

GPI Greenman-Pedersen, Inc.
Engineering and Construction Services

K KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING



Initial Public Meeting
Lafayette Road/Middle Street
Portsmouth, NH

Presented By
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Conor Semler, AICP



November 19, 2014



Agenda:

- Objectives
- Project Limits
- What Exists
- Potential Treatments
- Schedule
- Public Input



Objectives:

- Improve Safety for Cyclists & Pedestrians
- Expand Connectivity
- Provide Bicycle Route Utilized by All Ages
- Enhance Pedestrian Crossings



Project Limits



What Exists:

- Cars...11,000 ADT
- Pedestrians
- Bicycles
- Residential & Commercial
- Schools & Civic
- Entry to Downtown
- On-Street Parking



Options:

- Sharrows



Description

- Street markings used to indicate a shared lane for bicyclists and motorists
- Indicates where bicyclists should position themselves in the travel lane to avoid open car doors where on-street parking is present
- Provides visual cue of where to expect bicyclists
- **Typical Dimensions:** Min. 11 ft. from curb with on-street parking, min. 4 ft. from curb without on-street parking; spaced in max.intervals of 250 ft

Application

- Low-speed (less than 35 mph) roadways lacking space for dedicated bike lanes
- Travel lanes typically range from 10-14' wide

Advantages/Disadvantages

- Wider lanes allow motorists to pass safely within the lane, narrower lanes require motorists to change lanes to pass
- Low level of comfort for novice bicyclists
- Wider lanes may encourage higher vehicular speeds

Action Required

- Signs and markings
- Estimated cost: \$11K per mile for one lane; \$22K per mile for two lanes

Options:

- Bike Lane



Description

- An exclusive lane for bicyclists designated with pavement markings and signage
- Located adjacent to motor vehicle travel lanes and flows in the same direction as motor vehicle traffic
- **Typical Dimensions:** Min. 5 feet. 6 foot min. preferred adjacent to parked vehicles; 4 ft. acceptable adjacent to curb in low speed environments

Application

- Used on medium to low volume streets with traffic speeds of 40 mph or less

Advantages/Disadvantages

- Provides separate travel lane for bicyclists
- Mixing zones may be required at intersections or bus stops
- Enforcement often required to keep motorists from parking or stopping in bike lanes

Action Required

- Signs and markings, construction
- Estimated cost: \$20 - \$46K per mile retrofit (type varies); \$590K per mile to reconstruct and widen roadway to accommodate bike lanes

Options:

- Buffered Bike Lane



Description

- A bicycle lane with additional lateral separation from other roadway users
- Buffer may be located between the bike lane and motor vehicle travel lane, parking, or both
- **Typical Dimensions:** Min. 6 ft. Includes 2 ft. buffer and 4 ft. lane

Application

- Installed adjacent to high speed or high volume traffic
- Installed adjacent to high turnover parking

Advantages/Disadvantages

- Increases operating space and comfort for bicyclists
- Provides passing space for bicyclists
- Requires more space than standard bike lanes
- Requires installation and maintenance of more pavement markings than a standard bike lane
- Enforcement often required to keep motorists from parking or stopping in bike lanes

Action Required

- Signs and markings
- Estimated cost: \$55K - 61K per mile (type varies)

Options:

- Cycle Track



Description

- One- or two-way bicycle facility with vertical separation from motor vehicle traffic
- Vertical separation may be provided by parked motor vehicles, flexible bollards, plantings, or curbs
- May be located on a roadway or raised to, or just below, sidewalk level
- **Typical Dimensions:** 4-5 ft. wide travel lane plus minimum 3 ft. buffer from roadway

Application

- Along roadways with high vehicular volumes, speeds, or complex traffic patterns
- Along primary roadway corridors providing access to high-demand destinations where high bicycle volumes are present or desired

