

U.S. Department of Transportation  
**Federal Highway Administration**  
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Washington, DC 20590  
202-366-4000

[Policy and Governmental Affairs](#)  
[Office of Highway Policy Information](#)

**Highway Performance Monitoring System Field Manual**

**Errata**

The FHWA intends to correct these errors via a future rulemaking action. This list of known errors is provided solely for the information of HPMS Field Manual users and does not constitute official changes to the HPMS Field Manual at this time.

Deletions shown in ~~**bold red strikethrough**~~

Additions shown in **bold blue**

Page	Discussion	Original Text	Revised Text
1-3	<b>Table 1.1: Minimum Data Reporting for Selected HPMS Products - Footnotes</b>	<p>1/ Data for Lane-Miles on Rural Minor Collector, and Local roads are calculated using Summary miles times 2. Since the States are not required to report the number of through lanes on these systems, except for NHS sections, FHWA uses a multiplier of 2 for the number of lanes, to be consistent across all States.</p> <p>2/ Data reported for Total VMT on Rural Minor Collector and Local roads are provided at a summary level of detail. States are not required to report section level AADT on these systems, except for NHS sections.</p>	<p><b>Total Daily VMT 3/ Total Daily Truck VMT 3/</b></p> <p>1/ Data for Lane-Miles on Rural Minor Collector, and Local roads are calculated using Summary miles times 2. Since the States are not required to report the number of through lanes on these systems, except for NHS sections, FHWA uses a multiplier of 2 for the number of lanes, to be consistent across all States.</p> <p>2/ Data reported for Total VMT on Rural Minor Collector and Local roads are provided at a summary level of detail. States are not required to report section level AADT on these systems, except for NHS sections.</p> <p><b>3/ These "data products" are converted to annual VMT for end-product reporting purposes.</b></p>

<b>Reporting Requirements</b> - 1st paragraph	related data elements collected from January 1st 2016 through December 31st 2016 must be submitted (to FHWA) by April 15th 2017.	related data elements collected from January 1st <del>2016</del> <b>2018</b> through December 31st <del>2016</del> <b>2018</b> must be submitted (to FHWA) by April 15th <del>2017</del> <b>2019</b> .
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<b>Table 2.1:</b> <b>Data Items to be Reported -</b> 2-2 Data Item 14: /th> Speed Limit	14 Speed Limit SP	14 Speed Limit <b>FE***</b> SP*
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<b>Table 2.1:</b> <b>Data Items to be Reported -</b> 2-2 Data Item 20: Alternate Route Name	20 Alternate Route Name FE	20 <b>Alternative</b> Route Name FE*
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<b>Table 2.1:</b> <b>Data Items to be Reported -</b> 2-3 Data Item 47: International Roughness Index (IRI)	47 International Roughness Index (IRI) FE* SP*	47 International Roughness Index (IRI) <b>FE***</b> SP*
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<b>Table 2.1:</b> <b>Data Items to be Reported -</b> 2-4 Data Item 68: Maintenance and Operations	68 Maintenance and Operations FE	68 Maintenance and Operations <b>FE**</b>
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<b>Table 2.1:</b> <b>Data Items to be Reported -</b> 2-4 Data Item 63: County Code	63 County Code FE	63 County Code <b>FE*</b>
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2-4 <b>Table 2.1:</b> <b>Data Items to be Reported -</b> Footnotes	FE = Full Extent for all functional systems (including State and non-State roadways) FE* = Full Extent for some functional systems, (see Chap. 4, Sec. 4.4 for more details) FE** = Full Extent wherever data item is applicable, (see Chap. 4, Sec. 4.4 for more	FE = Full Extent for <b>either</b> all <b>functional Federal-aid</b> systems, <b>or all public roads</b> (including State and non-State roadways) FE* = Full Extent for some <b>functional Federal-aid</b> systems, (see Chap. 4, Sec. 4.4 for more details) FE** = Full Extent <b>for either all Federal-</b>
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FE\*\*\* = Full Extent for all NHS roadways (including State and non-State roadways)  
FE\*\*\*# = (Optional) Full Extent for NHS roadways (including State and non-State roadways)  
FE\*\*\*\*# = (Optional) Full Extent for Interstate roadways (including State and non-State roadways)  
FE + R = Full Extent including ramps located within grade-separated interchanges  
SP = All Sample Panel Sections (as defined by HPMS)  
SP\* = Some Sample Panel Sections (see Chap. 4, Sec. 4.4 for more details)

