

**NATIONAL HIGHWAY SYSTEM LENGTH - 2012  
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL**

TABLE HM-47  
SHEET 1 OF 4

OCTOBER 1, 2013

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) (1)																			
	INTERSTATE SYSTEM										OTHER									
	NOT REPORTED (2)	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED (2)	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	5	343	174	40	23	13	5	3	4	605	19	1,011	858	144	65	33	14	7	8	2,139
Alaska	0	148	365	189	136	85	42	29	31	1,024	270	56	185	105	93	75	54	44	123	735
Arizona	-	543	307	72	33	13	6	4	3	982	125	530	416	119	71	37	13	8	12	1,206
Arkansas	6	182	147	44	23	13	8	7	5	429	20	366	957	421	244	130	57	30	22	2,226
California	57	204	513	219	151	61	31	15	28	1,222	306	388	1,495	635	370	197	101	47	34	3,268
Colorado	-	102	289	184	37	42	21	9	1	684	-	355	1,032	547	252	105	43	22	13	2,368
Connecticut	-	14	18	6	2	2	0	0	0	43	-	12	57	44	25	13	6	3	4	166
Delaware	-	-	-	-	-	-	-	-	-	-	-	23	103	27	12	1	1	1	2	170
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	1	484	240	16	5	2	0	0	-	747	122	1,159	1,320	198	69	31	11	7	7	2,801
Georgia	22	323	275	54	29	14	-	-	-	695	129	1,360	1,867	162	42	8	2	0	0	3,441
Hawaii	-	0	2	2	1	0	0	0	0	6	0	4	23	21	19	15	9	7	15	112
Idaho	-	125	235	81	40	18	8	6	9	522	6	104	694	434	248	125	54	35	42	1,735
Illinois	-	597	571	96	7	84	-	-	-	1,356	-	390	1,105	417	243	155	47	10	7	2,373
Indiana	157	315	150	52	30	23	13	8	10	599	42	612	603	195	78	44	21	17	21	1,592
Iowa	0	240	264	102	19	3	1	0	-	629	32	508	1,019	747	456	369	190	113	50	3,453
Kansas	-	133	360	125	33	5	-	-	-	656	19	561	1,893	489	101	19	6	3	1	3,073
Kentucky	29	374	158	24	8	2	1	0	0	568	374	687	555	148	64	32	15	6	5	1,512
Louisiana	5	161	155	88	61	42	14	5	3	528	32	151	464	163	105	73	49	34	44	1,082
Maine	0	115	98	80	6	-	0	0	-	299	0	40	308	295	85	33	14	17	3	794
Maryland	1	79	84	11	4	2	1	1	1	182	3	202	181	43	22	10	6	4	4	471
Massachusetts	-	20	35	5	1	1	0	0	1	64	-	16	36	24	19	12	5	3	5	120
Michigan	-	216	236	68	37	24	12	6	4	603	0	1,291	866	215	104	52	26	14	14	2,582
Minnesota	-	177	269	89	52	25	9	5	3	629	24	918	1,247	559	340	226	131	73	88	3,582
Mississippi	-	168	242	55	10	20	8	-	-	502	-	386	1,063	281	144	73	33	19	4	2,004
Missouri	-	546	254	39	15	6	3	2	1	867	41	1,050	1,289	332	139	72	34	17	14	2,947
Montana	-	416	565	77	34	20	7	4	6	1,129	-	634	1,334	348	146	78	32	19	33	2,623
Nebraska	-	240	124	36	17	-	-	-	-	418	-	923	1,046	383	241	82	42	25	25	2,767
Nevada	5	278	129	10	8	9	4	1	1	440	0	841	632	57	10	3	1	0	0	1,543
New Hampshire	-	111	20	12	5	2	4	-	-	154	45	104	172	53	27	10	3	2	2	374
New Jersey	-	24	15	2	2	0	0	0	0	45	0	23	52	39	36	20	10	6	7	193
New Mexico	2	475	315	33	15	7	0	0	-	846	3	648	776	189	105	41	10	6	1	1,776
New York	5	227	476	68	35	17	6	9	9	847	4	115	853	398	149	61	19	11	16	1,622
North Carolina	0	319	174	41	21	13	6	2	5	581	25	470	1,129	345	159	73	35	21	28	2,261
North Dakota	-	197	289	27	6	-	-	-	-	519	-	664	1,627	401	132	60	20	8	23	2,935
Ohio	0	238	396	66	12	9	1	0	0	723	7	413	980	408	118	58	25	10	6	2,018
Oklahoma	-	266	311	83	13	9	1	1	-	684	-	311	1,017	488	316	90	56	41	19	2,338
Oregon	3	196	223	90	25	10	4	2	1	550	13	561	1,395	436	202	99	45	22	26	2,787
Pennsylvania	1	401	508	142	52	9	2	1	1	1,117	4	339	868	397	181	82	35	13	13	1,929
Rhode Island	-	21	-	-	-	-	-	-	-	21	-	-	7	11	9	5	7	4	4	48
South Carolina	-	199	299	65	15	2	1	0	-	581	-	133	877	412	161	49	12	1	4	1,648
South Dakota	-	155	350	91	1	1	0	0	-	599	2	424	1,630	503	163	96	34	33	26	2,910
Tennessee	-	599	63	13	7	3	2	0	0	687	16	888	718	166	73	27	13	6	6	1,898
Texas	16	638	1,068	224	67	23	13	4	5	2,041	207	1,213	3,529	1,898	781	268	82	20	12	7,802
Utah	-	342	319	45	14	4	0	-	-	724	3	150	493	238	103	54	16	5	0	1,059
Vermont	-	201	67	8	3	1	0	0	-	280	-	76	155	43	20	11	7	4	7	324
Virginia	0	165	422	54	13	4	0	-	-	658	2	144	1,127	417	97	29	17	5	1	1,836
Washington	-	170	164	53	30	19	13	8	11	467	-	333	986	386	175	72	37	25	25	2,040
West Virginia	3	61	237	22	26	9	7	-	2	365	24	31	470	295	138	66	21	14	10	1,044
Wisconsin	0	105	211	74	61	26	1	0	0	479	41	724	1,106	619	403	201	76	38	42	3,209
Wyoming	-	258	418	90	37	5	-	-	-	809	55	219	1,064	467	102	57	3	10	3	1,926
U.S. Total	318	11,909	12,603	3,167	1,283	706	258	134	146	30,204	2,017	22,562	43,678	16,163	7,455	3,631	1,603	888	883	96,863
Puerto Rico (3)	-	-	1	10	4	11	5	4	7	42	-	-	1	3	13	2	-	-	-	19
Grand Total	318	11,909	12,604	3,177	1,287	717	263	137	153	30,246	2,017	22,562	43,679	16,165	7,468	3,633	1,603	888	883	96,882

