The Pavement Preservation Super Panel!

FACERS 2022

FACERS
Florida Association of
County Engineers
& Road Superintendents

ncpp
National Center for Pavement Preservation

FPPC
Florida Pavement Preservation Council
www.floridappc.org

Today's Super Moderator

Florida Pavement Preservation Council

- Chris Evers – Executive Coordinator
  - Introduction
  - Everything in moderation
  - The discussion

Industry Members and Government Affiliates

FHWA

FACERS
Florida Association of County Engineers & Road Superintendents

FDOT

Florida Chapter APWA
AMERICAN PUBLIC WORKS ASSOCIATION

ASPHALT PAVING SYSTEMS

CUTLER Repaving, Inc.

Ergon Asphalt & Emulsions

INTERNATIONAL CYBERNETICS

MOTT MACDONALD

PAVEMENT TECHNOLOGY INC. SINCE 1972

PMG
PAVEMENT MANAGEMENT GROUP

PRI

Ways to connect with FPPC

1. **LinkedIn Group**
   www.linkedin.com/groups/12312389/
   www.linkedin.com/in/chris-evers-florida

2. **Facebook Group**
   www.facebook.com/groups/FloridaPavementPreservationCouncil/

3. **Website**
   http://floridappc.org/

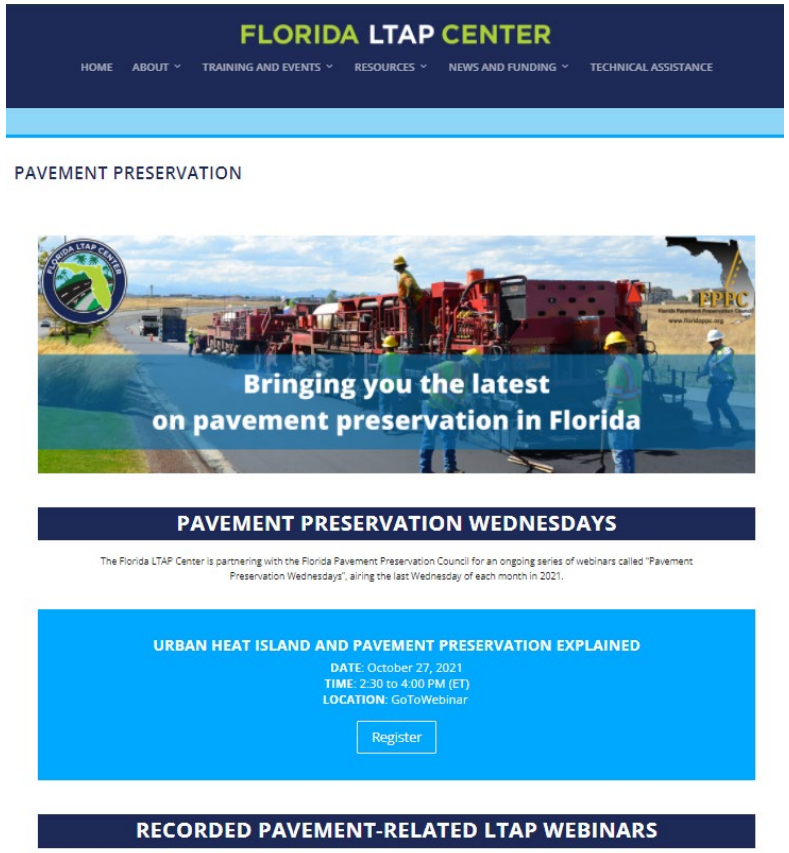
FPPC Mission

The Council will provide regional education workshops through the National Center for Pavement Preservation for promoting the sound principles and genuine benefits of pavement preservation practices.

FPPC Strategic Goals

1. Promote the implementation and benefits of pavement preservation principles through training and education throughout communities in Florida.
2. Provide recommended regional specifications and guidelines for pavement preservation techniques in Florida.
3. Foster beneficial technology transfers between academia, industry, and agencies.