data item is applicable, (see Chap. 4, Sec. 4.4 for more details)  
FE\*\*\* = Full Extent for all NHS roadways (including State and non-State roadways)  
FE\*\*\*# = (Optional) Full Extent for NHS roadways (including State and non-State roadways)  
FE\*\*\*\*# = (Optional) Full Extent for Interstate roadways (including State and non-State roadways)  
FE + R = Full Extent **for all Federal-aid systems**, including ramps located within grade-separated interchanges  
SP = ~~All~~ Sample Panel Sections (as defined by HPMS) **on all Federal-aid systems**  
SP\* = ~~Some~~ Sample Panel Sections **on some Federal-aid systems** (see Chap. 4, Sec. 4.4 for more details)

3-7

Table 3.5  
Routes  
Footnotes

Extent â€œ All public roads including Federal-aid highways, and ramps located within grade-separated interchanges (including NHS routes). This roadway network is termed 'All Roads Network' or ARNOLD.

Extent â€œ All public roads including Federal-aid highways, and ramps located within grade-separated interchanges (including NHS routes). This roadway network is termed **the 'All Roads Network of Linear Referenced Data'** or ARNOLD.

3-11

Table 3.8  
Sections  
Description

Table 3.8 describes the State reported HPMS Section dataset representing all Federal-aid highways and other applicable sections. The specific requirements for the information to be reported in the Data Item field are defined in detail in Chapter 4. See Table 4.2 for a full list of the required HPMS Data Items and related reporting requirements.

Table 3.8 describes the State reported HPMS Section dataset representing all Federal-aid highways and ~~other applicable sections; in a few cases, all public roads.~~ The specific requirements for the information to be reported in the Data Item field are defined in detail in Chapter 4. See Table 4.2 for a full list of the required HPMS Data Items and related reporting requirements.

3-11

Table 3.8  
Sections  
Footnotes

Extent: All Federal-aid highways and ramps located within grade separated interchanges and applicable items on other sections where a toll facility exists; optional for other sections.

Extent: All Federal-aid highways and ramps located within grade separated interchanges **and applicable items on other sections where a toll facility exists for most data items; all public roads for certain data items; optional for other sections.**

3-14

Table 3.10  
Statewide  
Summaries  
Description

Table 3.10 describes the dataset which contains demographic and system length estimates for all Urban and Rural public roads, functionally classified as minor collector in rural areas or local in any

Table 3.10 describes the dataset which contains demographic and system length estimates for all ~~Urban and Rural~~ public roads, functionally classified as minor collector in rural areas or local in any area,

this dataset contains daily vehicle-miles traveled (VMT) estimates for all public roads located in Small Urban areas, functionally classified as minor collector or local. This includes NHS roads located on these functional systems.

dataset contains daily vehicle-miles traveled (VMT) estimates for all public roads located in Small Urban areas, **and roads** functionally classified as **rural** minor collector or local. This includes NHS roadways located on these functional systems.

**3-14 Table 3.10  
Statewide  
Summaries  
Footnotes**

Extent: All public roads functionally classified as Rural Minor Collector/Local and Small Urban Local. Any NHS routes or toll roads on these functional systems should be included.

Extent: All public roads functionally classified as Rural Minor Collector ~~/or Local~~ ~~and Small Urban Local~~. Any NHS routes or toll roads on these functional systems should be included.

