

Application				
01967 - 2014 Roadway Expansion				
02112 - Prince Street Extension to Kittson / Trout Brook				
Regional Solicitation - Roadways Including Multimodal Element	ts			
Status:	Submitted			
Submitted Date:	12/01/2014 3:3	3 PM		
Primary Contact				
Manage		Mark	Thomas	Finken
Name:*	Salutation	First Name	Middle Name	Last Name
Title:	Engineering Te	ch Supervisor		
Department:	City of St. Paul	/ Public Works		
Email:	mark.finken@c	i.stpaul.mn.us		
Address:	1500 City Hall	Annex		
	25 West Fourth	Street		
*	St. Paul	Minnesot	а	55102-1660
	City	State/Provinc	е	Postal Code/Zip
Phone:*	651-266-6165			
Priorie:	Phone		Ext.	
Fax:				
What Grant Programs are you most interested in?	Regional Solici Elements	tation - Roadwa	ys Includin	g Multimodal

# **Organization Information**

Name: ST PAUL, CITY OF

Jurisdictional	Agency	(if different)	):
----------------	--------	----------------	----

Organization Type: City

Organization Website:

Address: DEPT OF PUBLIC WORKS-CITY HALL ANNEX

25 W 4TH ST #1500

ST PAUL Minnesota 55101

City State/Province Postal Code/Zip

County: Ramsey

Phone:\* 651-266-9700

Ext.

Fax:

400 words)

PeopleSoft Vendor Number 0000003222A22

## **Project Information**

Project Name Prince Street Extension to Kittson / Trout Brook

Primary County where the Project is Located Ramsey

Jurisdictional Agency (If Different than the Applicant):

Extension of Prince Street to connect to Kittson /
Troutbrook. Including a bridge over 4th Street. This
is the second phase of a multiple phase plan to
connect the Lowertown portion of downtown St.
Paul to University Avenue. This phase will complete
the connections to 7th Street and TH 52. This will
allow better access the Lowertown (CHS Field)
Ballpark. There will also be an offroad Bike / Ped
Trail connecting Downtown to the Vento and

Include location, road name/functional class, type of improvement, etc.

Brief Project Description (Limit 2,800 characters; approximately

Project Length (Miles) 0.42

#### Connection to Local Planning:

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 MnDOT 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.

Gateway Trails.

#### **Connection to Local Planning**

City of St Paul Comprehensive Plan. Transportation Chapter Page T7 figure T-A Functional Class Roads and Page T29 Appendix T-A Policy T-2.4 Recommended Projects a. Kittson Extension.

## **Project Funding**

Are you applying for funds from another source(s) to implement

this project?

No

If yes, please identify the source(s)

Federal Amount \$3,119,278.00

Match Amount \$779,820.00

Minimum of 20% of project total

**Project Total** \$3,899,098.00

Match Percentage 20.0%

Minimum of 20%

Compute the match percentage by dividing the match amount by the project total

Source of Match Funds City of St. Paul

**Preferred Program Year** 

Select one: 2018

## **MnDOT State Aid Project Information: Roadway Projects**

County, City, or Lead Agency City of St. Paul

Functional Class of Road Principal Arterial

Road System City Street

TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET

Name of Road Prince Street and Kittson Street / Trout Brook

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55102

(Approximate) Begin Construction Date 03/01/2018
(Approximate) End Construction Date 11/30/2018

**LOCATION** 

From:

Prince and Willius

(Intersection or Address)

Do not include legal description; Include name of roadway if majority of facility runs adjacent to a single corridor. To:

(Intersection or Address)

Kittson and Seventh Street

Type of Work

Grading, Aggregate Base, Bituminous Base, Bituminous Surface, Concrete Pavement, Bridge, Signals, Lighting, Bike /

Ped Path, Landscaping

Examples: grading, aggregate base, bituminous base, bituminous surface, sidewalk, signals, lighting, guardrail, bicycle path, ped ramps, bridge, Park & Ride, etc.)

Old Bridge/Culvert? Yes

New Bridge/Culvert? Yes

Structure is Over/Under
(Bridge or culvert name):

Over Fourth Street

# **Specific Roadway Elements**

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$200,000.00
Removals (approx. 5% of total cost)	\$294,460.00
Roadway (grading, borrow, etc.)	\$415,647.00
Roadway (aggregates and paving)	\$292,499.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$94,946.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$124,537.00
Traffic Control	\$200,000.00
Striping	\$6,170.00
Signing	\$0.00
Lighting	\$121,490.00
Turf - Erosion & Landscaping	\$247,000.00
Bridge	\$1,200,000.00
Retaining Walls	\$0.00
Noise Wall	\$0.00
Traffic Signals	\$275,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$355,348.00
Other Roadway Elements	\$0.00

Totals \$3,827,097.00

Specific Bicycle and Pedestrian Elements	
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$72,000.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$0.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$0.00
Pedestrian-scale Lighting	\$0.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$0.00
Other Bicycle and Pedestrian Elements	\$0.00
Totals	\$72,000.00
Specific Transit and TDM Elements	
Specific transit and town Elements	
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
CONSTRUCTION PROJECT ELEMENTS/COST	<b>Cost</b> \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES Fixed Guideway Elements	\$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES Fixed Guideway Elements Stations, Stops, and Terminals	\$0.00 \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES  Fixed Guideway Elements  Stations, Stops, and Terminals  Support Facilities  Transit Systems (e.g. communications, signals, controls,	\$0.00 \$0.00 \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES  Fixed Guideway Elements  Stations, Stops, and Terminals  Support Facilities  Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	\$0.00 \$0.00 \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES  Fixed Guideway Elements  Stations, Stops, and Terminals  Support Facilities  Transit Systems (e.g. communications, signals, controls, fare collection, etc.)  Vehicles	\$0.00 \$0.00 \$0.00 \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES  Fixed Guideway Elements  Stations, Stops, and Terminals  Support Facilities  Transit Systems (e.g. communications, signals, controls, fare collection, etc.)  Vehicles  Transit and TDM Contingencies	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES  Fixed Guideway Elements  Stations, Stops, and Terminals  Support Facilities  Transit Systems (e.g. communications, signals, controls, fare collection, etc.)  Vehicles  Transit and TDM Contingencies  Other Transit and TDM Elements	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES  Fixed Guideway Elements  Stations, Stops, and Terminals  Support Facilities  Transit Systems (e.g. communications, signals, controls, fare collection, etc.)  Vehicles  Transit and TDM Contingencies  Other Transit and TDM Elements	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES  Fixed Guideway Elements  Stations, Stops, and Terminals  Support Facilities  Transit Systems (e.g. communications, signals, controls, fare collection, etc.)  Vehicles  Transit and TDM Contingencies  Other Transit and TDM Elements  Totals	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES  Fixed Guideway Elements  Stations, Stops, and Terminals  Support Facilities  Transit Systems (e.g. communications, signals, controls, fare collection, etc.)  Vehicles  Transit and TDM Contingencies  Other Transit and TDM Elements  Totals  Transit Operating Costs	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00

#### **Totals**

Total Cost \$3,899,097.00

Construction Cost Total \$3,899,097.00

Transit Operating Cost Total \$0.00

## 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 2030 Transportation Policy Plan (amended 2013), the 2030 Regional Parks Policy Plan (amended 2013), and the 2030 Water Resources Management Policy Plan (2005).

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

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

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

3.Applicants must not submit an application for the same project in more than one funding sub-category.

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

4. 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. Expansion, reconstruction/modernization, and bridges must be between \$1,000,000 and \$7,000,000. Roadway system management must be between \$250,000 and \$7,000,000.

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

5. The project must comply with the Americans with Disabilities Act.

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

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

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

7. The owner/operator of the facility must operate and maintain the project for the useful life of the improvement.

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

8. 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

9. 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

10. The project applicant must send written notification regarding the proposed projected to all affected communities and other levels and units of government prior to submitting the application.

## Requirements - Roadways Including Multimodal Elements

#### **Expansion and Reconstruction/Modernization Projects Only**

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

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

2. Federal funds are available for roadway construction and reconstruction on new alignments or within existing right-of-way, including associated construction and excavation, bridges, or installation of traffic signals, signs, utilities, bikeway or walkway components and transit components.

The project must exclude costs for right-of-way, studies, preliminary engineering, design, or construction engineering. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding unless included as part of a larger project, which is otherwise eligible.

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

#### **Bridge Projects Only**

3. The bridge project 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

4.Bridges selected in previous Bridge Improvement and Replacement solicitations (1994 2011) are not eligible. A previously selected project is not eligible unless it has been withdrawn or sunset prior to the deadline for proposals in this solicitation.

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

5.Projects requiring a grade-separated crossing of a Principal Arterial of freeway design 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. Yes

6. 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 sub-categories. Rail-only bridges are ineligible for funding.

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

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

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

8. Project limits for bridge projects are limited from abutment to abutment.

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

9. The project must exclude costs for studies, preliminary engineering, design, construction engineering, and right-of-way.

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

#### **Bridge Replacement Projects Only**

10.The bridge must have a sufficienty rating less than 50. Additionally, it must also be classified as structurally deficient or functionally obsolete.

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

#### **Bridge Rehabilitiation Projects Only**

11. The bridge must have a sufficienty rating less than 80. Additionally, it must also be classified as structurally deficient or functionally obsolete.

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

## **Other Attachments**

File Name	Description	File Size
2112 St Paul Synchro.pdf	Synchro	485 KB
City Council Resolution - Certified Copy.pdf	City Council Resolution	26 KB
Lowertown Ballpark Traffic Study 1.pdf	Lowertown Ballpark Traffic Study Part 1	14.1 MB
Lowertown Ballpark Traffic Study 2.pdf	Lowertown Ballpark Traffic Study Part 2	13.2 MB
Prince Street Concept Plans.pdf	Concept Plan	40.8 MB

# Reliever: Freeway Facility or

Facility being relieved

Number of hours per day volume exceeds capacity (based on the 0 **Congestion Report)** 

# Reliever: Non-Freeway Facility or

Facility being relieved

Number of hours per day volume exceeds capacity (based on the table below)

# Non-Freeway Facility Volume/Capacity Table

Hour	NB/EB Volume	SB/WB Volume	Capacity	Volume exceeds capacity
12:00am - 1:00am			1200.0	
1:00am - 2:00am			1200.0	
2:00am - 3:00am			1200.0	
3:00am - 4:00am			1200.0	
4:00am - 5:00am			1200.0	
5:00am - 6:00am			1200.0	
6:00am - 7:00am			1200.0	
7:00am - 8:00am			1200.0	
8:00am - 9:00am			1200.0	
9:00am - 10:00am			1200.0	
10:00am - 11:00am			1200.0	

11:00am - 12:00pm	1200.0
12:00pm - 1:00pm	1200.0
1:00pm - 2:00pm	1200.0
2:00pm - 3:00pm	1200.0
3:00pm - 4:00pm	1200.0
4:00pm - 5:00pm	1200.0
5:00pm - 6:00pm	1200.0
6:00pm - 7:00pm	1200.0
7:00pm - 8:00pm	1200.0
8:00pm - 9:00pm	1200.0
9:00pm - 10:00pm	1200.0
10:00pm - 11:00pm	1200.0
11:00pm - 12:00am	1200.0

## **Expander/Augmentor/Non-Freeway Principal Arterial**

Non-Freeway Principal Arterial Select one:

Area 0.131 **Project Length** 0.42 **Average Distance** 0.3119

**Upload Map** Prince Street Map.pdf

# **Measure B: Current Heavy Commercial Traffic**

Location Prince / Kittson Street

Current daily heavy commercial traffic volume 0

## Measure C: Project Location Relative to Jobs, Manufacturing, and Education

Select all that apply

Direct connection to or within a mile of a Job Concentration Yes

Direct connection to or within a mile of a Manufacturing/Distribution Location

Direct connection to or within a mile of an Educational Institution Yes

Project provides a direct connection to or within a mile of an existing local activity center identified in an adopted county or Yes city plan

County or City Plan Reference (Limit 700 characters; approximately 100 words)

St. Paul Comprehensive Plan Housing Strategy #3 (H-22). Comprehensive Plan Housing Activity Areas Map (H-60. Comprehensive Plan Land Use Strategy #1 (LU-1). Comprehensive Plan Invest Saint Paul Priorities and Target Areas (LU-11)

**Upload Map** 

Prince Street Map4.pdf

## **Measure A: Current Daily Person Throughput**

Location Prince / Kittson Street

0 **Current AADT Volume** 

61, 63, 70, 74, 294, 350, 351, 353, 355, 361, 364, 365, 375, **Existing Transit Routes on the Project** 

452, METRO Green Line

## **Response: Current Daily Person Throughput**

**Average Annual Daily Transit Ridership** 

**Current Daily Person Throughput** 0

## Measure B: 2030 Forecast ADT

Use Metropolitan Council model to determine forecast (2030) ADT volume

METC Staff - Forecast (2030) ADT volume 0

**OR** 

Approved county or city travel demand model to determine

Yes forecast (2030) ADT volume

Forecast (2030) ADT volume 5400.0

## Measure A: Project Location and Impact to Disadvantaged Populations

## Select one:

**Project located in Racially Concentrated Area of Poverty** Yes

**Project located in Concentrated Area of Poverty** 

Projects census tracts are above the regional average for population in poverty or population of color

Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly.

Response (Limit 1,400 characters; approximately 200 words)

This project will provide better access from St.

Paul's East Side to Downtown and Union Depot. By connecting Trunk Highway 52 and East 7th Street to Lowertown St. Paul there will be better options for East Side residents. The trail and roadway connections will allow better access to jobs, transit and entertainment for one of the most depressed areas of St. Paul. The bike and pedestrian connections will be offroad and ADA compliant.

There are no negative impacts.

