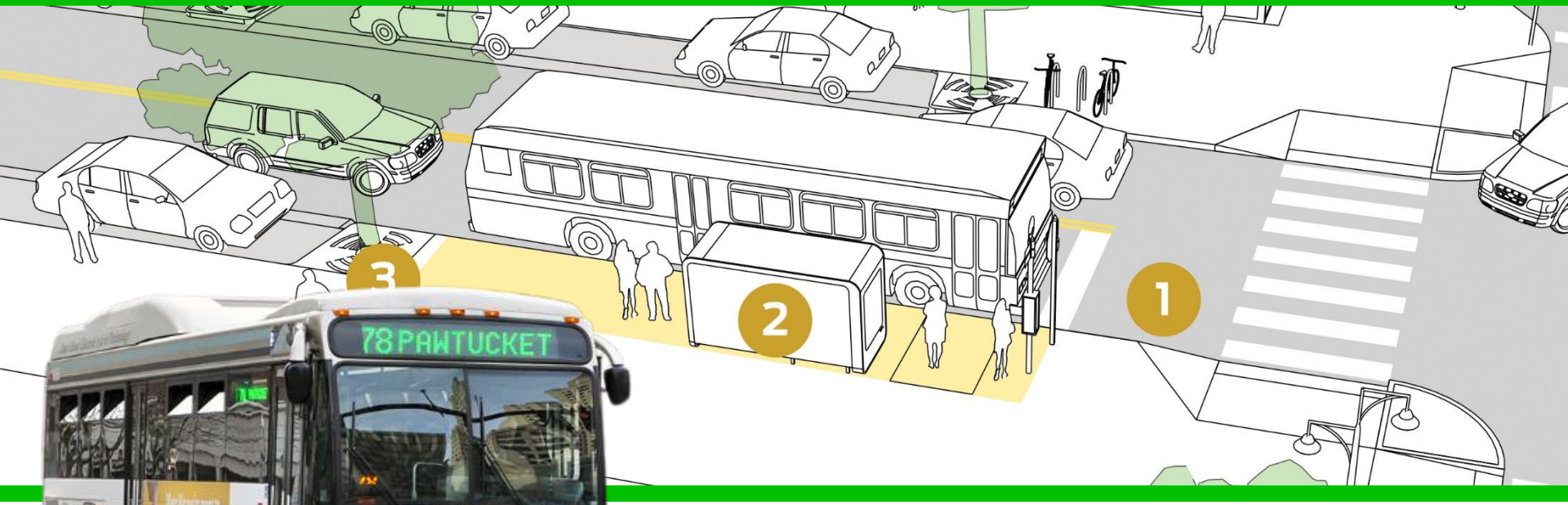

Rhode Island Bus Stop Design Guide

Community Meeting
June 2016

RHODE ISLAND PUBLIC TRANSIT AUTHORITY

In partnership with RI DOT Driven to get you there

Meeting Format

- Welcome!
- Presentation
- Q&A on presentation
- Break-up
- Review bus stop design typologies
- Opportunity to
  - "Post-it" your comments
  - Ask questions
- Additional comments : sherrill6@cox.net