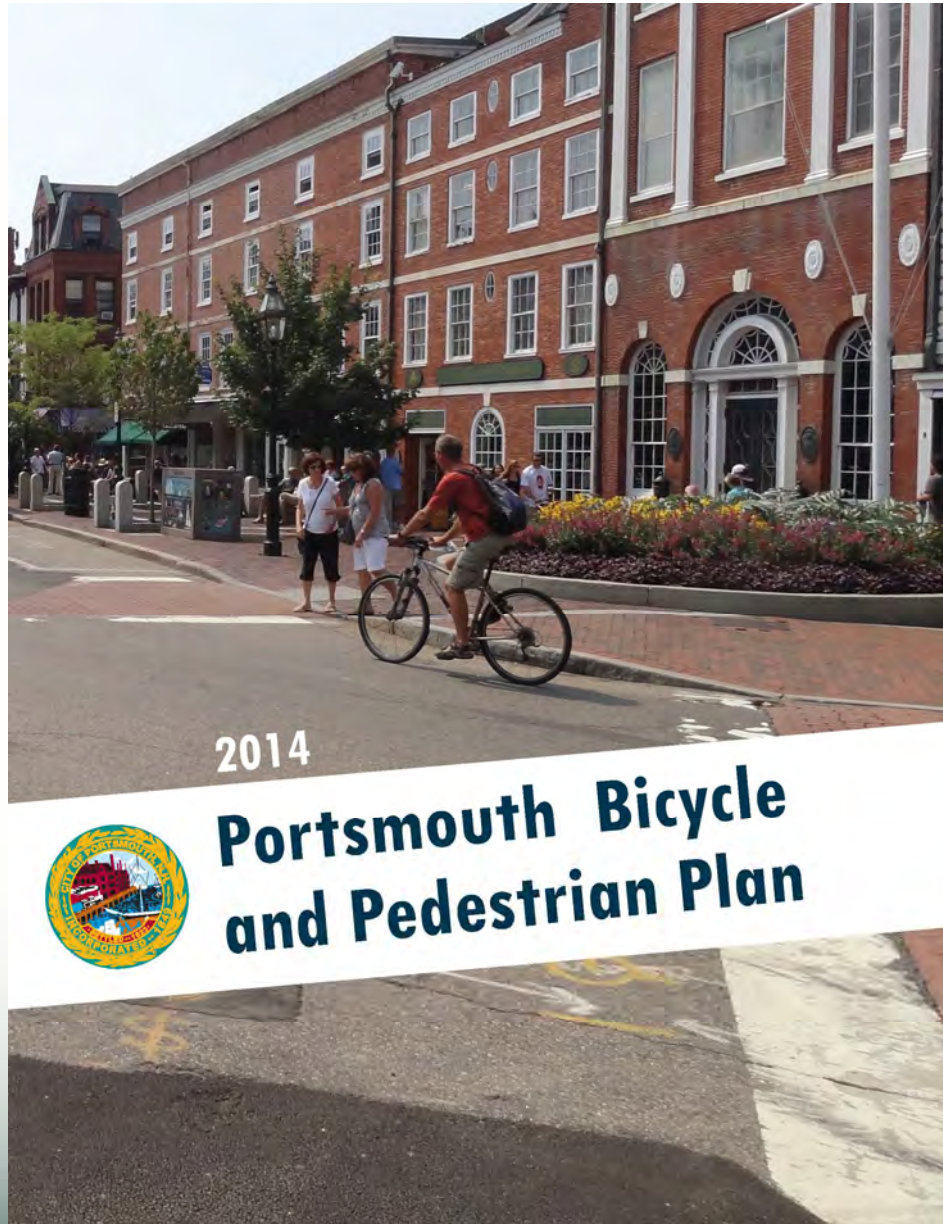
Advantages/Disadvantages

- Provides comfort for bicyclists and motorists
- Specialized intersection treatments may be required to accommodate bicyclists
- Separation of bicyclists and pedestrians may require specialized design treatments
- Potential parking restrictions due to sight lines

Action Required

- Construction or signs, markings, and signals depending on level of implementation
- Estimated cost: \$127K-153K per mile for retrofit; \$710K per mile for construction

Options:



Ped. X-ings:



Ped. X-ings:



Ped. X-ings:



Ped. X-ings:



Ped. X-ings:



Ped. X-ings:



Ped. X-ings:



Ped. X-ings:



Ped. X-ings:



Ped. X-ings:



Tentative Project Schedule:

- ✓ Complete Engineering Study – January 2015
- ✓ Complete Preliminary Design – March 2015
- ✓ Complete Final Design – May 2015
- ✓ Construction – Fall 2015





Questions?