**Upload Map** 

Prince Street Map2.pdf

## **Measure B: Affordable Housing**

City/Township Segment Length (Miles)

Saint Paul 0.42

0

## **Total Project Length**

Total Project Length 0.42

# Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township	Segment Length (Miles)	Total Length (Miles)	Score	Segment Length/Total Length	Housing Score Multiplied by Segment percent
Item Deleted	0	0.42	0	0	0
Saint Paul	0.42	0.42	98.0	1.0	98.0
		1	98	1	98

## Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles) 0.42

Total Housing Score 98.0

## Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction

Roadway Segment Length (Miles)

0

Calculation

**Calculation 2** 

0

0

## **Average Construction Year**

Weighted Year 0

## **Total Segment Length (Miles)**

Total Segment Length 0

## Measure A: Cost Effectiveness of Vehicle Delay Reduction

Total Project Cost from Cost Sheet \$3,899,097.00

Total Peak Hour Vehicle Delay Without The Project 411.9

Total Peak Hour Vehicle Delay With The Project 0

Total Peak Hour Vehicle Delay Reduced by Project 411.9

Cost Effectiveness \$9,466.13

Synchro or HCM Reports Kittson Delay.pdf

## Measure B: Cost Effectiveness of Emissions Reduction

Total Project Cost from Cost Sheet \$3,899,097.00

Total Peak Hour Kilograms Reduced by Project 0

Cost Effectiveness \$0.00

Synchro or HCM Reports Prince Street.docx

## Measure A: Benefit/Cost of Crash Reduction

Project Benefit/Cost Ratio 0

Worksheet Attachment Prince Street.docx

## **Measure A: Transit Connections**

Existing Routes Directly Connected to the Project 61, 63, 70, 74, 264, 350, 351, 353, 355, 361, 364, 365, 375,

452, METRO Green Line

Planned Transitways directly connected to the project (alignment and mode determined and identified in the 2030 TPP)

East 7th Street BRT

**Upload Map** 

Prince Street Map3.pdf

## Response

Met Council Staff Data Entry Only

Route Ridership 1.8124673E7

Transitway Ridership 3689600.0

## **Measure B: Bicycle and Pedestrian Connections**

The project will connect the new Trunk Highway 52 river crossing, East 7th Street and the Vento Trail to Union Depot and Downtown St. Paul. Future phases will connect to the Gateway State Trail. Better trail connections to downtown are identified in the St. Paul Comprehensive Plan. The soon to be adopted St. Paul Bike Plan also identifies these trail connections. Trail connections to the new Lowertown Ballpark (CHS Field), Union Depot and Downtown will provide safe options for residents on the East side of St. Paul.

Response (Limit 1,400 characters; approximately 200 words)

#### Measure C: Multimodal Facilities

Response (Limit 1,400 characters; approximately 200 words)

The project will provide better vehicle access to the Union Depot multimodal transit hub from Trunk Highway 52 and from East 7th Street. The o bicycle pedestrian trail will connect Union Depot to the Vento trail and the new Highway 52 river crossing. Future phases will connect to the Gateway State Trail. Providing safe offroad bike and pedestrian access to all the transit options at Union Depot is critical for St. Paul.

## **Transit Projects Not Requiring Construction**

If the applicant is completing a transit or TDM application, only Park-and-Ride and other construction projects require completion of the Risk Assessment below. Check the box below if the project does not require the Risk Assessment fields, and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.

# **Measure A: Risk Assessment**

Meddale A. Riok Addeddillent	
1)Project Scope (5 Percent of Points)	
Meetings or contacts with stakeholders have occurred	
100%	
Stakeholders have been identified	Yes
40%	
Stakeholders have not been identified or contacted	
0%	
2)Layout or Preliminary Plan (5 Percent of Points)	
Layout or Preliminary Plan completed	
100%	
Layout or Preliminary Plan started	Yes
50%	
Layout or Preliminary Plan has not been started	
0%	
Anticipated date or date of completion	
3)Environmental Documentation (10 Percent of Points)	
EIS	
EA	
РМ	
Document Status:	
Document approved (include copy of signed cover sheet)	100%
Document submitted to State Aid for review	75%
Document in progress; environmental impacts identified	
50%	
Document not started	Yes
0%	
Anticipated date or date of completion/approval	
4)Review of Section 106 Historic Resources (15 Percent of	Points)
No known potential for archaeological resources, no historic resources known to be eligible for/listed on the National Register of Historic Places located in the project area, and project is not leasted an an identified historic bridge.	

located on an identified historic bridge

100%

Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated

80%

Historic/archaeological review under way; determination of adverse effect anticipated

40%

Unknown impacts to historic/archaeological resources

Yes

0%

Anticipated date or date of completion of historic/archeological review:

Project is located on an identified historic bridge

#### 5) Review of Section 4f/6f Resources (15 Percent of Points)

(4f is publicly owned parks, recreation areas, historic sites, wildlife or waterfowl refuges; 6f is outdoor recreation lands where Land and Water Conservation Funds were used for planning, acquisition, or development of the property)

No Section 4f/6f resources located in the project area

100%

Project is an independent bikeway/walkway project covered by the bikeway/walkway Negative Declaration statement; letter of support received

100%

Section 4f resources present within the project area, but no known adverse effects

80%

Adverse effects (land conversion) to Section 4f/6f resources likely

30%

Unknown impacts to Section 4f/6f resources in the project area Yes

0%

6) Right-of-Way (15 Percent of Points)

Right-of-way or easements not required

100%

Right-of-way or easements has/have been acquired

100%

Right-of-way or easements required, offers made

75%

Right-of-way or easements required, appraisals made

50%

Right-of-way or easements required, parcels identified

25%

Right-of-way or easements required, parcels not identified

Right-of-way or easements identification has not been completed	
0%	
Anticipated date or date of acquisition	
7)Railroad Involvement (25 Percent of Points)	
No railroad involvement on project	
100%	
Railroad Right-of-Way Agreement is executed (include signature page)	100%
Railroad Right-of-Way Agreement required; Agreement has been initiated	
60%	
Railroad Right-of-Way Agreement required; negotiations have begun	
40%	
Railroad Right-of-Way Agreement required; negotiations not begun	Yes
0%	
Anticipated date or date of executed Agreement	
8)Construction Documents/Plan (10 Percent of Points)	
Construction plans completed/approved (include signed title sheet)	
100%	
Construction plans submitted to State Aid for review	
75%	
Construction plans in progress; at least 30% completion	
50%	
Construction plans have not been started	Yes
0%	
Anticipated date or date of completion	
9)Letting	
Anticipated Letting Date	

# 240: TH 52 Exit & Kittson St Performance by movement

Movement	EBL	EBR	NBT	SBT	All
Delay / Veh (s)	1.9	0.5	15.0	14.1	3.2
Total Stops	2	0	77	37	116
Travel Dist (mi)	42.5	5.5	7.3	0.8	56.1
Travel Time (hr)	2.3	0.3	0.6	0.2	3.3
Vehicles Entered	810	105	79	37	1031
Vehicles Exited	811	105	79	37	1032
Hourly Exit Rate	811	105	79	37	1032
Input Volume	800	95	76	40	1011
% of Volume	101	111	104	92	102
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

# **Total Zone Performance**

Constitution of the constitution of the	Production Commen	BUILD HARRING STREET	S, THE WAY STEEL	
Delay / Veh (s)	411.9			
Total Stops	2581			
Travel Dist (mi)	644.7			
Travel Time (hr)	38.9	The second second	The second second	
Vehicles Entered	3736			200 S
Vehicles Exited	126			
Hourly Exit Rate	126			
Input Volume	9898			Service of the servic
% of Volume	1			Commence of the Commence of th
Denied Entry Before	0			
Denied Entry After	0	Sign Countries		



# **City of Saint Paul**

## **Certified Copy**

Resolution: RES 14-1921

City Hall and Court House 15 West Kellogg Boulevard Phone: 651-266-8560

File Number: RES 14-1921

Authorizing the Department of Public Works to prepare and submit project applications into the Metropolitan Council's Regional Solicitation Process for potential federal funding for projects in years 2018 and 2019, and to commit the local funding match requirement if the Department is awarded the federal funding.

WHEREAS, the Metropolitan Council has released its Regional Solicitation for project applications for potential federal funding in years 2018 and 2019, and

WHEREAS, the Department of Public Works is proposing to submit six seven project applications into the Metropolitan Council's Regional Solicitation process, and

WHEREAS, the six seven project applications being proposed are:

- Replacement of the Kellogg Boulevard/3rd Street Bridge #62080
- Trout Brook Road Extension from Prince Street to Lafayette/Kittson
- · Pierce Butler East Extension Ph. II Arundel to east of Western
- Margaret Street Bicycle Boulevard Forest Street to McKnight Road
- Rehabilitation of Indian Mounds Park Trail T.H. 61 to Bruce Vento Trail
- · Saint Paul Downtown Traffic Signal Enhancements Program
- The Samuel H. Morgan to Bruce Vento Nature Sanctuary Bicycle and Pedestrian Bridge, and

WHEREAS, if any of the above named projects get selected to receive federal funding the City is prepared to commit to a local funding match of 20% of the total project(s) cost which is a requirement to securing the federal funds, and

WHEREAS, the Mayor, pursuant to Section 10.07.1 of the Charter of the City of Saint Paul, does certify that there will be funds made available for appropriation in future Capital Improvement Budgets if federal funds are awarded to any of the projects listed above; so

THEREFORE BE IT RESOLVED, by the Council of the City of Saint Paul to authorize the Department of Public Works to prepare and submit project applications for federal funding through the Metropolitan Council's Regional Solicitation Process as referenced in this resolution, and

BE IT FURTHER RESOLVED, by the Council of the City of Saint Paul that local funding will be made available as a match to any and all federal funds that are awarded to any of the projects referenced in this resolution. These funds will be identified and made available in future years capital improvement budgets.

File Number: RES 14-1921

I, Shari Moore, City Clerk of the City of Saint Paul, Minnesota, do hereby certify that I have compared the attached copy of RES 14-1921 as adopted by the City Council on 11/12/2014 and approved by the Mayor with the original thereof on file in my office.

Attest: \_\_\_\_\_\_Moore

**Shari Moore** 

November 20, 2014

**Date Certified** 

City of Saint Paul Page 2 Printed on 11/20/2014

# Lowertown Ballpark Draft Traffic Study Report

Saint Paul, Minnesota

#### I. INTRODUCTION

This report documents the anticipated traffic impacts associated with the proposed Lowertown Ballpark in downtown Saint Paul. This new ballpark, to be built on a vacant industrial site in downtown Saint Paul's Lowertown neighborhood, is proposed to replace the existing Midway Stadium.

While the design of the proposed ballpark is currently being finalized, general characteristics and detail from the 2010 Regional Ballpark Initiative Feasibility Report and other sources allow for this analysis and, ultimately, recommended mitigation measures to alleviate potential impacts. As long as the general characteristics of the proposed ballpark remain approximately the same as used in this document, minor changes in the final design are not expected to alter the results or recommendations.

## II. BALLPARK CHARACTERISTICS

## A. Location

The proposed ballpark will be located on the east side of Broadway Street, between 5th and 6th Street. Interstate (I) 94 forms the northern boundary of the site, and Trunk Highway (TH) 52 (including the new TH 52 Lafayette Bridge) is the eastern boundary. Along the southern boundary of the site is the Central Corridor Operations and Maintenance Facility, where the Central Corridor Light Rail Transit (CCLRT) stores and maintains the light rail cars. Finally, Broadway Street provides the western boundary of the proposed site (see Figure 1).

The site is currently occupied by a multi-story industrial building with limited parking. The building has been vacant for several years and, due to its current condition, has been rendered obsolete and not viable for renovation and reuse. This site has been listed as a hazardous waste site due to soil and groundwater contaminants. Due to the environmental issues on this site, along with the physical constraints surrounding the site (I-94, TH 52, and site topography), the site is significantly limited for other commercial redevelopment opportunities. A regional ballpark appears to be a viable option for a site that is very difficult to redevelop.



Figure 1: Location Map



## B. Site Access

The current conceptual design has the main entrance to the proposed ballpark off Broadway Street near the Saint Paul Farmers Market. To the north of the entry plaza will be a larger paved area that will be used as a pre-function plaza and concourse viewing area, and will also serve as the required utility and emergency access corridor. A secondary entrance is planned along the east side of the ballpark that, in addition to accommodating fans, is planned to accommodate the drop-off/pick-up area and deliveries. Adjacent to this entrance will be a separate and sheltered service entry to provide access for deliveries, limited ballpark personnel parking, and field maintenance. Figure 2, below, shows the current concept map.



Figure 2: Current Concept Map

## C. Ballpark Assumptions

The schedule for the proposed ballpark has construction in 2014, with the first full year of operation in 2015. The current design provides seating for up to 7,000 fans. When considering other events besides baseball games, such as concerts, the proposed ballpark could potentially accommodate another 5,000 people on the field, for a total attendance close to 12,000. Table 1 shows the expected events and attendance the proposed ballpark could accommodate. The anticipated number for each event is based on the historical use of the existing Midway Stadium (averaging one concert per year), the Saints baseball schedule, and discussions with officials from the other potential events.

Table 1
Expected Events and Attendance

Event	Attendance	Occurrences Per Year
Concert	12,000	2
Saints Baseball Game	7,000	55
Winter Carnival Events	4,000	2
High School Baseball Tournament Game	2,000	10
College Baseball Game	1,000	10
Other Events (non-specified)	300	20
Amateur Baseball Game	100	60

These event types would be expected to occur on weekday afternoons, weekday evenings, or at any time on weekends. Of these three timeframes, the weekday evening was determined to represent the highest background traffic period and the most appropriate for traffic analysis. Specifically, an event start time of 7 p.m. would create a peak hour for the proposed site from 6 p.m. to 7 p.m.

A weekday afternoon event would overlap with normal business hours. While vehicular traffic volumes during the afternoon are approximately the same as the 6 p.m. to 7 p.m. hour, more people would be expected to walk to and from the site for a weekday afternoon event. Thus, the resultant overall vehicular traffic would be lower and this timeframe would not show the greatest potential traffic impacts.

During the weekends, the background traffic is again lower and would not be expected to show the greatest potential traffic impacts from the proposed ballpark traffic. The exception is during the summer when the Saint Paul Farmers Market operates on weekend mornings and early afternoons. Observations of traffic operations during the Farmers Market revealed high traffic volumes in a localized area around the Farmers Market site. It should be noted that the observations indicated that Saturday appeared to have higher volumes than Sunday. Traffic volumes also appeared to decrease as the time approached the market's 1 p.m. closing time.

