

# FIGURE: 1 DESTINATIONS AND DISTANCES

Distance (Miles)	Village Hall	Senior Center	Seymour Public Library	Drake Memorial Library/SUNY Brockport	Wegmans	Brockport High School	Sweden Town Park	Sweden Clarkson Recreation Center
Village Hall	0.0	0.2	0.9	1.6	1.4	0.9	3.4	1.9
Senior Center	0.2	0.0	0.8	1.8	1.6	1.1	3.6	2.0
Seymour Public Library	0.9	0.8	0.0	2.3	2.1	1.6	3.4	2.6
Drake Memorial Library/SUNY Brockport		1.8	2.3	0.0	1.9	1.1	1.6	2.6
Wegmans	1.4	1.6	2.1	1.9	0.0	1.0	2.2	0.9
Brockport High School	0.9	1.1	1.6	1.1	1.0	0.0	2.0	1.5
Sweden Town Park	3.4	3.6	3.4	1.6	2.2	2.0	0.0	2.9
Sweden Clarkson Recreation Center		2.0	2.6	2.6	0.9	1.5	2.9	0.0

#### **AVERAGE WALK AND BICYCLE TIMES**

Based on Above Destinations and Distances Table Average



1.80 Miles / 36 Minutes

(Based on an average of 20 Minutes per 1 mile)

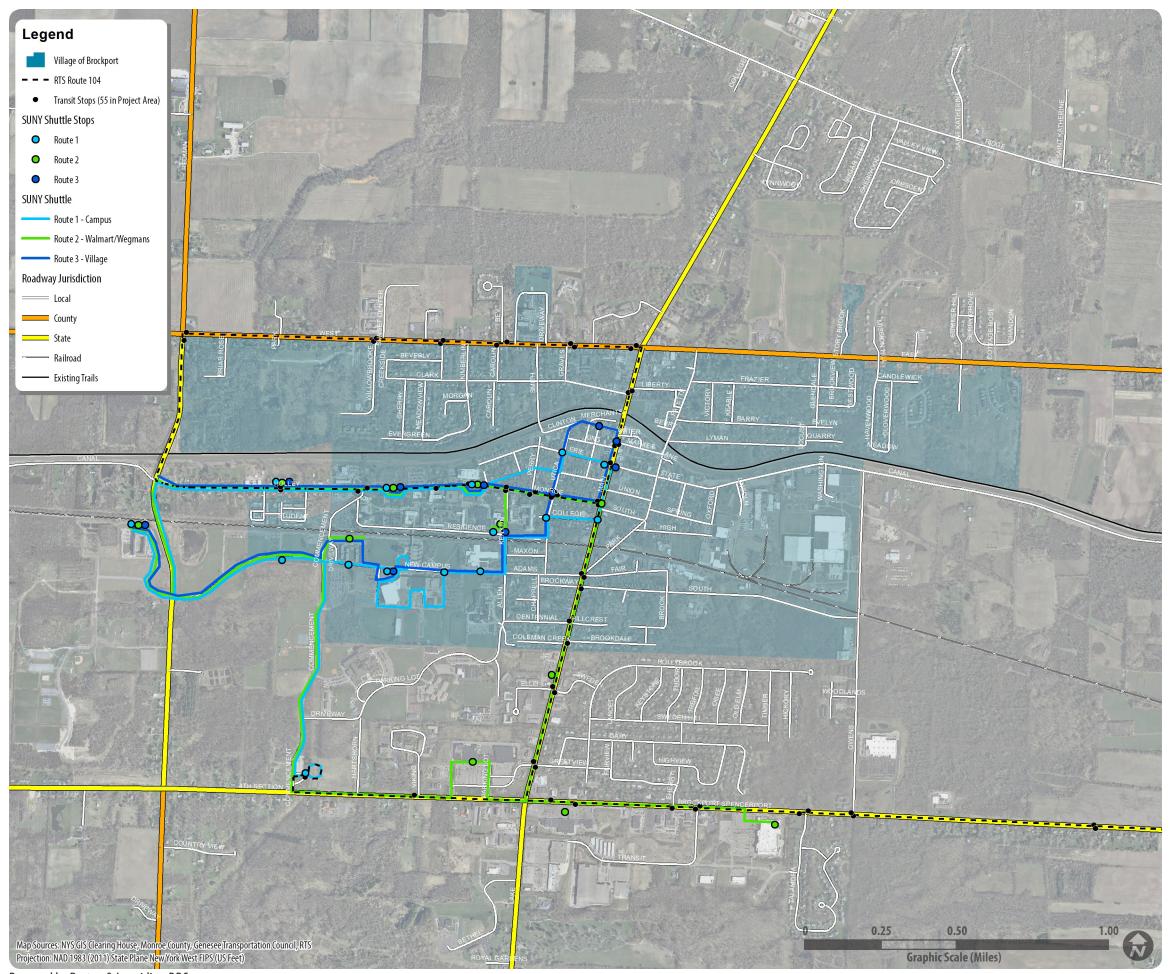


1.80 Miles / 12 Minutes

(Based on an average of 6.5 Minutes per 1 mile)

Prepared by Barton & Loguidice, DPC

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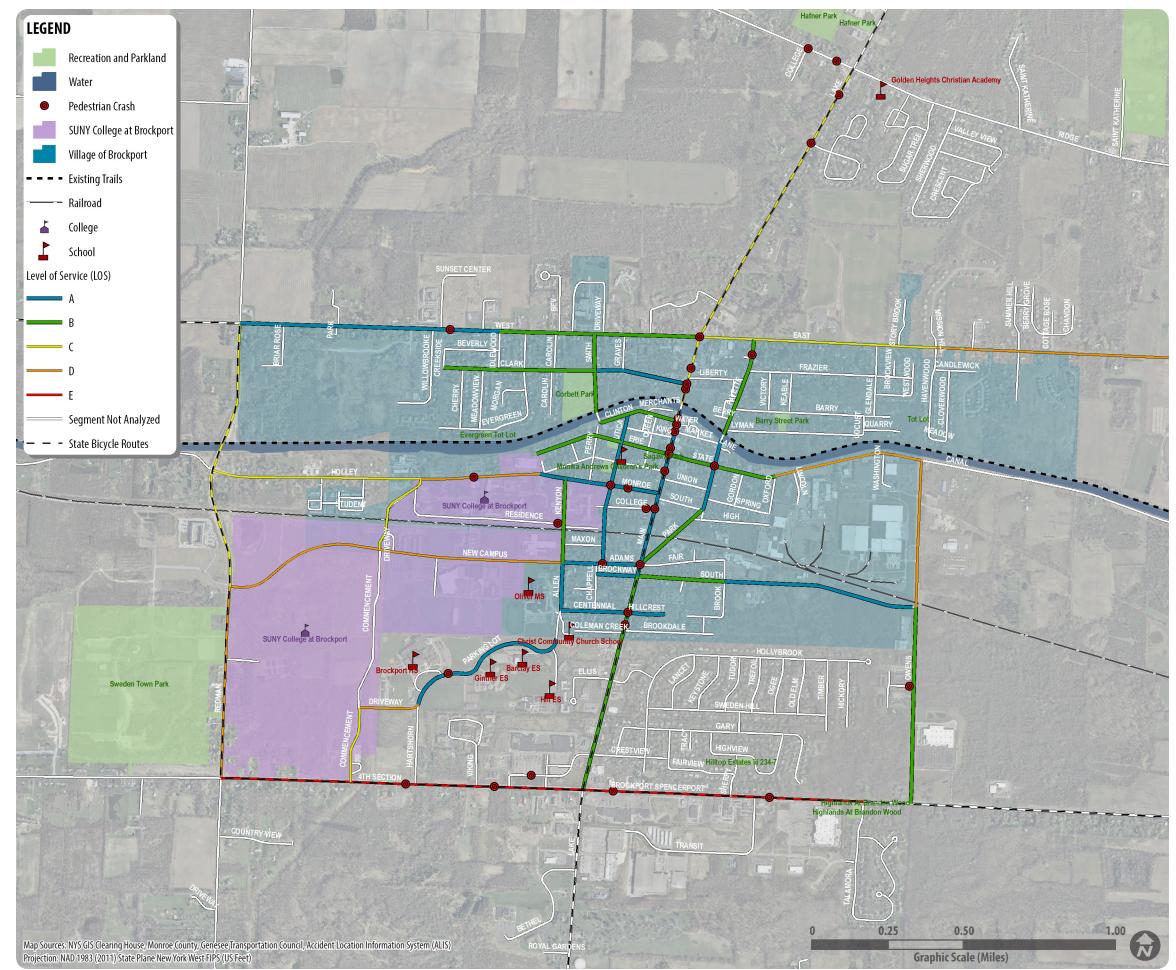
# FIGURE: 2 TRANSIT & ROADWAY JURISDICTIONS