Project Team

Randy Fixman

Project Coordinator

RIDOT

Greg Nordin

Project Manager

RIPTA

Amy Pettine

Project Director

RIPTA

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McMAHON

Natalie Raffol

Transportation Planner

McMAHON

Pam Sherrill

Outreach Co-ordinator

Pamela M. Sherrill

Toole Design Group

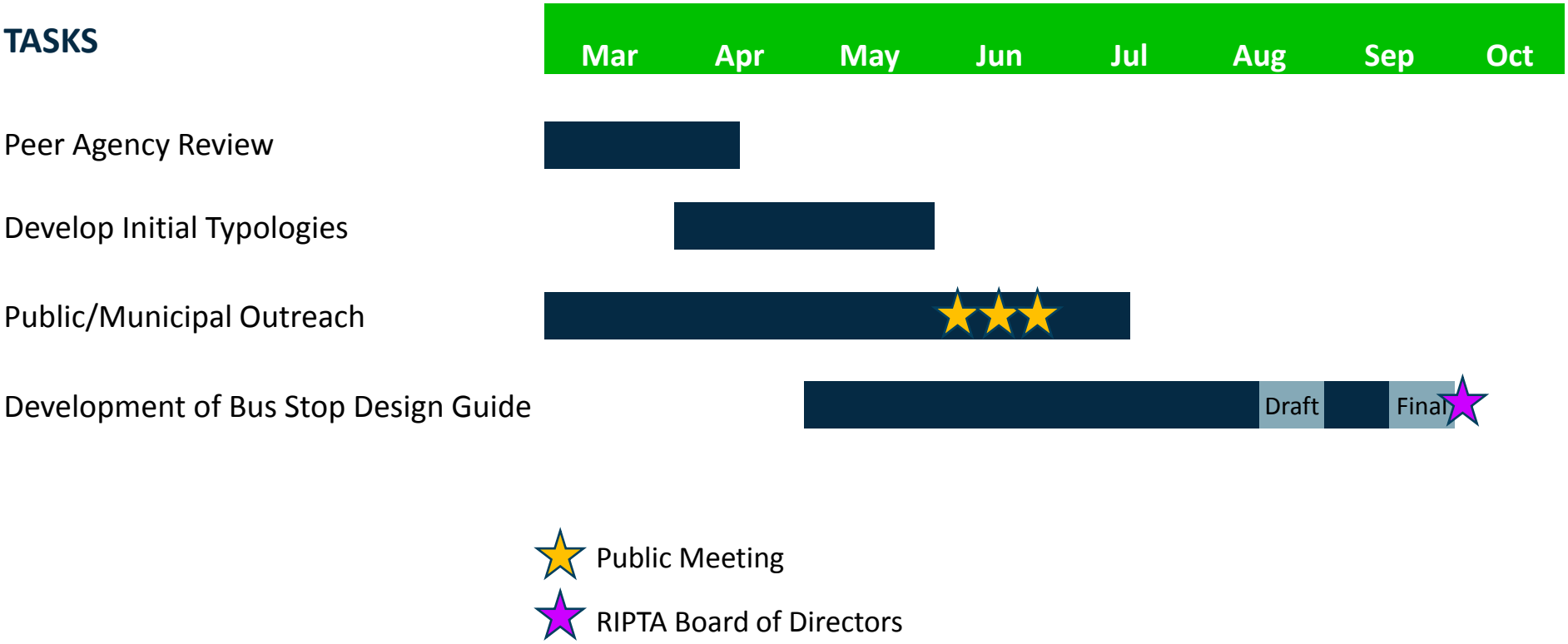
Presentation Outline

- Background
- Schedule
- Key considerations
- Design development
- Next steps

Project Background

- PEEP!
- Improve accessibility
- Address safety concerns
- Enhance service operations
- Provide better passenger amenities
- Provide consistency in planning and design of bus stops
- Establish best practices to be followed
- Coherent, Rhode Island-specific guidelines
- Improve collaboration between RIPTA and RIDOT

Project Schedule



Bus Stop Design

Bus Stop Design Elements

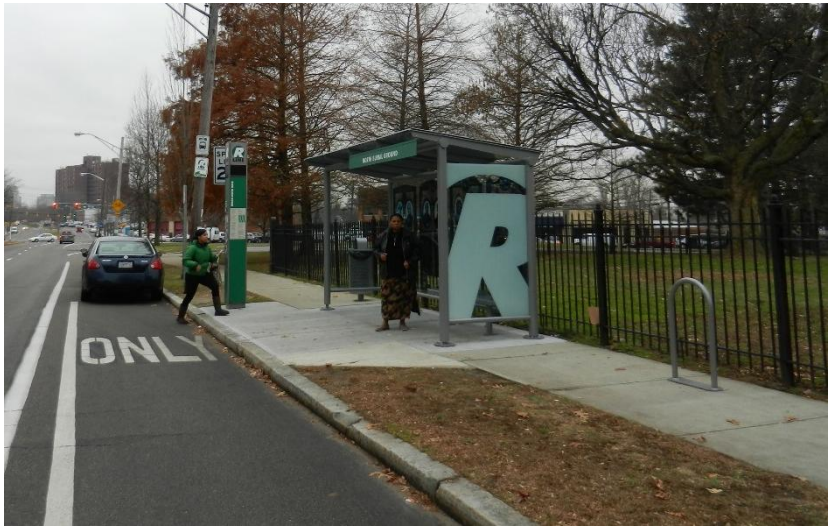
Key Considerations for Bus Stop Design

- Stop location & placement
- Bus stop configurations
- Parking
- Connectivity to bus stops
- Accessibility
- Amenities, schedules and maps
- Signage & striping
- Integration with bike facilities
- Bus priority

