



AGENDA
PUBLIC WORKS/SAFETY COMMITTEE
TUESDAY, MAY 13, 2025
5:30 PM
DESTIN CITY HALL ANNEX COUNCIL CHAMBERS

- 1. CALL TO ORDER**
- 2. ROLL CALL/PLEDGE OF ALLEGIANCE**
- 3. APPROVAL OF MINUTES**
 - A) April 8, 2025 Minutes**
- 4. APPROVAL OF AGENDA**
- 5. NEW BUSINESS**
 - A) Road Pavement Assessment**
- 6. CURRENT BUSINESS**
- 7. DISCUSSION/MEMBER COMMENTS**
 - A) 1. Chairman Wood**
 - 2. Vice Chair Green**
 - 3. Tom Weidenhamer**
 - 4. Marcie Bell**
Sidewalk of Durango Rd
Speed Bumps and Crosswalks on Gulf Shore Drive in city planning
area Holiday Isle, between the Destin Pointe stop sign and city's Noriego
Point Park
 - 5. Curtis Smith**
 - 6. Tammy Weidenhamer**
- 8. PUBLIC COMMENTS - STORMWATER FLOODPLAIN**
COMMENTS/QUESTIONS STORMWATER FLOODPLAIN
COMMENTS/QUESTIONS

Any person requiring a special accommodation at this hearing because of a disability or physical impairment should contact the City Clerk at (850) 837-4242 at least 48 hours prior to the hearing. If a person decides to appeal any decision made with respect to any matter considered at such meeting, such person will need a record of the proceeding and for such purpose may need to ensure that a verbatim record of the proceeding is made, which record

includes the testimony and evidence upon which the appeal is to be based. (Sec. 286.0105, Florida Statutes)

**PUBLIC WORKS/PUBLIC SAFETY
COMMITTEE MEETING MINUTES
DESTIN CITY HALL ANNEX CHAMBERS
TUESDAY, APRIL 8, 2025 - 5:30 PM**

1. CALL TO ORDER & PLEDGE OF ALLEGIANCE:

Chairman Wood called the Public Works/Public Safety Committee to order on Tuesday, April 8, 2025, at 5:30 p.m. at the City Hall Annex Chambers, with the Pledge of Allegiance immediately following.

2. ROLL CALL:

<u>Members Present</u>	<u>Members Absent</u>	<u>Staff</u>
James T. Wood, Jr. Tom Weidenhamer Curtis Smith John Green Tammy Weidenhamer	Marcie Bell	Kim Montgomery Deputy City Clerk Joe Bodi, Deputy Public Works Director

3. AGENDA APPROVAL:

Motion by Committee member Weidenhamer to approve the agenda as presented with Vice Chairman Green providing the second, the motion passed with a unanimous vote of 5-0.

4. APPROVAL OF MINUTES:

- **February 11, 2025**
- **March 11, 2025**

Motion to approve both sets of minutes for the February 11, 2025 and the March 11, 2025 was made by Committee member Weidenhamer with Vice Chairman Green providing the second, the motion passed 5-0.

5. NEW BUSINESS:

A) Update on committee funding - Krystal Strickland

- The committee receives a portion of the Okaloosa County half-penny sales tax.
- As of May 2024, unspent allocations were re-directed to the Roadway Renewal & Replacement program.
- In 2023, nearly \$100,000 was spent; in 2024, approximately \$70,000 was encumbered/expended for pedestrian safety and traffic improvements.
- The committee has \$100,000 budgeted for FY-2025 and annually going forward.

DRAFT

- Discussion on existing P.O.'s revealed some pending transitions to a new finance system, Aclarian.
- Remaining \$100,000 is unaffected by the 2023 pedestrian beacon obligations.
- Committee members acknowledged satisfaction with current funding allocation and process.

B) Pedestrian Improvement at Airport and Commons - 60% Plans Update – Public Works Deputy Director Joe Bodi

Mr. Bodi explained the following to the members:

- The physical changes to the intersection will be minimal, primarily involving a new crosswalk with pedestrian signal heads.
- All sides of the intersection are planned to have crosswalks and lights integrated into the existing signal system with countdown timers.
- The crosswalk will include the driveway for emergency and FPL vehicles only.
- The sidewalk width will remain, but the pavement will be wider.
- The flashing beacons will be tied into the main signal system, similar to the intersection at Highway 98 and Stahlman Ave.

C) Road Resurfacing/Restriping Plan Update & Look Ahead

Mr. Bodi explained the following to the members:

- The goal is to complete striping for roads marked in green by 2026.
- Road resurfacing prioritizes the oldest roads first and currently working on roads overdue by over 25 years.
- Next year's focus will be on roads overdue by 15-20 years.
- Airport Road is being closely monitored due to rapid deterioration but is currently scheduled for 2027.
- Misty Way is slated for resurfacing this year, including attached cul-de-sacs.
- Spanish Moss is scheduled for this year and Wild Oak Ave. next year.
- Indian Trail is not currently on the list, but its condition will be monitored.
- Kevlar fiber is now being added to the asphalt mix to improve cohesion, but it does not meant to enhance skid resistance.
- Training on roadway assessment will be provided, once the new city engineer has started, he is expected to start in May.
- Progress on milling, resurfacing, and striping projects was reviewed, with some projects completed and others in progress.
- Road prioritization is based on collector road classification and the age of the pavement.
- Downed stop signs will be surveyed, and sign relocation should be included in the scope of work for road projects, however still report any seen to staff when discovered.

- Each roadway is being assessed to determine if full milling is necessary to save costs, especially on roads with thin pavement sections.

6. CONTINUING BUSINESS:

➤ **CONTINUING BUSINESS:**

A) E-Bikes

Chairman Wood, in following up from their previous meeting and discussions on eBikes, spoke of how his goal was to develop potential motions to take to the City Council. He emphasized focusing on a couple of initial actions to measure their effectiveness, with the following steps:

- Updating Ordinance 20-18-LC, which currently outlaws e-scooter rentals, to explicitly include e-bike rentals and clarify its coverage. Emphasizing that he has already discussed this with the city attorney.
- Working with the Public Information Officer to identify the top 10 employers in Destin and engaging with them to understand their employees' e-bike usage and demographics. The aim is to develop a PSA and flyer program in different languages to target these individuals.

Motion by Chairman Wood to update ordinance 20-18-LC to include e-bikes, and to work with the city Public Information Officer Dr. Tamara Young, to identify the top 10 employers in town so we can go to them and figure out the demographics of their riders to create PSAs, Committee member Weidenhamer provided the second.

In discussion the following items were addressed:

- The safety concerns are more complex than just e-bikes and includes regular bicycle operation as well.
- The safety concerns are:
 - Individuals riding on the wrong side of the road.
 - Riders going against the flow of traffic on sidewalks is a major cause of potential accidents - - this has been particularly observed on the north side of Airport Road.
 - Not following the rules of the road i.e. not stopping at stop signs.
 - Children on bicycles engaging in unsafe behaviors (wheelies, speeding, ignoring traffic signals).
- Doubted the feasibility of licensing program for bicycles in the current environment.
- The Chairman emphasized that the current focus should remain on e-bikes as per the City Council's request.
- Unrealistic to regulate which sidewalk people use.
- Suggested painting speed limits on sidewalks as another informational tool.

DRAFT

- Acknowledged it would be a maintenance item.
- Sheriff's dept. against unenforceable signage, suggesting they could create more problems.
- Proposed amending the motion to include addressing the sidewalk speed limit.
- Suggested recommending to the City Council to reduce the sidewalk speed limit for bikes to 12 miles per hour (state law allows a maximum of 15, so it can be lower).

Committee member Smith amended the motion, to add to the motion to recommend the City Council reduce the speed limit to 12 miles per hour and recommends beginning a program for demarking the speed limits on sidewalks, with Committee member Green providing the second. The amended motion passed 6-0.

Curtis Smith left the meeting at 6:31 PM

B) Annual Work Plan

Chairman Wood inquired the members that if they were satisfied with their Goals and Objectives for the work plans, and have nothing further to add at this time, he would schedule to present it to City Council, noting that does not mean that additional work plan items can't be added at a later time.

Motion by Chairman Wood, seconded by Committee member Tom Weidenhamer to accept the current Goals and Objections as they are in the current plan. The motion passed 4-0, with Committee member Smith not being present for the vote.

7. Stormwater/Floodplain Public Comments

Chairman Wood opened the floor for public comments on this item. With no one coming forward, he closed the public discussion on the topic.

8. MEMBER DISCUSSION ITEMS:

➤ **Tammy Weidenhamer** – Asked for clarification on exactly where 98 Palms Blvd. is located. Stating several neighbors have approached her about a 4-way stop sign to be installed within the shopping center complex across from the Olympus Apartments. Mr. Bodi informed her that the general area is privately owned as an access road and the city does not have the ability to do have one installed. He suggested she contact the property owners of the shopping center.

9. ADJOURNMENT:

Having no further business at this time, the meeting adjourned at 6:40 p.m.

DRAFT

Adopted and approved this _____ day of _____ 2025.

James T. Wood, Jr. Chairman

Kim Montgomery, Deputy City Clerk

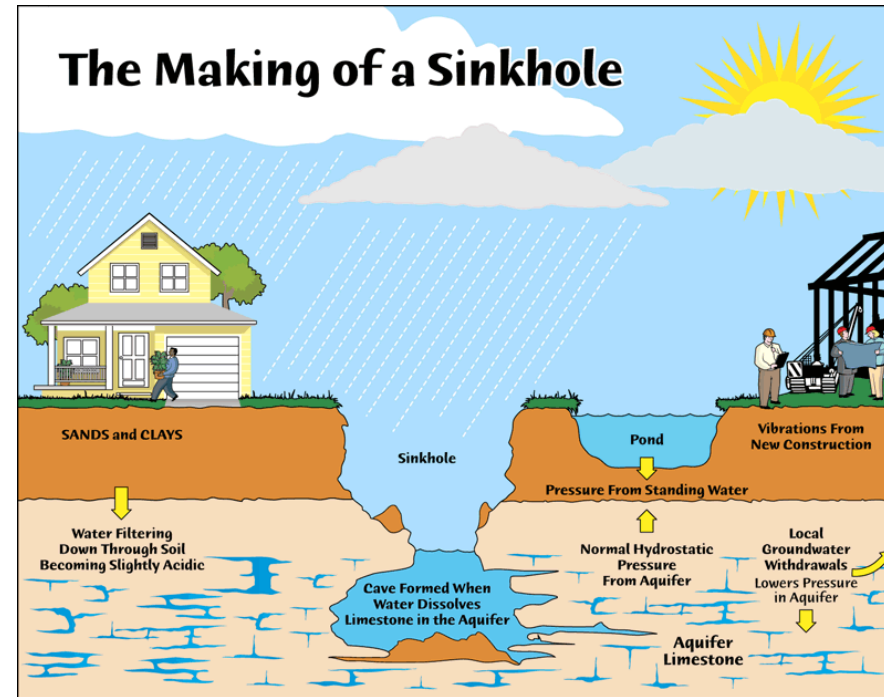
Road Pavement Assessment



What is the difference between a pothole, a sinkhole, and a utility strike or related failure?

- ☞ A pothole is a chunk of asphalt that is missing from the roadway.
- ☞ A sinkhole forms in a roadway due to the collapse of an underlying underground cavity occurring naturally.
- ☞ A utility strike in a roadway refers to accidental damage to underground utilities like stormwater, gas, water, or electric lines during excavation or construction. **Most common occurrence.**
- ☞ A utility related failure in a roadway refers to material or workmanship defect of underground utilities like stormwater, gas, water, or electric lines during excavation or construction. *Example, separation of pipe joints, pipe failure due to age or lightning strike.*

What is the difference between a pothole, a sinkhole, and a utility strike or related failure?