#### **ROADWAY STUDY NETWORK**

Length of Local Roadways: 11.95 Miles Length of County Roadways: 2.75 Miles Length of State Roadways: 6.30 Miles Total Length of Study Network: 21 Miles

Public Transit and Active Transportation are closely related and mutually supportive. Every ride on a bus starts and ends with walking. Nationwide, 29 percent of those who use transit were physically active for 30 minutes or more each day, solely by walking to and from public transit stops. Similarly, transit users took 30 percent more steps per day and spent 8.3 more minutes walking per day than did people who relied on cars.

- Robert Wood Johnson Foundation 2009



# FIGURE: 3 PEDESTRIAN LEVEL OF SERVICE

LEVEL OF SERVICE "A"



LEVEL OF SERVICE "B"



LEVEL OF SERVICE "C"



LEVEL OF SERVICE "D"

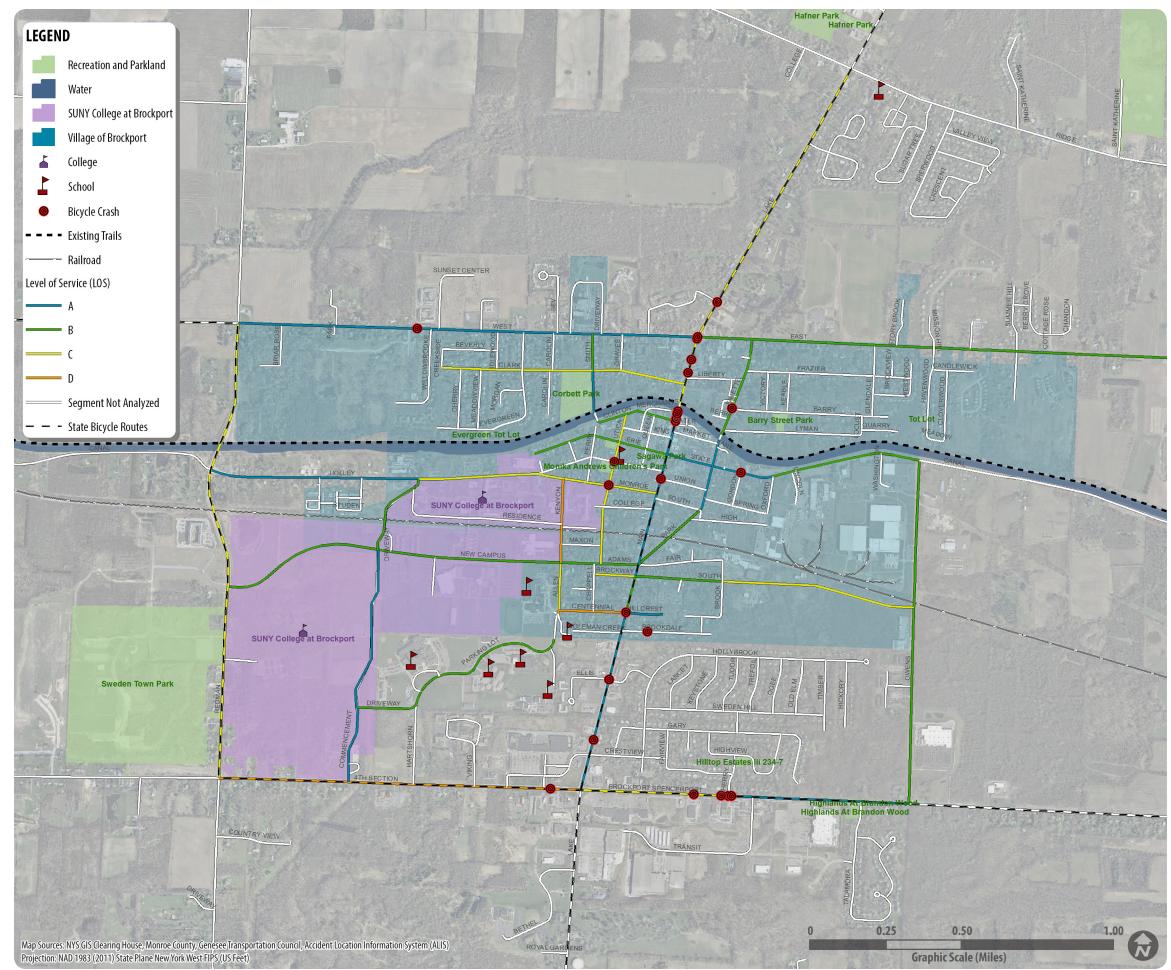


LEVEL OF SERVICE "E"



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Note: Crashes as reported from 2004-2013. (GTC, ALIS)



# FIGURE: 4 BICYCLE LEVEL OF SERVICE

LEVEL OF SERVICE "A"



LEVEL OF SERVICE "B"



LEVEL OF SERVICE "C"

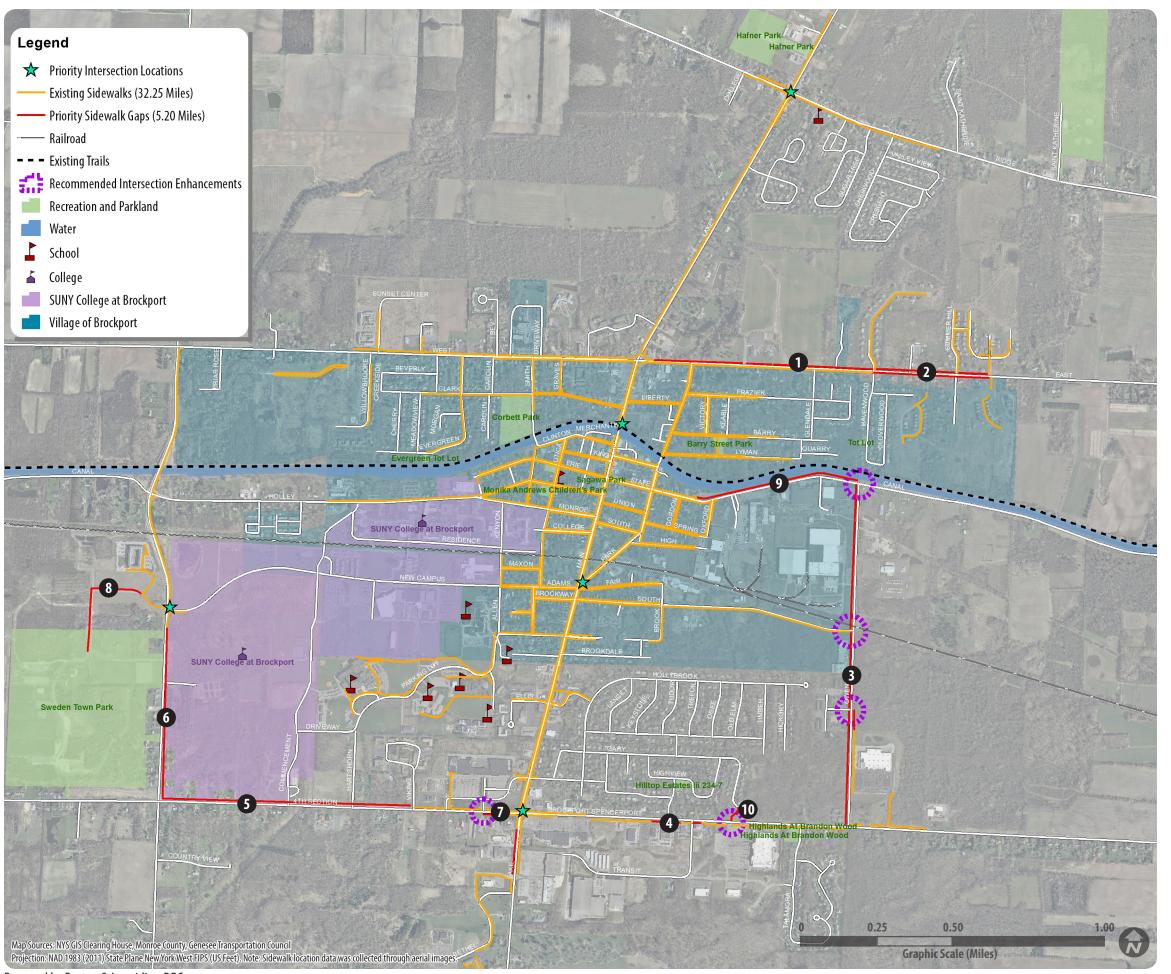


LEVEL OF SERVICE "D"



