

## **CLEVELAND AVENUE PROJECT SUMMARY OF ENGINEERING RECOMMENDATIONS**

Cleveland Avenue Bicycle Lanes

Report prepared: 6/1/2015

Open House: 4/29/2015

Public Hearing: 6/17/2015

### **PROJECT**

Implementation of bicycle facilities on Cleveland Avenue from Highland Parkway to Summit Avenue.

Improvements to 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 north-south bicycle facility on Cleveland Avenue, improving the bicycling environment as it relates to safety, accessibility, and connectivity.

#### **I. INITIATING ACTION**

Ramsey County is planning a mill and overlay of Cleveland Avenue between Summit and Randolph Avenues in the summer of 2015. To take advantage of the efficiencies associated with implementing bicycle facilities with existing maintenance projects, Saint Paul Public Works is proposing that Ramsey County implement bicycle lanes on Cleveland Avenue as a component of their scheduled mill and overlay project.

The Saint Paul Bicycle Plan recommends “in-street separated lanes” on Cleveland Avenue within the project limits. Saint Paul Department of Public Works is proposing that Ramsey County implement these recommendations identified in the Bicycle Plan on Cleveland Avenue from Highland Parkway to Summit Avenue.

Chapter 9 of the Bicycle Plan identifies incorporating bicycle facilities into larger construction or maintenance projects as the most fiscally efficient way to implement bicycle facilities, and makes the recommendation to “Incorporate implementation of bikeways with routine maintenance projects whenever possible.” Incorporating bicycle facilities into Ramsey County’s mill and overlay of Cleveland will leverage a low-cost, high-benefit improvement, and maximize cost effectiveness through efficiencies.

To better facilitate connectivity, safety, and usage along Cleveland Avenue, bicycle facilities are proposed beyond the limits of the County’s mill and overlay to connect to Highland Parkway where “enhanced shared lanes” are identified for future implementation. To finance this expansion, funds will be allocated from the city’s 8 to 80 Vitality Fund, a funding source

established in 2014 that aims to “create city infrastructure, streets, and public spaces that function for residents ages 8 to 80.”

## **II. PROPOSED IMPROVEMENTS**

Cleveland Avenue between Highland Parkway and Summit Avenue is classified as an urban minor arterial roadway and a County State Aid Highway (CSAH-46). The ADT on the roadway ranges from 8,800 to 12,200 vehicles per day, and 85<sup>th</sup> percentile speeds between 30 mph and 34 mph were recorded (2013 & 2014 data). The posted speed limit is 30 mph. The Saint Paul Bicycle Plan identifies this segment of Cleveland as a component of the planned bicycle network, and identifies “in-street separated lanes” as the recommended facility type.

### **Cleveland Avenue - Summit to Randolph**

Elements proposed for implementation are:

- Restriping the roadway to add 5’ bicycle lanes
- Narrowing of existing vehicular travel lanes from 12’ to 11’
- Installation of directional and destination signage
- Removal of on-street parking on the west side of Cleveland between Grand and James Avenues, except for parking bays south of Grand and St. Clair Avenues
- Removal of on-street parking on the east side of Cleveland between James and Randolph Avenues

### **Cleveland Avenue - Randolph to Highland**

Elements proposed for implementation are:

- Restriping the roadway to add 6’ bicycle lanes
- Narrowing of existing vehicular travel lanes to 11’
- Installation of directional and destination signage
- Installation of shared lane marking (“sharrows”) between Eleanor Avenue and Highland Parkway
- No changes proposed to the existing parking configuration

## **III. ALTERNATIVES**

Ramsey County’s planned mill and overlay extends from Randolph Avenue to Summit Avenue. Limiting bicycle improvements to the County’s project boundaries was considered, but was ultimately rejected due to the lack of connectivity to existing or planned bikeways at the project’s southern terminus. To facilitate safer and more direct connections, extending bicycle facilities south beyond the County project boundaries to Highland Parkway is proposed.

## **IV. POSITIVE BENEFITS**

The City's Comprehensive Plan and Bicycle Plan strongly support the development of a multi-modal transportation system. Both plans recommend employing a complete streets approach to planning the transportation system, and promote the development of a complete and connected network of bicycle facilities through the city.

The project as proposed promotes multi-modal utilization of the roadway, providing a dedicated space for people using bicycles along Cleveland Avenue while allowing for important connections to St. Thomas, St. Kate's, Highland Village, and commercial nodes at Grand, St. Clair, and Randolph Avenues. As a contiguous corridor from Shepard Road to Transfer Road, Cleveland Avenue is a critical north-south connection to many of Saint Paul's largest trip generators, and connects to some of the most utilized bikeways in the city. When paired with existing and planned bicycle infrastructure, the improvements proposed begin to establish the foundation for a complete and connected bikeway system, and allow for bicycling to exist as a practical and feasible means of transportation in Saint Paul.