Florida LTAP/FPPC Resources



Lots of new Pavement Preservation Pre-Recorded Webinars posted!

floridaltap.org/pavement-preservation/

Coming soon…

Next Pavement Preservation Wednesday

July 27th

Florida Local Technical Assistance Program – Pavement Management Fundamentals

FDOT FHWA

Final Pavement Preservation Wednesday of FY 2022

September 28th

Today's Super Panelists

Pavement Management Group

- James Golden – Principal
  - Pavement Management introduction
  - A systematic approach
  - Systems, tools and processes

Polk County

- Austin Potts, P.E. – Pavement Management Engineer
  - Polk County Network
  - Path to enlightenment
  - Results matter

Today's Super Panelists

Ergon Asphalt and Emulsions Inc.

- Larry Tomkins – Vice President of Sales and Marketing - Southeast Region
  - The Pavement Preservation Why
  - Supplier perspectives
  - Industry resources and tools

Asphalt Paving Systems

- Kris Shane – Technical & Marketing Manager
  - Pavement Preservation Tool example
  - Never say never
  - Get in the game

Today's Goals

1. Discuss the different considerations from each leg of the table – Agency, Pavement Management Consultant, Supplier and Contractor
2. Review lessons learned from implementing pavement preservation programs
3. Understanding the "Why"
4. The future of infrastructure and the role of preservation
5. Answer your burning questions!

Panelists Presentations

Pavement Management Group – James Golden

WHO IS

THE PAVEMENT MANAGEMENT GROUP?

- Nationwide professional services firm
- Turn-key PMP Services

ROADINSIGHTS

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WHAT IS

PAVEMENT MANAGEMENT?

Software? GIS? Spreadsheet? Database?

Pictures? Videos? Maps?

Automated? Boots On The Ground? AI?

PCI? OCI? PASER? PCR?

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A SYSTEMATIC

APPROACH TO THE ANNUAL MAINTENANCE AND REPAIR OF YOUR ROADWAY NETWORK.

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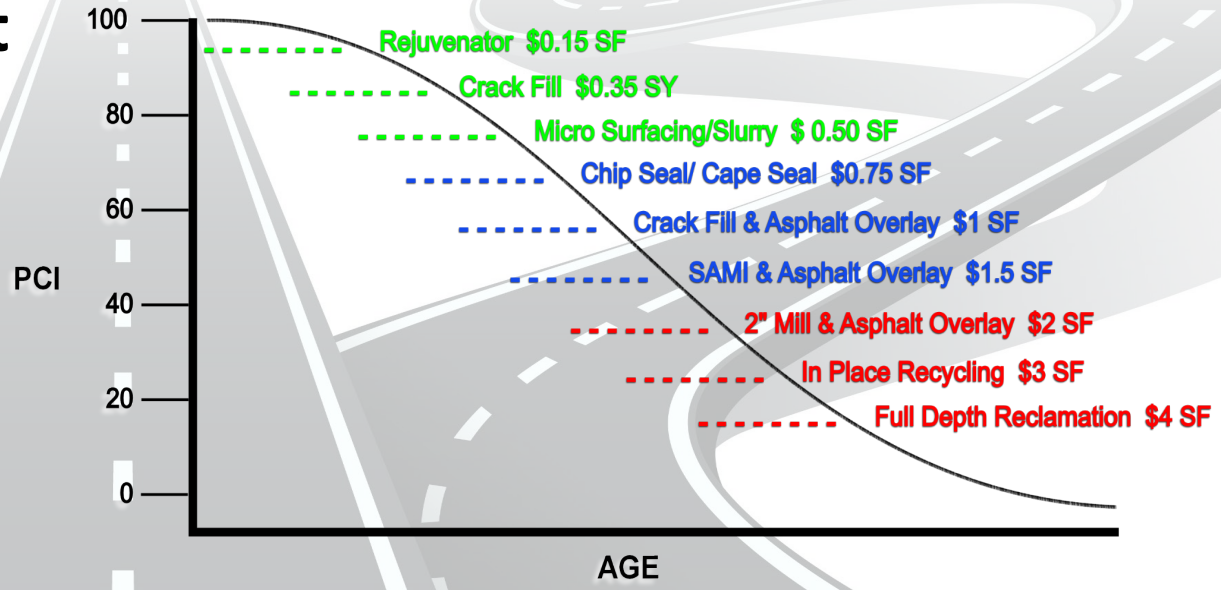
KISS

Keep.It.Simple.Silly

- Apply the right treatment
- To the right pavement
- At the right time



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WHAT IS THE GOAL

- Maximize the annual maintenance and repair budget
- Maximize taxpayer dollars
- Extending the life of the roadway network
- Optimizing the conditions of your roadway network

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WHY

DO I NEED A

PAVEMENT MANAGEMENT SYSTEM?

