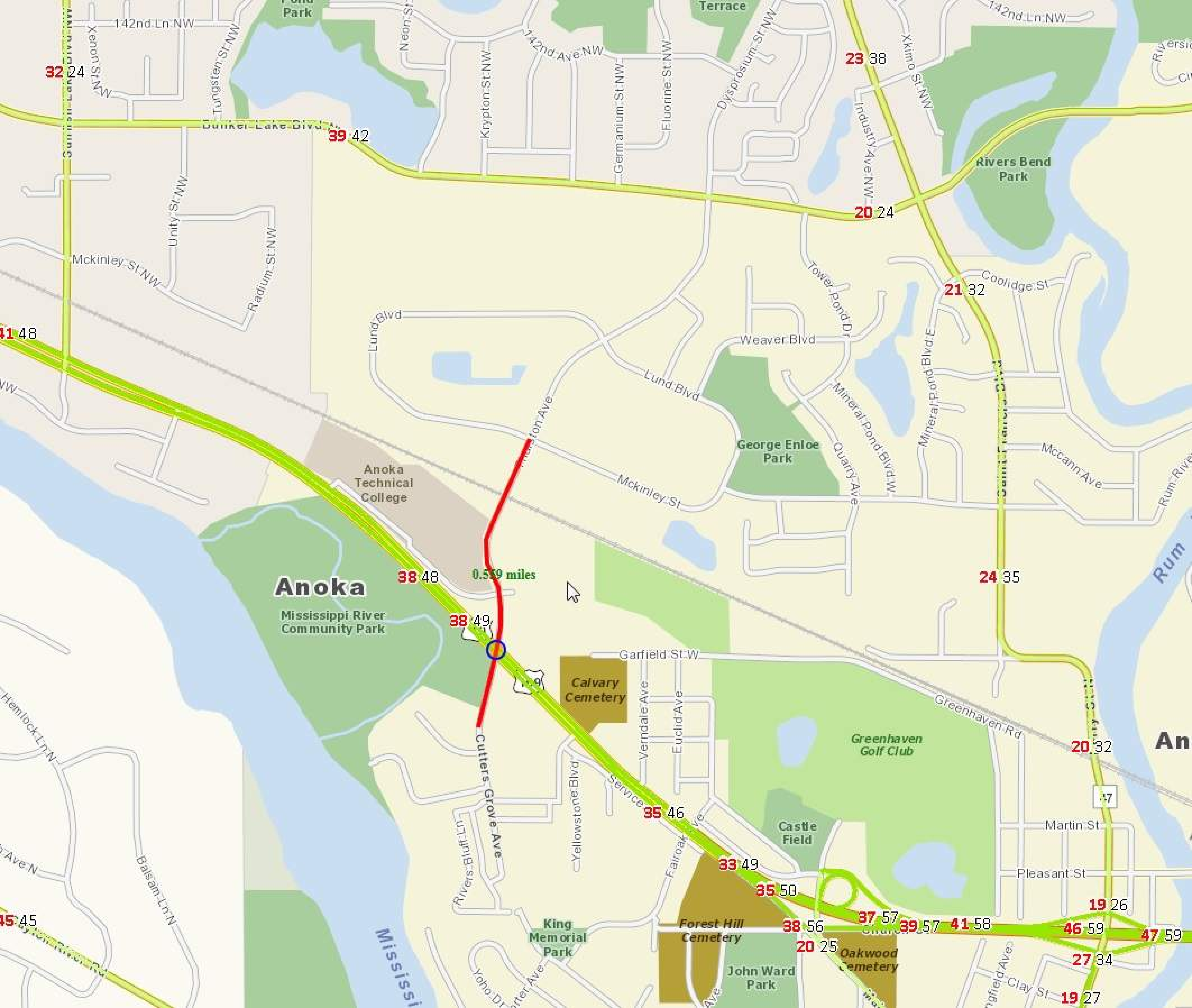
METROPOLITAN COUNCIL


Dunkel Lake Blvd
Mckinley St NW
Unity St NW
Radium St NW
Krypton St NW
142nd Ave NW
Germanium St NW
Fluorine St NW
Dysprosium St NW
Industry Ave NW
Rivers Bend Park
Coolidge St
Tower Pond Dr
Lund Blvd
Weaver Blvd
Thurston Ave
Mckinley St
George Enloe Park
Mineral Pond Blvd W
Mineral Pond Blvd E
Quarry Ave
Anoka Technical College
Anoka
0.700 miles
Mississippi River Community Park
Garfield St W
Calvary Cemetery
Greenhaven Rd
Greenhaven Golf Club
Culters Grove Ave
Yellowstone Blvd
Verndale Ave
Euclid Ave
Service
Fairoak Ave
