

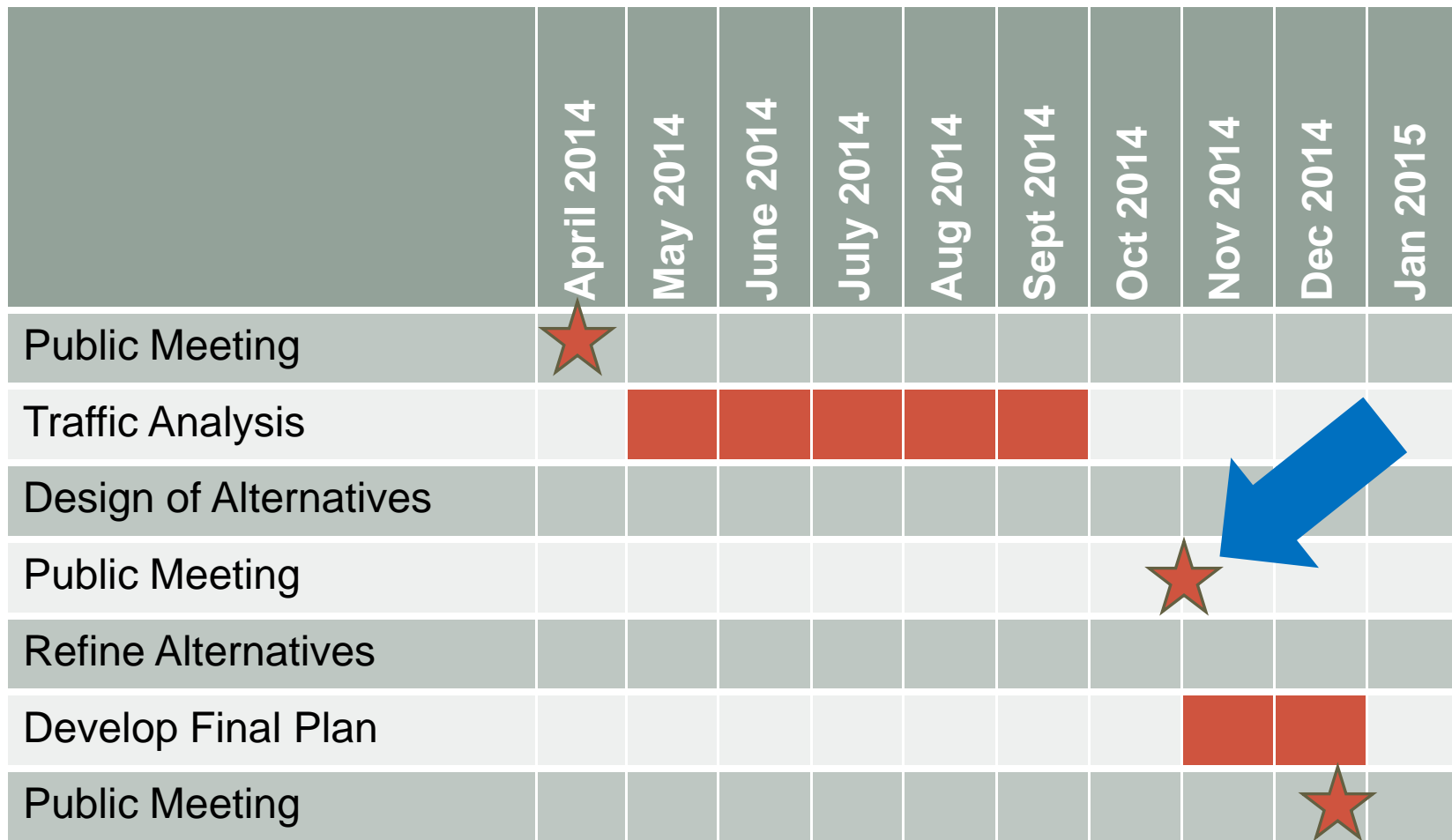
US 302 BICYCLE PEDESTRIAN SCOPING STUDY

Alternatives Presentation

Project Team

- Bob Wernecke, Berlin Development Review Board
- Dana Hadley, Berlin Town Administrator
- Steve Gladczuk, Transportation Planner, CVRPC
- Jon Kaplan, P.E., Bicycle-Pedestrian Manager, VTrans
- Lucy Gibson, P.E. DuBois & King, Project Consultants

Where we are in the process

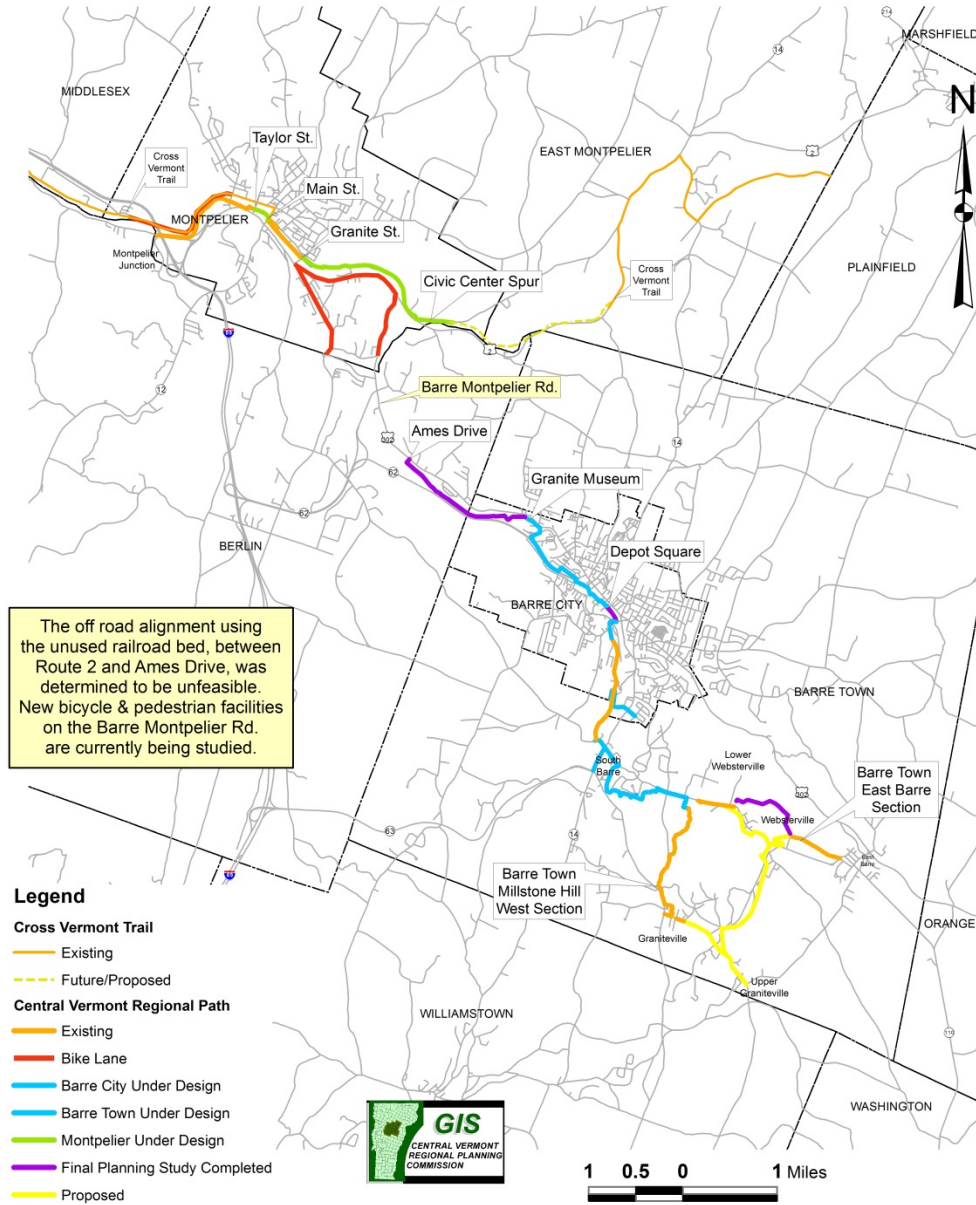


Tonight's Meeting

- Discuss two related but separate projects:
 - US 302 Bicycle and Pedestrian Scoping Study
 - VTrans Paving project for US 302, planned for 2015
- Coordination between Town and VTrans throughout this study

Existing Conditions

Central Vermont Regional Path Status - 12/14





Project Area



Purpose and Need

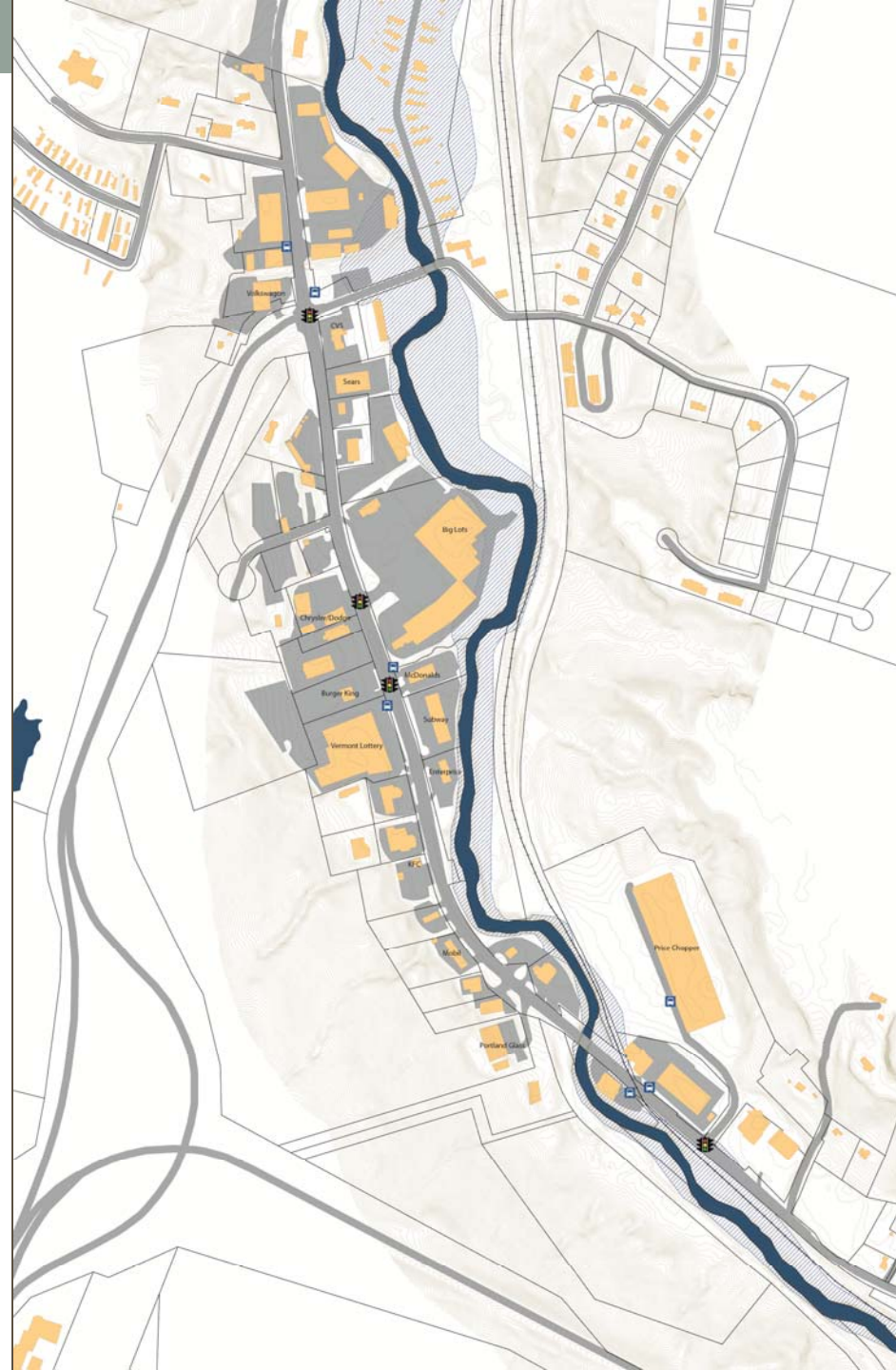
- **Purpose:** provide for safe bicycle and pedestrian travel along the US 302 corridor.
- **Need:** currently there is no bicycle or pedestrian infrastructure on a corridor with numerous businesses and services.

