Application

17063 - 2022 Roadway Modernization

17666 - Rice Street (CSAH 49) Reconstruction from Pennsylvania Avenue to Wheelock Parkway

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	04/13/2022 2:47 PM

Primary Contact

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

Organization Information

Name:	RAMSEY COUNTY

Jurisdictional Agency (if different):

Organization Type: County Government

Organization Website:

Address: DEPT OF PUBLIC WORKS

1425 PAUL KIRKWOOD DR

*	ARDEN HILLS	Minnesota	55112
	City	State/Province	Postal Code/Zip

County: Ramsey

Phone:* 651-266-7100 Ext.

Fax:

PeopleSoft Vendor Number 0000023983A30

Project Information

Project Name Rice Street Reconstruction

Primary County where the Project is Located Ramsey

Cities or Townships where the Project is Located: St. Paul

Jurisdictional Agency (If Different than the Applicant):

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

CSAH 49 (Rice Street) is a major transportation corridor and activity hub in Saint Paul. Rice Street connects residents, travelers, and visitors to a diverse intermingling of businesses, services and institutions via existing multimodal connections. The current aged roadway has numerous safety and traffic concerns including unsafe traffic speeds and patterns, insufficient pedestrian facilities, dangerous pedestrian crossings, and a lack of any bicycle facilities. Over the last three years, Ramsey County and the City of Saint Paul have facilitated a community-driven reconstruction plan forRice Street - the Rice Street Vision Plan - to overhaul its design, use, and impacts.

The proposed project will be a full reconstruction of the A-Minor Arterial, along an approximately two-mile segment, from Pennsylvania Ave, to Wheelock Pkwy. The reconstruction of Rice St will drastically enhance area accessibility, safety, and comfort for those walking, biking, and taking transit. Key improvements will include:

-A 4-3 lane conversion with a center turn lane.
-A shared-use pedestrian & bicycle path on the west side of Rice Street.
-Enhanced sidewalk conditions on the east side of Rice Street.
-Consistent boulevard space and opportunities for new streetscape amenities.
-Improved transit access, including dedicated space in anticipation for the future G Line BRT route.
-Planned utility upgrades along the entire 2-mile segment.

There are numerous additional needs beyond just the roadway, necessary to strengthen community development, business vitality, connectivity, public safety, livability, and compatible land uses along the corridor. Catalyzed by the redesign and

reconstruction of the roadway, the future vision of Rice Street is intending to:

-Promote economic growth and community investment while maintaining and providing business opportunities.
-Createan inviting and safe physical environment.
-Enhancepedestrian and bicyclist safety.
-Maintainand augmenttransit service.
-Continueto increase vehicle safety.

(Limit 2,800 characters; approximately 400 words)

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) DESCRIPTION - will be used in TIP if the project is selected for funding. See MnDOT's TIP description guidance.

CSAH 49 IN ST PAUL, FROM PENNSYLVANIA AVE TO WHEELOCK PARKWAY, 2.1 MILES, RECONSTRUCTION, ADA, SIGNALS, TRAIL FOR PEDS AND BIKES, SIDEWALKS

Include both the CSAH/MSAS/TH references and their corresponding street names in the TIP Description (see Resources link on Regional Solicitation webpage for examples).

Project Length (Miles)

2.1

to the nearest one-tenth of a mile

Project Funding

Are you applying for competitive funds from another source(s) to implement this project?

No

If yes, please identify the source(s)

Federal Amount

$7,000,000.00

Match Amount

$29,700,000.00

Minimum of 20% of project total

Project Total

$36,700,000.00

For transit projects, the total cost for the application is total cost minus fare revenues.

Match Percentage

80.93%

Minimum of 20%
Compute the match percentage by dividing the match amount by the project total

Source of Match Funds

Ramsey County, City of St. Paul, MetroTransit

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

Preferred Program Year

Select one:

2026, 2027

Select 2024 or 2025 for TDM and Unique projects only. For all other applications, select 2026 or 2027.

Additional Program Years:

2025

Select all years that are feasible if funding in an earlier year becomes available.

Project Information-Roadways

County, City, or Lead Agency	Ramsey County
Functional Class of Road	A-Minor Arterial
Road System *TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET*	CSAH
Road/Route No. *i.e., 53 for CSAH 53*	49
Name of Road *Example; 1st ST., MAIN AVE*	Rice Street
Zip Code where Majority of Work is Being Performed	55117
(Approximate) Begin Construction Date	06/01/2024
(Approximate) End Construction Date	10/31/2026

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

From: **(Intersection or Address)**	Pennsylvania Ave
To: **(Intersection or Address)** *DO NOT INCLUDE LEGAL DESCRIPTION*	Wheelock Pkway
Or At	
Miles of Sidewalk (nearest 0.1 miles)	2.1
Miles of Trail (nearest 0.1 miles)	2.1
Miles of Trail on the Regional Bicycle Transportation Network (nearest 0.1 miles)	0
Primary Types of Work *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.*	Roadway Reconstruction, Sidewalks, Signals, Bike Path, Ped Ramps, Utilities, Lighting, Trees, Transit Stops

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

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

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 (2018), the 2040 Regional Parks Policy Plan (2018), 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.

(insufficient space to list full objective titles)

Goal A: Transportation System Stewardship

Objectives: A, B

Strategies: A1 and A2 (Pages 2.2-2.4)

Goal B: Safety and Security

Objectives: A, B

Strategies: B1, B3, B4, B5 and B6 (Pages 2.5-2.9)

Briefly list the goals, objectives, strategies, and associated pages:

Goal C: Access to Destinations

Objectives: A, B, C, D, E

Strategies: C1, C2, C4, C11, C12, (Pages 2.10-2.22)

Goal D: Competitive Economy

Objectives: A, B, C

Strategies: D3, D4, (Pages 2.27-2.28)

Goal E: Healthy and Equitable Communities

Objectives: A, B, C, D,

Strategies: E2, E3, E5, E6, E7 (Pages 2.31-2.34)

Goal F: Leveraging Transportation Investments to Guide Land Use

Objectives: A, B, C, D

Strategies: F1, F2, F3, F4, F5, F6 (Pages 2.35-2.38)

Limit 2,800 characters, approximately 400 words

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: Unique projects are exempt from this qualifying requirement because of their innovative nature.

Ramsey County Comprehensive Plan (Page 56)

Ramsey County Capital Improvement Program (Page 224)

St. Paul Comprehensive Plan (Page 87)

St. Paul Capital Improvement Plan (Page 2)

St. Paul Pedestrian Plan (Page 68)

Washington Tech Magnet School Safe Routes to School Plan (Page 8)

Network Next G Line BRT Plan (Page 1)

Limit 2,800 characters, approximately 400 words

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. Unique project costs are limited to those that are federally eligible.

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

5.Applicant is a public agency (e.g., county, city, tribal government, transit provider, etc.) or non-profit organization (TDM and Unique Projects applicants only). Applicants that are not State Aid 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 in Table 1. For unique projects, the minimum award is $500,000 and the maximum award is the total amount available each funding cycle (approximately $4,000,000 for the 2022 funding cycle).
Strategic Capacity (Roadway Expansion): *$1,000,000 to $10,000,000*
Roadway Reconstruction/Modernization: *$1,000,000 to $7,000,000*
Traffic Management Technologies (Roadway System Management): *$500,000 to $3,500,000*
Spot Mobility and Safety: *$1,000,000 to $3,500,000*
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 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 plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

The applicant is a public agency that employs 50 or more people and has a completed ADA transition plan that covers the public right of way/transportation. Yes

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

Date plan completed:

Link to plan:

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

Date self-evaluation completed:

Link to plan: Ramsey County ADA Transition Plan, 1997

Upload plan or self-evaluation if there is no link 1649854505636_1997 RC ADA Transition Plan.pdf

Upload as PDF

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. Unique projects are exempt from this qualifying requirement.

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 Strategic Capacity 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 and Strategic Capacity 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.

Bridge Rehabilitation/Replacement projects only:

5.The length of the bridge clear span must exceed 20 feet.

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

6. The bridge must have a National Bridge Inventory Rating of 6 or less for rehabilitation projects and 4 or less for replacement projects.

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

Roadway Expansion, Reconstruction/Modernization, 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 as described in Appendix F of the 2040 Transportation Policy Plan.

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)	$1,128,800.00
Removals (approx. 5% of total cost)	$3,381,900.00
Roadway (grading, borrow, etc.)	$2,328,700.00
Roadway (aggregates and paving)	$2,422,250.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$1,480,000.00
Ponds	$1,200,000.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$1,337,200.00
Traffic Control	$1,479,300.00
Striping	$739,650.00
Signing	$739,650.00
Lighting	$940,500.00
Turf - Erosion & Landscaping	$739,700.00
Bridge	$0.00
Retaining Walls	$0.00
Noise Wall (not calculated in cost effectiveness measure)	$0.00
Traffic Signals	$3,600,000.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$1,773,680.00
Other Roadway Elements	$6,096,000.00
Totals	**$29,387,330.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	$2,195,050.00

Sidewalk Construction	$1,470,000.00
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	$940,500.00
Streetscaping	$739,700.00
Wayfinding	$0.00
Bicycle and Pedestrian Contingencies	$443,420.00
Other Bicycle and Pedestrian Elements	$1,524,000.00
Totals	**$7,312,670.00**

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	$36,700,000.00

Construction Cost Total	$36,700,000.00
Transit Operating Cost Total	$0.00

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

Existing Employment within 1 Mile:	12915
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	1705
Existing Post-Secondary Students within 1 Mile:	0
Upload Map	1649696918345_Rice_St_Regional_Economy_Map[1].pdf

Please upload attachment in PDF form.

Measure C: Current Heavy Commercial Traffic

RESPONSE: Select one for your project, based on the updated 2021 Regional Truck Corridor Study:

Along Tier 1:	
Miles:	0

(to the nearest 0.1 miles)

Along Tier 2:	
Miles:	0

(to the nearest 0.1 miles)

Along Tier 3:	Yes
Miles:	1.2

(to the nearest 0.1 miles)

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	Rice Street between Pennsylvania Ave and Wheelock Parkway
Current AADT Volume	15850
Existing Transit Routes on the Project	5

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

Upload Transit Connections Map	1649697182199_Rice_St_Transit_Connections_Map[1].pdf

Please upload attachment in PDF form.

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	20605.0

Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume	
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	Ramsey County, The City of St. Paul, and other project agency stakeholders approved using historic trends to assume a forecasted 2040 ADT of no growth.
Forecast (2040) ADT volume	15850

Measure A: Engagement

i.Describe any Black, Indigenous, and People of Color populations, low-income populations, disabled populations, youth, or older adults within a ½ mile of the proposed project. Describe how these populations relate to regional context. Location of affordable housing will be addressed in Measure C.
ii.Describe how Black, Indigenous, and People of Color populations, low-income populations, persons with disabilities, youth, older adults, and residents in affordable housing were engaged, whether through community planning efforts, project needs identification, or during the project development process.
iii.Describe the progression of engagement activities in this project. A full response should answer these questions:

Response:

Inclusive, iterative engagement was a cornerstone of the Rice Street Vision Study process. From October 2019 - March 2022, a three-phased engagement process was utilized to gather information on stakeholder concern and opportunity, roadway element preferences, and confirmation of a preferred concept.

Phase 1 Initial Feedback: Introduced the project, scope, and solicit area transportation and livability concerns. While a redesign for Rice Street had been planned by Ramsey County since 2017, Phase 1 was key towards refining the project purpose and need by asking area stakeholders about specific area conditions, concerns, and opportunities.

Phase 2 Improvement Toolbox: Solicited input and recommendations on specific tools, designs, and strategies to enhance the corridor design and function. Tools were divided into categories of pedestrian & bike, transit, streetscape, vehicle traffic, and neighborhood design.

Phase 3 Roadway Design Options: Reviewed and vetted final layout concepts, directly informing the selection of a preferred concept.

Across all three phases more than 4600 comments were collected, utilizing four open houses, nine pop-ups, 25 project emails, an interactive feedback map, 38 sidewalk decals, 14 videos, 16 shareholder meetings, nine surveys, and four focus groups. A summarized draft engagement report is included with this application. This broad spectrum of physical, digital, passive, and active engagement activities were purposefully utilized to connect with people of all backgrounds, socioeconomics, abilities, and race.

To further connect with diverse area stakeholders,

especially those not historically engaged by transportation project outreach, the project team employed four local artist liaisons to lead targeted engagement efforts. Each liaison curated events and activities within the larger engagement plan, leveraging their local experience and community trust to connect further with the community. These activities were carefully planned to align with culturally relevant places, events, styles, languages, and norms. Likewise, the format, wording, and dissemination of materials were co-informed by the liaisons and engagement partners to reduce barriers for diverse populations and build capacity to participate.

Collected engagement findings provided direct guidance on design decisions. The type and location of multimodal features, location of enhanced crossing features, and introduction of buffered pedestrian facilities were all influenced by public desires for a safer, more connected corridor. Feedback from each phase, and how it influenced the project, was regularly reported out to the public and decision makers and published on the project website.

(Limit 2,800 characters; approximately 400 words):

Measure B: Equity Population Benefits and Impacts

Describe the projects benefits to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Benefits could relate to:
This is not an exhaustive list. A full response will support the benefits claimed, identify benefits specific to Equity populations residing or engaged in activities near the project area, identify benefits addressing a transportation issue affecting Equity populations specifically identified through engagement, and substantiate benefits with data.
Acknowledge and describe any negative project impacts to Black, Indigenous, and People of Color populations, low-income populations, children, people with disabilities, youth, and older adults. Describe measures to mitigate these impacts. Unidentified or unmitigated negative impacts may result in a reduction in points.
Below is a list of potential negative impacts. This is not an exhaustive list.

Response:

The roadway design process was rooted in addressing area transportation and community equity needs, particularly those that would elevate quality of life for the diverse, multiethnic communities along the corridor. As such, project outcomes that benefit BIPOC populations were prioritized in the selection process, including:

- Pedestrian Accommodations: Improving sidewalk conditions, widths, connectivity, crossings, and buffering from the roadway.

- Bike Connections: Introducing a safe, off-street bike/ped shared use path that fills a gap in the bike network.

-Transit Service: Dedicated, clear access to local transit stops while maintaining station pad space in anticipation of proposed G Line BRT station locations.

- Traffic Operations: 4-3 lane conversion, with dedicated center turn lane, and strategic cross street access closures to minimize conflict points and promote pedestrian safety.

-Streetscape: A consistent boulevard space along both sides of the roadway intended to accommodate elevate corridor aesthetics, including ped-scale lighting and branding.

-Economic Development & Business Support: Maintain key business and delivery access, opportunities for flexible curbside management, and promoting multimodal connectivity for employees.

-Workforce Development: Enhance safe, multimodal connectivity and service for area workforce.

-Healthy Community: Facilitate health-promoting transportation like walking and biking, introduce green infrastructure, improve area lighting, clear open spaces, and other safe design features.

No permanent, significant negative impacts to BIPOC populations were identified related to the final concept. Construction impacts are being vetted to minimize disruption to area businesses and destinations. Any increased traffic on adjacent streets is expected to be counterbalanced by posted and design speeds along these streets. Reducing on-street parking along Rice is anticipated to be addressed by sufficient adjacent on-street, and off-street capacities.

To further mitigate potential negative impacts, the County has compiled a preliminary anti-displacement toolbox that local officials can utilize to track and mitigate housing or business displacement that may result from gentrification, catalyzed by roadway improvements.

(Limit 2,800 characters; approximately 400 words):

Measure C: Affordable Housing Access

Describe any affordable housing developmentsexisting, under construction, or plannedwithin ½ mile of the proposed project. The applicant should note the number of existing subsidized units, which will be provided on the Socio-Economic Conditions map. Applicants can also describe other types of affordable housing (e.g., naturally-occurring affordable housing, manufactured housing) and under construction or planned affordable housing that is within a half mile of the project. If applicable, the applicant can provide self-generated PDF maps to support these additions. Applicants are encouraged to provide a self-generated PDF map describing how a project connects affordable housing residents to destinations (e.g., childcare, grocery stores, schools, places of worship).

Describe the projects benefits to current and future affordable housing residents within ½ mile of the project. Benefits must relate to affordable housing residents. Examples may include:

This is not an exhaustive list. Since residents of affordable housing are more likely not to own a private vehicle, higher points will be provided to roadway projects that include other multimodal access improvements. A full response will support the benefits claimed, identify benefits specific to residents of affordable housing, identify benefits addressing a transportation issue affecting residents of affordable housing specifically identified through engagement, and substantiate benefits with data.

Response:

(Limit 2,800 characters; approximately 400 words):

Rice Street is a dynamic, mixed-use corridor bisecting the North End of St. Paul - one of the most diverse, low-income communities in the city and county. As such, Rice Street hosts a robust spectrum of uses and institutions critical to daily needs, livability, and employment - each of which relies on safe, multimodal access. The entire project is located in an area of Concentrated Poverty as identified by the MetCouncil, and is book ended by areas identified as Regional Environmental Justice Areas.

The Rice Street reconstruction project will enhance access for residents of the 2649 rental housing units located within ½ mile around the project. Many of these are within multifamily apartments located in the southern half of the project area, including the Lewis Park Apartments, Winnipeg Apartments, and the recently completed Rice Street Flats.

The redesigned Rice Street will improve safe multimodal, non-vehicle access to area amenities including locally owned commercial and employment destinations, social services, the Rice Street Library, the planned North End Community Center, ethnic food stores, places of worship, Washington Tech Magnet School, and regional transit connections. Critical multimodal access to these and similar destinations will be improved by introducing separated bicycle facilities, pedestrian facilities buffered from the roadway, and enhanced local and BRT transit access.

Further, the reconstructed roadway will promote safety for all users by reducing vehicle traffic conflicts points, consolidating travel lanes, and enhancing pedestrian and bike crossings and visibility.

Measure D: BONUS POINTS

Project is located in an Area of Concentrated Poverty:	Yes
Projects census tracts are above the regional average for population in poverty or population of color (Regional Environmental Justice Area):	
Project located in a census tract that is below the regional average for population in poverty or populations of color (Regional Environmental Justice Area):	
Upload the Socio-Economic Conditions map used for this measure.	1649697493213_Rice_St_Socio-Economic_Conditions_Map[1].pdf

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1930	2.1	4053.0	1930.0
	2	**4053**	**1930**

Total Project Length

Total Project Length (as entered in "Project Information" form)	2.1

Average Construction Year

Weighted Year	1930

Total Segment Length (Miles)

Total Segment Length	2.1

Measure B: Geometric, Structural, or Infrastructure Improvements

Improved roadway to better accommodate freight movements:	Yes

Response:

Yes. Reduced lane widths, center turn lanes, and intersection improvements are intended to calm freight speeds, enhance turn radii, and reduce conflicts with other vehicles. Enhanced pedestrian facilities, delineated crossing locations, and new bike facilities will better separate freight from pedestrians and bicyclists to promote safety of all users.

There are several industrial uses along the corridor, and all roadway improvements will meet applicable requirements for freight and large vehicle access.

(Limit 700 characters; approximately 100 words)

Improved clear zones or sight lines:

Yes

Response:

Yes. Numerous improvements will improve the clear zones and sight lines along Rice Street:

-The 4-3 conversion with a center turn lane will improve sight lines across fewer travel lanes.

-New boulevard spaces will improve clear zone visibility near intersections and driveways.

-Crossing improvements will be implemented, where appropriate, to increase pedestrian and bicyclist visibility.

New street and pedestrian-scale lighting will be installed to improve visibility and safety at night.

(Limit 700 characters; approximately 100 words)

Improved roadway geometrics:

Yes

Yes. The reconstructed Rice Street will see significant geometric improvements, anchored by a 4-3 lane reduction, with a center turn lane or median along the full project corridor.

Response:

Other improvements include lane width reductions, vehicle access management across select intersections, optimized turning radii, on-street parking bays where appropriate, bus stop pull outs, a widened and buffered sidewalk, new shared use path, and pedestrian crossing improvements.

(Limit 700 characters; approximately 100 words)

Access management enhancements:

Yes

Yes. The project will consolidate a handful of select driveways and access points. It will also provide bus pullouts where feasible at local transit stops, to reduce queuing when buses stop for rider pick up/drop off.

Response:

Center lane medians are being introduced at several low volume, unsignalized intersections remove left turn access from side streets and provide pedestrian crossing refuges. Dedicated left turn lanes along Rice Street at all other intersections will separate turning vehicles from thru-traffic, reducing congestion and increasing safety.

(Limit 700 characters; approximately 100 words)

Vertical/horizontal alignment improvements:

Yes

Yes. Rice Street has an almost entirely straight horizontal and flat vertical alignment. The only deviations present relate to two bridges spanning at-grade rail lines.

Response:

Like many developed urban corridors, there is minimal available right-of-way, and therefore no significant horizontal alignment changes anticipated. Minor right-of-way acquisitions are being explored on a case-by-case basis to accommodate constrained multimodal facilities at transit stop locations.

No significant vertical alignment changes are anticipated. The project will meet all applicable local, state, and federal design standards related to vertical alignment.

(Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

Yes

Response:

Yes. Streetscape elements such as bioswales and bio-retention features are being evaluated, with preliminary locations pre-identified to maximize localized stormwater retention and mitigate localized flooding.

Storm sewer is being replaced for the entire corridor, greatly enhancing area drainage capacities and quality and removing lead pipe within the project area.

New curb and gutter along the entire project corridor will provide upgraded drainage.

(Limit 700 characters; approximately 100 words)

Signals/lighting upgrades:

Yes

Response:

Yes. Eight signalized intersections are planned along the project extent, all of which will be replaced with upgraded signals. Overhead traffic signals heads on mast arms will be installed, and centered, at each signalized intersection lane approach. Left turn phases will be implemented at signalized intersections as-needed to improve traffic safety and flow, while mitigating conflicts with pedestrians and bicyclists

New street and pedestrian-scale lighting will be installed along the entire project extent to improve visibility, safety, and corridor aesthetics.

(Limit 700 characters; approximately 100 words)

Other Improvements

Yes

Response:

Rice Street is being designed and constructed based on local and county Complete Streets policies and best practices, to prioritize safe and comfortable mobility for pedestrian, bicyclist, and transit users.

Specific outreach and design attention has been given to maintain critical access for local businesses, institutions, and other key destinations.

Further, Ramsey County and St. Paul have been coordinating with MetroTransit to ensure design alignment with the planned future G Line BRT, and locations under consideration for future G Line BRT stations. Coordination will continue into future stages of both projects.

(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 without the Project (Vehicles per hour)	Volume with the Project (Vehicles Per Hour):	Total Peak Hour Delay Reduced by the Project:	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
94.1	202.7	-108.6	1515	1515	-164529	-164529	There are two grade-separated railroads crossings and therefore are no existing or planned railroad delays.	1649778598819_Rice Street_Synchro Report.pdf
						-164529		

Vehicle Delay Reduced

Total Peak Hour Delay Reduced	-164529
Total Peak Hour Delay Reduced	-164529

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):
25.63	31.04	-5.41
26	**31**	**-5**

Total

Total Emissions Reduced:	-5.41
Upload Synchro Report	1649778360313_Rice Street_Synchro Report.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:	CMF ID: 2841 - Converting four-lane roadways to three-lane roadways with center turn lane (road diet)
(Limit 700 Characters; approximately 100 words)	
Rationale for Crash Modification Selected:	CMF ID 2841 was selected to determine the crash reduction as it applies to projects that convert four-lane roadways to three-lane roadways with center turn lanes which is what this project will do. This crash modification factor shows a 47% crash reduction and applies to all crash types and severities. This crash modification factor was applied to all 229 crashes along the Rice St corridor that occurred between January 1, 2019 and December 31, 2021.
(Limit 1400 Characters; approximately 200 words)	
Project Benefit ($) from B/C Ratio	$46,841,639.00
Total Fatal (K) Crashes:	1
Total Serious Injury (A) Crashes:	6
Total Non-Motorized Fatal and Serious Injury Crashes:	4
Total Crashes:	229
Total Fatal (K) Crashes Reduced by Project:	1
Total Serious Injury (A) Crashes Reduced by Project:	3
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project:	2
Total Crashes Reduced by Project:	108
Worksheet Attachment	1649780656443_Rice Street_BC and CMF.pdf

Please upload attachment in PDF form.

Roadway projects that include railroad grade-separation elements:

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

Measure A: Pedestrian Safety

Determine if these measures do not apply to your project. *Does the project match either of the following descriptions?*
If either of the items are checked yes, then ***score for entire pedestrian safety measure is zero****. Applicant does not need to respond to the sub-measures and can proceed to the next section.*

Project is primarily a freeway (or transitioning to a freeway) and does not provide safe and comfortable pedestrian facilities and crossings.	No
Existing location lacks any pedestrian facilities (e.g., sidewalks, marked crossings, wide shoulders in rural contexts) and project does not add pedestrian elements (e.g., reconstruction of a roadway without sidewalks, that doesnt also add pedestrian crossings and sidewalk or sidepath on one or both sides).	No

SUB-MEASURE 1: Project-Based Pedestrian Safety Enhancements and Risk Elements
To receive maximum points in this category, pedestrian safety countermeasures selected for implementation in projects should be, to the greatest extent feasible, consistent with the countermeasure recommendations in the Regional Pedestrian Safety Action Plan and state and national best practices. Links to resources are provided on the Regional Solicitation Resources web page.
Please answer the following two questions with as much detail as possible based on the known attributes of the proposed design. If any aspect referenced in this section is not yet determined, describe the range of options being considered, to the greatest extent available. If there are project elements that may increase pedestrian risk, describe how these risks are being mitigated.
1. Describe how this project will address the safety needs of people crossing the street at signalized intersections, unsignalized intersections, midblock locations, and roundabouts.
Treatments and countermeasures should be well-matched to the roadways context (e.g., appropriate for the speed, volume, crossing distance, and other location attributes). Refer to the Regional Solicitation Resources web page for guidance links.

Response:

Rice Street is a mixed use, urban corridor, with a high number of low- to no-setback buildings oriented to the corridor and significant pedestrian activity. As such, safe and clear crossings are critical for area access, social connectivity, and economic activity.

To accommodate safe and comfortable crossings, the project:

-Replaces eight existing signalized intersections? equipment, which includes pedestrian walk signals and upgrading all intersections to full ADA accessibility.

-Introduces approximately 20 pedestrian crossing refuge islands.

-Marked pedestrian and bike crossing at all signalized intersections, and at unsignalized intersections as feasible.

-Reduced crossing distances by removing a travel lane and majority of on street parking.

-Slowing traffic speeds through traffic calming.

(Limit 2,800 characters; approximately 400 words)

Is the distance in between signalized intersections increasing (e.g., removing a signal)?

Select one: Yes

If yes, describe what measures are being used to fill the gap between protected crossing opportunities for pedestrians (e.g., adding High-Intensity Activated Crosswalk beacons to help motorists yield and help pedestrians find a suitable gap for crossing, turning signal into a roundabout to slow motorist speed, etc.).

Response:

The signal at one intersection, Geranium Ave, is being removed as it doesn?t meet warrants for continued signalization. To mitigate the new gap, the project design is reducing total crossing distances, slowing vehicle traffic speeds, and introducing pedestrian refuge islands at nearby intersections.

(Limit 1,400 characters; approximately 200 words)

Will your design increase the crossing distance or crossing time across any leg of an intersection? (e.g., by adding turn or through lanes, widening lanes, using a multi-phase crossing, prohibiting crossing on any leg of an intersection, pedestrian bridge requiring length detour, etc.). This does not include any increases to crossing distances solely due to the addition of bike lanes (i.e., no other through or turn lanes being added or widened).

Select one: No

If yes,
How many intersections will likely be affected?

Response:

Describe what measures are being used to reduce exposure and delay for pedestrians (e.g., median crossing islands, curb bulb-outs, etc.)

Response:

(Limit 1,400 characters; approximately 200 words)

If grade separated pedestrian crossings are being added and increasing crossing time, describe any features that are included that will reduce the detour required of pedestrians and make the separated crossing a more appealing option (e.g., shallow tunnel that doesnt require much elevation change instead of pedestrian bridge with numerous switchbacks).

Response:

(Limit 1,400 characters; approximately 200 words)

If mid-block crossings are restricted or blocked, explain why this is necessary and how pedestrian crossing needs and safety are supported in other ways (e.g., nearest protected or enhanced crossing opportunity).

Response:

(Limit 1,400 characters; approximately 200 words)

2. Describe how motorist speed will be managed in the project design, both for through traffic and turning movements. *Describe any project-related factors that may affect speed directly or indirectly, even if speed is not the intended outcome (e.g., wider lanes and turning radii to facilitate freight movements, adding turn lanes to alleviate peak hour congestion, etc.). Note any strategies or treatments being considered that are intended to help motorists drive slower (e.g., visual narrowing, narrow lanes, truck aprons to mitigate wide turning radii, etc.) or protect pedestrians if increasing motorist speed (e.g., buffers or other separation from moving vehicles, crossing treatments appropriate for higher speed roadways, etc.).*

Response:

Significant geometric and traffic calming improvements along the full project extent are being introduced to slow traffic speeds and facilitate safer turning movements. These improvements are anchored by a 4-3 lane reduction, with either a center turn-lane or center-lane median along the full project corridor.

Additional speed and turning improvements include lane width reductions, vehicle access management across select intersections, optimized turning radii, and enhanced streetscaping to narrow driver visuals.

Additional speed management strategies rely on center lane medians at select low-volume, unsignalized intersections, to restrict through- or left-turn access from local cross streets. This restriction is partially to reduce crossing and/or speeding vehicles entering Rice St. from adjacent local roads.

(Limit 2,800 characters; approximately 400 words)

If known, what are the existing and proposed design, operation, and posted speeds? Is this an increase or decrease from existing conditions?

Response:

The posted speed limit between Pennsylvania Avenue to West Cottage Avenue is 30 mph, and from West Cottage Avenue to Wheelock Parkway is 35 mph. The observed speeds are 1mph greater than the posted limits, as shown in speed attachements as part of this application. The posted limits will remain the same, and new design speeds are intended to match these limits.

The intended speed impacts of the reconstructed Rice Street will be to eliminate outliers above the posted and designed speed limits, resulting in traffic calming and improved safety.

(Limit 1,400 characters; approximately 200 words)

SUB-MEASURE 2: Existing Location-Based Pedestrian Safety Risk Factors

These factors are based on based on trends and patterns observed in pedestrian crash analysis done for the Regional Pedestrian Safety Action Plan. Check off how many of the following factors are present. Applicants receive more points if more risk factors are present.

Existing road configuration is a One-way, 3+ through lanes or	
Existing road configuration is a Two-way, 4+ through lanes	Yes
Existing road has a design speed, posted speed limit, or speed study/data showing 85th percentile travel speeds in excess of 30 MPH or more	Yes
Existing road has AADT of greater than 15,000 vehicles per day	Yes
List the AADT	15850

SUB-MEASURE 3: Existing Location-Based Pedestrian Safety Exposure Factors

These factors are based on based on trends and patterns observed in pedestrian crash analysis done for the Regional Pedestrian Safety Action Plan. Check off how many of the following existing location exposure factors are present. Applicants receive more points if more risk factors are present.

Existing road has transit running on or across it with 1+ transit stops in the project area (If flag-stop route with no fixed stops, then 1+ locations in the project area where roadside stops are allowed. Do not count portions of transit routes with no stops, such as non-stop freeway sections of express or limited-stop routes. If service was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 service for this item.)	Yes
Existing road has high-frequency transit running on or across it and 1+ high-frequency stops in the project area (high-frequency defined as service at least every 15 minutes from 6am to 7pm weekdays and 9am to 6pm Saturdays. If service frequency was temporarily reduced for the pandemic but is expected to return to 2019 levels, consider 2019 frequency for this item.)	
Existing road is within 500 of 1+ shopping, dining, or entertainment destinations (e.g., grocery store, restaurant)	Yes

Rice Street is serviced by local bus routes 3 and 62, with stops every one to two blocks along the project extent. Additional local routes on cross streets have stops located at major intersections, particularly Maryland Ave and Arlington Ave.

While no high-frequency transit currently run on or across the project area, the planned H Line BRT will provide service to the project area along Maryland Ave, whereas the planned G Line BRT will provide direct service along the full project extent.

If checked, please describe:

As a mixed use urban corridor, there are several shopping, dining, and entertainment destinations along the entire project extent. While the majority are concentrated on the southern half of the project area, in a traditional urban commercial district, destinations further north include a handful of strip malls, a grocery store, several ethnic markets, and numerous local and chain restaurants.

(Limit 1,400 characters; approximately 200 words)

Existing road is within 500 of other known pedestrian generators (e.g., school, civic/community center, senior housing, multifamily housing, regulatorily-designated affordable housing)

Yes

There are multiple pedestrian generators along the entire project area, including commercial and employment destinations, social services, the Rice Street Library, the planned North End Community Center, community-serving food stores, places of worship, Washington Tech Magnet School, community recreation fields, and several multifamily housing developments - both affordable and market rate. These uses are most densely located in the southern half of the project, but are located across the full extent.

If checked, please describe:

(Limit 1,400 characters; approximately 200 words)

Measure A: Multimodal Elements and Existing Connections

Response:

The Rice Street Reconstruction project prioritizes the enhancement of existing pedestrian and transit facilities, introduces new bicycle facilities to close a city and regional network gap, and anticipates future aerterial BRT transit improvements in alignment with continued regionaltransit network build out.

Towards this end, the following improvements will be implemented:

- Safer traffic operations utilizing 4-3 conversion with a center turn lane will reduce crossing distances and slow traffic speeds, promoting access and safety for those who walk, bike, drive, and use transit.

- Pedestrian accommodations will include a reconstructed and widened sidewalk on the east side of the street, more clearly delineated crossing locations at both signalized and unsignalized intersections (where able), and incorporates a new boulevard to buffer the sidewalk from the roadway.

- A new bike connection will connect the off-street bike facility along Wheelock Parkway to St. Paul's Capital City Bikeway network by introducing a safe off-street bike/ped shared use path on the west side of the street. This new facility closes a gap in the bike network, while providing clearly delineated crossing locations at both signalized and unsignalized intersections where able. It also will incorporate a new boulevard to buffer the path from the roadway.

- Existing transit stops will provide clear and direct access from both sidewalks, and the shared use path, while offering bus pullouts when feasiblefor safer entry/exit, and queuing reduction behind stopped buses.

- In anticipation of the proposed G Line BRT, the project team has coordinated with MetroTransit to identify and accomodate possible locations for future BRT stops. These stops will also provide clear and direct access from sidewalks and the shared use path.

- Opportunities for an enhanced streetscape and public realm by creating a consistent boulevard space along both sides of the roadway to accommodate ped-scale lighting, placemaking, street trees, and flexible curb side uses. The project will consider recent public realm studies and plans done elsewhere along to corridor, and community feedback, to inform selected designs.

(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.Public Involvement (20 Percent of Points)

Projects that have been through a public process with residents and other interested public entities are more likely than others to be successful. The project applicant must indicate that events and/or targeted outreach (e.g., surveys and other web-based input) were held to help identify the transportation problem, how the potential solution was selected instead of other options, and the public involvement completed to date on the project. The focus of this section is on the opportunity for public input as opposed to the quality of input. NOTE: A written response is required and failure to respond will result in zero points.

Multiple types of targeted outreach efforts (such as meetings or online/mail outreach) specific to this project with the general public and partner agencies have been used to help identify the project need.

Yes

100%

At least one meeting specific to this project with the general public has been used to help identify the project need.

50%

At least online/mail outreach effort specific to this project with the general public has been used to help identify the project need.

50%

No meeting or outreach specific to this project was conducted, but the project was identified through meetings and/or outreach related to a larger planning effort.

25%

No outreach has led to the selection of this project.

0%

Describe the type(s) of outreach selected for this project (i.e., online or in-person meetings, surveys, demonstration projects), the method(s) used to announce outreach opportunities, and how many people participated. Include any public website links to outreach opportunities.

Response:

Across all project outreach phases more than 4600 comments were collected, utilizing four virtual open houses, nine in-person pop-ups, 25 project emails, an interactive feedback map, 38 sidewalk decals, 14 videos, 16 in-person and virtual shareholder meetings, nine surveys, and four focus groups. A full draft engagement report is included with this application. This broad spectrum of physical, digital, passive, and active engagement activities were purposefully utilized to connect with people of all backgrounds, socioeconomics, abilities, and races/ethnicities.

Outreach was advertised using county and partner social media, the project website, project emails, word of mouth, sidewalk decals, mailed postcards, and partner networks..

The type and location of multimodal features, particularly the shared use path, location of enhanced crossing features, and introduction of buffered pedestrian facilities were all influenced by public desires for a safer, more connected corridor.

An archive of engagement materials and information is included on the Rice Street project page: Ramseycounty.us/RiceStreetStudy

(Limit 2,800 characters; approximately 400 words)

2.Layout (25 Percent of Points)

Layout includes proposed geometrics and existing and proposed right-of-way boundaries. A basic layout should include a base map (north arrow; scale; legend; city and/or county limits; existing ROW, labeled; existing signals;* and bridge numbers*) and design data (proposed alignments; bike and/or roadway lane widths; shoulder width;* proposed signals;* and proposed ROW). An aerial photograph with a line showing the projects termini does not suffice and will be awarded zero points. *If applicable*

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties/MnDOT. If a MnDOT trunk highway is impacted, approval by MnDOT must have occurred to receive full points. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

Yes

100%

A layout does not apply (signal replacement/signal timing, stand-alone streetscaping, minor intersection improvements). Applicants that are not certain whether a layout is required should contact Colleen Brown at MnDOT Metro State Aid colleen.brown@state.mn.us.

100%

For projects where MnDOT trunk highways are impacted and a MnDOT Staff Approved layout is required. Layout approved by the applicant and all impacted local jurisdictions (i.e., cities/counties), and layout review and approval by MnDOT is pending. A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

75%

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

50%

Layout has been started but is not complete. A PDF of the layout must be attached to receive points.

25%

Layout has not been started

0%

Attach Layout

1649772619460_Rice Street - Prelim Layout.pdf

Please upload attachment in PDF form.

Additional Attachments

1649877809610_Rice Street_Jurisdictional Support.pdf

Please upload attachment in PDF form.

3.Review of Section 106 Historic Resources (15 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

Yes

100%

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

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

4.Right-of-Way (25 Percent of Points)

Right-of-way, permanent or temporary easements, and MnDOT agreement/limited-use permit either not required or all have been acquired Yes

100%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels identified

25%

Right-of-way, permanent or temporary easements, and/or MnDOT agreement/limited-use permit required - parcels not all identified

0%

5.Railroad Involvement (15 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%

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	$36,700,000.00
Enter Amount of the Noise Walls:	$0.00
Total Project Cost subtract the amount of the noise walls:	$36,700,000.00
Enter amount of any outside, competitive funding:	$0.00
Attach documentation of award:	
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
Level_of_Congestion_Map[1].pdf	Rice Street Level of Congestion	2.4 MB
Rice Street - Prelim Layout.pdf	Rice Street Improvements Layout	4.5 MB
Rice Street Engagement Report_DRAFT-1.pdf	Rice Street Draft Engagement Report	11.9 MB
Rice Street Existing Conditions.pdf	Rice Street Existing Conditions Images	5.4 MB
Rice Street Project Location Map.pdf	Rice Street Reconstruction Project Location Map	635 KB
Rice Street_Letters of Support.pdf	Rice Street Letters of Support	1.4 MB
Rice Street_One Page Description.pdf	Rice Street Reconstruction one-page project summary	399 KB

A D A

RAMSEY COUNTY

THE AMERICANS WITH DISABILITIES ACT

COMPLIANCE REPORT & TRANSITION PLAN UPDATE

June, 1997

RAMSEY COUNTY ADA POLICY STATEMENT

Ramsey County and its various departments and divisions are committed to full implementation of both the spirit and the letter of the Americans With Disabilities Act. The County will respond quickly, fully, and fairly to all complaints related to the Americans With Disabilities Act.

TABLE OF CONTENTS

I. COUNTY-WIDE EVALUATION UPDATE

A. INTRODUCTION

The landmark Americans with Disabilities Act of 1990 (ADA), enacted on July 26, 1990, provides comprehensive civil rights protection to individuals with disabilities in the area of employment, public accommodations, state and local government services and telecommunications. This report concentrates on that portion of the Act under Title II that requires all programs, services and activities provided by public entities to be accessible to persons with disabilities.

The ADA requires the County to conduct a self-evaluation regarding compliance and to develop a transition plan to correct those deficiencies. The evaluation and transition plan development took place in 1992/1993: The County and members of its various departments conducted evaluations of the programs, services and activities offered by the County and surveyed the buildings in order to identify any physical barriers.

This report is an update of those previous actions and includes the following:

1. Overview of the ADA
2. County ADA Grievance Procedure
3. County Employee Education Plan
4. Summary of the County's General Compliance Evaluation Process
5. Department Evaluation Process
6. Department's ADA Compliance Procedures
7. Evaluation Updates by Individual Department Including Action and Transition Plans
8. Comments by Interested Persons Within the Community

B. OVERVIEW OF THE AMERICANS WITH DISABILITIES ACT

"The Americans with Disabilities Act (ADA) has set our sights on removing the barriers that deny individuals with disabilities an equal opportunity to share in and contribute to the vitality of American life. The ADA means access to jobs, public accommodations, government services, public transportation and telecommunications -- in other words, full participation in, and access to, all aspects of society."

John R. Dunne,
Assistant U.S. Attorney General
Civil Rights Division

A primary goal of the ADA is the equal participation of individuals with disabilities in the "mainstream" of American society. The major principles of mainstreaming are:

- Individuals with disabilities must be integrated to the maximum extent appropriate;

- Separate programs are permitted where necessary to ensure equal opportunity. A separate program must be appropriate to the particular individual;

- Individuals with disabilities cannot be excluded from the regular program, or required to accept special services or benefits.

The ADA prohibits discrimination against a "qualified individual with a disability". A disability, as defined by the Act, is a physical or mental impairment which places substantial limitations on an individual's major life activities. Three categories of individuals are included:

- Individuals who have a physical or mental impairment that substantially limits one or more major life activities;

- Individuals who have a record of physical or mental impairment that substantially limits one of more of the individual's major life activities;

- Individuals who are regarded as having such an impairment, whether they have the impairment or not.

Title II of the ADA covers all state and local government programs, activities and services. Individuals with a disability must be provided an equally effective opportunity to participate in or benefit from a public service. Programs may not impose eligibility criteria that either screen out or tend to screen out persons with disabilities.

A public entity must reasonably modify its policies, practices, or procedures to avoid discrimination. A public entity's services, when viewed in their entirety, must be readily accessible to and usable by individuals with disabilities. Public entities are not required to make each of their existing facilities accessible but public entities may not deny the benefits of their programs to individuals with disabilities because their facilities are inaccessible. This standard, known as "program accessibility", applies to all existing facilities of public entities. However, the Act does permit exceptions to accessibility where providing accessibility would require a fundamental alteration in the nature of the programs or create undue financial or administrative burden.

There are a variety of means to achieve compliance:

- Re-design equipment;
- Reassignment of services to accessible buildings;
- Provision of personal aides to beneficiaries;
- Home visits, delivery of services at alternate accessible sites;
- Alteration of existing facilities and construction of new facilities;
- Access to facilities through structural methods, such as alteration of existing facilities and acquisition or construction of additional facilities.

All public facilities designed, constructed, or substantially altered after January 26, 1992, must be readily accessible and usable by individuals with disabilities. Where structural changes in facilities are undertaken to comply with the obligations, such changes shall be made by January 26, 1995 or as expeditiously as possible.

C. COUNTY ADA GRIEVANCE PROCEDURE

Ramsey County has adopted an internal grievance procedure for prompt and equitable resolution of complaints alleging any action prohibited by Title II of the Americans With Disabilities Act, which states, in part, that “no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of services, programs or activities of a public entity, or be subjected to discrimination by any public entity.”

1. **NOTICE**: Complaints may be addressed to:

ADA Coordinator
Ramsey County Affirmative Action Division
Ramsey County Government Center-West
50 West Kellogg Boulevard
St. Paul, MN 55102
(612) 266-2765
TDD - (612) 266-2728

2. **COMPLAINT**: A complaint may be filed verbally or in writing, should state the name and address of the person making the complaint, and should briefly describe the alleged violation. A complaint should be filed promptly after the complainant becomes aware of the alleged violation.

3. **INVESTIGATION**: An investigation shall follow the filing of a complaint. The investigation shall be conducted by the Coordinator. The investigation shall be impartial and thorough, and shall afford all parties pertinent to the investigation an opportunity to submit evidence relevant to the complaint.

4. **DETERMINATION**: A determination as to the validity of the complaint and a description of the resolution, if any, shall be issued by the Coordinator and a copy forwarded to the complainant no later then 45 days after its filing.

5. **RECORDS:** The Affirmative Action Division shall maintain the files and records of Ramsey County relating to the complaints filed, in accordance with the Minnesota Data Practices Act, and all other pertinent State and Federal laws, rules, and regulation.

6. **RECONSIDERATION:** The complainant may request a reconsideration if s/he is dissatisfied with the determination and/or resolution. The request for reconsideration should be filed with the Affirmative Action Division within 10 working days after receiving the written notice of determination. Within 10 working days following receipt of the request for reconsideration, a determination will be made as to the merits of the request and notice of such determination shall be issued by the Coordinator and a copy to the Complainant.

D. COUNTY EMPLOYEE EDUCATION PLAN

The County and its various departments and divisions will include training on ADA compliance in all new employee orientation to ensure full compliance with the ADA. In addition, the County will immediately address any issues of ADA compliance and educate staff at all locations to properly handle them in the future.

E. COUNTY COMPLIANCE EVALUATION PROCESS

The County began its evaluation on the ADA compliance in the fall of 1991. Representatives from Property Management, the County Attorney's Office and Risk Management met to develop an overall plan for Ramsey County compliance with the ADA.

As a result of these meetings, two groups were formed to deal with the issues presented under Title I and Title II of the ADA. Title I focuses on employment issues. Title II concentrates on the accessibility of the programs, activities and services of public entities. This report focuses on Title II of the ADA.

Title II of the ADA was applicable to the County on January 26, 1992. As of that date, all programs, services and activities of Ramsey County were to be accessible and nondiscriminatory on the basis of disability.

To ensure compliance with the provisions of Title II, a core team of representatives from various departments was formed to develop a compliance plan. The initial goal of the team was to conduct a self-evaluation of the County to:

- identify public use of various County programs and facilities.
- survey programs and buildings for non-compliance.
- evaluate the results of the survey.
- compile the results.
- prioritize deficiencies.
- report and make recommendations for correction.
- seek input from groups representing persons with disabilities.
- monitor plan for completion and compliance during the transition period.

A consultant experienced in ADA issues, Harold Kiewel, assisted the team in developing a program and facility survey to identify existing deficiencies and barriers. Representatives from each department were directed to complete the surveys after training classes were conducted to educate the representatives on the ADA and on how to complete the forms.

A committee of these representatives then evaluated the surveys to identify areas of non-compliance. The committee prioritized deficiencies for correction based on public use, essential services, degree of inaccessibility, and impact on program or service availability.

In a continuing effort to ensure full compliance by the County with Title II of the ADA, the County re-evaluated its compliance efforts in 1996/1997. This compliance report and transition plan update focuses on the remaining barriers to compliance and incorporates comments from the community on the current status of the action and transition plans of individual County departments.