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Note: Crashes as reported from 2004-2013. (GTC, ALIS)



#### FIGURE: 5 **SIDEWALK NETWORK PRIORITY GAPS**

						S		БU
		Proximity to Schools / Universities	Proximity to Neighborhoods/ Housing Communities	Connectivity to Mass Transit System	Proximity Commercial / Retail Facilities	Proximity to Parks / Opens Space / Trails	Pedestrian Crash (Location nearby)	Pedestrian Level of Service (PLOS) Rating
D	EAST AVENUE (North side from Route 19 to Wedgewood Ct. )		•			•		0
2	<b>EAST AVENUE</b> (South side from Havenwood Dr. to Anita's La.)		•			•		0
3	OWENS ROAD (West side from Route 31 to State St)		•		•	•	•	0
4	ROUTE 31 (South side, gaps from Spurr Chevrolet to Walmart )		•	•	•	•	•	0
5	ROUTE 31 (North side, from Viking Way to Redman Rd.)	•		•	•	0	•	0
6	REDMAN ROAD (East side, from Route 31 to New Campus Dr.)	•				•		0
7	ROUTE 31 (Southside, from ex. sidewalk west of Rt 19 to Tim Hortons entrance)			•	•			0
8	PERSISTENCE PATH (North side from Redman Rd. to Park Entrance Dr.)	•	•			•		0
9	STATE STREET (North side from Owens Rd. to Ex. sidewalk at Sweden Senior Center)		•		•			0
D	* SWEDEN VILLAGE (Gary Drive to traffic light at Walmart, include crosswalk safety enhancments to intersection)		•		•			

connect the neighborhood to Walmart.

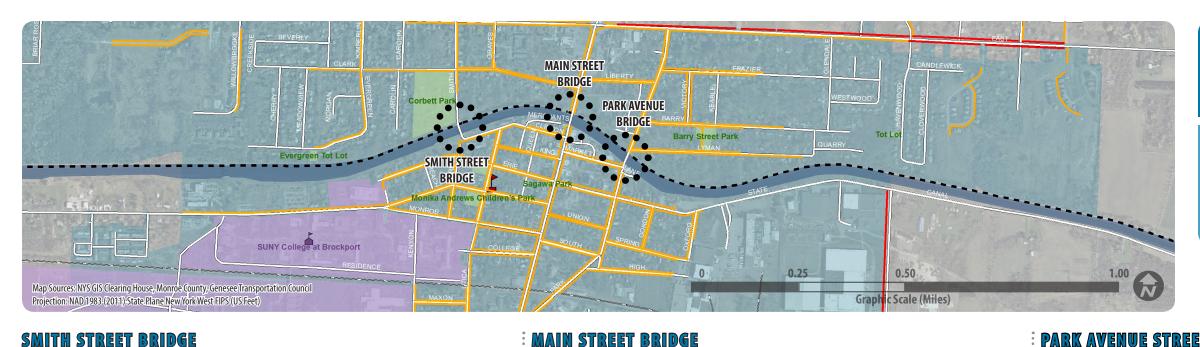


FIGURE: 6 **ERIE CANALWAY BRIDGE RECOMMENDATIONS** 

#### SMITH STREET BRIDGE



#### **EXISTING CONDITIONS / ISSUES**

Walkways on both sides of bridge but quiderail prevents bicycle access.



#### **EXISTING CONDITIONS / ISSUES**

- Steel deck is a low friction surface for cyclists - slippery when wet or frozen.
- Erie Canal Trail crosswalk on north side is not perpendicular to the centerline of Main Street
- Low visibility of crosswalk for vehicles due to current location
- Crosswalk placement, on downhill, causes vehicles to pick up speed on approach





#### **EXISTING CONDITIONS / ISSUES**

- Steel deck is a low friction surface for cyclists - slippery when wet or frozen.
- No existing crosswalk pavement markings or signage for Erie Canalway Trail.
- Low visibility of crossing location for vehicles due to current location
- Future crosswalk placement, on downhill, would cause vehicles to pick up speed on approach





















#### RECOMMENDATIONS

- Potential micro-brewery development and redevelopment of an existing historic structure could revitalize neighborhood (refer to Clinton Street Master Plan).
- Plan for a full inclusive active transportation system.
- Provide proper signage in fully visible locations (in reference to the presence of pedestrians and bicyclists on the bridge). Shall conform with AASHTO and MUTCD standards.
- Adjust guiderail to allow bicycle access.
- Existing steps are not ADA compliant and are in poor condition. Improve steps.
- Extend existing sidewalk on east side of bridge, south of the canal along the north side of Clinton St. Install pedestrian crosswalk (conforming to AASHTO and MUTCD standards) at base of the bridge ramp to connect to the existing sidewalk on the south side of Clinton St.

