Florida Department of TRANSPORTATION

History of Florida Pavement Condition Survey

1973 to 2026

FDOT Office
State Materials Office

Date of Publication
March 2026

HISTORY OF FLORIDA PAVEMENT CONDITION SURVEY

2026-1973

2026 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *Changed Section Length rules for flexible and rigid pavements in PCS Handbooks from 0.500 miles to 0.250 miles.*

2) *PCS Field Work Started 01/28/2025 and was completed on 10/15/2025.*

3) *Survey Released* *01/22/2026*

4) *Flexible Miles Rated* *19518.495*

Rigid Miles Rated *501.454*

Total Miles Rated *20019.949*

5) *Flexible Lane Miles* *45142.669*

Rigid Lane Miles *1292.441*

Total Lane Miles *46435.110*

6) *Flexible sections rated* *10002*

Rigid sections rated *361*

Total sections rated *10363*

7) *Year of HPMS 2 Year Cycle* *2*

Districts Collected for HPMS *1, 2, 4 and 6*

HPMS Interstate Miles *1495.900*

HPMS Non-Interstate Miles *10614.406*

Total HPMS Miles *12111.306*

2025 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *Added PCS reviewer fields to the Excel PCS workbook with the ability to upload the data to SQL database.*

2) *Added all LCMS cracking fields to the Excel PCS workbook along with the ability to upload the data to SQL database.*

3) *Added LCMS Cracking as primary cracking method to the Excel PCS workbook designated with a separate column labeled CR_SRC with "A" representing Automated LCMS crack source and "M" representing Manual crack source.*

4) *Switched to LCMS for primary rutting measurement.*

5) *Established rules to trigger manual review of PCS Sections and determine if the cracking decision for the section will be made by Rater or LCMS.*

6) *Created new buckets for manual crack ratings, B+, C+, D+, F+, G+, H+, J+, K+, L+ with the "+" signifying slightly better rating than just the letter alone. This eliminates the large jumps in crack rating from one letter to the next for the manual rating.*

7) *Created Python Raveling Detection based on BE939 Final Report.*

8) *Established a Raveling Deduct using machine learning code (Automated) that is separate from Cracking Deduct.*

9) *D2 Scrap Scop/Local Government Projects = 104.10 miles tested*

10) *PCI Survey of Central Florida Tourism Oversight District (CFTOD) = 280 miles tested*

11) *PCS Field Work Started 1/22/2024 and was completed on 11/14/2024.*

12) *Survey Released 2/28/2025*

13) *Flexible Miles Rated 19301.574*
Rigid Miles Rated 497.019
Total Miles Rated 19798.593

14) *Flexible Lane Miles 44882.498*
Rigid Lane Miles 1296.251
Total Lane Miles 46178.749

15) *Flexible sections rated 8826*
Rigid sections rated 344
Total sections rated 9170

16) *Year of HPMS 2 Year Cycle 1*
Districts Collected for HPMS 3, 5, and 7
HPMS Interstate Miles 1497.17
HPMS Non-Interstate Miles 10593.33
Total HPMS Miles 12090.50

2024 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *D2 Scrap Scop/Local Government Projects =201.76 miles tested*

2) *PCS Field Work Started 2/14/2023 and was completed on 11/30/23.*

3) *Survey Released 2/13/2024.*

4) *Flexible Miles Rated 19,157.809*
Rigid Miles Rated 456.478
Total Miles Rated 19,614.287

5) *Flexible Lane Miles 44,566.545*
Rigid Lane Miles 1,215.647
Total Lane Miles 45,782.192

6) *Flexible sections rated 8,581*
Rigid sections rated 332

	Total sections rated	*8,913*

2023 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *FDOT collected PCS and HPMS on/off system concurrently on all on-system roads with LCMS in accordance with 2022 DQMP.*

2) *Implemented the Help button in the ribbon of the Excel PCS field workbook.*

3) *Implemented the Online SharePoint PCS Power Bi Dashboard for District use.*

4) *Implemented adding Acceptance Data into the PCS Survey, replacing PCS data collected through.*

5) *PCS Field Work Started 2/2/2022 and was completed on 01/24/23.*

6) *Survey Released 2/24/2023.*

7)	*Flexible Miles Rated*	*19,056.089*
	Rigid Miles Rated	*448.527*
	Total Miles Rated	*19,504.616*
8)	*Flexible Lane Miles*	*44,385.641*
	Rigid Lane Miles	*1,197.565*
	Total Lane Miles	*45,583.206*
9)	*Flexible sections rated*	*8,474*
	Rigid sections rated	*327*
	Total sections rated	*8,801*

2022 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *FM 5-549 updated to include Daily Bounce.*

2) *Daily Bounce Test implementation for all PCS data collection.*

3) *FDOT collected PCS and HPMS concurrently on Interstate with LCMS in accordance with 2021 DQMP.*