BECAUSE WHAT GETS MEASURED GETS IMPROVED

James Goldman III

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SYSTEM

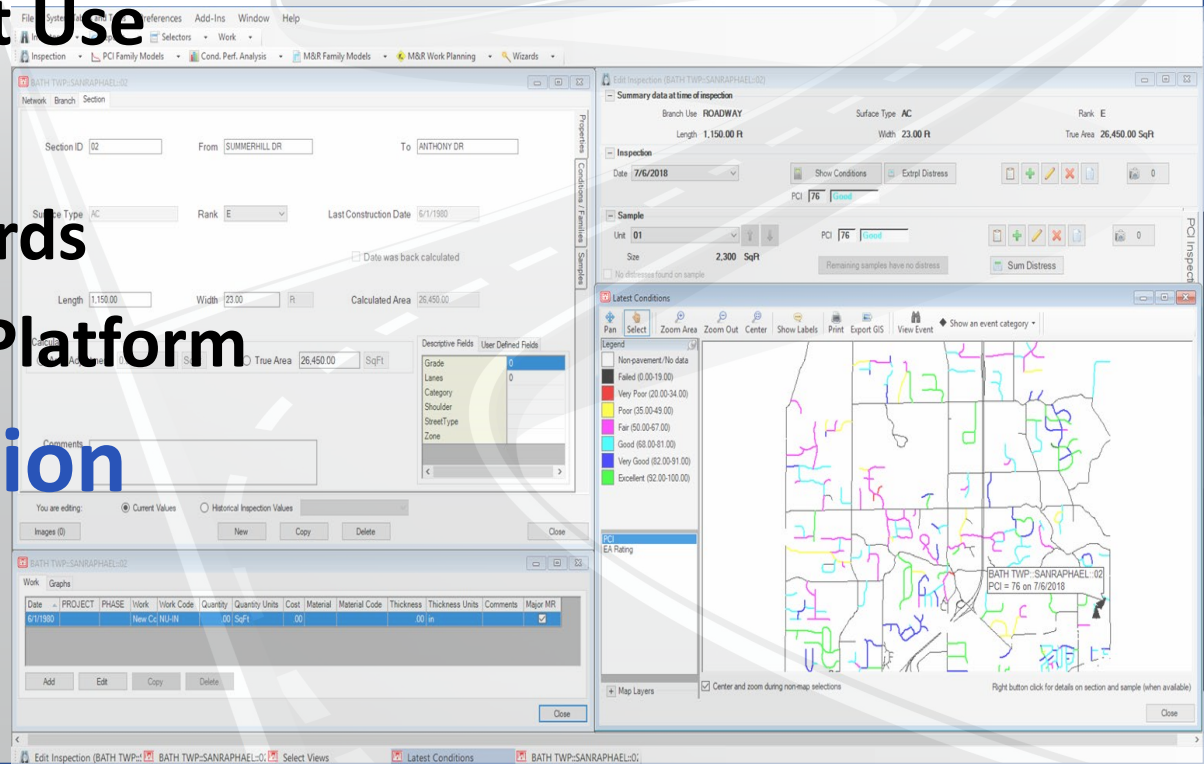
TOOLS AND PROCESSES

- Industry standard software
- Complete network inventory
- High-definition video
- A.I Standard Condition Assessment
- GIS integration
- Reporting
- Pavement Modeling
- Condition Analysis
- Budget/Target Driven Scenario
- Work/Project Planning
- Online Video Stream and Dashboard
- Managed Services and Support

PMG™

PAVER®

- US Army Corps of Engineer Developed
- APWA Recommended, Distributed and Supported
- Network Accessible for Concurrent Use
- Full System Table Customization
- Leverages ASTM Condition Standards
- The Most Cost Effective Software Platform
- Industry Standard Application



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AMERICAN PUBLIC WORKS ASSOCIATION

