VILLAGE OF POTSDAM

A Study on Complete Streets and Improving Existing Downtown Infrastructure.

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Scope of Report

- Application to Complete Streets Goals.
- Connection to long term projects.
- Better facilities for non vehicle users.
- Improved Interaction between motorists and pedestrians.
- Improving intersections and traffic dieting.
- Future areas of study.
Long Term Goals of Study

- Fits closely with previously defined project titles:
  - Improve Pedestrian access and amenities in study area.
  - Encourage students to shop and enjoy downtown.
  - Consider the use of roundabouts.
  - Enhance Fall Island and Ives Park.
  - Improve downtown and waterfront streetscapes.
Fitting into Clarkson’s Plan

- The use of and overall appeal of the Munter trails and is expected to increase.

- Student presence in this part of campus will most likely rise.

- Providing better services to the downtown area should cause an increase of trail users.
Proposed Bicycle Route
The Primary trail will intersect with Ives Park and Market Street.

A secondary route could go through Ives Park on it’s way to Clarkson’s downtown campus.

Proposed route will also pass and connect with the Riverwalk Plan at the Fall Island Park.
Riverwalk connection

Riverwalk Features
The Riverwalk is a pedestrian trail that circles the Raquette River and Potsdam’s downtown.
A design competition could help determine the best theme for the Riverwalk. This would include design elements for the walkway that support and illustrate the theme. For example: art and sculpture, creative walkway patterns or designs, signage, etc. that fit the theme can be placed along the walk to create a sense of place and tell a story. Additionally, features such as wayfinding signage, lighting, railings and flags, etc. could be planned and incorporated into the Riverwalk theme.

Wayfinding Signage
Art and Sculpture
Paving Materials and Patterns
Lighting Railings and Flags
Existing Parking

- Potsdam has large areas contributed to vehicle traffic and parking, which restricts easy flow of pedestrian movement.
- The Bicycle Route could travel on existing sidewalks or in a shared roadway lane, depending on expected traffic amounts.
- It would be best to avoid crossing parking entrances. However, a pedestrian route should exist close by so users can easily get to it.
Existing Parking Locations

Village of Potsdam Municipal Parking Areas

- Parking Areas
- Metered On-Street Parking
- Handicapped Parking

Locations:
- Munson St. North
- Munson St. South
- Raymond North
- Raymond South
- Island
- Prosh Lot
- Civic Center
- Main St.
Areas of Conflict of Parking Along Bicycle Route

- Parking Lot adjacent to Clarkson Inn on Main Street.
- Parallel parking on Main Street and Maple Street.
- Parking on Raymond North could be expanded with addition of Riverwalk Plan.
Existing Traffic Flow Chart
**Important Considerations:**

- Numbers are peak rates per hour.
- Total traffic in system is 2,395 vehicles per hour.
- Maple Street forced to go straight causes heavy traffic at following intersections.
- Three lanes of traffic at each road at Pierrepont/Main causes longer idle times for traffic signal changes.
GIS routes: Elm to Maple

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Direction of turn</th>
<th>Added cost (In seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elm to Elm (at Park)</td>
<td>Straight</td>
<td>20</td>
</tr>
<tr>
<td>Elm to Elm (at union)</td>
<td>Straight</td>
<td>10</td>
</tr>
<tr>
<td>Elm to Park</td>
<td>Left</td>
<td>30</td>
</tr>
<tr>
<td>Elm to Market</td>
<td>Left</td>
<td>30</td>
</tr>
<tr>
<td>Market to Maple</td>
<td>Right</td>
<td>10</td>
</tr>
<tr>
<td>Main to Maple</td>
<td>Left</td>
<td>20</td>
</tr>
<tr>
<td>Park to Main</td>
<td>Right</td>
<td>20</td>
</tr>
</tbody>
</table>

Total Route Time: 1 minute 26 seconds

Using Union Street: 1 minute 41 seconds

Legend:
- 🚫 Restriction
- 🍎 Point cost
- 🟢 Expected Route
GIS Routes Existing: Main to Elm

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Direction of turn</th>
<th>Added cost (In seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maple Street to Elm</td>
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<td></td>
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<tr>
<td>Main to Union</td>
<td>Left</td>
<td>10</td>
</tr>
<tr>
<td>Union to Elm</td>
<td>Right</td>
<td>10</td>
</tr>
<tr>
<td>Main to Park</td>
<td>Left</td>
<td>30</td>
</tr>
<tr>
<td>Elm to Elm (at Park)</td>
<td>Straight</td>
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</tr>
<tr>
<td>Park to Elm</td>
<td>Right</td>
<td>20</td>
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</tbody>
</table>

Total Route Time: 1 minute 30 seconds

Using Park Street: 1 minute 45 seconds
GIS Routes: Old Main to Market

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Direction of turn</th>
<th>Added cost (In seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park from Main</td>
<td>right</td>
<td>10</td>
</tr>
<tr>
<td>Main from Main</td>
<td>Straight</td>
<td>20</td>
</tr>
<tr>
<td>Elm from Park</td>
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<td>Right</td>
<td>10</td>
</tr>
<tr>
<td>Union to Elm</td>
<td>left</td>
<td>20</td>
</tr>
</tbody>
</table>

**Total Route Time:**
- Using Park Street: 1 minute 50 seconds
- Using Market Street: 1 minute 55 seconds
- Using Main Street: 1 minute 40 seconds

Legend:
- ☒ Restriction
- ○ Point cost
- ← Expected Route
Pierrepont and Main intersection

Important Considerations:
• Overcomplex traffic signaling causes longer wait times.
• Pedestrian crossing and signaling dramatically halts any traffic flow.
• Odd turning radius for certain turns.
Roundabout Replacement

- According to the Institute for Highway Safety and Federal Highway Administration, due to reduced travel speeds and vehicle and pedestrian access configuration, roundabouts have been shown to achieve:
  - A 37 percent reduction in overall collisions.
  - A 75 percent reduction in injury collisions.
  - A 90 percent reduction in fatality collisions.
  - A 40 percent reduction in pedestrian collisions.

- In addition, roundabouts typically reduce traffic delays, vehicle idling times, require less space, and cost less in long-term operations.
Considerations:
• Odd format of existing intersection
• Must not intrude on non-Clarkson parcels
• Spacing requires remodeling of Old Snell’s front lawn.
• Must be two lanes to handle traffic amount.
• Traffic increases due to increased speed of routes
Roundabout Geometry and Sizing
Advantages to Surrounding Area

- Can provide beautification potential.
- Fits with the rest of the improvements with the Clarkson renovations, and new building purposes.
- Roundabout radius is adequate for Emergency fire rescue. (Inner radius 8m, outer 40m)
Future Studies and Recommendations

- Roundabout at Market/Main?
- Elm/Park traffic considerations
- Increased traffic on Park Street.
- Increased parking at Raymond St.
- Reduced traffic on Market Street.
- Unforeseen effects at other intersections.