4) *FDOT collected five pilot counties for PCS with LCMS: Alachua, Bradford, Columbia, Gilchrist, Leon*

5) *ARA collected HPMS Non-Interstate with LCMS in accordance with 2021 DQMP.*

6) *Implemented the Excel based PCS dashboard for PCS inventory, QC checks, and Automated reporting.*

7) *PCS Field Work Started 1/19/2021 and was completed on 10/27/2021.*

8) *Survey Released 2/21/2022.*

9)	*Flexible Miles Rated*	*18,916.329*
	Rigid Miles Rated	*443.928*
	Total Miles Rated	*19,360.257*
9)	*Flexible Lane Miles*	*44,066.355*
	Rigid Lane Miles	*1,217.340*
	Total Lane Miles	*45,283.695*
10)	*Flexible sections rated*	*8,343*
	Rigid sections rated	*313*

Total sections rated *8,656*

2021 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) FDOT collected PCS and HPMS concurrently on Interstate with LCMS in accordance with 2020 DQMP.

2) Implemented Excel PCS field workbook to upload to SQL Server (Off Mainframe) with SQL server QC checks.

3) Implemented a new rerun criteria for IRI based + or – 2 standard deviation points using a 4-year dataset and test speed for PCS data collection.

4) Implemented a rerun criteria for rut based + or – 2 standard deviation points using a 4-year dataset and rut depth for PCS data collection.

5) PCS Field Work Started 1/13/2020 and was completed on 12/16/2020.

6) Survey Released 2/16/2021.

7)	*Flexible Miles Rated*	*18,868.616*
	Rigid Miles Rated	*457.265*
	Total Miles Rated	*19,325.881*
8)	*Flexible Lane Miles*	*43,945.134*
	Rigid Lane Miles	*1,241.073*
	Total Lane Miles	*45,186.207*
9)	*Flexible sections rated*	*8,319*
	Rigid sections rated	*338*
	Total sections rated	*8,657*

2020 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) ARA collected HPMS Interstate with LCMS in accordance with 2019 DQMP.

2) Moved all PCS data from Mainframe to SQL Server.

3) PCS Field Work Started 2/1/2019 and was completed on 10/9/2019.

4) Survey Released 2/28/2020.

5)	*Flexible Miles Rated*	*18,674.257*
	Rigid Miles Rated	*448.625*
	Total Miles Rated	*19,122.882*
6)	*Flexible Lane Miles*	*43,613.034*
	Rigid Lane Miles	*1,223.430*
	Total Lane Miles	*44,836.464*
7)	*Flexible sections rated*	*8,198*
	Rigid sections rated	*327*
	Total sections rated	*8,525*

2019 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) First DQMP - ARA collected HPMS Interstate with LCMS in accordance with 2018 DQMP.

2) All data collected using Gocator 2342 Line lasers with line at 90° (transverse) angle.

3) *Started processing all data using Butterworth High Pass (Reverse) 300 ft cutoff wavelength.*

4) *PCS Field Work Started 1/7/2018 and was completed on 9/19/2018.*

5) *Survey Released 2/27/2019.*

6) *Flexible Miles Rated* *18,637.470*
Rigid Miles Rated *436.852*
Total Miles Rated *19,074.322*

7) *Flexible Lane Miles* *43,239.971*
Rigid Lane Miles *1,191.450*
Total Lane Miles *44,431.421*

8) *Flexible sections rated* *8,365*
Rigid sections rated *323*
Total sections rated *8,688*

2018 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *Implemented the Excel Ribbon in the Excel PCS Field workbook. Removed the buttons from the sheet.*

2) *PCS - Implemented any cracks containing pumping counted as Class III cracks in the Manual Rating process.*

3) *PCS Field Work Started 4/10/2017 and was completed on 12/6/2017.*

4) *Survey released 3/12/2018.*

5) *Flexible Miles Rated* *18,558.548*
Rigid Miles Rated *407.526*
Total Miles Rated *18966.074*

6) *Flexible Lane Miles* *43,013.477*
Rigid Lane Miles *1,137.149*
Total Lane Miles *44,150.626*

7) *Flexible sections rated* *8,365*
Rigid sections rated *311*
Total sections rated *8,676*

2017 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *PCS Field Work Started 4/4/2016 and was completed on 12/8/2016*

2) *Survey released 4/3/2017*

3) *Flexible Miles Rated* *18,557.858*
Rigid Miles Rated *373.938*
Total Miles Rated *18,931.796*

4) *Flexible Lane Miles* *42,845.250*
Rigid Lane Miles *1,067.779*

	Total Lane Miles	*43,913.029*
5)	*Flexible sections rated*	*8,334*
	Rigid sections rated	*298*
	Total sections rated	*8,632*

2016 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*PCS Field Work Started 4/6/2015 and was completed on12/10/2015*	
2)	*Survey released 4/1/2016*	
3)	*Flexible Miles Rated*	*18,560.134*
	Rigid Miles Rated	*367.637*
	Total Miles Rated	*18,927.771*
4)	*Flexible Lane Miles*	*42,712.512*
	Rigid Lane Miles	*1,052.302*
	Total Lane Miles	*43,764.814*
5)	*Flexible sections rated*	*8,333*
	Rigid sections rated	*283*
	Total sections rated	*8,616*

6) Policy change: International Roughness Index (IRI) now being used to determine Ride rating.