Bus Stop Design Elements

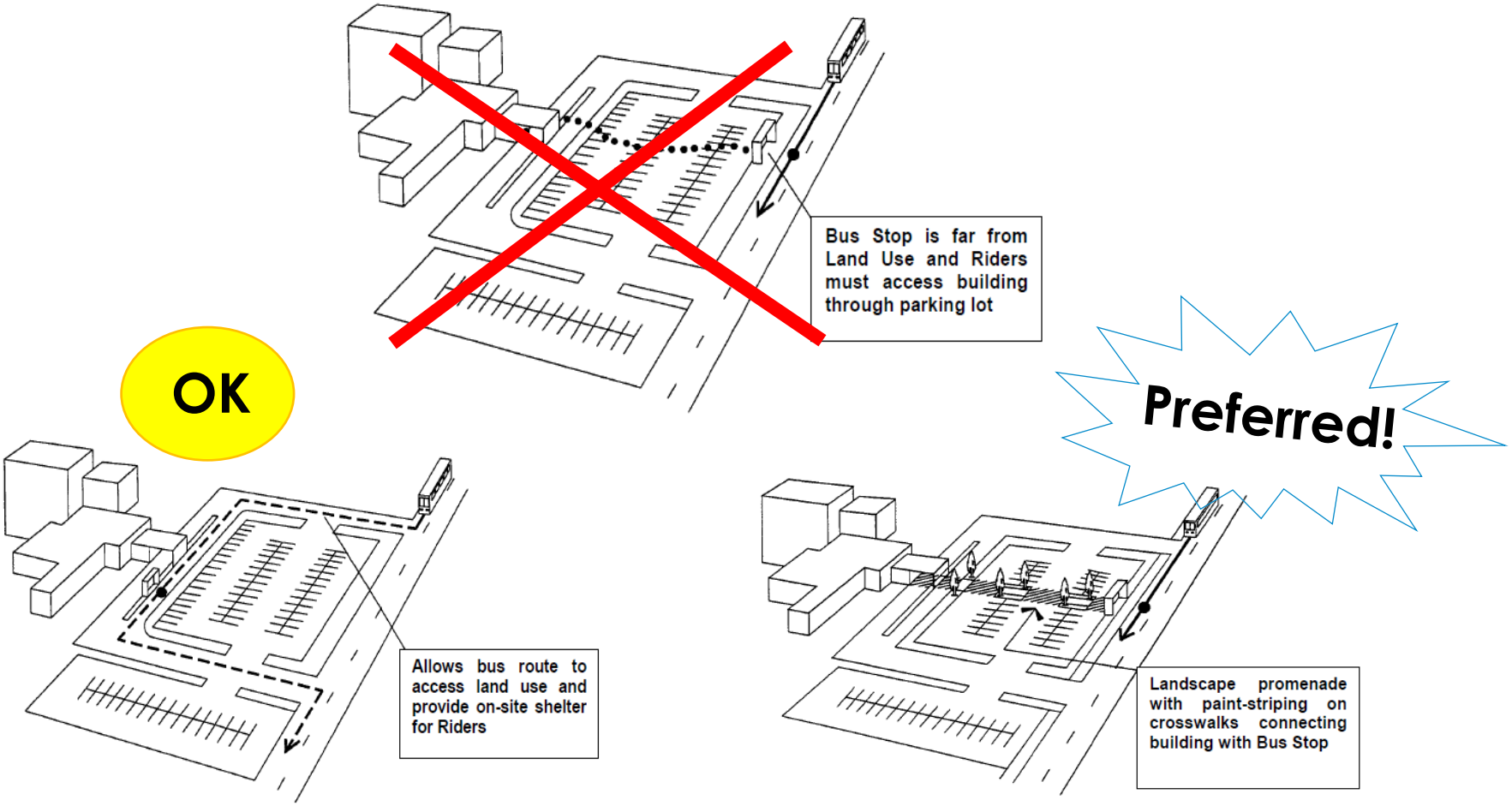
Bus Stop Location

- Ridership
- Proximity to sensitive land uses
- Land use, density and connectivity
- Surrounding environment
- Safe and visible
- ADA and accessibility
- Potential to add amenities
- Parking impacts
- Distance to adjacent stops
- Multimodal impacts



