

# ARLINGTON AVENUE BIKEWAY PROJECT SUMMARY OF ENGINEERING RECOMMENDATIONS

Arlington Avenue Bikeway

Report prepared: 6/5/2018

Open House: 5/8/2018

Public Hearing: 6/20/2018

## PROJECT

Implementation of bicycle lanes on Arlington Avenue from Rice Street to Jackson Street.

Improvements include the installation of dedicated bicycle lanes, pavement markings, signage, and other elements as described below.

## PURPOSE

The purpose of this project is to provide an improved east-west bicycle facility on Arlington Avenue, and make purposeful connections to existing nearby bikeways, improving the bicycling environment as it relates to safety, comfort, and connectivity.

Figure 1: Project Map



## I. INITIATING ACTION

Saint Paul Public Works is planning a mill and overlay of Arlington Avenue between Rice Street and Jackson Street in 2018. To take advantage of the efficiencies associated with implementing bicycle facilities with existing maintenance projects, Public Works is proposing to implement bicycle lanes on Arlington Avenue from Rice Street to Jackson Street as a component of the scheduled mill and overlay project. These proposed facilities are consistent with the recommendations and intent of the Saint Paul Bicycle Plan.

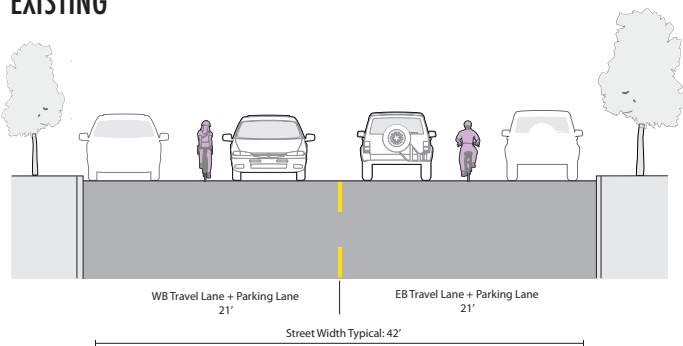
## II. EXISTING CONDITIONS

Arlington Avenue between Rice Street and Jackson Street is classified as a Collector and a Municipal State Aid (MSA) route. AADT within the project limits is measured at 5,900 vehicles per day. The posted speed limit is 30 mph. No recent speed studies were performed within the project limits. The roadway is 42' wide between Rice Street and Jackson Street, except for a segment underneath the Canadian Pacific Railroad Bridge east of Sylvan Street where the street narrows to 24'. Manual count data estimates September weekday bicycle around 100 trips per day, and September weekday pedestrian trips around 475 trips per day within project limits. There are no existing bike facilities installed within the projects limits. The Saint Paul Bicycle Plan identifies "in-street separated (bicycle) lanes" between Rice Street and Jackson Street as the recommended facility type.

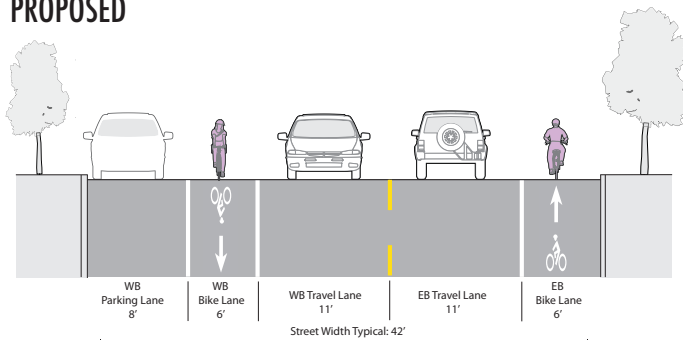
## III. PROPOSED IMPROVEMENTS

### Arlington Avenue: Rice Street to CP Railroad Bridge east of Sylvan Street

#### EXISTING



#### PROPOSED

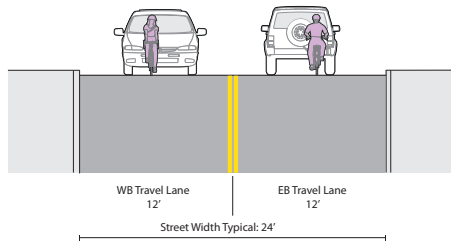


Elements proposed for implementation are:

- Restriping the roadway to add 6' (EB and WB) bicycle lanes
- Narrowing of existing vehicular travel lanes to 11'
- Installation of bike lane pavement markings and signage
- Removal of on-street parking on the south side of Arlington Avenue between Rice Street and Mayre Street
- Creating new parking capacity on the north side of Arlington Avenue east of Rice Street

