#### **Complete Streets for Orleans** Prioritization Plan Development Orleans DPW Facility December 3<sup>rd</sup>, 2019 5:00 PM



# What is a **Complete Street?**

#### **Complete Streets Defined:**

A Complete Street is one that provides safe and accessible options for <u>all</u> travel modes – walking, biking, transit and vehicles – for people of <u>all</u> ages and abilities. Complete Streets improvements may be large scale, such as corridor wide improvements, or focused on the needs of a single mode.

## **Benefits of Complete Streets**

- \* Safety
- \* Health benefits
- \* People with disabilities
- \* Children and aging population



## **Safety Benefits**

- \* Sidewalks reduce pedestrian crashes 88% (FHWA)
- \* Shoulders reduce pedestrian crashes 71% (FDOT)
- \* Medians reduce crashes 40% (NCHRP)
- \* Road diets reduce crashes 18 49% (ITE)



## **Health Benefits**

- Strong relationship between obesity and neighborhood walkability
- \* People in communities with sidewalks are 47% more likely to get regular physical activity





United States > Massachusetts > Somerville

# Benefits for People with Disabilities

- \* 18.7% of Americans have some type of disability
- \* Curb cuts, high visibility crosswalks, etc.
  \* Reduce isolation and

dependence

Source: 2010 US Census

Harding Street, Worcester

## **Benefits for Children**

\* In MA 14.5% of 10 to 17 year olds are obese

\* Encourage physical activity with safe facilities



Safe Routes to School bike train to the LeRoy Wood Elementary School

## **Benefits for Aging Population**

 In Massachusetts the population age 65+ is estimated to increase from 14% to 21% (2010 - 2030)

\* About 1/2 of all non-drivers over the age of 65 in the U.S. would like to get out more often

Source: 2009 National Household Travel Survey, UMass Donahue Institute Population Estimates

## **Prioritization Plan**

4134

\* Up to \$400,000 per town available for Complete Streets Prioritization Plan Construction Projects
\* State Highways (e.g. Route 6, Route 6A, and Route 28) are not eligible for Complete Streets Funding Program

Healthier Communities Through Design, American Institute of Architects (AIA) Massachusetts Avenue, Arlington

## **Prioritization Plan Template**

ma	SSDOT	Complete Streets Funding	Program Pro	ject Prioritizatio	on Plan												
	Municipality	Eastham	Date	2/13/2018													
	MassDOT District	5	Name/Title	Neil Andres, Superintendent of Public Works													
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	Project Details		EJ	Complete Streets Location			Project On	gin and Type	Complete stree		ets needs	Complete Streets Funding Request		Construction Schedule			
Rank	Project Name	Project Description	Environmental Justice Population	Project Limits	Project Start Location: X,Y Coordinates (MA State Plane meter)	Project End Location: X,Y Coordinates (MA State Plane meter)	Complete Streets Project Origin (planning documentation or supporting analysis)	Complete Streets Project Type (refer to the Eligible Projects Worksheet)	Safety ADA Accessibility Pedestrian Mobility	Bicycle Mobility Transit Operations and Access Vehicular Operations	Freight Operations	Will this project be in Coordination with other Communities? (list, if applicable)	Total Estimated Project Cost	Complete Streets Funding Requested	Other Funding Source(s) and Amount (if applicable)	Anticipated Construction Duration (number of months)	Desired Construction Start Date (month/year)

\*

- \* Rank
- \* Project Name
- \* Project Description
- Environmental Justice Population
- \* Project Limits
- \* Project Start Location
- \* Project End Location
- \* Complete Streets Project Origin
- \* Complete Streets Project Type
- \* Complete Streets Needs

- \* Will this project be in Coordination with other Communities?
  - **Total Estimated Project Cost**
- Complete Streets Funding Request
- Other Funding Source(s) and Amount
- \* Anticipated Construction Duration
- \* **Desired Construction Start Date**

### <u>Complete Streets Project Type</u>: Traffic Flow and Safety

S1. Pavement markings or signage that provides a new separate accommodation for bicycle, pedestrian or transit modes S2. Removal of protruding objects (pedestrian path of travel, bicycle, vehicular or transit facility)

S3. Pedestrian signal & timing (minor updates)

S4. Changing pedestrian signal timing (i.e., lead pedestrian interval)

S5. Radar speed feedback ("Your Speed") signs

S6. Reducing corner radii to lower vehicle speeds and/or decrease pedestrian crossing distances

S7. Additional regulatory signing (for existing regulations)



Tighter corner radii on Route 6A in Orleans shorten crossing distances.

### <u>Complete Streets Project Type</u>: Traffic Flow and Safety (continued)



Roundabout at Route 39 and Queen Anne Road in Harwich.

S8. Speed humps/speed tables
S9. Street lighting
S10. Road diets
S11. Speed attenuation devices
S12. Roadway resurfacing or micro
surfacing if restriping for new bicycle lanes
S13. Intersection reconstruction – reducing
complexity and crossing distance
S14. New curbing or edging on uncurbed
streets.

