

PAVEMENT PRESERVATION PROGRAM

BOMA WORK SESSION

OCTOBER 08, 2019



Meeting Overview

- What is Pavement Preservation
- City's Paving Program History and Overview
- Roadway Analysis
- Report / Methodology
- Example Project
- Considerations and Challenges
- Q&A



What is Pavement Preservation?

- Pavement Preservation represents a proactive approach in maintaining our existing roads.
- <https://savemyroad.com/pavement-preservation/>



Paving History / Overview

- Annual Paving Contracts for Mill and Fill/Overlay are EXPENSIVE!
- Worst First! – Roads are touched/paved once or twice in their useful life span.
- Recent Years – Street Dept. began looking in to ways to stretch their paving budget (Capital bonding helped immensely). HA-5 mineral bond (fog seal) for last 3 years.
- Spring 2019 – Streets and Engineering met with pavement professionals to discuss ways to extend the life of our roadway network.
- Civil-Link, LLC – Roadway Analysis, Pavement Preservation Program Plan, and Website Hosting

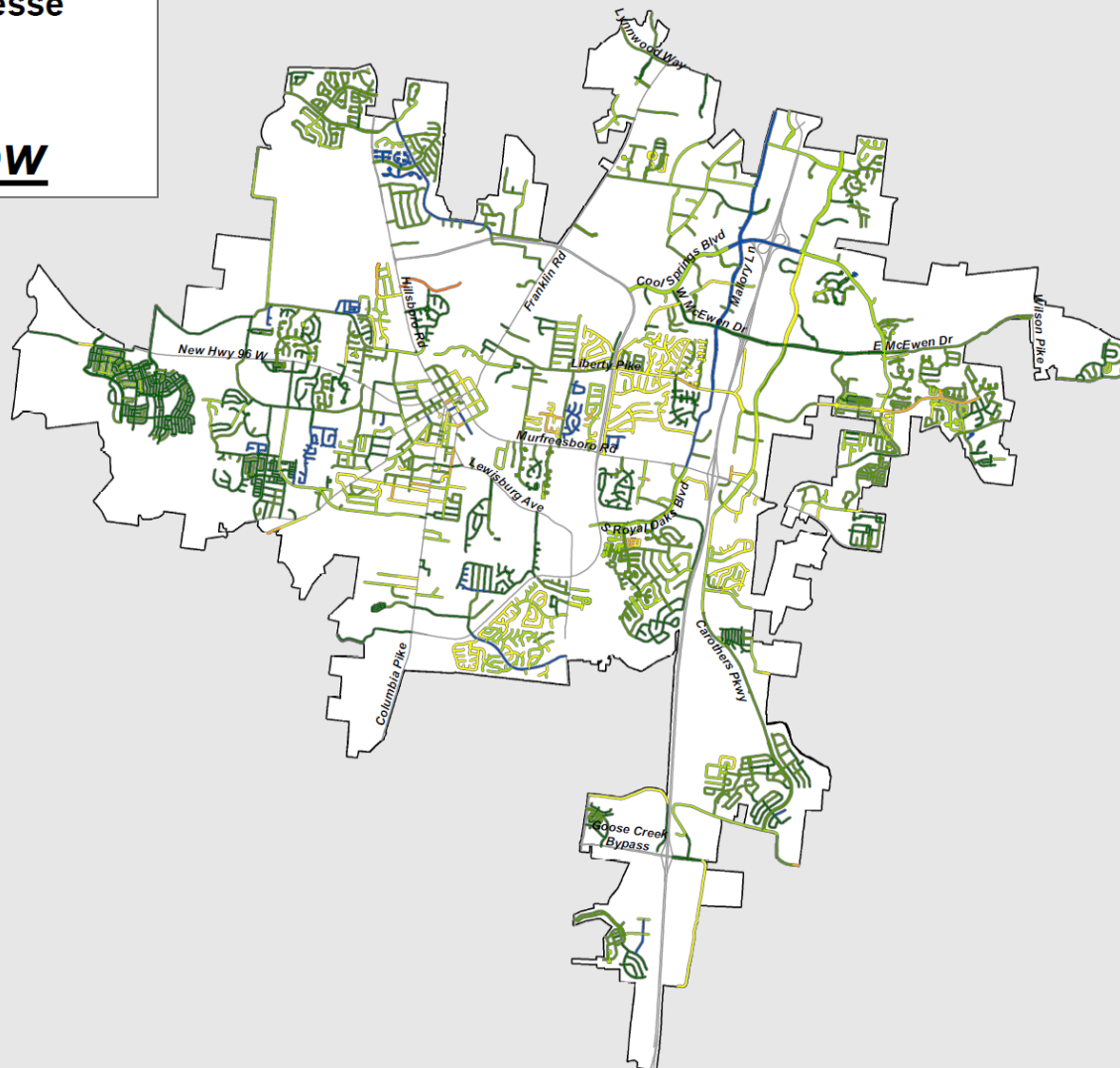


Roadway Analysis

- <https://app.civil-link.com/franklin/streets>

City of Franklin, Tennessee
Road Surface Ratings

Overall View



RATINGS

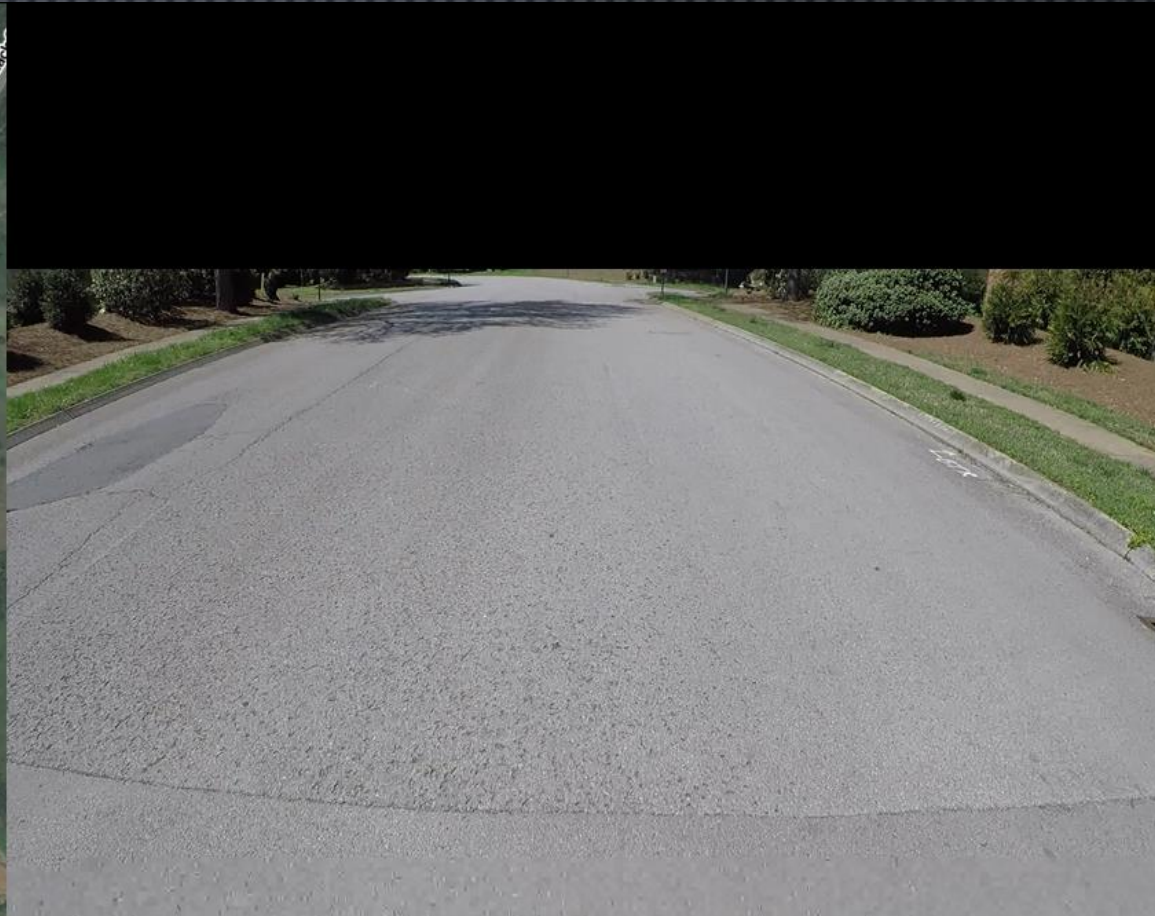
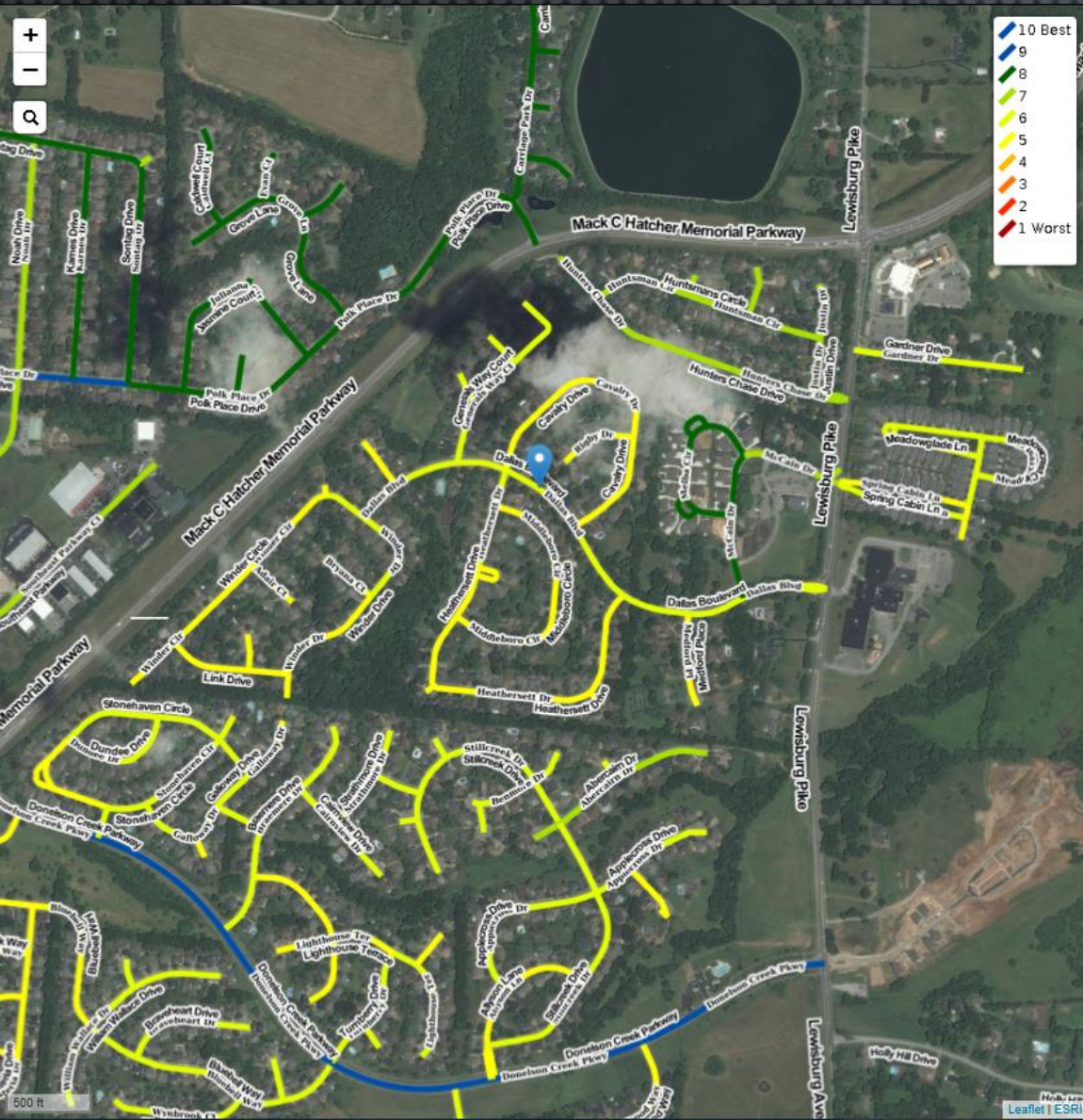
Best