## Arlington Avenue: CP Railroad Bridge & Approaches

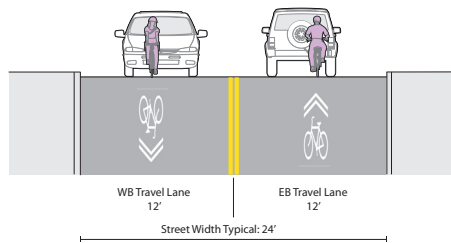
### EXISTING



Elements proposed for implementation are:

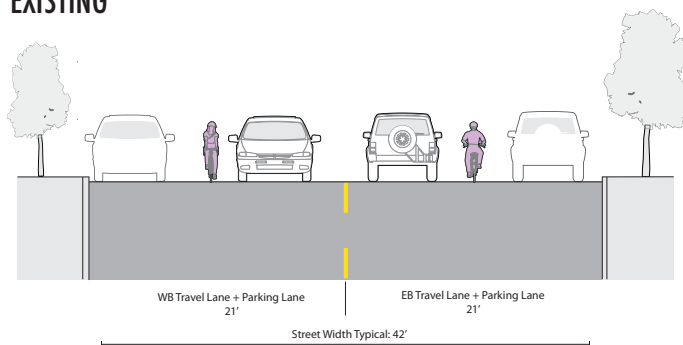
- Restriping the roadway to add enhanced shared lane pavement markings and signage

### PROPOSED



## Arlington Avenue: CP Railroad Bridge to Jackson Street

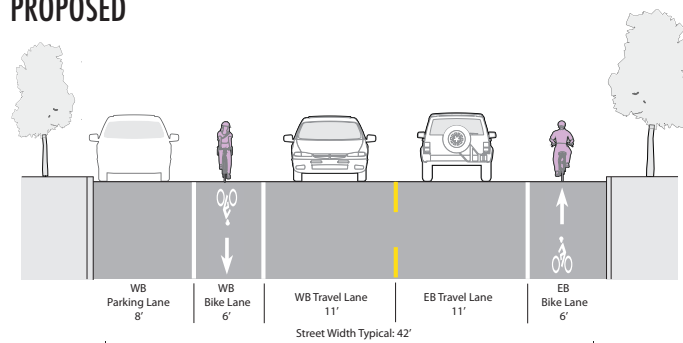
### EXISTING



Elements proposed for implementation are:

- Restriping the roadway to add 6' (EB and WB) bicycle lanes
- Narrowing of existing vehicular travel lanes to 11'
- Installation of bike lane pavement markings and signage
- Removal of a small amount of on-street parking on the north side of Arlington Avenue immediately west of Jackson Street
- Removal of on-street parking on the south side of Arlington Avenue between the at-grade CP rail crossing and Jackson Street

### PROPOSED



### **Changes to On-street Parking**

To accommodate the installation of bicycle facilities, on-street parking removal is proposed for the following locations:

- The south side of Arlington Avenue between Rice Street and Mayre Street
- The south side of Arlington Avenue between the at-grade Canadian Pacific Railroad crossing and Jackson Street
- The north side of Arlington Avenue immediately west of Jackson Street (3 – 4 spaces in total)

Creating some new parking capacity on the north side of Arlington Avenue east of Rice Street is also proposed (between 4 and 7 spaces).

To capture demonstrative parking demand, Public works conducted thirteen parking occupancy counts at representative time periods along Arlington Avenue and intersecting side streets. Based on the data collected by Public Works, it is anticipated that remaining parking supply on the north side of Arlington Avenue and on adjacent side streets will be sufficient to meet observed demand. The parking occupancy data is attached in the **Appendix** of this document.

## **IV. ALTERNATIVES**

Pursuing the 2018 Arlington Avenue mill and overlay without bicycle facilities would not improve safety or comfort for people bicycling on Arlington, and would prevent taking advantage of the cost efficiencies associated with striping bike lanes with existing maintenance projects.

Parking removal is proposed for the south side of Arlington Avenue between Rice Street and Jackson Street. Removing parking from the north side of Arlington Avenue instead of the south side was examined, but was ultimately rejected as a result of the following data-driven findings:

- a) There is more estimated parking capacity on the north side of Arlington Avenue between Rice Street and Jackson Street
  - (62 spaces on the north side of the street, and 39 spaces on the south side)
- b) There is more estimated parking utilization on the north side of Arlington Avenue between Rice Street and Jackson Street
  - (Average of 15.6 vehicles parked on the north side of street, and 10.8 vehicles parked on the south side of street)
- c) There is an opportunity to create new parking capacity on the north side of Arlington Avenue east of Rice Street where it is currently prohibited. This opportunity does not exist on the south side of the street.

