

Pavement Asset Management Presentation



**CITY COUNCIL PLANNING SESSION
DECEMBER 10, 2018**

Agenda



- Pavement Asset Management Basics
- Asset Management Plan & Goals
- Road Funding
- Challenges/Limitations
- Policy Decisions

Pavement Asset Management Basics



Street Inventory

Miles of Street by Material and Classification					
Classification	Asphalt	Brick	Gravel	Concrete	Totals
Major	94.99	0.37	0.00	3.54	98.90
Local	187.79	0.37	12.19	1.00	201.35
Subtotal:	282.78	0.74	12.19	4.54	300.25

- Figures Exclude Bridge Decks and State Trunklines
- Miles Shown Are Centerline Miles

Pavement Asset Management Basics



Why?

- “**Worst First**” – old philosophy
- Using the right “**Mix of Fixes**”
- Using “**The right fix at the right time**”
- An intermediate fix category called Capital Preventive Maintenance (“**CPM**”) must be employed



Pavement Asset Management Basics



Impacts of Pavement Asset Management

- Maintenance is an ongoing process
- Creates a gradual pathway towards an improved and sustainable pavement system
- Some roads that are rated lower may wait longer (i.e. not doing “worst first”)
- Major, expensive projects (such as reconstruction projects) may need to wait

Asset Management Plan & Goals

PASER Rating Scale

- Rating 10 – Excellent
- Rating 9 – Excellent
- Rating 8 – Very Good
- Rating 7 – Good
- Rating 6 – Good
- Rating 5 – Fair
- Rating 4 – Fair
- Rating 3 – Poor
- Rating 2 – Very Poor
- Rating 1 – Failed



Source: Adapted From ["Paser Manual:" Transportation Information Center; University of Wisconsin Madison](#)

Asset Management Plan & Goals



Roadsoft Model

Treatment: (Position cursor on splitter line above this text to adjust data shown.)						
Treatment	Type	Min Trigger	Max Trigger	Reset	New Surf	Surface
Crack Seal	PM (CPM)	7	7	8	No	\$0.83
Slurry Seal	PM (CPM)	6	6	8	No	\$5.20
Microsurface	PM (CPM)	6	6	8	No	\$5.20
Cape Seal	PM (CPM)	5	6	9	Yes	\$8.40
Mill & Fill - <2" Thick	PM (CPM)	5	5	9	Yes	\$25.00
Resurfacing- Mill & replace $\geq 2"$ & < total)	RH (SI)	3	4	9	Yes	\$52.00
Mill and Fill $> 1.5"$	RH (SI)	3	4	9	Yes	\$65.00
Rehabilitation (Remove & Replace full depth)	RH (SI)	2	3	10	Yes	\$62.00
Reconstruction (Major)	RC (SI)	1	2	10	Yes	\$170.00

Asset Management Plan & Goals



Target Level of Service



- Staff Recommended LOS by 2025:
 - Locals = 80% are 7 (Good) or better
 - Majors = 80% are 7 (Good) or better
- Current PASER Rating (as of June 2017):
 - Local = 29% are 7 or better
 - Majors = 49% are 7 or better
- Reflective of funding practices

Asset Management Plan & Goals



What is the model telling us to do?

- Spend more on locals
- Do more CPM work in the short term
- Eventually return to more resurfacing & reconstruction



Asset Management Plan & Goals



Tracking Progress

- Track miles of road treated by treatment type on a quarterly basis
- Obtain PASER ratings every 3 years (next rating Fall of 2019)
- Assess treatment performances based on ratings
- Evaluate global progress towards 10 year target Level of Service
- Adjust model as needed

Road Funding



Typical Annual Budget for Roads

- Street Millage: \$10.9M
- Surface Transportation Funds (STP): \$1.9M average
- Act 51* Capital Maintenance: \$1.7M
- County Street Millage: \$2.0M

Total: \$16,500,000

*Note: Act 51 largely supports routine maintenance (snow plowing, street sweeping, pavement marking, pothole repair, patching, signs and signals etc.) but is not included in this model which only addresses capital projects.

Road Funding



Recent and Future Spending

Fiscal 2017 Actual	Fiscal 2018 Actual	Fiscal 2019 Plan	Fiscal 2020 Plan	Fiscal 2021 Plan
\$ 18,885,803	\$ 17,543,487	\$ 23,207,625	\$ 13,485,307	\$ 12,444,253

Challenges/Limitations



- Funding
- Other infrastructure needs
- Utility Coordination – internal & external
- Staff Capacity
- Contractor Capacity



Policy Decisions



- Locals vs. Majors
- CPM Work vs. major (reconstruction) projects
- Are target levels of service still appropriate?





Questions?