

TRANSPORTATION PLANNING INITIATIVES

FOR CAPE COD

Prepared for the Cape Cod Commission

by

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INSIGHTS AND IMPLICATIONS

- 1. Cape Cod is, de facto, an island surrounded by water. Land access is controlled by two road bridges and a rail bridge. Although usually viewed as a problem, this situation offers significant advantages for controlling and managing traffic flow and for exploring new, high-speed marine transport alternatives .*
- 2. The Cape serves as a stepping stone for off-Cape traffic bound for the Islands. We should explore ways of diverting some of this traffic away from Wood's Hole and Hyannis to "mainland" ports, such as Boston, New Bedford, and New London.*
- 3. Congestion on Cape roads and highways occurs primarily on certain routes at certain times of day in the peak season. We should examine the potential of congestion pricing, information, and capacity management to smooth traffic flows.*
- 4. Tourists and other visitors are the straws that break the camel's back and we need to focus on managing their travel behavior and choices.*
- 5. Many transportation choices today are made in partial or total ignorance of traffic conditions and the availability of alternative modes. Provision of good, timely, easily accessible information is vital if travelers are to make intelligent choices.*
- 6. Experience shows that many car drivers will use public transportation, especially when interchange between the two modes is made simple and convenient. Park-and-ride lots offer significant potential for capturing car traffic "upstream" of the travelers' final destination.*
- 7. Shortsighted zoning and land use decisions have done much to weaken the effectiveness and safety of our present road network. We should look for opportunities to reverse some of these mistakes and to avoid making new ones.*

TEN INITIATIVES FOR CAPE TRANSPORTATION PLANNING

1. Emergency evacuation planning

The experience of Hurricane Edouard in September 1996 shows an urgent need to develop emergency evacuation plans

- Focus on getting visitors off-Cape when hurricanes occur during peak summer season. Methodology could also apply to other emergencies.

ACTION: Make initial contact with the Massachusetts Emergency Management Agency, local and State Police, the Massachusetts Highway Department, and the Army Corps of Engineers during the spring of 1997. Seek grant opportunities to develop an evacuation plan for Cape Cod.

2. Congestion pricing.

Bridge tolls and surcharges on other transportation fees have the potential to reshape the timing of travel demand and to provide financing for alternatives

- Bridge tolls that vary by season and by time-of-day
- Fare surcharges at peak times on car ferries to the Islands
- Time-of-day parking meters

ACTION: Begin initial review during the spring and summer of 1997. Gather documentation of experience elsewhere. Analyze potential revenue streams based on different pricing strategies, including an exemption for Cape-registered vehicles. Request examination of toll plaza designs as part of the Bourne and Sagamore rotary alternative studies currently underway. Hold public hearings during the Fall of 1997.

3. Reversible bridge lanes

When traffic volumes are predominantly in one direction, bridge capacity could be increased by allocating more lanes in that direction

- Focus on getting the most capacity out of existing structures rather than building new ones.

ACTION: Review experience of other bridges (e.g. Golden Gate) in implementing reversible lanes. Include access improvements to reversible lanes as part of Sagamore and Bourne Bridge rotary and toll plaza studies

4. Marine diversion program: Capturing passenger and freight traffic before it crosses the bridges

High-speed ferries may offer visitors an attractive alternative to driving congested highways en route to the Cape and Islands. There may also be potential for marine freight shipments.

- High-speed car ferry services from New Bedford and New London to: Vineyard Haven, Hyannis, Nantucket
- High-speed passenger ferry services (Hydrofoil or Catamaran) (Possible routes: Boston to Provincetown, Plymouth to Provincetown, Wareham/Sagamore to Provincetown via CC Canal, Boston to Woods Hole/Vineyard Haven via CC Canal and Wareham, New Bedford to Wood's Hole and Vineyard Haven--with connections to Nantucket)
- Freight shipment by sea to Cape and Island destinations (*see rail categories*)

ACTION: Research high-speed ferry services in US, Canada, and other parts of the world (e.g. Australia, UK-Ireland, UK-France, Hong Kong-Macau), including operating experience, financial results, reliability. Review existing and potential docking facilities for both car and passenger ferries and for marine freight. Consider public hearings in Fall 1997 in conjunction with toll proposal.

5. Rail diversion program: Switch passengers and freight to rail

Rail service to and from the Cape has sunk to minimal levels. We need to determine the potential for reviving freight and passenger traffic.

- Weekend trains to connect with new South Shore commuter lines
- Consider opportunities for piggyback rail service for heavy freight (e.g., lumber, other building materials, fuel oil and gasoline miscellaneous heavy/bulky non-time-sensitive shipments)

ACTION: Document last 10 years experience with Cape trains, look at possibilities for coordination with new south shore lines. Document existing use of rail for freight shipments. Seek funding for additional demonstration service.

