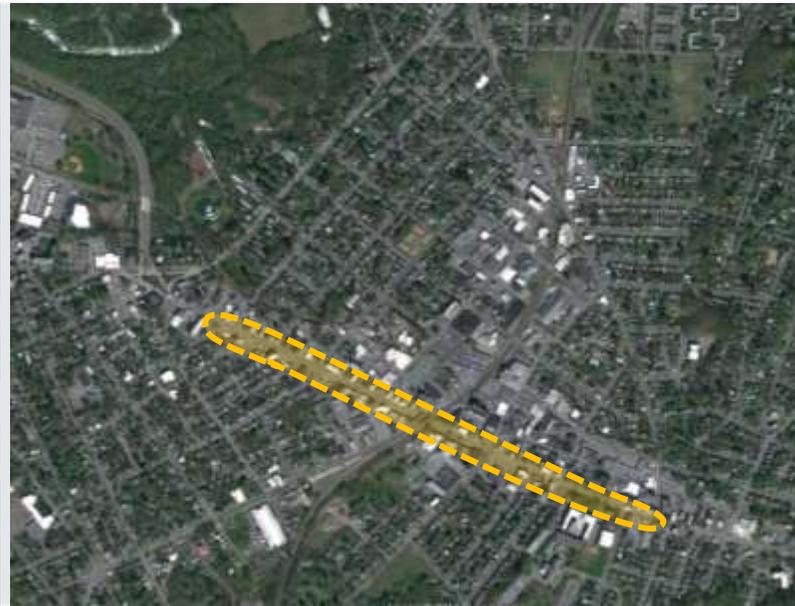


Building a Better Broadway Draft Plan and Recommendations



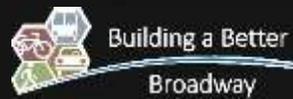
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Ulster County Transportation Council, the City & People of Kingston

Presented by:



August 2015



Building a Better Broadway

Purpose of the Project

- A Transportation Project to Renew, Restore and Revive Broadway
- To improve pedestrian and bicycle safety, aesthetics, transit and traffic flow.
- To re-connect the Broadway corridor with surrounding neighborhoods and amenities, such as the Kingston Point Rail Trail and other multi-use trails
- To revitalize this important regional corridor employing green infrastructure principles

To accomplish these goals, the City has recently been awarded **almost \$4 million** in various state and federal grants to renovate the physical layout of Broadway and connect the surrounding streets.

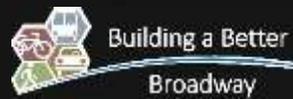
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Building a Better Broadway Public Outreach



Building a Better Broadway

Public Information Meeting

When: August 6, 2015
Where: The Green Room @ UPAC - 601 Broadway
Time(s): 3:30-5:00 pm -or- 6:30-8:00 pm

What to Expect:
 Open House & Presentation
 Kids Table - Children are Welcome!
 Teen & Young Adult Participation is Highly Encouraged

Key dates/seasons - call for more that last 90 day schedule:

Ulster County Transportation Council and the City of Kingston have developed a draft design that explores how Broadway can function better for motorists, cyclists, and pedestrians, all while keeping in mind the concerns of local residents and business owners.

Please plan to attend this meeting to let us know your thoughts about the Draft Plan/Recommended Alternative.

Key VPI Message: Traffic Volume is the Direction

Additional information is available at:

- [http://www.kingston-ny.gov](#)
- [http://www.upac.org](#)
- [http://www.kingston-ny.gov/planning-department](#)
- [http://www.kingston-ny.gov/city-engineering](#)
- [http://www.kingston-ny.gov/city-engineering](#)
- [http://www.kingston-ny.gov/city-engineering](#)

For more information contact Office of Economic Development • 845.334.2400

Building a Better Broadway

Learn More

Contact:
 Gregg H. Sawinski
 Director
 Office of Economic Development
 & Strategic Partnerships
 Kingston City Hall
 420 Broadway
 Kingston, NY 12401

Meeting Details

When: August 6, 2015
 Where: UPAC - 601 Broadway
 Time(s): 3:30-5:00 pm & 6:30-8:00 pm

What to expect:
 Open House and Presentation
 Kids Table - Children are Welcome!
 Teen & Young Adult Participation is Highly Encouraged!

