



CAPE COD  
COMMISSION

2024 REGIONAL TRANSPORTATION PLAN

Technical Appendix M:  
Transportation Project Analysis

**FINAL JULY  
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# Technical Appendix M: Transportation Project Analysis

## UNIVERSE OF PROJECTS

The universe of projects identified for funding can be divided into one of four funding categories:

- Transportation Projects
- Transportation Programs
- Smart Solutions
- Transportation Studies

A **“transportation project”** is specific in the location and nature of construction or other activity that is anticipated. Examples of potential transportation projects include the Provincetown Shank Painter Road and Route 6 Improvement project and the construction of a new multi-use trail from the end of the existing Shining Sea Bikepath to the Cape Cod Canal Path. Any project over \$20 Million in total cost must be included in the RTP to receive federal funding. Projects under \$20 Million may be included in the RTP depending on the level to which the project has been developed.

Given that the RTP, covers a 20-25-year time-span it beyond our ability to define every specific transportation project that will implemented. Therefore, **“transportation programs”** identifying categories of specific transportation projects that are anticipated to be implemented and identifying funds to pay for these bundles of transportation projects. Examples of potential transportation programs include roadway resurfacing, intersections improvements, and transit operating assistance and capital needs.

**“Smart solutions”** are initiatives that do not require major investments in capital or operations. Examples of potential smart solutions include coordination of Cape Cod Regional Transit Authority and ferry schedules with each other and the development of a Cape-wide bicycle route system.

Finally, **“transportation studies,”** seek to solve problems through planning efforts that focus on analysis of alternatives and public participation. These transportation studies ultimately identify solutions to problems that may be in the form of future transportation projects, programs, and/or smart solutions.

Each of the transportation projects, transportation programs, smart solutions, transportation studies listed with the universe of projects includes the town, title, description, and category. A score is presented for projects that have been scored the Transportation Improvement Program

(TIP) Transportation Evaluation Criteria. Remaining project are considered to be a “stage zero” with insufficient information on the nature of the potential project to score the project. These criteria, as summarized in the table below, were approved by the Cape Cod MPO following the adoption of the 2020 RTP. These criteria may be updated following the adoption of the 2024 RTP to ensure consistency between on RTP and the TIP.

TABLE 1. Transportation Improvement Program (TIP) Transportation Evaluation Criteria

CATEGORY	CRITERIA	POINTS (OUT OF 100)
System Preservation and Modernization	■ Primary asset condition / effect on condition	35
	■ Sidewalks and other infrastructure enhancement	
	■ Use of modern technology/ITS regional efforts	
Mobility	■ Motorist congestion	10
	■ Non-motorist congestion	
	■ Effect on Connectivity / access	
Safety	■ Motorist crash history and anticipated safety impact	10
	■ Non-motorist crash history and anticipated safety impact	
Economic Impact	■ Access to or within a regionally-designated economic development area	10
	■ Access to or within a locally-designated business district	
	■ Connections between housing, job, cultural centers, and essential services	
	■ Ability of the region’s freight network to handle current and future freight needs	
Environmental and Health Effects	■ Wetlands, wildlife, or other resource protection	10
	■ Water quality through stormwater management and treatment	
	■ Air quality / GHG emission	
	■ Coastal Resiliency/Sea Level Rise Vulnerability	
	■ Cultural resources or open space	
Cost Effectiveness	■ Healthy Transportation Options	15
	■ Project cost per user	
Policy Support	■ Community support (demonstrated through highest elected officials)	10
	■ Regional plans/policies	
	■ Local plans/policies	
	■ Supports Federal/State policies/goals	

The Universe of Projects for the 2024 RTP are shown on the following pages.

RTP#	Type	TOWN	Title	Description	Category
4027	Project	Barnstable	Rt 6A W. Barnstable Sidewalk	Construct sidewalk along Route 6A in W. Barnstable	Bicycle/Pedestrian
4000	Smart Solution	Barnstable	CCRTA Bike Rental	Provide bike rental service at Hyannis Transportation Center	Bicycle/Pedestrian
3802	Project	Barnstable	Hyannis Access Improvements	Improve access to downtown Hyannis per Hyannis Access Study. Construct 2 additional travel lanes w/landscaped median on Yarmouth Road to connect from existing 4-lanes in Yarmouth to Route 28 in Hyannis. Includes multi-use path and sidewalk. Implement rotary retrofit to Airport Rotary	Highway
3340	Project	Barnstable	Truck Staging at Route 6 Interchange	Construct truck transfer staging area near a Route 6 (e.g., Exit 6 or Exit 7) interchange for transfer of freight from large trucks to smaller trucks for destinations in the Hyannis Area. Consider rail freight transfer.	ITS/Management
5013	Study	Barnstable	Route 149 Improvements	Improve grading and alignment of Route 149; includes bicycle and pedestrian accommodations	Multi-Modal
3804	Study	Barnstable	Exit 6 Park-and-Ride Lot Expansion	Examine options at Exit 6 Park-and-Ride Lot such as parking structure or surface lot expansion to expand parking supply	Park & Ride
3303	Project	Barnstable	Route 132 Corridor Improvements	Construct median, signal improvements, and multi-modal improvements to improve safety from Airport Rotary to Bearses Way	Safety
3308	Project	Barnstable	Airport Rotary Traffic Improvements	Reconfigure Airport Rotary to improve traffic flow and safety. May include realignment of approaches and reduction of diameter to conform to modern roundabout design. Includes multi-modal improvements	Safety
3318	Project	Barnstable	Barnstable Roundabout	Improve traffic flow and safety of the Route 6A/Route 132 intersection through channelization of traffic movements (roundabout)	Safety
5031	Project	Barnstable	Route 28 at Santuit-Newtown Road Intersection Improvement	Route 28 at Santuit-Newtown Road intersection improvement to address this high crash location.	Safety
5032	Project	Barnstable	Route 28 at Pitchers Way Intersection Improvement	Route 28 at Pitchers Way intersection improvement to improve safety at this high crash location and incorporate multi-modal accommodations to connect to the Bearses Way improvements.	Safety
	Project	Barnstable	Bicycle Lockers	Install secure bicycle storage at Hyannis Transportation Center (i.e. bike lockers)	Bicycle/Pedestrian
	Program	Barnstable	CCRTA TOD	CCRTA Transit Oriented Development improvements in Hyannis	Transit
	Project	Barnstable	CCRTA Transit Station Improvements	Hyannis Transit Center Infrastructure and Building Improvements	Transit
3367	Project	Barnstable Boston	Barnstable-Boston Ferry Service	Ferry service: Barnstable to Boston	Ferry
5011	Smart Solution	Barnstable Boston	Passenger Rail - Hyannis	Expand passenger rail service to Hyannis	Rail
4046	Project	Barnstable Bourne	Upper/Mid Cape Real Time Traffic Information System	Real Time Traffic Information System -- Design Build of year-round 24/7 Web based traffic information system based on cameras, sensors, with 511 to reduce road rage, congestion, and improve mobility and incident management through improved information	ITS/Management
4009	Smart Solution	Boston	Logan Intercity Bus Information	Provide real-time bus location information, schedules, fares etc. for service from Logan to Cape Cod	ITS/Management
3331	Project	Bourne	Scenic Highway/Rte 25 Connector Ramp	Develop a direct connection from Scenic Highway to Rte. 25 to divert traffic from the Belmont Circle.	Highway