S15. Addition of or widening of shoulders
S16. Intersection signalization (major updates/upgrades & new Installation)
S17. Traffic calming measures
S18. Roundabouts
SO. Traffic & Safety - Other

## <u>Complete Streets Project Type:</u> Bicycle Facilities

B1. Improvement of shared use paths (non-safety related)
B2. Designated bicycle lanes
B3. Bicycle parking fixtures and/or shelters at transit and other locations
B4. On-street bicycle parking
B5. Provide bicycle-safe drain grates and other hardware
B6. Bicycle boulevards
B7. Bicycle wayfinding signs



Bicycle lane with pavement markings on George Ryder Road in Chatham.

B8. Shared lane markings (sharrows)
B9. Bike route signs
B10. New shared use paths
B11. Designated Separated Bicycle Lane
B12. Elimination of hazardous conditions
on shared use paths
B13. Intersection treatments (bicycle signals, bicycle detection, bike lane
extensions, turn boxes)
B0. Bicycle Facilities - Other



Setucket Road path in Dennis.

## <u>Complete Streets Project Type:</u> Pedestrian Facilities

- P1. Sidewalk repairs (tree roots, uplifted panels, etc.)
- P2. Providing ADA/AAB compliant curb ramps
- P3. Detectable warning surfacesP4. Pedestrian wayfinding signs
- P5. Providing new sidewalks
- **P6.** Providing pedestrian buffer zones
- P7. Pedestrian Refuge Islands
- P8. Curb extensions at pedestrian crossings
- P9. Crosswalks
- P10. Widening existing sidewalks



Sidewalk with grass buffer along Route 28 in Chatham.

P11. Accessible pedestrian signals
P12. New or improved crossing
treatments at intersections, midblock, etc.
including RRFB's and HAWK signals
P13. New pedestrian accommodations at
existing traffic signals
P14. Interim public plazas
P15. Traffic re-routing to create
pedestrian zones
P16. Providing medians with
ADA/AAB-compliant design
PO. Pedestrian Facilities - Other



Pedestrian Crosswalk on Old Townhouse Road in Yarmouth.

### Complete Streets Project Type: **Transit Facilities**

**T1.** Improving transit connections for pedestrians, including: ramps, providing T6. Railroad grade crossings and/or moving crosswalks, signing T2. Improving transit connections for bicyclists, including: providing secure bicycle parking, signing T<sub>3</sub>. Transit shelter

T4. Transit signal prioritization

T<sub>5</sub>. Bus pull-out areas improvements (signs, flange way fill, etc.)

- T7. Transit contra-flow lanes
- T8. Park-n-ride facilities
- T9. Transit-only lanes
- **TO.** Transit Facilities Other



Transit connections to Rail Trail in Orleans.



Bus pull-out and shelter at Salt Pond Visitor Center, Cape Cod National Seashore.

## Complete Streets Needs

- \* Safety
- \* ADA Accessibility
- \* Pedestrian Mobility
- Transit Operations and Access
- \* Freight Operations



Detectable warning strip at pedestrian crossing at Crowell Road in Chatham.

## <u>Context Sensitivity</u>



Complete Streets/Living Streets A Design Manual for Cape Cod



October 2012 Cape Cod Commission

capecodcommission.org/CompleteStreetsDesignManual.pdf



# Sidewalks & Destinations

#### **Sidewalks and Destinations**

----- Town Boundary

--- Cape Cod Rail Trail

Existing Sidewalk

CAPE COD

Activity Sites

- Arts & Culture
- Library
- Recreation
- School
- Senior Center
- Accommodation and Food Services
- Gallery
- Retail Trade

## Roadway Classification

#### **Road Classification**

---- Town Boundary

--- Cape Cod Rail Trail

Environmental Justice Area



Road Classification

- Urban / Rural Principal Artery
- Urban Principal / Rural Minor Arterial

----- Urban Collector / Rural Minor Collector ----- Local





# Traffic Volumes & Crashes

#### **Traffic Volume and Crashes**

- Town Boundary
   Cape Cod Rail Trail
   Existing Sidewalk
- Average Daily Traffic — ≤1,000 vehicles
- ≤2,500 vehicles
  - ≤5,000 vehicles
- ≤15,000 vehicles
- \_\_\_\_\_ ≤15,000+ vehicles
- Vehicle Crash (2012 2017)
- Bicycle Involved
- Pedestrian Involved

## Walking Demand Analysis

#### **Methodology:**

Based on proximity to each Activity Type (Community & Business) and estimated population, and estimate of potential walking demand is calculated for each road segment. These scores only apply to the study area (Orleans)

Road segments that already accommodate pedestrians are un-colored. Non-accessible roads (e.g., dirt roads) are shown with thick black lines. Roads that do not currently accommodate pedestrians but are near activities are shown using the following priority color scale: Walking Demand Score

- ─ ≤20 Lowest
- ≤40 Low
  - ≤60 Medium
- ≤80 High
- ≤100 Highest
- Other

# Walking Demand Analysis

Roads that do not currently accommodate pedestrians but are near activities are shown using the following priority color scale:



- ≤40 Low
  - ≤60 Medium
- \_\_\_ ≤80 High
- \_\_\_\_≤100 Highest
- Other



## **THANK YOU!**

For more information: www.capecodcommission.org/OrleansCompleteStreets

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