The Saints' schedule does not include Saturday afternoon games, eliminating one potential conflict with the Farmers Market. Sunday game times are at approximately 1 p.m., the closing time of the Farmers Market. Given that Sunday traffic for the Farmers Market is lower than on Saturdays and that traffic for the Farmers Market decreases later in the day, the traffic from a Sunday afternoon game does not appear to conflict with the majority of traffic for the Farmers Market. As the anticipated concerts would start later in the day, the highest-attendance generators for the proposed ballpark do not represent a conflict with the Farmers Market. As such, the weekend timeframe would not show the greatest potential traffic impacts.

The construction of the ballpark is expected to remove approximately 320 parking spaces associated with surrounding developments, including on- and off-street, both public and contract spaces. Some parking spaces are planned with the new site. However, these spaces are anticipated to be reserved for Saints personnel and visitors and will not be available to the general public.



3

#### III. EXISTING TRAFFIC NETWORK

## A. Study Roads and Intersections

With a proposed location in downtown Saint Paul, the ballpark would have access to multiple regional roadways, including:

- I-35E
- I-94
- TH 52
- TH 5 (7th Street)

With the exception of TH 5 (7th Street), these roadways are freeways or expressways with generally high posted speed limits (45 mph or higher). A median separates two or more lanes of traffic in each direction and access is limited to regularly-spaced interchanges only. Seventh Street is generally an undivided roadway providing two lanes in each direction with turn lanes at selected intersections. This road, in contrast to the other regional roadways, has a lower posted speed limit and multiple public and private access points. Intersections are controlled via traffic signal or side-street stop control.

Beyond these regional roadways, other county and local roads provide for multiple routes to and from the proposed ballpark and surrounding parking areas.

In addition to the regional roadways, several intersections close to the proposed site were selected in consultation with the City for intersection turning movement analysis. These intersections include:

- Kellogg Boulevard and Sibley Street (traffic signal control)
- Kellogg Boulevard and Wall Street (side-street stop control)
- Kellogg Boulevard and Broadway Street (traffic signal control)
- Kellogg Boulevard and an existing surface lot access (traffic signal control)
- 4th Street/Prince Street and Broadway Street (traffic signal control)
- 5th Street and Broadway Street (side-street stop control)
- 6th Street and Broadway Street (side-street stop control)
- 6th Street and Wall Street (traffic signal control)

These intersections are located around the proposed ballpark and would expect to see a large share of any traffic increases and potential traffic impacts.

## B. Bicycle/Pedestrian Routes

In addition to vehicular traffic, Saint Paul has several bicycle options available. Currently, on-street routes are provided on portions of Broadway Street, Sibley Street, Jackson Street, and 4th Street.

An off-street trail is provided adjacent to Shepard Road/Warner Road to the south of the proposed site. This off-street route is part of the Mississippi River Trail, providing bicycle travel along the river from Lake Itasca, Minnesota, to the Gulf of Mexico. Another off-street trail or route is provided adjacent to 4th Street, east of the proposed site. This route connects to the Bruce Vento Regional Trail.



Figure 3 shows the bicycle trail/route network in the downtown area. This figure does not include the recent upgrade to Broadway Street and its on-street trails. Although multiple continuous trails, on- or off-street, to and from the proposed site are not yet present, is important remember that bicyclists have the legal right to ride with vehicular traffic on the downtown roads.

Short-term bicycle rentals are also available in downtown Saint Paul. Generally rented for short duration trips, 12 stations in the downtown area have been established for this

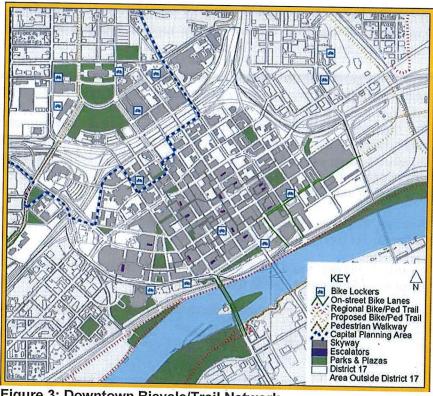


Figure 3: Downtown Bicycle/Trail Network

type of rental. These short-term rentals would allow daytime workers anywhere in Saint Paul to easily bike to an event at the proposed ballpark.

As an urban downtown, Saint Paul also provides sidewalks adjacent to both sides of most streets for pedestrians. Through a combination of roadway and pedestrian lighting, the sidewalks are generally suitable for night use. Marked roadway crossings occur regularly at signalized intersections. As with most downtown areas, the sidewalks allow for easy pedestrian movement between developments as well as to and from transit stops.

## C. <u>Light Rail/Transit</u>

The CCLRT is currently being constructed from downtown Minneapolis to downtown Saint Paul, and will be fully operational in 2014. The CCLRT will travel from downtown Minneapolis to the capitol building then run south on Cedar Street and turn east onto 4th Street. The final stop will be the Union Depot located on 4th Street between Sibley Street and Wacouta Street. The CCLRT will run trains every 7-1/2 to 10 minutes depending on the time of day.

The CCLRT Operations and Maintenance Facility is located to the east of Broadway Street, across the 4th Street/Prince Street/Broadway Street intersection. Based on CCLRT information and discussions with the City, light rail trains will not cross this intersection often. In general, crossings will occur at the set times of 2 a.m., 5 a.m., 10 a.m., 2 p.m., 7 p.m., and 10 p.m. These crossings will occur when trains are added or removed from service based on the fluctuating demand over the course of a day. In addition, the City has stated that light rail will operate according to the traffic signal, with no special preemption. In the rare instance that a crossing would occur during the analysis hour, the light rail crossing would fit in with the existing



green time and not impact the overall traffic operations. Based on this information, light rail crossings will occur at the end of this report's analysis hour, 6 p.m. to 7 p.m., but are not expected to have any impact on traffic operations.

Based on current Metro Transit information, there are 14 different bus routes that pass in front of the ballpark site on Broadway Street. Most are headed to and from the new Union Depot, just south of Kellogg Boulevard on Broadway Street. The timing of these buses varies throughout the day, with more generally running during the peak morning and evening periods. For the peak hour of this report, 6 p.m. to 7 p.m., approximately 26 buses (13 northbound and 13 southbound) are schedule to pass in front of the proposed ballpark site. Posted bus stops are available on Broadway Street between 4th Street and 5th Street and on Kellogg Boulevard just east of the Broadway Street intersection.

Another five bus routes travel on Wall Street. Three bus stops are posted on Wall Street between TH 5 (7th Street) and 5th Street.

Figure 4 shows the CCLRT route through downtown and the existing bus routes along Broadway Street adjacent to the ballpark.



Figure 4: Downtown CCLRT Route and Bus Routes Along Broadway Street



6

## IV. FUTURE ROADWAY NETWORK

The east end of downtown Saint Paul is undergoing roadway changes that will alter traffic routes and have impacts beyond the proposed ballpark. Notably, the TH 52 Lafayette Bridge reconstruction is underway, which will realign the end of the expressway and its connections to I-94 and the local road system. For the purposes of this report, that project is considered complete and operational in year 2015.

In conjunction with the new TH 52 Lafayette Bridge, two roadway configurations are being considered to expand the roadway network in this area of the City. These two scenarios are discussed below. It is important to note that these changes are being discussed independently of the proposed ballpark.

## A. Scenario 1

Scenario 1 anticipates two new north-south roadways to connect the existing east-west roadways to the east of the TH 52 Lafayette Bridge. Lafayette Street will connect Prince Street and Kellogg Boulevard, and Willius Street will connect 4th Street and Prince Street. Figure 5 shows these two connections, as well as the new TH 52 Lafayette Bridge location.

It should be noted that the City desires that the primary route for these connections be to and from Kellogg Boulevard. Kellogg Boulevard provides higher capacity and greater mobility than Prince Street. this suggestion seems appropriate. To that end. the new intersection of Prince Street and Lafayette Street would require a different configuration than shown, potentially creating a curve in the road to have Prince Street from the west T into the intersection.



Figure 5: Lowertown Roadway Scenarios



## B. Scenario 2

Scenario 2 builds on Scenario 1 by creating a new access to the Lowertown area. All of the roadway changes described for Scenario 1 would be constructed along with an additional roadway from the new TH 52 northbound exit ramp. Kittson Street would create a new connection from TH 5 (7th Street) and from the TH 52 exit ramp to Kellogg Boulevard. Both connections would use Prince Street and the new Lafayette Street to make the final connection to Kellogg Boulevard. It should be noted that Kittson Street would bridge over the existing 4th Street. Figure 5 also shows the Scenario 2 roadways.

In addition, Scenario 2 considers shifting an existing traffic signal on Kellogg Boulevard from the surface lot access (just west of the TH 52 Lafayette Bridge underpass) to the new Lafayette Street. While this change could also be completed with Scenario 1, the connection to the TH 52 exit ramp is expected to increase traffic on the new roads, better justifying traffic signal control. A traffic signal at this location would also better suit traffic signal spacing guidelines and match typical traffic signal installations at public access intersections, not at private accesses.

## V. VEHICLE VOLUMES

#### A. Current Volumes

Turning movement counts were taken at the eight study intersections identified earlier. Most counts occurred in October 2012, with the exception of Kellogg Boulevard/ Wall Street, Kellogg Boulevard/ Broadway Street, and 4th Street/ Prince Street/ Broadway Street. Counts at these three intersections were delayed until January 2013 due to construction. Once obtained, the October 2012 counts were reviewed and adjusted to reflect volumes without construction. All the volumes were also rounded up and balanced between intersections. Figure 6 shows these rounded and balanced volumes at the study intersections in addition to the existing configuration and intersection traffic control.

It is interesting to note that, at the time of the turning movement count, eastbound left turns from Kellogg Boulevard onto Wall Street were prohibited by posted signs. Despite the signed prohibition, multiple vehicles were observed completing this turn. However, the City has stated that the median on Kellogg Boulevard will be extended in the near future, permanently making the Wall Street intersection right in/right out only. For the purposes of this report, left-turn movements at this intersection were assumed banned for future years.

8



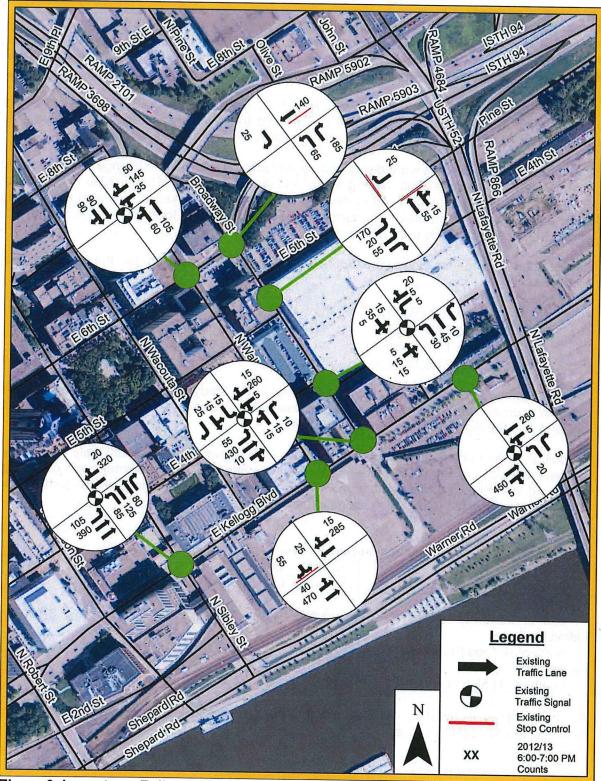


Figure 6: Lowertown Ballpark – Existing Intersection Characteristics and Volumes



## B. Future Volumes

As noted, the proposed ballpark is anticipated to be fully operational in year 2015. Therefore, that year was chosen as appropriate to analyze traffic operations. In addition, the year 2030 was chosen to analyze traffic operations in the more distant future.

The Metropolitan Council's Twin Cities Travel Demand Model (TCTDM) was used for development of the year 2015 and 2030 background traffic volumes in the project area. The model included the Scenario 1 and Scenario 2 roadway networks for each forecast year.

The forecast traffic volumes were developed by evaluating traffic volume changes demonstrated by the TCTDM between a 2009 existing model and the future year 2015 and 2030 models. Post processing of the model was used to develop 2012 calibrated volumes to match the existing traffic data collected in the field. The calibration was then applied to the future year models to arrive at the future scenario traffic volumes.

Based upon this methodology, the future volumes were forecasted for the following four scenarios:

- 2015 Scenario 1 No-Build
- 2015 Scenario 2 No-Build
- 2030 Scenario 1 No-Build
- 2030 Scenario 2 No-Build

Figures 7 through 10 show the forecasted volumes at the study intersections. With each future roadway scenario, four (scenario 1) or five (scenario 2) proposed intersection volumes are also included with the eight original study intersections.

In addition to the turning movement counts shown in the figures, the projected daily volumes on the new roadways of Prince Street east of Broadway Street, Lafayette Street north of Kellogg Boulevard, and Kittson Street south of the TH 52 exit ramp were determined. Table 2 shows the daily volumes expected under each scenario and year.

Table 2
Projected No-Build Daily Volumes on New Roadways

Roadway	2015		2030	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Prince Street		A Pile Land		
east of Broadway Street	2,300	2,800	2,700	3,500
Lafayette Street				
north of Kellogg Boulevard	2,600	4,200	3,200	5,500
Kittson Street				de a libra
south of TH 52 Exit Ramp	NA	3,800	NA	5,400

As shown, the expected daily volumes on these roads are well within the capacity of a two-lane roadway, as planned by the City.