## **V. POSITIVE BENEFITS**

This project will improve the safety of all users of the roadway. Providing dedicated bike lanes on Arlington Avenue will improve the safety and comfort for people bicycling on the street, encourage predictable riding behavior, and will provide connectivity to the Trout Brook Trail at Jackson Street. This project will also directly connect to future bike lanes east and west of the project limits scheduled for implementation in 2020. Narrowing the travel lanes to accommodate bicycle facilities will minimize roadway exposure to motorized traffic for pedestrians.

## **VI. ADVERSE EFFECTS**

Normal issues relative to implementing infrastructure improvement projects will be present. Those issues include, but may not be necessarily limited to, noise, dust, and general disruptions to vehicular traffic. Removal of some on-street parking will reduce overall parking capacity and make parking less convenient for stakeholders who regularly park on the south side of Arlington Avenue between Rice and Jackson streets.

## **VII. TIME SCHEDULE**

It is anticipated that the bicycle improvements as proposed will be installed concurrent with the planned mill and overlay on Arlington Avenue, scheduled for summer/fall 2018.

## **VIII. COST ESTIMATE**

Construction: \$17,000 – \$20,000\*

\* This is an estimate developed in advance of a final signing and striping plan.

## **I. ESTIMATED FINANCING**

Signing and striping for bike lanes on Arlington Avenue will be funded through the Street Maintenance Service Program.

## **II. SOURCE OF ADDITIONAL INFORMATION**

For additional information, please contact:

Luke Hanson, Transportation Planning and Safety Division  
Email: [Luke.Hanson@ci.stpaul.mn.us](mailto:Luke.Hanson@ci.stpaul.mn.us)  
Phone: 651-266-6146

### **III. SUMMARY AND RECOMMENDATIONS**

The Department of Public Works believes the project submitted herein to be necessary and feasible. The Department's Engineering Recommendation is for approval of the project as proposed.

# Appendix

Attached:

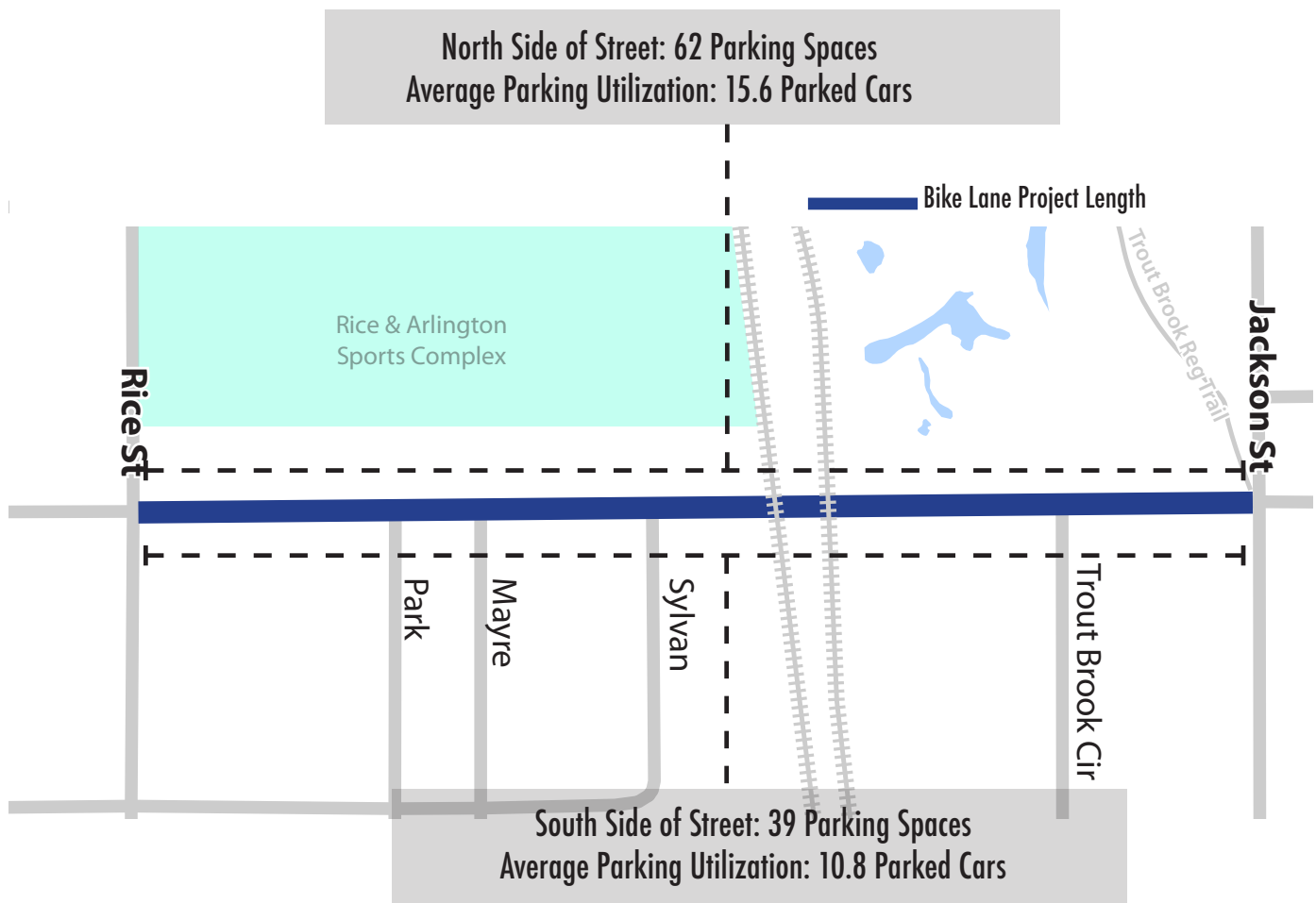
1. Arlington Avenue Parking Occupancy Study

