



**TOWN OF SOUTHERN SHORES**  
**TOWN COUNCIL WORKSHOP MEETING**

5375 N. Virginia Dare Trail, Southern Shores, NC 27949

Phone 252-261-2394 / Fax 252-255-0876

[www.southernshores-nc.gov](http://www.southernshores-nc.gov)

**PITTS CENTER**

**Tuesday, August 17, 2021 at 9:00 AM**

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## **MINUTES**

### **Call to Order**

Pledge of Allegiance

Moment of Silence

### **PRESENT**

Mayor pro tem Elizabeth Morey

Council Member Jim Conners

Council Member Leo Holland

Council Member Matt Neal

Mayor Tom Bennett

### **Amendments to / Approval of Agenda**

Motion made by Council Member Holland to approve the agenda as presented, Seconded by Council Member Conners. The motion passed unanimously (5-0).

Voting Yea: Mayor pro tem Morey, Council Member Conners, Council Member Holland, Council Member Neal, Mayor Bennett

### **General Public Comment**

None

### **Business Items**

1. Pavement Conditions Study & Capital Improvement Plan-SEPI

Anthony Roper with SEPI provided Council with a PowerPoint presentation (Exhibit A) and executive summary/report (Exhibit B) which read as, The Town of Southern Shores retained SEPI Engineering and Construction, Inc. (SEPI) to perform a Pavement Condition Survey on the Town's Street system and develop maintenance recommendations for treatments on each street. The Town also wanted recommendations for Capital Improvement Plan funding options.

SEPI conducted a visual pavement condition survey in March and April and one hundred-sixty-three (163) street segments were created and evaluated. The SEPI staff performed the pavement condition survey of the town streets by collecting distress data in accordance with FHWA-RD-03-031, Distress Identification Manual for the Long-Term Pavement Performance Project (June 2003).

The assessment of the Town's streets found that 12% of the Town's Street network is in Excellent condition, 15% is in good condition and 73% is in fair condition. No roads sections were rated as poor

or failed.

Consequently, most of the Town's Street system falls into the average category and is well suited for overlays and mill and fill operations with limited structural deficiencies that will require reconstruction. To accomplish the goals of improving the overall condition of Town roads, SEPI recommends a mix of rehabilitation and preventative maintenance activities. SEPI has developed 2 Capital Improvement Plan (CIP) Options for 2 budgetary levels.

Option 1 and 2 over a 10-year CIP plan

Option 1 = \$675,000

Option 1 (\$675K) includes work on 38 miles of road and improves the system from approximately 27% Good/Excellent to 53% Good/Excellent. This improvement mostly comes from the conversion of fair roads to good. Some fair fall into Poor (20%) with this option at the end of the plan due to a funding shortfall.

Option 2 = \$1,000,000

Option 2 includes work on 57 miles of road and improves the system to 99% Good/Excellent. A similar approach as Option 1 is utilized but the increased budget allows for more extensive rehabilitation and a resulting higher performance.

Councilman Neal said under option one, the year 2032 pavement conditions map tells a whole story. He asked Mr. Roper if SEPI could prepare a similar graphic if we were to proceed along our current path; half mile a year, 10-million-dollar expenditure over ten years. How much of the roads would deteriorate?

Anthony Roper stated he would work with the Town Manager to work that request out.

Mayor pro tem Morey asked Mr. Roper if he felt the cost estimates were realistic. Mr. Roper stated costs plus inflation came from Southern Shores current projects and DOT projects.

Mayor pro tem Morey asked about the bidding process, lump sum, or unit price? Mr. Roper stated unit pricing is more of the standard and more effective.

Councilman Holland inquired about having an inspector on the projects. Mr. Roper stated it was important to have an inspector for all the projects, independently contracted.

**PUBLIC COMMENT**

Mark Martin- great presentation. Some of the heavier traveled roads will need to be addressed sooner.

Anthony Roper stated option 2 will address all the roads within the next 10 years.

**Mayor Bennett called for a 10-minute recess  
Council reconvened at 10:43 a.m.**

Town Manager Ogburn stated Council could decide to move forward with the budgeted street project for this year (Hillcrest Dr.) or start the SEPI process as laid out. He felt it was important to hear from the Town Engineer.

Town Engineer Joe Anlauf stated he did not want to bias any decision Council goes with; Council does not need to continue with the old process of doing road projects. Technology is better today, so estimating jobs can be better. The process of an inspector would need to be added to the plan. The Town is at a crossroads, either jump in or continue with the traditional way. It will take about 5-7 years to see the true benefit of the SEPI plan. He stated his opinion is to try the SEPI recommendation. The plan carries the dollars further, so Council should try it.

Anthony Roper, SEPI, reiterated that this is a maintenance plan, a plan that was asked for. This is not a rebuild/ reconstruction plan. It covers the edge of the pavement to the edge of the pavement, asphalt only.

Councilman Connors stated Mr. Roper has given us a master plan, how do we implement it?

Town Engineer Anlauf stated if Council wants to address more than just the asphalt pavement, a hybrid plan would need to be created. There would be a maintenance and construction part of the plan.

Councilman Neal stated the SEPI plan was patching the first one to two years.

Town Manager Ogburn stated Council could do year one of the maintenance, work with the Town Engineer for any additional planning as needed.

Councilman Neal requested a graphic/chart showing the amount of eight hundred thousand as an option and the ratio of good and fair roads in 2032. Then contribute another 200 thousand for engineered storm water planning. That seems like a good trade off.

Town Manager Ogburn stated he would need to get a construction number from the Town Engineer to supply SEPI the costs to create a new funding scenario for consideration. It could be 200 or 300 hundred thousand in construction costs a year. That would then have to be taken off the million-dollar number, leaving approximately 700-800 thousand for maintenance. He can work with the town engineer to get some costs, look at the areas that will need additional engineering and with SEPI's plan as the basis, bring that hybrid plan back to Council.

Mayor pro tem Morey stated if you were going to touch a road, you need to address the width for safety and stormwater.

Councilman Connors agreed with Mayor pro tem Morey's statement.

**Adjourn**

Hearing no further business, Mayor Bennett called for a motion to adjourn.

**MOTION:** Councilman Holland moved to adjourn the meeting at 11:19 a.m., Seconded by Councilman Conners. The motion passed unanimously (5-0).

Voting Yea: Mayor pro tem Morey, Council Member Conners, Council Member Holland, Council Member Neal, Mayor Bennett

ATTEST:



Respectfully submitted,

*Thomas G. Bennett*

Thomas G. Bennett, Mayor

*Sheila Kane*

Sheila Kane, Town Clerk

*The attached documents are incorporated herewith and are hereby made a part of these minutes.*

**DRAFT**

# 2021 PAVEMENT CONDITION SURVEY & CAPITAL IMPROVEMENT PLAN

SOUTHERN SHORES, NORTH CAROLINA

AUGUST 17, 2021

**SEPI**

# TABLE OF CONTENTS

**SECTION 1 – EXECUTIVE SUMMARY ..... 1**

**SECTION 2 – INTRODUCTION ..... 2**

    2.1 Pavement Management System ..... 2

    2.2 Pavement Condition Survey ..... 3

    2.3 Pavement Condition Survey Methodology ..... 3-4

    2.4 Pavement Distresses ..... 4-8

**SECTION 3 – GENERAL OBSERVATIONS..... 9**

    3.1 Road Condition Overview ..... 9-13

**SECTION 4 – MAINTENANCE RECOMMENDATIONS ..... 14**

    4.1 Strategic Approach ..... 14

    4.2 Pavement Treatment Options ..... 14-15

    4.3 Preliminary Recommendations ..... 15-18

    4.4 Pavement Management Plan Considerations ..... 18-20

**SECTION 5 – WALKING PATH REPORT/PARKING LOT EVALUATION..... 20**

**SECTION 6 – ACKNOWLEDGEMENTS ..... 22**

**APPENDICES**

- A | Southern Shores Capital Improvement Plan\_Option 1
- B | Southern Shores Capital Improvement Plan\_Option 2
- C | Alphabetical List of Segments
- D | Ranked List of Segments
- E | Southern Shores Maps\_PCI
- F | Southern Shores Maps\_Treatments
- G | Distress Types\_Extent Definitions

## SECTION 1 – EXECUTIVE SUMMARY

The Town of Southern Shores retained SEPI Engineering and Construction, Inc. (SEPI) to perform a Pavement Condition Survey on the Town's Street system and develop maintenance recommendations for treatments on each street. The Town also wanted recommendations for Capital Improvement Plan funding options.

SEPI conducted a visual pavement condition survey in March and April and one hundred-sixty-three (163) street segments were created and evaluated. The SEPI staff performed the pavement condition survey of the town streets by collecting distress data in accordance with FHWA-RD-03-031, Distress Identification Manual for the Long-Term Pavement Performance Project (June 2003)

The assessment of the Town's streets found that 12% of the Town's Street network is in Excellent condition, 15% is in Good condition and 73% is in Fair condition. No roads sections were rated as Poor or Failed.

Consequently, most of the Town's Street system falls into the average category and is well suited for overlays and mill and fill operations with limited structural deficiencies that will require reconstruction. To accomplish the goals of improving the overall condition of Town roads, SEPI recommends a mix of rehabilitation and preventative maintenance activities. SEPI has developed 2 Capital Improvement Plan (CIP) Options for 2 budgetary levels.

Option 1 (\$675K) includes work on 38 miles of road and improves the system from approximately 27% Good/Excellent to 53% Good/Excellent. This improvement mostly comes from the conversion of fair roads to good. Some fair fall into Poor (20%) with this option at the end of the plan due to a funding shortfall.

Option 2 includes work on 57 miles of road and improves the system to 99% Good/Excellent. A similar approach as Option 1 is utilized but the increased budget allows for more extensive rehabilitation and a resulting higher performance.

## SECTION 2 – INTRODUCTION

### 2.1 PAVEMENT MANAGEMENT SYSTEM

A municipality's pavement network allows residents and commerce to move from place to place, provides for efficient response time during emergencies, and offers safe bus routes to get children to school. Paved roads are often a municipality's primary mode of transportation. For this reason, maintaining and preserving the condition of the pavement should be a top priority.

What is a pavement management system? A pavement management system is a long-term, formalized approach to gathering information about a municipality's roadway network. The system is used to measure a municipality's entire road network, evaluate its road conditions, and log this data in a comprehensive database. The data is then analyzed and used to develop several important tracking metrics, including the average Pavement Condition Index (PCI). The backlog of needs is expressed in both miles and dollars. The idea is to take a comprehensive, long-range view of a municipality's roadway assets. Decision makers then can use the data to make informed roadway repair and maintenance decisions, prioritizing work to ensure the best return on investment.

When used effectively, a pavement management system is a cost-effective tool for improving pavement conditions and maximizing the limited roadway repair and reinvestment dollars available to municipalities (see Figure 1 below). A pavement management system can also help to build a case for additional funding for roadway infrastructure. The SEPI Team developed this report to assist Southern Shores staff to build a pavement management system that provides the level of service desired by the Town.

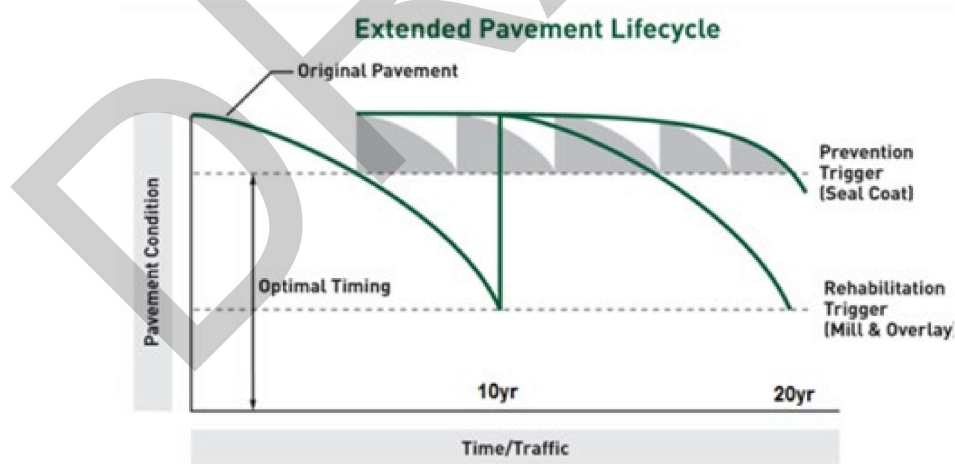


Figure 1 above demonstrates how pavement deteriorates over time to the point rehabilitation is necessary at a high cost. However, if treated earlier and more frequently in its life, pavement condition is maintained at a higher level and less expensive cost overall.

## 2.2 PAVEMENT CONDITION SURVEY

In March 2021 the Town of Southern Shores retained SEPI to perform a Pavement Condition Survey on the Town’s Street system and to develop pavement maintenance treatment options along with the associated estimated treatment costs. Town staff indicated that no previous pavement condition study results were available for historical or comparative purposes.

In accordance with the latest Town Powell Bill map, the Town of Southern Shores maintains approximately 37 miles of paved and unpaved roadways. The Town’s roadway network predominantly serves residential and rental (tourist) traffic along with some heavy-duty trucks such as delivery, sanitation, and construction vehicles. The Town provided SEPI with a list of streets and SEPI conducted a visual pavement condition survey in April and May of 2021. Our condition assessment included collecting street properties i.e., street name, to/from descriptions, block number, length, width, type of pavement, whether sidewalks or curb and gutter were present and asphalt pavement distresses. There was also an element to evaluate a parking area and walking path along NC 12.

## 2.3 PAVEMENT CONDITION SURVEY METHODOLOGY

SEPI’s pavement management system utilizes observed distresses collected in accordance with FHWA-RD-03-031, Distress Identification Manual for the Long-Term Pavement Performance Project (June 2003), and ASTM D6433-18 for calculating a pavement condition index (PCI). Each street segment is ridden and observed for the following pavement distresses: fatigue cracking, transverse cracking, block cracking, reflective cracking, rutting and roughness, raveling and oxidation, and potholes and patching. Each distress level is measured for severity and extent according to the LTPP Method for conducting a Pavement Condition Survey (distress definitions are included in Section 2.4). The quantity of a distress type at each severity level is used to determine deduct values for each distress type and severity level combination. This is done by assessing the quantity and severity of a distress against deduct value curves for each distress/severity. Examples of deduct value curves can be found in ASTM D6433-18. The result is a deduction in PCI value for each distress and an overall PCI value for each road segment.

The data from the observations on the rated streets is entered into SEPI’s pavement management program which generates a Pavement Condition Index (PCI) for each street segment. Streets are listed based on Pavement Condition Index (PCI) assigned as the "SEPI PCI" attribute within the database. Figure 2 represents the numerical ranges and categories for street segments.

PCI CATEGORIES	
100-90	Excellent
89-70	Good
69-45	Fair
44-20	Poor
<20	Failed

Figure 2

The PCI is a numerical indicator that rates the surface condition of the pavement. The PCI provides a measure of the present condition of the pavement based on the distress observed on the surface of the pavement. It provides an objective and rational basis for determining maintenance and repair needs and priorities. Continuous monitoring of the PCI is used to establish the rate of pavement deterioration, which permits early identification of major rehabilitation needs. The PCI provides feedback on pavement performance for validation or improvement of current maintenance procedures.

## 2.4 PAVEMENT DISTRESSES

The following distress definitions are related to all pavements and were the basis of our pavement condition survey.

***Fatigue Cracking:*** A load associated structural failure due to excessive deflections or bending of the HMA layer. This type of failure is generally full depth and extends from the bottom of the pavement upwards. Fatigue cracking is typically observed along wheel paths initially and may present as intermittent longitudinal cracking at low severity. Two primary things must occur for Fatigue Cracking to develop. First, excessive traffic loading and second, deficient pavement system strength. Poor drainage and infiltration of water can exasperate fatigue cracking by weakening the underlying base or subgrade. As fatigue cracking becomes higher in intensity, cracks usually become an interconnected system resembling alligator skin or chicken wire. If left unresolved, fatigue cracking typically progresses from low to high severity unless the primary causes of distress are addressed. The rate of progression is entirely dependent upon the scale and frequency of loading versus the thickness and strength of pavement and subgrade in place. See figures 3 & 4 below for an example of moderate to high intensity fatigue cracking.



Figures 3 & 4: Fatigue Cracking as seen on First Avenue and Mizzen Mast

**Transverse and Block Cracking:** Transverse cracking (Figure 5) is a distress associated with shrinkage and daily temperature cycling. Transverse cracks develop across a road segment and are not load associated but generally extend through the full depth of the pavement. Transverse cracking can become block cracking (Figure 6) as a pavement ages and becomes less able to resist dimensional changes without cracking. Transverse cracks become closer together and more frequent while also being broken into smaller longitudinal sections or blocks. The initiation and further development of Transverse and Block cracking is a factor of the asphalt mixture characteristics, level of oxidation, and intensity of climate cycles. This type of distress is usually relatively slow in its progression but can develop into fatigue cracking or potholes due to water infiltration especially in thin pavement sections with poor drainage or bird baths.



Figures 5 & 6: Block Cracking and Transverse Cracking as seen on Ocean Boulevard and Ginguite Trail

**Patching and Potholes:** Patching is indicated on a street when the surface of the existing pavement has been repaired by replacing or covering up part of the old asphalt with new asphalt. This can be done by surface patching or full depth (dig out) patching. The quality and condition of the patch are considered in evaluating patching—*failing patches* (Figures 7 & 8) are the only ones evaluated. If not done carefully and properly, patching can lead to a rougher riding road.

Potholes are failures in the pavement resulting in an open hole in the pavement. They are caused by various issues, and care to determine the root cause is essential to choosing the correct repair method. The size and frequency of potholes are considered when evaluating the streets.



Figures 7 & 8: Patching that is failing (patches sinking and cracking)

## Surface Distresses

**Raveling and Oxidation:** Raveling is the surface distress known as the partial or total loss of the pavement wearing surface caused by the loss of asphalt binder, aggregate, or fines. Raveling is seen more often on AST or BST streets or slurry seal type streets than on plant mix asphalt surfaces. Raveling leads to rougher riding streets and the loss of skid resistance due to loose particles on the surface. Raveling can lead to water intrusion into the underlying pavement layers and subgrade if not properly repaired.

The surface distress known as oxidation (Figure 9) is the hardening and aging of the asphalt cement or binder. Visually the asphalt turns from a black color to a lighter gray color with time as the asphalt weathers. The surface binder has been worn away by traffic to expose the aggregate. The pavement stiffens and becomes more brittle. This weathering of the asphalt usually covers the entire surface and pitting can become evident. Oxidation can be seen where the asphalt has turned a much lighter gray than when first placed.



Figure 9: Oxidation versus newer pavement (top of picture)

**Rutting and Roughness:** Rutting is a depression type failure normally found in the wheel path(s) resulting from consolidation or lateral movement of any of the pavement layers or the subgrade under traffic loads. It is caused by insufficient pavement thickness; lack of proper compaction of the asphalt, stone base or subgrade; improper asphalt mix types; or weakening of the pavement system due to moisture infiltration. Pavement uplift and shearing can occur in more serious rutting instances. Rutting can present safety concerns due to trapping water on the roadway and should be evaluated carefully to determine the root cause.

Roughness (Figure 10) is what the public perceives as the rideability of a street. One of the most important aspects of a street to the traveling public, roughness is also sometimes referred to as smoothness and is first controlled by the initial construction quality. An initially smooth street tends to stay smooth longer, and deteriorate more slowly, than an initially bumpy street. The street should be properly maintained and repaired to prevent rough riding roads. Special attention to the smoothness of patching and crack sealing, and timely repair of potholes is important, or the public will observe the street as a poor or bumpy road.



**Figure 10: Tree roots affecting ride quality on E. Holly Trail**

## SECTION 3 – GENERAL OBSERVATIONS

### 3.1 ROAD CONDITION OVERVIEW

The results of the pavement condition survey indicate that Southern Shores' street system is in a fair but aging condition and is well suited for preservation and minor rehabilitation repair treatments. The assessment found that 12% (4.41 miles) of the Town's street network is in Excellent condition and 15% (5.47 miles) is in Good condition and 73% (26.81 miles) is in Fair condition. The remaining portion of the network is rated as 0% Poor and 0% Failed. Figure 11 below provides a summary of the PCI results.

PCI Category	PCI Range	Powell Bill Streets		
		# of Sections	Length (miles)	% of Miles
Excellent	100 to 90	25	4.41	12
Good	89 to 70	30	5.44	15
Fair	69 to 45	107	26.81	73
Poor	44 to 20	0	0	0
Failed	<20	0	0	0
TOTALS				

Figure 11: PCI Summary-Total Street System

The top three distresses observed and recorded during the pavement assessment were fatigue cracking, surface distresses, and transverse cracking. These three distresses reflect the natural aging process of pavements that have not been part of a pavement maintenance program. These aging roads are also naturally becoming less flexible due to oxidation and stiffening of the asphalt liquid that holds the roads together. Failure to timely treat these distresses may ultimately lead to structural failures and more costly repairs. Table 1 provides an overall summary and breakdown of each distress type measured, the frequency of occurrence and severity.

Distress Items	Class A		Class B		Class C		Total Street System		
	Miles	% of Miles	Miles	% of Miles	Miles	% of Miles	Miles	%	Item 1.
<b>Fatigue Cracking (FC)</b>									
A. High	1.04	10.26%	0.49	2.05%	0.07	2.39%	1.59	4.34%	
B. Medium	6.39	63.28%	17.61	73.98%	1.80	65.26%	25.80	70.38%	
C. Low	2.03	20.09%	2.41	10.12%	0.33	11.94%	4.77	13.00%	
D. None	0.64	6.37%	3.30	13.84%	0.56	20.42%	4.50	12.28%	
<i>Total</i>	<i>10.09</i>	<i>100.00%</i>	<i>23.81</i>	<i>100.00%</i>	<i>2.75</i>	<i>100.00%</i>	<i>36.66</i>	<i>100.00%</i>	
<b>Transverse Cracking (TC)</b>									
A. High	0.00	0.00%	3.00	12.62%	0.52	18.88%	3.52	9.61%	
B. Medium	7.41	73.36%	14.56	61.15%	0.80	28.98%	22.76	62.10%	
C. Low	2.15	21.28%	1.61	6.74%	0.43	15.47%	4.18	11.40%	
D. None	0.54	5.36%	4.64	19.49%	1.01	36.67%	6.19	16.89%	
<i>Total</i>	<i>10.09</i>	<i>100.00%</i>	<i>23.81</i>	<i>100.00%</i>	<i>2.75</i>	<i>100.00%</i>	<i>36.66</i>	<i>100.00%</i>	
<b>Surface Defects (SD)</b>									
A. High	0.00	0.00%	0.92	3.88%	0.12	4.23%	1.04	2.84%	
B. Medium	6.44	63.77%	15.75	66.16%	1.12	40.68%	23.31	63.59%	
C. Low	3.01	29.86%	3.69	15.51%	1.19	43.09%	7.89	21.54%	
D. None	0.64	6.37%	3.44	14.44%	0.33	12.01%	4.41	12.04%	
<i>Total</i>	<i>10.09</i>	<i>100.00%</i>	<i>23.81</i>	<i>100.00%</i>	<i>2.75</i>	<i>100.00%</i>	<i>36.66</i>	<i>100.00%</i>	
<b>Patch Deterioration/Potholes (PP)</b>									
A. High	0.87	8.63%	2.37	9.94%	0.22	7.93%	3.46	9.43%	
B. Medium	2.46	24.36%	5.64	23.69%	0.15	5.34%	8.25	22.50%	
C. Low	4.05	40.12%	5.10	21.41%	0.48	17.43%	9.63	26.26%	
D. None	2.71	26.89%	10.70	44.95%	1.91	69.30%	15.33	41.81%	
<i>Total</i>	<i>10.09</i>	<i>100.00%</i>	<i>23.81</i>	<i>100.00%</i>	<i>2.75</i>	<i>100.00%</i>	<i>36.66</i>	<i>100.00%</i>	
<b>Rutting/Roughness (RR)</b>									
A. High	1.04	10.26%	2.56	10.77%	0.23	8.52%	3.84	10.46%	
B. Medium	1.43	14.12%	6.22	26.14%	0.48	17.59%	8.13	22.19%	
C. Low	0.83	8.26%	2.02	8.47%	0.30	10.81%	3.15	8.59%	
D. None	6.80	67.35%	13.00	54.62%	1.74	63.08%	21.54	58.76%	
<i>Total</i>	<i>10.09</i>	<i>100.00%</i>	<i>23.81</i>	<i>100.00%</i>	<i>2.75</i>	<i>100.00%</i>	<i>36.66</i>	<i>100.00%</i>	
<b>Block Cracking (BC)</b>									
A. High	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	
B. Medium	8.20	81.28%	18.09	75.98%	1.32	48.02%	27.62	75.34%	
C. Low	0.43	4.22%	0.69	2.88%	0.00	0.00%	1.11	3.03%	
D. None	1.46	14.51%	5.03	21.14%	1.43	51.98%	7.93	21.63%	
<i>Total</i>	<i>10.09</i>	<i>100.00%</i>	<i>23.81</i>	<i>100.00%</i>	<i>2.75</i>	<i>100.00%</i>	<i>36.66</i>	<i>100.00%</i>	
<b>Reflective Cracking (RC)</b>									
A. High	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	
B. Medium	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	
C. Low	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	
D. None	10.09	100.00%	23.81	100.00%	2.75	100.00%	36.66	100.00%	
<i>Total</i>	<i>10.09</i>	<i>100.00%</i>	<i>23.81</i>	<i>100.00%</i>	<i>2.75</i>	<i>100.00%</i>	<i>36.66</i>	<i>100.00%</i>	

Table 1: Pavement Condition Survey Distress Summary

## SECTION 4 – MAINTENANCE RECOMMENDATIONS

### 4.1 STRATEGIC APPROACH

Studies have shown that the right treatment on the right road at the right time is the best use of limited maintenance dollars. However, for most public agencies there are typically more maintenance needs than funds available. Therefore, maintenance activities need to be prioritized to maximize available funding. **One strategy is to allocate funds and plan maintenance activities that focus on keeping the good roads good. Keeping good roads good with cost effective and proactive treatments is the general concept of pavement preservation.**

SEPI has seen great success with a mixed pavement maintenance program often heavily utilizing pavement preservation. Pavement preservation is a planned system of treating pavements to maximize their useful life. All pavements require some form of maintenance due to the effects of traffic and the environment on the exposed pavement materials over time. For example, applying a relatively low-cost surface treatment to a pavement with light to moderate distresses can efficiently increase the life of a pavement.

