Long Term Research Development

Maintaining Poor Pavements

As presented at yesterday’s pavement workshop below are questions related to Task 2; Gathering data for this long term research study.

If we can get a response from each State by June 29, 2018 it will help to keep this study moving along on schedule.

If you can not identify a response for all questions please respond with what you can optain.

A draft literature review, Task 1, has been posted to the project website.

Please contact me with any comments or questions.

1. Name of State agency: **Minnesota Department of Transportation (MnDOT)**
2. Does your State perform network roughness measurements? **Yes - IRI which is then converted to RQI (Ride Quality Index)**
3. What measurement does your State use to collect roughness measurements (inches per mile)? **inches per mile**
4. How does your State perform and collect pavement distress data (patching, longitudinal or transverse cracking, rutting, etc. …)? **Data collection vans drive all State highways each year (the CSAH system is surveyed over a two-year period). They use laser sensors and cameras to collect distress data. This data is then analyzed with automated software. Visit the MnDOT Pavement Management website for more information.**
5. What are the pavement distress measures your State uses for reporting? **RQI for ride and SR (Surface Rating) for distresses. These are combined to determine the PQI (Pavement Quality Index). Visit the MnDOT Pavement Management website for more information.**
6. How does your pavement management system define a “Poor Pavement”?

If you do not have a pavement management system what defines a pavement in poor condition for your State? **RQI of 2.0 - 1.1 is “poor.” RQI of 1.0 to 0 is “very poor.” RQI of 2.0 roughly equates to an IRI of 200 inches per mile.**

1. Please provide a listing of pavement segments in poor condition that received a “Thin” surface treatment.

 **UTBWC**

 I-35 near Rush City - Initial RQI 2.8 (2016) (IRI = 115.6)

 US-12 near Litchfield - Initial RQI 1.0 (2013) (IRI = 256.9)

 **Micro Surface**

TH 37 - US 169 to CSAH 329 (1.072 to 2.588) - Initial RQI 2.2 (2013) (IRI = 173.9)

 TH 24 - I 94 to State St - (43.921 - 44.620) - Initial RQI 2.7 (2011) (IRI = 151.4)

 **Cape Seal**

 TH 244 Dellwood - (3.976 - 7.230) Initial RQI 2.4 - (2010) (IRI = 156.6)

 **Chip Seal**

 TH 24 - (30.754 - 31.43) Initial RQI 2.2 (2012) (IRI = 179.0)

1. What is the approximate traffic volume in AADT?

I-35: 23250

US 12: 9073

TH 37: 6381

TH 24 Micro: ~15,000

TH 244: 7695

TH 24 Chip: 2639

1. What thin surface treatment(s) was applied.

At the bottom of this email are a listing of treatments, if the treatment applied does not fit please describe.

 **See #7**

1. What were the reported pavement performance measures prior to application of a thin surface treatment ?

**See RQI in #7**

1. IRI (or other used by your State)

**See attached**

1. SR (or other used by your State)

**See attached**

1. Cost of surface treatment

**These are estimated averages, unable to acquire precise cost data:**

Crack Seal: $4,000/lane mile

Chip Seal: $13,000/lane mile

Micro Surfacing: $20,000/lane mile

UTBWC: $35,000/lane mile

1. When was next rehabilitation performed ?

**See notes above and attached**

1. What is the basic pavement structure of the roadway segment ?

I-35: Unknown base, 9.75” Thick Concrete

US 12: Unknown; Bit over Concrete

TH 37: Unknown, Originally Full Depth Bituminous Construction

TH 24 Micro: Unknown base, 5.5” Thick Bituminous

TH 244: Unknown; Bit over Concrete

TH 24 Chip: Unknown; Bit over Bit

Not required but if you have the following information:

1. Please describe the most significant distress(s) being addressed.

**N/A**

1. Please describe the methodology or decision making process followed to select the rehabilitation application.

**N/A**