# ARLINGTON AVENUE PARKING SUMMARY

Boundaries: Rice (west) to Jackson (east)

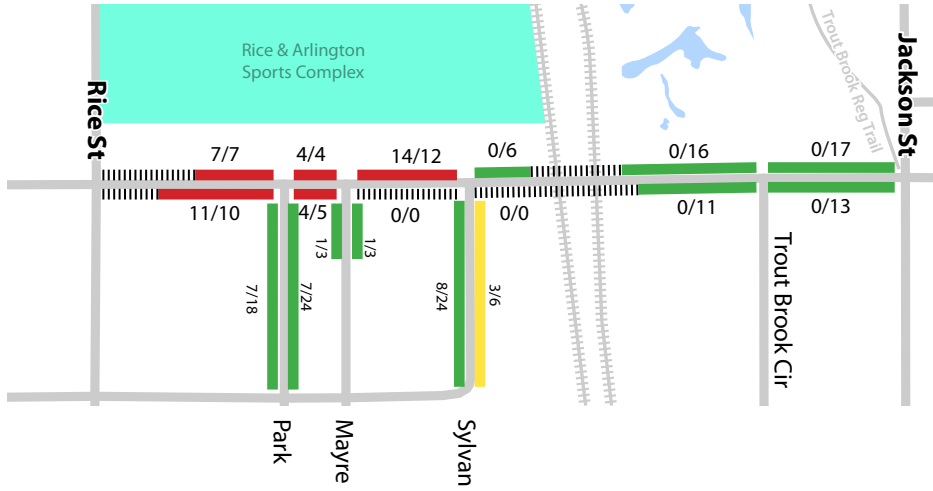
Legal Parking Capacity: 101

Average Parking Utilization (13 Counts): 22.9 Parked Cars (22.6% Utilization)