<b>3304</b>	<b>Project</b>	Bourne	Bourne Rotary Improvements	Reconfigure Bourne rotary to allow direct connection between Bourne Bridge to Route 28 (MacArthur Blvd). Interim improvements to improve flows and safety at rotary entrances and exits by widening and pavement markings/signage.	Highway
<b>3322</b>	<b>Project</b>	Bourne	Rte 28 MacArthur Boulevard Improvements	Bourne - Construction of 2 new northbound lanes on Rte 28, reverse existing northbound, existing southbound becomes frontage road	Highway
<b>5003</b>	<b>Project</b>	Bourne	Exit 1C Ramp Relocation	Relocated westbound Route 6 Exit 1C ramps away from Sagamore Bridge	Highway
<b>4087</b>	<b>Project</b>	Bourne	Reconfigure Route 6/28 Bypass (Buzzards Bay)	Reduce road width to 1 travel lane in each direction; provide local access to cross-streets; construct multi-use path from Memorial Circle to Belmont Circle. Per 2007 "Buzzards Bay Village Comprehensive Transportation Plan."	Highway
<b>4086</b>	<b>Project</b>	Bourne	Memorial Circle Reconfiguration (Routes 6/28, Main Street Buzzards Bay)	Convert Memorial Circle to 4-way Intersection; includes slip lane connection for eastbound Routes 6/28 to Main Street. Per 2007 "Buzzards Bay Village Comprehensive Transportation Plan."	Highway
<b>3306</b>	<b>Project</b>	Bourne	Infrastructure Improvements for Buzzards Bay Commuter Rail Service	Infrastructure Improvements (Platform, Parking, etc.) for Buzzards Bay Commuter Rail Service	Rail
<b>4010</b>	<b>Study</b>	Bourne	Rail Connection at "Y"	Examine construction of direct connection from Canal-side rail to Falmouth rail (eliminating need to lower Canal rail bridge)	Rail
<b>3300</b>	<b>Project</b>	Bourne	Scenic Highway Median Barrier	Complete construction of median barrier along Route 6 Scenic Highway from Nightingale Rd to Edgehill Rd in Bourne	Safety
<b>3805</b>	<b>Study</b>	Bourne	Sagamore Bridge Speed Management	Identify measures to encourage safe speeds on Route 3 and Route 6 approaches to the Sagamore Bridge	Safety
<b>5010</b>	<b>Smart Solution</b>	Bourne Boston	Passenger Rail - Buzzards Bay	Expand passenger rail service to Buzzards Bay	Rail
<b>4004</b>	<b>Study</b>	Bourne Falmouth	Falmouth-Wareham Bike Connection	Connect Falmouth bike paths to Bourne/Wareham town line at William Dalton Bridge including connection to Cod Canal bike paths	Bicycle/Pedestrian
<b>5015</b>	<b>Project</b>	Bourne Sandwich Barnstable Yarmouth Dennis Brewster Orleans	Route 6A Improvements	Provide bicycle & pedestrian accommodations along Route 6A	Bicycle/Pedestrian
<b>3301</b>	<b>Project</b>	Bourne Sandwich Barnstable Yarmouth Dennis Harwich Brewster Orleans	Interchange Improvements Rte 6	Mid-Cape Hwy - Implement improvements to Route 6 Interchanges and on and off ramps	Highway
<b>4011</b>	<b>Project</b>	Bourne Sandwich Barnstable Yarmouth Dennis Harwich Brewster Orleans	Route 6 Hydroplaning	Route 6 stormwater improvements to remove runoff from traveled way, including construction of shoulders as needed	Safety
<b>3807</b>	<b>Project</b>	Bourne, Sandwich	Cape Cod Canal Bridge Program	Replace existing Cape Cod Canal bridges and improve Canal Area roadways and approaches. Includes expansion of multimodal accommodations	Highway
<b>3006</b>	<b>Project</b>	Bourne, Sandwich	Cape Cod Canal Park-and-Ride Lot(s) Improvements	Construct new and/or expand existing Park-and-Ride facilities on both sides of the Cape Cod Canal near highway bridges	Multi-Modal
	<b>Project</b>	Brewster	Linnell Road Bike Path Connection	Construct a connection from the CCRT to Linnell Landing and the future development at the former CCSC bay property	Bicycle/Pedestrian
<b>5000</b>	<b>Project</b>	Capewide	Bike Path Connectors to town centers	Bike Path Connectors to town centers per CCC studies	Bicycle/Pedestrian
<b>5001</b>	<b>Project</b>	Capewide	Bikeshare	Deploy bikeshare bicycles to village centers and strategic locations	Bicycle/Pedestrian
	<b>Program</b>	Capewide	E-Bikes	Deploy electric bike charging stations across the region	Bicycle/Pedestrian
	<b>Smart Solution</b>	Capewide	Car Share	Encourage a car share service to reduce burden of car ownership for those who might be underserved or regionally isolated.	Multi-Modal/Transit
	<b>Program</b>	Capewide	E-Bikes	Fund Cape Light Compact e-bike rebate program annually and partner with a bank to provide low interest financing for purchases	Bicycle/Pedestrian
<b>3022</b>	<b>Program</b>	Capewide	Bicycle/Pedestrian Projects	Bicycle and/or pedestrian facilities and programs. Includes development of a regional bike network, bike lane construction, bicycling accessibility improvements and amenities, pedestrian accessibility improvements and sidewalk network expansion.	Bicycle/Pedestrian