Future Actions:

1. It is the responsibility of the department to ensure that this information is correct and to implement and monitor the action and transition plans. If additional deficiencies outside this report are identified, the departments are responsible for implementing changes to remove these barriers as soon as possible.

2. The County has designated an ADA coordinator to handle claims and grievances under the ADA. This position is identified as a staff member of the Affirmative Action Department. The duties and responsibilities of this position are available through the Affirmative Action Department. All inquires related to the ADA are to be directed through this person.

F. COMMUNITY COMMENTS

To completely evaluate this report, it was necessary to get comments from the Community on the self-evaluation. To do this, notices were sent to various organizations servicing persons with disabilities in Ramsey County. The notices informed the groups and individuals that an updated self-evaluation report was available for their review and that two public meetings would be held at the Roseville Library on June 10, 1997 and June 12, 1997. As a result of these notices, 14 people or organizations requested copies of the report and three sent back comments or attended the meeting. The responses to the report related to specific departments are found under the individual department comment sections. The following responses are directed for the County as a whole.

One individual responded that reading printed materials to visually impaired persons trying to access the various county programs does not allow them to function equally within those programs or have equal access to those programs. If they need to reference some printed materials or forms that were previously read to them, they cannot do this as a sighted person wishing for the same information.

One individual believes that the County has an obligation to inform individuals with disabilities of the services they have which are ADA compliant. For a blind person they could have a message prior to answering the general information lines that some materials, forms, etc are available in alternative media.

One of the sections within a county department offers volunteers a course to represent abused children. They mention course materials but these materials and instructions are not available in an alternative media thus preventing a visually impaired person from participating in this program.

An individual also wanted to know who is the person that is the ADA Coordinator for the County. Since the County has the ability to tax, he felt implementation of the ADA has been a process of foot dragging with money being the excuse. He hopes that his comment will be taken in the vein offered and some substantial improvements will come in the near future.

II. DEPARTMENT EVALUATIONS

A. DEPARTMENT EVALUATION PROCESS

Title II of the Act requires that public entities take several steps designed to achieve compliance with ADA. One step is the completion of a self-evaluation. Each department of the County was evaluated in 1992-93 and re-evaluated in this report. Both evaluations concentrated on the following issues:

- Eligibility, Admission and Participation requirements of programs, services and activities to ensure that they do not discriminate against persons with disabilities.

- Programs to ensure that they communicate with persons with disabilities in a manner that is as effective as their communications with others;

- Procedures and practices to ensure that public employees are familiar with the requirements for the full participation of individuals with disabilities;

- Building restrictions which may limit those with mobility impairments in attending programs and activities;

- Building and construction policies to ensure compliance with ADA standards;

- Evacuation procedures.

B. DEPARTMENT COMPLIANCE PROCEDURES

Upon completion of this report, each department will be provided a copy of the results of its own evaluation and of the following compliance policy.

Each Ramsey County Department shall:

1. Identify an individual responsible authority to coordinate and handle ADA issues for the department.

2. Work with the County's ADA coordinator to ensure proper handling of ADA issues.

3. Accept the recommendations of this Evaluation Report and implement the necessary changes.

4. Add the following language to all contracts:

   No qualified individual with a disability as defined by the Americans with Disabilities Act, 42 U.S.C. Sections 12101-12213 or qualified handicapped person, as defined by United States Department of Health and Human Services regulations, Title 45 Part 84.3 (j) and (k), which implements Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. Section 794, under Executive Order No. 11914 (41 FR 17871, April 28, 1976) shall be:

   a. Denied access to or opportunity to participate in or receive benefits from any service offered by the CONTRACTOR under the terms and provisions of this Agreement, or

   b. Subject to discrimination in employment under any program or activity related to the services provided by the CONTRACTOR under the terms and provisions of this agreement.

5. Immediately forward all claims and grievances to the Affirmative Action Department ADA Coordinator in accordance with the Ramsey County ADA Grievance Procedures.

6. Accept an active role in ensuring the County's compliance with the ADA in accordance with the following statement:

"The Department has responsibility for monitoring compliance with the ADA, and taking the steps necessary to maintain accessibility. This responsibility includes obtaining adequate funding for projects, either through normal budgeting process, grants or the CIP process to remove barriers to programs, services and activities."

7. Develop on-going training/education programs for ADA compliance for all department employees.

C. INDIVIDUAL DEPARTMENT EVALUATIONS, COMPLIANCE PLANS, AND COMMUNITY COMMENTS

AFFIRMATIVE ACTION
455 Government Center-West Building

Affirmative Action is responsible for the active recruiting of and assistance to individuals in protected classes in the application, testing, and employment process throughout Ramsey County. The Division is designated as the ADA Coordinator for the entire County. All complaints and claims under the ADA are handled by this office.

1. PROGRAM EVALUATION

A program evaluation of the Affirmative Action Division was updated on 11/22/96 and found no deficiencies within the division. The division offers alternative formats to meet the needs of individuals applying for employment with the County and ensures that reasonable accommodations are provided to employees. The Division's main objective is to ensure accessibility.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

Affirmative Action is located in the Ramsey County Government Center-West Building. Physical barriers in the building are addressed under the Property Management report.

Deficiencies: Accessibility of Ramsey County Government Center-West.

Transition Plan: See Property Management report.

3. COMMUNITY COMMENTS

None.

BOARD OF COUNTY COMMISSIONERS
220 Courthouse

COUNTY MANAGER'S OFFICE
250 Courthouse

Ramsey County's mission is to enhance the quality of life for its citizens by providing progressive and innovative leadership which addresses federal and state directive and changing community needs by delivering services in a responsive, professional and cost effective manner. The Board of County Commissioners is the governing body of the County. It has established fundamental values of the County to ensure the success of the County in meeting its mission. These values include fiscal responsibility, openness of process, caring, integrity and honesty and an ethical workforce. The Board strives to meet the needs of its citizens balancing them with its fiscal responsibility and compliance with state and federal laws.

The County Manager's Office is committed to fostering an environment for County employees that stimulates creativity, innovation and collaboration while meeting the diverse and ever-changing needs of its citizens. The County Manager's Office supports the Board of Commissioners, departments and the community and provides leadership in fulfilling the County's mission.

1. PROGRAM EVALUATION

A program evaluation was conducted on the various functions of the Board of Commissioners and County Manager's Office on 5/14/93 and updated on 12/20/96. Currently the County Board relies on a relay system in order to communicate with persons who are hearing impaired. To date, there has been minimal use of this relay system. If usage increases, the department will consider use of a TDD.

Board meetings are held in a room that is wheelchair accessible. Hearing devices are provided for use in Council Chambers to help those who are hearing impaired. Minutes for the meeting are typed and available to the public. All meetings are tape-recorded and videotaped for viewing on cable T.V. A copy of the tapes are available upon request.

The County Board also appoints members to various advisory committees. A review of the application and selection process indicates there is no discrimination in the areas of eligibility or admission. Once a Committee member is selected, a location and the necessary auxiliary devices are selected to meet the needs of the various committee members.

Deficiencies: Commissioner application should include ADA compliance statement.

Action Plan: Add ADA compliance statement to all commissioner applications.

2. BUILDING EVALUATION

The offices of the Board of Commissioners and the County Manager are located in the City Hall/Courthouse. The major renovation of the building from 1991-1996 addressed issues of accessibility and made the necessary modifications**.**

Deficiencies: None

Transition Plan: N/A

3. COMMUNITY COMMENTS

In the public meeting held on June 10, the following comment was made:
The third floor Council Chambers have double doors. There is no easy access because one of the double doors is always locked and there is no power entrance. It was suggested that both doors remain unlocked while the Chambers are in use. This comment will be forwarded to Building Services so that the appropriate action may be taken.

BUDGETING & ACCOUNTING
270 Courthouse

The Budgeting and Accounting Department is an internal operation serving the Board and County Manager's Office. There is limited public contact. Public contact is generated through calls to the County Board or County Manager's Office.

1. PROGRAM EVALUATION

There are no programs, services or activities issues for this department. Any public access issues are dealt with at the Board/County Manager's Office level. The department meets the ADA and no action plan is necessary.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

The Budgeting and Accounting Department is located in the Courthouse. The major renovation of the building from 1991 - 1996 addressed issues of accessibility and made the necessary modifications.

Deficiencies: None

Transition Plan: N/A

3. COMMUNITY COMMENTS

None.

COMMUNITY HUMAN SERVICES
160 Kellogg Boulevard

Community Human Services operates as the social service program of the County. Its mission is to enhance the quality of life for the people of Ramsey County by providing resources to meet basic human needs, assuring protection for the vulnerable, and assisting in achieving self-sufficiency, all in the most cost effective manner. The department is divided into 7 divisions: Administrative Services, Information Services, Income Maintenance, Social Services, Mental Health/Chemical Dependency Services, Lake Owasso Residence and Ramsey Nursing Home. Lake Owasso and Ramsey Nursing Home evaluations are found under separate sections. The other five divisions are included in the following evaluations.

Administrative Services: handles the internal operations of the Department including Human Resources, Budgeting and Accounting, Staff Development and Planning. The division also deals with issues affecting the entire department such as the Data Practices Act, Electronic Benefit Services and Home Delivered Meals of Ramsey County.

Information Services: includes computer support for the Department along with research and evaluation, purchasing, supplies and print shop.

Income Maintenance: provides financial, medical and self-support services to eligible Ramsey County residents in need of these services. Services include Aid to Families with Dependent Children, General Assistance, Emergency Assistance, Food Stamps, General Assistance Medical Care, Medical Assistance, Minnesota Supplemental Aid and Refugee Case Assistance.

Social Services: provides protection for vulnerable adults and children and provides essential culturally sensitive social services to Ramsey County citizens with the most serious needs. The division offers the following services and programs:

- Family & Children Services
- Placement Systems
- Service to Wards
- Purchase of Services
- Adult Services
- Developmental Disabilities

Mental Health/Chemical Dependency Services: provides a variety of assistance to persons with mental illness or chemical dependency issues. The division offers the following services:

- ***Mental Health Clinic*:** provides outpatient mental health services including

psychiatric services (medication monitoring/prescribing) and court evaluations. The target population is serious and persistently mentally ill, lower to middle income, and Medical Assistance clients.

- ***Mental Health Day Treatment*:** provides day treatment for clients with serious and persistent mental illness. Clients participate in group therapy, goal setting, mental health education sessions, and recreational and occupational therapy. Clients are referred to this site from the Intake Section at 529 Jackson.

- ***Mental Health Case Management*:** provides case management services to individuals with serious and persistent mental illness. Program arranges, coordinates, monitors and provides services to individuals living in residential programs, state hospitals or independently.

- ***Mental Health Crisis/Intake Unit*:** provides screening and intake for mental health services; provides mental health crisis outreach and crisis intervention services; assesses all cases referred for civil commitment.

- ***Chemical Assessment And Referral*:** provides access to chemical dependency treatment by determining client financial eligibility and assessing their chemical use history in order to establish an appropriate level of care.

- ***Detox Center*:** provides detoxification services for all people who are intoxicated or experiencing withdrawal. Referrals are from Ramsey County. The Center provides medical treatment and behavioral management for these clients. Length of stay is 24 to 36 hours and the minimum age is 13 years.

1. PROGRAM EVALUATION

Administrative Services: all program, services and activities issues are covered under the various other divisions that deal with the public. No further evaluation is necessary.

Information Services: supports the various other divisions and assists them in contracting for special services. As a support operation, there are no public programs, services or activities. No further evaluation is necessary.

Income Maintenance: an evaluation of the Income Maintenance Division was conducted in May, 1992 and updated in February, 1997. Services under this division have access to TDD, the relay system and sign language interpreters. There are no eligibility or admission requirements that limit the number of qualified persons with disabilities from participating in the various programs. Forms necessary for admission into the programs are usually filled out before the clients are interviewed. Staff is

available to help individuals complete the forms. (No alternate formats are available.) Program information form notifies applicants how to file a complaint if they feel they are treated differently because of disability. Programs do not discriminate against persons with disability in recruitment, eligibility, admission or participation. Any pre-admission inquiries about the nature or extent of a disability are for the purpose of determining eligibility for financial programs.

Deficiencies: None

Action Plan: N/A

Social Services: program evaluations for the various services and programs offered by this division were conducted in 1992 and updated in 1997. Only those programs/services where deficiencies exist are indicated below.

***Child Care*:** establishes eligibility for child care assistance for individuals who are employed or in training. for continued assistance. It provides child care assistance for parents who are unable to give full time care to their children because of medical, social or child protection problems. The program has a TDD and a signer is available to assist applicants and clients. Eligibility requirements include income guidelines and a medical statement verifying incapacity, but do not discriminate on basis of a person's disability.

Deficiencies: Application has no ADA compliance statement.

Action Plan: Add ADA statement to application.

***Home Housekeeping*:** establishes eligibility for housekeeping services for individuals who are elderly and frail or who are severely handicapped and need these services to remain in their own home. This program uses TDD, relay, amplified phone receiver, and signers to assist clients. Staff will assist individuals with completing applications. The program does not discriminate on eligibility, admission or participation. Clients must meet income guidelines and have written medical verification of their disability and need for services.

Deficiencies: Application has no ADA compliance/non-discrimination statement.

Action Plan: Add ADA statement to application.

***Sexual Offense Services* (SOS): SOS** is the sexual assault victim crisis center for Ramsey County. The program offers 24-hour telephone services for victims of sexual assault. Services include crisis intervention, counseling, advocacy, information and referral (telephone and in person); community education and in-service training for

professionals; coordination and planning of services and prevention efforts with other agencies.

A program evaluation was conducted on 7/21/93 and updated in January, 1997. In the program evaluation, it was found that there are no braille or audiotape versions of the brochures/flyers used in this program. There is a relay service provided but since there is an emphasis on phone service in this program, a TDD would provide the best service to the hearing impaired.

Deficiencies:

1. No alternate formats for materials.
2. No TDD service available on site.

Action Plan:

1. Have audio tape or braille version of materials available at request.
2. Evaluate use of Relay System. Add TDD to site if use warrants it. Make sure staff is trained in how to use TDD effectively.

Mental Health/Chemical Dependency Services: conducted evaluations by individual areas in order to identify any deficiencies in the various programs, services and activities offered by this division.

***Mental Health Clinic*:** a program evaluation of the Mental Health Clinic was conducted on 4/21/92 and updated in January, 1997. The program does not discriminate against persons with disabilities in its recruitment, eligibility, admission or participation practices although the ability to accommodate persons with hearing impairments is limited. A serious barrier for the clinic is their lack of a TDD system. They do provide information to the general public over the telephone, so this would definitely inhibit their ability to communicate with the hearing and speech impaired. The clinic has not hired sign language interpreters and does not have taped or brailled information for clients. (They provide brochures explaining general information, confidentiality and program rules.) A staff person can assist a vision impaired client in filling out the paperwork required for admission into the program and the psychological testing can also be tailored to accommodate the vision impaired.

Deficiencies:

1. No auxiliary aids or TDD system used.
2. Brochures, information, application not available in alternate formats.
3. Staff not trained in issues of ADA accommodations.

Action Plan:

1. Plans for using auxiliary aids should be made so that staff can access them as

needed.

2. The department can use a relay system to handle calls from hearing and speech impaired. If usage warrants, department should purchase TDD for on site use and train staff on how to use it.
3. Staff training programs should be modified to include ADA accommodation.
4. Alternate formats of brochures, information and application should be available. Division should look into services to transfer information on tape or in braille for the visually impaired.

***Day Treatment*:** a program evaluation of the Mental Health Day Treatment program was conducted on 5/14/92 and updated in January, 1997. As per the evaluation, there are no auxiliary aids provided to accommodate individuals with hearing, speech or vision impairments. There is no ADA notice on the forms that they use. There are no post-admission inquiries made regarding disability status to make accommodations. There is no in-service training provided to ensure that staff are informed on accommodations/alternate procedures. The facilities would need assistance in planning accommodations for a hearing, speech or vision impaired client.

Deficiencies:

1. No auxiliary aids provided or TDD.
2. No ADA notice of compliance on forms.
3. No staff training on how to accommodate persons with disability.

Action Plan:

1. In planning appropriate treatment program, staff should accommodate individuals with special needs and make arrangements to provide necessary auxiliary aids.
2. The department can use a relay system to handle calls from hearing and speech impaired. If usage warrants, department should purchase TDD for on site and train staff on how to use it.
3. Staff training programs should be modified to include ADA accommodation.
4. Alternate formats of brochures, information and application should be available. Division should look into services to transfer information on tape or in braille for the visually impaired.

Mental Health Case Management: deals with persons with mental disabilities. They do no recruiting or advertising. Persons in program must meet eligibility requirement of having serious and persistent mental illness as defined in law. Intake workers meet with clients at home or in office and helps client complete necessary application forms. (These forms are not available in alternate formats.) The forms carry a non-discrimination statement. Case managers meet with clients throughout program to review level of service and client's level of function to ensure client is receiving appropriate care.

Deficiencies: None

Action Plan: N/A

***Chemical Assessment & Referral*:** offers presentations at a variety of locations and for a variety of organizations. The program has no printed recruitment or advertisements. Eligibility requirements, admissions and participation do not discriminate against persons with disabilities. This program accepts clients by referral and works to ensure that the program is well suited for the clients and is capable of serving the client's individual needs.

Deficiencies:

1. Presentations, meetings and lectures may not be fully accessible.
2. Admission form do not include ADA compliance statement.

Action Plan:

1. Review presentation materials to deal with hearing and visual impairment.
2. Make sure locations are accessible.
3. Add ADA compliance statement on form
4. Be sure staff orientation includes training in issues of ADA accommodation.

***Detox Center* :** a program evaluation was completed on 4/23/92 and updated in January, 1997. Interpreters and telephones are available for persons with hearing impairments. There is no recruitment for participants. Information on the program is given to the public through meetings or oral presentations at seminars or schools. These meetings may not be held at fully accessible locations. There are no admission restrictions based on disability; however, participation in program may be limited based on medical assessment of client.

Deficiencies: Lectures and oral presentations may not be fully accessible.

Action Plan: Presentations initiated by Ramsey County should be held in accessible locations. Registration or information materials for presentations should have a number to contact if a person has special needs. These needs can then be accommodated at presentations. Employee orientation should include ADA training in accommodating persons with disabilities.

2. BUILDING EVALUATION

Administration, Information Services, and the Income Maintenance Divisions operate out of Ramsey County Government Center-East. This building completed a major renovation in 1996. All ADA deficiencies identified in the building at the time

of renovation were corrected. No additional deficiencies have been identified since that time.

Social Services also operates out of the East Building but uses community sites for some of its programs such as Child Protection and Sexual Offense Services (SOS). An evaluation of these facilities is presented below.

Child Protection Services: operates out of two non-owned facilities: Capital View Center and the Bigelow Building. These buildings were evaluated in December, 1996. The Bigelow Building is fully accessible whereas Capital View has some major deficiencies. Capital View is owned by a school district with no plans for renovations to make the building fully accessible.

Deficiencies:

1. Main entrance to lower level has high threshold which limits accessibility.
2. Signage does not indicate accessible entrances or directions to accessible entrances.
3. Bathrooms are not accessible.

Transition Plan: The division will ask the landlord to remove the barriers in the building. The division will look at an alternate site to Capital View to ensure that the program is accessible at this location.

SOS: operates out of a leased facility in St. Paul. A property survey was conducted in March, 1993, and updated in January, 1997. The survey identified several physical barriers at this location but found they do not restrict access to the program, services or activities.

Deficiencies:

1. Inadequate, noncompliant interior signage for public doors.
2. Inadequate knee space under lavatory.
3. Excessive height of toilet room mirrors.

Transition Plan: Contact building owner to provide better signage at public doors and to
modify bathrooms to meet ADA requirements.

Mental Health/Chemical Dependency Services has various sites that were evaluated.

Mental Health Clinic, 529 Jackson St., St. Paul, MN
An evaluation was conducted in June, 1992 and updated in February, 1997. This is a leased site that operates as a Clinic.

Deficiencies:

1. Entry has high threshold and requires excessive force to open door.
2. Excessive projection of wall mounted objects into passageways.
3. Elevator call buttons, floor selector and emergency call buttons are too high.
4. No tactile landing identification signs on elevator door jambs.
5. No audio signals indicating elevator arrival, direction and landing.
6. Non-compliant hardware for common passage doors.
7. Excessive height for telephone, water fountain and fire alarm pulls.
8. Non visual signal for emergency warning system.

Transition Plan: Division should ask owner to address issues of ADA compliance immediately. If building owner is unable to comply, the Division should look for new site that is accessible to persons with disabilities.

Mental Health Day Treatment: Building surveys were conducted in 1992 and updated in 1997 for the 3 Day Treatment Centers. These three centers are all leased facilities. None of the locations are fully accessible. Clients are sent to these programs by referral from the Mental Health Clinic. The centers make the necessary accommodations to assist persons with disabilities at these facilities.

3. COMMUNITY COMMENTS

In program areas, social service decisions are not always made with sensitivity to the client's needs but focus on the system and the concerns of the caregivers. The department should look into its policies of coordinating services in various areas to ensure that the client comes first.

CORRECTIONS
650E Government Center-West Building

The Corrections Department provides services and facilities for adult and juvenile offenders in Ramsey County. The following is a summary of its operations.

The Adult Correction Division provides Investigation, Supervision and Domestic Relation services to the Courts:

- Investigation aids the Courts in providing information used in sentencing decisions including background information on prisons and background information for probation officers supervising offenders.

- The Supervision area provides community based supervision for those convicted offenders ordered by the court to comply with standard and special conditions of supervision. The purpose of this activity is to protect the public, reduce recidivisim and obtain individual or community restitution.

- Domestic Relations serves the area of Family Court. Its services include performing mediation services and custody evaluations to support the work of the Courts and to protect the interests of children. It also enforces/oversees orders for protection.

The Correctional Facility (Workhouse) protects the community by providing security, supervision and treatment alternatives to all men committed by the Courts to this facility. Activities include administration, custody, treatment services, institutional and department services, building operations and maintenance.

Juvenile Probation provides probation supervision to juveniles adjudicated delinquent by the Courts and provides the Courts with information upon which to make dispositional decisions relative to these juveniles.

Juvenile Detention Center provides a 30-bed secure detention program for youth charged with delinquent offenses. Detention programming stresses safety, security, medical screening and emergency care, short-term counseling, individualized education programs, and recreational and motivational activities.

Boys Totem Town is a correctional facility for adolescent boys. It is licensed for 65 beds and offers long term programs (4-6 months). Its mission is to protect the community and to develop living skills in residents that may allow them to be successful in life.

1. PROGRAM EVALUATION

A program evaluation was completed in 1992 and updated in December, 1996 for the various programs offered by Corrections.

Under the **Adult Courts Division** there are no eligibility requirements. All participants are referred into the various programs by the Courts. The division provides sign language interpreters, TDD and relay services. Interviews with participants are conducted at accessible sites where information is provided in written and verbal form.

The Correction Facility (Workhouse) also has no eligibility or admission requirements that would affect persons with disabilities. All inmates are committed by order of the Courts. Signers are provided for inmates with hearing impairments. Orientation sessions have both verbal presentations and written materials to assist new inmates. Staff are trained to assist inmates with disabilities during their incarceration at this facility. Barriers at this facility are discussed under the Building Evaluation section.

Juvenile Probation will provide signers as necessary. They have TDD phone access for assisting persons with hearing or speech impairments. Programs for individuals with special needs are modified to accommodate these individuals while still complying with probation rules. Information is available in written and verbal form.

Juvenile Detention Center and Boys Totem Town make use of signers, TDD, taped materials and audio recordings to accommodate persons with disabilities. Eligibility for these facilities are determined by State Statute. Staff are trained in the ADA. Barriers are discussed under the Building Evaluation section.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

The Adult Courts Division has various leased offices to provide services under various programs at the following locations:

710 Arcade, St. Paul
1600 University Ave, St. Paul
650 Marshall, St. Paul

The last two facilities offer accessible sites for all participants in the programs. The Arcade location has several deficiencies.

The Workhouse is a County-owned facility that houses men convicted of felonies and misdemeanors. The facility completed renovation in the fall of 1996 that included removal of barriers to comply with the ADA.

Juvenile Probation has 2 leased offices that are accessible to persons with disabilities; 265 Oneida and 1021 Marion. The third leased office at 715 Edgerton is not fully accessible.

Juvenile Detention Center is a County owned facility that includes Juvenile Court proceedings. There are some barriers in the building that will be addressed during the major renovation and expansion project scheduled to begin in Fall of 1997.

Boys Totem Town is a County owned residential treatment facility. The buildings are old and have numerous deficiencies related to ADA. The facility cannot accommodate a potential resident with special needs and therefore the Courts would not assign a person with special needs to this facility. There are concerns with regard to public areas for visitors to the facility. These concerns are address below under deficiencies.

Deficiencies:

710 Arcade (leased)

1. Absence of direction signage to accessible entrance.
2. Noncompliant interior signage for public doors.
3. Bathroom not fully accessible.

715 Edgerton (leased)

1. Inadequate number of designated accessible parking spaces.
2. Obscured or inconspicuous accessible parking signs.
3. Excessive slope along path to accessible entry.
4. Undesignated accessible entry.
5. Noncompliant interior signage for public doors.
6. Noncompliant toilet room signage.
7. Obstructed threshold to toilet room entry door.

Boys Totem Town

1. Noncompliant site access and entrance.
2. Noncompliant accessibility throughout public areas of building.
3. Noncompliant signage.
4. Noncompliant restroom facilities.

Transition Plan:

For the two leased facilities, alternate sites are available to meet the needs of persons with disabilities; therefore the County is in full compliance with the ADA. However, to ensure greater accessibility, the department should look for alternate sites for these programs upon expiration of the current leases .

Boys Totem Town does not comply with ADA requirement. The County currently has no plans to renovate this facility; however, new juvenile facilities are being explored to meet the increased needs for juvenile detention space in the County. Any new facility must be ADA accessible to be considered as a possible site. All new construction will fully comply with ADA requirements.

3. COMMUNITY COMMENTS

None.

COUNTY ATTORNEY'S OFFICE
315 Government Center-West

The Ramsey County Attorney is an elected official who provides legal and law enforcement services for the citizens of Ramsey County. The County Attorney's Office provides assistance to the County Attorney. Its mission is to protect and provide for the public safety by prosecuting adult and juvenile offenders. In addition, it provides support and assistance to victims of crimes and protects children from neglect and abuse. Furthermore, the office supports children and families by seeking enforcement of child support obligations.

1. PROGRAM EVALUATION

A program evaluation of the County Attorney's Office was completed on 12/3/96. This evaluation revealed that the office uses interpreter services and verbal explanations to assist individuals with disabilities. The department uses TDD services through Ramsey County Telecommunication or the state TDD service. The department does not recruit participants. People in its program are referred by Law Enforcement or other county departments. Meetings are held at places accessible to people with physical disabilities. Upon request, it will make every effort to provide auxiliary aids. Information on Child Support programs is available in written form or on audio tapes. If transportation services are necessary for clients or victims, services are arranged by cab or Metro Mobility.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

The County Attorney's Office is located in the Ramsey County Government Center-West Building. Physical barriers in the building are addressed under the Property Management report.

Deficiencies: Accessibility of Ramsey County Government Center-West.

Transition Plan: See Property Management report.

3. COMMUNITY COMMENTS

None.

COURTS
Room 1700, Courthouse

The Courts Division of Ramsey County offers various programs and services for District Court. For a description of these programs and services, please see PROGRAM EVALUATION.

1. PROGRAM EVALUATION

A program evaluation for Courts was completed in 1993 and updated in December, 1996. The results of the evaluation, summarized along with a brief description of each program and service, follows. Deficiencies in the programs and services were identified in the initial evaluation and the necessary changes have been made to eliminate them or handle them administratively.

Domestic Abuse/Harassment Office: This office assists victims of domestic abuse in obtaining and filing orders for protection and harassment restraining orders. Interpreters are provided for the hearing impaired at all stages of the process. Relay Service is available as well. The office supplies written information about the office and process and gives information on the telephone. Occasionally the supervisor gives informational presentations (when requested) regarding the issues. The clerks assist everyone in filling out the forms and read all documents to the parties if they are not able to do so. All clerks explain/review the contents of documents and handouts. The petitioner must meet the statutory requirements to obtain the restraining order. The program does no recruiting. People in wheelchairs can easily access the office without the hindrance of steps.
A video tape showing the process has been produced and will be close captioned. The Domestic Abuse/Harassment forms are being revised in January 1997 and when that occurs the petition and orders will be available in large print format. The program is located in the West Building.

Jury Office: Ramsey County residents are summoned for jury service. Interpreters are provided for the hearing impaired and readers are provided for the visually impaired. The orientation handbook is on tape. The Courthouse is newly renovated and physical access issues aren't a problem. Jurors are summoned randomly according to State law. Relay Service is available. Jurors must fulfill statutory requirements to serve (such as Ramsey County resident).

Criminal Division: This office processes all criminal records. They provide terminals for people to access scheduling and record information in Ramsey County. Fines and bail money are paid and kept by this office. They provide the forms used in the courtroom such as pay or appear forms, warrants of commitment, probation referrals and no-contact orders. They notify the interpreter program if an interpreter is needed for the hearing impaired. People inquire over the phone for scheduling

information and case outcome information. This office also provides touch-tone telephone inquiries on an interactive voice response system for citation information. They do not recruit participants nor advertise. Clerks fill out the paper work. Relay Service is available. A TDD is in place in both rooms 700 and 130 (Violations Bureau) of the Court House**.**

Civil Division - Vital Services: This office does not recruit or advertise. They do assist people seeking passports, driver's license, state identification cards and marriage applications. They also record birth and death certificates for suburban locations in Ramsey County. There is a general information line with taped information on applying for a marriage license, a drivers license, passports and birth and death records. There is a TDD and employees have been trained on it. Statutory requirements must be met to get a license such as a driver's license. Counters are low for the wheelchair bound. Interpreters are provided and Relay Service is available as well. Readers are available.

Divorce Mediation Project - Special Courts: Litigants are given an alternative to litigation. Participants are targeted, that is, parties that are going through contested divorces (property, financial, visitation) are referred to the Program. Parties can ask to be admitted as well. A mediator brings the parties together and they try to reach a settlement. Interpreters for the hearing impaired are utilized as is the Relay Service. One of the parties must be a resident of Ramsey County If a disability is known, the Program will accommodate. Eligibility is determined by the court documents filed. Financial disclosure information must be filled out once a party is in the Program. Mediators meet with the parties and if someone has a special need, the mediator notifies the Program Director. Written information is provided describing the Program.

Civil and Vital Statistics (Accounting): The accounting division receipts general filing fees and other fees rendered for service. They escrow court deposits and maintain those records. Most financial forms utilized are filled out by the accounting staff. Relay Service is available and interpreters can be provided as well. Participants are not recruited but the case must be venued in Ramsey County. Staff will read information to the parties and walk them through the form (minor settlements) if needed. Receipts are provided for payments made and forms are filed for minor settlements. Generally if someone were disabled it would be made known to the staff. Post inquiries are not applicable. Forms generally require a signature only. Staff assists anyone who needs help in filling out the financial worksheet. TDD is available in the conciliation office area several feet away**.**

Juvenile Court - Special Courts: Courts handles case scheduling, record keeping for juvenile court, calendaring, checking the parties in for court, conducts hearings, maintain court files and sends out court orders. Interpreters are provided for all court appearances. Relay Service is also available. Participants are not recruited and there are no eligibility requirements as it is commonly thought of. Usually the crime took place in Ramsey County. Taped information is not appropriate in this case.

Conciliation , Evictions and Housing Court - Civil Division: This office handles the filings for small claims court, filing eviction notices, filing actions against landlords, and filing code violations for housing court. All of the above are described on tape. Interpreters are made available for the hearing impaired and relay service is available as well. Participants are not recruited but the property must be in Ramsey County for evictions and generally the parties filing for conciliation are residents of Ramsey County There is a tape that describes the housing court eviction and conciliation court processes. Participants fill out a form to file for conciliation, evictions, rent escrow, counter claims and appeals. Staff will assist people in filling out the forms. TDD equipment is installed and operational. Staff will read documents to participants.

Civil Division Room 600 Court House: This office opens all new cases and handles all subsequent filings including calendaring and processing Torrens and Trust matters; filing tax petitions; follow up paperwork from harassment proceedings; process appeals to Appellate CT, preparation of Writs of Execution and orders to Show Cause regarding collections on judgments. Default and transcript judgments as well as Pursuant judgments are processed in this office as well. Stipulations of dismissal, foreign judgments, writs of attachment, unsatisfied civil judgments and transcripts to and from other counties are processed. Sign interpreters are made available and Relay Service is available as well. There is a taped message that explains the process for a name change and the filing fees. Participants are not recruited but litigants are likely Ramsey County residents. There are forms that need to be filled out depending upon the matter brought to the court. Staff will read information to individuals if necessary. Many parties are represented by counsel. TDD is available in the conciliation office several feet away.

Family Court Assignment Filings - Special Courts: This office assigns court dates; schedules all calendaring for judges/referees; does file preparation; schedules petit court trials; responds to questions from the public; updates TCIS; provides copies of litigation papers, file orders and affidavits; and provides forms to those parties who are handling their own divorce. Interpreters are provided for the hearing impaired. Relay Service is available as well. Participants are not recruited, however one of the parties must be a Ramsey County resident. Filings are for family related matters such as divorce, change of custody, contempt motions and modification of visitation schedule, etc. Staff will explain which form to fill out and how to do so. If someone is unable to read the form the ombudsman will read the form to that person and help him/her complete it. Several forms are in the process of being revised, and when they are complete (estimated April 1997) large print versions will be prepared.

Assignment Division - Criminal and Civil Cases: This office schedules court dates for various criminal and civil court proceedings. This office is responsible for the assignment and allocation of judicial, parajudicial and administrative resources. Sign interpreters are made available for court appearances and Relay Service is available as well. Information is provided over the telephone to callers and written notices are sent

to the parties. Staff will read information to a litigant if they are visually impaired. Most people are represented by counsel.

Settlement conferences are conducted in the civil arena. Parties file a lawsuit and rule 16 conferences are then set up (settlement conferences) to avoid an actual trial. A notice is sent to the parties by mail as to the settlement conference date and telephone conferences are conducted as well. The parties do exchange forms through the discovery process. Sign interpreters are available as is the Relay Service. Staff will read documents to parties when necessary.

Maplewood Branch - Criminal Division: This Court serves the suburban municipalities of Ramsey County by handling many of the same matters held in as the main branch in St. Paul. They have a Violations Bureau which deals with parking and petty moving violations. There is a hearing officer available to hear and issue rulings on these matters. Arraignment court is conducted at this location with more serious traffic and criminal matters. This office is also responsible for maintaining accurate dispositional, financial and case history records. Interpreters for the hearing impaired are provided for court appearances. Participants are not recruited nor are their eligibility requirements per se. The accused is purported to have committed the crime in Ramsey County. Information regarding court dates, fines dispositions etc. is given out to the public via the telephone if an inquiry is made. Information is also given out at the front desk. The office collects fine payments and grants fine payment extensions. The hearing officer meets with defendants to discuss possible resolutions to lesser traffic offenses. Written notices concerning court appearances is provided to the litigant. The information is communicated verbally upon request, or if someone has a visual impairment. Defendants may fill out a financial eligibility form to determine if they qualify for a public defender to represent them. Pay or Appear type forms are filled out by court staff. Relay Service is available as well.

Violations Bureau - Criminal Division: The Violations Bureau is the initial point of contact for all City of St. Paul and ordinance offenders. It provides citation information to the public for all traffic and ordinance citations. The Violations Bureau collects fines, sets up court dates for offenders and provides an appeal option for non-moving petty misdemeanors. Permanent records for traffic and ordinance violations are kept in the Violation Bureau. The Bureau refers cases for collection and requests suspension of drivers licenses when an offender fails to meet the obligation of the citation. Sign interpreters are available when meeting with a hearing officer and for court appearances. There is an operational TDD. Relay Service is available as well. Employees will read information to litigants. Participants are not recruited but the offense would have to have occurred in Ramsey County.

Guardian ad Litem Program - Special Courts: Volunteers are recruited and trained to act as Guardian ad Litem for abused and neglected children. The volunteers gather information concerning the child and provide an independent report to the Court that focuses on the best interests of the child. Participants are not recruited. Once a family has been brought into the system as a result of an allegation of abuse or neglect, a

Guardian ad Litem is assigned . The volunteer interviews relevant parties and makes a recommendation to the court. Participants are not recruited and the cases assigned to the program are families already in the juvenile court system. Interpreters for the hearing impaired are provided. Relay Service is available as well. Taped information is not applicable. There is printed material that describes the Program and it is used in an effort to recruit volunteers. The volunteers must meet certain requirements - 21 years of age, have 3 references, etc. Volunteers are interviewed and their criminal history is checked. Volunteers receive an orientation regarding the Program and the training consists of 40 hours of pre-service training, a 250 p. manual, viewing 6 video tapes and more. Volunteers conduct interviews, provide written reports to the Court, appear in court and make recommendations verbally.

Interpreter Office - Admin. Services: This office arranges interpreters for persons with communication issues. This includes the hearing impaired as well as the non-English speaking population. Interpreters are provided for court appearances, appearances with a hearing officer, interviews for restraining orders and interviews conducted by the court visitor. Relay Service is available and there is a TDD in the office.

New Brighton Court - Criminal Division: This office serves specifically as a mail payment center for payable fines that have occurred in Ramsey County. No court cases are heard in New Brighton. Targeted participants are those persons accused of offenses within the Court's jurisdictional limit and geographic boundaries. Litigants are not recruited but the crime would have occurred in Ramsey County. Relay Service is available. Staff will read information to individuals and answer questions over the telephone. The hearing officer meets with defendants to discuss possible resolution to lesser traffic offenses. Arrangements are made for sign language interpreters when requested. Permanent records for traffic and ordinance violations are kept in New Brighton. Information regarding fine disposition is given out to the public via the telephone or in person upon request.

Civil Commitment - Special Courts: The Civil Commitment Office handles commitment petitions filed with the Court by the County Attorney's office for persons who are alleged to be mentally ill, chemically dependent, mentally retarded, mentally ill and dangerous, or have psychopathic personalities. Interpreters are provided at all stages of the court process and Relay Service is also available. The proceedings are conducted primarily at Ramsey Hospital, but the Court will relocate to other hospitals if the patient cannot be transported to court. Parties are not recruited but those committed must meet the statutory requirements as determined by the judiciary. Documents are read and explained by the person's attorney and a Guardian ad Litem who is appointed. The hospital staff or the Human Services Department notifies the Court if there is a need for an interpreter at any point.

Personnel Office - District Court: The Personnel Office sends out job postings and accepts applications for various positions. Training for employees is coordinated through this office. All personnel records are located in this office for both State and

County employees of District Court as are medical records and First Reports of Injury etc. All personnel type related matters are handled through this office. Interviews are conducted for various positions. There is a TDD and Relay Service available. The application form is available in Braille. Employees will read information to people upon request.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

Courts has four facilities that are used for its operations. These facilities include Ramsey County's Courthouse, the Juvenile Service Center located at 480 St. Peter Street, New Brighton Court at 803-5th Avenue, and Maplewood Court at 2785 White Bear Ave. Building surveys were conducted at each facility in 1993 and reviewed in 1996. All deficiencies initially identified have been removed.

Courthouse: The major renovation of the Courthouse from 1991 - 1996 addressed issues of accessibility and made the necessary modifications. Nine of the twenty-five courtrooms were redesigned to fully accommodate persons with disabilities. Department staff work with the various parties to ensure that accessible courtrooms are available when necessary.

Juvenile Center: The Center is used to conduct juvenile court proceedings. There are some barriers in the building that still need to be addressed for full compliance. The removal of these barriers are the responsibility of Corrections and are addressed in that portion of the report.

New Brighton Court: Clerk of Court service counter is 42" high. A small table 29" high has been provided for customer use to accommodate persons with disabilities.

Maplewood Court: The service counter height in the Court Offices is at 41-1/2". A low table has been provided for customer use to overcome this barrier.
The private restrooms in the jury deliberation room are noncompliant. Accessible restrooms are available in the building that can be used by jury members if necessary.

3. COMMUNITY COMMENTS

In the public meeting on June 10, 1997, a comment was made that both individuals present had wanted all of the courtrooms fully accessible to meet possible future needs. When the Courthouse was renovated in 1992 - 1996, ADA requirements were used to

design the courtrooms. Nine of the twenty-six courtrooms are fully accessible. This meets the requirements of the ADA in effect at the time of renovation. No further action is necessary.

EMERGENCY SERVICES
3383 N. Rice St.

Emergency Services is a department which deals with state and federal emergency management office and local units of government in Ramsey County. Emergency Services has minimal contact with the public. They are set up to help local government units when a disaster occurs. Services may include assistance with completing small business administration forms and reports to state and federal offices in order to obtain funds for affected communities.

1. PROGRAM EVALUATION

Emergency Services was evaluated for program accessibility on 1/6/92 and updated on 12/2/96. According to the evaluation, Emergency Services does not have access to a TDD but uses a Relay System to communicate with persons with hearing and speech impairments. The department rarely receives calls from the general public. It is not involved in recruitment, eligibility, admission or participation in its program, services or activities, since its main operation is dealing with other units of government.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

A building evaluation was completed as part of the Public Works building since Emergency Services is located in the lower level of the building. There is no elevator access to the lower level. Although the public may seek shelter in the building in case of an emergency, there is usually no public contact with this agency.

Deficiencies: No elevator access to lower level. See Public Works for additional detail.

Transition Plan: Since there is little, if any, contact with the public on premises, there is no recommendation to modify this barrier at the present time. Any other accommodations will be handled administratively as needs arise.

3. COMMUNITY COMMENTS

None.

EXTENSION SERVICES
2020 White Bear Avenue, Maplewood

The Extension Service is part of the University of Minnesota, Metro Area Cluster Program. The program is found in the seven county metropolitan area. Its mission is to involve people in improving the quality of life and enhancing the economy and environment through education, applied research and the resources of the University. Its programs include Expanded Food and Nutrition Education Program, Job $ense, yard waste reduction, and Dads Make a Difference Project.

1. PROGRAM EVALUATION

An evaluation of Extension Services was conducted in 1993 and reevaluated in 1996. The results of this evaluation are found under Deficiencies.

Deficiencies: Printed materials do not contain language regarding ADA or publicize the availability of services for persons with special needs.

Action Plan: Add ADA compliance and special needs language to literature at next printing.

2. BUILDING EVALUATION

Extension Services is located in the Ramsey County Barn built in 1918. A property survey was completed in May, 1992 and updated in October, 1996. Since the original survey, public restrooms have been renovated to ADA standards but lack the proper signage.

Deficiencies:

1. Inadequate signage to identify accessible entrance at exterior doors and from parking area.
2. Teller/Service counters do not have optional lower height for wheel chair accessibility.
3. Self-service displays are too high.
4. Restrooms do not have signage to indicate accessibility.
5. No access to second floor.
6. Main exit door closes too fast.

Transition Plan:

1. Add signage to identify accessible entrances, directions to that entrance, restrooms, emergency and non-entrance doors and non-accessible entrances.

2. Teller/Service Counter is a permanent structure. Staff can overcome this barrier by having a service table off to the side to assist persons with disabilities.
3. Staff will be trained in assisting and responding to customers with disabilities
4. Displays will be lowered to be serviced by persons in wheelchairs.
5. Department will limit use of second floor. Programs and training will be offered on lower level to ensure accessibility.

3. COMMUNITY COMMENTS

None.

INFORMATION SERVICES
550 Government Center-West Building

Information Services is an internal operation serving all County departments and divisions. It provides computer assistance and training to County departments. It develops computer applications and helps identify future computer hardware and software needs for the County.

1. PROGRAM EVALUATION

Since Information Services is an internal department, there are no public issues. The program evaluation conducted on 2/11/92 and reviewed in December of 1996 showed that there are no programs, services or activities issues for this department.

Although not a public issue, the department does hold computer training classes for Ramsey County employees and employees of the City of St. Paul. Classes are held in accessible locations and accommodations are made as necessary. These classes are not open to the general public. The department complies with the ADA and no action plan is necessary.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

Information Services is located in the Ramsey County Government Center-West Building. Physical barriers of this building and its transition plan are addressed under the Property Management Department.

Deficiencies: Accessibility of Ramsey County Government Center—West.

Transition Plan: See Property Management Report.

3. COMMUNITY COMMENTS

None.

JOB TRAINING
1945 Manton
Maplewood, MN

Ramsey County Job Training (RCJT) provides vocational assessment, case management, training, job seeking skills, supportive services, and placement to individuals who are public assistance recipients, dislocated workers, low income youth, and low income older workers. RCJT strives to provide individuals in need of employment a chance to gain and retain employment at a livable wage.

1. PROGRAM EVALUATION

An ADA program evaluation was conducted in December of 1992 and updated in December of 1996. The program provides sign interpreters and qualified readers on an as needed basis. Clients with speech and hearing impairments have access to programs through Ramsey County Human Services Department Relay System.

Recruitment and advertising materials are usually in written form. Readers are available for persons with visual impairments. Eligibility and admission requirements depend on the specific program requirements. Written math and reading tests may have a negative impact on persons with visual impairments. For some programs, readers are provided for tests and some written tests can be waived for persons with disabilities according to Federal JTPA policies.

Deficiencies:

1. Forms do not contain notice of ADA compliance.
2. Some forms refer to persons as handicapped.
3. Relay System is used to answer phone inquiries instead of TDD. Although this is acceptable, if there is a frequent use of relay system, department should consider purchase of TDD.

Action Plan:

1. ADA compliance statement or disability disclaimer should be added to all application forms and to “Participants Rights and Responsibilities”.
2. Any reference to handicapped should be changed to disability on all forms and handouts.

2. BUILDING EVALUATION

A building evaluation was conducted on 10/19/92 and updated on 12/12/96. According to the evaluation, the building has several deficiencies that do not meet

ADA guidelines. RCJT has met with the owner of the building and discussed proposed changes to make the building ADA accessible. At the present time, the owner does not plan to update the building. RCJT along with several State and local programs is in the process of looking for new office space. The move is scheduled to take place in the Fall of 1997. In the interim, RCJT has temporarily located a site at the Ramsey County Workforce Center Office in St. Paul. This office is ADA compliant and can be used by the general public seeking job training services.

Deficiencies: Numerous in Gladstone Community Center.

Transition Plan: Relocate offices in Fall of 1997 to ADA compliant location.

3. COMMUNITY COMMENTS

None.

LAKE OWASSO RESIDENCE
210 N. Owasso Boulevard

Lake Owasso Residence is a residential treatment service for ambulatory people who are developmentally delayed and with related conditions. It serves a population of persons ages 16 through adult. The facility is licensed as a Class B Supervised Living Facility by the State Department of Health.