Castle Field
Rivers Bluff Ln
Hemlock Ln N
139th Ave N
Balsam Ln N
King Memorial Park
Forest Hill Cemetery
Oakwood Cemetery
John Ward
Pleasant
23 38
39 42
20 24
21 32
41 48
24 35
38 48
38 49
35 46
33 49
35 50
37 57
39 57
41 58
38 56
20 25
45 45



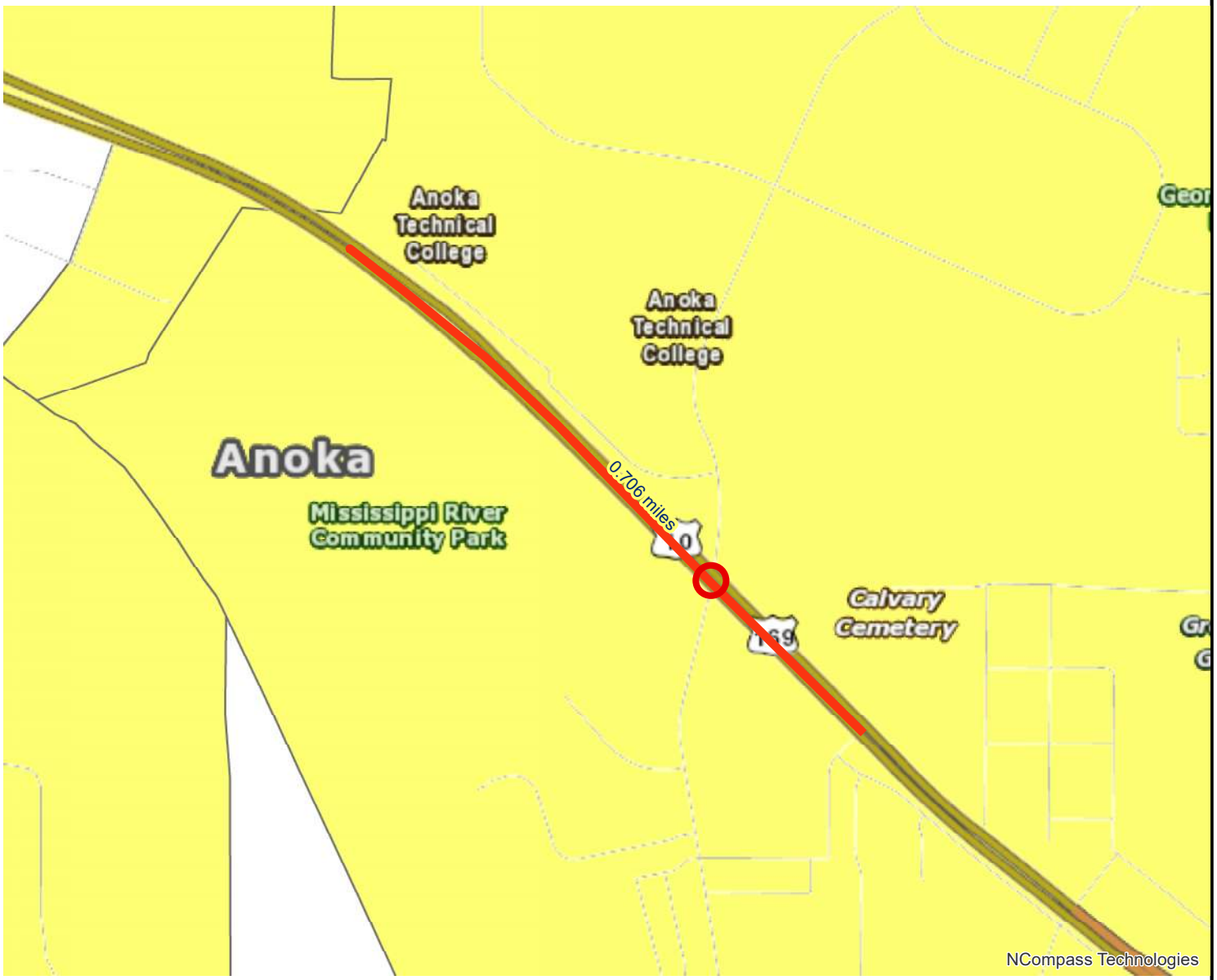
142nd Ln NW
Xenon St NW
Tungsten St NW
Neon St
Krypton St NW
142nd Ave NW
Germanium St NW
Fluorine St NW
Dysprosium St NW
Xkimo St NW
Industry Ave NW
Terrace
Park
Bunker Lake Blvd
Rivers Bend Park
Unity St NW
Radium St NW
Mckinley St NW
Lund Blvd
Weaver Blvd
Tower Pond Dr
Coolidge St
Mineral Pond Blvd E
Mineral Pond Blvd W
Quarry Ave
George Enloe Park
Mccann Ave
Mckinley St
Anoka Technical College
0.559 miles
Anoka
Mississippi River Community Park
Garfield St W
Calvary Cemetery
Verndale Ave
Euclid Ave
Greenhaven Rd
Greenhaven Golf Club
Cutters Grove Ave
Yellowstone Blvd
Service
Rivers Bluff Ln
Castle Field
Martin St
Pleasant St
King Memorial Park
Forest Hill Cemetery
John Ward Park
Oakwood Cemetery
Hemlock Ln N
Balsam Ln N
Clay St
Rum
Mississi
32 24
39 42
23 38
20 24
21 32
41 48
38 48
38 49
24 35
20 32
35 46
33 49
35 50
37 57
38 56
39 57
41 58
19 26
46 59
47 59
20 25
27 34
19 27
45 45

Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: Hwy 10 & Thurston Ave Seg. 1 | Map ID: 1529593970524

Results

Project census tracts are above the regional average for population in poverty or population of color:
(0 to 18 Points)



Project Points
Project
Area of Concentrated Povertry > 50% residents of color
Area of Concentrated Poverty
Above reg'l avg conc of race/poverty

0 0.075 0.15 0.3 0.45 0.6 Miles

Created: 6/21/2018
LandscapeRSA2

For complete disclaimer of accuracy, please visit http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

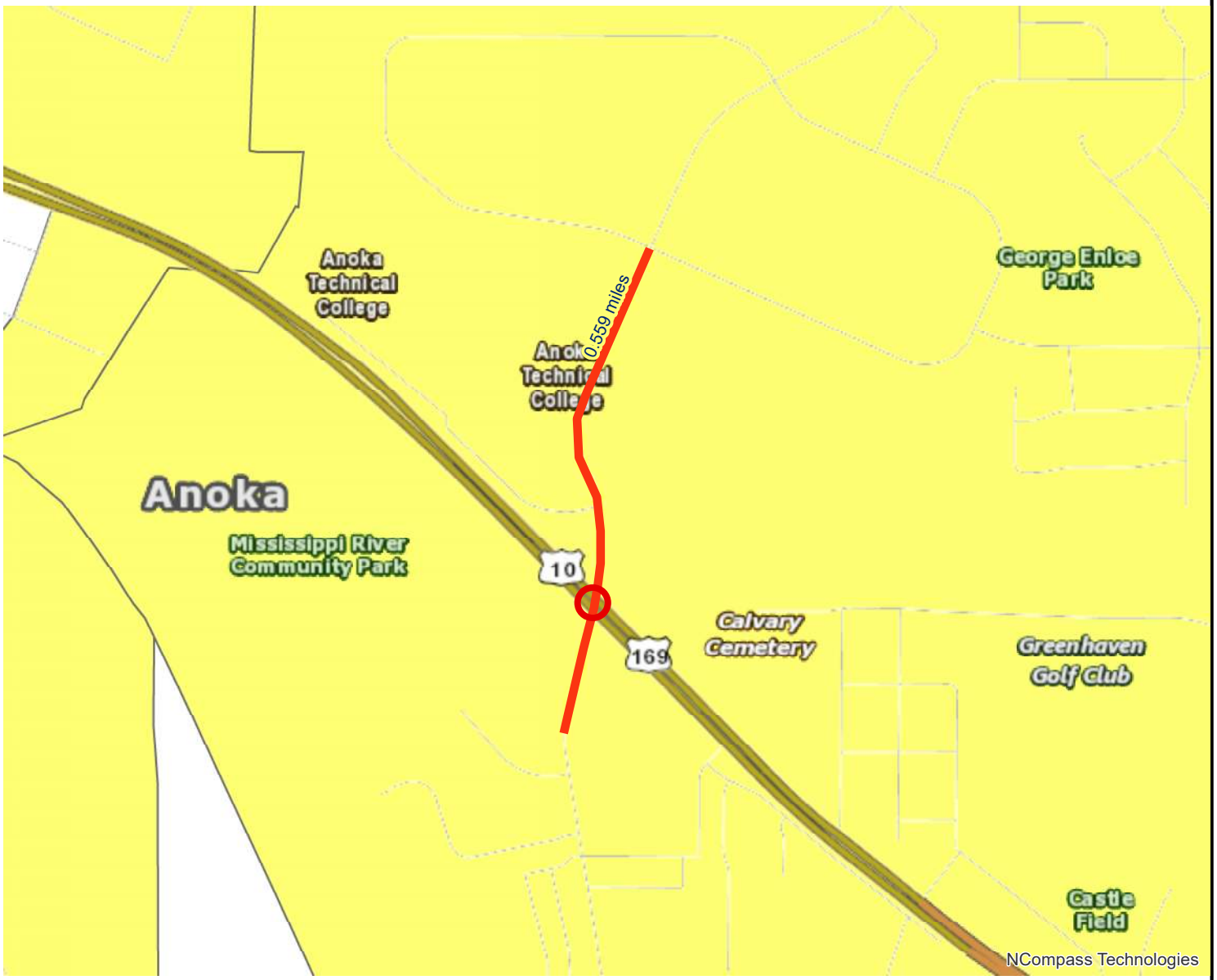
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: Hwy 10 Thurston Seg 2 | Map ID: 1529598229787

Results

Project census tracts are above the regional average for population in poverty or population of color:
(0 to 18 Points)



Project Points
Project
Area of Concentrated Povertry > 50% residents of color
Area of Concentrated Poverty
Above reg'l avg conc of race/poverty