6. New Seasonal Bus and Shuttle Routes

The huge influx of summer visitors poses a need for increased levels of service on existing transit routes and for new services to popular summer destinations

- Park-and-ride at the bridges, shuttle to Hyannis or Woods Hole docks
- Identify potential new summer routes to Cape (e.g. Springfield/Worcester to Hyannis)
- Identify new park-and-ride options on-Cape (e.g. from Hyannis and other towns to Provincetown and to Whalewatch boats; from remote lots to National Seashore beaches)
- Consider new park-and-ride lots at high schools and middle schools

ACTION: Review possibilities in Spring 1997. Review feasibility of new park-and-ride lots north of Bourne and Sagamore bridges in conjunction with rotary and toll studies. Document potential volumes for Whalewatch. Identify, evaluate school parking options. Work closely with the Cape Cod Regional Transit Authority and involve other potential bus operators.

7. Travel Smarter" information program

People can't make intelligent travel decisions in the absence of good information

(A) Highway forecasts (for later in the day, following day, weekend)

- Travelers could obtain advance information on probable traffic congestion in similar fashion to weather forecasts
- Media for dissemination may include: Electronic signage on highways, 1-800 number for telephone, Cape and Boston newspapers, local radio stations, community cable TV channel, website.

ACTION: Obtain and analyze 1996 traffic counting data from the Massachusetts Highway Department traffic counting stations. Pursue installation of additional permanent traffic counting stations on all numbered routes on Cape Cod, with direct tie-in to Cape Cod Commission offices. Seek demonstration grant to develop and disseminate traffic forecasts.

(B) Highway conditions (real-time).

- Travelers could obtain real-time information on traffic conditions
- Media for dissemination may include: Electronic signage, 1-800 number for telephone, local radio stations, roadside radio (designated frequency), community cable TV, website Consider commercial sponsorship.

ACTION: Pursue funding for installation of remote sensors, variable message signs, and highway advisory radio broadcasts to provide real-time information to drivers, initially focusing on the highways approaching the Cape Cod Canal in each direction.

(C) Enhanced public transit information and marketing

- Provide easy access to information needed to plan transit trips
- Media for dissemination may include: printed booklet, 1-800 number for telephone, community cable TV, website
- Develop enhanced on-vehicle signage (destinations, routing)
- Design, install new, standardized, bus stop signs with schedule frames
- Seek destination-supported advertising of services

Begin this spring on incremental basis. Could consider seeking commercial sponsorship for website and booklet.

(D) Road signage: "More clarity, less clutter"

- Enhance usefulness of road signage, while reducing visual pollution
- Work with state to test new symbol-based signs (less use of words)
- Work with towns to reduce sign clutter, consolidate information

ACTION: Begin work as soon as possible. Work with Mass. Highway Dept. on state roads and with towns on local roads (there is room for voluntary participation)

8. Curb Cut Reductions

The proliferation of curb cuts on major highways not only causes traffic slowdowns but also poses a significant safety hazard year-round.

- Ask state to impose moratorium on new cuts on state roads
- Ask towns to consider moratorium on town roads
- Examine possibilities for consolidation of cuts (both residential and commercial)

- Examine potential for closure of cuts on main highway frontage and creation of rear service roads with limited access to highway.

ACTION: Work with DPW directors, local police chiefs and town planners to identify where curb cuts currently pose a problem and where new development might create further problems,

9. Roadside Safety Hazards Evaluation

Many artificial roadside hazards, notably utility poles, pose a serious safety threat. Selective removal would reduce the potential for accidents when cars veer off the road.

- Past accident records may be a good predictor of future risks

ACTION: Gather and analyze accident records. Identify specific locations and roads where roadside hazards may cause or contribute to accidents. Work with the towns and the state to ameliorate problem locations.

10. Planning for the Impact of Coastal Erosion

Between now and 2020, some beach parking lots and coastal roads may be lost to erosion. The National Seashore is especially vulnerable.

- Precedent is provided by the 1978 destruction of the Coastguard Beach lot, replaced after a period of hiatus by shuttle service from the new Fish Creek park-and-ride lot

ACTION: Work with the towns, the state, and the Cape Cod National Seashore to identify threatened locations. Seek to identify alternatives to vulnerable facilities, preferably using other existing roads and parking locations in conjunction with shuttle services.

RECOMMENDED PRIORITIES

1. Immediate Action

- Emergency Evacuation Planning
- Evaluation of Roadside Safety Hazards
- Curb-cut Reductions

2. High Priority

- "Travel Smarter" Information Program
(pursue funding and sponsors immediately)
- Seasonal Bus and Shuttle Services

3. Further Study

- Congestion Pricing
(Request state to expand scope of rotary studies immediately)
- Reversible Bridge Lanes
(Request state to expand scope of rotary studies immediately)
- Rail Diversion Program
- Marine Diversion Program
(Study design currently in development--\$50,000 committed to the Cape Cod Commission and Cape Cod Economic Development Council to prepare a joint study and report)
- Planning for the Impacts of Coastal Erosion