The posted speed limit on Cleveland Avenue is 30 MPH. Speed studies recorded 85<sup>th</sup> percentile speeds between 30 and 35 mph within the project limits. Narrowing vehicular travel lane widths as proposed will encourage slower speeds, fostering a safer and more accessible roadway for all users. With AADT ranging from 8,800 to 12,200, implementing in-street separated lanes to separate bicycle and vehicular traffic will substantially increase the safety of people bicycling on Cleveland Avenue.

## **V. 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. Ramsey County is estimating a construction period of ten days.

To accommodate the installation of dedicated bicycle lanes, existing on-street parking must be removed on the west side of Cleveland Avenue between Summit Avenue and James Avenue, except for parking bays south of Grand and St. Clair Avenues. Parking must also be removed on the east side of Cleveland between James and Randolph Avenues. The removal of parking lanes is required to meet minimum state aid standards for bicycle and travel lane widths.

To capture demonstrative parking demand, Public works conducted 8 parking occupancy counts at representative time periods along Cleveland Avenue (weekday early morning, midday, evening, and Saturday midday and evening). Existing legal parking capacity on Cleveland between Randolph Avenue and Summit Avenue is estimated at 134 spaces, and capacity following the implementation of bicycle lanes is estimated to be 15 spaces. The highest observed parking utilization measured 52-parked vehicles (Tuesday and Thursday midday, 11 am - 1 pm), with a mean parking utilization of 36.4 vehicles across the 8 counting periods. The parking occupancy data is presented for review in the **Appendix** attached to this document.

## VI. PARKING MITIGATION STRATEGIES

The plan as proposed for bicycle facilities on Cleveland Avenue will impact parking availability between Randolph Avenue and Grand Avenue. The following parking strategies are proposed to help mitigate the impact of on-street parking removal on Cleveland Avenue:

### 1. Allow time-limited parking, in addition to existing permit parking, along the south side of Grand Avenue between Finn Street and Cleveland Avenue.

- Allowing time-limited parking on the south side of Grand Avenue between Finn and Cleveland will allow for increased parking options for patrons of businesses near Cleveland and Grand Avenues.

