



AGENDA ITEM MEMORADUM

Item No. 16a

AGENDA ITEM MEMORADUM

Municipal Services

Don Prince

Department

Department Director

COMMISSION MEETING DATE (*) - 7:00 PM	Deadline to Town Clerk
<input checked="" type="checkbox"/> Jan 10, 2012	Dec 30 th
<input type="checkbox"/> Jan 17, 2012 SPECIAL COMMISSION MEETING	Jan 6
<input type="checkbox"/> Jan 24, 2012	Jan 13
<input type="checkbox"/> Feb 14, 2012	Feb 3
<input type="checkbox"/> Feb 28, 2012	Feb 17

***Subject to Change**

- Presentation Reports Consent Ordinance
 Resolution Quasi-Judicial Old Business New Business

FY2012 DESIGNATED HIGH PRIORITY ITEM - PRIORITY TOPIC

SUBJECT TITLE: Street Resurfacing Analysis Results

EXPLANATION: At the September 27, 2011 meeting the Commission authorized Mathews Consulting to conduct a Town-wide Street Resurfacing Needs Analysis. Mathews determined that most of the Town's roadways are in excellent, very good or good condition using the Florida Department of Transportation's 2009 Flexible Pavement Condition evaluation methodology.

No Town streets were rated as being in poor or failing condition.

One street and the paved swales on two additional streets received a fair rating:

1. The north bound lane of El Mar Drive from Washingtonia Ave to Pine Ave. including the swale area
2. The swales on Poinciana from Commercial Blvd. to Pine Ave.
3. The swales Bougainvilla from Commercial to Washintonia.

It should be noted that the Bougainvilla and Poinciana roadways themselves received very good ratings.

The Town has drainage projects scheduled for all three roadways noted in the (5) year CIP. Bougainvilla Drive north of the Town Hall property is scheduled to be constructed in the summer or fall of this year. Poinciana Street from Washingtonia to Pine is scheduled for FY 2014. El Mar is slated for FY 2016. Since most of the drainage work would be done in the swale area and the swales are not in poor condition, it makes sense not to repave those swales and North El Mar now but to do it in conjunction with the drainage projects.

However, the Bougainvilla and Poinciana drainage projects do not run all the way to Commercial Boulevard. The costs to reconstruct the swales on those streets south of the drainage project areas to Commercial Boulevard. Those costs are:

Bougainvilla Drive - \$62,000

Poinciana Drive - \$130,000

Those projects will need to be added to the CIP in future years or we could wait until drainage projects are done in those areas, until or unless the swales deteriorate into poor condition.

In addition all future drainage projects will be bid with a line item to pave the entire road so that the Commission can choose at that time whether to pave the entire road or just the drainage area.

Mathews noted that Terra Mar Drive from A1A to the bridge, which is located in the City of Pompano Beach, is in poor condition. We will notify Pompano Beach of that observation.



RECOMMENDATION: Accept the Pavement Condition Study

EXHIBIT(S): Mathews LBTS Pavement Condition Study

Reviewed by Town Attorney

Yes No

Town Manager Initials CA

Town of Lauderdale-by-the-Sea Pavement Condition Study



January 2012

Prepared by:



FINAL

Town of Lauderdale-by-the-Sea
Pavement Condition Study

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Section 1

Introduction

Background

The Town of Lauderdale by the Sea, incorporated in 1947, is located on the barrier island directly east and south of the City of Pompano Beach. In 2001, the land north of the Town, from Coral Reef Drive to Cypress Creek Drive, was annexed into the Town limits. The Town is approximately 1.5 square miles with approximately 14 miles of local roadway. Many of the roads are experiencing cracking, spalling, and general deterioration due to their age. Mathews Consulting will conduct field studies to determine the condition of all Town roads, identify areas requiring repair work and provided a methodology for prioritization of that work.

Project Scope

The Town contracted with Mathews Consulting, Inc. (MC) to perform a Pavement Condition Study for the Town roads. The scope of work performed encompassed the following tasks:

◆ **Task 1: Data Collection**

- Review existing files and information available from the Town, of previously constructed roadway improvement projects. MC reviewed “North Beach Neighborhood Improvements, Phase II, Town of Lauderdale-by-the-Sea.”
- Review as-built information of the northern, recently annexed, portion of the Town’s roadways that were resurfaced approximately four (4) years ago.
- Review the Draft Stormwater Report, prepared in April 2010 by Chen and Associates.
- Review the Draft Capital Improvement Plan (CIP) for FY 2011-2016, revised in September 2011 and provided to MC in December 2011.
- Perform visual survey of all Town roadways (approximately 14 miles) to assess the surface condition of the roadway pavement. Only the roadway pavement surface was reviewed, it was assumed that the sidewalks, grass swales, signage and curbing are adequate and review of these elements are not included in the scope of this report. A ranking system, developed by MC, was used to identify the level of need for reconstruction work tied to the estimated remaining service life of the road. The condition survey utilized the *2009 Flexible Pavement Condition Survey Handbook*, by the Florida Department of Transportation for evaluation methodology.

- Based on discussions with the Town, paver crosswalks and paved swales/shoulders are included in the analysis.
- Visual survey to also include parking areas on the north and south side of Commercial Boulevard.

- ◆ **Task 2: Cost Evaluation and Phasing Plan**
 - Develop a phasing and prioritization plan for implementation of the roadway improvements. The phasing plan shall be structured so as to group required improvements that are within relative close proximity and prioritization.
 - Provide a general opinion of construction cost for the recommended improvements.

- ◆ **Task 3: Final Report**
 - Prepare a final report to include a condition report for each roadway pavement section, digital photograph log and the associated ranking. The data will be summarized in tabular format with the recommended improvements prioritized by their ranking. A color graphic map of the recommended improvements is also included in the report.

The following sections of this report present the methodology, results and recommendations of the tasks listed above.

Section 2

Evaluation of Existing Pavement

Field Investigations

A visual survey was performed in October 2011 for all Town roadways to determine the condition of the existing pavement sections. The Town of Lauderdale by the Sea boundary is shown in **Figure 2-1**. The Florida Department of Transportation's (FDOT) *Flexible Pavement Condition Survey Handbook* (June 2009) was utilized as a general guideline to develop a ranking system used to assess the condition of local roads and identify roadways that require repair work. The Handbook procedures were tailored to focus on the assessment of local roads in lieu of the State highway system.

Per the FDOT's *Flexible Pavement Condition Survey Handbook*, the results of the evaluation provide data for the following:

- ◆ Determination of the roadway's present condition.
- ◆ Estimation of needed rehabilitation funding.
- ◆ Provide justification for a pavement rehabilitation budget.
- ◆ Provide justification for prioritizing rehabilitation projects.

The major defects chosen to visually determine the serviceability of the roadway were:

- ◆ Rutting
- ◆ Cracking
- ◆ Patching/Potholing
- ◆ Raveling

A Pavement Rating Form (**Figure 2-2**) was developed for this project in order to quantify the existing level of service for each roadway section. The form consists of the street name, physical limits of assessment, reviewer's name, date reviewed, and the break-down of the ranking. The Pavement Ranking Form utilizes an overall scale from zero (0) to seventy (70). A rating of zero (0) equates to an "Excellent" roadway condition. This rating would be given only to recently paved or re-paved roads that had no deficiencies. A rating of seventy (70) equates to a roadway with structural failure. This rating would be given to a segment that has exceeded its service life and has become virtually un-drivable due to potholes, cracking, rutting and raveling. The Pavement Condition Rating Legend (**Figure 2-3**) shows the criteria and ranking breakdown for each deficiency. A representative photograph was taken of each segment. The ranking form for each evaluated roadway section, along with the associated photograph, are included in **Appendix A**.

Figure 2-1
Town Boundary



Legend:
 Town Boundary

Figure 2-2
Pavement Rating Form

**Town of Lauderdale-by-the-Sea
Pavement Condition Study**

PAVEMENT RATING FORM

STREET OR ROUTE: _____

From: _____ To: _____

REVIEWER: B. McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1 0-7 _____

Class 2 8-14 _____

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 _____

RAVELING 0-15 _____

CONDITION RATING = 0

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Figure 2-3
Pavement Condition Rating Legend

Pavement Condition Rating Legend

Rutting		
Severity	Rating	Description
None	0	None Present
Light	1 - 5	1/4 - 1/2 Inch Deep
Moderate	6 - 10	1/2 - 3/4 Inch Deep
Severe	11 - 15	OVER 3/4 Inch Deep

Cracking		
Severity	Rating	Description
None	0	None Present
Class I	0 - 7	Hairline Cracks- 1/8" wide in either direction
Class II	8 - 14	Moderate spalling, severe branching, cracks between 1/8" and 1/4"
Class III	15 - 20	Cracks greater than 1/4", Open to the base or underlying material; Chunks of broken pavement

Patching/Potholing		
Severity	Rating	Description
None	0	None Present
Light	0 - 7	Less than 50 ft ² of Patching, Minimal/No Potholing
Moderate	8 - 14	50 -100 ft ² of Patching; Potholes Present
Severe	15 - 20	More than 100 ft ² of Patching; Subgrade Failure due to Potholes

Raveling		
Severity	Rating	Description
None	0	None Present
Light	1 - 5	Beginning to wear away
Moderate	6 - 10	Somewhat worn away; rough & pitted; loose particles
Severe	11 - 15	Severely worn away; very rough & pitted; loss of aggregate noticeable

Deficiency Explanation

The pavement sections were rated on the existence of each of the four (4) main deficiencies:

- ◆ Rutting
- ◆ Cracking
- ◆ Patching/Potholing
- ◆ Raveling

Rutting

This defect is determined visually. Rutting typically occurs when the pavement is reaching moderate deterioration and is mainly found along the wheel path. Typically rutting is due to either reduction of the air voids in the asphalt layer or due to the permanent deformation of the base or subgrade.