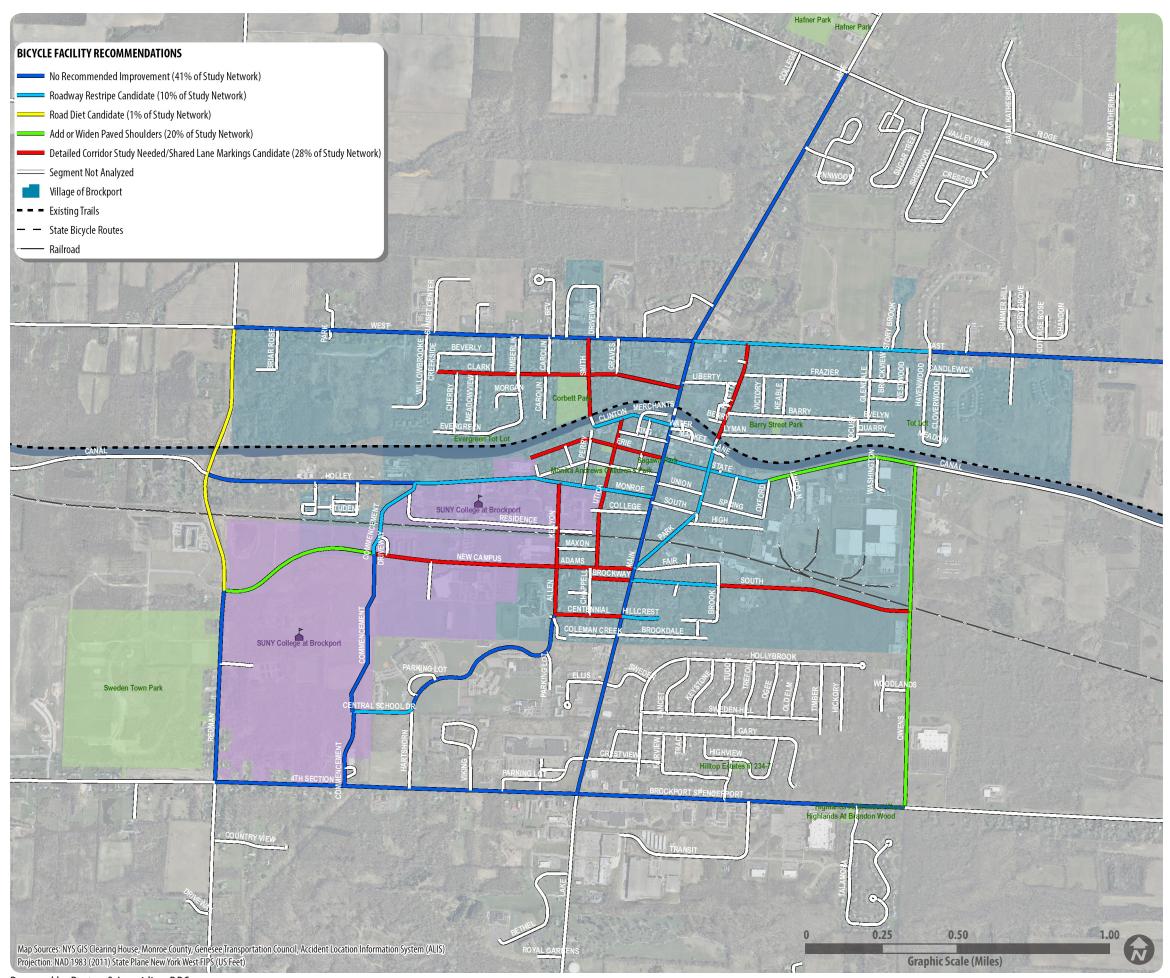
#### RECOMMENDATIONS

- Re-stripe crosswalk for high-visibility.
- Move crossing to the north, providing improved sight distances.
- Install W11-15 and W11-15P signs.
- Provide proper signage in fully visible locations (in reference to the presence of pedestrians and bicyclists on the bridge). Shall conform with AASHTO and MUTCD standards.
- Identify trail alignment through parking area with pavement markings and/or physical separation.
- Refer to **Priority Intersections** Figure.
- Possible retrofits to steel deck surface to improve traction could be a spray on surface, such as Rhino Linings, Linex, or approved equal.



#### RECOMMENDATIONS

- Re-stripe crosswalk for high-visibility.
- Install W11-15 and W11-15P signs.
- Provide proper signage in fully visible locations (in reference to the presence of pedestrians and bicyclists on the bridge). Shall conform with AASHTO and MUTCD standards.
- Possible retrofits to steel deck surface to improve traction are being investigated.
- Possible retrofits to steel deck surface to improve traction could be a spray on surface, such as Rhino Linings, Linex, or approved equal.



# FIGURE: 7 ON-STREET BICYCLE FACILITY RECOMMENDATIONS

Based on existing conditions and roadway geometries, each study network segment is classified into one of several recommended bicycle facility improvement categories. One of five potential outcomes has been identified for each of the analyzed roadway segments.

#### These outcomes include the following:

- 1. No Recommended Improvement (existing bicycle facility);
- 2. Roadway Re-stripe Candidate (reduction of existing lane widths to create space for bike lanes);
- 3. Road Diet Candidate (reduction of the number of lanes to create space for bike lanes);

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- 4. Add or Widen Paved Shoulders; and
- 5. Detailed Corridor Study Needed/Shared Lane Markings Candidate.

#### **CONCEPTUAL IMPROVEMENTS ALTERNATIVE 1**

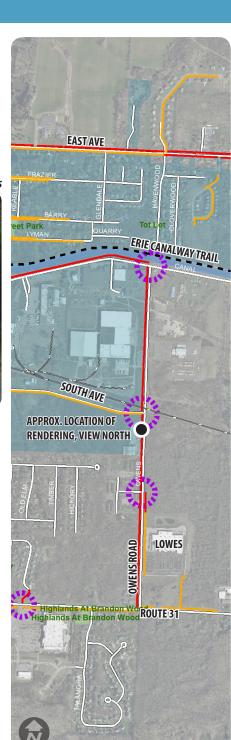
Concept rendering, not to scale, not for construction



5 Travel Lane

#### **VILLAGE OF BROCKPORT ACTIVE TRANSPORTATION PLAN**

#### FIGURE: 8 **OWENS ROAD CONCEPTUAL IMPROVEMENTS**



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#### **CONCEPTUAL IMPROVEMENTS ALTERNATIVE 2**

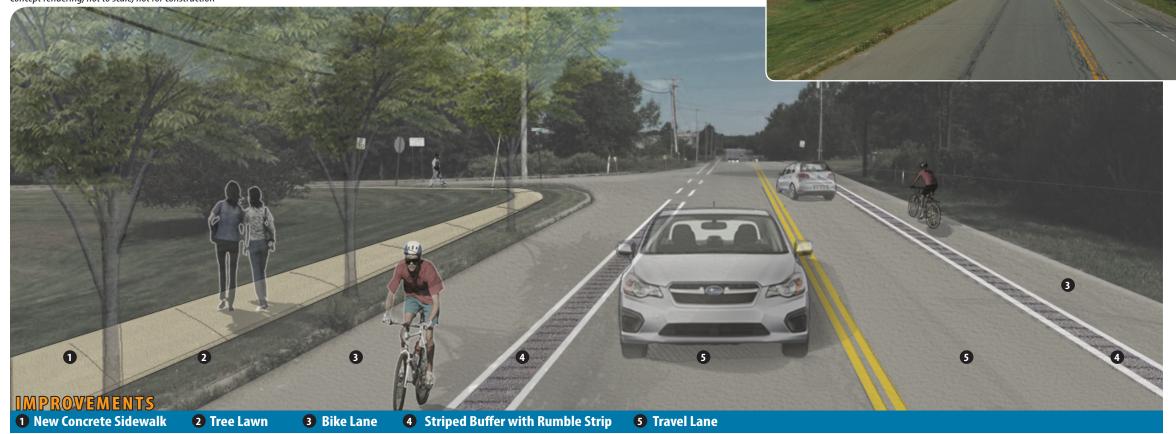
2 Tree Lawn

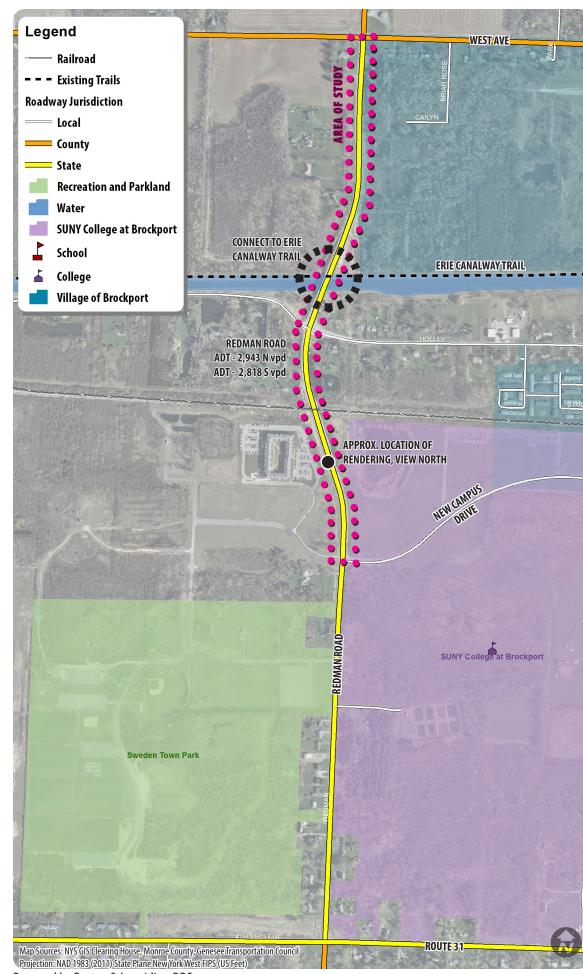
3 Bike Lane

4 Striped Buffer

Concept rendering, not to scale, not for construction

IMPROVEMENTS 1 New Concrete Sidewalk





#### REDMAN ROAD

#### **EXISTING CONDITIONS / ISSUES**

- West Avenue to New Campus Drive
  - North/south 4 Lane highway. Two lanes per direction of travel.
  - ♦ 40 mph.
- New Campus Drive to Route 31/4<sup>TH</sup> Section Road
  - North/south 2 Lane highway. One lane per direction of travel.
  - 40 mph.