Figure 1

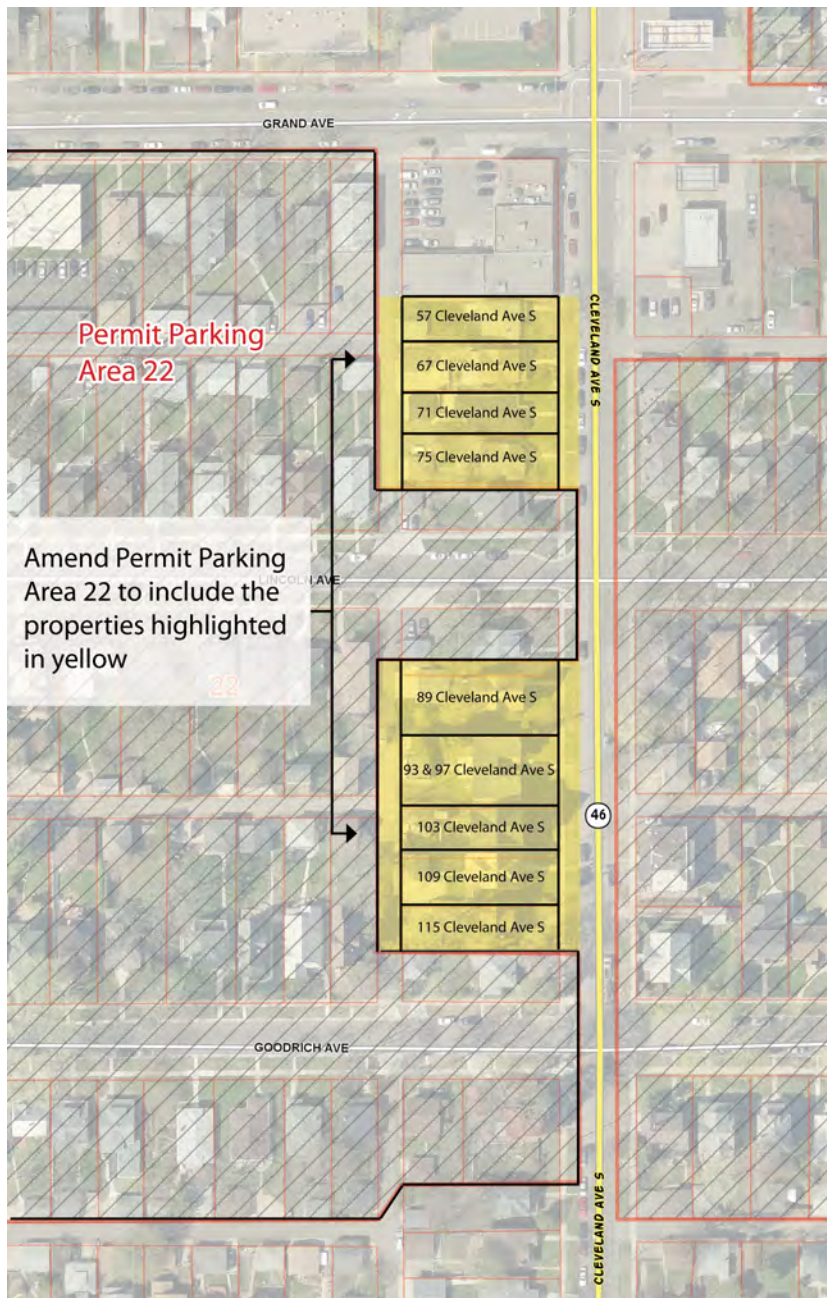


### 2. Amend Permit Parking Area 22 to include the following Cleveland Avenue addresses:

- 57 Cleveland Avenue S
- 67 Cleveland Avenue S
- 71 Cleveland Avenue S
- 75 Cleveland Avenue S
- 89 Cleveland Avenue S
- 93 Cleveland Avenue S
- 97 Cleveland Avenue S
- 103 Cleveland Avenue S
- 109 Cleveland Avenue S
- 115 Cleveland Avenue S

- Parking counts performed on Cleveland Avenue recorded high parking utilization near the University of Saint Thomas. The addresses listed above front Cleveland Avenue but are not included in the neighboring permit parking areas. To facilitate improved on-street parking accessibility for these addresses, amending Permit Parking Area 22 to include these addresses is proposed.

Figure 2



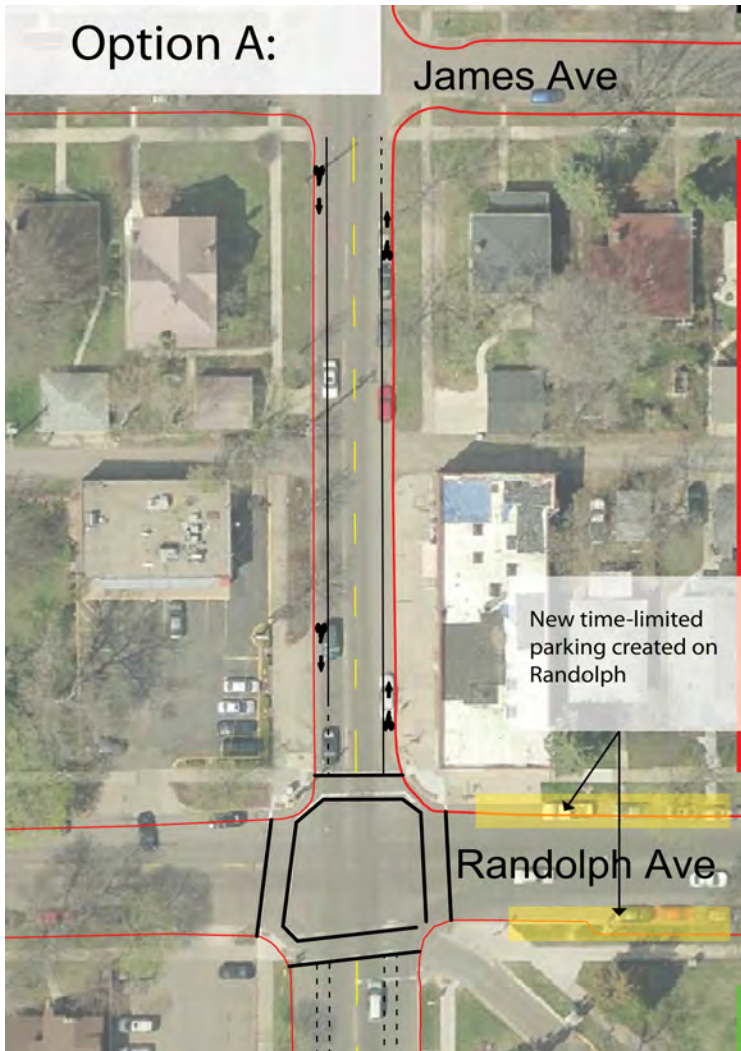
**3. Employ one of the following parking mitigation options between James Avenue and Randolph Avenue:**

**Option A (Saint Paul Public Works Recommended Option):**

Implement bicycle lanes between James Avenue and Randolph Avenue and expand time-limited parking capacity on the north and south sides of Randolph Avenue east of Cleveland Avenue.