<b>3005</b>	<b>Program</b>	Capewide	Safe Routes to Schools	Installation of sidewalks and provide other improvements and programs to promote safe routes to schools	Bicycle/Pedestrian
<b>3718</b>	<b>Smart Solution</b>	Capewide	Zoning/Planning Support for Sidewalks	Improve zoning regulations & planning efforts to invest in sidewalks and bicycle parking/amenities	Bicycle/Pedestrian
	<b>Smart Solution</b>	Capewide	Zoning/Parking Regulations	Eliminate the land use regulations that promote low-density development – such as mandated parking and exclusionary single-family zoning – and continue to dig us deeper into a hole of car dependency	Climate Change
<b>5016</b>	<b>Project</b>	Capewide	Shared Use Path Crossing Improvements	Install uniform safe road crossings for shared use paths	Bicycle/Pedestrian
<b>3020</b>	<b>Program</b>	Capewide	Bridge	Bridge Replacement/Reconstruction	Bridge
<b>5020</b>	<b>Program</b>	Capewide	Climate Change Adaptation & Mitigation	Implement adaptive measures at strategic locations to respond to the effects of climate change. Includes technological upgrades to support the electrification of the transportation system	Climate Change
<b>5002</b>	<b>Study</b>	Capewide	EV Charging Stations	Deploy electric vehicle charging stations at strategic locations throughout Cape Cod	Enhancements
<b>3391</b>	<b>Study</b>	Capewide	Renewable Fuels Pilot Stations	Develop pilot stations for renewable fuels such as biodiesel and ethanol. Proposal includes one station in the Mid-Cape area and one in the Outer Cape area	Enhancements
<b>3832</b>	<b>Study</b>	Capewide	Renewable Fuels Partnership Strategic Implementation Plan	Identify potential renewable fuel options, technologies, markets, and infrastructure needs to make use of biofuels both viable and sustainable	Enhancements
<b>5026</b>	<b>Program</b>	Capewide	Installation of DC Fast Charging Stations	Installation of DC Fast Charging Stations along Route 6 and other regionally strategic locations	Enhancements
<b>5028</b>	<b>Program</b>	Capewide	Electrification of CCRTA transit fleet	Implementation of CCRTA transit fleet electrification study according to CCRTA strategic plan	Enhancements
<b>2022</b>	<b>Program</b>	Capewide	Culvert & Bridge Abutment Improvements	Remove tidal restrictions and restore river and stream connectivity	Environmental
<b>5021</b>	<b>Program</b>	Capewide	Stormwater Treatment	Improve roadway stormwater volume and treatment including nutrient management in key watersheds	Environmental
<b>5027</b>	<b>Program</b>	Capewide	Priority Low Lying Roads segments	Implementation of resilience projects for priority Low Lying Roads segments	Environmental
<b>3025</b>	<b>Program</b>	Capewide	New Ferry Service	Passenger ferries/water taxis connecting Cape Cod harbors	Ferry
<b>3364</b>	<b>Project</b>	Capewide	HOV Lanes	Construct High-Occupancy Lanes at key segments of freeways such as Route 6, 3, 25, and 28.	Highway
<b>3000</b>	<b>Program</b>	Capewide	Roadway Rehabilitation & Reconstruction	Roadway resurfacing, rehabilitation, and reconstruction	Highway
<b>3001</b>	<b>Program</b>	Capewide	Intersection Improvements	Intersection Improvements, including roundabouts, to address safety and congestion relief. Includes left-turn lanes & phases at signalized intersections	Highway
<b>3319</b>	<b>Project</b>	Capewide	Transportation Management Center	Design & construct Operations Center to monitor traffic operations, issue real-time reports to traveling public, control variable message signs and coordinated traffic signals	ITS/Management
<b>3310</b>	<b>Project</b>	Capewide	Canal Area Intelligent Transportation System	Expand transportation monitoring system to improve congestion & safety while providing real-time information Capewide & beyond	ITS/Management
<b>3371</b>	<b>Project</b>	Capewide	Outer Cape ITS Operations Control Center	Design and build an initial control center to accommodate ITS deployment for the Outer Cape	ITS/Management
	<b>Project</b>	Capewide	Outer Cape Intermodal Center	Build an intermodal or dispatch center in the Outer Cape to provide microtransit	Transit
<b>3372</b>	<b>Project</b>	Capewide	Information Kiosks	Procure, install, and enable public transportation information kiosks	ITS/Management
<b>3379</b>	<b>Project</b>	Capewide	Upgrade Radio System for CCRTA Service	Improve communications systems and provide capacity to accommodate ITS components /Narrowband Radio.	ITS/Management
<b>3374</b>	<b>Project</b>	Capewide	Surveillance Cameras	Permit, and install surveillance cameras for the Outer Cape to observe traffic conditions and monitor Nat'l Seashore parking facilities.	ITS/Management
<b>3009</b>	<b>Program</b>	Capewide	Cape-wide Intelligent Transportation Systems (ITS)	Design and implement real-time transportation monitoring and notification technologies at facilities throughout Cape Cod. Includes highway and transit users traveling to and within Barnstable County.	ITS/Management