For footnotes, see Footnotes Page.

**NATIONAL HIGHWAY SYSTEM LENGTH - 2012**  
**MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL**

TABLE HM-47  
SHEET 2 OF 4

OCTOBER 1, 2013

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) (1)									
	TOTAL RURAL NHS									
	NOT REPORTED (2)	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	25	1,354	1,031	184	88	46	19	11	12	2,744
Alaska	270	204	549	294	229	160	96	73	154	1,758
Arizona	125	1,073	724	191	103	51	18	12	15	2,188
Arkansas	26	548	1,104	465	267	143	65	37	27	2,655
California	363	592	2,008	854	521	258	132	62	62	4,490
Colorado	-	458	1,320	730	289	147	64	31	14	3,052
Connecticut	-	26	75	50	27	16	6	4	5	209
Delaware	-	23	103	27	12	1	1	1	2	170
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	123	1,643	1,560	214	73	33	11	7	7	3,549
Georgia	151	1,683	2,141	216	71	22	2	0	0	4,136
Hawaii	0	4	25	22	20	16	9	7	16	119
Idaho	6	229	929	515	288	143	62	41	51	2,257
Illinois	-	988	1,676	513	250	239	47	10	7	3,729
Indiana	199	927	753	247	108	67	34	25	30	2,191
Iowa	32	748	1,283	849	475	372	191	113	50	4,081
Kansas	19	694	2,252	614	135	24	6	3	1	3,729
Kentucky	402	1,062	713	172	72	35	16	7	5	2,080
Louisiana	37	311	619	251	166	115	63	39	46	1,610
Maine	1	155	406	374	91	33	15	17	3	1,093
Maryland	3	280	264	54	26	12	7	4	5	653
Massachusetts	-	35	71	30	20	12	6	3	6	184
Michigan	0	1,507	1,102	283	141	77	39	20	17	3,185
Minnesota	24	1,095	1,516	648	392	250	141	78	91	4,211
Mississippi	-	554	1,304	336	154	92	41	19	4	2,506
Missouri	41	1,595	1,543	371	154	78	37	19	15	3,814
Montana	-	1,050	1,899	425	180	98	39	22	39	3,753
Nebraska	-	1,163	1,170	419	259	82	42	25	25	3,184
Nevada	5	1,118	760	67	19	12	5	2	1	1,984
New Hampshire	45	216	192	65	32	12	7	2	2	528
New Jersey	0	47	67	41	38	20	11	7	7	238
New Mexico	5	1,123	1,090	223	120	48	11	6	1	2,621
New York	8	342	1,329	466	184	78	25	20	25	2,469
North Carolina	26	789	1,303	386	180	86	42	23	33	2,842
North Dakota	-	861	1,916	429	138	60	20	8	23	3,455
Ohio	7	651	1,376	474	130	67	27	10	7	2,741
Oklahoma	-	577	1,328	571	329	98	57	42	19	3,021
Oregon	16	757	1,618	526	227	108	49	24	28	3,337
Pennsylvania	6	741	1,376	539	234	91	37	14	14	3,046
Rhode Island	-	21	7	11	9	5	7	4	4	69
South Carolina	-	332	1,177	476	176	51	13	1	4	2,229
South Dakota	2	579	1,981	594	164	97	34	34	26	3,508
Tennessee	16	1,487	781	179	80	29	15	7	7	2,585
Texas	223	1,850	4,597	2,122	847	292	95	23	17	9,843
Utah	3	491	812	283	117	58	16	5	0	1,783
Vermont	-	278	222	51	23	12	7	4	7	604
Virginia	2	309	1,548	470	110	34	17	5	1	2,494
Washington	-	503	1,150	439	205	91	50	34	36	2,508
West Virginia	27	92	707	317	164	75	28	14	12	1,409
Wisconsin	41	828	1,317	693	465	228	77	38	42	3,688
Wyoming	55	477	1,483	558	139	63	3	10	3	2,736
U.S. Total	2,335	34,471	56,281	19,329	8,738	4,337	1,862	1,022	1,028	127,068
Puerto Rico (3)	-	-	3	13	17	13	5	4	7	61
Grand Total	2,335	34,471	56,283	19,342	8,755	4,350	1,867	1,026	1,035	127,128

For footnotes, see Footnotes Page.