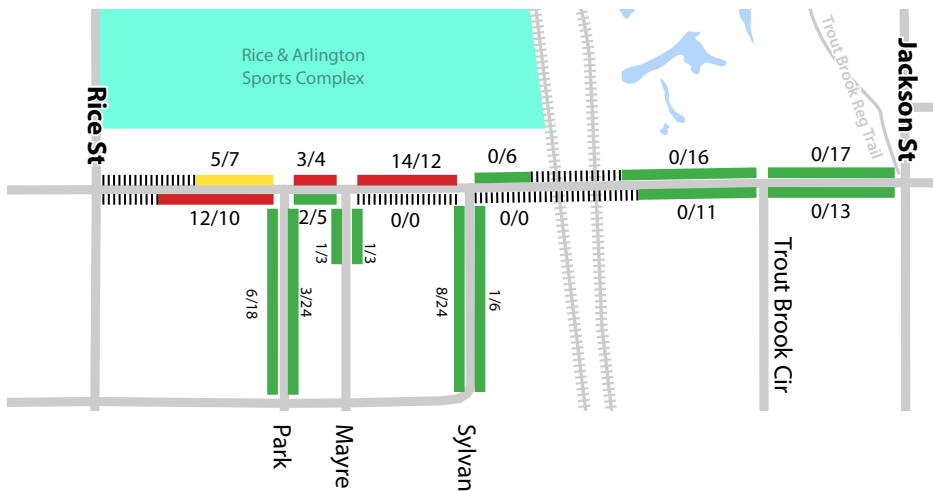


# Arlington Avenue Parking Counts Weekday Early Morning (4 AM - 6 AM)

Date: Tuesday, January 9th  
Time Period: 4 AM - 6 AM



Date: Thursday, January 11th  
Time Period: 4 AM - 6 AM



## Legend

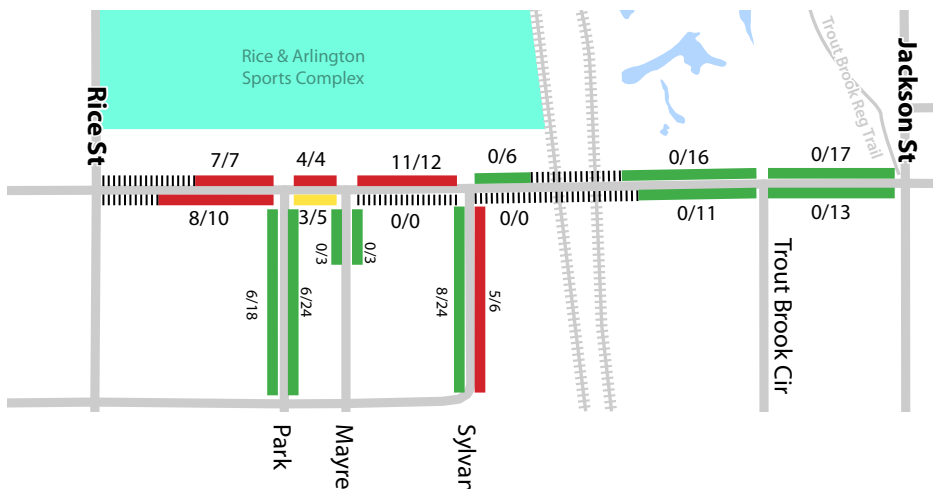
### Observed Parking Utilization

- Signed "No Parking"
- 0 - 49%
- 50 - 74%
- 75 - 100+%

Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity

(Observed parking utilization may exceed estimated legal capacity)

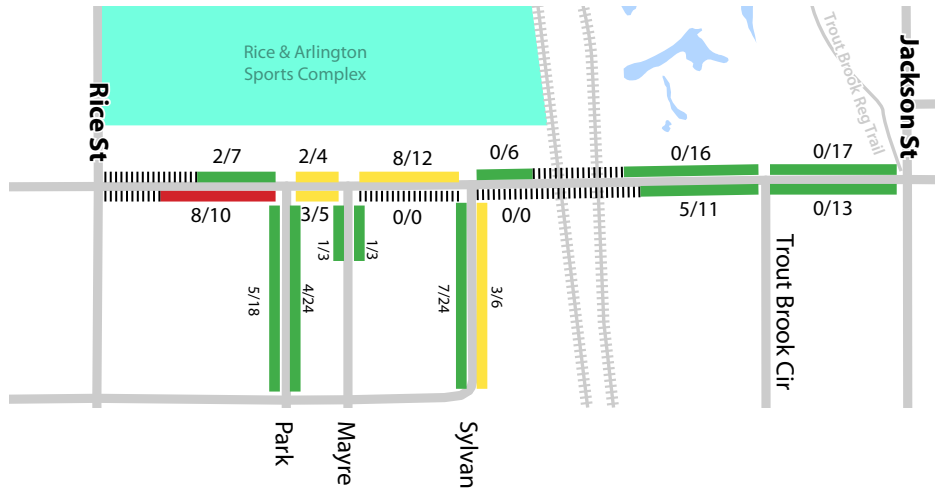
Date: Wednesday, January 31st  
Time Period: 4 AM - 6 AM