Public Information Meeting
 August 6, 2015
 UPAC - 601 Broadway
 One @ 3:30 pm and
 again at 6:30 pm

Learn More at:
www.kingston-ny.gov/Broadway-Corridor

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Primary Alternatives Evaluated Bicycle Lanes



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No-Action Alternative

Broadway
O'Reilly to Foxhall



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Alternative #1

Conventional Bicycle Lanes

Between the Parking Lane and the Travel Lanes

Broadway
O'Reilly to Foxhall



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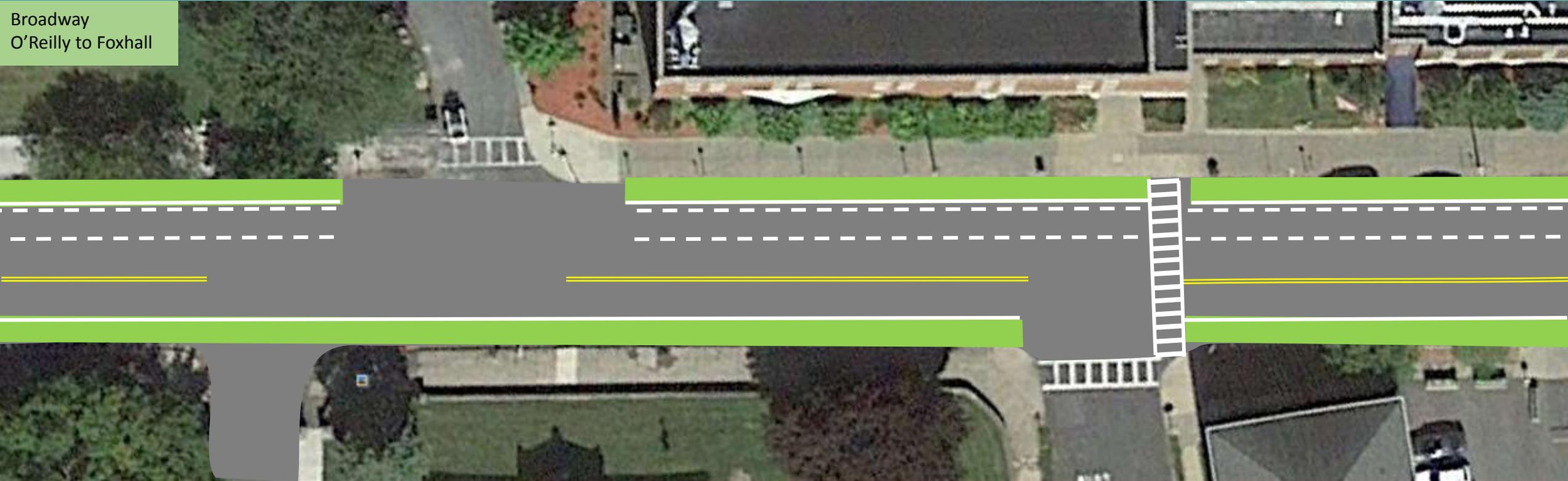
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Alternative #2

Conventional Bicycle Lanes

Between the Parking Lane and the Sidewalk

Broadway
O'Reilly to Foxhall



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Alternative #3

Separated Bicycle Lanes

Between the Travel Lanes and the Sidewalk

Broadway
O'Reilly to Foxhall



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Alternative #4

Separated Bicycle Lanes

Between the Parking Lane and the Sidewalk

Broadway
O'Reilly to Foxhall



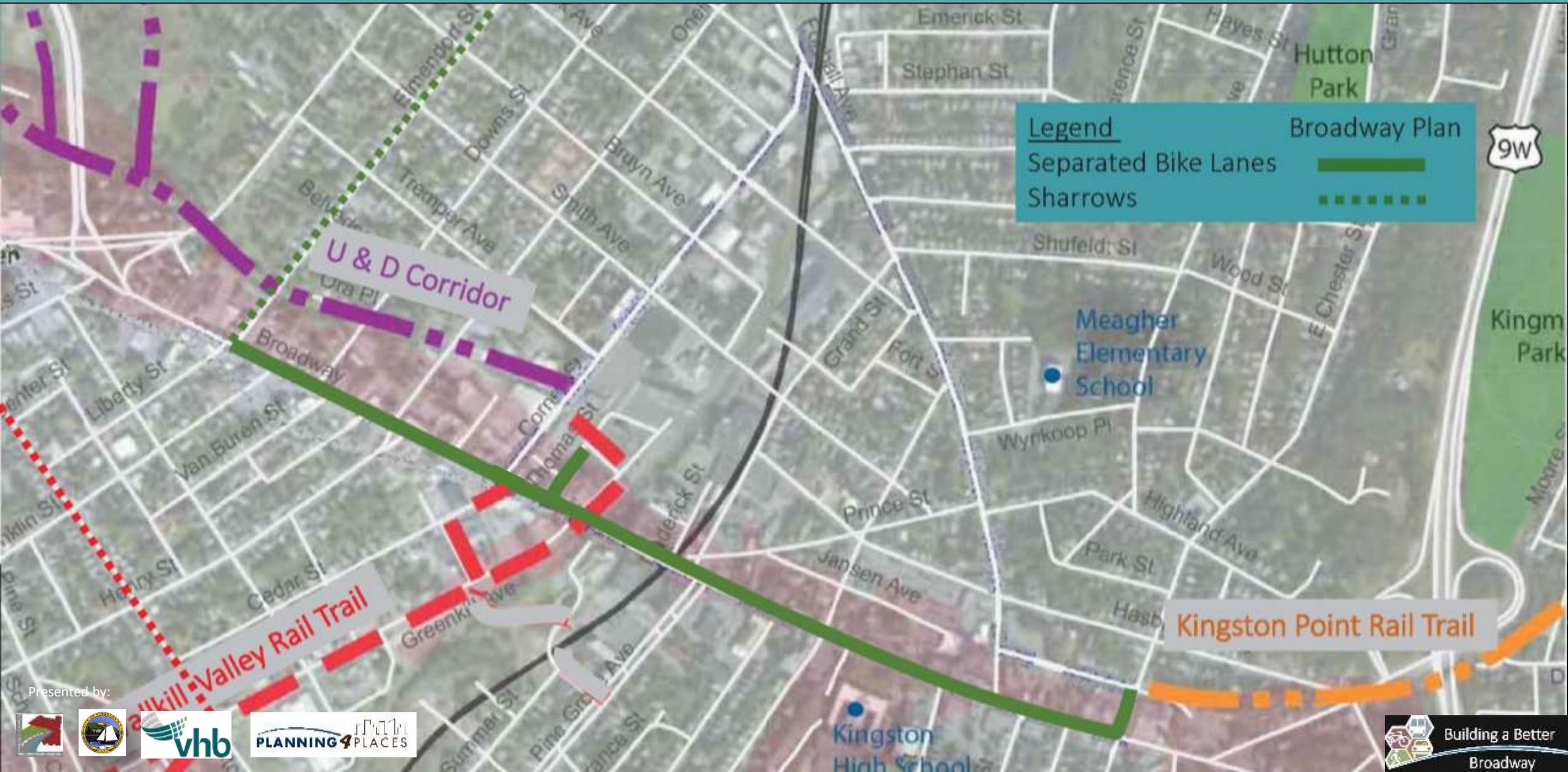
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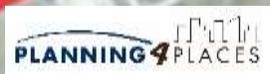