Additional Project Goals

- Prepare a plan that can be implemented over time as future developments and projects are completed, including:
 - VTrans Resurfacing Project in 2015
 - Land Development Projects on US 302
- Provide continuity with the Central Vermont Bike Path

Existing Conditions

- One Crosswalk
- 150+ /- feet Sidewalk
- No bicycle paths or lanes
- Four Traffic Signals
- Six Transit Stops
- VAST Trail Connection
- Railroad Crossing
- Floodway
- Residential Neighborhoods
- Commercial Development
- Right-of-way Varies



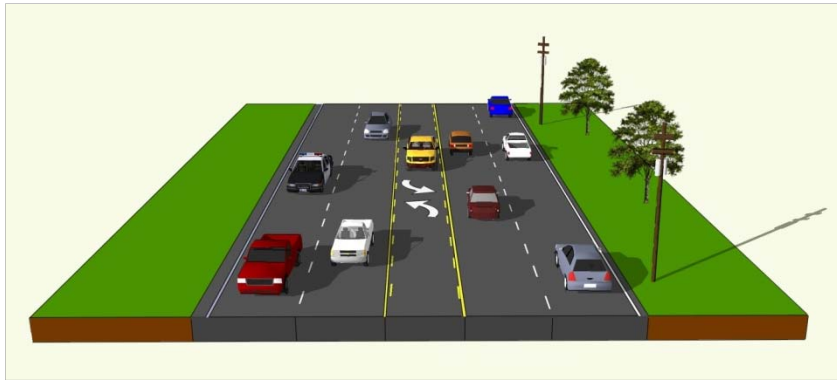


Existing Cross

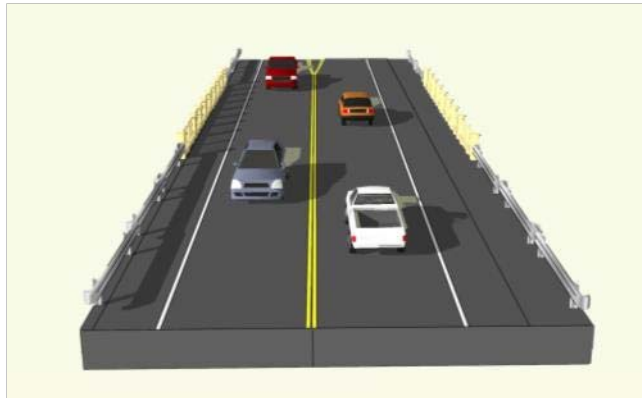
Sections



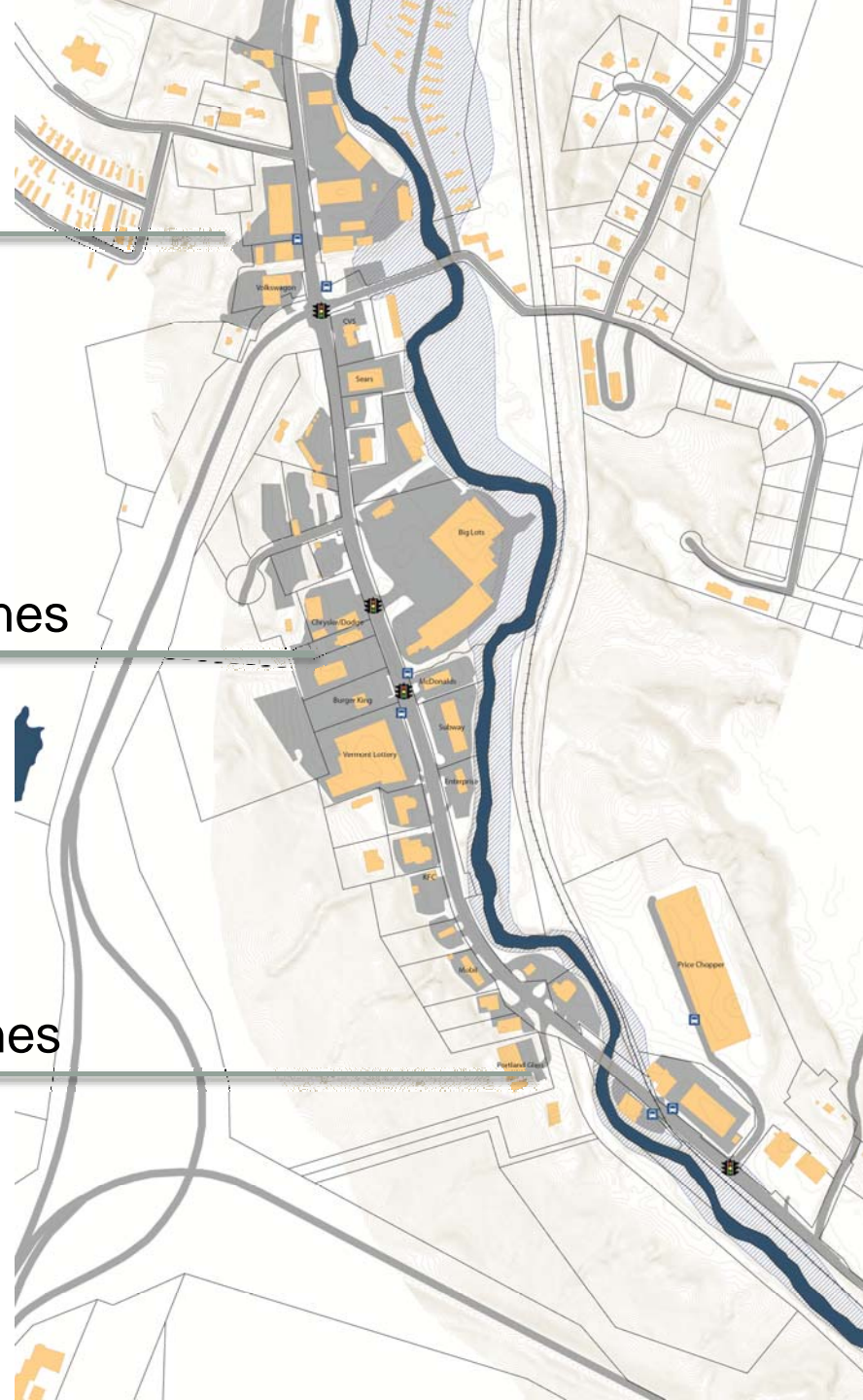
3 lanes



5 lanes



2 lanes



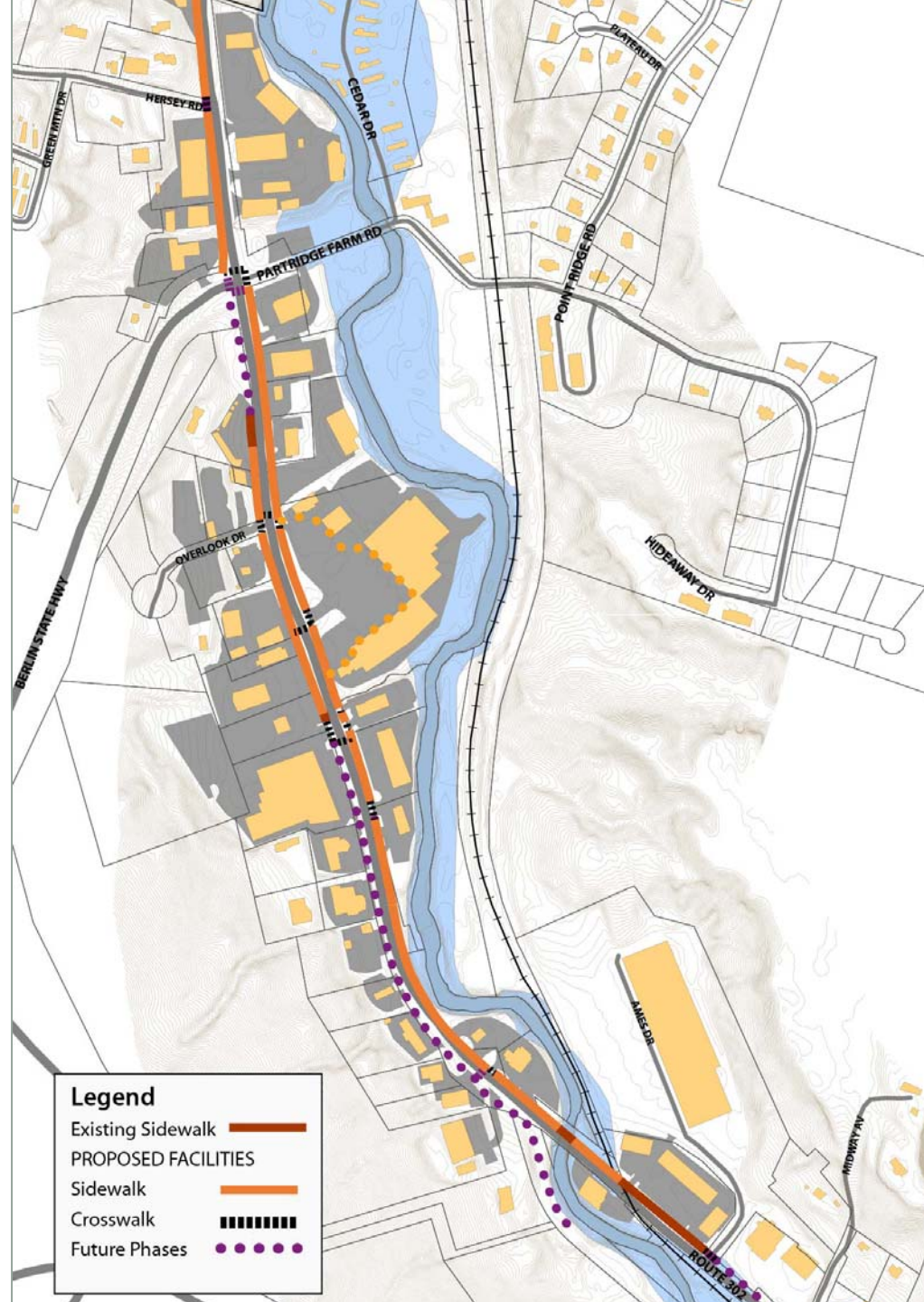
PROJECT ALTERNATIVES

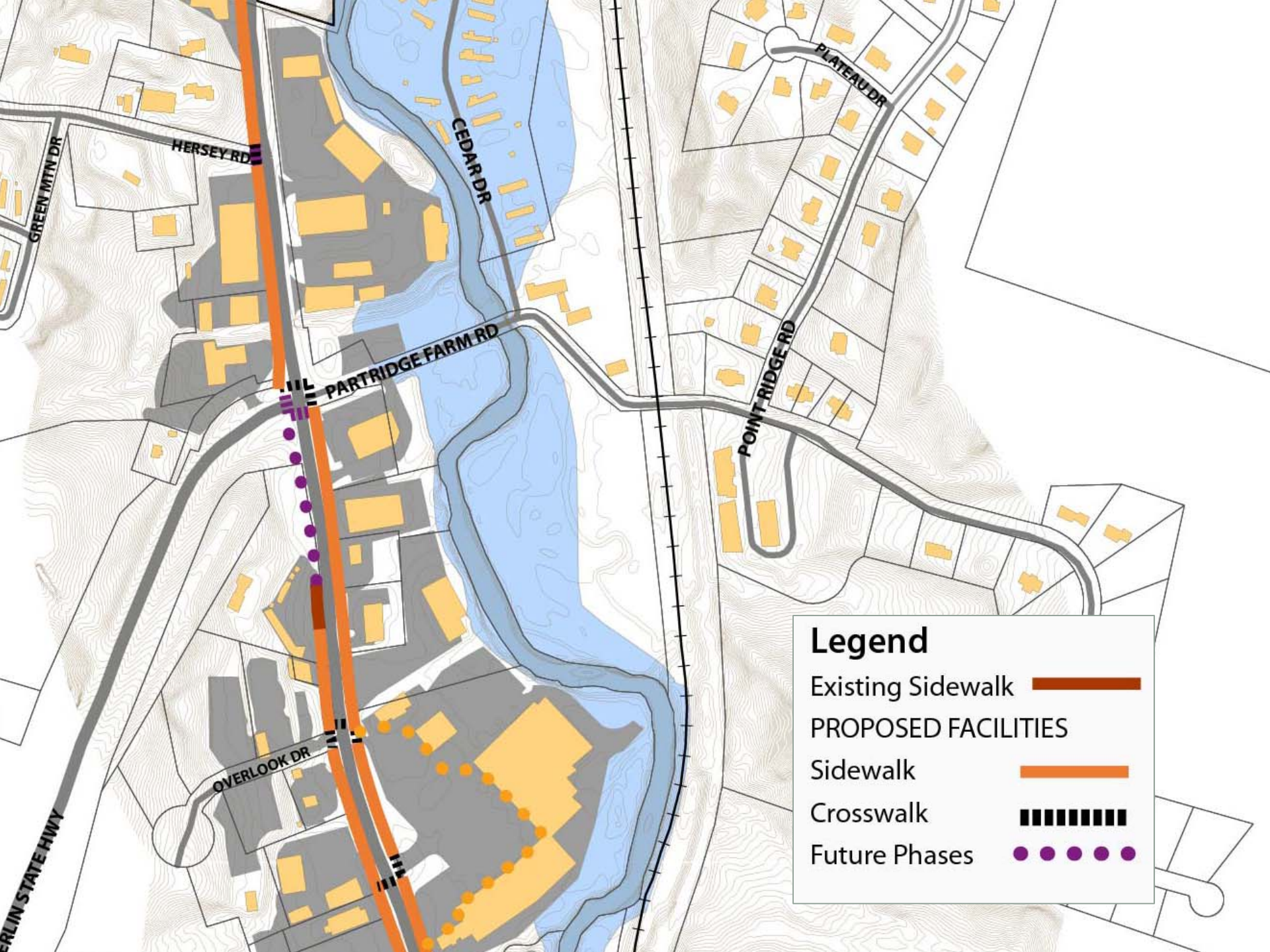
Alternative A: Buffered Bicycle Lanes

Alternative B: Shared Use Path

Alternative A

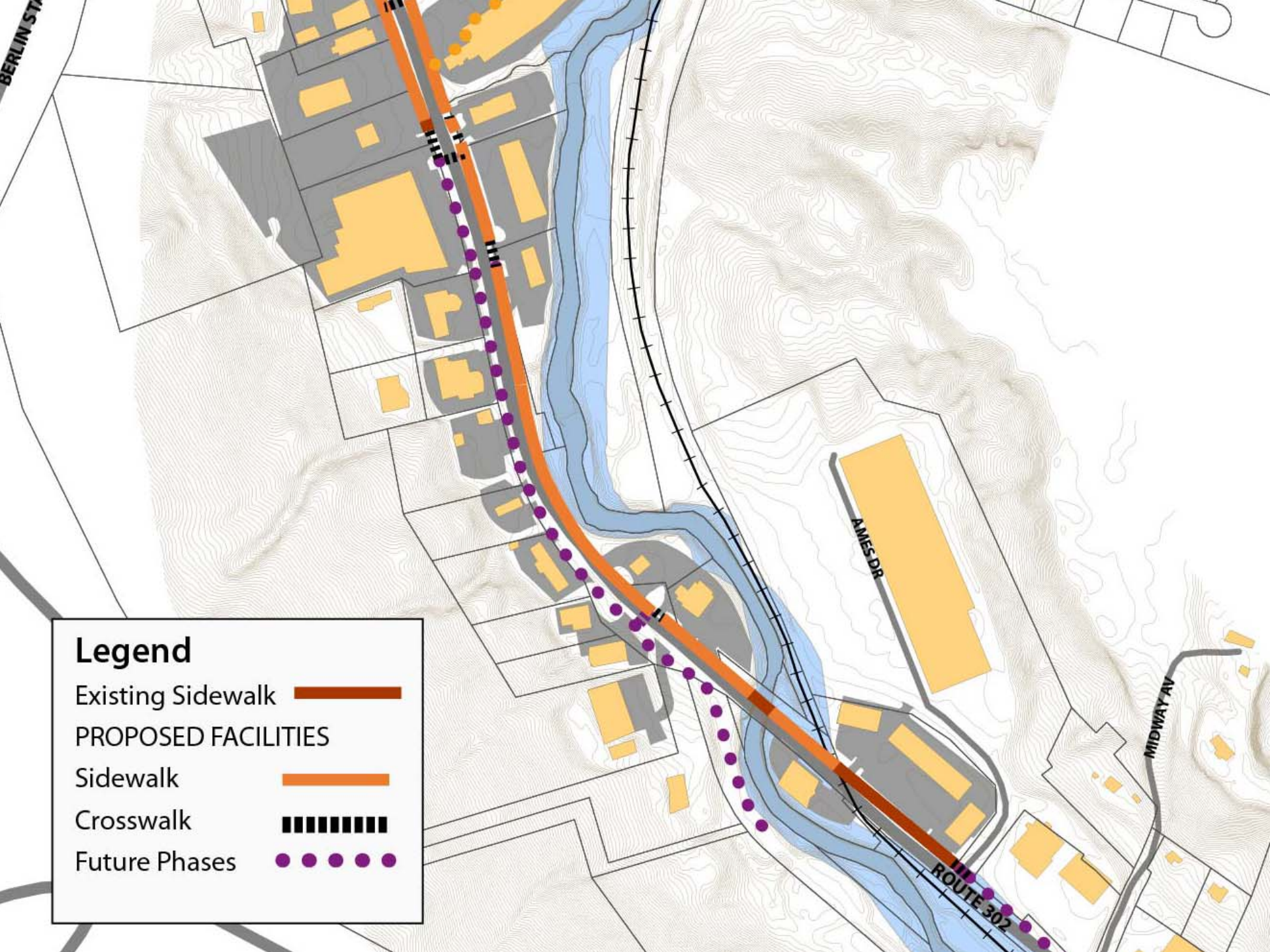
- Road diet on US302
- Bicycle lanes on US 302 throughout project area
- 5,600 feet of sidewalk
- New Crosswalks at
 - Berlin State Highway
 - Overlook
 - Vermont Shopping Center





Legend

- Existing Sidewalk 
- PROPOSED FACILITIES
- Sidewalk 
- Crosswalk 
- Future Phases 