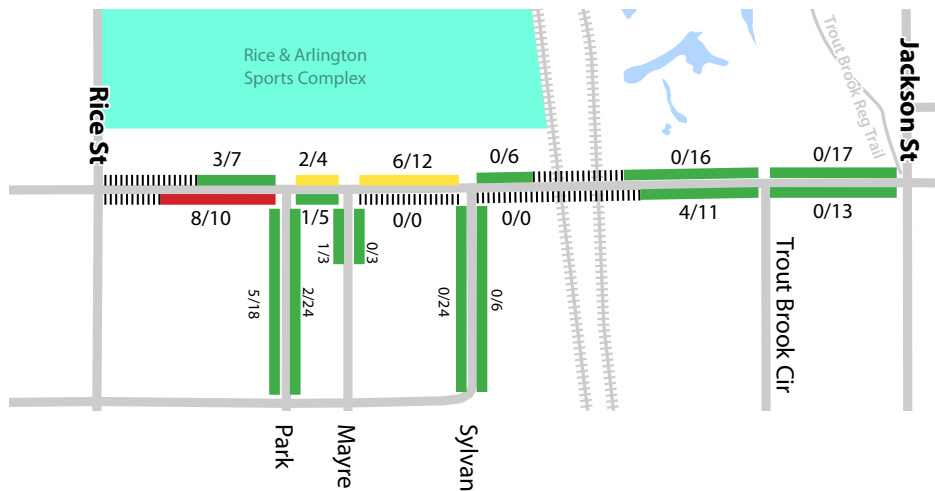


# Arlington Avenue Parking Counts Weekday Midday (11 AM - 1 PM)

Date: Wednesday, January 10th  
Time Period: 11 AM - 1 PM



Date: Tuesday, February 6th  
Time Period: 11 AM - 1 PM



## Legend

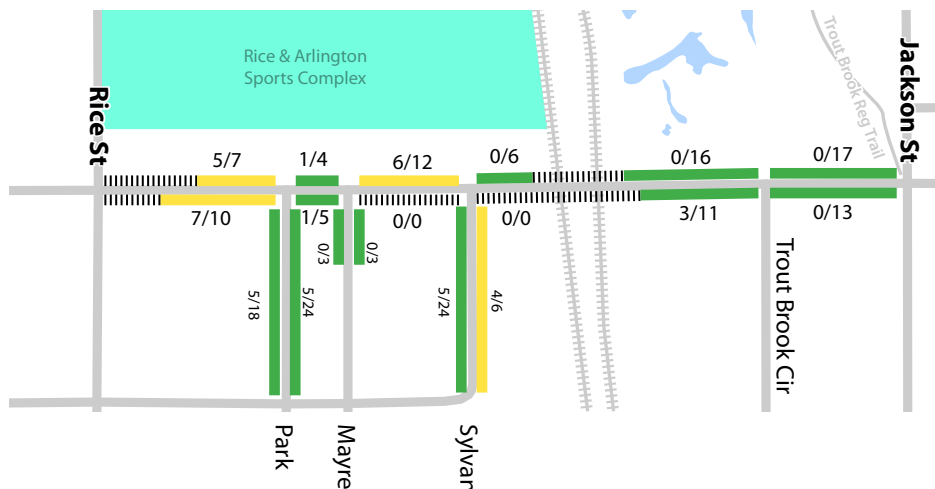
Observed Parking Utilization

- Signed "No Parking"
- 0 - 49%
- 50 - 74%
- 75 - 100%+

Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity

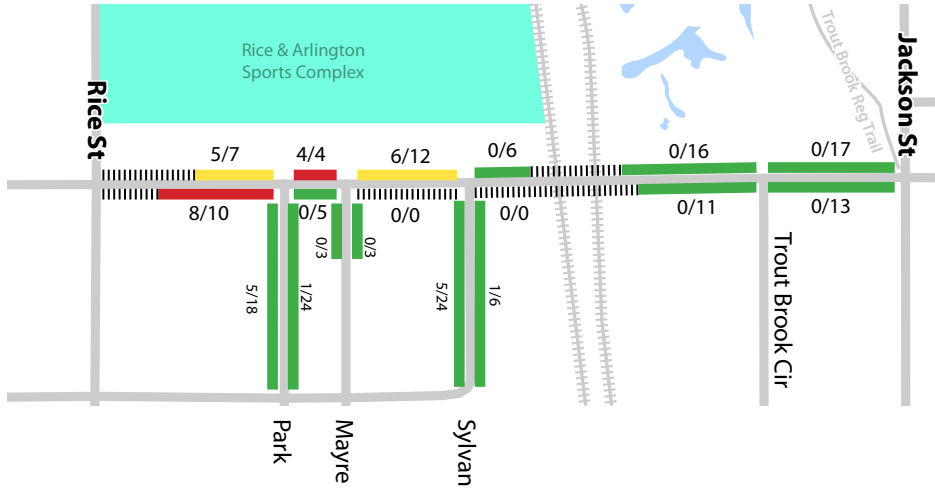
(Observed parking utilization may exceed estimated legal capacity)

