

# North Avenue Corridor Study

City Council

October 6, 2014



**PARSONS  
BRINCKERHOFF**

# Presentation Outline

- **Project Initiation & Process**
- **Corridor Conditions & Issues**
- **Vision & Goals**
- **Concept Development** - *Development/Evaluation*
- **Implementation Plan** - *Recommended Concepts*
- **City Council Action**

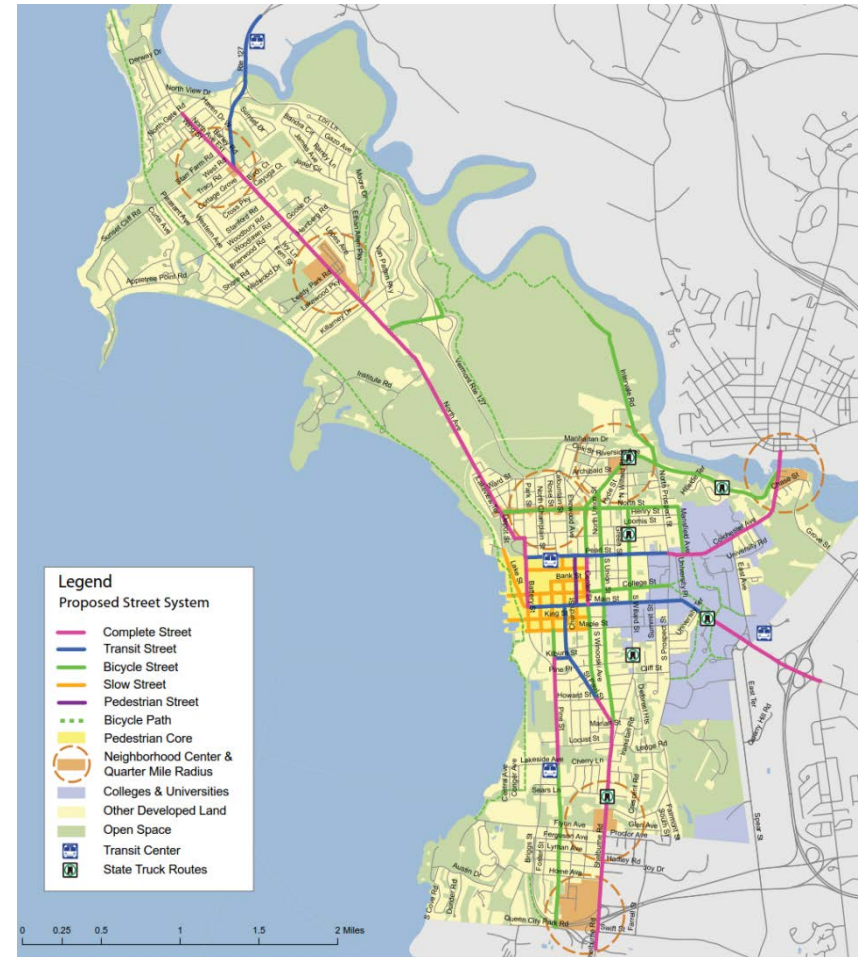
# Corridor Study Origin

## 2011 Transportation Plan

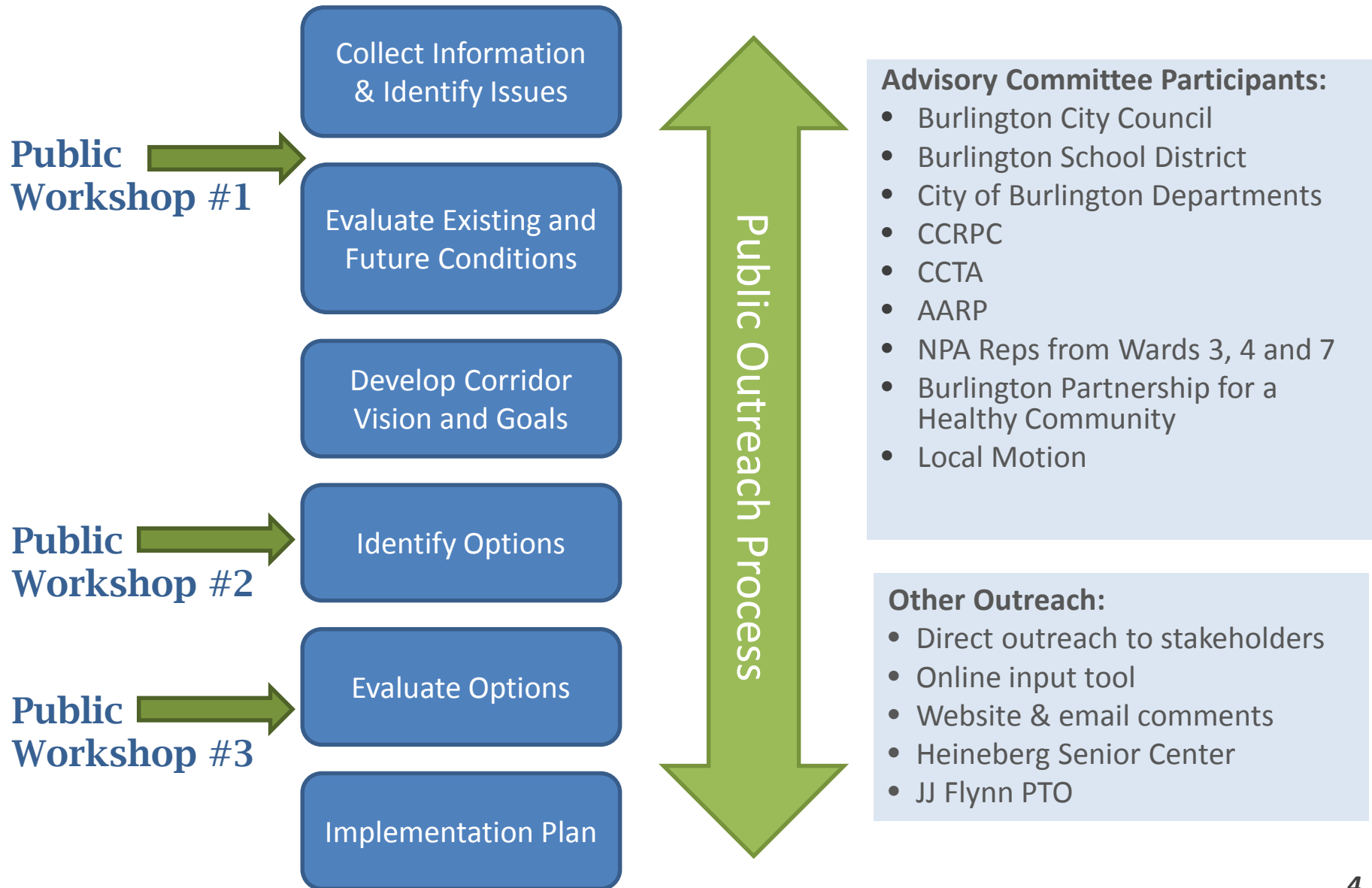
*“...A shift to a complete streets strategy...*

*Burlington’s gateway streets must carry all travel modes – cars and trucks, buses, bikes, and pedestrians - because no alternatives exist...*

*The only essential element of a complete street is accommodating all travel modes safely and efficiently.”*