**3-22 Table 3.16  
Estimates  
Discussion**

Table 3.16 describes the dataset which contains statewide estimates to be used as default inputs for FHWA's pavement deterioration models. Table 3.18 contains a list of the valid entries for the Estimate Type Field and their associated values.

Table 3.16 describes the dataset which contains statewide estimates to be used as default inputs for FHWA's pavement deterioration models. Table ~~3.18~~ **3.17** contains a list of the valid entries for the Estimate Type Field and their associated values.

**3-22 Table 3.18  
Estimates  
Estimate Type  
- Valid Values**

A detailed list of the estimate types is provided in Table 3.18 below.

A detailed list of the estimate types is provided in Table ~~3.18~~ **3.17** below.

**3-22 Table 3.18  
Estimates  
Value  
Numeric -  
Valid Values**

Must be numeric as specified (in Table 3.18) under the Value Numeric descriptions.

Must be numeric as specified (in Table 3. ~~18~~ **3.17**) under the Value Numeric descriptions.

**3-26 Table 3.18  
Metadata  
Discussion**

Table 3.18 describes the dataset which contains data that captures and explains variability in the collection and reporting of traffic and pavement data in HPMS. Table 3.20 lists the valid entries for the Metadata Type Field and their associated values.

Table 3.18 describes the dataset which contains data that captures and explains variability in the collection and reporting of traffic and pavement data in HPMS. Table ~~3.20~~ **3.19** lists the valid entries for the Metadata Type Field and their associated values.

**3-26 Table 3.18  
Metadata  
Metadata Type  
- Valid Values**

A detailed list of the metadata types is provided in Table 3.20 below. Multiple metadata types are permitted per data item.

A detailed list of the metadata types is provided in Table ~~3.20~~ **3.19** below. Multiple metadata types are permitted per data item.

<b>Table 4.2</b> <b>Data Items, Related Submission Deadlines and Required Reporting Formats</b> â€œData Item 7: Through Lanes									
4-10	7	Through Lanes	FE + R	April 15#	I or I&NI*	7	Through Lanes	FE + R	April 15# <del>I or I&amp;NI*</del>
<b>'Table 4.2: Data Items to be Reported - Data Item 14: Speed Limit</b>									
4-10	14	Speed Limit	FE*	SP		14	Speed Limit	FE****	SP*
<b>Table 4.2: Data Items to be Reported - Data Item 20: Alternate Route Name</b>									
4-10	20	Alternate Route Name	FE			20	Alternative Route Name	FE*	
<b>Table 4.2: Data Items to be Reported - Data Item 63: County Code</b>									
4-12	63	County Code	FE			63	County Code	FE*	
<b>Table 4.2: Data Items to be Reported - Data Item 68: Maintenance and Operations</b>									
4-12	68	Maintenance and Operations	FE			68	Maintenance and Operations	FE**	
4-12	<b>Table 4.2: Data Items to be Reported - Footnotes</b>		FE = Full Extent for all functional systems (including State and non-State roadways) FE* = Full Extent for some functional systems, (see Chap. 4, Sec. 4.4 for more			FE = Full Extent for either all functional Federal-aid systems, or all public roads (including State and non-State roadways) FE* = Full Extent for some functional			

FE\*\* = Full Extent wherever data item is applicable, (see Chap. 4, Sec. 4.4 for more details)

FE\*\*\* = Full Extent for all NHS roadways (including State and non-State roadways)

FE\*\*\*# = (Optional) Full Extent for NHS roadways (including State and non-State roadways)

FE\*\*\*\*# = (Optional) Full Extent for Interstate roadways (including State and non-State roadways)

FE + R = Full Extent including ramps located within grade-separated interchanges

SP = All Sample Panel Sections (as defined by HPMS)

SP\* = Some Sample Panel Sections (see Chap. 4, Sec. 4.4 for more details)

/td>

for more details)