1. PROGRAM EVALUATION

An evaluation of Lake Owasso was conducted in 1992 and updated in December, 1996. The facility recruits residents through Ramsey County Social Services. Eligibility and admission requirements are limited to serve only those meeting license criteria. Any pre-admission screening conducted is to ensure Lake Owasso can fit the needs of the client, since each program is specifically designed to meet those needs. The program evaluation indicates that Lake Owasso uses a Relay System for the hearing impaired. There is little use of this service and appears to be adequate for this operation; therefore, it is not recommended that Lake Owasso purchase a TDD at this time.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

A building evaluation for Lake Owasso was completed in December of 1996. This facility did not conduct an original evaluation since it was scheduled for closure by the State. Since the initial report was completed, the facility has remained open with no definite date of closure planned; therefore, it was necessary to evaluate the public areas of this operation for accessibility.

There are four (4) buildings at Lake Owasso Residence. The three residence halls (upstairs Main Building, Taylor and Davis) along with the school house are not open to the public. The administration offices (downstairs Main Building) have limited public access. Visitors must go to the administration area to sign in and can meet with resident and staff in its conference room or cafeteria.

Deficiencies: The following deficiencies were found in the public portion of the Administration Building and surrounding area:

1. Noncompliant passenger loading zone.
2. Obstructive entrance threshold.

3. Non-compliant entry door latch hardware.
4. Undesignated accessible entrance.
5. Absence of directional signage to accessible entrance.
6. Inadequate clear usable opening for common passage doors (not in public areas; nurse's office, bathrooms).
1. Noncompliant door latch hardware for common passage doors.

Transition Plan: In 1997, Lake Owasso will:

1. Stripe parking area to show pedestrian aisle.
2. Building supervisor to adjust door threshold.
3. Change front door and common door hardware to lever handle or push/pull mechanism.
4. Add signage to mark accessible entry door and direct people from parking lot to entrance.

Deficiency #6 addresses non-public areas that may on occasion be entered by the public under certain circumstances. This item will not be addressed until closure decision of the facility has been firmly decided because of the age and general condition of the building.

3. COMMUNITY COMMENTS

None.

LAW LIBRARY
1815 Courthouse

The Law Library provides a collection of law books for the use of lawyers and the public.

1. PROGRAM EVALUATION

The Law Library was evaluated in 1992 and updated in December, 1996. There are no eligibility, recruitment or admission requirements to use the library. Parties interested in using the library have access to all the materials available. Staff are available to assist persons with physical disabilities in retrieving books and periodicals. Books in the library are in written forms. Alternative forms are not available. Because of the nature of this services, there are no auxiliary aids to accommodate persons with visual impairments. The department can use the relay service to provide information to callers . No action plan is necessary at this time.

Deficiencies: Texts are available in written form only.

Action Plan: The nature of the law library does not allow for books to be available in alternate formats without changing the intent and purpose of the service. Individuals that seek to convert information into alternative formats would do so at their own expense.

2. BUILDING EVALUATION

The Law Library is located in the Courthouse. The major renovation of the building from 1991-1996 addressed issues of accessibility and made the necessary modifications.

Deficiencies: Doors into library and restrooms are extremely heavy.

Transition Plan: Building Services will adjust door closers to reduce pull needed to open. They will also check into leaving library doors open during business hours taking into account fire codes and HVAC accommodations.

3. COMMUNITY COMMENTS

None.

LIBRARIES
4570 N. Victoria St.
Shoreview, MN

The libraries are a system of seven locations that offers library services to the residents of Ramsey County and the surrounding metropolitan area. Its mission is to assure that all persons can easily obtain, without charge, the cultural, recreational, and factual resources they need to improve or enrich their lives.

1. PROGRAM EVALUATION

A program evaluation was conducted on the various activities performed at the seven libraries. The evaluations were initially conducted in 1992 and updated in July, 1996.

Deficiencies:

1. Libraries use Relay System to communicate by telephone with the hearing impaired.
2. Most of the advertising and information about the libraries is available in print only.
3. Program registration materials do not offer place to indicate special accommodations.
4. Brochures do not properly identify which libraries are fully accessible.
5. No visual alarm in building.

Action Plan:

1. Libraries should consider purchase of TDD to provide more efficient communication with clients who are hearing or speech impaired.
2. Advertisements and information about the libraries should utilize multi-media formats.
3. Registration materials shall include place to indicate if special accommodations are needed.
4. Brochures on the libraries will indicate which libraries are fully accessible.
5. Emergency procedures will be amended to address evacuation of persons with disabilities.

2. BUILDING EVALUATION

The libraries, as a whole, meet ADA accessibility requirements although individual libraries have physical barriers that may limit accessibility at some locations. The new Roseville, Maplewood and Shoreview libraries have eliminated almost all barriers found in the surveys. Those barriers that remain will be handled administratively.

Mounds View library has some minor barriers that are scheduled to be corrected in the

near future. North St. Paul, White Bear Lake and Arden Hills libraries have many barriers that need to be corrected. These deficiencies are addressed in the Transition Plan and staff at these libraries are actively seeking funds to address these issues.

Deficiencies:

1. Need power-assisted door openers at Arden Hills, North St. Paul and Moundsview.
2. Public counters do not have accessible area (Arden Hills, North St. Paul and Moundsview).
3. Exposed pipes under sinks needs insulation - All locations.
4. Drinking fountains not accessible (Arden Hills, North St. Paul and White Bear Lake).
5. Restrooms not fully accessible (Arden Hills, North St. Paul and White Bear Lake).
6. Curb cuts do not have different texture (Arden Hills, North St. Paul).

Transition Plan:

1. Power doors added 1996/1997.
2. Counters modified 1996/1997. Specific areas near counters designated for use for persons with disabilities.
3. Pipes will be insulated 1996/1997.
4. Drinking fountains will be modified 1996/1997.
5. Funds for remodeling restrooms to be requested in 1998 Grant/Capital Improvement Applications.
6. Funds to modify curb cuts requested in 1997 Grant/Capital Improvement Applications.

3. COMMUNITY COMMENTS

At the public meeting on June 10, 1997, a person made that comment that he does not like the wording under the Building Evaluation section of this report that states: “The libraries, as a whole, meet ADA accessibility requirements….” He felt this gave the County Commissioners the impression that everything is okay and that nothing further needed to be done at the libraries.

In addition, the Roseville library was made for easy access from cars but not directly accessible from both sides of the library for someone walking or in a wheelchair.

MEDICAL EXAMINER'S OFFICE
300 East University Avenue

The Medical Examiner's Office was established for the purpose of investigating deaths occurring within Ramsey County, as mandated by Minnesota State Law. One of its objectives is to provide information and assistance to surviving family members at the time of death including identification of bodies and autopsy results.

1. PROGRAM EVALUATION

A program evaluation of the Medical Examiner's Office was completed on 8/24/92 and updated on 11/19/96. The evaluation reveals that this department's public access is limited to the identification of bodies by family members. From an ADA perspective, the department assists families as needed who may have a member with a disability and will get personal aides if necessary. The department complies with the ADA and there are no recommendations at this time.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

The Medical Examiner's Office moved to its new location at 300 University Avenue in March of 1994. The new facility was built incorporating ADA guidelines in existence at the time of the construction.

Deficiencies: None

Transition Plan: N/A

3. COMMUNITY COMMENTS

None.

PARK AND RECREATION
2015 North Van Dyke Street
Maplewood

The Park and Recreation Department offers a variety of activities for people of all ages. Biking, hiking, swimming, boating, fishing, picnicking, golfing, skating, and cross country skiing are just a few of the activities enjoyed by the public and offered by this department.

The County has five regional parks, a nature center, four golf courses, a golf dome, ten public ice arenas and numerous picnic and beach areas. The department offers classes to the public including cross country ski lessons, skating and golf instruction. The department is dedicated to providing recreational facilities and programs to all guests of its park system.

1. PROGRAM EVALUATION

An ADA program evaluation was conducted in 1992/93 and updated in December, 1997. The following is a brief overview of the programs and activities offered by this department.

Archery, bicycling, cross country skiing, golf, hiking, horseshoes, skating, swimming and interpretive programs are some of the activities open to the public. For all these activities, there are no eligibility or participation requirements. The department produces a variety of brochures, flyers and other publications to advertise and promote these activities. Persons interested in activities can call the administration office for any information. Inherent in these programs are areas that may limit accessibility to persons with disabilities. Archery, bicycling, cross country skiing and golf require persons with minimum visual ability to perform these activities safely. No individual aids are provided to individuals to overcome these barriers and none are required under the ADA guidelines. For some activities the terrain may present barriers to individuals with limited mobility. Again the nature of the activities makes some programs inaccessible; however, for the hiking and nature interpretive trails, the County provides some trails that are fully accessible.

The department offers concerts at the various parks. These events are advertised in multi-media formats including radio and television. Concerts are open to all. There is no permanent seating offered for these concerts. Most are held in grassy areas that may offer challenges to persons with mobility impairments; however, there are paved trails at most concert sites.

The department also rents out its arenas for “dry floor” events. The arenas have some physical barriers which will be discussed under the Building Evaluation section of this

report.

There is a nature center that offers programs on nature interpretation. No aids are provided for these programs although they are available upon request. The department has use of a TDD and the Relay System to answer questions by phone. Because of the nature of these programs, there are some accessibility issues. The County and the department try to offer these programs in the most accessible settings while retaining the nature and intent of the programs. Information on the programs are not available in braille or large print. Interpretive signs are not in braille. Some of the trails used in the interpretive programs are difficult for persons with mobility impairments and provide poor traction for wheel chairs. Volunteers are used in the program and are trained to assist persons with disabilities.

Picnic areas, children's play areas and beaches are not all fully accessible. Some picnic areas have accessible shelters and accessible scattered free-standing tables (see schedule). The department plans to have all play areas fully accessible by 1999 (see schedule). Persons with mobility impairments may have limited access to certain facilities.

People interested in fishing can use the fishing piers on Island, Long and Beaver Lake along with the lake at Keller Regional Park. Shoreline fishing has no paved path to the designated shoreline which may limit access to persons with physical impairments.

Watercraft launching requires participants to be capable of launching their own boat. The department offers no assistance in using this service.

On the whole, the programs, services and activities offered by the Parks & Recreation Department are moving toward maximum accessibility within the fundamental nature of the programs offered.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

Deficiencies: Evaluations of the various facilities are presented in the following pages.

Transition Plan: The plan developed by the Parks and Recreation Department is outlined in the following pages.

3. COMMUNITY COMMENTS

At the public meeting on June 10, 1997, the comment was made that the department should make sure that all picnic tables are spaced so that persons in wheelchairs are able to move in close to the table.

PERSONNEL
430 Government Center-West Building

The Personnel Department is responsible for recruiting job applicants for employment positions in the County personnel system, administering employment tests, and referring candidates for consideration by employing departments. They are also responsible for dealing with the on-going personnel issues of employees.

1. PROGRAM EVALUATION

A review of the ADA Program Evaluation for the Personnel Department was completed in August, 1992 and updated in December, 1996. The County does not discriminate against persons with disabilities in the recruitment, application and eligibility requirements for employment. Applications for employment are available at Ramsey County Government Center West. An applicant has the option of completing a job application on site. If help is needed completing the application, staff are available to assist.

Deficiencies: Applications for employment do not have a statement showing compliance with ADA.
Action Plan: All applications should have a statement regarding Ramsey County compliance with ADA.
Note: Any ADA issues relating to employment are not covered in this report. Risk Management and Personnel have addressed employment issues separately.

2. BUILDING EVALUATION

The Personnel Department is located in the Ramsey County Government Center-West Building. The physical barriers within the department and in the building are addressed under the Property Management report. To overcome these barriers, the department uses alternate accessible sites to ensure applicants have equal access to employment opportunities.

Deficiencies: Accessibility of Ramsey County Government Center-West.
Transition Plan: See Property Management report.

3. COMMUNITY COMMENT

At the public meeting on June 10, 1997, there were some questions raised about employment issues. It was explained that this report dealt with public accessibility of programs, services and activities offered by the County. Employment issues were handled separately by the Personnel Department.

PROPERTY RECORDS AND REVENUE
845 Government Center-West Building

The Property Records and Revenue Department of Ramsey County deals with recording and taxation of real property located in Ramsey County and elections/voter registration. With respect to the property, the department is responsible to properly value and classify all property in the County for the purpose of assessing property taxes. It collects property taxes and processes tax payments, deed taxes and mortgage registration taxes. The department also notifies property owners of any tax delinquencies. It provides information by phone or in person regarding taxes, values, classification and ownership of property. The department is also involved in public auctions of those properties that have been forfeited to the State for non-payment of real estate taxes.

In addition, the department is responsible for elections and voter registration. It conducts elections either at specified polling places or by providing an opportunity for all eligible voters to vote by mail or at the County Auditor's Office. It also offers the opportunity for citizens who are eligible to vote to register to do so.

1. PROGRAM EVALUATION

A program evaluation for this department was conducted in 1992 and completely redone in 1997 to provide a more comprehensive evaluation of the programs, services and activities it offers. Comprised of three major divisions, Valuation, Revenue Records and Property Records, the department is set up with various functions related to property taxation in Ramsey County. It values properties for taxation purposes, sends out tax notifications, holds public Truth In Taxation hearings, records property information in County records, and conducts public auctions for tax forfeited lands. The division has daily contact with the public either by phone or in person. There is a person on staff who can sign and is available to assist persons with hearing impairments. Staff are trained to meet customers' needs and will assist customers with disabilities. The division has access to a TDD and also uses Relay and fax systems to communicate. Information is advertised in the newspaper and through the County Board cable program. Meetings for the public are held at accessible sites. The department has no eligibility or admission requirements to its programs and services and there are no barriers to participation in these programs.

Revenue: Information on property taxes and valuations are mailed to each property owner. A Board of Equalization has been established to afford property owners the chance to appeal values. There is a special classification for properties owned and occupied by persons who are physically impaired. To be eligible for the special tax classification, the owner must obtain certification from his/her doctor and submit a request to the state. The state determines eligibility for this program. All property

owners who seek this special classification must be re-certified every year.

Deficiencies: None

Action Plan: N/A

Elections/Voter Registration: This division is responsible for elections and offers voter registration to all eligible citizens. Requirements for voter eligibility are determined by the state. The County does not discriminate against persons with disabilities.

Elections are held at various polling places throughout the County. These sites are chosen by the various cities. Ramsey County is responsible for verifying site accessibility and providing the necessary equipment and judges at the sites. Accessible voter stations are available at each precinct polling location. No voter materials are available in braille or taped formats, although some large type material is available. The election judges and election staff are trained to assist voters with disabilities that are unable to vote unassisted. Ballots are marked and an affidavit of assistance is signed when assistance is given to voters.

Deficiencies:

1. Some individuals need assistance of election judges to vote. Ballots are marked accordingly and an affidavit is signed by the assisting judge as required by statute.
2. Large print material is available for elections only.

Action Plan:

1. The process to assist voters with disabilities has been established by Minnesota Statute and includes wheel chair height voting booths and election judge assistance. Any changes in this process need to come from the State level.
2. Review operations to see where additional large print or braille materials should be used.

2. BUILDING EVALUATION

Property Records and Revenue is located in the Ramsey County Government Center-West Building. Physical barriers in the building are addressed under the Property Management report.

Deficiencies: Accessibility of Ramsey County Government Center-West.

Transition Plan: See Property Management report.

3. COMMUNITY COMMENTS

An individual responded to the County's request for public comment by interoffice memo. He stated that the Department of Property, Records and Revenue should have an action plan since they administer programs such as This Old House Law along with appeals of property values. The department also sends out tax notices, valuation forms and notifications of public meetings. A visually impaired person could not possibly take advantage of these programs or know of the information provided by the department unless they make things available in some manner other than print. He also felt that voting should be totally independent of assistance and the election section of the department should research and implement law changes to accomplish this.

As an employee of this department, he was not aware who the ADA representative for the department is or that the employees have had any training on assistance to a person covered under the ADA.

PROPERTY MANAGEMENT
660 Government Center-West Building

The Property Management Department is an internal operation serving the various departments and tenants of Ramsey County-owned buildings. It is responsible for maintaining the various properties and ensuring the buildings are safe and usable for all people entering the buildings.

1. PROGRAM EVALUATION

No program evaluation was conducted for the department. All issues related to program, services, and activities fall under the physical barriers of the various buildings. These issues are addressed under BUILDING EVALUATION.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

Property Management is responsible for the operation and maintenance of three County-owned facilities; Courthouse, Government Center-West, and Government Center-East. In addition, the department consults with various departments in acquiring, constructing, renovating and leasing properties. Building issues related to the various departments are found under the appropriate departments. The three main building are discussed below.

For the Courthouse and Government Center-East, major renovations occurred from 1991 - 1996. Issues of accessibility and the necessary modifications were addressed at that time based upon the ADA guidelines in effect during that period.

The Government Center-West was not part of a major building renovation, however, an evaluation of the building was performed by Wold Architects where accessibility issues were identified. Since that time, the following ADA upgrades have been completed at this facility:

- Lobby was remodeled, new accessible power doors were added to the main entrance.
- New fire alarm system with audio and visual assists is currently being installed. Estimated completion date is July 1997.
- Twenty-two handicap parking spaces were added near the rear entrance of the building.

- Signage in some areas of the building were upgraded and include braille identifications.
- One hand/one motion or lever handle door hardware was installed in remodeled areas.
- Wheel chair accessible ramp/tunnel was installed connecting ADC and West.
- Wheel chair accessible ramp was installed connecting E and F buildings of West.
- Wheel chair accessible ramp was installed connecting cafeteria and roof deck.
- Kellogg Plaza Deck was remodeled removing gates and barriers and installing curb cuts for wheel chair access.

Deficiencies:

1. Signage in portions of the building does not meet ADA guidelines.
2. Each floor should have accessible restrooms with accessible routes within building to those restrooms.
   3. Drinking fountains are not all accessible. At a minimum, one on each floor should meet ADA Guidelines.
4. No accessible entry from Shepard Road into building.
5. Provide signage at Shepard Road entry showing location of accessible entry.
   6 Provide directional signage in building F identifying accessible routes to other buildings within West.
   7. Upgrade remaining bathrooms, drinking fountains, door hardware, signage and directories to remove all barriers within the building.

Transition Plan : **West Building**

1997 - $125,000 budgeted for ADA modifications to restrooms.

2001 - $254,544 budgeted for design and construction of accessible entrance on Shepard Road, drinking fountain upgrades and signage.

2002 - $254,544 budgeted for additional restrooms, drinking fountains and signage modifications.

3. COMMUNITY COMMENTS

At the public meeting on June 10, 1997, a comment was made that there is no direct access from the two sets of doors in the lobby of the West Building at the Kellogg Main Entrance. Why were the two power doors placed at different ends of the entrance.

In addition, the two people attending the meeting did not like the direct path accessiblity of the West Building. They both felt more money needs to be spent to ensure that the building is as accessible as possible.

It was also noted that the drinking fountains that are scheduled for replacement should be looked at carefully to ensure that the replacements are the most accessible ones available. Some of the “accessible” fountains offer only limited accessibility.

The final comment that deals with all property owned by the County is that this self-evaluation was conducted by employees. One of the respondents felt that an outside consultant should be hired to do all the building evaluations again to make sure that the employees did it correctly. This comment was noted but no action will be taken on it.

One individual who responded in writing commented that the he has worked in the West Building for many years and sees little if any improvement to the things in the building that would assist blind persons such as braille labels on elevators, braille designations on bathroom doors and making the cafeteria machines etc. accessible to a blind person.

PUBLIC DEFENDERS OFFICE
1808 Firstar Bank Building

The Public Defenders Office is a criminal defense office representing indigent persons charged with crimes in Ramsey County. It provides the necessary legal services for those individuals that qualify for assistance under the program.

1. PROGRAM EVALUATION

A program evaluation for the Public Defender's Office was conducted in September, 1992 and updated in December, 1996. The report revealed that the department does not recruit participants or set eligibility requirements that would discriminate based on a person's disabilities. The Department accommodates clients with limitations and provides the necessary aids and accommodations to ensure that individuals are given adequate legal service under this program.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

An individual building evaluation was completed at this location in September, 1992 and updated in December, 1996. The Department reported that the building and office are accessible. Although there are not fully accessible bathrooms on the 18th floor, access is available on the 19th floor through elevator service.

Deficiencies: None

Transition Plan: N/A

3. COMMUNITY COMMENTS

None.

PUBLIC HEALTH
Suite 930, RCGC-West

Ramsey County Public Health Department is responsible for Public Health Nursing, Nutrition, Environmental Health and Solid Waste. The Program Evaluation section offers a brief description of the various programs offered along with identifying any deficiencies found within the programs.

1. PROGRAM EVALUATION

Program Evaluation of the various divisions of Public Health were conducted in 1992 and re-evaluated in February 1997 to reflect the current organizational structure of the department. The department is entering into a Joint Powers Agreement with St. Paul Public Health Department effective July 1, 1997 and its impact is not reflected in this report.

Public Health Administration: Administrative offices of Public health are located in the West Building. Department staff may use (a) the telecommunication device (TDD) located at the West Building reception, (b) Administration funds for American Sign Language interpreters, or (c) the Minnesota Relay System to serve hearing impaired clients.

Deficiencies: Some information is only available in written form.

Action Plan: Have alternate formats (written and verbal) available for clients.

Community Health Development Division: In 1993 and 1994 the Health Education Division became the Community Health Development Division (CHD) with two major programs - Community Services and Correctional Health Services. CHD creates and participates in partnerships which address specific community or institutional health needs by using a community health promotion model and approach and by recognizing and reflecting cultural competence in health promotion.

Community Services staff are housed at RCGC West. Services include adolescent health education, family violence initiatives, HIV/AIDS prevention activities, and other community health education activities. Services are delivered at RCGC West and at other community sites by invitation. Ramsey County Corrections Department contracts with CHD for health services for the Adult Detention Center , Workhouse , Boys Totem Town and Juvenile Detention Center. The Corrections Department is responsible for Correctional Health program and site surveys.

Deficiencies: None

Action Plan: N/A

Environmental Health Division: The Environmental Health Division is located in the basement of the Ramsey County Maplewood Branch Library. The Division enforces Ramsey County ordinances pertaining to hazardous waste, food establishments, lodging facilities, public swimming pools, manufactured home parks, childrens camps, and abatement of public health nuisances.

Training sites include conference rooms at the Maplewood Library and the New Brighton Community Center. The Maplewood Library is used for hazardous waste seminars, the Hazardous Waste Advisory Council, and the Food Protection Advisory Council. The New Brighton Community Center site is used for the pool operators and artification course.

Deficiencies:

1. Forms including results of reports, license applications, and licenses and seminar notices are not available in alternative formats, but the nature of the program is unlikely to require alternatives.
2. Food license forms and seminar schedules do not include a statement regarding ADA II compliance.

Action Plan:

1. When the public calls in for program reservations, staff will ask if special arrangements are needed.
2. Add ADA compliance statement to forms and brochures.

Solid Waste Division: The Solid Waste Division is co-located with Environmental Health in the basement of the Ramsey County Maplewood Branch Library. Solid waste management includes:

- yard waste collection and composting
- household hazardous waste collection
- processing of recyclables
- regulation of licensed haulers and facilities and non-licensed solid waste activities
- public information in all the above areas

Solid waste programs include:

1. Public information through meetings and written materials.
2. Yard waste collection and composting at 8 drive-in sites. Site monitors can assist the disabled with dumping and have cellular phones for emergencies.
3. Drive-in hazardous waste collection at one year-round and four seasonal sites.
4. Collection and processing of recyclables at Ramsey County Recycling Center

which is leased to Supercycle and Greenwing. Only Greenwing is open to the public.
5. Information on solid waste management through telephone, TDD, and written media.
6. Regulation.

Public meetings are held in accessible public buildings such as Maplewood Library, park buildings, and city halls. Information regarding solid waste programs is mailed to Ramsey County residents or distributed as city news inserts or at meetings. Information is also available by phone. Minnesota Relay Service can be utilized for the hearing impaired. Recruitment for boards is through standard county recruitment efforts.

Deficiencies: None

Action Plan: N/A

Nursing Division: Programs and service delivery sites of the Division of Nursing change regularly. Currently the three major programs of the Division are Family Health, Adult Health Management, and Disease Prevention and Control (DP&C). Increasingly, the focus of services is on assessment and referral of individuals and health education to groups. Family Health, Adult Health, and DP&C services are provided in homes or at shelters, clinics, schools, family centers, and other community sites. When Nursing is invited to do a presentation, the host group is responsible for assuring accessibility. If Nursing sponsors activities, meetings are held in accessible spaces and materials are available in different formats upon request. For in-home services, Nursing assesses the physical limitations by phone at intake and on the first visit. In-home services include assessment, nursing care, and health teaching. Immunization clinic services include injections and health teaching. For these services, clients would need to call in to request special services such as interpreters.

Written communication, TDD, sign language interpreters, and MN Relay Services are used for the hearing impaired. Verbal communication is the primary method for the visually impaired. Staff training includes orientation to Department services for hearing impaired.

Deficiencies: The client's Bill of Rights uses the term handicapped.

Action Plan: Change use of the term handicapped to disabled in next printing.

Nutrition Division: The Division provides nutrition services and professional training at community locations. Their mission is to alleviate hunger and improve the health of county residents through nutrition services at public clinics; professional training on

request; and provision of nutrition information via media and community programs and home visits. Services are targeted to low income, minority groups. Services include counseling on doctors orders; small group presentations; and advice to parents and interpretation of children's growth data. Currently St. Paul/Ramsey County WIC Program services and sites are managed by City of St. Paul Nutrition staff, and other Ramsey County nutrition services and sites are managed by Ramsey County Nutrition Division staff.

Programs provide sign language interpreters as needed. Assessment tools for the elderly are tape recorded and mention the nutrition program. The tape is marketed and housed for loan by St. Paul Society for the Blind. They also have large print materials for visually impaired. The Division has the use of the Department's TDD. When groups invite Nutrition Division to speak, the group is responsible for their own recruitment and arrangements for interpreters, etc.

If disabled persons seek services at Main Street Health and have other assigned clinics for health care, Nutrition cannot counsel them but will assist with hunger issues or answer questions about nutrition.

The Division sponsors joint public health service announcements with Metro and Minnesota Department of Health WIC Programs, Children's Defense Fund, First Call For Help, and Senior News Letters.

There is one application form for this program. If applicant needs assistance to complete application, assistance will be provided by staff. Application form does not contain ADA compliance statement but does carry discrimination disclaimer. Orientation for participants is done verbally and supplemented with written information.

Deficiencies: Forms should publicize availability of auxiliary aids if needed.

Action Plan: Include place on form to indicate if applicant has special needs so that appropriate accommodations can be made.

2. BUILDING EVALUATION

Public Health has various sites throughout Ramsey County both as permanent sites and temporary locations that offer services to the general public. Evaluation of the various sites were conducted in 1992/93 and updated in early 1997. New sites were surveyed and the results are found below.

Administration: Offices are located in the West Building. Evaluation of this

building was conducted under the Property Management portion of this report.

Community Health Development Division: Services for this division are located in the West Building and at other public sites. There are no accessibility issues for this division.

Environmental Health Division: This division is located in the Maplewood Library. Physical barriers for this location was addressed under the report for the libraries. The division holds some meetings and seminars at the New Brighton Family Service Center. An evaluation of this location is found under the Nursing Division portion of the Building Evaluations.

Solid Waste Division, Ramsey County Recycling Center
Greenwing Office, 475 Rice Street, St. Paul, MN

The Recycling Center is a drop-off for various recycleables. People drive in, drop off materials and drive off. Traffic flows in a one way direction to avoid congestion. This site is an alternative to curbside recycling offered in the various communities of Ramsey County. At one time, the building on site was used as a redemption center. Now the public has no access to building, therefore, no further evaluation of this facility is necessary.

Deficiencies: None

Transition Plan: N/A

Nursing Division: This division utilizes many sites in providing services to the community. Adult Health services are currently delivered at Psychiatric Medication Clinics at Ramsey County Mental Health Center and will expand to public high rises in 1997.

Family Health services are delivered at:

- 1245 St. Anthony (clinic for residents)
- RCGC East Lobby
- Other Community sites upon invitation

Site locations were not conducted at these sites but these sites are set up to accommodate population service.

Disease Prevention and Control services are delivered at regular immunization clinics, seasonal flu clinics, and client homes, shelters, and other sites as necessary and/or upon invitation. There are 4 locations that are used as regular immunization sites. The sites are used three to six hours monthly. Sites are selected to offer convenient

locations to suburban communities. None of these sites are owned by the County. Evaluations were conducted at these sites and the results shown below:

1. Mounds View City Hall, 2401 Highway 10, Mounds View, MN
2. New Brighton Family Service Center, 400 10th St. NW, New Brighton, MN 55112

Deficiencies: None

Transition Plan: N/A

3. Fairview Community Education Center, 1910 West County Rd. B, Roseville, MN

Deficiencies:
1. Non-compliant door latch hardware for common passage doors.
2. Absence of compliant toilet room signage.
3. Absence of audio signals indicating elevator arrival, direction and landing.
4. No visual or no audible signal for emergency warning system.

Transition Plan: Department will request building owner to comply with ADA and remove above deficiencies. If owner is unable to comply, department should look into alternate sites for clinic, taking into account the limited use of facility and other accessible sites under program. These deficiencies do not affect the accessibility of the program, services and activities offered on site. Note: It would be helpful if this facility provided signage in County Rd. B parking lot to direct persons with disabilities to go along the (L) road to the southeast lot for accessible parking, doors and elevator.

4. St. Stephens Lutheran Church, 1925 E. County Rd. E, White Bear Lake, MN

Deficiencies:
1. No audible or visual signal alarm.
2. Undesignated accessible entrance(s).

Transition Plan:
1. Staff will be trained on how to respond to emergencies in building without alarm system. Staff should be knowledgeable of emergency exits and shelters within the building and be sure clients are out of the area in the event of an evacuation/emergency.
2. Owner will be asked to install signage that designates accessible entrances.

Nutrition Division: This division has 11 non-owned sites serving the County. The

site usage is limited to 3 hours/week. Evaluations were conducted and transition plans developed for each site.

1. Face-To-Face Clinic, 1165 Arcade St., St. Paul, MN 55106
2. Model Cities Abrams Clinic, 491 University Ave. W, St. Paul, MN 55103
3. Normandy Education Center, 2482 E. County Rd. F, White Bear Lake, MN 55110

Deficiencies: None

Transition Plan: N/A

4. Model Cities Clinic, 430 N. Dale St., St. Paul, MN
5. Dorothy Day Center,183 Old 6th Street, St. Paul, MN 55102

Deficiencies: Nonvisual or nonaudible signal for emergency warning system.

Transition Plan: Facility is used on a very limited basis. To overcome this deficiency, staff will be trained on how to respond to emergencies in building without alarm system. Staff should be knowledgeable of emergency exits and shelters within the building and be sure clients are out of the area in the event of an evacuation/emergency.

6. North End Medical Center, 153 Manitoba, St. Paul, MN

Deficiencies:

1. Absence of accessible entrance to building (accessible outer door requires a helper to open door from inside as it is kept permanently locked and cannot be opened by a disabled person alone).
2. Undesignated accessible entrance(s).
3. Noncompliant entry door latch hardware.
4. Nonvisual or nonaudible signal for emergency warning system.

Transition Plan: Access to site is limited because of entry to this building. Any information in brochures or information materials should show this site as not accessible and indicate which sites are accessible. Since there are alternate sites available under this program, it is not necessary to relocate this site but the department should evaluate this area to see if there is an alternate accessible site available.

Staff will be trained on how to respond to emergencies in building without alarm system. Staff should be knowledgeable of emergency exits and shelters within the building and be sure clients are out of the area in the event of an evacuation/emergency.

7. Women's Advocates, 584 Grand Ave., St. Paul, MN

Deficiencies:

1. No accessible parking.
2. No accessible entry.
3. No accessible sanitation facilities.

Transition Plan: This location is not accessible to persons with physical impairments; however, other sites are available that are accessible. The department should evaluate this area to see if there is an alternate site available that would be more accessible. Be sure all materials and information indicate that this site is inaccessible.

8. Faith Lutheran Church, Charles Avenue & Mackubin, St. Paul, MN

Deficiencies:

1. No audible signal for elevators. (Has little impact on services at this site.)
2. People must ring bell for entry. (This deficiency is handled administratively by attendant who opens door as necessary.)
3. No audible or visual signal for fire alarms.

Transition Plan: Staff will be trained on how to respond to emergencies in building without alarm system. Staff should be knowledgeable of emergency exits and shelters within the building and be sure clients are out of the area in the event of an evacuation/emergency.

9. Naomi Family Center, 77 E. Ninth St., St. Paul, MN
10. Lowry Family Shelter, 347 N. Wabasha St., St. Paul, MN

There are many deficiencies in these buildings and these sites serve a targeted population that cannot be effectively served elsewhere. Other locations are available that are accessible and therefore no recommendations are made for these sites.

11. St. Mark's Lutheran Church, 2499 N. Helen St., No. St. Paul, MN

Deficiencies:

1. No accessible bathrooms.
2. No visual fire alarm.

Transition Plan:

1. Although the site has limited usage, the division should look for an alternative location in the area that would provide accessible bathrooms to participants in the program.

2. Staff will be trained on how to respond to emergencies in building without alarm system. Staff should be knowledgeable of emergency exits and shelters within the building and be sure clients are out of the area in the event of an evacuation/emergency.

3. COMMUNITY COMMENTS

None.

PUBLIC WORKS
910 Government Center-West Building

The Public Works Department is responsible for providing and maintaining safe and efficient road systems in Ramsey County that coordinate with the needs of other governmental agencies. The department facilitates the preservation of lakes and other water resources through effective resource management. It also provides a system of uniform land records to ensure proper recording of properties. It coordinates the public works programs with federal, state and local agencies.

The Public Works Department is responsible for developing highway systems within Ramsey County. It is involved in reviewing highway needs and planning and constructing the roads including bridges, traffic control lights and warning systems. The Department also maintains the highways including snow removal. In addition, it provides information on roads and properties within the County to the public by phone, in person or by mail.

1. PROGRAM EVALUATION

An evaluation of Public Works was conducted in 1993 and updated in November, 1996. According to the evaluation, the department uses various mediums to communicate information to the public. It has a newsletter, Second Season, that is sent to interested individuals. Calls into the department by persons with hearing and speech impairments are received through the Relay System. At the present time, there is limited use of the Relay System. Most contact with the public is very limited in nature. The public may visit one of the facilities to pick up information. If a signer is needed, the department can request the services of one through the county. At the present time, the department has not needed these services.

The Public Works Department currently is involved in constructing pedestrian curb ramps or cutting curbing to comply with ADA requirements. In the 1997 construction season, the Public Works Department will construct 122 pedestrian curb ramps. In the past five years, the Public Works Department has completed 652 curb depressions.

Deficiencies: None

Action Plan: The department has access to the Relay System for calls from persons with hearing and speech impairments. It should monitor the use of this system to see if the department should install a TDD phone.

2. BUILDING EVALUATION

The administrative offices of Public Works are located in the Government Center-West. Barriers within this building are handled by Property Management.

Public Works has limited public contact at its two locations on Rice Street. Although the current buildings have accessibility problems, the department is searching for a possible new location to house its operations. At both #3377 and #3401, there are accessibility issues in entering the building. These issues must be dealt with if the department plans to stay at these locations and public areas should be limited to portions of the buildings that are accessible.

Deficiencies: **Building 3377 Rice St. and 3401 Rice St.**

1. Path to entrance of building inadequately maintained.
2. Entrance to basement area inaccessible (16 steps and no ramp or lift).
3. Entry area inaccessible—threshold too high, landing too narrow, and hardware too high.
4. Interior signage on public doors does not comply with ADA guidelines.
5. Interior passageway obstructed.
6. Toilets and signage not in compliance.
7. No visual emergency warning system.

Transition Plan: The Public Works Rice Street facility does not meet ADA standards for accessibility. The facility, built in 1947, is in need of a major rehabilitation. Funds for the building rehabilitation have been requested for 1998. Funds for a new facility have also been requested. ADA standards will be taken into consideration if either the present building is rehabilitated or a new facility is constructed.

3. COMMUNITY COMMENTS

None.

RAMSEY NURSING HOME
2000 White Bear Avenue, Maplewood

Ramsey Nursing Home is a long term care facility providing residence and health care for adults over eighteen years of age. It is dedicated to provide quality care with compassion and respect for human dignity for those residents of Ramsey County who need long-term or rehabilitative care and cannot be cared for in their own home including those who are difficult to place in private sector nursing homes.

1. PROGRAM EVALUATION

The Nursing Home conducted a program evaluation in January, 1997. The evaluation revealed that the Nursing Home does not recruit or advertise for participants in its programs. Eligibility criteria is set by the Nursing Home's license as a long term skilled health care facility. In addition to this criteria, residents must be eighteen years old and residents of Ramsey County. The eligibility requirements do not discriminate against persons with disabilities. Residents in the program are interviewed by nursing, social services, dietary and activities to determine the needs of residents and how to best meet those needs. These interviews are not discriminating and are intended to provide residents with a custom program that meets their needs.

Large print materials are available to residents such as calendars, menus and activity announcements. Staff and volunteers are trained to assist persons with disabilities and do so as needed.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

All program, services and activities are offered at 2000 White Bear Avenue. A property survey of this location was conducted in May, 1992 and updated in January, 1997. There is one public entrance to this facility which is accessible. The loading area at this entrance is extremely wide for easy assistance to residents. There are several deficiencies noted in the report. The transition plan deals with correcting them in a timely manner.

Deficiencies:

1. Signage in parking area is obscured. Need to raise the signs higher.
2. Need one additional accessible parking space.
3. Interior signage is posted at incorrect height and does not include braille text.
4. No audio signals when elevator arrives or when floors are passed.

5. Public restrooms are not fully accessible, signage at public restrooms inaccurately states accessibility.
6. There are four public phones in the building, none are TDD equipped and the handset cord length is too short.

Transition Plan:

1. Use an extender to increase height of accessible parking signs in parking lot. Target Date: Immediately. Costs: Minimal.
2. Add one additional accessible parking spot to lot. Target Date: Spring. Costs: Minimal.
3. Change signage in the building to meet ADA guidelines. Target Date: Request 1999 CIP funds. Costs: Estimated $75/sign
4. Upgrade elevators to provide audio signals. Target Date: The Nursing Home has only two floors so that passengers are not passing floors. This issue is not critical to ensure accessibility of the Nursing Home's program, services and activities. There are no immediate plans to remedy this deficiency.
5. Remove accessible signage from public restrooms that are not fully accessible. Target Date: Immediately. Costs: None.
6. Remove one public phone or add TDD public phone. Change handset cord lengths on all public phones. Target Date: Immediately. Cost: Minimal.

3. COMMUNITY COMMENTS

None.

REGIONAL RAIL AUTHORITY
665 Government Center-West Building

The Ramsey County Regional Rail Authority (RRA) is dedicated to a long-range vision of transit services to meet changing need for today and for succeeding generations. RRA is committed to planning of integrated transportation services in cooperation with other agencies. The RRA Board consists of the seven County Commissioners. In addition to planning the rail transit system, RRA is involved in the acquisition of land for light rail corridors.

1. PROGRAM EVALUATION

A program evaluation of this operation was conducted in 1996. At the present time, the Regional Rail Authority does not offer any programs, services or activities to the public. ADA issues will be incorporated into transit systems which are operated by other agencies.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

Regional Rail Authority is located in the Ramsey County Government Center-West Building. Physical barriers in the building are addressed under the Property Management report.

Regional Rail Authority Board meetings are conducted at the Ramsey County Courthouse. The major renovation of the building from 1991-1996 addressed issues of accessibility and made the necessary modifications.

Deficiencies: Accessibility of Ramsey County Government Center-West.

Transition Plan: See Property Management report.

3. COMMUNITY COMMENTS

None.

RESOURCE RECOVERY
6989 N. 55th Street, Suite C
Oakdale, MN

The Resource Recovery Project is a multi-government agency established by Ramsey and Washington Counties to reduce the amount of municipal solid waste sent to landfills by providing a processing facility to turn waste into fuel. It works with solid waste haulers, NRG Resource Recovery and governmental agencies to ensure effective operations of the Newport facility in order to reduce dependence on landfills for waste disposal.

1. PROGRAM EVALUATION

An ADA program evaluation was conducted for Resource Recovery on 3/9/92 and updated on 11/22/96. The evaluation found that the agency has limited public contact, generating approximately 20 phone calls per month and few, if any, public visits to its location. The evaluation found that its programs, services and activities are not discriminatory to persons with disabilities. The Department complies with the ADA and no action plan is necessary.

Deficiencies: None
Action Plan: N/A

2. BUILDING EVALUATION

A building survey was conducted on this leased facility on 3/20/92 that identified several barriers under the ADA. As of 12/20/96, these barriers are still in place.

Deficiencies: The following is a list of barriers prioritized in order of importance.

1. Entrance to the building:
--A water trough limits access to the building entrance for wheelchairs
--Excessive force is necessary to open exterior door
2. Signage does not designate accessible entrance.
3. Substandard public service counter dimensions.

Transition Plan: The current lease at this location expires in 1997. Resource Recovery plans to move to the Maplewood Library which is fully accessible.

3. COMMUNITY COMMENTS

None.

RISK MANAGEMENT
1020 Government Center-West Building

The mission of the Risk Management Department is to preserve the financial integrity and assets of the County from the risk of fortuitous loss. It deals with issues related to liability, employee benefits, workers' compensation, safety and wellness.

1. PROGRAM EVALUATION

A program evaluation of the Risk Management Department was completed on 12/14/92 and updated 12/20/96. The evaluation indicates that the department has limited public contact. Public contact consists of interaction on claims made against the County by third parties. The department will accept claims made in writing, over the phone or in person. The department is flexible in meeting the needs of persons with disabilities.

The department deals with employee issues related to health, safety and workers compensation. The ADA issues relating to employment are not covered in this report. Personnel and Risk Management have addressed the employment issues separately.

Deficiencies: None

Action Plan: N/A

2. BUILDING EVALUATION

The Risk Management Department is located in the Ramsey County Government Center-West Building. Physical barriers in the building are addressed under the Property Management report.

Deficiencies: Accessibility of Ramsey County Government Center-West.

Transition Plan: See Property Management report.

3. COMMUNITY COMMENTS

None.

SHERIFF'S DEPARTMENT
Adult Detention Center
14 W. Kellogg Boulevard

The Ramsey County Sheriff's Department is responsible for law enforcement in the County under the direction of the Ramsey County Sheriff, an elected official. The Department is responsible for apprehending and booking suspects, and investigating crimes. It also offers programs to the public in water safety, snowmobile safety and DARE. The following is a brief description of the department by program areas:

- **911 Dispatching:** Receives emergency calls for assistance from the public and dispatches appropriate responses via radio. It is also responsible for answering queries from police officers for information on computerized criminal data bases.

- **Patrol Investigation:** Is responsible for investigating crimes within the County. They meet with victims, interrogate suspects and gather evidence at crime scenes.

- **Police Records Section:** Receives non-emergency calls from the public. They gather information, enter it into the computer and access it as necessary. They also are responsible for completing forms and issuing correspondence on this information.

- **Snowmobile Safety:** Provides snowmobile safety instruction to youth to achieve a State required certificate. Program recruitment, content and materials are provided by the Minnesota Department of Natural Resources.

- **Boat and Water Safety:** Is operated by the Ramsey County Lake and Trail Volunteers. It provides information to the public on the safe operation of boats.

- **DARE (Drug Abuse Resistance Education):** Is a drug prevention program taught by uniformed officers in elementary schools. The program targets 5th and 6th graders teaching them skills to resist peer pressure to experiment with drugs, alcohol and tobacco.

- **School Safety Program:** Involves teaching elementary school children proper behavior for riding the school bus, crossing streets and biking. Training is provided for school crossing guards and bus safety officers.

1. PROGRAM EVALUATION

Program evaluations were completed in April/May, 1992 and updated in December, 1996.

911 Dispatching, Patrol Investigation and Police Records Section all involve contact with the public to perform duties of the Sheriff's Department. The services offered have no eligibility, admission or participation restrictions. TDD and sign language interpreters are available.

Deficiencies: None

Action Plan: N/A

Snowmobile and Boat Safety classes are geared for its operators, those persons with adequate vision and the ability to properly handle the machinery. No alternate formats are available for the visually impaired. To alter the safety classes for persons with visual impairments would require a fundamental alteration in the nature of the program. The programs provide no auxiliary aids for persons with speech or hearing impairments.

Deficiencies: No auxiliary aids for speech or hearing impairments.

Action Plan: During registration for classes, give interested parties the opportunity to indicate if they have special needs and then accommodate those needs within the framework of the program.

Dare and School Safety Patrol are programs offered in conjunction with school districts. The school districts provide all classroom sites and any classroom aids. Businesses, rotary clubs, and service organizations provide financial support for these programs. The selection of participants for the School Safety Patrol is done by the schools and is not the responsibility of the Sheriff's Department.

Deficiencies: None
Action Plan: N/A

2. BUILDING EVALUATION

Property surveys were conducted for the department's two facilities in 1993 and were updated in December, 1996. According to the surveys, several deficiencies were found. Since public access to these facilities is limited, certain issues should be addressed that allow public access into the buildings. These issues are outlined below:

Adult Detention Center (ADC)

The ADC houses the administration offices of the Ramsey County Sheriff . Public access to the building is through tunnels from Ramsey County Government Center-

West and the Courthouse or from the Kellogg Street entrance. All entrances are accessible although the tunnel from the Courthouse may be difficult because of its length and slope.

Deficiencies:

1. Tunnel from Courthouse to ADC does not meet current ADA guidelines for rise and landings.
2. Elevators lack audio signaling and call buttons are too high.
3. Highest operable part of public telephone is too high.
4. Water fountain is too high.
5. Service counter has no accessible surface.
6. Public doors marked with permanent signage are not upper case nor engraved in braille.
7. Internal fire alarms are audio only, not visual.

Transition Plan:

1997:

1. Persons staffing service counter will accommodate persons that need lower service counter administratively by offering alternate table to accommodate individual needs.
2. Lower telephone to appropriate height.

1998:

1. Signage in building will be reviewed and plans implemented to change signage on public doors to meet ADA guidelines (cost $75.00 per sign).

In 5 Years:

1. Add audio signal and change height of elevator call button to coincide with update of elevator.
2. Modify internal fire alarm for both audio and visual signage. Current evacuation plans require staff in ADC to evacuate civilians in building as part of its security program.

Note: With regard to the tunnel, since access into the building is possible through the West Building tunnel or the Kellogg Street entrance, it is recommended that no action is taken on this issue.

Patrol Station, 655 W. County Road E

The Patrol Station has one public entrance. Other entrances are for employee use only. Public access to the building is restricted to certain areas of the building.

Deficiencies:

1. Water fountain too high.
2. Unisex bathroom has following issues of non-compliance:

a) Door hardware is round knob type.
b) Hot water and waste water piping not insulated or shield placed under sink.
c) Mirrors, towel dispenser and soap dispenser too high.
d) Grab bars do not meet standards for length and offset from rear wall.

Transition Plan:
1997 - Current Operating Budget
a) Change door hardware.
b) Insulate hot water and waste water piping.
c) Install new grab bars.
1998 - Future Operating Budget
a) Adjust mirror, towel and soap dispensers.
b) CIP - request funds to replace water fountain (est. cost $2,000)

3. COMMUNITY COMMENTS

None.

VETERANS SERVICES
88 Courthouse

Veterans Services assists veterans and their dependents in obtaining and clarifying the various state and federal benefits associated with the multitude of Veteran's entitlement programs.