10

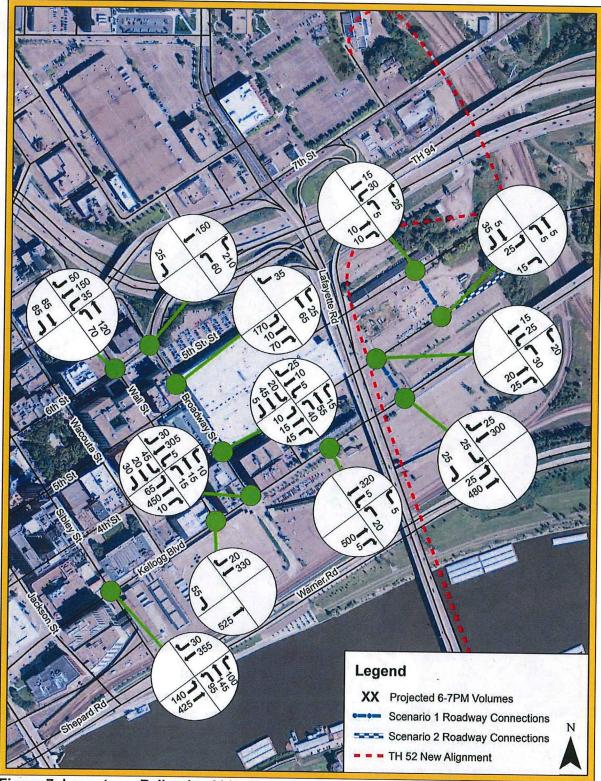


Figure 7: Lowertown Ballpark – 2015 Scenario 1 No Build Traffic Forecasts



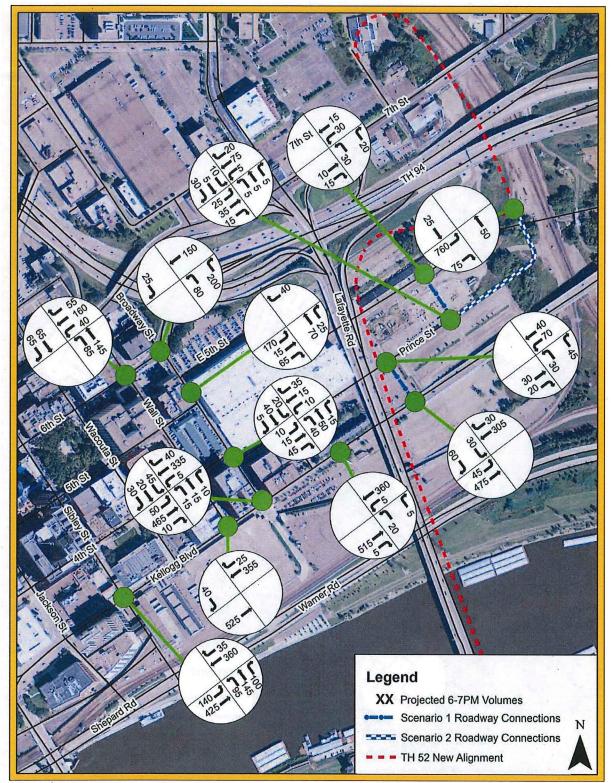


Figure 8: Lowertown Ballpark - 2015 Scenario 2 No Build Traffic Forecasts

12



\*

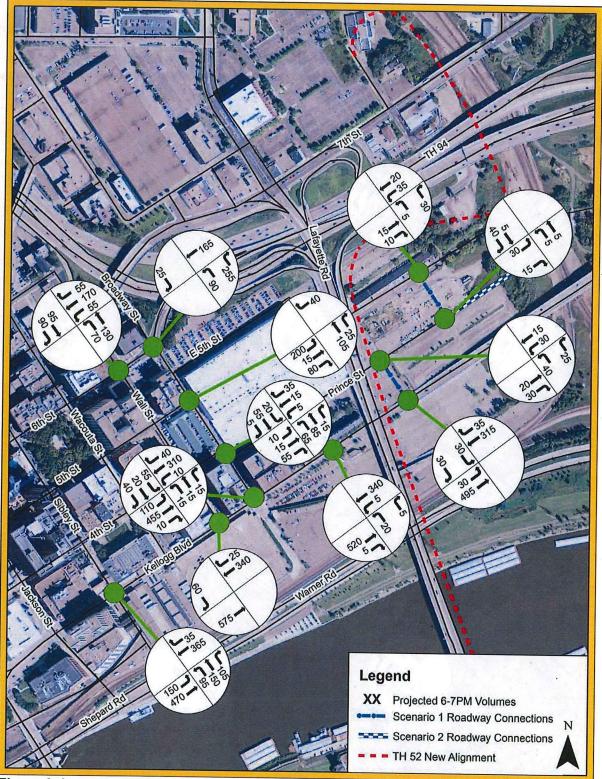


Figure 9: Lowertown Ballpark – 2030 Scenario 1 No Build Traffic Forecasts



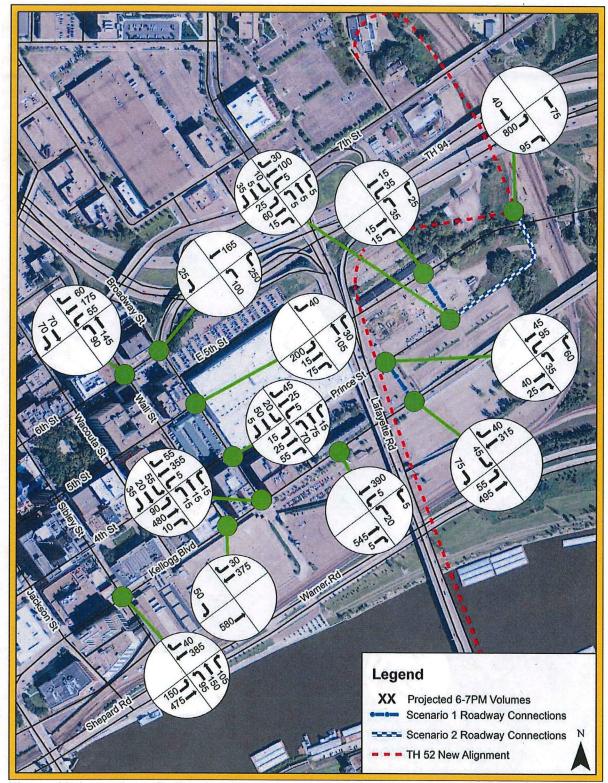


Figure 10: Lowertown Ballpark – 2030 Scenario 2 No Build Traffic Forecasts



## C. <u>Trip Generation</u>

Several key assumptions were made in order to analyze the potential traffic impacts associated with the proposed ballpark. These assumptions were based upon current design information, consultation with City staff, and researched information on other similar stadia. The traffic analysis assumptions for this document are:

- Origin/Destination The TCTDM was used to evaluate the distribution of traffic to and from the project area. A selected zone analysis of the future year model was used to determine the percentage of site-generated trips that will be on each road in the project area. These percentages were then used for the distribution of ballpark traffic to the roadway network.
- Mode Split Traffic to and from the proposed ballpark will have multiple travel options. In this case, the mode split was based primarily upon information used in evaluating the Twins Stadium, with slight adjustments reflecting differences between Saint Paul and Minneapolis. The mode split assumed for this document is: 89 percent drive, 5 percent light rail, 1 percent Metro Transit buses, 1 percent private shuttle, 4 percent walk or bicycle.
- Vehicle Occupancy Similar venues have used different rates for vehicle occupancy, ranging from 2.3 to 3.6 persons per vehicle. An average vehicle occupancy of 3.0 was used for this analysis.
- Peak Hour of Arrival Approximately 65 percent of attendees are expected to arrive during the hour before game time. This percentage has been commonly used at other similar venues.

With these assumptions, the attendance at an event can be translated into new passenger vehicles on the roadway network.

As shown earlier, the proposed ballpark is expecting to accommodate multiple events, with attendances ranging from 100 to 12,000. For this report, the highest-attendance event, a concert, was selected for analysis to showcase impacts associated with the worst case. If the roadway network can accommodate the highest-attendance event, which is only expected twice a year, then other lower-attendance events can also be accommodated on the roads.

The attendance number of 12,000 people includes fans only. In addition to the fans, there are site personnel such as security and vendors, concert performers and staff, and other employees. To account for additional people beyond the fans and to be conservatively high, a total analyzed attendance of 15,000 was assumed for this report. Using the assumptions presented earlier, Table 3 shows the number of vehicles expected at this event.

Table 3
Forecasted Vehicles per 15,000-Person Event

Mode Choice	People	Vehicles	Hour Before Start
Driving (89%)	13,350	4,450	2,895
Light Rail (5%)	750	0	0
Metro Transit (1%)	150	0	0
Private Shuttle (1%)	150	0	0
Walk/Bike (4%)	600	0	0



As shown, approximately 4,450 vehicles are expected for this type of event, with 2,895 arriving in the hour before the event starts.

The next step distributed the generated vehicles to the roadway network. As mentioned, the distribution was determined through the use of the TCTDM. Table 4 shows the distribution of trips to the regional roadways.

Table 4
Trip Distribution of Forecasted Vehicles (15,000-Person Event)

	WE SHEETING THE STATE OF THE STATE OF		Total Daily	Hour Before
Regional Road	gas double of sale of re-	Percentage	Trips	Start
Interstate 35E	<ul><li>to the north</li></ul>	22%	1,960	640
	<ul><li>to the south</li></ul>	12%	1,070	350
Interstate 94	<ul><li>to the east</li></ul>	24%	2,140	695
	<ul><li>to the west</li></ul>	12%	1,070	350
TH 52	<ul><li>to the south</li></ul>	8%	715	235
TH 5 (7th Street	t) – to the northeast	3%	270	90
	<ul><li>to the southwest</li></ul>	2%	180	60

Once the traffic on the regional roadways was established, routes into downtown and to the proposed ballpark were calculated, specifically for new traffic through the study intersections. Unlike other types of developments, traffic is not necessarily headed directly to the proposed ballpark. Instead, attendees will disperse through the area based on parking sites and potential pregame sites such as bars and restaurants. Figures 11 and 12 show the expected trip generation and distribution to the local roadway network for the proposed ballpark under Scenario 1 and Scenario 2, respectively.

The projected daily volumes were also revisited with the highest-attendance event. Table 5 shows the forecasts on the new roadways generated by the proposed ballpark with a 15,000-person event.

Table 5
Projected Ballpark Daily Volumes on New Roadways (15,000-Person Event)

	2015		2030	
Roadway	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Prince Street			Br. A.A. Tr	
east of Broadway Street	730	740	730	740
Lafayette Street	01 × 70 €	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.01	C
north of Kellogg Boulevard	650	600	650	600
Kittson Street				
south of TH 52 Exit Ramp	NA	630	NA	630



16

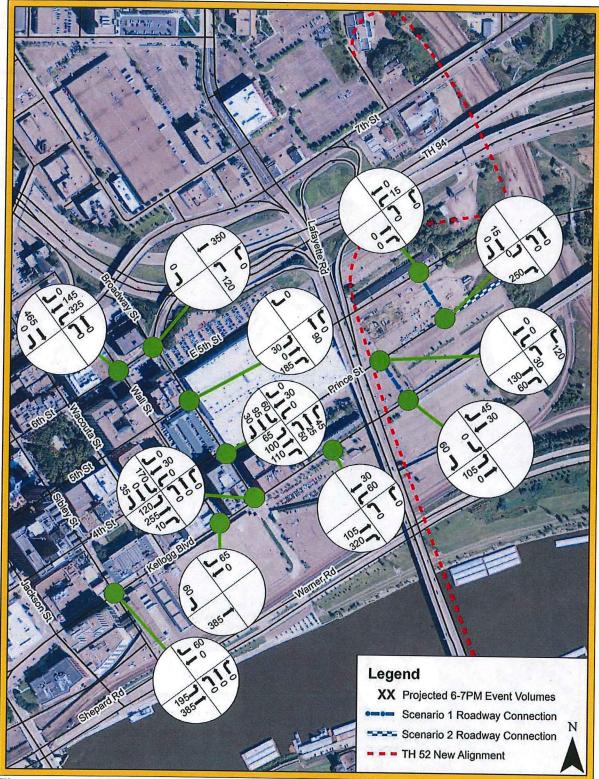


Figure 11: Lowertown Ballpark – Scenario 1 – 15,000-Attendance Event Peak Hour Arrivals



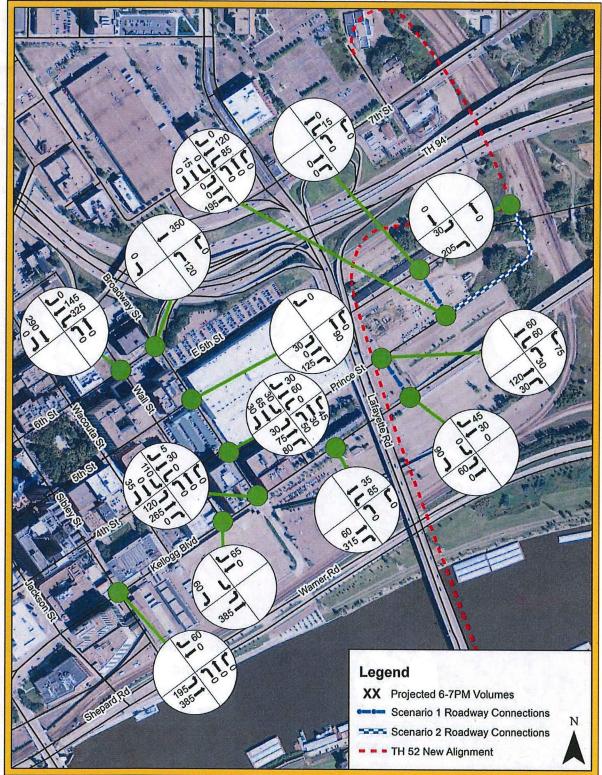


Figure 12: Lowertown Ballpark – Scenario 2 – 15,000-Attendance Event Peak Hour Arrivals



The final step in determining future volumes for the proposed site was to add the projected year No-Build traffic to the forecasted ballpark traffic for each scenario. It should be noted that some additional adjustments were necessary to account for roadway changes associated with the proposed ballpark, such as the removal of 5th Street east of Broadway Street. Figures 13 to 16 show the 6 p.m. to 7 p.m. Build volumes for Scenario 1 and Scenario 2 under each analysis year.

Table 6 shows the projected daily volumes on the new roadways under each Build Scenario. Although the daily volumes increase, the City's planned two-lane roadways should still be able to accommodate the projected volumes.