<b>3002</b>	<b>Program</b>	Capewide	Land Conservation	Strategic purchase of land to reduce sprawl and inefficient allocation of transportation resources. Also used to acquire land for improvement of intersections and protection of operations at new interchanges	ITS/Management
<b>3011</b>	<b>Program</b>	Capewide	Access Management	Eligible for all state and local numbered routes. Curb cut consolidation, medians, other access improvements	ITS/Management
<b>3024</b>	<b>Program</b>	Capewide	Travel Demand Management/Transportation Systems Management (TDM/TSM)	Travel Demand Management/Transportation Systems Management projects (TDM/TSM). Includes support of Transportation Management Associations (TMAs). Provide assistance to employers and institutions for the development and coordination of alternative transportation options for employees and patrons.	ITS/Management
<b>3035</b>	<b>Program</b>	Capewide	Congestion Management	Consider peak period pricing at strategic locations to provide funding for transportation needs	ITS/Management
<b>3702</b>	<b>Smart Solution</b>	Capewide	Right-of-Way Preservation	Maintain rights-of-way for future transportation uses and to avoid future traffic generation	ITS/Management
<b>3703</b>	<b>Smart Solution</b>	Capewide	Vanpooling & Carpooling Incentives	Provide incentives to increase vanpooling and carpooling	ITS/Management
<b>3704</b>	<b>Smart Solution</b>	Capewide	Employer TDM Plans	Create incentives for employers to prepare and implement Travel Demand Management (TDM) plans (>25 Employees)	ITS/Management
<b>3705</b>	<b>Smart Solution</b>	Capewide	Redesignate 195 & 495	Redesignate Route 25 Extension as Route 195 or Route 495 or Route 195/495	ITS/Management
<b>3706</b>	<b>Smart Solution</b>	Capewide	Remote Continuous Traffic Counting	Encourage installation of equipment at signalized intersections and other locations to conduct traffic counts throughout Cape Cod throughout the year using remotely-accessible detection equipment	ITS/Management
<b>3707</b>	<b>Smart Solution</b>	Capewide	Carpooling "Stands/Stops"	Install signage and implement education & marketing program for the use of carpooling stands/stops" to promote higher occupancy vehicle use	ITS/Management
<b>3717</b>	<b>Smart Solution</b>	Capewide	Wi-Fi Hotspots	Install wireless internet services at strategic locations throughout Cape Cod	ITS/Management
<b>3809</b>	<b>Study</b>	Capewide	Sustainable Freight Options Study	Conduct a study of sustainable freight options to follow-up on the Freight Study completed February 2015	ITS/Management
<b>3819</b>	<b>Study</b>	Capewide	Evaluation of Existing Transit Info Software/Procurement	Evaluate customer information software to be used for a web-based system to support CCRTA operations	ITS/Management
<b>3826</b>	<b>Study</b>	Capewide	ITS Evaluation and Phase II Recommendation study	Evaluate ITS deployment and make recommendations.	ITS/Management
<b>4076</b>	<b>Program</b>	Capewide	Mashpee Wampanoag Roadway & Transit Projects	Implement roadway & transit improvements to improve accessibility & mobility to and within tribal lands in Mashpee	Multi-Modal
<b>3028</b>	<b>Program</b>	Capewide	Park-and-Ride Lot Management	Monitor parking usage of parking facilities at Barnstable, Sagamore, Harwich; identify & acquire new facilities, expansions as necessary	Multi-Modal
<b>3716</b>	<b>Smart Solution</b>	Capewide	Vanpooling at Steamship Authority Lots	Permit use of Steamship Authority parking facilities for vanpooling	Multi-Modal
<b>4077</b>	<b>Study</b>	Capewide	Mashpee Wampanoag Roadway & Transit Study	Identify roadway& transit improvements to improve accessibility & mobility to and within tribal lands in Mashpee	Multi-Modal
<b>5025</b>	<b>Project</b>	Capewide	Bicycle Wayfinding	Install bicycle wayfinding signage for on-road bicycle facilities (i.e. State Bike Route 1) and wayfinding to rail trails and to connect to village centers.	Multi-Modal
<b>3381</b>	<b>Project</b>	Capewide	Parking Improvement Implementation - Phase 1	Develop inland parking for the National Seashore	Park & Ride
<b>3018</b>	<b>Program</b>	Capewide	Railway Infrastructure	Maintain & provide rail infrastructure	Rail
<b>5005</b>	<b>Study</b>	Capewide	Freight Rail	Increase use of rail for movement of freight	Rail
<b>4008</b>	<b>Program</b>	Capewide	Adaptive Signalization	Install and maintain signal prioritization hardware (e.g., Opticom) at traffic signals to improve public safety vehicle access, and transit priority	Safety
<b>3036</b>	<b>Program</b>	Capewide	Street Lighting	Install street lighting in high crash and pedestrian and transit activity areas	Safety