**NATIONAL HIGHWAY SYSTEM LENGTH - 2012**  
**MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN**

TABLE HM-47  
SHEET 3 OF 4

OCTOBER 1, 2013

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) (1)																			
	INTERSTATE SYSTEM										OTHER									
	NOT REPORTED (2)	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED (2)	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	9	165	108	39	32	17	10	6	7	384	55	354	415	130	70	40	23	19	23	1,075
Alaska	0	16	26	6	4	2	1	0	1	57	6	5	42	28	16	9	7	12	12	141
Arizona	-	102	64	12	5	2	1	-	-	187	673	217	356	160	61	40	29	23	53	940
Arkansas	3	56	67	31	20	19	11	7	7	218	85	50	236	160	105	88	51	36	52	779
California	300	37	308	191	131	72	57	40	38	875	1,847	92	633	755	900	1,089	859	805	1,211	6,343
Colorado	-	34	126	52	36	12	5	2	-	268	3	51	289	236	258	238	154	99	182	1,506
Connecticut	-	73	136	43	24	14	6	3	5	303	-	46	139	146	146	128	94	75	156	930
Delaware	-	2	18	11	3	3	1	1	1	41	-	14	78	39	22	19	9	11	22	213
Dist. of Columbia	-	-	-	1	2	4	1	-	4	12	-	-	-	3	2	3	8	7	89	111
Florida	6	381	294	36	15	8	4	2	1	741	228	1,047	1,842	546	265	152	78	48	82	4,061
Georgia	13	255	209	39	15	1	0	-	-	518	80	592	1,048	271	121	41	22	15	12	2,123
Hawaii	0	4	10	6	6	6	5	4	7	48	4	36	58	41	35	27	19	15	41	273
Idaho	-	12	41	19	7	5	2	2	2	90	9	17	82	70	57	43	30	23	82	405
Illinois	-	201	319	34	42	229	1	-	-	826	-	214	687	681	494	528	225	197	302	3,327
Indiana	71	150	129	53	30	19	12	9	9	412	62	297	494	258	215	195	130	110	192	1,891
Iowa	-	29	65	28	13	9	7	2	1	153	73	28	146	190	145	84	57	38	88	775
Kansas	-	26	84	52	41	14	1	-	-	218	6	45	260	129	140	127	102	63	30	896
Kentucky	22	90	75	10	4	2	1	0	0	182	86	99	160	90	59	39	24	13	36	521
Louisiana	2	73	87	55	46	44	27	16	12	360	179	52	236	154	142	125	96	84	159	1,050
Maine	-	12	31	24	1	0	0	-	-	68	0	3	35	50	26	22	7	12	10	165
Maryland	1	101	111	30	17	11	9	7	10	296	59	152	375	193	154	117	79	65	209	1,343
Massachusetts	1	263	162	30	16	11	8	8	13	509	31	118	324	335	322	310	206	170	450	2,234
Michigan	-	152	263	99	53	32	22	11	8	641	2	229	598	399	356	275	191	189	359	2,597
Minnesota	2	64	110	46	24	16	10	6	7	283	11	125	295	136	93	61	42	30	50	832
Mississippi	-	28	106	36	15	11	1	-	-	198	-	67	358	175	133	111	69	52	101	1,066