Table 6
Projected Build Daily Volumes on New Roadways (15,000-Person Event)

	20	15	2030		
Roadway	Scenario 1	Scenario 2	Scenario 1	Scenario 2	
Prince Street		G 187 16.			
east of Broadway Street	3,030	3,540	3,430	4,240	
Lafayette Street		0,010	0,100	7,240	
north of Kellogg Boulevard	3,250	4,800	3,850	6,100	
Kittson Street		1,000	0,000	0,100	
South of TH 52 Exit Ramp	NA	4,430	NA	6,030	



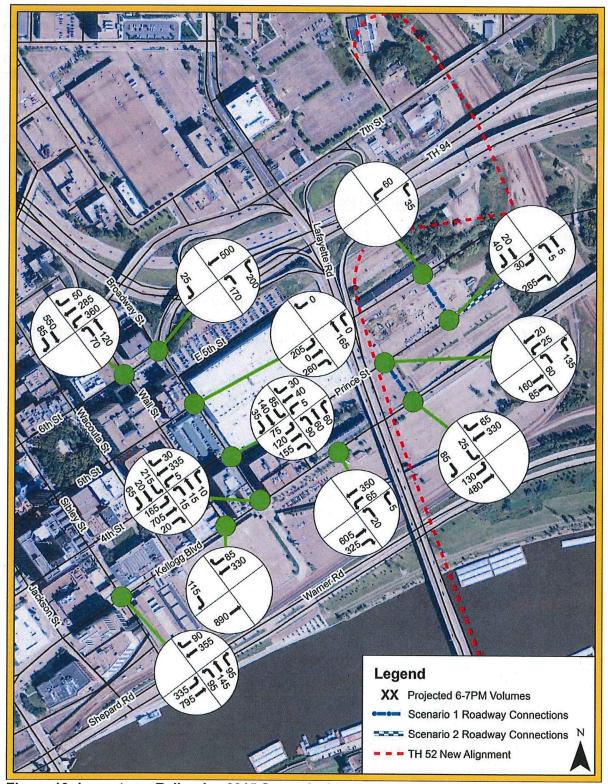


Figure 13: Lowertown Ballpark – 2015 Scenario 1 Build Traffic Forecasts



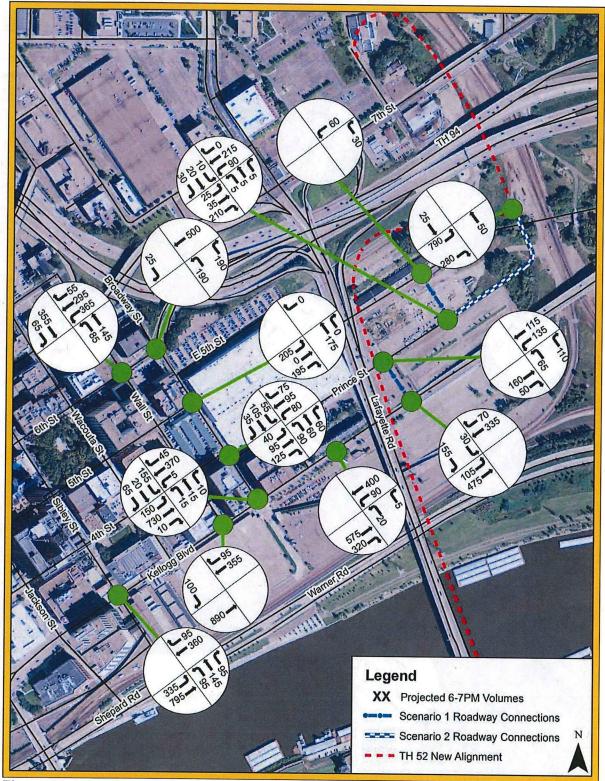


Figure 14: Lowertown Ballpark – 2015 Scenario 2 Build Traffic Forecasts



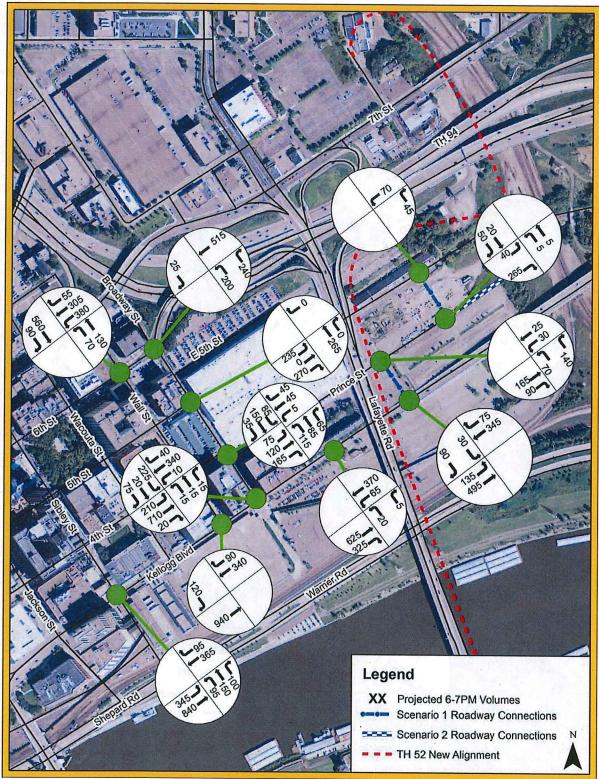


Figure 15: Lowertown Ballpark – 2030 Scenario 1 Build Traffic Forecasts



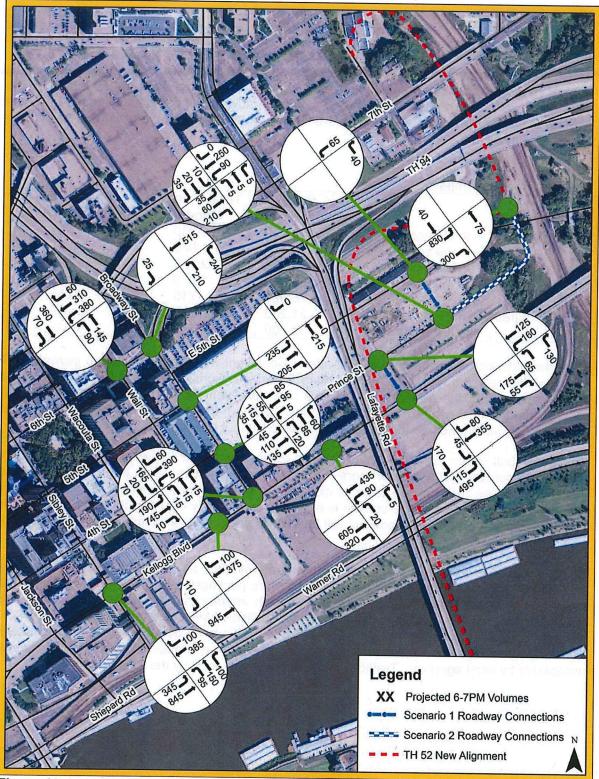


Figure 16: Lowertown Ballpark – 2030 Scenario 2 Build Traffic Forecasts



#### VI. ANALYSIS

#### A. Vehicle Operations

The potential impact on the regional roadway system was assessed using daily volumes. The current average daily traffic volume on each road was obtained from MnDOT traffic maps. Table 7 shows the current volume on each regional roadway, the expected increase due to the highest-attendance event at the proposed ballpark, and the percentage of current volume that increase represents.

Table 7
Regional Roadway Impact

Regional Road	d	Current Volumes	Total Daily Trips Generated	Percentage of Current Traffic
Interstate 35E	<ul><li>to the north</li></ul>	145,000	1,960	1.4%
	- to the south	75,000	1,070	1.4%
Interstate 94	<ul><li>to the east</li></ul>	135,000	2,140	1.6%
	- to the west	136,000	1,070	0.8%
TH 52	<ul><li>to the south</li></ul>	75,000	715	1.0%
TH 5 (7th Stree	et) – to the northeast	21,200	270	1.3%
Profession of the	<ul> <li>to the southwest</li> </ul>	11,200	180	1.6%

As shown, the increase from the highest-attendance event would be expected to increase daily traffic on the regional roadways by less than 2 percent. Considering that the majority of this traffic is outside of the normal peak periods and this event is only anticipated twice a year (double the historical use of the existing Midway Stadium), the regional roadways are expected to adequately accommodate the increase in volume without impact.

Saints baseball games are expected to have an attendance about 40 percent less than the high-attendance concert, but will occur more regularly through the year. With the lower attendance, the impact on the regional roadways is expected to be less than 1 percent in regard to daily volumes. As with a concert, the volume is expected to generally occur at non-peak times; again suggesting that the regional roadways will be able to adequately accommodate the increase in traffic.

Using the existing and projected turning movement volumes, an intersection capacity analysis was performed using the Synchro/SimTraffic software package. This software provides various measures of effectiveness (MOE) to evaluate each intersection. A primary MOE is level of service (LOS), which is related to delay. LOS is a qualitative MOE, presented in terms of LOS A through F. LOS A represents the best operations with little to no delay, while LOS F represents the worst operations with excessive congestion. Generally, an intersection LOS D is considered acceptable by most agencies. Traffic signal timing was provided by the City.



24 15199.001

Table 8 shows a summary of the results of the Synchro/SimTraffic analysis of the existing conditions.

Table 8
Existing Intersection Operations

	A LOCAL CONTRACTOR OF THE PARTY	t Intersect Iovement	Overall Intersection		
			Delay		Delay
Intersection	Direction*	LOS	(sec)	LOS	(sec)
Kellogg Blvd. and Sibley St.**	NBL	C	29.3	В	11.4
Kellogg Blvd. and Wall St.	SBL	Α	7.4	Α	1.1
Kellogg Blvd. and Broadway St.**	NBL	C	28.6	Α	4.6
Kellogg Blvd. and Parking Lot Access**	NBL	C	23.9	Α	7.7
4th St./Prince St. and Broadway St.**	EBT	С	25.2	Α	6.4
5th St. (EB) and Broadway St.	NBT	Α	6.3	A	1.9
5th St. (WB) and Broadway St.	WBR	Α	3.4	Α	0.9
6th St. and Broadway Street	SBR	Α	2.8	A	0.5
6th St. and Wall St.**	NBL	В	16.4	A	9.4

<sup>\*</sup> The first two letters refer to an approach direction (northbound, southbound, eastbound, or westbound), while the third letter refers to the specific turning movement (left, through, or right). For example, NBL = northbound left turn.

\*\* Intersection under traffic signal control.

As shown, all movements in the study intersections are currently operating at LOS C or better. All study intersections as a whole are operating at LOS B or better. Thus, during the analysis hour of 6 p.m. to 7 p.m., the intersections have satisfactory operations.

The 2015 and 2030 No-Build Scenarios 1 and 2 were then examined in the same manner. Tables 9 and 10 show these results. Most of the new intersections were analyzed with one lane for all approaches and side-street stop control (in this case, the TH 52 exit ramp is assumed to have right-of-way over Kittson Street). The exception is the intersection of Kellogg Boulevard and Lafayette Street, which included a southbound right turn lane, an eastbound left-turn lane, and a westbound right-turn lane. In addition, this intersection was assumed to be under traffic signal control in Scenario 2. These assumptions were discussed with the City and are in line with expectations for the new roadways. Again, it is important to note that these roadways are being planned independently of the proposed ballpark.



Table 9 2015 No-Build Projected Intersection Operations

2015 No-Build Projected Intersection Op		t Intersect	ion	0	a wa II	
1	111 111 1111		lon	Overall Intersection		
9	IV.	lovement	Inters			
			Delay	A Principal Control	Delay	
Intersection	Direction*	LOS	(sec)	LOS	(sec)	
Scenario 1					4	
Kellogg Blvd. and Sibley St.**	NBL	C	27.4	В	11.7	
Kellogg Blvd. and Wall St.	SBR	Α	3.4	Α	0.7	
Kellogg Blvd and Broadway St.**	NBL	C	33.4	A	5.7	
Kellogg Blvd. and Parking Lot Access**	NBL	С	22.5	Α	7.5	
4th St./Prince St. and Broadway St.**	EBT	C	25.3	Α	9.2	
5th St. (EB) and Broadway St.	NBT	Α	6.6	Α	2.6	
5th St. (WB) and Broadway St.	WBR ·	Α	3.1	Α	1.2	
6th St. and Broadway St.	SBR	Ä	3.2	Α	0.6	
6th St. and Wall St.**	NBL	В	16.9	Α	9.6	
Kellogg Blvd. and Lafayette St.	SBL	. A	7.3	Α	1.3	
Prince St. and Lafayette St.	EBL	Α	4.1	Α	1.6	
Prince St. and Willius St.	SBL	Α	4.1	Α	1.9	
4th St. and Willius St.	NBL	Α	4.7	Α	1.7	
Scenario 2	<b></b> ,		8045	787 787	5 = 1	
Kellogg Blvd. and Sibley St.**	NBL	С	30.7	В	12.2	
Kellogg Blvd. and Wall St.	SBL	A	3.6	A	0.7	
Kellogg Blvd and Broadway St.**	SBL	C	30.0	A	4.9	
Kellogg Blvd. and Parking Lot Access	NBL	Α	7.9	A	1.1	
4th St./Prince St. and Broadway St.**	WBL	С	26.5	A	9.7	
5th St. (EB) and Broadway St.	NBT	Α	7.1	A	3.0	
5th St. (WB) and Broadway St.	WBR	Α	3.3	A	1.2	
6th St. and Broadway St.	SBR	Α	2.8	A	0.5	
6th St. and Wall St.**	NBL	В	16.7	В	10.2	
Kellogg Blvd. and Lafayette St.**	SBL	С	21.1	A	5.7	
Prince St. and Lafayette St.	EBL	Α	4.8	A	1.4	
Prince St. and Willius St.	SBT	Α	5.0	A	1.3	
4th St. and Willius St.	NBL	Α	4.4	A	2.2	
TH 52 Exit and Kittson St.	NBT	В	12.8	A	2.6	

<sup>\*</sup> The first two letters refer to an approach direction (northbound, southbound, eastbound, or westbound), while the third letter refers to the specific turning movement (left, through, or right). For example, NBL = northbound left turn.

26



1

15199.001

<sup>\*\*</sup> Intersection under traffic signal control.