Figure 2-4
Example of Rutting

Cracking

FDOT's *2009 Flexible Pavement Condition Survey Handbook* identifies three (3) types of cracking, according to severity. The Handbook was used as a comparison guide as it provided pictures of each type of cracking. The three (3) cracking categories are as follows:

- ◆ Class I
- ◆ Class II
- ◆ Class III

Class I cracking refers to hairline cracks that are less than, or equal to, 1/8 - inch wide in either the longitudinal or transverse direction. The crack may have minor branching and slight spalling. The roadway is still considered to be in good or very good condition with Class I cracks.



Figure 2-5
Example of Class I Cracking

Class II cracking refers to cracks that are between 1/8 - inch and 1/4 - inch wide, in either the longitudinal or transverse direction. These cracks may have moderate spalling and severe branching. Class II also refers to cracks less than 1/4 - inch wide that have formed cells less than two (2) feet on the longest side, also known as alligator cracking.



Figure 2-6
Example of Class II Cracking

Class III cracking refers to cracks greater than $\frac{1}{4}$ - inch wide that extend in the longitudinal or transverse direction. This also includes progressive Class II cracking that results in severe spalling with pieces of pavement breaking out. Class III cracking may extend through the asphalt depth to the base material of the roadway.



Figure 2-7
Example of Class III Cracking

Patching/Potholing

The definition of a roadway patch is an area of pavement that has been replaced with newer material since the original construction for the purpose of temporarily repairing a section of roadway. Only significant areas of patching were considered to warrant a negative score.



Figure 2-8
Example of Patching

Potholing can occur when the base material or subgrade material can no longer adequately support the weight of the roadway section or the traffic.



Figure 2-9
Example of Potholing

Raveling

Raveling is the deterioration of the pavement surface caused by the dislodging of aggregate particles. This can also occur at the edge of roadway if the section does not have curb and gutter. Raveling is rated by the degree of aggregate and/or binder loss in the roadway section.



Figure 2-10
Example of Raveling

Section 3

Evaluation Results and Improvement Options

Evaluation Results

Table 3.1 lists the Pavement Condition Study Evaluation Results in ranking order from worst to best condition. In general, it was found that most of the Town roadways are in excellent, very good or good condition.

The Town has existing paved swales adjacent to the roadway edge of pavement that assist in stormwater conveyance. The stormwater runoff is directed into the paved swale and the swale is sloped toward the existing catch basins. The existing condition of the paved swales along Bougainvillea Drive and Poinciana Street were substantially different than that adjacent roadway, therefore the paved swales were assessed separately. The condition of the paved swales along El Mar Drive were in similar condition as the adjacent roadway and therefore assessed in conjunction with the roadway.

Paver crosswalks located on Town roads were assessed with the road segment. Most paver crosswalks were found to be in very good condition with minimal brick cracking and differential settling of less than 1 ½-inches. The exception to this is the paver crosswalks located at the intersection of El Mar Drive and Commercial Boulevard. The pavers appear to be settling and minor cracking of the pavers was visually apparent. Refer to the Recommended Improvements (Section 4) for a discussion on the improvements to the roadways, paved swales and crosswalks.

The northern three (3) streets of the Terramar neighborhood and Terramar Drive from A1A to the bridge are within the City of Pompano Beach limits. However, the roads listed in **Table 3.2** were evaluated as part of this study due to their vicinity to the Town Boundary. The intersection of Terramar Drive and A1A is in poor condition. Although this roadway does not lie within Town limits, many Town residents utilize the road to access their homes and the Town may consider approaching the City of Pompano Beach to repair the deficiencies.

Table 3.1
Pavement Condition Study Evaluation Results

LEGEND: 0-10 Excellent; 11-20 Very Good; 21-30 Good; 31-40 Fair; 41-50 Poor; 51-60 Very Poor; 61-70 Failed

Ranking Order	Street Name	From	To	Rating
1	Poinciana St- Paved Swale	Washingtonia Ave	Commercial Blvd	49
2	Poinciana St- Paved Swale	Pine Ave	Washingtonia Ave	45
3	Bougainvilla Dr- Paved Swale	Commerical Blvd	Washingtonia Ave	43
4	El Mar Dr- NB Lane (including paved swale)	Washingtonia Ave	Pine Ave	42
5	El Mar Dr- NB Lane (incl.paved shoulder/prkg)	Palm Ave	Datura Ave	40
6	El Mar Dr- SB Lane (including paved swale)	Commercial Blvd	Palm Ave	34
7	W. Tradewinds Ave	N. Tradewinds Ave	Corsair Ave	30
8	Avalon Ave	W. Tradewinds Ave	Seagrape Dr	29
9	Basin Dr	W. Tradewinds Ave	Seagrape Dr	28
10	Marine Ct	Seagrape Dr	cul-de-sac	28
11	Poinciana St	Washingtonia Ave	Commercial Blvd	27
12	Pine Ave	Poinciana St	Bougainvilla Dr	27
13	Lombardy Ave	Seagrape Dr	W. Tradewinds Ave	26
14	Lake Ct	Seagrape Dr	cul-de-sac	26
15	Datura Ave (including parking)	A1A	East end	26
16	Alley- just S. of Commercial Blvd	A1A	El Mar Dr	26
17	W. Tradewinds Ave	Commercial Blvd	S. Tradewinds Ave	26
18	Commercial Blvd	A1A	El Mar Dr	25
19	W. Tradewinds Ave	Algiers	Commercial Blvd	25
20	Harbor Dr	W. Tradewinds Ave	Seagrape Dr	25
21	Neptune Ave	W. Tradewinds Ave	Seagrape Dr	24
22	Capri Ave	W. Tradewinds Ave	E. Tradewinds Ave	24
23	Miramar Ave	W. Tradewinds Ave	E. Tradewinds Ave	24
24	El Mar Dr- SB Lane (including paved swale)	Pine Ave	Washingtonia Ave	24
25	Bougainvilla Dr- paved swale	Washingtonia Ave	Pine Ave	23

Table 3.1 (Contd.)

Pavement Condition Study Evaluation Results

LEGEND: 0-10 Excellent; 11-20 Very Good; 21-30 Good; 31-40 Fair; 41-50 Poor; 51-60 Very Poor; 61-70 Failed

Ranking Order	Street Name	From	To	Rating
26	Datura Ave (including parking)	A1A	Bougainvilla Dr	23
27	El Mar Dr- SB Ln (including paved swale)	Washingtonia Ave	El Prado Ave	22
28	El Mar- NB Lane (including paved swale)	Washingtonia Ave	El Prado Ave	22
29	El Mar Dr	Alley	Commercial Blvd	22
30	Corsair Ave	W. Tradewinds Ave	Seagrape Dr	21
31	Pine Ave	PoincianaSt	cul-de-sac	21
32	Hibiscus Ave (including parking)	A1A	east end	20
33	East Alley- S. of Commercial Blvd	El Mar Dr	East end	20
34	W. Tradewinds Ave	Corsair Ave	Algiers	19
35	Flamingo Ave	Thomas Way	A1A	19
36	Palm Ave	A1A	East end	19
37	Commercial Blvd- EB Lanes	El Mar Dr	East end	19
38	Coral Reef Dr	Bel Air	A1A	18
39	Algiers	W. Tradewinds Ave	Seagrape Dr	18
40	Bougainvilla Dr	Commercial Blvd	Washingtonia Ave	18
41	Poinciana St	Pine Ave	Washingtonia Ave	18
42	Washingtonia Ave (including paved swale)	A1A	El Mar Dr	18
43	E. Tradewinds Ave	Algiers	Commercial Blvd	17
44	Hibiscus Ave	Tropic Dr (West)	Seagrape Dr.	17
45	Washingtonia Ave	Seagrape Dr	A1A	16
46	Seagrape Dr	Commercial Blvd	Hibiscus Ave	16
47	Oceanic Ave	Seagrape Dr	W. Tradewinds Ave	15
48	Bombay Ave	W. Tradewinds Ave	Seagrape Dr	15

Table 3.1 (Contd.)