0 0.1 0.2 0.4 0.6 0.8 Miles

Created: 6/21/2018
LandscapeRSA2

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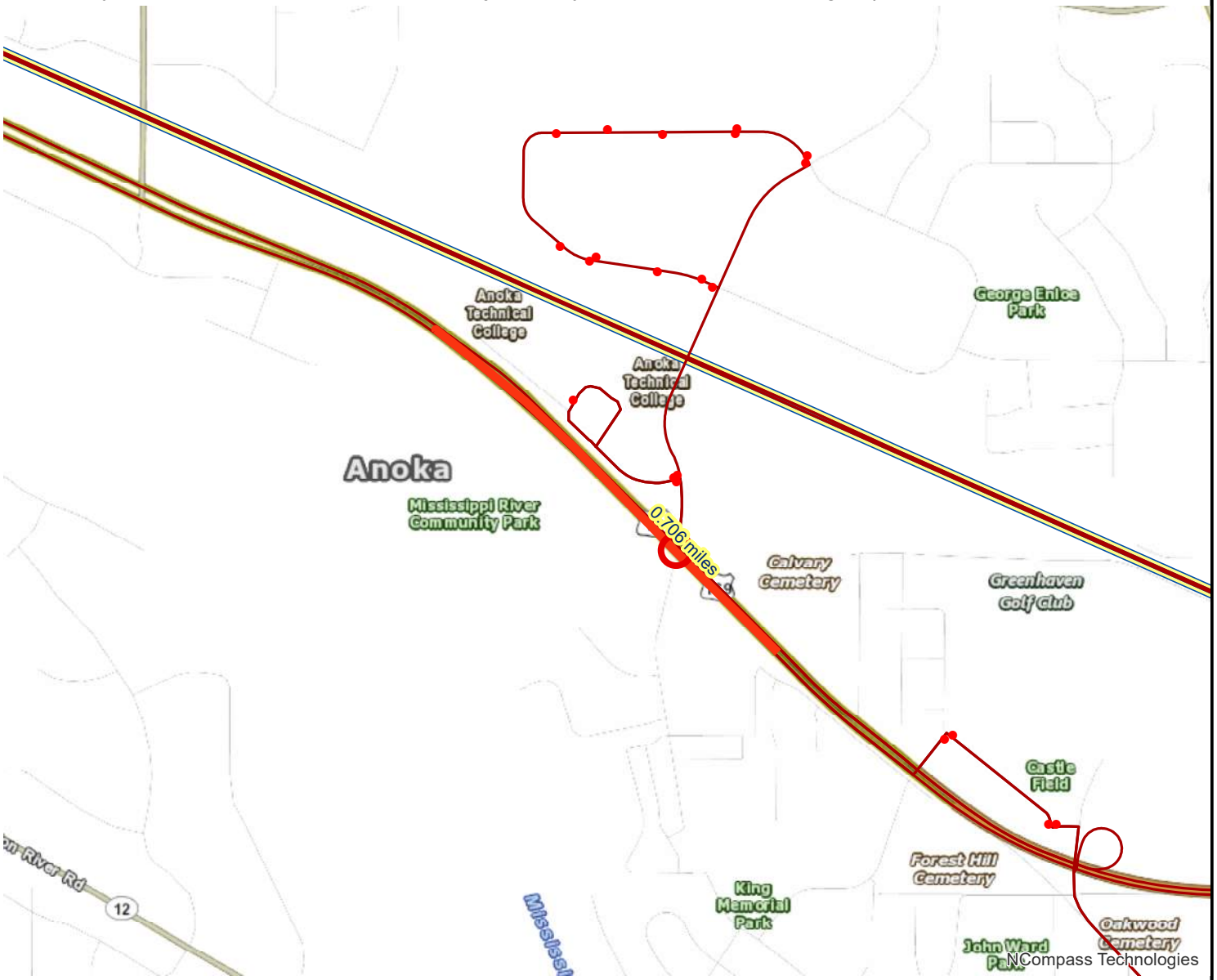
METROPOLITAN COUNCIL

Transit Connections

Roadway Reconstruction/Modernization Project: Hwy 10 & Thurston Ave Seg. 1 | Map ID: 1529593970524