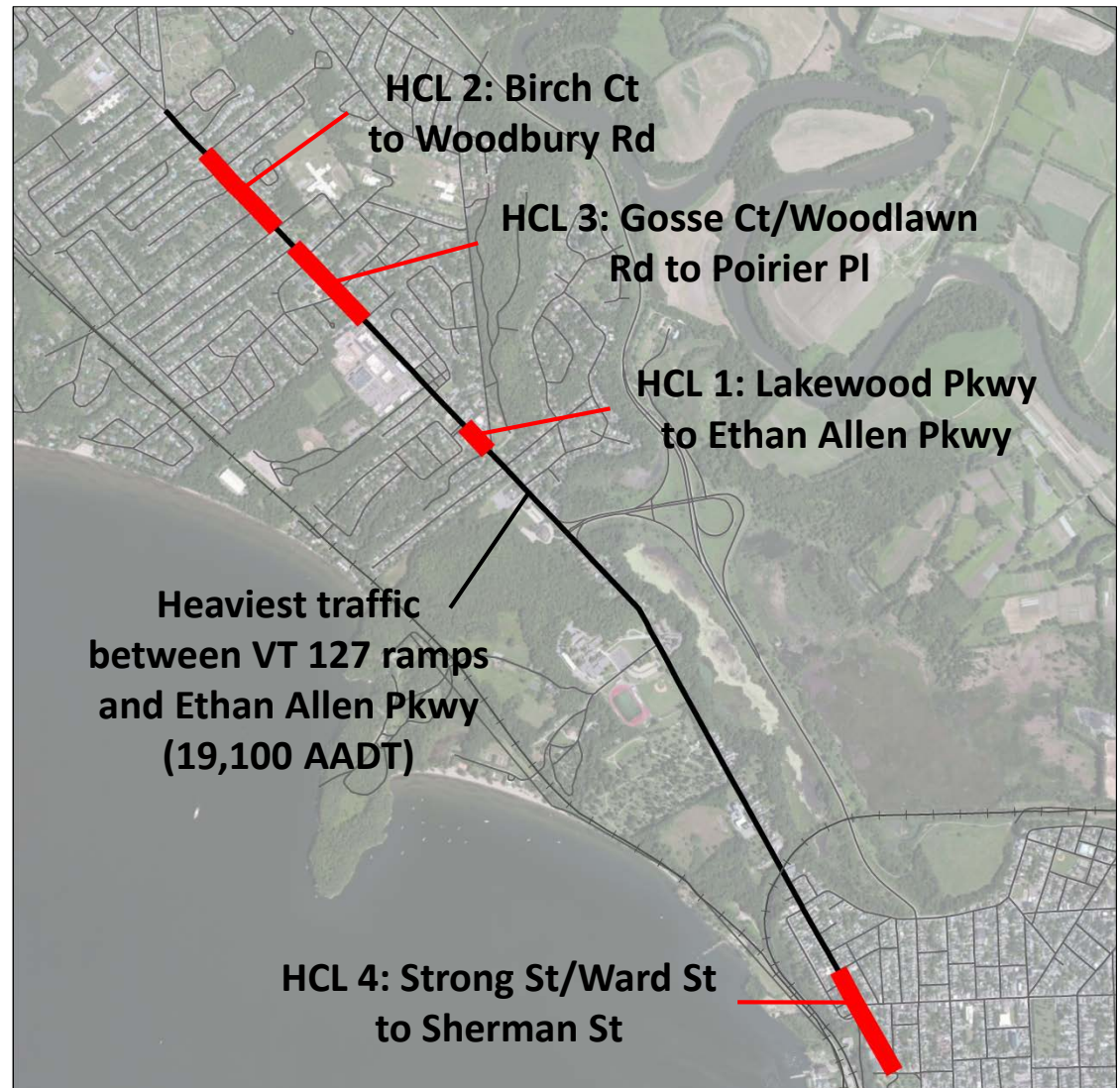
# Corridor Study Process & Chapters



# Existing Conditions

## Characteristics:

- 66' ROW, but constrained
- Sidewalks throughout, but poor condition and few crossings
- Inconsistent bike facilities, limited connections to paths
- Single family + multi-family + scattered retail + institutions
- Frequent driveways
- CCTA Route 7
- Unclear parking locations / regulations
- Skewed intersections, high-speed right turns
- Forecasted traffic growth of 5% - 15%, heaviest growth near Burlington College



# Vision & Goals



# Vision Statement for North Avenue

- North Avenue will continue to serve as the **primary transportation corridor** connecting Burlington's New North End with the rest of the City.
- As the North End's "Main Street," North Avenue will provide for **safe, inviting, and convenient travel for all users of all ages and abilities**—including motorists, pedestrians, bicyclists, and public transportation riders.
- The **need to move people through the corridor will be balanced with the need to provide access to homes, businesses, and local institutions.**