1. PROGRAM EVALUATION

A program evaluation of Veteran Services was completed on 8/11/92 and updated on 11/22/96. The evaluation indicates that Veterans Service has frequent public contact by telephone with limited in-person contact. The department has a TDD available to handle calls for the hearing and speech impaired. There are no program barriers in recruitment, eligibility admission or participation.

Deficiencies: The Department has one brochure that they mail out upon request. It does not carry an ADA statement or discrimination disclaimer.

Action Plan: Add ADA statement to next brochure printing.

2. BUILDING EVALUATION

Veterans Service is located in the Courthouse. The major renovation of the building from 1991-1996 addressed issues of accessibility and made the necessary modifications.

Deficiencies: None

Transition Plan: N/A

3. COMMUNITY COMMENTS

None.

Regional Economy

Roadway Reconstruction/Modernization Project: Rice Street | Map ID: 1647873505831

Results

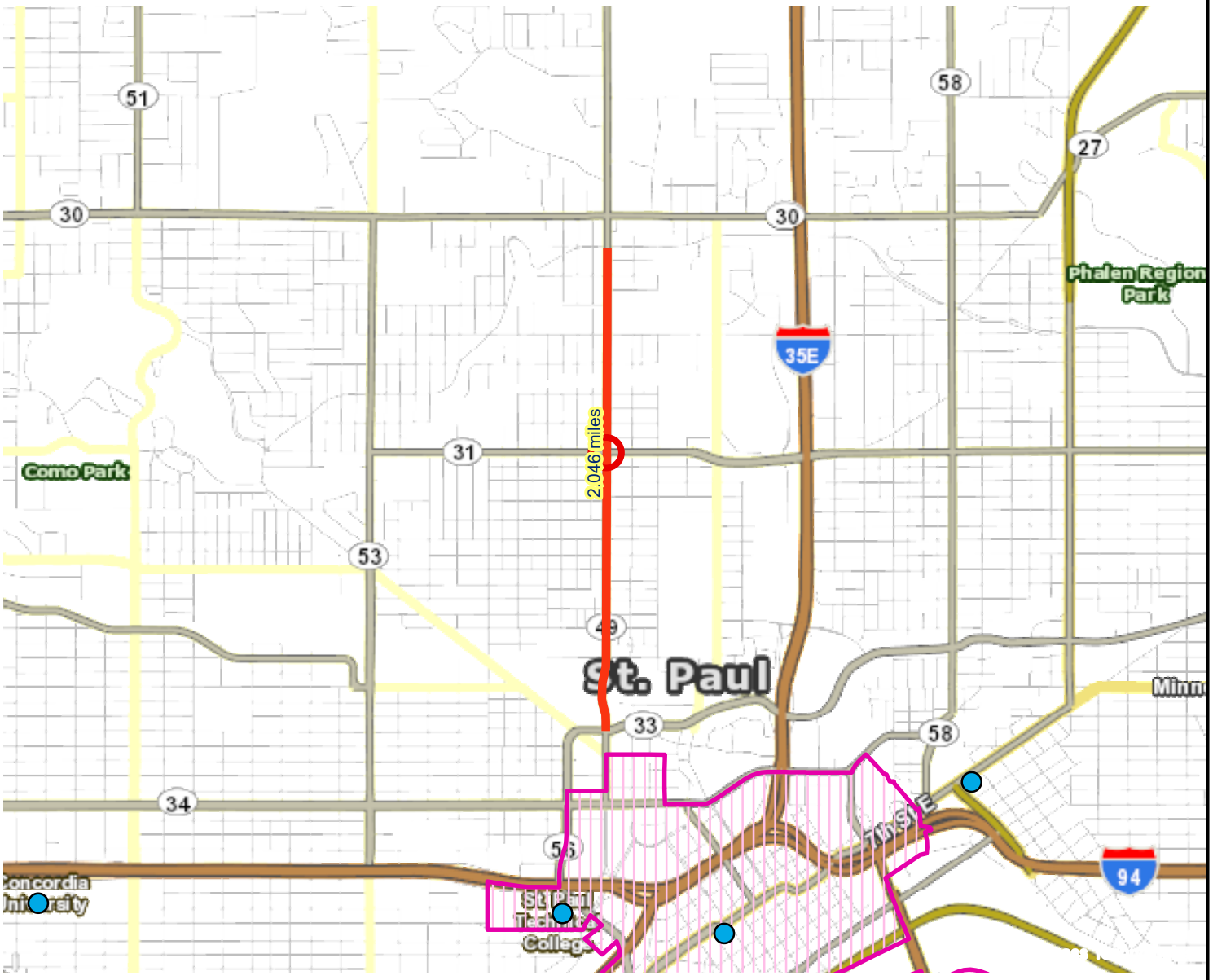
WITHIN ONE MI of project:
Postsecondary Students: 0

Totals by City:

Maplewood
Population: 290
Employment: 156
Mfg and Dist Employment: 11

Roseville
Population: 1216
Employment: 77
Mfg and Dist Employment: 4

St. Paul
Population: 38322
Employment: 12682
Mfg and Dist Employment: 1690



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

0 0.4 0.8 1.6 2.4 3.2 Miles

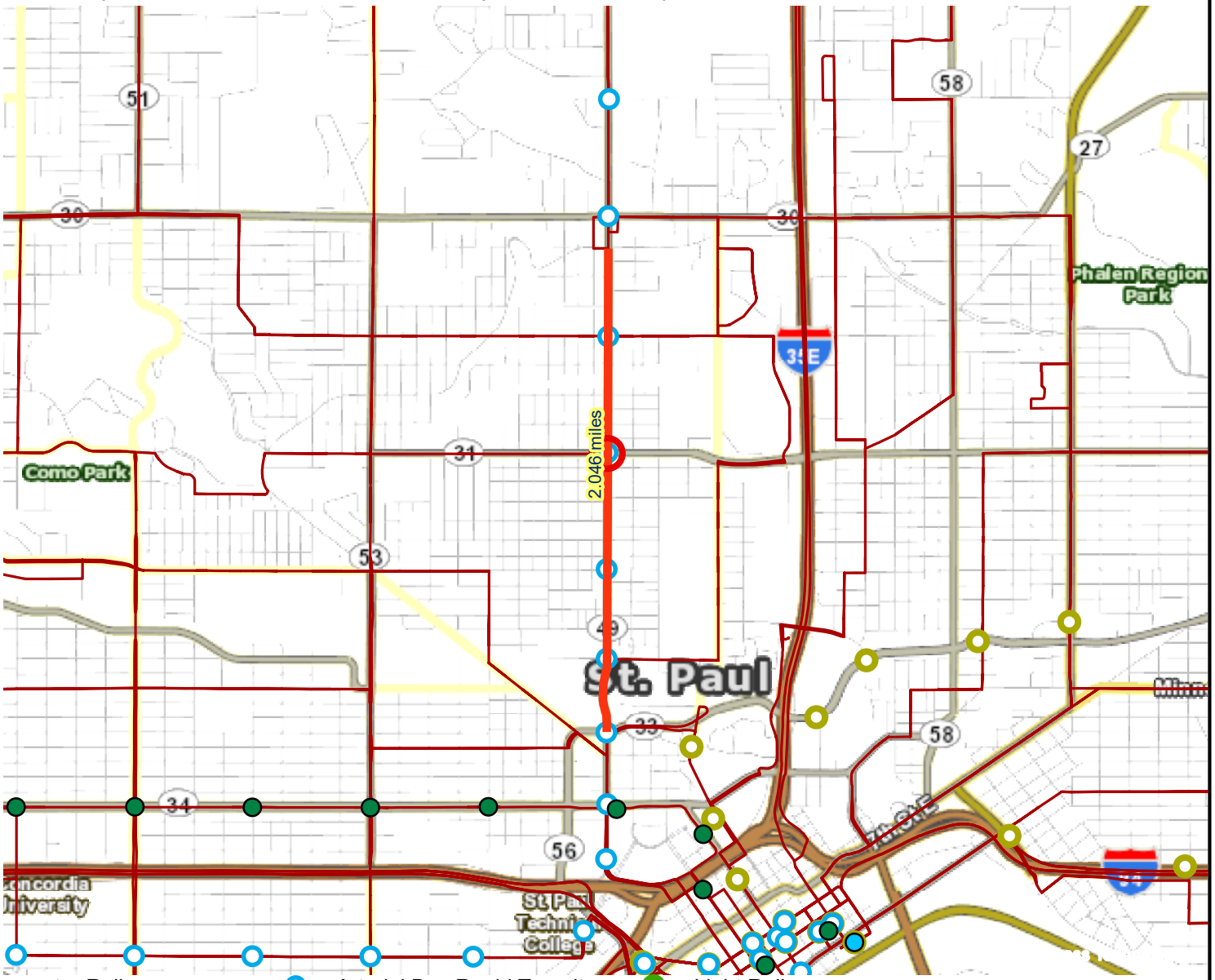
Created: 3/21/2022
LandscapeRSA5

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

METROPOLITAN COUNCIL

Transit Connections

Roadway Reconstruction/Modernization Project: Rice Street | Map ID: 1647873505831



Results

Transit with a Direct Connection to project:
3 61 62 67 68
*H Line
*G Line

**indicates Planned Alignments*

Transit Market areas: 1

Project Points
Project
Project Area
Arterial Bus Rapid Transit

Commuter Rail
Dedicated Bus Rapid Transit
Highway Bus Rapid Transit
Light Rail

Arterial Bus Rapid Transit
Commuter Rail
Dedicated Bus Rapid Transit
Highway Bus Rapid Transit

Light Rail
Transit Routes

0 0.4 0.8 1.6 2.4 3.2 Miles

Created: 3/21/2022
LandscapeRSA3

METROPOLITAN COUNCIL

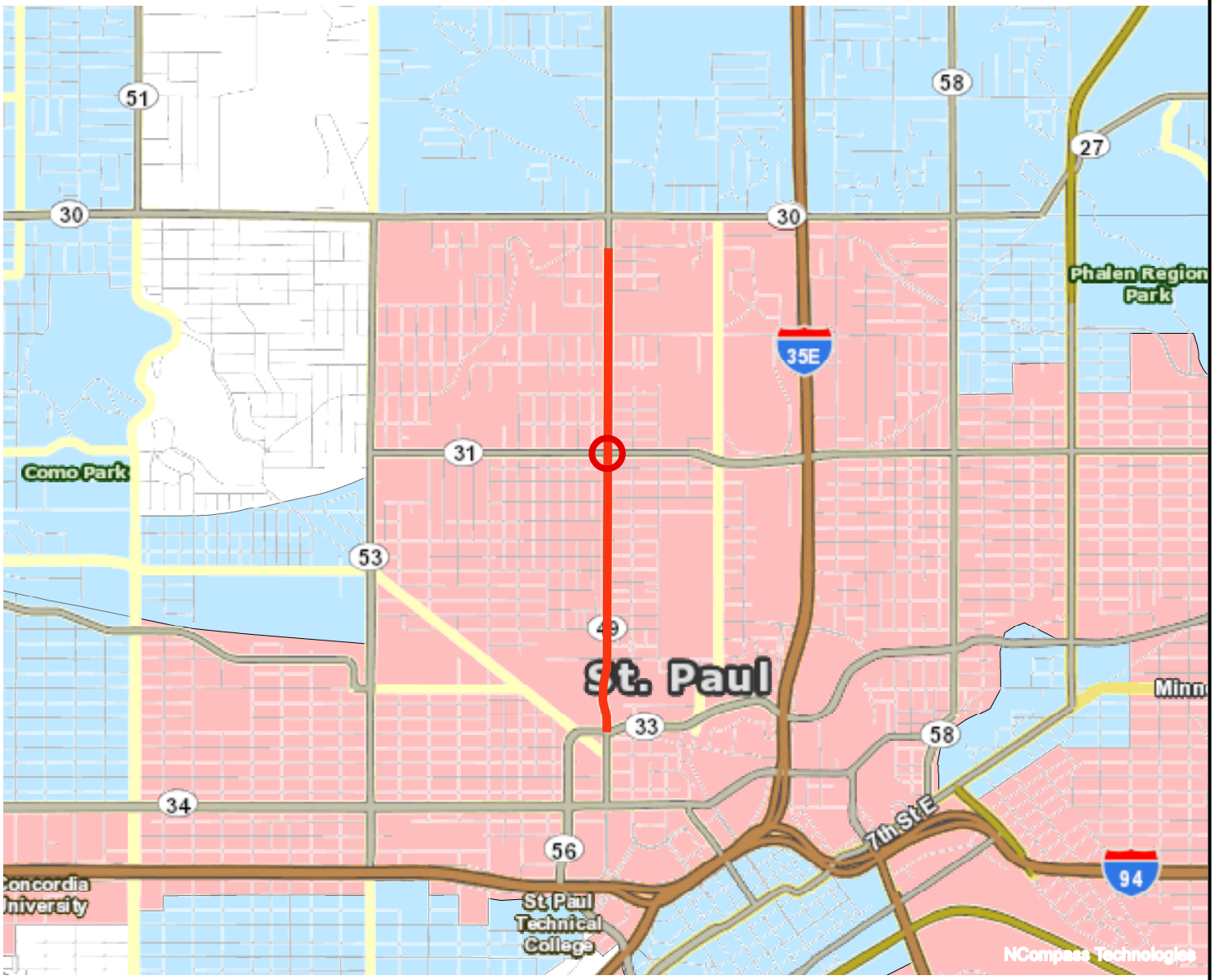
Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: Rice Street | Map ID: 1647873505831

Results

Total of publicly subsidized rental housing units in census tracts within 1/2 mile: 2649

Project located IN an Area of Concentrated Poverty.



Points
Lines
Area of Concentrated Poverty
Regional Environmental Justice Area

0 0.4 0.8 1.6 2.4 3.2 Miles

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LandscapeRSA2

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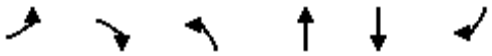
METROPOLITAN COUNCIL



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	857	557	0
Future Volume (vph)	0	0	0	857	557	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			100
Storage Lanes	0	0	0			1
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	3539	3539	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	3539	3539	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	270			201	430	
Travel Time (s)	6.1			3.9	8.4	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	857	557	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	857	557	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Free			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.0%		ICU Level of Service A	
Analysis Period (min) 60			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	3	9	1060	9	9	486
Future Volume (vph)	3	9	1060	9	9	486
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	0.95	0.95	*0.75
Frt		0.850	0.999			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1770	1583	2791	0	0	2791
Flt Permitted	0.950					0.999
Satd. Flow (perm)	1770	1583	2791	0	0	2791
Link Speed (mph)	30		30			30
Link Distance (ft)	385		317			98
Travel Time (s)	8.8		7.2			2.2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	9	1060	9	9	486
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	9	1069	0	0	495
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.6%		ICU Level of Service A	
Analysis Period (min) 60			

* User Entered Value

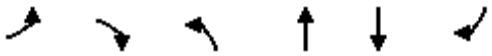
Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	9	1060	9	9	486
Future Vol, veh/h	3	9	1060	9	9	486
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	38	45	96	75	75	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	9	1060	9	9	486

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1398	558	0	0	1116	0
Stage 1	1110	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	132	473	-	-	622	-
Stage 1	277	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	128	473	-	-	622	-
Mov Cap-2 Maneuver	128	-	-	-	-	-
Stage 1	277	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	128	473	622	-
HCM Lane V/C Ratio	-	-	0.062	0.042	0.019	-
HCM Control Delay (s)	-	-	35	12.9	10.9	0.1
HCM Lane LOS	-	-	E	B	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.1	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	8	16	1048	474	5
Future Volume (vph)	4	8	16	1048	474	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	0.95	*0.75	0.95	0.95
Frt		0.850			0.998	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	1583	0	2791	3532	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	1583	0	2791	3532	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			443	96	
Travel Time (s)	8.3			10.1	2.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	8	16	1048	474	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	8	0	1064	479	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	60		

* User Entered Value

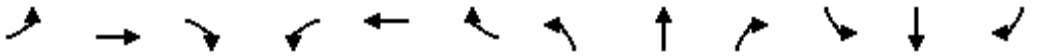
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	8	16	1048	474	5
Future Vol, veh/h	4	8	16	1048	474	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	33	67	67	97	95	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	8	16	1048	474	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1091	254	507	0	-	0
Stage 1	503	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	209	745	1054	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	197	745	1054	-	-	-
Mov Cap-2 Maneuver	197	-	-	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.3	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1054	-	197	745	-	-
HCM Lane V/C Ratio	0.023	-	0.062	0.016	-	-
HCM Control Delay (s)	8.5	0.2	24.5	9.9	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0	-	-

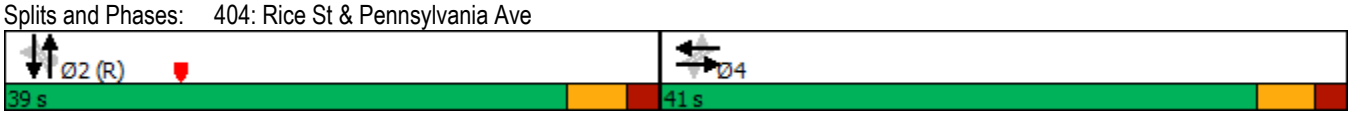


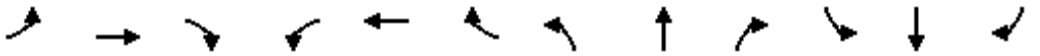
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Future Volume (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.995			0.969			0.969			0.981	
Flt Protected	0.950			0.950				0.999			0.993	
Satd. Flow (prot)	1770	3522	0	1770	3429	0	0	3426	0	0	3448	0
Flt Permitted	0.417			0.284				0.939			0.739	
Satd. Flow (perm)	777	3522	0	529	3429	0	0	3220	0	0	2566	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			53			50			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		669			944			1553			1634	
Travel Time (s)		15.2			21.5			35.3			37.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	726	0	67	512	0	0	770	0	0	526	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1		1	1	
Detector Template							Left			Left		
Leading Detector (ft)	50	126		50	126		20	126		20	126	
Trailing Detector (ft)	0	0		0	0		0	120		0	120	
Detector 1 Position(ft)	0	0		0	0		0	120		0	120	
Detector 1 Size(ft)	50	20		50	20		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	27.5	27.5		27.5	27.5		35.5	35.5		35.5	35.5	
Total Split (s)	41.0	41.0		41.0	41.0		39.0	39.0		39.0	39.0	
Total Split (%)	51.3%	51.3%		51.3%	51.3%		48.8%	48.8%		48.8%	48.8%	
Maximum Green (s)	35.5	35.5		35.5	35.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)	31.2	31.2		31.2	31.2			37.8			37.8	
Actuated g/C Ratio	0.39	0.39		0.39	0.39			0.47			0.47	
v/c Ratio	0.60	0.53		0.33	0.37			0.50			0.43	
Control Delay	28.0	19.5		20.1	15.6			16.0			9.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	28.0	19.5		20.1	15.6			16.0			9.1	
LOS	C	B		C	B			B			A	
Approach Delay		21.2			16.1			16.0			9.1	
Approach LOS		C			B			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 72 (90%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 83.8%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 404: Rice St & Pennsylvania Ave



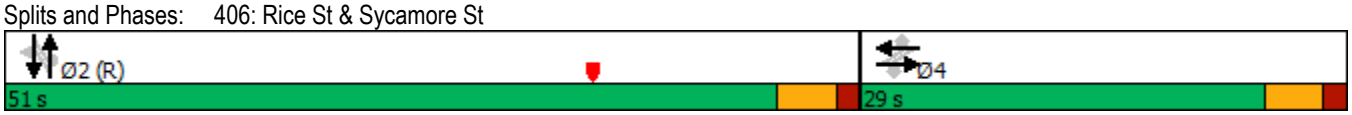


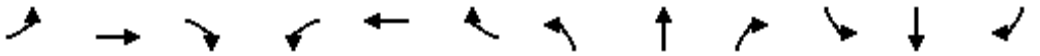
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Future Volume (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.982			0.998	
Flt Protected		0.977			0.955						0.995	
Satd. Flow (prot)	0	1820	1583	0	1779	1583	0	3476	0	0	3514	0
Flt Permitted		0.875			0.730			0.951			0.798	
Satd. Flow (perm)	0	1630	1583	0	1360	1583	0	3305	0	0	2819	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27			85		31			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		733			773			1634			652	
Travel Time (s)		16.7			17.6			37.1			14.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	11	0	62	85	0	884	0	0	519	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4		4	4		4	2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	23.0	23.0		23.0	23.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	51.0	51.0		51.0	51.0	
Total Split (%)	36.3%	36.3%	36.3%	36.3%	36.3%	36.3%	63.8%	63.8%		63.8%	63.8%	
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0	24.0	46.0	46.0		46.0	46.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	9.0	9.0	9.0	9.0	9.0	9.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		12.3	12.3		12.3	12.3		61.7			61.7	
Actuated g/C Ratio		0.15	0.15		0.15	0.15		0.77			0.77	
v/c Ratio		0.05	0.04		0.30	0.27		0.35			0.24	
Control Delay		26.8	4.2		32.5	8.7		3.2			3.2	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		26.8	4.2		32.5	8.7		3.2			3.2	
LOS		C	A		C	A		A			A	
Approach Delay		16.4			18.7			3.2			3.2	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 65 (81%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.35			
Intersection Signal Delay: 4.8		Intersection LOS: A	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 60			

Splits and Phases: 406: Rice St & Sycamore St



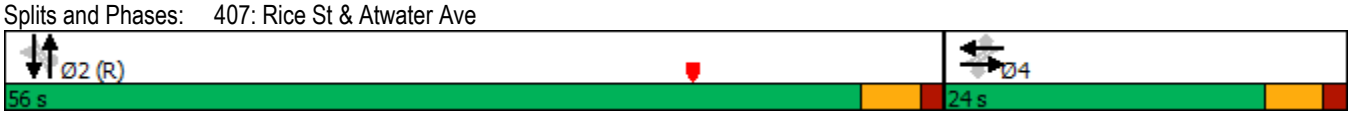


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Future Volume (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850			0.850		0.998			0.995	
Flt Protected		0.974			0.970			0.998				
Satd. Flow (prot)	0	1814	1583	0	1807	1583	0	2783	0	0	2780	0
Flt Permitted		0.810			0.787			0.907			0.948	
Satd. Flow (perm)	0	1509	1583	0	1466	1583	0	2529	0	0	2636	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			60			27		2			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		767			771			652			864	
Travel Time (s)		17.4			17.5			14.8			19.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	60	0	39	15	0	960	0	0	470	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4		4	4		4	2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	12.0	12.0		12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0		22.0	22.0	
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	56.0	56.0		56.0	56.0	
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	70.0%	70.0%		70.0%	70.0%	
Maximum Green (s)	19.0	19.0	19.0	19.0	19.0	19.0	51.0	51.0		51.0	51.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.2	3.2	3.2	3.2	3.2	3.2	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		11.8	11.8		11.8	11.8		62.2			62.2	
Actuated g/C Ratio		0.15	0.15		0.15	0.15		0.78			0.78	
v/c Ratio		0.28	0.21		0.18	0.06		0.49			0.23	
Control Delay		32.5	9.7		30.4	6.4		3.3			4.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		32.5	9.7		30.4	6.4		3.3			4.8	
LOS		C	A		C	A		A			A	
Approach Delay		21.4			23.7			3.3			4.8	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 72 (90%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 5.8		Intersection LOS: A	
Intersection Capacity Utilization 62.3%		ICU Level of Service B	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 407: Rice St & Atwater Ave



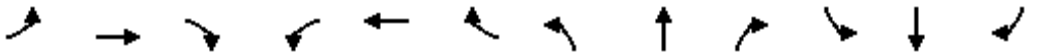
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Lane Configurations							
Traffic Volume (vph)	0	0	954	3	2	470	
Future Volume (vph)	0	0	954	3	2	470	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	30		0	0		
Storage Lanes	0	0		0	0		
Taper Length (ft)	100				100		
Lane Util. Factor	1.00	1.00	*0.75	0.95	0.95	*0.75	
Frt							
Flt Protected							
Satd. Flow (prot)	0	0	2794	0	0	2794	
Flt Permitted						0.952	
Satd. Flow (perm)	0	0	2794	0	0	2660	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)			1				
Link Speed (mph)	30		30			30	
Link Distance (ft)	755		864			462	
Travel Time (s)	17.2		19.6			10.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	954	3	2	470	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	957	0	0	472	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	0		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors			1		1	1	
Detector Template					Left		
Leading Detector (ft)			126		20	126	
Trailing Detector (ft)			120		0	120	
Detector 1 Position(ft)			120		0	120	
Detector 1 Size(ft)			6		20	6	
Detector 1 Type			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)			0.0		0.0	0.0	
Detector 1 Queue (s)			0.0		0.0	0.0	
Detector 1 Delay (s)			0.0		0.0	0.0	
Turn Type			NA		Perm	NA	
Protected Phases			2			2	4
Permitted Phases					2		
Detector Phase			2		2	2	
Switch Phase							
Minimum Initial (s)			20.0		20.0	20.0	7.0
Minimum Split (s)			25.0		25.0	25.0	26.0
Total Split (s)			54.0		54.0	54.0	26.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Total Split (%)			67.5%		67.5%	67.5%	33%
Maximum Green (s)			49.0		49.0	49.0	21.0
Yellow Time (s)			3.5		3.5	3.5	3.5
All-Red Time (s)			1.5		1.5	1.5	1.5
Lost Time Adjust (s)			0.0			0.0	
Total Lost Time (s)			5.0			5.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)			0.2		0.2	0.2	0.2
Recall Mode			C-Max		C-Max	C-Max	None
Walk Time (s)							9.0
Flash Dont Walk (s)							12.0
Pedestrian Calls (#/hr)							5
Act Effct Green (s)			73.8			73.8	
Actuated g/C Ratio			0.92			0.92	
v/c Ratio			0.37			0.19	
Control Delay			0.9			2.2	
Queue Delay			0.0			0.0	
Total Delay			0.9			2.2	
LOS			A			A	
Approach Delay			0.9			2.2	
Approach LOS			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 23 (29%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 1.3		Intersection LOS: A	
Intersection Capacity Utilization 30.6%		ICU Level of Service A	
Analysis Period (min) 60			

* User Entered Value

Splits and Phases: 408: Rice St & Wayzata St

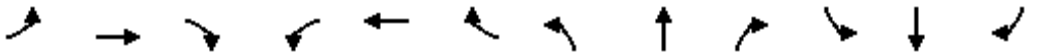


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Future Volume (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850			0.850		0.998			0.976	
Flt Protected		0.962			0.980			0.998			0.999	
Satd. Flow (prot)	0	1792	1583	0	1825	1583	0	2783	0	0	2724	0
Flt Permitted		0.736			0.851			0.911			0.936	
Satd. Flow (perm)	0	1371	1583	0	1585	1583	0	2540	0	0	2553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			46			27		3			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		708			758			462			650	
Travel Time (s)		16.1			17.2			10.5			14.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	162	54	0	50	27	0	954	0	0	485	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		7			7			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4		4	4		4	2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	24.0	24.0		24.0	24.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	53.0	53.0		53.0	53.0	
Total Split (%)	33.8%	33.8%	33.8%	33.8%	33.8%	33.8%	66.3%	66.3%		66.3%	66.3%	
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0	22.0	48.0	48.0		48.0	48.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	14.0	14.0	14.0	14.0	14.0	14.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		14.9	14.9		14.9	14.9		55.1			55.1	
Actuated g/C Ratio		0.19	0.19		0.19	0.19		0.69			0.69	
v/c Ratio		0.64	0.16		0.17	0.09		0.54			0.27	
Control Delay		41.1	10.5		26.4	9.9		3.9			3.0	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		41.1	10.5		26.4	9.9		3.9			3.0	
LOS		D	B		C	A		A			A	
Approach Delay		33.5			20.6			3.9			3.0	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 22 (28%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 68.3%		ICU Level of Service C	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 409: Rice St & Front Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	3	12	3	3	11	9	1043	6	6	470	13
Future Volume (vph)	15	3	12	3	3	11	9	1043	6	6	470	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850			0.850		0.999			0.996	
Flt Protected		0.960			0.976						0.999	
Satd. Flow (prot)	0	1788	1583	0	1818	1583	0	2791	0	0	2780	0
Flt Permitted		0.960			0.976						0.999	
Satd. Flow (perm)	0	1788	1583	0	1818	1583	0	2791	0	0	2780	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		734			760			650			317	
Travel Time (s)		16.7			17.3			14.8			7.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	15	3	12	3	3	11	9	1043	6	6	470	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	12	0	6	11	0	1058	0	0	489	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.7%		ICU Level of Service A	
Analysis Period (min) 60			

* User Entered Value

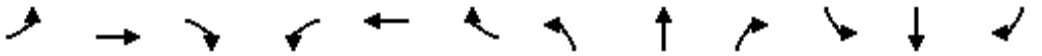
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	15	3	12	3	3	11	9	1043	6	6	470	13
Future Vol, veh/h	15	3	12	3	3	11	9	1043	6	6	470	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	75	43	75	75	34	45	97	38	50	93	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	3	12	3	3	11	9	1043	6	6	470	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1119	1670	263	1402	1672	546	525	0	0	1091	0	0
Stage 1	539	539	-	1123	1123	-	-	-	-	-	-	-
Stage 2	580	1131	-	279	549	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	161	95	735	100	95	482	1038	-	-	635	-	-
Stage 1	494	520	-	219	279	-	-	-	-	-	-	-
Stage 2	467	277	-	704	515	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	137	88	735	88	88	482	1038	-	-	635	-	-
Mov Cap-2 Maneuver	137	88	-	88	88	-	-	-	-	-	-	-
Stage 1	470	506	-	208	265	-	-	-	-	-	-	-
Stage 2	408	263	-	654	501	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.2	20.3	0.3	0.3
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1038	-	-	130	735	88	482	635	-	-
HCM Lane V/C Ratio	0.019	-	-	0.334	0.038	0.091	0.067	0.019	-	-
HCM Control Delay (s)	8.5	0.2	-	46.4	10.1	50	13	10.8	0.1	-
HCM Lane LOS	A	A	-	E	B	F	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	0.1	0.3	0.2	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	17	5	1	9	15	1054	0	0	473	9
Future Volume (vph)	1	0	17	5	1	9	15	1054	0	0	473	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850		0.919						0.997	
Flt Protected		0.950			0.984			0.999				
Satd. Flow (prot)	0	1770	1583	0	1684	0	0	2791	0	0	2786	0
Flt Permitted		0.950			0.984			0.999				
Satd. Flow (perm)	0	1770	1583	0	1684	0	0	2791	0	0	2786	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		344			400			98			443	
Travel Time (s)		7.8			9.1			2.2			10.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	0	17	5	1	9	15	1054	0	0	473	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	17	0	15	0	0	1069	0	0	482	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	60		

* User Entered Value

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	17	5	1	9	15	1054	0	0	473	9
Future Vol, veh/h	1	0	17	5	1	9	15	1054	0	0	473	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	100	85	31	25	56	75	96	100	100	94	45
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	17	5	1	9	15	1054	0	0	473	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1104	1651	262	1390	1661	549	523	0	0	1098	0	0
Stage 1	513	513	-	1138	1138	-	-	-	-	-	-	-
Stage 2	591	1138	-	252	523	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	166	98	737	102	96	480	1040	-	-	631	-	-
Stage 1	512	534	-	214	275	-	-	-	-	-	-	-
Stage 2	460	275	-	730	529	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	149	93	737	95	91	480	1040	-	-	631	-	-
Mov Cap-2 Maneuver	149	93	-	95	91	-	-	-	-	-	-	-
Stage 1	487	534	-	204	262	-	-	-	-	-	-	-
Stage 2	416	262	-	710	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	37.7	0.3	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1040	-	-	149	737	146	631	-	-
HCM Lane V/C Ratio	0.019	-	-	0.027	0.027	0.248	-	-	-
HCM Control Delay (s)	8.5	0.2	-	29.8	10	37.7	0	-	-
HCM Lane LOS	A	A	-	D	B	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	1	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	12	1037	15	12	472
Future Volume (vph)	7	12	1037	15	12	472
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	0.95	0.95	*0.75
Frt		0.850	0.998			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1770	1583	2789	0	0	2791
Flt Permitted	0.950					0.999
Satd. Flow (perm)	1770	1583	2789	0	0	2791
Link Speed (mph)	30		30			30
Link Distance (ft)	527		96			345
Travel Time (s)	12.0		2.2			7.8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	7	12	1037	15	12	472
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	12	1052	0	0	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.1%		ICU Level of Service A	
Analysis Period (min) 60			

* User Entered Value

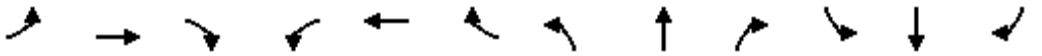
Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	12	1037	15	12	472
Future Vol, veh/h	7	12	1037	15	12	472
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	60	96	75	60	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	12	1037	15	12	472

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1379	550	0	0	1100	0
Stage 1	1090	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	136	479	-	-	630	-
Stage 1	284	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	130	479	-	-	630	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	284	-	-	-	-	-
Stage 2	703	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	130	479	630	-
HCM Lane V/C Ratio	-	-	0.061	0.042	0.032	-
HCM Control Delay (s)	-	-	34.5	12.8	10.9	0.2
HCM Lane LOS	-	-	D	B	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.1	-

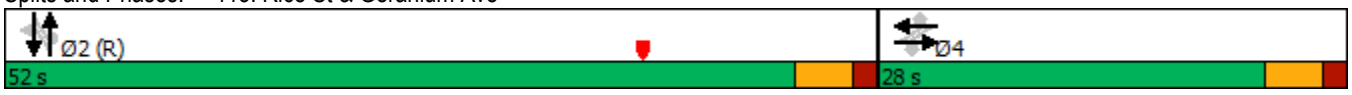


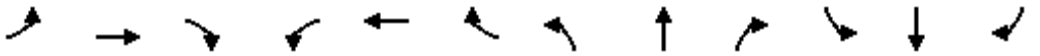
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Future Volume (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850			0.850		0.997			0.998	
Flt Protected		0.962			0.977			0.999			0.999	
Satd. Flow (prot)	0	1792	1583	0	1820	1583	0	2783	0	0	2786	0
Flt Permitted		0.778			0.864			0.945			0.926	
Satd. Flow (perm)	0	1449	1583	0	1609	1583	0	2633	0	0	2582	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27			27		4			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		944			852			345			643	
Travel Time (s)		21.5			19.4			7.8			14.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	7	0	13	6	0	1049	0	0	489	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-7			-7			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4		4	4		4	2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	24.0	24.0		24.0	24.0	
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	52.0	52.0		52.0	52.0	
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	65.0%	65.0%		65.0%	65.0%	
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0	23.0	47.0	47.0		47.0	47.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	13.0	13.0	13.0	13.0	13.0	13.0	9.0	9.0		9.0	9.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		10.2	10.2		10.2	10.2		66.6			66.6	
Actuated g/C Ratio		0.13	0.13		0.13	0.13		0.83			0.83	
v/c Ratio		0.05	0.03		0.06	0.03		0.48			0.23	
Control Delay		27.2	1.4		27.5	0.2		2.5			3.1	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		27.2	1.4		27.5	0.2		2.5			3.1	
LOS		C	A		C	A		A			A	
Approach Delay		16.6			18.9			2.5			3.1	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 64 (80%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 3.0		Intersection LOS: A	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 413: Rice St & Geranium Ave



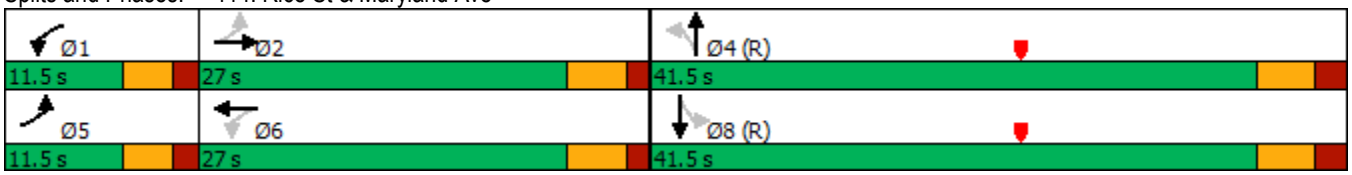


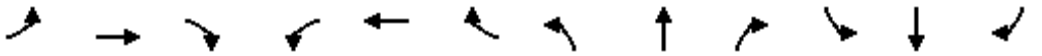
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Future Volume (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	265		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.992			0.964			0.973			0.967	
Flt Protected	0.950			0.950				0.999			0.994	
Satd. Flow (prot)	1770	3511	0	1770	3412	0	0	3440	0	0	3402	0
Flt Permitted	0.391			0.386				0.938			0.675	
Satd. Flow (perm)	728	3511	0	719	3412	0	0	3230	0	0	2310	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			51			42			58	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		944			908			643			1992	
Travel Time (s)		21.5			20.6			14.6			45.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	198	522	0	129	448	0	0	1026	0	0	504	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1		1	1	
Detector Template							Left			Left		
Leading Detector (ft)	50	126		50	126		20	126		20	126	
Trailing Detector (ft)	0	0		0	0		0	120		0	120	
Detector 1 Position(ft)	0	0		0	0		0	120		0	120	
Detector 1 Size(ft)	50	20		50	20		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2 5	2		1 6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	26.0		11.5	26.0		33.5	33.5		33.5	33.5	
Total Split (s)	11.5	27.0		11.5	27.0		41.5	41.5		41.5	41.5	
Total Split (%)	14.4%	33.8%		14.4%	33.8%		51.9%	51.9%		51.9%	51.9%	
Maximum Green (s)	7.0	22.0		7.0	22.0		36.0	36.0		36.0	36.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		2.0	2.0		2.0	2.0	
Recall Mode	None	Max		None	Max		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)		10.0			10.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)		11.0			11.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)		5			5		5	5		5	5	
Act Effct Green (s)	30.4	24.3		29.5	22.0			36.0			36.0	
Actuated g/C Ratio	0.38	0.30		0.37	0.28			0.45			0.45	
v/c Ratio	0.54	0.49		0.36	0.46			0.70			0.47	
Control Delay	21.9	25.2		17.6	23.0			12.9			18.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	21.9	25.2		17.6	23.0			12.9			18.0	
LOS	C	C		B	C			B			B	
Approach Delay		24.3			21.8			12.9			18.0	
Approach LOS		C			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 65 (81%), Referenced to phase 4:NBTL and 8:SBTL, Start of FDW or yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 18.5		Intersection LOS: B	
Intersection Capacity Utilization 84.6%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 414: Rice St & Maryland Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Future Volume (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.998			0.996	
Flt Protected		0.950			0.950			0.997			0.999	
Satd. Flow (prot)	0	1770	1583	0	1770	1583	0	3522	0	0	3522	0
Flt Permitted		0.950			0.950			0.997			0.999	
Satd. Flow (perm)	0	1770	1583	0	1770	1583	0	3522	0	0	3522	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		1072			1103			1992			652	
Travel Time (s)		24.4			25.1			45.3			12.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	28	0	4	11	0	1040	0	0	543	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	60		

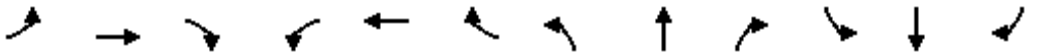
Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	14	0	28	4	0	11	71	958	11	6	523	14
Future Vol, veh/h	14	0	28	4	0	11	71	958	11	6	523	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	100	70	50	100	34	63	92	55	50	90	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	28	4	0	11	71	958	11	6	523	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1364	1904	303	1592	1906	531	605	0	0	1061	0	0
Stage 1	617	617	-	1277	1277	-	-	-	-	-	-	-
Stage 2	747	1287	-	315	629	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	106	68	693	72	68	493	969	-	-	652	-	-
Stage 1	444	479	-	176	236	-	-	-	-	-	-	-
Stage 2	371	233	-	671	474	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	76	47	693	52	47	493	969	-	-	652	-	-
Mov Cap-2 Maneuver	76	47	-	52	47	-	-	-	-	-	-	-
Stage 1	317	466	-	126	169	-	-	-	-	-	-	-
Stage 2	248	166	-	615	461	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30	27.5	1.9	0.3
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	969	-	-	76	693	52	493	652	-	-
HCM Lane V/C Ratio	0.116	-	-	0.263	0.058	0.154	0.066	0.018	-	-
HCM Control Delay (s)	9.2	1.1	-	69.1	10.5	86.7	12.8	10.6	0.1	-
HCM Lane LOS	A	A	-	F	B	F	B	B	A	-
HCM 95th %tile Q(veh)	0.4	-	-	1	0.2	0.5	0.2	0.1	-	-

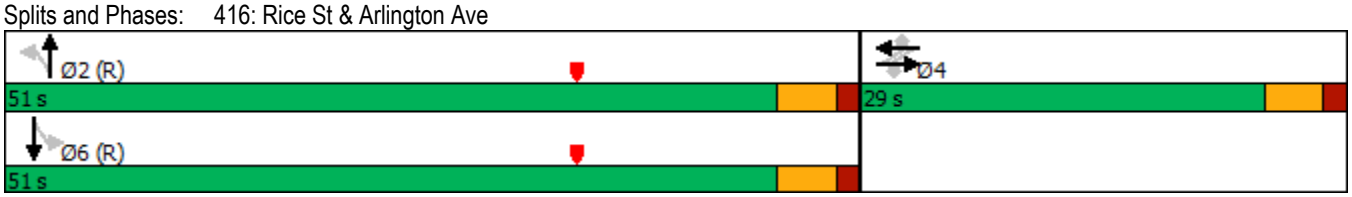


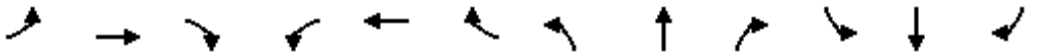
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Future Volume (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.977			0.986	
Flt Protected		0.988			0.983			0.998			0.992	
Satd. Flow (prot)	0	1840	1583	0	1831	1583	0	3451	0	0	3462	0
Flt Permitted		0.882			0.709			0.910			0.691	
Satd. Flow (perm)	0	1643	1583	0	1321	1583	0	3147	0	0	2411	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27			89		44			23	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1063			1001			652			661	
Travel Time (s)		24.2			22.8			12.7			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	30	0	166	104	0	983	0	0	610	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	186		20	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			6	
Permitted Phases	4		4	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	24.0	24.0		24.0	24.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	51.0	51.0		51.0	51.0	
Total Split (%)	36.3%	36.3%	36.3%	36.3%	36.3%	36.3%	63.8%	63.8%		63.8%	63.8%	
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0	24.0	46.0	46.0		46.0	46.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		17.1	17.1		17.1	17.1		52.9			52.9	
Actuated g/C Ratio		0.21	0.21		0.21	0.21		0.66			0.66	
v/c Ratio		0.62	0.08		0.59	0.25		0.47			0.38	
Control Delay		35.5	9.9		36.1	8.6		5.0			4.4	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		35.5	9.9		36.1	8.6		5.0			4.4	
LOS		D	A		D	A		A			A	
Approach Delay		32.4			25.5			5.0			4.4	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 48 (60%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 82.2%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 416: Rice St & Arlington Ave



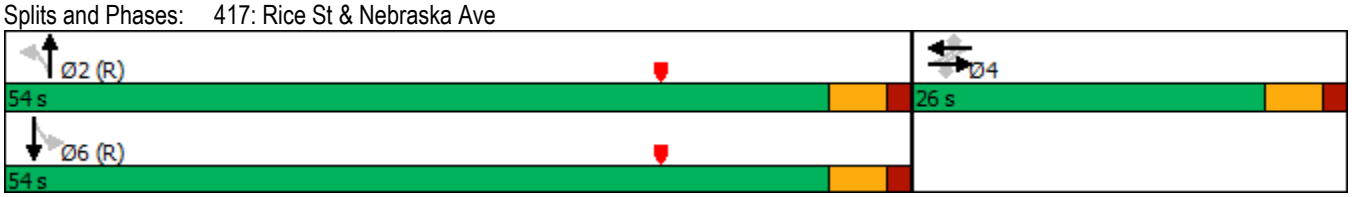


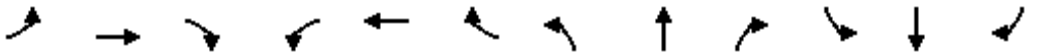
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Future Volume (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.998			0.994	
Flt Protected		0.950			0.973			0.997				
Satd. Flow (prot)	0	1770	1583	0	1812	1583	0	3522	0	0	3518	0
Flt Permitted		0.741			0.826			0.874			0.952	
Satd. Flow (perm)	0	1380	1583	0	1539	1583	0	3087	0	0	3349	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			34			28		2			9	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1086			398			661			332	
Travel Time (s)		24.7			9.0			12.9			6.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	34	0	25	28	0	947	0	0	588	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	186		20	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			6	
Permitted Phases	4		4	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	22.0	22.0		22.0	22.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	54.0	54.0		54.0	54.0	
Total Split (%)	32.5%	32.5%	32.5%	32.5%	32.5%	32.5%	67.5%	67.5%		67.5%	67.5%	
Maximum Green (s)	21.0	21.0	21.0	21.0	21.0	21.0	49.0	49.0		49.0	49.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.5	4.5	4.5	4.5	4.5	4.5	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		12.0	12.0		12.0	12.0		66.0			66.0	
Actuated g/C Ratio		0.15	0.15		0.15	0.15		0.82			0.82	
v/c Ratio		0.06	0.13		0.11	0.11		0.37			0.21	
Control Delay		27.5	10.7		28.6	11.3		1.8			5.6	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		27.5	10.7		28.6	11.3		1.8			5.6	
LOS		C	B		C	B		A			A	
Approach Delay		15.4			19.5			1.8			5.6	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 64 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 4.1		Intersection LOS: A	
Intersection Capacity Utilization 63.5%		ICU Level of Service B	
Analysis Period (min) 60			

Splits and Phases: 417: Rice St & Nebraska Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Future Volume (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.996				
Flt Protected		0.950			0.950							
Satd. Flow (prot)	0	1770	1583	0	1770	1583	0	3525	0	0	3539	0
Flt Permitted		0.950			0.950							
Satd. Flow (perm)	0	1770	1583	0	1770	1583	0	3525	0	0	3539	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		272			1012			332			332	
Travel Time (s)		6.2			23.0			6.5			6.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	28	0	9	2	0	916	0	0	554	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		10			5			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	60		