#### WHAT IS A ROAD DIET?

- A road diet can be described as "removing travel lanes from a roadway and utilizing the space for other uses and travel modes. (FHWA, 2014)"
- Operational Factors: What is considered when determining feasibility of a site for a Road Diet?
  - De Facto Three-Lane Roadway Operation
  - Spee
  - Level of Service
  - Quality of Service
  - Average Daily Traffic
  - Peak Hour and Peak Direction
  - Turning Volumes and Patterns
  - Frequently Stopping and Slow-Moving Vehicles

#### Benefits Include:

- Allows for new or wider shoulder space for cyclists and/or wider pedestrian area;
- Reduces vehicular speeds and provides room for exclusive left-turn lanes;
- Reduces frequency and severity of collisions, and may reduce traffic volumes;
- Reduces crossing width and exposure for pedestrians; and
- Can lead to a higher quality of life through pedestrian and bicycle improvements.
- Provides traffic calming to enhance the intersection of New Campus Drive and Redman Road.

Road Diet Informational Guide	В
45	Fe
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FHWA Safety Program	
US. Department of Transportation Federal Highway Administration  www.safety.thwa.dot.gov	

Road Diet	Primary/Intended	Secondary/Unii	ntended impacts
Feature	Impacts	Positive	Negative
Bike lanes	Increased mobility and safety for bicyclists, and higher bicycle volumes     Increased comfort level for bicyclists due to separation from vehicles	Increased property values	Could reduce parking, depending on design
Fewer travel lanes	Reallocate space for other uses	Pedestrian crossings are easier, less complex     Can make finding a gap easier for cross-staffic     Allows for wider travel lanes	Mail trucks and transit whiches can block traffic when stopped  May reduce capacity In some jurisdiction, maintenance funding is telled to the number of lane-miles, so reducing the number of lane-miles, so reducing the number of lanes can have a negative impact on maintenance budgets - Similarly, some Federal funds may be reduced - If travel lanes are widened, can encourage increased speeds
Two-Way Left Turn Lane	Provide dedicated left turn lane	Makes efficient use of limited roadway area	Could be difficult for drivers to access left turn lane if demand for left turns is too high
Pedestrian refuge island	Increased mobility and safety for pedestrians	Makes pedestrian crossings safer and easier     Prevents illegal use of the TWLTL to pass slower traffic or access an upstream turn lane	May create issues with snow removal     Can effectively increase congestion by preventing illegal maneuvers
Buffers (grass, concrete median, plastic delineators)	Provide barriers and space between travel modes	Increases comfort level for bicyclists by increasing separation from wehices     Barrier can prevent users entering a lane reserved for another mode	Grass and delineator buffers will necessitate ongoing maintenance.

## VILLAGE OF BROCKPORT ACTIVE TRANSPORTATION PLAN

FIGURE: 9

REDMAN ROAD

CONCEPTUAL ROAD DIET CANDIDATE

SHEET 1 OF 2

		y width for other purposes, such as on-street parking or transit stops.
	a more community-focused, "Compl	lete streets' environment. notorists (especially older and younger drivers) making left turns from or
onto the ma		notorists (especially older and younger drivers) making left turns from or
Road Diet ca	n he a low-cost safety solution, partic	ularly in cases where only pavement marking modifications are required
		Road Diet may be planned in conjunction with reconstruction or simple
verlay project	ts, and the change in cross section allo	cation can be incorporated at no additional cost.
eometric and	d operational design features should b	e considered during the design of a Road Diet. Intersection turn lanes, traffic
		ity, transit routes and stops, and pedestrian and bicyclist facilities should be
arefully consi	dered and appropriately applied durin	g the reconfiguration for appropriate Road Diet implementation. <sup>2</sup> As with
		d Diet is the most appropriate alternative in a given situation requires data
nalysis and er	ngineering judgment.	
nce installed	it is important to monitor the safety a	and operational effects of the roadway, and to make changes as necessary to
naintain accep	otable traffic flow and safety performa	nce for all road users. Evaluation of Road Diets will provide practitioners the
nformation ne	eded to continue implementing reco	nfiguration projects in their jurisdictions.
	Table 1. Problems	Potentially Correctable by Road Diet Implementation
Category	Table 1. Problems Problem	Potentially Correctable by Road Diet Implementation  Rationale
Category		
	Problem  Rear-end crashes with left-turning	Rationale  Removing stopped vehicles attempting to turn left from the through lane could
	Problem  Rear-end crashes with left-turning traffic due to speed discrepancies	Rationale  Removing stopped vehicles attempting to turn left from the through lane could reduce rear-end crashes
<b>Category</b> Safety	Problem  Rear-end crashes with left-turning traffic due to speed discrepancies  Sideswipe crashes due to lane changes Left-turn crashes due to negative offset	Rationale  Removing stopped vehicles attempting to turn left from the through lane could reduce rearend crashes  Eliminating the need to change lanes reduces sideswipe crashes  Eliminating the negative offset between opposing left-turn vehicles and
	Problem  Rear-end crashes with left-turning traffic due to speed discrepancies  Sideswipe crashes due to lane changes Left-turn crashes due to negative offset left turns from the inside lanes	Rationale Removing stopped vehicles attempting to turn left from the through lane could reduce real-rend crastles Eliminating the need to change lanes reduces sidewaye crastles. Eliminating the neighbor office between opposing left-turn vehicles and increasing available sight distance can reduce left-turn crashes Buylet lanes separate belogish from staff or cerebratins have freely lanes.
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Safety	Problem Rear end crashes with left-turning traffic due to speed discrepancies closely expensive offer the continuous closely expensive offer left turns from the inside lines bicycle and pedestrian crashes. Becycle and pedestrian crashes Delays associated with left-turning traffic. Side street delays at unsignalized	Rationale  Removing stopped vehicles attempting to turn left from the through lane could reduce rease-red crastles.  Eliminating the need to change lanes reduces sidewaye crastles.  Eliminating the neight offset between opposing left-turn vehicles and increasing available upfit distance can reduce left-turn crashes.  Block leaves separate before from traffic prodestrians have fewer lanes to cross and can use refuge area. If provided  Separating left-turn graffic has been shown to reduce delays at signalized intersections.  Self-treet traffic requires shorter gas to compilee movements due to the
Safety	Problem Reas-end crashes with left-tunning truff-due to speed discrepancies. Sideswipe crashes due to lane changes. Left-tun crashes due to lane changes Left-tun crashes due to negative offset left-tunns from the inside lines. Becycle and pedestrian crashes. Becycle and pedestrian crashes. Delays associated with left-tunning traffic. Side street delays at unsignalized intersections. Becycle operational delay due to shared	Rationale  Removing stopped vehicles attempting to turn left from the through lane could reduce read-end crastles.  Eliminating the need to change lanes educate sideswipe crastles.  Eliminating the negative offset between opping left-turn vehicles and necessing availables legith distance can reduce left train crastles.  Blocke lares separate blockes from staffic predestrates have fewer lares to cross and can use a religious left-turn vehicles and can use a religious left-turning staffic has been shown to reduce deleys at signalized interactions.  Sele-street staffic requires shorter gaps to complete movements due to the consolidation of left rurn irin one la lare.
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Safety	Problem Rear-end cashes with left-turning traffic due to speed discrepancies. Sideoxype craities gue to lare changes. Left-turn carshes due to lare changes. Left-turn carshes due to lare changes left-turns from the inside lares. Socycle and pedestrain craities. Socycle and pedestrain craities. Delays associated with left-turning staffic.  Side timest celegiva st unsignalized intersections.  Boycle operational delay due to shared lare with vehicles or ideoxile. Use the with vehicles or ideoxile. Use accommodation due to back of facilities accommodation due to back of facilities.	Rationale  Removing stopped vehicles attempting to turn left from the through lane could reduce rese and castles.  Eliminating the need to change lanes reduces sideowipe castles.  Eliminating the neighbor office between opposing left-sturn vehicles and increasing waitable sight distinct can reduce left-turn cashles.  Boycle lanes sypation before from tastle operations have from function and the setting lanes. If provided and the setting lanes of provided and the setting lanes of provided and the setting lanes. If provided a setting lanes are setting lanes and lanes of the setting lanes and lanes of the setting lanes. If provided and lanes are setting lanes are setting lanes and lanes are setting lanes. If provided a setting lanes are setting lanes are setting lanes and lanes are setting lanes. If provided lanes are setting lanes are setting lanes are setting lanes. If provided lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes. If the setting lanes are setting lanes are setting lanes are setting lanes are setting lanes. In lanes are setting lanes are setting lanes are setting lanes are setting lanes. In lanes are setting lanes. In lanes are setting la

