



# Evaluation of Reclaimed Concrete Aggregate (RCA) as Base Material

## Experimental Project Interim Report

FDOT Office	<b>State Materials Office</b>
District	<b>1</b>
County	<b>Manatee</b>
Financial Project	<b>422603-1-58-01</b>
Roadway ID	<b>13020000</b>
State Road No.	<b>43</b>
US Road No.	<b>301</b>
Report Date	<b>11/14/2016</b>

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# Project Description

<b>District</b>	1
<b>County</b>	Manatee
<b>Financial Project</b>	422603-1-58-01
<b>Roadway ID</b>	13020000
<b>State Road No.</b>	43
<b>US Road No.</b>	301
<b>Lanes Tested</b>	L2

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## Objective

The objective of this study is to evaluate the relative long-term performance of Reclaimed Concrete Aggregate (RCA) used as a base material compared to the performance of a standard limerock base .

## Background

This experimental project is located on SR-43/US-301 in Manatee County. Two 1,500 feet <sup>(1)</sup> test sections were constructed in the Westbound travel lane (L2), one with RCA the other with Limerock base material. The experimental sections were part of a 4.1 miles reconstruction project (FIN 422603-1-58-01) completed in February 2012.

A 2014 intersection improvement project included the realignment of Fort Hamer Road to form a single intersection with 121st Ave E and SR 43A resulted in resurfacing 450 feet of the original limerock section on the north end.

