
COMMENTS ON THE NPRM FOR CONDITION OF PAVEMENTS ~~AND BRIDGES~~

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NPRM FOR PAVEMENT AND BRIDGE CONDITIONS

- Published January 5, 2015
- Establishes Required Performance Measures and Targets for National Highway System
- Comment Period through May 8, 2015 (originally April 6)



<http://bit.ly/18GMY2s> (Dropbox link)

or <http://federalregister.gov/a/2014-30085>

PAVEMENT CONDITION MEASURES

INTERSTATES

NON-INTERSTATE NHS

% of “Good”
Pavements

% of “Good”
Pavements

% of “Poor”
Pavements

% of “Poor”
Pavements

PAVEMENT METRICS

	Good	Fair	Poor
IRI	<95	95-170	>170*
% Cracking	<5%	5% - 10%	>10%
Rutting (Asphalt)	<0.20	0.20 – 0.40	>0.40
Faulting (Concrete)	<0.05	0.05 – 0.15	>0.15

*220 for areas with population greater than 1 million.

DETERMINING PAVEMENT CONDITION

Metric Rating Results

Overall Section Rating

All three metrics
rated "Good"

Good

More than 2 metrics
rated "Poor"

Poor

All other
combinations

Fair

THRESHOLD AND PENALTIES

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- No more than 5% of Interstate Pavements allowed in Poor Condition
- If target is not attained for two consecutive years, state must obligate funds to improve the measure.

THRESHOLD AND PENALTIES

- How long will states have to achieve target?
- Timeframe (4 years) seems ambitious if not already in compliance.
- Will Non-Interstate NHS have same 5% threshold as Interstate System at some point?

TENTH-MILE SEGMENT LENGTH

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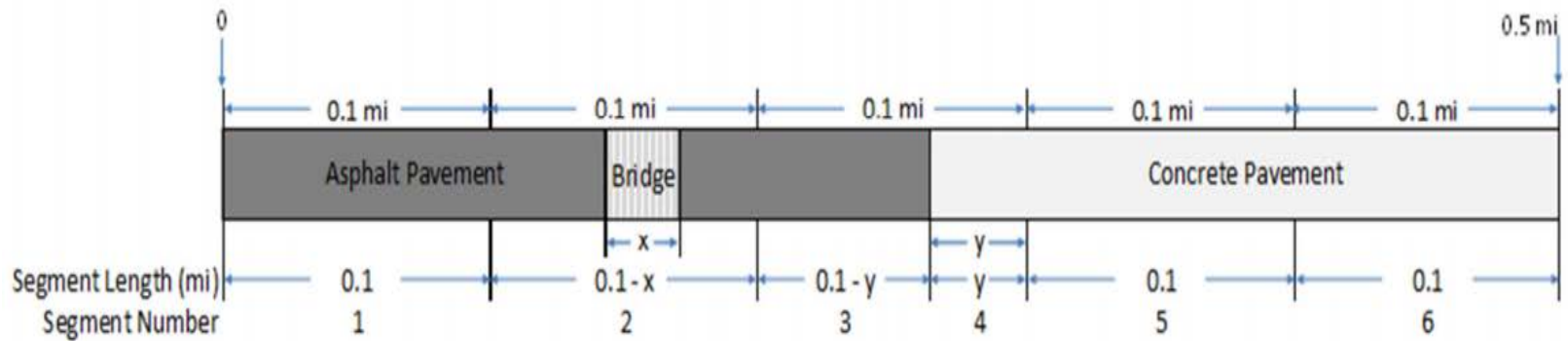
- Report in 0.1 – mile sections.
- Shorter sections are permitted only
 - at the beginning of a route,
 - end of a route, or
 - where a section length of 0.1 mile is not achievable. (?)
 - Sections shall not exceed 0.1 mile in length.