Table 10 2030 No-Build Projected Intersection Operations

az dinav - e. 100 me		st Intersec Vlovement		Overall Intersection	
a pase from to benefities distributed	ing entries in	a yelenn	Delay	a-weight -	Delay
Intersection	Direction*	LOS	(sec)	LOS	(sec)
Scenario 1	1 1 5 1 1 1 1 1 1 1	o fair	9. 1 91 W	acurie	graph and a
Kellogg Blvd. and Sibley St.**	NBL	С	29.1	В	12.2
Kellogg Blvd. and Wall St.	SBR	Α	3.6	Α	0.8
Kellogg Blvd and Broadway St.**	SBT	С	34.7	Α	6.1
Kellogg Blvd. and Parking Lot Access**	NBL	В	19.0	Α	7.1
4th St./Prince St. and Broadway St.**	EBL/EBT	С	25.0	Α	8.9
5th St. (EB) and Broadway St.	NBT	Α	6.1	Α	2.9
5th St. (WB) and Broadway St.	WBR	Α	3.6	Α	1.2
6th St. and Broadway St.	SBR	Α	2.6	A	0.5
6th St. and Wall St.**	NBL	В	18.4	Α	9.7
Kellogg Blvd. and Lafayette St.	SBL	Α	9.8	A	1.5
Prince St. and Lafayette St.	EBL	Α	4.2	A	1.7
Prince St. and Willius St.	SBL	Α	4.2	A	2.0
4th St. and Willius St.	NBL	Α	4.4	A	1.7
Scenario 2	W 11 37	Entropy of the Control	CERTIFIED	a tris T	
Kellogg Blvd. and Sibley St.**	NBL	C	29.0	В	12.1
Kellogg Blvd. and Wall St.	SBR	Α	3.8	Ā	0.8
Kellogg Blvd and Broadway St.**	NBL	С	29.6	A	5.5
Kellogg Blvd. and Parking Lot Access	NBL	Α	7.9	A	1.1
4th St./Prince St. and Broadway St.**	EBL	C	25.6	В	11.4
5th St. (EB) and Broadway St.	NBT	Α	7.1	Ā	3.2
5th St. (WB) and Broadway St.	WBR	Α	3.4	A	1.4
6th St. and Broadway St.	SBR	Α	2.8	A	0.5
6th St. and Wall St.**	NBL .	В	18.7	В	10.5
Kellogg Blvd. and Lafayette St.**	SBL	C	25.5	A	6.1
Prince St. and Lafayette St.	EBL	A·	5.2	A	1.5
Prince St. and Willius St.	SBT	Α	6.8	A	1.2
4th St. and Willius St.	NBL	Α	4.5	A	2.1
TH 52 Exit and Kittson St.	NBT	В	15.0	A	3.2

<sup>\*</sup> The first two letters refer to an approach direction (northbound, southbound, eastbound, or westbound), while the third letter refers to the specific turning movement (left, through, or right). For example, NBL = northbound left turn.

The above results show expected future traffic operations that are similar to today, even with traffic growth to forecasted year 2030. While both scenarios show acceptable results for the overall intersection and individual turning movements, Scenario 2 shows slightly better results than Scenario 1. Two other items are important to note from the above results. The first is that Scenario 2 provides satisfactory operations with the lane and control assumptions for the new intersections as currently planned by the City. The second item is that shifting the traffic signal in Scenario 2 from Kellogg Boulevard to the intersection with Lafayette Street maintains satisfactory traffic operations at this intersection and the intersection of Kellogg Boulevard with the parking lot access. In fact, the traffic operations are better without the traffic signal, as side-street traffic can proceed when there are gaps in the traffic instead of waiting for the traffic



<sup>\*\*</sup> Intersection under traffic signal control.

signal to change. This is most likely due to the coordinated signal timing, which favors the main line, Kellogg Boulevard in this case, over the side street.

While these results are important, it should also be noted that this is the 6 p.m. to 7 p.m. hour, when traffic volumes are approximately half of the p.m. peak hour. To determine the potential impact during the p.m. peak hour (approximately 4:30 p.m. to 5:30 p.m.), the two intersections on Kellogg Boulevard were reevaluated with each turning movement doubled. This evaluation showed that vehicles exiting the parking lot access will still be provided sufficient gaps in traffic for acceptable traffic operations. Based on the results of this simple evaluation, shifting the traffic signal control seems both reasonable and operationally sufficient for traffic volumes now and into the future. In addition, the lane assignment assumed in this report for the new Kelloga Boulevard and Lafayette Street intersection is adequate to safely accommodate projected traffic volumes. The westbound right-turn lane, in particular, is not necessarily needed for traffic operations based on this exercise, but rather provides general benefits and improves safety due to the westbound grade and speeds. Depending upon the City's ultimate construction plan, this lane could be phased for construction at a later date. The City should complete a full study of the intersection, including warrant analysis, to further determine the appropriateness of shifting the traffic signal control on Kellogg Boulevard. For the purposes of this report, however, the lane and traffic control assumptions described remained for subsequent analyses.

Scenarios 1 and 2 were then reanalyzed with the addition of the proposed ballpark traffic. Tables 11 and 12 show the results of the Build analyses.



28

15199.001

Table 11
2015 Build Projected Intersection Operations (15,000-Person Event)

		st Intersec Vlovement		100	erall section	
Voteria : Limiter :	1	1	Delay		Delay	
Intersection	Direction*	LOS	(sec)	LOS	(sec)	
Scenario 1	d v				177 000	
Kellogg Blvd. and Sibley St.**	EBL	D	43.1	С	23.6	
Kellogg Blvd. and Wall St.	SBR	A	4.0	Α	1.4	
Kellogg Blvd and Broadway St.**	SBL	С	30.5	В	10.1	
Kellogg Blvd. and Parking Lot Access**	NBL	С	25.7	A	9.1	
4th St./Prince St. and Broadway St.**	EBL	D	45.9	C	27.6	
5th St. (EB) and Broadway St.	NBT	Α	7.3	Α	3.3	
6th St. and Broadway St.	SBR	Α	7.2	A	1.8	
6th St. and Wall St.**	NBL	F	364.9		58.5	
Kellogg Blvd. and Lafayette St.	SBL	·B	14.2	E A	2.4	
Prince St. and Lafayette St.	EBL	A	6.1	A	3.2	
Prince St. and Willius St.	SBL	A .	6.1	A	1.5	
4th St. and Willius St.	NBR	Α	2.8	A	2.2	
Scenario 2	P 11					
Kellogg Blvd. and Sibley St.**	EBL	D	39.7	С	21.4	
Kellogg Blvd. and Wall St.	SBR	Α	4.1	Ā	1.3	
Kellogg Blvd and Broadway St.**	SBL	С	32.2	A	8.4	
Kellogg Blvd. and Parking Lot Access	NBL	С	19.1	A	3.1	
4th St./Prince St. and Broadway St.**	EBT	С	30.6	C	20.8	
5th St. (EB) and Broadway St.	NBT	Α	7.5	Ă	3.6	
6th St. and Broadway St.	SBR	Α	8.3	A	1.8	
6th St. and Wall St.**	NBL	D	44.4	В	17.4	
Kellogg Blvd. and Lafayette St.**	SBL	С	22.0	Ā	5.6	
Prince St. and Lafayette St.	EBL	A	7.4	A	3.2	
Prince St. and Willius St.	SBT	Α	9.5	A	2.2	
4th St. and Willius St.	NBR	Α	3.3	A	2.3	
TH 52 Exit and Kittson St.	SBT	В	14.8	A	2.5	

<sup>\*</sup> The first two letters refer to an approach direction (northbound, southbound, eastbound, or westbound), while the third letter refers to the specific turning movement (left, through, or right). For example, NBL = northbound left turn.

\*\* Intersection under traffic signal control.



Table 12

2030 Build Projected Intersection Operations (15,000-Person Event)

	The second secon	t Intersect	tion		erall section
	1.0		Delay		Delay
Intersection	Direction*	LOS	(sec)	LOS	(sec)
Scenario 1					ry is a
Kellogg Blvd. and Sibley St.**	EBL	E	65.1	1 D	35.5
Kellogg Blvd. and Wall St.	SBR	Α	4.0	Α	1.5
Kellogg Blvd and Broadway St.**	NBL	C	33.1	В	10.6
Kellogg Blvd. and Parking Lot Access**	WBL	С	28.0	Α	9.4
4th St./Prince St. and Broadway St.**	EBT	D	54.2	С	30.4
5th St. (EB) and Broadway St.	NBT	Α	8.0	Α	3.9
6th St. and Broadway St.	SBR .	Α	8.7	A	2.1
6th St. and Wall St.**	NBT	F	510.7	THE EAST A	79.6
Kellogg Blvd. and Lafayette St.	SBL	В	13.1	Α	2.4
Prince St. and Lafayette St.	EBL	Α	6.3	Α	3.3
Prince St. and Willius St.	SBL	- A	6.0	Α	1.6
4th St. and Willius St.	NBR	Α	2.8	Α	2.3
Scenario 2				~	ri eneri
Kellogg Blvd. and Sibley St.**	EBL	E	68.1	D	36.9
Kellogg Blvd. and Wall St.	SBR	A	4.2	Α	1.4
Kellogg Blvd and Broadway St.**	SBL	C	32.0	Α	9.4
Kellogg Blvd. and Parking Lot Access	NBL	C	18.4	Α	3.2
4th St./Prince St. and Broadway St.**	EBT	C	34.2	С	24.1
5th St. (EB) and Broadway St.	NBT	Α	7.9	Α	4.1
6th St. and Broadway St.	SBR	Α	9.1	Α	1.4
6th St. and Wall St.**	NBL	D	52.3	В	18.3
Kellogg Blvd. and Lafayette St.**	SBL	C	23.3	A	6.4
Prince St. and Lafayette St.	EBL	Α	8.7	Α .	3.4
Prince St. and Willius St.	NBT	Α	8.1	Α	2.2
4th St. and Willius St.	NBR ,	Α	3.1	Α	2.0
TH 52 Exit and Kittson St.	NBT	С	16.9	Α	3.2

<sup>\*</sup> The first two letters refer to an approach direction (northbound, southbound, eastbound, or westbound), while the third letter refers to the specific turning movement (left, through, or right). For example, NBL = northbound left turn.

As shown, the intersection of 6th Street and Wall Street is expected to fall to LOS E under Scenario 1 in the year 2015. In year 2030, issues remain at the 6th Street and Wall Street intersection and an individual movement shows poor LOS at the intersection of Sibley Street and Kellogg Boulevard. The primary issue at the both intersections is the conflict between left-turning vehicles and their opposing through traffic. The results suggest that the traffic signal timing is not properly allocated to the forecasted volumes.

In Scenario 2, the intersections and individual movements all show acceptable LOS, with the exception of the eastbound left-turn movement on Kellogg Boulevard at the Sibley Street intersection. The redistribution of traffic due to the new connection from the TH 52 exit ramp reduces projected volumes at key study intersections and, thus, improves results compared with Scenario 1.



<sup>\*\*</sup> Intersection under traffic signal control.

Based upon review of the results, revising traffic signal timing could improve the operations of the Scenario 1 Build alternatives. This revision was taken as a first mitigation measure. Rather than determining entirely new timing, the existing signal timing from the p.m. peak period (3:15 to 6:00 p.m.) was used as a base. Table 13 shows the results of the Scenario 1 Build analysis for years 2015 and 2030 assuming improved signal timing.

Table 13
Scenario 1 Projected Intersection Operations With Improved Signal Timing (15,000-Person Event)

Coordinate 11 rejected intersection Operation			1		
		st Intersec			erall
	to all lists of	lovement	In all that to	Inter	section
The Robert Mr. 10 That of the develop	at the party of the party	1000 1000	Delay	Maria Salah	Delay
Intersection	Direction*	LOS	(sec)	LOS	(sec)
Projected Year 2015	g 20 1 1 1 1 1 1 1 1 1	. 13 01	A BEST	The life	1 113 11
Kellogg Blvd. and Sibley St.**	EBL	D	51.4	С	27.1
Kellogg Blvd. and Wall St.	SBR	A	4.2	Α	1.4
Kellogg Blvd and Broadway St.**	NBL/SBL	C	32.6	В	10.2
Kellogg Blvd. and Parking Lot Access**	WBL	С	26.8	Α	9.4
4th St./Prince St. and Broadway St.**	EBT	D	37.9	С	24.2
5th St. (EB) and Broadway St.	NBT	Α	7.3	Α	3.4
6th St. and Broadway St.	SBR	Α	8.2	Α	2.2
6th St. and Wall St.**	NBL	D	53.7	С	20.8
Kellogg Blvd. and Lafayette St.	SBL	В	12.0	Α	2.4
Prince St. and Lafayette St.	EBR	Α	4.1	Α	3.3
Prince St. and Willius St.	SBL	Α	5.5	Α	1.4
4th St. and Willius St.	NBR	Α	2.8	Α	2.3
Projected Year 2030		Facilities 3		THE STREET	17.1
Kellogg Blvd. and Sibley St.**	NBL	D	35.3	В	18.6
Kellogg Blvd. and Wall St.	SBR	Α	4.3	A	1.5
Kellogg Blvd and Broadway St.**	SBL	С	34.5	В	10.8
Kellogg Blvd. and Parking Lot Access	NBL	D	27.7	Α	7.7
4th St./Prince St. and Broadway St.**	EBL	D	40.1	С	27.3
5th St. (EB) and Broadway St.	NBT	Α	7.9	Α	3.8
6th St. and Broadway St.	SBR	Α	9.8	Α	2.6
6th St. and Wall St.**	NBL	D	45.2	С	20.1
Kellogg Blvd. and Lafayette St.**	SBL	В	13.2	Α	2.5
Prince St. and Lafayette St.	EBL	Α	6.7	Α	3.3
Prince St. and Willius St.	SBL	Α	5.3	Α	1.5
4th St. and Willius St.	NBR	Α	2.7	Α	2.3

The first two letters refer to an approach direction (northbound, southbound, eastbound, or westbound), while the third letter refers to the specific turning movement (left, through, or right). For example, NBL = northbound left turn.

\*\* Intersection under traffic signal control.

