

Shore Drive Safety Task Force

Report to the SDAC

April 20, 2006

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Introduction

In response to the increasing citizen concern surrounding recent fatal accidents along the Shore Drive Corridor, the City of Virginia Beach City Council established the Shore Drive Safety Task Force (the "Task Force"). The mission of the Task Force was to evaluate the Shore Drive Corridor and make recommendations to improve the safety of both drivers and pedestrians. The Task Force was comprised of staff members from Planning, Police, Public Works, and Parks and Recreation as well as citizen members from the Shore Drive Advisory Committee (the "SDAC") and the Shore Drive Community Coalition (the "SDCC"). The Task Force leader was Mr. Charlie Meyer, Chief Operating Officer. Council Member Jim Wood also participated in the Task Force.

The Task Force was established to specifically advise City Council with respect to safety along Shore Drive and to provide short, mid and long term safety recommendations. The Task Force identified the section of Shore Drive between Independence Boulevard and the entrance to First Landing State Park as the limits of the corridor to be evaluated. Pursuant to the resolution, short term recommendations should be completed within six months, mid term within six to 18 months and long term within 18 to 36 months. Due to complexity, some recommendations may not be able to be completed within 36 months. The Task Force established three categories for the recommendations: regulatory, infrastructure and public involvement. These recommendations were developed through a series of meetings, a field trip and staff input.

The process began on January 10, 2006 with a Task Force meeting in which a list of safety concerns and suggestions were generated. All ideas generated at this meeting were evaluated. The ideas and suggestions generated at the first meeting were discussed in greater detail at the subsequent meetings. At these meetings, some ideas were combined and some were determined to be beyond the purview of this Task Force. After the third meeting, staff began to evaluate the ideas and suggestions. The recommendations were then categorized by regulatory,

infrastructure and public involvement, as well as short term, mid term and long term. A general scope of work, schedule and cost estimate were developed for all the recommendations. All estimates are “order of magnitude” estimates based on recent cost trends. Actual costs will vary depending on when design and construction begin, changes in the construction markets, and conditions encountered during actual design. Actual improvements implemented will be contingent upon the amount of funding provided and the costs at the time of implementation.

In evaluating the corridor it was determined that Shore Drive Demonstration Projects Phases I, II, and III and Lesner Bridge Replacement Project would provide improvements to about 75% of the evaluated area; Phase IV of the Demonstration Projects would increase the improvements to 90%. The limits of the demonstration projects are Phase I – Treasure Island Drive to Marlin Bay Drive, Phase II – South Oliver Drive to Treasure Island Drive, Phase III – Vista Circle to Croix Drive, and Phase IV – Marlin Bay Drive to Stratford Drive.

According to cost estimates prepared for the Task Force, the funding required to fully fund Shore Drive Demonstration Projects Phases I, II, and III and to fund Phase IV through 35% design is approximately \$13.8 million. Shore Drive Demonstration Project Phase I is currently funded through construction. However, a sidewalk requested for the north side of Shore Drive within the project limits of Phase I is not funded at this time. Shore Drive Demonstration Project Phase II and Phase III are currently funded through 35% design. The Lesner Bridge Replacement Project is currently funded through 35% design. Shore Drive Demonstration Project Phase IV is not funded at this time.

The Task Force recommends fully funding these projects and a package of short term improvements to improve corridor safety. With or without the Shore Drive Demonstration Projects, the Task Force recommends that a separate Capital Improvement Project be established to fund the selected recommendations. The Task Force also recommends that the Planning Commission revisit land use issues along the corridor.

Section I – Safety Recommendations

Regulatory Recommendations

Short Term

1. Remove Fatal Accident Sign and Replace with Community Signs (with Safety Related Theme)

Department: Public Works

Scope: Remove existing signs and replace with updated signs at up to eight locations.

Schedule: Can be implemented within 120 to 180 days

Cost: \$4,000.00

2. Install Yield to Pedestrian Signs and Pedestrian Warning Signs

Department: Public Works

Scope: Install signs at all signalized intersections along Shore Drive. Also install at locations known to have a high volume of pedestrian traffic.