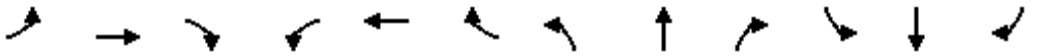
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	3	0	28	9	0	2	3	886	27	3	551	0
Future Vol, veh/h	3	0	28	9	0	2	3	886	27	3	551	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	100	88	75	100	50	75	97	61	38	92	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	28	9	0	2	3	886	27	3	551	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1080	1580	300	1259	1558	479	599	0	0	957	0	0
Stage 1	615	615	-	943	943	-	-	-	-	-	-	-
Stage 2	465	965	-	316	615	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	172	108	696	127	111	533	974	-	-	714	-	-
Stage 1	445	480	-	282	339	-	-	-	-	-	-	-
Stage 2	547	331	-	670	480	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	167	105	696	119	108	533	974	-	-	714	-	-
Mov Cap-2 Maneuver	167	105	-	119	108	-	-	-	-	-	-	-
Stage 1	441	472	-	279	336	-	-	-	-	-	-	-
Stage 2	538	328	-	629	472	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	31.9	0	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	974	-	-	167	696	119	533	714	-	-
HCM Lane V/C Ratio	0.004	-	-	0.024	0.046	0.101	0.008	0.011	-	-
HCM Control Delay (s)	8.7	0	-	27.1	10.4	38.6	11.8	10.1	0.1	-
HCM Lane LOS	A	A	-	D	B	E	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.3	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	1	19	7	2	9	42	835	14	12	528	17
Future Volume (vph)	13	1	19	7	2	9	42	835	14	12	528	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.998			0.995	
Flt Protected		0.956			0.963			0.998			0.999	
Satd. Flow (prot)	0	1781	1583	0	1794	1583	0	3525	0	0	3518	0
Flt Permitted		0.956			0.963			0.998			0.999	
Satd. Flow (perm)	0	1781	1583	0	1794	1583	0	3525	0	0	3518	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1124			1002			332			201	
Travel Time (s)		25.5			22.8			6.5			3.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	1	19	7	2	9	42	835	14	12	528	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	19	0	9	9	0	891	0	0	557	0
Enter Blocked Intersection	Yes	Yes	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			6			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 60			

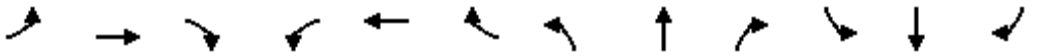
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↱			↰↑↱	
Traffic Vol, veh/h	13	1	19	7	2	9	42	835	14	12	528	17
Future Vol, veh/h	13	1	19	7	2	9	42	835	14	12	528	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	25	59	58	50	56	66	94	70	60	93	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	1	19	7	2	9	42	835	14	12	528	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1194	1656	296	1352	1658	454	592	0	0	908	0	0
Stage 1	620	620	-	1026	1026	-	-	-	-	-	-	-
Stage 2	574	1036	-	326	632	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	142	97	700	109	97	553	980	-	-	745	-	-
Stage 1	442	478	-	251	310	-	-	-	-	-	-	-
Stage 2	471	307	-	661	472	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	116	81	700	87	81	553	980	-	-	745	-	-
Mov Cap-2 Maneuver	116	81	-	87	81	-	-	-	-	-	-	-
Stage 1	384	459	-	218	269	-	-	-	-	-	-	-
Stage 2	391	266	-	600	453	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.6	34.4	1	0.5
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	980	-	-	109	700	85	553	745	-	-
HCM Lane V/C Ratio	0.065	-	-	0.258	0.046	0.189	0.029	0.027	-	-
HCM Control Delay (s)	8.9	0.5	-	49.4	10.4	57.2	11.7	10	0.2	-
HCM Lane LOS	A	A	-	E	B	F	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1	0.1	0.7	0.1	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	13	60	13	39	35	33	769	55	11	484	62
Future Volume (vph)	89	13	60	13	39	35	33	769	55	11	484	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	200		0	75		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990			0.983	
Flt Protected		0.958			0.988		0.950			0.950		
Satd. Flow (prot)	0	1785	1583	0	1840	1583	1770	1844	0	1770	1831	0
Flt Permitted		0.716			0.911		0.382			0.239		
Satd. Flow (perm)	0	1334	1583	0	1697	1583	712	1844	0	445	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			89			89		6			11	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1103			996			430			1579	
Travel Time (s)		25.1			22.6			8.4			30.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	89	13	60	13	39	35	33	769	55	11	484	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	102	60	0	52	35	33	824	0	11	546	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	126	0	20	126	0	50	186		50	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	50	6		50	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		5	2		1	6	
Permitted Phases	8		8	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	8	8	8	4	4	4	2 5	2		1 6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	12.0		7.0	12.0	
Minimum Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	11.5	28.0		11.5	28.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	11.5	41.4		11.6	41.5	
Total Split (%)	33.8%	33.8%	33.8%	33.8%	33.8%	33.8%	14.4%	51.8%		14.5%	51.9%	
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0	22.0	7.0	36.4		7.1	36.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5		3.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	4.5	5.0		4.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	2.2	3.5		2.2	3.5	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0		16.0			16.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		13.5	13.5		13.5	13.5	59.1	58.2		58.2	55.9	
Actuated g/C Ratio		0.17	0.17		0.17	0.17	0.74	0.73		0.73	0.70	
v/c Ratio		0.45	0.18		0.18	0.10	0.05	0.61		0.03	0.43	
Control Delay		35.3	3.8		28.0	0.6	1.2	8.2		5.1	10.4	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		35.3	3.8		28.0	0.6	1.2	8.2		5.1	10.4	
LOS		D	A		C	A	A	A		A	B	
Approach Delay		23.6			17.0			7.9			10.3	
Approach LOS		C			B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 79 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 73.0%		ICU Level of Service C	
Analysis Period (min) 60			

Splits and Phases: 420: Rice St & Wheelock Pkwy

Network Totals

Number of Intersections	19
Control Delay / Veh (s/v)	6
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	6
Total Delay (hr)	53
Stops / Veh	0.25
Stops (#)	8281
Average Speed (mph)	22
Total Travel Time (hr)	188
Distance Traveled (mi)	4192
Fuel Consumed (gal)	257
Fuel Economy (mpg)	16.3
CO Emissions (kg)	17.97
NOx Emissions (kg)	3.50
VOC Emissions (kg)	4.16
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	107
Performance Index	75.8

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	9	1045	9	0	489
Future Volume (vph)	0	9	1045	9	0	489
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	50	
Storage Lanes	0	0		0	0	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	1.00	1.00	*0.75
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1396	0	0	1397
Flt Permitted						
Satd. Flow (perm)	0	1611	1396	0	0	1397
Link Speed (mph)	30		30			30
Link Distance (ft)	385		317			98
Travel Time (s)	8.8		7.2			2.2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	9	1045	9	0	489
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	9	1054	0	0	489
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.5%		ICU Level of Service C	
Analysis Period (min) 60			

* User Entered Value

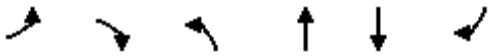
Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	1045	9	0	489
Future Vol, veh/h	0	9	1045	9	0	489
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	38	45	96	75	75	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	1045	9	0	489

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1095	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	260	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	260	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	260	-
HCM Lane V/C Ratio	-	-	0.077	-
HCM Control Delay (s)	-	-	20	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.2	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	8	16	1047	473	6
Future Volume (vph)	5	8	16	1047	473	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30	350			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	*0.75	1.00	1.00
Frt		0.850			0.998	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1397	1859	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1397	1859	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			443	96	
Travel Time (s)	8.3			10.1	2.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	8	16	1047	473	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	5	8	16	1047	479	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	60		

* User Entered Value

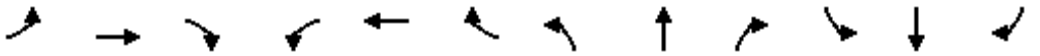
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	8	16	1047	473	6
Future Vol, veh/h	5	8	16	1047	473	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	350	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	33	67	67	97	95	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	8	16	1047	473	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1630	503	508	0	-	0
Stage 1	503	-	-	-	-	-
Stage 2	1127	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	112	569	1057	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	569	1057	-	-	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	593	-	-	-	-	-
Stage 2	309	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.3	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1057	-	109	569	-	-
HCM Lane V/C Ratio	0.023	-	0.139	0.021	-	-
HCM Control Delay (s)	8.5	-	43.3	11.5	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	0.1	-	-

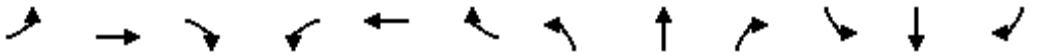


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Future Volume (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	200		0	100		0	1000		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.969				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3522	0	1770	3429	0	1770	1863	1583	1770	1822	0
Flt Permitted	0.194			0.376			0.492			0.198		
Satd. Flow (perm)	361	3522	0	700	3429	0	916	1863	1583	369	1822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			25				158		12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		548			944			1594			1634	
Travel Time (s)		12.5			21.5			36.2			37.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	726	0	67	512	0	17	595	158	75	451	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1	1	1	1	
Detector Template							Left		Right	Left		
Leading Detector (ft)	50	126		50	126		20	126	20	20	126	
Trailing Detector (ft)	0	0		0	0		0	120	0	0	120	
Detector 1 Position(ft)	0	0		0	0		0	120	0	0	120	
Detector 1 Size(ft)	50	20		50	20		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		Perm	NA		Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		8	8		2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0		15.0	15.0	15.0	7.0	15.0	
Minimum Split (s)	13.0	27.5		27.5	27.5		35.5	35.5	35.5	13.0	35.5	
Total Split (s)	17.0	47.0		30.0	30.0		60.0	60.0	60.0	13.0	73.0	
Total Split (%)	14.2%	39.2%		25.0%	25.0%		50.0%	50.0%	50.0%	10.8%	60.8%	
Maximum Green (s)	11.5	41.5		24.5	24.5		54.5	54.5	54.5	7.5	67.5	
Yellow Time (s)	4.0	3.5		3.5	3.5		3.5	3.5	3.5	4.0	3.5	
All-Red Time (s)	1.5	2.0		2.0	2.0		2.0	2.0	2.0	1.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead			Lag	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Ped		Ped	Ped		C-Min	C-Min	C-Min	None	Min	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0	7.0		7.0	
Flash Dont Walk (s)		15.0		15.0	15.0		23.0	23.0	23.0		23.0	
Pedestrian Calls (#/hr)		5		5	5		5	5	5		5	
Act Effct Green (s)	43.5	43.5		23.7	23.7		55.0	55.0	55.0	65.5	65.5	
Actuated g/C Ratio	0.36	0.36		0.20	0.20		0.46	0.46	0.46	0.55	0.55	
v/c Ratio	0.61	0.57		0.49	0.73		0.04	0.70	0.20	0.26	0.45	
Control Delay	37.2	32.4		55.9	50.1		21.0	33.1	3.8	13.2	15.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	37.2	32.4		55.9	50.1		21.0	33.1	3.8	13.2	15.2	
LOS	D	C		E	D		C	C	A	B	B	
Approach Delay		33.4			50.7			26.8			14.9	
Approach LOS		C			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 41 (34%), Referenced to phase 2:NBTL, Start of FDW or yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 31.7		Intersection LOS: C	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 404: Rice St & Pennsylvania Ave

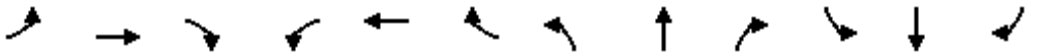


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Future Volume (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	1000		200	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.982			0.998	
Flt Protected		0.977			0.955		0.950			0.950		
Satd. Flow (prot)	0	1820	1583	0	1779	1583	1770	1829	0	1770	1859	0
Flt Permitted		0.883			0.730		0.491			0.225		
Satd. Flow (perm)	0	1645	1583	0	1360	1583	915	1829	0	419	1859	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			85		11			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		733			773			1634			652	
Travel Time (s)		16.7			17.6			37.1			14.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	11	0	62	85	8	876	0	56	463	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	6.0	10.0		6.0	10.0	
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	13.0	23.0		13.0	23.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	13.0	81.0		13.0	81.0	
Total Split (%)	21.7%	21.7%	21.7%	21.7%	21.7%	21.7%	10.8%	67.5%		10.8%	67.5%	
Maximum Green (s)	21.0	21.0	21.0	21.0	21.0	21.0	8.0	76.0		8.0	76.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	Min	
Walk Time (s)	9.0	9.0	9.0	9.0	9.0	9.0		7.0			7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		11.0			11.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		12.9	12.9		12.9	12.9	92.7	87.9		96.4	94.9	
Actuated g/C Ratio		0.11	0.11		0.11	0.11	0.77	0.73		0.80	0.79	
v/c Ratio		0.07	0.05		0.42	0.35	0.01	0.65		0.14	0.31	
Control Delay		46.4	0.4		58.1	13.5	2.4	8.3		4.3	5.9	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.1		0.0	0.0	
Total Delay		46.4	0.4		58.1	13.5	2.4	8.4		4.3	5.9	
LOS		D	A		E	B	A	A		A	A	
Approach Delay		25.3			32.3			8.4			5.8	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 116 (97%), Referenced to phase 2:NBTL, Start of FDW or yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 10.0		Intersection LOS: A	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 60			

Splits and Phases: 406: Rice St & Sycamore St

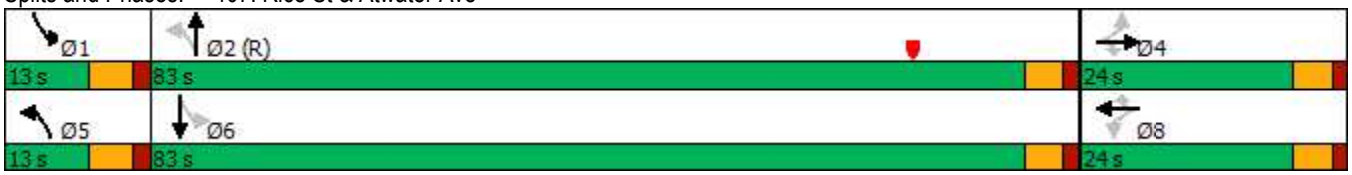


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Future Volume (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		0	750		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.850			0.850		0.998			0.995	
Flt Protected		0.974			0.970		0.950			0.950		
Satd. Flow (prot)	0	1814	1583	0	1807	1583	1770	1394	0	1770	1390	0
Flt Permitted		0.810			0.775		0.356			0.110		
Satd. Flow (perm)	0	1509	1583	0	1444	1583	663	1394	0	205	1390	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			68		1			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		767			771			652			864	
Travel Time (s)		17.4			17.5			14.8			19.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	60	0	39	15	42	918	0	4	466	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	12.0		7.0	12.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	13.0	22.0		13.0	22.0	
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	13.0	83.0		13.0	83.0	
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	10.8%	69.2%		10.8%	69.2%	
Maximum Green (s)	19.0	19.0	19.0	19.0	19.0	19.0	7.5	78.0		7.5	78.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.5	5.0		5.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.2	3.2	3.2	3.2	3.2	3.2	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		10.0			10.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		12.3	12.3		12.3	12.3	99.1	99.2		95.8	91.7	
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.83	0.83		0.80	0.76	
v/c Ratio		0.41	0.27		0.26	0.07	0.07	0.80		0.02	0.44	
Control Delay		57.6	12.0		52.8	0.6	1.9	12.4		3.2	7.9	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.5		0.0	0.0	
Total Delay		57.6	12.0		52.8	0.6	1.9	12.8		3.2	7.9	
LOS		E	B		D	A	A	B		A	A	
Approach Delay		35.4			38.3			12.3			7.8	
Approach LOS		D			D			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:NBTL, Start of FDW or yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 13.7		Intersection LOS: B	
Intersection Capacity Utilization 77.6%		ICU Level of Service D	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 407: Rice St & Atwater Ave



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	954	3	2	470
Future Volume (vph)	0	0	954	3	2	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	350	
Storage Lanes	0	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	1.00	1.00	*0.75
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	1863	1397	0	1770	1397
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1397	0	1770	1397
Link Speed (mph)	30		30			30
Link Distance (ft)	755		864			462
Travel Time (s)	17.2		19.6			10.5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	954	3	2	470
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	957	0	2	470
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	60		

* User Entered Value

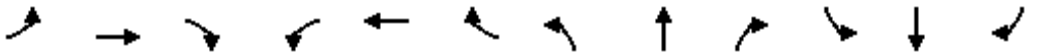
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	954	3	2	470
Future Vol, veh/h	0	0	954	3	2	470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	350	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	93	75	50	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	954	3	2	470

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1028	0	0	1030	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	284	-	-	674	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	284	-	-	674	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	674	-
HCM Lane V/C Ratio	-	-	-	0.006	-
HCM Control Delay (s)	-	-	0	10.4	-
HCM Lane LOS	-	-	A	B	-
HCM 95th %tile Q(veh)	-	-	-	0	-

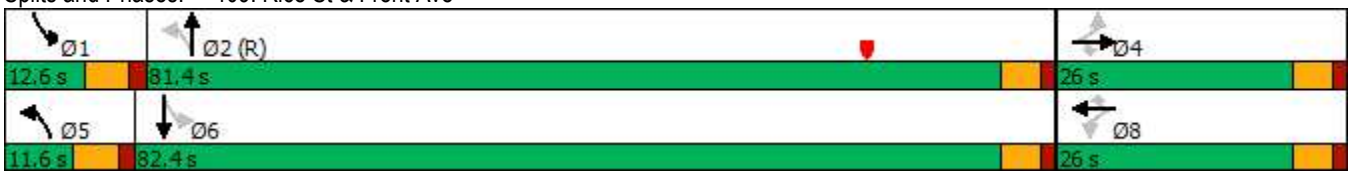


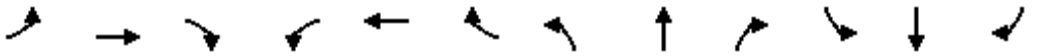
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Future Volume (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	350		0	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.850			0.850		0.998			0.975	
Flt Protected		0.962			0.980		0.950			0.950		
Satd. Flow (prot)	0	1792	1583	0	1825	1583	1770	1394	0	1770	1362	0
Flt Permitted		0.736			0.808		0.336			0.048		
Satd. Flow (perm)	0	1371	1583	0	1505	1583	626	1394	0	89	1362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			68		1			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		708			758			462			650	
Travel Time (s)		16.1			17.2			10.5			14.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	162	54	0	50	27	38	916	0	8	477	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		7			7			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.0	10.0		7.0	7.0	
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	11.5	24.0		12.5	24.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	11.6	81.4		12.6	82.4	
Total Split (%)	21.7%	21.7%	21.7%	21.7%	21.7%	21.7%	9.7%	67.8%		10.5%	68.7%	
Maximum Green (s)	21.0	21.0	21.0	21.0	21.0	21.0	6.1	76.4		7.1	77.4	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.5	5.0		5.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)	14.0	14.0	14.0	14.0	14.0	14.0		12.0			12.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		18.0	18.0		17.0	17.0	90.2	89.5		88.7	85.0	
Actuated g/C Ratio		0.15	0.15		0.14	0.14	0.75	0.75		0.74	0.71	
v/c Ratio		0.79	0.18		0.23	0.10	0.07	0.88		0.05	0.49	
Control Delay		79.5	8.3		46.2	0.7	3.8	16.8		4.8	11.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		79.5	8.3		46.2	0.7	3.8	16.8		4.8	11.2	
LOS		E	A		D	A	A	B		A	B	
Approach Delay		61.7			30.3			16.3			11.1	
Approach LOS		E			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of FDW or yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 75.5%		ICU Level of Service D	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 409: Rice St & Front Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	3	12	3	3	11	24	1028	6	6	470	13
Future Volume (vph)	15	3	12	3	3	11	24	1028	6	6	470	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		0	250		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.850			0.850		0.999			0.996	
Flt Protected		0.960			0.976		0.950			0.950		
Satd. Flow (prot)	0	1788	1583	0	1818	1583	1770	1396	0	1770	1391	0
Flt Permitted		0.960			0.976		0.950			0.950		
Satd. Flow (perm)	0	1788	1583	0	1818	1583	1770	1396	0	1770	1391	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		734			760			650			317	
Travel Time (s)		16.7			17.3			14.8			7.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	15	3	12	3	3	11	24	1028	6	6	470	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	12	0	6	11	24	1034	0	6	483	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.1%		ICU Level of Service C	
Analysis Period (min) 60			

* User Entered Value

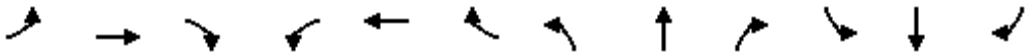
Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	3	12	3	3	11	24	1028	6	6	470	13
Future Vol, veh/h	15	3	12	3	3	11	24	1028	6	6	470	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	550	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	75	43	75	75	34	45	97	38	50	93	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	3	12	3	3	11	24	1028	6	6	470	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1731	1721	515	1729	1723	1068	525	0	0	1076	0	0
Stage 1	539	539	-	1174	1174	-	-	-	-	-	-	-
Stage 2	1192	1182	-	555	549	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	69	89	560	69	89	269	1042	-	-	648	-	-
Stage 1	527	522	-	234	266	-	-	-	-	-	-	-
Stage 2	228	263	-	516	516	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	55	83	560	60	83	269	1042	-	-	648	-	-
Mov Cap-2 Maneuver	55	83	-	60	83	-	-	-	-	-	-	-
Stage 1	500	512	-	222	252	-	-	-	-	-	-	-
Stage 2	187	250	-	477	506	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	137.6	28.7	0.4	0.2
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1042	-	-	57	560	70	269	648	-	-
HCM Lane V/C Ratio	0.051	-	-	0.763	0.05	0.114	0.12	0.019	-	-
HCM Control Delay (s)	8.6	-	-	218.3	11.8	63	20.2	10.7	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	5.4	0.2	0.4	0.4	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	17	0	0	9	0	1054	0	0	472	9
Future Volume (vph)	0	0	17	0	0	9	0	1054	0	0	472	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		0	50		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.865			0.865					0.997	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	1397	0	0	1393	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	1397	0	0	1393	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		344			400			98			443	
Travel Time (s)		7.8			9.1			2.2			10.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	17	0	0	9	0	1054	0	0	472	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	17	0	0	9	0	1054	0	0	481	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	60		

* User Entered Value

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	17	0	0	9	0	1054	0	0	472	9
Future Vol, veh/h	0	0	17	0	0	9	0	1054	0	0	472	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	100	85	31	25	56	75	96	100	100	94	45
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	17	0	0	9	0	1054	0	0	472	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	512	-	-	1098	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	-	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	-	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	562	0	0	259	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	562	-	-	259	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	19.8	0	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	562	259	-	-
HCM Lane V/C Ratio	-	-	0.036	0.062	-	-
HCM Control Delay (s)	-	-	11.6	19.8	-	-
HCM Lane LOS	-	-	B	C	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	16	12	1037	15	21	463
Future Volume (vph)	16	12	1037	15	21	463
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	250	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	1.00	1.00	*0.75
Frt		0.850	0.998			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1394	0	1770	1397
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1394	0	1770	1397
Link Speed (mph)	30		30			30
Link Distance (ft)	527		96			345
Travel Time (s)	12.0		2.2			7.8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	16	12	1037	15	21	463
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	12	1052	0	21	463
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	60		

* User Entered Value

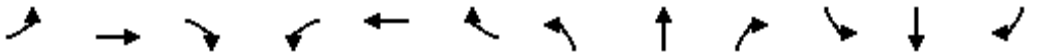
Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	12	1037	15	21	463
Future Vol, veh/h	16	12	1037	15	21	463
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	60	96	75	60	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	12	1037	15	21	463

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1647	1090	0	0	1100	0
Stage 1	1090	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	109	262	-	-	635	-
Stage 1	322	-	-	-	-	-
Stage 2	574	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	103	262	-	-	635	-
Mov Cap-2 Maneuver	103	-	-	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33	0	0.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	103	262	635	-
HCM Lane V/C Ratio	-	-	0.177	0.076	0.055	-
HCM Control Delay (s)	-	-	47.4	19.9	11	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	0.2	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Future Volume (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	250		0	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.850			0.850		0.997			0.997	
Flt Protected		0.962			0.977		0.950			0.950		
Satd. Flow (prot)	0	1792	1583	0	1820	1583	1770	1393	0	1770	1393	0
Flt Permitted		0.962			0.977		0.950			0.950		
Satd. Flow (perm)	0	1792	1583	0	1820	1583	1770	1393	0	1770	1393	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		944			852			345			643	
Travel Time (s)		21.5			19.4			7.8			14.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	7	0	13	6	15	1034	0	10	479	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		-7			-7			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.3%		ICU Level of Service C	
Analysis Period (min) 60			

* User Entered Value

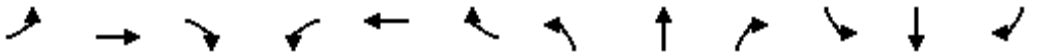
Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	2	7	6	7	6	15	1012	22	10	471	8
Future Vol, veh/h	8	2	7	6	7	6	15	1012	22	10	471	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	250	-	-	550	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	50	35	38	44	50	75	97	55	50	94	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	2	7	6	7	6	15	1012	22	10	471	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1666	1672	509	1664	1660	1063	517	0	0	1083	0	0
Stage 1	549	549	-	1103	1103	-	-	-	-	-	-	-
Stage 2	1117	1123	-	561	557	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	77	96	564	77	97	271	1049	-	-	644	-	-
Stage 1	520	516	-	256	287	-	-	-	-	-	-	-
Stage 2	252	281	-	512	512	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	91	564	69	92	271	1049	-	-	644	-	-
Mov Cap-2 Maneuver	61	91	-	69	92	-	-	-	-	-	-	-
Stage 1	510	500	-	251	282	-	-	-	-	-	-	-
Stage 2	223	276	-	475	496	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.9	63.4	0.2	0.4
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1049	-	-	67	564	79	271	644	-	-
HCM Lane V/C Ratio	0.019	-	-	0.238	0.035	0.401	0.044	0.031	-	-
HCM Control Delay (s)	8.5	-	-	75.3	11.6	80.3	18.9	10.8	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.1	1.9	0.1	0.1	-	-

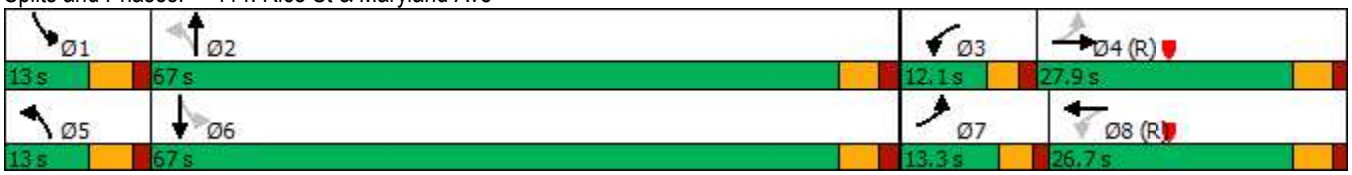


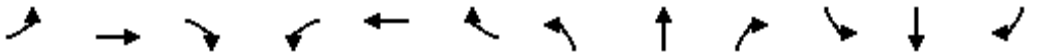
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Future Volume (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	265		0	550		150	1000		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.964			0.973			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3511	0	1770	3412	0	1770	1812	0	1770	1794	0
Flt Permitted	0.237			0.261			0.455			0.056		
Satd. Flow (perm)	441	3511	0	486	3412	0	848	1812	0	104	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			30			14			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		944			908			643			1992	
Travel Time (s)		21.5			20.6			14.6			45.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	198	522	0	129	448	0	21	1005	0	63	441	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1		1	1	
Detector Template							Left			Left		
Leading Detector (ft)	50	126		50	126		20	126		20	126	
Trailing Detector (ft)	0	0		0	0		0	120		0	120	
Detector 1 Position(ft)	0	0		0	0		0	120		0	120	
Detector 1 Size(ft)	50	20		50	20		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	11.5	26.0		11.5	26.0		13.0	33.5		13.0	33.5	
Total Split (s)	13.3	27.9		12.1	26.7		13.0	67.0		13.0	67.0	
Total Split (%)	11.1%	23.3%		10.1%	22.3%		10.8%	55.8%		10.8%	55.8%	
Maximum Green (s)	8.8	22.9		7.6	21.7		7.5	61.5		7.5	61.5	
Yellow Time (s)	3.0	3.5		3.0	3.5		4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	2.0		3.0	2.0	
Recall Mode	None	C-Min		None	C-Min		None	Min		None	Min	
Walk Time (s)		10.0			10.0			14.0			14.0	
Flash Dont Walk (s)		11.0			11.0			14.0			14.0	
Pedestrian Calls (#/hr)		5			5			5			5	
Act Effct Green (s)	30.1	20.2		26.9	18.6		72.4	66.8		75.1	72.0	
Actuated g/C Ratio	0.25	0.17		0.22	0.16		0.60	0.56		0.63	0.60	
v/c Ratio	0.93	0.88		0.67	0.81		0.04	0.99		0.38	0.41	
Control Delay	108.9	68.1		54.4	58.5		8.8	76.7		28.7	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	108.9	68.1		54.4	58.5		8.8	76.7		28.7	9.8	
LOS	F	E		D	E		A	E		C	A	
Approach Delay		79.4			57.6			75.3			12.2	
Approach LOS		E			E			E			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 119 (99%), Referenced to phase 4:EBTL and 8:WBTL, Start of FDW or yellow			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 61.5		Intersection LOS: E	
Intersection Capacity Utilization 90.7%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 414: Rice St & Maryland Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Future Volume (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	1000		0	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.998			0.996	
Flt Protected		0.950			0.950		0.950			0.950		
Satd. Flow (prot)	0	1770	1583	0	1770	1583	1770	1859	0	1770	1855	0
Flt Permitted		0.950			0.950		0.950			0.950		
Satd. Flow (perm)	0	1770	1583	0	1770	1583	1770	1859	0	1770	1855	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		1072			1103			1992			652	
Travel Time (s)		24.4			25.1			45.3			12.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	28	0	4	11	71	969	0	6	537	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.9%		ICU Level of Service C	
Analysis Period (min) 60			

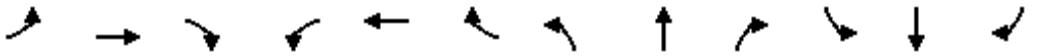
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	28	4	0	11	71	958	11	6	523	14
Future Vol, veh/h	14	0	28	4	0	11	71	958	11	6	523	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	1000	-	-	550	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	100	70	50	100	34	63	92	55	50	90	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	28	4	0	11	71	958	11	6	523	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1910	1904	593	1914	1906	1051	605	0	0	1061	0	0
Stage 1	617	617	-	1277	1277	-	-	-	-	-	-	-
Stage 2	1293	1287	-	637	629	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	52	69	506	51	69	276	973	-	-	657	-	-
Stage 1	477	481	-	204	237	-	-	-	-	-	-	-
Stage 2	200	235	-	465	475	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	41	60	506	42	60	276	973	-	-	657	-	-
Mov Cap-2 Maneuver	41	60	-	42	60	-	-	-	-	-	-	-
Stage 1	422	472	-	180	210	-	-	-	-	-	-	-
Stage 2	156	208	-	420	466	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	65.1	37.8	0.9	0.2
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	973	-	-	41	506	42	276	657	-	-
HCM Lane V/C Ratio	0.116	-	-	0.488	0.079	0.19	0.117	0.018	-	-
HCM Control Delay (s)	9.2	-	-	170	12.7	110.6	19.8	10.6	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-	2.3	0.3	0.7	0.4	0.1	-	-

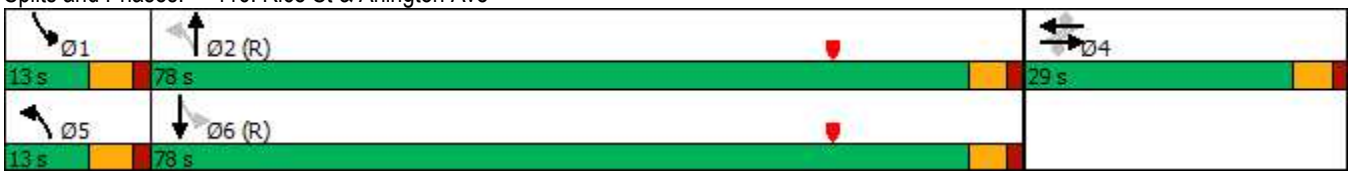


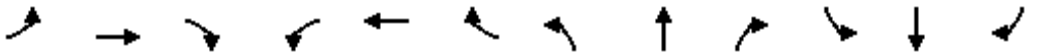
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Future Volume (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		150	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.976			0.983	
Flt Protected		0.988			0.983		0.950			0.950		
Satd. Flow (prot)	0	1840	1583	0	1831	1583	1770	1818	0	1770	1831	0
Flt Permitted		0.747			0.545		0.419			0.127		
Satd. Flow (perm)	0	1391	1583	0	1015	1583	780	1818	0	237	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			68		15			10	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1063			1001			652			661	
Travel Time (s)		24.2			22.8			12.7			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	30	0	166	104	39	944	0	97	513	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	186		20	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4		4	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	7.0	15.0		3.0	15.0	
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	13.0	24.0		13.0	24.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	13.0	78.0		13.0	78.0	
Total Split (%)	24.2%	24.2%	24.2%	24.2%	24.2%	24.2%	10.8%	65.0%		10.8%	65.0%	
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0	24.0	7.5	73.0		7.5	73.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.5	5.0		5.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0		7.0			7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		22.0	22.0		22.0	22.0	82.0	75.5		84.5	80.5	
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.68	0.63		0.70	0.67	
v/c Ratio		0.85	0.09		0.89	0.30	0.07	0.82		0.38	0.42	
Control Delay		83.0	0.5		110.0	19.1	3.9	14.9		11.5	11.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.2		0.0	0.1	
Total Delay		83.0	0.5		110.0	19.1	3.9	15.1		11.5	11.4	
LOS		F	A		F	B	A	B		B	B	
Approach Delay		73.0			75.0			14.7			11.4	
Approach LOS		E			E			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 32 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 28.2		Intersection LOS: C	
Intersection Capacity Utilization 93.8%		ICU Level of Service F	
Analysis Period (min) 60			

Splits and Phases: 416: Rice St & Arlington Ave



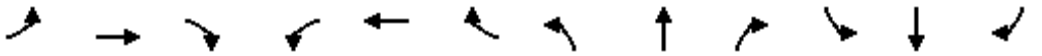


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Future Volume (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		0	250		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.998			0.994	
Flt Protected		0.950			0.973		0.950			0.950		
Satd. Flow (prot)	0	1770	1583	0	1812	1583	1770	1859	0	1770	1852	0
Flt Permitted		0.741			0.835		0.379			0.277		
Satd. Flow (perm)	0	1380	1583	0	1555	1583	706	1859	0	516	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59			59		1			4	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1086			398			661			332	
Travel Time (s)		24.7			9.0			12.9			6.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	34	0	25	28	62	885	0	3	585	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	186		20	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4		4	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	11.5	22.0		11.5	22.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	12.0	83.2		11.8	83.0	
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	10.0%	69.3%		9.8%	69.2%	
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	7.5	78.2		7.3	78.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5		3.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	4.5	5.0		4.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	4.5	4.5	4.5	4.5	4.5	4.5	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0		7.0			7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		10.0			10.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		12.0	12.0		12.0	12.0	100.7	99.7		97.8	92.7	
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.84	0.83		0.82	0.77	
v/c Ratio		0.09	0.16		0.16	0.13	0.09	0.57		0.01	0.41	
Control Delay		48.4	5.4		50.0	3.0	2.1	4.8		3.0	7.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.3		0.0	0.0	
Total Delay		48.4	5.4		50.0	3.0	2.1	5.1		3.0	7.2	
LOS		D	A		D	A	A	A		A	A	
Approach Delay		17.3			25.2			4.9			7.2	
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 68 (57%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 75.8%		ICU Level of Service D	
Analysis Period (min) 60			

Splits and Phases: 417: Rice St & Nebraska Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Future Volume (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	250		0	250		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.996				
Flt Protected		0.950			0.950		0.950			0.950		
Satd. Flow (prot)	0	1770	1583	0	1770	1583	1770	1855	0	1770	1863	0
Flt Permitted		0.950			0.950		0.950			0.950		
Satd. Flow (perm)	0	1770	1583	0	1770	1583	1770	1855	0	1770	1863	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		272			1012			332			332	
Travel Time (s)		6.2			23.0			6.5			6.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	28	0	9	2	3	913	0	3	551	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		10			5			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.9%		ICU Level of Service C	
Analysis Period (min) 60			

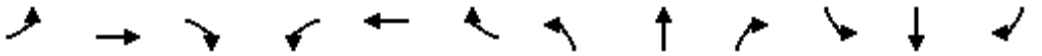
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	28	9	0	2	3	886	27	3	551	0
Future Vol, veh/h	3	0	28	9	0	2	3	886	27	3	551	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	250	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	100	88	75	100	50	75	97	61	38	92	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	28	9	0	2	3	886	27	3	551	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1560	1580	599	1574	1558	935	599	0	0	957	0	0
Stage 1	615	615	-	943	943	-	-	-	-	-	-	-
Stage 2	945	965	-	631	615	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	91	109	502	89	112	322	978	-	-	719	-	-
Stage 1	479	482	-	315	341	-	-	-	-	-	-	-
Stage 2	314	333	-	469	482	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	89	107	502	82	110	322	978	-	-	719	-	-
Mov Cap-2 Maneuver	89	107	-	82	110	-	-	-	-	-	-	-
Stage 1	477	477	-	314	340	-	-	-	-	-	-	-
Stage 2	309	332	-	434	477	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.6	46.4	0	0.1
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	978	-	-	89	502	82	322	719	-	-
HCM Lane V/C Ratio	0.004	-	-	0.045	0.063	0.146	0.012	0.011	-	-
HCM Control Delay (s)	8.7	-	-	47.4	12.7	56.4	16.3	10.1	-	-
HCM Lane LOS	A	-	-	E	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.5	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	0	0	9	42	835	14	0	535	19
Future Volume (vph)	0	0	19	0	0	9	42	835	14	0	535	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	250		0	550		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.865			0.865		0.998			0.995	
Flt Protected							0.950					
Satd. Flow (prot)	0	0	1611	0	0	1611	1770	1859	0	1863	1853	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1611	0	0	1611	1770	1859	0	1863	1853	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1124			1002			332			631	
Travel Time (s)		25.5			22.8			6.5			12.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	19	0	0	9	42	835	14	0	535	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	19	0	0	9	42	849	0	0	554	0
Enter Blocked Intersection	Yes	Yes	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			6			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.8%		ICU Level of Service A	
Analysis Period (min) 60			

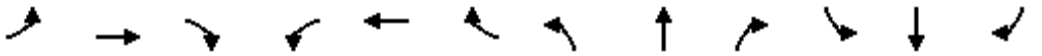
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	19	0	0	9	42	835	14	0	535	19
Future Vol, veh/h	0	0	19	0	0	9	42	835	14	0	535	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	250	-	-	550	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	25	59	58	50	56	66	94	70	60	93	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	19	0	0	9	42	835	14	0	535	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	589	-	-	898	602	0	0	908	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	-	-	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	-	-	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	508	0	0	338	975	-	-	750	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	508	-	-	338	975	-	-	750	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	16.2	0.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	975	-	-	508	338	750	-	-
HCM Lane V/C Ratio	0.065	-	-	0.063	0.048	-	-	-
HCM Control Delay (s)	8.9	-	-	12.6	16.2	0	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	14	60	22	39	35	33	756	55	23	472	62
Future Volume (vph)	102	14	60	22	39	35	33	756	55	23	472	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		0	75		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990			0.983	
Flt Protected		0.958			0.982		0.950			0.950		
Satd. Flow (prot)	0	1785	1583	0	1829	1583	1770	1844	0	1770	1831	0
Flt Permitted		0.709			0.864		0.412			0.259		
Satd. Flow (perm)	0	1321	1583	0	1609	1583	767	1844	0	482	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59			59		6			11	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1103			996			631			1579	
Travel Time (s)		25.1			22.6			12.3			30.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	102	14	60	22	39	35	33	756	55	23	472	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	60	0	61	35	33	811	0	23	534	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	126	0	20	126	0	50	186		50	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	50	6		50	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		5	2		1	6	
Permitted Phases	8		8	4		4	2			6		

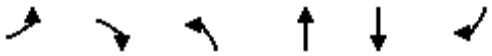
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	8	8	8	4	4	4	2 5	2		1 6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	12.0		7.0	12.0	
Minimum Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	11.5	28.0		11.5	28.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	11.5	81.0		12.0	81.5	
Total Split (%)	22.5%	22.5%	22.5%	22.5%	22.5%	22.5%	9.6%	67.5%		10.0%	67.9%	
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0	22.0	7.0	76.0		7.5	76.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5		3.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	4.5	5.0		4.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	2.2	3.5		2.2	3.5	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0		16.0			16.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		16.3	16.3		16.3	16.3	91.5	86.8		91.5	86.8	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.76	0.72		0.76	0.72	
v/c Ratio		0.65	0.23		0.28	0.13	0.05	0.61		0.05	0.40	
Control Delay		66.0	12.9		48.0	4.9	2.5	7.1		4.0	8.9	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		66.0	12.9		48.0	4.9	2.5	7.1		4.0	8.9	
LOS		E	B		D	A	A	A		A	A	
Approach Delay		47.9			32.3			7.0			8.7	
Approach LOS		D			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 72.3%		ICU Level of Service C	
Analysis Period (min) 60			

Splits and Phases: 420: Rice St & Wheelock Pkwy

Network Totals

Number of Intersections	18
Control Delay / Veh (s/v)	14
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	14
Total Delay (hr)	121
Stops / Veh	0.29
Stops (#)	9053
Average Speed (mph)	16
Total Travel Time (hr)	256
Distance Traveled (mi)	4174
Fuel Consumed (gal)	311
Fuel Economy (mpg)	13.4
CO Emissions (kg)	21.77
NOx Emissions (kg)	4.23
VOC Emissions (kg)	5.04
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	143
Performance Index	146.2



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	857	557	0
Future Volume (vph)	0	0	0	857	557	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0			100
Storage Lanes	0	0	0			1
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	3539	3539	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	3539	3539	0
Link Speed (mph)	30			35	35	
Link Distance (ft)	270			201	430	
Travel Time (s)	6.1			3.9	8.4	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	857	557	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	857	557	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Free			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.0%		ICU Level of Service A	
Analysis Period (min) 60			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	3	9	1060	9	9	486
Future Volume (vph)	3	9	1060	9	9	486
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	0.95	0.95	*0.75
Frt		0.850	0.999			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1770	1583	2791	0	0	2791
Flt Permitted	0.950					0.999
Satd. Flow (perm)	1770	1583	2791	0	0	2791
Link Speed (mph)	30		30			30
Link Distance (ft)	385		317			98
Travel Time (s)	8.8		7.2			2.2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	9	1060	9	9	486
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	9	1069	0	0	495
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.6%		ICU Level of Service A	
Analysis Period (min) 60			

* User Entered Value

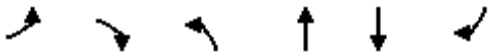
Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	9	1060	9	9	486
Future Vol, veh/h	3	9	1060	9	9	486
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	38	45	96	75	75	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	9	1060	9	9	486

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1398	558	0	0	1116	0
Stage 1	1110	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	132	473	-	-	622	-
Stage 1	277	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	128	473	-	-	622	-
Mov Cap-2 Maneuver	128	-	-	-	-	-
Stage 1	277	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	128	473	622	-
HCM Lane V/C Ratio	-	-	0.062	0.042	0.019	-
HCM Control Delay (s)	-	-	35	12.9	10.9	0.1
HCM Lane LOS	-	-	E	B	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.1	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	8	16	1048	474	5
Future Volume (vph)	4	8	16	1048	474	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30	0			0
Storage Lanes	1	1	0			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	0.95	*0.75	0.95	0.95
Frt		0.850			0.998	
Flt Protected	0.950			0.999		
Satd. Flow (prot)	1770	1583	0	2791	3532	0
Flt Permitted	0.950			0.999		
Satd. Flow (perm)	1770	1583	0	2791	3532	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			443	96	
Travel Time (s)	8.3			10.1	2.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	8	16	1048	474	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	8	0	1064	479	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	60		

* User Entered Value

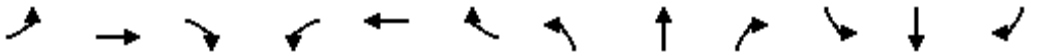
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	8	16	1048	474	5
Future Vol, veh/h	4	8	16	1048	474	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	33	67	67	97	95	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	8	16	1048	474	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1091	254	507	0	-	0
Stage 1	503	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	209	745	1054	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	197	745	1054	-	-	-
Mov Cap-2 Maneuver	197	-	-	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.3	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1054	-	197	745	-	-
HCM Lane V/C Ratio	0.023	-	0.062	0.016	-	-
HCM Control Delay (s)	8.5	0.2	24.5	9.9	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0	-	-

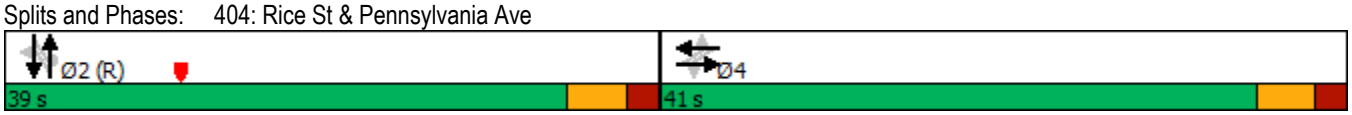


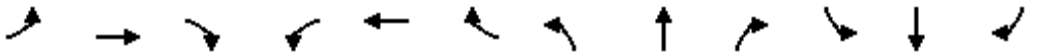
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Future Volume (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.995			0.969			0.969			0.981	
Flt Protected	0.950			0.950				0.999			0.993	
Satd. Flow (prot)	1770	3522	0	1770	3429	0	0	3426	0	0	3448	0
Flt Permitted	0.417			0.284				0.939			0.739	
Satd. Flow (perm)	777	3522	0	529	3429	0	0	3220	0	0	2566	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			53			50			25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		669			944			1553			1634	
Travel Time (s)		15.2			21.5			35.3			37.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	726	0	67	512	0	0	770	0	0	526	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1		1	1	
Detector Template							Left			Left		
Leading Detector (ft)	50	126		50	126		20	126		20	126	
Trailing Detector (ft)	0	0		0	0		0	120		0	120	
Detector 1 Position(ft)	0	0		0	0		0	120		0	120	
Detector 1 Size(ft)	50	20		50	20		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		4	4		2	2		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	27.5	27.5		27.5	27.5		35.5	35.5		35.5	35.5	
Total Split (s)	41.0	41.0		41.0	41.0		39.0	39.0		39.0	39.0	
Total Split (%)	51.3%	51.3%		51.3%	51.3%		48.8%	48.8%		48.8%	48.8%	
Maximum Green (s)	35.5	35.5		35.5	35.5		33.5	33.5		33.5	33.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5			5.5			5.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Ped	Ped		Ped	Ped		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		23.0	23.0		23.0	23.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)	31.2	31.2		31.2	31.2			37.8			37.8	
Actuated g/C Ratio	0.39	0.39		0.39	0.39			0.47			0.47	
v/c Ratio	0.60	0.53		0.33	0.37			0.50			0.43	
Control Delay	28.0	19.5		20.1	15.6			16.0			9.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	28.0	19.5		20.1	15.6			16.0			9.1	
LOS	C	B		C	B			B			A	
Approach Delay		21.2			16.1			16.0			9.1	
Approach LOS		C			B			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 72 (90%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 83.8%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 404: Rice St & Pennsylvania Ave