#### **CONCEPTUAL ROAD DIET: ALTERNATIVE 1**

Concept rendering, not to scale, not for construction

WEST AVE

ERIE CANALWAY TRAIL

APPROX. LOCATION OF

RENDERING, VIEW NORTH



# VILLAGE OF BROCKPORT ACTIVE TRANSPORTATION PLAN

FIGURE: 9

REDMAN ROAD

CONCEPTUAL ROAD DIET CANDIDATE

SHEET 2 OF 2

Existing Conditions

#### **CONCEPTUAL ROAD DIET: ALTERNATIVE 2**

Concept rendering, not to scale, not for construction



#### NOTE:

After review of the two alternatives during the second Public Informational Meeting, **Alternative 2** was chosen as the preferred option.

#### **ERIE CANALWAY TRAIL**

#### **EXISTING CONDITIONS / ISSUES**

- Stone dust surface provides pros and cons for trail users
  - Pro: Fully accessible.
  - Pro: Installation cost is lower up front.
  - Pro: Acts as a speed reducer for bicyclists, creating a safer environment for all trail users.
  - Con: Not as durable as asphalt.
  - Con: May require more maintenance than asphalt.
- Issues at Canalway vehicular bridge crossings, refer to Erie Canalway Bridge **Recommendations Figure**

#### RECOMMENDATIONS

- Improve connectivity to neighborhoods, parks, Village, SUNY Brockport. Modify Land Use Policy or Zoning language to require ADA compliant trail connections to Erie Canalway Trail for future developments.
- Trail should act as "Active Transportation Spine" for the Village.
- Possible loop trail system with abandoned CSX rail line.

#### LOCAL EXAMPLES OF POSSIBLE ENHANCEMENTS

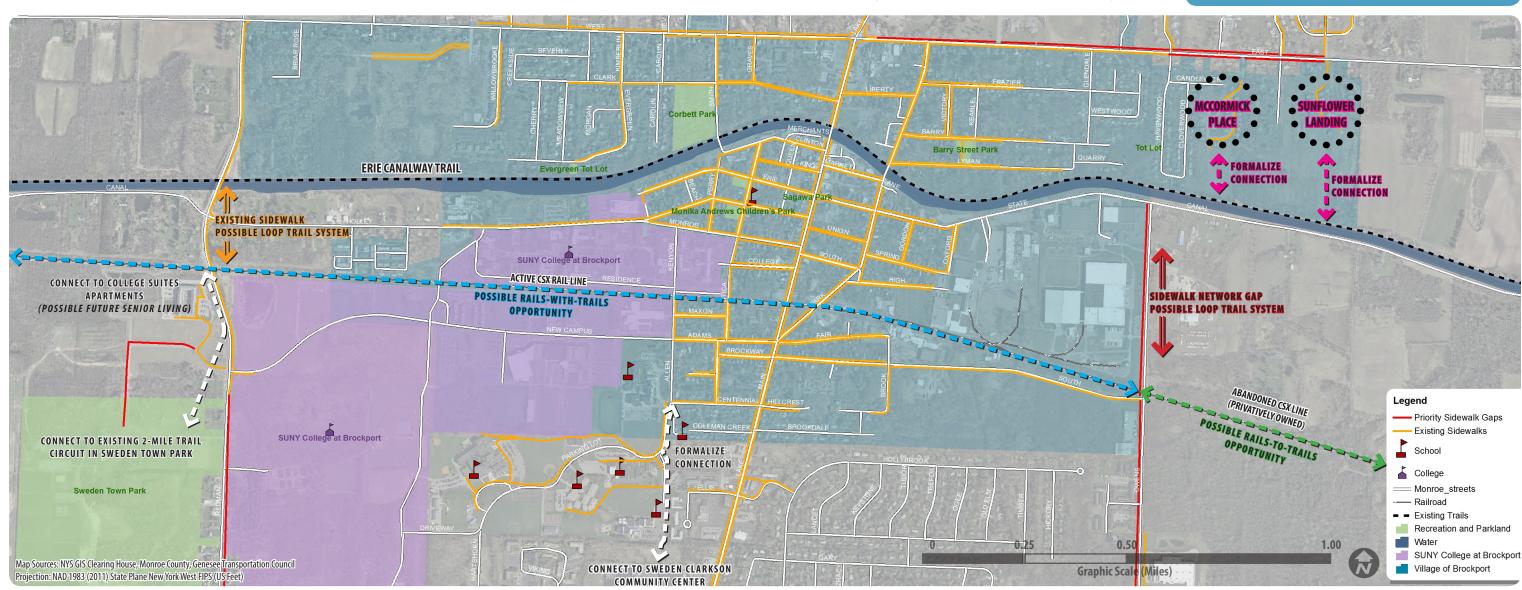




Asphalt surface, allows for winter maintainability, Fairport, NY

#### **VILLAGE OF BROCKPORT ACTIVE TRANSPORTATION PLAN**

#### FIGURE: 10 TRAIL RECOMMENDATIONS



#### **POSSIBLE RAILS-TO/WITH-TRAILS OPPORTUNITIES**

#### BENEFITS

- Would improve connectivity to neighborhoods, parks, Village, SUNY Brockport.
- Would create a loop trail system with the existing Erie Canalway Trail.
- Would conform to AASHTO and Rails-To-Trails Conservancy standards.