References



2025 Flexible Pavement Condition Survey Handbook



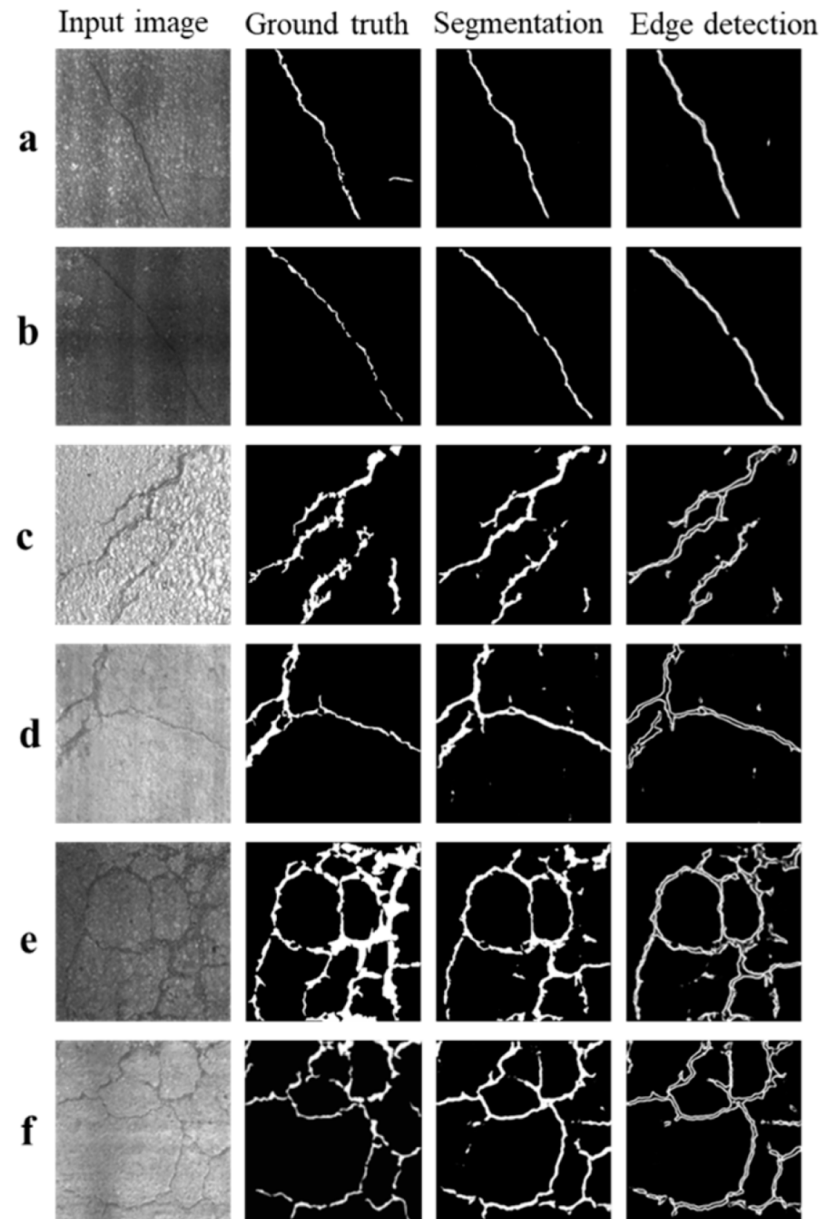
FDOT Office
State Materials Office

Date of Publication
March 2025

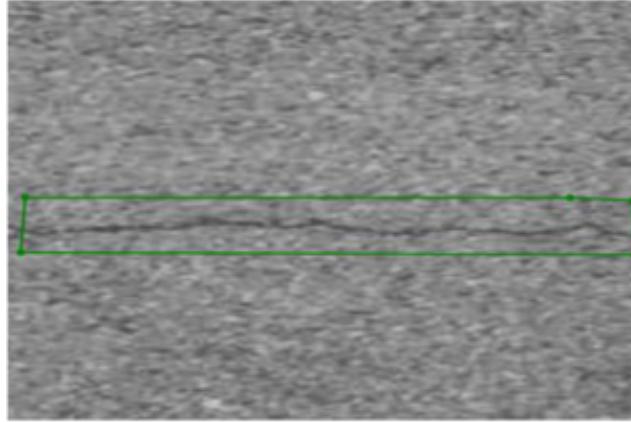
Items to Check For During a Pavement Assessment

- 🌀 **Color** - Asphalt should retain a solid black color when it is in good condition. Over time, it fades to a duller gray shade. This change indicates UV damage from the sun, which also dries out the pavement and affects its overall condition.
- 🌀 **Crack Size** - Checking the cracks' size can tell you what action is necessary to remediate the problem. Both depth and width are essential characteristics for you to note on your pavement assessment.
- 🌀 **Crack Location** - Crack location is also important when doing a pavement assessment. Suppose the cracks are within 40 feet of each other and nowhere else, for example. In that case, that may indicate a deeper problem in that specific area.
- 🌀 **Drainage Issues** - Noting any drainage issues, like puddles in the corner or drains that overflow, is also part of assessing your pavement condition. Allowing excess water to sit on the pavement can damage it over time through erosion or the freeze/thaw cycle.
- 🌀 **Foundation (Base) Stability** - The base/subbase under your pavement also affects its condition. If you see bucking, warping, cracking, and pothole that require repair often, you may need to have the foundation evaluated.
- 🌀 **Accessibility** - In the case of parking lots, you'll also need to look at your accessible features. Items like holes at the base of ramps or unclear line striping do need remedying as soon as possible. Otherwise, you may incur code violations.
- 🌀 **Maintenance Records** - One of the useful things during a pavement assessment is having the maintenance records. This check shows what has been done to keep the pavement in good condition over the years. If possible, you should also know how old the pavement is.

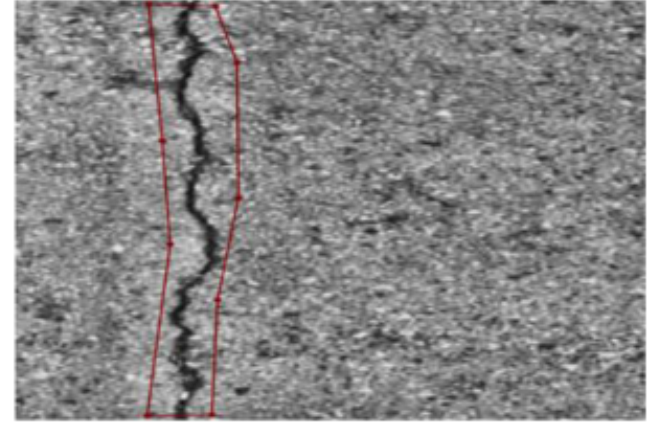
6. TRAFFIC CALMING DEVICE TOOLBOX



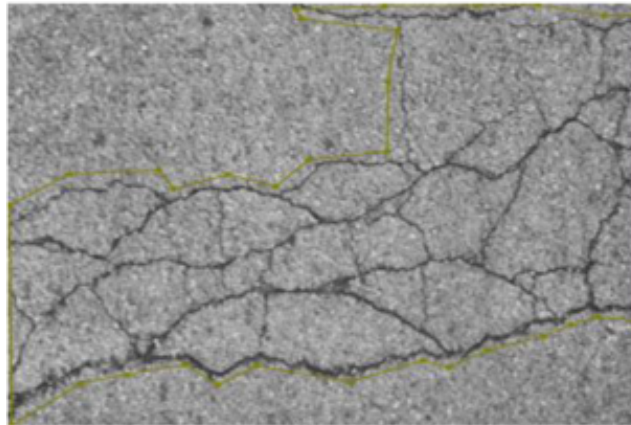
**THINGS YOU
DRIVE OVER:**



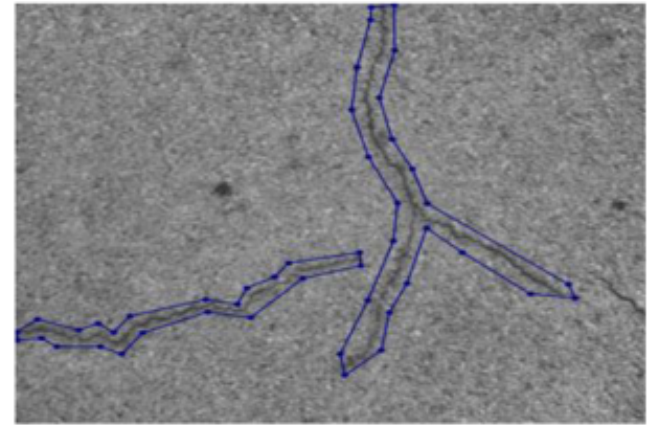
(a) Transversal crack



(b) Longitudinal crack



(c) Massive crack



(d) Irregular crack

Cracking Classification Class I

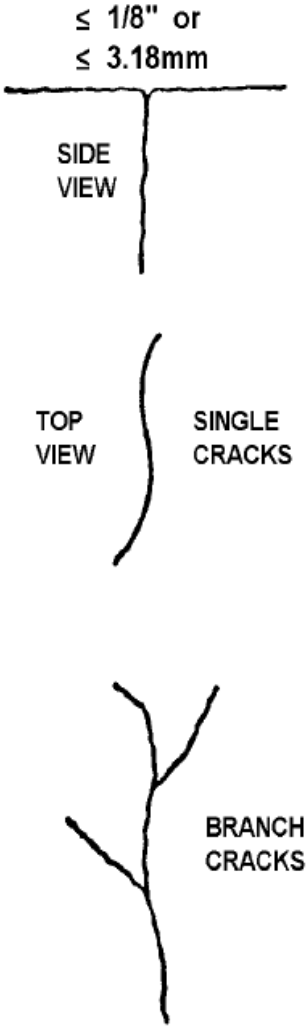
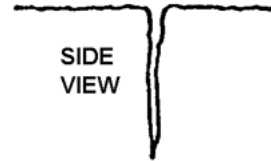


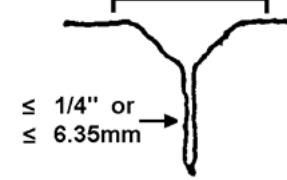
FIGURE 5. CLASS I CRACKING CLASSIFICATION