Preferred Alternative

#4 - Separated Bicycle Lane between parking and sidewalk

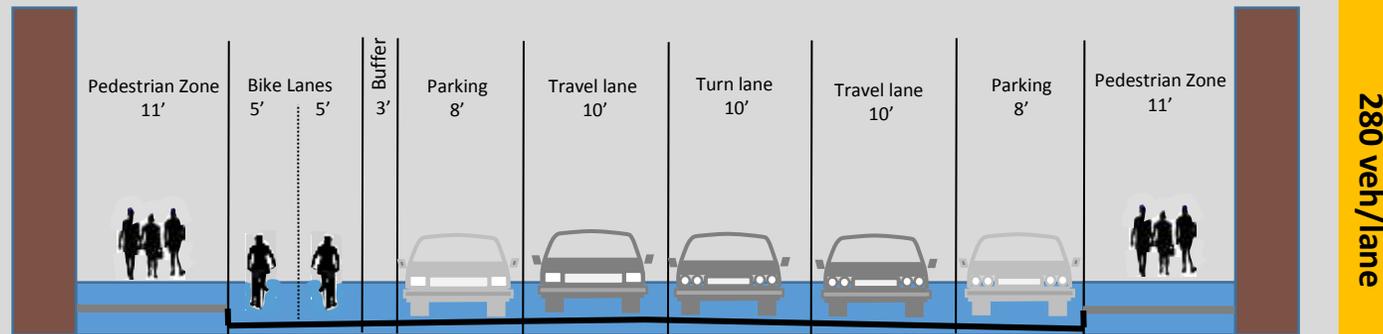


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Preferred Alternative #4 – Cross Section

Proposed Cross Section of Broadway, Looking East from Liberty Street to Cedar Street



835 VPH Maximum Traffic Volume in One Direction

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Preferred Alternative Examples of Separated Bike Lanes

(from cities such as New York, Buffalo and Syracuse)



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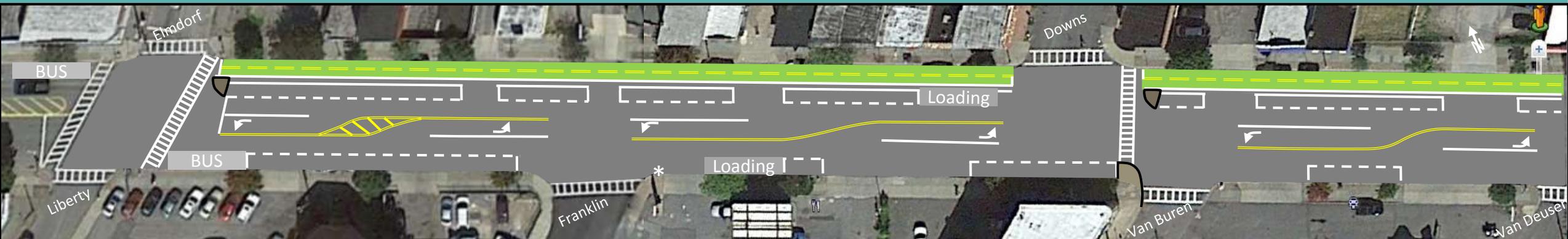
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Preferred Alternative

Proposed Section of Broadway from Liberty/Elmendorf Sts. to Van Duesen St.