2015 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*All data collected with GPS coordinate technology.*	
2)	*PCS Field Work Started 4/14/2014 and was completed on12/17/2014*	
3)	*Survey released 4/1/2015*	
4)	*Flexible Miles Rated*	*18,503.262*
	Rigid Miles Rated	*366.361*
	Total Miles Rated	*18,869.623*
5)	*Flexible Lane Miles*	*42,465.824*
	Rigid Lane Miles	*1,049.607*
	Total Lane Miles	*43,515.431*
6)	*Flexible sections rated*	*8,371*
	Rigid sections rated	*280*
	Total sections rated	*8,651*

2014 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*Implemented the Bounce Test in the calibration (every 30 days) of all PCS data collection.*	
2)	*PCS Field Work Started 4/09/2013 and was completed on12/19/2013*	
3)	*Survey released 4/01/2014*	

4)	*Flexible Miles Rated*	*18,471.424*
	Rigid Miles Rated	*364.947*
	Total Miles Rated	*18,836.371*
5)	*Flexible Lane Miles*	*42,349.175*
	Rigid Lane Miles	*1,045.639*
	Total Lane Miles	*43,394.814*
6)	*Flexible sections rated*	*8,383*
	Rigid sections rated	*274*
	Total sections rated	*8,657*

2013 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*PCS Field Work Started 4/09/2012 and was completed on12/18/2012*	
2)	*Survey released 4/01/2013*	
3)	*Flexible Miles Rated*	*18,441.457*
	Rigid Miles Rated	*360.983*
	Total Miles Rated	*18,802.440*
4)	*Flexible Lane Miles*	*42,210.848*
	Rigid Lane Miles	*1,038.919*
	Total Lane Miles	*43,249.767*
5)	*Flexible sections rated*	*8,381*
	Rigid sections rated	*271*
	Total sections rated	*8,652*

2012 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*PCS Field Work Started 04/04/2011 and was completed on 12/01/2011*	
2)	*Survey released 03/30/2012*	
3)	*Flexible Miles Rated*	*18,405.695*
	Rigid Miles Rated	*362.503*
	Total Miles Rated	*18,768.198*
4)	*Flexible Lane Miles*	*41,981.117*
	Rigid Lane Miles	*1,042.344*
	Total Lane Miles	*43,023.461*
5)	*Flexible sections rated*	*8,343*
	Rigid sections rated	*271*
	Total sections rated	*8,614*

2011 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *PCS Field Work Started 03/29/2010 and was completed on 12/07/2010*

2) *Survey released 04/01/2011*

3) *Flexible Miles Rated* *18,406.282*

Rigid Miles Rated *361.459*

Total Miles Rated *18,767.741*

4) *Flexible Lane Miles* *41,878.991*

Rigid Lane Miles *1,039.600*

Total Lane Miles *42,918.591*

5) *Flexible sections rated* *8,384*

Rigid sections rated *269*

Total sections rated *8,653*

2010 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *Implemented laser profiler to collect rigid faulting data*

2) *Implemented automated rigid field data entry workbook for upload to mainframe dataset*

3) *Profile data was collected using a sampling rate of 1 inch and reported to 6 inch, compared to sampling and reporting at 6 inch.*

4) *Implemented new Highway Performance Monitoring System (HPMS) Reassessment data and reporting requirements:*
- Data reported in 0.100 mile with Bridges/Structures included.
- Percent Fatigue Cracking and Rutting for Flexible Pavement
- Percent Slabs Cracked and Faulting for Rigid Pavement

5) *Average Slab Length, Percent Cracked Slabs, Multiple Cracked Slab fields added to rigid dataset to accommodate new HPMS requirements.*

6) *PCS Field Work Started 04/06/2009 and was completed on 12/17/2009*

7) *Survey released 04/02/2010*

8) *Flexible Miles Rated* *18,428.759*

Rigid Miles Rated *360.947*

Total Miles Rated *18,789.706*

9) *Flexible Lane Miles* *41,779.604*

Rigid Lane Miles *1,020.471*

Total Lane Miles *42,800.075*

10) *Flexible sections rated* *8,416*

Rigid sections rated *271*

Total sections rated *8,687*

2009 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *Implemented automated flexible field data entry workbook for upload to mainframe dataset*

