

# Chappaquiddick Road and Dike Bridge Road Transportation Evaluation- Northeastern University

## Executive Summary

The Chappy Path Committee coordinated the funding of a senior design project with Northeastern University's Civil and Environmental Engineering Department. The objective of the project is to: evaluate the transportation infrastructure along Chappaquiddick Road (ferry to Dike Bridge Road) and Dike Bridge Road, to determine how well each transportation mode (e.g., pedestrians, bicyclists, and motor vehicles) are accommodated, evaluate parking lot operations on the Chappy Side, develop initial improvements, survey stakeholders for input, and as a conclusion submit a final plan with engineering designs and projected costs for consideration by Edgartown residents and government.

### Northeastern Project's Initial Concepts and Recommendations include:

After an extensive data collection effort and site visit, a number of concepts were considered for the project. All concepts considered would fit within the existing right-of-way (i.e., no land takings required). Each concept considered on-site constraints, user needs, and impact on comfort and safety (Table 1).

**Table 1 – Design Alternatives for Chappaquiddick Road and Dike Bridge Road**

<i>Alternative</i>	<i>Treatment</i>	<i>Infrastructure Required</i>	<i>Comfort and Safety</i>
Do Nothing		None	None
"Sharrows"	Pavement markings & legends	Pavement markings	Minimal
Bike Lanes	Pavement markings & legends	Additional pavement (next to roadway)	Minimal
Multi-Use Path		Additional pavement with buffer separation	High

In addition to the concepts for the roadways, recommendations were included for the intersection of Chappaquiddick Road and Dike Bridge Road, as well as parking lot operations (Chappy Side).

### Findings of the Northeastern Project

The study recommends the use of a multi-use-pathway, on the north side of the roadway, to address current conflicts and potential safety concerns between bicyclists, pedestrians, and motor vehicles. It also greatly increases the opportunity for intimidated residents and visitors to utilize the existing legal right-of-way for transportation, exercise and enjoyment as is available in a large part of the rest of Edgartown and Martha's Vineyard. An environmentally sensitive path designed in harmony with the surrounding landscapes preserves the rural feel of the roads and the island while accommodating the needs of residents and visitors to travel to the beaches and preserved landscapes with a minimum of risk and maximum enjoyment without the use of an automobile.

### Data

A full text of the first HTE Northeastern presentation is available on the web at: <http://www.mvtimes.com/marthas-vineyard/pdfs/edgartown/chappy-bike-path-report.pdf>

**More Information on Back of Sheet**

## **Opinion Survey**

The attached opinion survey questionnaire is part of the Northeastern Project work plan and is designed to evaluate the recommendations of its findings and design solutions. As a Chappy property owner, we urge you to participate in the survey (by filling out the questionnaire and returning it to the Northeastern Project team). This survey is an essential element of the project. Opinions collected will serve to polish the final output of this project and help frame public discussion on what kind of solution will best fit Chappy's needs.

We thank you for your participation in this project. Results will be compiled by the Northeastern Project Team on a confidential basis and the opinion survey summary report will be available to participants and the public.

## **Survey Instructions**

*You have been selected from the Edgartown tax list as a property owner of record on Chappaquiddick. Only one survey is being provided per property. This is an opinion survey intended to inform the process. Duplicates will not be accepted. Individual survey results will be private and confidential. A summary will be published.*

*You will have to reference the web site for some of the questions (no. 14, 15, 17, 19, 27, 31, 32):*

<http://www.mvtimes.com/marthas-vineyard/pdfs/edgartown/chappy-bike-path-report.pdf>

*Please help by completing the survey, placing it in the enclosed self-addressed-stamped envelope, and dropping it in a mailbox on or before April 12, 2010. Thank you.*

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## Chappy Recreational Multi-Use Path Opinion Survey

- 1** Are you a full time or seasonal resident of Chappaquiddick?  
 Full Time (>6 Months)  
 Seasonal (less than 6 Months)
- 2** Gender?  
 Male  Female
- 3** How many years have you lived on Chappaquiddick Island?  
\_\_\_\_\_
- 4** Are you registered to vote in Edgartown?  
 Yes  No
- 5** Is your Chappy property used primarily as a rental property?  
 Yes  No
- 6** Are you a member of the Chappaquiddick Island Association?  
 Yes  No
- 7** Were you in attendance at the presentation on 2/26/2010 at the Edgartown Town Hall?  
 Yes  No
- 8** Are you a Subscriber to the Chappaquiddick Community Center?  
 Yes  No
- 9** Does your property lie adjacent to the existing 50' Right-of-Way along Chappaquiddick Road or Dike Bridge Road?  
 Yes  No  
 On North Side  On South Side
- 10** Which of the following destinations do you travel to regularly? (Check all that apply)  
 Chappaquiddick ferry  
 Dike Bridge beach (Cape Poge Wildlife Refuge)  
 Mytoi Garden  
 Chappaquiddick Beach Club  
 Caleb's Pond  
 Wasque  
 Chappy Store  
 Chappy Community Center  
 Other \_\_\_\_\_
- 11** Which project alternative are you in favor of?  
Northeastern University's Design (Check one only)  
 Do nothing (slide #14)  
 Sharrows (slide # 15)  
 Dedicated bike lane (slide #17)  
 Mixed-use path (slide #19)  
Other possibilities (Check any that apply)  
 Mixed-use path on both sides of road  
 Using Litchfield and Chappy Rd for a one-way loop with one lane for cars and one for bikes  
 A mid-island interior path  
 Another option (Describe) \_\_\_\_\_
- 12** Would you vote on this issue if brought to a Town vote?  
 Yes  No
- 13** How often do you bike on Chappy in the summer?  
 Daily  Weekly  Never
- 14** If a multi-use path were built, would you use it?  
 Yes  No
- 15** Which Chappaquiddick Road/Dike Bridge Road intersection alternative are you in favor of? (Check one only)  
 Do nothing  
 Roundabout (Slide 31)  
 "T" intersection (Slide 32)
- 16** What mode(s) of transportation do you use regularly on Chappaquiddick Island? (Check all that apply)  
 Vehicle  Bike  
 Walk/Jog  Other \_\_\_\_\_
- 17** As a driver, do you feel comfortable sharing the road with bikes and pedestrians?  
 Yes  No
- 18** Do you have children/grandchildren (Under age of 10) that bike on Chappaquiddick?  
 Yes  No
- 19** What should the surface of a path be?  
 Asphalt  Concrete  
 Compacted stone dust  
 Other \_\_\_\_\_
- 20** Are you satisfied with the current Chappy Ferry parking lot?  
 Yes  No
- 21** Are you generally in favor of the redesign of the Chappaquiddick ferry parking lot shown on Slide 27?  
 Yes  No
- 22** Are you familiar with the mixed-use path on West Tisbury Road, and if so, do you find it aesthetically pleasing?  
 Yes  No  
 I am not familiar with this path
- 23** At what speed do you typically travel at along Chappaquiddick Road? \_\_\_\_\_ mph
- 24** As a biker or pedestrian do you feel safe on the road with vehicles?  
 Yes  No
- 25** Should children (<10 yrs) be able to bike alone on Chappy roads?  Yes  No
- 26** Are you actively involved in either promoting or rejecting a bike path?  
 Promoting  Rejecting  Neither
- 27** What are your most compelling concerns for your choices made in this survey? (Check up to only three)  
 Cost  
 Safety  
 Environmental impact  
 Keeping "Rural Jewel" feeling  
 Aesthetics  
 Overcrowding  
 Commercial development  
 Child and pedestrian friendly

Optional: Name \_\_\_\_\_ Age: \_\_\_\_\_