The most obvious benefit of pavement preservation is the extended service life of the pavement. Other benefits of a pavement preservation program are the ability to impact significant portions of the system by utilizing lower cost treatments, better forecasting of maintenance cost demands, fewer premature pavement failures, keeping good roads good, and reduced user inconveniences due to construction.

Having a successfully implemented program of yearly preservation treatments is the ultimate goal of most pavement management plans, if funding is available. Given the current conditions of the system in Southern Shores (mostly Fair) the strategic approach of this plan is to first make more good roads hopefully at a rate faster than the currently Fair roads deteriorate. If this can be accomplished, then ultimately pavement preservation will phase into being the majority of the work. For cases where an owner organization does not have enough money to make more good roads, preservation can still be utilized to slow the rate of deterioration. The main concept here is that preservation is mostly intended to keep good roads good, and rehabilitation (structural treatments) generally help create more good roads. The 2 options of CIP's presented below will show how different funding levels utilize similar but different fixes to maximize the future predicted conditions of the system.

### 4.2 PAVEMENT TREATMENT OPTIONS

The exclusive purpose of the SEPI pavement management plan is to preserve pavements, delay future deterioration, and improve overall conditions cost-effectively and efficiently. Since SEPI determined that the overall system health of the Town's roads was majority fair, the main goal of the recommended treatment options is to raise the overall condition of the Town's network by applying cost-effective treatments to correct pavement deficiencies. In accordance with our discussions with Southern Shores staff and their expectations for level of service and aesthetics along with balancing risk of treatment success, we have selected 5 treatment type options:

**1. Full Depth Patching**

Full Depth Patching (FDP) is accomplished by removing the existing pavement generally a minimum of 7 feet wide through its “full depth”. Depths of 6 to 8 inches are anticipated for use in these CIP options. The existing material is removed utilizing a milling machine for expedited construction and clean “cuts”. New asphalt is placed back into the excavation in compacted lifts, reconstructing the pavement. If unstable subgrade conditions are encountered, this can be mitigated by undercutting the excavation and adding additional asphalt, graded aggregate base or open graded stone, dependent on conditions and contract specifications. FDP extends the useful life of the pavement by focusing on rehabilitating isolated structural failures. This treatment is frequently utilized on areas of fatigue cracking and potholes but may also be effective on rutting and isolated cracking or high intensity transverse cracking. FDP is not intended to rebuild the entire roadway and alternative methods of rehabilitation or reconstruction should be considered once FDP quantities exceed 25 – 50% of the roadway.

**2. Rehabilitation Minor – Overlay**

Rehabilitation with a minor overlay consists of first leveling and patching the roadway. Patching is as described above and may include some shallower (surface) patching if distresses are present and are located primarily in the near surface (2 inches) of the pavement. Surface patching should not be utilized to fix structural deficiencies. Leveling consists of placing a relatively thin but variable thickness, of typically sand asphalt, to fill in depressions or correct localized drainage issues (bird baths). Patching and leveling is then covered with a 1.25 to 1.5 inch thick overlay to improve the condition of the roadway, provide additional structure and increase remaining service life. Overlays are utilized on pavements in the good and fair categories that do not have excessive amounts or high intensity cracking present. Overlays with patching and leveling are a cost effective way to make more good and excellent roads from fair candidates.

**3. Rehabilitation Major – Mill and Fill 2in**

Rehabilitation Major Mill and Fill of 2 inches is an adaptation of the overlay treatment. This method of rehabilitation includes patching but eliminates leveling and surface patching due to the removal of the entire pavement surface in a uniform 2in cut with a milling machine. Milling removes the weathered and cracked asphalt surface course which is replaced with new materials. Milling allows for tying into existing grades and has less complications when working in curb and gutter areas or locations with lots of driveways. Mill and fill 2in operations are suited for higher traffic volume pavements in fair condition and lower traffic volume pavements in fair and poor condition. This type of treatment is necessary to rehabilitate distresses that are to severe or more frequently occurring than a minor overlay would be suitable for.

**4. Rehabilitation Major – Mill and Fill 2in with Buildup**

Rehabilitation Major Mill and Fill 2in with Buildup includes all aspects of a typical mill and fill 2in but adds the additional structure of another course of asphalt. This will effectively increase the structural capacity of the roadway, help to resist any reflective cracking and provide a like new roadway appearance and ride quality. This type of treatment is utilized on pavements on the lower end of the Fair scale and into the Poor category.

**5. Thin Lifts**

Asphalt Thin Lifts are a relatively thin application of typically sand asphalt intended to be placed on roads in the bottom of the good category to keep them good. Thin lifts provide very little structural improvement and as such are not intended to fix structural deficiencies. Thin lifts can be utilized to seal minor/low intensity cracking and provide increased pavement life.

It should be noted that reconstruction is typically a 6th category that is included in a treatment option menu. This category is for roads that have failed and require the complete replacement of the pavement structure with a new equivalent structure. Although some streets in the Town’s network could benefit from reconstruction, the number of candidates is small, and the relatively low volume of traffic further minimizes the mandatory candidates and allows most of those streets to be repaired and repaved rather than reconstructed.

		MAINTENANCE TIER	REPAIR TYPES
<b>100-90</b>	<b>Excellent</b>	Do Nothing	None
<b>89-70</b>	<b>Good</b>	Preservation	FDP, Surface Patching, Thin Lifts
<b>69-45</b>	<b>Fair</b>	Minor Rehabilitation	FDP, Overlays, Mill and Fill 2in, Mill and Fill 2in with Buildup
<b>44-20</b>	<b>Poor</b>	Major Rehabilitation	Mill and Fill 2in, Mill and Fill 2in with Buildup, Increased Patching and Leveling
<b>&lt;20</b>	<b>Failed</b>	Reconstruction	Reconstruction Varies after Evaluating the Individual Street Failure Types

Maintenance Treatment Matrix

**4.3 CAPITOL IMPROVEMENT PLAN (CIP) METHODOLOGY**

SEPI developed recommended options for the CIP based on funding levels of \$675,000 and \$1,000,000 yearly budget. The general concept of the plans is to improve the system to the greatest extent possible for each funding level utilizing the treatment options identified in section 4.2. The current condition of all Town owned roadways was rated in accordance with Sections 2 and 3 of this report and then further each roadway was categorized into one (1) of three (3) groups. These groups were created with the help of Southern Shores staff to help classify local importance by amount of traffic volume, presence of trucks, connectivity of the community and resilience of the system. The results were categories A, B and C with category A being given more importance than B and so on for C.

The optional CIP plans gave particular attention to A then B then C, attempting to never let A go to poor. Heavier rehabilitation treatments were used on A then B then C to allow for appropriate levels of project risk during construction and future performance predictions. Roadway segments were selected as “worst first” when possible, but this does not always allow for touching the necessary number or length of roads. More roads must be touched/rehabilitated/preserved resulting in improvements than the number of roads that are deteriorating in order to have improvement in the end for the entire system. Rate of deterioration further impacts this as generally bad roads deteriorate faster than good roads. These plans attempt to assign a mix of fixes that equals overall improvement at the end of the analysis term. The following describes specifically how treatments were selected during the development of the plan.

Category A/B/C Roads (Good):

- Thin Lift

Category A Roads (Fair):

- If PCI less than 60 = Mill and Fill 2in with Build up
- If PCI  $\geq$  60 and Fair = Mill and Fill 2in
- FDP if conditions warrant

Category B/C Roads (Fair):

- If PCI  $\geq$  60 and Fair = Overlay
- If PCI < 60 and Fair = Mill and Fill 2in
- FDP if conditions warrant

Category A/B Roads (Poor):

- Mill and Fill 2in with Build up
- FDP if conditions warrant

Category C Roads (Poor):

- Mill and Fill 2in
- FDP if conditions warrant

Unit costs utilized for each of these treatments are below in Table 2.

Maintenance	Cost
Full Depth Patching	\$100.00/SY
Rehab Minor - Overlay	\$22.00/SY
Rehab Major – Mill and Fill 2in	\$28.00/SY
Rehab Major – Mill and Fill 2in w/ Buildup	\$46.00/SY
Thin Lift	\$15.00/SY

**Table 2**

For Fair and good pavements, one alternative treatment that has proven to be very successful both regionally and nationally is microsurfacing. Microsurfacing (also known as a type of slurry seal) is a mixture of asphalt emulsion and fine aggregate that is applied uniformly to the pavement with specialized equipment. Microsurfacing is a preventative maintenance treatment that is less expensive (approximately \$9.00/SY) than Thin Lift. It provides a relatively low-cost treatment that is similar in appearance to Hot Mix Asphalt and can be utilized in lieu of aggregate surface treatments. As more good roads are produced in the system it will be crucial to keep them good. Lower cost treatments that can cover more area are key to accomplishing this. Microsurfacing may be more appropriate for the Category A, moderate volume, moderate speed applications than an aggregate surface treatment due to its differences in surface characteristics. Please see figure 18 below for a picture of typical microsurfacing.



**Figure 18: Typical Microsurfacing Paving Crew**

It should be noted that due to the specialty nature of microsurfacing, sufficient contract quantities would be necessary to generate contractor interest and project viability. Our conversations with the industry indicate that contract quantities including a minimum five (5) miles of microsurfacing would be preferred for mobilization of the equipment and to keep costs reasonable. If the Town is interested in learning more about this type of treatment, we will be prepared to provide additional information when requested.

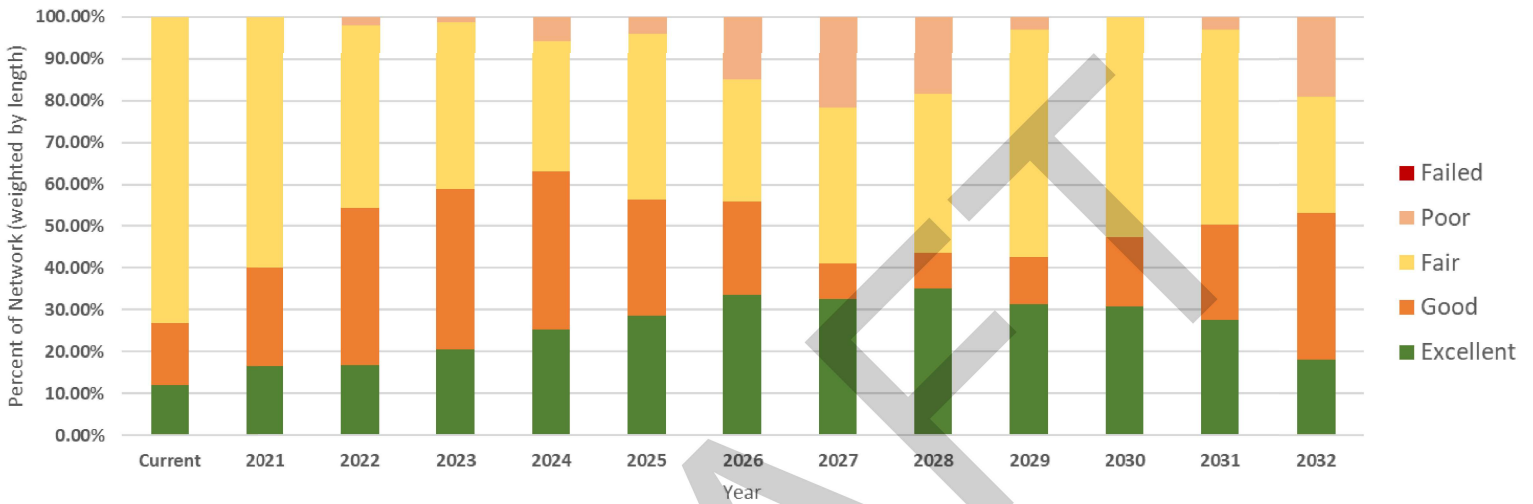
#### **4.4 CIP PLAN DETAILS AND DISCUSSION**

Key highlights of the options are as follows:

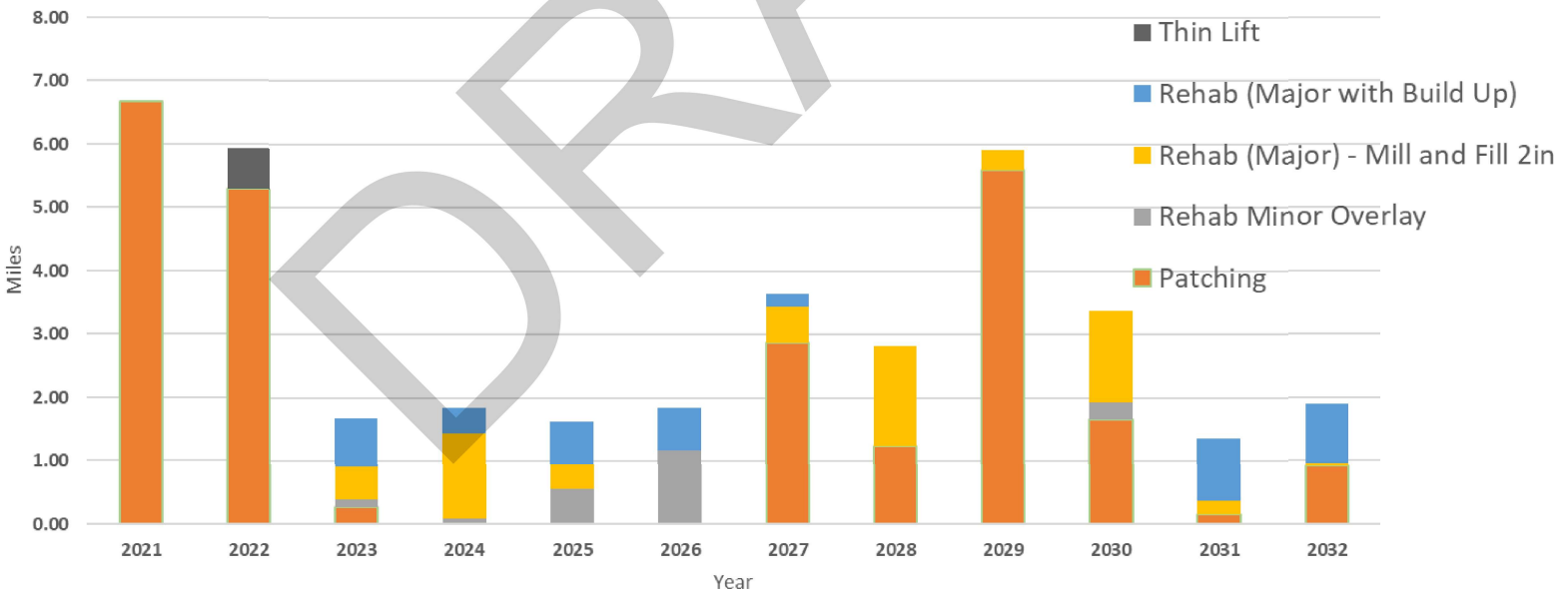
1. Full Depth Patching (FDP) in the first 2 years of the plan accomplishes several goals upfront. Elimination of high intensity fatigue cracking and potholes. Touches significant mileage in the system. Creates attractive winter work contracts for local contractors with adequate quantities for acceptable unit price contracts. Verifies unit prices early in the program. Brings all but 1 Category A road into the Good condition reducing maintenance requests for the Town.
2. Groups similar work activities together yearly in an attempt to create favorable contracting conditions.
3. Option 1 (\$675K) includes work on 38 miles of road and improves the system from approximately 27% Good/Excellent to 53% Good/Excellent. This improvement mostly comes from the conversion of fair roads to good. Some fair roads fall into the Poor (20%) category late in the plan due to a funding shortfall
4. Option 2 includes work on 57 miles of road and improves the system to 99% Good/Excellent. Similar approach as Option 1 but and increased budget allows for more extensive rehabilitation and resulting increased performance.

Summaries of the plans, Options 1 and 2, along with the predicted performance, cost and types of treatments are presented in the following figures. Detailed listing of each road segment and treatment type by year and Optional plan are presented in the report Appendix:

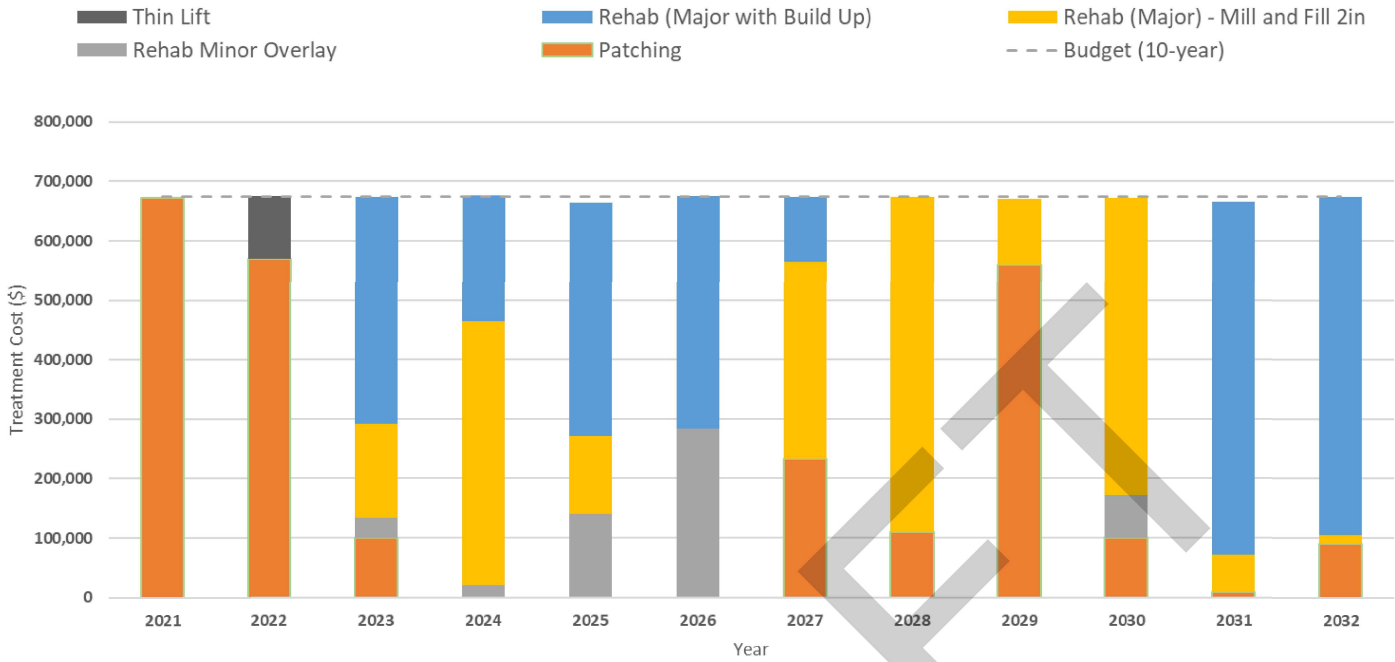
Condition Summary by Year - Option 1



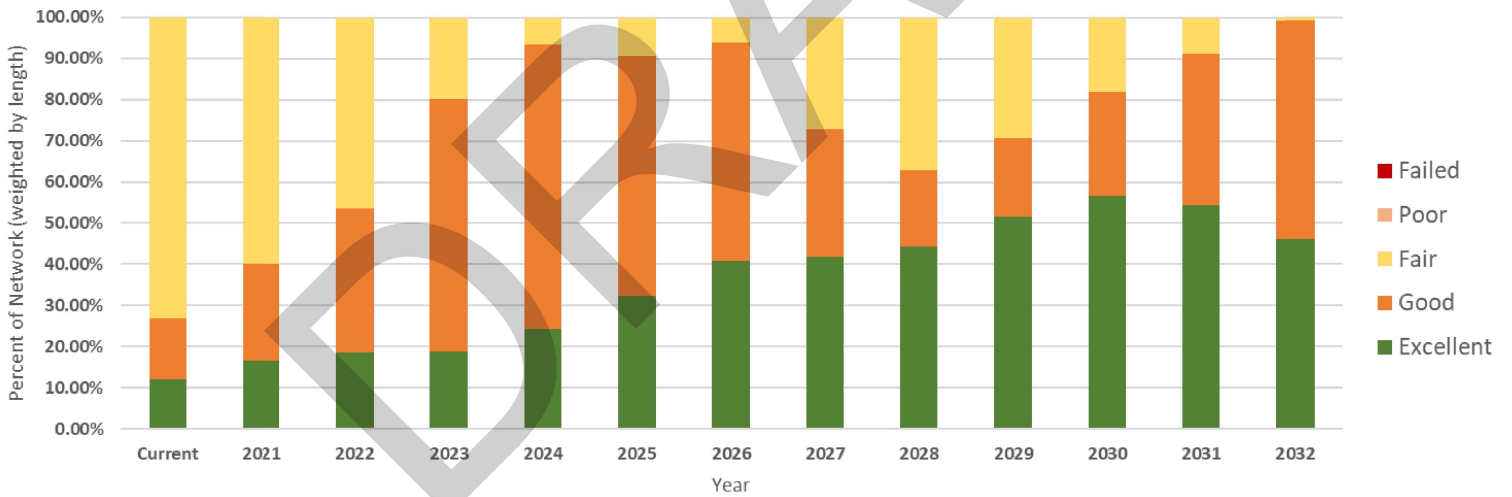
Miles by Treatment Type - Option 1



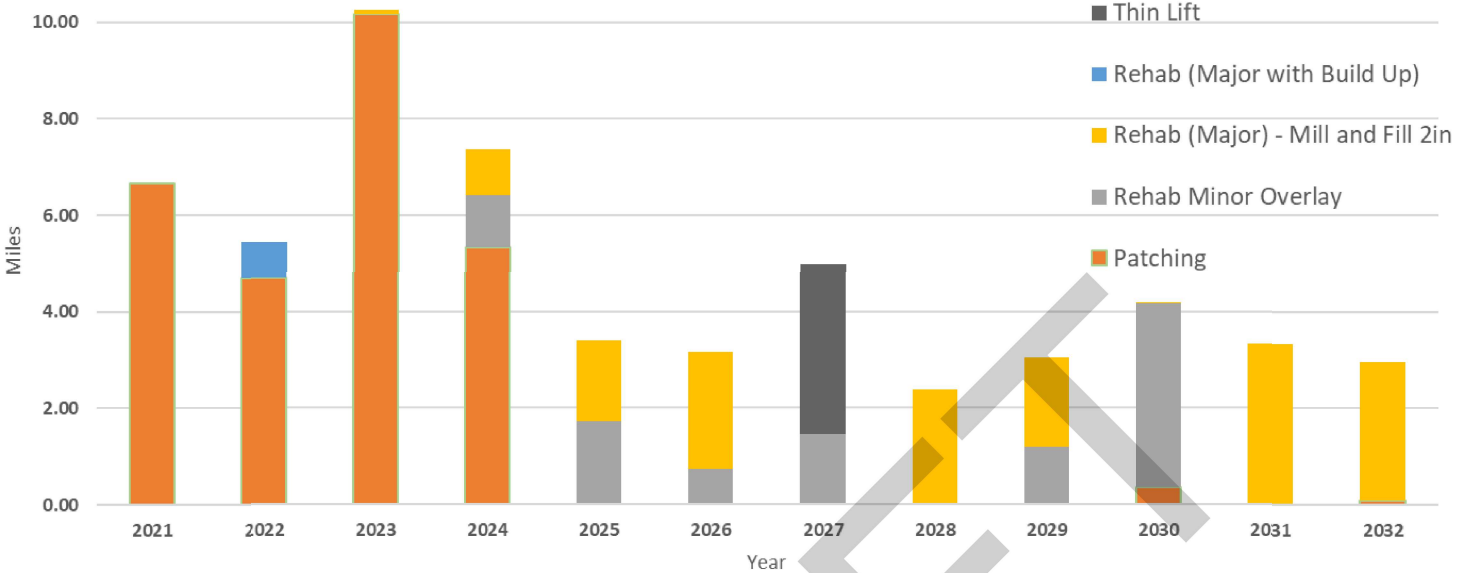
Costs by Treatment Type - Option 1



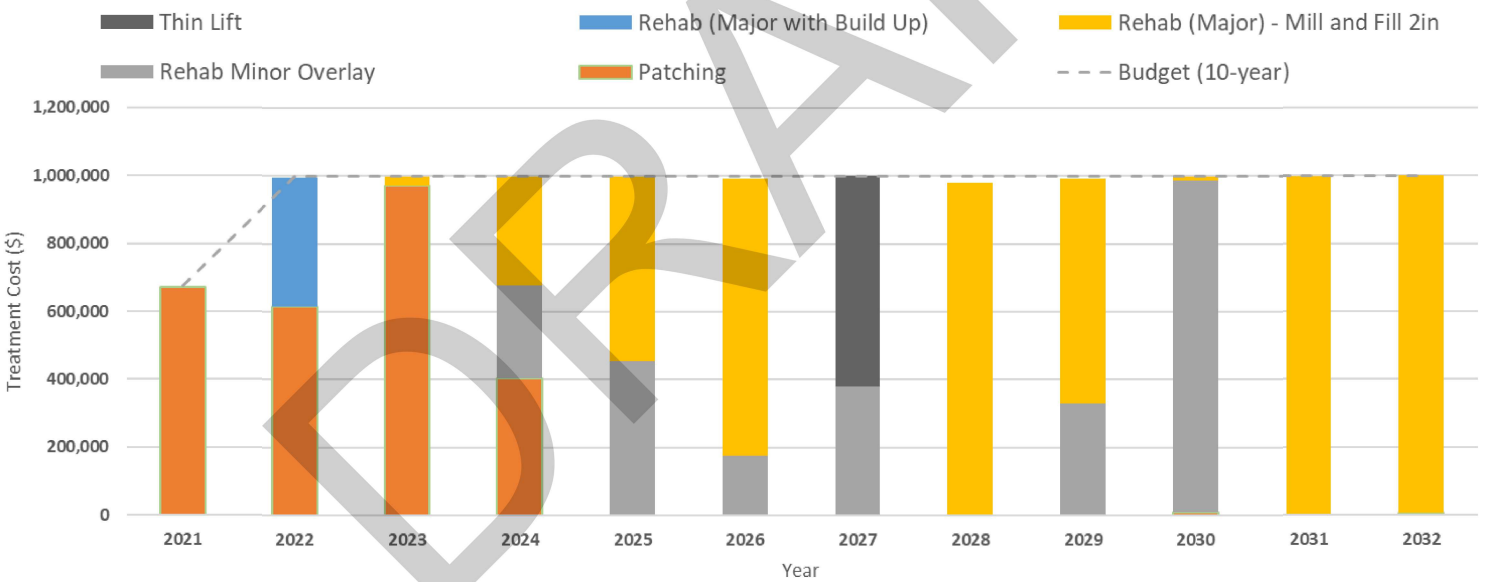
Condition Summary by Year - Option 2



Miles by Treatment Type - Option 2



Costs by Treatment Type - Option 2



We understand that implementation of Option 2 would require the Town of Southern Shores to significantly increase funding for this “catch-up” scenario. We recommend the work be done under the supervision of certified inspectors. Certified inspectors play a vital role in municipalities getting the product they are paying for on the ground, within specifications, and with cost efficiency.