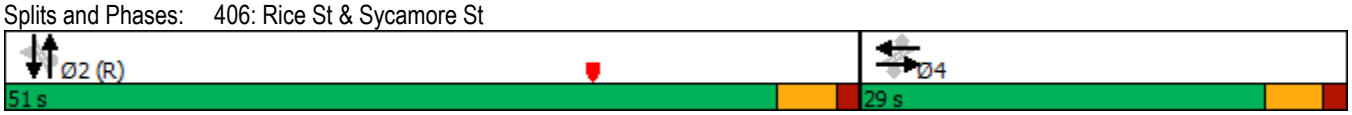


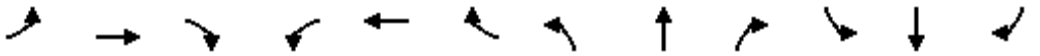
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Future Volume (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.982			0.998	
Flt Protected		0.977			0.955						0.995	
Satd. Flow (prot)	0	1820	1583	0	1779	1583	0	3476	0	0	3514	0
Flt Permitted		0.875			0.730			0.951			0.798	
Satd. Flow (perm)	0	1630	1583	0	1360	1583	0	3305	0	0	2819	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27			85		31			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		733			773			1634			652	
Travel Time (s)		16.7			17.6			37.1			14.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	11	0	62	85	0	884	0	0	519	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4		4	4		4	2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	23.0	23.0		23.0	23.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	51.0	51.0		51.0	51.0	
Total Split (%)	36.3%	36.3%	36.3%	36.3%	36.3%	36.3%	63.8%	63.8%		63.8%	63.8%	
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0	24.0	46.0	46.0		46.0	46.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	9.0	9.0	9.0	9.0	9.0	9.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		12.3	12.3		12.3	12.3		61.7			61.7	
Actuated g/C Ratio		0.15	0.15		0.15	0.15		0.77			0.77	
v/c Ratio		0.05	0.04		0.30	0.27		0.35			0.24	
Control Delay		26.8	4.2		32.5	8.7		3.2			3.2	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		26.8	4.2		32.5	8.7		3.2			3.2	
LOS		C	A		C	A		A			A	
Approach Delay		16.4			18.7			3.2			3.2	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 65 (81%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.35			
Intersection Signal Delay: 4.8		Intersection LOS: A	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 60			

Splits and Phases: 406: Rice St & Sycamore St



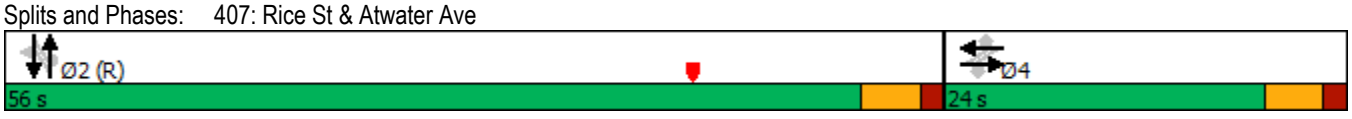


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Future Volume (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850			0.850		0.998			0.995	
Flt Protected		0.974			0.970			0.998				
Satd. Flow (prot)	0	1814	1583	0	1807	1583	0	2783	0	0	2780	0
Flt Permitted		0.810			0.787			0.907			0.948	
Satd. Flow (perm)	0	1509	1583	0	1466	1583	0	2529	0	0	2636	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			60			27		2			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		767			771			652			864	
Travel Time (s)		17.4			17.5			14.8			19.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	60	0	39	15	0	960	0	0	470	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4		4	4		4	2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	12.0	12.0		12.0	12.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0		22.0	22.0	
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	56.0	56.0		56.0	56.0	
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	70.0%	70.0%		70.0%	70.0%	
Maximum Green (s)	19.0	19.0	19.0	19.0	19.0	19.0	51.0	51.0		51.0	51.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.2	3.2	3.2	3.2	3.2	3.2	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		11.8	11.8		11.8	11.8		62.2			62.2	
Actuated g/C Ratio		0.15	0.15		0.15	0.15		0.78			0.78	
v/c Ratio		0.28	0.21		0.18	0.06		0.49			0.23	
Control Delay		32.5	9.7		30.4	6.4		3.3			4.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		32.5	9.7		30.4	6.4		3.3			4.8	
LOS		C	A		C	A		A			A	
Approach Delay		21.4			23.7			3.3			4.8	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 72 (90%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 5.8		Intersection LOS: A	
Intersection Capacity Utilization 62.3%		ICU Level of Service B	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 407: Rice St & Atwater Ave



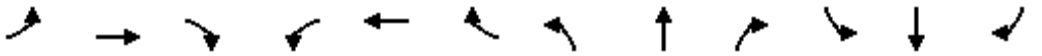
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Lane Configurations							
Traffic Volume (vph)	0	0	954	3	2	470	
Future Volume (vph)	0	0	954	3	2	470	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	30		0	0		
Storage Lanes	0	0		0	0		
Taper Length (ft)	100				100		
Lane Util. Factor	1.00	1.00	*0.75	0.95	0.95	*0.75	
Frt							
Flt Protected							
Satd. Flow (prot)	0	0	2794	0	0	2794	
Flt Permitted						0.952	
Satd. Flow (perm)	0	0	2794	0	0	2660	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)			1				
Link Speed (mph)	30		30			30	
Link Distance (ft)	755		864			462	
Travel Time (s)	17.2		19.6			10.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	0	954	3	2	470	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	957	0	0	472	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	0		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Number of Detectors			1		1	1	
Detector Template					Left		
Leading Detector (ft)			126		20	126	
Trailing Detector (ft)			120		0	120	
Detector 1 Position(ft)			120		0	120	
Detector 1 Size(ft)			6		20	6	
Detector 1 Type			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel							
Detector 1 Extend (s)			0.0		0.0	0.0	
Detector 1 Queue (s)			0.0		0.0	0.0	
Detector 1 Delay (s)			0.0		0.0	0.0	
Turn Type			NA		Perm	NA	
Protected Phases			2			2	4
Permitted Phases					2		
Detector Phase			2		2	2	
Switch Phase							
Minimum Initial (s)			20.0		20.0	20.0	7.0
Minimum Split (s)			25.0		25.0	25.0	26.0
Total Split (s)			54.0		54.0	54.0	26.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø4
Total Split (%)			67.5%		67.5%	67.5%	33%
Maximum Green (s)			49.0		49.0	49.0	21.0
Yellow Time (s)			3.5		3.5	3.5	3.5
All-Red Time (s)			1.5		1.5	1.5	1.5
Lost Time Adjust (s)			0.0			0.0	
Total Lost Time (s)			5.0			5.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)			0.2		0.2	0.2	0.2
Recall Mode			C-Max		C-Max	C-Max	None
Walk Time (s)							9.0
Flash Dont Walk (s)							12.0
Pedestrian Calls (#/hr)							5
Act Effct Green (s)			73.8			73.8	
Actuated g/C Ratio			0.92			0.92	
v/c Ratio			0.37			0.19	
Control Delay			0.9			2.2	
Queue Delay			0.0			0.0	
Total Delay			0.9			2.2	
LOS			A			A	
Approach Delay			0.9			2.2	
Approach LOS			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 23 (29%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 1.3		Intersection LOS: A	
Intersection Capacity Utilization 30.6%		ICU Level of Service A	
Analysis Period (min) 60			

* User Entered Value

Splits and Phases: 408: Rice St & Wayzata St

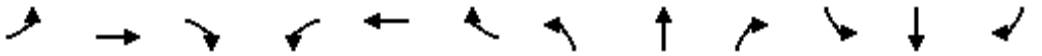


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Future Volume (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850			0.850		0.998			0.976	
Flt Protected		0.962			0.980			0.998			0.999	
Satd. Flow (prot)	0	1792	1583	0	1825	1583	0	2783	0	0	2724	0
Flt Permitted		0.736			0.851			0.911			0.936	
Satd. Flow (perm)	0	1371	1583	0	1585	1583	0	2540	0	0	2553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			46			27		3			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		708			758			462			650	
Travel Time (s)		16.1			17.2			10.5			14.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	162	54	0	50	27	0	954	0	0	485	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		7			7			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4		4	4		4	2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	24.0	24.0		24.0	24.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	53.0	53.0		53.0	53.0	
Total Split (%)	33.8%	33.8%	33.8%	33.8%	33.8%	33.8%	66.3%	66.3%		66.3%	66.3%	
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0	22.0	48.0	48.0		48.0	48.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	14.0	14.0	14.0	14.0	14.0	14.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		14.9	14.9		14.9	14.9		55.1			55.1	
Actuated g/C Ratio		0.19	0.19		0.19	0.19		0.69			0.69	
v/c Ratio		0.64	0.16		0.17	0.09		0.54			0.27	
Control Delay		41.1	10.5		26.4	9.9		3.9			3.0	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		41.1	10.5		26.4	9.9		3.9			3.0	
LOS		D	B		C	A		A			A	
Approach Delay		33.5			20.6			3.9			3.0	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 22 (28%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 68.3%		ICU Level of Service C	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 409: Rice St & Front Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	3	12	3	3	11	9	1043	6	6	470	13
Future Volume (vph)	15	3	12	3	3	11	9	1043	6	6	470	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850			0.850		0.999			0.996	
Flt Protected		0.960			0.976						0.999	
Satd. Flow (prot)	0	1788	1583	0	1818	1583	0	2791	0	0	2780	0
Flt Permitted		0.960			0.976						0.999	
Satd. Flow (perm)	0	1788	1583	0	1818	1583	0	2791	0	0	2780	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		734			760			650			317	
Travel Time (s)		16.7			17.3			14.8			7.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	15	3	12	3	3	11	9	1043	6	6	470	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	12	0	6	11	0	1058	0	0	489	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.7%		ICU Level of Service A	
Analysis Period (min) 60			

* User Entered Value

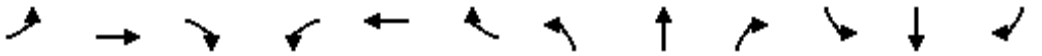
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	15	3	12	3	3	11	9	1043	6	6	470	13
Future Vol, veh/h	15	3	12	3	3	11	9	1043	6	6	470	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	75	43	75	75	34	45	97	38	50	93	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	3	12	3	3	11	9	1043	6	6	470	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1119	1670	263	1402	1672	546	525	0	0	1091	0	0
Stage 1	539	539	-	1123	1123	-	-	-	-	-	-	-
Stage 2	580	1131	-	279	549	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	161	95	735	100	95	482	1038	-	-	635	-	-
Stage 1	494	520	-	219	279	-	-	-	-	-	-	-
Stage 2	467	277	-	704	515	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	137	88	735	88	88	482	1038	-	-	635	-	-
Mov Cap-2 Maneuver	137	88	-	88	88	-	-	-	-	-	-	-
Stage 1	470	506	-	208	265	-	-	-	-	-	-	-
Stage 2	408	263	-	654	501	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.2	20.3	0.3	0.3
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1038	-	-	130	735	88	482	635	-	-
HCM Lane V/C Ratio	0.019	-	-	0.334	0.038	0.091	0.067	0.019	-	-
HCM Control Delay (s)	8.5	0.2	-	46.4	10.1	50	13	10.8	0.1	-
HCM Lane LOS	A	A	-	E	B	F	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	0.1	0.3	0.2	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	17	5	1	9	15	1054	0	0	473	9
Future Volume (vph)	1	0	17	5	1	9	15	1054	0	0	473	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850		0.919						0.997	
Flt Protected		0.950			0.984			0.999				
Satd. Flow (prot)	0	1770	1583	0	1684	0	0	2791	0	0	2786	0
Flt Permitted		0.950			0.984			0.999				
Satd. Flow (perm)	0	1770	1583	0	1684	0	0	2791	0	0	2786	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		344			400			98			443	
Travel Time (s)		7.8			9.1			2.2			10.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	1	0	17	5	1	9	15	1054	0	0	473	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	17	0	15	0	0	1069	0	0	482	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	60		

* User Entered Value

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	17	5	1	9	15	1054	0	0	473	9
Future Vol, veh/h	1	0	17	5	1	9	15	1054	0	0	473	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	100	85	31	25	56	75	96	100	100	94	45
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	17	5	1	9	15	1054	0	0	473	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1104	1651	262	1390	1661	549	523	0	0	1098	0	0
Stage 1	513	513	-	1138	1138	-	-	-	-	-	-	-
Stage 2	591	1138	-	252	523	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	166	98	737	102	96	480	1040	-	-	631	-	-
Stage 1	512	534	-	214	275	-	-	-	-	-	-	-
Stage 2	460	275	-	730	529	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	149	93	737	95	91	480	1040	-	-	631	-	-
Mov Cap-2 Maneuver	149	93	-	95	91	-	-	-	-	-	-	-
Stage 1	487	534	-	204	262	-	-	-	-	-	-	-
Stage 2	416	262	-	710	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	37.7	0.3	0
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1040	-	-	149	737	146	631	-	-
HCM Lane V/C Ratio	0.019	-	-	0.027	0.027	0.248	-	-	-
HCM Control Delay (s)	8.5	0.2	-	29.8	10	37.7	0	-	-
HCM Lane LOS	A	A	-	D	B	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	1	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	12	1037	15	12	472
Future Volume (vph)	7	12	1037	15	12	472
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	0.95	0.95	*0.75
Frt		0.850	0.998			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1770	1583	2789	0	0	2791
Flt Permitted	0.950					0.999
Satd. Flow (perm)	1770	1583	2789	0	0	2791
Link Speed (mph)	30		30			30
Link Distance (ft)	527		96			345
Travel Time (s)	12.0		2.2			7.8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	7	12	1037	15	12	472
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	12	1052	0	0	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.1%		ICU Level of Service A	
Analysis Period (min) 60			

* User Entered Value

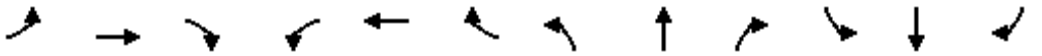
Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	12	1037	15	12	472
Future Vol, veh/h	7	12	1037	15	12	472
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	60	96	75	60	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	12	1037	15	12	472

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1379	550	0	0	1100	0
Stage 1	1090	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	136	479	-	-	630	-
Stage 1	284	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	130	479	-	-	630	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	284	-	-	-	-	-
Stage 2	703	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	130	479	630	-
HCM Lane V/C Ratio	-	-	0.061	0.042	0.032	-
HCM Control Delay (s)	-	-	34.5	12.8	10.9	0.2
HCM Lane LOS	-	-	D	B	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.1	-

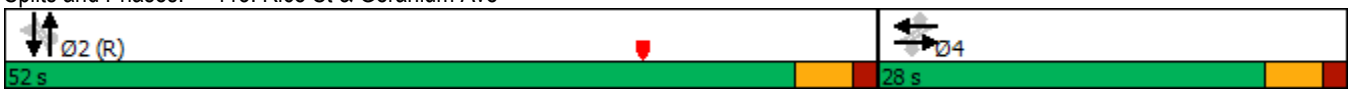


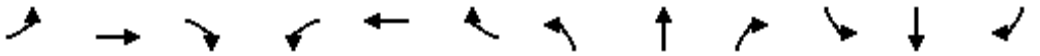
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Future Volume (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	*0.75	0.95	0.95	*0.75	0.95
Frt			0.850			0.850		0.997			0.998	
Flt Protected		0.962			0.977			0.999			0.999	
Satd. Flow (prot)	0	1792	1583	0	1820	1583	0	2783	0	0	2786	0
Flt Permitted		0.778			0.864			0.945			0.926	
Satd. Flow (perm)	0	1449	1583	0	1609	1583	0	2633	0	0	2582	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27			27		4			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		944			852			345			643	
Travel Time (s)		21.5			19.4			7.8			14.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	7	0	13	6	0	1049	0	0	489	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		-7			-7			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4		4	4		4	2			2		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		2	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	24.0	24.0		24.0	24.0	
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	52.0	52.0		52.0	52.0	
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	65.0%	65.0%		65.0%	65.0%	
Maximum Green (s)	23.0	23.0	23.0	23.0	23.0	23.0	47.0	47.0		47.0	47.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	13.0	13.0	13.0	13.0	13.0	13.0	9.0	9.0		9.0	9.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		10.2	10.2		10.2	10.2		66.6			66.6	
Actuated g/C Ratio		0.13	0.13		0.13	0.13		0.83			0.83	
v/c Ratio		0.05	0.03		0.06	0.03		0.48			0.23	
Control Delay		27.2	1.4		27.5	0.2		2.5			3.1	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		27.2	1.4		27.5	0.2		2.5			3.1	
LOS		C	A		C	A		A			A	
Approach Delay		16.6			18.9			2.5			3.1	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 64 (80%), Referenced to phase 2:NBSB, Start of FDW or yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 3.0		Intersection LOS: A	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 413: Rice St & Geranium Ave



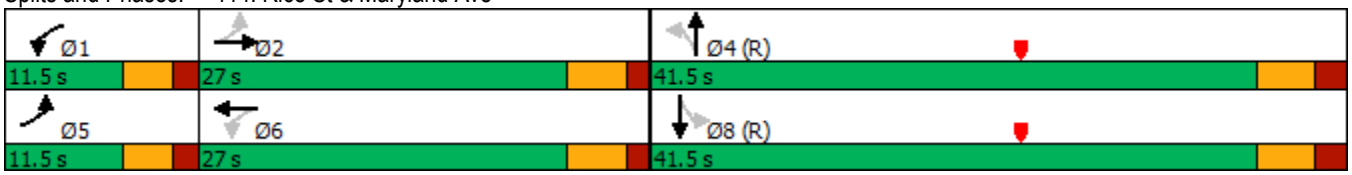


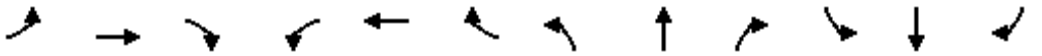
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Future Volume (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	265		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.992			0.964			0.973			0.967	
Flt Protected	0.950			0.950				0.999			0.994	
Satd. Flow (prot)	1770	3511	0	1770	3412	0	0	3440	0	0	3402	0
Flt Permitted	0.391			0.386				0.938			0.675	
Satd. Flow (perm)	728	3511	0	719	3412	0	0	3230	0	0	2310	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			51			42			58	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		944			908			643			1992	
Travel Time (s)		21.5			20.6			14.6			45.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	198	522	0	129	448	0	0	1026	0	0	504	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1		1	1	
Detector Template							Left			Left		
Leading Detector (ft)	50	126		50	126		20	126		20	126	
Trailing Detector (ft)	0	0		0	0		0	120		0	120	
Detector 1 Position(ft)	0	0		0	0		0	120		0	120	
Detector 1 Size(ft)	50	20		50	20		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2			6			4			8		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	2 5	2		1 6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	11.5	26.0		11.5	26.0		33.5	33.5		33.5	33.5	
Total Split (s)	11.5	27.0		11.5	27.0		41.5	41.5		41.5	41.5	
Total Split (%)	14.4%	33.8%		14.4%	33.8%		51.9%	51.9%		51.9%	51.9%	
Maximum Green (s)	7.0	22.0		7.0	22.0		36.0	36.0		36.0	36.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0			5.5			5.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		2.0	2.0		2.0	2.0	
Recall Mode	None	Max		None	Max		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)		10.0			10.0		14.0	14.0		14.0	14.0	
Flash Dont Walk (s)		11.0			11.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)		5			5		5	5		5	5	
Act Effct Green (s)	30.4	24.3		29.5	22.0			36.0			36.0	
Actuated g/C Ratio	0.38	0.30		0.37	0.28			0.45			0.45	
v/c Ratio	0.54	0.49		0.36	0.46			0.70			0.47	
Control Delay	21.9	25.2		17.6	23.0			12.9			18.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	21.9	25.2		17.6	23.0			12.9			18.0	
LOS	C	C		B	C			B			B	
Approach Delay		24.3			21.8			12.9			18.0	
Approach LOS		C			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 65 (81%), Referenced to phase 4:NBTL and 8:SBTL, Start of FDW or yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 18.5		Intersection LOS: B	
Intersection Capacity Utilization 84.6%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 414: Rice St & Maryland Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Future Volume (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.998			0.996	
Flt Protected		0.950			0.950			0.997			0.999	
Satd. Flow (prot)	0	1770	1583	0	1770	1583	0	3522	0	0	3522	0
Flt Permitted		0.950			0.950			0.997			0.999	
Satd. Flow (perm)	0	1770	1583	0	1770	1583	0	3522	0	0	3522	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		1072			1103			1992			652	
Travel Time (s)		24.4			25.1			45.3			12.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	28	0	4	11	0	1040	0	0	543	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	60		

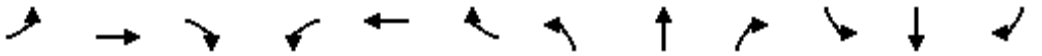
Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	14	0	28	4	0	11	71	958	11	6	523	14
Future Vol, veh/h	14	0	28	4	0	11	71	958	11	6	523	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	100	70	50	100	34	63	92	55	50	90	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	28	4	0	11	71	958	11	6	523	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1364	1904	303	1592	1906	531	605	0	0	1061	0	0
Stage 1	617	617	-	1277	1277	-	-	-	-	-	-	-
Stage 2	747	1287	-	315	629	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	106	68	693	72	68	493	969	-	-	652	-	-
Stage 1	444	479	-	176	236	-	-	-	-	-	-	-
Stage 2	371	233	-	671	474	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	76	47	693	52	47	493	969	-	-	652	-	-
Mov Cap-2 Maneuver	76	47	-	52	47	-	-	-	-	-	-	-
Stage 1	317	466	-	126	169	-	-	-	-	-	-	-
Stage 2	248	166	-	615	461	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30	27.5	1.9	0.3
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	969	-	-	76	693	52	493	652	-	-
HCM Lane V/C Ratio	0.116	-	-	0.263	0.058	0.154	0.066	0.018	-	-
HCM Control Delay (s)	9.2	1.1	-	69.1	10.5	86.7	12.8	10.6	0.1	-
HCM Lane LOS	A	A	-	F	B	F	B	B	A	-
HCM 95th %tile Q(veh)	0.4	-	-	1	0.2	0.5	0.2	0.1	-	-

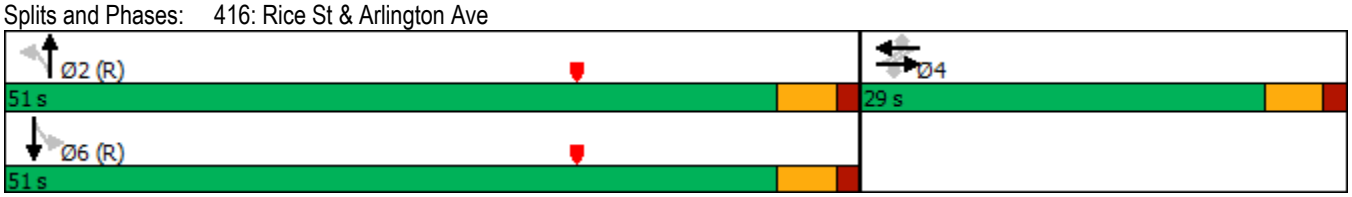


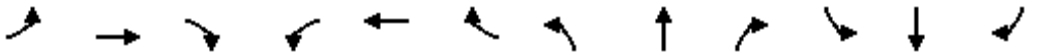
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Future Volume (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.977			0.986	
Flt Protected		0.988			0.983			0.998			0.992	
Satd. Flow (prot)	0	1840	1583	0	1831	1583	0	3451	0	0	3462	0
Flt Permitted		0.882			0.709			0.910			0.691	
Satd. Flow (perm)	0	1643	1583	0	1321	1583	0	3147	0	0	2411	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27			89		44			23	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1063			1001			652			661	
Travel Time (s)		24.2			22.8			12.7			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	30	0	166	104	0	983	0	0	610	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	186		20	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			6	
Permitted Phases	4		4	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		6	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	15.0	15.0		15.0	15.0	
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	24.0	24.0		24.0	24.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	51.0	51.0		51.0	51.0	
Total Split (%)	36.3%	36.3%	36.3%	36.3%	36.3%	36.3%	63.8%	63.8%		63.8%	63.8%	
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0	24.0	46.0	46.0		46.0	46.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		17.1	17.1		17.1	17.1		52.9			52.9	
Actuated g/C Ratio		0.21	0.21		0.21	0.21		0.66			0.66	
v/c Ratio		0.62	0.08		0.59	0.25		0.47			0.38	
Control Delay		35.5	9.9		36.1	8.6		5.0			4.4	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		35.5	9.9		36.1	8.6		5.0			4.4	
LOS		D	A		D	A		A			A	
Approach Delay		32.4			25.5			5.0			4.4	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 48 (60%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 82.2%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 416: Rice St & Arlington Ave



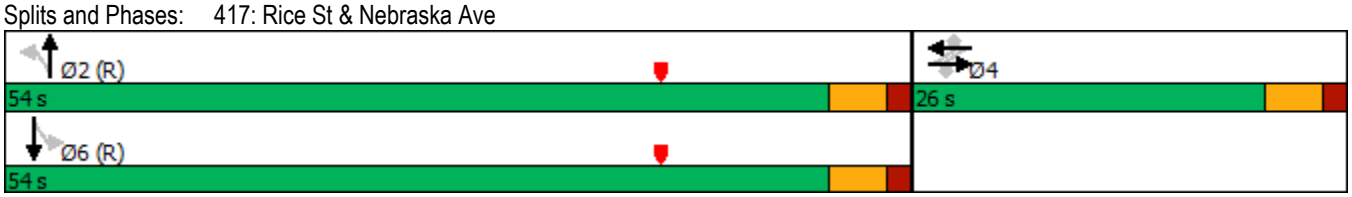


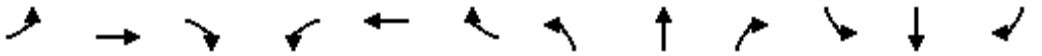
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Future Volume (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.998			0.994	
Flt Protected		0.950			0.973			0.997				
Satd. Flow (prot)	0	1770	1583	0	1812	1583	0	3522	0	0	3518	0
Flt Permitted		0.741			0.826			0.874			0.952	
Satd. Flow (perm)	0	1380	1583	0	1539	1583	0	3087	0	0	3349	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			34			28		2			9	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1086			398			661			332	
Travel Time (s)		24.7			9.0			12.9			6.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	34	0	25	28	0	947	0	0	588	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	186		20	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			4			2			6	
Permitted Phases	4		4	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	22.0	22.0		22.0	22.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	54.0	54.0		54.0	54.0	
Total Split (%)	32.5%	32.5%	32.5%	32.5%	32.5%	32.5%	67.5%	67.5%		67.5%	67.5%	
Maximum Green (s)	21.0	21.0	21.0	21.0	21.0	21.0	49.0	49.0		49.0	49.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	4.5	4.5	4.5	4.5	4.5	4.5	0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0	10.0	10.0		10.0	10.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5	5	5		5	5	
Act Effct Green (s)		12.0	12.0		12.0	12.0		66.0			66.0	
Actuated g/C Ratio		0.15	0.15		0.15	0.15		0.82			0.82	
v/c Ratio		0.06	0.13		0.11	0.11		0.37			0.21	
Control Delay		27.5	10.7		28.6	11.3		1.8			5.6	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		27.5	10.7		28.6	11.3		1.8			5.6	
LOS		C	B		C	B		A			A	
Approach Delay		15.4			19.5			1.8			5.6	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 64 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 4.1		Intersection LOS: A	
Intersection Capacity Utilization 63.5%		ICU Level of Service B	
Analysis Period (min) 60			

Splits and Phases: 417: Rice St & Nebraska Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Future Volume (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.996				
Flt Protected		0.950			0.950							
Satd. Flow (prot)	0	1770	1583	0	1770	1583	0	3525	0	0	3539	0
Flt Permitted		0.950			0.950							
Satd. Flow (perm)	0	1770	1583	0	1770	1583	0	3525	0	0	3539	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		272			1012			332			332	
Travel Time (s)		6.2			23.0			6.5			6.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	28	0	9	2	0	916	0	0	554	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		10			5			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	60		

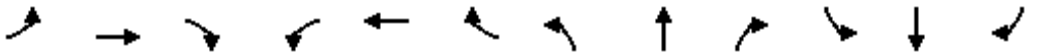
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↑↱			↰↑↑↱	
Traffic Vol, veh/h	3	0	28	9	0	2	3	886	27	3	551	0
Future Vol, veh/h	3	0	28	9	0	2	3	886	27	3	551	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	100	88	75	100	50	75	97	61	38	92	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	28	9	0	2	3	886	27	3	551	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1080	1580	300	1259	1558	479	599	0	0	957	0	0
Stage 1	615	615	-	943	943	-	-	-	-	-	-	-
Stage 2	465	965	-	316	615	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	172	108	696	127	111	533	974	-	-	714	-	-
Stage 1	445	480	-	282	339	-	-	-	-	-	-	-
Stage 2	547	331	-	670	480	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	167	105	696	119	108	533	974	-	-	714	-	-
Mov Cap-2 Maneuver	167	105	-	119	108	-	-	-	-	-	-	-
Stage 1	441	472	-	279	336	-	-	-	-	-	-	-
Stage 2	538	328	-	629	472	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	31.9	0	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	974	-	-	167	696	119	533	714	-	-
HCM Lane V/C Ratio	0.004	-	-	0.024	0.046	0.101	0.008	0.011	-	-
HCM Control Delay (s)	8.7	0	-	27.1	10.4	38.6	11.8	10.1	0.1	-
HCM Lane LOS	A	A	-	D	B	E	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.3	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	1	19	7	2	9	42	835	14	12	528	17
Future Volume (vph)	13	1	19	7	2	9	42	835	14	12	528	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850			0.850		0.998			0.995	
Flt Protected		0.956			0.963			0.998			0.999	
Satd. Flow (prot)	0	1781	1583	0	1794	1583	0	3525	0	0	3518	0
Flt Permitted		0.956			0.963			0.998			0.999	
Satd. Flow (perm)	0	1781	1583	0	1794	1583	0	3525	0	0	3518	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1124			1002			332			201	
Travel Time (s)		25.5			22.8			6.5			3.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	1	19	7	2	9	42	835	14	12	528	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	19	0	9	9	0	891	0	0	557	0
Enter Blocked Intersection	Yes	Yes	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			6			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 60			

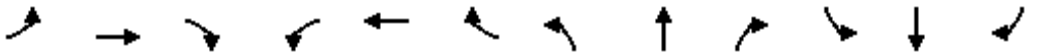
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰↑↱			↰↑↱	
Traffic Vol, veh/h	13	1	19	7	2	9	42	835	14	12	528	17
Future Vol, veh/h	13	1	19	7	2	9	42	835	14	12	528	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	25	59	58	50	56	66	94	70	60	93	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	1	19	7	2	9	42	835	14	12	528	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1194	1656	296	1352	1658	454	592	0	0	908	0	0
Stage 1	620	620	-	1026	1026	-	-	-	-	-	-	-
Stage 2	574	1036	-	326	632	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	142	97	700	109	97	553	980	-	-	745	-	-
Stage 1	442	478	-	251	310	-	-	-	-	-	-	-
Stage 2	471	307	-	661	472	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	116	81	700	87	81	553	980	-	-	745	-	-
Mov Cap-2 Maneuver	116	81	-	87	81	-	-	-	-	-	-	-
Stage 1	384	459	-	218	269	-	-	-	-	-	-	-
Stage 2	391	266	-	600	453	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.6	34.4	1	0.5
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	980	-	-	109	700	85	553	745	-	-
HCM Lane V/C Ratio	0.065	-	-	0.258	0.046	0.189	0.029	0.027	-	-
HCM Control Delay (s)	8.9	0.5	-	49.4	10.4	57.2	11.7	10	0.2	-
HCM Lane LOS	A	A	-	E	B	F	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1	0.1	0.7	0.1	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	13	60	13	39	35	33	769	55	11	484	62
Future Volume (vph)	89	13	60	13	39	35	33	769	55	11	484	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	200		0	75		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990			0.983	
Flt Protected		0.958			0.988		0.950			0.950		
Satd. Flow (prot)	0	1785	1583	0	1840	1583	1770	1844	0	1770	1831	0
Flt Permitted		0.716			0.911		0.382			0.239		
Satd. Flow (perm)	0	1334	1583	0	1697	1583	712	1844	0	445	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			89			89		6			11	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1103			996			430			1579	
Travel Time (s)		25.1			22.6			8.4			30.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	89	13	60	13	39	35	33	769	55	11	484	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	102	60	0	52	35	33	824	0	11	546	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	126	0	20	126	0	50	186		50	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	50	6		50	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		5	2		1	6	
Permitted Phases	8		8	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	8	8	8	4	4	4	2 5	2		1 6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	12.0		7.0	12.0	
Minimum Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	11.5	28.0		11.5	28.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	11.5	41.4		11.6	41.5	
Total Split (%)	33.8%	33.8%	33.8%	33.8%	33.8%	33.8%	14.4%	51.8%		14.5%	51.9%	
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0	22.0	7.0	36.4		7.1	36.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5		3.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	4.5	5.0		4.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	2.2	3.5		2.2	3.5	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0		16.0			16.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		13.5	13.5		13.5	13.5	59.1	58.2		58.2	55.9	
Actuated g/C Ratio		0.17	0.17		0.17	0.17	0.74	0.73		0.73	0.70	
v/c Ratio		0.45	0.18		0.18	0.10	0.05	0.61		0.03	0.43	
Control Delay		35.3	3.8		28.0	0.6	1.2	8.2		5.1	10.4	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		35.3	3.8		28.0	0.6	1.2	8.2		5.1	10.4	
LOS		D	A		C	A	A	A		A	B	
Approach Delay		23.6			17.0			7.9			10.3	
Approach LOS		C			B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 79 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 73.0%		ICU Level of Service C	
Analysis Period (min) 60			

Splits and Phases: 420: Rice St & Wheelock Pkwy

Network Totals

Number of Intersections	19
Control Delay / Veh (s/v)	6
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	6
Total Delay (hr)	53
Stops / Veh	0.25
Stops (#)	8281
Average Speed (mph)	22
Total Travel Time (hr)	188
Distance Traveled (mi)	4192
Fuel Consumed (gal)	257
Fuel Economy (mpg)	16.3
CO Emissions (kg)	17.97
NOx Emissions (kg)	3.50
VOC Emissions (kg)	4.16
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	107
Performance Index	75.8

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	9	1045	9	0	489
Future Volume (vph)	0	9	1045	9	0	489
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	50	
Storage Lanes	0	0		0	0	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	1.00	1.00	*0.75
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	1396	0	0	1397
Flt Permitted						
Satd. Flow (perm)	0	1611	1396	0	0	1397
Link Speed (mph)	30		30			30
Link Distance (ft)	385		317			98
Travel Time (s)	8.8		7.2			2.2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	9	1045	9	0	489
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	9	1054	0	0	489
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.5%		ICU Level of Service C	
Analysis Period (min) 60			

* User Entered Value

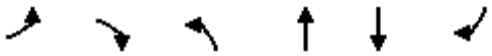
Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	9	1045	9	0	489
Future Vol, veh/h	0	9	1045	9	0	489
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	38	45	96	75	75	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	1045	9	0	489

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1095	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	260	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	260	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	260	-
HCM Lane V/C Ratio	-	-	0.077	-
HCM Control Delay (s)	-	-	20	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.2	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	8	16	1047	473	6
Future Volume (vph)	5	8	16	1047	473	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30	350			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Lane Util. Factor	1.00	1.00	1.00	*0.75	1.00	1.00
Frt		0.850			0.998	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	1397	1859	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1397	1859	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			443	96	
Travel Time (s)	8.3			10.1	2.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	8	16	1047	473	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	5	8	16	1047	479	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	60		

* User Entered Value

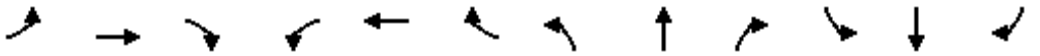
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	8	16	1047	473	6
Future Vol, veh/h	5	8	16	1047	473	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	350	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	33	67	67	97	95	63
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	8	16	1047	473	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1630	503	508	0	-	0
Stage 1	503	-	-	-	-	-
Stage 2	1127	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	112	569	1057	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	569	1057	-	-	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	593	-	-	-	-	-
Stage 2	309	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.3	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1057	-	109	569	-	-
HCM Lane V/C Ratio	0.023	-	0.139	0.021	-	-
HCM Control Delay (s)	8.5	-	43.3	11.5	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	0.1	-	-

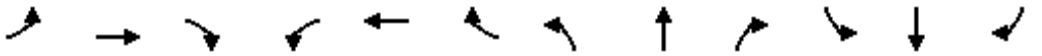


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Future Volume (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	200		0	100		0	1000		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.969				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3522	0	1770	3429	0	1770	1863	1583	1770	1822	0
Flt Permitted	0.194			0.376			0.492			0.198		
Satd. Flow (perm)	361	3522	0	700	3429	0	916	1863	1583	369	1822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			25				158		12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		548			944			1594			1634	
Travel Time (s)		12.5			21.5			36.2			37.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	183	701	25	67	406	106	17	595	158	75	384	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	726	0	67	512	0	17	595	158	75	451	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1	1	1	1	
Detector Template							Left		Right	Left		
Leading Detector (ft)	50	126		50	126		20	126	20	20	126	
Trailing Detector (ft)	0	0		0	0		0	120	0	0	120	
Detector 1 Position(ft)	0	0		0	0		0	120	0	0	120	
Detector 1 Size(ft)	50	20		50	20		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		Perm	NA		Perm	NA	Perm	pm+pt	NA	
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8			2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		8	8		2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		10.0	10.0		15.0	15.0	15.0	7.0	15.0	
Minimum Split (s)	13.0	27.5		27.5	27.5		35.5	35.5	35.5	13.0	35.5	
Total Split (s)	17.0	47.0		30.0	30.0		60.0	60.0	60.0	13.0	73.0	
Total Split (%)	14.2%	39.2%		25.0%	25.0%		50.0%	50.0%	50.0%	10.8%	60.8%	
Maximum Green (s)	11.5	41.5		24.5	24.5		54.5	54.5	54.5	7.5	67.5	
Yellow Time (s)	4.0	3.5		3.5	3.5		3.5	3.5	3.5	4.0	3.5	
All-Red Time (s)	1.5	2.0		2.0	2.0		2.0	2.0	2.0	1.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		5.5	5.5	5.5	5.5	5.5	
Lead/Lag	Lead			Lag	Lag		Lag	Lag	Lag	Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Ped		Ped	Ped		C-Min	C-Min	C-Min	None	Min	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0	7.0		7.0	
Flash Dont Walk (s)		15.0		15.0	15.0		23.0	23.0	23.0		23.0	
Pedestrian Calls (#/hr)		5		5	5		5	5	5		5	
Act Effct Green (s)	43.5	43.5		23.7	23.7		55.0	55.0	55.0	65.5	65.5	
Actuated g/C Ratio	0.36	0.36		0.20	0.20		0.46	0.46	0.46	0.55	0.55	
v/c Ratio	0.61	0.57		0.49	0.73		0.04	0.70	0.20	0.26	0.45	
Control Delay	37.2	32.4		55.9	50.1		21.0	33.1	3.8	13.2	15.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	37.2	32.4		55.9	50.1		21.0	33.1	3.8	13.2	15.2	
LOS	D	C		E	D		C	C	A	B	B	
Approach Delay		33.4			50.7			26.8			14.9	
Approach LOS		C			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 41 (34%), Referenced to phase 2:NBTL, Start of FDW or yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 31.7		Intersection LOS: C	
Intersection Capacity Utilization 84.0%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 404: Rice St & Pennsylvania Ave

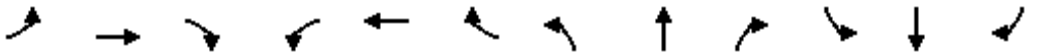


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Future Volume (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	1000		200	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.982			0.998	
Flt Protected		0.977			0.955		0.950			0.950		
Satd. Flow (prot)	0	1820	1583	0	1779	1583	1770	1829	0	1770	1859	0
Flt Permitted		0.883			0.730		0.491			0.225		
Satd. Flow (perm)	0	1645	1583	0	1360	1583	915	1829	0	419	1859	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			85		11			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		733			773			1634			652	
Travel Time (s)		16.7			17.6			37.1			14.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	6	7	11	58	4	85	8	771	105	56	457	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	11	0	62	85	8	876	0	56	463	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	6.0	10.0		6.0	10.0	
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	13.0	23.0		13.0	23.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	13.0	81.0		13.0	81.0	
Total Split (%)	21.7%	21.7%	21.7%	21.7%	21.7%	21.7%	10.8%	67.5%		10.8%	67.5%	
Maximum Green (s)	21.0	21.0	21.0	21.0	21.0	21.0	8.0	76.0		8.0	76.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	Min	
Walk Time (s)	9.0	9.0	9.0	9.0	9.0	9.0		7.0			7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		11.0			11.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		12.9	12.9		12.9	12.9	92.7	87.9		96.4	94.9	
Actuated g/C Ratio		0.11	0.11		0.11	0.11	0.77	0.73		0.80	0.79	
v/c Ratio		0.07	0.05		0.42	0.35	0.01	0.65		0.14	0.31	
Control Delay		46.4	0.4		58.1	13.5	2.4	8.3		4.3	5.9	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.1		0.0	0.0	
Total Delay		46.4	0.4		58.1	13.5	2.4	8.4		4.3	5.9	
LOS		D	A		E	B	A	A		A	A	
Approach Delay		25.3			32.3			8.4			5.8	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 116 (97%), Referenced to phase 2:NBTL, Start of FDW or yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 10.0		Intersection LOS: A	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 60			

Splits and Phases: 406: Rice St & Sycamore St

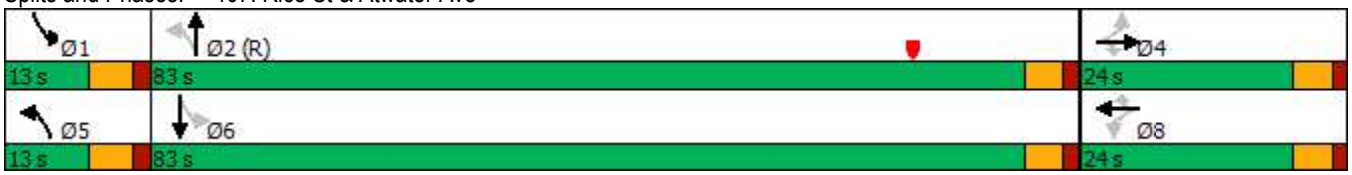


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Future Volume (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		0	750		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.850			0.850		0.998			0.995	
Flt Protected		0.974			0.970		0.950			0.950		
Satd. Flow (prot)	0	1814	1583	0	1807	1583	1770	1394	0	1770	1390	0
Flt Permitted		0.810			0.775		0.356			0.110		
Satd. Flow (perm)	0	1509	1583	0	1444	1583	663	1394	0	205	1390	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			68		1			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		767			771			652			864	
Travel Time (s)		17.4			17.5			14.8			19.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	34	29	60	24	15	15	42	908	10	4	449	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	60	0	39	15	42	918	0	4	466	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	12.0		7.0	12.0	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	13.0	22.0		13.0	22.0	
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	13.0	83.0		13.0	83.0	
Total Split (%)	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	10.8%	69.2%		10.8%	69.2%	
Maximum Green (s)	19.0	19.0	19.0	19.0	19.0	19.0	7.5	78.0		7.5	78.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.5	5.0		5.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.2	3.2	3.2	3.2	3.2	3.2	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		10.0			10.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		12.3	12.3		12.3	12.3	99.1	99.2		95.8	91.7	
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.83	0.83		0.80	0.76	
v/c Ratio		0.41	0.27		0.26	0.07	0.07	0.80		0.02	0.44	
Control Delay		57.6	12.0		52.8	0.6	1.9	12.4		3.2	7.9	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.5		0.0	0.0	
Total Delay		57.6	12.0		52.8	0.6	1.9	12.8		3.2	7.9	
LOS		E	B		D	A	A	B		A	A	
Approach Delay		35.4			38.3			12.3			7.8	
Approach LOS		D			D			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:NBTL, Start of FDW or yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 13.7		Intersection LOS: B	
Intersection Capacity Utilization 77.6%		ICU Level of Service D	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 407: Rice St & Atwater Ave



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	954	3	2	470
Future Volume (vph)	0	0	954	3	2	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	350	
Storage Lanes	0	0		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	1.00	1.00	*0.75
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	1863	1397	0	1770	1397
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1397	0	1770	1397
Link Speed (mph)	30		30			30
Link Distance (ft)	755		864			462
Travel Time (s)	17.2		19.6			10.5
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	954	3	2	470
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	957	0	2	470
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	60		

* User Entered Value

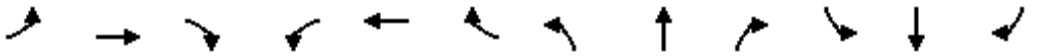
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	954	3	2	470
Future Vol, veh/h	0	0	954	3	2	470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	350	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	93	75	50	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	954	3	2	470

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1028	0	0	1030	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	284	-	-	674	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	284	-	-	674	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	674	-
HCM Lane V/C Ratio	-	-	-	0.006	-
HCM Control Delay (s)	-	-	0	10.4	-
HCM Lane LOS	-	-	A	B	-
HCM 95th %tile Q(veh)	-	-	-	0	-

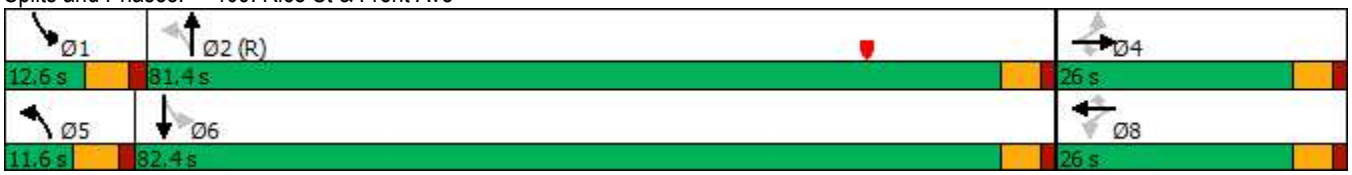


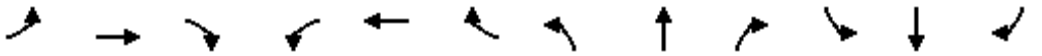
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Future Volume (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	350		0	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.850			0.850		0.998			0.975	
Flt Protected		0.962			0.980		0.950			0.950		
Satd. Flow (prot)	0	1792	1583	0	1825	1583	1770	1394	0	1770	1362	0
Flt Permitted		0.736			0.808		0.336			0.048		
Satd. Flow (perm)	0	1371	1583	0	1505	1583	626	1394	0	89	1362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			68		1			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		708			758			462			650	
Travel Time (s)		16.1			17.2			10.5			14.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	129	33	54	20	30	27	38	902	14	8	398	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	162	54	0	50	27	38	916	0	8	477	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		7			7			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	126		20	126	
Trailing Detector (ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Position(ft)	0	0	0	0	0	0	0	120		0	120	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.0	10.0		7.0	7.0	
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	11.5	24.0		12.5	24.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	11.6	81.4		12.6	82.4	
Total Split (%)	21.7%	21.7%	21.7%	21.7%	21.7%	21.7%	9.7%	67.8%		10.5%	68.7%	
Maximum Green (s)	21.0	21.0	21.0	21.0	21.0	21.0	6.1	76.4		7.1	77.4	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.5	5.0		5.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)	14.0	14.0	14.0	14.0	14.0	14.0		12.0			12.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		18.0	18.0		17.0	17.0	90.2	89.5		88.7	85.0	
Actuated g/C Ratio		0.15	0.15		0.14	0.14	0.75	0.75		0.74	0.71	
v/c Ratio		0.79	0.18		0.23	0.10	0.07	0.88		0.05	0.49	
Control Delay		79.5	8.3		46.2	0.7	3.8	16.8		4.8	11.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		79.5	8.3		46.2	0.7	3.8	16.8		4.8	11.2	
LOS		E	A		D	A	A	B		A	B	
Approach Delay		61.7			30.3			16.3			11.1	
Approach LOS		E			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of FDW or yellow			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 75.5%		ICU Level of Service D	
Analysis Period (min) 60			
* User Entered Value			

