



Meeting Description	Bloomington, IN. - Pavement Management Boot Camp Meeting March 1, 2018, Notes
Objective	Pavement Management Boot Camp Meeting Notes
Location	City Hall 401 N. Morton St. Bloomington, IN. 47404
Date	March 1, 2018
Time	10:30AM – 2:00

Persons Attending – Bloomington, IN.	Persons Attending - Transmap
<p>Joe Van Deventer (Contact person) Director of Street Operations Vandevej@bloomington.in.gov 812-349-3448</p> <p>Ron Arthur Street Maintenance Supervisor Arthurr@bloomington.in.gov 812-349-3448</p> <p>Danna Workman Street Department Workmand@bloomington.in.gov 812-349-3448</p> <p>Please see sign-in sheet for additional attendees</p>	<p>Chris Crocker Operations Manager ccrocker@transmap.com (740) 835-1223 (mobile)</p> <p>Tony Manch, PE Reporting Engineer tmanch@transmap.com 614-481-6799 (office)</p>

Items To Be Discussed

Introduction: Project Update

GIS / IT Technology

- **GIS data review**
- **Construction Dates**
- **Functional Class**
- **Legacy Data Integration (Centerline files)**

Measuring

- **Distress Review**
- **Hybrid Walk-Out Field Verification**
- **Raw PCI Values in MicroPAVER**
- **MicroPAVER Final Load**

Current Pavement Maintenance

- **Existing Paving Plan - Work Ongoing (3-5 year data)**
- **Treatments / Price / Expected Benefits**
- **Previous Reports**
- **CIP Plans**

Pavement Preservation Strategies

- **Goals**
- **Commissioners Objectives / Level of Service Analysis**
- **Discussion of Options**
- **Above Critical PCI Practices**
- **Below Critical PCI Practices**
- **Budget to Keep the PCI at Current Level**
- **Recommend an Annual Budget**
- **Family Creation in MicroPAVER**

Next Steps

- **Network Re-Inspection - 3-year cycle**

Data Requests

- **Major M&R Treatments, if available, will be loaded into the database**
- **Pavement Performance Models or Historical Data (such as latest construction dates)**
- **Pavement Preservation Practices (see Recommended Asphalt M&R Category Ranges and Treatments table below)**
- **Unit Pricing for M&R Treatments**
- **Legacy Centerline Data for Integration**
- **Pavement Construction Dates**
- **ADT Data**
- **Maintenance Zones or Districts**

Additional User Inputs

- Define the number of families. Examples of possible families are: pavement type, and functional classification breakdowns, such as Arterial/Collector and Local. If using different treatments and unit costs by family type, please provide the required budgets and unit costs by M&R Treatments.
- Transmap will recommend an Annual Budget to conduct major Maintenance and Rehabilitation (M&R) treatments for the identified families.
- Define the percentage of annual budget allocated to preventative and global treatments, if any.
- Define Critical Pavement Condition Index (PCI), normally a value between 55 and 70. The Critical PCI is the PCI after which the pavement begins to rapidly deteriorate. Transmap staff recommends a critical PCI=55.
- The inflation rate is a user-defined input that is used as part of the deferred maintenance calculations. Transmap recommends using 3.0%.

Summary by Surface Type

Surface Type	# of Sections	Mileage	Area in Square Yards	% by Square Yards	Average PCI
Asphalt	2,819	232.98	3,607,675	99%	63
Concrete	25	2.27	36,294	1%	89
Total	2,844	235.25	3,643,969	100%	63

Summary by Functional Class for Asphalt Pavements

Functional Class/Paver Designation	# of Sections	# of Miles	# of Square Yards	% by # of Square Yards	Weighted Average PCI
Arterial & Collector/ B	569	54.72	1,018,356	28%	69
Local/ E	2,249	178.25	2,589,319	72%	60
Total	2,819	232.97	3,607,675	100%	63

Typical PCI Condition Ranges (All Asphalt Pavements)

PCI Range	# of Sections	# of Miles	# of Square Yards	% by # of Square Yards
86-100 Good	362	30.74	504,304	14%
71-85 Satisfactory	610	52.45	843,932	23%
56-70 Fair	713	61.55	969,183	27%
41-55 Poor	680	55.93	832,437	23%
26-40 Very Poor	321	24.33	350,916	10%
11-25 Serious	125	7.53	102,373	3%
0-10 Failed	8	0.44	4,530	0%
Total	2,819	232.97	3,607,675	100%

Asphalt Pavements

Recommended Asphalt M&R Category Ranges, Unit Prices and Treatments

M&R Category	M&R Treatment	Price per Square Yard	Expected Result
Preventative (PCI 86-100)	Crack Seal	\$1.00	3 Year Stabilization
Global (PCI 56-85)	Surface Treatment	\$2.50	7 Year Stabilization
Conventional (PCI 0-55)	Mill & Overlay	\$20.00	15 years (Reset PCI to 100)

NOTES:

1. Chris Crocker, reviewed each active link on their project page and responded to questions. He discussed the ASTM sampling procedure and illustrated the use of the ArcGIS Online Sites.
2. The Transmap staff will clean-up the from and to columns on the tables and agreed to use the City ID system as unique identifier.
3. The Bloomington staff stated that they currently are not ESRI users. Viable options were discussed at the meeting.
4. There was discussion regarding the data collection for assets and night time data collection for retro reflectivity of the signs. All asset and asset attribute related questions will be answered and resolved by Craig Schorling.
5. The critical PCI is 55.
6. The annual budget for the MicroPAVER Budget Scenarios is \$561K, plus \$50K for reclamation of RAP material, for a total annual budget of \$611K.
7. The city currently uses a, mostly, worst first approach to select roads to repair. This is also based on roadway functional class and traffic volumes. The harsh winter this year has damaged more pavements than in the recent past, which will force the city to use the worst first approach again.
8. The city staff estimates that they spend \$30K per year for crack sealing. This money does not come from the \$561K budget.
9. The conventional M&R Treatment (PCI 0-40), is 1½ inch mill and overlay. The cost is \$48.00 per ton, which covers 100 square feet at 1 ½ inch. In house equipment and labor is used for all overlay work.
10. Currently the city does not use any global M&R treatments and does not think that surface treatments would be approved from council and/or the general public.
11. The city staff will provide Transmap a file showing the major and minor roads and will provide Transmap with Council District boundaries to include in the database.
12. The city provided Transmap with two (2) years of construction data.
13. The start date for the budget scenarios will be the current date with a planning horizon of 5 years.
14. There was discussion on the deliverable dates for the PMS Report and the sign information. Transmap will provide the results as soon as all the information is received and incorporated into the database, and the budget scenarios are complete.
15. The MicroPAVER budget scenarios are:
 - a. Do Nothing
 - b. Budget required to maintain the current PCI
 - c. Determine the budget required to achieve a PCI=70.

Asphalt Pavements

Recommended Asphalt M&R Category Ranges, Unit Prices and Treatments

M&R Category	M&R Treatment	Price per Square Yard	Expected Result
Preventative (PCI 86-100)	Crack Seal	\$1.00	3 Year Stabilization
Global (PCI 56-85)	Surface Treatment	\$0.00	N/A
Conventional (PCI 0-55)	Mill & Overlay	\$4.00*	15 years (Reset PCI to 100)

*based on a \$48.00 per ton cost of asphalt for raw material with 100 square feet covering 1 ½ inches.