Further, SEPI encourages that the Town implement the recommended pavement maintenance strategy in phases and organize needed contracts in the following order:

- Patching – Since the Capital Plan calls for a great deal of prep work such as patching, we recommend patching be done in one of two ways: 1) Partner with the local NCDOT office with to have their crews review the streets and patch the areas of need; or 2) Let a contract to patch areas under the supervision of a certified inspector. The inspector and their engineer can mark the areas to be patched in the field prior to letting the contract. The contract can be properly managed through inspection for both quality and quantity control.
- Asphalt Paving – Since there are various roads that need leveling prior to preservation, an asphalt paving contract should follow the patching contract. Consideration could be given to let the two contracts together if desired. This contract would include the leveling plus any resurfacing or milling and filling with asphalt.
- As mentioned previously, given the number of relatively short sections of roadways within this system, it would also be beneficial to consider letting contracts with like type roads requiring the same treatments. This will help to establish better prices through an economy of scale.
- Meet with local contractors to discuss upcoming work opportunities and give an outlook of work to come in this plan.
- Determine methods and procedures for contract preparation and construction management.
- Consider holding back a percentage of budget yearly to account for change order contingencies. 5 to 10 percent of the total contract amount is typically sufficient.

After implementation of the preferred CIP Option, SEPI recommends that the Town of Southern Shores continue to follow the pavement preservation philosophy outlined in this report. The Town's approach should combine traditional medium to long-term strategies (reconstruction and resurfacing) with short-term preventative maintenance strategies to achieve the highest level of service while maximizing available funds each year. The experienced SEPI Team is available to assist the Town with future planning if desired.

Lastly, SEPI recommends that the Town of Southern Shores plan for future pavement condition surveys on regular five (5) year intervals so that the status of the road system can be monitored, and maintenance plans altered as necessary.

In addition to the pavement preservation practices referenced above, the SEPI team also identified a need for drainage improvements on the shoulders and the ditches in Southern Shores. High shoulders should be cut down and shaped to direct the water into the ditches. There are places where the ditches are not draining properly which can create issues in the road subgrade. We recommend some funding be set aside to address the drainage issues prior to pavement improvements.

Confirmation of these recommendations should be done in the field prior to developing a project or yearly program activities. The recommended repairs are best judgements given the current pavement conditions and projected performance, but other needs such as utility repairs, conditions of curb and gutter, drainage, and traffic volume may dictate a variation of the activity.

Field observations by an engineer are highly recommended prior to project development because of the ever-changing characteristics associated with pavement maintenance. **This final evaluation prior to letting a contract is vital to ensuring the right treatment on the right road at the right time and will help to ensure forecasted budgetary needs are as accurate as they can be.**

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## SECTION 5 – MULTI-USE PATH / CHICAHAWK TRAIL PARKING LOT

### Multi-use Path along NC12

SEPI assessors also reviewed the 3.7 mile multi-use path along NC 12 for condition and pavement distresses. The path appears to be in fair condition and is routinely utilized daily. The path appears to be older pavement, with little to no maintenance work done throughout its life.

The asphalt is oxidizing, becoming less flexible, leading to transverse cracking (Figure A) present throughout the length of the path. There are also various areas of edge cracking (Figure B) particularly where the edge of the asphalt is unsupported (low shoulders) by gravel or earthen material.

If left unrepaired, these types of failures will increase, cracks will become wider, there will be more water intrusion, and the likelihood of further issues also increases. We recommend a crack sealing program for the transverse cracking. If the cracks are significant (greater than ½ inch), we recommend the use of mastic sealant which has been utilized successfully by NCDOT in the Eastern part of the State.

The edge cracking will likely require removal and replacement via patching. Once the areas are repaired, all low shoulder areas should also be remediated by bringing in earthen material to provide edge support. Seeding will be required to prevent erosion and stabilize the area. Low shoulders in other areas where edge cracking has not yet occurred should be repaired the same way as they can create a hazard for pedestrians and cycling traffic.



Figure A - Transverse Cracking

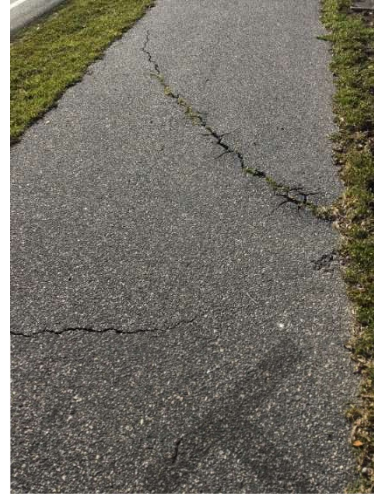


Figure B – Edge Cracking

There are several other issues present on the path. Right now, the greatest area of concern is the cracking and buckling of the pavement (Figures C & D) due to tree root intrusion, particularly in the more northern reaches of the path where the shaded road canopy is located. The cracks will worsen with time and become larger and thereby higher and more likely to create issues such as a tripping hazard to foot traffic or a very bumpy, uneven ride for bike traffic. SEPI recommends milling the asphalt in these areas and removing the roots as soon as funds are available. The area can be patched back to its original elevation with two (2") inches of surface course asphalt.



**Figure C – Root intrusion cracks**

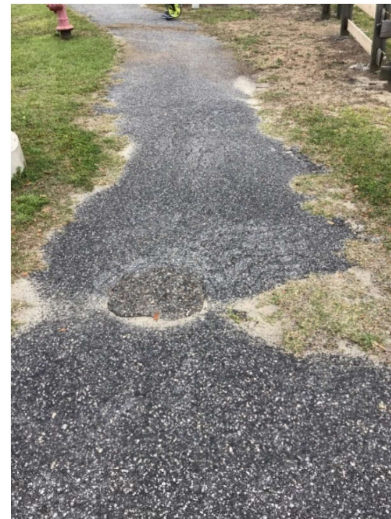


**Figure D – More cracking due to roots**

Another prevalent issue, particularly on the southern end of the path, is the raveling of asphalt (Figure E) from the edges. These areas are narrowing the path and grasses (Figure F) in some cases have covered parts of the path due to this problem. This could be a workmanship issue, but staff are suspicious that it could have happened during home construction where materials were stored beside the road and wear and tear of equipment use could have created the problem. While not a dangerous issue for users, these areas should be monitored and plans for future repair considered.



**Figure E – Raveling of asphalt edges**



**Figure F – Grasses spreading across path**

Additionally, there are several areas where the ADA ramp crossings (raised domes) have edges missing or broken off due to use of heavier equipment on the path. These should also be noted and monitored on a yearly basis to ensure they are not worsening to the point of not functioning properly.

In conclusion, in its current condition the path is functioning as intended and is certainly an asset to the Town. Planning and budgeting for repairs should begin before areas deteriorate to unsafe situations. The greatest concern is the root buckling because it can create an unsafe situation for all users. SEPI recommends the Town consultant with an arborist to help make recommendations on the most effective practices in tree root removal as a part of the multi-use path repair strategy.

#### **Timeline Recommendations for Repair**

- Fund repairs for root intrusion as soon as possible because these areas present the biggest hazard to those using the path. Plan to spray areas of grass intrusion (see Figure F) also.
- Repair areas of low shoulders as soon as possible to correct the hazard for users and to prevent edge cracking of unsupported pavement.
- Fund repairs for sealing cracks larger than ¼" to prevent water intrusion and further asphalt deterioration. This should be done as quickly as possible but no more than 1-3 years.
- Plan to repave (minimum of 1 ¼" overlay) the entire path-after making repairs-in the next 5-7 years. Spray all areas of grass intrusion and kill weeds and grasses prior to repaving. Add earthen material to edges of pavement for lateral support. Seed to establish grasses to stabilize material.

#### **Chicahauk Beach Access Trail Parking Lot**

The current condition of the asphalt parking lot with porous parking areas is fair and typical of an aging low volume car parking area. Parking lots in general are highly susceptible to transverse cracking, oxidation and localized drainage issues all leading to problem spots in the pavement. This parking area is serviceable but in need of a plan to keep issues that are currently serviceable from becoming more significant problems. The types of failures present suggest that the parking area is not significantly deficient in structure as most of the cracking is random in nature other than in areas where drainage appears to be an issue. We recommend the following as a plan for rehabilitation.

- FDP and level as necessary to address isolated failures and drainage issues.
- Perform crack sealing
- Remove thermoplastic pavement markings
- Seal the surface of the pavement with a slurry seal
- Replace thermoplastic pavement markings

## SECTION 6 – ACKNOWLEDGEMENTS

SEPI Engineering and Construction would like to thank the Town of Southern Shores for this opportunity. The Town staff was professional, conscientious, knowledgeable, and very supportive of the SEPI Team. The background information and open discussions with staff provided also helped ensure a very successful project. It would be a pleasure to work with Southern Shores again should our services be needed.

The SEPI team has a wide range of expertise, offering unique solutions to our clients across North Carolina and the Southeast. SEPI staff is prepared to offer engineering solutions to our clients in most all Civil Engineering disciplines. Our goal is not just to meet the needs of our clients, but also to exceed them. SEPI offers sustainable, earnest, practical, and innovative service lines to a wide range of clients. We have offices in Raleigh, Charlotte, and Wilmington in North Carolina; Charleston and Beaufort in South Carolina; and Palmetto and Fort Lauderdale in Florida.

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APPENDIX A

TOWN OF SOUTHERN SHORES  
CAPITAL IMPROVEMENT PLAN\_OPTION 1

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Year 2021	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment2	Cost 2021	Class
51	HILLCREST DR	SEA OATS TRL	HICKORY TRL	Patching	\$97,366.62	A
128	TRINITIE TRL	CHICAHOUK TRL	EAGLES NEST LN	Patching	\$55,332.42	A
90	HILLCREST DR	HICKORY TRL	E DOGWOOD TRL	Patching	\$51,493.75	A
153	S DOGWOOD TRL	GINGUITE TRL	TEAL CT	Patching	\$12,233.09	A
26	SEA OATS TRL	SOUNDVIEW TRL	NC 12	Patching	\$25,932.03	A
111	S DOGWOOD TRL	YAUPON TRL	FAIRWAY DR	Patching	\$53,383.01	A
130	S DOGWOOD TRL	FAIRWAY DR	GINGUITE TRL	Patching	\$106,850.86	A
95	S DOGWOOD TRL	E DOGWOOD TRL	YAUPON TRL	Patching	\$7,782.09	A
11	HAPPY INDIAN LN	HIGH DUNE LOOP	DEAD END	Patching	\$3,591.91	B
33	SOUNDVIEW TRL	SEA OATS TRL	NORTH DUNE LOOP	Patching	\$22,736.71	B
54	6TH AVE	NC 12	6TH AVE	Patching	\$80,840.17	B
12	HIGH DUNE LOOP	SPINDRIFT TRL	SPINDRIFT TRL	Patching	\$60,981.32	B
58	4TH AVE	NC 12	4TH AVE	Patching	\$0.00	B
29	12TH AVE	NC 12	12TH AVE	Patching	\$18,783.71	B
53	6TH AVE	DEAD END	DEAD END	Patching	\$4,744.98	B
50	7TH AVE	NC 12	7TH AVE	Patching	\$18,243.96	B
121	FAIRWAY DR	S DOGWOOD TRL	EOM	Patching	\$13,635.00	B
142	GRAVEY POND LN	DEAD END	DEAD END	Patching	\$5,267.09	B
126	TURTLE POND CT	POTESKEET TRL	DEAD END	Patching	\$9,735.09	C
81	WOODLAND DR	E DOGWOOD TRL	N WOODLAND DR	Patching	\$16,065.24	C
92	MIZZENMAST LN	SEA OATS LN	DEAD END	Patching	\$6,577.52	C
					\$671,576.57	Yearly Total

Item 1.

Year 2022	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2022)	Cost (2022)	Class
71	HICKORY TRL	HILLCREST DR	WAX MYRTLE TRL	Patching	\$16,216.57	A
69	HICKORY TRL	WAX MYRTLE TRL	NC 12	Patching	\$12,209.70	A
84	E DOGWOOD TRL	BAYBERRY TRL	WAX MYRTLE TRL	Patching	\$67,692.75	A
125	CHICAHOUK TRL	CLAM SHELL TRL	SPINDRIFT TRL	Patching	\$238,628.05	A
38	SEA OATS TRL	SOUNDVIEW TRL	HILLCREST DR	Patching	\$32,675.09	A
82	E DOGWOOD TRL	N DOGWOOD TRL	BAYBERRY TRL	Patching	\$14,094.72	A
86	SEA OATS TRL	HICKORY TRL	E DOGWOOD TRL	Patching	\$50,011.31	A
68	SEA OATS TRL	HILLCREST DR	HICKORY TRL	Patching	\$19,834.52	A
157	S DOGWOOD TRL	TEAL CT	CROATAN HWY	Patching	\$15,117.13	A
47	HILLCREST DR	SEA OATS TRL	NC 12	Patching	\$4,929.07	A
5	BAYBERRY TRL	E DOGWOOD TRL	SCUPPERNONG LN	Patching	\$28,230.51	B
16	TALL CLIFF LN	HIGH DUNE LOOP	DEAD END	Patching	\$4,266.98	B
110	W HOLLY TRL	HOLLY TRL	DEAD END	Patching	\$13,218.50	B
66	PURPLE MARTIN LN	OCEAN BLVD	DEAD END	Patching	\$4,037.51	B
48	8TH AVE	NC 12	8TH AVE	Patching	\$5,768.43	B
37	11TH AVE	SEA OATS TRL	NC 12	Patching	\$16,935.74	B
35	11TH AVE	NC 12	11TH AVE	Patching	\$19,998.03	B
44	9TH AVE	NC 12	DEAD END	Patching	\$5,883.08	B
33	SOUNDVIEW TRL	SEA OATS TRL	NORTH DUNE LOOP	Thin Lift	\$45,923.65	B
54	6TH AVE	NC 12	6TH AVE	Thin Lift	\$32,656.23	B
122	TWISTED TREE CT	POTESKEET TRL	DEAD END	Thin Lift	\$9,772.62	C
151	YUCCA LN	CYPRESS LN	JUNIPER TRL	Thin Lift	\$17,471.90	C
					\$675,572.09	Yearly Total

Year 2023	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2023)	Cost (2023)	Class
65	HICKORY TRL	NC 12	DEAD END	Patching	\$100,946.35	A
64	1ST AVE	NC 12	1ST AVE	Rehab (Major with Build Up)	\$121,384.11	B
74	CIRCLE DR	HICKORY TRL	HICKORY TRL	Rehab (Major with Build Up)	\$259,915.53	B
11	HAPPY INDIAN LN	HIGH DUNE LOOP	DEAD END	Rehab Minor Overlay	\$32,234.76	B
55	5TH AVE	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$8,448.13	B
60	3RD AVE	NC 12	3RD AVE	Rehab (Major) - Mill and Fill 2in	\$68,688.82	B
59	3RD AVE	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$7,918.69	B
32	SOUNDVIEW TRL	NORTH DUNE LOOP	SEA OATS TRL	Rehab (Major) - Mill and Fill 2in	\$18,445.58	B
13	OCEAN VIEW LOOP	OCEANVIEW LOOP	NC 12	Rehab (Major) - Mill and Fill 2in	\$28,489.90	B
124	GOOSE FEATHER LN	CHICHAUK TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$26,409.22	C
					\$672,881.09	Yearly Total

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Year 2024	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2024)	Cost (2024)	Class
80	OCEAN BLVD	PERIWINKLE PL	E DOGWOOD TRL	Rehab (Major with Build Up)	\$125,010.46	B
77	PERIWINKLE PL	NC 12	OCEAN BLVD	Rehab (Major with Build Up)	\$86,715.88	B
6	OCEAN BLVD	DOLPHIN RUN	PORPOISE RUN	Rehab (Major) - Mill and Fill 2in	\$76,460.89	B
108	OCEAN BLVD	PORPOISE RUN	NC 12	Rehab (Major) - Mill and Fill 2in	\$79,902.58	B
79	SANDFIDDLER CT	NC 12	DEAD END	Rehab (Major) - Mill and Fill 2in	\$38,743.43	B
14	SPINDRIFT TRL	HIGH DUNE LOOP	DEAD END	Rehab (Major) - Mill and Fill 2in	\$164,442.71	B
9	PORPOISE RUN	WAX MYRTLE TRL	NC 12	Rehab (Major) - Mill and Fill 2in	\$23,639.65	B
8	PORPOISE RUN	NC 12	OCEAN BLVD	Rehab Minor Overlay	\$19,652.86	B
61	2ND AVE	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$6,169.16	B
36	10TH AVE	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$10,911.61	B
150	HAPPY INDIAN CT	HAPPY INDIAN LN	DEAD END	Rehab (Major) - Mill and Fill 2in	\$10,164.09	C
103	BRIGHT LANTERN LN	SEA OATS LN	DEAD END	Rehab (Major) - Mill and Fill 2in	\$18,195.80	C
172	KINGFISHER CT	KINGFISHER TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$15,966.59	C
					\$675,975.71	Yearly Total
Year 2025	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2025)	Cost (2025)	Class
65	HICKORY TRL	NC 12	DEAD END	Rehab Minor Overlay	\$60,371.80	A
26	SEA OATS TRL	SOUNDVIEW TRL	NC 12	Rehab Minor Overlay	\$79,079.85	A
63	1ST AVE	DEAD END	DEAD END	Rehab (Major with Build Up)	\$20,421.86	B
127	CLAM SHELL TRL	CHICAHAWK TRL	OTTER SLIDE LN	Rehab (Major with Build Up)	\$373,302.25	B
43	KINGFISHER TRL	SOUNDVIEW TRL	SEA OATS TRL	Rehab (Major) - Mill and Fill 2in	\$87,494.64	C
120	OYSTER BED LN	POTESKEET TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$27,564.44	C
119	BENT OAK CT	POTESKEET TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$16,277.93	C
					\$664,512.77	Yearly Total

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Year 2026	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2026)	Cost (2026)	Class
51	HILLCREST DR	SEA OATS TRL	HICKORY TRL	Rehab Minor Overlay	\$179,848.69	A
45	HILLCREST DR	NC 12	DEAD END	Rehab Minor Overlay	\$57,078.74	A
133	PUDDING PAN LN	SPINDRIFT TRL	DEAD END	Rehab (Major with Build Up)	\$213,150.51	B
1	SEA OATS LN	E DOGWOOD TRL	DEAD END	Rehab (Major with Build Up)	\$177,766.36	B
81	WOODLAND DR	E DOGWOOD TRL	N WOODLAND DR	Rehab Minor Overlay	\$29,674.57	C
149	POINT COMFORT LN	GINGUITE TRL	DEAD END	Rehab Minor Overlay	\$17,094.83	C
					\$674,613.70	Yearly Total

Year 2027	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2027)	Cost (2027)	Class
71	HICKORY TRL	HILLCREST DR	WAX MYRTLE TRL	Rehab (Major) - Mill and Fill 2in	\$38,105.77	A
69	HICKORY TRL	WAX MYRTLE TRL	NC 12	Rehab (Major) - Mill and Fill 2in	\$28,690.40	A
84	E DOGWOOD TRL	BAYBERRY TRL	WAX MYRTLE TRL	Rehab (Major) - Mill and Fill 2in	\$265,107.82	A
56	5TH AVE	NC 12	5TH AVE	Rehab (Major with Build Up)	\$108,373.06	B
171	OTTER SLIDE LN	CLAM SHELL TRL	CHICHAUK TRL	Patching	\$22,607.57	B
155	WILD PONY LN	SPINDRIFT TRL	DEAD END	Patching	\$8,139.48	B
49	7TH AVE	DEAD END	DEAD END	Patching	\$3,085.13	B
18	OCEAN VIEW LOOP	DEAD END	DEAD END	Patching	\$24,360.34	B
129	SPINDRIFT TRL	CHICHAUK TRL	HIGH DUNE LOOP	Patching	\$54,998.83	B
134	CROOKED BACK LOOP	CHICHAUK TRL	PUDDING PAN LN	Patching	\$49,758.70	B
85	WAX MYRTLE TRL	HICKORY TRL	E DOGWOOD TRL	Patching	\$49,973.30	B
89	POMPANO CT	OCEAN BLVD	DEAD END	Patching	\$4,604.74	B
57	4TH AVE	DEAD END	DEAD END	Patching	\$2,743.53	B
31	11TH AVE	DEAD END	DEAD END	Patching	\$3,016.10	B
28	12TH AVE	DEAD END	DEAD END	Patching	\$2,591.80	B
46	8TH AVE	DEAD END	DEAD END	Patching	\$4,786.49	B
107	E HOLLY TRL	HOLLY TRL	DEAD END	Patching	\$2,736.28	B
					\$673,679.34	Yearly Total

Year 2028	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2028)	Cost (2028)	Class
125	CHICHAUK TRL	CLAM SHELL TRL	SPINDRIFT TRL	Rehab (Major) - Mill and Fill 2in	\$188,656.53	A
38	SEA OATS TRL	SOUNDVIEW TRL	HILLCREST DR	Rehab (Major) - Mill and Fill 2in	\$129,162.72	A
128	TRINITIE TRL	CHICHAUK TRL	EAGLES NEST LN	Rehab (Major) - Mill and Fill 2in	\$220,891.39	A
87	OCEAN BLVD	E DOGWOOD TRL	DOLPHIN RUN	Patching	\$23,462.75	B
34	NORTH DUNE LOOP	SOUNDVIEW TRL	SOUNDVIEW TRL	Patching	\$37,152.74	B
40	9TH AVE	DEAD END	DEAD END	Patching	\$3,000.65	B
158	SKYLINE RD	NC 12	DEAD END	Patching	\$46,689.81	B
139	LAND FALL LOOP	SPINDRIFT TRL	SPINDRIFT TRL	Rehab (Major) - Mill and Fill 2in	\$23,806.49	C
					\$672,823.08	Yearly Total

2029	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2029)	Cost (2029)	Class
39	10TH AVE	NC 12	10TH AVE	Patching	\$19,960.18	B
138	TEA PLANT CT	PUDDING PAN LN	DEAD END	Patching	\$8,029.75	B
100	WAX MYRTLE TRL	E DOGWOOD TRL	PORPOISE RUN	Patching	\$38,784.94	B
70	WAX MYRTLE TRL	HILLCREST DR	HICKORY TRL	Patching	\$109,457.99	B
24	13TH AVE	DEAD END	DEAD END	Patching	\$3,452.46	B
99	DOLPHIN RUN	WAX MYRTLE TRL	NC 12	Patching	\$6,626.40	B
52	N DOGWOOD TRL	E DOGWOOD TRL	DEAD END	Patching	\$104,277.77	B
21	DUCK WOODS DR	CROATAN HWY	DEAD END	Patching	\$139,470.75	B
78	N WOODLAND DR	DEAD END	DEAD END	Patching	\$33,401.50	B
94	DOLPHIN RUN	NC 12	OCEAN BLVD	Patching	\$14,271.36	B
23	GINGUITE TRL	PINTAIL TRL	S DOGWOOD TRAIL	Patching	\$81,775.36	B
154	TEAL CT	S DOGWOOD TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$14,782.79	C
104	TROUT RUN	NC 12	OCEAN BLVD	Rehab (Major) - Mill and Fill 2in	\$33,625.08	C
145	LAST HUNT LN	HIGH DUNE LOOP	DEAD END	Rehab (Major) - Mill and Fill 2in	\$22,846.13	C
160	WOOD DUCK CT	S DOGWOOD TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$14,905.07	C
159	BLUE PETE CT	S DOGWOOD TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$13,416.46	C
27	SEA OATS CT	SEA OATS TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$11,581.67	C
					\$670,665.66	Yearly Total

Item 1.