TENTH-MILE SEGMENT LENGTH

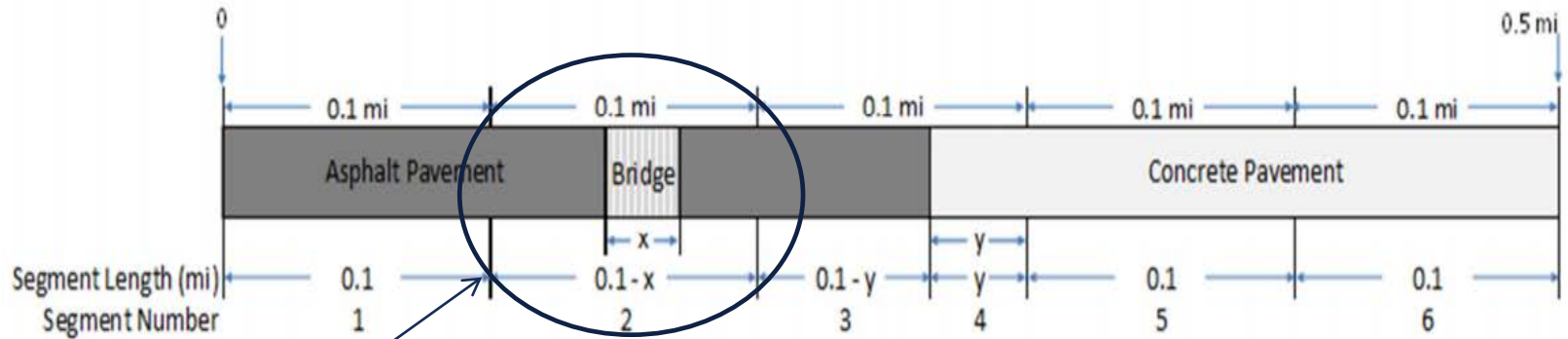
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- Pavement sections would be... defined using inventory data items that establish the location, number of lanes, surface type, **and whether a bridge exists in the section.**