2) *Minimum rated section length increased to ½ mile*

3) *Build PCS dataset from laser profiler reports for programmatic extraction of HPMS sample sections*

4) *Paved turn lane no longer considered divided highway*

5) *Completed SCRAP/SCOP 09/02/2008*

District 4 – 20.1 miles rated

6) *PCS Field Work Started 03/31/2008 and was completed on 12/16/2008*

7) *Survey released 04/02/2009*

8) *Flexible Miles Rated* *18,504.668*

Rigid Miles Rated *344.319*

Total Miles Rated *18,848.987*

9) *Flexible Lane Miles* *41,586.720*

Rigid Lane Miles *962.479*

Total Lane Miles *42,549.199*

10) *Flexible sections rated* *8,520*

Rigid sections rated *261*

Total sections rated *8,781*

2008 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *All survey vehicles utilizing WinPro data acquisition software*

2) *Rated Lane field added to database*

3) *Financial Project ID field added to database. FIN recorded if section is greater than or equal to one mile.*

4) *Completed SCRAP/SCOP 09/10/2007*

Miles Rated

- *District 2 – 245.704*
- *District 3 – 184.569*
- *District 4 – 22.639*

5) *PCS Field Work Started 03/26/2007, and was completed on 01/09/2008*

6) *Survey released 04/01/2008*

7) *Flexible Miles Rated* *18,543.264*

Rigid Miles Rated *350.263*

Total Miles Rated *18,893.527*

8) *Flexible Lane Miles* *41,400.810*

Rigid Lane Miles *962.888*

Total Lane Miles *42,363.698*

9) *Flexible sections rated* *8,660*

Rigid sections rated *265*

	Total sections rated	*8,925*

2007 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*Completed SIS survey*	*02/28/07*
	Miles Rated	*204.919*
2)	*Completed SCRAP/SCOP*	*08/14/2006*
	Miles Rated	*1,103.66*
3)	*PCS Field Work Started 03/20/06, and was completed on 12/19/2006*	
4)	*Survey released*	*03/21/07*
5)	*Flexible Miles Rated*	*18,328.929*
	Rigid Miles Rated	*363.891*
	Total Miles Rated	*18,692.820*
6)	*Flexible Lane Miles*	*41,191.490*
	Rigid Lane Miles	*988.434*
	Total Lane Miles	*42,179.924*
7)	*Flexible sections rated*	*8,199*
	Rigid sections rated	*270*
	Total sections rated	*8,469*

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2006 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*Completed SIS survey*	*June 15, 2005*
	Miles Rated	*185.431*
2)	*Completed SCRAP/SCOP*	*July 31, 2005*
	Miles Rated	*882.672*
3)	*PCS Started 03/14/05, and was completed on 12/14/05*	
4)	*Flexible Miles Rated*	*18,251.530*
	Rigid Miles Rated	*364.390*
	Total Miles Rated	*18,615.920*
5)	*Flexible Lane Miles*	*40,788.130*
	Rigid Lane Miles	*993.210*
	Total Lane Miles	*41,781, 340*
6)	*Flexible sections rated*	*8,013*
	Rigid sections rated	*271*
	Total sections rated	*8,284*
7)	*Policy change made a ride rating of less than 5.5 deficient if the posted speed limit was less than 50 mph. Otherwise, ride rating of less than 6.5 was deficient.*	

2005 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*PCS Started 03/29/04, and was completed on 12/15/04*	

2)	*Flexible Miles Rated*	*18,061.640*
	Rigid Miles Rated	*363.080*
	Total Miles Rated	*18,424.720*
3)	*Flexible Lane Miles*	*40,380.770*
	Rigid Lane Miles	*975.700*
	Total Lane Miles	*41,356.470*
4)	*Flexible sections rated*	*7,966*
	Rigid sections rated	*261*
	Total sections rated	*8,227*

2004 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) For the 2004 Survey, the profile data is collected using a sampling rate of 6 inch compared to a 12 inch sample interval in previous survey years.

2) Survey started 03/24/2003, and was completed on 01/14/04

3) Survey released 03/23/04

4)	*Flexible Miles Rated*	*18,071.48*
	Rigid Miles Rated	*368.24*
	Total Miles Rated	*18,439.72*
5)	*Flexible Lane Miles*	*40,039.01*
	Rigid Lane Miles	*976.94*
	Total Lane Miles	*41,015.50*
6)	*Flexible sections rated*	*7,884*
	Rigid sections rated	*269*
	Total sections rated	*8,153*

2003 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) Added Code for Raters to CC 85 & CC 86 of the Flexible AREA file.

2) Added Code for Raters to CC 52 & CC 53 of the Flexible PERMANENT file.