Date: Wednesday, February 21  
Time Period: 11 AM - 1 PM

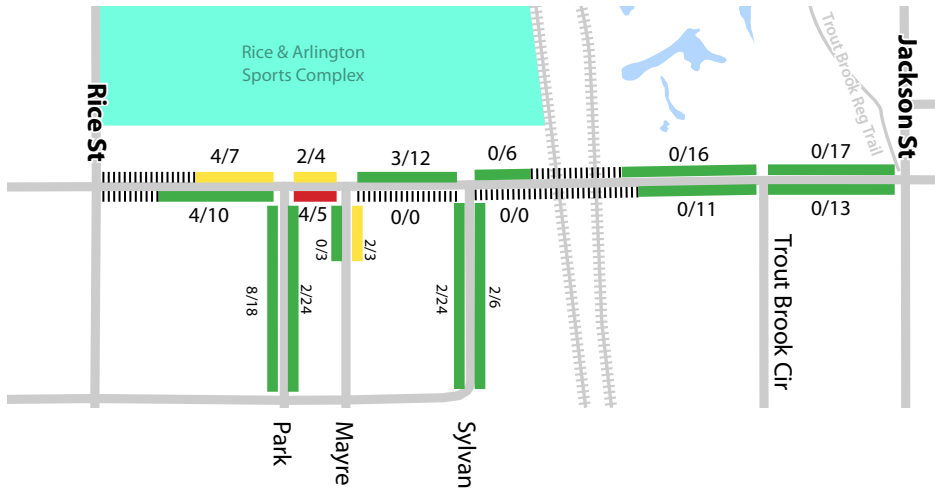


# Arlington Avenue Parking Counts Weekday Evening (6 PM - 8 PM)

Date: Wednesday, January 3rd  
Time Period: 6 PM - 8 PM



Date: Tuesday, March 13th  
Time Period: 6 PM - 8 PM



## Legend

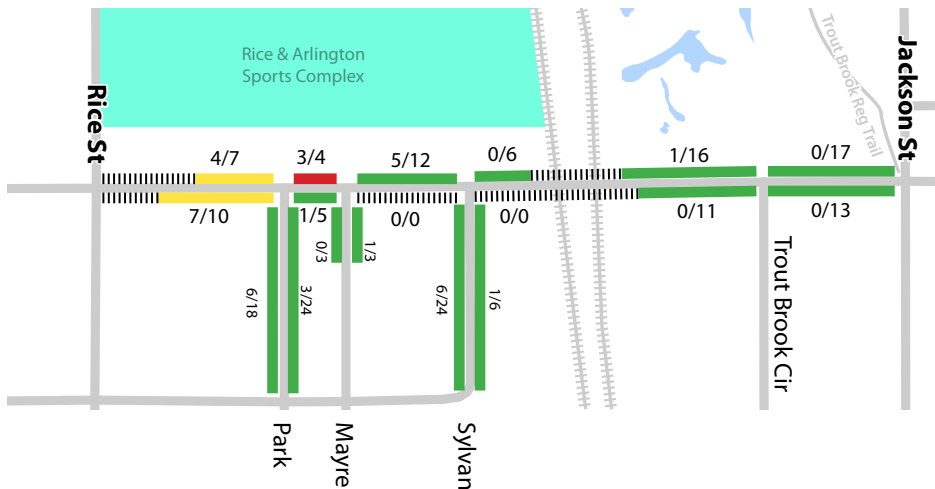
Observed Parking Utilization

- Signed "No Parking"
- 0 - 49%
- 50 - 74%
- 75 - 100+%

Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity

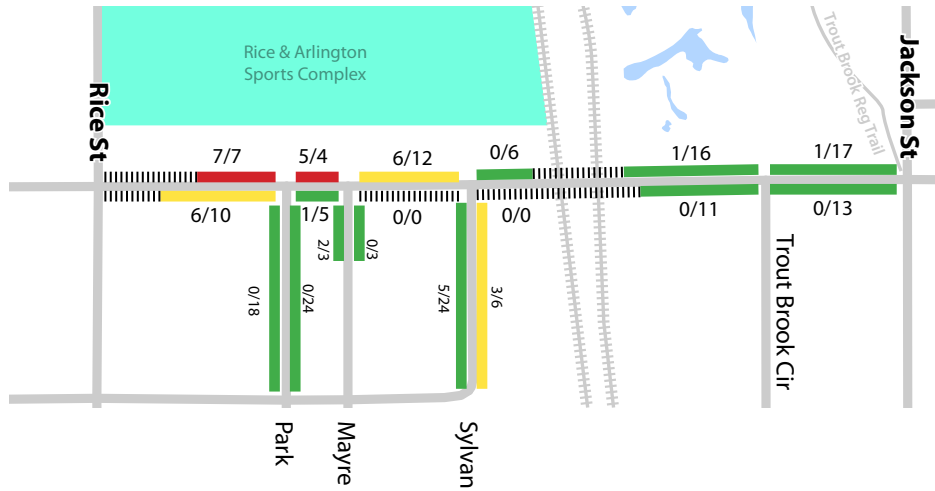
(Observed parking utilization may exceed estimated legal capacity)