Legend

Existing Sidewalk 

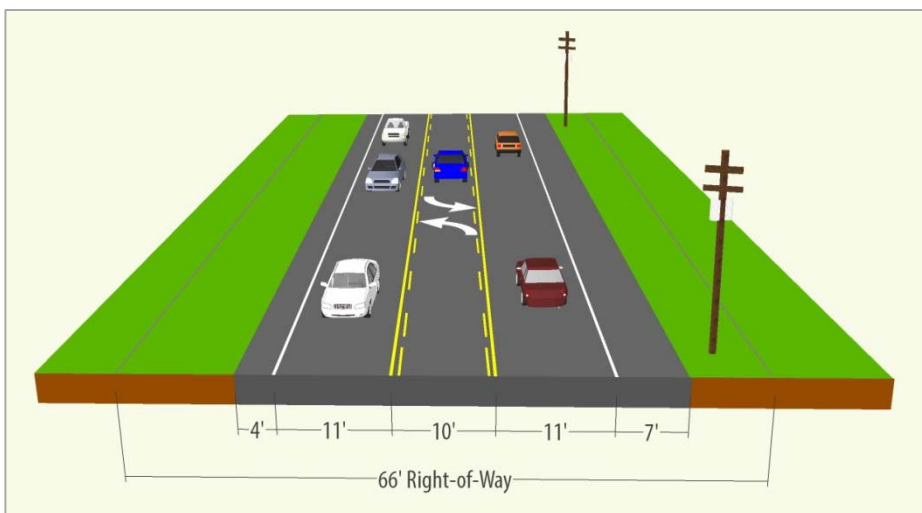
PROPOSED FACILITIES

Sidewalk 

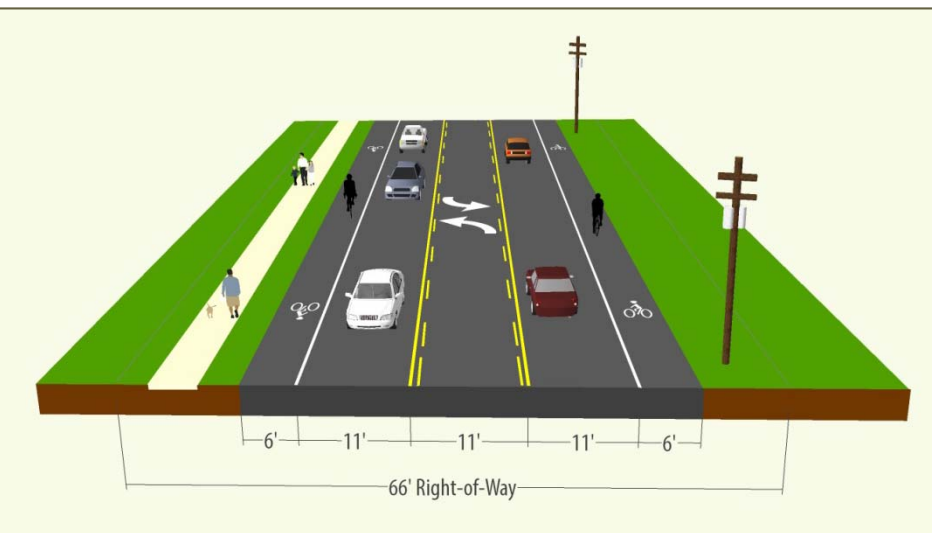
Crosswalk 

Future Phases 

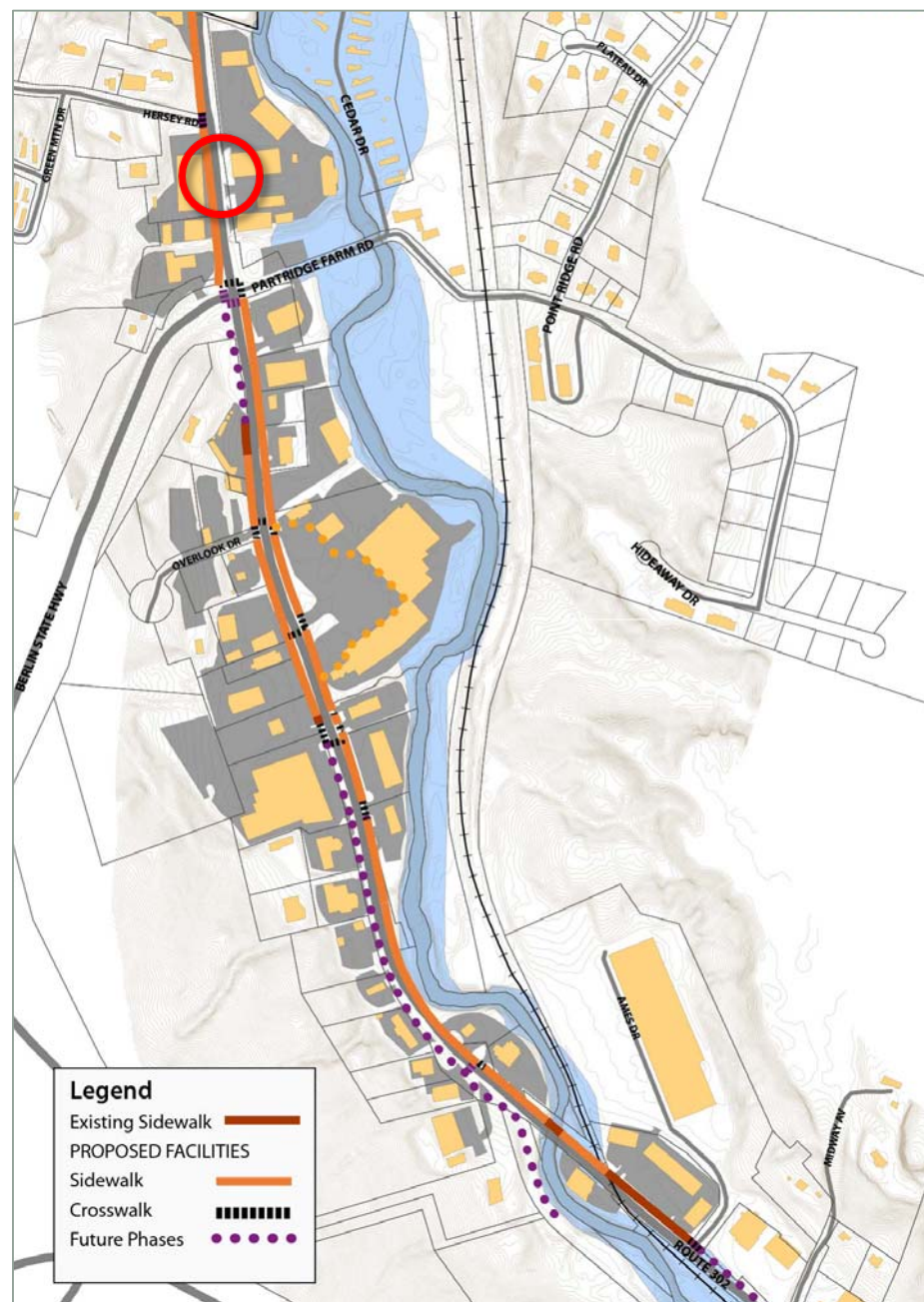
Alternative A - Cross Sections



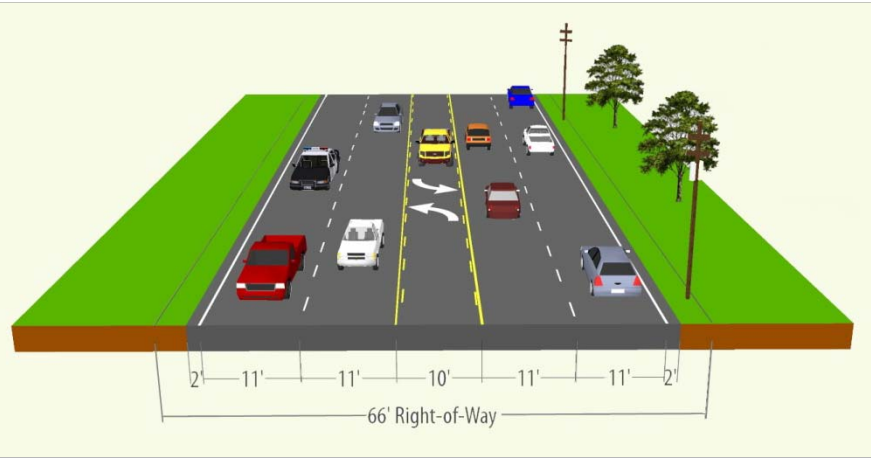
Existing



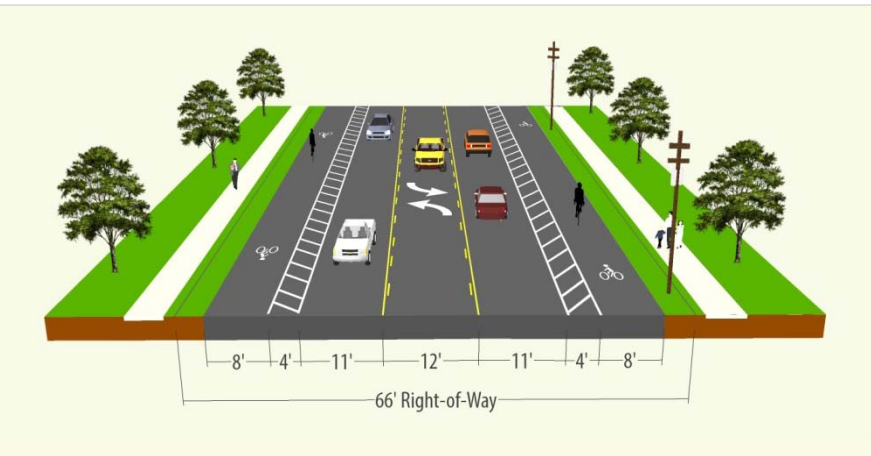
Proposed



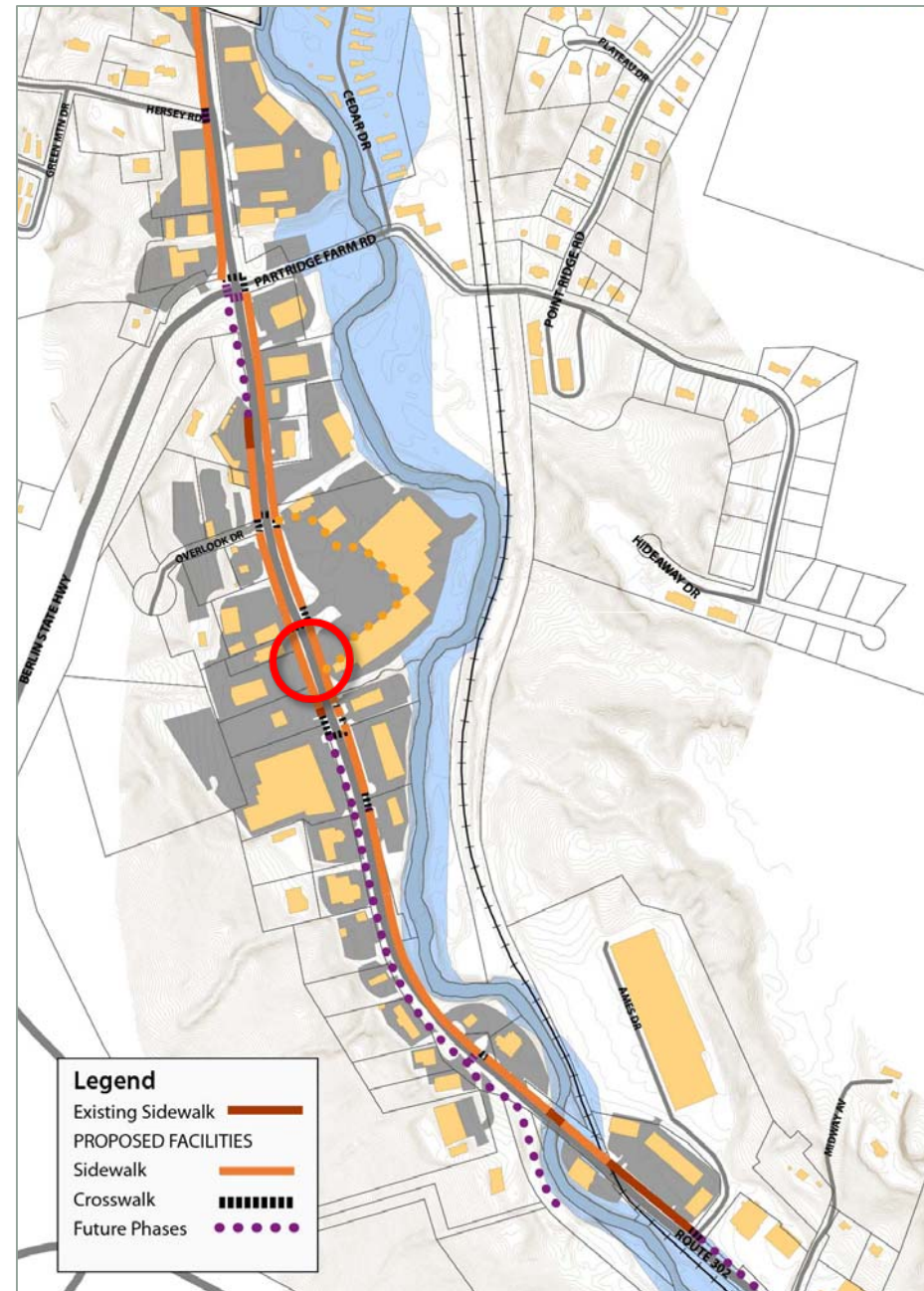
Alternative A - Cross Sections