Schedule: Can be implemented within 30 to 60 days

Cost: \$11,000.00

3. Legal Evaluation of Speed Limit Adjustments in Work Zones

Department: City Attorney's Office

Scope: Determine legal requirements for establishing work zones and speed limit adjustments within work zones.

Schedule: 6 months

Cost: To be determined.

Mid term

4. Evaluate Eliminating Right Turn on Red Movements at Signalized Intersections

Department: Public Works

Scope: Perform an analysis to determine the impacts of removing the Right Turn on Red movements at the signalized intersections along Shore Drive. If the analysis determines that the movements should be removed from the signal, then the signals will be retimed to accommodate the change. Traffic Counts will be collected at all intersections and new signal timings will need to be developed. Due to the seasonal nature of the corridor, counts will be taken in the peak season and the off season.

Schedule: Can be implemented within 12 to 15 months

Cost: \$21,000.00

5. Evaluate Eliminating Right of Way Encroachments

Department: Planning

Scope: Zoning and Code Enforcement will research the Shore Drive Corridor to determine what if any encroachments are authorized. Develop a strategy for working with property owners to eliminate encroachments.

Schedule: 12 to 18 months

Cost: \$5,000.00

Long term

6. Evaluate Higher Fines for Traffic Violations along Shore Drive

Department: City Attorney's Office

Scope: To be determined by City Attorney's Office

Schedule: To be determined

Cost: To be determined

7. Evaluate Lower Speed Limit along Sections of Shore Drive

Department: Public Works

Scope: This alternative would involve a traffic engineering speed study and investigation to be performed on the Shore Drive Corridor. This study will include the section of Shore Drive at the entrance to Fort Story Base.

Schedule: This would be completed within 15 to 18 months because of the seasonal nature of the corridor. The longer duration is needed to accommodate year round and seasonal data collection.

Cost: \$24,000.00

Infrastructure Recommendations

Short Term

8. Repair Damaged Sidewalks

Department: Public Works

Scope: Inspect the Shore Drive Corridor and identify areas where existing sidewalks are damaged. Damaged sidewalks will be removed and replaced with in kind facility. Repairs will be made by city forces and/or annual services contract.

Schedule: Can be implemented within 60 to 120 days

Cost: \$225,000.00

9. Sidewalks Installed (Minor Complexity)

Department: Public Works

Scope: Inspect the Shore Drive Corridor and identify areas where sidewalks can be installed. Sidewalks will be installed contiguously to existing structures and with in kind materials. Work to be completed by city forces or annual services contract.

Schedule: Can be implemented within 90 to 120 days

Cost: \$25,000.00

10. Refresh Pavement Striping and Marking (Minor Complexity)

Department: Public Works

Scope: Inspect the Shore Drive Corridor and identify areas where pavement striping and markings can be enhanced or installed. Existing crosswalks and pavement markings will be re-striped to provide better visibility. Installations will be completed by annual services contract.

Schedule: Can be implemented within 90 to 120 days

Cost: Varies with application
\$3,000.00 per mile per line for 4 inch edge line
\$7,500.00 to \$9,000.00 per intersection for crosswalks
(Approximate total cost \$240,000.00)

11. Pedestrian Signals (Adding Countdown Heads – Minor Complexity)

Department: Public Works

Scope: Add count down pedestrian counters to all signalized intersections in the Shore Drive Corridor. Installations will be completed by City forces or annual services contract.

Schedule: Can be implemented within 90 to 120 days

Cost: \$15,000.00

12. Have Sidewalks Installed with Developments – On-going

Department: Planning

Scope: The Development Services Center will require all future developments along Shore Drive to install sidewalk contiguous to adjacent parcels. Where there is no sidewalk on the adjacent parcels, DSC will coordinate with Public Works for the sidewalk location.