Splits and Phases: 409: Rice St & Front Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	3	12	3	3	11	24	1028	6	6	470	13
Future Volume (vph)	15	3	12	3	3	11	24	1028	6	6	470	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		0	250		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.850			0.850		0.999			0.996	
Flt Protected		0.960			0.976		0.950			0.950		
Satd. Flow (prot)	0	1788	1583	0	1818	1583	1770	1396	0	1770	1391	0
Flt Permitted		0.960			0.976		0.950			0.950		
Satd. Flow (perm)	0	1788	1583	0	1818	1583	1770	1396	0	1770	1391	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		734			760			650			317	
Travel Time (s)		16.7			17.3			14.8			7.2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	15	3	12	3	3	11	24	1028	6	6	470	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	18	12	0	6	11	24	1034	0	6	483	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.1%		ICU Level of Service C	
Analysis Period (min) 60			

* User Entered Value

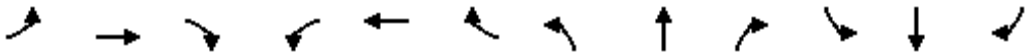
Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	3	12	3	3	11	24	1028	6	6	470	13
Future Vol, veh/h	15	3	12	3	3	11	24	1028	6	6	470	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	550	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	75	43	75	75	34	45	97	38	50	93	65
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	3	12	3	3	11	24	1028	6	6	470	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1731	1721	515	1729	1723	1068	525	0	0	1076	0	0
Stage 1	539	539	-	1174	1174	-	-	-	-	-	-	-
Stage 2	1192	1182	-	555	549	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	69	89	560	69	89	269	1042	-	-	648	-	-
Stage 1	527	522	-	234	266	-	-	-	-	-	-	-
Stage 2	228	263	-	516	516	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	55	83	560	60	83	269	1042	-	-	648	-	-
Mov Cap-2 Maneuver	55	83	-	60	83	-	-	-	-	-	-	-
Stage 1	500	512	-	222	252	-	-	-	-	-	-	-
Stage 2	187	250	-	477	506	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	137.6	28.7	0.4	0.2
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1042	-	-	57	560	70	269	648	-	-
HCM Lane V/C Ratio	0.051	-	-	0.763	0.05	0.114	0.12	0.019	-	-
HCM Control Delay (s)	8.6	-	-	218.3	11.8	63	20.2	10.7	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	5.4	0.2	0.4	0.4	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	17	0	0	9	0	1054	0	0	472	9
Future Volume (vph)	0	0	17	0	0	9	0	1054	0	0	472	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		0	50		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.865			0.865					0.997	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	1397	0	0	1393	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	1397	0	0	1393	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		344			400			98			443	
Travel Time (s)		7.8			9.1			2.2			10.1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	17	0	0	9	0	1054	0	0	472	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	17	0	0	9	0	1054	0	0	481	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	60		

* User Entered Value

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	17	0	0	9	0	1054	0	0	472	9
Future Vol, veh/h	0	0	17	0	0	9	0	1054	0	0	472	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	100	85	31	25	56	75	96	100	100	94	45
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	17	0	0	9	0	1054	0	0	472	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	512	-	-	1098	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	-	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	-	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	562	0	0	259	0	-	-	0	-	-
Stage 1	0	0	-	0	0	-	0	-	-	0	-	-
Stage 2	0	0	-	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	562	-	-	259	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	19.8	0	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	562	259	-	-
HCM Lane V/C Ratio	-	-	0.036	0.062	-	-
HCM Control Delay (s)	-	-	11.6	19.8	-	-
HCM Lane LOS	-	-	B	C	-	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	16	12	1037	15	21	463
Future Volume (vph)	16	12	1037	15	21	463
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	30		0	250	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	*0.75	1.00	1.00	*0.75
Frt		0.850	0.998			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1394	0	1770	1397
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1394	0	1770	1397
Link Speed (mph)	30		30			30
Link Distance (ft)	527		96			345
Travel Time (s)	12.0		2.2			7.8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	16	12	1037	15	21	463
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	12	1052	0	21	463
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	60		

* User Entered Value

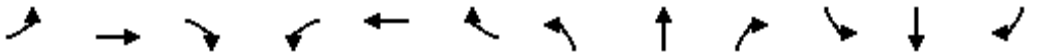
Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	12	1037	15	21	463
Future Vol, veh/h	16	12	1037	15	21	463
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	60	96	75	60	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	12	1037	15	21	463

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1647	1090	0	0	1100	0
Stage 1	1090	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	109	262	-	-	635	-
Stage 1	322	-	-	-	-	-
Stage 2	574	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	103	262	-	-	635	-
Mov Cap-2 Maneuver	103	-	-	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33	0	0.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	103	262	635	-
HCM Lane V/C Ratio	-	-	0.177	0.076	0.055	-
HCM Control Delay (s)	-	-	47.4	19.9	11	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	0.2	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Future Volume (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	250		0	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.75	1.00	1.00	*0.75	1.00
Frt			0.850			0.850		0.997			0.997	
Flt Protected		0.962			0.977		0.950			0.950		
Satd. Flow (prot)	0	1792	1583	0	1820	1583	1770	1393	0	1770	1393	0
Flt Permitted		0.962			0.977		0.950			0.950		
Satd. Flow (perm)	0	1792	1583	0	1820	1583	1770	1393	0	1770	1393	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		944			852			345			643	
Travel Time (s)		21.5			19.4			7.8			14.6	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	8	2	7	6	7	6	15	1012	22	10	471	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	7	0	13	6	15	1034	0	10	479	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		-7			-7			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.3%		ICU Level of Service C	
Analysis Period (min) 60			

* User Entered Value

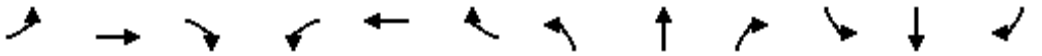
Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	2	7	6	7	6	15	1012	22	10	471	8
Future Vol, veh/h	8	2	7	6	7	6	15	1012	22	10	471	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	250	-	-	550	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	67	50	35	38	44	50	75	97	55	50	94	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	2	7	6	7	6	15	1012	22	10	471	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1666	1672	509	1664	1660	1063	517	0	0	1083	0	0
Stage 1	549	549	-	1103	1103	-	-	-	-	-	-	-
Stage 2	1117	1123	-	561	557	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	77	96	564	77	97	271	1049	-	-	644	-	-
Stage 1	520	516	-	256	287	-	-	-	-	-	-	-
Stage 2	252	281	-	512	512	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	91	564	69	92	271	1049	-	-	644	-	-
Mov Cap-2 Maneuver	61	91	-	69	92	-	-	-	-	-	-	-
Stage 1	510	500	-	251	282	-	-	-	-	-	-	-
Stage 2	223	276	-	475	496	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.9	63.4	0.2	0.4
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1049	-	-	67	564	79	271	644	-	-
HCM Lane V/C Ratio	0.019	-	-	0.238	0.035	0.401	0.044	0.031	-	-
HCM Control Delay (s)	8.5	-	-	75.3	11.6	80.3	18.9	10.8	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.1	1.9	0.1	0.1	-	-

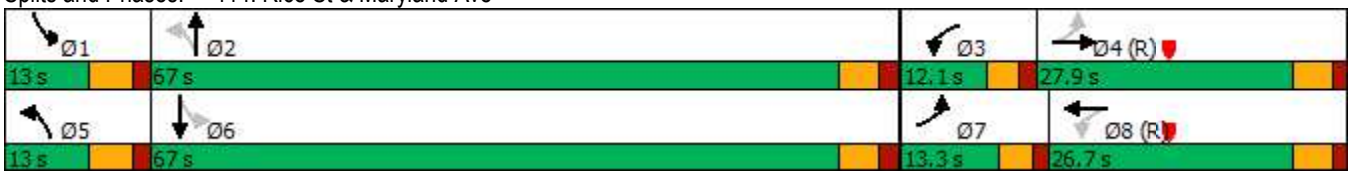


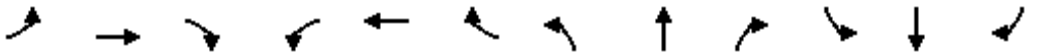
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Future Volume (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	265		0	550		150	1000		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.964			0.973			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3511	0	1770	3412	0	1770	1812	0	1770	1794	0
Flt Permitted	0.237			0.261			0.455			0.056		
Satd. Flow (perm)	441	3511	0	486	3412	0	848	1812	0	104	1794	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			30			14			20	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		944			908			643			1992	
Travel Time (s)		21.5			20.6			14.6			45.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	198	493	29	129	341	107	21	823	182	63	331	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	198	522	0	129	448	0	21	1005	0	63	441	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	1		1	1	
Detector Template							Left			Left		
Leading Detector (ft)	50	126		50	126		20	126		20	126	
Trailing Detector (ft)	0	0		0	0		0	120		0	120	
Detector 1 Position(ft)	0	0		0	0		0	120		0	120	
Detector 1 Size(ft)	50	20		50	20		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0		7.0	10.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	11.5	26.0		11.5	26.0		13.0	33.5		13.0	33.5	
Total Split (s)	13.3	27.9		12.1	26.7		13.0	67.0		13.0	67.0	
Total Split (%)	11.1%	23.3%		10.1%	22.3%		10.8%	55.8%		10.8%	55.8%	
Maximum Green (s)	8.8	22.9		7.6	21.7		7.5	61.5		7.5	61.5	
Yellow Time (s)	3.0	3.5		3.0	3.5		4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	2.0		1.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0		4.5	5.0		5.5	5.5		5.5	5.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	0.2		3.0	0.2		3.0	2.0		3.0	2.0	
Recall Mode	None	C-Min		None	C-Min		None	Min		None	Min	
Walk Time (s)		10.0			10.0			14.0			14.0	
Flash Dont Walk (s)		11.0			11.0			14.0			14.0	
Pedestrian Calls (#/hr)		5			5			5			5	
Act Effct Green (s)	30.1	20.2		26.9	18.6		72.4	66.8		75.1	72.0	
Actuated g/C Ratio	0.25	0.17		0.22	0.16		0.60	0.56		0.63	0.60	
v/c Ratio	0.93	0.88		0.67	0.81		0.04	0.99		0.38	0.41	
Control Delay	108.9	68.1		54.4	58.5		8.8	76.7		28.7	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	108.9	68.1		54.4	58.5		8.8	76.7		28.7	9.8	
LOS	F	E		D	E		A	E		C	A	
Approach Delay		79.4			57.6			75.3			12.2	
Approach LOS		E			E			E			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 119 (99%), Referenced to phase 4:EBTL and 8:WBTL, Start of FDW or yellow			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 61.5		Intersection LOS: E	
Intersection Capacity Utilization 90.7%		ICU Level of Service E	
Analysis Period (min) 60			

Splits and Phases: 414: Rice St & Maryland Ave





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Future Volume (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	1000		0	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.998			0.996	
Flt Protected		0.950			0.950		0.950			0.950		
Satd. Flow (prot)	0	1770	1583	0	1770	1583	1770	1859	0	1770	1855	0
Flt Permitted		0.950			0.950		0.950			0.950		
Satd. Flow (perm)	0	1770	1583	0	1770	1583	1770	1859	0	1770	1855	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		1072			1103			1992			652	
Travel Time (s)		24.4			25.1			45.3			12.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	14	0	28	4	0	11	71	958	11	6	523	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	28	0	4	11	71	969	0	6	537	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.9%		ICU Level of Service C	
Analysis Period (min) 60			

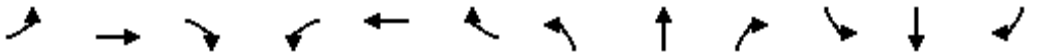
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	28	4	0	11	71	958	11	6	523	14
Future Vol, veh/h	14	0	28	4	0	11	71	958	11	6	523	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	1000	-	-	550	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	100	70	50	100	34	63	92	55	50	90	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	28	4	0	11	71	958	11	6	523	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1910	1904	593	1914	1906	1051	605	0	0	1061	0	0
Stage 1	617	617	-	1277	1277	-	-	-	-	-	-	-
Stage 2	1293	1287	-	637	629	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	52	69	506	51	69	276	973	-	-	657	-	-
Stage 1	477	481	-	204	237	-	-	-	-	-	-	-
Stage 2	200	235	-	465	475	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	41	60	506	42	60	276	973	-	-	657	-	-
Mov Cap-2 Maneuver	41	60	-	42	60	-	-	-	-	-	-	-
Stage 1	422	472	-	180	210	-	-	-	-	-	-	-
Stage 2	156	208	-	420	466	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	65.1	37.8	0.9	0.2
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	973	-	-	41	506	42	276	657	-	-
HCM Lane V/C Ratio	0.116	-	-	0.488	0.079	0.19	0.117	0.018	-	-
HCM Control Delay (s)	9.2	-	-	170	12.7	110.6	19.8	10.6	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-	2.3	0.3	0.7	0.4	0.1	-	-

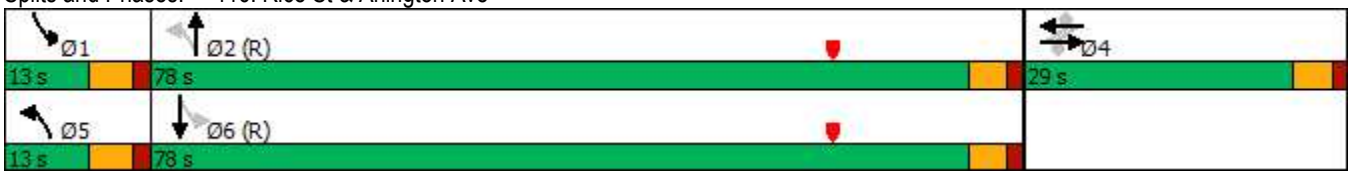


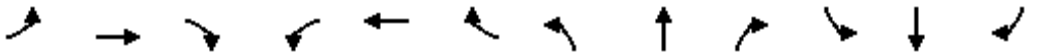
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Future Volume (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		150	550		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.976			0.983	
Flt Protected		0.988			0.983		0.950			0.950		
Satd. Flow (prot)	0	1840	1583	0	1831	1583	1770	1818	0	1770	1831	0
Flt Permitted		0.747			0.545		0.419			0.127		
Satd. Flow (perm)	0	1391	1583	0	1015	1583	780	1818	0	237	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			68		15			10	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1063			1001			652			661	
Travel Time (s)		24.2			22.8			12.7			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	51	165	30	57	109	104	39	792	152	97	456	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	30	0	166	104	39	944	0	97	513	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	186		20	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4		4	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	8.0	7.0	15.0		3.0	15.0	
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	13.0	24.0		13.0	24.0	
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	13.0	78.0		13.0	78.0	
Total Split (%)	24.2%	24.2%	24.2%	24.2%	24.2%	24.2%	10.8%	65.0%		10.8%	65.0%	
Maximum Green (s)	24.0	24.0	24.0	24.0	24.0	24.0	7.5	73.0		7.5	73.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	4.0	3.5		4.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	5.5	5.0		5.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0		7.0			7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		22.0	22.0		22.0	22.0	82.0	75.5		84.5	80.5	
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.68	0.63		0.70	0.67	
v/c Ratio		0.85	0.09		0.89	0.30	0.07	0.82		0.38	0.42	
Control Delay		83.0	0.5		110.0	19.1	3.9	14.9		11.5	11.3	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.2		0.0	0.1	
Total Delay		83.0	0.5		110.0	19.1	3.9	15.1		11.5	11.4	
LOS		F	A		F	B	A	B		B	B	
Approach Delay		73.0			75.0			14.7			11.4	
Approach LOS		E			E			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 32 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 28.2		Intersection LOS: C	
Intersection Capacity Utilization 93.8%		ICU Level of Service F	
Analysis Period (min) 60			

Splits and Phases: 416: Rice St & Arlington Ave



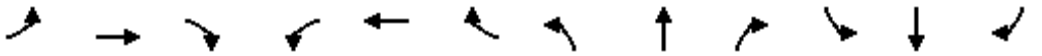


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Future Volume (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		0	250		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.998			0.994	
Flt Protected		0.950			0.973		0.950			0.950		
Satd. Flow (prot)	0	1770	1583	0	1812	1583	1770	1859	0	1770	1852	0
Flt Permitted		0.741			0.835		0.379			0.277		
Satd. Flow (perm)	0	1380	1583	0	1555	1583	706	1859	0	516	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59			59		1			4	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1086			398			661			332	
Travel Time (s)		24.7			9.0			12.9			6.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	13	0	34	14	11	28	62	875	10	3	562	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	34	0	25	28	62	885	0	3	585	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	126	0	20	126	0	20	186		20	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4		4	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4	4	4	4	4	5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Minimum Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	11.5	22.0		11.5	22.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	12.0	83.2		11.8	83.0	
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	10.0%	69.3%		9.8%	69.2%	
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	7.5	78.2		7.3	78.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5		3.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	4.5	5.0		4.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	4.5	4.5	4.5	4.5	4.5	4.5	3.0	0.2		3.0	0.2	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Walk Time (s)	8.0	8.0	8.0	8.0	8.0	8.0		7.0			7.0	
Flash Dont Walk (s)	12.0	12.0	12.0	12.0	12.0	12.0		10.0			10.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		12.0	12.0		12.0	12.0	100.7	99.7		97.8	92.7	
Actuated g/C Ratio		0.10	0.10		0.10	0.10	0.84	0.83		0.82	0.77	
v/c Ratio		0.09	0.16		0.16	0.13	0.09	0.57		0.01	0.41	
Control Delay		48.4	5.4		50.0	3.0	2.1	4.8		3.0	7.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.3		0.0	0.0	
Total Delay		48.4	5.4		50.0	3.0	2.1	5.1		3.0	7.2	
LOS		D	A		D	A	A	A		A	A	
Approach Delay		17.3			25.2			4.9			7.2	
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 68 (57%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 75.8%		ICU Level of Service D	
Analysis Period (min) 60			

Splits and Phases: 417: Rice St & Nebraska Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Future Volume (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	250		0	250		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.996				
Flt Protected		0.950			0.950		0.950			0.950		
Satd. Flow (prot)	0	1770	1583	0	1770	1583	1770	1855	0	1770	1863	0
Flt Permitted		0.950			0.950		0.950			0.950		
Satd. Flow (perm)	0	1770	1583	0	1770	1583	1770	1855	0	1770	1863	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		272			1012			332			332	
Travel Time (s)		6.2			23.0			6.5			6.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	3	0	28	9	0	2	3	886	27	3	551	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	28	0	9	2	3	913	0	3	551	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		10			5			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.9%		ICU Level of Service C	
Analysis Period (min) 60			

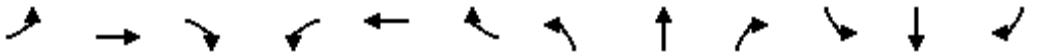
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	28	9	0	2	3	886	27	3	551	0
Future Vol, veh/h	3	0	28	9	0	2	3	886	27	3	551	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	30	-	-	30	250	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	100	88	75	100	50	75	97	61	38	92	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	28	9	0	2	3	886	27	3	551	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1560	1580	599	1574	1558	935	599	0	0	957	0	0
Stage 1	615	615	-	943	943	-	-	-	-	-	-	-
Stage 2	945	965	-	631	615	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	91	109	502	89	112	322	978	-	-	719	-	-
Stage 1	479	482	-	315	341	-	-	-	-	-	-	-
Stage 2	314	333	-	469	482	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	89	107	502	82	110	322	978	-	-	719	-	-
Mov Cap-2 Maneuver	89	107	-	82	110	-	-	-	-	-	-	-
Stage 1	477	477	-	314	340	-	-	-	-	-	-	-
Stage 2	309	332	-	434	477	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.6	46.4	0	0.1
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	978	-	-	89	502	82	322	719	-	-
HCM Lane V/C Ratio	0.004	-	-	0.045	0.063	0.146	0.012	0.011	-	-
HCM Control Delay (s)	8.7	-	-	47.4	12.7	56.4	16.3	10.1	-	-
HCM Lane LOS	A	-	-	E	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.5	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	0	0	9	42	835	14	0	535	19
Future Volume (vph)	0	0	19	0	0	9	42	835	14	0	535	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	250		0	550		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.865			0.865		0.998			0.995	
Flt Protected							0.950					
Satd. Flow (prot)	0	0	1611	0	0	1611	1770	1859	0	1863	1853	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	1611	0	0	1611	1770	1859	0	1863	1853	0
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1124			1002			332			631	
Travel Time (s)		25.5			22.8			6.5			12.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	19	0	0	9	42	835	14	0	535	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	19	0	0	9	42	849	0	0	554	0
Enter Blocked Intersection	Yes	Yes	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			6			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.8%		ICU Level of Service A	
Analysis Period (min) 60			

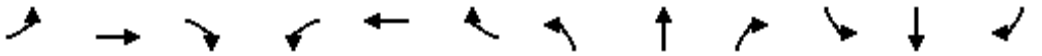
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	19	0	0	9	42	835	14	0	535	19
Future Vol, veh/h	0	0	19	0	0	9	42	835	14	0	535	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	250	-	-	550	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	25	59	58	50	56	66	94	70	60	93	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	19	0	0	9	42	835	14	0	535	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	589	-	-	898	602	0	0	908	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	-	-	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	-	-	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	0	0	508	0	0	338	975	-	-	750	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	508	-	-	338	975	-	-	750	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	16.2	0.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	975	-	-	508	338	750	-	-
HCM Lane V/C Ratio	0.065	-	-	0.063	0.048	-	-	-
HCM Control Delay (s)	8.9	-	-	12.6	16.2	0	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	14	60	22	39	35	33	756	55	23	472	62
Future Volume (vph)	102	14	60	22	39	35	33	756	55	23	472	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		30	0		30	550		0	75		0
Storage Lanes	0		1	0		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990			0.983	
Flt Protected		0.958			0.982		0.950			0.950		
Satd. Flow (prot)	0	1785	1583	0	1829	1583	1770	1844	0	1770	1831	0
Flt Permitted		0.709			0.864		0.412			0.259		
Satd. Flow (perm)	0	1321	1583	0	1609	1583	767	1844	0	482	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59			59		6			11	
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		1103			996			631			1579	
Travel Time (s)		25.1			22.6			12.3			30.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	102	14	60	22	39	35	33	756	55	23	472	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	60	0	61	35	33	811	0	23	534	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	0	1	2	0	1	1		1	1	
Detector Template	Left			Left								
Leading Detector (ft)	20	126	0	20	126	0	50	186		50	186	
Trailing Detector (ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Position(ft)	0	0	0	0	0	0	0	180		0	180	
Detector 1 Size(ft)	20	20	20	20	20	20	50	6		50	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		120			120							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		5	2		1	6	
Permitted Phases	8		8	4		4	2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	8	8	8	4	4	4	2 5	2		1 6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	12.0		7.0	12.0	
Minimum Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	11.5	28.0		11.5	28.0	
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	11.5	81.0		12.0	81.5	
Total Split (%)	22.5%	22.5%	22.5%	22.5%	22.5%	22.5%	9.6%	67.5%		10.0%	67.9%	
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0	22.0	7.0	76.0		7.5	76.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.5		3.0	3.5	
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0	4.5	5.0		4.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	3.5	2.2	3.5		2.2	3.5	
Recall Mode	None	None	None	None	None	None	None	C-Min		None	C-Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0		7.0			7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0		16.0			16.0	
Pedestrian Calls (#/hr)	5	5	5	5	5	5		5			5	
Act Effct Green (s)		16.3	16.3		16.3	16.3	91.5	86.8		91.5	86.8	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.76	0.72		0.76	0.72	
v/c Ratio		0.65	0.23		0.28	0.13	0.05	0.61		0.05	0.40	
Control Delay		66.0	12.9		48.0	4.9	2.5	7.1		4.0	8.9	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		66.0	12.9		48.0	4.9	2.5	7.1		4.0	8.9	
LOS		E	B		D	A	A	A		A	A	
Approach Delay		47.9			32.3			7.0			8.7	
Approach LOS		D			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of FDW or yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 72.3%		ICU Level of Service C	
Analysis Period (min) 60			

Splits and Phases: 420: Rice St & Wheelock Pkwy

Network Totals

Number of Intersections	18
Control Delay / Veh (s/v)	14
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	14
Total Delay (hr)	121
Stops / Veh	0.29
Stops (#)	9053
Average Speed (mph)	16
Total Travel Time (hr)	256
Distance Traveled (mi)	4174
Fuel Consumed (gal)	311
Fuel Economy (mpg)	13.4
CO Emissions (kg)	21.77
NOx Emissions (kg)	4.23
VOC Emissions (kg)	5.04
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	143
Performance Index	146.2

Traffic Safety Benefit-Cost Calculation

Highway Safety Improvement Program (HSIP) Reactive Project

DEPARTMENT OF TRANSPORTATION

A. Roadway Description

Route	Rice St (CSAH 49)	**District**	Metro	**County**	Ramsey
Begin RP	Pennsylvania Ave	**End RP**	Wheelock Pkwy	**Miles**	2.000
Location	City of St Paul				

B. Project Description

Proposed Work	Convert 4 lane undivided roadway to a 3 lane roadway (2 thru lane with center turn lane)		
Project Cost*	$36,700,000	**Installation Year**	2024
Project Service Life	20 years	**Traffic Growth Factor**	0.0%

** exclude Right of Way from Project Cost*

C. Crash Modification Factor

0.53	**Fatal (K) Crashes**	**Reference**	CMF ID: 2841
0.53	**Serious Injury (A) Crashes**		
0.53	**Moderate Injury (B) Crashes**	**Crash Type**	All
0.53	**Possible Injury (C) Crashes**		
0.53	**Property Damage Only Crashes**		www.CMFclearinghouse.org

D. Crash Modification Factor (optional second CMF)

	Fatal (K) Crashes	**Reference**	
	Serious Injury (A) Crashes		
	Moderate Injury (B) Crashes	**Crash Type**	
	Possible Injury (C) Crashes		
	Property Damage Only Crashes		www.CMFclearinghouse.org

E. Crash Data

Begin Date 1/1/2019 **End Date** 12/31/2021 3 years

Data Source

Crash Severity	All	< optional 2nd CMF >
K crashes	1	
A crashes	6	
B crashes	24	
C crashes	27	
PDO crashes	171	

F. Benefit-Cost Calculation

$49,841,639	**Benefit (present value)**	**B/C Ratio = 1.36**
$36,700,000	**Cost**	

Proposed project expected to reduce 36 crashes annually, 2 of which involving fatality or serious injury.

F. Analysis Assumptions

Crash Severity	Crash Cost
K crashes	$1,500,000
A crashes	$750,000
B crashes	$230,000
C crashes	$120,000
PDO crashes	$13,000

Link: mndot.gov/planning/program/appendix_a.html

Real Discount Rate:	0.7%	**Revised**
Traffic Growth Rate:	0.0%	Default
Project Service Life:	20 years	**Revised**

G. Annual Benefit

Crash Severity	Crash Reduction	Annual Reduction	Annual Benefit
K crashes	0.47	0.16	$235,000
A crashes	2.82	0.94	$705,000
B crashes	11.28	3.76	$864,800
C crashes	12.69	4.23	$507,600
PDO crashes	80.37	26.79	$348,270
			$2,660,670

H. Amortized Benefit

Year	Crash Benefits	Present Value
2024	$2,660,670	$2,660,670
2025	$2,660,670	$2,642,175
2026	$2,660,670	$2,623,808
2027	$2,660,670	$2,605,569
2028	$2,660,670	$2,587,457
2029	$2,660,670	$2,569,471
2030	$2,660,670	$2,551,609
2031	$2,660,670	$2,533,872
2032	$2,660,670	$2,516,258
2033	$2,660,670	$2,498,767
2034	$2,660,670	$2,481,397
2035	$2,660,670	$2,464,148
2036	$2,660,670	$2,447,019
2037	$2,660,670	$2,430,009
2038	$2,660,670	$2,413,117
2039	$2,660,670	$2,396,343
2040	$2,660,670	$2,379,685
2041	$2,660,670	$2,363,143
2042	$2,660,670	$2,346,716
2043	$2,660,670	$2,330,403
0	$0	$0
0	$0	$0
0	$0	$0
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 = $49,841,639

NOTE:
This calculation relies on the real discount rate, which accounts for inflation. No further discounting is necessary.

CMF / CRF Details

CMF ID: 2841

Converting four-lane roadways to three-lane roadways with center turn lane (road diet)

Description: Conversion of road segments from a four-lane to a three-lane cross-section with two-way left-turn lanes (also known as road diets).

Prior Condition: Four-lane undivided roadway

Category: Roadway

Study: *Comparison of empirical Bayes and full Bayes approaches for before-after road safety evaluations*, Persaud et. al, 2010

Star Quality Rating:	★★★★★

Crash Modification Factor (CMF)	
Value:	0.53
Adjusted Standard Error:	
Unadjusted Standard Error:	0.02

Crash Reduction Factor (CRF)	
Value:	47 *(This value indicates a **decrease** in crashes)*

Adjusted Standard Error:	
Unadjusted Standard Error:	2

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	4
Road Division Type:	Undivided
Speed Limit:	
Area Type:	Urban and suburban
Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Development Details

Date Range of Data Used:	1982 to 2004
Municipality:	

State:	
Country:	
Type of Methodology Used:	2
Sample Size Used:	
Before Sample Size Used:	263
After Sample Size Used:	67

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Mar-21-2011
Comments:	When this CMF was initially entered in the Clearinghouse, it was incorrectly entered as a CMF of 0.47. In March 2015, this was corrected to be 0.53, as presented in the original paper. In February 2021, the area type for this CMF was changed from suburban to urban/suburban to account for the fact that the treatment sites were largely located in small urban areas.

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

PRELIMINARY GEOMETRIC DESIGN
2022

BOLTON & MENK

RAMSEY COUNTY

PROJECT LOCATION

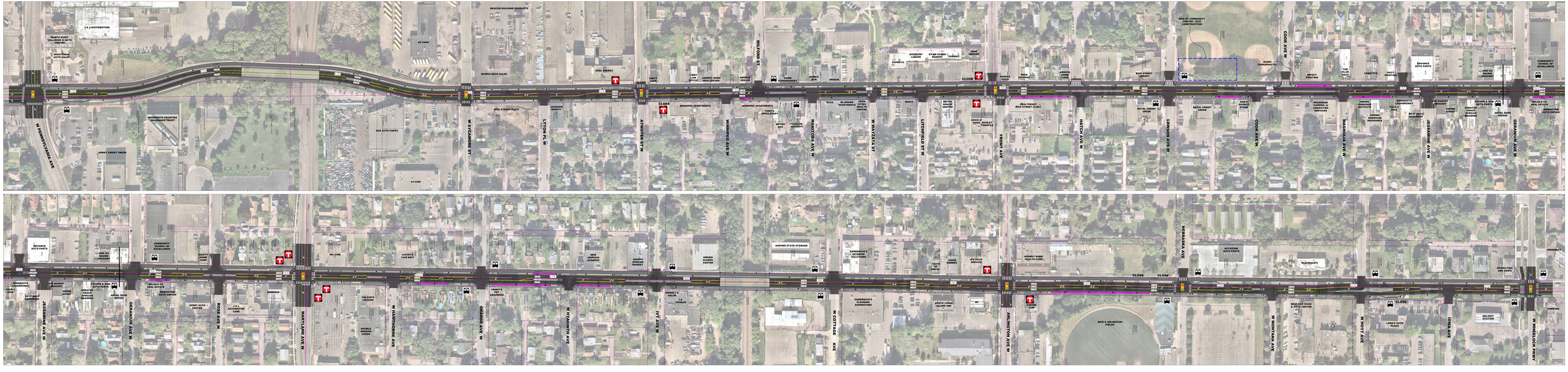
NOTE:
1. RIGHT OF WAY ACQUISITION IN THE FORM OF PERMANENT EASEMENTS OF LESS THAN 5-FEET MAY BE REQUIRED AT INTERSECTIONS OR BUS STOP LOCATIONS. LOCATIONS AND AREAS WILL BE DETERMINED DURING FINAL DESIGN.

LEGEND

- ROADWAY
- CURB & GUTTER / MEDIAN
- SIDEWALK / CLEAR ZONE / DRIVEWAY
- SHARED USE PATH
- EXISTING ROW
- EXISTING PROPERTY LINE
- POTENTIAL PARKING AREA
- BUS PULLOUT
- LOCAL BUS STOP
- ENHANCED BUS STOP

EXISTING TYPICAL

PROPOSED TYPICAL



Metro Transit

April 7, 2022

Nick Fischer
Ramsey County
1425 Paul Kirkwold Dr.
Arden Hills, MN 55112

Re: Metro Transit Support for Ramsey County 2022 Regional Solicitation Application: Rice Street Reconstruction

Dear Mr. Fischer:

Metro Transit is supportive of Ramsey County's Regional Solicitation federal funding application for the proposed reconstruction project on Rice Street.

Rice Street is a key corridor in St. Paul that has a diverse blend of businesses, residents, and users. The roadway concept that emerged from the Rice Street Visioning Study will provide significantly improved connections for area neighborhoods, and the North End of St. Paul as a whole.

This segment is served today by Route 3 and Route 62, with existing local bus stops at most intersections. This segment of Rice Street will be served by the planned METRO G Line in the future. Both the transit project and the reconstruction project have independent utility and individually accruable benefits, and each could be implemented without the other. However, both agencies intend to coordinate project efforts to minimize impacts and the ensure the best possible multimodal solution in the corridor. We appreciate the early involvement and ongoing coordination between these two projects initiated by County staff.

Thank you for making us aware of this application and the opportunity to provide support. We look forward to continued coordination during the project development process to accommodate existing local bus service in this corridor and support implementation of the future G Line.

Sincerely,

Wes Kooistra
General Manager

SAINT PAUL
PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS
SEAN KERSHAW, DIRECTOR

25 West 4th Street, 1500 City Hall Annex
Saint Paul, MN 55102
Tel: 651-266-6100 | Fax: 651-266-6222

March 25, 2022

Mr. Nick Fischer, P.E.
1425 Paul Kirkwold Drive
Arden Hills, Minnesota 55112

Mr. Fischer,

The City of Saint Paul supports Ramsey County's application for federal transportation funding for the reconstruction of Rice Street in the City of Saint Paul.

Rice Street is an important arterial roadway within the City, serving the North End and Frogtown neighborhoods, as well as Downtown Saint Paul and the State Capitol. The City appreciates Ramsey County's efforts to develop a community driven concept for the roadway through the Rice Street Visioning Study and looks forward to continued collaboration as the project advances.

The reconstruction of Rice Street will address issues with aging pavement, traffic signals and other critical infrastructure that presents significant maintenance challenges. The project will also provide needed safety and operational improvements for all users along and across the corridor, including pedestrians, bicyclists, and riders of existing and planned transit routes, consistent with the City's goals.

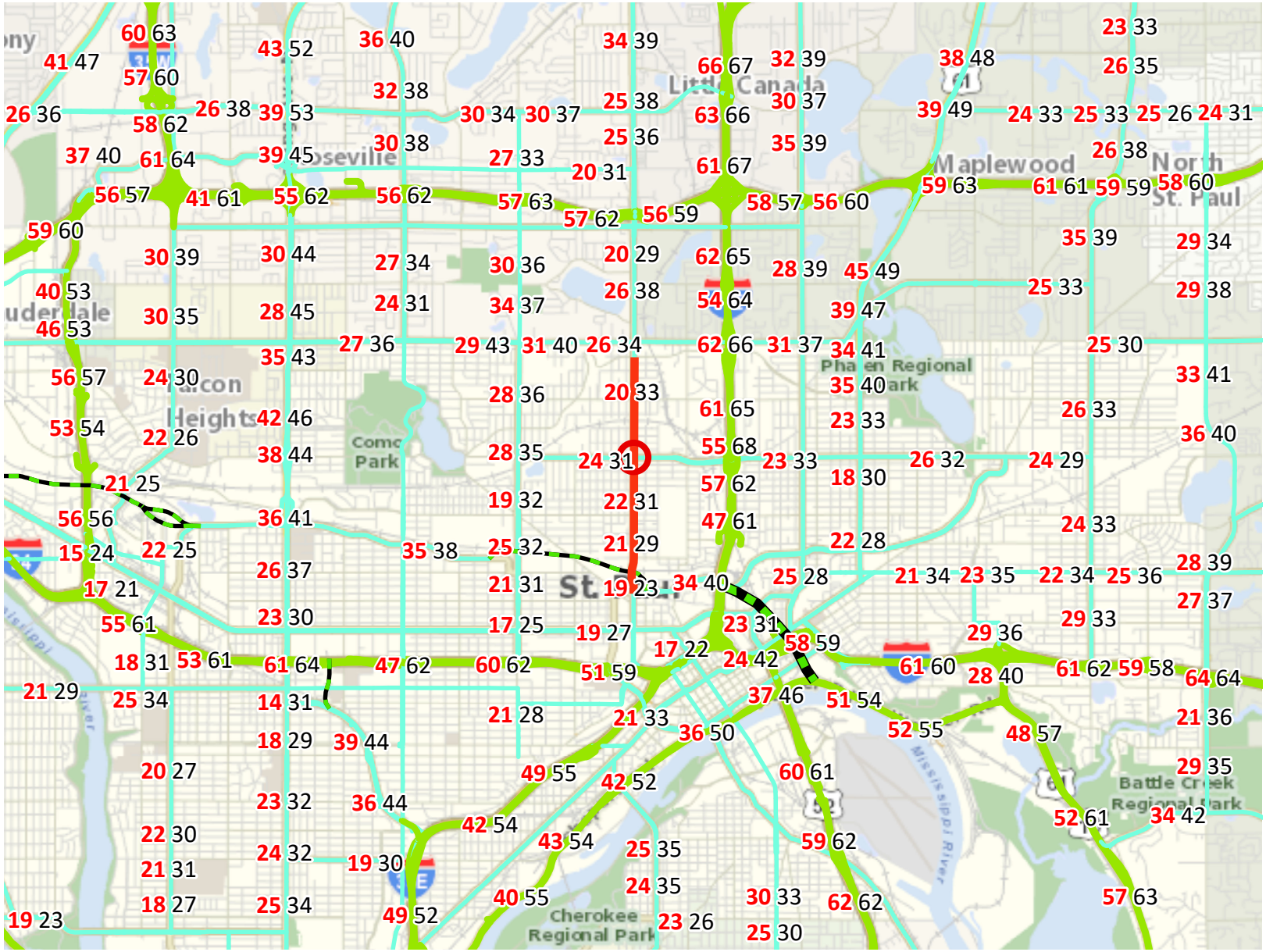
We appreciate Ramsey County's continued efforts to improve its roadways within the City of Saint Paul.

Sincerely,

Paul Kurtz, P.E.
City Engineer
Department of Public Works

Level of Congestion

Roadway Reconstruction/Modernization Project: Rice Street | Map ID: 1647873505831



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

0 0.75 1.5 3 4.5 6 Miles

Created: 3/21/2022
LandscapeRSA1

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

METROPOLITAN COUNCIL

PRELIMINARY GEOMETRIC DESIGN
2022

BOLTON & MENK

RAMSEY COUNTY

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- LOCAL BUS STOP
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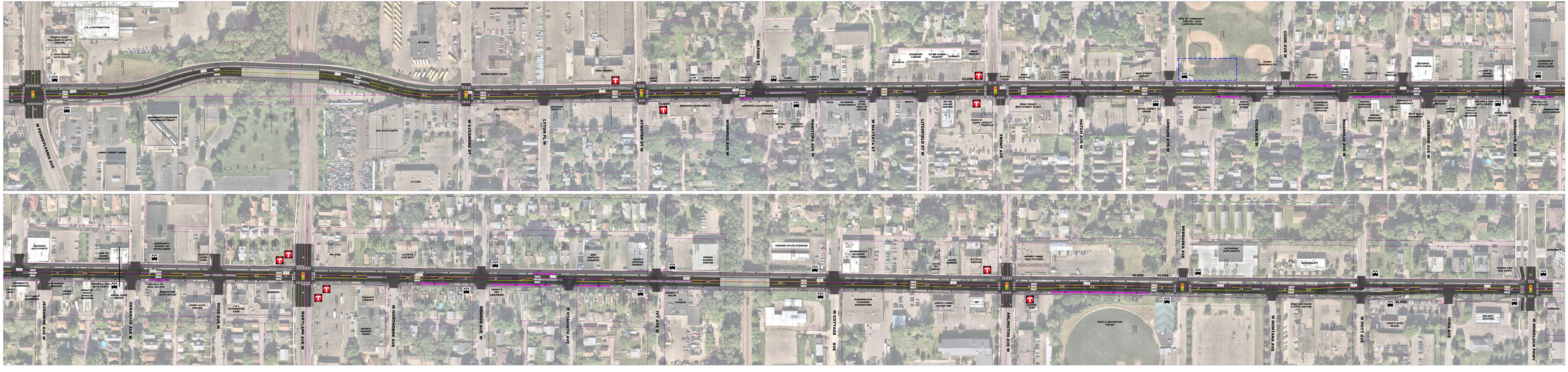


RICE STREET VISIONING STUDY

Visioning Study Engagement Summary

From October 2019 - November 2021, three phases of community engagement allowed the project team to gather information regarding public opinion on the current conditions of Rice Street and to share concepts for the improvements of the Rice Street Corridor.

Oct. 2019 — Nov. 2021

INITIAL FEEDBACK 9 MO.	TOOLBOX PHASE 5 MO.	ROADWAY DESIGN OPTIONS 11 MO.

ENGAGEMENT SNAPSHOT

4 OPEN HOUSES

- October 29, 2019 – 43 attendees
- November 18, 2020 – 20 responses, 146 video views
- July 14, 2021 – 96 registrants, 294 video views
- November 16, 2021 – 114 registrants, 91 video views

9 POP-UP EVENTS

- Frogtown Creative Arts Festival
- Marydale Festival 2019
- Revision Rice Popup
- Dars Ice Cream Popup
- LarpenTOUR
- Double Dragon Foods Popup
- National Night Out Popup
- Rice-Larpenteur Block Party
- Marydale Festival 2021

25 EMAILS SENT

2,360 EMAIL SUBSCRIBERS

262 INPUTID COMMENTS

38 SIDEWALK DECAL LOCATIONS

4 COMMUNITY LIAISONS

14 VIDEOS

2,418 TOTAL VIDEO VIEWS

16 SHAREHOLDER MEETINGS

1,395 IN-PERSON COMMENTS

9 SURVEYS

583 DIGITAL SURVEY RESPONSES

4 FOCUS GROUPS

OVER 4,650 COMMUNITY COMMENTS

RAMSEY COUNTY

Key Rice Street Engagement Events

2019

- September
- October
- November
- December

2020

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

2021

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November

SEPTEMBER 21, 2019
Frogtown Creative Arts Festival

SEPTEMBER 28, 2019
Marydale Festival

DECEMBER 16, 2019
Washington Tech Magnet Partnering Meeting

MAY 22, 2019
Online Miniseries Begins

AUGUST 21, 2020
Dar's Ice Cream Pop-up

OCTOBER 17, 2020
Double Dragon's Foods Pop-up

OCTOBER 22, 2020
Online Miniseries Ends after releasing 8 topics

JUNE 14, 2021
Open House #3

NOVEMBER 16, 2021
Open House #4

OCTOBER 29, 2019
Open House #1

JULY 31, 2020
Mama's Pizza Pop-up

NOVEMBER 11, 2020
Open House #2

AUGUST 2, 2021
Decals Installed

AUGUST 3, 2021
National Night Out Pop-up

SEPTEMBER 25, 2020
Marydale Festival

RICE STREET VISIONING STUDY

Phase 1: Existing Conditions Engagement Highlights

From October 2019 - July 2020, the project team gathered initial feedback about existing conditions on Rice Street. In this phase, the community let us know what is working on Rice street, what isn't, and ideas for the future.

GATHER INITIAL FEEDBACK

Oct. 2019 Nov. Dec. Jan. Feb. March April May June July 2020

ENGAGEMENT SNAPSHOT

- **15** Stakeholder meetings
- **1** Open house
- **3** Pop-up events
- **11** Videos
- **449** Total video views
- **6** Emails sent
- **2,036** Email subscribers
- **2** Surveys
- **240** Survey responses
- **123** INPUTiD comments

ONLINE ENGAGEMENT SERIES

1 MAY 22, 2020
Project overview and community liaison intro

Project overview video: 219 views

Introduced project and comunity liaisons

2 JUNE 17, 2020
Who is using Rice Street?

Who is using Rice Street video: 150 views

Covered data on the people and neighborhoods, history, culture and businesses and jobs on Rice Street

3 JUNE 25, 2020
Traveling on Rice Street

Miniseries videos: 215 views

Covered commuter traffic, driving, biking, walking and transit along the corridor

4 JULY 9, 2020
How are we involving the community?

Miniseries video: 84 views

Covered how community can provide feedback: General feedback forms, surveys and INPUTiD

5 JULY 30, 2020
Update from community liaisons

Comunity liaisons intorduced themselves and provided a video update

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Phase 1: Existing Conditions Engagement Highlights

PROJECT GOALS SURVEY

How do you travel on Rice Street?

- Walk
- Bike
- ✓ Personal vehicle
- Public transporation
- Don't visit Rice Street

How would you like to travel on Rice Street?

- Walk
- Bike
- Personal vehicle
- Public transporation
- ✓ Desire for all modes

Should a more walkable corridor that encourages people to walk between destinations be a low or high priority?

✓ 67% selected high priority

Are the current street crossings a safety concern for pedestrians?

- ✓ YES
- No
- Not sure

Should encouraging bicycle traffic on Rice Street be a low or high priority?

- Low 42%
- Neutral 14%
- High 44%

What are your top three priorities for Rice Street?

- Walkable
- Safety
- Business economy

FACILITY RATINGS SURVEY

Pedestrians

- 14%
- 31%
- 55% ✓ Poor

Bicyclists

- 17%
- 7%
- 76% ✓ Poor

Transit

- 43% ✓ Good
- 39%
- 18%

Passenger vehicles

- 34%
- 45% ✓ Fair
- 21%

Freight

- 16%
- 59% ✓ Fair
- 25%

Parking

- 18%
- 45% ✓ Fair
- 37%

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Phase 1: Existing Conditions Engagement Highlights

TOP 5 INPUTID COMMENT TOPICS

40 Total

Likes and Ideas

22 Initial comments 18 Replies

80 Total

Dislikes and Concerns

33 Initial comments 47 Replies

More bike lanes that connect to trails, parks, and the downtown area

More attractive neighborhood design and green space

Promotion of local businesses, more restaurants and coffee shops, and more opportunity for youth employment

More intersections like Rice Street and Larpenteur Avenue that have slower speed limits and a 4-3 lane conversion

Lane reduction to promote alternative modes of transportation

Maintence of sidewalks is poor, making it hard for pedestrian use and accessibility

Crossings at intersections are unsafe for all pedestrians such as bikers and walkers

Rice Street is too fast, causing many accidents and various safety concerns

Limited left turn lanes

Too little parking

WHAT'S NEXT FOR 2020?