Year 2030	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2030)	Cost (2030)	Class
33	SOUNDVIEW TRL	SEA OATS TRL	NORTH DUNE LOOP	Rehab Minor Overlay	\$72,637.40	B
171	OTTER SLIDE LN	CLAM SHELL TRL	CHICAHAWK TRL	Patching	\$23,241.42	B
155	WILD PONY LN	SPINDRIFT TRL	DEAD END	Patching	\$8,367.69	B
49	7TH AVE	DEAD END	DEAD END	Patching	\$3,171.63	B
18	OCEAN VIEW LOOP	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$93,495.13	B
129	SPINDRIFT TRL	CHICAHAWK TRL	HIGH DUNE LOOP	Rehab (Major) - Mill and Fill 2in	\$211,085.85	B
87	OCEAN BLVD	E DOGWOOD TRL	DOLPHIN RUN	Rehab (Major) - Mill and Fill 2in	\$89,216.38	B
39	10TH AVE	NC 12	10TH AVE	Rehab (Major) - Mill and Fill 2in	\$75,201.65	B
138	TEA PLANT CT	PUDDING PAN LN	DEAD END	Rehab (Major) - Mill and Fill 2in	\$30,252.76	B
62	2ND AVE	NC 12	2ND AVE	Patching	\$20,627.58	B
67	OCEAN BLVD	HICKORY TRL	PERIWINKLE PL	Patching	\$22,568.97	B
42	9TH AVE	NC 12	9TH AVE	Patching	\$6,789.65	B
25	13TH AVE	NC 12	13TH AVE	Patching	\$7,029.91	B
41	10TH AVE	NC 12	DEAD END	Patching	\$7,800.05	B
					\$671,486.07	Yearly Total

Year 2031	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2031)	Cost (2031)	Class
90	HILLCREST DR	HICKORY TRL	E DOGWOOD TRL	Rehab (Major with Build Up)	\$347,098.46	A
153	S DOGWOOD TRL	GINGUITE TRL	TEAL CT	Rehab (Major with Build Up)	\$247,374.94	A
58	4TH AVE	NC 12	4TH AVE	Rehab (Major) - Mill and Fill 2in	\$62,358.52	B
53	6TH AVE	DEAD END	DEAD END	Patching	\$5,214.78	B
30	12TH AVE	NC 12	DEAD END	Patching	\$3,342.80	B
					\$665,389.50	Yearly Total

Year 2032	Option 1					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2032)	Cost (2030)	Class
112	CHICHAUK TRL	CLAMSHELL TRL	DEAD END	Rehab (Major with Build Up)	\$250,019.09	A
134	CROOKED BACK LOOP	CHICHAUK TRL	PUDDING PAN LN	Rehab (Major with Build Up)	\$319,447.77	B
85	WAX MYRTLE TRL	HICKORY TRL	E DOGWOOD TRL	Patching	\$52,308.50	B
34	NORTH DUNE LOOP	SOUNDVIEW TRL	SOUNDVIEW TRL	Patching	\$38,528.77	B
162	WIDGEON CT	S DOGWOOD TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$13,514.33	C
					\$673,818.46	Yearly Total

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APPENDIX B

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TOWN OF SOUTHERN SHORES  
CAPITAL IMPROVEMENT PLAN\_OPTION 2

Year 2021	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment	Cost 2021	Class
51	HILLCREST DR	SEA OATS TRL	HICKORY TRL	Patching	\$97,366.62	A
128	TRINITIE TRL	CHICHAUK TRL	EAGLES NEST LN	Patching	\$55,332.42	A
90	HILLCREST DR	HICKORY TRL	E DOGWOOD TRL	Patching	\$51,493.75	A
153	S DOGWOOD TRL	GINGUITE TRL	TEAL CT	Patching	\$12,233.09	A
26	SEA OATS TRL	SOUNDVIEW TRL	NC 12	Patching	\$25,932.03	A
111	S DOGWOOD TRL	YAUPON TRL	FAIRWAY DR	Patching	\$53,383.01	A
130	S DOGWOOD TRL	FAIRWAY DR	GINGUITE TRL	Patching	\$106,850.86	A
95	S DOGWOOD TRL	E DOGWOOD TRL	YAUPON TRL	Patching	\$7,782.09	A
11	HAPPY INDIAN LN	HIGH DUNE LOOP	DEAD END	Patching	\$3,591.91	B
33	SOUNDVIEW TRL	SEA OATS TRL	NORTH DUNE LOOP	Patching	\$22,736.71	B
54	6TH AVE	NC 12	6TH AVE	Patching	\$80,840.17	B
12	HIGH DUNE LOOP	SPINDRIFT TRL	SPINDRIFT TRL	Patching	\$60,981.32	B
29	12TH AVE	NC 12	12TH AVE	Patching	\$18,783.71	B
53	6TH AVE	DEAD END	DEAD END	Patching	\$4,744.98	B
50	7TH AVE	NC 12	7TH AVE	Patching	\$18,243.96	B
121	FAIRWAY DR	S DOGWOOD TRL	EOM	Patching	\$13,635.00	B
142	GRAVEY POND LN	DEAD END	DEAD END	Patching	\$5,267.09	B
126	TURTLE POND CT	POTESKEET TRL	DEAD END	Patching	\$9,735.09	C
81	WOODLAND DR	E DOGWOOD TRL	N WOODLAND DR	Patching	\$16,065.24	C
92	MIZZENMAST LN	SEA OATS LN	DEAD END	Patching	\$6,577.52	C
					\$671,576.57	Yearly Total

Year 2022	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2022)	Cost (2022)	Class
65	HICKORY TRL	NC 12	DEAD END	Patching	\$99,966.29	A
71	HICKORY TRL	HILLCREST DR	WAX MYRTLE TRL	Patching	\$16,216.57	A
69	HICKORY TRL	WAX MYRTLE TRL	NC 12	Patching	\$12,209.70	A
84	E DOGWOOD TRL	BAYBERRY TRL	WAX MYRTLE TRL	Patching	\$67,692.75	A
125	CHICHAUK TRL	CLAM SHELL TRL	SPINDRIFT TRL	Patching	\$238,628.05	A
38	SEA OATS TRL	SOUNDVIEW TRL	HILLCREST DR	Patching	\$32,675.09	A
82	E DOGWOOD TRL	N DOGWOOD TRL	BAYBERRY TRL	Patching	\$14,094.72	A
86	SEA OATS TRL	HICKORY TRL	E DOGWOOD TRL	Patching	\$50,011.31	A
68	SEA OATS TRL	HILLCREST DR	HICKORY TRL	Patching	\$19,834.52	A
157	S DOGWOOD TRL	TEAL CT	CROATAN HWY	Patching	\$15,117.13	A
47	HILLCREST DR	SEA OATS TRL	NC 12	Patching	\$4,929.07	A
64	1ST AVE	NC 12	1ST AVE	Rehab (Major with Build Up)	\$120,205.62	B
74	CIRCLE DR	HICKORY TRL	HICKORY TRL	Rehab (Major with Build Up)	\$257,392.08	B
80	OCEAN BLVD	PERIWINKLE PL	E DOGWOOD TRL	Patching	\$19,990.18	B
77	PERIWINKLE PL	NC 12	OCEAN BLVD	Patching	\$13,866.57	B
63	1ST AVE	DEAD END	DEAD END	Patching	\$3,234.52	B
11	HAPPY INDIAN LN	HIGH DUNE LOOP	DEAD END	Patching	\$3,627.48	B
55	5TH AVE	DEAD END	DEAD END	Patching	\$3,734.87	B
					\$993,426.52	Yearly Total

Year 2023	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2023)	Cost (2023)	Class
60	3RD AVE	NC 12	3RD AVE	Patching	\$30,664.65	B
133	PUDDING PAN LN	SPINDRIFT TRL	DEAD END	Patching	\$33,769.23	B
127	CLAM SHELL TRL	CHICHAUK TRL	OTTER SLIDE LN	Patching	\$59,705.17	B
1	SEA OATS LN	E DOGWOOD TRL	DEAD END	Patching	\$28,163.35	B
59	3RD AVE	DEAD END	DEAD END	Patching	\$2,121.08	B
56	5TH AVE	NC 12	5TH AVE	Patching	\$28,348.30	B

171	OTTER SLIDE LN	CLAM SHELL TRL	CHICHAUK TRL	Patching	\$21,762.42	B
32	SOUNDVIEW TRL	NORTH DUNE LOOP	SEA OATS TRL	Patching	\$4,940.78	B
155	WILD PONY LN	SPINDRIFT TRL	DEAD END	Patching	\$7,835.20	B
49	7TH AVE	DEAD END	DEAD END	Patching	\$2,969.80	B
6	OCEAN BLVD	DOLPHIN RUN	PORPOISE RUN	Patching	\$33,806.11	B
108	OCEAN BLVD	PORPOISE RUN	NC 12	Patching	\$35,327.81	B
79	SANDFIDDLER CT	NC 12	DEAD END	Patching	\$17,129.87	B
14	SPINDRIFT TRL	HIGH DUNE LOOP	DEAD END	Patching	\$43,623.62	B
18	OCEAN VIEW LOOP	DEAD END	DEAD END	Patching	\$23,449.67	B
129	SPINDRIFT TRL	CHICHAUK TRL	HIGH DUNE LOOP	Patching	\$52,942.80	B
87	OCEAN BLVD	E DOGWOOD TRL	DOLPHIN RUN	Patching	\$22,376.51	B
9	PORPOISE RUN	WAX MYRTLE TRL	NC 12	Patching	\$6,271.16	B
8	PORPOISE RUN	NC 12	OCEAN BLVD	Patching	\$11,059.03	B
134	CROOKED BACK LOOP	CHICHAUK TRL	PUDDING PAN LN	Patching	\$47,898.56	B
85	WAX MYRTLE TRL	HICKORY TRL	E DOGWOOD TRL	Patching	\$48,105.14	B
34	NORTH DUNE LOOP	SOUNDVIEW TRL	SOUNDVIEW TRL	Patching	\$35,432.71	B
61	2ND AVE	DEAD END	DEAD END	Patching	\$2,727.61	B
36	10TH AVE	DEAD END	DEAD END	Patching	\$2,894.65	B
39	10TH AVE	NC 12	10TH AVE	Patching	\$18,861.45	B
40	9TH AVE	DEAD END	DEAD END	Patching	\$2,861.73	B
158	SKYLINE RD	NC 12	DEAD END	Patching	\$44,528.24	B
138	TEA PLANT CT	PUDDING PAN LN	DEAD END	Patching	\$7,587.74	B
100	WAX MYRTLE TRL	E DOGWOOD TRL	PORPOISE RUN	Patching	\$36,649.99	B
70	WAX MYRTLE TRL	HILLCREST DR	HICKORY TRL	Patching	\$103,432.78	B
24	13TH AVE	DEAD END	DEAD END	Patching	\$3,262.42	B
99	DOLPHIN RUN	WAX MYRTLE TRL	NC 12	Patching	\$6,261.64	B
52	N DOGWOOD TRL	E DOGWOOD TRL	DEAD END	Patching	\$98,537.71	B
62	2ND AVE	NC 12	2ND AVE	Patching	\$19,314.92	B
67	OCEAN BLVD	HICKORY TRL	PERIWINKLE PL	Patching	\$21,132.76	B
89	POMPANO CT	OCEAN BLVD	DEAD END	Patching	\$4,432.60	B
124	GOOSE FEATHER LN	CHICHAUK TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$26,409.22	C

Year 2024	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2024)	Cost (2024)	Class
80	OCEAN BLVD	PERIWINKLE PL	E DOGWOOD TRL	Rehab Minor Overlay	\$59,787.61	B
77	PERIWINKLE PL	NC 12	OCEAN BLVD	Rehab Minor Overlay	\$41,472.81	B
63	1ST AVE	DEAD END	DEAD END	Rehab Minor Overlay	\$9,673.96	B
55	5TH AVE	DEAD END	DEAD END	Rehab Minor Overlay	\$6,702.26	B
60	3RD AVE	NC 12	3RD AVE	Rehab Minor Overlay	\$54,493.77	B
133	PUDDING PAN LN	SPINDRIFT TRL	DEAD END	Rehab Minor Overlay	\$100,018.12	B
13	OCEAN VIEW LOOP	OCEANVIEW LOOP	NC 12	Patching	\$12,842.19	B
21	DUCK WOODS DR	CROATAN HWY	DEAD END	Patching	\$133,073.01	B
42	9TH AVE	NC 12	9TH AVE	Patching	\$6,419.31	B
57	4TH AVE	DEAD END	DEAD END	Patching	\$2,666.61	B
78	N WOODLAND DR	DEAD END	DEAD END	Patching	\$31,869.33	B
31	11TH AVE	DEAD END	DEAD END	Patching	\$2,931.54	B
28	12TH AVE	DEAD END	DEAD END	Patching	\$2,519.13	B
46	8TH AVE	DEAD END	DEAD END	Patching	\$4,652.29	B
25	13TH AVE	NC 12	13TH AVE	Patching	\$6,646.46	B
94	DOLPHIN RUN	NC 12	OCEAN BLVD	Patching	\$13,616.71	B
23	GINGUITE TRL	PINTAIL TRL	S DOGWOOD TRAIL	Patching	\$78,024.19	B
5	BAYBERRY TRL	E DOGWOOD TRL	SCUPPERNONG LN	Patching	\$28,784.05	B
16	TALL CLIFF LN	HIGH DUNE LOOP	DEAD END	Patching	\$4,350.65	B
110	W HOLLY TRL	HOLLY TRL	DEAD END	Patching	\$13,477.68	B
66	PURPLE MARTIN LN	OCEAN BLVD	DEAD END	Patching	\$4,116.68	B
107	E HOLLY TRL	HOLLY TRL	DEAD END	Patching	\$2,659.56	B
48	8TH AVE	NC 12	8TH AVE	Patching	\$5,881.53	B
72	SAND PIPER LN	OCEAN BLVD	DEAD END	Rehab (Major) - Mill and Fill 2in	\$16,632.29	B
37	11TH AVE	SEA OATS TRL	NC 12	Patching	\$17,267.81	B
41	10TH AVE	NC 12	DEAD END	Patching	\$7,374.60	B
35	11TH AVE	NC 12	11TH AVE	Patching	\$20,390.15	B
44	9TH AVE	NC 12	DEAD END	Patching	\$5,998.43	B
150	HAPPY INDIAN CT	HAPPY INDIAN LN	DEAD END	Rehab (Major) - Mill and Fill 2in	\$10,164.09	C
103	BRIGHT LANTERN LN	SEA OATS LN	DEAD END	Rehab (Major) - Mill and Fill 2in	\$18,195.80	C
172	KINGFISHER CT	KINGFISHER TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$15,966.59	C
43	KINGFISHER TRL	SOUNDVIEW TRL	SEA OATS TRL	Rehab (Major) - Mill and Fill 2in	\$86,661.36	C
120	OYSTER BED LN	POTESKEET TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$27,301.92	C
119	BENT OAK CT	POTESKEET TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$16,122.91	C
139	LAND FALL LOOP	SPINDRIFT TRL	SPINDRIFT TRL	Rehab (Major) - Mill and Fill 2in	\$22,924.77	C
149	POINT COMFORT LN	GINGUITE TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$21,346.55	C
154	TEAL CT	S DOGWOOD TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$14,104.68	C

Item 1.

104	TROUT RUN	NC 12	OCEAN BLVD	Rehab (Major) - Mill and Fill 2in	\$32,082.65	C
160	WOOD DUCK CT	S DOGWOOD TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$14,221.35	C
159	BLUE PETE CT	S DOGWOOD TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$12,801.03	C
27	SEA OATS CT	SEA OATS TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$11,050.40	C
					\$997,286.83	Yearly Total

Year 2025	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2025)	Cost (2025)	Class
65	HICKORY TRL	NC 12	DEAD END	Rehab (Major) - Mill and Fill 2in	\$76,836.83	A
51	HILLCREST DR	SEA OATS TRL	HICKORY TRL	Rehab (Major) - Mill and Fill 2in	\$226,738.91	A
90	HILLCREST DR	HICKORY TRL	E DOGWOOD TRL	Rehab (Major) - Mill and Fill 2in	\$199,856.93	A
127	CLAM SHELL TRL	CHICHAUK TRL	OTTER SLIDE LN	Rehab Minor Overlay	\$178,535.86	B
1	SEA OATS LN	E DOGWOOD TRL	DEAD END	Rehab Minor Overlay	\$84,216.63	B
59	3RD AVE	DEAD END	DEAD END	Rehab Minor Overlay	\$6,342.64	B
56	5TH AVE	NC 12	5TH AVE	Rehab Minor Overlay	\$50,861.80	B
33	SOUNDVIEW TRL	SEA OATS TRL	NORTH DUNE LOOP	Rehab Minor Overlay	\$69,335.70	B
171	OTTER SLIDE LN	CLAM SHELL TRL	CHICHAUK TRL	Rehab Minor Overlay	\$65,075.98	B
145	LAST HUNT LN	HIGH DUNE LOOP	DEAD END	Rehab (Major) - Mill and Fill 2in	\$22,007.74	C
122	TWISTED TREE CT	POTESKEET TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$18,778.76	C
					\$998,587.78	Yearly Total

Year 2026	Option 2					
SectionID	StreetName	BEG_DESC	END_DESC	Treatment (2026)	Cost (2026)	Class
128	TRINITIE TRL	CHICAHAWK TRL	EAGLES NEST LN	Rehab (Major) - Mill and Fill 2in	\$216,800.81	A
153	S DOGWOOD TRL	GINGUITE TRL	TEAL CT	Rehab (Major) - Mill and Fill 2in	\$143,793.34	A
26	SEA OATS TRL	SOUNDVIEW TRL	NC 12	Rehab (Major) - Mill and Fill 2in	\$101,605.63	A
112	CHICAHAWK TRL	CLAMSHELL TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$144,032.74	A
45	HILLCREST DR	NC 12	DEAD END	Rehab (Major) - Mill and Fill 2in	\$72,645.67	A
15	TRINITIE TRL	DEER PATH LN	SWEETGUM LN	Rehab (Major) - Mill and Fill 2in	\$71,147.91	A
32	SOUNDVIEW TRL	NORTH DUNE LOOP	SEA OATS TRL	Rehab Minor Overlay	\$14,915.08	B
155	WILD PONY LN	SPINDRIFT TRL	DEAD END	Rehab Minor Overlay	\$70,958.01	B
54	6TH AVE	NC 12	6TH AVE	Rehab (Major) - Mill and Fill 2in	\$63,348.81	B
49	7TH AVE	DEAD END	DEAD END	Rehab Minor Overlay	\$8,965.13	B
53	6TH AVE	DEAD END	DEAD END	Rehab Minor Overlay	\$8,764.60	B
115	TALL PINE LN	TALL PINE LN	S DOGWOOD TRL	Rehab Minor Overlay	\$13,805.67	B
126	TURTLE POND CT	POTESKEET TRL	DEAD END	Rehab Minor Overlay	\$17,981.97	C
81	WOODLAND DR	E DOGWOOD TRL	N WOODLAND DR	Rehab Minor Overlay	\$29,674.57	C
92	MIZZENMAST LN	SEA OATS LN	DEAD END	Rehab Minor Overlay	\$12,149.53	C
					\$990,589.47	Yearly Total

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Year 2027	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2027)	Cost (2027)	Class
134	CROOKED BACK LOOP	CHICHAUK TRL	PUDDING PAN LN	Thin Lift	\$99,517.40	B
85	WAX MYRTLE TRL	HICKORY TRL	E DOGWOOD TRL	Thin Lift	\$99,946.59	B
34	NORTH DUNE LOOP	SOUNDVIEW TRL	SOUNDVIEW TRL	Thin Lift	\$73,617.47	B
61	2ND AVE	DEAD END	DEAD END	Thin Lift	\$3,400.24	B
36	10TH AVE	DEAD END	DEAD END	Thin Lift	\$6,014.13	B
39	10TH AVE	NC 12	10TH AVE	Thin Lift	\$39,187.87	B
158	SKYLINE RD	NC 12	DEAD END	Thin Lift	\$92,514.99	B
100	WAX MYRTLE TRL	E DOGWOOD TRL	PORPOISE RUN	Thin Lift	\$76,146.59	B
70	WAX MYRTLE TRL	HILLCREST DR	HICKORY TRL	Thin Lift	\$128,939.50	B
12	HIGH DUNE LOOP	SPINDRIFT TRL	SPINDRIFT TRL	Rehab Minor Overlay	\$189,504.97	B
58	4TH AVE	NC 12	4TH AVE	Rehab Minor Overlay	\$47,230.36	B
29	12TH AVE	NC 12	12TH AVE	Rehab Minor Overlay	\$58,372.10	B
50	7TH AVE	NC 12	7TH AVE	Rehab Minor Overlay	\$56,694.77	B
30	12TH AVE	NC 12	DEAD END	Rehab Minor Overlay	\$28,356.56	B
					\$999,443.54	Yearly Total

Year 2028	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2028)	Cost (2028)	Class
69	HICKORY TRL	WAX MYRTLE TRL	NC 12	Rehab (Major) - Mill and Fill 2in	28958.54	A
84	E DOGWOOD TRL	BAYBERRY TRL	WAX MYRTLE TRL	Rehab (Major) - Mill and Fill 2in	267585.46	A
125	CHICHAUK TRL	CLAM SHELL TRL	SPINDRIFT TRL	Rehab (Major) - Mill and Fill 2in	188656.53	A
38	SEA OATS TRL	SOUNDVIEW TRL	HILLCREST DR	Rehab (Major) - Mill and Fill 2in	129162.72	A
82	E DOGWOOD TRL	N DOGWOOD TRL	BAYBERRY TRL	Rehab (Major) - Mill and Fill 2in	\$167,146.75	A
86	SEA OATS TRL	HICKORY TRL	E DOGWOOD TRL	Rehab (Major) - Mill and Fill 2in	\$197,691.77	A
					\$979,201.77	Yearly Total

Year 2029	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2029)	Cost (2029)	Class
71	HICKORY TRL	HILLCREST DR	WAX MYRTLE TRL	Rehab (Major) - Mill and Fill 2in	\$38,818.03	A
68	SEA OATS TRL	HILLCREST DR	HICKORY TRL	Rehab (Major) - Mill and Fill 2in	\$237,391.92	A
157	S DOGWOOD TRL	TEAL CT	CROATAN HWY	Rehab (Major) - Mill and Fill 2in	\$180,931.32	A
47	HILLCREST DR	SEA OATS TRL	NC 12	Rehab (Major) - Mill and Fill 2in	\$58,994.26	A
75	HICKORY TRL	HILLCREST DR	E DOGWOOD TRL	Rehab (Major) - Mill and Fill 2in	\$146,108.54	A
11	HAPPY INDIAN LN	HIGH DUNE LOOP	DEAD END	Rehab Minor Overlay	\$34,112.52	B
6	OCEAN BLVD	DOLPHIN RUN	PORPOISE RUN	Rehab Minor Overlay	\$62,964.70	B
108	OCEAN BLVD	PORPOISE RUN	NC 12	Rehab Minor Overlay	\$65,798.90	B
79	SANDFIDDLER CT	NC 12	DEAD END	Rehab Minor Overlay	\$31,904.79	B
14	SPINDRIFT TRL	HIGH DUNE LOOP	DEAD END	Rehab Minor Overlay	\$135,416.76	B
					\$992,441.74	Yearly Total

Year 2030	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2030)	Cost (2030)	Class
40	9TH AVE	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$11,409.87	B
94	DOLPHIN RUN	NC 12	OCEAN BLVD	Rehab Minor Overlay	\$25,348.03	B
23	GINGUITE TRL	PINTAIL TRL	S DOGWOOD TRAIL	Rehab Minor Overlay	\$242,075.06	B
5	BAYBERRY TRL	E DOGWOOD TRL	SCUPPERNONG LN	Rehab Minor Overlay	\$89,304.37	B
16	TALL CLIFF LN	HIGH DUNE LOOP	DEAD END	Rehab Minor Overlay	\$40,494.52	B
110	W HOLLY TRL	HOLLY TRL	DEAD END	Rehab Minor Overlay	\$41,815.37	B
66	PURPLE MARTIN LN	OCEAN BLVD	DEAD END	Rehab Minor Overlay	\$12,772.27	B
107	E HOLLY TRL	HOLLY TRL	DEAD END	Rehab Minor Overlay	\$24,754.41	B
48	8TH AVE	NC 12	8TH AVE	Rehab Minor Overlay	\$54,743.50	B
37	11TH AVE	SEA OATS TRL	NC 12	Rehab Minor Overlay	\$53,574.49	B
73	MOCKINGBIRD LN	OCEAN BLVD	DEAD END	Rehab Minor Overlay	\$13,846.06	B
41	10TH AVE	NC 12	DEAD END	Rehab Minor Overlay	\$22,880.16	B
35	11TH AVE	NC 12	11TH AVE	Rehab Minor Overlay	\$63,261.74	B
44	9TH AVE	NC 12	DEAD END	Rehab Minor Overlay	\$18,610.53	B
164	FERN LN	JUNIPER TRL	CYPRESS LN	Patching	\$5,168.45	B
152	CYPRESS LN	SWEETGUM LN	FERN LN	Patching	\$5,884.97	B
151	YUCCA LN	CYPRESS LN	JUNIPER TRL	Rehab Minor Overlay	\$27,635.30	C

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97	BIRCH LN	HOLLY TRL	DEAD END	Rehab Minor Overlay	\$21,579.32	C
22	PINTAIL TRL	GINGUITE TRL	S DOGWOOD TRL	Rehab Minor Overlay	\$41,868.67	C
3	LIVE OAK LN	HOLLY TRL	DEAD END	Rehab Minor Overlay	\$16,267.07	C
88	LOBLOLLY LN	HOLLY TRL	DEAD END	Rehab Minor Overlay	\$12,066.79	C
136	OLD PASSAGE LN	POTESKEET TRL	TRINITIE TRL	Rehab Minor Overlay	\$30,011.93	C
148	EAGLES NEST LN	TRINITIE TRL	DEAD END	Rehab Minor Overlay	\$27,980.52	C
162	WIDGEON CT	S DOGWOOD TRL	DEAD END	Rehab Minor Overlay	\$10,428.79	C
17	SWEETGUM LN	CYPRESS LN	TRINITIE TRL	Rehab Minor Overlay	\$22,753.41	C
98	SASSAFRAS LN	S DOGWOOD TRL	DEAD END	Rehab Minor Overlay	\$10,425.23	C
76	REDBAY LN	HICKORY TRL	DEAD END	Rehab Minor Overlay	\$35,698.31	C
163	PINTAIL CT	PINTAIL TRL	DEAD END	Rehab Minor Overlay	\$13,783.38	C
					\$996,442.52	Yearly Total

Year 2031	Option 2						
Section ID	Street Name	BEG_DESC	END_DESC	PCI (2031)	Treatment (2031)	Cost (2031)	Class
18	OCEAN VIEW LOOP	DEAD END	DEAD END	95	Rehab (Major) - Mill and Fill 2in	\$94,345.09	B
129	SPINDRIFT TRL	CHICHAUK TRL	HIGH DUNE LOOP	95	Rehab (Major) - Mill and Fill 2in	\$213,004.81	B
13	OCEAN VIEW LOOP	OCEANVIEW LOOP	NC 12	95	Rehab (Major) - Mill and Fill 2in	\$30,702.71	B
87	OCEAN BLVD	E DOGWOOD TRL	DOLPHIN RUN	95	Rehab (Major) - Mill and Fill 2in	\$90,027.44	B
9	PORPOISE RUN	WAX MYRTLE TRL	NC 12	95	Rehab (Major) - Mill and Fill 2in	\$25,230.78	B
8	PORPOISE RUN	NC 12	OCEAN BLVD	95	Rehab (Major) - Mill and Fill 2in	\$26,696.28	B
24	13TH AVE	DEAD END	DEAD END	95	Rehab (Major) - Mill and Fill 2in	\$13,125.70	B
52	N DOGWOOD TRL	E DOGWOOD TRL	DEAD END	95	Rehab (Major) - Mill and Fill 2in	\$237,868.13	B
62	2ND AVE	NC 12	2ND AVE	95	Rehab (Major) - Mill and Fill 2in	\$77,709.73	B
67	OCEAN BLVD	HICKORY TRL	PERIWINKLE PL	95	Rehab (Major) - Mill and Fill 2in	\$85,023.46	B
89	POMPANO CT	OCEAN BLVD	DEAD END	95	Rehab (Major) - Mill and Fill 2in	\$17,833.67	B
42	9TH AVE	NC 12	9TH AVE	95	Rehab (Major) - Mill and Fill 2in	\$76,735.40	B
57	4TH AVE	DEAD END	DEAD END	95	Rehab (Major) - Mill and Fill 2in	\$10,625.42	B
						\$998,928.62	