Pavement Condition Study Evaluation Results

LEGEND: 0-10 Excellent; 11-20 Very Good; 21-30 Good; 31-40 Fair; 41-50 Poor; 51-60 Very Poor; 61-70 Failed

Ranking Order	Street Name	From	To	Rating
49	Shore Ct	Seagrape Dr	cul-de-sac	15
50	Garden Ct	Seagrape Dr	cul-de-sac	15
51	Tropic Dr	Hibiscus Ave	Hibiscus Ave	15
52	Bel Air	A1A	A1A	14
53	Bel Air	Tropic Isle	Coco Plum Pl	13
54	Seaward Dr.	W. Terramar Dr.	E. Terramar Dr.	12
55	Allenwood Dr	Hibiscus Ave	Hibiscus Ave	12
56	Imperial Ln	Thomas Way	cul-de-sac	12
57	Ocean Mist Dr	Bel Air	Bluewater Terr	11
58	E. Terramar Dr.	Seaward Dr.	Spanish River Dr.	10
59	W. Terramar Dr.	Seward Dr.	Spanish Rvier Dr.	10
60	Spanish River Dr.	E. Terramar Dr.	W. Terramar Dr.	10
61	Bluewater Terr	Windward Dr	Ocean Mist Dr	10
62	S. Tradewinds Ave	E. Tradewinds Ave	W. Tradewinds Ave	10
63	El Mar Dr- NB Lanes	Datura Ave	Commercial Blvd	10
64	Service Rd- S. side of Commercial Blvd	W. Tradewinds Ave	E. Tradewinds Ave	10
65	W. Terramar Dr.	Oleandar Way	Seaward Dr	9
66	Bluewater Terr	Coral Reef Dr	cul-de-sac	9
67	Pine Ave	A1A	El Mar Dr	9
68	E. Terramar Dr.	Spanish River Dr.	S. Terramar Dr.	8
69	S. Terramar Dr.	E. Terramar Dr.	W. Terramar Dr.	8
70	Sailfish Pl	Bluewater Terr	Bel Air	8
71	E. Tradewinds Ave	Commercial Blvd	S. Tradewinds Ave	8
72	Codrington Dr	Thomas Way	cul-de-sac	8

Table 3.1 (Contd.)
Pavement Condition Study Evaluation Results

LEGEND: 0-10 Excellent; 11-20 Very Good; 21-30 Good; 31-40 Fair; 41-50 Poor; 51-60 Very Poor; 61-70 Failed

Ranking Order	Street Name	From	To	Rating
73	Oleandar Way	E. Terramar Dr	W. Terramar Dr.	8
74	Cypress Creek	W. Terramar Dr.	E. Terramar Dr.	7
75	W. Terramar Dr.	Cypress Creek	Olendar Way	7
76	W. Terramar Dr.	Spanish River Dr.	S. Terramar Dr.	7
77	Tropic Isle	Bel Air	Bluewater Terrace	7
78	Bel Air	Coco Plum Pl	Coral Reef Dr	7
79	Waters Edge	Bel Air	cul-de-sac	7
80	Coral Reef Dr	Bel Air	Bluewater Terr	7
81	N. Tradewinds Ave	W. Tradewinds Ave	Seagrape DR	7
82	El Prado Ave- EB Lane	A1A	El Mar Dr	7
83	Service Rd- N. side of Commercial Blvd	W. Tradewinds Ave	E. Tradewinds Ave	7
84	Seward Dr.	W. Terramar Dr.	E. Terramar Dr.	6
85	Fiesta Way	E. Terramar Dr.	W. Terramar Dr.	6
86	Bel Air	A1A	Tropic Isle	6
87	Windward Dr	Bel Air	Bluewater Terr	6
88	El Prado Ave- WB Lane	A1A	El Mar Dr	6
89	Bluewater Terrace	Tropic Isle	Windward Dr	5
90	Coco Plum Pl	Bluewater Terr	Bel Air	5
91	Seagrape Dr	N. Tradewinds Ave	Commercial Blvd	5
92	Thomas Way	Codrington Dr	Imperial Ln	5
93	Bougainvilla Dr	Washingtonia Ave	Pine Ave	5
94	Commercial Blvd- WB Lanes	El Mar Dr	East end	5
95	Pine Ave	Bougainvilla Dr	A1A	4

Table 3.1 (Contd.)

Pavement Condition Study Evaluation Results

LEGEND: 0-10 Excellent; 11-20 Very Good; 21-30 Good; 31-40 Fair; 41-50 Poor; 51-60 Very Poor; 61-70 Failed

Ranking Order	Street Name	From	To	Rating
96	El Mar Ave- NB Lane	El Prado Ave	Commercial Blvd	4
97	Bougainvillea Dr	Hibiscus Ave	Commercial Blvd	4
98	El Mar Dr- SB Lane	El Prado Ave	Commercial Blvd	3
99	E. Terramar Dr	Cypress Creek	Seaward Dr.	0

Table 3.2

City of Pompano Beach Pavement Condition Evaluation Results

LEGEND: 0-10 Excellent; 11-20 Very Good; 21-30 Good; 31-40 Fair; 41-50 Poor; 51-60 Very Poor; 61-70 Failed

	Street Name	From	To	Rating
1	Terramar Dr.	Ocean Blvd.	Ocean Blvd	43
2	Terramar Dr.	Terramar Bridge	Ocean Blvd.	22
3	E. Terramar Dr.	Lakeview Dr.	Cypress Creek	14
4	Lakeview Drive	W. Terramar Dr.	E. Terramar Dr.	11
5	Aqua Vista	W. Terramar Dr.	E. Terramar Dr.	9
6	Terramar Dr.	Lakeview Dr.	Lakeview Dr.	8
7	W. Terramar Dr.	Aqua Vista	Cypress Creek	8
8	W. Terramar Dr.	N. Lakeview Dr.	Seaward Dr.	7
9	W. Terramar Dr.	Lakeview Dr.	Aqua Vista	2

Improvement Options

Various improvement options were considered, including:

- ◆ Crack sealing and overlay
- ◆ Total roadway reconstruction
- ◆ Mill and resurface
- ◆ Partial reconstruction
- ◆ Pervious Pavement

Note: Micro-surfacing was not included as an Improvement Option at the Town's direction.

Crack Sealing and Overlay

This method of repair applies a sealant into the existing cracks located along the roadway. This eliminates water intrusion from the roadway surface seeping into the base material. After the cracks are sealed, a new asphalt layer, typically 1-inch in thickness, is applied on top of the roadway surface. Since the existing asphalt surface is not milled prior to the placement of the asphalt the existing manhole lids, valve boxes, driveways, etc. will no longer be flush to the roadway surface.

Total Roadway Reconstruction

Total roadway reconstruction encompasses removal and replacement of subgrade, base material and asphalt surface. This method of repair can be very costly and is typically only recommended on a roadway experiencing structural failure.

Mill and Resurface

Mill and resurface is a method of repair that replaces the top layer of the existing asphalt layer. The top layer of asphalt is milled off, typically at a depth of 1-inch, and a new asphalt layer of the same depth is replaced. Milling and resurfacing the same depth reduces the cost of the project since existing driveway connection, manhole lids, valve covers, and the other existing improvements do not need to be adjusted to a new elevation.

Partial Reconstruction

This is method of repair is a combination of mill and resurface and total reconstruction. Partial reconstruction calls for the removal of the entire asphalt layer (typically 2-inches), regrading/repairing the base layer as needed and replacing the asphalt layer. This method can be used when potholing and raveling have deteriorated the existing asphalt surface and caused minor potholing in the base layer.

Pervious Pavement

Town Staff requested MC to evaluate the use of pervious pavement, where applicable. Pervious pavement is typically used as one element in a complete drainage system. A layer of pervious pavement is placed

over a rock bed, which acts similar to an exfiltration trench, essentially drawing the stormwater runoff off of the road surface and allowing it to seep into the groundwater. The pervious pavement section is sized according to the volume of runoff to be discharged based upon the design storm event and the drainage area to be served. It is therefore not possible to provide standard per square foot costs. Pervious pavement is often used in parking lots, or low traffic areas since the structural number of a pervious pavement section is typically lower than a comparable standard pavement section.

Section 4

Recommended Improvements

Recommended Improvements

It is recommended that the Town address the roadway segments that are in fair or poor condition. These roadway segments had the highest rating and are shown at the top of **Table 3.1**. There are six (6) segments within this category:

- ◆ **Poinciana Street Paved Swale** from Washingtonia Avenue to Commercial Boulevard
- ◆ **Poinciana Street Paved Swale** from Pine Avenue to Washingtonia Avenue
- ◆ **Bougainvilla Drive Paved Swale** from Washingtonia Avenue to Commercial Boulevard
- ◆ **El Mar Drive (NB Lane, including paved shoulder)** from Pine Avenue to Washingtonia Avenue
- ◆ **El Mar Drive (NB Lane, including paved shoulder)** from Commercial Blvd. to the Alley **and** Datura Avenue to Palm Avenue
- ◆ **El Mar Drive (SB Lane, including paved shoulder)** from Commercial Boulevard to Palm Avenue

Due to their relative proximity, it would be advantageous to the Town to group the six identified improvements into these four (4) construction projects:

- ◆ **Poinciana Street Paved Swale** from Pine Avenue to Commercial Boulevard
- ◆ **Bougainvilla Drive Paved Swale** from Washingtonia Avenue to Commercial Boulevard
- ◆ **El Mar Drive -NB Lane, including paved shoulder** from Pine Avenue to Washingtonia Avenue
- ◆ **El Mar Drive** from Commercial Boulevard to Palm Avenue

Below is an evaluation of the existing pavement section, recommended improvements, and a preliminary construction cost estimate. General percentages, based on industry standards, were applied for Contractor mobilization and general conditions, project contingency, and engineering design/construction management.