Worst



Roadway Analysis – Web Hosting



Report / Methodology



Road Maintenance and Improvements Plan

City of Franklin, TN

July 2019

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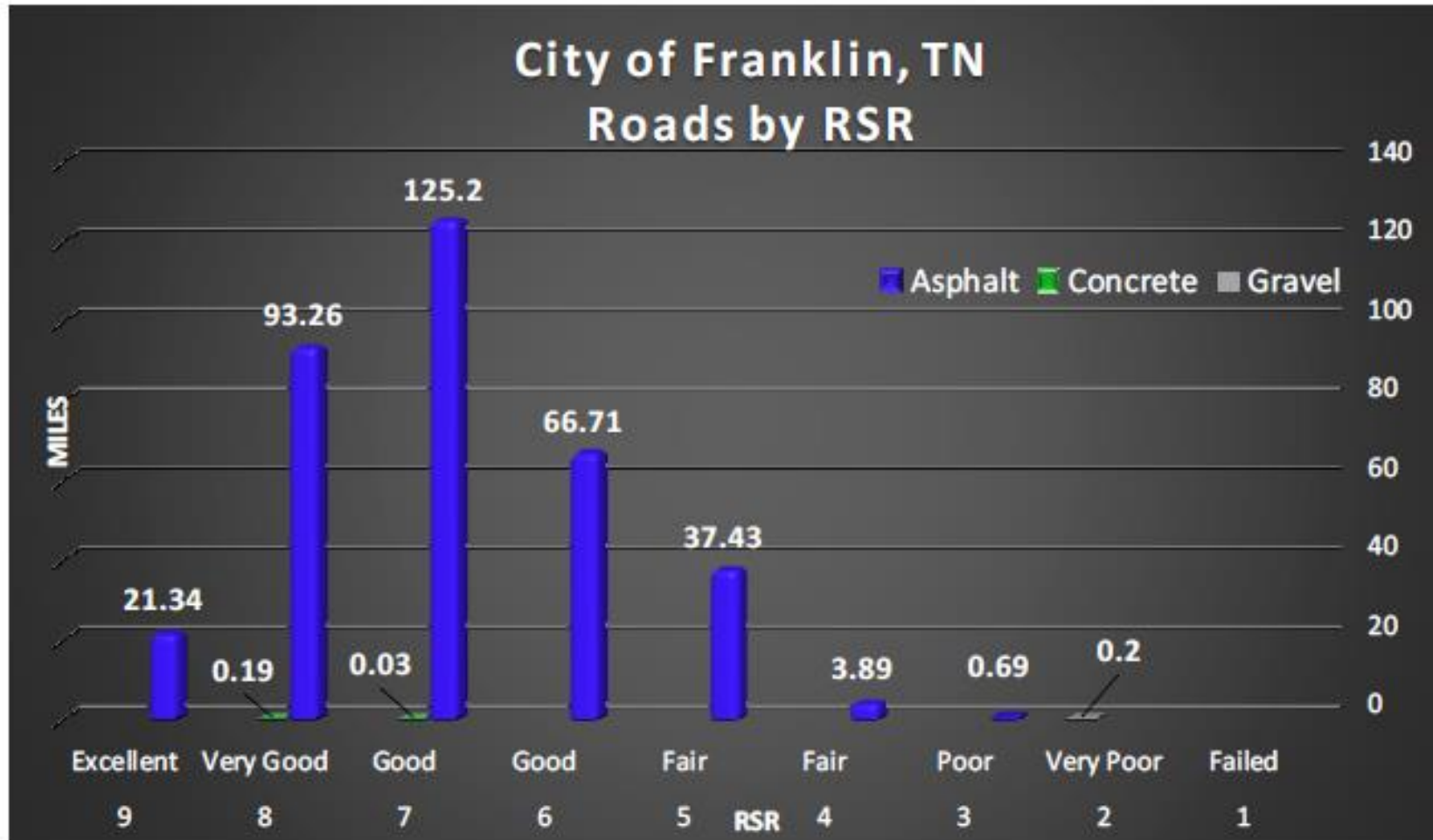
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APPENDICES

Appendix A - PASER Scale
Appendix B - Treatment Descriptions
Appendix C - Priority Lists



Report / Methodology



A "pavement could last indefinitely without deterioration in the structural elements provided it is not overlooked and the appropriate maintenance is carried out." Ferne 2006



Example Project

- https://roadresource.org/network/lc_calc

Inflation/CPI

5

%

Interest Rate

2.5

%

Total Paved Area

63330

SY

CONVENTIONAL PLAN				
Year ?	Treatment Type	Cost in Constant Dollars ?	Future Cost ?	Present Value ?
20	▼ Minor Mill & Fill	12	31.84	19.43
40	▼ Full Depth Remove & Replac	39.01	274.63	102.28
	▼ Select...	0.00	0.00	0.00
	▼ Select...		0.00	0.00
	▼ Select...		0.00	0.00
ADD ROW		\$51.01	\$306.47	\$121.71

Net Present Value: **\$121.71 / SY**

Total Life Cycle Cost: **\$7,707,894**

OPTIMIZED PLAN				
Year ?	Treatment Type	Cost in Constant Dollars ?	Future Cost ?	Present Value ?
4	▼ Crack Seal	0.48	0.58	0.53
4	▼ Fog Seal	0.57	0.69	0.63
10	▼ Scrub Seal	2.26	3.68	2.88
10	▼ Slurry Seal	2.12	3.45	2.70
17	▼ Cape Seal	5.20	11.92	7.83
25	▼ Micro Surfacing- Single Lift	2.77	9.38	5.06
32	▼ Micro Surfacing- Single Lift	2.77	13.20	5.99
40	▼ Base Stabilization + 4" HMA	25.09	176.63	65.78
ADD ROW		\$41.26	\$219.53	\$91.40

Net Present Value: **\$91.40 / SY**

Total Life Cycle Cost: **\$5,788,362**



Future Pavement Preservation Considerations

- It will be a learning lesson for all of us.
- Weather impacts or unexpected subgrade issues
- Utility Upgrade Work/Coordination
- Future annual paving contracts vs “projects”
- History of HA-5 fog seal
- Church Street thin lift
- Funding history – State Aid Fund and CIP Bonding
- ADA upgrades – Older neighborhoods coming up for paving have non compliant ADA ramps
- CIP funding for neighborhoods with multitude of ADA upgrades?



QUESTIONS?

THANK YOU FOR YOUR TIME, ATTENTION, AND PARTICIPATION!