FE\*\* = Full Extent for **either all Federal-aid systems, or all public roads** wherever data item is applicable, (see Chap. 4, Sec. 4.4 for more details)

FE\*\*\* = Full Extent for all NHS roadways (including State and non-State roadways)

FE\*\*\*# = (Optional) Full Extent for NHS roadways (including State and non-State roadways)

FE\*\*\*\*# = (Optional) Full Extent for Interstate roadways (including State and non-State roadways)

FE + R = Full Extent **for all Federal-aid systems**, including ramps located within grade-separated interchanges

SP = ~~All~~ Sample Panel Sections (as defined by HPMS) **on all Federal-aid systems**

SP\* = ~~Some~~ Sample Panel Sections **on some Federal-aid systems** (see Chap. 4, Sec. 4.4 for more details)

***\*NOTE:** The extent requirement specifications in Sec. 4.4 will be updated, for the applicable data items, to reflect the revisions noted above.*

4-17	Item 2: Urban Code - Extent	All Public highways including ramps located within grade-separated interchanges as identified in 23 U.S.C. 101.a(27).			All <b>Public Federal-aid</b> highways including ramps located within grade-separated interchanges <del>as identified in 23 U.S.C. 101.a(27).</del>		
		FS	6 - MiC	7 - Local	FS	6 - MiC	7 - Local
4-17	Item 2: Urban Code - Extent Grid	Rural FE + R FE + R			Rural <del>FE + R</del> <del>FE + R</del>		
		Urban FE + R FE + R			Urban FE + R <del>FE + R</del>		
4-30	Item 7: Through Lanes - Guidance	For LRS purposes, this Data Item can be reported independently for both directions of travel associated with divided highway sections, for which dual carriageway GIS network representation is required per guidance in Chapter 3, Section 3.3 and Table 3.5.			<del>For LRS purposes, this Data Item can be reported independently for both directions of travel associated with divided highway sections, for which dual carriageway GIS network representation is required per guidance in Chapter 3, Section 3.3 and Table 3.5.</del>		



## Lanes (Code '2') Example - Image

### Item 21: 4-52 AADT - Guidance

If average weekday, average weekly, or average monthly traffic is calculated or available, it shall be adjusted to represent the annual average daily traffic (AADT). AADT is an average daily value that represents all days of the reporting year.

If average weekday, average weekly, or average monthly traffic is calculated or available, it shall be adjusted to represent the annual average daily traffic (AADT). AADT is an average daily value that represents all days of the **reporting data/inventory year**.

### 4-53 Item 22: Single-Unit Truck and Bus AADT - Guidance

- For two-way facilities, provide the bidirectional Single-unit Truck and Bus AADT; for one-way roadways, and ramps, provide the directional Single-unit Truck and Bus AADT.

- For two-way facilities, provide the bidirectional **combined** Single-unit Truck and Bus AADT; for one-way roadways, and ramps, provide the directional **combined** Single-unit Truck and Bus AADT.

- This value shall be representative of all single-unit truck and bus activity based on vehicle classification count data from both the State's and other agency's traffic monitoring programs over all days of the week and all seasons of the year. Actual vehicle classification counts shall be adjusted to represent average conditions as recommended in the *Traffic Monitoring Guide (TMG)*.

This value shall be representative of all combination truck activity based on vehicle classification data from traffic monitoring programs over all days of the week and all seasons of the year. **Actual-Short-term** vehicle classification counts shall be adjusted to represent average **daily** conditions as recommended in the *Traffic Monitoring Guide (TMG)*. Single-unit trucks and buses are defined as vehicle classes 4 through 7 (buses through four-or-more axle, single-unit trucks).

Single-unit trucks and buses are defined as vehicle classes 4 through 7 (buses through four-or-more axle, single-unit trucks).

- **Historical** AADT values shall be **updated adjusted** annually (**during non-collection years**) to represent current year data.

- AADT values shall be updated annually to represent current year data.