- Existing 30-minute parking capacity on Cleveland between James and Randolph is estimated at 5 spaces. Option A proposes to expand time-limited parking capacity along the north and south sides Randolph Avenue near Cleveland, replacing the 30-minute parking proposed for removal on Cleveland one-to-one. The proposed time-limited parking on Randolph is proximate to the businesses located at 474 Cleveland Avenue S, and could be expanded to include capacity beyond 5 spaces. Option A also allows for the installation of dedicated bicycle lanes; the preferred implementation at this location.

**Figure 3A**



**Option B:**

Implement shared lane markings or “sharrows” between James Avenue and Randolph Avenue, maintaining existing parking conditions along the length of the block.

- Existing parking conditions are maintained with Option B, though the implementation of shared lane markings is not a preferred facility type for people bicycling at this location. Shared lane markings should be installed only as a temporary measure until conditions support the implementation of in-street separated bicycle lanes.

**Figure 3B**



**Option C:**

Implement bicycle lanes and install a parking bay on the east side of Cleveland Avenue between James Avenue and Randolph Avenue.

- Option C proposes to implement bicycle lanes and maintain parking capacity with the installation of a parking bay on the east side of Cleveland between James and Randolph. While this presents an optimal scenario, the construction of a parking bay is outside of the scope of the mill and overlay process, and funding has not been identified for its construction. Additionally, implementation of a parking bay along the full length of the block would require the removal of boulevard and trees on the east side of Cleveland, and it is not known if the subterranean conditions along the east side of Cleveland can support its construction. Were a parking bay to be implemented, subsequent street reconstruction of Cleveland Avenue would require its removal and full reconstruction.

**Figure 3C**





The proposed changes to permit parking areas are beyond the scope of Ramsey County's scheduled mill and overlay of Cleveland Avenue and will require a separate legislative process. Should the bicycle facilities as proposed be implemented on Cleveland Avenue, Public Works recommends pursuing and employing these parking mitigation strategies.

#### **VII. TIME SCHEDULE**

It is anticipated that the bicycle improvements as proposed will be installed concurrent with Ramsey County's planned mill and overlay on Cleveland Avenue, scheduled for Summer 2015. This process is anticipated to last approximately ten days.

#### **VIII. COST ESTIMATE**

Implementation of bicycle lanes and lane reconfiguration within the limits of Ramsey County's mill and overlay will incur little additional cost beyond the amount already budgeted by the County for resurfacing. Implementation outside of the mill and overlay limits will be funded using the City of Saint Paul's 8 to 80 Vitality fund.

#### **IX. SOURCE OF ADDITIONAL INFORMATION**

For additional information, please contact:

Paul St. Martin, Assistant City Engineer  
Email: paul.st.martin@ci.stpaul.mn.us

#### **X. 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.

# APPENDIX

Attached:

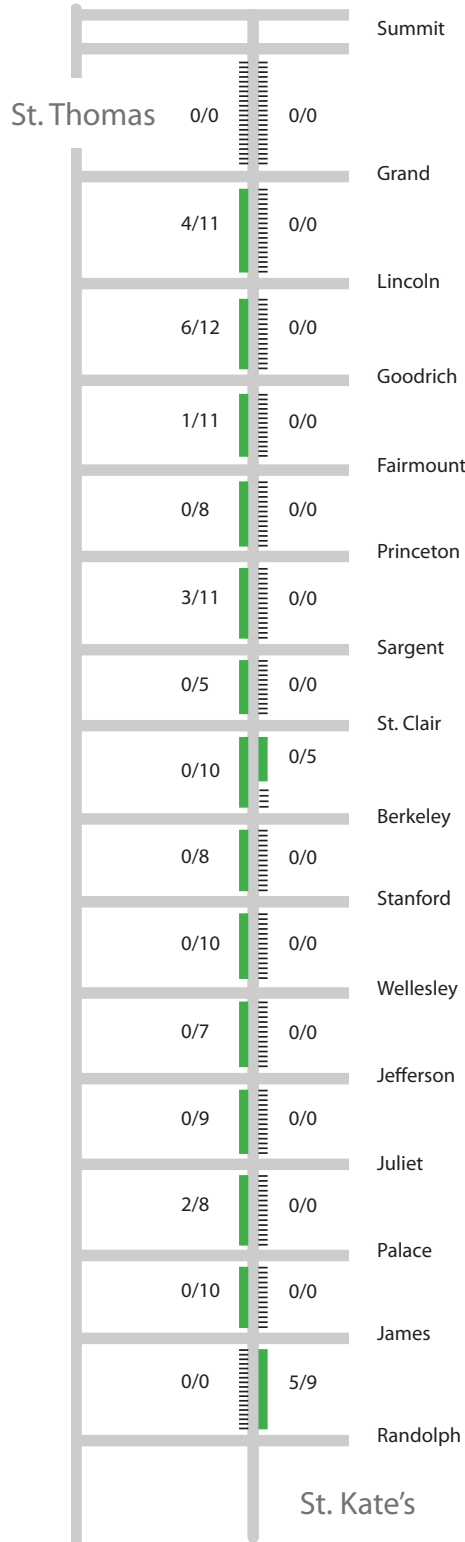
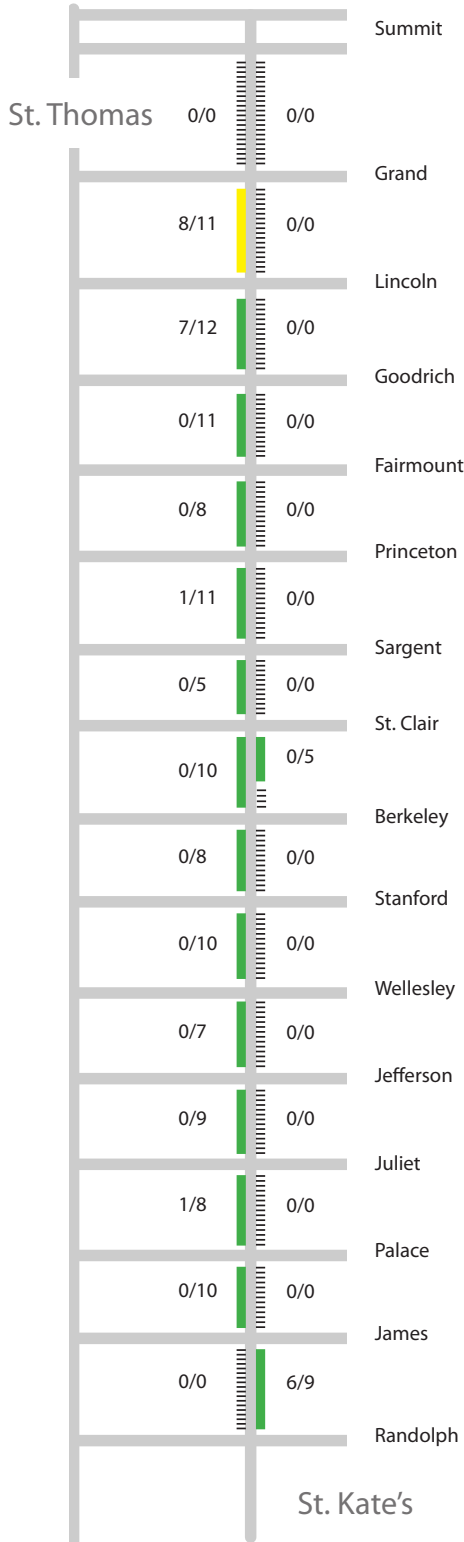
Cleveland Avenue Parking Occupancy Count Results