Poinciana Street Paved Swale (from Pine Avenue to Commercial Boulevard)

The paved swale along this corridor is in poor condition. The paved swale is located on the west side of the roadway from Pine Avenue to Commercial Boulevard and the east side of the roadway from Pine Avenue to approximately 600-feet south of Washingtonia Avenue. The paved swale on the west side of the roadway has existing improvements, including a recently repaved portion of swale, brick pavers, and portions of green space. The existing paved swale in need of repair is estimated to be approximately 3,580-LF in length (sum of both sides of the roadway) and 9-LF wide. For purposes of this report, it is assumed that the existing paved swale would be repaved with asphalt, exclusive of the brick pavers which appear to be in good condition and will remain. It is recommended that the asphalt layer is milled off entirely (estimated to be 2-inches thick) and replaced with a new asphalt surface (assumed 2-inches). The underlying road base should be regraded and repaired as needed, patch any existing deficiencies due to

potholing and slope the base material to assist in positive stormwater flow toward the existing inlets. This can be accomplished with minimal impact to the adjoining roadway, which was found to be in good condition, by sawcutting both sides of the paved swale prior to the milling effort. (See Figure 4-5)

It was noted that existing drainage is located within the paved swale. This study did not evaluate the existing drainage system. Therefore, it is recommended that the Town review the drainage system for possible capacity and water quality improvements prior to repairing the paved swale. This section of paved swale is a viable application for pervious pavement. Stormwater calculations are required to properly design the pervious pavement section to identify if a potential cost savings could be realized.



Figure 4-1
Limits of Poinciana Street Paved Swale Improvements

The Town's Draft CIP for FY 2011-2016 (revised September 2011) includes drainage and roadway improvements for Poinciana Street from Pine Avenue to Washingtonia Avenue. Potential order of magnitude savings could be realized if the limits of the project were extended to include improvements to the paved swale from Washingtonia Avenue to Commercial Boulevard. **Table 4.1** reflects the estimated cost for the Paved Swale improvements from Pine Avenue to Commercial Boulevard, utilizing unit costs that are based on projects similar in type and size.

Table 4.1**Estimated Costs for Poinciana Street Paved Swale Improvements**

Items:	Units	Quantity	Unit Cost	Total Cost
Saw-cut existing asphalt	LF	7,160	\$2.00	\$14,320.00
Mill Existing Asphalt (2" assumed)	SY	3,580	\$6.00	\$21,480.00
Type S Asphalt (2" assumed)	SY	3,580	\$15.00	\$53,700.00
Regrade Base Material	SY	3,580	\$6.00	\$21,480.00
Striping	LS	1	\$2,500.00	\$2,500.00
Subtotal:				\$113,480.00
Contractor Mob., Demob., Profit, GC (15%):				\$17,022.00
Project Contingency (15%):				\$17,022.00
Engineering Design/CMS/Admin (20%):				\$29,504.80
Total:				\$177,028.80

GC: General Conditions

CMS: Construction Management Services

Note: It is recommended the Town perform pavement core samples, prior to construction, to confirm asphalt thickness.

Bougainvilla Drive Paved Swale (from Washingtonia Avenue to Commercial Boulevard)

The paved swale is located on both sides of the roadway from Washingtonia Avenue south, approximately 600-feet, where it continues only on the east side. The west side has a portion of brick pavers and small landscape areas. The brick pavers appear to be in good condition and are not recommended for repair or replacement. The existing paved swale in need of repair is approximately 2,450-LF in length (sum of both sides of the roadway) and 10-LF wide. According to Town Staff and the Town's Draft CIP for FY 2011-2016 (revised September 2011), Bougainvilla Drive is slated for drainage improvements, inclusive of paved swale improvements, this fiscal year. It is assumed that the paved swale from Washingtonia Avenue to just north of the Town Hall property will be properly reconstructed as part of the drainage improvements. The recommendations and associated estimated costs are for the remaining section of Bougainvilla Drive, from just north of Town Hall to Commercial Boulevard. It is recommended that the asphalt layer be milled off entirely (estimated to be 2-inches thick) and replaced with a new asphalt surface (assumed 2-inches). The underlying road base should be regraded and repaired as needed, patch any existing deficiencies due to potholing and slope the base material to assist in positive stormwater flow toward the existing inlets. This can be accomplished with minimal impact to the adjoining roadway, which was found to be in good condition, by sawcutting both sides of the paved swale prior to the milling effort. (See **Figure 4-5**)

It was noted that existing drainage is located within the paved swale. Town Staff advised MC that drainage improvements will be performed for Bougainville Drive from north of Town Hall to Pine Avenue. Drainage improvements will require complete reconstruction of the paved swales. The cost estimate below reflects partial reconstruction of the paved swales from north of Town Hall to Commercial Boulevard. This study did not evaluate the existing drainage system. Therefore, it is recommended that the Town review the drainage system for possible capacity and water quality improvements prior to repairing the paved swale.



Figure 4-2

Limits of Bougainville Drive Paved Swale Improvements

Table 4.2
Estimated Costs for Bougainvilla Drive Paved Swale Improvements

Items:	Units	Quantity	Unit Cost	Total Cost
Saw-cut existing asphalt	LF	2,050	\$2.00	\$4,100.00
Mill Existing Asphalt (2" assumed)	SY	1,140	\$6.00	\$6,840.00
Type S Asphalt (2" assumed)	SY	1,140	\$15.00	\$17,100.00
Regrade Base Material	SY	1,140	\$6.00	\$6,840.00
Striping	LS	1	\$5,000.00	\$5,000.00
Subtotal:				\$39,880.00
Contractor Mob., Demob., Profit, GC (15%):				\$5,982.00
Project Contingency (15%):				\$5,982.00
Engineering Design/CMS/Admin (20%):				\$10,368.80
Total:				\$62,212.80

GC: General Conditions

CMS: Construction Management Services

Note: It is recommended the Town perform pavement core samples, prior to construction, to confirm asphalt thickness.

El Mar Drive, NB Lane, inclusive of paved shoulder (from Pine Avenue to Washingtonia Avenue)

The northbound (NB) travel lanes of El Mar Drive from Pine Avenue to Washingtonia Avenue and the paved swale/shoulder were evaluated as one component. The paved shoulder appears to be more deteriorated than the roadway due to potholing, patching and cracking. The travel lanes are experiencing cracking, minor patching and some rutting. The paved shoulder is approximately 5-feet wide and would be difficult to be replaced separately from the travel lanes. Therefore, it is our recommendation to mill and resurface the travel lanes (**Figure 4-6**) and provide partial reconstruction on the paved shoulder (**Figure 4-5**). Partial reconstruction of the paved shoulder will consist of milling off the asphalt layer (estimated to be 2-inches thick) and replace it with a new asphalt surface (assumed 2-inches). The underlying road base should be regraded and repaired as needed, patch any existing deficiencies due to potholing and slope the base material to assist in positive stormwater flow toward the existing inlets.

It was noted that existing drainage is located within the paved shoulder. This study did not evaluate the existing drainage system. Therefore, it is recommended that the Town review the drainage system for possible capacity and water quality improvements prior to the roadway improvements.



Figure 4-3
Limits of Mar Drive (Pine Ave to Washingtonia Ave) Improvements

Table 4.3
Estimated Costs for El Mar Drive (Pine Ave to Washingtonia Ave) Improvements

Items:	Units	Quantity	Unit Cost	Total Cost
Mill and Resurface 1-inch (Travel Lanes)	SY	1,850	\$16.00	\$29,600.00
Mill Existing Asphalt (2" assumed)	SY	455	\$6.00	\$2,730.00
2" Type S Asphalt	SY	455	\$15.00	\$6,825.00
Regrade Base Material	SY	455	\$6.00	\$2,730.00
Striping	LS	1	\$5,000.00	\$5,000.00
Subtotal:				\$46,885.00
Contractor Mob., Demob., Profit, GC (15%):				\$7,032.75
Project Contingency (15%):				\$7,032.75
Engineering Design/CMS/Admin (20%):				\$12,190.10
Total:				\$73,140.60

GC: General Conditions

CMS: Construction Management Services

Note: It is recommended the Town perform pavement core samples, prior to construction, to confirm asphalt thickness.