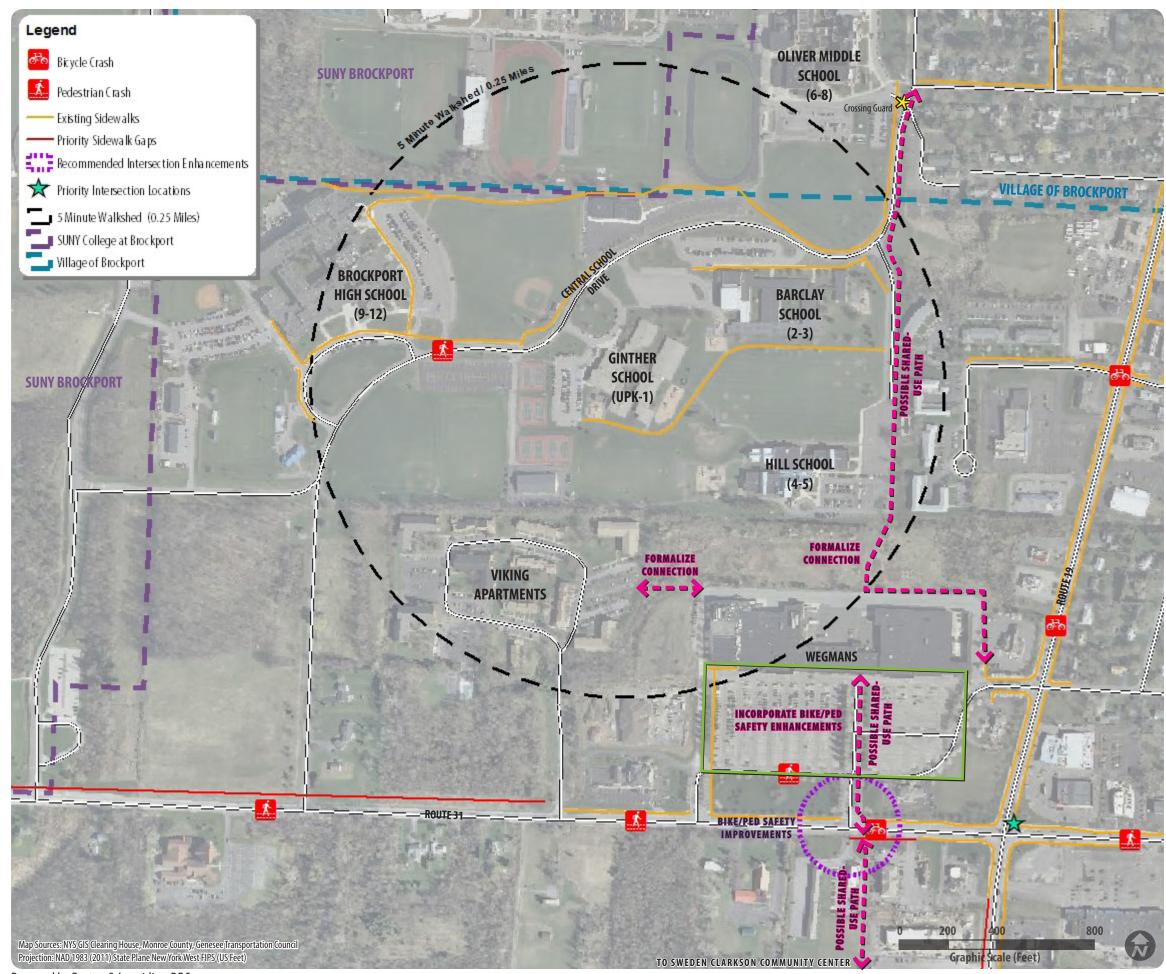
CAMINO TRAIL



**MARY CARTER GREENWAY** NORTH CAROLINA



- Dual surface trail
- 5' wide stone dust walking/ jogging path
  - 10' wide shared-use path



# FIGURE: 11 SCHOOL CONNECTIVITY

#### **EXISTING BICYCLE INFRASTRUCTURE**







#### SCHOOL RECOMMENDATIONS

- Bike Racks (examples below)
  - Located near main entrance to school.
  - Locate on concrete pad to provide easier accessibility.
  - Provide overhead shelter to promote year round use.





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Examples of bike parking shelters at RIT's Gleason Circle



- 1. ROUTE 19 AND ROUTE 104
- 2. ERIE CANALWAY TRAIL AND MAIN STREET BRIDGE
- 3. MAIN ST., ADAMS ST., FAIR ST. AND PARK AVE.
- 4. REDMAN ROAD AND NEW CAMPUS DRIVE
- 5. ROUTE 19 AND ROUTE 31

# PRIORITY INTERSECTION 1 ROUTE 19 AND ROUTE 104

#### Context

- Near Hafner Park
- Posted speed limit, Route 104: 40mph
- Posted speed limit, Route 19: 40mph
- Walk Score: 0 Car dependent

#### **Crossing Distances**

- SB approach: 77′
- WB approach: 68′
- NB approach: 64′
- EB approach: 77′

#### **Issues & Concerns**

- Not ADA compliant: Lacking detectable warning fields at crosswalk ramps
- No pedestrian signals (posts for signal are present)

#### RECOMMENDATIONS

- 1 Install detectable warning fields, all ramp locations.
- 2 Re-stripe crosswalks for high-visibility.
- Install audible tactile pedestrian signals with countdown timer and leading pedestrian intervals.

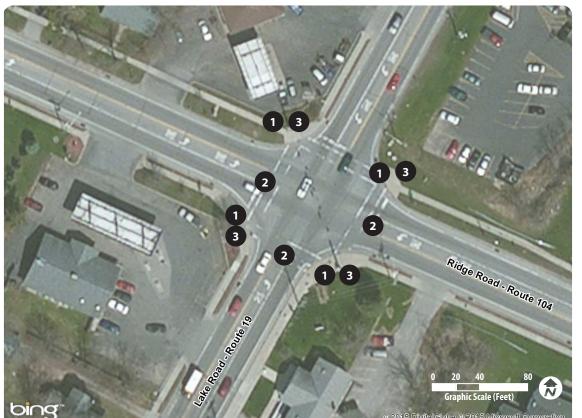




FIGURE: 12
PRIORITY INTERSECTIONS
SHEET 1 OF 5







- 1. ROUTE 19 AND ROUTE 104
- 2. ERIE CANALWAY TRAIL AND MAIN STREET BRIDGE
- 3. MAIN ST., ADAMS ST., FAIR ST. AND PARK AVE.
- 4. REDMAN ROAD AND NEW CAMPUS DRIVE
- 5. ROUTE 19 AND ROUTE 31

# PRIORITY INTERSECTION 2 ERIE CANALWAY TRAIL AND MAIN STREET BRIDGE

#### Context

- Central village
- Pedestrian generators (i.e. retail, food)
- Employment centers
- Posted speed limit: 30mph
- Walk Score: 74 Very walkable

#### **Crossing Distances**

- SB approach: 25′
- NB approach: 36′

#### **Issues & Concerns**

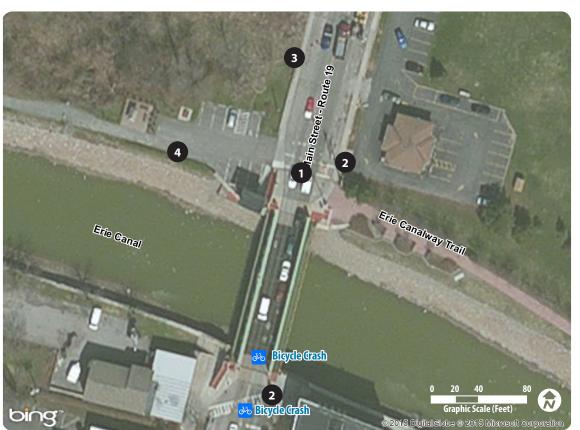
- Erie Canalway Trail, west of Route 19, travels through trailhead parking area and drive lanes
- Crossing at trailhead parking entrance/exit drive
- Skewed crossing
- Wide curb drops don't provide enough direction for vehicles: crosswalk and detectable warning field is located in trail head driveway apron
- Detectable warning fields do not extend the full width of curb drops
- Sight distance is limited at the crossing due to bridge trusses

## VILLAGE OF BROCKPORT ACTIVE TRANSPORTATION PLAN

FIGURE: 12
PRIORITY INTERSECTIONS
SHEET 2 OF 5

#### RECOMMENDATIONS

- 1 Re-stripe crosswalks for high-visibility.
- 2 Install W11-15 and W11-15P (trail crossing) signs.
- Move the crossing to the north, providing improved sight distances.
- 4 Identify trail alignment through parking area with pavement markings and/or physical separation.









- 1. ROUTE 19 AND ROUTE 104
- 2. ERIE CANALWAY TRAIL AND MAIN STREET BRIDGE
- 3. MAIN ST., ADAMS ST., FAIR ST. AND PARK AVE.
- 4. REDMAN ROAD AND NEW CAMPUS DRIVE
- 5. ROUTE 19 AND ROUTE 31

\*Note: An investigation into a possible round-about at the intersection of Main Street, Park Avenue, Fair Street and Adams Street was performed. A single lane roundabout would be expected here and would likely require significant right-of-way acquisition at the corner of Park Avenue and Fair Street, the northwest corner of Adams Street and Main Street, and the southwest corner of Fair Street and Main Street. The location of the houses at the northwest corner and the corner of Park and Fair would also play a significant role in design. It is possible that removal of one or both of these houses may be required to fit a roundabout.