Schedule: Can be implemented within 30 days

Cost: Site plan requirement

13. Verify Stop Signs at all Non-signalized Intersections

Department: Public Works

Scope: Public Works will inspect and inventory the Shore Drive Corridor to insure all side streets to Shore Drive are properly signed.

Schedule: Can be implemented within 30 days

Cost: \$5,500.00

14. Maintenance of Existing Landscaping

Department: Landscape Services

Scope: Evaluate the Shore Drive Corridor to see if there are areas where the existing landscaping and trees need to be trimmed or cut back.

Schedule: Can be implemented within 90 days

Cost: Work will be completed by City forces.

Mid term

15. Continuous Sidewalk (Moderate Complexity)

Department: Public Works

Scope: Inspect the Shore Drive Corridor for sites where sidewalks can be added with moderate complexity issues. Examples of moderate complexity issues would be minor drainage issues, lack of edge treatment but sufficient clear zone or right of way, i.e. no right of way required, and only minor utility conflicts with private utility companies.

Schedule: Can be implemented within 12 to 15 months

Cost: \$4,800,000.00

16. Channelizing Pedestrians (Plants and/or Fencing)

Department: Public Works and Landscape Services

Scope: Evaluate the Shore Drive Corridor to determine areas where mid block crossing movements occur most and evaluate types of channelizing methods that would be appropriate.

Schedule: Can be implemented within 12 to 18 months

Cost: \$475,000.00

17. Evaluate Pedestrian Activated Signal East of Great Neck Road

Department: Public Works

Scope: Evaluate the feasibility of a pedestrian activated signal on the Shore Drive Corridor east of Great Neck Road. Improvements, if feasible, will include crosswalk and signal.

Schedule: Within 12 to 18 months

Cost: \$120,000.00

18. Evaluate Access Points (Side Streets)

Department: Public Works

Scope: Evaluate the Shore Drive Corridor to determine if closing some side streets or median openings to Shore Drive will benefit mainline and pedestrian flow. Analysis will be performed by annual service contract and include public meetings.

Schedule: Can be completed within 12 to 18 months

Cost: \$4,250,000.00

19. Perform a Warrant Analysis on Unsignalized Intersections

Department: Public Works

Scope: Evaluate the Shore Drive Corridor to determine if additional signal locations are warranted. Analysis will be performed by annual services contract. The cost estimate includes adding two new signals.

Schedule: Can be completed within 12 to 18 months

Cost: \$500,000.00

20. Retime Signals

Department: Public Works

Scope: Collect data necessary to retime Shore Drive Corridor and evaluate with respect to pedestrian movements to insure adequate crossing time at signalized intersections. Analysis will be performed by annual services contract.

Schedule: Can be completed within 6 to 12 months

Cost: \$30,000.00

21. Research Other Temporary Safety Needs

Department: Public Works

Scope: Research new technologies and methods for pedestrian and vehicle safety in densely populated areas with pedestrian activity. Examples of types of safety treatments would be rumble stripes, flashing pedestrian lights, etc. Analysis will be performed by annual services contract.

Schedule: Can be completed within 12 to 18 months

Cost: \$20,000.00

22. Evaluate Crosswalks at Signalized Intersections

Department: Public Works

Scope: Evaluate the signalized intersections along the Shore Drive Corridor to determine if any modifications to crosswalks are necessary. Modifications will include, but not limited to, additional crossings, stamped asphalt, countdown pedestrian heads and other signal modifications.

Schedule: Can be implemented within 15 to 18 months.

Cost: \$90,000.00

Long term

23. Evaluate Inconsistent Edge Treatments

Department: Public Works

Scope: Evaluate the Shore Drive Corridor to determine appropriate edge treatment for the various uses as well as the design improvements. The intent is to provide consistency throughout the corridor such that continuous sidewalks can be installed. Through this process the city can also employ access management practices to eliminate undesirable driveway cuts. Design and construction will be completed through the RFP and bid process.