El Mar Drive (from Commercial Boulevard to Palm Avenue)

The travel lanes and paved shoulder/swale were evaluated as one component. Although this corridor is divided by a landscape median, it was found that both the northbound and southbound travel lanes, as well as the paved shoulders, were in fair condition. The only exception to this is the northbound lanes, from Datura Avenue to the Alley just south of Commercial Boulevard, which appear to have been recently resurfaced. The paved shoulder is approximately 5-foot wide and would be difficult to be replaced separately from the travel lanes. Therefore, it is our recommendation to mill and resurface the travel lanes (**Figure 4-6**) and provide partial reconstruction on the paved shoulder (**Figure 4-5**). There is existing on-street parking at the intersection of El Mar Drive and Commercial Boulevard. It is recommended to include these parking stalls with the milling and resurfacing effort. There are two 10-foot travel lanes in each direction. The total length of roadway is 9,925-LF. It is recommended to mill 1-inch and replace with 1-inch of asphalt for the travel lanes and on-street parking. Partial reconstruction of the paved shoulder will consist of milling off the asphalt layer (estimated to be 2-inches thick) and replace it with a new asphalt surface (assumed 2-inches). The underlying road base should be regraded and repaired as needed, patch any existing deficiencies due to potholing and slope the base material to assist in positive stormwater flow toward the existing inlets. This section of roadway also has portions of grassed swale. It is recommended that the grass swale be regraded as needed.

The paver intersection at El Mar Drive and Commercial Boulevard is in good to fair condition. Settling and cracking were apparent. At the time of this report, the design of Commercial Boulevard from A1A to the east end is currently underway. Improvements to the paver crosswalk are expected to be included in that project and are therefore not included in this cost estimate.

It was noted that existing drainage is located within the paved shoulder. This study did not evaluate the existing drainage system. Therefore, it is recommended that the Town review the drainage system for possible capacity and water quality improvements prior to the roadway improvements. The paved shoulder along this roadway section is a viable application for pervious pavement. Stormwater calculations are required to properly design the pervious pavement section to identify if a potential cost savings could be realized.



Figure 4-4
Limits of El Mar Drive (Commercial Blvd. to Palm Ave.) Improvements

Table 4.4

Estimated Costs for El Mar Drive (Commercial Blvd. to Palm Ave.) Improvements

Items:	Units	Quantity	Unit Cost	Total Cost
Mill and Resurface 1-inch (Travel Lanes)	SY	9,925	\$16.00	\$158,800.00
Mill Existing Asphalt (2" assumed)	SY	1,850	\$6.00	\$11,100.00
2" Type S Asphalt	SY	1,850	\$16.00	\$29,600.00
Regrade Base Material	SY	1,850	\$6.00	\$11,100.00
Regrade grass swale (5-ft wide)	LF	100	\$10.00	\$1,000.00
Misc. Repair	LS	1	\$7,500.00	\$7,500.00
Striping	LS	1	\$7,500.00	\$7,500.00
Subtotal:				\$226,600.00
Contractor Mob., Demob., Profit, GC (15%):				\$33,990.00
Project Contingency (15%):				\$33,990.00
Engineering Design/CMS/Admin (20%):				\$58,916.00
Total:				\$353,496.00

GC: General Conditions

CMS: Construction Management Services

Note: It is recommended the Town perform pavement core samples, prior to construction, to confirm asphalt thickness.

Typical Sections

Figure 4-5 and Figure 4-6 show typical sections for the recommended improvements.

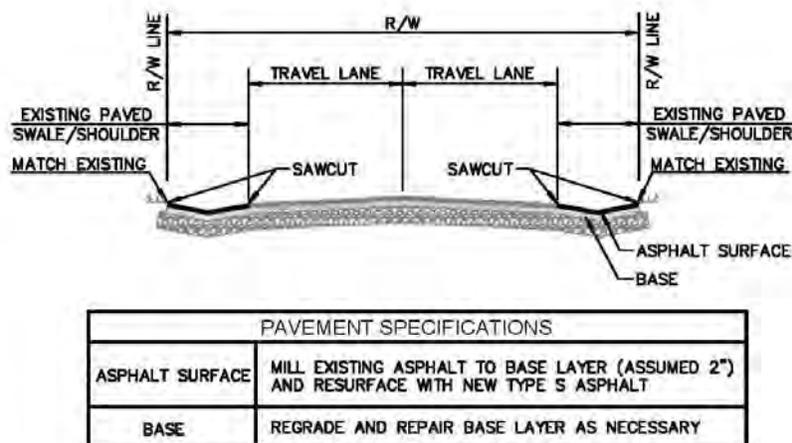


Figure 4-5
Typical Section – Paved Swale Partial Reconstruction

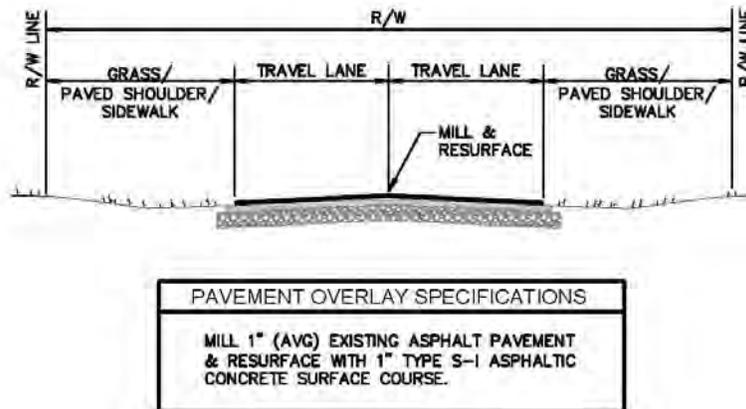


Figure 4-6
Typical Section – Mill and Resurface

Summary of Recommendations

It is recommended that the Town address the sections of road that are in fair to poor condition within the next 5 years. **Table 4.5** is a summary of the recommended projects and the estimated cost of design and construction for each. A potential savings could be realized if the Town decided to construct the paved swale improvements in conjunction with drainage improvements along the same road section. If existing drainage is located within the paved swale and called to be replaced, the milling portion of the above cost estimates would be eliminated.

Table 4.5
Summary of Recommended Projects

Project Name	Estimated Cost	Fully Funded in CIP	Anticipated FY*
Poinicana Street Paved Swale (Pine Ave. to Commercial Blvd.)	\$177,028.80	No	2015
Bougainvilla Drive Paved Swale (Washintonia Ave. to Commercial Blvd.)	\$62,212.80	No	2012
El Mar Drive, NB Lane (from Pine Ave. to Washingtonia Ave.)	\$73,140.60	No	
El Mar Drive (from Commercial Blvd. to Palm Ave.)	\$353,496.00	Yes	2016

NOTE: Although segments of the recommended projects are included in the Town's CIP, additional funding would be required to incorporate the full limits of the recommended projects.

* A FY is identified if any portion of the project is shown in the Draft CIP provided by the Town. If a FY is not identified, the project is not included in the CIP.

Finally, if the Town has additional monies appropriated for roadway maintenance work, the next projects would be milling and resurfacing the roadway segments that were found to be in “good” condition. Table 4.6 reflects the roadway segments that were found in good condition.

Table 4.6
Roadway Segments in Good Condition

Street Name	From	To
W. Tradewinds Ave	N. Tradewinds Ave	Corsair Ave
Avalon Ave	W. Tradewinds Ave	Seagrape Dr
Basin Dr	W. Tradewinds Ave	Seagrape Dr
Marine Ct	Seagrape Dr	cul-de-sac
Poinciana St	Washingtonia Ave	Commercial Blvd
Pine Ave	Poinciana St	Bougainvilla Dr
Lombardy Ave	Seagrape Dr	W. Tradewinds Ave
Lake Ct	Seagrape Dr	cul-de-sac
Datura Ave (including parking)	A1A	East end
Alley- just S. of Commercial Blvd	A1A	El Mar Dr
W. Tradewinds Ave	Commercial Blvd	S. Tradewinds Ave
Commercial Blvd	A1A	El Mar Dr
W. Tradewinds Ave	Algiers	Commercial Blvd
Harbor Dr	W. Tradewinds Ave	Seagrape Dr
Neptune Ave	W. Tradewinds Ave	Seagrape Dr
Capri Ave	W. Tradewinds Ave	E. Tradewinds Ave
Miramar Ave	W. Tradewinds Ave	E. Tradewinds Ave
El Mar Dr- SB Lane (including paved swale)	Pine Ave	Washingtonia Ave
Bougainvilla Dr- paved swale	Washingtonia Ave	Pine Ave
Datura Ave (including parking)	A1A	Bougainvilla Dr
El Mar Dr- SB Ln (including paved swale)	Washingtonia Ave	El Prado Ave
El Mar- NB Lane (including paved swale)	Washingtonia Ave	El Prado Ave
El Mar Dr	Alley	Commercial Blvd
Corsair Ave	W. Tradewinds Ave	Seagrape Dr
Pine Ave	PoincianaSt	cul-de-sac

Although these roadways are listed in “good” condition as of the current year, they should be re-evaluated regularly to determine if their condition has worsened.