From August - October 2020, community engagement will focus on a toolbox of design features that could be used to improve Rice Street. In this phase, please share your feedback on possible improvement options and which options are best for the Rice Street corridor.

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Phase 2: Improvement Toolbox Engagement Highlights

From August 2020 - December 2020, the project team gathered feedback on specific tools that could be used to improve the project area. These tools were released in five separate topic groups: pedestrian and bicycle, transit, streetscape, vehicle traffic, and neighborhood design improvements. Members of the public were given the opportunity to learn about each option and provide their feedback via an online survey. After these online topics were released, the project team held an open house in November to discuss results and share potential roadway design options.

IMPROVEMENT TOOLBOX PHASE

Aug. 2020 | Sept. | Oct. | Nov. | Dec. 2020

TOOLBOX PHASE ENGAGEMENT SNAPSHOT

- **11** Emails sent
- **8** Stakeholder meetings
- **1** Open house
- **4** Pop-up events
- **2,066** Email subscribers
- **319** Survey responses
- **6** Surveys

ONLINE ENGAGEMENT TIMELINE

1	2	3	4	5	6
Aug. 12, 2020	*Aug. 26, 2020*	*Sep. 9, 2020*	*Sep. 30, 2020*	*Oct. 22, 2020*	*Nov. 18, 2020*
Potential pedestrian and bicycle design solutions	Transit design solutions	Streetscape design solutions	Vehicle and traffic design solutions	Neighborhood design solutions	Digital open house
70 SURVEY RESPONSES	50 SURVEY RESPONSES	58 SURVEY RESPONSES	68 SURVEY RESPONSES	53 SURVEY RESPONSES	20 SURVEY RESPONSES

WHAT'S NEXT FOR 2021?

From January - August 2021, the remaining community engagement will focus on design solutions and alternatives for the corridor and surrounding community. In this phase, please continue to share your feedback on roadway design options and which options are best for the Rice Street corridor.

ROADWAY DESIGN OPTIONS | **SELECTED DESIGN**

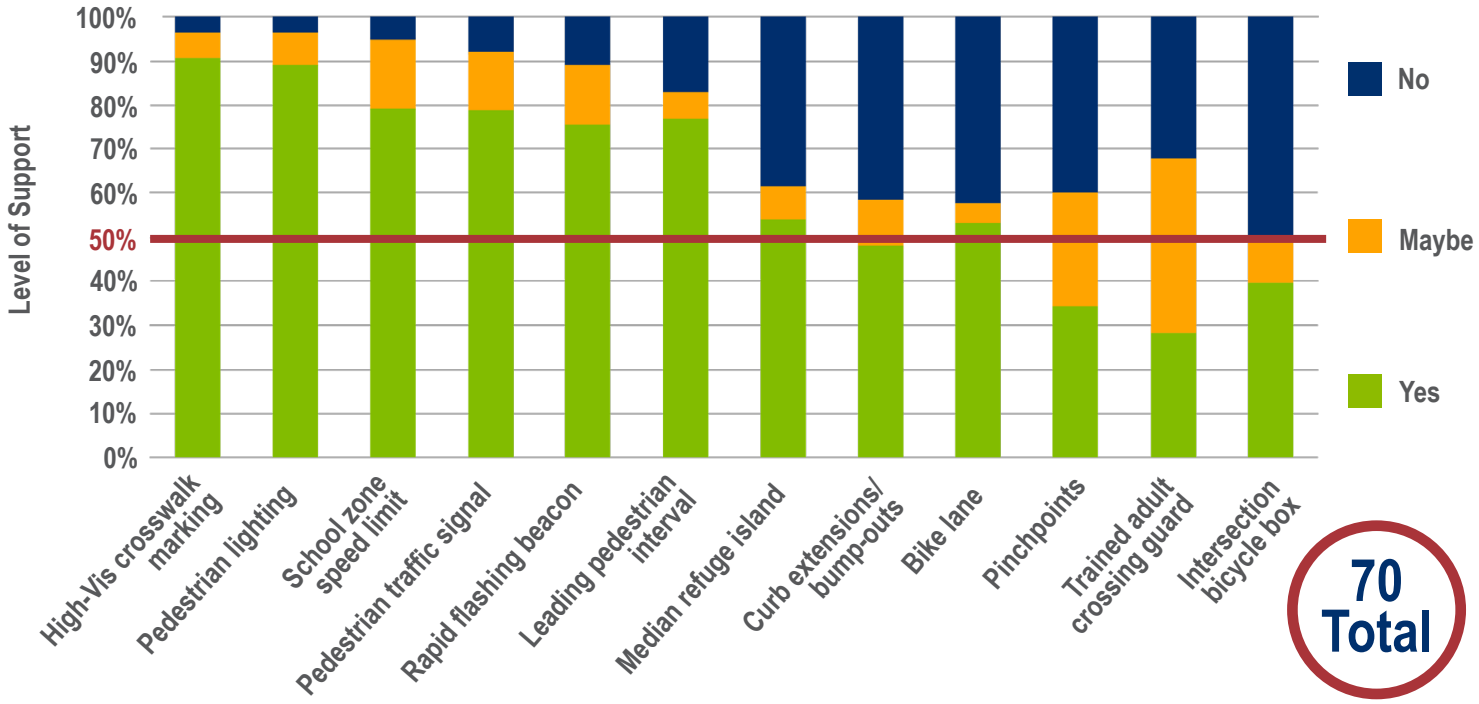
Nov. 2020 | Dec. | Jan. 2021 | Feb. | March | April | May | June | July | Aug. 2021

RAMSEY COUNTY

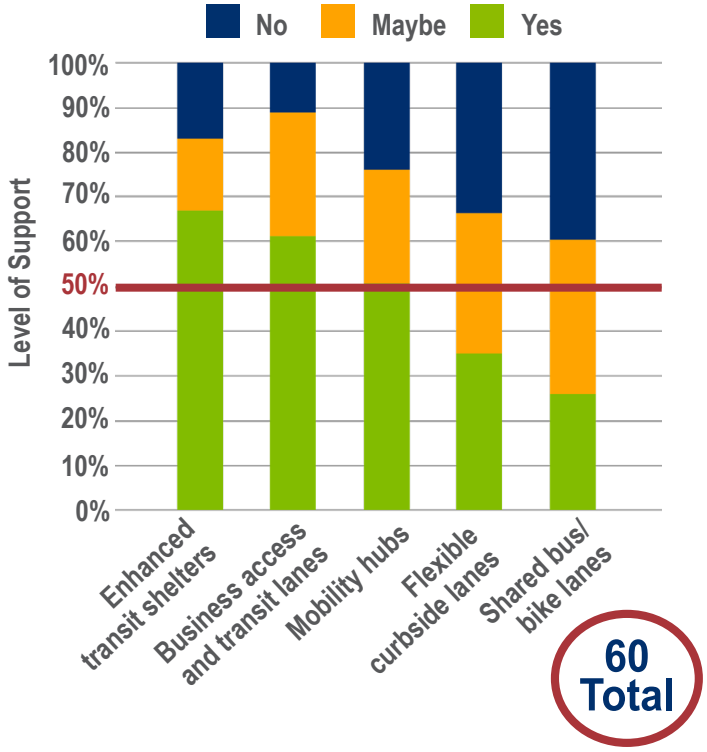
RICE STREET VISIONING STUDY

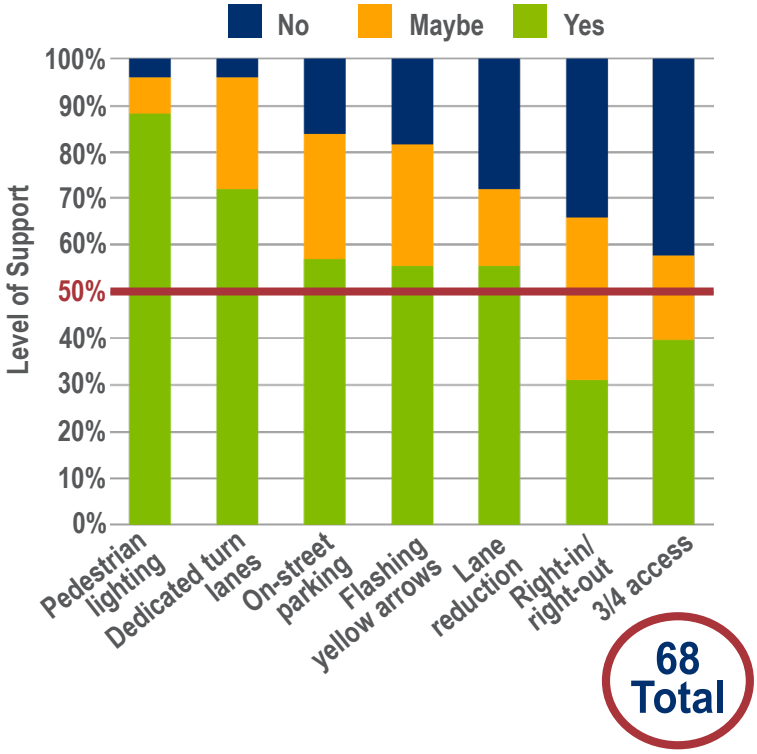
Phase 2: Improvement Toolbox Engagement Highlights

PEDESTRIAN & BICYCLE SURVEY



TRANSIT & VEHICLE SURVEY



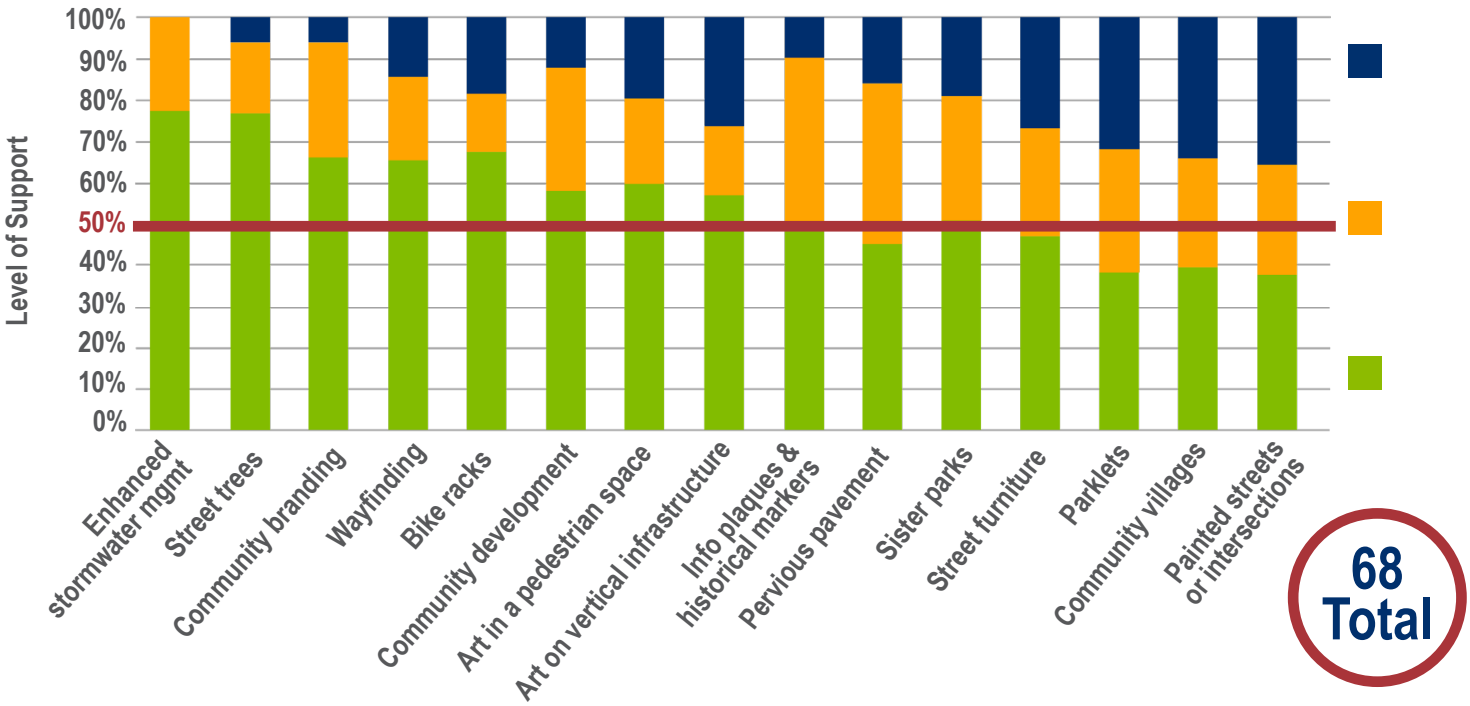


RAMSEY COUNTY

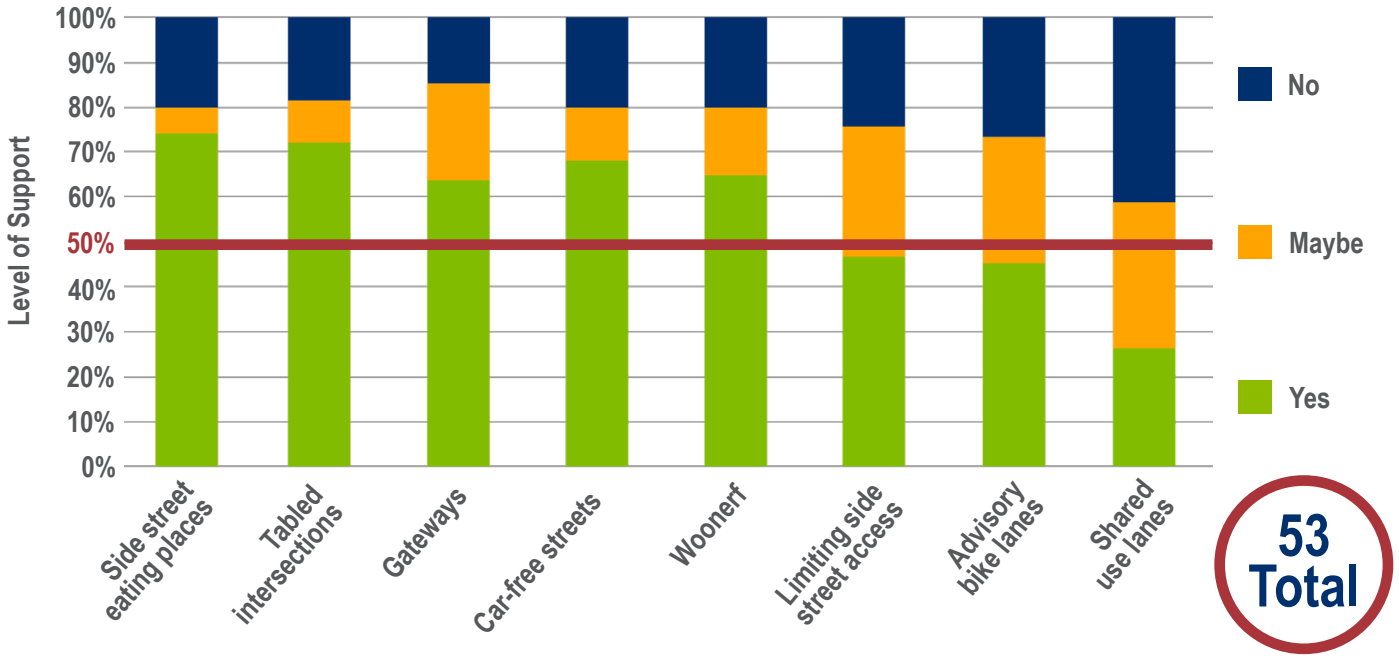
RICE STREET VISIONING STUDY

Phase 2: Improvement Toolbox Engagement Highlights

STREETSCAPE SURVEY



NEIGHBORHOOD DESIGN SURVEY



RAMSEY COUNTY

RICE STREET VISIONING STUDY

Phase 2: Improvement Toolbox Engagement Highlights

TOOLBOX SURVEY COMMON THEMES

Needs

Prioritize businesses, transit, non-motorized users and vulnerable populations (children, elderly, disabled).

Maintain current traffic flow and lanes.

Safer pedestrian infrastructure (wider sidewalks, medians, pedestrian lighting).

Traffic calming devices (narrowing lanes).

Safer bicycle infrastructure (protected bike lanes rather than advisory or shared bike lanes).

Maintain or increase amount of parking.

Placemaking (attractive infrastructure, green spaces, art, community branding, historical plaques).

Concerns

Bus and bike lanes impact on traffic flow.

Traffic speed and congestion.

Impacts of limiting side street access.

Right-of-way space.

Diversion of traffic to side streets.

Bike lane usage in winter.

Winter maintenance of non-motorized facilities.

Access to businesses.

Improvement costs.

OPEN HOUSE SURVEY COMMON THEMES

Seven different roadway concepts were presented at the open house. You can review the concepts by viewing slides 39-46 of the **open house presentation on the project website.** These newly introduced concepts will be explored much more in the next phase.

Concept 1

» Concern about pedestrian and bicycle safety.

» Support for dedicated turn lanes.

» Comments that sidewalks are too narrow.

» Concern about lack of parking.

Concept 2

» Road feels comfortable and community oriented.

» Mixed reponse about on-street parking and bike lanes.

» Support for center turn lanes.

» Concerns about pedestrian safety.

Concept 3

» Mixed response for the shared use path.

» Concern about pedestrian conflicts with bicycles and cars.

» Support for wide boulevards.

» Concern about lack of parking.

Concept 4

» Support for large sidewalks and center medians.

» Desire for permanent parking and bike lanes.

» Support for removing temporary parking.

» Concern about traffic backups.

Concept 5

» Support for balance of non-motorized and motorized uses.

» Mixed response about on-street parking and bike lanes.

» Support for larger sidewalks.

» Concern about lack of center turn lane.

Concept 6

» Desire for bike lanes and center turn lanes.

» Positive comments about pedestrian safety.

» Mixed reponse about parking.

» Postive comments about bump-outs.

Concept 7

» Concerns about bicycle and pedestrian safety.

» Desire for more parking and wider sidewalks.

» Negative comments about the prioritization of motorized over non-motorized users.

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Phase 2: Improvement Toolbox Engagement Highlights

POP-UP EVENTS

Plant Pop Up July 31, 2020	Dars Ice Cream Aug. 21, 2020	Larpen TOUR Sept. 26, 2020	Double Dragon Foods Oct. 17, 2020

Key Quote

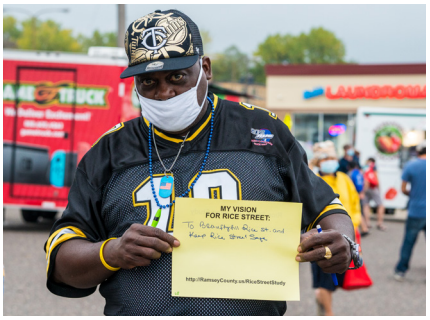
"I would like to see cleaner streets and the community coming together more."

Key Quote

"Rice Street redesign NEEDS to be truly transformative."

Key Quote

"Our youth are our future, we must build them up to have a better Rice Street."



RAMSEY COUNTY

RICE STREET VISIONING STUDY

Roadway Design Options Engagement Summary

From December 2020 to November 2021, the project team gathered feedback on the three roadway design concepts. Members of the public were able to learn about each design and provide their feedback using the online comment map or comment card. At the end of this phase, the project team shared the recommended design at the final open house.

DESIGN OPTIONS PHASE ENGAGEMENT SNAPSHOT

- **7** Emails sent
- **?** Stakeholder meetings
- **2** Open houses
- **9** Pop-up events
- **2,360** Email Subscribers
- **500+** Public Comments
- **75+** InputID comments

ENGAGEMENT TIMELINE

1	2	3	4	5	6
Jun. 14, 2021	*Jun. 14, 2021*	*Aug. 6, 2021*	*Aug. 14, 2021*	*Sep. 25, 2021*	*Nov. 16, 2021*
Held digital open house and posted recording on the website	Launched Input ID with 3 design alternatives	Installed sidewalk decals to encourage feedback	Attended Rice-Larpenteur Block Party	Attended Marydale Festival and hosted voting exercise	Held digital open house to share recommended concept
74 REGISTRANTS	71 SURVEY RESPONSES	38 LOCATIONS	OVER 100 CONVERSATIONS	485 COMMENTS	114 REGISTRANTS

WHAT'S NEXT?

From December 2021 and beyond, the project team will begin developing a plan for how the recommended design will implemented. This will include more conversations with the community as the design gets refined and a construction timeline is set.

Implementation: December 2021 and Beyond

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Roadway Design Options Engagement Summary

SIDEWALK DECAL ENGAGEMENT

In early August, the project team installed sidewalk decal at key locations along the two-mile long corridor. These decal encouraged the public to visit the website by scanning the QR code or navigating to the URL. These decal will help capture the attention of those visiting the project area.

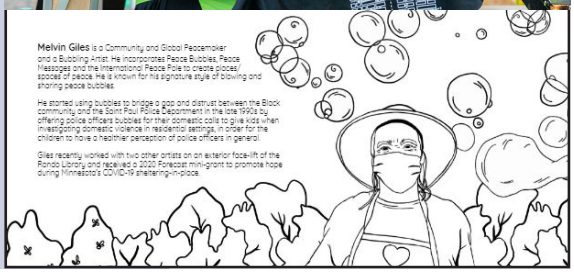
38
Installed

RICE-LARPENTEUR BLOCK PARTY

100+
Visitors

On August 14th, the project team attended the Rice-Larpenteur Block Party. Visitors to the booth were very receptive and interactive. All of the Rice Street Activity book kits and Rice Street bandannas went to those that attended the booth – there were over 100 people that stopped by. Many people still wanted to talk about the project even after the gifts were gone. The mayor of Maplewood even liked the swag so much that she told the Roseville mayor about it!

At the event, there was also had an extra Hmong language helper to do translation and interpreting. This allowed for the opportunity to get great community feedback down without language barriers.



MARYDALE FESTIVAL

On September 25, the project team attended the Marydale Festival in St. Paul. At the event, the team passed out a variety of goodies such as flower seeds, bandannas, activity books, and more. Our booth also featured an overview of all three design options and several boards outlining tools for people walking, biking, driving, and using transit. Participants were asked to vote for their top three favorite tools they would like to see on Rice Street.

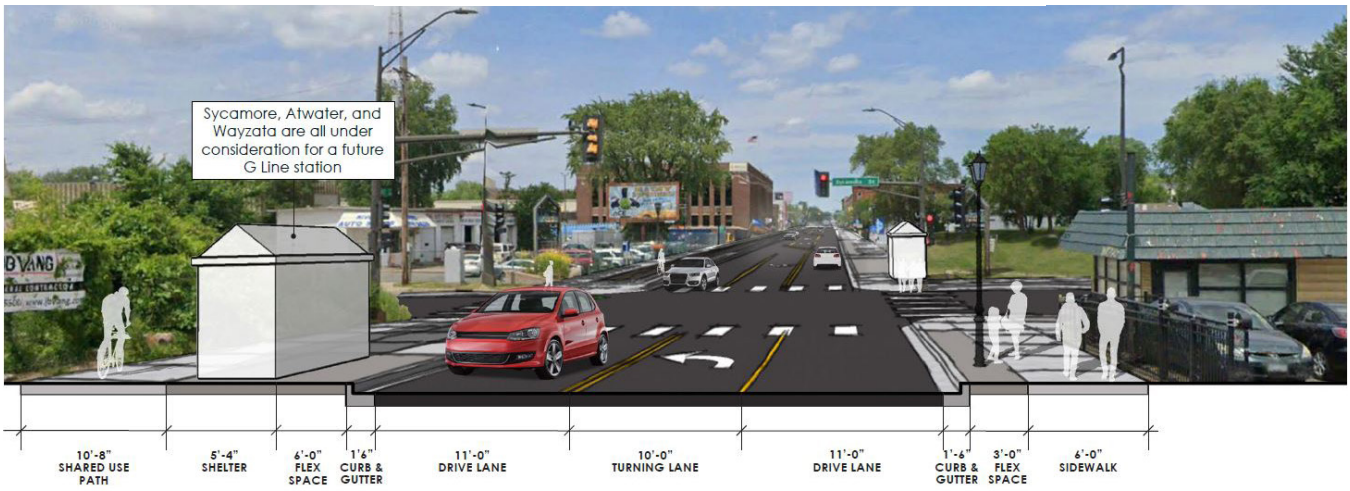
485+
Comments

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Roadway Design Options Engagement Summary

INPUT ID: CONCEPT A



12 LIKES

- Separated Bike Lanes
- Bike lines over rail bridges
- Off-street bike facility
- Tighter lanes to slow speeds
- Sidewalks to encourage a healthy community
- Medians
- Addition of turn lanes

6 DISLIKES

- Bike facility ends at Ivy – common route and could be dangerous to end there
- Lack of lanes for passing
- Limited space for parking and transit (Cook Ave)
- Lack of green spaces
- Unnecessary median used over bike lane

22 IDEAS / OPPORTUNITIES

- Trees/ Shrubbery to slow speed and to improve aesthetics
- Bike access from Rice Street Crossing to Trout Creek Trail.
- Addition of separated, automatic bike/ped detection at crossings that differ from motorist signals
- Signals crossings for students including light-up crosswalks with buttons.
- Dedicated stop lines at diagonal crossings.
- Accessible intersections for wheelchairs and scooters. Include bump-outs for ADA crossings
- Wayzata closed for traffic at Rice
- Additional bike infrastructure including bike racks and storage.
- Improved wayfinding signage, trail crossing signs

14 CONCERNS

- Cars will stop inside the crosswalks (Add white line, yield to bike signage)
- Need additional signage/light by heavily trafficked commercial areas.
- Not enough bike infrastructure or signage
- Need additional turn easements to mitigate accidents at dangerous intersections.
- Add infrastructure for pedestrian crossings – lights, timers, bumpouts.
- Want to keeping trees by Rice Street Library
- Add turn arrows at angled intersections to avoid accidents.
- In need of loading zones near storefronts.
- Bump-outs at Manitoba to prevent double parking too close to the Rice street intersection
- Extend cyclist trail on the north side and add signage for Rice Street crossings.

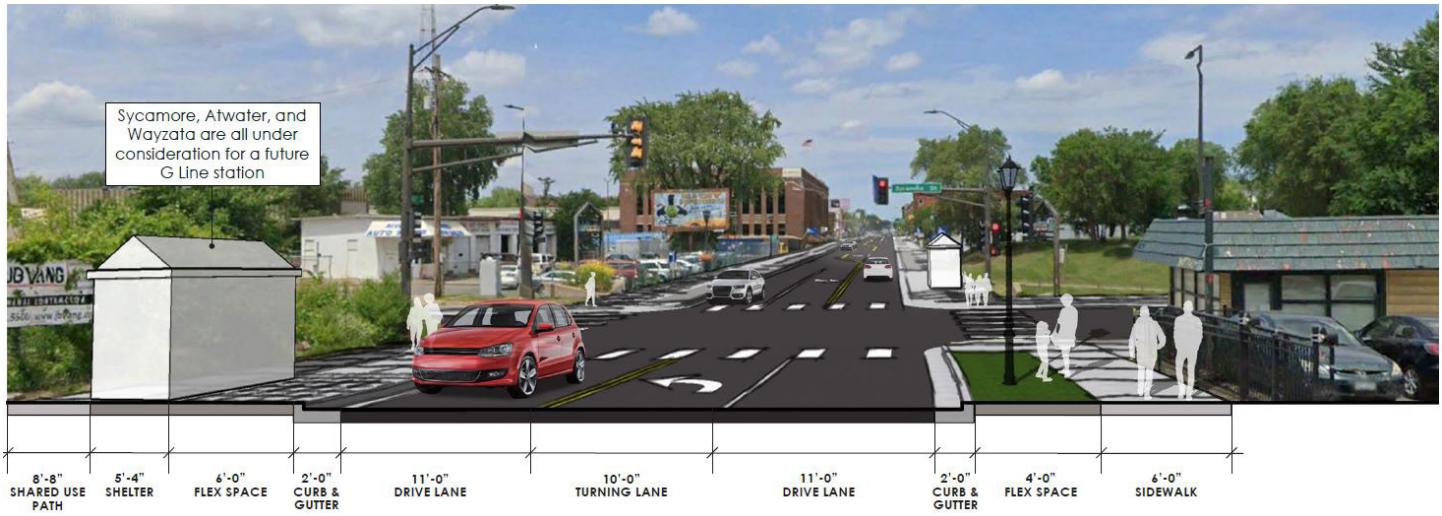
54 Total

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Roadway Design Options Engagement Summary

INPUT ID CONCEPT B



1 LIKE

- Combined path use idea -- Combining paths for cyclists and pedestrians

1 DISLIKE

- Pedestrians will ignore lanes for bikes/peds, making it less desirable for cyclists

2 IDEAS / OPPORTUNITIES

- Light times lengthened at Maryland for ped/bike crossing. Lots of movement and high speeds make it unsafe
- Turn signals to help traffic flow to 35E

3 CONCERNS

- Shared paths will make riding experience unsafe and uncomfortable for peds/cyclists
- Need more bike storage facilities, especially at Arlington
- Improved signage for bikers and warnings for motorists
- Need safer ped crossings

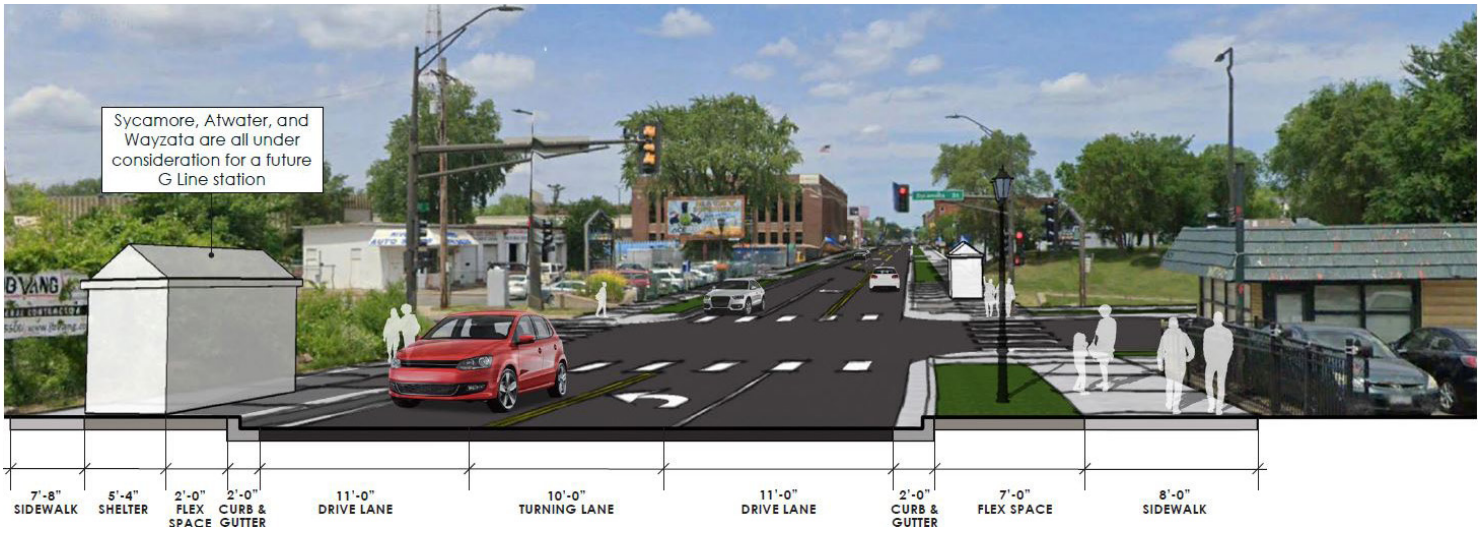
7 Total

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Roadway Design Options Engagement Summary

INPUT ID CONCEPT C



0 LIKES

- Positive Comment from the "Other" Section – This concept maximizes green space and sidewalk width evenly on both sides of the street

1 IDEA / OPPORTUNITY

- Too much concrete, keep the trees by Rice Street Library. Add more trees along the route along with native plantings.

3 DISLIKES

- Under-utilization of east-west bike lane connections. Makes unsafe to get to them with no north/south bike lanes on Rice
- Concept prioritizes thru traffic over community safety. (Will do the least to help calm traffic)
- Lack of bike infrastructure

2 CONCERNS

- Sidewalks need to be marked for lanes to separate peds and cyclists.
- Large amount of concrete space that should be green space

2 OTHER

- Where will buses be stopping with only three lanes? Will they be blocking traffic? Rerouting?
- Put the bicycle lane over on Park to slow the traffic there

8 Total

RAMSEY COUNTY

RICE STREET VISIONING STUDY

Roadway Design Options Engagement Summary

OPEN HOUSE 4: SHARE RECOMMENDED DESIGN

NOV. 16, 2021	114 ZOOM REGISTRANTS	4 BREAKOUT ROOMS

FORMAT:

Overview, what we heard, recap of three designs, recommended design, breakout rooms, implementation, next steps

WHAT WE HEARD

- Support for prioritizing walking and biking on the corridor.
- Will the shared use path be confusing for users? Is there a opportunity for delineation?
- All three concepts would be an improvement to Rice Street.
- How much parking will be available?
- Start educating the public on how to Concept B early.
- Continue to develop how Concept B can control speeds along Rice Street.
- Hope that this concept will aid in people crossing the road more safely.
- Desire for this design to aid in community development.

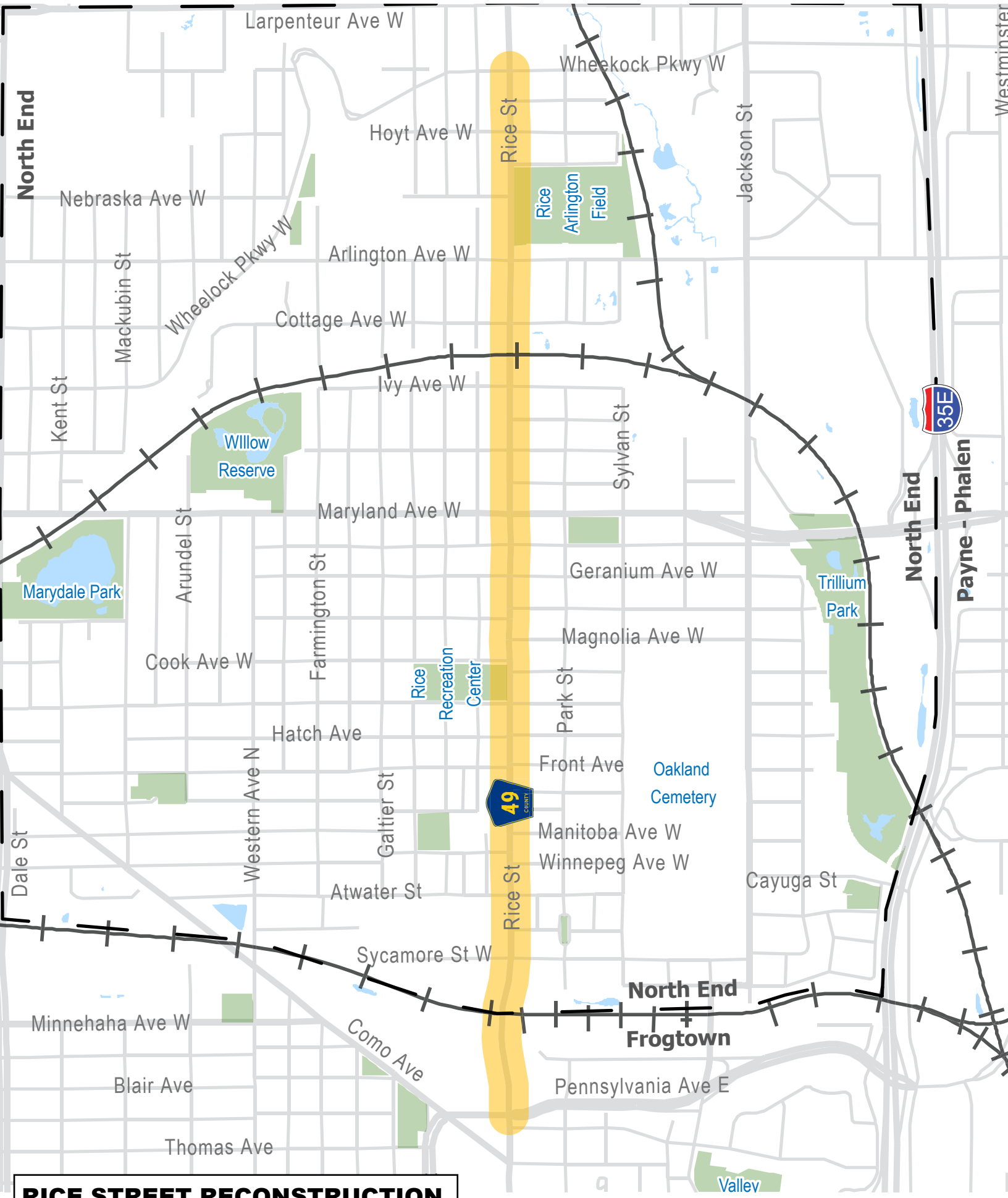
Rice St Corridor Existing Conditions

Lyton Ave & Rice St

Milford Ave & Rice St

Hawthorne Ave & Rice St

Arlington Ave & Rice St



RICE STREET RECONSTRUCTION
Project Area Map

Metro Transit

April 7, 2022

Nick Fischer
Ramsey County
1425 Paul Kirkwold Dr.
Arden Hills, MN 55112

Re: Metro Transit Support for Ramsey County 2022 Regional Solicitation Application: Rice Street Reconstruction

Dear Mr. Fischer:

Metro Transit is supportive of Ramsey County's Regional Solicitation federal funding application for the proposed reconstruction project on Rice Street.

Rice Street is a key corridor in St. Paul that has a diverse blend of businesses, residents, and users. The roadway concept that emerged from the Rice Street Visioning Study will provide significantly improved connections for area neighborhoods, and the North End of St. Paul as a whole.

This segment is served today by Route 3 and Route 62, with existing local bus stops at most intersections. This segment of Rice Street will be served by the planned METRO G Line in the future. Both the transit project and the reconstruction project have independent utility and individually accruable benefits, and each could be implemented without the other. However, both agencies intend to coordinate project efforts to minimize impacts and the ensure the best possible multimodal solution in the corridor. We appreciate the early involvement and ongoing coordination between these two projects initiated by County staff.

Thank you for making us aware of this application and the opportunity to provide support. We look forward to continued coordination during the project development process to accommodate existing local bus service in this corridor and support implementation of the future G Line.

Sincerely,

Wes Kooistra
General Manager

SAINT PAUL
PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS
SEAN KERSHAW, DIRECTOR

25 West 4th Street, 1500 City Hall Annex
Saint Paul, MN 55102
Tel: 651-266-6100 | Fax: 651-266-6222

March 25, 2022

Mr. Nick Fischer, P.E.
1425 Paul Kirkwold Drive
Arden Hills, Minnesota 55112

Mr. Fischer,

The City of Saint Paul supports Ramsey County's application for federal transportation funding for the reconstruction of Rice Street in the City of Saint Paul.

Rice Street is an important arterial roadway within the City, serving the North End and Frogtown neighborhoods, as well as Downtown Saint Paul and the State Capitol. The City appreciates Ramsey County's efforts to develop a community driven concept for the roadway through the Rice Street Visioning Study and looks forward to continued collaboration as the project advances.

The reconstruction of Rice Street will address issues with aging pavement, traffic signals and other critical infrastructure that presents significant maintenance challenges. The project will also provide needed safety and operational improvements for all users along and across the corridor, including pedestrians, bicyclists, and riders of existing and planned transit routes, consistent with the City's goals.

We appreciate Ramsey County's continued efforts to improve its roadways within the City of Saint Paul.

Sincerely,

Paul Kurtz, P.E.
City Engineer
Department of Public Works

March 30, 2022

Attn: Elaine Koutsoukos
Metropolitan Council
390 Robert Street North
St. Paul, MN 55101

Re: Rice Street Reconstruction Regional Solicitation Application

Dear Ms. Koutsoukos,

On behalf of the Rice Larpenteur Alliance, a unique multi-jurisdictional, public-private partnership in support of a diverse community bordering three cities, I am pleased to express my support for the Rice Street Reconstruction application for Regional Solicitation funds.

Rice Street is a key corridor that has a diverse blend of businesses, residents, and users. The roadway concept that emerged from the Rice Street Visioning Study will provide significantly improved connections for area neighborhoods, and the entire region. These improvements, particularly the introduction of a shared-use path, better transit connectivity, and enhanced streetscaping opportunities, will advance our goals for Rice Street to the benefit of the community members who live and work here.

The design was chosen with significant guidance and partnership from the community and adheres to the principals of our Rice & Larpenteur Area Vision Plan. We applaud Ramsey County and the ReVision Rice Street team for their exceptional community engagement. This project is a prime example of how collaborative engagement with local businesses and neighbors can help identify design solutions that best fits the needs of the surrounding community.

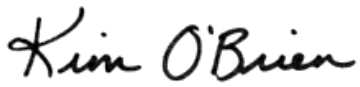
The Alliance was created to focus attention and resources on the previously under-invested in Rice Street corridor that spans three cities and is bisected by two County roads. The area is amongst the

poorest neighborhoods in the metro area with median household income of less than $36,000 (compared to about $83,700 for the metro area as a whole). The area is home to a racially and culturally diverse population with a high concentration of Black, Latino, and Asian families, including recent refugees from Burma and Nepal. For decades, the auto-centric design and lack of maintenance of Rice Street has contributed to the degradation of surrounding properties, a lower quality of life and community connectedness, and even serious injury and death for local community members.

Despite being a densely populated urban neighborhood in which many families rely on walking, biking, and transit, the street lacks sufficient pedestrian facilities with large gaps in sidewalks, zero accommodation for bicycles, and very wide roadways with multiple lanes of traffic and no refuge for pedestrians crossing at intersections. We have heard from neighborhood schools and businesses that they fear for the safety of their students and employees who need to cross Rice Street. The proposed design will be safer for all modes of transportation and offer a more attractive environment for needed investments in housing and business.

Thank you for your time and consideration in reviewing the Rice Street Visioning Study application.

Sincerely,



Kim O'Brien, Executive Director
Rice & Larpenteur Alliance
651-276-4696 (Cell) | 651-265-2795 (Office)
kim@saintpaulchamber.com

North End Neighborhood Organization (District 6)
171 Front Avenue
Saint Paul, MN 55117
651-488-4485
ed@nenostpaul.org

March 23, 2022

Attn: Elaine Koutsoukos
Metropolitan Council
390 Robert Street North
St. Paul, MN 55101

Re: Rice Street Reconstruction Regional Solicitation Application

Attn: Elaine Koutsoukos
Metropolitan Council
390 Robert Street North
St. Paul, MN 55101

Re: Rice Street Reconstruction Regional Solicitation Application

Dear Ms. Koutsoukos,

On behalf of the North End Neighborhood Organization, I am pleased to express my support for the Rice Street Reconstruction application for Regional Solicitation funds.

Rice Street serves as our neighborhood's key North/South corridor. Its home to high density housing spaces, single family homes, and dozens of local businesses (many of which are run by immigrant families living in the neighborhood).

The roadway itself is not only dangerous, but in disrepair. This Rice Street Visioning Study has reimagined what the physical space will look like curb-to-curb and beyond. The introduction of traffic calming measures and the introduction of a shared use path will elevate Rice Street to a place where people are proud to live, work, and visit.

This project has been ongoing for a significant length of time and has made every conceivable effort to engage residents, business owners, and other local stakeholders.

Thank you for your time and consideration in reviewing the Rice Street Visioning Study application.

Sincerely,

Vito Sauro

Chair

RICE STREET RECONSTRUCTION
Ramsey County

Project Name: Rice Street Reconstruction

Applicant: Ramsey County

Route: CSHA 49

Location: City of St. Paul

Application Category: Roadway Reconstruction/Modernization

Funding Information:
Requested Award Amount: $7,000,000
Local Match: $29,700,000
Project Total: $36,700,000

Additional Funding Sources:
- City of St. Paul
- Metro Transit
- St. Paul Regional Water Services

Primary Contact:
Nick Fischer, P.E.
Project Manager
651.235.6588
Nicklaus.Fischer@CO.RAMSEY.MN.US

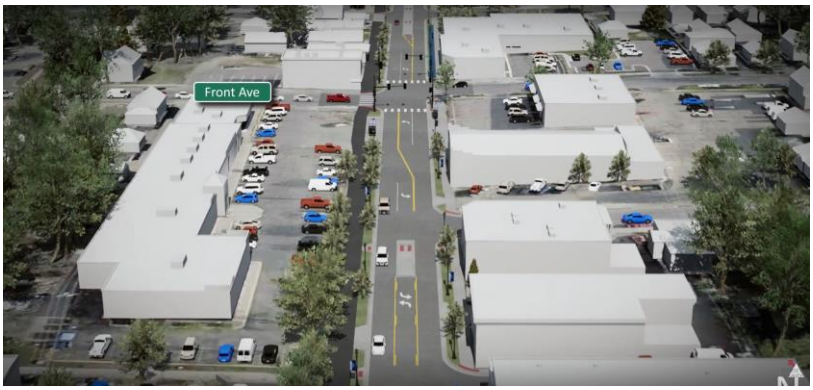
Project Description
CSAH 49 (Rice Street) is a major transportation corridor and activity hub in Saint Paul. Rice Street connects residents, travelers, and visitors to a diverse intermingling of businesses, services and institutions. The current aged roadway has numerous safety, access, and traffic concerns. Over the last three years, Ramsey County and the City of Saint Paul have facilitated a community-driven planning for Rice Street - the Rice Street Vision Plan - to overhaul its design, use, and impacts.

The proposed project will be a full reconstruction of a two-mile segment, from Pennsylvania Ave to Wheelock Pkwy. Key improvements will include:
- A 4-3 lane conversion with a center turn lane
- A shared-use pedestrian & bicycle path
- Enhanced sidewalk conditions
- Consistent boulevard space and opportunities for new streetscape amenities
- Improved transit access, including dedicated space in anticipation for a future G Line BRT route.
- Planned utility upgrades along the entire 2-mile segment

Project Benefits
The reconstruction and redesigned Rice Street will improve safe multimodal access, including the introduction of new bike facilities, to area amenities such as locally owned commercial and employment destinations, social services, and civic institutions. It is also intended to promote economic growth and local investment, create an inviting environment, and support growing multimodal usage.

Rice Street today (top) and concept visual of future roadway typical (bottom)

Regional Significance
Rice Street provides regional connectivity from north metro communities to/from downtown St. Paul. It also hosts a suite of regional destinations, including restaurants and recreation attractions.



Concept visual of future roadway design with surrounding context

Award	***Design***	***Construction***
2022	2022-2023	2024-2026

Ramseycounty.us/RiceStreetStudy