Schedule: 36+ months (assuming no right of way acquisition)

Cost: \$4,600,000.00

24. Sidewalk under North Side of Northampton Boulevard Overpass

Department: Public Works

Scope: Examine alternatives for providing a 4 to 5 feet sidewalk on the westbound side of Shore Drive under Northampton Boulevard. Coordinate with and obtain approval from Virginia Department of Transportation (VDOT) and Federal Highway Administration (FHWA). Design and construction will be completed through annual service contracts.

Schedule: Can be completed within 24 to 36 months

Cost: \$900,000.00

25. Shoulder Improvements

Department: Public Works

Scope: Evaluate the Shore Drive Corridor to determine appropriate shoulder improvements for areas that will not be a curb and gutter section. Shoulders will be designed to promote a contiguous sidewalk. Design and construction will be completed through the RFP and bid process.

Schedule: 36+ months (assuming no right of way acquisition)

Cost: \$1,895,000.00

26. Improve Waterway Crossings at Lake Joyce

Department: Public Works

Scope: Evaluate Lake Joyce waterway crossings to determine appropriate shoulder improvements to allow for 4 to 5 feet sidewalks. Design and construction will be completed by annual services contracts.

Schedule: 36+ months (This recommendation will be prolonged due to environmental requirements.)

Cost: \$600,000.00

27. Improve Street Lighting

Department: Public Works

Scope: Evaluate existing lighting along Shore Drive to determine where additional lighting will be most effective in aiding pedestrians and vehicles. Design will be completed with an annual service contract and construction by Dominion Virginia Power.

Schedule: 36+ months

Cost: \$325,000.00 for 20% increase in total number of lights
\$3,000,000.00 to replace all existing lights with new lights and increase the total number of lights by 20%

28. Improve Lesner Bridge Approaches

Department: Public Works and Parks and Recreation

Scope: Evaluate existing conditions and design interim improvements to provide safer access for crossing of Lesner Bridge until the bridge is replaced. As these approaches are mutually exclusive of one another, this project can be phased. If phased, the north side could be completed faster as is less complex than the south side. Design and construction will be completed by annual service contracts.

Schedule: 24 to 36 months

Cost: \$750,000.00

29. Evaluate Sidewalk under South Side of Northampton Boulevard Overpass

Department: Public Works

Scope: Design and install 4 to 5 feet asphalt sidewalk behind guardrail of eastbound lanes. Coordinate with and obtain approval from Virginia Department of Transportation (VDOT) and Federal Highway Administration (FHWA). Installation will be completed by annual services contract.

Schedule: Can be implemented within 18 to 24 months

Cost: \$140,000.00

30. Fund Shore Drive Demonstration Projects Phases I, II, III & IV

Department: Public Works

Scope: These four projects will accomplish almost the entire short, mid and long term recommendations along the Shore Drive Corridor. If funded and accelerated the corridor would have a much more cohesive appearance, be safer, and the cumulative cost will be less than the individual recommendation approach.

The recommended improvements include but are not limited to installation of consistent edge treatments, eliminating multiple driveways, drainage improvements, contiguous sidewalk on both sides of Shore Drive, signal optimization and synchronization, improved pedestrian crossings, increased street lighting, pedestrian access under Northampton Boulevard overpass, improvements to the Lesner Bridge approaches, access to the Cape Henry Trail, and pedestrian signage.

Schedule: 36 to 48 months (Contingent upon environmental permitting, private utility relocations, and right of way acquisition)

Cost: \$13,800,000.00

31. Fully Fund Shore Drive Demonstration Projects Phase IV

Department: Public Works

Scope: The recommended improvements include but are not limited to installation of consistent edge treatments, eliminating multiple driveways, drainage improvements, contiguous sidewalk on both sides of Shore Drive, signal optimization and synchronization, improved pedestrian crossings, increased street lighting, and pedestrian signage.

Schedule: 48 to 60 months

Cost: \$6,000,000.00

Section II – Public Involvement/Communication Plan

Goals

To increase the safety of residents and visitors who travel by foot, by car and by bike in the Shore Drive corridor.

To enhance public awareness of the City of Virginia Beach's efforts to maximize safety along the Shore Drive corridor.