Appendix A

Pavement Rating Form

Lauderdale-by-the-Sea Pavement Condition Study Summary- Appendix Index

Ref #	Street Name	From	To
1	Lakeview Drive	W. Terramar Dr.	E. Terramar Dr.
2	W. Terramar Dr.	N. Lakeview Dr.	Seaward Dr.
3	Terramar Dr.	Lakeview Dr.	Lakeview Dr.
4	E. Terramar Dr.	Lakeview Dr.	Cypress Creek
5	Aqua Vista	W. Terramar Dr.	E. Terramar Dr.
6	W. Terramar Dr.	Aqua Vista	Cypress Creek
7	W. Terramar Dr.	Lakeview Dr.	Aqua Vista
8	Cypress Creek	W. Terramar Dr.	E. Terramar Dr.
9	E. Terramar Dr	Cypress Creek	Seaward Dr.
10	Seward Dr.	W. Terramar Dr.	E. Terramar Dr.
11	W. Terramar Dr.	Cypress Creek	Oleandar Way
12	W. Terramar Dr.	Oleandar Way	Seaward Dr
13	Seaward Dr.	W. Terramar Dr.	E. Terramar Dr.
14	E. Terramar Dr.	Seaward Dr.	Spanish River Dr.
15	Fiesta Way	E. Terramar Dr.	W. Terramar Dr.
16	W. Terramar Dr.	Seward Dr.	Spanish Rvier Dr.
17	Spanish River Dr.	E. Terramar Dr.	W. Terramar Dr.
18	E. Terramar Dr.	Spanish River Dr.	S. Terramar Dr.
19	S. Terramar Dr.	E. Terramar Dr.	W. Terramar Dr.
20	W. Terramar Dr.	Spanish River Dr.	S. Terramar Dr.
21	Terramar Dr.	Terramar Bridge	Ocean Blvd.
22	Terramar Dr.	Ocean Blvd.	Ocean Blvd
23	Bel Air	A1A	A1A
24	Bel Air	A1A	Tropic Isle
25	Tropic Isle	Bel Air	Bluewater Terrace
26	Bel Air	Tropic Isle	Coco Plum Pl
27	Bluewater Terrace	Tropic Isle	Windward Dr
28	Coco Plum Pl	Bluewater Terr	Bel Air
29	Bel Air	Coco Plum Pl	Coral Reef Dr
30	Windward Dr	Bel Air	Bluewater Terr
31	Bluewater Terr	Windward Dr	Ocean Mist Dr
32	Sailfish Pl	Bluewater Terr	Bel Air
33	Ocean Mist Dr	Bel Air	Bluewater Terr
34	Waters Edge	Bel Air	cul-de-sac
35	Coral Reef Dr	Bel Air	Bluewater Terr
36	Coral Reef Dr	Bel Air	A1A
37	Bluewater Terr	Coral Reef Dr	cul-de-sac
38	N. Tradewinds Ave	W. Tradewinds Ave	Seagrape DR
39	Avalon Ave	W. Tradewinds Ave	Seagrape Dr
40	W. Tradewinds Ave	N. Tradewinds Ave	Corsair Ave
41	Lombardy Ave	Seagrape Dr	W. Tradewinds Ave
42	Corsair Ave	W. Tradewinds Ave	Seagrape Dr
43	Seagrape Dr	N. Tradewinds Ave	Commercial Blvd
44	Oceanic Ave	Seagrape Dr	W. Tradewinds Ave
45	Algiers	W. Tradewinds Ave	Seagrape Dr
46	W. Tradewinds Ave	Corsair Ave	Algiers
47	Bombay Ave	W. Tradewinds Ave	Seagrape Dr
48	Neptune Ave	W. Tradewinds Ave	Seagrape Dr
49	W. Tradewinds Ave	Algiers	Commercial Blvd

Lauderdale-by-the-Sea Pavement Condition Study Summary- Appendix Index

Ref #	Street Name	From	To
50	E. Tradewinds Ave	Algiers	Commercial Blvd
51	Harbor Dr	W. Tradewinds Ave	Seagrape Dr
52	S. Tradewinds Ave	E. Tradewinds Ave	W. Tradewinds Ave
53	E. Tradewinds Ave	Commercial Blvd	S. Tradewinds Ave
54	Capri Ave	W. Tradewinds Ave	E. Tradewinds Ave
55	Miramar Ave	W. Tradewinds Ave	E. Tradewinds Ave
56	Basin Dr	W. Tradewinds Ave	Seagrape Dr
57	Marine Ct	Seagrape Dr	cul-de-sac
58	Lake Ct	Seagrape Dr	cul-de-sac
59	Shore Ct	Seagrape Dr	cul-de-sac
60	Garden Ct	Seagrape Dr	cul-de-sac
61	Tropic Dr	Hibiscus Ave	Hibiscus Ave
62	Allenwood Dr	Hibiscus Ave	Hibiscus Ave
63	Hibiscus Ave	Tropic Dr (West)	Seagrape Dr.
64	Codrington Dr	Thomas Way	cul-de-sac
65	Thomas Way	Codrington Dr	Imperial Ln
66	Imperial Ln	Thomas Way	cul-de-sac
67	Flamingo Ave	Thomas Way	A1A
68	Poinciana St	Pine Ave	Washingtonia Ave
69	Poinciana St- Paved Swale	Pine Ave	Washingtonia Ave
70	Poinciana St	Washingtonia Ave	Commercial Blvd
71	Poinciana St- Paved Swale	Washingtonia Ave	Commercial Blvd
72	Bougainvilla Dr	Commercial Blvd	Washingtonia Ave
73	Bougainvilla Dr- Paved Swale	Commerical Blvd	Washingtonia Ave
74	Bougainvilla Dr	Washingtonia Ave	Pine Ave
75	Bougainvilla Dr- paved swale	Washingtonia Ave	Pine Ave
76	Pine Ave	PoincianaSt	cul-de-sac
77	Pine Ave	Poinciana St	Bougainvilla Dr
78	Pine Ave	Bougainvilla Dr	A1A
79	Washingtonia Ave	Seagrape Dr	A1A
80	Pine Ave	A1A	El Mar Dr
81	El Mar Dr- SB Lane (including paved swale)	Pine Ave	Washingtonia Ave
82	El Mar Dr- NB Lane (including paved swale)	Washingtonia Ave	Pine Ave
83	Washingtonia Ave (including paved swale)	A1A	El Mar Dr
84	El Mar Dr- SB Ln (including paved swale)	Washingtonia Ave	El Prado Ave
85	El Mar- NB Lane (including paved swale)	Washingtonia Ave	El Prado Ave
86	El Mar Dr- SB Lane	El Prado Ave	Commercial Blvd
87	El Mar Ave- NB Lane	El Prado Ave	Commercial Blvd
88	El Prado Ave- EB Lane	A1A	El Mar Dr
89	El Prado Ave- WB Lane	A1A	El Mar Dr
90	El Mar Dr- SB Lane (including paved swale)	Commercial Blvd	Palm Ave
91	Palm Ave	A1A	East end
92	El Mar Dr- NB Lane (incl.paved shoulder/prkg)	Palm Ave	Datura Ave
93	Hibiscus Ave (including parking)	A1A	east end
94	Datura Ave (including parking)	A1A	East end
95	El Mar Dr- NB Lanes	Datura Ave	Commercial Blvd
96	East Alley- S. of Commercial Blvd	El Mar Dr	East end
97	El Mar Dr	Alley	Commercial Blvd
98	Commercial Blvd- EB Lanes	El Mar Dr	East end

Lauderdale-by-the-Sea Pavement Condition Study Summary- Appendix Index

Ref #	Street Name	From	To
99	Commercial Blvd- WB Lanes	El Mar Dr	East end
100	Commercial Blvd	A1A	El Mar Dr
101	Alley- just S. of Commercial Blvd	A1A	El Mar Dr
102	Seagrape Dr	Commercial Blvd	Hibiscus Ave
103	Bougainvilla Dr	Hibiscus Ave	Commercial Blvd
104	Datura Ave (including parking)	A1A	Bougainvilla Dr
105	Service Rd- N. side of Commercial Blvd	W. Tradewinds Ave	E. Tradewinds Ave
106	Service Rd- S. side of Commercial Blvd	W. Tradewinds Ave	E. Tradewinds Ave
107	Oleandar Way	E. Terramar Dr	W. Terramar Dr.
108	W. Tradewinds Ave	Commercial Blvd	S. Tradewinds Ave

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Terramar Dr.

From: N. Lakeview Dr. To: Seaward Dr.

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1 0-7 _____

Class 2 8-14 _____

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 5

RAVELING 0-15 2

CONDITION RATING = 7

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Terramar Dr.

From: Lakeview Dr. To: Lakeview Dr.

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 1

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 5

RAVELING 0-15 0

CONDITION RATING = **0**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: E. Terramar Dr.