Bus Stop Design Elements

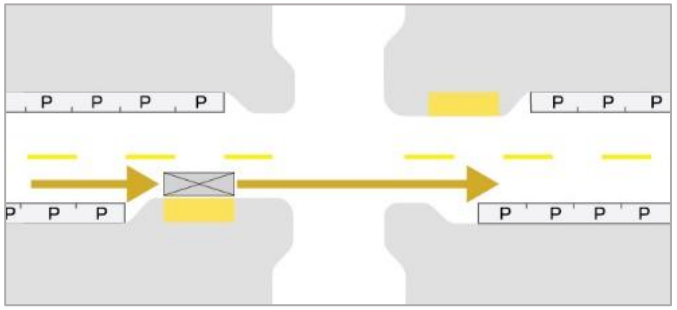
Bus Stop Location – Land use, density, and connectivity



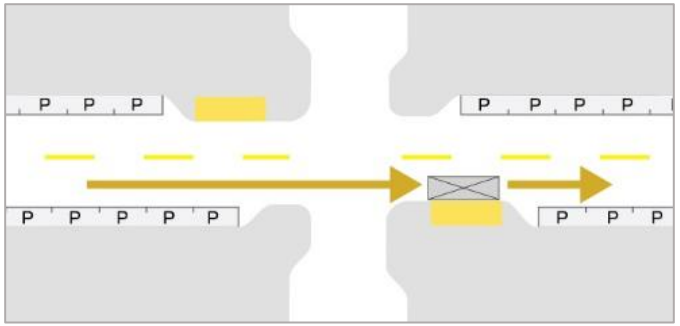
Bus Stop Design Elements

Bus Stop Placement

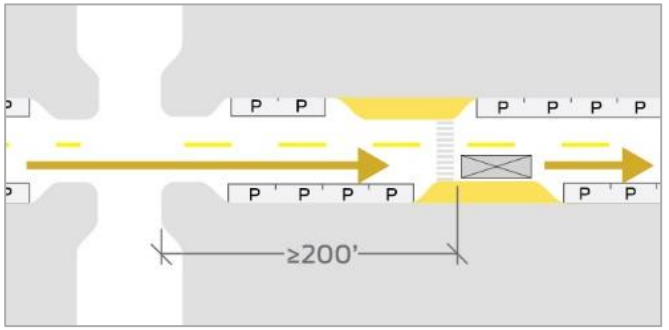
Near-side



Far-side



Mid-block

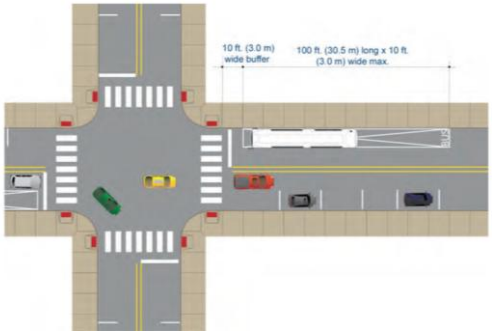


Source: NACTO Transit Street Design Guide

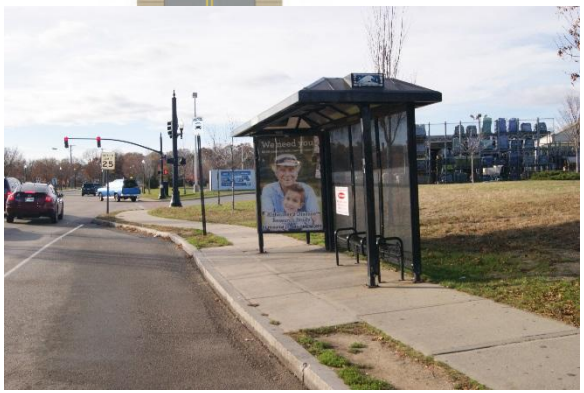
Bus Stop Design Elements

Bus Stop Configurations

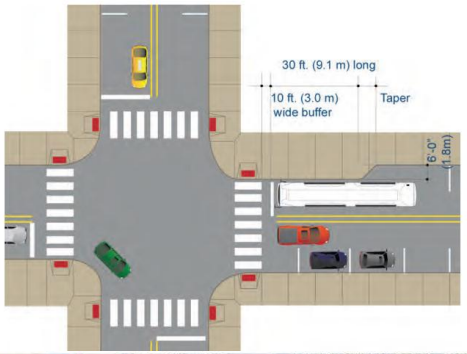
Curbside | Roadside | Shoulder



Bus Bay | Turnout | Cut Out | Pullout



Curb Extension | Bus Bulb | Bus Nub



Source: DVRPC

Bus Stop Design Elements

Bus Stop Configurations – Curbside Stops

Near-side – 100 feet

Far-side – 60 feet

Mid-block – 120 feet

Bus Stop Configurations – Bus Bays & Curb Extensions

Bus Bay – 120 feet

Curb Extension – 30+ feet

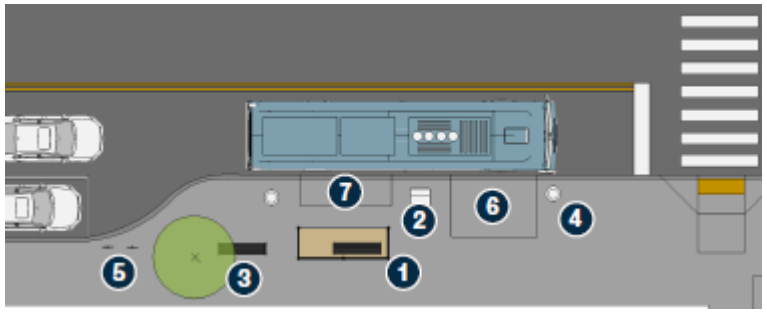
Bus Stop Design Elements

Parking

- Impacts vary depending on
  - Bus stop placement
  - Bus stop configuration

Bus stop placement/ configuration	# parking spaces = to bus stop length
Near-side	5
Far-side	3
Mid-block	6
Bus Bay	6
Curb Extension	2-3

- Minimize impacts
- Define curbside space
  - Striping & signage



Bus Stop Design Elements

Connectivity to Bus Stops

Bad

Good

Bad

Good

Bus Stop Design Elements

Accessibility

- ADA landing area
- ADA path of travel to amenities
- Clear zone at back door
- Bus doors open to curb
- Crosswalk/connection to stop pair