Target Audiences

Primary Audiences

1. Shore Drive Corridor Residents and Visitors
2. Shore Drive Advisory Committee
3. Shore Drive Community Coalition
4. Civic Associations
5. Shore Drive Business Association
6. Bikeways and Trails Advisory Committee

Secondary Audiences

1. Virginia Beach Residents At-Large
2. Municipal Employees

Objectives

1. To inform residents and visitors about pedestrian, driving and biking safety.
2. To inform residents and visitors about measures the City of Virginia Beach is taking to maximize safety along the Shore Drive corridor.

Strategies

Use available integrated communications tools to inform Shore Drive corridor residents and visitors, as well as internal stakeholders.

Tactics – Short Term

1. Shore Drive Advisory Committee Presentation.
Charlie Meyer/April 20, 2006
2. News Release publicizing Shore Drive Safety Task Force Final Report and the City Council Public Hearing.
Charlie Meyer/MCG/May 16, 2006
3. Face-to-face meetings or written communication, e.g., *The Shore Drive Breeze*, as appropriate, with key stakeholder groups including: the Shore Drive Advisory Commission and the Shore Drive Community Coalition.
Planning/May and June 2006
4. Submit articles providing progress reports to: *City Manager's Update*.
Planning/Public Works/Parks and Recreation/Police/Ongoing

5. Establish and maintain a section on safety issues and improvements at the Shore Drive Advisory Committee's Web page on VBgov.com's "Hot Topics" Web site.
Planning/MCG/Ongoing
6. Using written and audio-visual materials, signs, and word of mouth, inform the public about physical improvements and safety while driving, walking or recreating along Shore Drive.
 - News releases
 - *City Page* articles
 - *Beach* magazine article
 - VBTv
 - Parks & Recreation Guide article in the Fall 2006 issue on "How to Safely Use Trails"
 - Articles for civic association newsletters
 - Fund posters to be posted in local businesses and brochures on safety
 - Develop a presentation featuring Shore Drive Safety Task Force Recommendations and the responsibilities of pedestrians, drivers and bikers; schedule the presentations
Planning/ Public Works/Parks & Recreation/Police/MCG/SDAC/SDCC/Ongoing

Section III – Comprehensive Plan

Comprehensive Plan and Related Ordinances and Policies

Department: Planning

Scope: Revisit the adopted Comprehensive Plan, Shore Drive Corridor Plan, Article 17 of the City Zoning Ordinance, the Shore Drive Design Guidelines, and other related ordinances or adopted land use policies to address any modifications or refinements that may be necessary to more fully address pedestrian, bicycle, transit and vehicular safety issues related to Shore Drive, and enact revisions deemed appropriate following opportunities for full public interest review.

Central to this evaluation will be the understanding that Shore Drive serves as the sole east-west transportation corridor in the City north of the I-264 / Virginia Beach Boulevard corridor. As such, from a land use perspective, it needs to be considered as a multimodal corridor and not solely as a vehicular corridor. Increased densities of development in the corridor demand that pedestrian amenities are more fully addressed in all aspects of the development process, from the rezoning and conditional use permit stage through to the development plan approval and inspection stage. The goal of improving the level of transportation services for a wide variety of users - pedestrians of all types, cyclists, in-line skaters, varied recreational users, transit users, as well as vehicle operators - and the interrelationships between these various users and land uses in an area characterized as being first and foremost as a resort community and not as a resort destination is suggested. Accordingly, both public and private proposed development criteria need to be evaluated from a multimodal perspective to ensure that the needs of these varied users are addressed. Since increasing roadway capacity in the area has strict limits, given the City Council directive that Shore Drive remain a four lane facility for the foreseeable future, greater emphasis needs to be placed on reducing intra-corridor trip demand, particularly where non-vehicular transit among various uses in the corridor can be promoted and encouraged.