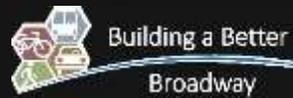
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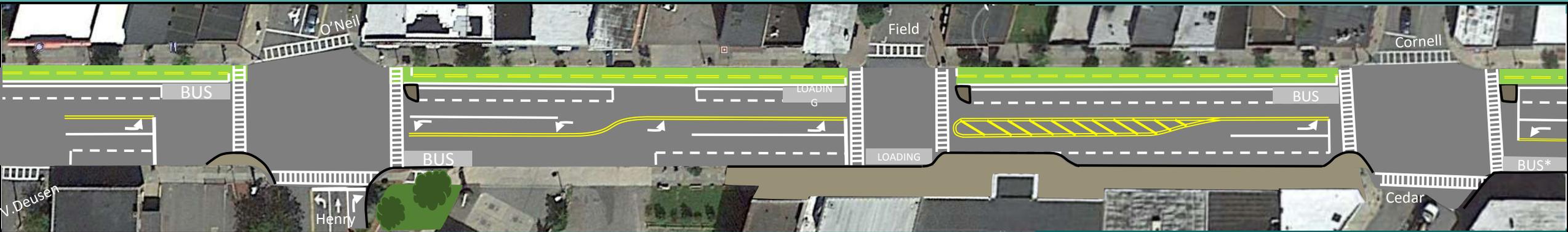


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Preferred Alternative

Proposed Section of Broadway from Van Duesen Street to Cedar Street



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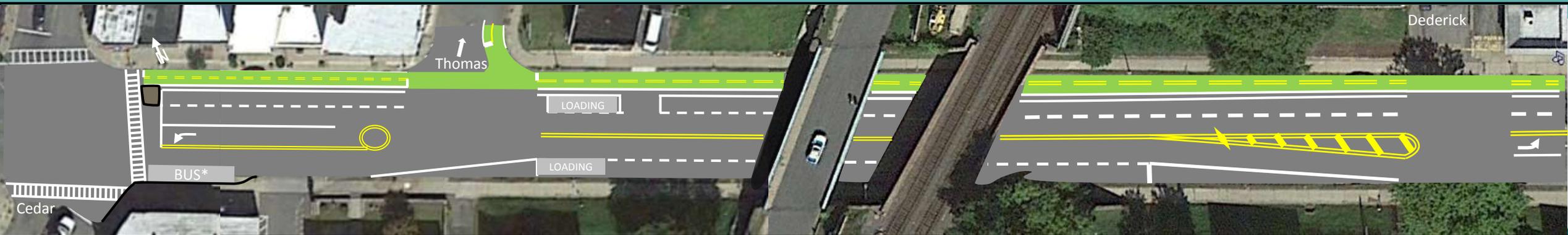


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Preferred Alternative

Proposed Section of Broadway from Cedar Street to Dederick Street



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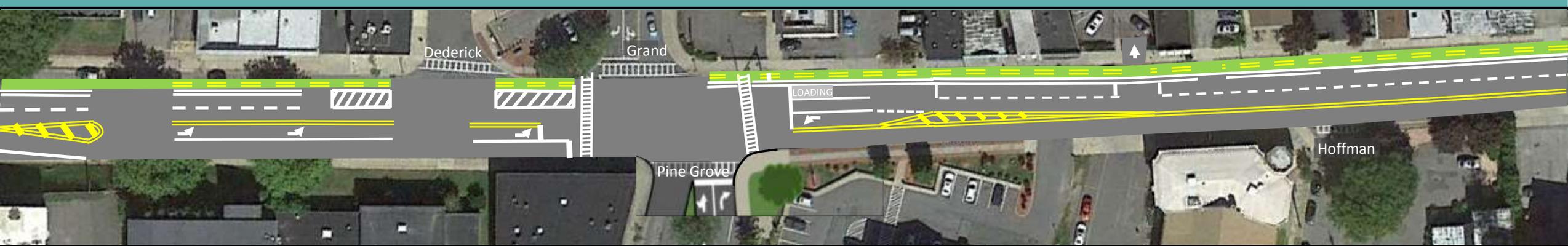
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Preferred Alternative