- The corridor will develop into an **attractive public space** through creative streetscape, signage, and other site design features.
- The corridor will become **more livable and desirable by promoting social interaction, public health, economic development and environmentally sustainable initiatives.**

# Major Goals for North Avenue

- Remake the North Ave corridor into a **Complete Street** that accommodates the safe and efficient travel for all users of all abilities and provides transportation choices.
- **Improve safety for all users.**
- Provide a range of convenient and efficient travel options and **improve multimodal connections.**
- Develop strategies that **support vibrant and livable neighborhoods** in the New North End; **enhance the quality of life** of residents and visitors; and **support sustainable economic growth.**



# Concept Development and Implementation Plan

# Initial Universe of Improvement Options

- **Intersection treatments:**

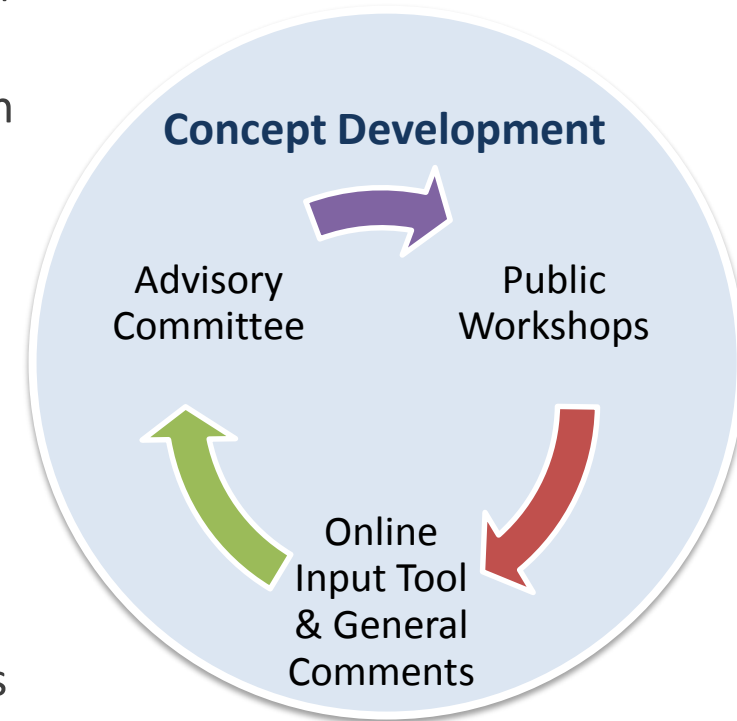
- Signal improvements, re-alignment, high speed turn elimination, and/or roundabouts
- Improved pedestrian and bicycle travel through intersections