Bad

Bad

Good

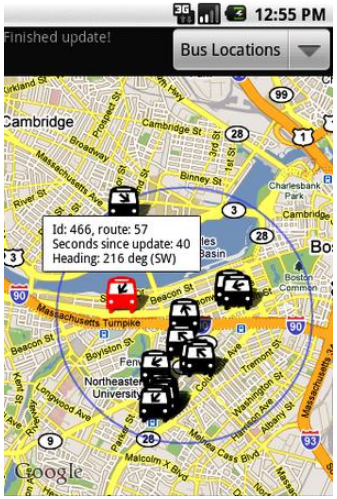
Bus Stop Design Elements

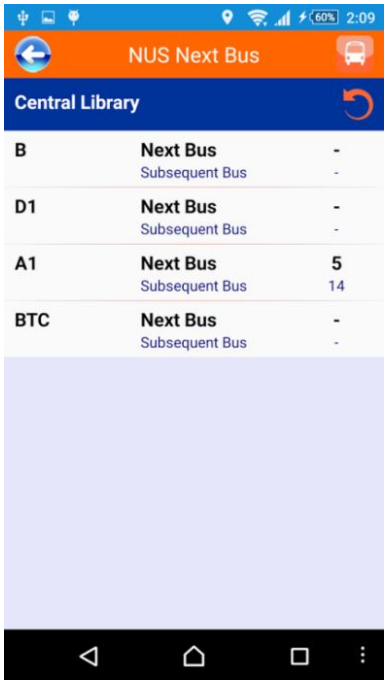
Amenities

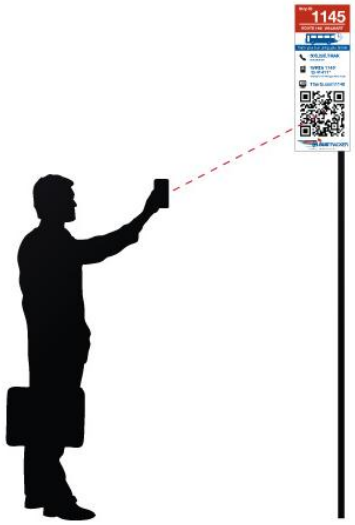
Bus Stop Design Elements

Schedules

Traditional postings vs. real time technology

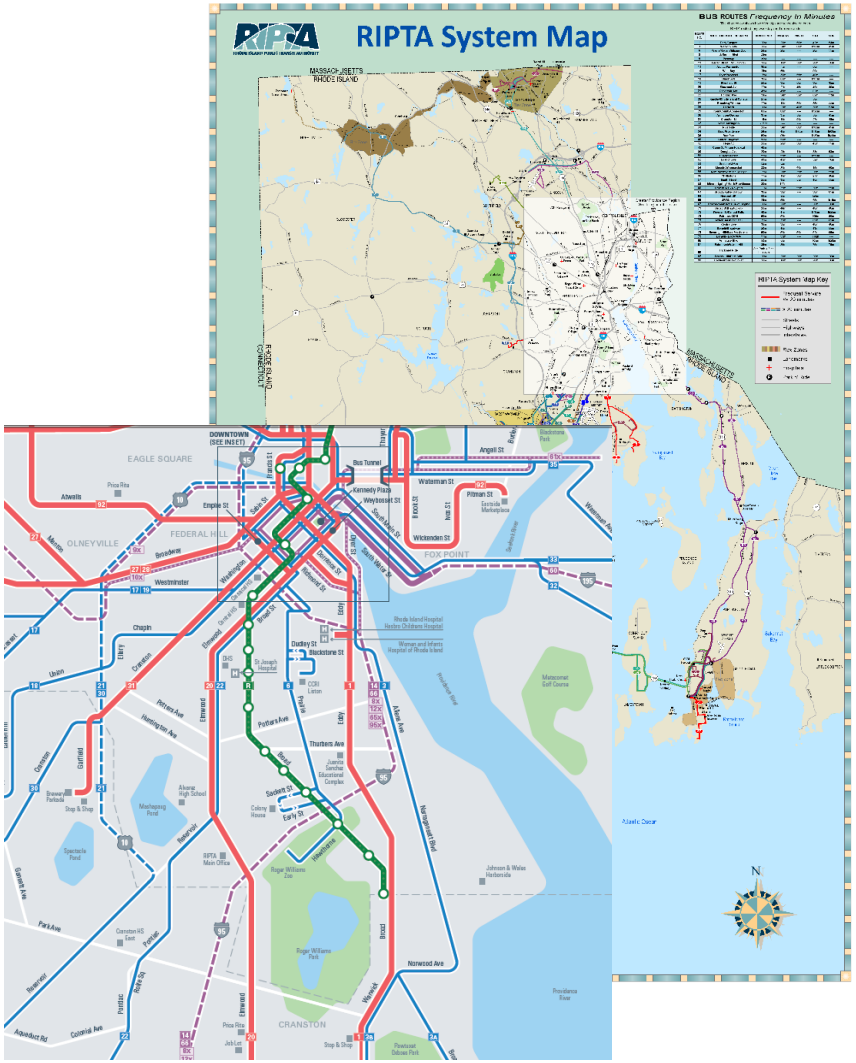






Bus Stop Design Elements

Maps



Bus Stop Design Elements

Signage

- Stop identity
- Customer service information
- Marketing/branding
- Delineate parking limits

Bus Stop Design Elements

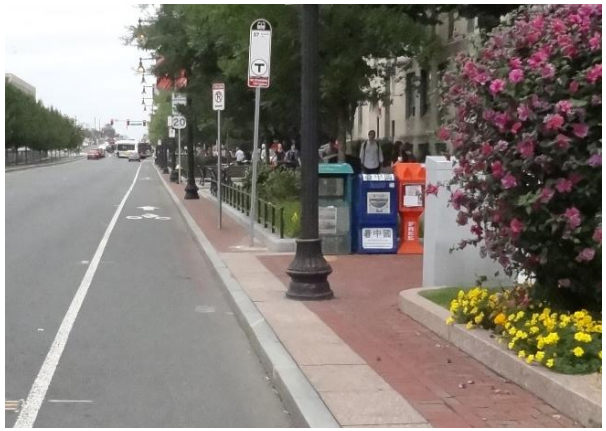
Striping

- Delineates the bus stop
- Helps prevent illegal parking
- Adjust when bus stop interacts with bike facilities