INVENTORY

- An accurate account of your roadways
- Networks, branches and sections
- Sections are block by block
- All section attributes are tagged
- Latest work history is recorded

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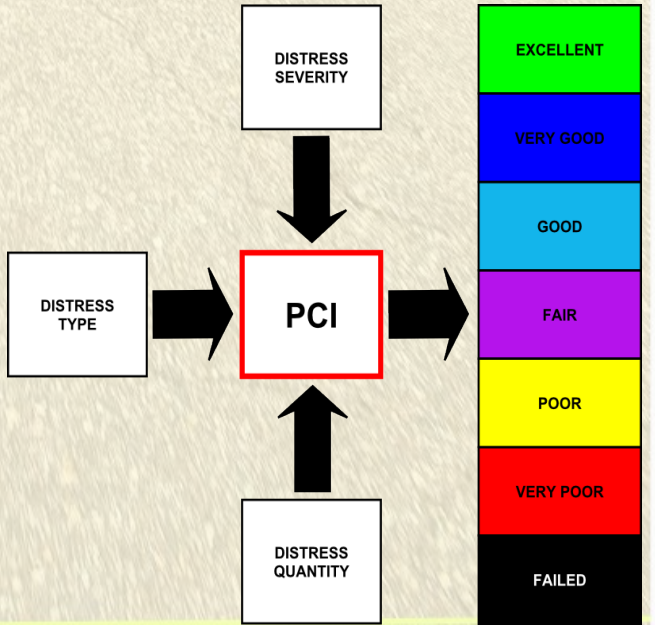
CONDITION ASSESSMENT

- Pavement Condition Index (PCI)
- ASTM D6433 Standard
- 20 Asphalt Distresses
- 19 Concrete Distresses
- Document Distress Type, Severity and Quantity
- Establish Condition Categories



ASPHALT DISTRESSES

- Alligator Cracking
- Bleeding
- Block Cracking
- Bumps/Sags
- Corrugation
- Depression
- Edge Cracking
- Reflective Cracking
- Lane/Shoulder Drop
- Long./Trans. Cracking
- Patching
- Polished Aggregate
- Potholes
- Railroad Crossing
- Rutting
- Shoving
- Slippage Cracking
- Swell
- Raveling
- Weathering

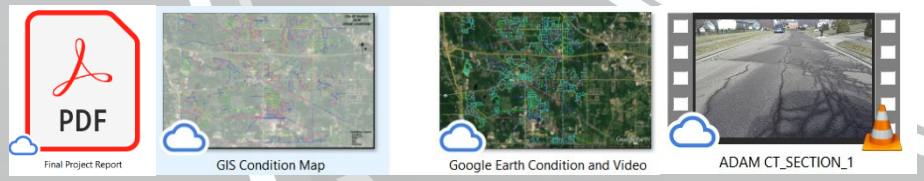
CONCRETE DISTRESSES

- Blow Up
- Corner Break
- Divided Slab
- Durability Cracking
- Faulting
- Joint Seal Damage
- Lane/Shoulder Drop
- Linear Cracking
- Small Patching
- Large Patching
- Polished Aggregate
- Popouts
- Pumping
- Punchout
- Scaling
- Railroad Crossing
- Shrink Cracking
- Corner Spalling
- Joint Spalling