- **Travel lane, parking and bicycle-related treatments:**

- Lane width reductions, travel lane reduction, turn lane creation, and/or lanes for bicycle travel
- On-street parking on one side, both sides, and/or removed
- Designated bike facilities: sharrows / bike lanes (regular, buffered, or protected)

- **Pedestrian facilities:**

- Crosswalks, pedestrian signal improvements, and/or gateway treatments



# Evaluating Concepts

- Addresses **study goals**?
  - Improves safety for all users
  - Balances transportation choices
  - Improves multimodal connectivity
  - Supports vibrant and livable community
  - Supports sustainable economic growth
- Other **design criteria**:
  - Provides consistent facilities throughout corridor
- Health Impact Assessment
  - What are the potential health impacts of proposed changes?
  - Which proposals have the most potential to improve the health of vulnerable populations?

# Recommended Implementation Timelines

- **Short term:**  
Minimal design; completion within 1-3 years; improvements to advance with additional public process
- **Medium term:**  
Design needed; completion within 3-7 years; public involvement included in design process
- **Long term:**  
Evaluation, scoping and design needed; completion is more than 7 years; public involvement included in design process

# Short-Term Concepts

- **All signalized intersections:**
  - ADA-compliant curb ramps and crosswalks on all approaches;
  - Audible pedestrian countdown timers with a minimum 5-second (push-button) Leading Pedestrian Interval (LPI); and
  - Bicycle facilities maintained through intersections (where provided in advance of intersections).

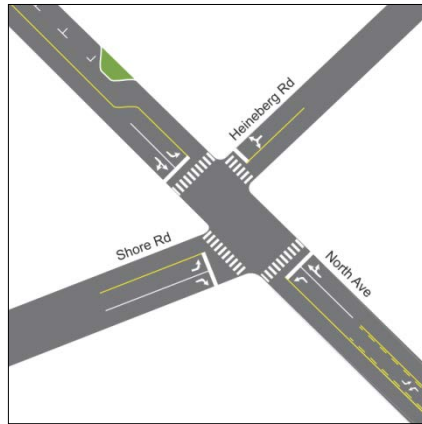
# Short-Term Concepts

- **New pedestrian crossings:**
  - Green Acres / Cayuga Court
  - Gosse Court
  - Killarney Drive / Village Green Drive
  - Burlington College
  - Ward Street
- **Transit:**
  - Up to three additional shelters at high ridership stops (pending funding)
  - Larger shelters at Burlington High School

# Short-Term Intersection Concepts

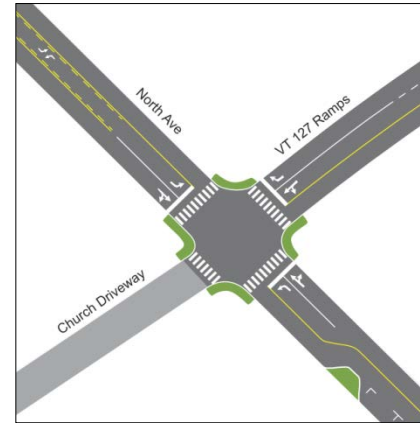
## Shore Road:

- Increase pedestrian crossing times
- Pedestrian-activated no right turn on red
- Split phasing



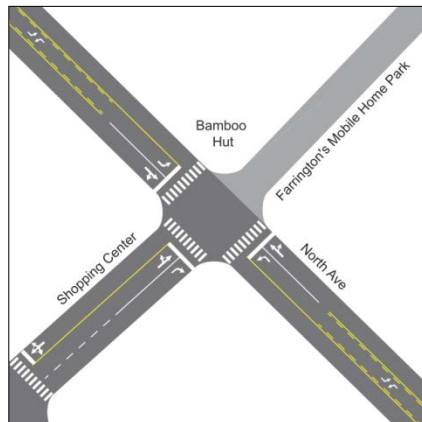
## VT 127 Ramps:

- Optimize signal timing
- Remove high-speed NB ramp, WB free-flow right turn
- Remove gantry over North Ave
- Gateway treatments



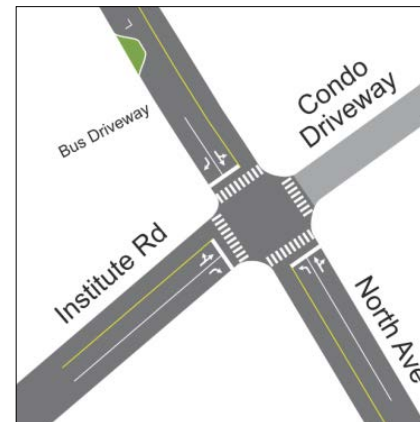
## Ethan Allen Shopping Center:

- Increase pedestrian crossing times
- Pedestrian-activated no right turn on red



## Institute Road:

- Reduce intersection footprint w/ paint
- Relocate NB bus stop
- Realign SB sidewalk
- Pedestrian-activated no right turn on red
- Fix signal detection





# **VT 127 Traffic Simulations**

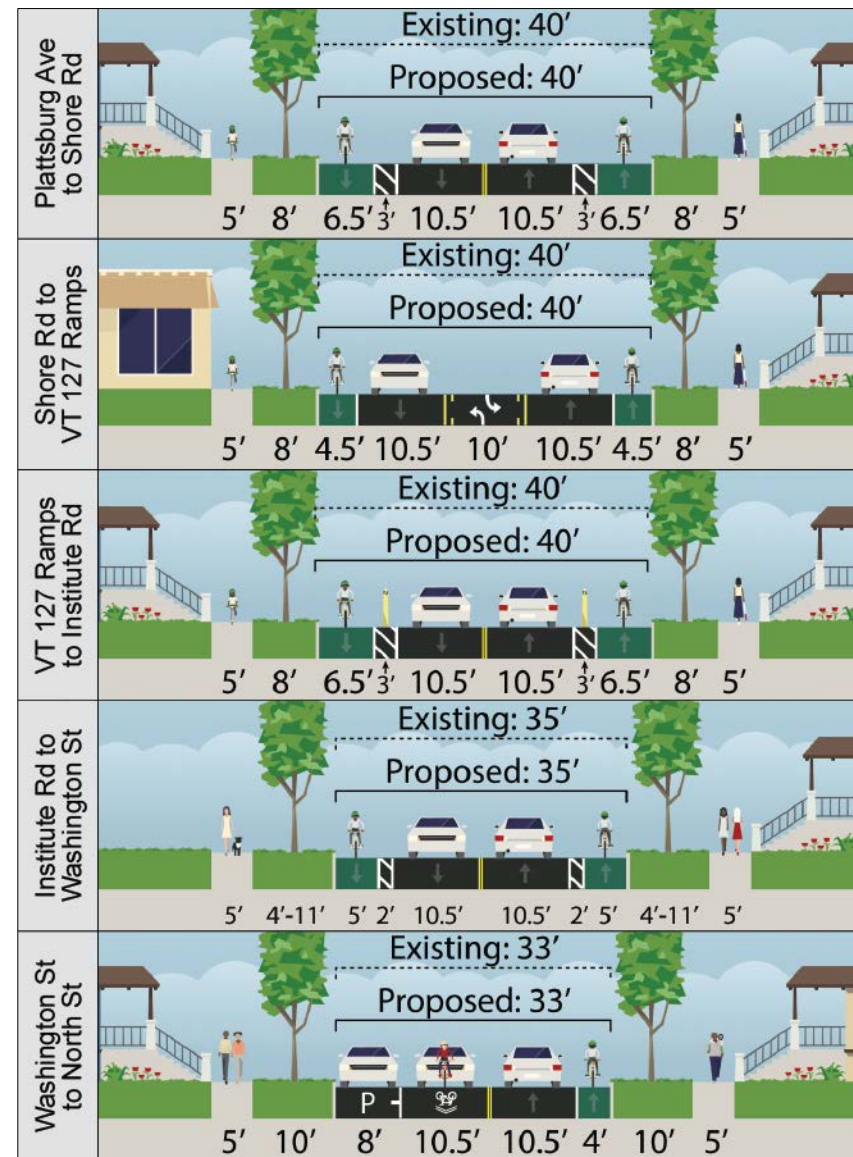
## **2035 AM/PM**

### **3 lanes**

# Short-Term Cross-Section Concept

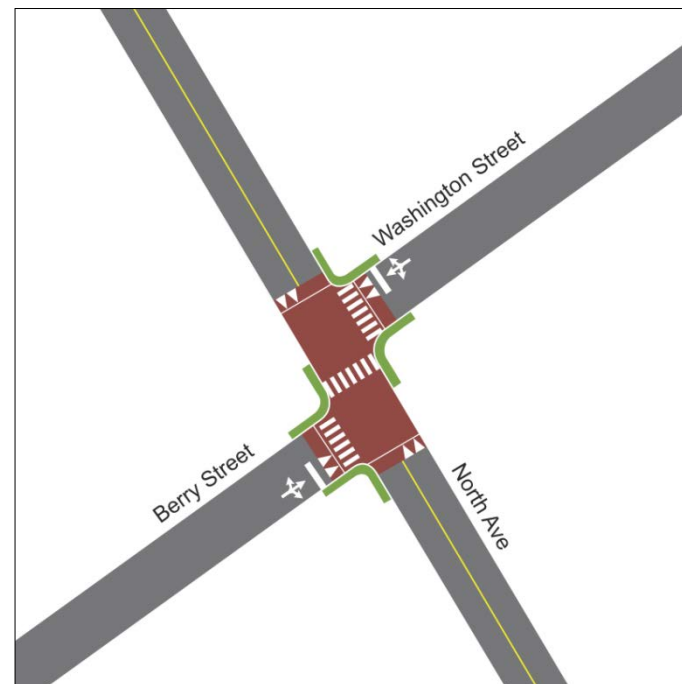
## Pilot project to include:

- **No parking** north of Institute Road
- **Buffered bike lanes** between Plattsburg Avenue and Shore Road
- **3-lane cross section** with bike lanes between Shore Road and VT 127 ramps