<b>3034</b>	<b>Program</b>	Capewide	Underground Utilities/Pole Relocation	Remove above ground utilities adjacent to roadways and install them underground or away from roadsides to improve safety where appropriate	Safety
<b>3033</b>	<b>Program</b>	Capewide	Vegetation Management	Implement a comprehensive program to trim/remove vegetation from encroaching areas	Safety
<b>3019</b>	<b>Program</b>	Capewide	Red Light Running Cameras	Support legislation to allow installation of red-light running cameras at high-crash signalized intersections	Safety
<b>3007</b>	<b>Program</b>	Capewide	Traffic Calming	Promote the installation of traffic calming features at town accepted locations	Safety
<b>3700</b>	<b>Smart Solution</b>	Capewide	Speed Management	Implement education, signage and enforcement to lower traffic speeds on roadways with speed-related safety problems	Safety
<b>3708</b>	<b>Smart Solution</b>	Capewide	Bicycling & Motorist Traffic Law Enforcement	Enforce traffic laws on bicyclists and motorists	Safety
<b>3342</b>	<b>Project</b>	Capewide	Emergency Routes & Shelters Signage	Install signage indicating emergency routes and shelter locations	Security
<b>3811</b>	<b>Study</b>	Capewide	Disaster/Emergencies/Security Plan	Develop plans to address disasters, emergencies, and security issues	Security
<b>3813</b>	<b>Study</b>	Capewide	Railways for Transporting Emergency Supplies	Develop contingency plan to use railways for transporting supplies during emergencies	Security
<b>5019</b>	<b>Project</b>	Capewide	Transit Frequency Improvements	Increase frequency of transit service (including additional night & weekend service)	Transit
<b>4052</b>	<b>Project</b>	Capewide	Intercity Commuter Rail	Intercity Commuter Rail service from Buzzards Bay to Boston (year round)	Transit
<b>3385</b>	<b>Project</b>	Capewide	Beach Shuttle Expansion	Acquire additional buses to accommodate inland National Seashore parking needs - National Park Service.	Transit
<b>4017</b>	<b>Project</b>	Capewide	Expansion of Next-Gen Mobile Data Terminals to Paratransit	Install new and upgrade existing dynamic transit service signage displays, global positioning systems (GPS), automatic vehicle location (AVL) systems, in-vehicle navigation systems, digital driver manifests and mobile data collection.	Transit
<b>3021</b>	<b>Program</b>	Capewide	Transit Operating	Transit Operating Assistance	Transit
<b>3015</b>	<b>Program</b>	Capewide	Additional CCRTA Service	Public transit shuttles connecting villages along Route 6A from Sandwich to Orleans, Provincetown-Orleans Shuttle, etc.	Transit
<b>3320</b>	<b>Program</b>	Capewide	Local Transportation Centers	Construct intermodal transportation centers in Buzzards Bay, Orleans, Mashpee etc.	Transit
<b>3037</b>	<b>Program</b>	Capewide	Bus Service Amenities	Provide bus schedule signage & related amenities	Transit
<b>3004</b>	<b>Program</b>	Capewide	Transit Marketing, Promotion & Education	Implement education programs and marketing and promotion activities to support public transit	Transit
<b>4021</b>	<b>Program</b>	Capewide	Construction of Enhanced Bus Shelters	Build intelligent, accessible, and energy efficient Cape Cod style bus shelters that provide real-time customer information and amenities.	Transit
<b>4014</b>	<b>Smart Solution</b>	Capewide	CCRTA Coordination	Coordinate schedules and service between CCRTA and regional service providers	Transit
<b>3715</b>	<b>Smart Solution</b>	Capewide	Transit Education & Marketing on Local TV	Implement education programs and marketing activities on community-access television to support public transit	Transit
<b>3829</b>	<b>Study</b>	Capewide	Develop Origin/Destination Transit Mode Split Model	Create a transit model for Cape Cod	Transit
	<b>Program</b>	Capewide	Cape Cod TMA	Establish a Cape Cod Transportation Management Association to encourage carpooling and transportation demand measures to reduce greenhouse gas emissions	Multi-Modal
	<b>Program</b>	Capewide	CCRTA Zero Emissions Fleet	Implementation of Cape Cod Regional Transit Authority Zero Emissions Vehicle Fleet Charging Infrastructure	Transit