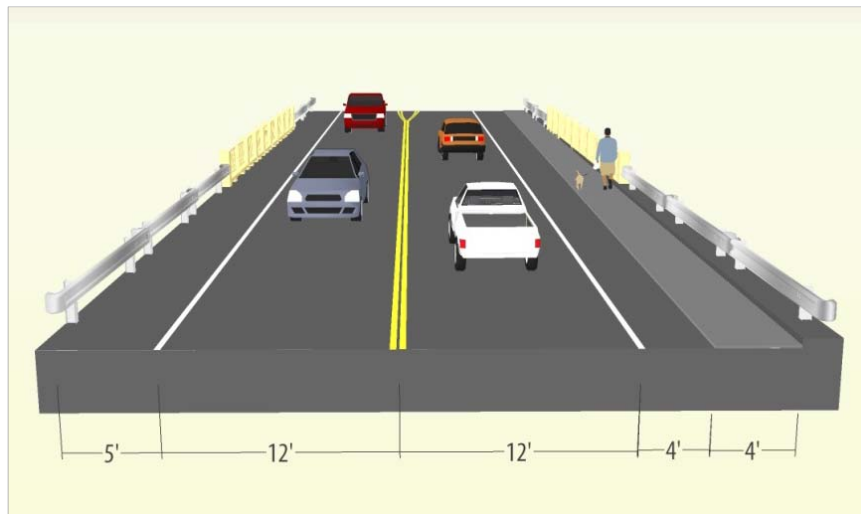
Existing



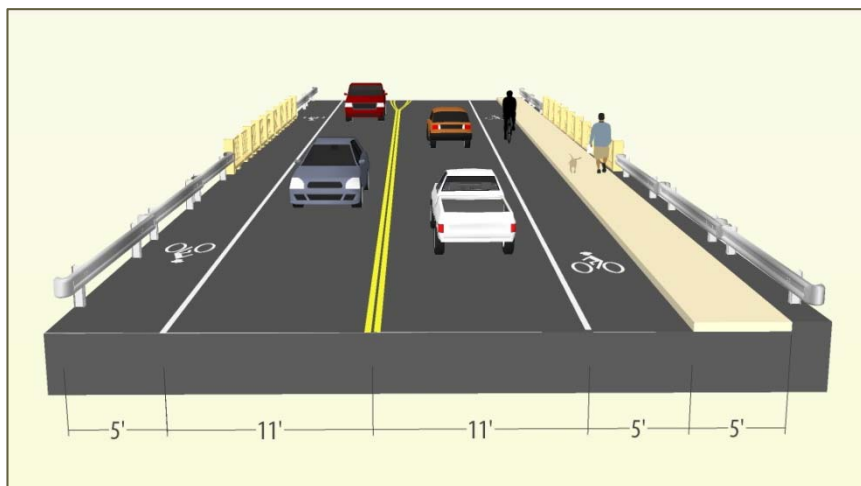
Proposed



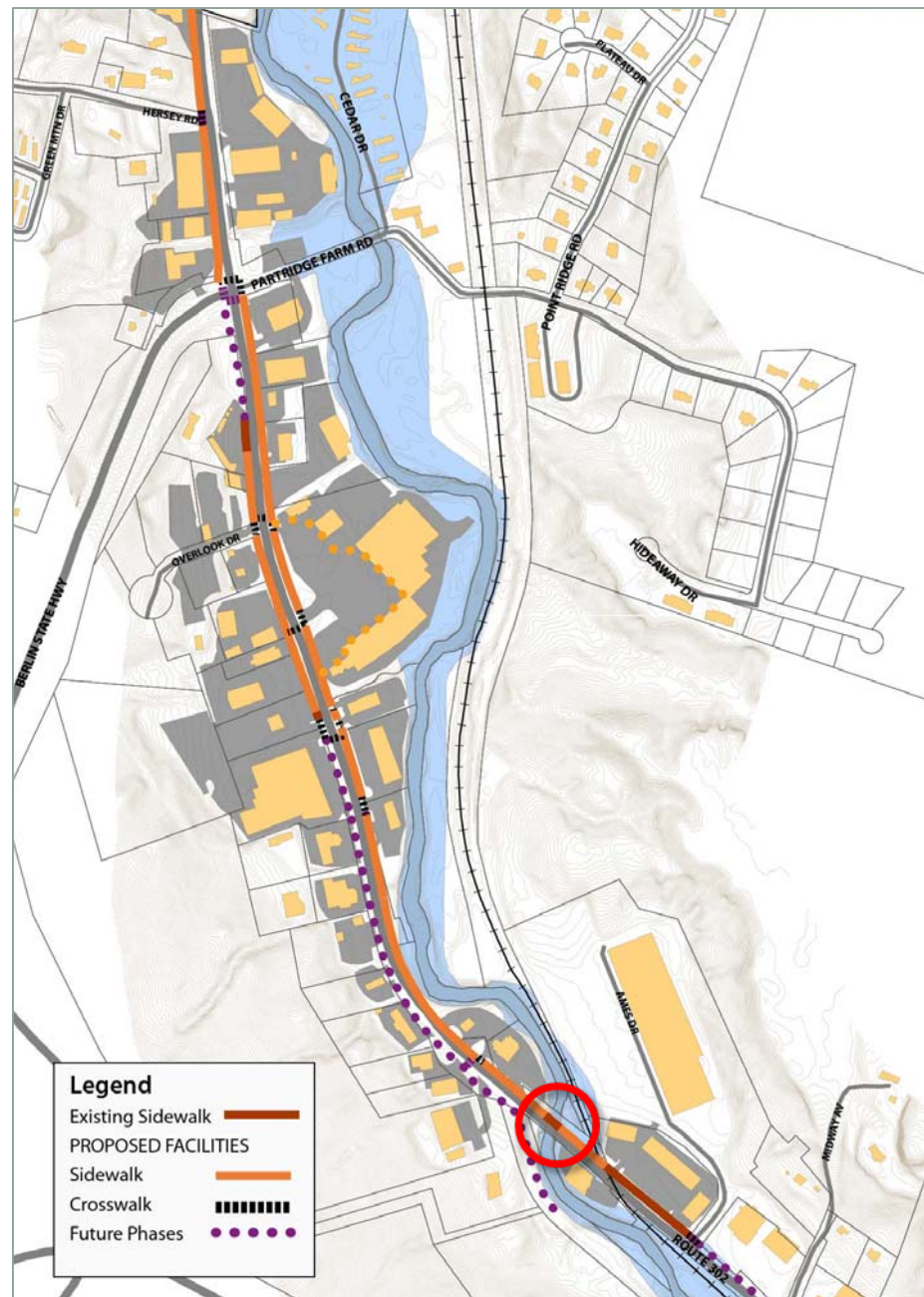
Alternative A - Cross Sections



Existing

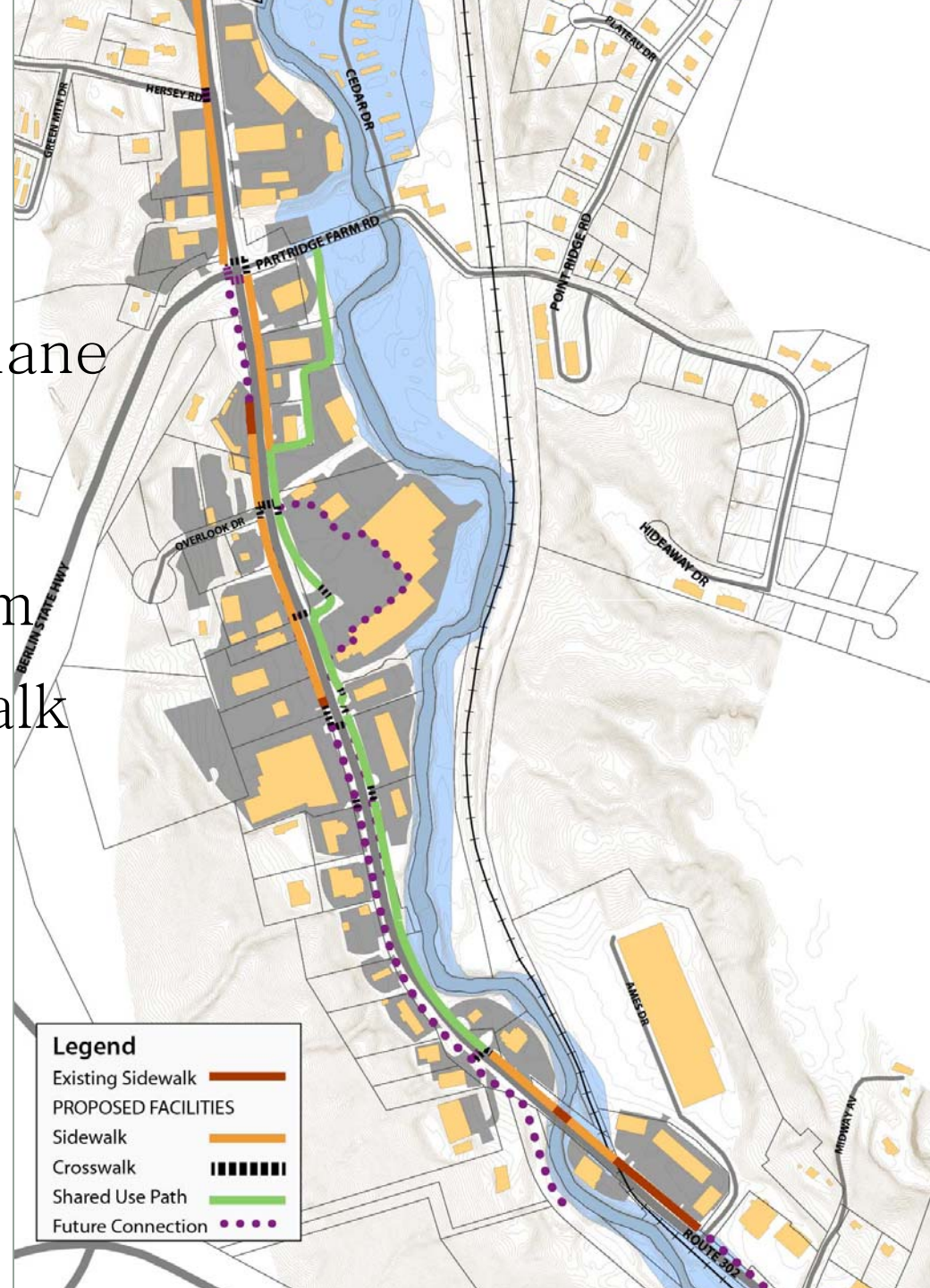


Proposed

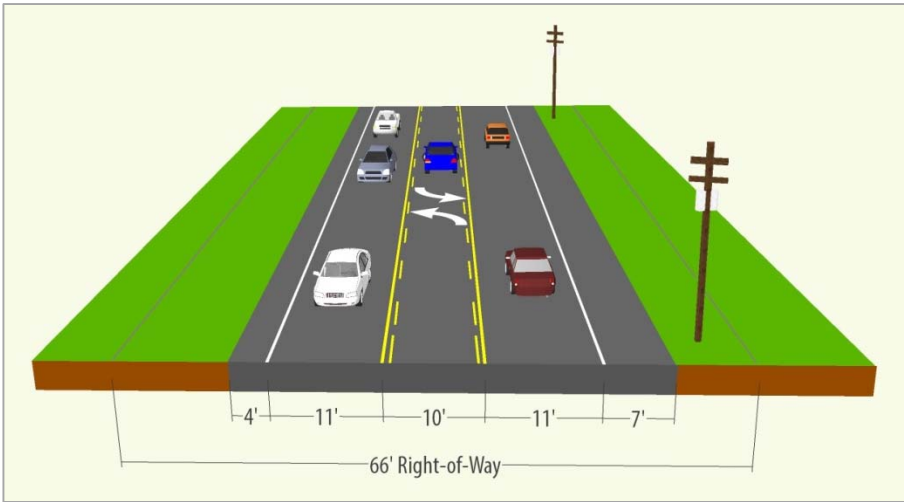


Alternative B

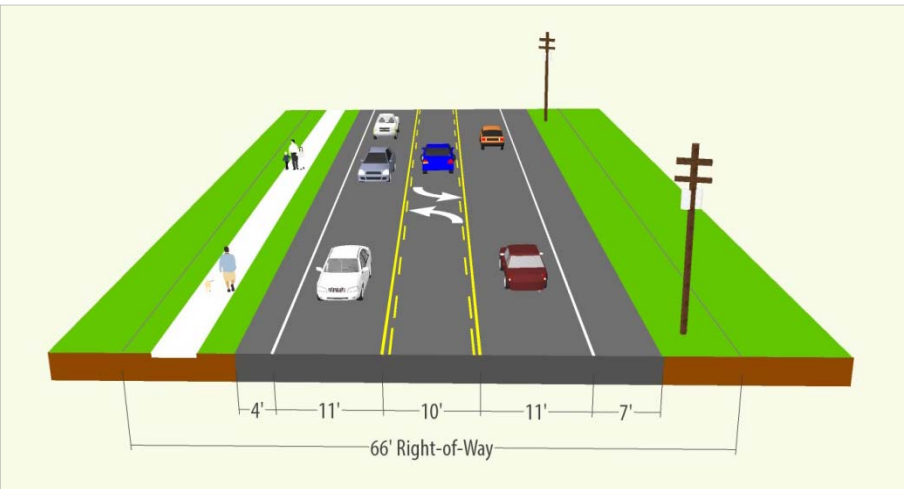
- Maintain existing travel lane configuration on US 302
- Shared Use Path from VSECU to Partridge Farm