Proposed Section of Broadway from Dederick Street to Hoffman Street



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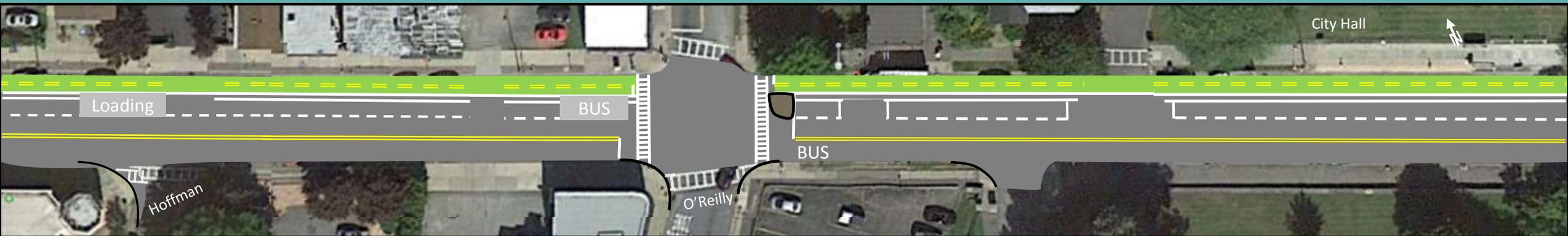
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Preferred Alternative

Proposed Section of Broadway from Hoffman Street to City Hall



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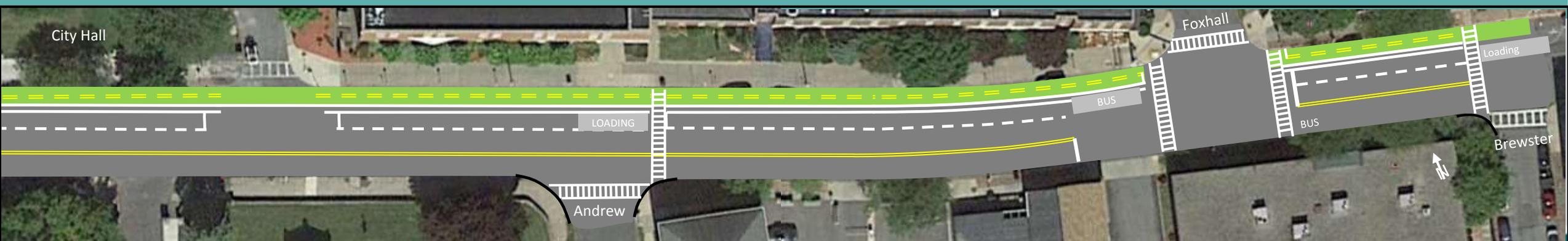
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Preferred Alternative

Proposed Section of Broadway from City Hall to Brewster Street



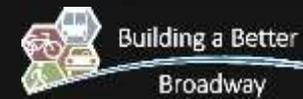
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Preferred Alternative

Proposed Section of Broadway from Brewster Street to Chester Street



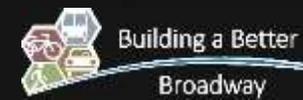
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Preferred Alternative

Proposed Section of East Chester Street from Broadway to Jansen Avenue



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Draft Plan and Recommendations

Traffic Signal Modifications

- Upgrade the existing traffic signals along the corridor to accommodate the proposed bike lanes, to provide 12" lenses and to display countdown pedestrian signals. Separated bike lanes require traffic signals where cars may not turn across bike lanes at the same time that bikes are permitted to proceed. This will require a separate bike phase at some intersections and the prohibition of permissive eastbound left turns and all westbound right turns across the bike lanes at Cornell Street and Grand Street. Cyclists in the bike lanes will be prohibited from making westbound left turns and eastbound right turns - they may dismount and use the pedestrian signals for these movements. Adjustments to the signal timing can ensure that overall Level of Service D or better conditions will continue to prevail



Preferred Alternative

Traffic Benefits

Detailed Measures of Effectiveness

Network Totals

Number of Intersections	27
Total Delay / Veh (s/v)	17
Stops / Veh	0.33
Average Speed (mph)	8
Total Travel Time (hr)	278
Distance Traveled (mi)	2202
Fuel Consumed (gal)	303
Fuel Economy (mpg)	7.3
CO Emissions (kg)	21.17
NOx Emissions (kg)	4.12
VOC Emissions (kg)	4.91
Performance Index	235.8

Future Conditions, No Action

Detailed Measures of Effectiveness

Network Totals

Number of Intersections	25
Total Delay / Veh (s/v)	11
Stops / Veh	0.30
Average Speed (mph)	11
Total Travel Time (hr)	203
Distance Traveled (mi)	2186
Fuel Consumed (gal)	233
Fuel Economy (mpg)	9.4
CO Emissions (kg)	16.28
NOx Emissions (kg)	3.17
VOC Emissions (kg)	3.77
Performance Index	152.0