	<b>Program</b>	Capewide		Pr	
	<b>Program</b>	Capewide	Speed Reduction in Village Centers	Develop Safe Speed standards with MassDOT for village center areas along Route 28 and Route 6A	Safety
<b>4035</b>	<b>Project</b>	Chatham	Rt 28/Crowell Rd/Depot Rd/Queen Anne Rd Intersection Improvements	Intersection improvements at Rt 28/Crowell Rd/Depot Rd/Queen Anne Rd in Chatham	Highway
	<b>Project</b>	Dennis	Route 6A/Route 134 Intersection Improvements	Upgrade intersection to include pedestrian accommodations and signal upgrades	Bicycle/Pedestrian
	<b>Project</b>	Dennis	Route 28 Complete Street Upgrade	Upgrade Route 28 Corridor to include sidewalks and bicycle lanes from Old Main Street to Dennis Commons (Phase III)	Bicycle/Pedestrian
	<b>Project</b>	Dennis	Lower County Road Bridge over Swan River	Replace 1955 bridge	Bridge
	<b>Project</b>	Dennis	Highbank Road Bridge over Bass River	Replace 1953 bridge	Bridge
<b>4079</b>	<b>Project</b>	Dennis	Rt 6A (Dennis) Sidewalks	Route 6A sidewalks Yarmouth TL to Sesuit Neck Road	Bicycle/Pedestrian
<b>4080</b>	<b>Project</b>	Dennis	Rt 134 (Dennis) Bike/Ped Accommodation	Route 134 multi-modal and safety improvements from Bob Crowell Road to Theophilus Smith Rd	Bicycle/Pedestrian
<b>5023</b>	<b>Project</b>	Dennis	Rt 6 Bridge over Bass River	Bridge replacement/rehabilitation of Route 6 bridge over Bass River	Bridge
<b>4053</b>	<b>Project</b>	Dennis	Rt 134/Airline Rd Roundabout	Route 134 at Airline Road, Intersection Improvements (roundabout)	Highway
	<b>Project</b>	Dennis	CCRTA New Maintenance Facility	Cape Cod Regional Transit Authority New Maintenance Facility	Transit
<b>5029</b>	<b>Project</b>	Dennis/Yarmouth	Route 28 Bass River Bridge Replacement	Route 28 Bass River Bridge Replacement project to address this deficient structure and incorporate multi-modal accommodations.	Bridge
<b>4006</b>	<b>Study</b>	Eastham	Route 6 Complete Street	Route 6 in Eastham: add bike accommodation, improve sidewalks, bus turnouts & stops to create "Complete Street"	Multi-Modal
<b>3359</b>	<b>Project</b>	Eastham	Route 6/Gov. Prence Road Intersection Improvements	Install improvements at Route 6/Governor Prence Road intersection in Eastham	Safety

<b>4078</b>	<b>Project</b>	Eastham	Governor Prence Road reconstruction and improvements	Reconstruction to improve sub-surface, pavement, and multimodal accommodation	Safety
<b>4001</b>	<b>Project</b>	Eastham Orleans	Eastham Rotary Retrofit	Rotary retrofit safety improvements with signage and striping. Include bike/ped accommodation to connect Orleans to Rock Harbor Rd & Rt 6 in Eastham via periphery of rotary	Safety
<b>5014</b>	<b>Project</b>	Falmouth	Route 151 Improvements-Falmouth	Provide bicycle & pedestrian accommodations along Route 151	Bicycle/Pedestrian
<b>3337</b>	<b>Project</b>	Falmouth	Cross-Falmouth Bikepath	Bike path connection from E. Falmouth to Gifford St. to Shining Sea Bike Path	Bicycle/Pedestrian
<b>4005</b>	<b>Smart Solution</b>	Falmouth	New Bedford-Martha's Vineyard Freight	To reduce traffic on Woods Hole Rd, operate barges between New Bedford and Martha's Vineyard to carry fuel trucks and garbage trucks.	Ferry
<b>5030</b>	<b>Project</b>	Falmouth	Route 28A at Route 151 Intersection Improvement	Route 28A at Route 151 Intersection Improvement Project to address this high crash locatoin and incorporate multi-modal accomodations	Safety
<b>5024</b>	<b>Project</b>	Falmouth	Route 151 Safety	Route 151 corridor improvement project to improve safety along this high speed corridor. Key intersection upgrades.	Safety
<b>3368</b>	<b>Project</b>	Falmouth and Hyannis to New Bedford	2 New Ferry Services	Provide new ferry services: New Bedford-Woods hole, New Bedford-Hyannis	Ferry
<b>4088</b>	<b>Project</b>	Falmouth Bourne Sandwich Barnstable Yarmouth	Cape Cod Bike Path Extensions (Mid- and Upper-Cape)	Extend path (Cape Cod Rail Trail) from Yarmouth to Canal bikepath and from Canal through Bourne to Shining Sea Bikeway (Bourne Rail Trail)	Bicycle/Pedestrian
<b>3324</b>	<b>Project</b>	Falmouth, Mashpee, Barnstable, Yarmouth Dennis, Harwich, Chatham, Orleans	Rte 28 Multimodal Improvements	Multimodal improvements on Route 28 from Falmouth to Orleans including markings, signage, minor widening, multi modal and intersection improvements per the MassDOT Rte 28 Complete Streets Study.	Multi-Modal
<b>3803</b>	<b>Project</b>	Falmouth, Mashpee, Barnstable, Yarmouth, Dennis, Harwich, Chatham	Southside Bike Route	Define network (on- and off-road) for bike route from Woods Hole to Chatham	Bicycle/Pedestrian
<b>4082</b>	<b>Project</b>	Harwich	Bike Path Connector	Bike Path Connection from Old Colony Rail Trail to Rt 28 & Beaches (Harwich)	Bicycle/Pedestrian
<b>3014</b>	<b>Program</b>	Harwich to Truro	Flex Parking	Construct or designate parking areas for The Flex transit service	Multi-Modal
<b>5008</b>	<b>Project</b>	Mashpee	Route 151 Improvements Mashpee	Provide bicycle & pedestrian accommodations along Route 151 and safety upgrades along corridor.	Bicycle/Pedestrian
<b>5007</b>	<b>Study</b>	Mashpee	Mashpee Rotary Area Improvements	Modify Mashpee Rotary and approaches to improve traffic flow and safety. Includes accomodations for bicycle and pedestrian use.	Multi-Modal
<b>3361</b>	<b>Project</b>	Mashpee Barnstable	Route 28 Improvements-Mashpee/Barnstable	Improvements on Rte 28 from Santuit/Newtown Road to Orchard Road in Mashpee	Highway
<b>3701</b>	<b>Smart Solution</b>	New Bedford	Promote Ferry Service from New Bedford	Work with relevant agenices to promote the New Bedford ferry service to the Islands as an alternative mode to reduce traffic on congestion	Ferry
<b>4061</b>	<b>Project</b>	Orleans	Main Street (Orleans) Improvements	Main Street Sidewalk extension and reconstruction of Meeting House Road intersection	Bicycle/Pedestrian
<b>3332</b>	<b>Project</b>	Orleans, Eastham, Wellfleet, Truro, Provincetown	Route 6 Improvements Orleans to Provincetown	Implement safety improvements in the Route 6 corridor between Orleans and Provincetown	Highway
<b>4023</b>	<b>Project</b>	Provincetown	Shank Painter Rd Corridor Improvements	Corridor improvements including new sidewalks, curb cut consolidation, landscaping, bicycle lanes, etc.	Bicycle/Pedestrian
<b>3388</b>	<b>Project</b>	Provincetown	Provincetown Bicycle Path Ext - Phase I	Develop an extension from Race Point to McMillan Pier	Bicycle/Pedestrian
<b>3389</b>	<b>Project</b>	Provincetown	Provincetown Bicycle Path Ext	Develop ped/bicycle facility using a portion of the Rte. 6 ROW	Bicycle/Pedestrian
<b>3390</b>	<b>Project</b>	Provincetown	Provincetown Intermodal Gateway Project - Construction	Construct the Intermodel Center Gateway	Enhancements
<b>4062</b>	<b>Project</b>	Provincetown	Commercial St (Provincetown) Reconstruction	Commercial Street Reconstruction	Highway