TENTH-MILE SEGMENT LENGTH

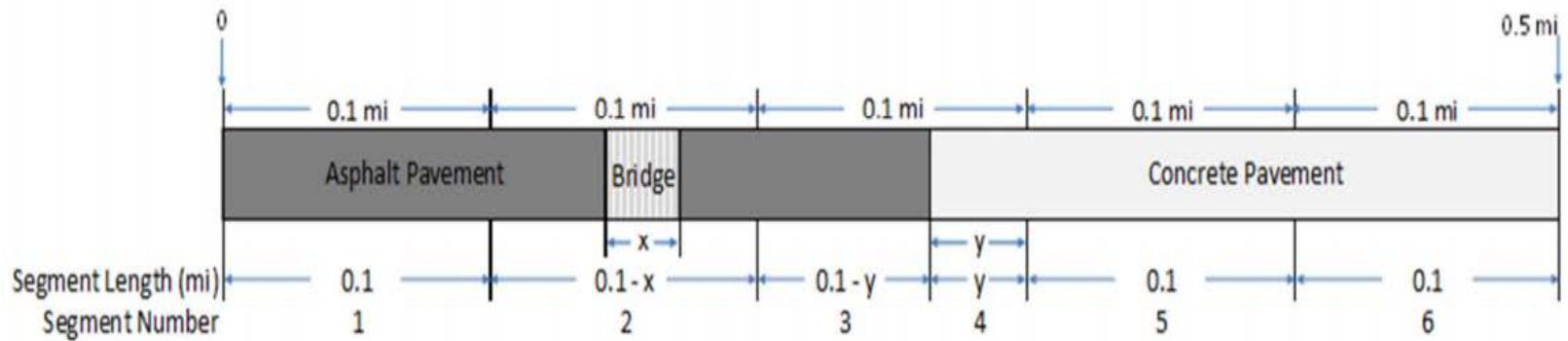


TENTH-MILE SEGMENT LENGTH

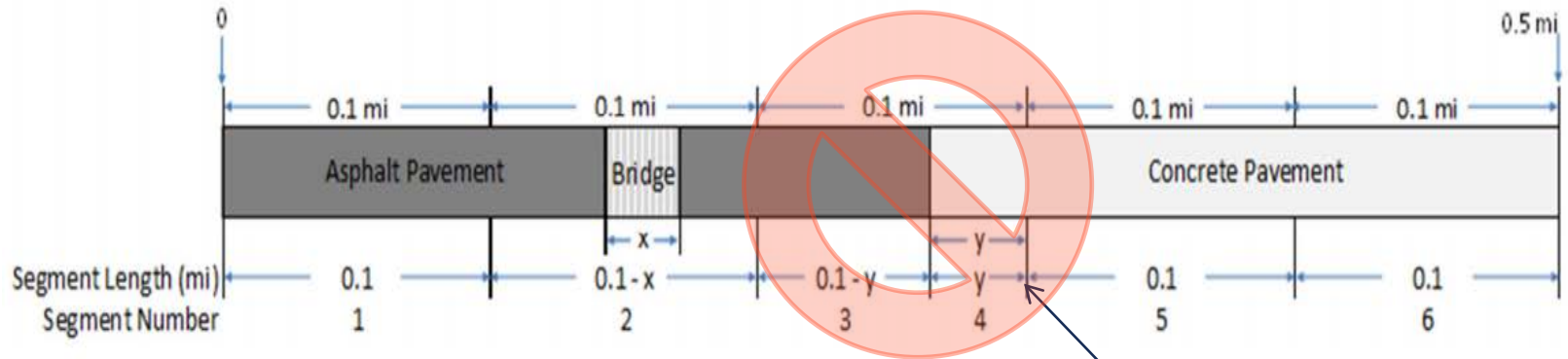


This appears to be the proposed method for handling bridges.

TENTH-MILE SEGMENT LENGTH



TENTH-MILE SEGMENT LENGTH



It does not appear that this is how pavement changes will be handled. (This is a problem.)

TENTH-MILE SEGMENT LENGTH

- How will bridge approach slabs be counted?
- How will junction/disjunctions be addressed?
- Can any length be ignored or could we have 0.001 mile segments?
- What about breaks at pavement changes?
- Does not align with how pavements are managed. Perhaps use 0.5 mile segments.

PERCENT CRACKING METRIC

Page 138 (Table 4)

- Manual collection in accordance with AASHTO Standard R55-10 (2013), or
- Automated collection in accordance with AASHTO PP67-14 and PP68-14.

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- May use sampling methods for non-interstate routes until cycle ending December 31, 2019.

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- Shall be computed as % of total area containing visible cracks.

PERCENT CRACKING METRIC

- HPMS Field Manual only uses fatigue cracking for Percent Cracking (Item 52)
- How is transverse cracking counted? HPMS Field Manual uses length.
- Burdensome for states with multi-year data collection contracts.
- Threshold for poor is low. ALDOT recommends 20% (from MEPDG Table 10-8).
- Difficult to establish baseline since current data only includes samples.
- Sealed cracks counted the same as unsealed cracks – discourages preservation.

MISSING OR INVALID DATA

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- Missing or invalid data will be rated as Poor
- In 2012:
 - 12 State DOTs were missing data from at least 50% of Interstate System
 - 3 State DOTs were not able to provide any samples with complete data
 - 27% of the full Interstate System lane mileage had missing data

MISSING OR INVALID DATA

- Does not account for pavement under construction, maintenance, or inaccessible (flooding, landslide, etc.).
- Definition of invalid data can sometimes be questionable.
- Especially burdensome for states with data collection contracts.
- Needs an allowable threshold for missing data.
- Missing data should default to previous rating for 2-3 years.

REPORTING DEADLINES

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- Interstate System – April 15
- Non-Interstate NHS – June 15

REPORTING DEADLINES

- Southern states with contract data collection are at a disadvantage since vendors often delay testing until later in the year.

DATA COLLECTION IN ONE DIRECTION FOR NON-INTERSTATES

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- Data collection shall be:
 - Full extent;
 - In the rightmost travel lane (or one consistent lane if not accessible);
 - In 0.1 mile sections;
 - **In one direction of travel;** and
 - On at least a biennial frequency.

DATA COLLECTION IN ONE DIRECTION FOR NON-INTERSTATES

- Do states get to choose the direction?
- Can it change from one year to the next?
- Can it change along the length of a route?

MISCELLANEOUS

- Biennial collection on non-interstates does not offset added cost of new collection requirements and corresponding QA/QC effort.
- Faulting thresholds too severe. Recommend 0.2" to 0.25" for Poor.
- IRI in urban areas can be much higher even if population is less than 1M.
- Many NHS routes maintained by other agencies.
- Definition of poor pavement is too lenient.

NEXT STEPS

- SEPPP Comments?
- One-time Task Force or incorporate into existing?
 - Research
 - Integrating Pavement Preservation into PMS
 - Specifications
- May 8 Deadline