3) Survey was started on 03/25/2002, and was completed 01/08/2003

4)	*Survey released*	*3/27/03*
5)	*Flexible Miles Rated*	*17,916.53*
	Rigid Miles Rated	*369.94*
	Total Miles Rated	*18,286.47*
6)	*Flexible Lane Miles*	*39,800.39*
	Rigid Lane Miles	*978.44*
	Total Lane Miles	*40,778.82*

7) *Flexible sections rated* *7,871*

Rigid sections rated *267*

Total sections rated *8,138*

9) *Added rater codes to the area data set in CC 85 & 86.*

Not included in permanent data set

10) *Added to the handbook that all lanes could be considered for*

overall crack rating (reflective of overall condition).

2002 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *Survey started on 04/02/2001, and was completed on 01/17/2002*

2) *Added Ride Number to Rut Depth in 0.01 interval*

3) *Added R to indicate profiler reruns under verification codes*

4) *Survey released* *03/15/2002*

5) *Flexible Miles Rated* *17,898.876*

Rigid Miles Rated *397.640*

Total Miles Rated *18,296.516*

6) *Flexible Lane Miles* *39,428.791*

Rigid Lane Miles *1,034.599*

Total Lane Miles *40,463.390*

7) *Flexible sections rated* *7,777*

Rigid sections rated *275*

Total sections rated *8,052*

8) *Policy change made a ride rating of less than 5.5 deficient if the posted speed limit was less than 45 mph. Otherwise, a rating of less than 6.5 was deficient.*

2001 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) *Removed Code for Type and leading zero from State Road number and U.S. Road Number field.*

2) *Allowed laser measured rut depths to be used on Type 6 (no ride) in lieu of manual measurements.*

3) *Survey started 03/27/2000, and was completed on 01/10/2001*

4) *Survey released on 3/12/2001*

5) *Flexible Miles Rated* *17,624.341*

Rigid Miles Rated *546.806*

Total Miles Rated *18,170.190*

6) *Flexible Lane Miles* *38,831.473*

Rigid Lane Miles *1,331.175*

Total Lane Miles *40,162.648*

7) *Flexible sections rated* *7,782*

Rigid rated section *302*

Total sections rated *8,084*

2000 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) Survey was started on 03/22/99, and was completed on 1/12/2000

2) Survey released on 3/24/2000

3) Flexible Miles Rated *17,486.318*

Rigid Miles Rated *605.559*

Total Miles Rated *18,091.877*

4) Flexible Lane Miles *38,535.787*

Rigid Lane Miles *1,476.148*

Total Lane Miles *40,011.935*

5) Flexible sections rated *7,770*

Rigid rated section *307*

Total sections rated *8,077*

6) Tested Forest Roads per Federal Highway Administration request.

Total miles rated *530.190*

Total number of roads *74*

7) Tested HPMS off- system sections for first time

Total miles rated *357.4*

Total sections rated *262*

1999 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) Converted to laser profilers.

2) Used Ride Number (RN) times 20 for ride rating.

3) Ride number was based on rate 4 (12 inch) filtered to 300-foot wavelength from the outside wheel path.

4) Started using laser profiler for ride acceptance Rate 2 (6 inch) Ride Number (RN) filtered to 300 foot.

5) Warranty specification implemented this year.

6) Survey was started on 03/30/98, and was completed on 01/12/99

7) Survey was released on *3/22/99*

8) Flexible Miles Rated *17,314.411*

Rigid Miles Rated *622.325*

Total Miles Rated *17,976.736*

9) Flexible Lane Miles *37,925.623*

Rigid Lane Miles *1,566.420*

Total Lane Miles *39,492.043*

10)	*Flexible sections rated*	*7,652*
	Rigid rated section	*322*
	Total sections rated	*7,974*

1998 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*Survey started 3/17/97, and was completed on 1/13/98*	
2)	*Survey released 4/01/98*	
3)	*Flexible Miles Rated*	*17,201.156*
	Rigid Miles Rated	*681.677*
	Total Miles Rated	*17,882.833*
4)	*Flexible Lane Miles*	*37,572.317*
	Rigid Lane Miles	*1,592.399*
	Total Lane Miles	*39,164.716*
5)	*Flexible sections rated*	*7,524*
	Rigid rated section	*330*
	Total sections rated	*7,854*

1997 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1)	*Survey started 3/22/96, and was completed on 1/16/97*	
2)	*Survey released 3/05/97.*	
3)	*Flexible Miles Rated*	*17,121.634*
	Rigid Miles Rated	*692.277*
	Total Miles Rated	*17,813.911*
4)	*Flexible Lane Miles*	*37,307.869*
	Rigid Lane Miles	*1,603.559*
	Total Lane Miles	*38,911.428*
5)	*Flexible sections rated*	*7,429*
	Rigid rated section	*329*
	Total sections rated	*7,758*

1996 Completed Flexible and Rigid Pavement Survey by State Materials Office

1) *Survey started 3/27/95.*

2) *Survey field-work completed 1/17/96.*

3) *Survey released 3/05/96.*

4)	*Flexible Miles Rated*	*17,027.506*
	Rigid Miles Rated	*718.910*
	Total Miles Rated	*17,746.416*
5)	*Flexible Lane Miles*	*37,018.830*
	Rigid Lane Miles	*1,694.010*
	Total Lane Miles	*38,712.840*
6)	*Flexible sections rated*	*7,209*
	Rigid rated section	*337*
	Total sections rated	*7,546*

1995 Completed Flexible and Rigid Pavement Survey by State Materials Office

1) Survey started 3/21/94

2) Light moderate and severe raveling added to survey as separate identity.