Date: Tuesday, April 10th  
Time Period: 6 PM - 8 PM

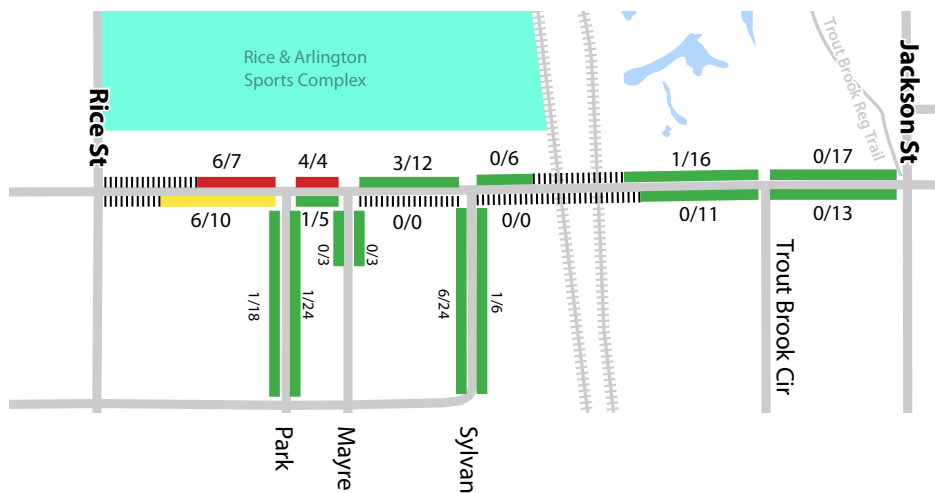


# Arlington Avenue Parking Counts Saturday Midday (11 AM - 1 PM)

Date: Saturday, March 17th  
Time Period: 11 AM - 1 PM







Date: Saturday, March 24th  
Time Period: 11 AM - 1 PM



## Legend

### Observed Parking Utilization

-  Signed "No Parking"
-  0 - 49%
-  50 - 74%
-  75 - 100+%

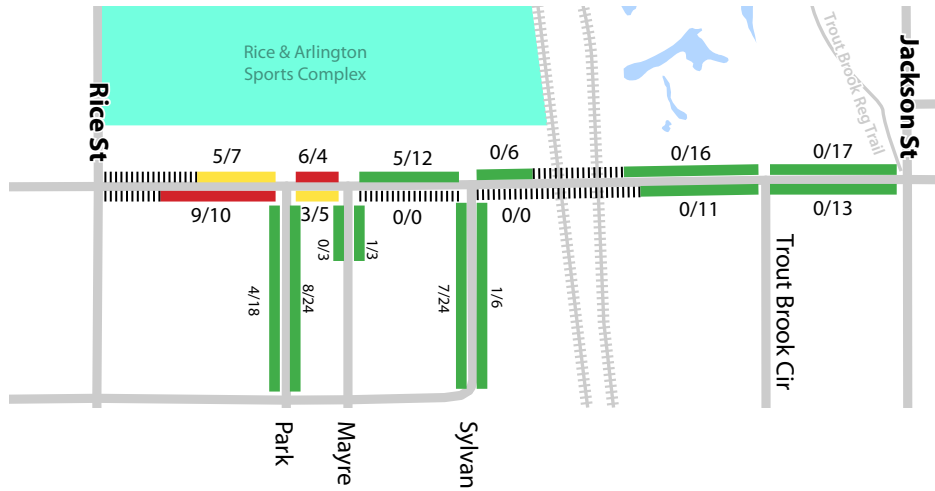
Example: 8/11 =

Observed Parked Cars /  
Estimated Legal Parking Capacity

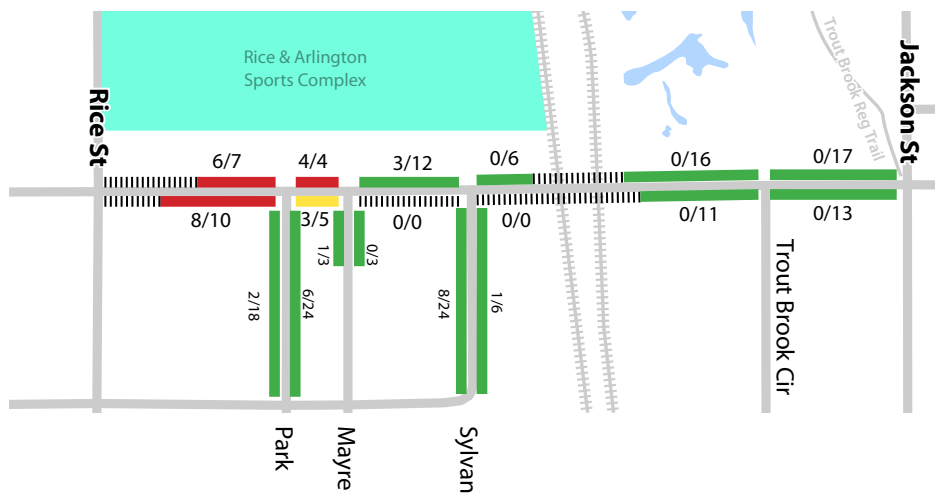
(Observed parking utilization may  
exceed estimated legal capacity)

# Arlington Avenue Parking Counts Saturday Evening (6 PM - 8 PM)

Date: Saturday, March 24th  
Time Period: 6 PM - 8 PM



Date: Saturday, April 14th  
Time Period: 6 PM - 8 PM



## Legend

### Observed Parking Utilization

- Signed "No Parking"
- 0 - 49%
- 50 - 74%
- 75 - 100%+

Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity

(Observed parking utilization may exceed estimated legal capacity)