- 3,700 feet of new sidewalk
- New Crosswalks:
 - Berlin State Highway
 - Overlook
 - Vermont Shopping Center



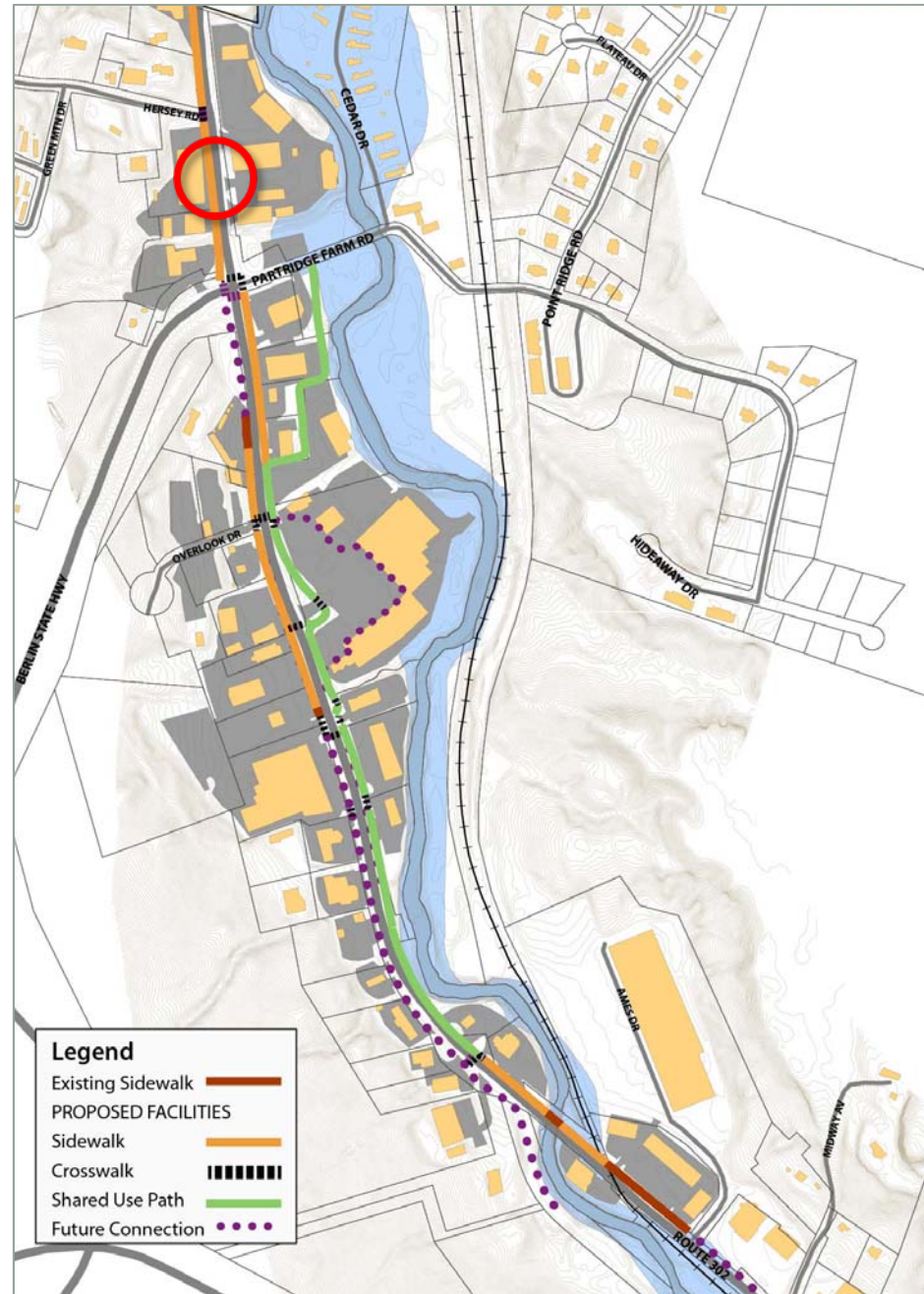
Alternative B - Cross Sections



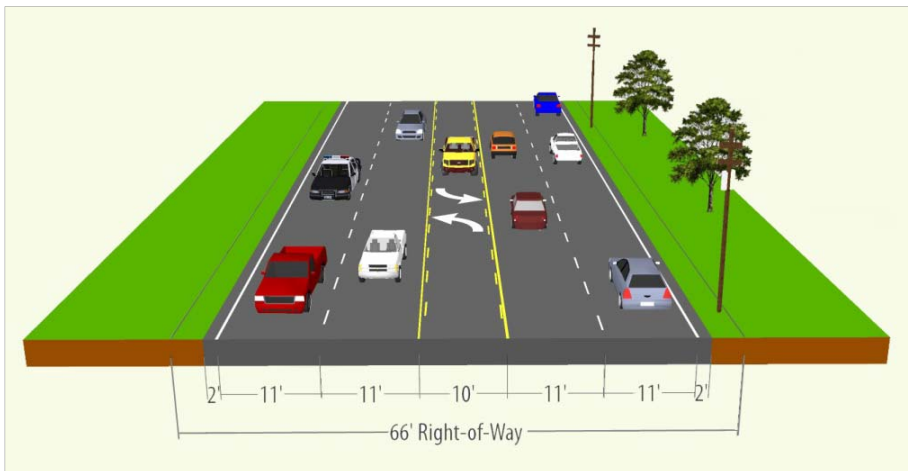
Existing



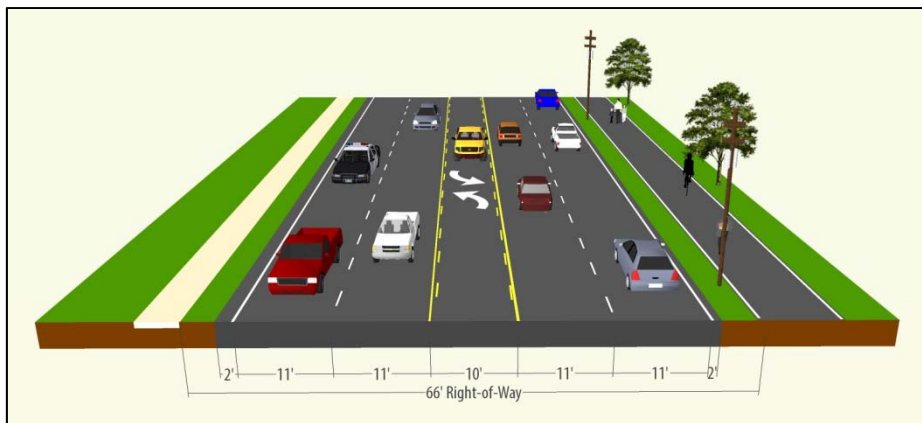
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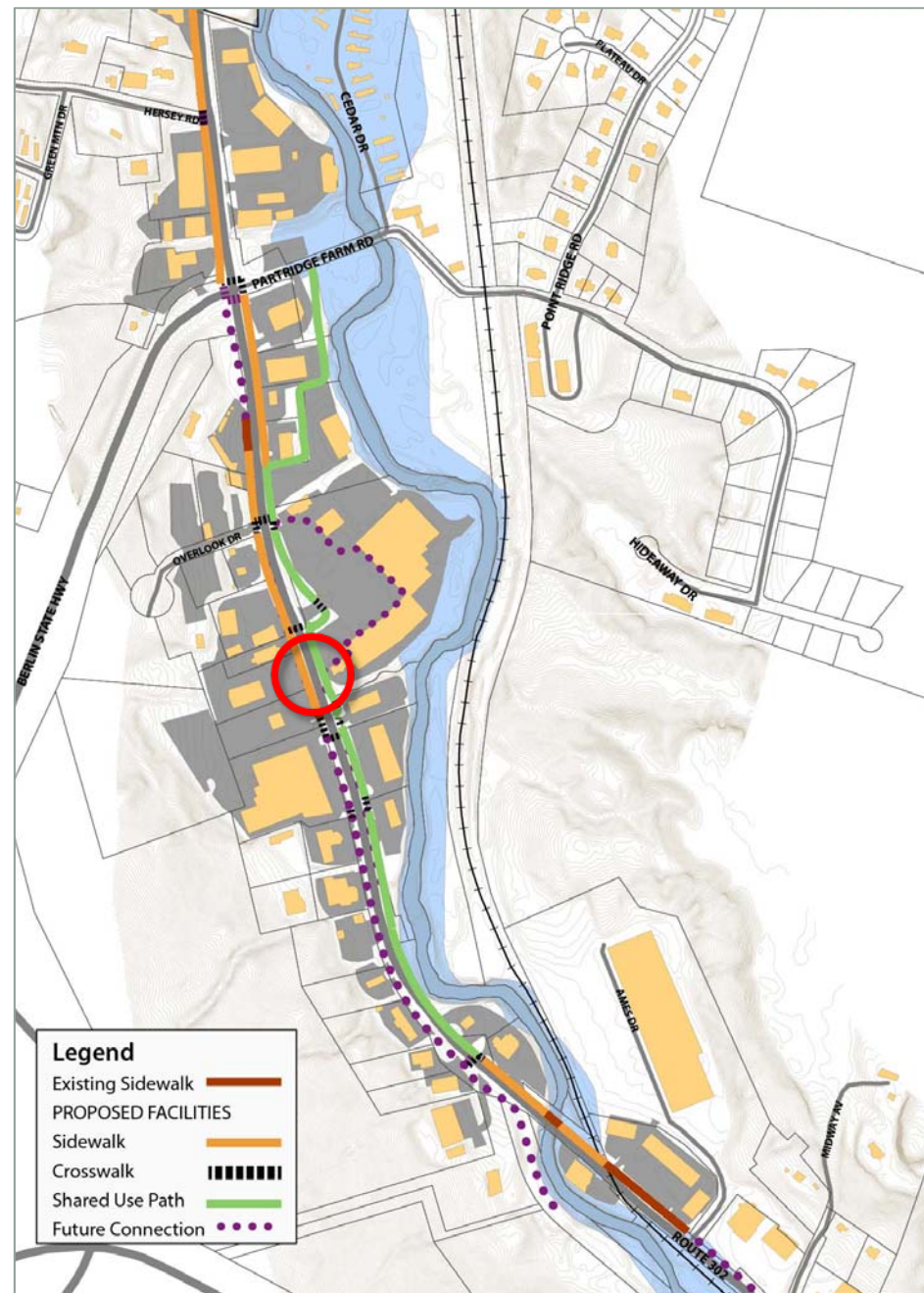
Alternative B - Cross Sections