3) Patching added to survey as separate identity.

4) Type 2 added to survey to reflect pavement improvements without complete overlay (Intersections overlays).

5) System coded under US number was changed to match system codes.

6) Completed survey field-work January 26, 1995.

7) Survey released on March 30, 1995.

8) HPMS - FHWA added primary and interstate system in one direction - Appendix J.

9) Produced PCS and HPMS Facts.

10)	*Flexible Miles Rated*	*16,879.704*
	Rigid Miles Rated	*746.673*
	Total Miles Rated	*17,626.377*
11)	*Flexible Lane Miles*	*36,390.738*
	Rigid Lane Miles	*1,738.909*
	Total Lane Miles	*38,129.647*
12)	*Flexible sections rated*	*7,078*
	Rigid rated section	*347*
	Total sections rated	*7,425*

1994 Completed Flexible Pavement by State Materials Office

1) Survey started 6/07/93

2) Instructions from Mr. Ken Morefield via Mr. L.L. Smith were to complete flexible survey by April 01, 1994. The rigid pavement will not be accomplished in 1994 in order to complete survey by April 01, 1994.

3) Completed survey field-work on February 3, 1994.

4) Released survey on February 21, 1994.

5)	*Flexible Miles Rated*	*16,766.683*
	Rigid Miles Rated	*861.287*

	Total Miles Rated	*17,627.970*
6)	*Flexible Lane Miles*	*36,065.275*
	Rigid Lane Miles	*1,959.640*
	Total Lane Miles	*38,024.915*
7)	*Flexible sections rated*	*7,026*
	Rigid rated section	*387*
	Total sections rated	*7,413*

1993 Completed Flexible and Rigid Pavement Surveys by State Materials Office

1) Survey started 7/06/92, and was completed on 4/22/1993

2) Ultrasonic Rut Depth (Actual Values) was recorded in CC 44-47 in Team File and CC 60-63 in permanent file.

3) New instruction manuals flexible and rigid for the Pavement Condition Survey published April, 1993.

4) Released survey 5/28/1993

5)	*Flexible Miles Rated*	*16,662.666*
	Rigid Miles Rated	*861.677*
	Total Miles Rated	*17,523.953*
6)	*Flexible Lane Miles*	*35,765.134*
	Rigid Lane Miles	*1,959.640*
	Total Lane Miles	*37,724.774*
7)	*Flexible sections rated*	*6,934*
	Rigid sections rated	*389*
	Total sections rated	*7,323*

1992 Complete Flexible and Rigid Pavement Surveys by State Materials Office

1) Survey was started on 8/05/91, and was completed on 5/04/1992

2) Ultrasonic Profilers replaced Mays Ride Meters

Ride Rating (RR) = 99.7576 + (-0.1569 X IRI) used until 1999 survey

3) Rut Depth measured manually and with Ultrasonic Profilers for comparison

4) 0 to 10 scale implemented for Rut, Ride, and Defect scale as new rating system selected by Pavement Management Committee

5) Rut scale changed to add 1 1/8" and 1¼" for 10 scale

6) IRI reported for outside wheel path only with no filtering

7) IRI converted to PSI_{sv} (10 scale) through correlation to CHLOE Profilometer. Correlation combined all units at all speeds (30, 40 & 50 MPH) and for both wheel paths. IRI is an ASTM E-1926 standard.

8) Number of lanes added to Type 9 code (State Maintained exception such as bridges, etc.)

9) Responsibility for HPMS sections added to Survey Personnel.