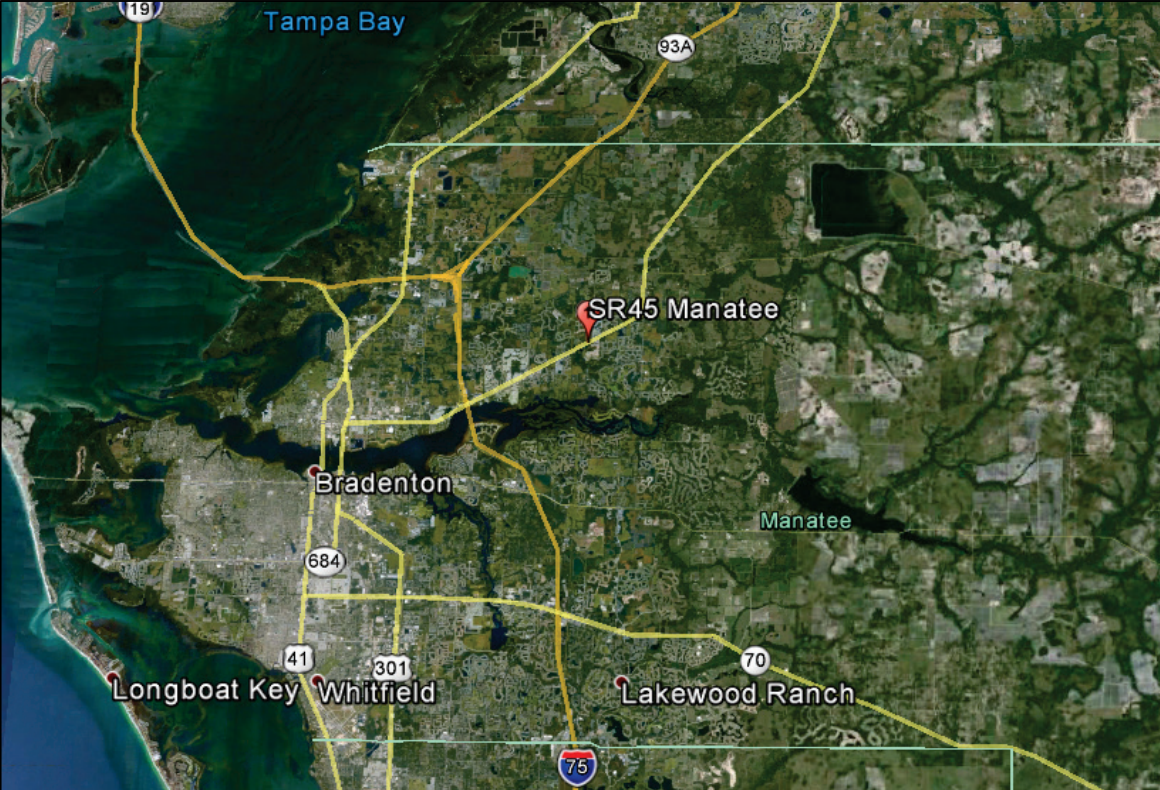
## Description

The experimental design called for 12 inches of Type B stabilization (LBR 40), 10 inches base, 1.5 inches SP 12.5, 1 inch SP9.5, and 1 inch FC 9.5. Pavement performance is evaluated in terms of pavement deflection, cracking, rutting, and smoothness.

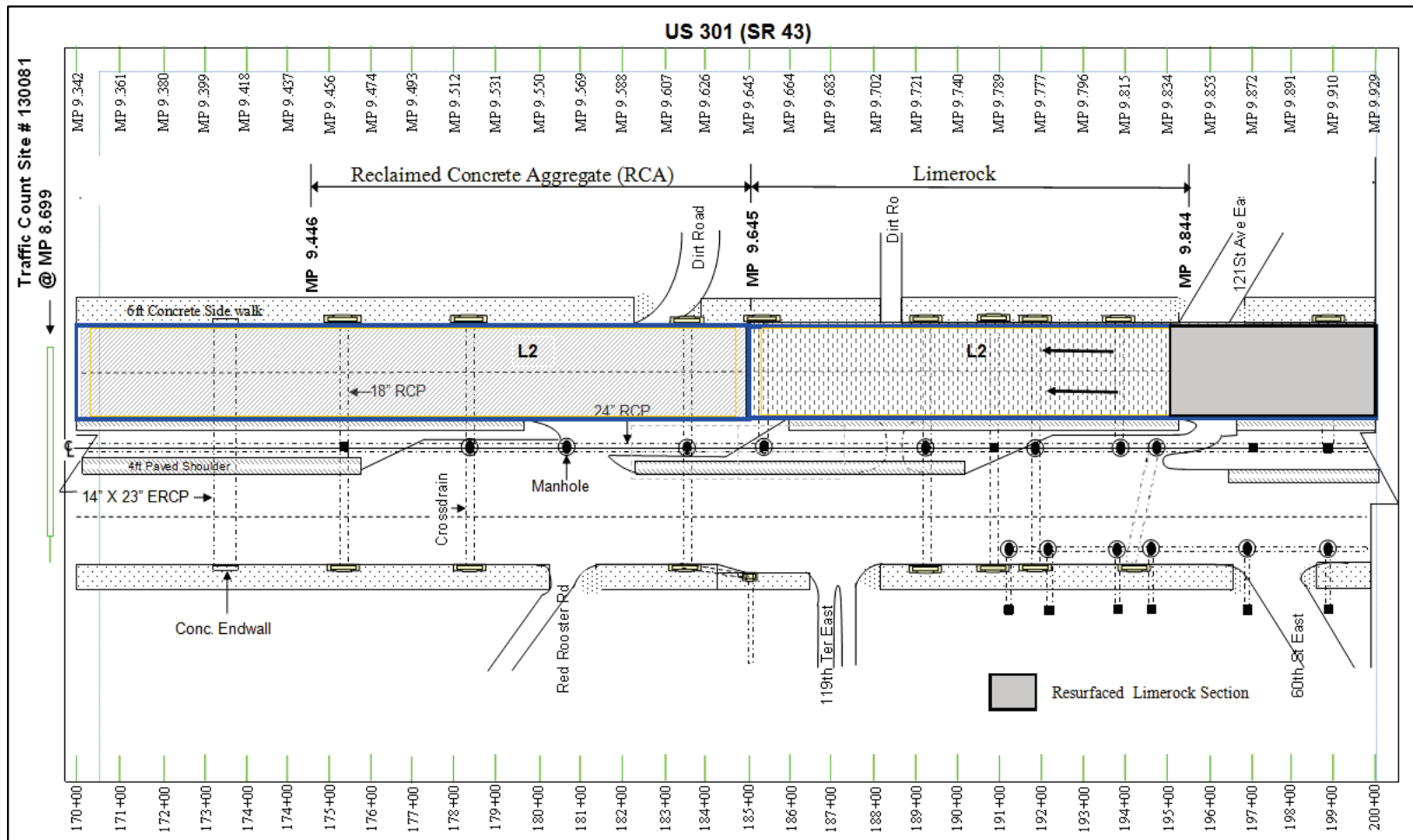
<sup>(1)</sup> The original limits of the limerock test section were shortened 450 feet on the North end .