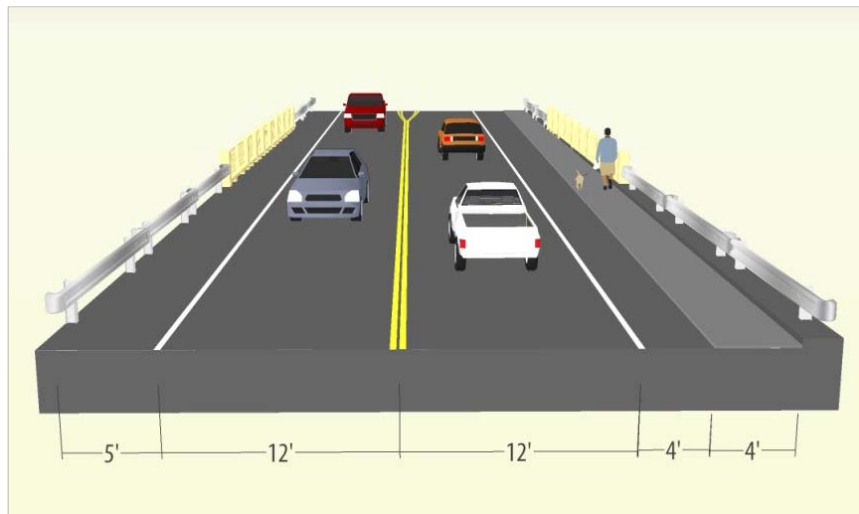
Existing



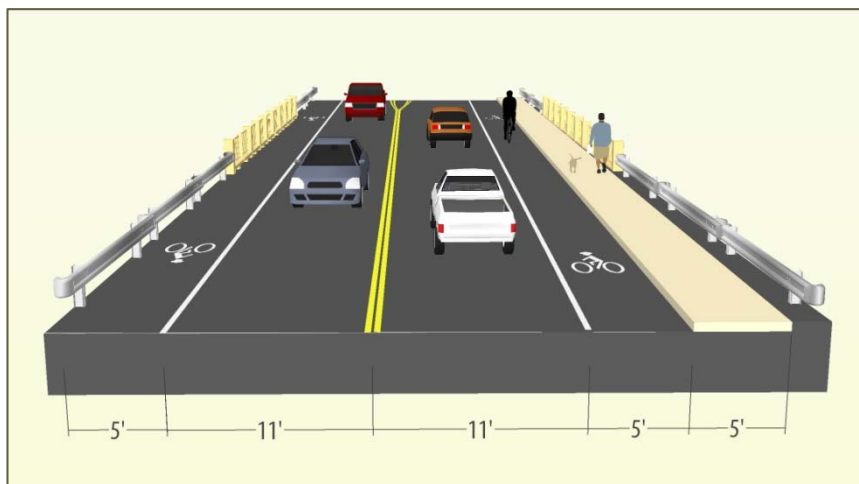
Proposed



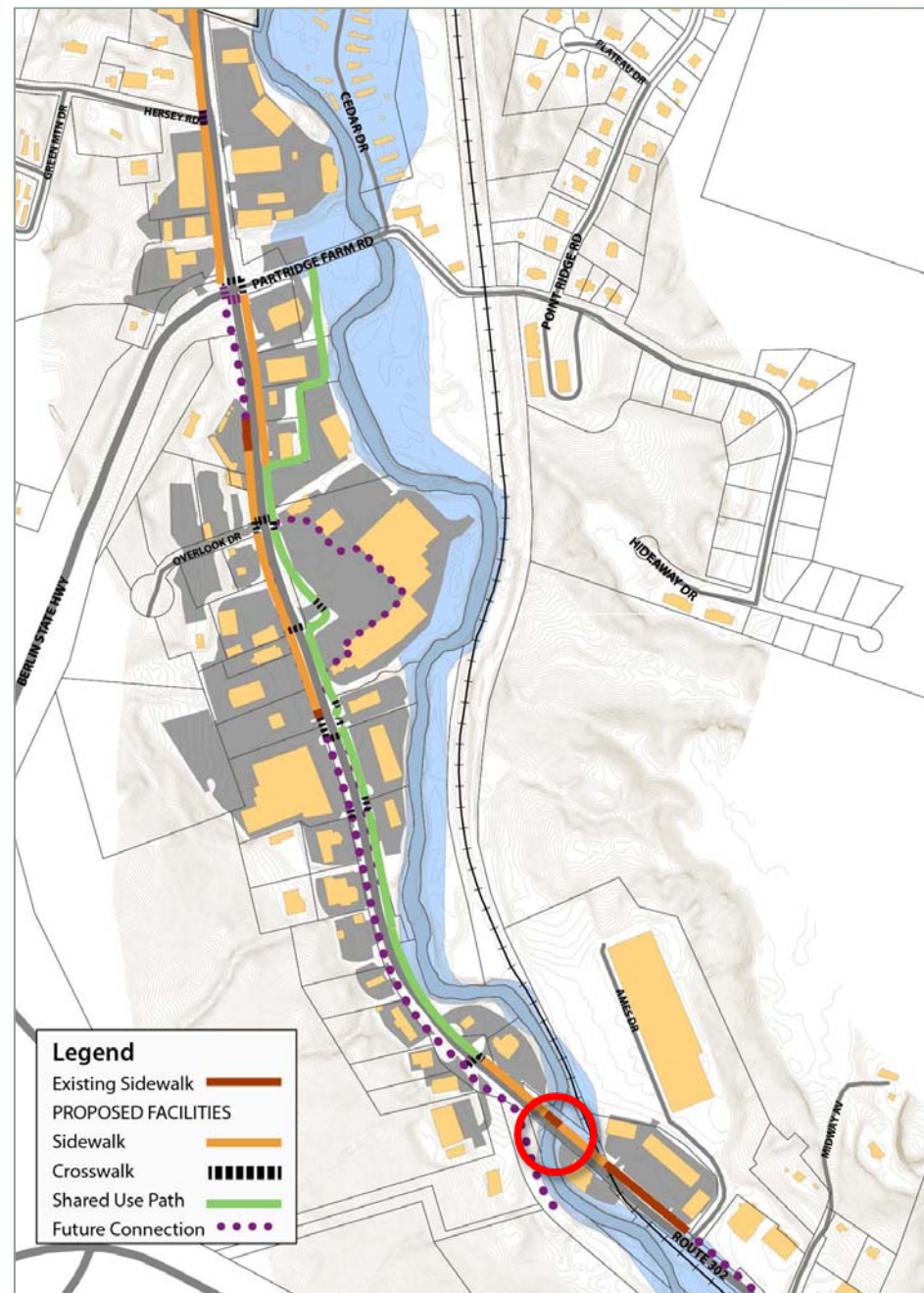
Alternative B - Cross Sections



Existing



Proposed



WHAT IS A ROAD DIET?

Photo: Michael Ronkin
Photo: Michael Ronkin



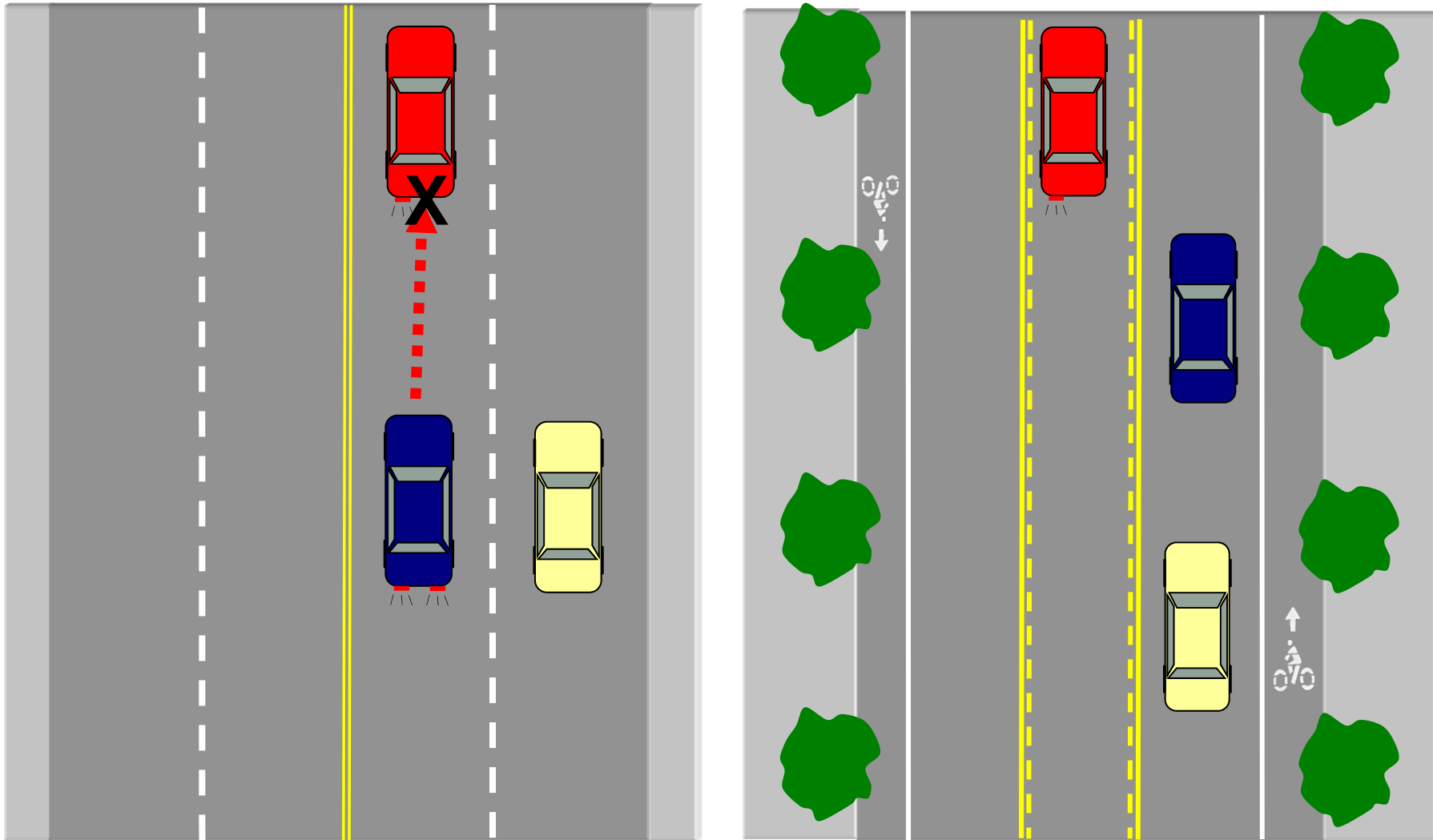
Pottstown PA – 5 lane to 3 lane with bike lanes and parking

Where do road diets work best? FHWA Says:

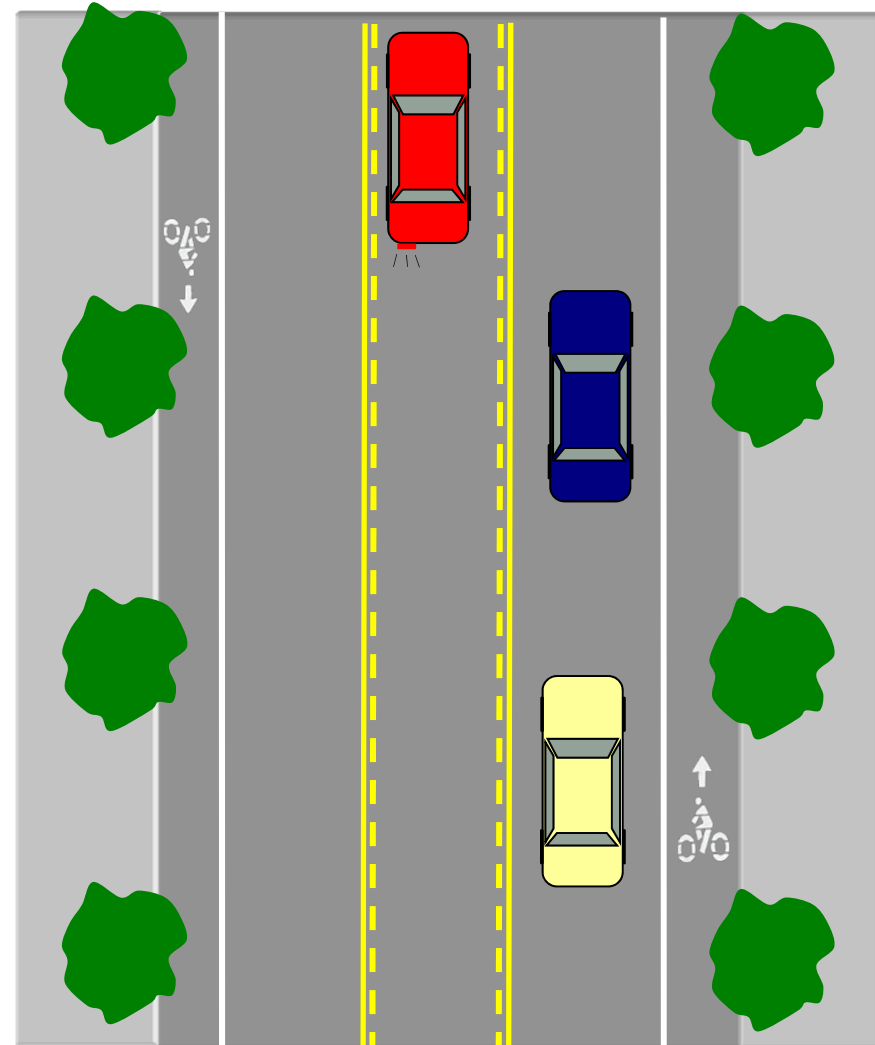
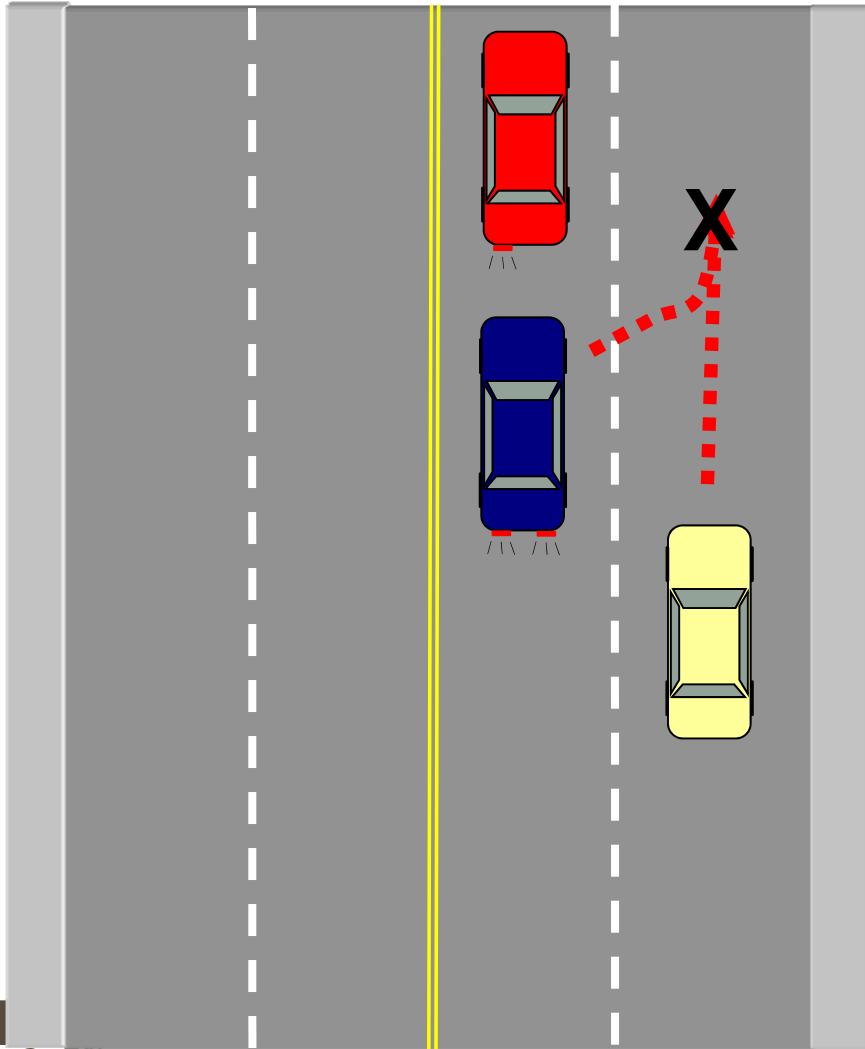
- Moderate volumes (8,000-16,000 ADT)
 - *US 302 AADT: 11,000 to 13,900*
- Roads with safety issues
 - *208 crashes in study area in past 5 years*
- Transit corridors
 - *GMTA Routes serve corridor; generate pedestrians*
- Essential bicycle routes and links
 - *Missing link in Central Vermont Regional Bike Path network*
- Commercial reinvestment areas
 - *Numerous commercial redevelopment projects underway*