Refer to section 2.1.1.2 of the FHWA's Roundabouts: An informational guide.

https://www.dot.ny.gov/main/roundabouts/files/00-067.pdf

# PRIORITY INTERSECTION 3 MAIN ST., ADAMS ST., FAIR ST. AND PARK AVE.

#### Context

- Transit stops
- Pedestrian generators to the north and south (i.e. retail, food)
- Employment centers to the north and south
- Residential neighborhoods
- Posted speed limit, Park Avenue: 30mph
- Posted speed limit, Fair Street: 30mph
- Posted speed limit, Adams Street: 30mph
- Posted speed limit, Route 19: 30mph
- Walk Score: 63 Somewhat walkable

#### **Crossing Distance**

- SB approach: 37′
- SEB approach: 53′
- WB approach: 42′
- NB approach: 59′
- EB approach: 51'

#### **Issues & Concerns**

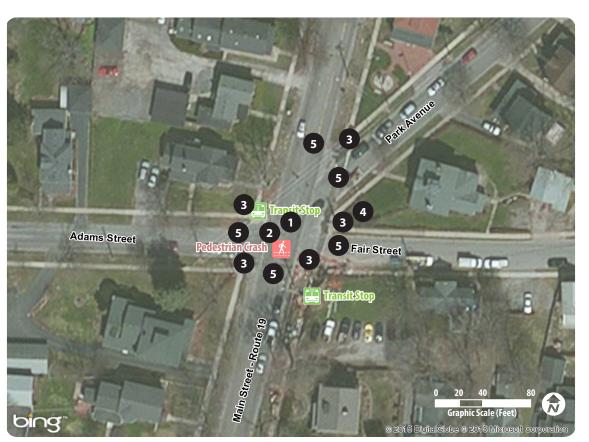
- 5 leg intersection
- Skewed alignment of Park Ave
- Vehicle tracking was evident on wide curb ramps at south east and north east corners of Main St and Fair St
- Access for bicyclists from Park Ave onto Route 19/Main St is a tough turn angle
- Intersection sight distance is limited at Park Ave and Fair St "wedge" due to landscaping

### VILLAGE OF BROCKPORT ACTIVE TRANSPORTATION PLAN

FIGURE: 12
PRIORITY INTERSECTIONS
SHEET 3 OF 5

#### RECOMMENDATIONS

- Move crosswalk across Route 19 (from Adams St to Fair St/ Park Ave) to the North (from Adams St to Park Ave)
- \* Consider an urban compact bike/pedestrian safe roundabout.
- Modify curb ramps to direct pedestrians to desired crosswalk and help deter vehicle tracking on to sidewalks. Install audible tactile pedestrian signals with countdown timer and leading pedestrian intervals.
- 4 Remove or modify landscaping to improve sight distances.
- **5** Re-stripe crosswalks for high-visibility.









Context

- SUNY Brockport campus access
- Student housing (possible future conversion of student housing to senior living)

REDMAN ROAD AND NEW CAMPUS DRIVE

**PRIORITY INTERSECTION 4** 

- Posted speed limit, Redman Road:40mph
- Posted speed limit, New Campus Drive: 30mph
- Walk Score: 1 Car dependent

#### **Crossing Distance**

- SB approach: 96′
- WB approach: 51′
- NB approach: 71′
- EB approach: 46′

#### **Issues & Concerns**

- Limited stopping sight distance on Redman Rd due to crest vertical curve
- No crosswalk striping
- No tactile warning areas on existing curb ramps
- Limited curb ramps currently installed
- Minimal overhead lighting

#### **VILLAGE OF BROCKPORT ACTIVE TRANSPORTATION PLAN**

FIGURE: 12 **PRIORITY INTERSECTIONS** SHEET 4 OF 5

#### RECOMMENDATIONS

- 1 Install advance warning signs on Redman Road for pedestrian and bicycle crossings.
- 2 Install/improve overhead lighting.
- Install audible tactile pedestrian signals with countdown timer and leading pedestrian intervals.
- 4 Consider road diet. Redman Road is a road diet candidate, refer to Conceptual Road Diet Figure. Coordination with NYSDOT required.
- 5 Stripe crosswalks for high visibility.

#### **LOCATION MAP**

- 1. ROUTE 19 AND ROUTE 104
- 2. ERIE CANALWAY TRAIL AND MAIN STREET BRIDGE
- 3. MAIN ST., ADAMS ST., FAIR ST. AND PARK AVE.
- 4. REDMAN ROAD AND NEW CAMPUS DRIVE
- 5. ROUTE 19 AND ROUTE 31

\*Note: The safety at the intersection of Redman Road and New Campus Drive was a primary concern from project stakeholders and residents. Redman Road, from Route 31 to West Avenue, falls under the jurisdiction of New York State Department of Transportation (NYSDOT). A representative from the agency was included on the project advisory committee and there was productive dialogue regarding this roadway throughout the course of the study. As described by NYSDOT "A traffic study was conducted about 10 years ago due to the expansion of residential development on the west leg of the intersection." The expansion never took place, therefore a signal was never installed. "A signalized intersection is unlikely to be warranted under existing conditions. A roundabout would be a good solution if there was an accident problem at the intersection and a signal was unwarranted. An accident analysis would be the first step to answer that question. Roundabouts typically cost about \$1.2 to \$1.5 million. Therefore, it is unlikely to happen unless it is merited as a safety project. Another option for this intersection might be a road diet. Redman Road was identified as being a good candidate for a road diet. A road diet would make crossing Redman Road a lot easier, which would help address pedestrian and bike safety concerns."

Refer to section 2.1.1.2 of the FHWA's Roundabouts: An informational guide.

https://www.dot.ny.gov/main/roundabouts/files/00-067.pdf









- 1. ROUTE 19 AND ROUTE 104
- 2. ERIE CANALWAY TRAIL AND MAIN STREET BRIDGE
- 3. MAIN ST., ADAMS ST., FAIR ST. AND PARK AVE.
- 4. REDMAN ROAD AND NEW CAMPUS DRIVE
- 5. ROUTE 19 AND ROUTE 31

\*Note: An investigation into a possible round-about at the intersection of Route 19 and Route 31 was performed. This intersection sees approximately 28,000 vehicles per day and would most likely require a double-lane roundabout. The safety benefits of a double lane roundabout are significantly less than their single-lane counterparts.

https://www.dot.ny.gov/main/roundabouts/files/00-067.pdf

# PRIORITY INTERSECTION 5 ROUTE 19 AND ROUTE 31

#### Context

- Pedestrian generators (i.e. shopping plazas, food)
- Employment centers
- Posted speed limit, Route 31: 40mph
- Posted speed limit, Route 19: 35mph
- Walk Score: 10 Car dependent

#### **Crossing distances**

- SB approach: 84′
- WB approach: 84′
- NB approach: 97′
- EB approach: 78′

#### **Issues & Concerns**

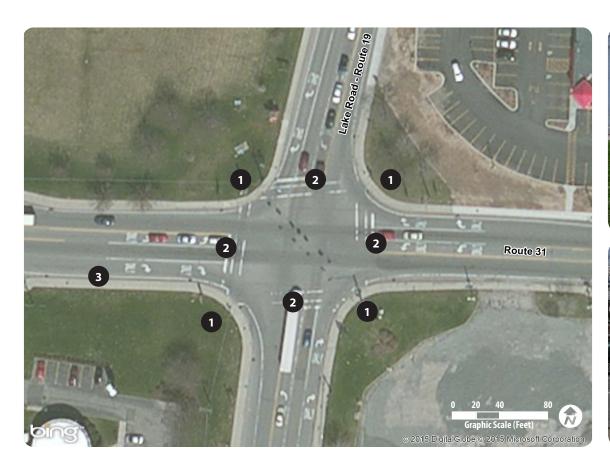
- Curb ramps are not ADA compliant, lacking detectable warning fields
- Slightly skewed intersection, Route 19
- Limited curb ramps currently installed

## VILLAGE OF BROCKPORT ACTIVE TRANSPORTATION PLAN

FIGURE: 12
PRIORITY INTERSECTIONS
SHEET 5 OF 5

#### RECOMMENDATIONS

- Install audible tactile pedestrian signals with countdown timer and leading pedestrian intervals.
- 2 Re-stripe crosswalks for high-visibility.
- 3 Possible bike lane along 31 east bound, west of Route 19.







safety benefits of a double lane roundabout are significantly less than their single-lane counterparts.

Refer to section 2.1.1.2 of the **FHWA's Roundabouts: An informational guide.** 

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