10) Rut depth (Ultrasonic) in 0.001 mile increments for interstate flexible system was added to mainframe database

11) *Ultrasonic Rut Depth was used for Rut rating (Flexible Pavement Survey). If Type 6 (No Ride) then Manual Rut Depth was used.*

12) *Cracking scale was adjusted from procedures manual to J=2.5 if confined to wheel path (CW), and J=1.0 if outside of wheel path (CO). Adjustments made per Mr. Ken Morefield.*

13)	*Flexible Miles Rated*	*16,504.153*
	Rigid Miles Rated	*889.772*
	Total Miles Rated	*17,392.183*
14)	*Flexible Lane Miles*	*35,402.349*
	Rigid Lane Miles	*2,020.421*
	Total Lane Miles	*37,422.770*
15)	*Flexible sections rated*	*6,726*
	Rigid rated section	*394*
	Total sections rated	*7,118*

1991 Complete Flexible and Rigid Pavement Surveys by State Materials Office

1) *Survey was started on 6/11/90, and was completed on 05/02/91*

2) *Programming change to allow a menu driven data entry for Flexible Pavement Survey*

3) *A modified cracking method was added to Flexible Pavement Survey for evaluation*

4) *Added Type 0 to identify an exception, <u>not</u> state maintained, or a duplicate roadway section evaluated under another county section number that should be exceptions*

5) *All verification reports completed on May 09, 1991.*

6) *Survey on 0 to 10 scale was introduced for Flexible and Rigid.*

7)	*Flexible Miles Rated*	*16,431.367*
	Rigid Miles Rated	*912.414*
	Total Miles Rated	*17,343.781*
8)	*Flexible Lane Miles*	*34,915.445*
	Rigid Lane Miles	*2,009.968*
	Total Lane Miles	*36,925.413*
9)	*Flexible sections rated*	*6,456*
	Rigid sections rated	*397*
	Total Sections Rated	*6,853*

1990 Complete Flexible and Rigid Pavement Surveys by the State Materials Office

1) *Survey was started on 6/12/89, and was completed on 05/02/1990*

2) *Trailers were painted and reconditioned causing delay in survey schedule*

3) *Added lanes to Type 9 (structures and/or exception) and Type 8 (under construction)*

4)	*Flexible Miles Rated*	*17,087.904*
	Rigid Miles Rated	*922.423*

	Total Miles Rated	*18,010.327*
5)	*Flexible Lane Miles*	*34,684.121*
	Rigid Lane Miles	*2,060.555*
	Total Lane Miles	*36,744.676*
6)	*Flexible sections rated*	*6,571*
	Rigid sections rated	*407*
	Total Sections Rated	*6,978*

1989 Complete Flexible and Rigid Pavement Surveys performed by the State Materials Office

1) Type 5 (new construction) and Type 7 (new overlay) codes were added

2) L (light), M (Moderate), and S (severe) codes were added in the Comments field to indicate the severity of up to 25% cracking

3) Survey started 2nd week in June 1988, and was completed in 1st week of May 1989

4)	*Flexible Miles Rated*	*16,715.302*
	Rigid Miles Rated	*926.118*
	Total Miles Rated	*17,641.420*
5)	*Flexible Lane Miles*	*33,875.971*
	Rigid Lane Miles	*2,052.093*
	Total Lane Miles	*35,928.064*
6)	*Flexible sections rated*	*6,476*
	Rigid sections rated	*399*
	Total Sections Rated	*6,875*

1988 Complete Flexible and Rigid Pavement Surveys performed by State Materials Office

1) Survey was started in the third week of August 1987, and was completed in 1st week of May 1988

2)	*Flexible Miles Rated*	*16,423.565*
	Rigid Miles Rated	*939.608*
	Total Miles Rated	*17,363.173*
3)	*Flexible Lane Miles*	*33,334.466*
	Rigid Lane Miles	*2,064.341*
	Total Lane Miles	*35,398.807*
4)	*Flexible sections rated*	*6,347*
	Rigid sections rated	*401*
	Total sections rated	*6,748*

1987 Complete Flexible and Rigid Pavement Surveys performed by State Materials Office

1) *Changes made to computer programs - flexible edit, flexible compare, and flexible difference*

2) *Survey was started in the third week of September 1986, and was completed in the last week of June 1987*

3) *Verification of rigid pavement survey in District 3 was performed on seven sections of Interstate 10*

4) *Flexible Miles Rated* *16,333.001*

Rigid Miles Rated *937.385*

Total Miles Rated *17,270.386*

5) *Flexible Lane Miles* *33,010.922*

Rigid Lane Miles *2,078.848*

Total Lane Miles *35,089.770*

6) *Flexible sections rated* *6,196*

Rigid sections rated *398*

Total sections rated *6,594*

1986 Complete Flexible and Rigid Pavement Surveys performed by State Materials Office

1) *3 ruts per mile using a rut bar and straightedge.*

2) *ADT was eliminated*

3) *Adjusted ratings were eliminated*

4) *District 3 personnel rated own rigid pavements*

5) *Survey was started in the second week of September 1985*

6) *Survey was completed in the first week of September 1986*

7) *State Materials Office rated one section of rigid pavement per county in District 3 (Interstate) as a verification of the rigid survey*

8) *Type 6 code was added to survey to reflect No Ride. Ride value will match defect*

9) *Added Crack Type to Flexible Survey: A = Alligator, B = Block or C = Combination*