The Planning Commission has been given the enabling authority thorough State legislation to be the key stakeholder in this review and evaluative process, and is directed to undertake this role in a manner with full public participation. The Planning Commission should consider its work in conjunction with the other recommendations contained in this report. It is envisioned that the Planning Department staff will initiate this process by working primarily with the Planning Commission liaison members of the Shore Drive Advisory Committee to solicit public input and develop draft recommendations as appropriate for refining the adopted Comprehensive Plan, Shore Drive Corridor Plan, Article 17 of the City Zoning Ordinance, the Shore Drive Design Guidelines, and other related ordinances or adopted land use policies. These recommendations will then be forwarded for review by the full Shore Drive Advisory Committee, where there will be additional opportunities for public input, and ultimately consideration by the Planning Commission and the City Council in a full public input and review manner.

Schedule: 6 to 18 months

Cost: \$10,000

Section IV – Summary Table of Recommendations

Regulatory Recommendations

<u>Short Term</u>	<u>Cost</u>
1. Remove Fatal Accident Sign and Replace with Community Signs	\$4,000.00
2. Install Yield to Pedestrian Signs and Pedestrian Warning Signs	\$11,000.00
3. Legal Evaluation of Speed Limit Adjustments in Work Zones	-
4. Evaluate Eliminating Right Turn on Red Movements at Signalized Intersections	\$21,000.00
<u>Mid Term</u>	
5. Evaluate Eliminating Right of Way Encroachments	\$5,000.00
<u>Long Term</u>	
6. Evaluate Higher Fines for Traffic Violations along Shore Drive	-
7. Evaluate Lower Speed Limit along Sections of Shore Drive	\$24,000.00
<i>Regulatory Total</i>	\$65,000.00

Infrastructure Recommendations

<u>Short Term</u>	<u>Cost</u>
8. Repair Damaged Sidewalks	\$225,000.00
9. Sidewalks Installed (Minor Complexity)	\$25,000.00
10. Refresh Pavement Striping and Marking (Minor Complexity)	\$240,000.00
11. Pedestrian Signals (Adding Countdown Heads – Minor Complexity)	\$15,000.00
12. Have Sidewalks Installed with Developments – On-going	-
13. Verify Stop Signs at all Non-signalized Intersections	\$5,500.00
14. Maintenance of Existing Landscaping	-
<u>Mid Term</u>	
15. Continuous Sidewalk (Moderate Complexity)	\$4,800,000.00
16. Channelizing Pedestrians (Plants and/or Fencing)	\$475,000.00
17. Evaluate Pedestrian Activated Signal East of Great Neck Road	\$120,000.00
18. Evaluate Access Points (Side Streets)	\$4,250,000.00
19. Perform a Warrant Analysis on Unsignalized Intersections	\$500,000.00
20. Retime Signals	\$30,000.00
21. Research Other Temporary Safety Needs	\$20,000.00
22. Evaluate Crosswalks at Signalized Intersections	\$90,000.00
<u>Long Term</u>	
23. Evaluate Inconsistent Edge Treatments	\$4,600,000.00
24. Sidewalk under North Side of Northampton Boulevard Overpass	\$900,000.00
25. Shoulder Improvements	\$1,895,000.00
26. Improve Waterway Crossings at Lake Joyce	\$600,000.00
27. Improve Street Lighting	\$325,000.00
28. Improve Lesner Bridge Approaches	\$750,000.00
29. Evaluate Sidewalk under South Side of Northampton Boulevard Overpass	\$140,000.00
30. Fund Shore Drive Demonstration Projects Phases I, II, III & IV (Partial)	\$13,800,000.00
31. Fully Fund Shore Drive Demonstration Projects Phases IV (Remaining)	\$6,000,000.00
<i>Infrastructure Total</i>	\$39,805,000.00

Comprehensive Plan Recommendations

Comprehensive Plan and Related Ordinances and Policies	\$10,000.00
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Total Recommendations Cost	\$39,880,500.00
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Total to Fund Shore Drive Demonstration Projects Ph I, II, III, & IV	\$19,800,000.00
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Total to Fund Individual Recommendations	\$20,080,500.00
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