Results

Transit with a Direct Connection to project:
850 852 887 888

**indicates Planned Alignments*

Project Points
Active Stop
Transitway
Project
Transit Routes
Northstar Line

0 0.125 0.25 0.5 0.75 1 Miles

Created: 6/21/2018
LandscapeRSA3

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METROPOLITAN COUNCIL

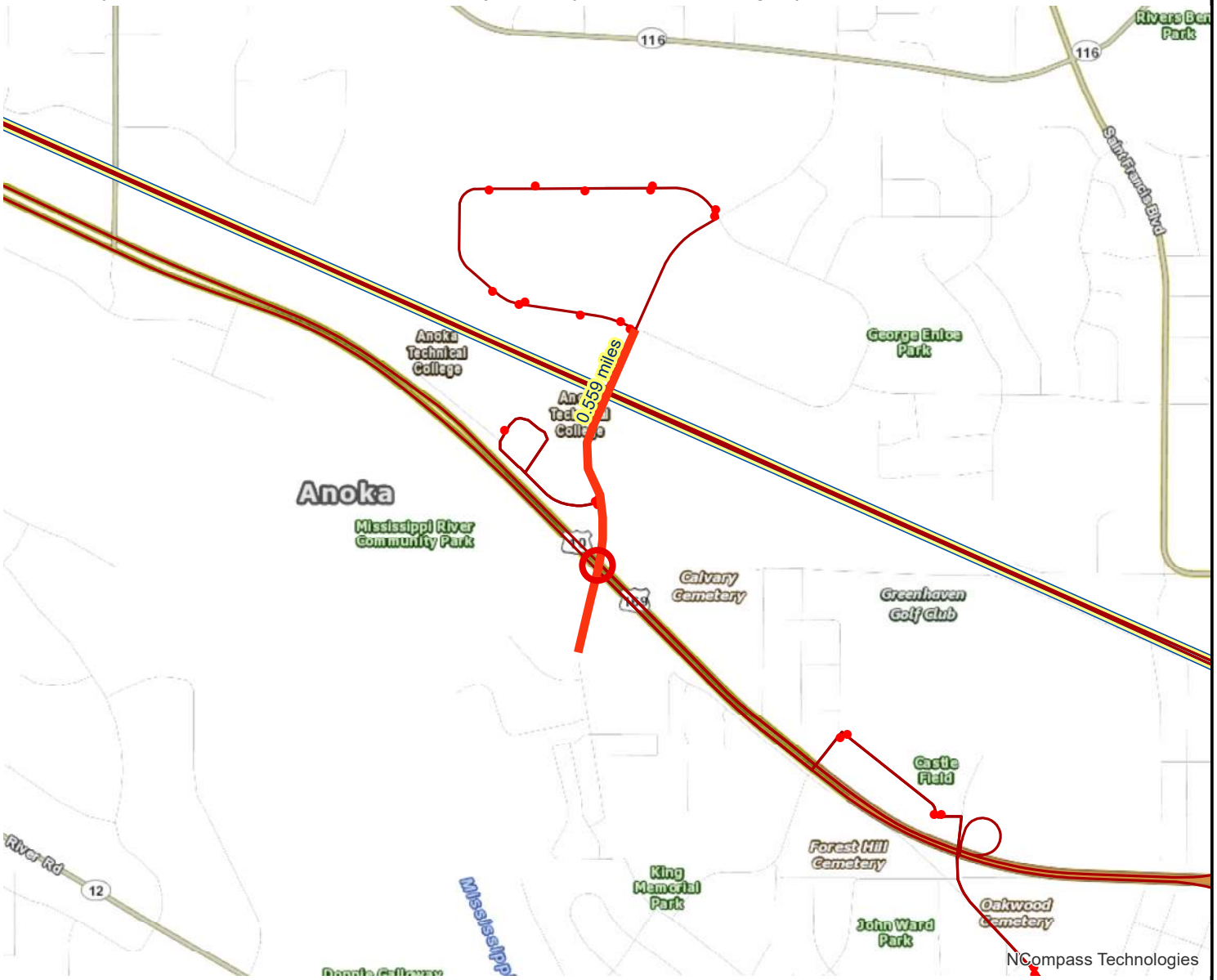
Transit Connections

Roadway Reconstruction/Modernization Project: Hwy 10 Thurston Seg 2 | Map ID: 1529598229787

Results

Transit with a Direct Connection to project:
850 852 887 888

**indicates Planned Alignments*



Project Points
Active Stop
Transitway
Project
Transit Routes
Northstar Line

0 0.15 0.3 0.6 0.9 1.2 Miles

Created: 6/21/2018
LandscapeRSA3

METROPOLITAN COUNCIL