# Cleveland Ave Parking Counts

## Weekday early morning (4 AM - 6 AM)

Date: Tuesday, March 24th  
Time Period: 4AM - 6 AM

Date: Thursday, March 26th  
Time Period: 4AM - 6 AM



### Legend

#### Observed Parking Utilization

- Signed "No Parking"
- 0 - 69%
- 70 - 84%
- 85 - 100+%

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

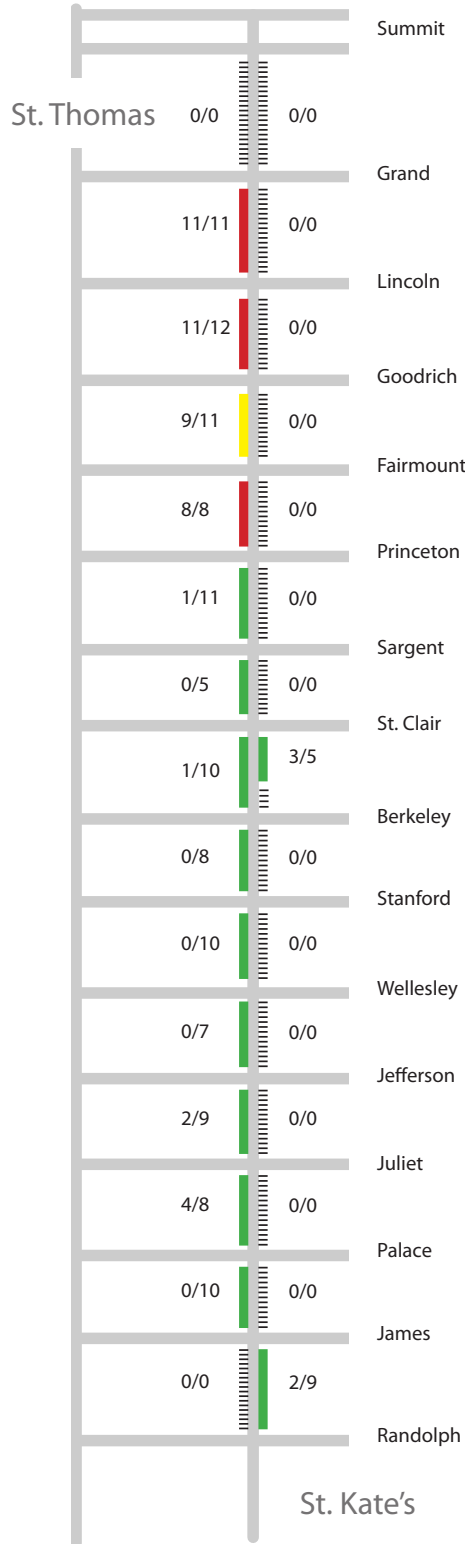
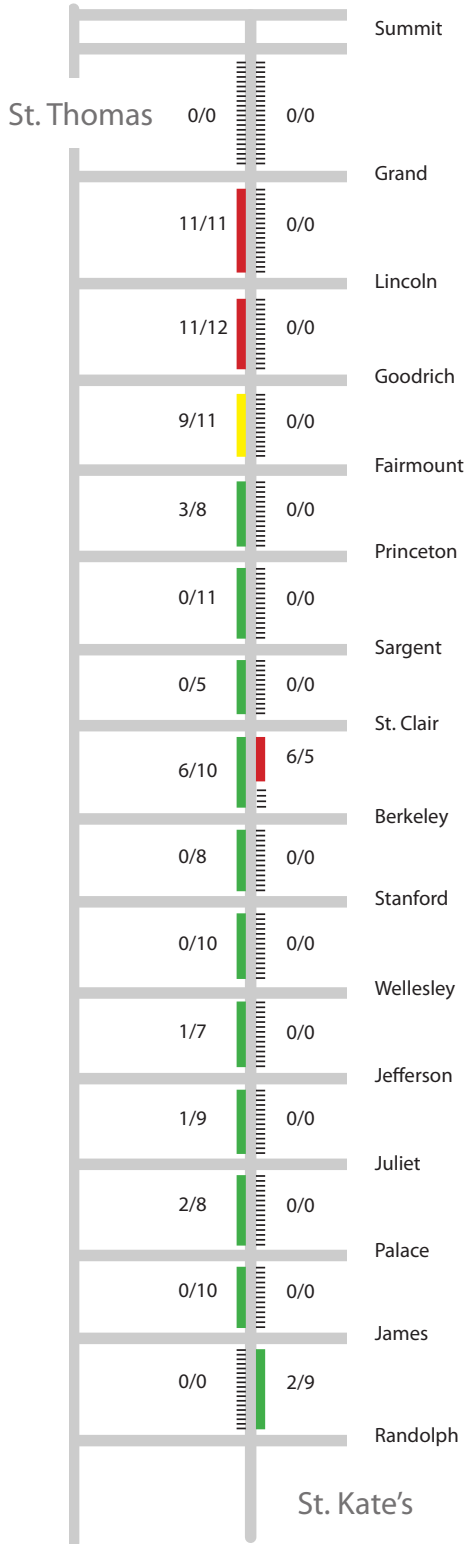
(Observed parking utilization may  
exceed estimated legal capacity)