- **Protected bike lanes** between VT 127 ramps and Institute Road
- **Buffered bike lanes** between Institute Road and Washington Street
- **Bike friendly drain grates** (as needed)



# Medium-Term Concepts

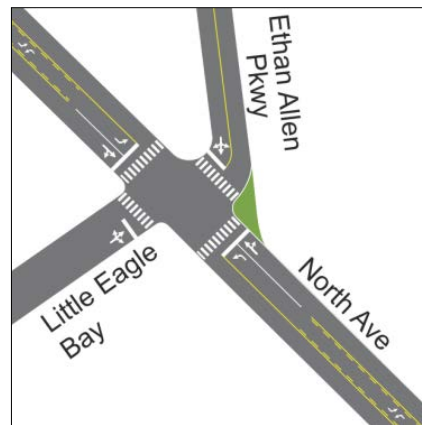
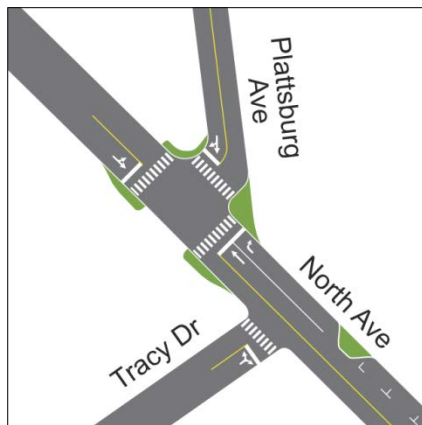
- **Washington Street:**
  - Raised intersection
  - Pedestrian-actuated rapid flash beacon
  - Gateway treatments
- **Potential pedestrian crossings:**
  - Loaldo Drive/Fairmont Place
  - Poirier Place
  - Lakewood Parkway
  - Saratoga Avenue
- **Transit:**
  - 15-minute headways on weekday peaks
  - Increased weekend service



# Medium-Term Intersection Concepts

## Plattsburg Avenue:

- Slow high-speed NB right turns & relocate signals
- Resolve Tracy Dr turns/access to market
- Exclusive pedestrian phase at south crosswalk
- Gateway treatments

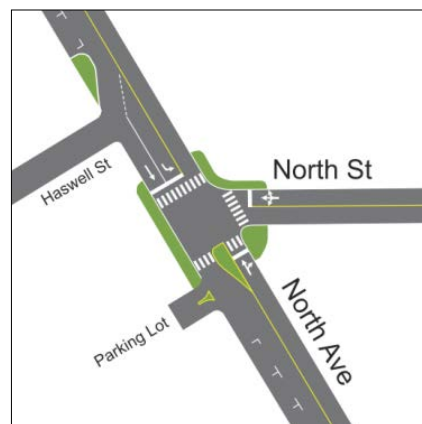
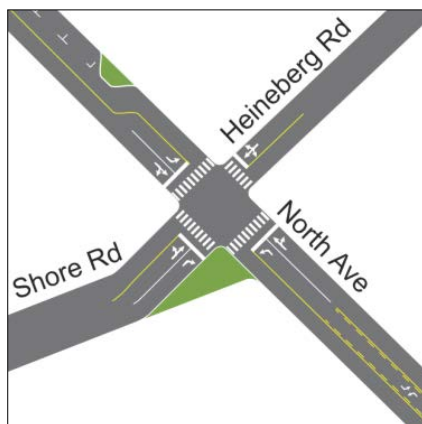