Cracking Classification Class II

$> 1/8''$ TO $\leq 1/4''$
or
 $> 3.18\text{mm}$ TO $\leq 6.35\text{mm}$



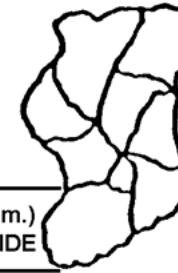
$< 1''$ or
 $< 25.4\text{mm}$



SINGLE
CRACKS



ALLIGATOR
OR FATIGUE
CRACKS



CELLS $\leq 2'$ (0.61m.)
ON LONGEST SIDE

BRANCH
CRACKS

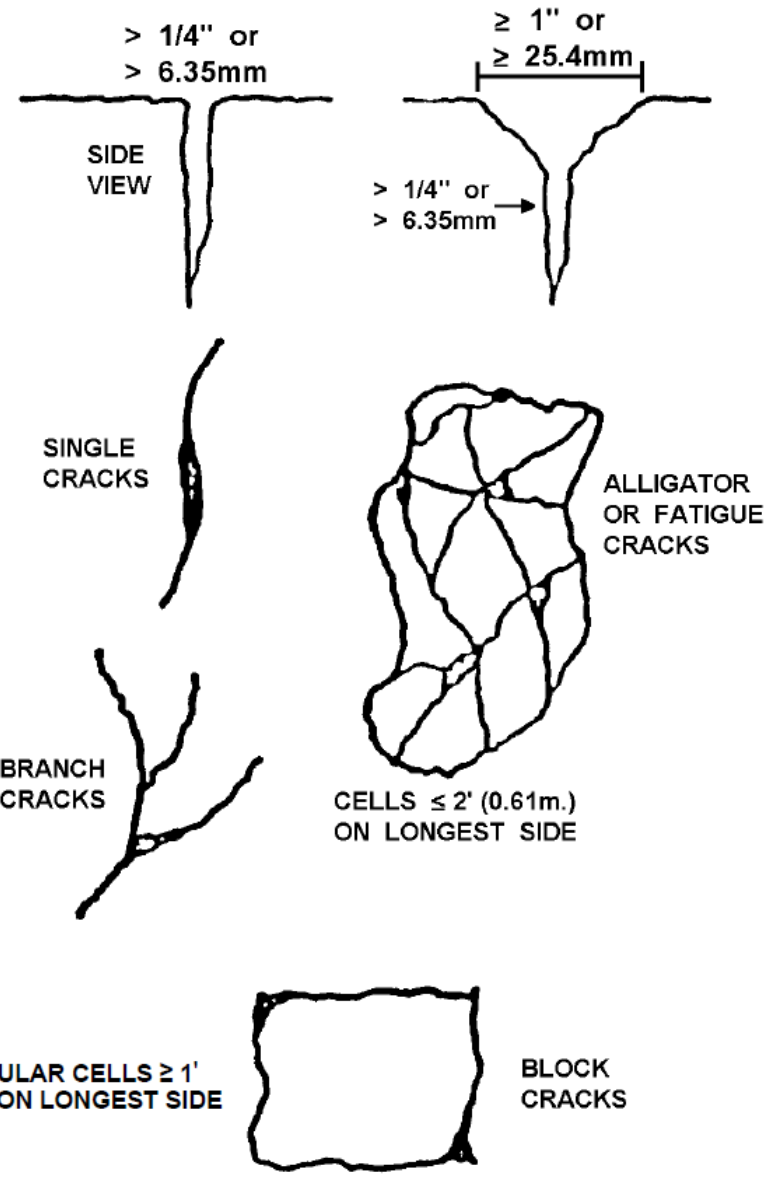


BLOCK
CRACKS



CELLS $\leq 2'$ (0.61m.)
ON LONGEST SIDE

Cracking Classification Class III



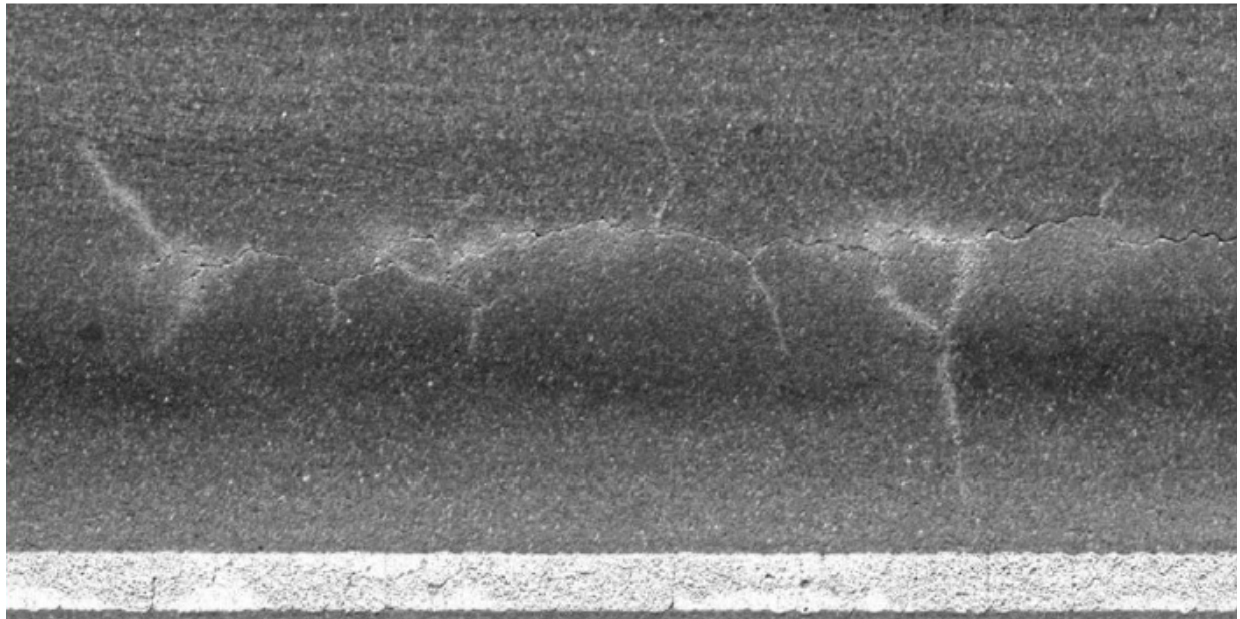
Patching



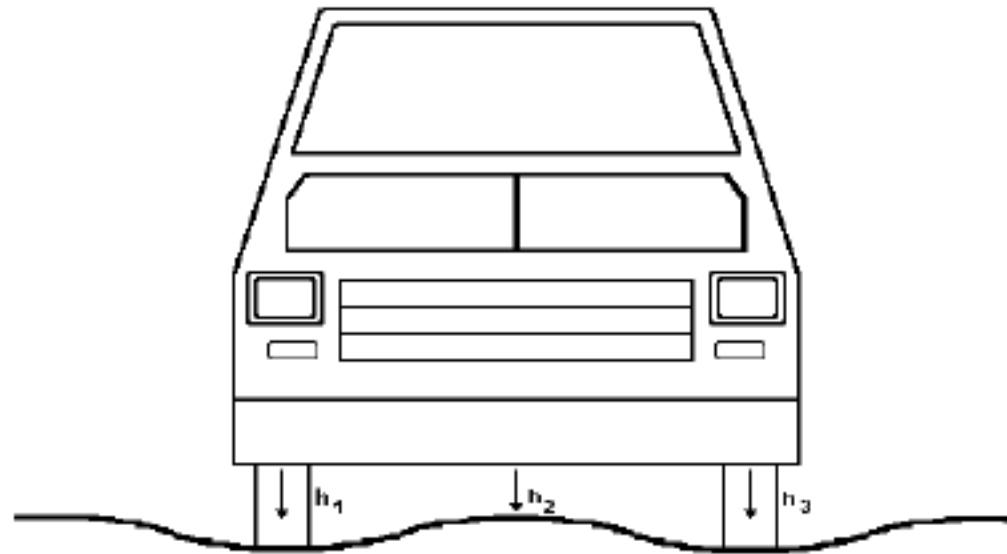
Surface Raveling



Pumping



Rutting



What is the PASER Scale?

- ✧ PASER stands for Pavement Surface Evaluation and Rating. The University of Wisconsin developed the system to provide a consistent standard for pavement assessments. Several state transportation departments have also adopted it.
- ✧ The PASER Scale uses practical pavement indicators to rate your pavement condition objectively. The scale provides an objective figure for service life records and a place to start while discussing pavement condition with other people.

PASER Scale

Ranking	Condition	Appearance	Maintenance Needed
9-10	Excellent	Like new	None
8	Very good	No longitudinal cracks. Occasional transverse cracks that are at least 40' apart from each other	Little or no maintenance needed
6-7	Good	Minimal cracks with some traffic wear	Routine crack filling and sealcoating
4-5	Fair	More cracking, more traffic wear, slight rutting or distortions	Sealcoating, patching, surface overlay
3	Poor	Extensive cracking, potholes, surface distortion	Patching, resurfacing, or complete recycling
2	Very Poor	Severe cracking and distortions, multiple potholes	Reconstruction with extensive base repair
1	Failed	Extensive damage and loss of integrity	Total reconstruction needed

8.03.01. Street classifications

A. Major arterial (6-lane):

U.S. Highway 98, east of Airport Road to the City limits

B. Major arterial (4-lane):

U.S. Highway 98, west of Airport Road to the City limits

C. Minor arterial:

None, as of March of 2008

D. Major collector:

- Stahlman Avenue (U.S. Highway 98 to Azalea Dr.)
- Benning Drive (U.S. Highway 98 to Kelly St.)
- Beach Drive (U.S. Highway 98 to Kelly St.)
- Main Street (U.S. Highway 98 to Kelly St.)
- Gulf Shore Drive (U.S. Highway 98 to Eastern edge of Holiday Isle S/D)
- Matthew Boulevard
- Hutchinson Street
- Kelly Street
- Azalea Drive
- Azalea Drive Extension (Benning Dr. to Beach Dr.)
- Legion Drive (Beach Dr. to Main St.)
- Airport Road
- Commons Boulevard (that portion within the City limits)
- Scenic Highway 98 East (East of Matthew Blvd.)

8.03.01. Street classifications

E. Minor collector:

- Calhoun Avenue (U.S. Highway 98 to Kelly St.)
- Sibert Avenue (Calhoun Ave. to Kelly St.)
- Cross Street
- Stahlman Avenue (Azalea Dr. to Kelly St.)
- Mountain Drive
- Gulf Shore Drive (Eastern edge of Holiday Isle S/D to Noriego Point)
- Legion Drive (Benning Dr. to Beach Drive)
- Main Street (Kelly St. to Indian Trail Dr.)
- Indian Trail Drive (Main St. to Deerfield Dr.)
- 98 Palms Boulevard (existing and future)
- Mattie M. Kelly Boulevard (existing and future)
- Sunchase Boulevard (future road north of the Airport)
- Indian Bayou Trail
- Restaurant Row
- Scenic Highway 98 West (West of Henderson Beach State Park)
- Scenic Highway 98 East (West of Matthew Blvd.)
- Crystal Beach Drive
- Dolphin Street

F. Local Street: All other streets not listed in subsections A through E above or G below.

G. Alleyway:

- [Reddin Brunson Road]
- [Willow Street]

Questions





2025 Flexible Pavement Condition Survey Handbook



FDOT Office
State Materials Office

Date of Publication
March 2025

Table of Contents

Title	Page
List of Tables.....	i
List of Figures.....	ii
Executive Summary	iii
I. Introduction.....	1
II. Pavement Section Selection and Identification.....	2
III. Evaluation Methods.....	11
Crack Rating	11
Rut Rating	30
Ride Rating	32
IV. Flexible Pavement Condition Survey Field Workbook.....	36
Appendix A – Ride Rating Re-Run Procedure.....	43

List of Tables

Table		Page
1	<u>Roadway Direction Code</u>	4
2	<u>Standard Remarks</u>	9
3	<u>Raveling Codes</u>	14
4	<u>Patching Codes</u>	14
5	<u>Numerical Deductions for Cracking Method</u>	16
6	<u>Numerical Deductions for Rutting Methods</u>	31
7	<u>IRI to Ride Rating Table</u>	34

List of Figures

Figure		Page
1	<u>Wheel Path Designation</u>	17
2	<u>Class I Cracking Estimates</u>	18
3	<u>Class II Cracking Estimates</u>	19
4	<u>Class III Cracking Estimates</u>	20
5	<u>Class I Cracking Classification</u>	21
6	<u>Class II Cracking Classification</u>	22
7	<u>Class III Cracking Classification</u>	23
8	<u>Class I Cracking Photo</u>	24
9	<u>Class II Cracking Photo</u>	25
10	<u>Class III Cracking Photo</u>	26
11	<u>Patching Photo</u>	27
12	<u>Raveling Photo</u>	28
13	<u>Pumping Photos</u>	29
14	<u>Rut Depth Methods</u>	31
15	<u>LCMS/Inertial Profiler Photo</u>	35

Executive Summary

This handbook has been developed as a guide for personnel responsible for conducting the Florida Department of Transportation Pavement Condition Survey (PCS) on flexible pavements and to ensure consistency among raters. It also serves as a reference for staff in each district involved in the PCS data verification process. This reference describes the procedures for conducting a visual, mechanical and automated condition evaluation of the Department's flexible pavement system. Items evaluated in the survey include:

1. Class I Cracking
2. Class II Cracking
3. Class III Cracking
4. Raveling
5. Patching
6. Profiler Rut Depth (automated)
7. Manual Rut Depth
8. Ride Quality (roughness)

The data collected during the PCS is used as input into the pavement management system and for project prioritization purposes.

Keywords: Crack Rating, Ride Rating, Rut Rating, International Roughness Index (IRI), Ride Number (RN), Pavement Evaluation, Flexible Pavement Condition Survey, Profiler, Roadway Characteristics Inventory (RCI), Straight Line Diagram (SLD)

I. Introduction

The present condition of Florida's flexible pavement system is of interest to Pavement Management, Design, Planning, Maintenance, consultants, and other groups within the Florida Department of Transportation.

The information provided in this handbook describes the methods used to evaluate surface distresses and determine the ride quality and the rut depth of the flexible pavement. Any mention of rigid pavement is only discussed when necessary for the completion of the Flexible Pavement Condition Survey. For information relating to the evaluation of rigid pavements, please refer to the Rigid Pavement Condition Survey Handbook.