ROAD DIETS AND SAFETY

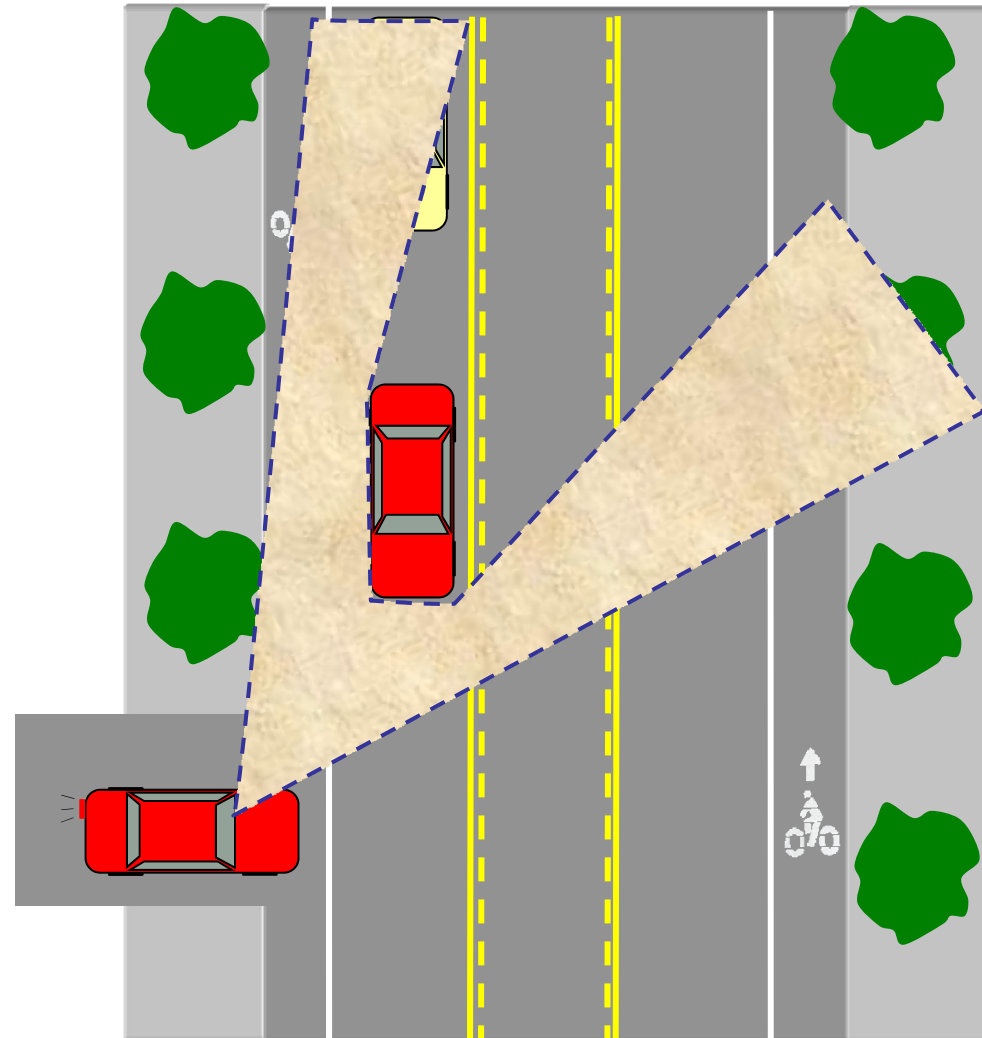
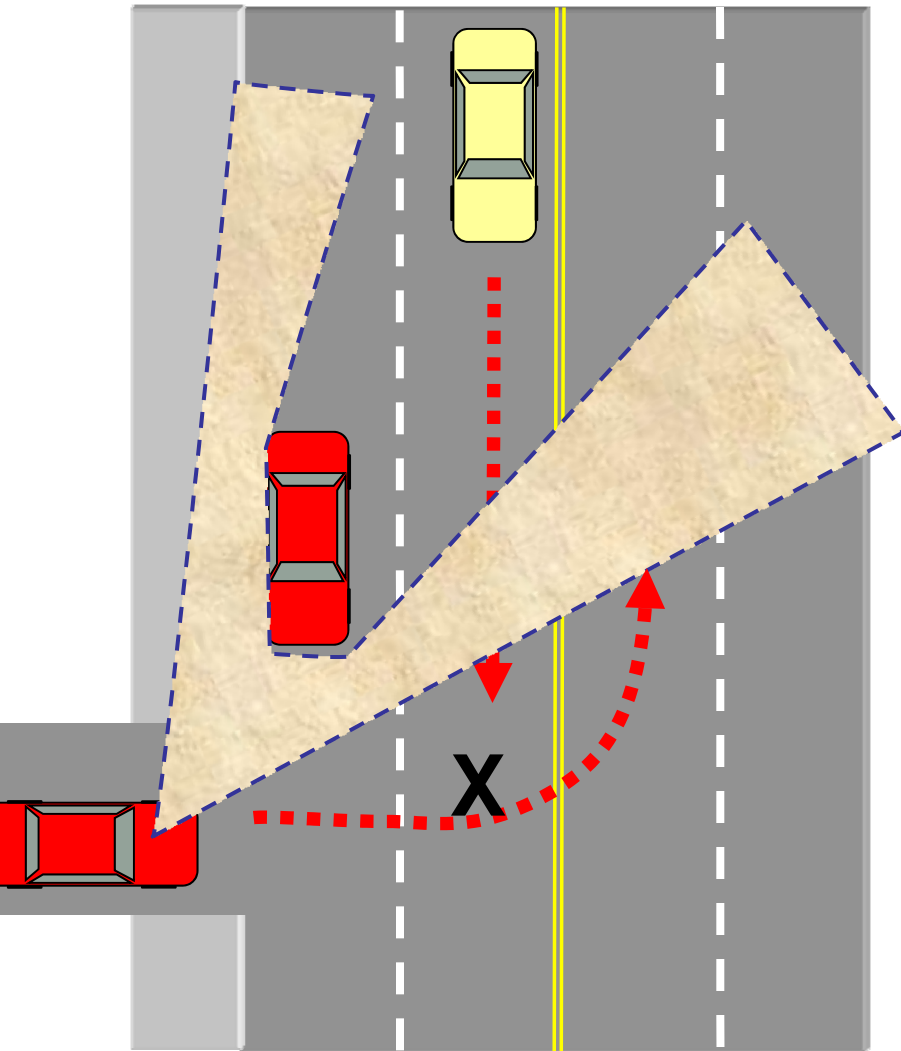
Rear-enders