Missouri	3	249	170	43	21	13	6	4	4	510	329	241	441	203	118	80	44	29	37	1,194
Montana	-	29	25	5	2	1	1	0	0	63	-	7	42	31	25	19	14	13	34	185
Nebraska	-	6	26	24	7	1	0	-	-	64	9	15	62	37	50	87	77	67	73	467
Nevada	4	67	41	15	15	6	3	1	1	147	23	141	113	47	28	18	8	4	10	370
New Hampshire	-	50	19	2	1	-	-	-	-	71	6	55	91	37	16	21	11	8	16	257
New Jersey	3	119	130	52	25	17	15	10	16	383	70	148	418	330	306	258	199	158	455	2,273
New Mexico	1	83	49	9	7	3	1	0	-	151	35	45	130	110	106	60	50	28	28	557
New York	2	82	434	138	63	47	23	26	41	855	33	60	729	671	534	351	264	199	927	3,735
North Carolina	6	249	260	82	37	22	9	6	3	667	225	204	791	403	260	148	83	52	144	2,084
North Dakota	-	16	35	1	-	-	-	-	-	52	-	5	32	44	32	28	20	10	14	186
Ohio	-	198	405	136	48	32	18	10	4	850	52	142	748	554	421	331	226	162	372	2,957
Oklahoma	-	54	109	43	19	6	6	4	8	249	5	54	260	213	150	130	109	95	175	1,186
Oregon	4	41	81	23	12	8	4	2	1	172	32	76	212	152	109	79	52	38	75	793
Pennsylvania	6	157	318	153	59	25	13	5	3	731	300	152	683	578	523	420	235	186	320	3,098
Rhode Island	-	12	27	5	2	2	1	0	0	48	6	7	39	49	57	73	66	53	97	441
South Carolina	-	98	114	28	20	8	1	1	0	270	-	90	348	292	199	99	35	19	22	1,104
South Dakota	-	15	35	26	2	1	0	0	-	80	4	5	21	30	17	18	19	8	12	130
Tennessee	4	270	89	23	14	7	3	2	4	413	44	503	539	210	134	98	57	41	76	1,658
Texas	55	160	509	246	132	74	27	9	5	1,161	404	392	1,870	1,392	1,015	655	363	245	573	6,505
Utah	3	54	93	46	15	2	0	0	-	210	14	66	244	135	86	38	20	7	7	602
Vermont	-	26	11	2	1	1	0	0	0	40	-	7	36	17	13	9	6	4	10	102
Virginia	0	52	228	97	56	17	5	4	2	461	75	39	419	332	172	163	79	63	56	1,324
Washington	0	73	118	42	26	14	10	7	7	297	-	98	336	269	280	198	156	129	329	1,795
West Virginia	-	35	113	24	7	3	5	0	0	187	8	11	129	87	43	30	14	11	17	342
Wisconsin	8	55	75	62	35	20	5	2	2	256	125	116	316	373	338	440	221	146	210	2,160
Wyoming	-	8	54	32	4	2	4	1	-	104	16	6	64	60	37	19	10	5	15	216
U.S. Total	526	4,583	6,515	2,343	1,229	895	361	222	235	16,383	5,317	6,635	18,298	12,034	9,416	7,788	5,052	3,985	8,108	71,317
Puerto Rico (3)	2	-	30	74	47	44	28	8	6	238	2	-	2	7	11	33	21	11	25	109
Grand Total	528	4,583	6,545	2,417	1,276	939	390	229	241	16,621	5,319	6,635	18,300	12,041	9,427	7,821	5,073	3,997	8,133	71,426

For footnotes, see Footnotes Page.