From: Lakeview Dr. To: Cypress Creek

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1 0-7 7

Class 2 8-14 _____

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 0

CONDITION RATING = **14**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Terramar Dr.

From: Aqua Vista

To: Cypress Creek

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 2

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 0

CONDITION RATING = **8**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Terramar Dr.

From: Lakeview Dr. To: Aqua Vista

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 0

CONDITION RATING = 2

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Cypress Creek

From: W. Terramar Dr. To: E. Terramar Dr.

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 1

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 0

CONDITION RATING = 7

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Seward Dr.

From: W. Terramar Dr. To: E. Terramar Dr.

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 1

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 0

CONDITION RATING = **6**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Terramar Dr.

From: Cypress Creek To: Olendar Way

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 2

CRACKING

Class 1 0-7 _____

Class 2 8-14 _____

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 2

CONDITION RATING = 7

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Terramar Dr.

From: Oleandar Way To: Seaward Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 6

RAVELING 0-15 0

CONDITION RATING = 9

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Seaward Dr.

From: W. Terramar Dr. To: E. Terramar Dr.

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 6

RAVELING 0-15 0

CONDITION RATING = **12**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: E. Terramar Dr.

From: Seaward Dr.

To: Spanish River Dr.

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 0

CONDITION RATING = 10

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Fiesta Way

From: E. Terramar Dr. To: W. Terramar Dr.

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 0

CONDITION RATING = 6

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Terramar Dr.

From: Seward Dr.

To: Spanish Rvier Dr.

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 4

RAVELING 0-15 0

CONDITION RATING = 10

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Spanish River Dr.

From: E. Terramar Dr.

To: W. Terramar Dr.

REVIEWER: B. McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1 0-7 _____

Class 2 8-14 8

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 0

CONDITION RATING = **10**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: E. Terramar Dr.

From: Spanish River Dr. To: S. Terramar Dr.

REVIEWER: B. McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 6

RAVELING 0-15 0

CONDITION RATING = 8

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: S. Terramar Dr.

From: E. Terramar Dr.

To: W. Terramar Dr.

REVIEWER: B. McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 0

CONDITION RATING = 8

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

COMMENTS: Cracking occurring at driveways

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Terramar Dr.

From: Spanish River Dr.

To: S. Terramar Dr.

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 0

CONDITION RATING = 7

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Terramar Dr.

From: Terramar Bridge To: Ocean Blvd.

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 2

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 5

RAVELING 0-15 5

CONDITION RATING = 22

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

COMMENTS: Severe cracking along bridge platform.

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Terramar Dr.

From: Ocean Blvd. To: Ocean Blvd

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 7

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u>17</u>



PATCHING/POTHOLING 0-20 12

RAVELING 0-15 7

CONDITION RATING = 43

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bel Air

From: A1A To: A1A

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 3

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 0

CONDITION RATING = 14

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bel Air

From: A1A To: Tropic Isle

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 0

CONDITION RATING = 6

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Tropic Isle

From: Bel Air

To: Bluewater Terrace

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 1

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 2

CONDITION RATING = 7

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bel Air

From: Tropic Isle To: Coco Plum Pl

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 10

RAVELING 0-15 0

CONDITION RATING = 13

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bluewater Terrace

From: Tropic Isle

To: Windward Dr

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 2

CONDITION RATING = 5

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bel Air

From: Coco Plum Pl To: Coral Reef Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 3

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 1

RAVELING 0-15 0

CONDITION RATING = 7

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Windward Dr

From: Bel Air

To: Bluewater Terr

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 2

CRACKING

Class 1 0-7 _____

Class 2 8-14 _____

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 1

CONDITION RATING = **6**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bluewater Terr

From: Windward Dr

To: Ocean Mist Dr

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 4

RAVELING 0-15 3

CONDITION RATING = 10

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Sailfish Pl

From: Bluewater Terr To: Bel Air

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 2

CONDITION RATING = 8

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Waters Edge

From: Bel Air To: cul-de-sac

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 2

CONDITION RATING = 7

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Coral Reef Dr

From: Bel Air

To: Bluewater Terr

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 2

CONDITION RATING = 7

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bluewater Terr

From: Coral Reef Dr To: cul-de-sac

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 2

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 3

CONDITION RATING = 9

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Avalon Ave

From: W. Tradewinds Ave To: Seagrape Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>12</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 8

RAVELING 0-15 9

CONDITION RATING = **29**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Tradewinds Ave

From: N. Tradewinds Ave

To: Corsair Ave

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 11

RAVELING 0-15 9

CONDITION RATING = 30

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Lombardy Ave

From: Seagrape Dr

To: W. Tradewinds Ave

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 9

CONDITION RATING = 26

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Corsair Ave

From: W. Tradewinds Ave To: Seagrape Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>8</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 6

CONDITION RATING = 21

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Seagrape Dr

From: N. Tradewinds Ave To: Commercial Blvd

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 0

CONDITION RATING = 5

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Algiers

From: W. Tradewinds Ave To: Seagrape Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 5

CONDITION RATING = 18

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Tradewinds Ave

From: Corsair Ave

To: Algiers

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 6

RAVELING 0-15 7

CONDITION RATING = 19

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bombay Ave

From: W. Tradewinds Ave To: Seagrape Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>7</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 5

CONDITION RATING = 15

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Neptune Ave

From: W. Tradewinds Ave To: Seagrape Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 4

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>9</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 9

CONDITION RATING = **24**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Tradewinds Ave

From: Algiers

To: Commercial Blvd

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1 0-7 _____

Class 2 8-14 8

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 11

RAVELING 0-15 6

CONDITION RATING = 25

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: E. Tradewinds Ave

From: Algiers

To: Commercial Blvd

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 5

RAVELING 0-15 6

CONDITION RATING = 17

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Harbor Dr

From: W. Tradewinds Ave To: Seagrape Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>8</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 10

RAVELING 0-15 7

CONDITION RATING = 25

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: S. Tradewinds Ave

From: E. Tradewinds Ave

To: W. Tradewinds Ave

REVIEWER: B. McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>5</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 1

RAVELING 0-15 4

CONDITION RATING = 10

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: E. Tradewinds Ave

From: Commercial Blvd

To: S. Tradewinds Ave

REVIEWER: B. McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 2

CONDITION RATING = **8**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Capri Ave

From: W. Tradewinds Ave

To: E. Tradewinds Ave

REVIEWER: B. McLeod

DATE: 10/24/2011

RUTTING 0-15 3

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 14

RAVELING 0-15 3

CONDITION RATING = 24

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

COMMENTS: Utility replacement patch along one lane.

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Miramar Ave

From: W. Tradewinds Ave To: E. Tradewinds Ave

REVIEWER: B. McLeod DATE: 10/24/2011

RUTTING 0-15 4

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 12

RAVELING 0-15 2

CONDITION RATING = 24

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

COMMENTS: Utility replacement patch along one lane.

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Basin Dr

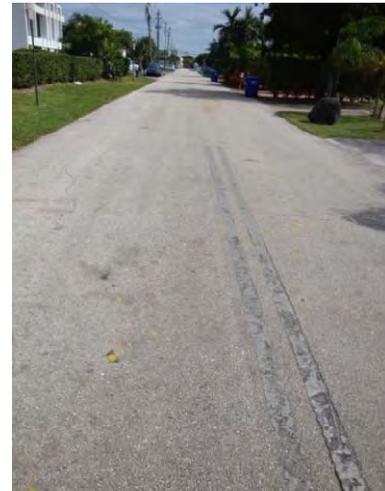
From: W. Tradewinds Ave To: Seagrape Dr

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 3

CRACKING

Class 1	0-7	<u>5</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 13

RAVELING 0-15 7

CONDITION RATING = **28**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Marine Ct

From: Seagrape Dr To: cul-de-sac

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 5

CRACKING

Class 1	0-7	<u>7</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 12

RAVELING 0-15 4

CONDITION RATING = **28**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

COMMENTS: Utility replacement patch in one lane.

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Shore Ct

From: Seagrape Dr To: cul-de-sac

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 9

CONDITION RATING = 15

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Allenwood Dr

From: Hibiscus Ave

To: Hibiscus Ave

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 6

RAVELING 0-15 2

CONDITION RATING = 12

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Hibiscus Ave

From: Tropic Dr (West) To: Seagrape Dr.

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 10

RAVELING 0-15 3

CONDITION RATING = 17

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

COMMENTS: Large patch in east bound lane.