DELIVERABLES

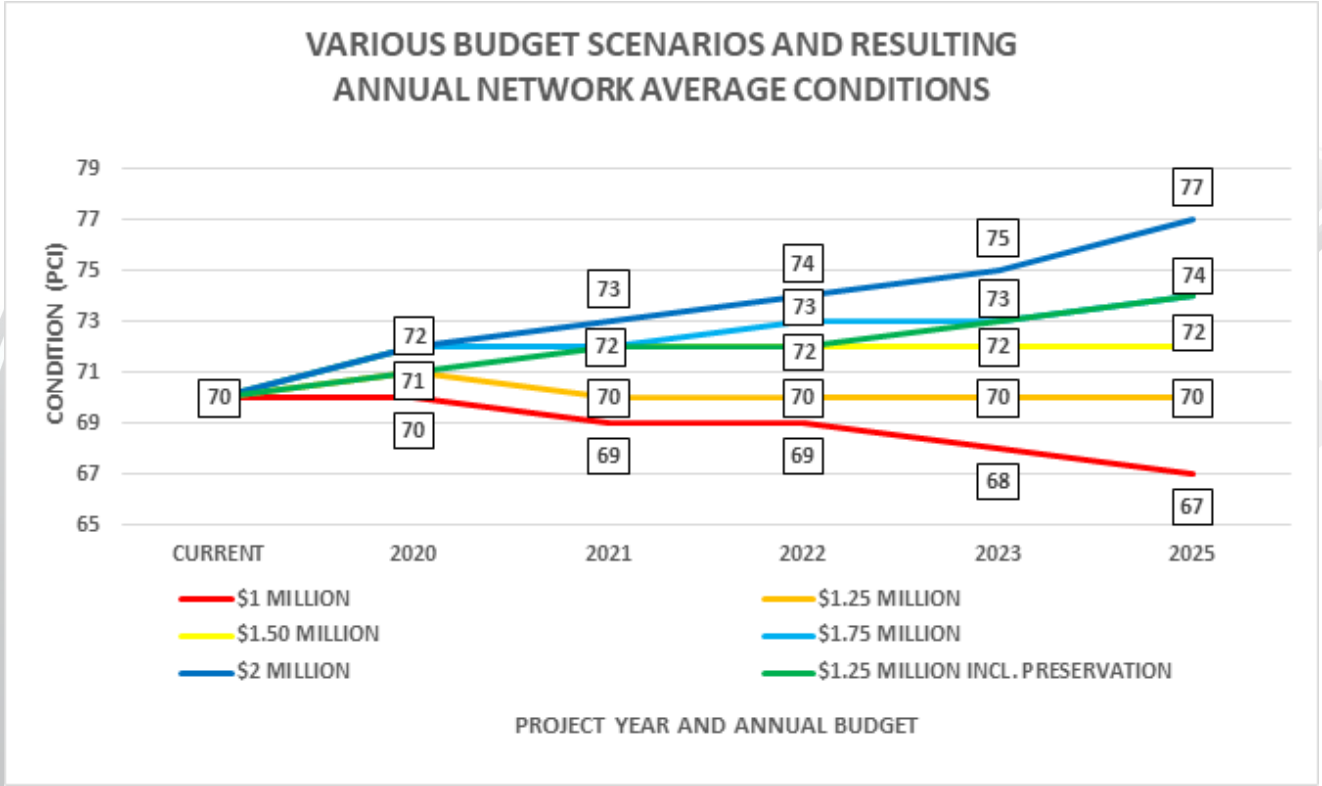
- Final Project Report
- Inventory Condition Report
- GIS Condition Map
- 1080P HD Videos
- Streaming Video Access
- Project Review
- PAVER Software
- ROADINSIGHTS