Year 2032	Option 2					
Section ID	Street Name	BEG_DESC	END_DESC	Treatment (2032)	Cost (2030)	Class
99	DOLPHIN RUN	WAX MYRTLE TRL	NC 12	Patching	\$6,808.77	B
21	DUCK WOODS DR	CROATAN HWY	DEAD END	Rehab (Major) - Mill and Fill 2in	\$535,021.75	B
78	N WOODLAND DR	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$128,131.03	B
31	11TH AVE	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$11,786.30	B
28	12TH AVE	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$10,128.21	B
46	8TH AVE	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$18,704.58	B
25	13TH AVE	NC 12	13TH AVE	Rehab (Major) - Mill and Fill 2in	\$80,166.49	B
147	DEER PATH LN	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$57,576.31	B
161	PALMETTO LN	JUNIPER TRL	DEAD END	Rehab (Major) - Mill and Fill 2in	\$86,361.52	B
142	GRAVEY POND LN	DEAD END	DEAD END	Rehab (Major) - Mill and Fill 2in	\$65,416.23	B
					\$1,000,101.19	Yearly Total

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APPENDIX C

2021 TOWN OF SOUTHERN SHORES  
PAVEMENT CONDITION SURVEY  
ALPHABETICAL LIST OF SEGMENTS

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## Appendix C - Alphabetical List of Segments

SectionID	Street Name	CL	BEG_DESC	END_DESC	FC	TC	PP	SD	RR
36	10TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
39	10TH AVE	B	NC 12	10TH AVE	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
41	10TH AVE	B	NC 12	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	LOW/EXTREME	NONE
31	11TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
35	11TH AVE	B	NC 12	11TH AVE	MEDIUM/5-10	MEDIUM/HIGH	NONE	LOW/EXTREME	NONE
37	11TH AVE	B	SEA OATS TRL	NC 12	MEDIUM/5-10	MEDIUM/HIGH	MEDIUM/0-5	LOW/EXTREME	NONE
28	12TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
29	12TH AVE	B	NC 12	12TH AVE	LOW/5-10	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE
30	12TH AVE	B	NC 12	DEAD END	LOW/0-5	MEDIUM/MEDIUM	NONE	LOW/EXTREME	MEDIUM/
24	13TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
25	13TH AVE	B	NC 12	13TH AVE	LOW/0-5	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
63	1ST AVE	B	DEAD END	DEAD END	MEDIUM/5-10	HIGH/MEDIUM	NONE	HIGH/EXTREME	NONE
64	1ST AVE	B	NC 12	1ST AVE	MEDIUM/25-50	HIGH/MEDIUM	MEDIUM/5-10	HIGH/EXTREME	LOW/LOW
61	2ND AVE	B	DEAD END	DEAD END	MEDIUM/10-25	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
62	2ND AVE	B	NC 12	2ND AVE	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
59	3RD AVE	B	DEAD END	DEAD END	MEDIUM/5-10	HIGH/HIGH	NONE	MEDIUM/EXTREME	NONE
60	3RD AVE	B	NC 12	3RD AVE	MEDIUM/10-25	HIGH/HIGH	NONE	MEDIUM/EXTREME	NONE
57	4TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	LOW/MEDIUM	NONE	MEDIUM/EXTREME	NONE
58	4TH AVE	B	NC 12	4TH AVE	NONE	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE
55	5TH AVE	B	DEAD END	DEAD END	MEDIUM/10-25	HIGH/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
56	5TH AVE	B	NC 12	5TH AVE	MEDIUM/10-25	HIGH/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
53	6TH AVE	B	DEAD END	DEAD END	MEDIUM/10-25	MEDIUM/HIGH	HIGH/0-5	LOW/EXTREME	NONE
54	6TH AVE	B	NC 12	6TH AVE	MEDIUM/25-50	MEDIUM/HIGH	HIGH/0-5	LOW/EXTREME	NONE
49	7TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	HIGH/HIGH	NONE	LOW/EXTREME	LOW/LOW
50	7TH AVE	B	NC 12	7TH AVE	MEDIUM/5-10	MEDIUM/HIGH	HIGH/0-5	LOW/EXTREME	NONE
46	8TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
48	8TH AVE	B	NC 12	8TH AVE	LOW/0-5	LOW/MEDIUM	NONE	MEDIUM/EXTREME	NONE
40	9TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
42	9TH AVE	B	NC 12	9TH AVE	LOW/0-5	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
44	9TH AVE	B	NC 12	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	LOW/EXTREME	NONE
5	BAYBERRY TRL	B	E DOGWOOD TRL	SCUPPERNONG LN	MEDIUM/5-10	LOW/LOW	MEDIUM/0-5	MEDIUM/EXTREME	MEDIUM/
20	BEAR TRACK LN	C	TRINITIE TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
105	BEECH TREE TRL	B	E DOGWOOD TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
119	BENT OAK CT	C	POTESKEET TRL	DEAD END	MEDIUM/10-25	MEDIUM/LOW	NONE	MEDIUM/EXTREME	MEDIUM/
97	BIRCH LN	C	HOLLY TRL	DEAD END	MEDIUM/5-10	NONE	NONE	LOW/EXTREME	HIGH/LOW
159	BLUE PETE CT	C	S DOGWOOD TRL	DEAD END	LOW/0-5	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
103	BRIGHT LANTERN LN	C	SEA OATS LN	DEAD END	MEDIUM/5-10	HIGH/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
112	CHICAHOUK TRL	A	CLAMSHHELL TRL	DEAD END	MEDIUM/5-10	LOW/LOW	NONE	LOW/EXTREME	HIGH/LOW
175	CHICAHOUK TRL	A	CLAM SHELL TRL	SPINDBIET TRL	LOW/25-50	MEDIUM/MEDIUM	MEDIUM/0-5	MEDIUM/EXTREME	NONE

99	DOLPHIN RUN	B	WAX MYRTLE TRL	NC 12	MEDIUM/5-10	MEDIUM/MEDIUM	MEDIUM/0-5	MEDIUM/EXTREME	MEDIUM/M
21	DUCK WOODS DR	B	CROATAN HWY	DEAD END	MEDIUM/5-10	MEDIUM/LOW	LOW/0-5	MEDIUM/EXTREME	MEDIUM/EXTREME
82	E DOGWOOD TRL	A	N DOGWOOD TRL	BAYBERRY TRL	MEDIUM/0-5	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	MEDIUM/EXTREME
83	E DOGWOOD TRL	A	NC 12	OCEAN BLVD	NONE	NONE	NONE	NONE	NONE
84	E DOGWOOD TRL	A	BAYBERRY TRL	WAX MYRTLE TRL	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
107	E HOLLY TRL	B	HOLLY TRL	DEAD END	LOW/0-5	NONE	MEDIUM/0-5	MEDIUM/EXTREME	HIGH/LOW
148	EAGLES NEST LN	C	TRINITIE TRL	DEAD END	MEDIUM/0-5	NONE	NONE	LOW/EXTREME	LOW/LOW
121	FAIRWAY DR	B	S DOGWOOD TRL	EOM	HIGH/5-10	MEDIUM/MEDIUM	NONE	LOW/EXTREME	MEDIUM/EXTREME
164	FERN LN	B	JUNIPER TRL	CYPRESS LN	MEDIUM/0-5	MEDIUM/LOW	NONE	LOW/EXTREME	MEDIUM/EXTREME
101	FOX GRAPE LN	B	BAYBERRY TRL	N FOX GRAPE LN	NONE	NONE	NONE	NONE	NONE
23	GINGUITE TRL	B	PINTAIL TRL	S DOGWOOD TRAIL	MEDIUM/5-10	MEDIUM/LOW	MEDIUM/0-5	LOW/EXTREME	HIGH/LOW
124	GOOSE FEATHER LN	C	CHICAHAUK TRL	DEAD END	MEDIUM/5-10	HIGH/HIGH	NONE	HIGH/EXTREME	NONE
142	GRAVEY POND LN	B	DEAD END	DEAD END	HIGH/0-5	NONE	NONE	LOW/EXTREME	NONE
143	GRAVEY POND LN	B	TRINITIE TRL	GRAVEY POND LN	NONE	NONE	NONE	NONE	NONE
113	GRAY SQUIRREL LN	C	POTESKEET LOOP	CHICAHAUK TRL	NONE	NONE	NONE	NONE	NONE
150	HAPPY INDIAN CT	C	HAPPY INDIAN LN	DEAD END	MEDIUM/0-5	MEDIUM/LOW	NONE	HIGH/EXTREME	MEDIUM/EXTREME
11	HAPPY INDIAN LN	B	HIGH DUNE LOOP	DEAD END	HIGH/0-5	MEDIUM/MEDIUM	LOW/0-5	HIGH/EXTREME	NONE
65	HICKORY TRL	A	NC 12	DEAD END	MEDIUM/25-50	MEDIUM/MEDIUM	MEDIUM/0-5	MEDIUM/EXTREME	NONE
69	HICKORY TRL	A	WAX MYRTLE TRL	NC 12	MEDIUM/10-25	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
71	HICKORY TRL	A	HILLCREST DR	WAX MYRTLE TRL	MEDIUM/10-25	MEDIUM/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
75	HICKORY TRL	A	HILLCREST DR	E DOGWOOD TRL	LOW/0-5	NONE	MEDIUM/0-5	LOW/EXTREME	NONE
12	HIGH DUNE LOOP	B	SPINDRIFT TRL	SPINDRIFT TRL	MEDIUM/5-10	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	HIGH/LOW
45	HILLCREST DR	A	NC 12	DEAD END	LOW/0-5	LOW/MEDIUM	NONE	LOW/EXTREME	NONE
47	HILLCREST DR	A	SEA OATS TRL	NC 12	LOW/0-5	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
51	HILLCREST DR	A	SEA OATS TRL	HICKORY TRL	MEDIUM/10-25	MEDIUM/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
90	HILLCREST DR	A	HICKORY TRL	E DOGWOOD TRL	MEDIUM/5-10	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE
137	HOLLOW BEACH CT	C	OLD PASSAGE LN	DEAD END	NONE	NONE	NONE	NONE	NONE
2	HOLLY TRL	B	E DOGWOOD TRL	HOLLY TRL	NONE	NONE	NONE	NONE	NONE
4	HONEYSUCKLE LN	B	BAYBERRY TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
19	JUNIPER TRL	A	SWEETGUM LN	CROATAN HWY	NONE	LOW/LOW	NONE	NONE	NONE
172	KINGFISHER CT	C	KINGFISHER TRL	DEAD END	MEDIUM/5-10	HIGH/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
43	KINGFISHER TRL	C	SOUNDVIEW TRL	SEA OATS TRL	MEDIUM/5-10	HIGH/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
139	LAND FALL LOOP	C	SPINDRIFT TRL	SPINDRIFT TRL	LOW/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	MEDIUM/EXTREME
145	LAST HUNT LN	C	HIGH DUNE LOOP	DEAD END	MEDIUM/0-5	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
3	LIVE OAK LN	C	HOLLY TRL	DEAD END	LOW/0-5	LOW/LOW	NONE	LOW/EXTREME	MEDIUM/EXTREME
88	LOBLOLLY LN	C	HOLLY TRL	DEAD END	LOW/0-5	NONE	NONE	LOW/EXTREME	MEDIUM/EXTREME
7	MISTLETOE LN	C	BAYBERRY TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
92	MIZZENMAST LN	C	SEA OATS LN	DEAD END	MEDIUM/10-25	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE
73	MOCKINGBIRD LN	B	OCEAN BLVD	DEAD END	NONE	LOW/LOW	NONE	MEDIUM/EXTREME	NONE
52	N DOGWOOD TRL	B	E DOGWOOD TRL	DEAD END	MEDIUM/10-25	MEDIUM/LOW	LOW/0-5	MEDIUM/EXTREME	MEDIUM/EXTREME
96	N FOX GRAPE LN	B	FOX GRAPE LN	DEAD END	NONE	NONE	NONE	NONE	NONE
78	N WOODLAND DR	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/LOW	LOW/0-5	MEDIUM/EXTREME	HIGH/LOW



110	W HOLLY TRL	B	HOLLY TRL	DEAD END	MEDIUM/5-10	NONE	MEDIUM/0-5	MEDIUM/EXTREME	MEDIUM/
70	WAX MYRTLE TRL	B	HILLCREST DR	HICKORY TRL	MEDIUM/10-25	LOW/MEDIUM	NONE	MEDIUM/EXTREME	NONE
85	WAX MYRTLE TRL	B	HICKORY TRL	E DOGWOOD TRL	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
100	WAX MYRTLE TRL	B	E DOGWOOD TRL	PORPOISE RUN	MEDIUM/5-10	MEDIUM/MEDIUM	MEDIUM/0-5	MEDIUM/EXTREME	MEDIUM/
162	WIDGEON CT	C	S DOGWOOD TRL	DEAD END	MEDIUM/0-5	MEDIUM/LOW	NONE	LOW/EXTREME	NONE
155	WILD PONY LN	B	SPINDRIFT TRL	DEAD END	LOW/0-5	HIGH/HIGH	NONE	MEDIUM/EXTREME	MEDIUM/
140	WILD SWAN LN	B	WILD SWAN LN	S DOGWOOD TRL	NONE	NONE	NONE	NONE	NONE
141	WILD SWAN LN	B	DEAD END	DEAD END	NONE	NONE	NONE	NONE	NONE
160	WOOD DUCK CT	C	S DOGWOOD TRL	DEAD END	MEDIUM/0-5	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
81	WOODLAND DR	C	E DOGWOOD TRL	N WOODLAND DR	MEDIUM/10-25	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE
106	YAUJON TRL	B	S DOGWOOD TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
151	YUCCA LN	C	CYPRESS LN	JUNIPER TRL	MEDIUM/5-10	LOW/LOW	NONE	LOW/EXTREME	HIGH/LOW

APPENDIX D

2021 TOWN OF SOUTHERN SHORES  
PAVEMENT CONDITION SURVEY  
RANKED LIST OF SEGMENTS

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## Appendix D - Ranked List of Segments

SectionID	Street Name	CL	BEG_DESC	END_DESC	FC	TC	PP	SD	RR
20	BEAR TRACK LN	C	TRINITIE TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
105	BEECH TREE TRL	B	E DOGWOOD TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
123	CLAM SHELL TRL	B	OTTER SLIDE LN	CHICAHAWK TRL	NONE	NONE	NONE	NONE	NONE
93	DEWBERRY LN	C	BAYBERRY TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
83	E DOGWOOD TRL	A	NC 12	OCEAN BLVD	NONE	NONE	NONE	NONE	NONE
101	FOX GRAPE LN	B	BAYBERRY TRL	N FOX GRAPE LN	NONE	NONE	NONE	NONE	NONE
143	GRAVEY POND LN	B	TRINITIE TRL	GRAVEY POND LN	NONE	NONE	NONE	NONE	NONE
137	HOLLOW BEACH CT	C	OLD PASSAGE LN	DEAD END	NONE	NONE	NONE	NONE	NONE
2	HOLLY TRL	B	E DOGWOOD TRL	HOLLY TRL	NONE	NONE	NONE	NONE	NONE
4	HONEYSUCKLE LN	B	BAYBERRY TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
7	MISTLETOE LN	C	BAYBERRY TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
96	N FOX GRAPE LN	B	FOX GRAPE LN	DEAD END	NONE	NONE	NONE	NONE	NONE
131	OSPREY LN	B	OSPREY LN	S DOGWOOD TRL	NONE	NONE	NONE	NONE	NONE
132	OSPREY LN	B	DEAD END	DEAD END	NONE	NONE	NONE	NONE	NONE
116	POTESKEET LOOP	B	GRAY SQUIRREL LN	POTESKEET LOOP	NONE	NONE	NONE	NONE	NONE
102	S FOX GRAPE LN	B	FOX GRAPE LN	DEAD END	NONE	NONE	NONE	NONE	NONE
140	WILD SWAN LN	B	WILD SWAN LN	S DOGWOOD TRL	NONE	NONE	NONE	NONE	NONE
141	WILD SWAN LN	B	DEAD END	DEAD END	NONE	NONE	NONE	NONE	NONE
106	YAUPON TRL	B	S DOGWOOD TRL	DEAD END	NONE	NONE	NONE	NONE	NONE
118	POTESKEET TRL	B	POTESKEET LOOP	OLD PASSAGE LN	LOW/0-5	NONE	NONE	NONE	NONE
144	POTESKEET TRL	B	OLD PASSAGE LN	TRINITIE TRL	LOW/0-5	NONE	NONE	NONE	NONE
19	JUNIPER TRL	A	SWEETGUM LN	CROATAN HWY	NONE	LOW/LOW	NONE	NONE	NONE
113	GRAY SQUIRREL LN	C	POTESKEET LOOP	CHICAHAWK TRL	NONE	NONE	NONE	NONE	LOW/LOW
117	POTESKEET LOOP	B	GRAY SQUIRREL LN	POTESKEET TRL	NONE	NONE	NONE	NONE	LOW/LOW
10	SCUPPERNONG LN	B	BAYBERRY TRL	NC 12	NONE	NONE	NONE	NONE	NONE
163	PINTAIL CT	C	PINTAIL TRL	DEAD END	LOW/0-5	NONE	NONE	LOW/EXTREME	NONE
114	TALL PINE LN	B	DEAD END	DEAD END	LOW/0-5	NONE	NONE	LOW/EXTREME	NONE
146	DEER PATH LN	B	DEER PATH LN	TRINITIE TRL	MEDIUM/0-5	NONE	NONE	LOW/EXTREME	NONE
76	REDBAY LN	C	HICKORY TRL	DEAD END	MEDIUM/0-5	NONE	NONE	LOW/EXTREME	NONE
75	HICKORY TRL	A	HILLCREST DR	E DOGWOOD TRL	LOW/0-5	NONE	MEDIUM/0-5	LOW/EXTREME	NONE
98	SASSAFRAS LN	C	S DOGWOOD TRL	DEAD END	LOW/0-5	LOW/LOW	NONE	LOW/EXTREME	NONE
142	GRAVEY POND LN	B	DEAD END	DEAD END	HIGH/0-5	NONE	NONE	LOW/EXTREME	NONE
161	PALMETTO LN	B	JUNIPER TRL	DEAD END	NONE	NONE	NONE	LOW/EXTREME	LOW/LOW
17	SWEETGUM LN	C	CYPRESS LN	TRINITIE TRL	NONE	NONE	NONE	LOW/EXTREME	LOW/LOW
15	TRINITIE TRL	A	DEER PATH LN	SWEETGUM LN	MEDIUM/0-5	LOW/LOW	NONE	LOW/EXTREME	NONE
147	DEER PATH LN	B	DEAD END	DEAD END	MEDIUM/0-5	LOW/LOW	MEDIUM/0-5	LOW/EXTREME	NONE
115	TALL PINE LN	B	TALL PINE LN	S DOGWOOD TRL	LOW/0-5	NONE	NONE	LOW/EXTREME	LOW/LOW
152	CYPRESS LN	B	SWEETGUM LN	FERN LN	MEDIUM/0-5	NONE	NONE	LOW/EXTREME	LOW/LOW
148	EAGLES NEST LN	C	TRINITIE TRL	DEAD END	MEDIUM/0-5	NONE	NONE	LOW/EXTREME	LOW/LOW
162	WIDGEON CT	C	S DOGWOOD TRL	DEAD END	MEDIUM/0-5	MEDIUM/LOW	NONE	LOW/EXTREME	NONE

30	12TH AVE	B	NC 12	DEAD END	LOW/0-5	MEDIUM/MEDIUM	NONE	LOW/EXTREME	MEDIUM/MEDIUM
121	FAIRWAY DR	B	S DOGWOOD TRL	EOM	HIGH/5-10	MEDIUM/MEDIUM	NONE	LOW/EXTREME	MEDIUM/MEDIUM
130	S DOGWOOD TRL	A	FAIRWAY DR	GINGUITE TRL	MEDIUM/10-25	LOW/LOW	LOW/0-5	LOW/EXTREME	NONE
111	S DOGWOOD TRL	A	YAUPON TRL	FAIRWAY DR	MEDIUM/10-25	MEDIUM/LOW	LOW/0-5	LOW/EXTREME	NONE
122	TWISTED TREE CT	C	POTESKEET TRL	DEAD END	MEDIUM/10-25	LOW/LOW	NONE	LOW/EXTREME	MEDIUM/MEDIUM
44	9TH AVE	B	NC 12	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	LOW/EXTREME	NONE
41	10TH AVE	B	NC 12	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	LOW/EXTREME	NONE
35	11TH AVE	B	NC 12	11TH AVE	MEDIUM/5-10	MEDIUM/HIGH	NONE	LOW/EXTREME	NONE
27	SEA OATS CT	C	SEA OATS TRL	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	LOW/EXTREME	NONE
73	MOCKINGBIRD LN	B	OCEAN BLVD	DEAD END	NONE	LOW/LOW	NONE	MEDIUM/EXTREME	NONE
37	11TH AVE	B	SEA OATS TRL	NC 12	MEDIUM/5-10	MEDIUM/HIGH	MEDIUM/0-5	LOW/EXTREME	NONE
50	7TH AVE	B	NC 12	7TH AVE	MEDIUM/5-10	MEDIUM/HIGH	HIGH/0-5	LOW/EXTREME	NONE
159	BLUE PETE CT	C	S DOGWOOD TRL	DEAD END	LOW/0-5	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
145	LAST HUNT LN	C	HIGH DUNE LOOP	DEAD END	MEDIUM/0-5	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
160	WOOD DUCK CT	C	S DOGWOOD TRL	DEAD END	MEDIUM/0-5	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
104	TROUT RUN	C	NC 12	OCEAN BLVD	MEDIUM/0-5	MEDIUM/LOW	MEDIUM/0-5	MEDIUM/EXTREME	NONE
154	TEAL CT	C	S DOGWOOD TRL	DEAD END	NONE	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
48	8TH AVE	B	NC 12	8TH AVE	LOW/0-5	LOW/MEDIUM	NONE	MEDIUM/EXTREME	NONE
72	SAND PIPER LN	B	OCEAN BLVD	DEAD END	NONE	MEDIUM/LOW	MEDIUM/0-5	MEDIUM/EXTREME	NONE
53	6TH AVE	B	DEAD END	DEAD END	MEDIUM/10-25	MEDIUM/HIGH	HIGH/0-5	LOW/EXTREME	NONE
26	SEA OATS TRL	A	SOUNDVIEW TRL	NC 12	MEDIUM/5-10	MEDIUM/HIGH	HIGH/0-5	LOW/EXTREME	MEDIUM/MEDIUM
149	POINT COMFORT LN	C	GINGUITE TRL	DEAD END	MEDIUM/5-10	LOW/LOW	NONE	MEDIUM/EXTREME	NONE
107	E HOLLY TRL	B	HOLLY TRL	DEAD END	LOW/0-5	NONE	MEDIUM/0-5	MEDIUM/EXTREME	HIGH/LOW
66	PURPLE MARTIN LN	B	OCEAN BLVD	DEAD END	MEDIUM/5-10	LOW/LOW	MEDIUM/0-5	MEDIUM/EXTREME	NONE
110	W HOLLY TRL	B	HOLLY TRL	DEAD END	MEDIUM/5-10	NONE	MEDIUM/0-5	MEDIUM/EXTREME	MEDIUM/MEDIUM
47	HILLCREST DR	A	SEA OATS TRL	NC 12	LOW/0-5	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
16	TALL CLIFF LN	B	HIGH DUNE LOOP	DEAD END	MEDIUM/0-5	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
5	BAYBERRY TRL	B	E DOGWOOD TRL	SCUPPERNONG LN	MEDIUM/5-10	LOW/LOW	MEDIUM/0-5	MEDIUM/EXTREME	MEDIUM/MEDIUM
23	GINGUITE TRL	B	PINTAIL TRL	S DOGWOOD TRAIL	MEDIUM/5-10	MEDIUM/LOW	MEDIUM/0-5	LOW/EXTREME	HIGH/LOW
94	DOLPHIN RUN	B	NC 12	OCEAN BLVD	MEDIUM/10-25	MEDIUM/LOW	NONE	LOW/EXTREME	NONE
25	13TH AVE	B	NC 12	13TH AVE	LOW/0-5	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
157	S DOGWOOD TRL	A	TEAL CT	CROATAN HWY	MEDIUM/0-5	MEDIUM/MEDIUM	LOW/0-5	MEDIUM/EXTREME	NONE
29	12TH AVE	B	NC 12	12TH AVE	LOW/5-10	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE
46	8TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
31	11TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
28	12TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
153	S DOGWOOD TRL	A	GINGUITE TRL	TEAL CT	HIGH/0-5	MEDIUM/MEDIUM	MEDIUM/0-5	MEDIUM/EXTREME	NONE
78	N WOODLAND DR	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/LOW	LOW/0-5	MEDIUM/EXTREME	HIGH/LOW
57	4TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	LOW/MEDIUM	NONE	MEDIUM/EXTREME	NONE
139	LAND FALL LOOP	C	SPINDRIFT TRL	SPINDRIFT TRL	LOW/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	MEDIUM/MEDIUM
68	SEA OATS TRL	A	HILLCREST DR	HICKORY TRL	LOW/0-5	MEDIUM/MEDIUM	LOW/0-5	MEDIUM/EXTREME	MEDIUM/MEDIUM
42	9TH AVE	B	NC 12	9TH AVE	LOW/0-5	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
21	DUCK WOODS DR	B	CROATAN HWY	DEAD END	MEDIUM/5-10	MEDIUM/LOW	LOW/0-5	MEDIUM/EXTREME	MEDIUM/MEDIUM
90	HILLCREST DR	A	HICKORY TRL	E DOGWOOD TRL	MEDIUM/5-10	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE

24	13TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
128	TRINITIE TRL	A	CHICAHAIK TRL	EAGLES NEST LN	HIGH/5-10	MEDIUM/LOW	LOW/0-5	MEDIUM/EXTREME	HIGH/LOW
70	WAX MYRTLE TRL	B	HILLCREST DR	HICKORY TRL	MEDIUM/10-25	LOW/MEDIUM	NONE	MEDIUM/EXTREME	NONE
92	MIZZENMAST LN	C	SEA OATS LN	DEAD END	MEDIUM/10-25	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE
36	10TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
39	10TH AVE	B	NC 12	10TH AVE	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
40	9TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
158	SKYLINE RD	B	NC 12	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
138	TEA PLANT CT	B	PUDDING PAN LN	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	NONE	MEDIUM/EXTREME	NONE
100	WAX MYRTLE TRL	B	E DOGWOOD TRL	PORPOISE RUN	MEDIUM/5-10	MEDIUM/MEDIUM	MEDIUM/0-5	MEDIUM/EXTREME	MEDIUM/
38	SEA OATS TRL	A	SOUNDVIEW TRL	HILLCREST DR	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
61	2ND AVE	B	DEAD END	DEAD END	MEDIUM/10-25	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
125	CHICAHAIK TRL	A	CLAM SHELL TRL	SPINDRIFT TRL	LOW/25-50	MEDIUM/MEDIUM	MEDIUM/0-5	MEDIUM/EXTREME	NONE
34	NORTH DUNE LOOP	B	SOUNDVIEW TRL	SOUNDVIEW TRL	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	LOW/LOW
81	WOODLAND DR	C	E DOGWOOD TRL	N WOODLAND DR	MEDIUM/10-25	MEDIUM/MEDIUM	HIGH/0-5	MEDIUM/EXTREME	NONE
134	CROOKED BACK LOOP	B	CHICAHAIK TRL	PUDDING PAN LN	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
84	E DOGWOOD TRL	A	BAYBERRY TRL	WAX MYRTLE TRL	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
85	WAX MYRTLE TRL	B	HICKORY TRL	E DOGWOOD TRL	MEDIUM/5-10	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
69	HICKORY TRL	A	WAX MYRTLE TRL	NC 12	MEDIUM/10-25	MEDIUM/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
8	PORPOISE RUN	B	NC 12	OCEAN BLVD	MEDIUM/10-25	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
87	OCEAN BLVD	B	E DOGWOOD TRL	DOLPHIN RUN	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
9	PORPOISE RUN	B	WAX MYRTLE TRL	NC 12	MEDIUM/5-10	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
13	OCEAN VIEW LOOP	B	OCEANVIEW LOOP	NC 12	MEDIUM/10-25	MEDIUM/LOW	MEDIUM/0-5	MEDIUM/EXTREME	NONE
129	SPINDRIFT TRL	B	CHICAHAIK TRL	HIGH DUNE LOOP	MEDIUM/5-10	MEDIUM/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	MEDIUM/
71	HICKORY TRL	A	HILLCREST DR	WAX MYRTLE TRL	MEDIUM/10-25	MEDIUM/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
18	OCEAN VIEW LOOP	B	DEAD END	DEAD END	MEDIUM/5-10	MEDIUM/MEDIUM	LOW/0-5	MEDIUM/EXTREME	MEDIUM/
14	SPINDRIFT TRL	B	HIGH DUNE LOOP	DEAD END	MEDIUM/5-10	MEDIUM/HIGH	HIGH/0-5	MEDIUM/EXTREME	HIGH/LOW
6	OCEAN BLVD	B	DOLPHIN RUN	PORPOISE RUN	MEDIUM/10-25	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
108	OCEAN BLVD	B	PORPOISE RUN	NC 12	MEDIUM/10-25	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
79	SANDFIDDLER CT	B	NC 12	DEAD END	MEDIUM/10-25	MEDIUM/MEDIUM	NONE	MEDIUM/EXTREME	NONE
126	TURTLE POND CT	C	POTESKEET TRL	DEAD END	HIGH/10-25	LOW/LOW	HIGH/0-5	MEDIUM/EXTREME	MEDIUM/
51	HILLCREST DR	A	SEA OATS TRL	HICKORY TRL	MEDIUM/10-25	MEDIUM/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
49	7TH AVE	B	DEAD END	DEAD END	MEDIUM/5-10	HIGH/HIGH	NONE	LOW/EXTREME	LOW/LOW
54	6TH AVE	B	NC 12	6TH AVE	MEDIUM/25-50	MEDIUM/HIGH	HIGH/0-5	LOW/EXTREME	NONE
155	WILD PONY LN	B	SPINDRIFT TRL	DEAD END	LOW/0-5	HIGH/HIGH	NONE	MEDIUM/EXTREME	MEDIUM/
65	HICKORY TRL	A	NC 12	DEAD END	MEDIUM/25-50	MEDIUM/MEDIUM	MEDIUM/0-5	MEDIUM/EXTREME	NONE
120	OYSTER BED LN	C	POTESKEET TRL	DEAD END	MEDIUM/5-10	HIGH/HIGH	NONE	MEDIUM/EXTREME	NONE
172	KINGFISHER CT	C	KINGFISHER TRL	DEAD END	MEDIUM/5-10	HIGH/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
43	KINGFISHER TRL	C	SOUNDVIEW TRL	SEA OATS TRL	MEDIUM/5-10	HIGH/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE
103	BRIGHT LANTERN LN	C	SEA OATS LN	DEAD END	MEDIUM/5-10	HIGH/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
171	OTTER SLIDE LN	B	CLAM SHELL TRL	CHICAHAIK TRL	MEDIUM/5-10	HIGH/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
32	SOUNDVIEW TRL	B	NORTH DUNE LOOP	SEA OATS TRL	MEDIUM/5-10	HIGH/HIGH	MEDIUM/0-5	MEDIUM/EXTREME	NONE
33	SOUNDVIEW TRL	B	SEA OATS TRL	NORTH DUNE LOOP	MEDIUM/5-10	HIGH/HIGH	HIGH/0-5	MEDIUM/EXTREME	NONE
56	5TH AVE	B	NC 12	5TH AVE	MEDIUM/10-25	HIGH/HIGH	LOW/0-5	MEDIUM/EXTREME	NONE

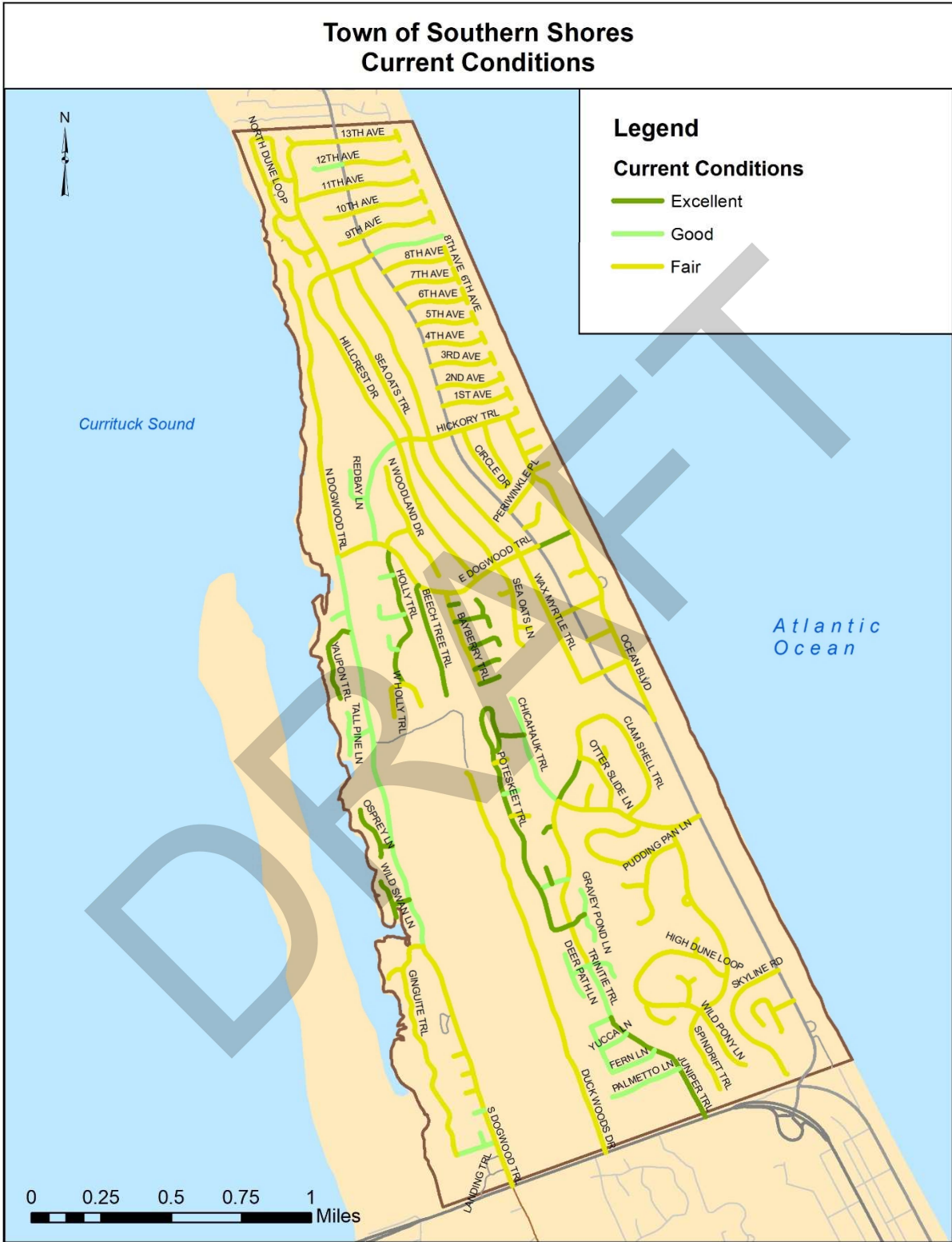
80	OCEAN BLVD	B	PERIWINKLE PL	E DOGWOOD TRL	MEDIUM/5-10	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
77	PERIWINKLE PL	B	NC 12	OCEAN BLVD	MEDIUM/5-10	MEDIUM/LOW	NONE	MEDIUM/EXTREME	NONE
74	CIRCLE DR	B	HICKORY TRL	HICKORY TRL	MEDIUM/25-50	MEDIUM/MEDIUM	MEDIUM/5-10	HIGH/EXTREME	LOW/LOW
64	1ST AVE	B	NC 12	1ST AVE	MEDIUM/25-50	HIGH/MEDIUM	MEDIUM/5-10	HIGH/EXTREME	LOW/LOW