<b>5017</b>	<b>Project</b>	Provincetown	Circulator Bus	High frequency trolley bus circulating among parking areas to serve downtown	Transit
<b>5004</b>	<b>Study</b>	Provincetown Boston	Improved Ferry Service	Increase ferry frequency throughout the year	Ferry
	<b>Project</b>	Sandwich	Route 130 Shared Use Path	Install shared use path or sidewalk on Route 130 from Quaker Meetinghouse Road to Service Road	Bicycle/Pedestrian
	<b>Project</b>	Sandwich	Quaker Meetinghouse Road	Upgrade existing signalized intersections of Quaker Meetinghouse Road at Cotuit Road and Route 130	Highway
	<b>Project</b>	Sandwich	Route 6A Intersection Improvements	Signalized intersection improvements along Route 6A to improve accessibility at Tupper Road, Jarves St and Quaker Meetinghouse Road	Highway
	<b>Project</b>	Sandwich	Cotuit Road corridor	Corridor improvement project to improve multi-modal accommodations and improve vehicular safety	Highway
<b>4083</b>	<b>Project</b>	Sandwich	Canal Connector Bike Path	Bike Path Connection from Cape Cod Canal to Service Road (Tunnel under Route 6 long term need)	Bicycle/Pedestrian
<b>4044</b>	<b>Project</b>	Sandwich	Rt 6A over Scorton River Bridge	Replace bridge: Rt 6A over Scorton River in Sandwich	Bridge
<b>4026</b>	<b>Study</b>	Sandwich Mashpee	Rt 130 Road Diet	Narrow travel lane width to reduce speeds and accommodate bicycles/ pedestrians	Safety
<b>3027</b>	<b>Program</b>	Sandwich, Barnstable, Yarmouth, Dennis, Brewster, Orleans	Route 6A/Scenic Byways	Corridor Management Plan update and implement recommended improvements. Includes connection of sidewalks (on both sides in villages), "Sharrows" pavement markings for bike accommodation. For report, see <a href="http://www.gocapecod.org/6Away">www.gocapecod.org/6Away</a>	Highway
<b>3330</b>	<b>Project</b>	Sandwich, Bourne	Bus-Only Lanes for Rte 3 & Rte 6	Provide bus-only lanes between for both Rte. 3 and Rte. 6. This is expected to be achieved by widening and strengthening the shoulder section	ITS/Management
<b>4069</b>	<b>Project</b>	Wellfleet	Chequessett Bridge	Chequessett Bridge Replacement	Bridge
<b>3302</b>	<b>Project</b>	Wellfleet, Truro, Provincetown	Cape Cod Bike Path Extensions (Outer Cape)	Extend Cape Cod Rail Trail from Wellfleet to Provincetown	Bicycle/Pedestrian
<b>4074</b>	<b>Project</b>	Yarmouth	South Shore Dr (Yarmouth) Sidewalks	Yarmouth, Sidewalk improvements: South Shore Drive sidewalk- from Sea View Ave. to South Middle Beach	Bicycle/Pedestrian
<b>4075</b>	<b>Project</b>	Yarmouth	Winslow Gray Rd (Yarmouth) Sidewalks	Yarmouth, Sidewalk improvements: Winslow Gray Rd. sidewalk 0.75 miles long from Buck Island Rd. to Long Pond Dr.	Bicycle/Pedestrian
<b>3358</b>	<b>Project</b>	Yarmouth	Route 6A/Union Street Intersection Improvements	Route 6A/Union Street intersection improvements in Yarmouth	Highway
<b>4045</b>	<b>Project</b>	Yarmouth	Old Townhouse Rd/Forest Rd Intersection Improvements	Intersection improvements at Old Townhouse Rd/Forest Rd in Yarmouth	Highway
<b>3363</b>	<b>Project</b>	Yarmouth	West Yarmouth Rt 28 Intersection Improvements	Construct intersection improvements at Route 28 & East Main Street in West Yarmouth	Safety

## PROJECT ANALYSIS

Of the funding represented in the plan, a portion is available for “regional target projects.” These are projects that the Cape Cod MPO has jurisdiction to select and prioritize. To ensure equity in the prioritization of these funds, Title VI and other equity considerations were incorporated in both the screening and analysis phases of the project selection process.