The results of this evaluation provide information that is used in conjunction with other data for the following purposes:

1. Determine the present condition of the State Highway System
2. Compare present with past condition
3. Predict future deterioration rates
4. Estimate rehabilitation funding needs
5. Provide justification for the annual pavement rehabilitation budget
6. Provide justification for prioritizing rehabilitation projects
7. Provide justification for distribution of rehabilitation funds to Districts

The various changes and enhancements that have been implemented with each survey are recorded in the "History of Florida Pavement Condition Survey" at the following address:

<http://www.fdot.gov/materials/pavement/performance/pcs/pcshistory.pdf>

II. Pavement Section Selection and Identification

The length of the pavement to be evaluated will vary depending upon many factors. Typical factors that create section limits (rated sections) include the following:

1. County line
2. County section or subsection
3. Construction limits
4. Significant changes in pavement condition.
5. Structures 0.25 miles or more.
6. Rigid pavement 0.25 mile or more within a flexible pavement section.
7. Changes in the number of lanes (2 to 3 lanes, etc.)
8. A division between roadway directions 0.50 miles or more.

9. System Status

As implied by the list above, a certain amount of office preparation is required prior to the field evaluation. The rater should have access to construction plans, straight line diagrams (SLD), video-logs, maps, Roadway Characteristics Inventory (RCI) data, and historical Pavement Condition Survey (PCS) data for those highways to be evaluated.

Construction Limits

Section limits should be based initially upon construction project limits. The section may deteriorate at different rates, requiring additional “breaks” within the overall section, but the beginning and ending mileposts must not be modified. To preserve the history of PCS data, section limits must only be changed if the limits of a new construction project extend into previously existing project limits.

Section Length

If possible, do not break new sections under 0.25 miles in length. Do not combine existing adjacent sections because they have the same or similar crack rating. This does not warrant combining into one section. The only time a section should be combined with another section are short sections (less than a 0.25 mile) that are left over after new pavement or under construction have been broken out. Combine these sections with the next or previous section with similar crack ratings. If the section cannot be combined due to crack ratings or other reasons leave as a short section less than a 0.25 mile (Orphan section). If the section is 0.10 miles or less do not break out, leave it with the original section. Maintain original section limits and treat as a maintenance issue not representative of the section until new section starts deteriorating. Add comments in the comment column.

Roadway Direction

The direction a section is rated depends on the following criteria:

Divided

Any pavement section 0.50 mile or greater that has a division in roadway directions (physical median, island, permanent barrier wall, paved turn lane, or emergency lane) separating traffic traveling in different directions. One lane in each direction must be rated for divided roadways.

Undivided (Composite)

Pavement sections without dividers or sections where any consecutive divided segment is less than 0.50 mile are considered undivided. One lane in only one direction must be rated. Rate these sections in the same direction each year unless an obvious difference exists based upon visual observation of the pavement condition. In this case, the rater must rate the direction having the greatest number of distresses. Once a direction has been established due to visual observation the direction should remain the same.

The Roadway Code is coded in the Roadway column of the Field Workbook and is determined by the pavement division and milepost direction of the rated lane. See **Table 1** below.

**TABLE 1
ROADWAY DIRECTION**

ROADWAY CODE	PAVEMENT DIVISION	MILEPOST DIRECTION	DIRECTION (NOTE1)
1	Undivided	Ascending	North or East
4	Undivided	Descending	South or West
2	Divided	Descending	South or West
3	Divided	Ascending	North or East

Note 1: A limited number of sections have mileposts that are descending in the North or East direction or are ascending in the South or West direction. For example, the PCS Roadway designation of a 1 or 3 could be South or West. Refer to the construction plans or SLD for clarification if needed. Regardless of these exceptions to the rule, a Roadway code of 1 or 3 is always evaluated in the ascending direction and a code of 2 or 4 is always evaluated in the descending direction.

Pavement Type (Type)

The Type column of the Field Workbook is used to denote the surface type of the roadway as well as other conditions the rater observes while performing the survey. The following is a list of all Type codes used:

Exceptions (Type 0)

Exceptions are pavement sections that are not state-maintained or sections that overlap other state-maintained sections and have been rated under another county section number.

Asphalt Pavement (Type 1)

Type 1 is for standard asphalt pavement sections. These sections must include Crack, Rut and Ride Ratings.

Pavement Improvement (Type 2)

Type 2 is for sections that have been partially rehabilitated or modified to improve the section. This includes but is not limited to: short maintenance overlays, intersection overlays, sealed cracks, large areas of patching or manhole adjustments. This code is used to note that changes to the pavement surface were made that may influence the Crack, Rut or Ride Ratings. This can result in either positive or negative changes to any rated metric: cracking, rutting or ride. Workbook comments must be provided to explain why the section was rated Type 2. In the following survey year this code must be changed, usually to Type 1, unless additional improvements are made.

Skin Patch (Type 3)

Type 3 is for sections that have large areas covered by a thin overlay or skin patch (often applied as a maintenance overlay). These areas are considered patching. Combine estimates of patching with Class III cracking and include in the rating for entire section.

Rigid Pavement (Type 4)

Type 4 is for rigid pavement sections. No rigid defect ratings should be recorded in the Flexible PCS for these sections. The flexible and rigid profiler data (net length, IRI) gets recorded in the flexible workbook.

New Construction (Type 5)

Type 5 is for a newly constructed section of roadway. As an example, when a undivided roadway has new construction that changes it to a divided roadway, the lanes added in the new direction are coded as Type 5. The following year this code must change, usually to Type 1.

No Ride (Type 6)

Type 6 is for sections where the profiler is unable to achieve a repeatable Ride Rating. These are normally sections that are very short, but sometimes other longer sections have characteristics that the profiler is unable to repeat. These sections are usually in urban areas and have features such as cross streets with signalized intersections and radical intersecting profiles. Collect profiler data, but do not report ride values for these sections.

New Pavement (Type 7)

Type 7 is for sections of existing roadway, where previous pavement, flexible or rigid, have been resurfaced. The following year this code must change, usually to Type 1.

If a section that is New Pavement (Type 7) is also a No Ride (Type 6), code as New Pavement (Type 7) and do not report ride values. Validate Workbook shows New Pavement (NP) and No Ride (NR) in the Combined Remarks column.

Under Construction (Type 8)

Type 8 is for areas that are under construction (UC) during the survey. Only call milled areas or temporary pavements that are 0.25 mile or more as under construction. If it is less than 0.25 mile, hold it out and add a comment as to why the rough distance is short. For these areas, if a lane of original pavement is available, you must shift lanes to run the original pavement. Do Not call the area under construction if original pavement can be accessed. Don't assume all lanes will be resurfaced. This helps avoid "Not NP" the following year.

Make sure all data is collected through the entire length of the UC area. This data goes to FHWA for HPMS but gets held out for PCS. The Type 8 code can be used for more than one year if construction is noted in the next survey.

After construction is complete the section will typically change to Type 2 or Type 7 depending on the scope of the project. Upon returning the following year, it may be evident that no rehabilitation took place. In this case the section must be coded Type 1 and Not New Pavement (Not NP) coded in Remarks, Not NP remarks from previous year should be removed each year.

Structures (Type 9)

Type 9 is for structures including bridges, box culverts and other permanent objects that are 0.25 miles or more. These structures should be represented by separate pavement section limits and coded as Type 9. Any structure less than 0.25 miles must remain combined with the larger section and profiler roughness turned off. Crack, Rut or Ride Ratings must not be reported for any structure.

Mileposts recorded for structures and exceptions must come from SLD or RCI whenever possible, not from a distance-measuring instrument. This allows for data cross checks with RCI feature code 258.

If a structure is located between a flexible and rigid pavement section, coding as Type 9 in the flexible pavement survey adds the mileage for the structure to the flexible pavement system. If coded as Type 0 the structure is excluded from the flexible pavement system mileage. It is important to ensure that any structures coded as Type 9 in the flexible pavement survey are not included in the rigid pavement survey.

Type 9 is also used to record pavement sections that have been added to the state-maintained system after the survey was completed. This allows the mileage to be included in the survey and serves as a reminder for the rater to rate the section the next year. When Type 9 is used in these instances, always code the number of lanes and Remarks containing ADD in xx, where xx = year of next survey.

Lanes

For undivided roadways, this is the total number of through travel lanes. For divided roadways, this is the number of through lanes in the direction of travel. Do not include turn lanes, parking lanes or emergency lanes in the number of lanes. The total number of lanes must agree with RCI feature code 212 (Thru Lanes).

Rated Lane

The lane having the worst pavement condition shall be the rated lane for the direction being tested. It is coded in the Rated Lane column of the Field Workbook. This value is noted by ascending (R) or descending (L) followed by the count of through lanes starting from the inside lane to the lane being rated. For example, a road with 3 lanes in each direction, the middle lane in the ascending direction is R2, and the inside lane in the descending direction is L1.

Verification

The Verification (Ver) column is used to denote results of the verifications done per district request and to record the status of any re-runs due to ride data not matching previous year's data.

When a district requests verification of a rated section, it is re-evaluated for Crack Rating using Laser Crack Measurement System (LCMS) images. If data or images are not available, a field visit may be required. If the results of this re-evaluation determine that the original Crack Rating was correct, an "A" is placed in the Verification column to denote that the re-evaluation agreed with the original rating. If the results determine the original Crack Rating was incorrect, the change(s) are made, and a "C" is placed in the Verification column. This value remains in the next version of the workbook (next year) so the rater is aware that the verification was performed. This code should be removed after running the section during the next survey year.

If a rerun was performed (according to **Appendix A**) by the operator and the previously collected ride data was replaced by the ride data collected during the re-run, a "U" is placed in the Reruns column in the workbook to denote that the re-run was used. If ride data collected during the re-run is not used, an "N" is placed in the Reruns column to denote that the re-run was not used.

Remarks

The Remarks column is used to record information regarding the condition of the section being rated. See **Table 2** for a detailed listing of all standard remarks.

TABLE 2
STANDARD REMARKS

REMARKS	STANDARD CODE
New Pavement (A) (see note ¹)	NP
New Construction (A)	NC
Under Construction (A)	UC
Not New Pavement (A)	NOT NP
Bridge Number	BR ####
Rigid Pavement (A)	Rigid Pavt
No Ride (A)	NR
Patching (A)	PT
Raveling (A)	RAV
Off RCI (A)	Off RCI
Survey Next Year	Add in XX (XX = Survey Year)
Lane Realignment	RAL
Brick Crosswalks	BW
Manholes in wheel path	MH
Rippling	RIP
Depressions	DEP
Bleeding	BLD
Shoving	SHV
Delamination	DEL
Spalling	SPL
Potholes	PH
Corrugations	COR
Sealed Cracks	SLDCK
Crowning	CRN
Transverse Cracking	TRVCK
Scaring	SCR
Speed Reduction Device (i.e. Rumble Strips)	RS
Grooved Rumble Strips (Edge & Center Line)	GRS
Pumping	PMP

Note¹: An (A) after the remark in the REMARKS above column indicates an automated remark (based upon an entry in another field).

Comments

The Comments column is used to record information specific to the section that will assist the rater in future surveys. Examples include County section numbers for exceptions and any other non-standard remarks that will help identify the section. This column can also contain standardized remarks that exceed the seventeen-character limit of the Remarks column. This column is also used to provide detailed comments as to why an area is a Type 2 or comments that can assist the reviewer of the section rating. The PCS Administrator may also use this to pass along information to the Rater the following year. Raters should remove comments that do not need to be carried over to next year.

III. Evaluation Methods

Data collection is accomplished with an LCMS together with an inertial profiler and a visual crack assessment by the technician.

Automated Crack Rating

The LCMS calculates cracking by using high-resolution 3D laser scanning technology to capture detailed profiles of a road surface, allowing its software to identify and measure cracks based on changes in surface elevation, effectively detecting cracks by analyzing the depth and width variations in the 3D data across the road surface, differentiating them from other pavement features like texture or markings; this provides a data driven and objective assessment of cracking compared to traditional visual inspections. The LCMS system collects forward and 20-foot downward (3D and Range) images of the pavement surface as well as pavement rutting. Images are processed in the office for distresses present within each roadway section are identified and measured using International Cybernetics Company (ICC) Connect software.

Visual Crack Rating

Consideration is given to three classes of cracking in flexible pavements. The classes of cracks are described as follows:

- Class I -** Hairline cracks that are less than or equal to $\frac{1}{8}$ in (3.18 mm) wide in either the longitudinal or transverse direction. These are mostly single cracks with no or only a few connecting cracks, cracks are not spalled, and pumping is not evident. These cracks are estimated individually for the total linear length of the cracks. The width of the affected area is considered 1 ft (0.30 m). See **Figures 2, 5 and 8.**

Class II - Cracks greater than $\frac{1}{8}$ in (3.18 mm) and less than or equal to $\frac{1}{4}$ in (6.35 mm) wide in either the longitudinal or transverse direction. These may have slight spalling and/or advanced branching; cracks may be sealed; pumping is not evident. Also includes all cracks less than or equal to $\frac{1}{4}$ in (6.35 mm) wide that have formed cells less than or equal to 2 ft (0.61 m) on the longest side, also known as alligator cracking. Class II cracks are considered rectangular, and the total affected area in square feet is counted. See **Figures 3, 6** and **9**.

