Sidewalk Inventory and Analysis for the Village of Massena’s Complete Streets Program

Clarkson University Construction Engineering Management Consulting Group

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Funding for this work was received from the Health Initiative’s Creating Healthy Schools and Communities Project, which is funded by the New York State Department of Health.
Purpose

To inventory existing pedestrian facilities within the Village:
- Sidewalks
- Curb Ramps
- Crosswalks
- Pedestrian Signals
- Bike Routes

Focus on Areas near Schools and Water Street Park
Complete Streets – What is It?

Complete Streets are streets that can accommodate **ALL** users:

- Cars, Trucks, Motorized Vehicles
- Bikes, Scooters, Skate Boards, Non-Motorized Vehicles
- Pedestrians, Disabled Persons, Children
- Public Transportation, Transit, and More
What is GIS?

A geographic information system (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data.

GIS makes complex information more accessible and easier to understand.

Information is stored in Layers
Project Methodology

Create GIS database with layers for pedestrian features
Upload to cloud based server and deploy to Field Collection hardware (Ipads)
2 Students collected data by walking during summer of 2018
Map production and analysis late summer / early fall 2018
Final Deliverables handed over October 2018
Poor Condition Sidewalks

Excellent Condition Sidewalk
Excellent Condition Curb Ramp

“Needs Replacement” Condition Curb Ramp
Curb ramp condition was averaged to give a score to each intersection.
Poor Condition Crosswalk

Excellent Condition Crosswalk
Good Condition Signal Button

Excellent Condition Signal Button
Signal Lights

52 Total Signal Lights

Signal Buttons

59 Total Signal Buttons
Results and Recommendations

Delivered Digital GIS Files to City and DANC for use in future planning
Delivered Printed Set of Completed Maps
Digital Photos attached to each feature collected and time-stamped

Features Collected:
- Over 50 Miles of Sidewalk
- 122 Crosswalks
- 59 Pedestrian Signals
- 570 Curb Ramps
- 342 Intersection Photos

Date Taken: 7/26/2018 12:23 AM
Thank You!

Any Questions?