Complete Streets for Orleans
Prioritization Plan Development
Orleans DPW Facility
December 3rd, 2019 5:00 PM
What is a Complete Street?

Complete Streets Defined:
A Complete Street is one that provides safe and accessible options for all travel modes – walking, biking, transit and vehicles – for people of all 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

Black & Macinko, 2008
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

State of Obesity, 2011

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 ½ 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

* 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
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* 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
Complete Streets Project Type: 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)
Complete Streets Project Type: Traffic Flow and Safety (continued)

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
Complete Streets Project Type: 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

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)
BO. Bicycle Facilities - Other

Bicycle lane with pavement markings on George Ryder Road in Chatham.
Setucket Road path in Dennis.
Complete Streets Project Type: Pedestrian Facilities

P1. Sidewalk repairs (tree roots, uplifted panels, etc.)
P2. Providing ADA/AAB compliant curb ramps
P3. Detectable warning surfaces
P4. 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

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

Sidewalk with grass buffer along Route 28 in Chatham.

Pedestrian Crosswalk on Old Townhouse Road in Yarmouth.
Complete Streets Project Type: Transit Facilities

T1. Improving transit connections for pedestrians, including: ramps, providing and/or moving crosswalks, signing
T2. Improving transit connections for bicyclists, including: providing secure bicycle parking, signing
T3. Transit shelter
T4. Transit signal prioritization
T5. Bus pull-out areas
T6. Railroad grade crossings improvements (signs, flange way fill, etc.)
T7. Transit contra-flow lanes
T8. Park-n-ride facilities
T9. Transit-only lanes
TO. Transit Facilities - Other
Complete Streets Needs

* Safety
* ADA Accessibility
* Pedestrian Mobility
* Transit Operations and Access
* Freight Operations
Context Sensitivity

capecodcommission.org/CompleteStreetsDesignManual.pdf
Sidewalks & Destinations

Sidewalks and Destinations

- Town Boundary
- Cape Cod Rail Trail
- Existing Sidewalk

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 Minor Arterial / Rural Major Collector
- Urban Collector / Rural Minor Collector
- Local
Traffic Volumes & Crashes

Crash Data based on Massachusetts Department of Transportation crash records, 2016-2018
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 Analysis

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
THANK YOU!

For more information:
www.capecodcommission.org/OrleansCompleteStreets

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