FREE TRIAL

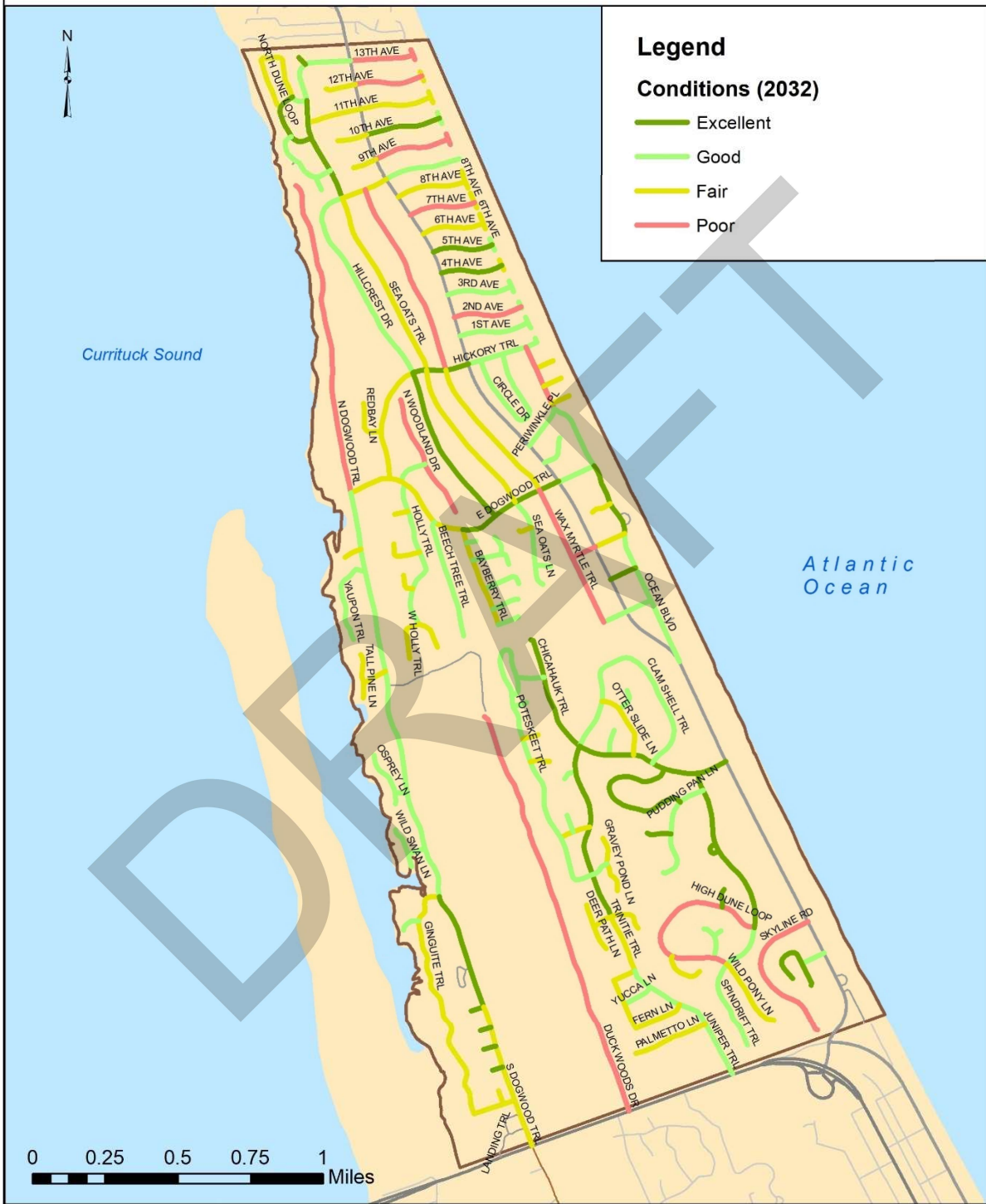
APPENDIX E

2021 Town of Southern Shores  
Pavement Condition Survey  
SOUTHERN SHORES MAPS\_PCI

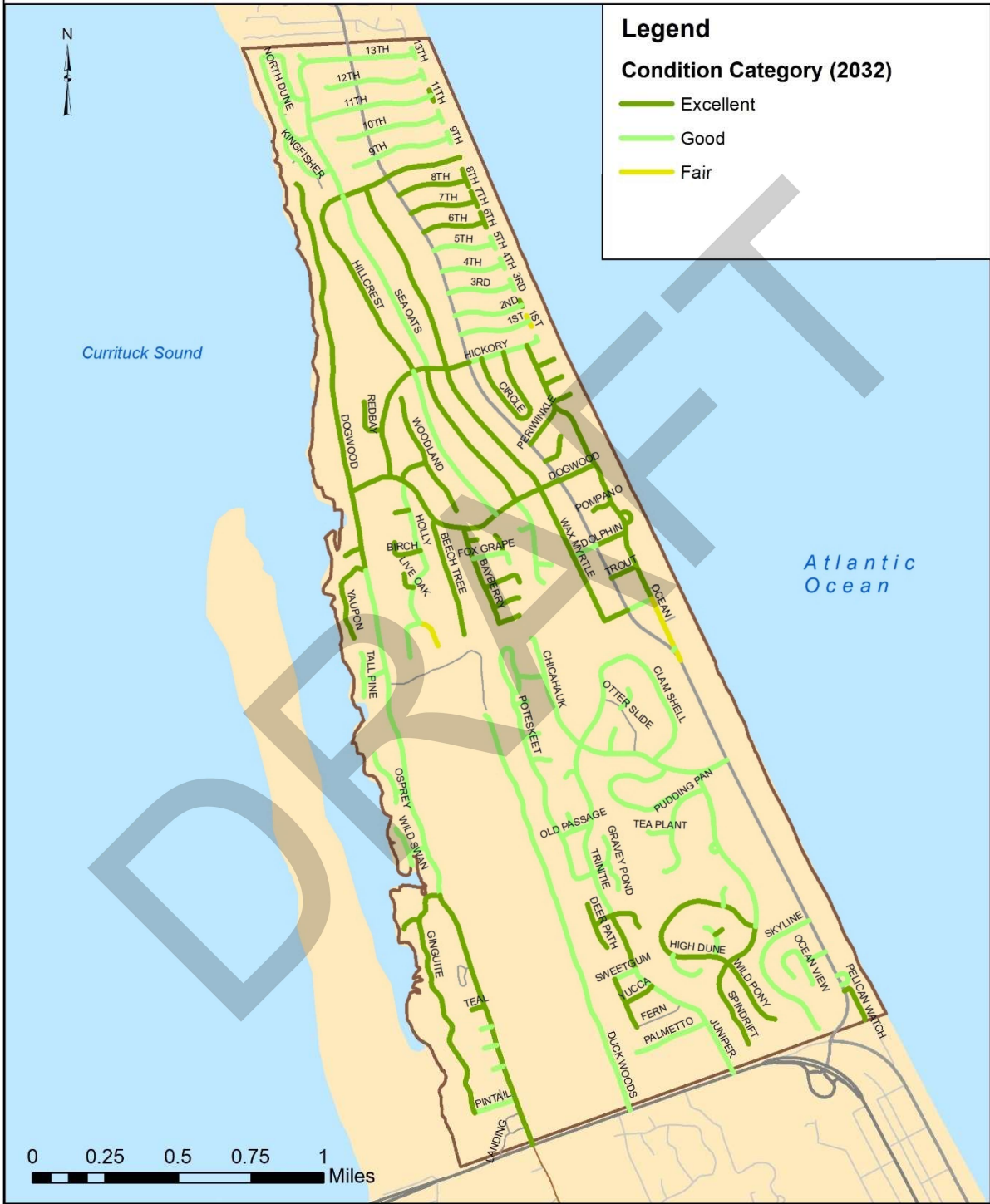
DRAFT



### Town of Southern Shores Year 2032 Conditions - Option 1

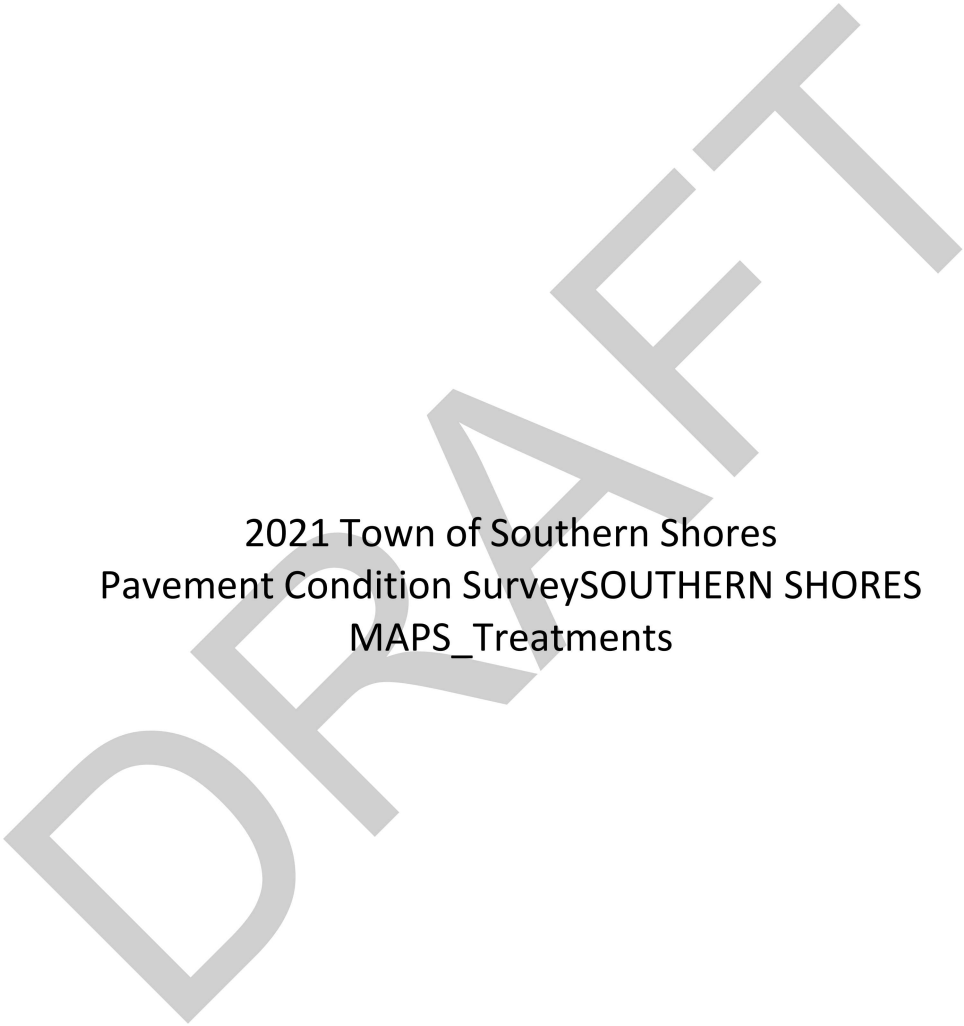


### Town of Southern Shores Year 2032 Conditions - Option 2

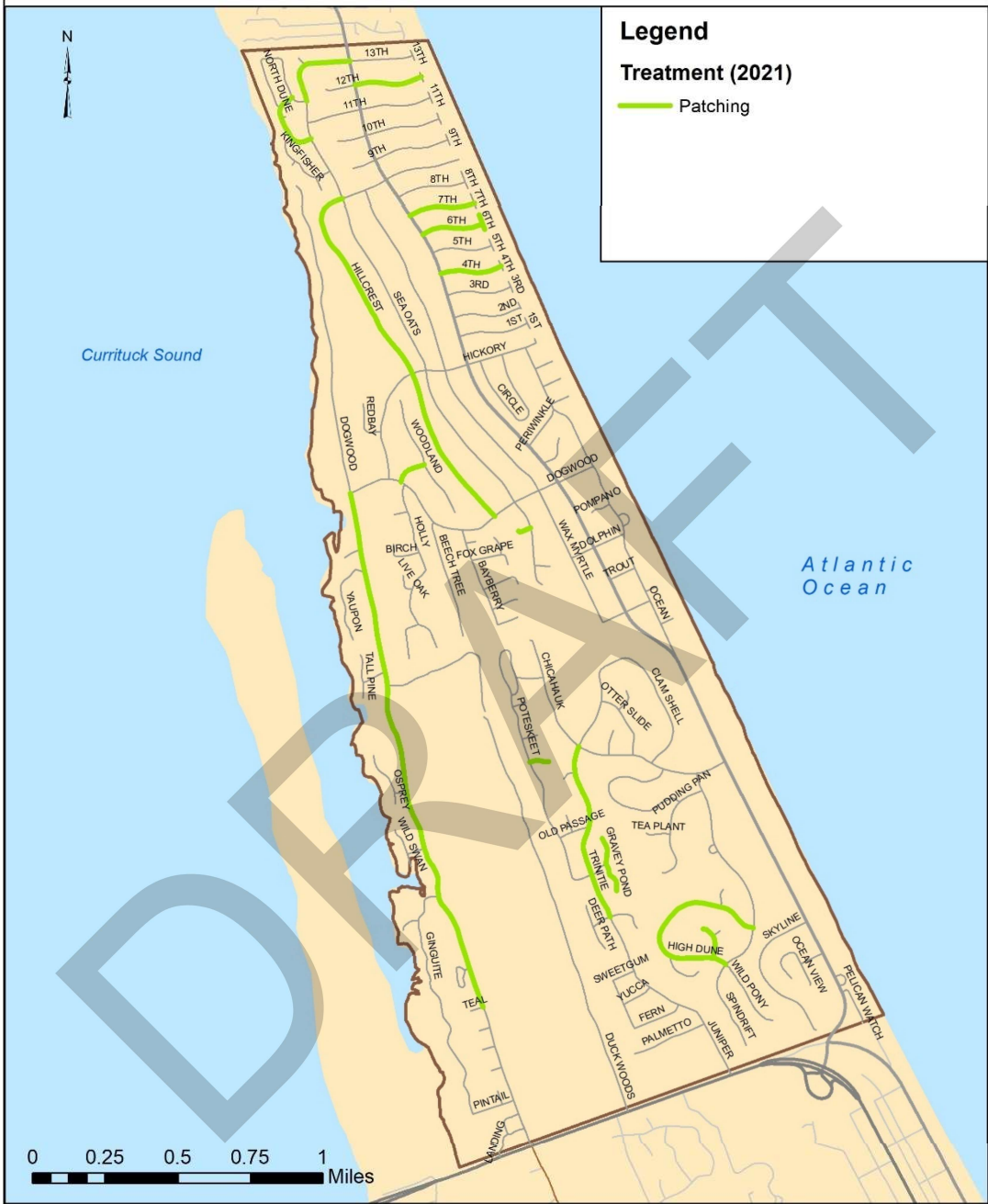


APPENDIX F

2021 Town of Southern Shores  
Pavement Condition Survey SOUTHERN SHORES  
MAPS\_Treatments

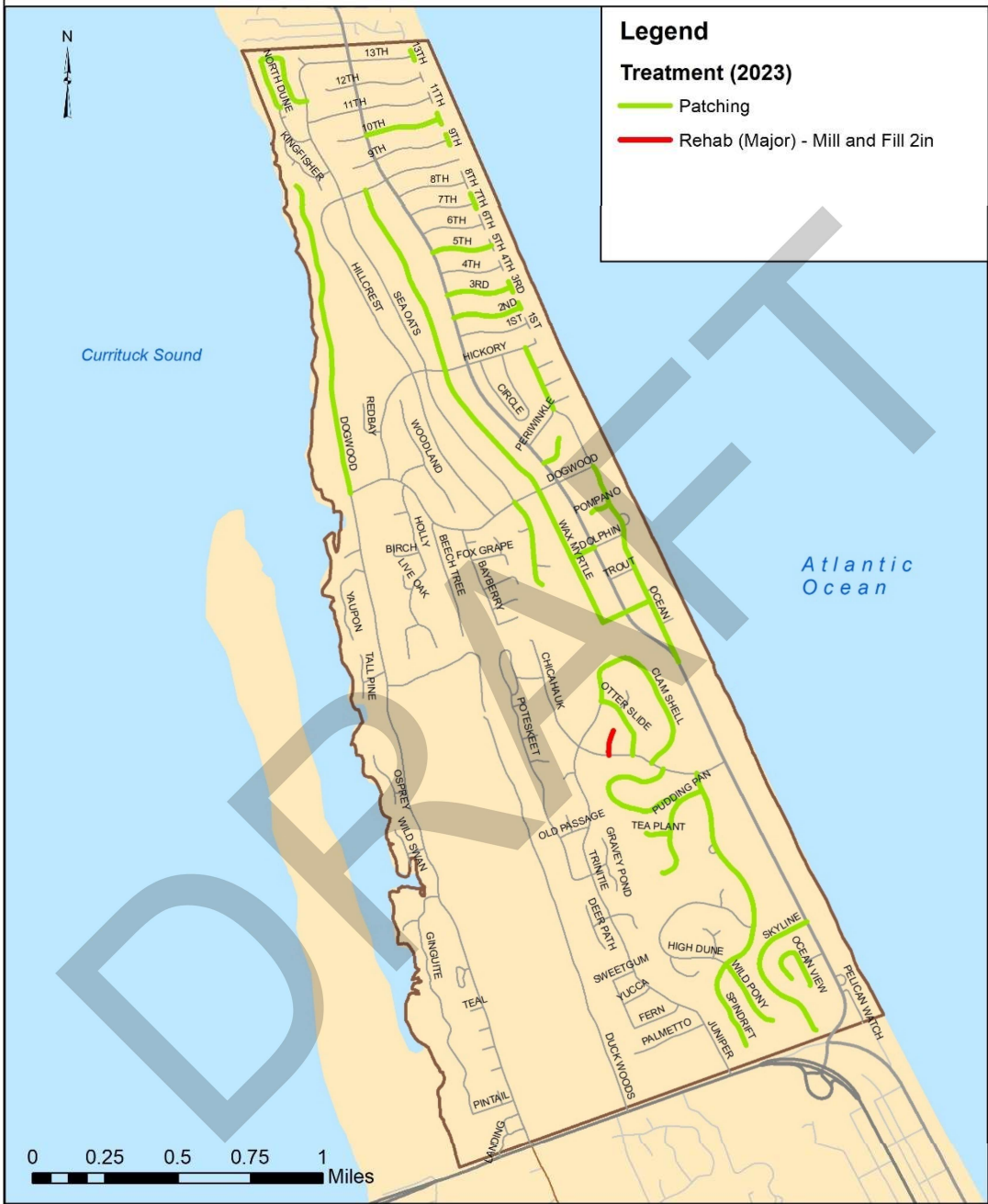


### Town of Southern Shores Year 2021 Treatment - Option 2



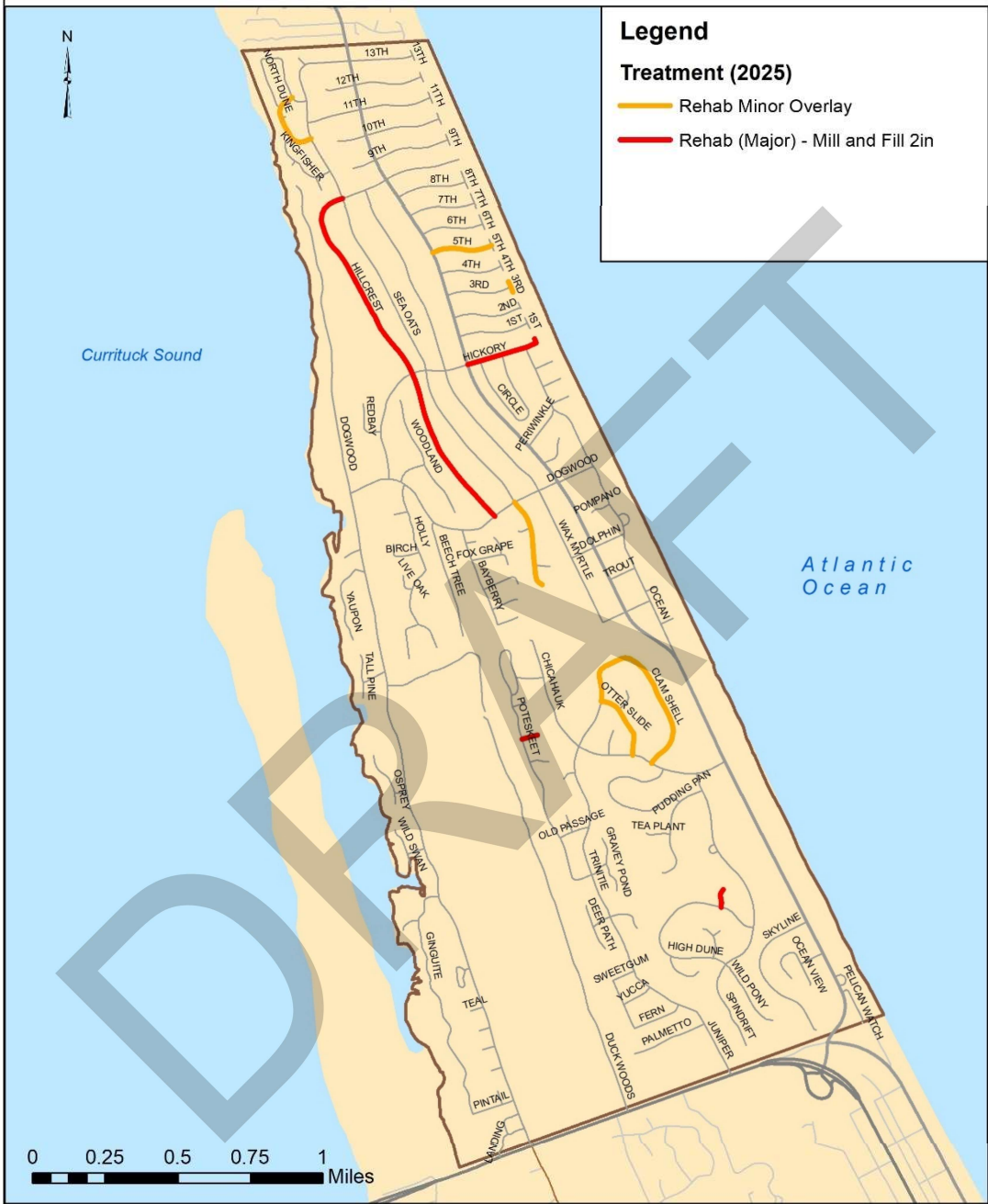


### Town of Southern Shores Year 2023 Treatment - Option 2

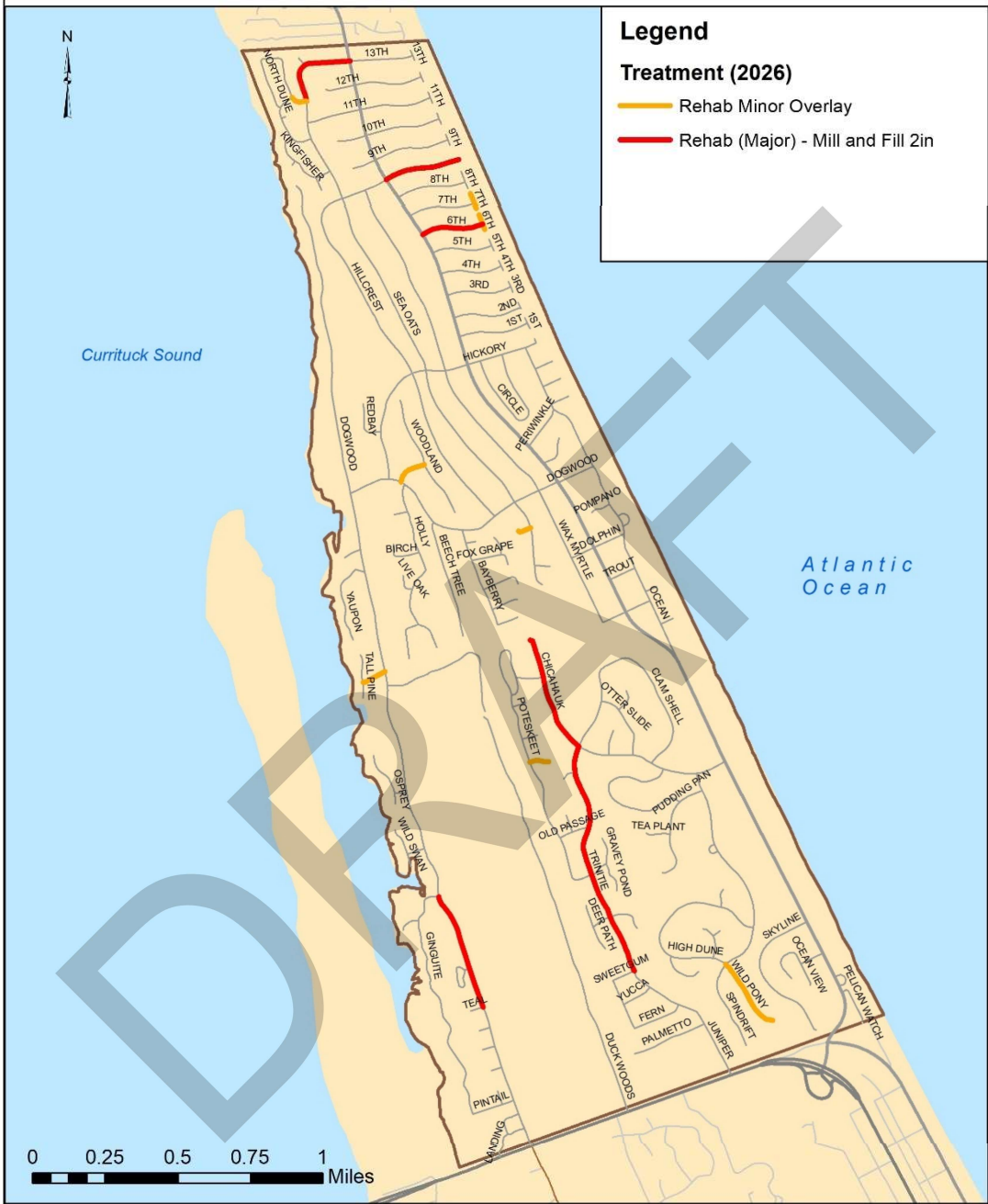




### Town of Southern Shores Year 2025 Treatment - Option 2



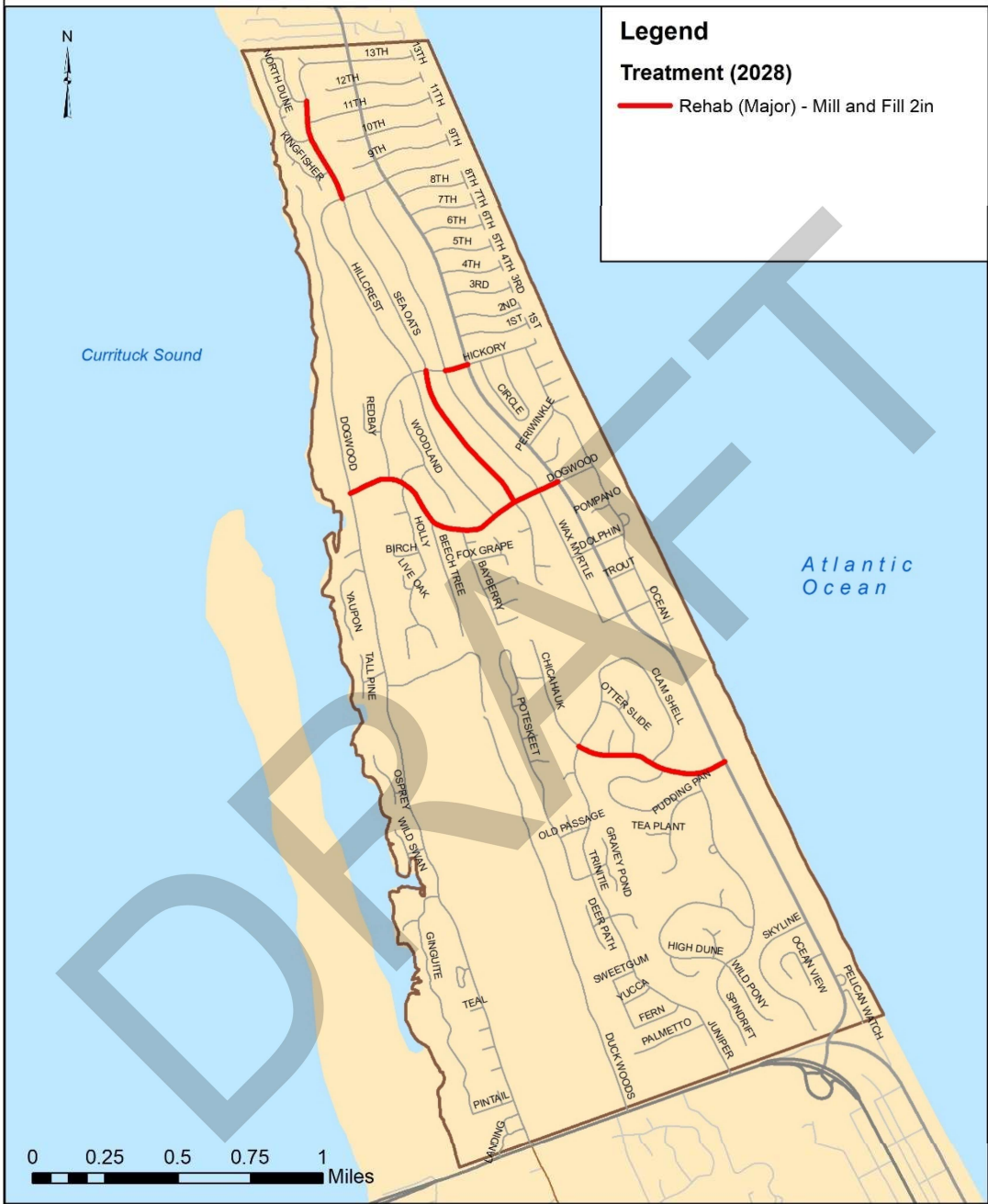
### Town of Southern Shores Year 2026 Treatment - Option 2



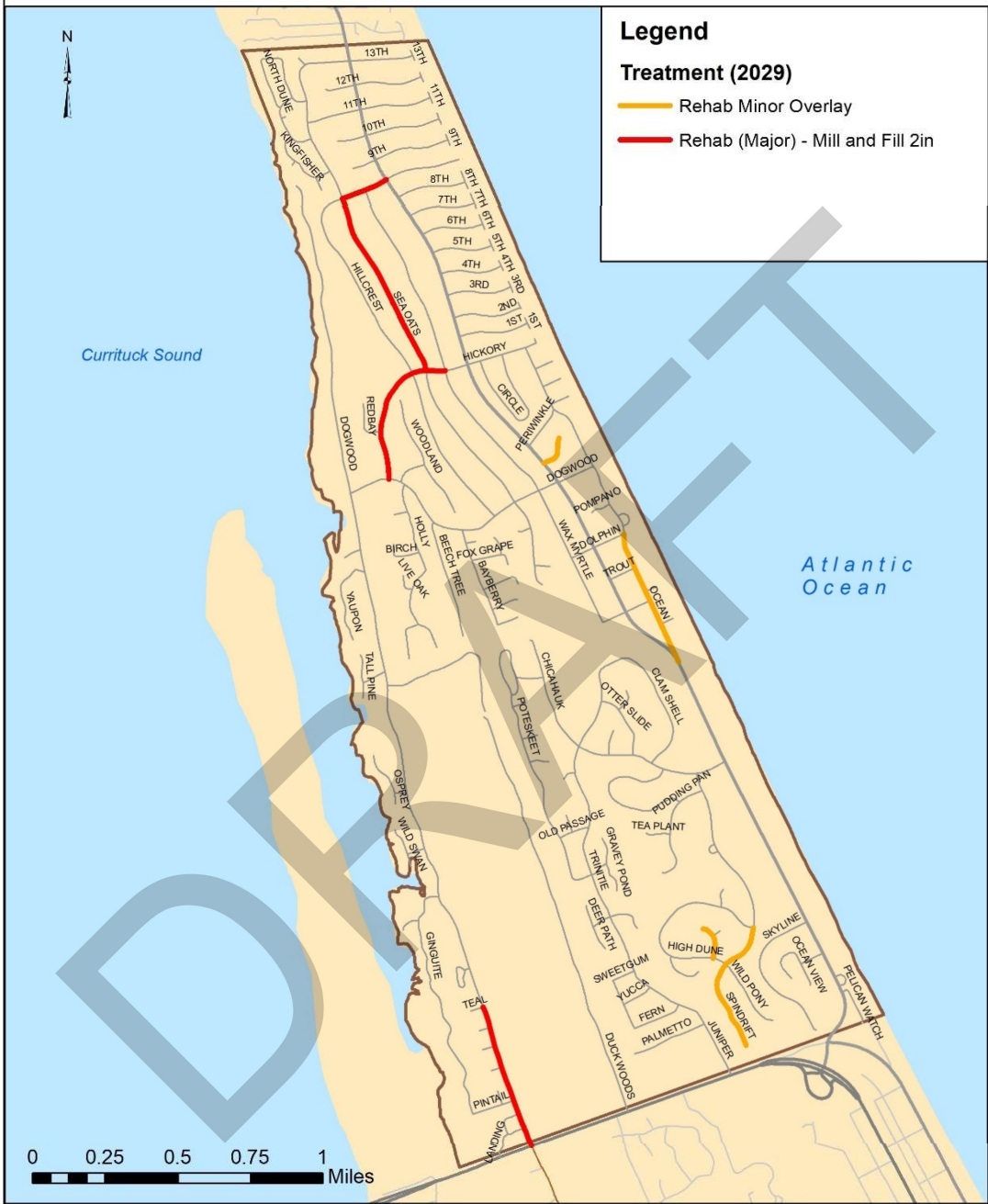
### Town of Southern Shores Year 2027 Treatment - Option 2



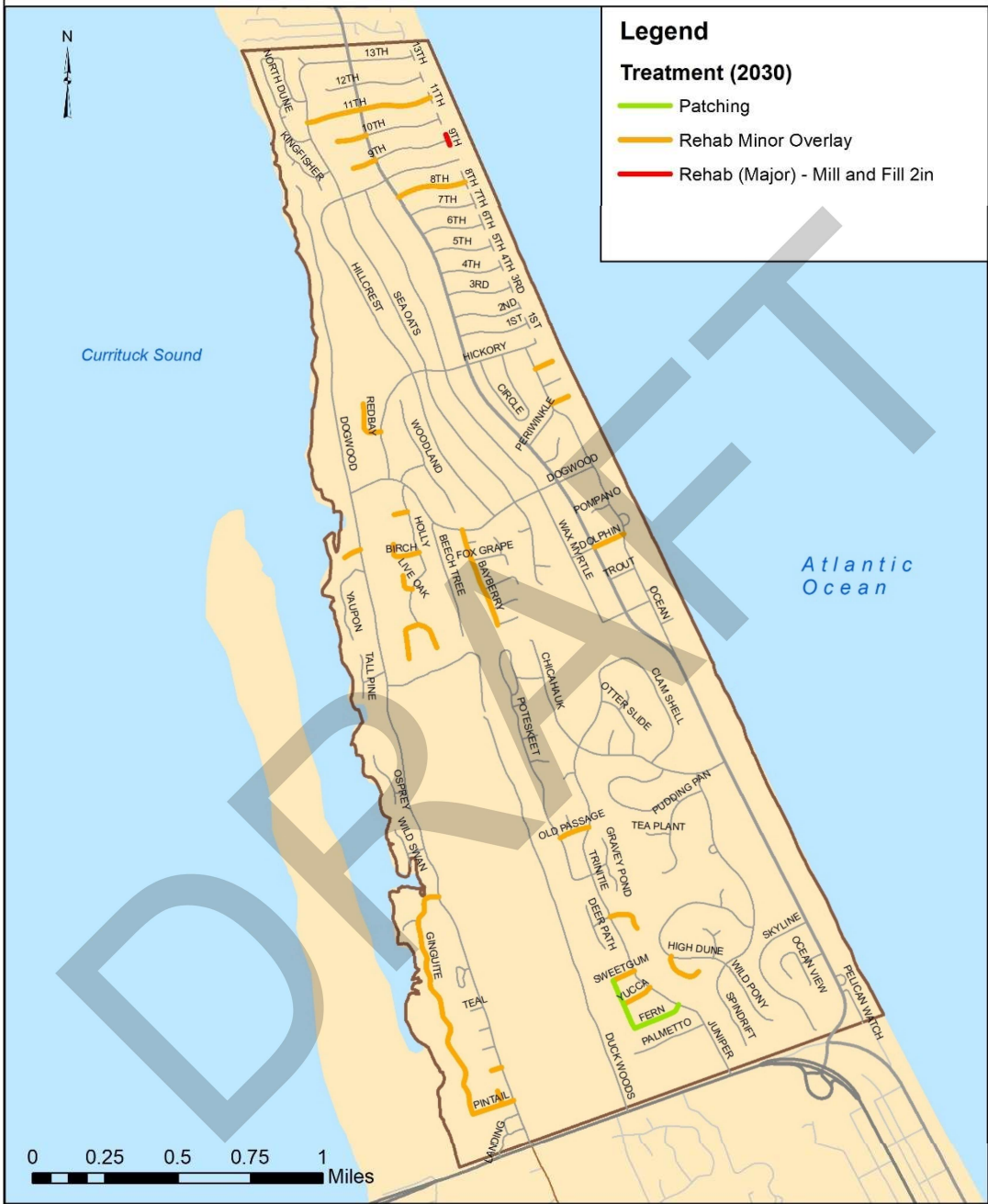
### Town of Southern Shores Year 2028 Treatment - Option 2