Side-Swipes

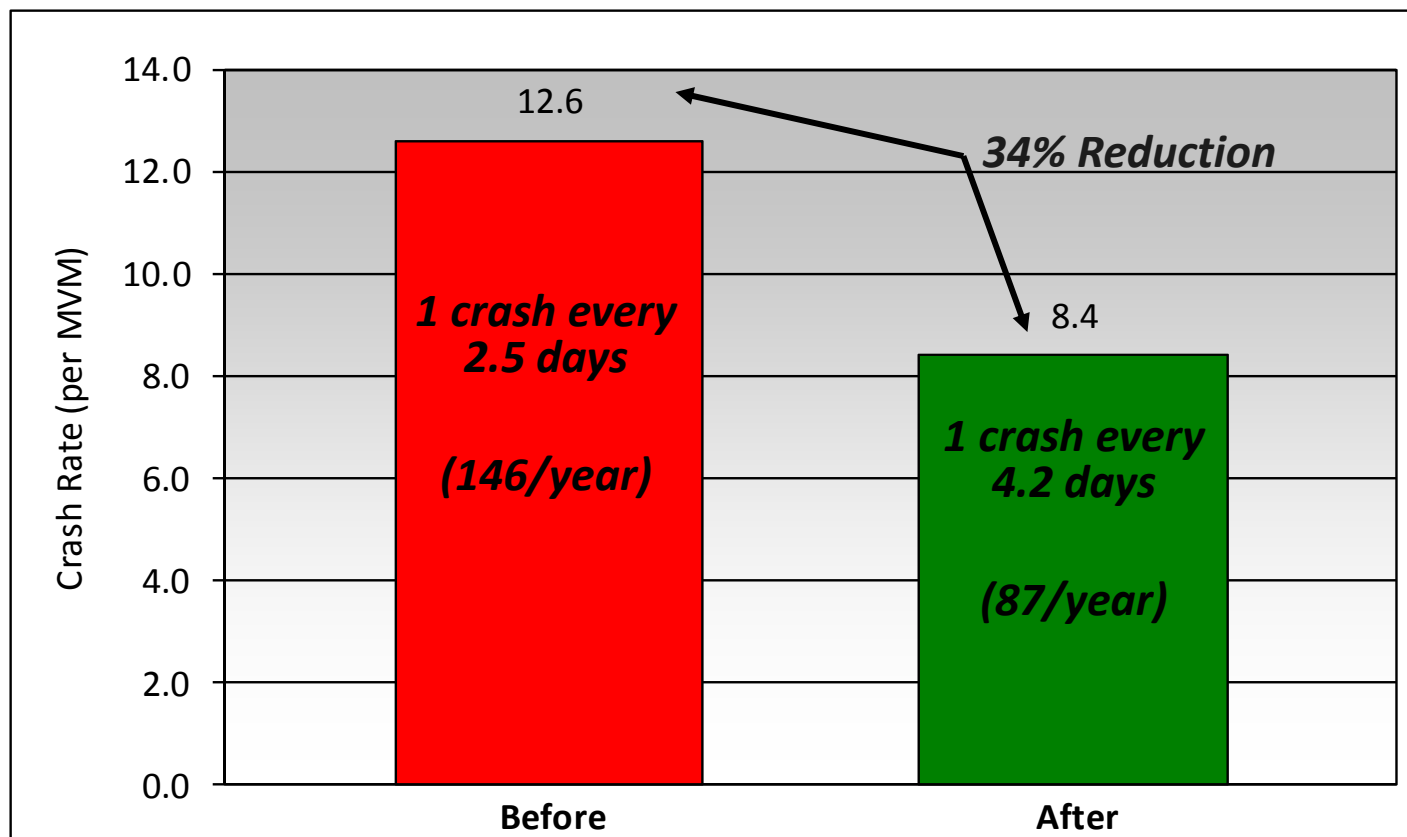


Left turns from side street



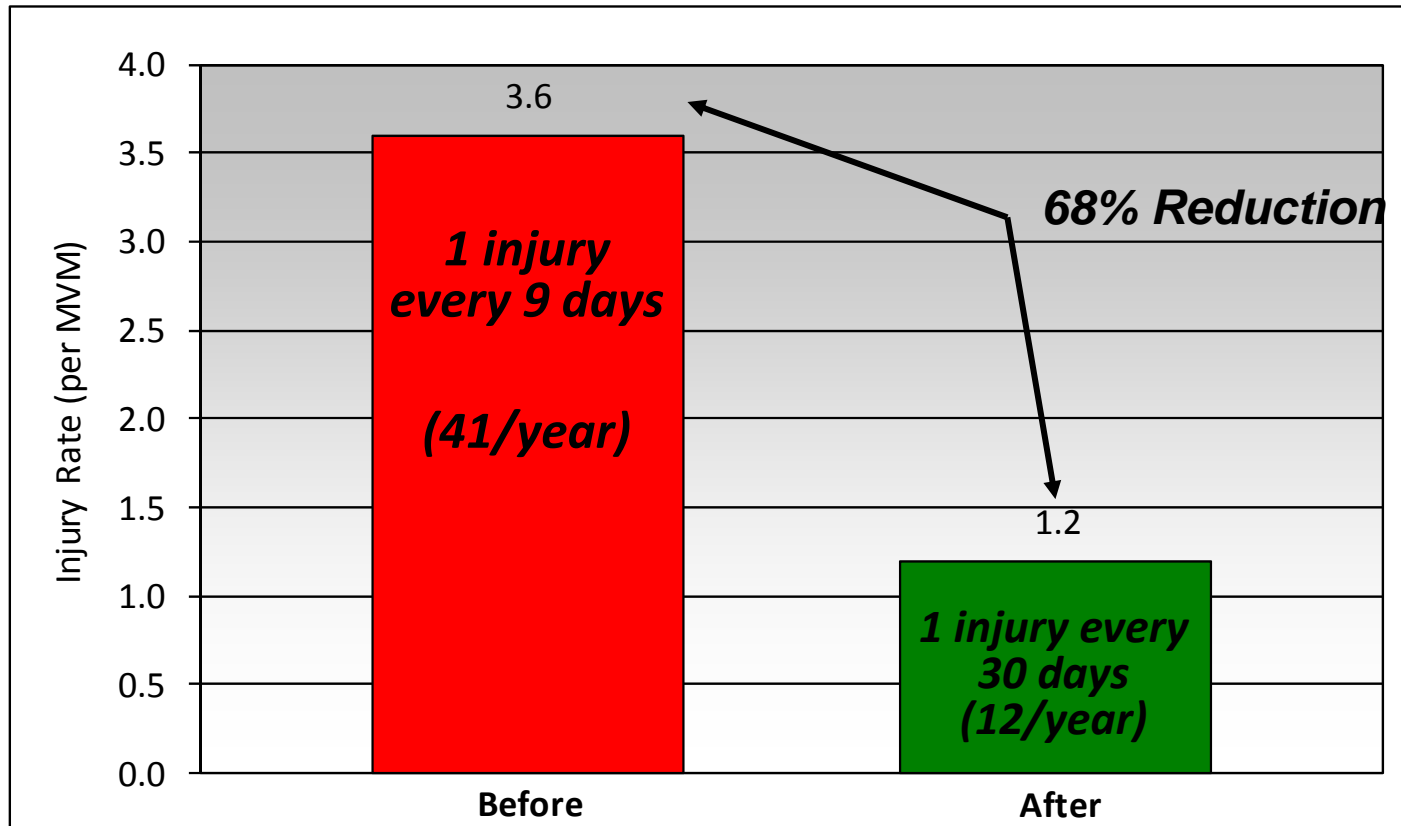
Before/After Studies: Crash Rate

Orlando FL



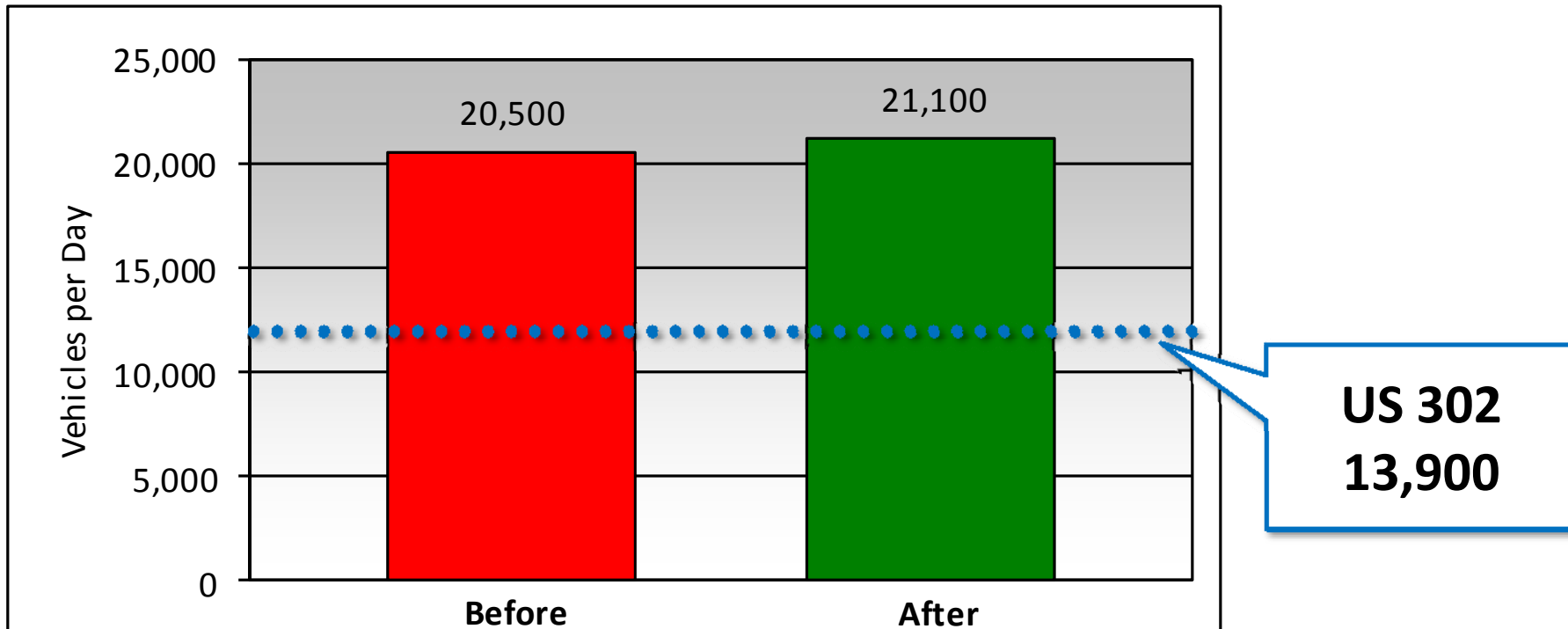
Before/After Studies: Injury Rate

Orlando FL

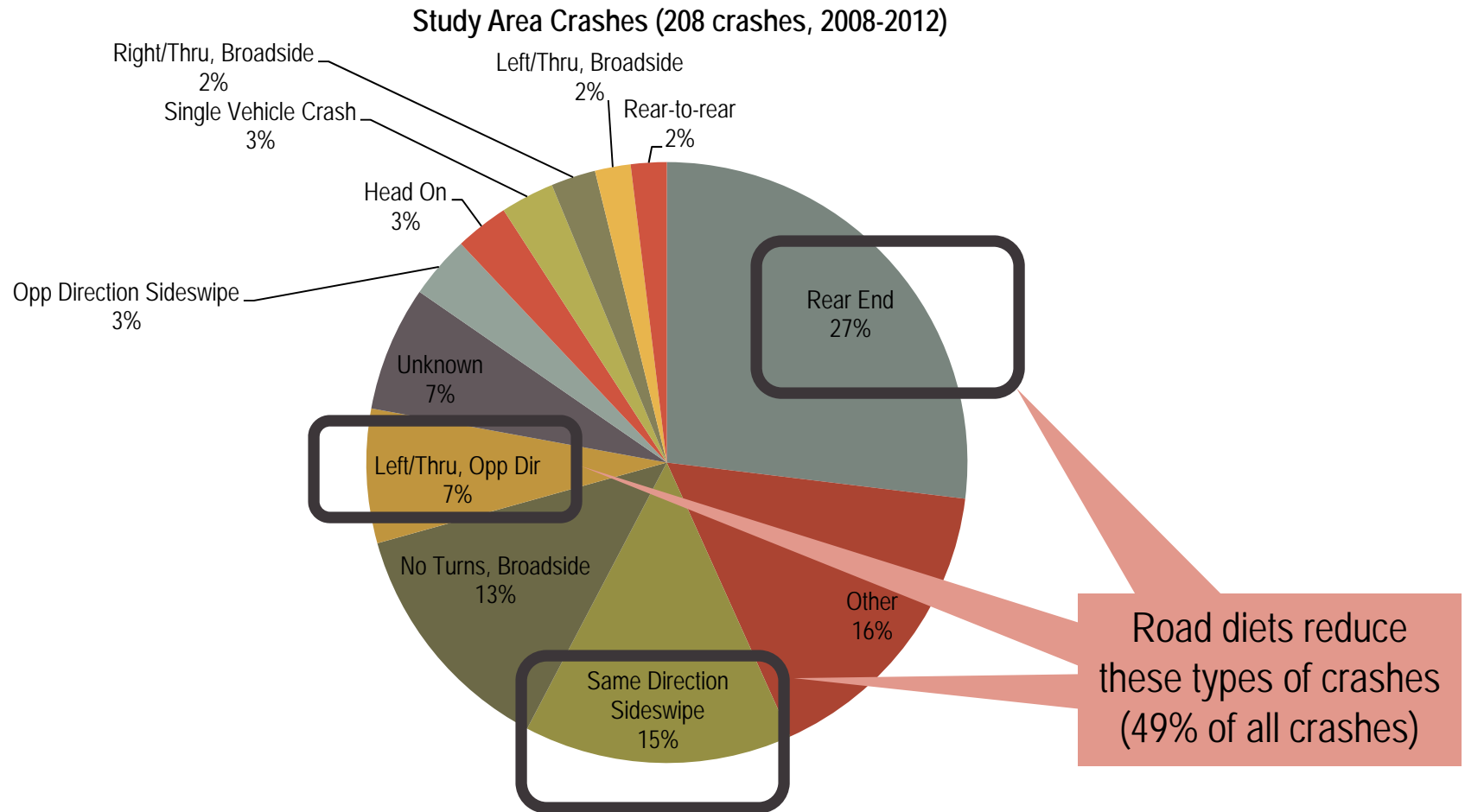


Before/After Studies: Traffic Volumes

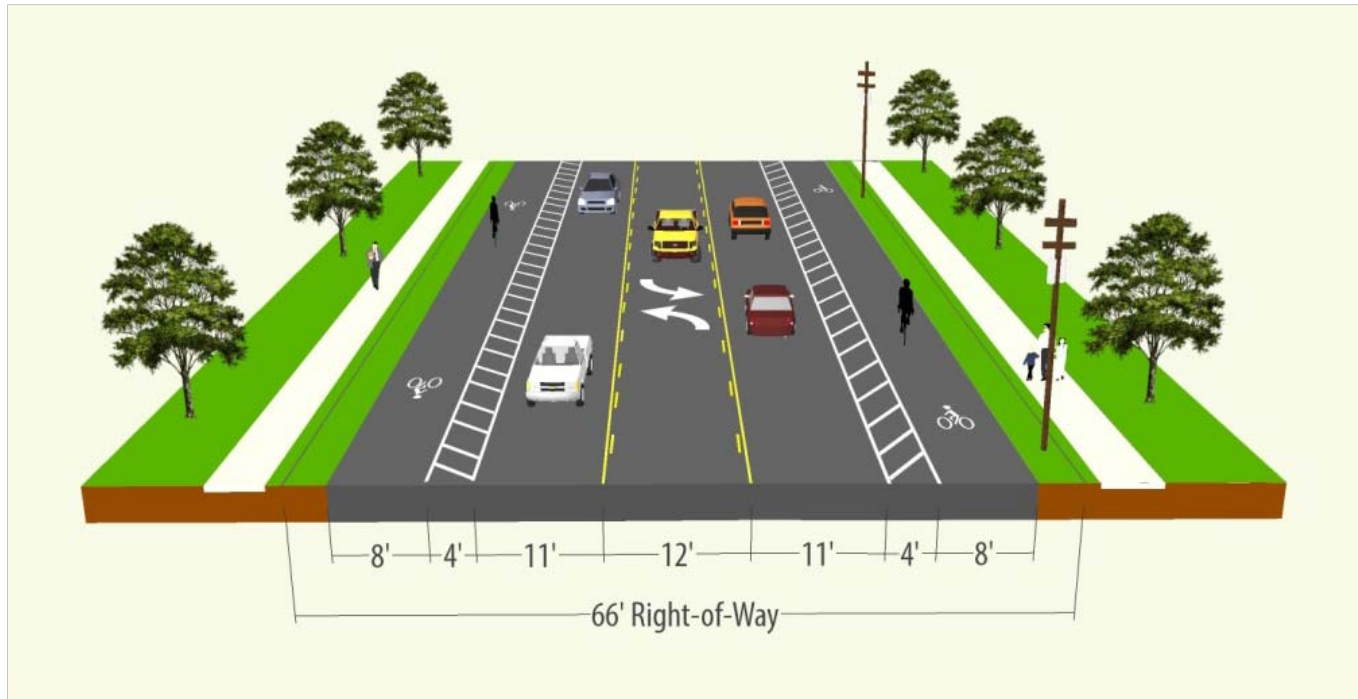
Orlando FL



US 302 Road Diet: Safety Benefits



Buffered Bike Lanes



- Separation from vehicle traffic
- Buffer for pedestrians

Evaluating the 302 Road Diet

- Corridor Travel Times
- Traffic Speeds
- Counts of Bicyclists and Pedestrians
- Queue Lengths at Signals during peak periods
- Monitor Crashes
- Traffic Volumes
- General observations about congestion and flow

ANALYSIS OF ALTERNATIVES

Road Diet Traffic Analysis

- Assumed traffic growth projected to 2025
- Peer reviewed by two qualified reviewers:
 - VTrans
 - VT Shopping Plaza owner's traffic consultant
- Both reviewers concur with conclusions
- Results provided for:
 - Individual intersections
 - Corridor operations

Alternatives Comparison: Performance

| | Alternative A: Road Diet | Alternative B: Existing Road | Change from Road Diet |
|----------------------|-----------------------------|---------------------------------|--------------------------|
| Average Speed (mph) | 19.3 mph | 21.3 mph | 2 mph slower |
| Corridor Travel Time | 2 min 21 sec | 2 min 8 sec | 13 sec longer |

RECOMMENDATION

Recommendation: Alternative A

- Meets purpose and need of project
- Lower construction cost
- Less right-of-way required
- Less environmental impact and fewer permits required
- Fewer utility relocations required
- Lower maintenance expense for Town of Berlin
- Roadway change can be implemented by VTrans in 2015

QUESTIONS AND DISCUSSION

THANK YOU!