Future Conditions, Draft Plan

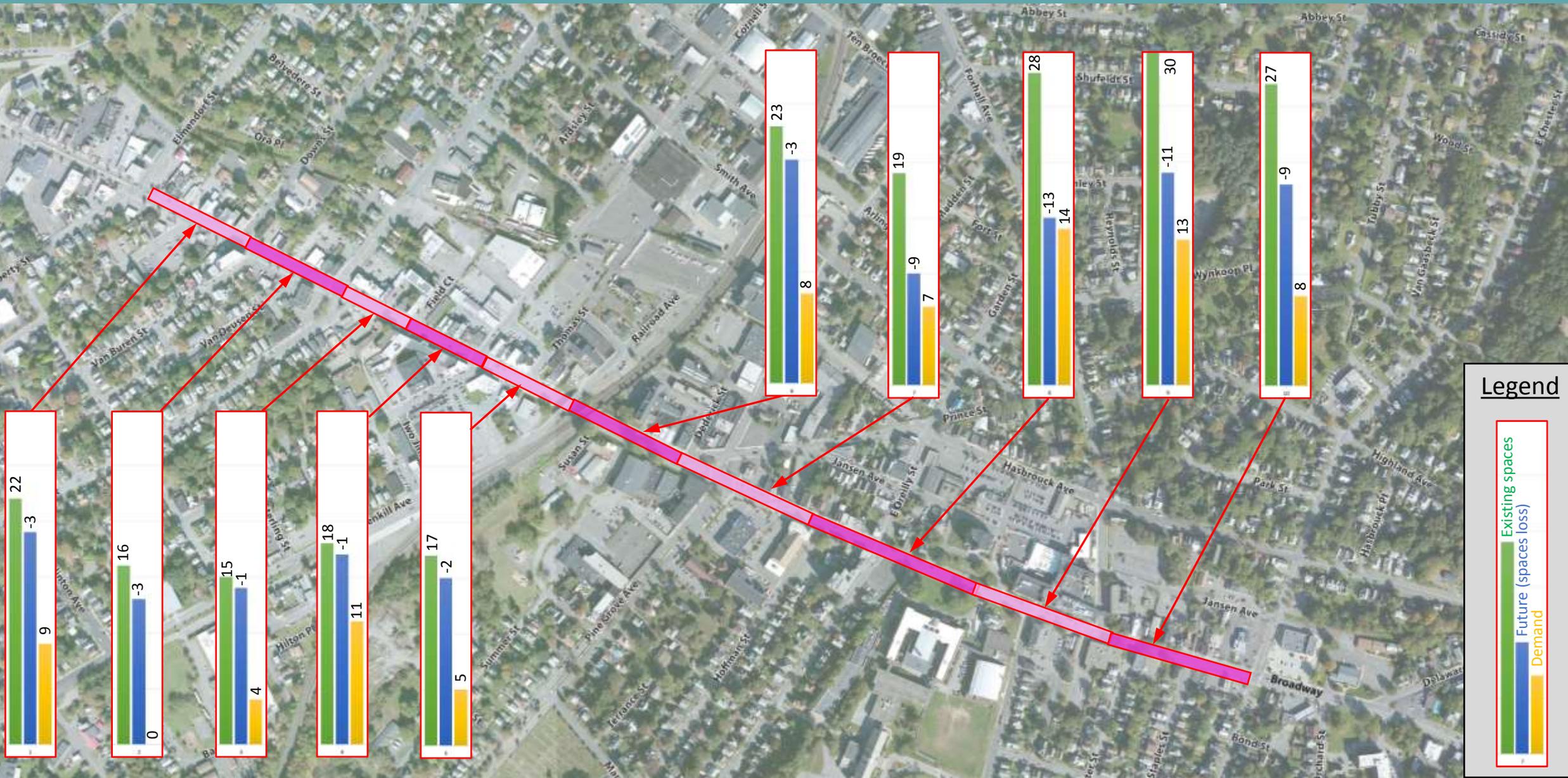
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Preferred Alternative Impacts on Parking



Legend

- Existing spaces
- Future (spaces loss)
- Demand

Preferred Alternative Parking Improvements

- Parking analysis indicates adequate reserve capacity within 500 feet to accommodate the relatively small number of surveyed parked vehicles which would be displaced
- Technical Advisory Committee recommends that any proposed bike lane be accompanied by measures aimed at mitigating this loss of parking.
- These measures could include:
 - Improved signage to the existing municipal parking lots along the corridor,
 - Metering of the spaces in the municipal lots to discourage their long-term use (and make more spaces available) during business hours;
 - Providing a direct entrance from Broadway to the municipal parking lot accessed at the intersection of Jansen Avenue and Prince Street.



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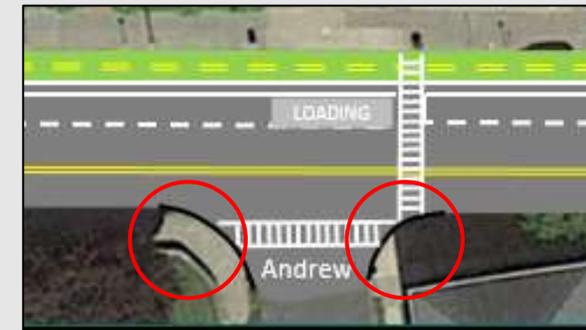
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Preferred Alternative Geometric Improvements

Modify the turning radii at the intersections Broadway with Hoffman Street, Andrew Street and Staples Street, and make any necessary adjustments to the stop lines at O'Reilly Street and to parking at Brewster Street to accommodate truck and bus traffic.