As shown, the results for Scenario 1 improve significantly using traffic signal timing similar to that currently used for the p.m. peak period. All the study intersections and individual movements show acceptable operations. This suggests that the existing roadway system has sufficient capacity to accommodate a high-attendance event without infrastructure changes such as additional turn lanes.



Although not reanalyzed, the mitigation results suggest that signal timing improvements would also improve operations under Scenario 2. Rather than suggest specific signal timing improvements, it is recommended that the traffic signal timing be analyzed and revised as necessary with the proposed roadway changes and ballpark. As traffic grows, route patterns change, and/or significant new development occurs, signal timing updates should be a regular part of traffic signal maintenance for any city.

As a final note on operations, the intersection of Wall Street and Kellogg Boulevard was analyzed as a right in/right out only, per the City's planned median extension on Kellogg Boulevard. Eliminating left-turn movements significantly improves safety and does not impact overall traffic operations as evaluated herein. However, Wall Street is a direct connection from southbound I-35E and the first opportunity for southbound movement from the westbound I-94 exit. Drivers on Wall Street from these two freeways destined for parking areas off Kellogg Boulevard to the east will have to use 5th Street or 4th Street and Broadway Street to reach their destination, introducing more turns into their route and more traffic at those intersections. Given the traffic patterns of this area, particularly from the freeways, the City is recommended to reconsider this median closure and the balance between safety and mobility. Options such as banning left turns during the peak periods may increase safety without complete loss of this travel route. This type of change would not be expected to impact the operational results of this document and is not needed in conjunction with the proposed ballpark.

### B. Parking

As mentioned earlier in this report, the proposed ballpark construction will eliminate approximately 320 parking spaces, which includes on- and offstreet parking, both public and contract. Private parking will be available at the ballpark for Saints personnel, visiting teams, or other private parking uses. No additional public parking is anticipated to be provided with this construction.

However, the City of Saint Paul has a wide variety of on- and off-street public parking available for proposed ballpark attendees. To calculate the number of parking spaces that could reasonably be expected to be used by attendees, a boundary of approximately 6 blocks (1/2 mile) around the proposed site was set. This distance is assumed to be a reasonable walking distance, about ten minutes for an average person. This distance also reflects a wide array of pregame venues that are likely to attract attendees before they go to an event. Figure 17 shows the area around the proposed ballpark covered by this walking distance.

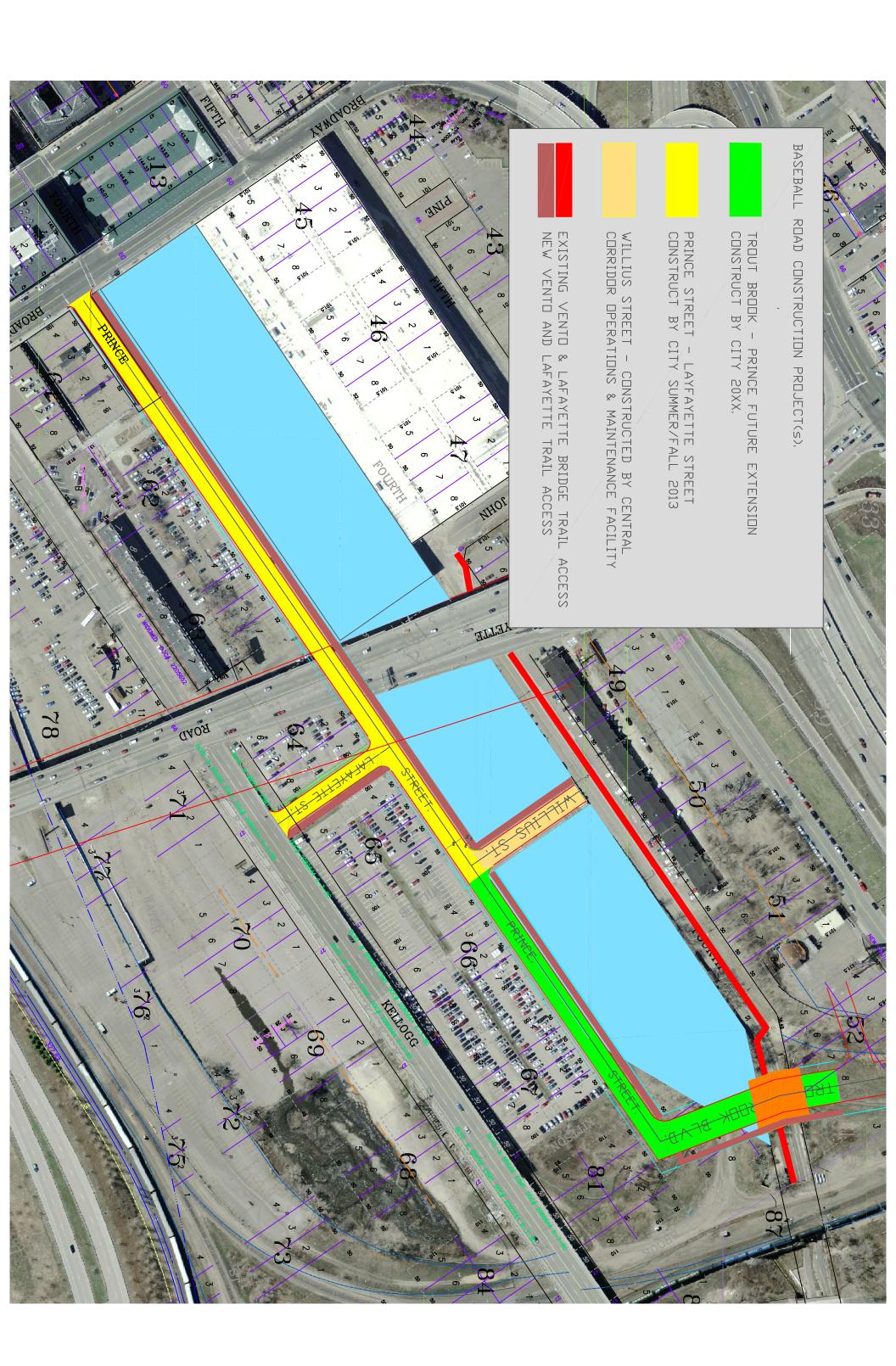


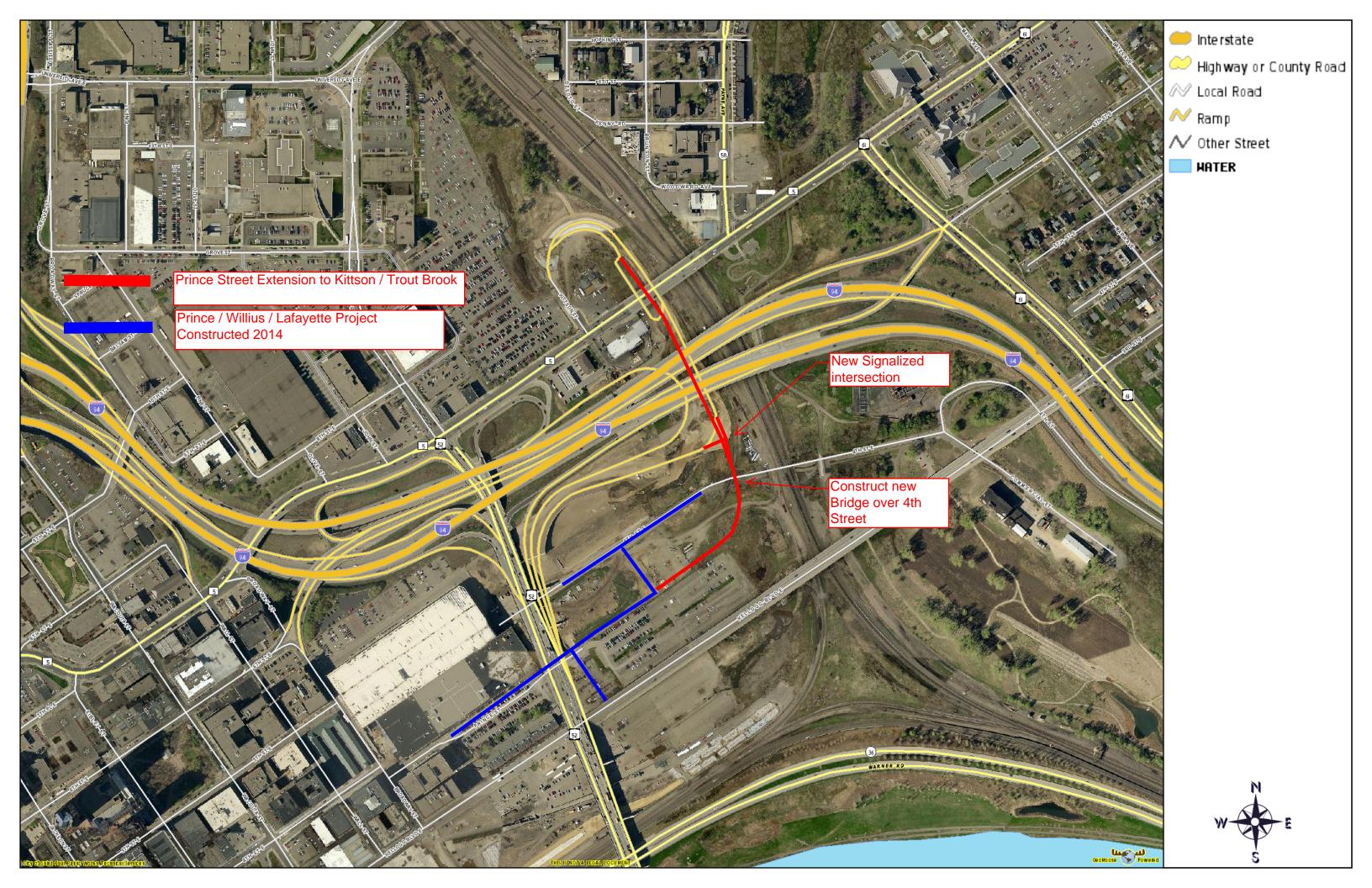
Figure 17: Lowertown Ballpark - Parking Area Map

15199.001



P.





Z:\streets\streets\projects\current\Prince\DWG\Real Estate\Exhibit

Signed

Reg. No.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

PREPARED BY

STREET ENGINEERING DIVISION

PRINCE

EXTENSION

PROJECT:
DRAWER:
DWG. NO.

CAD NAME: DATE:

11/10/14

SHEET NO.

유

 $\sim$ 

SHEETS

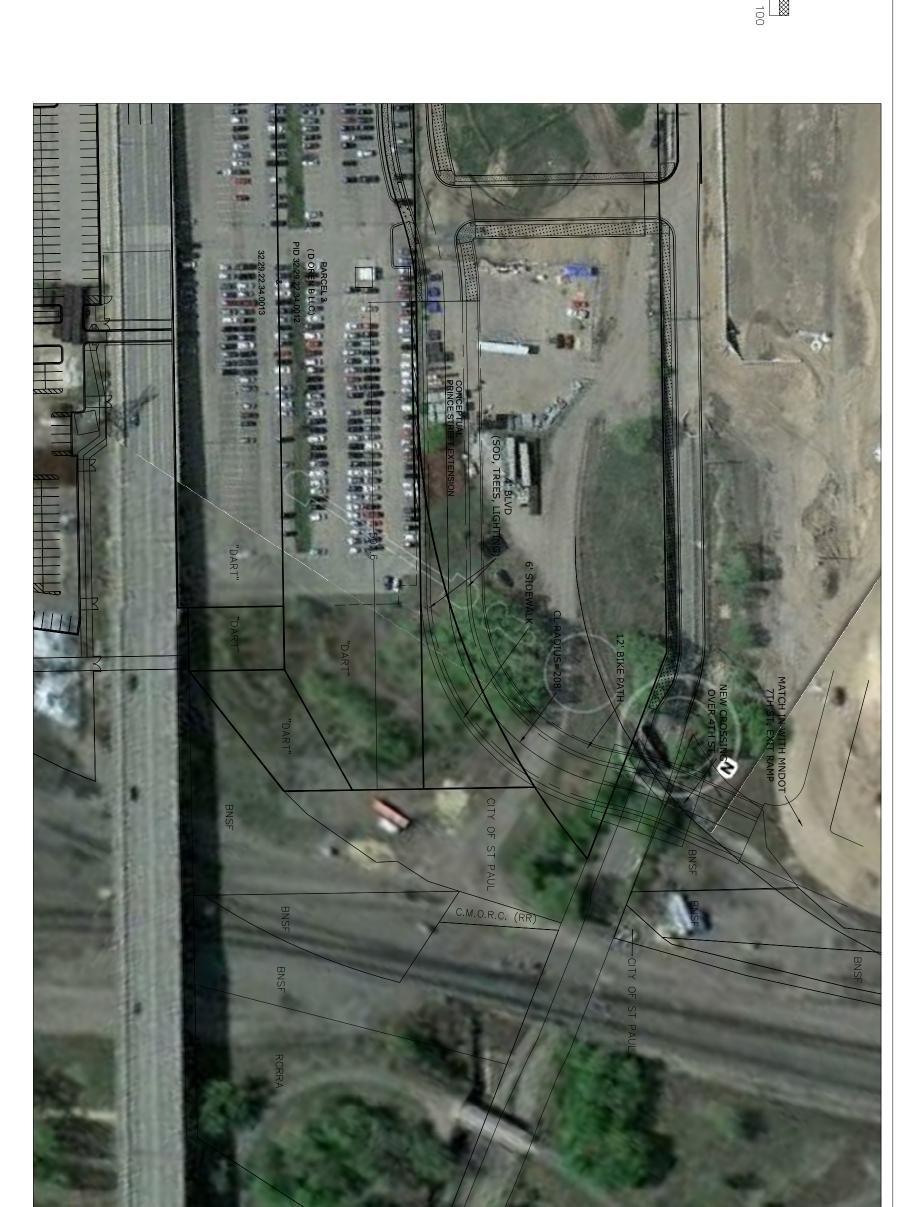
STATE AID PROJECT NUMBER:

TBD

PROJECTS/CURRENT/-

FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS

SCALE IN FEET



CONCEPTUAL PRINCE EXTENSION

DESIGNED I HEREBY CERTIFY TO UNDER MY DIRECT SUPER PROFESSIONAL ENGINEER U  APPROVED Signed	SCALE IN FEET  SCALE IN FEET  100 50 0 50 100  ELECTRONIC SURVEY
AT THIS PLAN WAS PREPARED BY ME OR WISION AND THAT I AM A DULY REGISTERED DER THE LAWS OF THE STATE OF MINNESOTA Date: Reg. No.	PARCEL 3 (10 OREN BLIC.) PID 32.29.22.34.0013 32.29.22.34.0013
PREPARED BY STREET ENGINEERING DIVISION FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS $P(X) = P(X) + P(X) $	CL RADIUS=208*  OVER 4TH ST. EXIT RAND  SODICE PIUM  PRINCE STREEL EXITESION  DART  DART
PROJECT: — DRAWER: — DWG. NO. —	BNSF BNSF BNSF BNSF
STATE APD UMBER: TBD  \$\text{SADE:} PROJECTS/CURRENT/-  DATE: 11/10/14 SHEET NO. 1 OF 2 SHEETS	BNSF RCRRA  CONCEPTUAL PRINCE EXTENSION
	X TEN SION

DRAWN DESIGNED APPROVED

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA Reg. No.