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Codrington Dr

From: Thomas Way To: cul-de-sac

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 3

CONDITION RATING = 8

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Thomas Way

From: Codrington Dr To: Imperial Ln

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 0

CONDITION RATING = 5

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Imperial Ln

From: Thomas Way To: cul-de-sac

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 2

CONDITION RATING = 12

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Flamingo Ave

From: Thomas Way To: A1A

REVIEWER: B.McLeod DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 13

RAVELING 0-15 4

CONDITION RATING = **19**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Poinciana St

From: Pine Ave To: Washingtonia Ave

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 2

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 6

RAVELING 0-15 0

CONDITION RATING = 18

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Poinciana St- Paved Swale

From: Pine Ave

To: Washingtonia Ave

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 10

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u>15</u>



PATCHING/POTHOLING 0-20 14

RAVELING 0-15 6

CONDITION RATING = 45

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Poinciana St

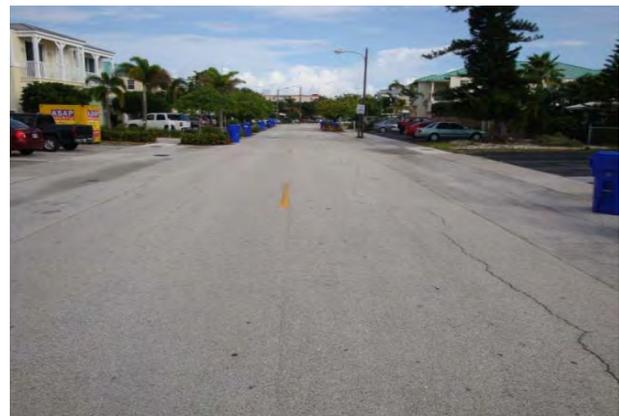
From: Washingtonia Ave To: Commercial Blvd

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>14</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 10

RAVELING 0-15 3

CONDITION RATING = 27

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Poinciana St- Paved Swale

From: Washingtonia Ave

To: Commercial Blvd

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 10

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u>16</u>



PATCHING/POTHOLING 0-20 15

RAVELING 0-15 8

CONDITION RATING = **49**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bougainvilla Dr

From: Commercial Blvd To: Washingtonia Ave

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 5

CONDITION RATING = 18

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bougainvilla Dr- Paved Swale

From: Commerical Blvd

To: Washingtonia Ave

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 8

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u>15</u>



PATCHING/POTHOLING 0-20 10

RAVELING 0-15 10

CONDITION RATING = 43

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bougainvilla Dr

From: Washingtonia Ave To: Pine Ave

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 0

CONDITION RATING = 5

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bougainvilla Dr- paved swale

From: Washingtonia Ave

To: Pine Ave

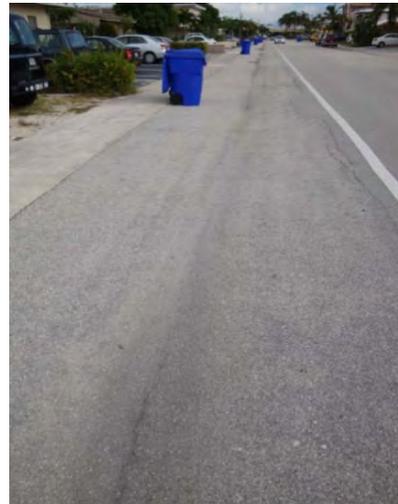
REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 4

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 2

CONDITION RATING = 23

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Pine Ave

From: PoincianaSt To: cul-de-sac

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 4

CONDITION RATING = 21

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Washingtonia Ave

From: Seagrape Dr To: A1A

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 2

CRACKING

Class 1	0-7	<u>7</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 4

RAVELING 0-15 3

CONDITION RATING = 16

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Dr- SB Lane (including paved swale)

From: Pine Ave

To: Washingtonia Ave

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>8</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 12

RAVELING 0-15 4

CONDITION RATING = 24

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Dr- NB Lane (including paved swale)

From: Washingtonia Ave

To: Pine Ave

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 6

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u>15</u>



PATCHING/POTHOLING 0-20 15

RAVELING 0-15 6

CONDITION RATING = **42**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Washingtonia Ave (including paved swale)

From: A1A

To: El Mar Dr

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 2

CRACKING

Class 1	0-7	<u>5</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 4

RAVELING 0-15 7

CONDITION RATING = 18

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Dr- SB Ln (including paved swale)

From: Washingtonia Ave

To: El Prado Ave

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>8</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 7

CONDITION RATING = 22

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Dr- SB Lane

From: El Prado Ave

To: Commercial Blvd

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 1

CONDITION RATING = 3

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Ave- NB Lane

From: El Prado Ave

To: Commercial Blvd

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 1

RAVELING 0-15 1

CONDITION RATING = 4

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Prado Ave- EB Lane

From: A1A

To: El Mar Dr

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 2

CONDITION RATING = 7

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Prado Ave- WB Lane

From: A1A

To: El Mar Dr

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 2

RAVELING 0-15 2

CONDITION RATING = **6**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Dr- SB Lane (including paved swale)

From: Commercial Blvd

To: Palm Ave

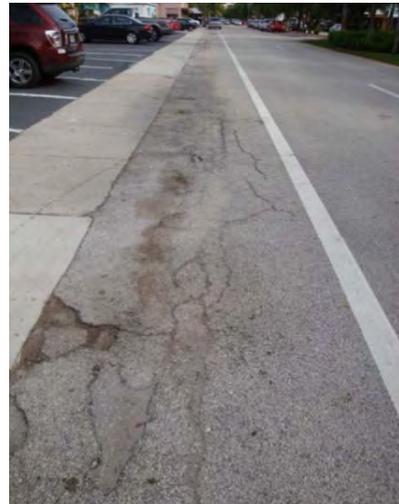
REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>12</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 15

RAVELING 0-15 7

CONDITION RATING = 34

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Dr- NB Lane (incl.paved shoulder/prkg)

From: Palm Ave

To: Datura Ave

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 5

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>15</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 10

RAVELING 0-15 10

CONDITION RATING = 40

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Hibiscus Ave (including parking)

From: A1A To: east end

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 5

RAVELING 0-15 5

CONDITION RATING = 20

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Datura Ave (including parking)

From: A1A

To: East end

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 2

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>11</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 9

RAVELING 0-15 4

CONDITION RATING = 26

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Dr- NB Lanes

From: Datura Ave

To: Commercial Blvd

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 3

RAVELING 0-15 3

CONDITION RATING = 10

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: East Alley- S. of Commercial Blvd

From: El Mar Dr

To: East end

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>5</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 15

RAVELING 0-15 0

CONDITION RATING = 20

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: El Mar Dr

From: Alley To: Commercial Blvd

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 4

RAVELING 0-15 8

CONDITION RATING = 22

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Commercial Blvd- EB Lanes

From: El Mar Dr

To: East end

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1 0-7 6

Class 2 8-14 _____

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 10

RAVELING 0-15 3

CONDITION RATING = **19**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

COMMENTS: Large patch along the middle of the roadway.

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Commercial Blvd- WB Lanes

From: El Mar Dr

To: East end

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 3

CONDITION RATING = 5

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

COMMENTS: Recently re-paved

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Commercial Blvd

From: A1A

To: El Mar Dr

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u>15</u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 3

CONDITION RATING = 25

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Alley- just S. of Commercial Blvd

From: A1A

To: El Mar Dr

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 4

CRACKING

Class 1	0-7	<u> </u>
Class 2	8-14	<u>10</u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 6

RAVELING 0-15 6

CONDITION RATING = 26

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Seagrape Dr

From: Commercial Blvd To: Hibiscus Ave

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 3

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 7

RAVELING 0-15 2

CONDITION RATING = **16**

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Bougainvilla Dr

From: Hibiscus Ave To: Commercial Blvd

REVIEWER: B.McLeod DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>2</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 2

CONDITION RATING = 4

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Datura Ave (including parking)

From: A1A

To: Bougainvilla Dr

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>6</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 9

RAVELING 0-15 8

CONDITION RATING = 23

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Service Rd- N. side of Commercial Blvd

From: W. Tradewinds Ave

To: E. Tradewinds Ave

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>3</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 1

RAVELING 0-15 3

CONDITION RATING = 7

RATING	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Service Rd- S. side of Commercial Blvd

From: W. Tradewinds Ave

To: E. Tradewinds Ave

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>4</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 4

RAVELING 0-15 2

CONDITION RATING = 10

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: Oleandar Way

From: E. Terramar Dr

To: W. Terramar Dr.

REVIEWER: B.McLeod

DATE: 10/28/2011

RUTTING 0-15 0

CRACKING

Class 1	0-7	<u>5</u>
Class 2	8-14	<u> </u>
Class 3	15-20	<u> </u>



PATCHING/POTHOLING 0-20 0

RAVELING 0-15 3

CONDITION RATING = 8

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)

Town of Lauderdale-by-the-Sea Pavement Condition Study

PAVEMENT RATING FORM

STREET OR ROUTE: W. Tradewinds Ave

From: Commercial Blvd

To: S. Tradewinds Ave

REVIEWER: B.McLeod

DATE: 10/24/2011

RUTTING 0-15 0

CRACKING

Class 1 0-7 6

Class 2 8-14 _____

Class 3 15-20 _____



PATCHING/POTHOLING 0-20 14

RAVELING 0-15 6

CONDITION RATING = **26**

<u>RATING</u>	
0-10	Excellent
11-20	Very Good
21-30	Good
31-40	Fair
41-50	Poor
51-60	Very Poor
61-70	Failed

(Note: A rating of 0 indicates defect does not occur)



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