Bus Stop Design Elements

Integration with Bike Facilities

- Bike lane - adjacent to bus stop
- Bike lane - through a bus stop
- Bike lane - behind a bus stop
- Bike parking
- Bike share

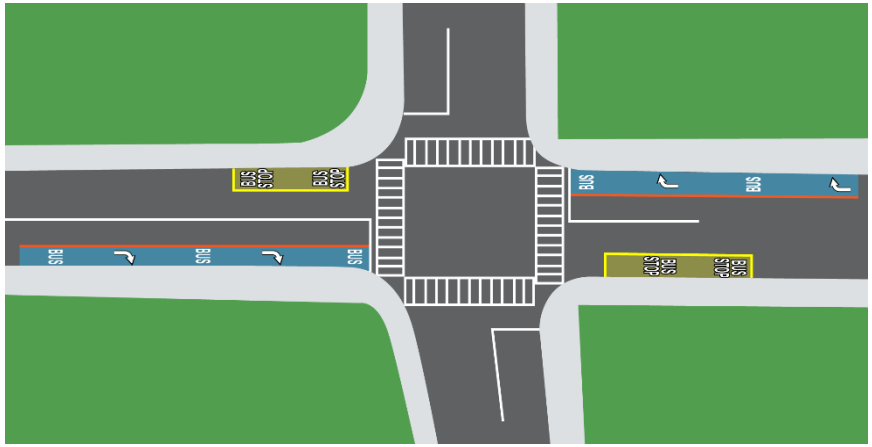


NACTO Urban Street Design Guide

Bus Stop Design Elements

Bus Priority

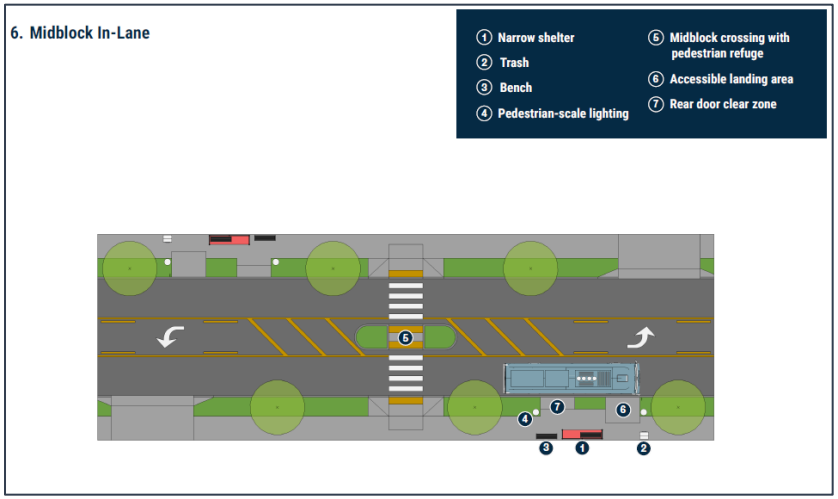
- Traffic signal coordination/timing
- Transit signal priority
- Bus queue jump lane
- Bus lane
  - Exclusive
  - Shared with bikes



Source: Boston Transportation Department

Design Development

- Urban/suburban/rural context
- Different roadway lane configurations
- Varying abutting land uses
- ADA compliance
- Pedestrian facilities
- Integration of bus stop amenities
- Bus priority measures
- Bus-bike interaction
- Types of bicycle facilities



Conclusion

Next steps

- Complete community meetings
- Receive comments on draft typologies
- Revise typologies
- Complete draft bus stop design guide
- Finalize bus stop design guide
- Present to RIPTA Board of Directors and RIDOT Chief Engineer for adoption

Conclusion

- Thank you
- Meeting materials on project website:

  www.ripta.com/rhode-island-bus-stop-design-guide
- Contact details:
  - Greg Nordin: gnordin@ripta.com
  - Sandra Clarey: sclarey@mcmahonassociates.com
  - Pam Sherrill : sherrill6@cox.net
  - (Comments to Pam by **Friday, July 15, 2016**)
- Questions/comments