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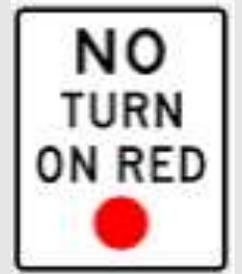


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Preferred Alternative Safety Improvements

To improve safety, prohibit right-turns on red at the following signalized intersections:

- Eastbound and Westbound on Broadway at Liberty Street (in response to 1 bicycle accident and 27 other accidents);
- All approaches to the intersection of Henry Street with Broadway (in response to 2 pedestrian accidents, 3 bicycle accidents and 28 other accidents);
- All approaches to the intersection of Cedar/Cornell Street with Broadway (in response to 2 pedestrian accidents, 2 bicycle accidents and 57 other accidents);
- Eastbound and on Broadway at Pine Grove Avenue (in response to 1 bicycle accident and 20 other accidents), and
- All approaches to the intersection of Chester Street with Broadway (in response to 2 pedestrian accidents, and 39 other accidents).



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Pedestrian Improvements

Safety & Mobility for Pedestrians

Upgrade those pedestrian crossings without ADA-compliant pedestrian ramps, including installing truncated domes/tactile warning strips, checking that the slope and landing areas on sidewalks conforms to ADA code, and that they are the proper width. Strongly consider the use of durable materials, such as stainless steel.



Upgrade signing of existing unsignalized crossings of Broadway so that they are all consistent with MUTCD requirements.



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Preferred Alternative Safety & Transit Improvements

- To allow motorists more time for decision-making, replace existing substandard signing with signs with larger letters, improved reflectivity and illumination, where feasible. It is recommended that larger lettering be used and that the font be changed to the FHWA-approved “Clearview Hwy” font.
- Locate bus stops at the far side of key intersections on Broadway, install standardized bus stops with schedules and inviting shelters. Implement a frequent service along the corridor connecting the Rondout with the Stockade and Hannaford Plaza, perhaps by integrating City and County services. Upgrade the existing bus fleet to include real-time bus arrival and departure information (with app technology), bicycle racks, and alternative fuel technology.



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Preferred Alternative

Streetscape Improvements

Sidewalks & Street Lighting

To improve the streetscape, rehabilitate the sidewalks along the corridor with a combination of bluestone (where already installed) and brick-imprint paving.

Replace the existing light fixtures along the corridor with attractive, new, energy-efficient fixtures, consistent with recent improvements and which shed a warm glow on the sidewalks and buildings in the evenings when pedestrians and cyclists can enjoy the corridor after work.



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Preferred Alternative Streetscape Improvements Street Furniture

To improve the streetscape, install attractive street furniture including bicycle racks, trash/recycling receptacles, public art and benches that encourage pedestrians and cyclists to stop and patronize local businesses.



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Preferred Alternative Streetscape Improvements Street Trees

Plant street trees which will provide shade but not overwhelm the above or below ground infrastructure, or heave the sidewalks. Native species are preferred. Tree planters which manage storm water runoff should be incorporated, where possible. Best practices in urban tree propagation, such as CU-Structural Soil™ and other measures that will help ensure healthy growth of trees with reduced impact to the surface and surrounding infrastructure, should be used.



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Pedestrian Improvements

Curb Bump Outs

Construct sidewalk bump outs at crosswalks to shorten the distance pedestrians must walk to cross Broadway in locations that do not interfere with bike lanes, bus and commercial loading zones.



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Placemaking Improvements

Broadway and Henry Street

Reconfigure the intersection of Henry Street with Broadway to shorten the crosswalks and to reclaim the space occupied by the northbound right-turn lane, creating a small public open space.



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Placemaking Improvements Broadway and Pine Grove Avenue

Reconfigure the intersection of Pine Grove Avenue with Broadway to shorten the crosswalks and to reclaim space occupied by northbound Pine Grove Avenue as it approaches Broadway, creating a small public open space.



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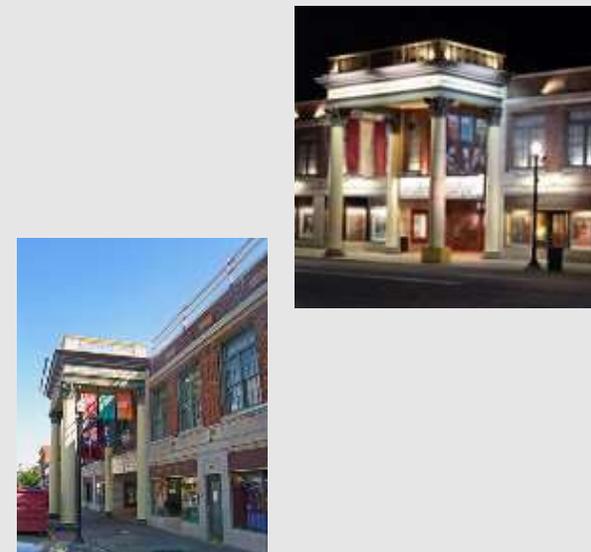
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Placemaking Improvements Broadway near UPAC

Provide a sidewalk plaza outside of the Ulster Performing Arts Center by extending the sidewalk to the edge of the eastbound travel lane, relocating a loading area to the west of the sidewalk plaza and providing a second crosswalk across Broadway at the east side of Field Court.