- **Sample Section** section-specific measured values **are requested shall be** based on traffic counts taken on a minimum three-year cycle **and a duration minimum of 48 hours**. If these data are not available, values derived from classification station data on the same route, or on a similar route with similar traffic characteristics in the same area can be used.

Section specific measured values are requested based on traffic counts taken on a minimum three-year cycle. If these data are not available, values derived from classification station data on the same route, or on a similar route with similar traffic characteristics in the same area can be used.

- Specific guidance for the frequency and size of vehicle classification data collection programs,

- Specific guidance for the frequency and size of vehicle classification data collection programs, factor development, age of data, and other applications is contained in the *Traffic Monitoring Guide*.

factor development, age of data, and other applications is contained in the *Traffic Monitoring*

*Guide.*

- For two-way facilities, provide the bidirectional Combination Truck AADT; for one-way roadways, and ramps, provide the directional Combination Truck AADT.

- This value shall be representative of all combination truck activity based on vehicle classification data from traffic monitoring programs over all days of the week and all seasons of the year. Actual vehicle classification counts shall be adjusted to represent average conditions as recommended in the *Traffic Monitoring Guide (TMG)*. Combination trucks are defined as vehicle classes 8 through 13 (four-or-less axle, single-trailer trucks through seven-or-more axle, multi-trailer trucks).

- AADT values shall be updated annually to represent current year data.

- Section specific measured values are requested based on traffic counts taken on a three-year cycle, at a minimum. If these data are not available, use values derived from classification station data on the same route or on a similar route with similar traffic characteristics in the same area.

Specific guidance for the frequency and size of vehicle classification data collection programs,

factor development, age of data, and other applications is contained in the *Traffic Monitoring*

*Guide.*

- For two-way facilities, provide the bidirectional Combination Truck AADT; for one-way roadways, and ramps, provide the directional Combination Truck AADT.

- This value shall be representative of all combination truck activity based on vehicle classification data from traffic monitoring programs over all days of the week and all seasons of the year. ~~Actual~~ **Short-term** vehicle classification counts shall be adjusted to represent average **daily** conditions as recommended in the *Traffic Monitoring Guide (TMG)*. Combination trucks are defined as vehicle classes 8 through 13 (four-or-less axle, single-trailer trucks through seven-or-more axle, multi-trailer trucks).

- **Historical** AADT values shall be **updated adjusted** annually (**during non-collection years**) to represent current year data.

- **Sample** ~~Section~~ **section**-specific measured values ~~are requested shall be~~ based on traffic counts taken on a three-year cycle, at a minimum **and a duration minimum of 48 hours**. If these data are not available, use values derived from classification station data on the same route or on a similar route with similar traffic characteristics in the same area.

Specific guidance for the frequency and size of vehicle classification data collection programs, factor development, age of data, and other applications is contained in the *Traffic Monitoring Guide*.

**4-56  
&  
57** **Item 24:  
Combination  
Truck AADT**  
- Guidance

**4-91** **Item 47: IRI  
(International  
Roughness  
Index) -  
Coding  
Requirements  
for Fields 8, 9,  
and 10**

Value Date: Report the month and year in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.

Value Date: Report the month and year (in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.