### Screening of Highway Regional Target Projects

In order to determine the projects to be contained within the financial constraint of the document, analysis was conducted on the universe of projects (includes all potential projects identified during the development of the document). Analysis of projects was limited to projects \$20 million or greater as staff determined this is the scale of project appropriate for specific inclusion in this document. Some projects under \$20 million were included if it was determined that the potential benefits were commensurate with these larger scale projects. Analysis was conducted with a subcommittee of the Cape Cod Joint Transportation Committee where each project was considered for potential benefit, estimated cost, consistency with the goals of the RTP, impact on performance targets, project score (where available), equity as it relates to minority, low income, Limited English Proficiency (LEP) and other protected populations, and GHG reduction potential (presented in Appendix N). Considering these factors and the anticipated available funding, a financially-constrained program of projects was developed with the CCJTC subcommittee, reviewed by the CCJTC, and ultimately endorsed by the Cape Cod MPO. This evaluation including scoring based on level of support for the goals of the RTP. Scores up to five were given depending on the level of impact of the project and level of support of the RTP goal as follows:

- 5 - Strongly supports goal; highest level of positive impact
- 4 - Strongly supports goal; high level of positive impact
- 3 - Strongly supports goal; moderate positive impact
- 2 - Supports goal; moderate positive impact
- 1 - Supports goal; minor positive impact
- 0 - Not applicable
- Overall adverse impact (potential disqualification of project)

With these scores, a weighing was applied for each of the seven RTP goals with a total maximum score of 100 points.

- 20 points – Safety
- 15 points – Environmental and Sustainability
- 15 points – Livability and Economic Vitality
- 15 points – Multimodal Options/ Healthy Transportation
- 15 points – Congestion Reduction
- 10 points – System Preservation
- 10 points – Freight Mobility

TABLE 2. Highway Regional Target Projects – Scoring

PROJECT	SAFETY	ENVIRONMENT AND SUSTAINABILITY	LIVABILITY AND ECONOMIC VITALITY	MULTIMODAL/HEALTHY TRANSPORTATION	CONGESTION REDUCTION	SYSTEM PRESERVATION	FREIGHT MOBILITY	TOTAL
Mashpee: Route 151	16	3	9	9	6	6	6	55
Route 28 Multimodal Improvements: Various Locations	20	6	15	15	6	8	8	78
Provincetown, Shank Painter Road and Route 6 Improvements	16	6	9	15	3	6	6	61
Rail Trail Extensions (Mid- and Upper-Cape)	12	6	6	15	6	6	6	51
Route 6 Safety Improvements (Outer Cape)	12	6	6	15	6	6	6	51
Rail Trail Extensions (Upper and Outer Cape)	12	6	6	15	6	6	6	51
Hyannis Area Improvements	16	6	12	12	9	8	8	71
Route 6 Safety Improvements (Interchanges and Shoulders)	20	0	3	0	3	8	4	38
Bridge Replacement Route 28 over Bass River <sup>1</sup>								-
Cape Cod Canal Bridges Program <sup>1</sup>								-
Maximum Possible	20	15	15	15	15	10	10	100

<sup>1</sup> Projects funded or intended to be funded through a combination of state and federal sources outside of the regional target.

### Analysis of Highway Regional Target Projects

Following the screening process, a more detailed analysis of potential impacts (positive or negative) on low income, minority, and LEP populations was conducted as presented in the following.

Of the approximately \$387 million programmed for specific projects, approximately 75% was on projects within and proximate to minority populations, 92% was on projects within and proximate to low-income populations, and 80%, was on projects within and proximate to LEP populations. Given the regional nature of these projects, even projects that are not proximate to these identified population are likely to positively impact these identified populations as they travel through these locations to access regional services. This represents an investment in transportation infrastructure



serving these areas proportionally higher than other areas on Cape Cod. In summary, the areas with higher proportions of low income and minority populations see more transportation dollars spent than other areas on Cape Cod.

Of the approximately \$387 million in highway regional target funding, approximately \$339 million is programmed for specific regional target projects while the remainder will go to “Programs and Smart Solutions.” Analysis was limited to the specific projects, with existing TIP analysis procedures ensuring that the “Programs and Smart Solutions” will be programmed in an equitable way.

**TABLE 3. Highway Regional Target Projects – Income, Minority, and LEP Population Impacts**

PROJECT	LOW INCOME [I], MINORITY [M], OR LIMITED ENGLISH PROFICIENCY [LEP] POPULATION AREA PROXIMATE	NATURE OF IMPACT ON LOW INCOME, MINORITY, OR LEP AREA
Mashpee: Route 151	M	Improved bicycle/ pedestrian access, safety, traffic flow
Route 28 Multimodal Improvements: Various Locations	TBD	Improved bicycle/ pedestrian access, safety
Provincetown, Shank Painter Road and Route 6 Improvements	I	Improved bicycle/ pedestrian access, safety
Rail Trail Extensions (Mid- and Upper-Cape)	I, M, LEP	Improved bicycle/ pedestrian access, safety
Route 6 Safety Improvements (Outer Cape)	I	Improved bicycle/ pedestrian access, safety, traffic flow
Rail Trail Extensions (Upper and Outer Cape)	I	Improved bicycle/ pedestrian access, safety
Hyannis Area Improvements	I, M, LEP	Improved bicycle/ pedestrian access, safety, traffic flow
Route 6 Safety Improvements (Interchanges and Shoulders)	I, M, LEP	Improved safety, traffic flow
Bridge Replacement Route 28 over Bass River <sup>1</sup>	I, M	Improved bicycle/ pedestrian access, safety
Cape Cod Canal Bridges Program <sup>1</sup>	I, M	Improved bicycle/ pedestrian access, safety, traffic flow

<sup>1</sup> Projects funded or intended to be funded through a combination of state and federal sources outside of the regional target.

For reference, demographics maps are included in Appendix L. GHG project analysis is presented in Appendix N.

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