# Project Description

District 1  
County Manatee  
Financial Project 422603-1-58-01  
Roadway ID 13020000  
State Road No. 43  
US Road No. 301  
Lanes Tested L2

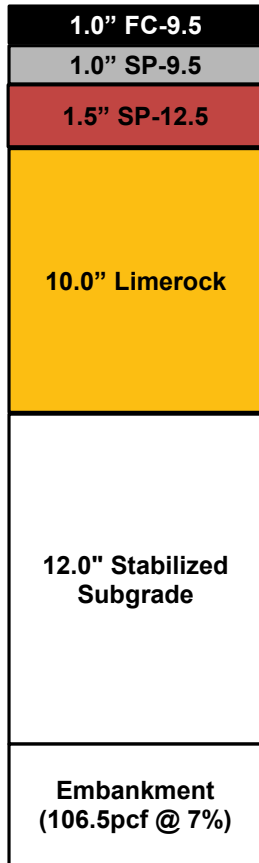


# Project Layout

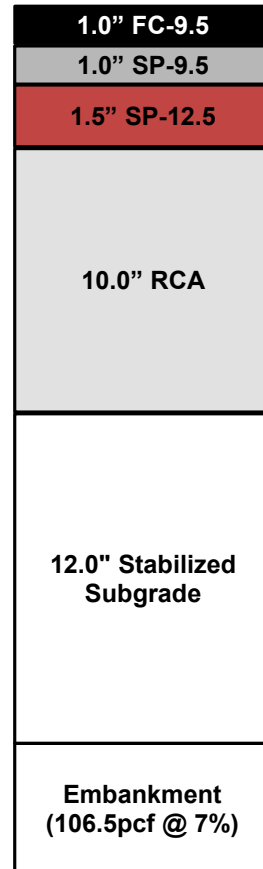


# Pavement Thickness

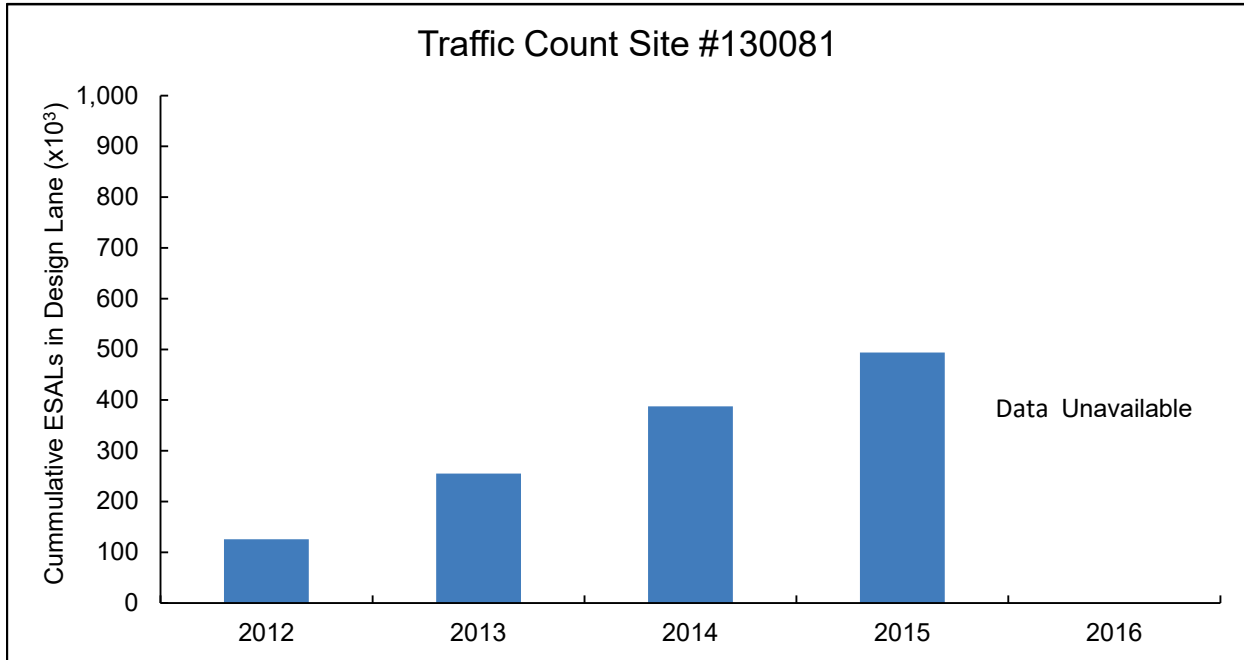
## Limerock



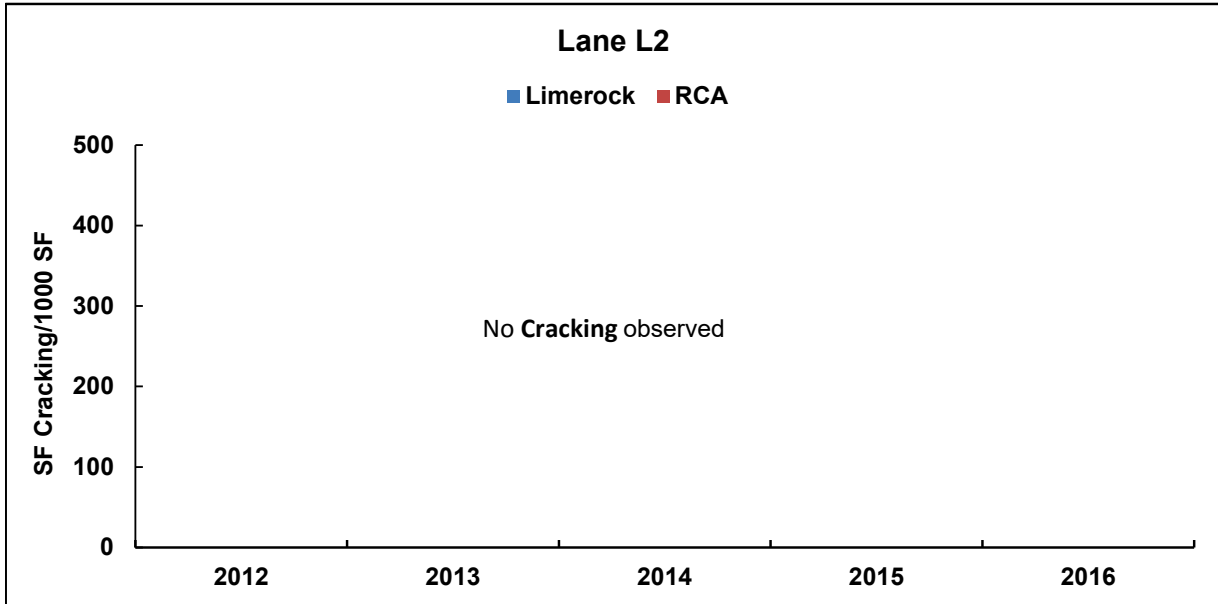