Class III (including Raveling and Patching) - Cracks greater than $\frac{1}{4}$ in (6.35 mm) wide that extend in a longitudinal or transverse direction and cracks that are opened to the base or underlying material. These cracks often exhibit moderate or severe spalling, and often form a complete pattern, such as alligator cracking. They also include progressive Class II cracking with severe spalling or pumping. Class III cracks are considered rectangular, and the total affected area in square feet is counted. See **Figures 4, 7** and **10**.

Pumping - Pumping occurs when there is water in the underlying layers beneath the roadway. The water is physically pumped to the surface through small cracks and pores under heavy moving loads. Pumping is a particularly severe defect causing premature asphalt failure in a variety of ways. If water is being pumped from below the asphalt it can cause stripping or undermining of base, subbase, and subgrade materials. This defect is typically seen by observing the base material on the roadway around the cracks. Pumping must be counted as Class III regardless of crack width. See **Figure 13**. Pumping is not accurately detected by the LCMS and sections containing pumping throughout would use the rater's visual estimate for crack rating.

Sealed Cracks – For these areas use same Crack Class as previously rated unless rater sees crack width increase. Unsealed cracks and cracks that form after crack seal has been applied are rated according to the usual method.

Raveling - Raveling is the wearing away of the pavement surface caused by the dislodging of aggregate particles in an open graded friction course. See **Figure 12**. Only record raveling for sections having at least one percent of its area raveled.

Raveling percentage is determined by using machine learning image classifiers to assign the presence and severity of raveling to each 20-foot image of tested pavement. The deductions are calculated from the percentages of raveling found in the LCMS images.

The severity levels used to describe raveling are as follows:

Light - The aggregate and/or binder have begun to wear away but has not progressed significantly, with some loss of aggregate.

Moderate - The aggregate and/or binder has worn away and the surface texture is becoming rough and pitted; loose particles generally exist; loss of aggregate has progressed.

Severe - The aggregate and/or binder has worn away and the surface texture is very rough and pitted, loss of aggregate very noticeable.

Record the predominant severity level and percent affected area of raveling in the Raveling column of the field workbook using the codes shown in **Table 3**.

TABLE 3
RAVELING CODES

PERCENT OF PAVEMENT AREA	RAVELING SEVERITY LEVEL AND CODE		
	LIGHT	MODERATE	SEVERE
1-5	1	1	1
6-25	2	2	2
26-50	3	3	3
51-100	4	4	4

Note: Code the Predominant severity level only

Patching - A patch is an area of the pavement that has been replaced with newer material after the time of original construction. Patching should reflect a defect in the pavement that has been repaired. See **Figure 11**. Only record patching for sections having at least one percent of its area patched.

Record the percentage of pavement area affected by patching by using the codes shown in **Table 4**.

TABLE 4
PATCHING CODES

PERCENT OF PAVEMENT AREA AFFECTED BY PATCHING	
PERCENT	CODE
1-5	1
6-25	2
26-50	3
51-100	4

Calculating Visual Crack Rating

To calculate the total area affected by cracking, combine the percent area affected estimations as follows:

Class I + Class II + Class III + Raveling + Patching = Total Percent Affected Area

Determine the predominant class of cracking, by combining values for percent affected area for Raveling and Patching with Class III cracking estimates. Next, compare the percent affected area from the three classes of cracking (with Class III cracking now including Patching and Raveling). The predominant crack class has the highest percent affected area value.

These values must be determined for cracking confined to the wheel path (**CW**) and cracking outside of the wheel path (**CO**), each representing 100 percent of their respective areas. See **Figure 1** for a diagram of this wheel path designation. **Table 5** explains how to determine the final Crack Rating.

Crack Type

The Crack Type field is used to indicate the predominant Crack type for a pavement section. These crack types help in determining the cause of cracks. Crack type Codes are as follows: Alligator (A), Block (B), Combination (C), Raveling (R) and Patching (P). One of these is required if cracking is present. Use the R or P code if either of these defects are the major defect contributing to your crack rating. Leave Crack Type blank only if there is no cracking present.

Crack Source Determination

As a quality assurance check, the Automated Crack Rating is compared to the Visual Crack Rating and a manual image review is performed in the office and a determination is made by an experienced image reviewer when the following conditions exist.

- Current year's LCMS CR is 1.0 greater than the previous year's LCMS CR.
- Current year's LCMS CR is 1.5 lower than the previous year's LCMS CR.
- Current year's LCMS CR is 1.0 greater than this year's Visual CR.
- Current year's LCMS CR is 1.5 lower than this year's Visual CR.

- Last year's LCMS CR was deficient. This year's LCMS CR is sufficient.
- Last year's Visual CR was deficient. This year's LCMS CR is sufficient.

TABLE 5
NUMERICAL DEDUCTIONS FOR VISUAL CRACKING METHOD

PERCENT OF PAVEMENT AREA AFFECTED BY CRACKING	CONFINED TO WHEEL PATHS (CW) PREDOMINANT CRACKING CLASS					
	I CRACKING		II CRACKING		III CRACKING (Including RAV & PT)	
	CODE	DEDUCT	CODE	DEDUCT	CODE	DEDUCT
0-5	A	0.0	E	0.5	I	1.0
6-15	B+	0.5	F+	1.5	J+	1.75
16-25	B	1.0	F	2.0	J	2.5
26-35	C+	1.25	G+	2.5	K+	3.5
36-50	C	2.0	G	3.0	K	4.5
51-75	D+	2.5	H+	4	L+	5.75
76-100	D	3.5	H	5.0	L	7.0

PERCENT OF PAVEMENT AREA AFFECTED BY CRACKING	OUTSIDE OF WHEEL PATHS (CO) PREDOMINANT CRACKING CLASS					
	I CRACKING		II CRACKING		III CRACKING (Including RAV & PT)	
	CODE	DEDUCT	CODE	DEDUCT	CODE	DEDUCT
0-5	A	0.0	E	0.0	I	0.0
6-15	B+	0.25	F+	0.5	J+	0.5
16-25	B	0.5	F	1.0	J	1.0
26-35	C+	0.75	G+	1.25	K+	1.5
36-50	C	1.0	G	1.5	K	2.0
51-75	D+	1.25	H+	1.75	L+	2.5
76-100	D	1.5	H	2.0	L	3.0

Notes: - Total percent of cracking is determined by combining Class I, Class II, Class III, Raveling and Patching.

Percentages for CW and CO are estimated separately, each representing 100% of its respective area.

Only the predominant cracking class will be recorded for CW and CO. When determining which crack class is predominant, combine percentages for Class III cracking with Raveling and Patching, then compare this value to percentages for Class I and Class II. The larger of these values is considered predominant.

CW Example: I = 10%, II = 12%, III =6% Total = 28%

Predominant is Class II in the 36-50% category (code G – deduct 3.0)

CO Example: I = 10%, II = 6%, III =6% Total = 22%

Predominant is Class I in the 15-25% category (code B – deduct 0.5)

Given the formula below:

$$\text{CRACK RATING} = 10 - (\text{CW} + \text{CO}).$$

$$\text{CRACK RATING} = 10 - (3.0 + 0.5)$$

$$\text{CRACK RATING} = 6.5$$

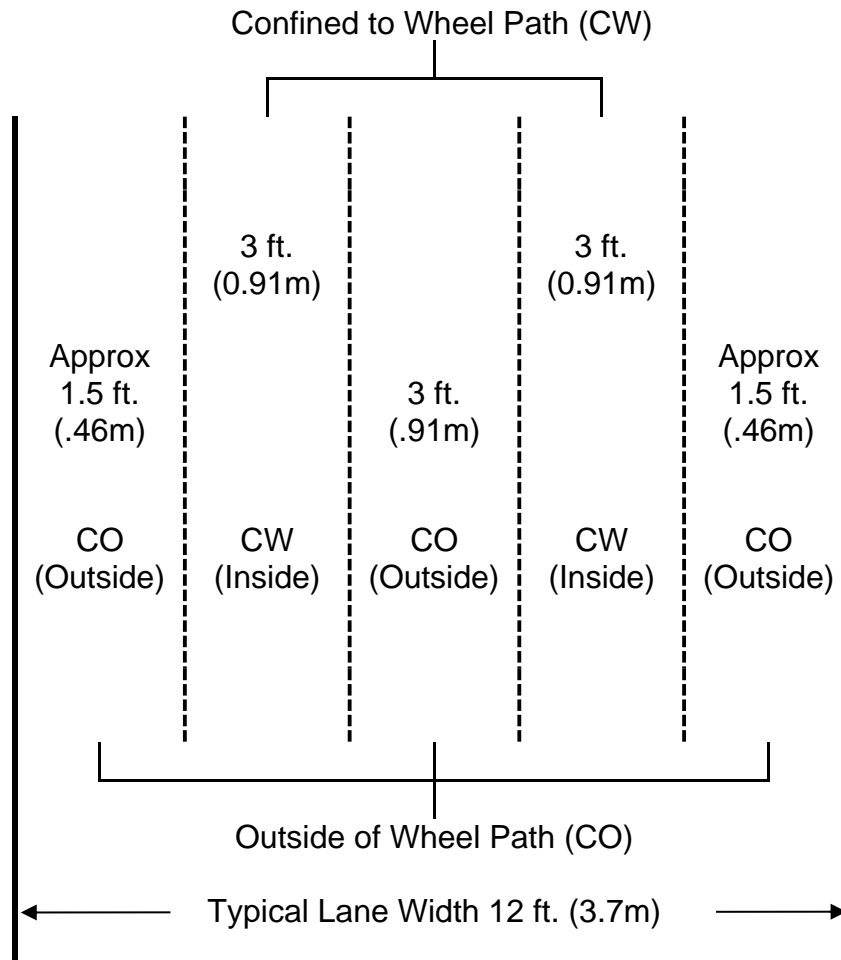
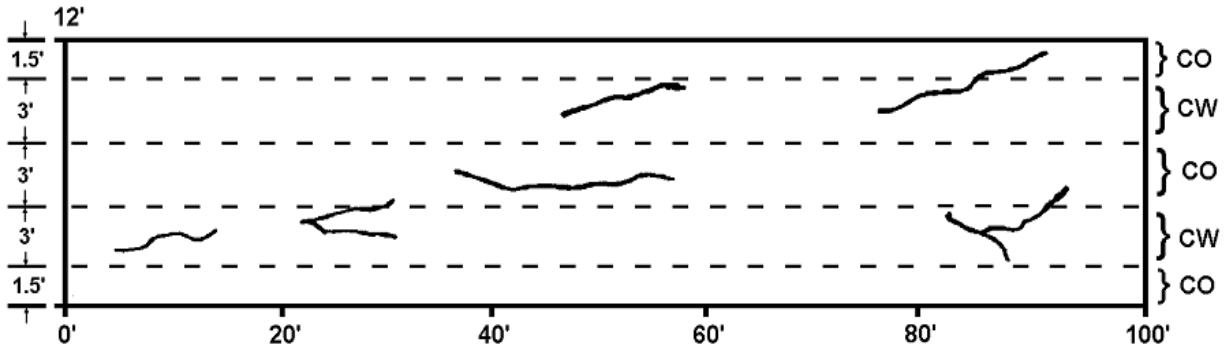