> PREPARED BY STREET ENGINEERING DIVISION

PRINCE

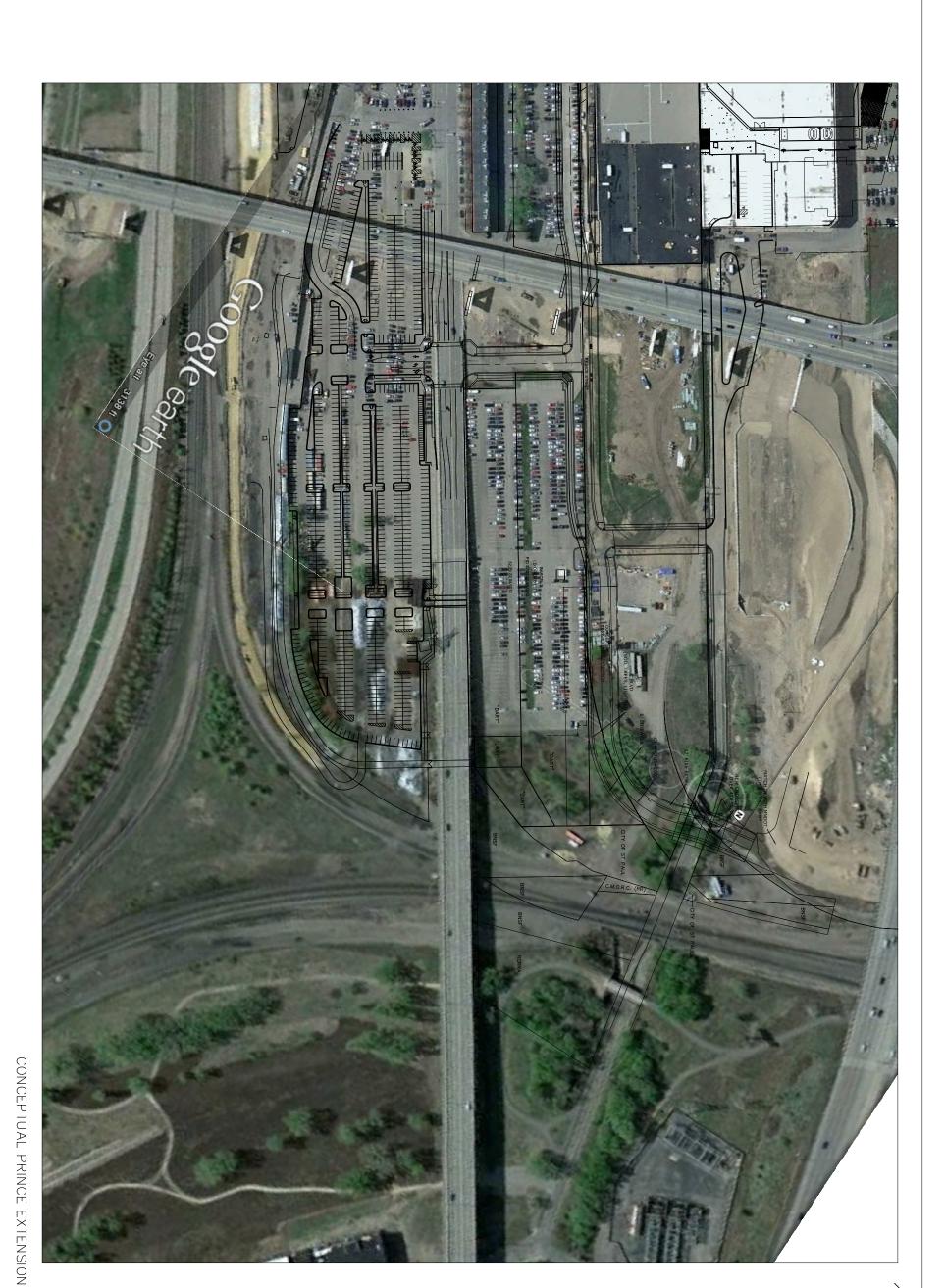
EXTENSION

DWG. NO. DRAWER:

FOR THE CITY OF ST. PAUL, DEPARTMENT OF PUBLIC WORKS DATE: NAME: 11/10/14

PROJECT: STATE AID PROJECT NUMBER: PROJECTS/CURRENT/-TBD SHEET NO. 2

SCALE IN FEET



유

 $\sim$ 

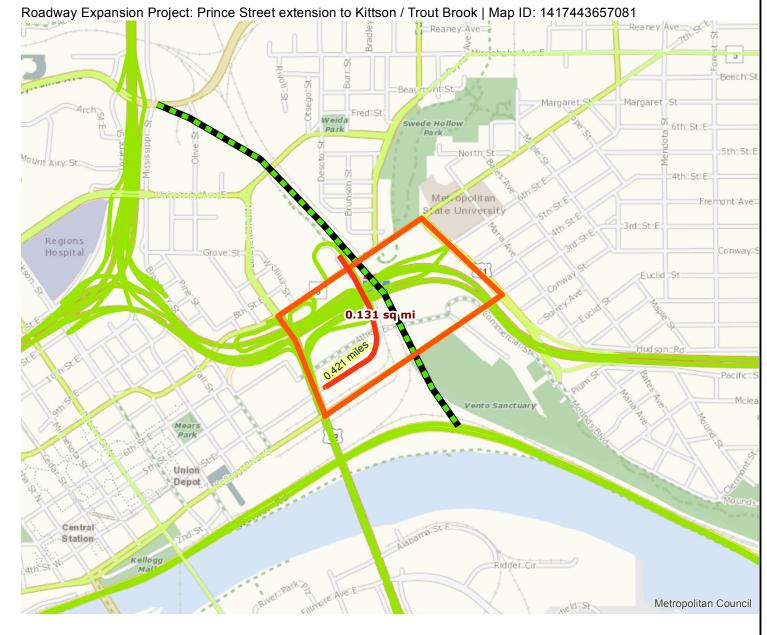
SHEETS

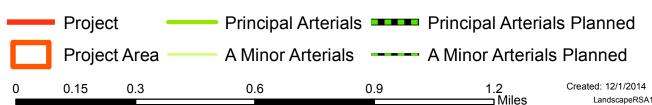
# Roadway Area Definition

Results

Project Length: 0.421 miles

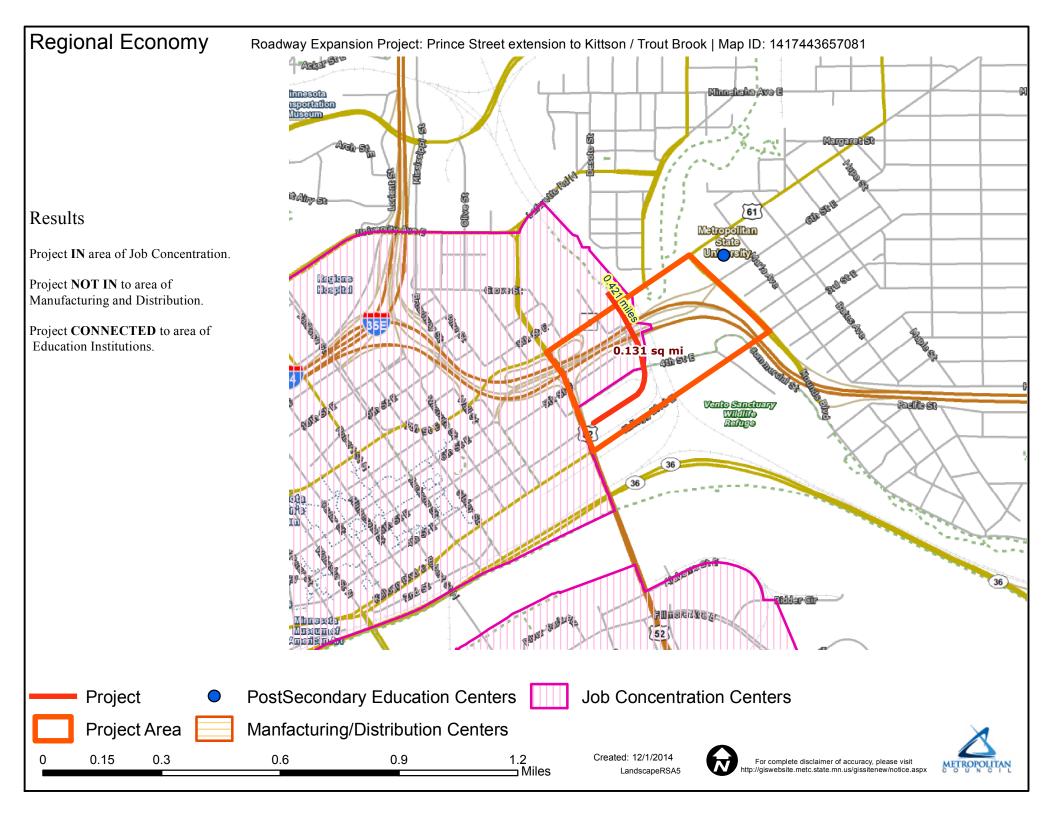
Project Area: 0.131 sq mi

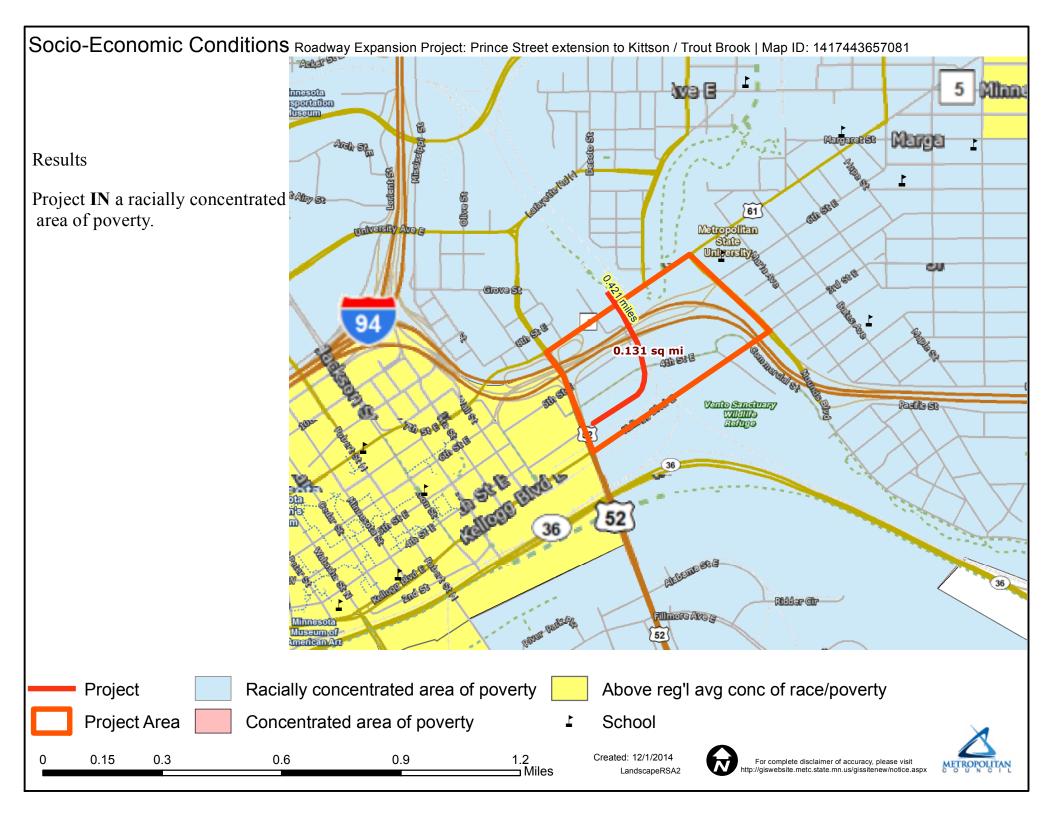












# 240: TH 52 Exit & Kittson St Performance by movement

Movement	EBL	EBR	NBT	SBT	All	
Delay / Veh (s)	1.9	0.5	15.0	14.1	3.2	
Total Stops	2	0	77	37	116	
Travel Dist (mi)	42.5	5.5	7.3	0.8	56.1	
Travel Time (hr)	2.3	0.3	0.6	0.2	3.3	
Vehicles Entered	810	105	79	37	1031	
Vehicles Exited	811	105	79	37	1032	
Hourly Exit Rate	811	105	79	37	1032	
Input Volume	800	95	76	40	1011	
% of Volume	101	111	104	92	102	
Denied Entry Before	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	

### **Total Zone Performance**

Control of the Contro		STATE OF THE STATE OF	
Delay / Veh (s)	411.9		
Total Stops	2581	17	
Travel Dist (mi)	644.7		
Travel Time (hr)	38.9		
Vehicles Entered	3736		
Vehicles Exited	126		
Hourly Exit Rate	126		Control of the Contro
Input Volume	9898		
% of Volume	1		
Denied Entry Before	0		
Denied Entry After	0		
S. S. Married Co. (2) (Section )	•		