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Project Cost & Implementation

Plan Component	Estimated Cost ¹
Sharrows and Signs - Manor Place Parking Lot to Broadway	\$ 20,000
Separated Bike Lanes - Liberty Street to Cedar Street	\$ 157,000
Separated Bike Lanes - Cedar Street to Pine Grove Avenue	\$ 24,000
Separated Bike Lanes - Pine Grove Avenue to Chester Street	\$ 194,000
Separated Bike Lanes - Broadway to Jansen Avenue	\$ 100,000
Upgrade Existing Traffic Signals (7)	\$ 1,400,000
Modify Turning Radii at Key intersections (Hoffman, Andrew and Staples Streets)	\$ 60,000
Prohibit Right-turns on Red	\$ 8,000
Replace Substandard Street Signs	\$ 30,000
Bus Stop Infrastructure (Bus Fleet is considered a separate project cost)	\$ 200,000
Streetscape infrastructure, including new sidewalk pavement and furniture	\$ 1,500,000
Trees and Landscaping	\$ 100,000
New Light Fixtures	\$ 800,000
Loading Zones	\$ -
Sidewalk Bumpouts	\$ 150,000
Placemaking at Henry Street	\$ 50,000
Placemaking at UPAC	\$ 25,000
Placemaking at Pine Grove Avenue	\$ 50,000
Update curb ramps to ADA requirements	\$ 50,000
Upgrade existing midblock pedestrian crossings	\$ 20,000
Pedestrian Study at Franklin Street	\$ 20,000
Total	\$ 4,958,000

Implementation Order	Plan Component	Project Cost	Funding Source	Timeline
1	Pedestrian Study at Franklin Street	\$20,000	Received Grant Funding	Year 1
2	Determine ROW Acquisition Needs, if any	TBD	Outside Source	Year 1
3	Update curb ramps to ADA requirements	\$50,000	Received Grant Funding	Year 1
4	Modify Turning Radii at Key Intersections (Hoffman, Andrew and Staples Streets)	\$60,000	Received Grant Funding	Year 1
5	Sidewalk Bump Outs	\$150,000	Received Grant Funding	Year 1-2
6	Streetscape Infrastructure, including sidewalk pavement and furniture	\$1,500,000	Received Grant Funding	Year 1 -2
7	Bus Stop Infrastructure	\$200,000	Received Grant Funding	Year 1-2
8	Separated Bike Lanes – Liberty Street to Cedar Street Separated Bike Lanes – Cedar Street to Pine Grove Avenue Separated Bike Lanes – Pine Grove Avenue to Chester Street Separated Bike Lanes – Broadway to Jansen Avenue	\$157,000 \$24,000 \$194,000 \$100,000	Received Grant Funding	Year 1 -3
9	New Light Fixtures	\$800,000	Received Grant Funding	Year 1 -3
10	Sharrows and Signs – Manor Place Parking Lot to Broadway	\$20,000	Outside Source	Year 1-2
11	Trees and Landscaping	\$100,000	Received Grant Funding	Year 1-2
12	Placemaking at Henry Street Placemaking at UPAC Placemaking at Pine Grove Avenue	\$50,000 \$25,000 \$50,000	Received Grant Funding	Year 3
13	Loading Zones	-	N/A	Year 3
14	Replace Substandard Street Signs	\$30,000	Received Grant Funding	Year 3
15	Upgrade Existing Traffic Signals	\$1,400,000	Received Grant Funding	Year 3
16	Prohibit Right-turns on Red	\$8,000	Received Grant Funding	Year 3
17	Bus Fleet	TBD	TBD	Year 3-5

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Building a Better Broadway

Broadway looking west from Greenkill Avenue Bridge



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Building a Better Broadway

Broadway looking west from Greenkill Avenue Bridge



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Building a Better Broadway Next Steps

- Provide written comments to the Transportation Council or the City by August 20th
- Refine the Draft Plan to incorporate substantive comments, where applicable
- Submit the Final Plan to the City for review and approval
- Incorporate Plan recommendations into ongoing and pending Broadway projects

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Building a Better Broadway Contact Information

Additional information on the project is available at:

- <http://kingston-ny.gov/Broadway-Corridor>
- <http://ulstercountyny.gov/planning/broadway-corridor>

For more information contact:

- **Office of Economic Development (845) 334-3960**
- **Ulster County Transportation Council (845) 340-3340**



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Building a Better Broadway



Questions?



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