FIGURE 1. WHEEL PATH DESIGNATION



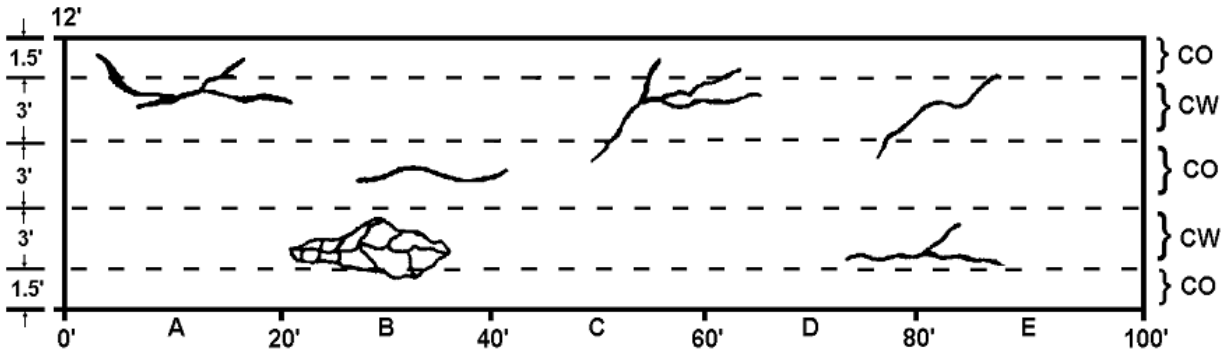
AREA DIMENSIONS

$$\text{CW} = 56 \text{ ft. (17.07m)} \times 1 \text{ ft. (0.30m)} = 56 \text{ ft}^2 \text{ (5.20m}^2\text{)} \\ \div 600 \text{ ft}^2 \text{ (55.74m}^2\text{)} = 9\%$$

$$\text{CO} = 30 \text{ ft. (9.14m)} \times 1 \text{ ft. (0.30m)} = 30 \text{ ft}^2 \text{ (2.79m}^2\text{)} \\ \div 600 \text{ ft}^2 \text{ (55.74m}^2\text{)} = 5\%$$

NOTE: CW = Confined to Wheel Paths
 CO = Outside of Wheel Paths
 Class I cracks considered 1 ft. (0.30m) in width

FIGURE 2. CLASS I CRACKING ESTIMATES



AREA DIMENSIONS

CW: A = 21 ft² (1.95m²)
 B = 30 ft² (2.79m²)
 C = 14 ft² (1.30m²)
 D = 16 ft² (1.49m²)
 E = 21 ft² (1.95m²)

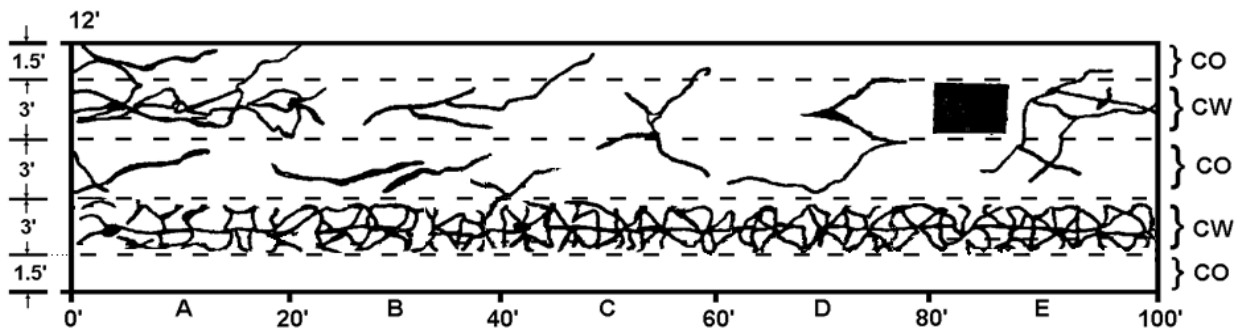
CO: A = 4 ft² (0.37m²)
 B = 15 ft² (1.39m²)
 C = 5 ft² (0.46m²)
 D = 3 ft² (0.28m²)
 E = 0 ft² (0m²)

TOTAL = 102 ft² (9.48m²)
 ÷ 600 ft² (55.74m²)
 = 17% of surface area

TOTAL = 27 ft² (2.51m²)
 ÷ 600 ft² (55.74m²)
 = 5% of surface area

NOTE: CW = Confined to Wheel Paths
 CO = Outside of Wheel Paths
 Single Cracks considered 1 ft. (0.30m) in width
 Alligator Cracks considered as affected area
 Block Cracks considered 1 ft. (0.30m) in width

FIGURE 3. CLASS II CRACKING ESTIMATES



AREA DIMENSIONS

CW:	A = 80 ft² (7.43m²)	CO:	A = 38 ft² (3.53m²)
	B = 66 ft² (6.13m²)		B = 24 ft² (2.23m²)
	C = 61 ft² (5.67m²)		C = 15 ft² (1.39m²)
	D = 57 ft² (5.30m²)		D = 17 ft² (1.58m²)
	E = 84 ft² (7.80m²)		E = 14 ft² (1.30m²)

TOTAL = 348 ft² (32.33m²)
 ÷ 600 ft² (55.74m²)
 = 58% of surface area

TOTAL = 108 ft² (10.03m²)
 ÷ 600 ft² (55.74m²)
 = 18% of surface area

NOTE: CW = Confined to Wheel Paths
 CO = Outside of Wheel Paths
 Single Cracks considered 1 ft. (0.30m) in width
 Alligator Cracks considered as affected area
 Block Cracks considered 1 ft. (0.30m) in width

FIGURE 4. CLASS III CRACKING ESTIMATES

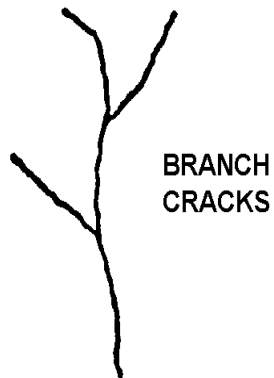
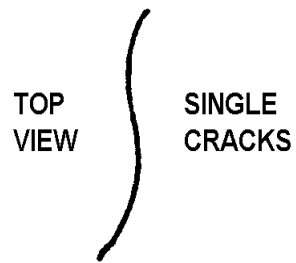
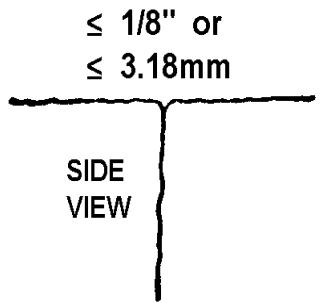


FIGURE 5. CLASS I CRACKING CLASSIFICATION

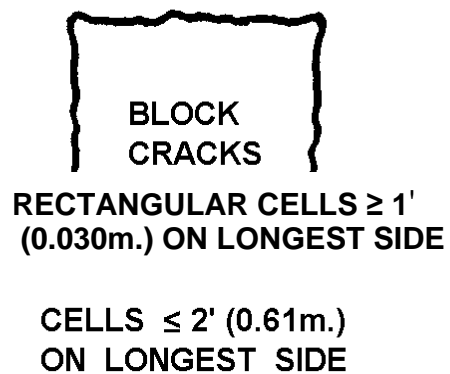
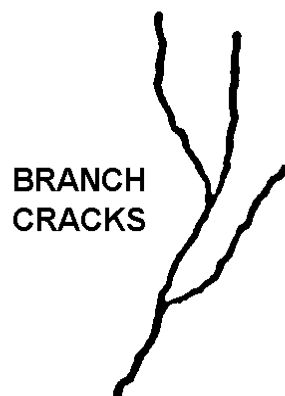
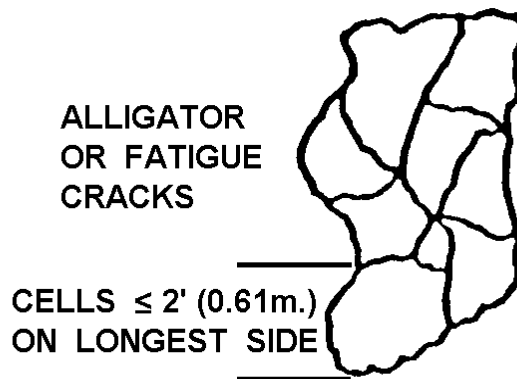
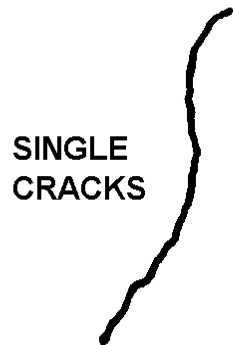
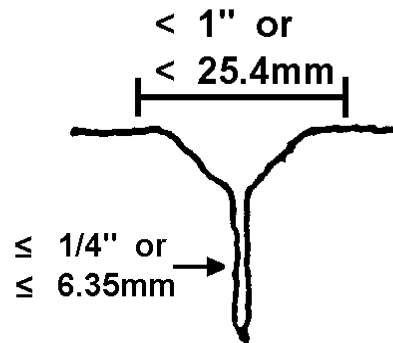
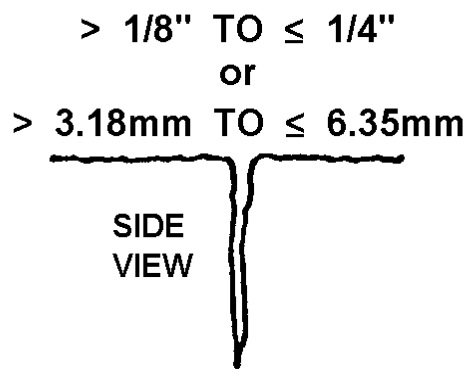