4-92 Item 47: IRI (International Roughness Index) - Guidance	<p>- For the sections on the Interstate System, measured IRI shall be:</p> <ul style="list-style-type: none"> <li>o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable; the maximum length of a section shall not exceed 0.11 mile in length; and</li> </ul>	<p>- For the sections on the Interstate System, measured IRI shall be:</p> <ul style="list-style-type: none"> <li>o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (<b>e.g., locations where a change in Surface Type occurs</b>); the maximum length of a section shall not exceed 0.11 mile in length; and</li> </ul>
4-92 Item 47: IRI (International Roughness Index) - Guidance	<p>- For the sections on the non-Interstate System NHS, measured IRI shall be:</p> <ul style="list-style-type: none"> <li>o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable; the maximum length of a section shall not exceed 0.11 mile in length; and</li> </ul>	<p>- For the sections on the non-Interstate System NHS, measured IRI shall be:</p> <ul style="list-style-type: none"> <li>o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (<b>e.g., locations where a change in Surface Type occurs</b>); the maximum length of a section shall not exceed 0.11 mile in length; and</li> </ul>
4-93 Item 48: PSR (Present Serviceability Rating) - Coding Requirements for Fields 8, 9, and 10	Value Date: No entry required. Available for State use.	Value Date: <b>Report the month and year (in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.</b>
4-94 Item 48: PSR - Guidance	For the non-NHS sections (i.e., Sample Panel sections located on non-Principal Arterial System (PAS) roadways), PSR can be reported in lieu of IRI. If reported, measured PSR values shall be:	For the non-NHS sections (i.e., <b>Sample Panel sections located on non-Principal Arterial System (PAS) roadways where sample section reporting is required</b> ), PSR can be reported in lieu of IRI. If reported, measured PSR values shall be:
4-97 Item 49: Surface Type - Guidance	Code 1, Unpaved, on the NHS should be verified since they are very rare except in a couple of States.	Code 1, Unpaved, on the NHS should be verified since these sections are very rare except in a couple of States. <b>Roadway sections where subgrade/subbase of a pavement is exposed and roadway sections that are currently being rehabilitated/reconstructed shall not be</b>

4-99	<b>Item 50: Rutting - Coding Requirements for Fields 8, 9, and 10</b>	Value Date: Report the month and year (either in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.	Value Date: Report the month and year ( <del>either</del> in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.
4-100	<b>Item 50: Rutting - Guidance</b>	<p>- For the sections on the Interstate System, measured IRI shall be:</p> <ul style="list-style-type: none"> <li>o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable; the maximum length of a section shall not exceed 0.11 mile in length; and</li> </ul>	<p>- For the sections on the Interstate System, measured IRI shall be:</p> <ul style="list-style-type: none"> <li>o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (<b>e.g., locations where a change in Surface Type occurs</b>); the maximum length of a section shall not exceed 0.11 mile in length; and</li> </ul>
4-100	<b>Item 50: Rutting - Guidance</b>	<p>- For the sections on the non-Interstate System NHS, measured IRI shall be:</p> <ul style="list-style-type: none"> <li>o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable; the maximum length of a section shall not exceed 0.11 mile in length; and</li> </ul>	<p>- For the sections on the non-Interstate System NHS, measured IRI shall be:</p> <ul style="list-style-type: none"> <li>o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (<b>e.g., locations where a change in Surface Type occurs</b>); the maximum length of a section shall not exceed 0.11 mile in length; and</li> </ul>
4-101	<b>Item 50: Rutting - Guidance</b>	N/A	<p><b>For the non-NHS sections (i.e., where sample section reporting is required), measured rutting values shall be:</b></p> <ul style="list-style-type: none"> <li><del>-collected for the full extent of the mainline highway;</del></li> <li><b>- in the rightmost through lane or one consistent lane for all data if the rightmost through lane carries traffic that is not representative of the remainder of the lanes or is not accessible due to closure, excessive congestion, or other events impacting access;</b></li> <li><b>- continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only</b></li> </ul>

**route, at bridges, or other locations where a section length of 0.1 mile is not achievable (e.g., locations where a change in Surface Type occurs); the maximum length of a section shall not exceed 0.11 mile in length; and**  
**- on a biennial frequency (note: data collection shall be performed during a given 2-year duration and must conclude by December 31st of that 2-year duration for reporting purposes).**

**4-  
102 Item 51:  
Faulting -  
Description**

Faulting is defined as a vertical misalignment of pavement joints in Portland Cement Concrete Pavements (Jointed Concrete Pavement). Jointed Concrete Pavements is defined as pavements where the top-most surface is constructed of Portland cement concrete with joints (Item 49 codes '3', '4', '9', '10', and '11'). It may be constructed of either reinforced or unreinforced (plain) concrete.