STREET NAME	SECT	FROM	TO	LENGTH	WIDTH	TRUE AREA	SURFACE	RANK	SHOULDER	LANES	INSP DATE	PCI	CONDT CATEGORY
ABBYSHIRE DR	01	BARLOW RD	BROOKSHIRE DR	1,260	26	32,760	Asphalt Concrete	C	CRB	2	10-12-2018	66.00	Fair
ABBYSHIRE DR	02	BROOKSHIRE DR	CHESHIRE DR	889	26	23,114	Asphalt Concrete	C	CRB	2	10-12-2018	74.00	Good
ABNER LN	01	HIGHGATE DR	HERRICK PARK DR	1,233	26	32,058	Asphalt Concrete	C	ROL	2	09-25-2018	56.00	Fair
ALEXANDRA DR	01	MIDDLETON RD	CHAMBERLIN BLVD	326	25	8,150	Asphalt Concrete	C	CRB	2	09-25-2018	92.00	Excellent
ALEXANDRA DR	02	CHAMBERLIN BLVD	ALEXANDRA DR (LOOP)	672	25	16,800	Asphalt Concrete	C	CRB	2	09-25-2018	92.00	Excellent
ALEXANDRA DR	03	ALEXANDRA DR	ALEXANDRA DR	313	25	7,825	Asphalt Concrete	C	CRB	2	09-25-2018	93.00	Excellent
ALEXANDRA DR	04	ALEXANDRA DR	CHAMBERLIN BLVD	364	25	9,100	Asphalt Concrete	C	CRB	2	09-25-2018	92.00	Excellent
ALISA CT	01	LOOP	HERITAGE CT	971	22	21,362	Asphalt Concrete	C	ROL	2	10-12-2018	95.00	Excellent
ALLERTON CT	01	ANDOVER WAY	LOOP	417	25	10,425	Asphalt Overlay Over Asphalt	C	ROL	2	10-02-2018	55.00	Fair
ALSACE CT	01	WESTON DR	CUL DE SAC	279	26	11,114	Asphalt Concrete	C	ROL	2	10-05-2018	88.00	Very Good
AMBOY DR	01	ARBUTUS DR	SUNSET DR (SOUTH)	1,500	22	33,000	Asphalt Overlay Over Asphalt	C	ROL	2	10-05-2018	51.00	Fair
AMBROSE DR	01	CUL-DE-SAC	STEEPLEVIEW DR	1,958	26	50,908	Asphalt Concrete	C	CRB	2	10-04-2018	66.00	Fair
AMBROSE DR	02	STEEPLEVIEW DR	DEAD END	215	26	5,590	Asphalt Concrete	C	CRB	2	10-04-2018	26.00	Very Poor
ANDOVER WAY	01	MIDDLETON RD	WHITE MARSH WAY	719	26	18,694	Asphalt Concrete	C	ROL	2	10-02-2018	70.00	Good
ANDOVER WAY	02	WHITE MARSH WAY	WARREN POINT LN	466	26	12,116	Asphalt Overlay Over Asphalt	C	ROL	2	10-02-2018	66.00	Fair
ANDOVER WAY	03	WARREN POINT LN	ALLERTON CT	403	26	10,478	Asphalt Overlay Over Asphalt	C	ROL	2	10-02-2018	41.00	Poor
ANDOVER WAY	04	ALLERTON CT	WETHERBURN WAY	465	26	12,090	Asphalt Overlay Over Asphalt	C	ROL	2	10-02-2018	69.00	Good
ANDOVER WAY	05	WETHERBURN WAY	HAYMARKET (EB)	1,000	26	26,000	Asphalt Overlay Over Asphalt	C	ROL	2	10-02-2018	57.00	Fair
ANNA LEE DR	01	WINSLOW DR	PLANTATION DR	364	24	15,628	Asphalt Overlay Over Portland Cement Ri						
ARBORWOOD DR	01	OLDE FARM LN	END LOOP	1,248	24	29,952	Portland Cement						
ARBUTUS DR	01	ARGYLE DR	AMBOY DR	529	22	11,638	Asphalt Overlay Over Asphalt						
ARBUTUS DR	02	AMBOY DR	SUNSET DR (SOUTH)	1,131	22	24,882	Asphalt Overlay Over Asphalt						
ARGYLE DR	01	BARLOW RD	ARBUTUS DR	558	22	12,276	Asphalt Concrete						
ARGYLE DR	02	ARBUTUS DR	BECKWITH DR	348	22	7,656	Asphalt Concrete						
ARISON WAY	01	DEAD END	WEEPING WILLOW DR	138	27	3,726	Asphalt Concrete						
ASHBROOKE WAY	01	WALTERS RD	ASHBROOK WAY (WB)	276	14	3,864	Asphalt Concrete						
ASHBROOKE WAY	02	ASHBROOK WAY (EB)	WALTERS RD	296	16	4,736	Asphalt Overlay Over Asphalt						
ASHBROOKE WAY	03	ASHBROOK WAY (WB)	HIGHWOOD WAY	954	26	24,804	Asphalt Concrete						
ASHBROOKE WAY	04	HIGHWOOD WAY	BENDELTON DR	511	26	13,286	Asphalt Concrete						
ASHBROOKE WAY	05	BENDELTON DR	SILVERBERRY LN	496	26	12,896	Asphalt Overlay Over Asphalt						
ASHBROOKE WAY	06	SILVERBERRY LN	FARNHAM WAY	405	26	10,530	Asphalt Concrete						
ASHBROOKE WAY	07	FARNHAM WAY	NORBURY DR (WB)	433	26	11,258	Asphalt Concrete						