FIGURE 6. CLASS II CRACKING CLASSIFICATION

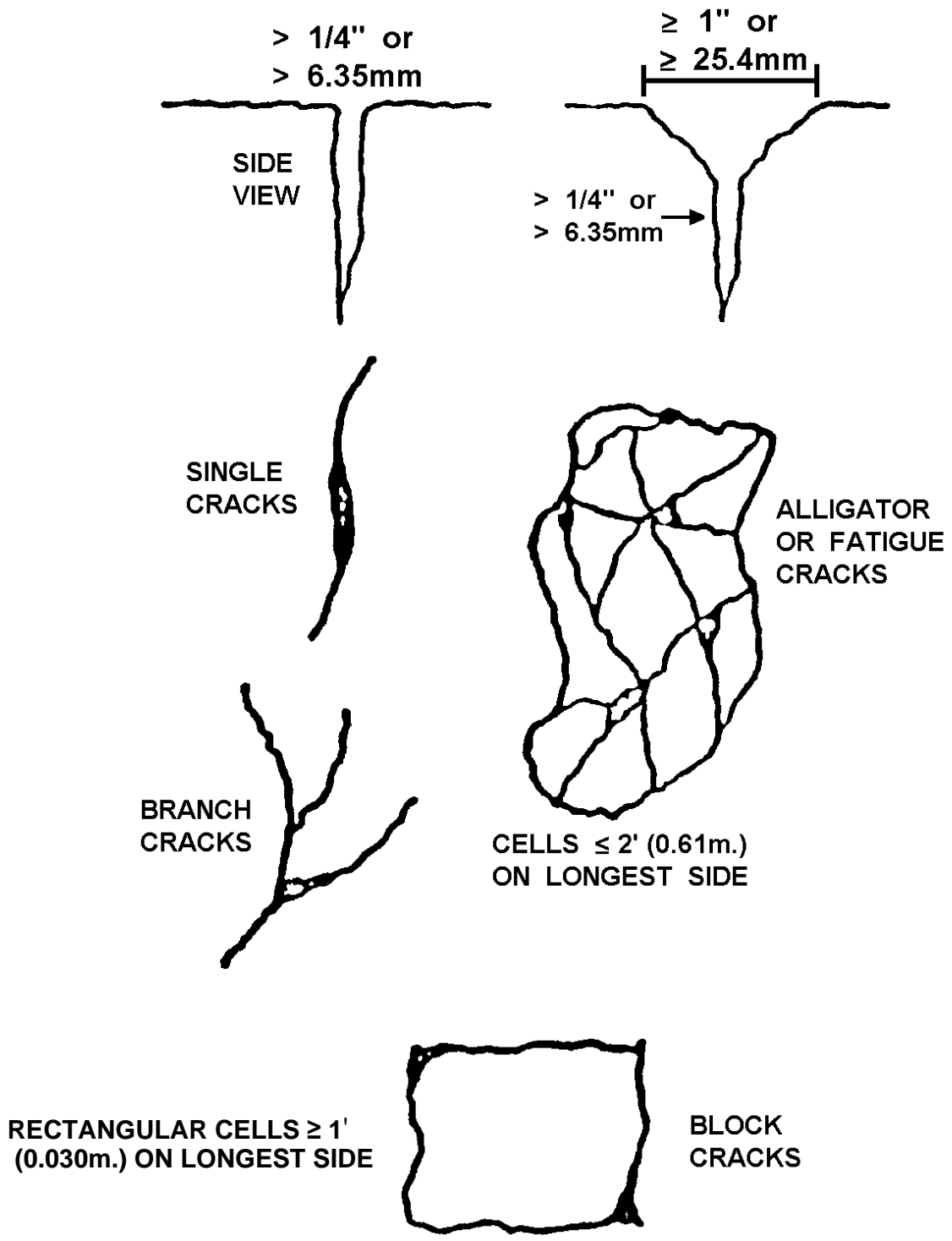


FIGURE 7. CLASS III CRACKING CLASSIFICATION



FIGURE 8. CLASS I CRACKING



FIGURE 9. CLASS II CRACKING



FIGURE 10. CLASS III CRACKING



FIGURE 11. PATCHING



FIGURE 12. RAVELING

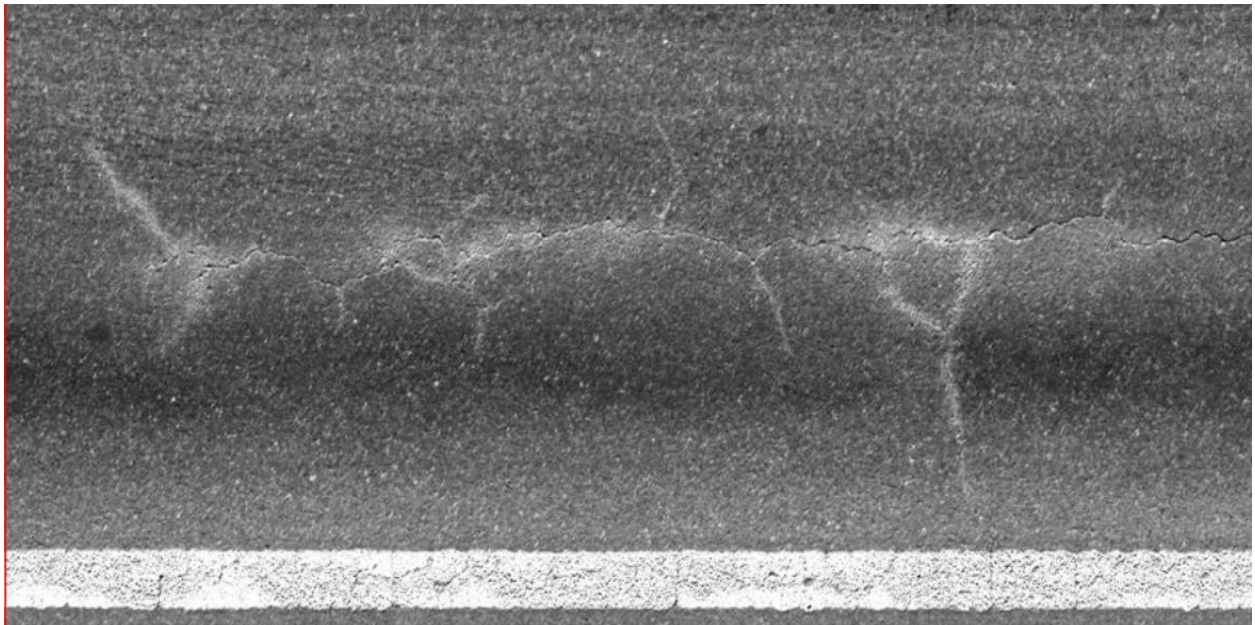


FIGURE 13. PUMPING

Rut Rating

The LCMS calculates rutting by using high-resolution 3D laser scanning technology to capture detailed transverse profiles of the road surface, then analyzing the data to identify and measure the depth of depressions in the wheel paths. The rut depth is determined at various points across the road width, allowing for a comprehensive evaluation of rutting severity. LCMS rut depths are collected for reporting purposes. LCMS rutting data is not available in the field, therefore the inertial profiler is used to collect rutting in the field and compare to previous year's rut for rerun purposes. Both methods measure rut depths at highway speeds and record the average rut depth of the two-wheel paths for each section evaluated. The rut depth is then assigned a deduct value. Each $\frac{1}{8}$ inch (3.18mm) of rut depth equals one (1) deduct point. See **Table 6**.

Rut Depth Check on New Pavement

The profiler rut depth for sections of New Pavement must be less than 0.15 inches. If the profiler rut depth is greater than or equal to 0.15 inches, rerun the section to confirm data.

Calculating Rut Rating

The Rut Rating is obtained by subtracting from ten (10) the deduct value associated with the profiler rut depth or manual rut depth. Rutting values are shown in **Table 6**. A Rut Rating of 10 indicates a pavement with only minor rutting.

Rut Rating = 10 - Deduct Code

Example: Rut Depth 0.21 inches = Deduct of 2

Rut Rating = 10 - 2 = 8

TABLE 6
PROFILER RUTTING VALUES

RUT DEPTH (IN)	RUT DEPTH (MM)	RANGE (IN)	RANGE (MM)	DEDUCT	RUT RATING
0	0	0.00 – 0.06	0.00 - 1.59	0	10
1/8	3.18	0.07 – 0.19	1.60 - 4.76	1	9
1/4	6.35	0.20 – 0.31	4.77 - 7.94	2	8
3/8	9.53	0.32 – 0.44	7.95 - 11.11	3	7
1/2	12.70	0.45 – 0.56	11.12 - 14.29	4	6
5/8	15.88	0.57 – 0.69	14.30 - 17.46	5	5
3/4	19.05	0.70 – 0.81	17.47 - 20.64	6	4
7/8	22.23	0.82 – 0.94	20.65 - 23.81	7	3
1	25.40	0.95 – 1.06	23.82 - 26.99	8	2
1 1/8	28.58	1.07 – 1.19	27.00 - 30.16	9	1
1 1/4 +	31.75	1.20 +	30.17 +	10	0

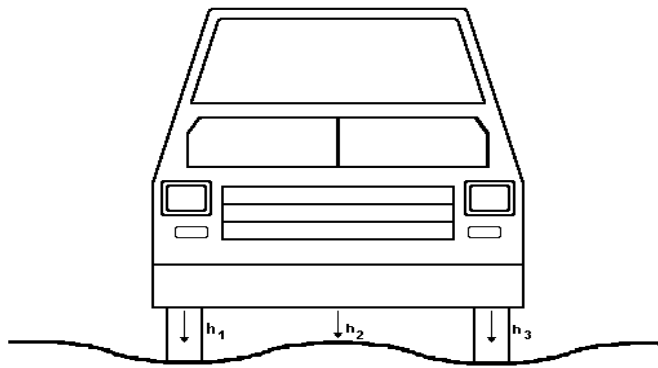


FIGURE 14. INERTIAL PROFILER RUT DEPTH METHOD

Ride Rating

The longitudinal profile of each wheel path is measured at highway speeds by the inertial profiler, See **Figure 15**. Longitudinal profile data is collected at the smallest sample interval possible, usually less than one inch. The data is then processed using a 300-foot wavelength Butterworth high-pass filter. The longitudinal profile data is used to calculate the International Roughness Index (IRI) and Ride Number (RN).

IRI is a mathematical processing of the longitudinal profile generated by the profiler. IRI is a standard practice for computing and reporting road roughness (**ASTM E1926**). IRI is reported in units of inches per mile (in/mi) and is scaled with 0 being the smoothest and the upper limit being infinite. IRI is reported to the Federal Highway Administration (FHWA) annually. IRI is reported as the average of the left and right wheel paths. IRI data for each individual wheel path may be reported upon request.

Ride Rating (RR) is based upon a scale of 0 (very rough) to 10 (very smooth). IRI is used to determine RR. Refer to **Table 7** to convert IRI values to Ride Rating.

RN is also a mathematical processing of longitudinal profile measurements. RN is an estimate of subjective ride quality (**ASTM E1489**) and it is presented on a 0 to 5 scale that is not represented by any units. An RN of 5 represents a pavement that is perfectly smooth; however, this value is unachievable even with the smoothest of pavements. RN is reported as the average of the left and right wheel paths. RN is a historical ride quality index that is no longer used but collected for information purposes only.

The following points are critical to the collection and reporting of Ride Rating:

1. The Ride Rating (RR) must not decrease more than 0.8 points or increase more than 0.4 points from the previous year's survey. For sections of New Pavement or New Construction, RR values must be 8.0 or more. Sections that do not meet the above requirements require reruns to be made according to rules in **Appendix A**.
2. Braking abruptly or accelerating rapidly (greater than 3 mph per second) produces invalid data. If this occurs the section must be re-tested.
3. Moisture on the surface of the pavement may affect the signal being returned from the sensor, causing invalid data. Do not test if the pavement is wet.

Some of the pavement sections contain specific elements that are intentionally excluded from profiler ride data because the Department does not wish to include in the Ride Rating values. These are listed below:

- Bridges
- Railroad crossings
- Speed attenuating devices (rumble strips and speed bumps/humps)
- Rigid tractor crossings

Other elements determined to be valid when establishing Ride Ratings are:

- All crosswalks (brick or textured pattern)
- Manholes
- Rigid pavement intersections (less than 0.25 mile)
- Raised lettering and stop bars

TABLE 7
IRI to RIDE RATING VALUES

IRI Range	Ride Rating	IRI Range	Ride Rating
1 – 12	10.0	162 – 166	5.5
13 – 28	9.2	167 – 170	5.4
29 – 32	9.1	171 – 175	5.3
33 – 34	9.0	176 – 180	5.2
35 – 37	8.9	181 – 185	5.1
38 – 39	8.8	186 – 190	5.0
40 – 42	8.7	191 – 195	4.9
43 – 46	8.6	196 – 200	4.8
47 – 50	8.5	201 – 206	4.7
51 – 54	8.4	207 – 212	4.6
55 – 58	8.3	213 – 218	4.5
59 – 62	8.2	219 – 224	4.4
63 – 66	8.1	225 – 230	4.3
67 – 70	8.0	231 – 236	4.2
71 – 74	7.9	237 – 242	4.1
75 – 78	7.8	243 – 249	4.0
79 – 82	7.7	250 – 256	3.9
83 – 86	7.6	257 – 264	3.8
87 – 89	7.5	265 – 271	3.7
90 – 93	7.4	272 – 278	3.6
94 – 97	7.3	279 – 285	3.5
98 – 100	7.2	286 – 293	3.4
101 – 104	7.1	294 – 300	3.3
105 – 107	7.0	301 – 310	3.2
108 – 111	6.9	311 – 318	3.1
112 – 115	6.8	319 – 327	3.0
116 – 118	6.7	328 – 337	2.9
119 – 122	6.6	338 – 345	2.8
123 – 125	6.5	346 – 354	2.7
126 – 129	6.4	355 – 362	2.6
130 – 133	6.3	363 – 371	2.5
134 – 137	6.2	372 – 373	2.4
138 – 140	6.1	374 – 385	2.3
141 – 144	6.0	386 – 397	2.2
145 – 149	5.9	398 – 406	2.1
150 – 152	5.8	407 – 533	2.0
153 – 157	5.7	>=534	1.0
158 – 161	5.6		



FIGURE 15. Laser Crack Measurement System (LCMS) with Inertial Profiler

IV. Flexible Pavement Condition Survey Field Workbook

The Flexible Pavement Condition Survey Field Workbook is used by the rater in the field to record cracking data and any comments as well as any changes in mileposts or pavement type. Profiler data is imported into this electronic field workbook then the completed workbook is uploaded to the database. The information on pages 37 thru 39 describes each data column on the Flexible Pavement Condition Survey Field Workbook.