## RCA



# Traffic

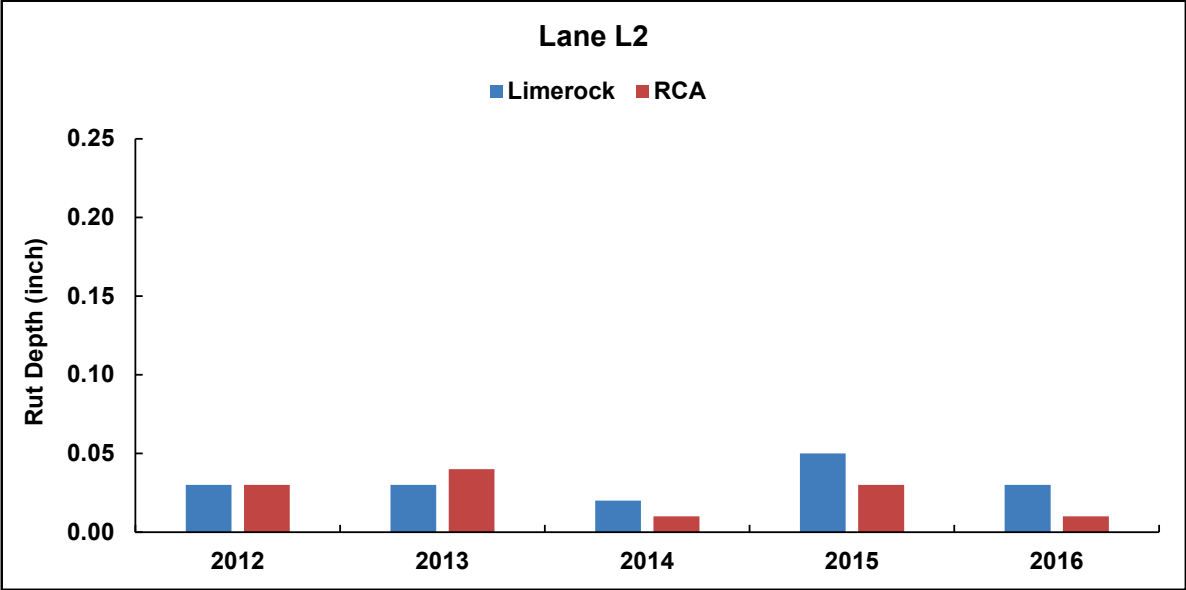


# Cracking



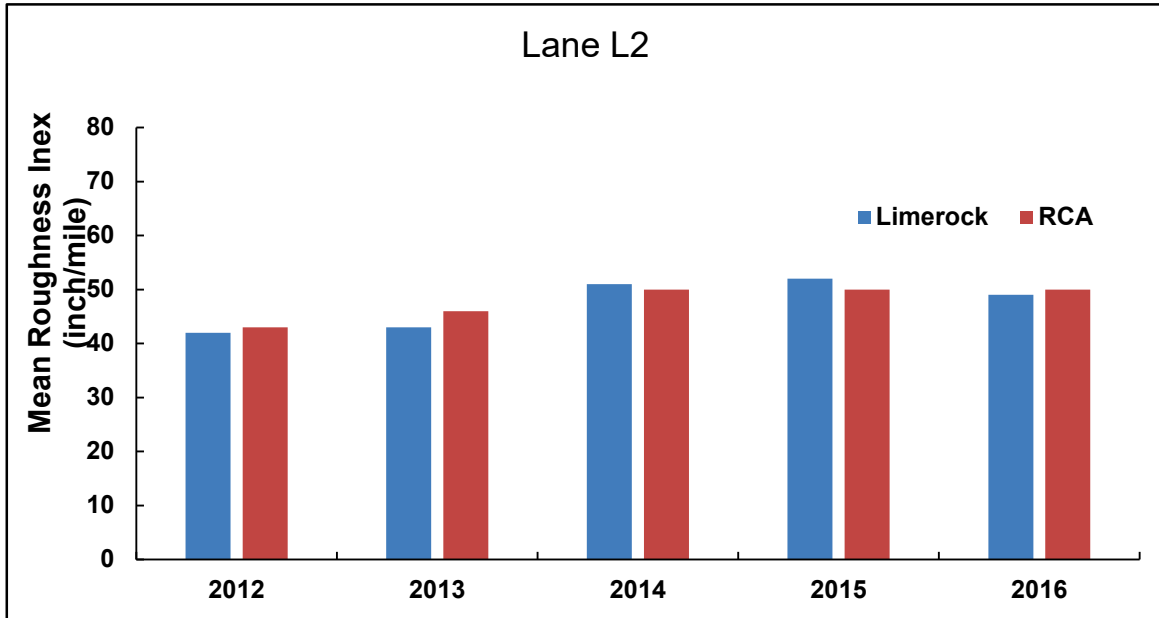
Note: No cracks were observed on either test section

# Rut Depth





# Smoothness



# Deflection