Faulting is defined as a vertical misalignment of pavement joints in Portland Cement Concrete Pavements (Jointed Concrete Pavement). Jointed Concrete Pavements is defined as pavements where the top-most surface is constructed of Portland cement concrete with joints (Item 49 codes '3', '4', '9', **and** '10', ~~and '11'~~). It may be constructed of either reinforced or unreinforced (plain) concrete.

**4-  
103 Item 51:  
Faulting -  
Coding  
Requirements  
for Fields 8, 9,  
and 10**

Value Date: Report the month and year (either in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.

Value Date: Report the month and year (~~either~~ in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.

**4-  
104 Item 51:  
Faulting -  
Guidance**

- For the sections on the Interstate System, measured IRI shall be:  
 o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable; the maximum length of a section shall not exceed 0.11 mile in length; and

- For the sections on the Interstate System, measured IRI shall be:  
 o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (**e.g., locations where a change in Surface Type occurs**); the maximum length of a section shall not exceed 0.11 mile in length; and

**4-  
104 Item 51:  
Faulting -  
Guidance**

- For the sections on the non-Interstate System NHS, measured IRI shall be:  
 o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528

- For the sections on the non-Interstate System NHS, measured IRI shall be:  
 o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528

at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable; the maximum length of a section shall not exceed 0.11 mile in length; and

the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (e.g., **locations where a change in Surface Type occurs**); the maximum length of a section shall not exceed 0.11 mile in length; and

4- **Item 51:**  
104 **Faulting -**  
Guidance N/A

**For the non-NHS sections (i.e., where sample section reporting is required), measured faulting values shall be:**  
~~collected for the full extent of the mainline highway;~~  
**- in the rightmost through lane or one consistent lane for all data if the rightmost through lane carries traffic that is not representative of the remainder of the lanes or is not accessible due to closure, excessive congestion, or other events impacting access;**  
**- continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (e.g., locations where a change in Surface Type occurs); the maximum length of a section shall not exceed 0.11 mile in length; and**  
**- on a biennial frequency (note: data collection shall be performed during a given 2-year duration and must conclude by December 31st of that 2-year duration for reporting purposes).**

4- **Item 52:**  
106 **Cracking**  
**Percent -**  
Description For Asphalt pavements (Item 49 codes '2', '6', '7', and '8'), Cracking Percent is the percentage of the total area exhibiting visible fatigue type cracking for all severity levels in the wheelpath in each section.

For Asphalt pavements (Item 49 codes '2', '6', '7', and '8'), Cracking Percent is the percentage of the total area exhibiting visible fatigue type cracking (**both longitudinal and/or pattern**) for all severity levels in the wheelpath in each section (**see Figure 4.78 for an illustration of these cracking scenarios**).

4- **Item 52:**  
106 **Cracking**  
**Percent -**  
Description For Jointed Concrete Pavements (Item 49 codes '3', '4', '9', '10', and '11'), Cracking Percent is the percentage of slabs within

For Jointed Concrete Pavements (Item 49 codes '3', '4', '9', **and '10', and '11'**), Cracking Percent is the percentage of slabs

cracking. Partial slabs shall contribute to the section that contains the majority of the slab length.

cracking. Partial slabs shall contribute to the section that contains the majority of the slab length.

**Item 52:**  
**Cracking**  
**Percent -**  
**4- Coding**  
**107** Requirements for Fields 8, 9, and 10

Value Numeric: Report the percent of total section area for asphalt pavement and CRCP and percent of slabs for Jointed Concrete Pavements to the nearest 1%. Zero (0) values shall only be reported for roadway sections where cracks are not present.