### Town of Southern Shores Year 2029 Treatment - Option 2

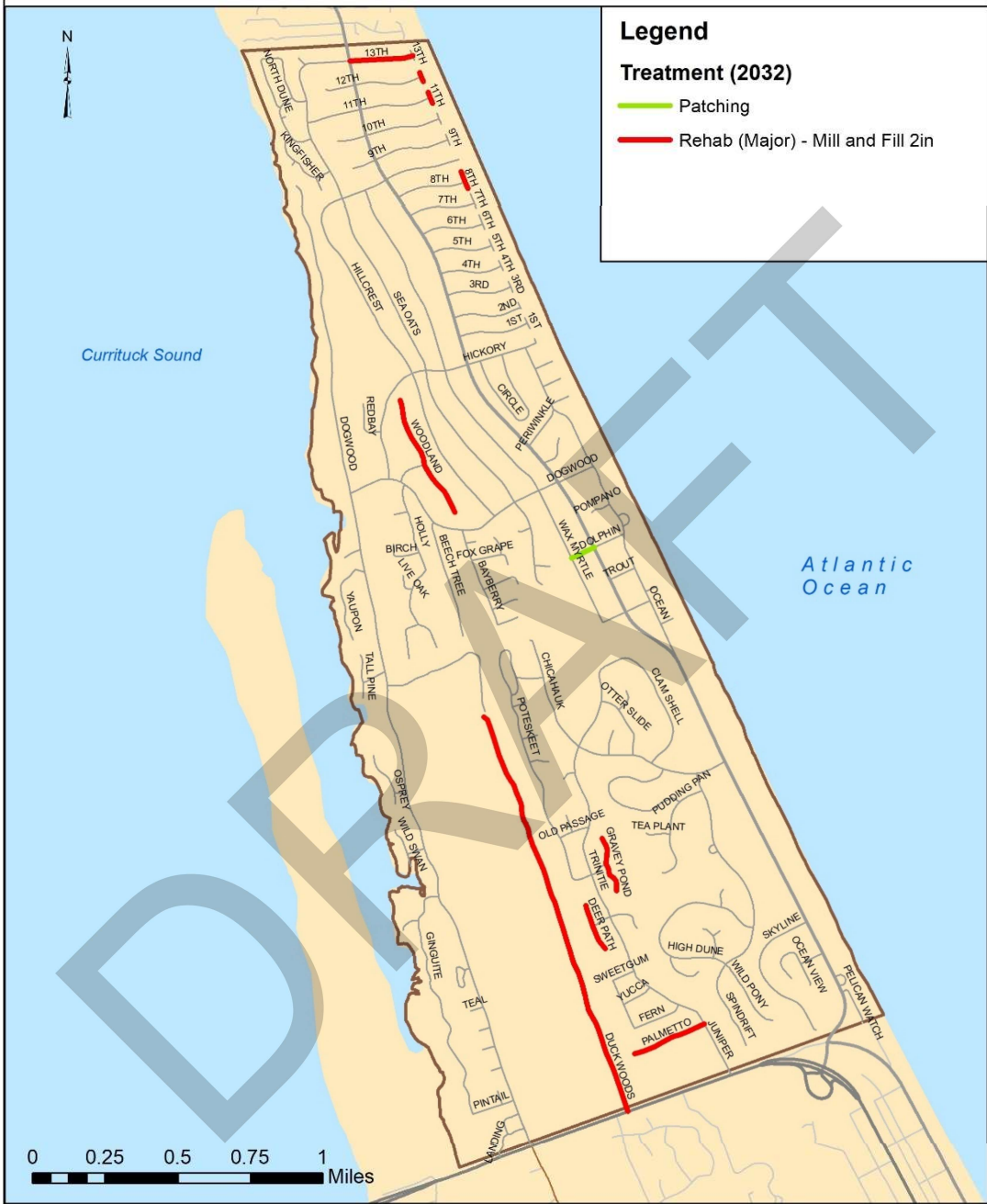


### Town of Southern Shores Year 2030 Treatment - Option 2

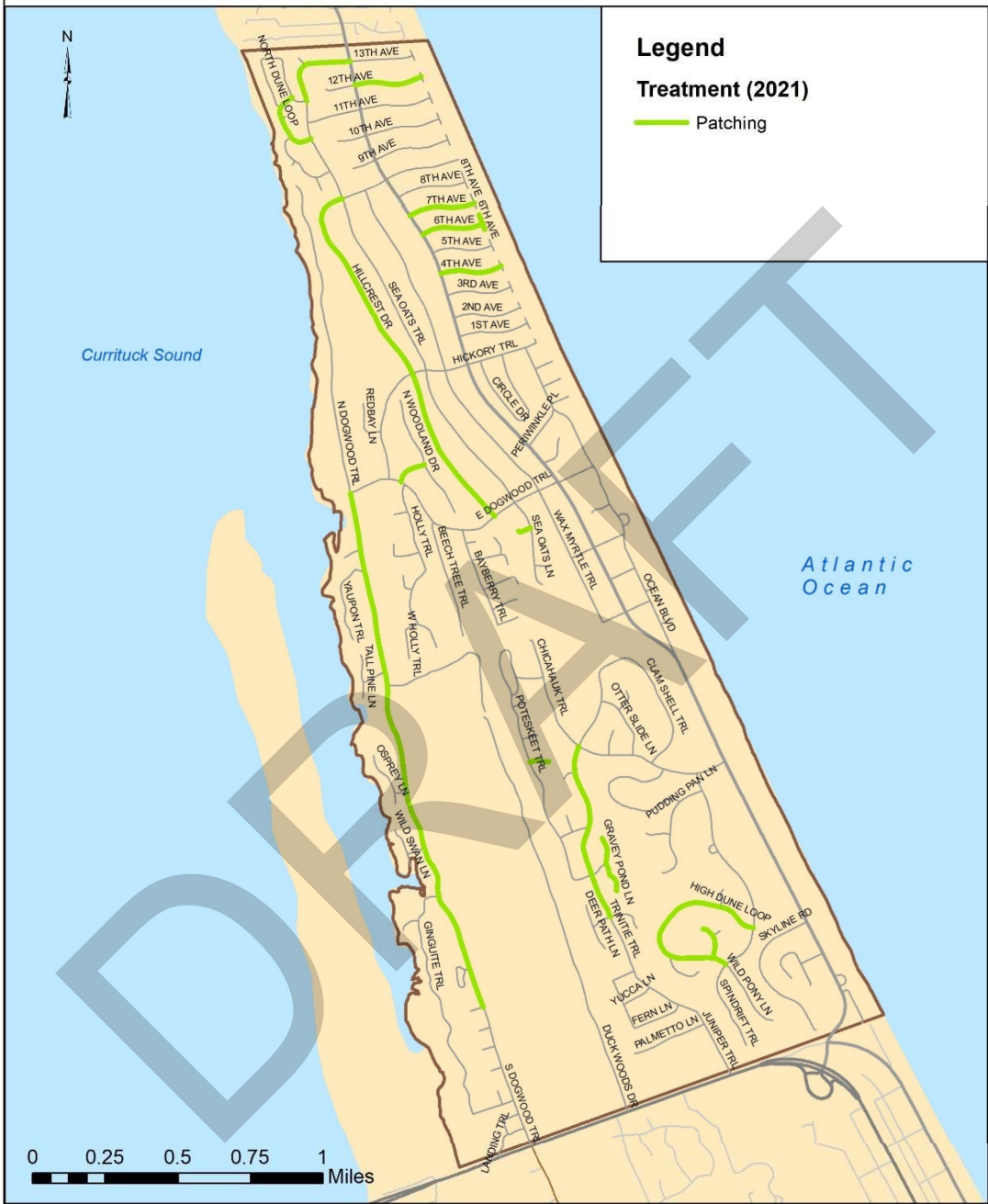




### Town of Southern Shores Year 2032 Treatment - Option 2



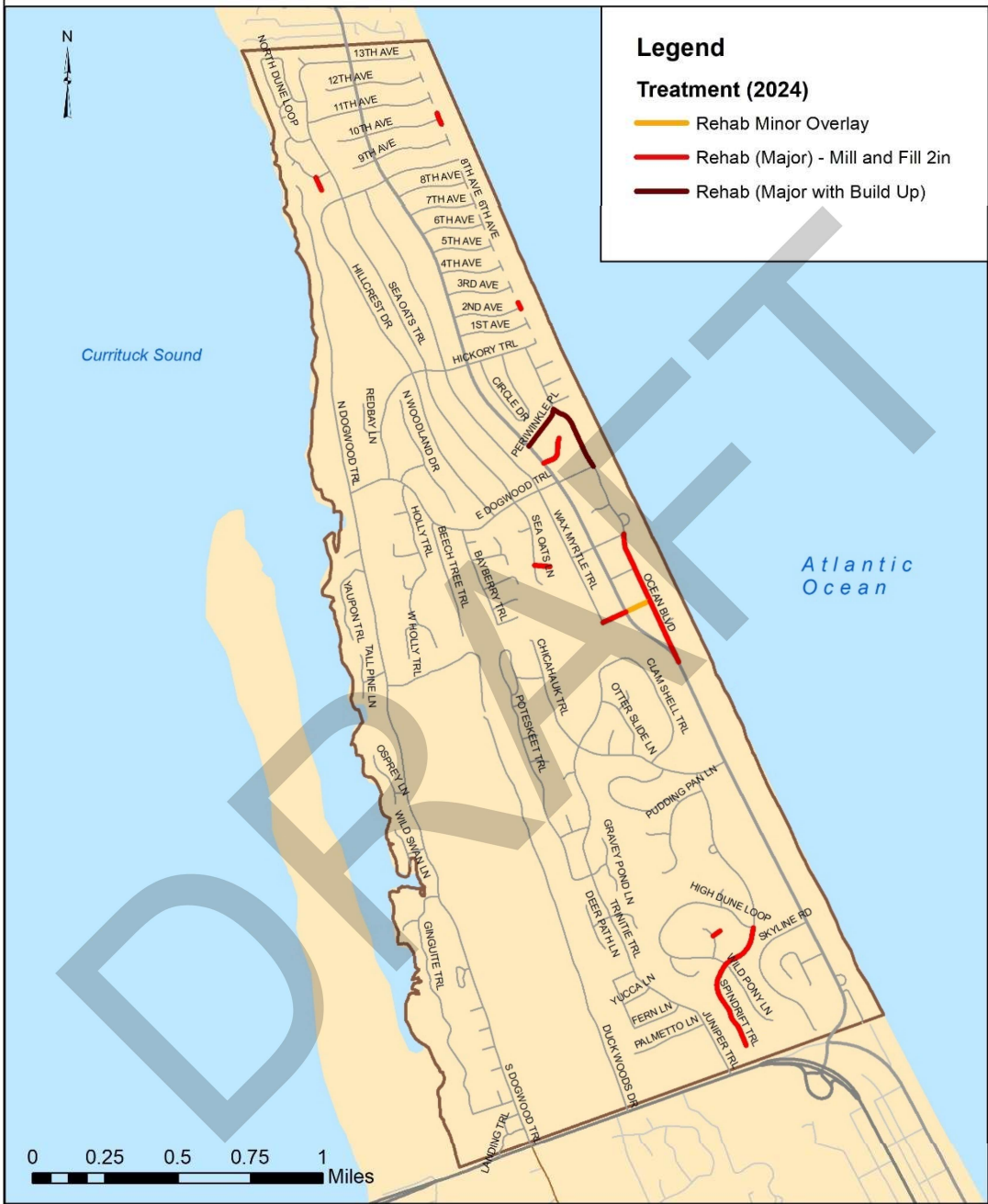
### Town of Southern Shores Year 2021 Treatment - Option 1



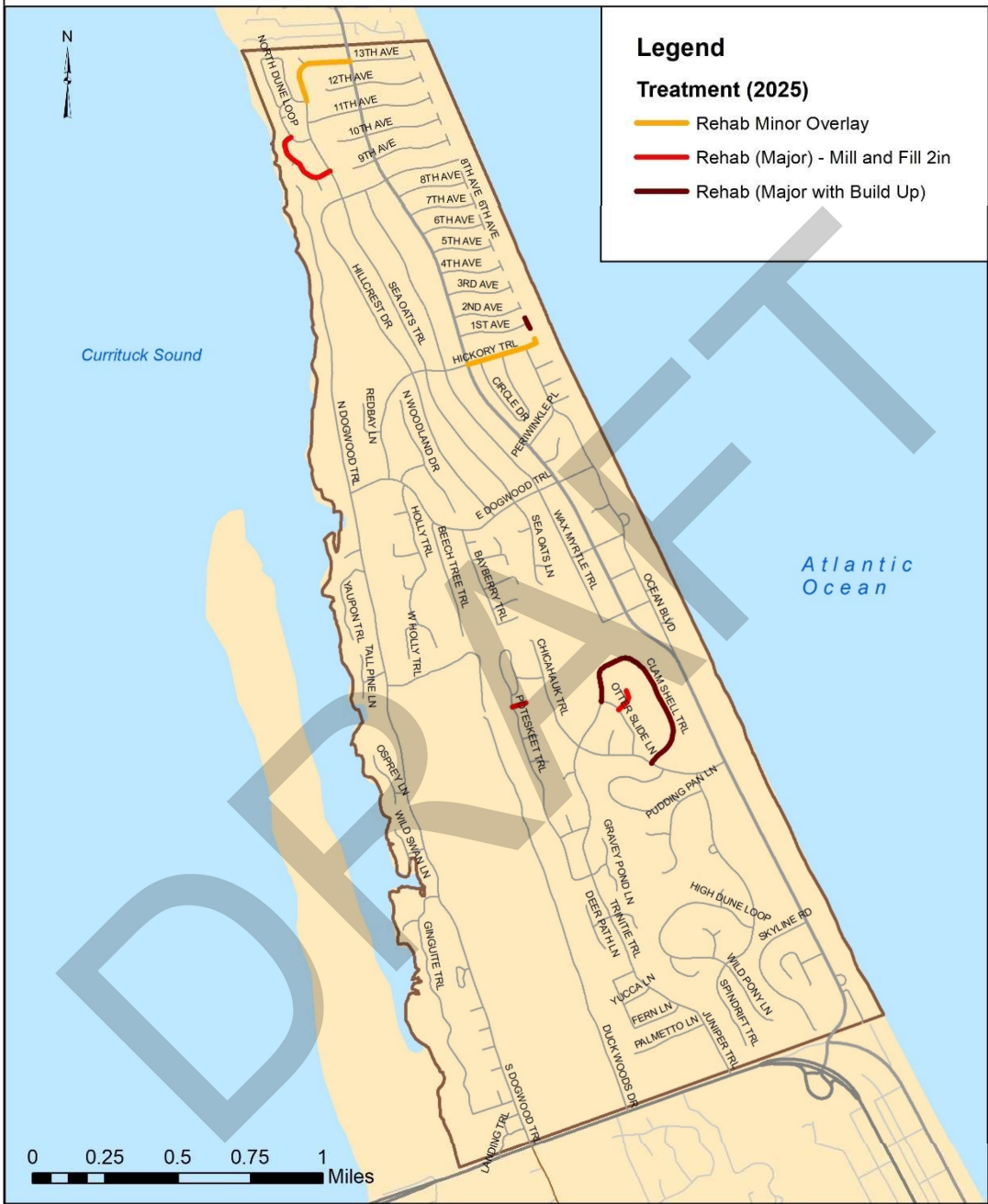




### Town of Southern Shores Year 2024 Treatment - Option 1

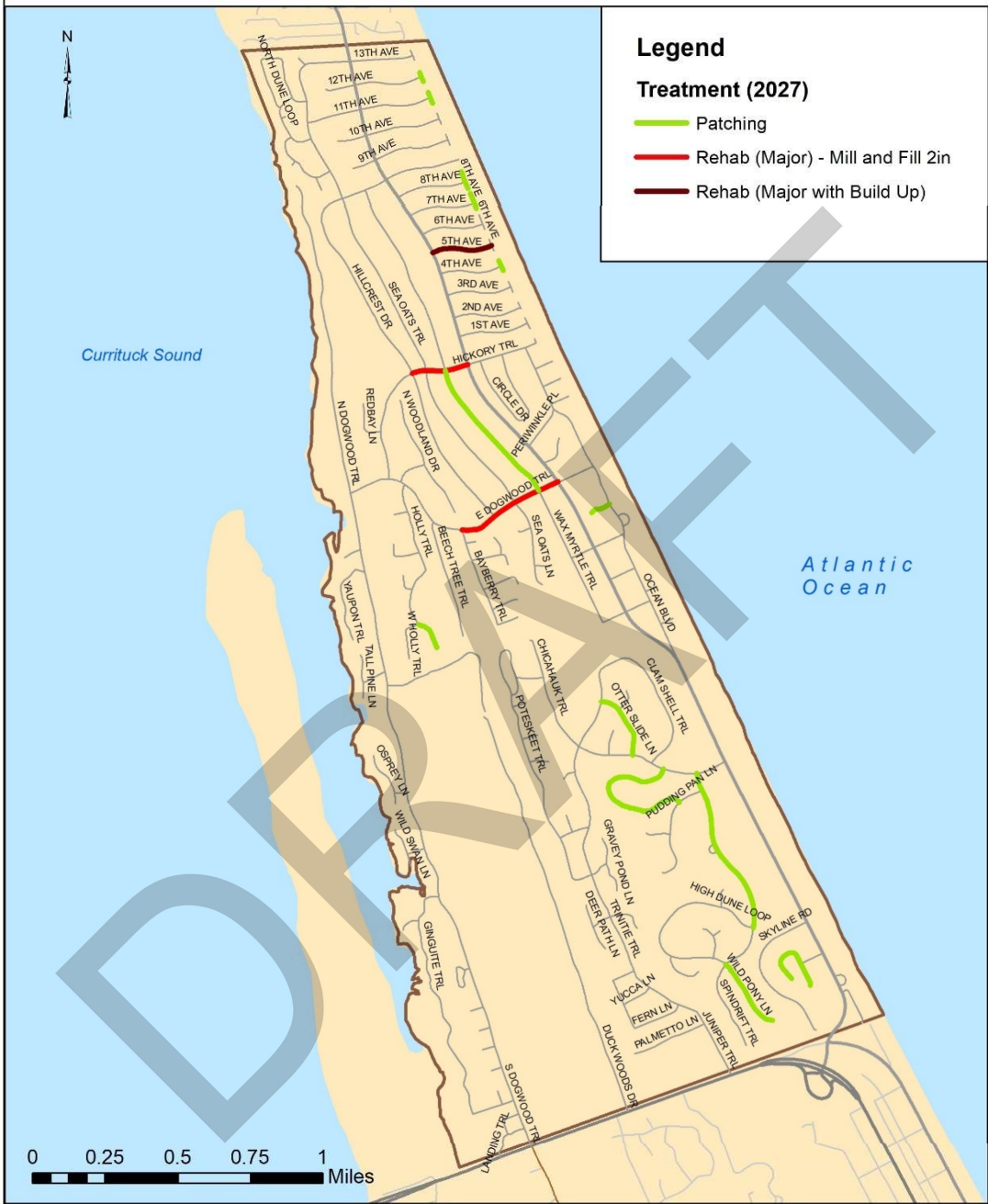


### Town of Southern Shores Year 2025 Treatment - Option 1

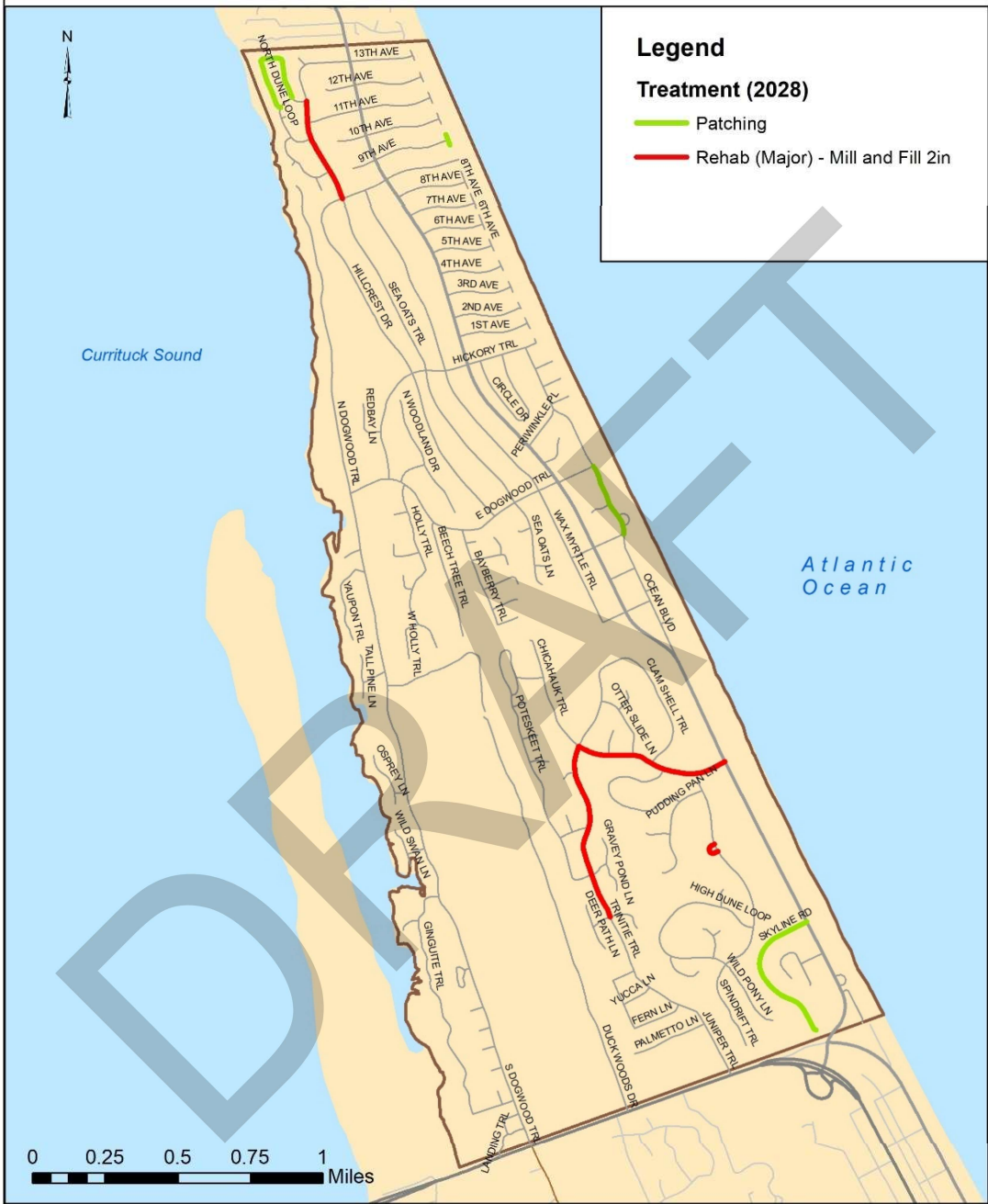




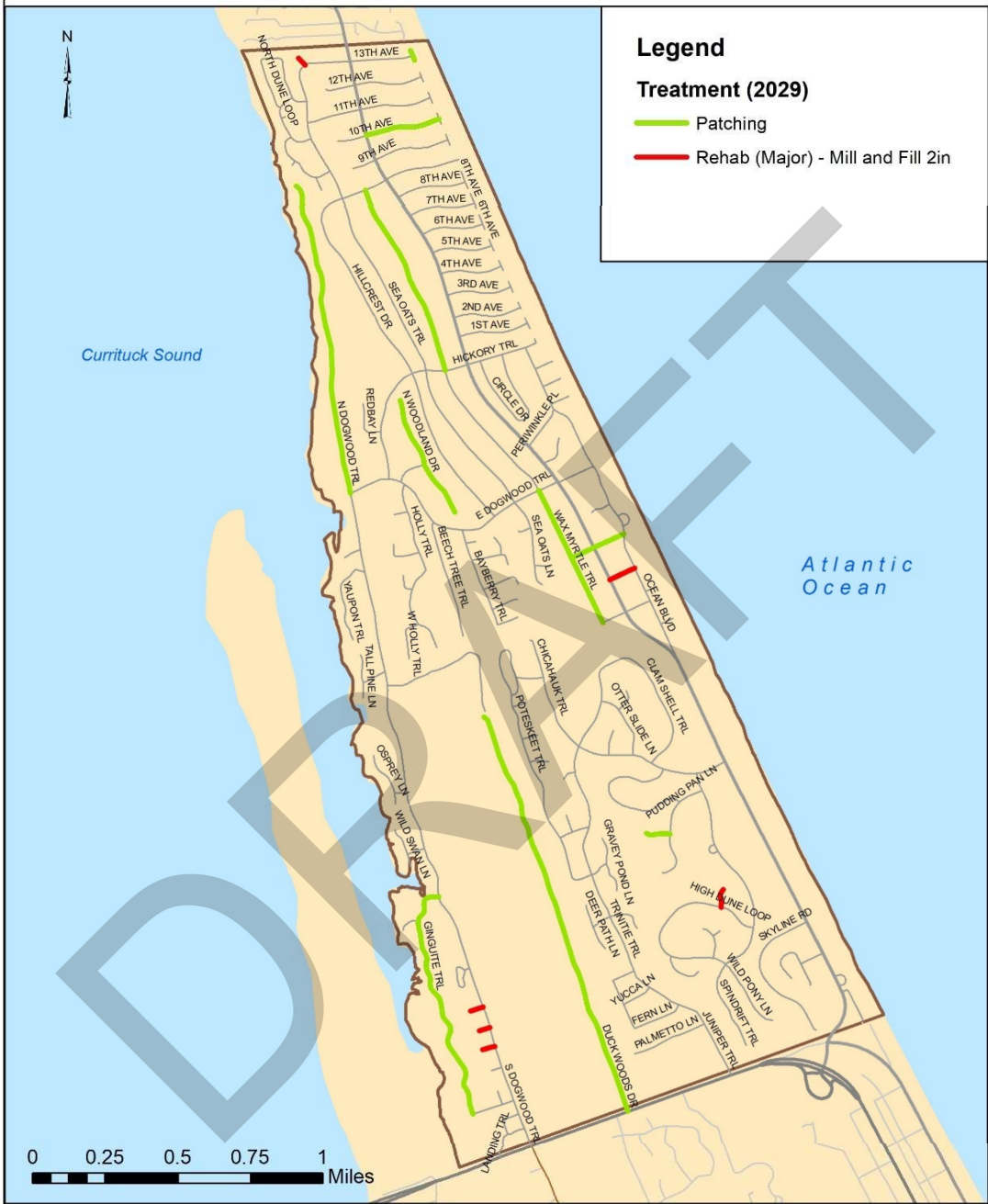
### Town of Southern Shores Year 2027 Treatment - Option 1



### Town of Southern Shores Year 2028 Treatment - Option 1



### Town of Southern Shores Year 2029 Treatment - Option 1









Distress Severity/Extent Definitions Flexible Pavement (P)						
Distress	Rating Level		Rating Level		Rating Level	
	SEV	EXT	SEV	EXT	SEV	EXT
FATIGUE CRACKING / DEFECTS (FC)	LOW/0-5	0-5%	MEDIUM/0-5	0-5%	HIGH/0-5	0-5%
	LOW/5-10	5-10%	MEDIUM/5-10	5-10%	HIGH/5-10	5-10%
	LOW/10-25	10-25%	MEDIUM/10-25	10-25%	HIGH/10-25	10-25%
	LOW/25-50	25-50%	MEDIUM/25-50	25-50%	HIGH/25-50	25-50%
	LOW/50-75	50-75%	MEDIUM/50-75	50-75%	HIGH/50-75	50-75%
	LOW/75-100	75-100%	MEDIUM/75-100	75-100%	HIGH/75-100	75-100%
TRANSVERSE CRACKING (TC)	SEV	EXT	SEV	EXT	SEV	EXT
	LOW/LOW	>100'	MEDIUM/LOW	>100'	HIGH/LOW	>100'
	LOW/MEDIUM	100'-50'	MEDIUM/MEDIUM	100'-50'	HIGH/MEDIUM	100'-50'
	LOW/HIGH	50'-25'	MEDIUM/HIGH	50'-25'	HIGH/HIGH	50'-25'
	LOW/EXTREME	<25'	MEDIUM/EXTREME	<25'	HIGH/EXTREME	<25'
	SEV	EXT	SEV	EXT	SEV	EXT
BLOCK CRACKING (BC)	LOW/0-5	0-5%	MEDIUM/0-5	0-5%	HIGH/0-5	0-5%
	LOW/5-10	5-10%	MEDIUM/5-10	5-10%	HIGH/5-10	5-10%
	LOW/10-25	10-25%	MEDIUM/10-25	10-25%	HIGH/10-25	10-25%
	LOW/25-50	25-50%	MEDIUM/25-50	25-50%	HIGH/25-50	25-50%
	LOW/50-75	50-75%	MEDIUM/50-75	50-75%	HIGH/50-75	50-75%
	LOW/75-100	75-100%	MEDIUM/75-100	75-100%	HIGH/75-100	75-100%
PATCH DETERIORATION / POTHoles (PP)	SEV	EXT	SEV	EXT	SEV	EXT
	LOW/0-5	0-5%	MEDIUM/0-5	0-5%	HIGH/0-5	0-5%
	LOW/5-10	5-10%	MEDIUM/5-10	5-10%	HIGH/5-10	5-10%
	LOW/10-25	10-25%	MEDIUM/10-25	10-25%	HIGH/10-25	10-25%
	LOW/25-50	25-50%	MEDIUM/25-50	25-50%	HIGH/25-50	25-50%
	LOW/50-75	50-75%	MEDIUM/50-75	50-75%	HIGH/50-75	50-75%
SURFACE DEFECTS (SD)	SEV	EXT	SEV	EXT	SEV	EXT
	LOW/LOW	<25%	MEDIUM/LOW	<25%	HIGH/LOW	<25%
	LOW/MEDIUM	25-50%	MEDIUM/MEDIUM	25-50%	HIGH/MEDIUM	25-50%
	LOW/HIGH	50-75%	MEDIUM/HIGH	50-75%	HIGH/HIGH	50-75%
	LOW/EXTREME	75-100%	MEDIUM/EXTREME	75-100%	HIGH/EXTREME	75-100%
	SEV	EXT	SEV	EXT	SEV	EXT
RUTTING/ROUGHNESS (RR)	LOW/LOW	<25%	MEDIUM/LOW	<25%	HIGH/LOW	<25%
	LOW/MEDIUM	25-50%	MEDIUM/MEDIUM	25-50%	HIGH/MEDIUM	25-50%
	LOW/HIGH	50-75%	MEDIUM/HIGH	50-75%	HIGH/HIGH	50-75%
	LOW/EXTREME	75-100%	MEDIUM/EXTREME	75-100%	HIGH/EXTREME	75-100%
	SEV	EXT	SEV	EXT	SEV	EXT
	LOW/LOW	<25%	MEDIUM/LOW	<25%	HIGH/LOW	<25%