FIELD RATING FORM FOR FLEXIBLE PAVEMENT CONDITION SURVEY

COLUMN TITLE	DESCRIPTION
Test Date	Date Section Tested (Imported from Data)
CNTY	County number
SEC	State Roadway County Section Number
SUB SEC	State Roadway County Subsection Number
SR	State Road Number Example: 0008; 0369 NOTE: First Digit indicates: 1 - Alternate 2 - Business Example: 1008 or 2369
US	US Road Number Example: 0027; 0301 NOTE: First Digit indicates: 1 - Alternate 2 - Business Example: 1027; 2301
RDWY	Roadway direction
TYPE	Pavement Type
BMP	Beginning Milepost of the rated section.
EMP	Ending Milepost of the rated section.
SPEED	Speed
LANES	Travel Lanes
RATED LANE	Rated Lane
CW	Cracking Confined to the wheel path. (Visual Rating)
CO	Cracking out of the wheel path. (Visual Rating)
CRK RATE	Visual Crack Rating (Calculated from CW and CO)
LCMS_CR	LCMS Crack Rating from previous year
LT RAV	Light Raveling
MD RAV	Moderate Raveling
SV RAV	Severe Raveling
PT	Patching
CRK TYPE	Crack Type
SURFTYPE	Surface Type
VER	Verification results
COMBINED REMARKS	Combines Comments and Remarks Columns (Automatic)

COLUMN TITLE	DESCRIPTION
LASER RUT	Laser Profiler Rut from Data
IRI	IRI value from Data
RN	RN from Data
RERUNS	Was Rerun Used?
COMMENTS	Comments from Technician or Office Staff
UNIT	Unit Code
UNIT TAG	DOT Tag Number of Unit
RATER 1	Rater 1 Code
RATER 2	Rater 2 Code
SYSTEM	System code <div style="display: flex; justify-content: space-around;"> 1 - Primary 2 - Secondary </div> <div style="display: flex; justify-content: space-around;"> 3 - Toll 4 - Interstate </div> <div style="display: flex; justify-content: space-around;"> 5 - Turnpike </div>
REMARKS	Entered using Toolbar “Remarks” button, select from list of Standard Remarks.

DISTRICT 1		DISTRICT 2		DISTRICT 3		DISTRICT 4		DISTRICT 5		DISTRICT 6		DISTRICT 7	
Charlotte	01	Alachua	26	Bay	46	Broward	86	Lake	11	Dade	87	Citrus	02
Collier	03	Baker	27	Calhoun	47	Indian River	88	Sumter	18	Monroe	90	Hernando	08
Desoto	04	Bradford	28	Escambia	48	Martin	89	Marion	36			Hillsborough	10
Glades	05	Columbia	29	Franklin	49	Palm Beach	93	Brevard	70			Pasco	14
Hardee	06	Dixie	30	Gadsden	50	St. Lucie	94	Flagler	73			Pinellas	15
Hendry	07	Gilchrist	31	Gulf	51			Orange	75				
Highlands	09	Hamilton	32	Holmes	52			Seminole	77				
Lee	12	Lafayette	33	Jackson	53			Volusia	79				
Manatee	13	Levy	34	Jefferson	54			Osceola	92				
Polk	16	Madison	35	Leon	55								
Sarasota	17	Suwannee	37	Liberty	56								
Okeechobee	91	Taylor	38	Okaloosa	57								
		Union	39	Santa Rosa	58								
		Clay	71	Wakulla	59								
		Duval	72	Walton	60								
		Nassau	74	Washington	61								
		Putnam	76										
		St. Johns	78										

COUNTY NAME AND CODE NUMBER – ARRANGED BY DISTRICT

APPENDIX A

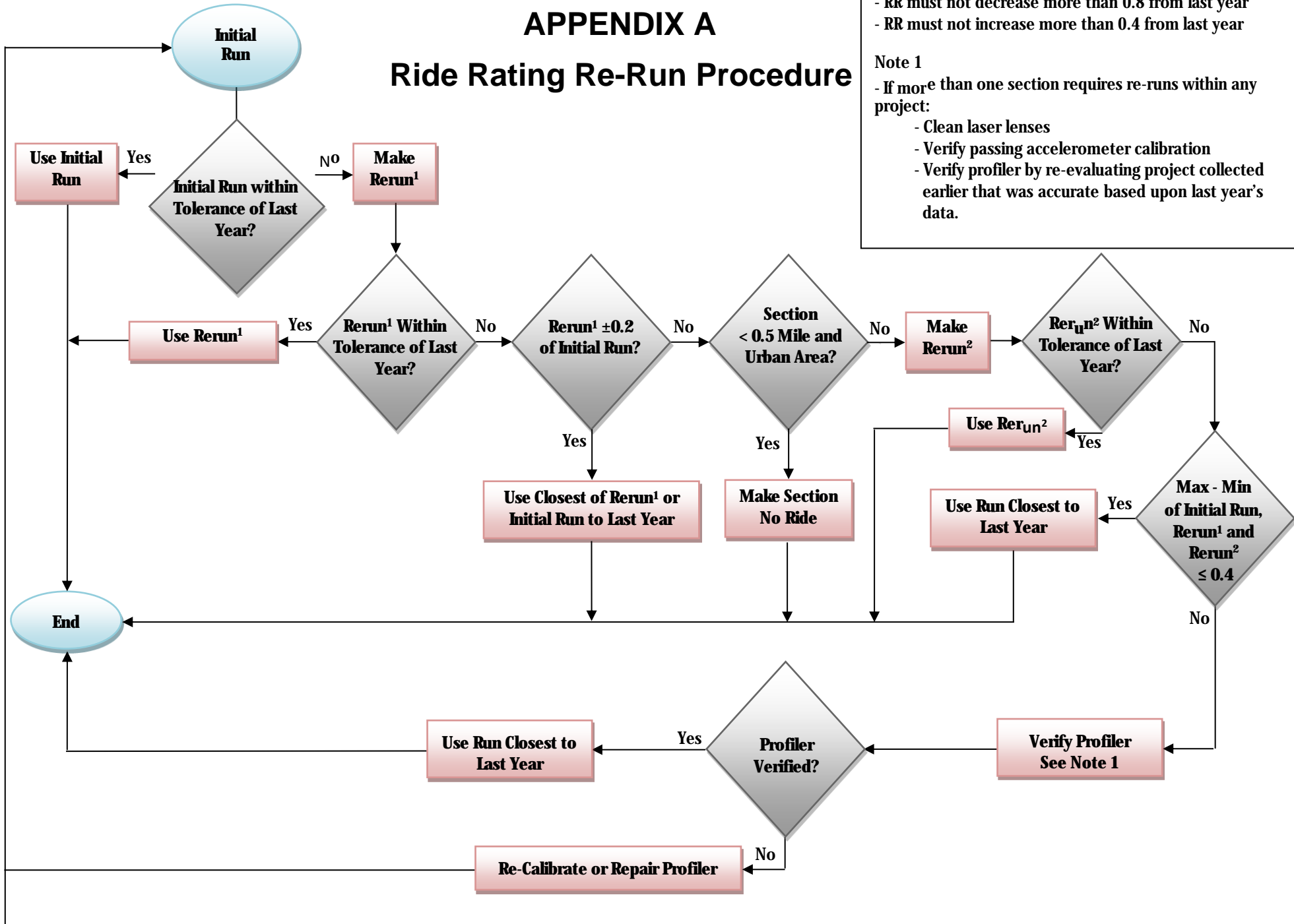
Ride Rating Re-Run Procedure

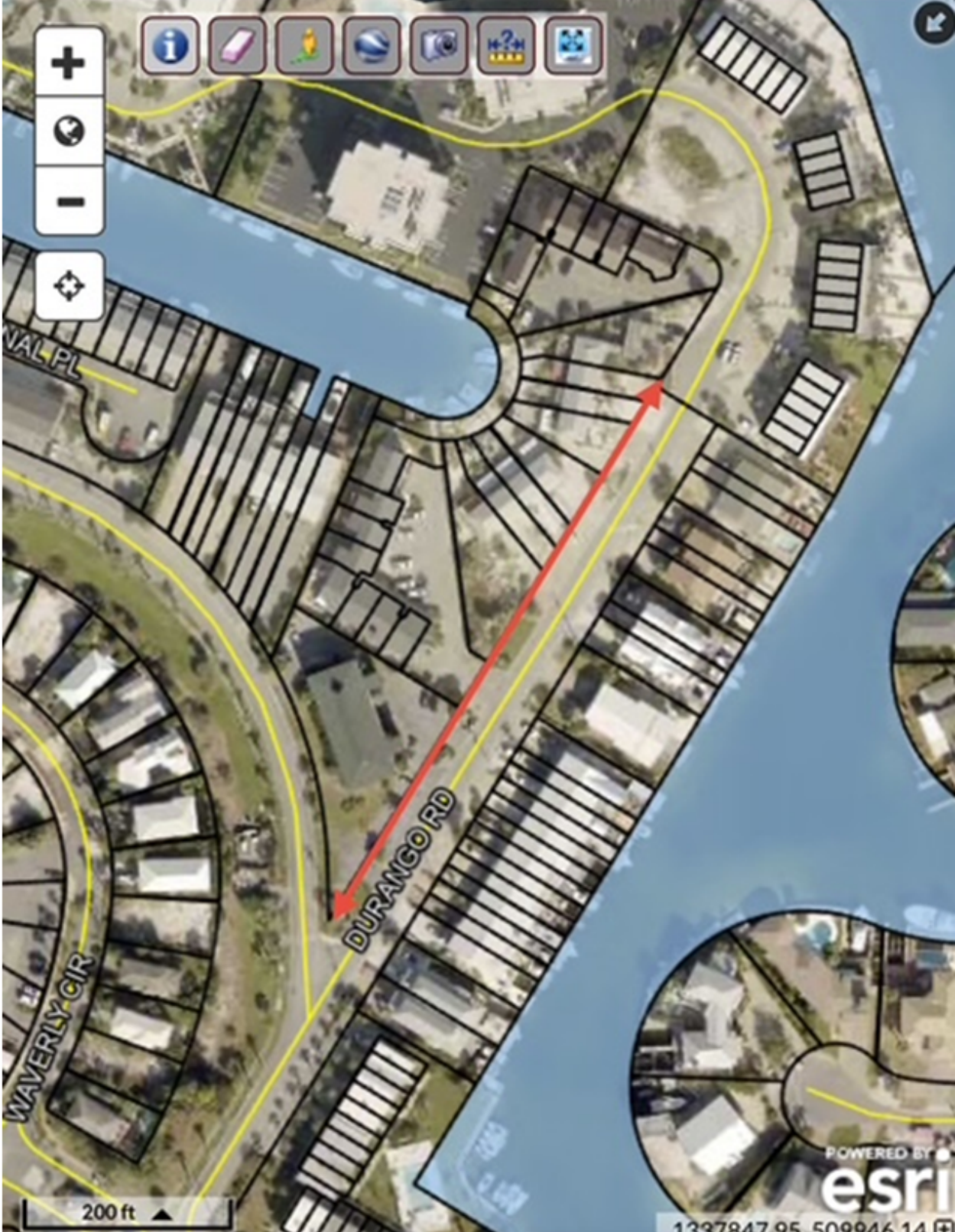
Tolerances from Last Year RR

- RR must not decrease more than 0.8 from last year
- RR must not increase more than 0.4 from last year

Note 1

- If more than one section requires re-runs within any project:
 - Clean laser lenses
 - Verify passing accelerometer calibration
 - Verify profiler by re-evaluating project collected earlier that was accurate based upon last year's data.







HOLIDAY ISLE IMPROVEMENT ASSOCIATION, INC.
P.O. BOX 5467 • DESTIN, FL 32540

Dear Mr. Burgess,

As the President of Holiday Isle Improvement Association, Inc., I am writing to express Holiday Isle Improvement Association, Inc.'s strong support for the addition of a sidewalk along the west side of Durango Road. As residents and active members of the Destin community, we have witnessed a consistent and growing number of pedestrians using Durango Road daily with no sidewalk, while they make their way to the crosswalk, to continue onto the sidewalk along Gulf Shore Drive. This includes dog walkers, families, children, and visitors to Destin who walk the area for both recreation and transportation. Unfortunately, the current lack of a designated sidewalk creates unsafe conditions for approximately 175 property members and their guests. They are directly affected and pedestrians are forced to share the roadway with vehicular traffic, which has also increased exponentially both in numbers and speed.

Because of these hazards, installing a sidewalk on the west side of Durango Road would significantly improve safety, accessibility, and the overall walkability of our neighborhood. It would also align with the City of Destin's broader goals to enhance community infrastructure and promote pedestrian-friendly environments and mobility for both residents and visitors alike.

We respectfully request that this project be considered a priority, and are happy to support the effort in any way we can—whether through community engagement, letters of support, or participation in public meetings, beginning with the Public Works and Safety Committee meeting scheduled for May 13, 2025.

Thank you for your attention to this important matter. We appreciate your ongoing efforts to improve the safety and quality of life in our community.

Sincerely,

Harold Sumerford
President
Holiday Isle Improvement Association, Inc.