Value Numeric: Report the percent of total section area for asphalt pavement and Continuously Reinforced Concrete Pavement (CRCP), and percent slabs of Jointed Concrete Pavements to the nearest 1%. Zero (0) values shall be reported **either** for roadway sections where cracks are not present, **or roadway sections where recorded values are less than 0.5%.**

**Item 52:**  
**Cracking**  
**Percent -**  
**4- Coding**  
**107** Requirements for Fields 8, 9, and 10

Value Date: Report the month and year (either in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.

Value Date: Report the month and year (~~either~~ in MM/YYYY format, excluding leading zeroes) for when the data was collected. A default date may be used if the exact date of collection is unknown.

**Item 52:**  
**Cracking**  
**Percent -**  
**4- Guidance**  
**109**

- For the sections on the Interstate System, measured IRI shall be:  
o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable; the maximum length of a section shall not exceed 0.11 mile in length; and

- For the sections on the Interstate System, measured IRI shall be:  
o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (**e.g., locations where a change in Surface Type occurs**); the maximum length of a section shall not exceed 0.11 mile in length; and

**Item 52:**  
**Cracking**  
**Percent -**  
**4- Guidance**  
**109**

- For the sections on the non-Interstate System NHS, measured IRI shall be:  
o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable; the maximum length of a section shall not exceed 0.11 mile in length; and

- For the sections on the non-Interstate System NHS, measured IRI shall be:  
o continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (**e.g., locations where a change in Surface Type occurs**); the maximum length of a section shall not exceed 0.11 mile in length; and

109

Cracking  
Percent -  
Guidance

sample section reporting is required), measured cracking percent values shall be:

- ~~collected for the full extent of the mainline highway;~~
- in the rightmost through lane or one consistent lane for all data if the rightmost through lane carries traffic that is not representative of the remainder of the lanes or is not accessible due to closure, excessive congestion, or other events impacting access;
- continuously collected in a manner that will allow for reporting in nominally uniform section lengths of 0.1 mile (528 feet); shorter sections are permitted only at the beginning of a route, end of a route, at bridges, or other locations where a section length of 0.1 mile is not achievable (e.g., locations where a change in Surface Type occurs); the maximum length of a section shall not exceed 0.11 mile in length; and
- on a biennial frequency (note: data collection shall be performed during a given 2-year duration and must conclude by December 31st of that 2-year duration for reporting purposes).

4-  
124

Item 63:  
County Code  
- Extent

All Public highways as Identified in 23 U.S.C 101.a(27).

All ~~Public~~ **Federal-aid** highways-~~as Identified in 23 U.S.C 101.a(27).~~

/th>

FS      6 - MiC   7 - Local

FS      6 - MiC   7 - Local

4-  
124

Item 63:  
County Code  
- Extent Grid

Rural   FE      FE

Rural   ~~FE~~      ~~FE~~

/th>

Urban   FE      FE

Urban   FE      ~~FE~~

5-8

Vehicle  
Classification  
- Guidance

Data reported in HPMS shall represent data for the reporting year. Prior year classification counts shall be adjusted with annual adjustment factors to represent current year data and to accurately develop percent trucks and truck travel trends.

Data reported in HPMS shall represent data for the ~~reporting data/inventory~~ year. Prior year classification counts shall be adjusted with annual adjustment factors to represent current year data and to accurately develop percent trucks and truck travel trends.



Specifications

Character(60)

Character(~~60~~)(120)

Pct\_Peak\_Single Numeric(2,0)

Pct\_Peak\_Single Numeric(~~2,0~~)(2,3)

Pct\_Peak\_Combination Numeric(2,0)

Pct\_Peak\_Combination Numeric(~~2,0~~)(2,3)

Rutting Numeric(3,1)

Rutting Numeric(~~2,0~~)(3,2)

Faulting Numeric(3,1)

Faulting Numeric(~~3,1~~)(3,2)

Cracking\_Percent Numeric(3,1)

Cracking\_Percent Numeric(~~3,1~~)(3)

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