## Ethan Allen Pkwy:

- Scoping Study
  - Relocate park entrance
  - Add Little Eagle Bay into the signal
  - Slow high-speed NB right turn

## Shore Road:

- Realign Shore Road (if ROW is donated or easily acquired)
- Keep longer crossing times and pedestrian-activated no right on red



## North Street:

- Parking lot right in/right out or curb cut removal
- Realign north and south crosswalks
- Protected/permitted SB left turns
- Pedestrian-activated no right turn on red
- Gateway treatments

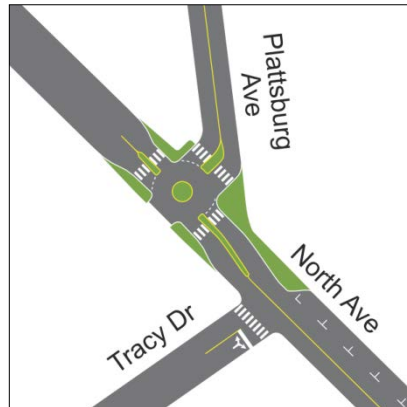
# Long-Term Concepts

- Potential pedestrian crossings:
  - Staniford Road
  - Mid-block between VT 127 ramps and Institute Road near NB/SB bus stop pair
  - Convent Square
  - Canfield Street
- Redesign the corridor for 25 mph and improve connections to parks and paths

# Long-Term Intersection Concepts

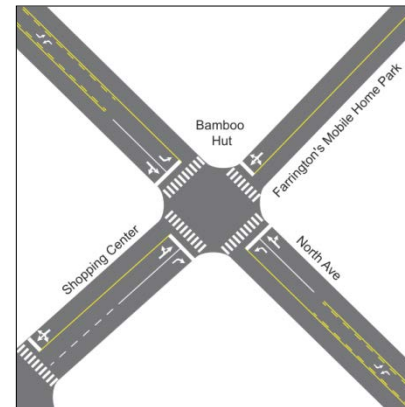
## Plattsburg Avenue:

- Scoping for single-lane mini-roundabout or other alternatives



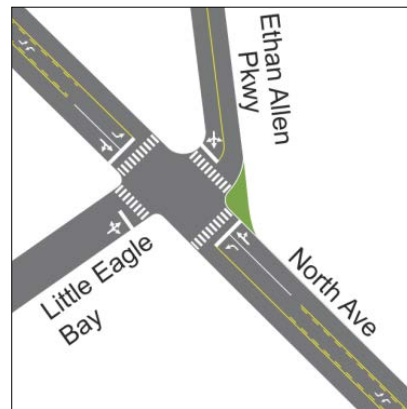
## Ethan Allen Shopping Center:

- Reconstruct curb and sidewalk at Farrington's Mobile Home Park and Bamboo Hut



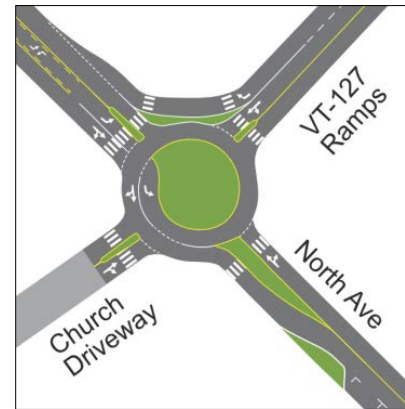
## Ethan Allen Pkwy:

- Implement scoping study (signal or single-lane roundabout)



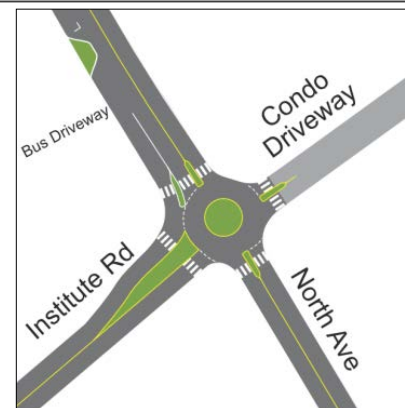
## VT 127 Ramps:

- Scoping study for roundabout or other alternatives



## Institute Road:

- Scoping study for roundabout or other alternatives
- Resolve bus driveway

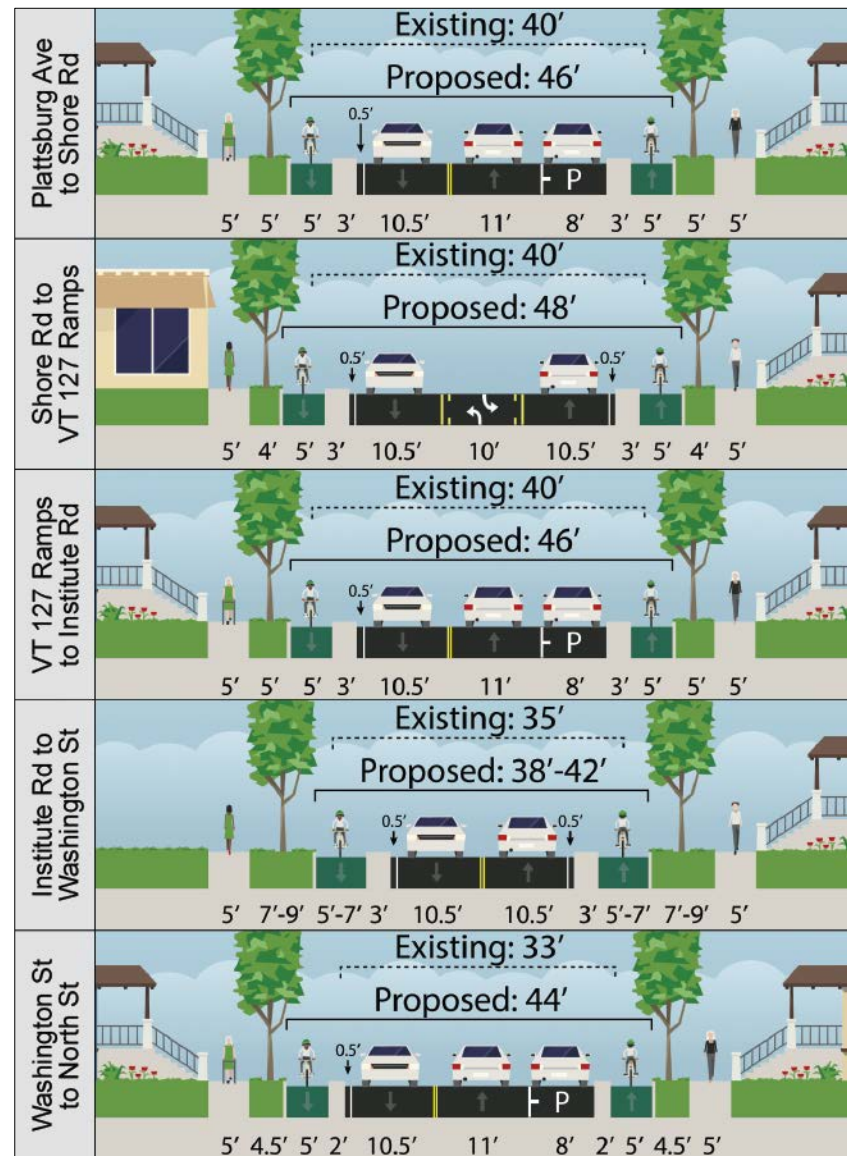




# Long-Term Cross-Section Concept

Long-term concept to include:

- **On-street one-way protected bike lanes** along the entire corridor
- **Parking on one side of street** in certain segments (pending evaluation of no parking trial)
- Maintains **3-lane cross section** between Shore Road and VT 127 ramps





# Planning-Level Cost Estimates

Timeframe	Concept	Estimated Cost
Short Term	Total short-term improvements	\$207,000 - \$292,000
	New pedestrian crossings (basic to enhanced)	\$25,000 - \$110,000
	Intersection (minor reconstruction)	\$70,000
	Cross section: 4- to 3-lane pilot planning & implementation	\$52,000
	Cross section concept (buffered/protected bike lanes)	\$60,000
Medium Term	New pedestrian crossings (basic to enhanced)	\$45,000 - \$180,000
	Intersections	TBD (scoping study)
Long Term	Cross section concept (on-street one-way protected bike lanes)	\$7,479,000

# City Council Action

1. Convene a ***North Avenue Task Force*** to foster a collaborative implementation process between city departments and residents
2. Direct DPW to regularly inform the TEUC and Council of the task force progress
3. Direct the DPW to implement the recommendations within the North Avenue Corridor Study

# Resources

- Project website: <http://www.bit.ly/north-ave>
  - [Vision and Goals](#) – Full text
  - [Existing and Future Conditions Report](#)
  - [Draft Implementation Plan](#)
  - [Public meeting](#) agendas, meeting notes, and presentations
  - [Advisory Committee](#) agendas, meeting notes, and presentations
- ***North Avenue Corridor Plan: Posted October 3<sup>rd</sup>***

***Thank You!***