# Cleveland Ave Parking Counts

## Weekday Midday (11 AM - 1 PM)

Date: Thursday, March 19th  
Time Period: 11 AM - 1 PM

Date: Tuesday, April 7th  
Time Period: 11 AM - 1 PM



### Legend

#### Observed Parking Utilization

- Signed "No Parking"
- 0 - 69%
- 70 - 84%
- 85 - 100%

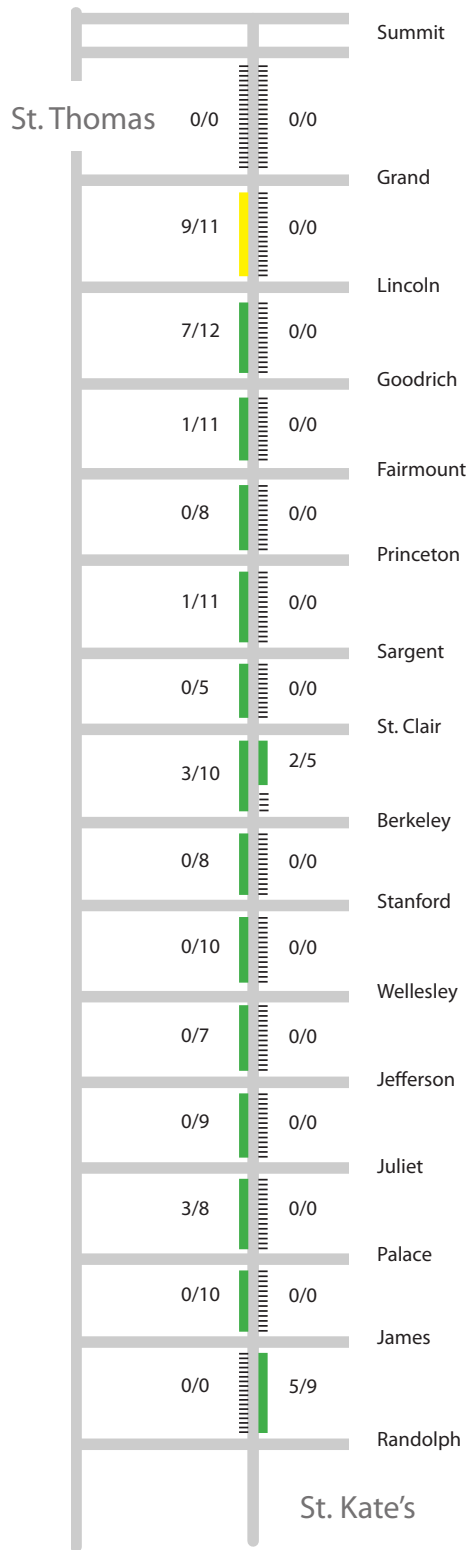
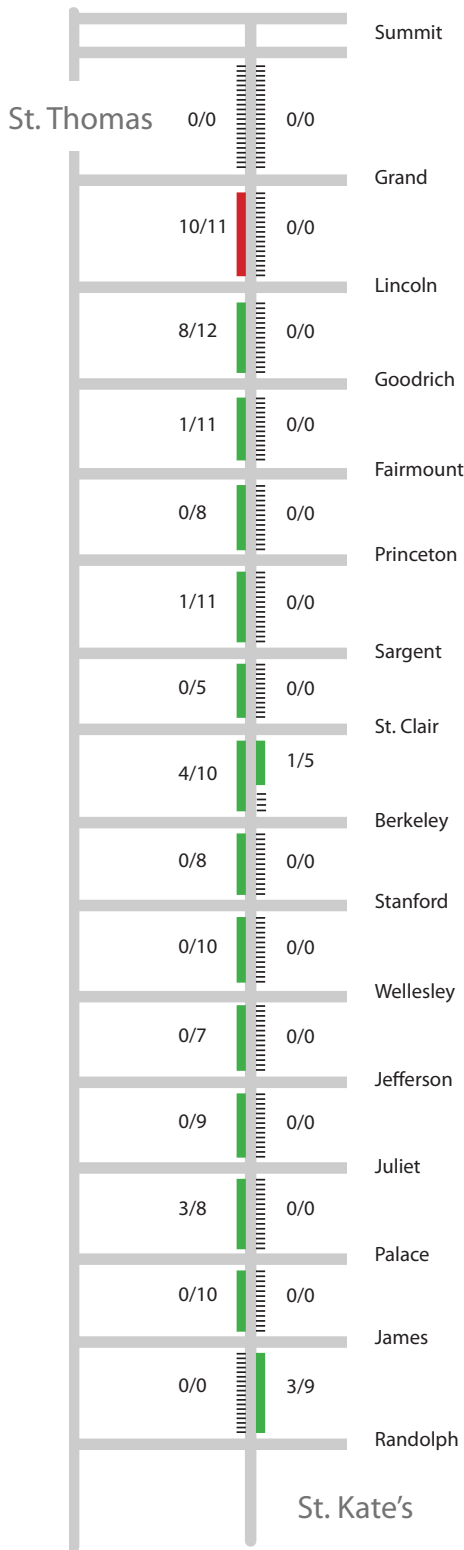
Example: 8/11 =  
Observed Parked Cars /  
Estimated Legal Parking Capacity

(Observed parking utilization may exceed estimated legal capacity)