# NATIONAL HIGHWAY SYSTEM LENGTH - 2012

## MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47  
SHEET 4 OF 4

OCTOBER 1, 2013

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) (1)									
	TOTAL URBAN NHS									
	NOT REPORTED (2)	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	64	520	524	169	102	57	33	25	30	1,459
Alaska	6	21	68	35	26	18	11	7	13	198
Arizona	673	319	421	173	66	42	30	23	53	1,127
Arkansas	88	106	303	191	125	107	62	44	58	997
California	2,147	129	941	946	1,031	1,161	916	845	1,249	7,218
Colorado	3	84	415	288	294	250	159	101	182	1,774
Connecticut	-	119	274	189	170	142	100	79	161	1,233
Delaware	-	16	96	50	24	22	10	12	22	254
Dist. of Columbia	-	-	-	4	4	7	8	7	93	123
Florida	234	1,428	2,136	582	280	160	82	50	83	4,802
Georgia	93	846	1,257	310	136	42	22	15	12	2,641
Hawaii	4	40	68	48	41	33	23	19	49	321
Idaho	9	29	123	89	65	48	33	25	84	495
Illinois	-	415	1,006	715	536	757	225	197	302	4,153
Indiana	133	448	623	311	245	214	142	119	202	2,302
Iowa	73	57	210	218	158	93	64	39	89	928
Kansas	6	71	344	181	181	141	104	63	30	1,114
Kentucky	107	189	235	100	63	41	25	14	37	704
Louisiana	181	125	323	209	188	169	123	100	171	1,410
Maine	0	14	66	75	27	22	7	12	10	234
Maryland	60	252	486	223	171	128	88	72	219	1,640
Massachusetts	32	381	486	365	338	320	213	177	462	2,744
Michigan	2	382	861	498	410	307	213	200	367	3,238
Minnesota	13	189	404	182	117	77	53	36	57	1,116
Mississippi	-	95	464	212	148	122	70	52	101	1,264
Missouri	332	490	611	246	138	94	50	32	41	1,703
Montana	-	36	68	36	27	20	15	13	34	248
Nebraska	9	21	88	61	58	88	77	67	73	532
Nevada	27	208	154	62	43	24	11	5	11	517
New Hampshire	6	105	110	39	17	21	11	8	16	328
New Jersey	73	267	548	382	331	274	215	168	471	2,656
New Mexico	36	127	179	119	113	63	51	29	28	708
New York	35	143	1,163	809	597	397	287	225	968	4,590
North Carolina	231	453	1,050	485	297	169	92	58	148	2,752
North Dakota	-	21	66	45	32	28	20	10	14	238
Ohio	52	340	1,153	691	469	363	244	172	376	3,808
Oklahoma	5	107	369	256	169	136	115	99	184	1,435
Oregon	36	117	293	175	121	86	56	40	76	965
Pennsylvania	306	309	1,000	731	582	445	247	190	323	3,829
Rhode Island	6	19	66	55	59	75	67	53	97	489
South Carolina	-	188	462	320	219	107	36	20	22	1,374
South Dakota	4	20	56	56	20	19	19	8	12	210
Tennessee	49	773	627	233	147	105	60	44	80	2,071
Texas	459	551	2,379	1,639	1,147	729	390	254	577	7,666
Utah	17	120	336	181	101	39	20	7	7	812
Vermont	-	32	47	19	14	10	6	4	10	143
Virginia	75	91	647	429	228	180	84	68	58	1,785
Washington	0	171	455	310	306	212	166	136	336	2,092
West Virginia	8	46	241	110	50	33	19	12	17	528
Wisconsin	133	171	391	435	373	460	227	148	212	2,416
Wyoming	16	13	118	92	41	20	13	7	15	320
U.S. Total	5,843	11,219	24,813	14,376	10,645	8,684	5,414	4,207	8,344	87,700
Puerto Rico (3)	4	-	32	82	58	77	49	19	31	347
Grand Total	5,847	11,219	24,845	14,458	10,703	8,760	5,463	4,226	8,374	88,047

For footnotes, see Footnotes Page.

# **NATIONAL HIGHWAY SYSTEM LENGTH - 2012**

## **MILES BY MEASURED PAVEMENT ROUGHNESS**

HM-47 Footnotes Page:

- (1) Data are reported as the International Roughness Index (IRI) in inches per mile. Reference: World Bank Technical Paper Number 46, 1986. Lower IRI represents smoother riding roadways. To obtain a comprehensive assessment of pavement condition, additional measures of pavement distress are needed.
- (2) May include sections entirely on structures and unpaved miles.
- (3) 2009 data.