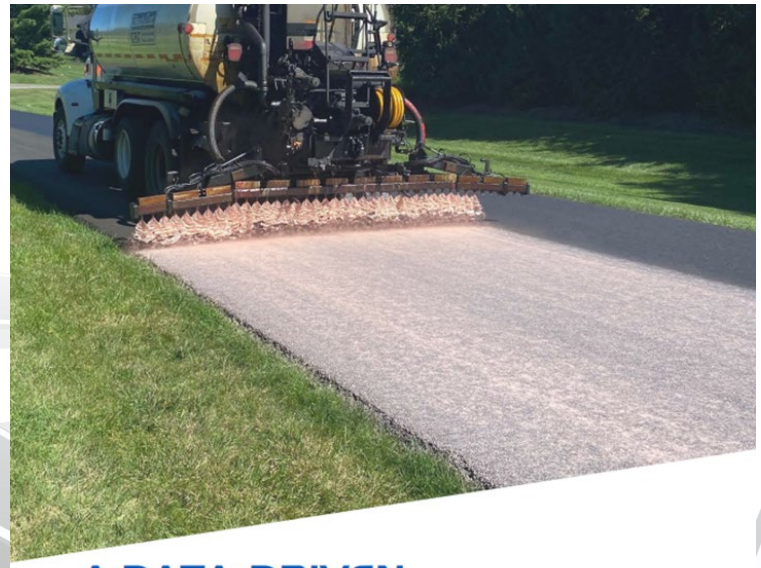


DATA-DRIVEN

- Define maintenance policies
- Define maintenance costs
- Identify maintenance needs
- Compare annual budgets
- Compare various strategies
- Determine ROI
- Set condition targets
- Plan projects



DATA-DRIVEN EXAMPLE



A DATA-DRIVEN CONDITION ASSESSMENT

FOR ASPHALT REJUVENATION USING MALTENE REPLACEMENT TECHNOLOGY

SEPTEMBER 2021
PREPARED BY JAMES GOLDEN

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PAVEMENT MANAGEMENT GROUP

INTRODUCTION

The following report aims to provide an objective, data-driven condition assessment of the maltene-based asphalt rejuvenation product, Reclamite® leveraging the ASTM D6433 inspection methodology and process for determining the surface condition of a roadway.

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Measuring Preservation Results

Measuring Preservation Results

ASSESSMENT RESULTS

STREAMSIDE DRIVE, UNTREATED

The untreated lane shows noticeable longitudinal and transverse cracking that has been treated with a crack seal since being paved in 2013. Furthermore, you can see signs of raveling throughout 10% of the surface, and weathering throughout 100% of the surface.

After documenting these distresses within the PAVER® pavement management system, the PCI of the untreated lane is a 70.

70 PCI

ASSESSMENT RESULTS

STREAMSIDE DRIVE, TREATED

The treated lane shows that while longitudinal and transverse cracking is visible, it has just started to form and take shape. Furthermore, there are no signs of raveling within the treated surface, with light severity weathering only present within 20% of the surface.

After documenting these distresses within the PAVER® pavement management system, the PCI of the treated lane is 84.

84 PCI

Measuring Preservation Results

Measuring Preservation Results

ASSESSMENT RESULTS

SAWMILL PARKWAY, UNTREATED

The untreated segment shows noticeable light and medium severity longitudinal cracking along the paving joint with light severity weathering present throughout 100% of the surface.

After documenting these distresses within the PAVER® pavement management system, the PCI of the untreated segment is 85.

85 PCI

ASSESSMENT RESULTS

SAWMILL PARKWAY, TREATED

The treated segment shows minimal, light severity longitudinal cracking along the paving joint, with light severity weathering present throughout just 50% of the surface.

After documenting these distresses within the PAVER® pavement management system, the PCI of the treated segment is 95.

95 PCI

What get's measured, gets improved!

Based upon the age of each pavement and PCI calculated from the ASTM D6433 condition assessment, the untreated locations lost an average of 3.5 PCI points per year, while the treated locations lost an average of just 1.5 points per year; resulting in a 2 point PCI gain.

It is within my professional opinion that an MRT application within the first three (3) years of an asphalt pavement's life will extend the life by up to an additional five (5) years, as shown in the below performance curves created directly from the aggregated data documented within this report.

James Golden
Founder and CEO
James@PavementManagement.com