# Cleveland Ave Parking Counts Weekday Evening (6 PM - 8 PM)

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

Date: Thursday, March 26th  
Time Period: 6 PM - 8 PM



## Legend

### Observed Parking Utilization

- ||||| Signed "No Parking"
- █ 0 - 69%
- █ 70 - 84%
- █ 85 - 100+%

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

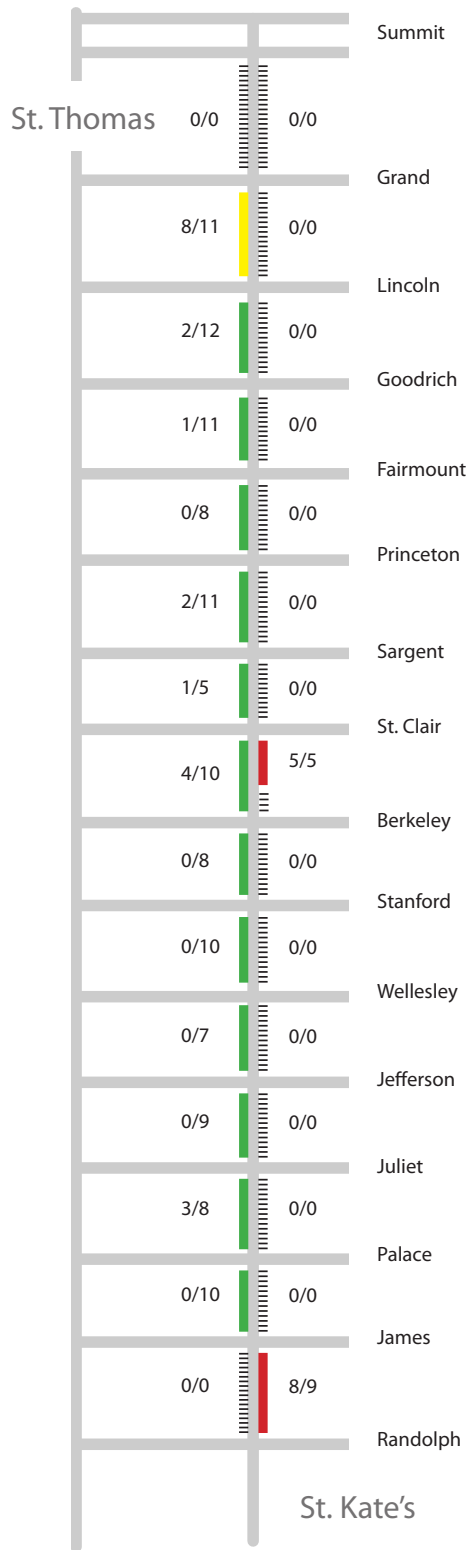
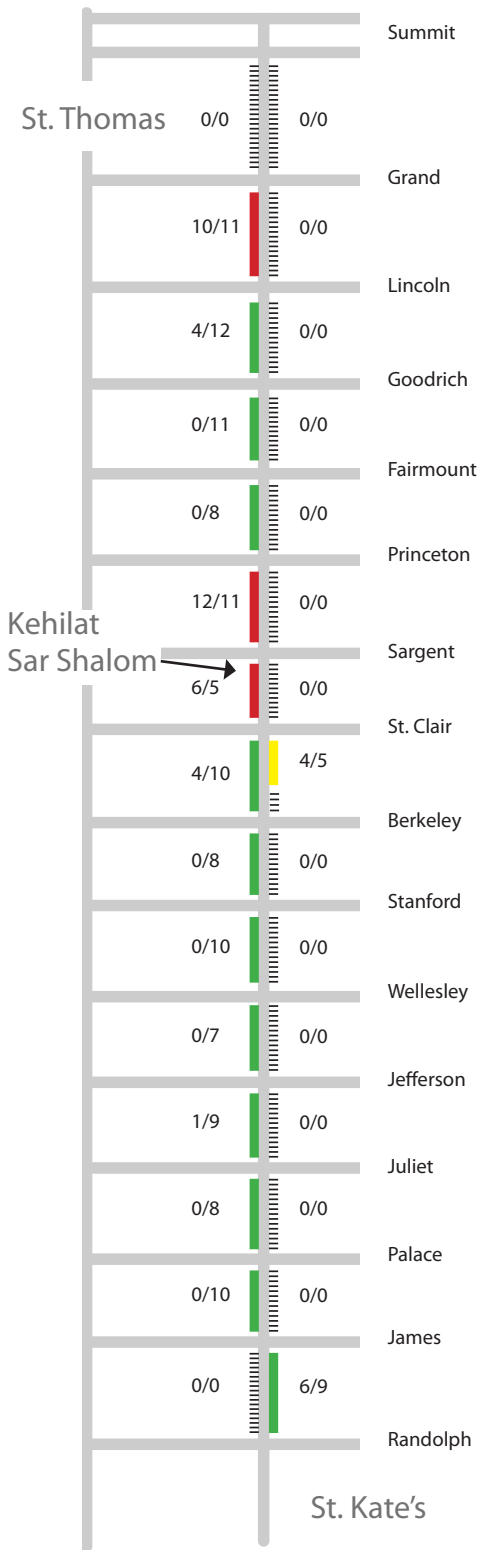
(Observed parking utilization may exceed estimated legal capacity)

# Cleveland Ave Parking Counts

## Saturday Midday (11 AM - 1 PM) & Evening (6 PM - 8 PM)

Date: Saturday, March 28th  
Time Period: 11 AM - 1 PM

Date: Saturday, March 28th  
Time Period: 6 PM - 8 PM



### Legend

#### Observed Parking Utilization

- Signed "No Parking"
- 0 - 69%
- 70 - 84%
- 85 - 100+%

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

(Observed parking utilization may  
exceed estimated legal capacity)