10) *Flexible Miles Rated* *15,468.834*

Rigid Miles Rated *96.923*

Total Miles Rated *15,565.757*

11) *Flexible Lane Miles* *32,937.004*

Rigid Lane Miles *277.744*

Total Lane Miles *33,214.748*

12) *Flexible sections rated* *5,765*

Rigid sections rated *47*

Total sections rated *5,812*

1985 Flexible and Rigid Pavement Surveys included Ride only

1) *Survey Moved to the STATE MATERIALS OFFICE*

2) *STATE MATERIALS OFFICE tested Districts 2, 3 and 5*

3) *STATE MATERIALS OFFICE assisted with Districts 4 and 6*

4) *District 1 conducted the District survey*

5) *District 3 rated I-10 rigid for defects*

6) *STATE MATERIALS OFFICE collected Ride values on the rigid pavement of I-10*

7) *Defect ratings were adjusted from the 1984 survey data*

1984 Complete Flexible and Rigid Pavement Surveys performed by the Districts

1) *Defect on sections with a basic rating below 60 remaining section adjusted from 1983 survey.*

2) *Ride was not evaluated; Ride ratings were adjusted from the 1983 survey data.*

1983 Complete Flexible and Rigid Pavement Surveys performed by the Districts

1) *Pavement Type 7 & 8 were used by <u>all Districts</u>*

2) *Procedure for calculating Ride was included in the manual*

3) *Roadway 4 code was added for two- lane roads to give the direction surveyed*

1982 Complete Flexible and Rigid Pavement Surveys performed by the Districts

1) *Pavement Type 7 & 8 were added to the Flexible PCS - Districts 3 & 5 did not use these codes*

2) *Started calculated Ride between 1 & 5 if section was too short to test. To prevent basic ratings of 0*

1981 Complete Flexible and Rigid Pavement Surveys performed by the Districts

1) *Flexible had ride values above 100 - no upper limit*

2) *First survey using PCR's and trailers*

3) *Number of Lanes was added to the survey data collection table*

1980 No survey was performed due to change over in equipment.

1) *Mays Ride Meters originally mounted In station wagons were mounted on Standard Trailers. inches of displacement from the Mays Ride Meters was correlated to PSI (0 to 5 scale) from the CHLOE profilometer on approximately 10 sections. Each unit had a separate set of equations based on speed (30, 40, 50, 60 & 70 MPH). Ride Rating = PSI from equation * 20.*

1979 Complete Flexible and Rigid Pavement Survey by the Districts

1978 Complete Flexible and Rigid Pavement Surveys performed by the Districts

1977 Complete Flexible and Rigid Pavement Surveys performed by the Districts

1976 Complete Flexible and Rigid Pavement Surveys performed by the Districts

1) *Rigid pavement survey was newly added*

1975 ***Complete Flexible Pavement Survey performed by the Districts***

1974 ***Complete Flexible Pavement Survey performed by the Districts***

1973 ***Complete Flexible Pavement Survey performed by the Districts***

1) *Flexible Pavement survey started in 1973 using Mays Ride Meters installed in standard Ford sedans. Each District had a unit and the State Materials Office*

2) *Established correlation section and trained personnel.*

3) *Inches of displacement from the Mays Ride Meters was correlated to PSI (0 to 5 scale) from the CHLOE profilometer on approximately 10 sections each year. Each unit had a separate set of equations based on speed (30, 40, 50, 60 & 70 MPH). Ride Rating = PSI from equation * 20.*

1972 – 1966 can be found in the Appendix below.

Appendix:

EQUIPMENT HISTORY FOR PAVEMENT CONDITION SURVEY

2023 – The department converted all profilers to Laser Crack Measurement Systems (LCMS)

2019 – The department upgraded to using Gocator 2342 Line lasers with line at 90° (transverse) angle.

2002 Laser Profiler

1999 -- The Department upgraded to laser sensors and started using Ride Number (RN) in addition to IRI. Ride Number is an ASTM E-1489 standard.

1972 -- The Central Maintenance Office requested that the State Materials Office implement a research effort to determine a method for monitoring the rideability and condition of the State Highway System. This effort resulted in the use of the Mays Ride Meter in Florida at the project and network levels.

1971 -- Florida built in house a PCA Road Meter to collect data at highway speeds. Inches of displacement between the vehicle frame and axle was correlated to PSI values from the CHLOE Profilometer.

1966 -- The Federal Highway Administration provided Florida with an AASHTO Road Test CHLOE Profilometer (Research Report 110, 110-A and 110-B). This became Florida's standard equipment for measuring ride. Florida developed Present Serviceability Index (PSI) equations by comparing the ratings from 9 panel members to the CHLOE slope variance on 66 sections of pavement. The sections used consisted of 22 sections of AC, 22 section of surface treatment and 22 sections of PCC resulting in 3 PSI equations for Florida (Research report 158).