

NATIONAL HIGHWAY SYSTEM LENGTH - 2013 MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 1 OF 4

October 21, 2014

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	-	328	182	40	30	16	7	3	4	610	-	968	890	157	70	37	16	9	10	2,159
Alaska	0	138	370	185	133	87	41	30	39	1,024	7	46	181	111	112	113	90	82	261	997
Arizona	2	486	291	75	36	16	7	4	3	919	72	476	402	123	72	39	15	7	7	1,142
Arkansas	20	168	118	39	16	8	6	4	3	363	47	326	897	399	226	124	56	25	20	2,073
California	38	204	501	190	142	56	29	16	31	1,169	134	377	1,519	641	332	172	91	36	21	3,188
Colorado	-	124	277	141	54	39	28	15	7	684	4	574	1,134	473	231	112	53	27	29	2,632
Connecticut	-	17	18	7	1	1	-	0	0	43	-	14	67	43	21	9	5	2	4	166
Delaware	-	-	-	-	-	-	-	-	-	-	-	39	104	20	3	2	1	0	0	170
District of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	0	489	229	20	7	3	0	0	-	748	131	1,188	1,285	204	72	26	8	4	5	2,793
Georgia	29	230	182	50	22	12	5	3	2	507	28	972	1,595	341	105	43	16	8	17	3,096
Hawaii	-	-	-	-	-	-	-	-	-	-	0	0	12	18	17	11	6	3	3	70
Idaho	-	247	181	43	26	11	6	4	3	522	19	345	828	303	131	54	27	14	20	1,722
Illinois	-	584	607	89	7	0	-	-	-	1,286	-	414	1,088	423	262	118	44	6	11	2,366
Indiana	92	355	164	45	29	21	12	8	10	644	12	726	562	171	78	43	21	12	18	1,630
Iowa	35	230	217	67	31	14	6	3	6	574	827	525	784	427	277	189	114	82	165	2,562
Kansas	-	447	165	21	8	6	-	-	-	647	-	1,615	1,230	166	30	8	2	5	-	3,057
Kentucky	12	434	116	22	8	3	1	1	1	585	38	868	694	169	66	26	10	5	8	1,845
Louisiana	38	184	146	78	58	40	12	4	4	525	10	139	453	165	101	73	41	24	31	1,028
Maine	-	189	80	18	12	-	-	0	-	299	1	47	342	225	93	46	17	21	3	794
Maryland	0	56	67	12	4	1	1	1	1	142	0	149	138	35	15	9	6	4	7	363
Massachusetts	-	20	35	5	2	1	0	0	1	64	-	16	44	26	18	9	4	2	2	120
Michigan	-	204	218	66	35	22	12	4	3	564	-	1,229	849	209	93	51	24	13	19	2,487
Minnesota	4	190	253	71	38	20	9	4	4	590	56	1,015	1,160	540	312	177	93	51	60	3,408
Mississippi	-	279	141	24	12	8	4	2	2	473	0	671	752	220	121	61	25	13	11	1,873
Missouri	0	496	277	39	14	9	3	2	1	841	45	1,034	1,284	336	135	75	32	14	11	2,920
Montana	-	389	578	79	27	12	5	2	3	1,095	-	713	1,355	373	167	71	38	21	35	2,773
Nebraska	-	246	132	38	1	2	-	-	-	417	0	1,035	910	395	243	89	34	47	15	2,767
Nevada	5	289	130	12	9	10	4	2	1	457	0	841	632	57	10	3	1	0	0	1,543
New Hampshire	-	104	21	8	5	3	1	1	1	142	-	138	138	42	29	19	9	6	7	388
New Jersey	-	27	13	3	1	0	0	0	0	45	0	23	56	36	31	22	10	5	9	193
New Mexico	2	574	208	40	13	7	3	1	1	846	238	721	467	137	75	37	18	10	11	1,475
New York	5	206	451	123	40	19	6	3	12	860	1	121	842	364	163	69	33	9	10	1,611
North Carolina	3	341	173	34	16	10	3	1	0	578	28	522	1,132	321	146	65	30	20	22	2,258
North Dakota	-	208	236	50	13	3	1	-	0	511	-	978	1,240	383	154	75	37	22	47	2,935
Ohio	0	201	360	57	14	9	0	0	1	643	0	375	901	357	106	52	23	5	4	1,825
Oklahoma	-	177	334	97	33	7	2	-	0	650	4	235	958	479	311	147	48	37	37	2,253
Oregon	2	257	214	52	14	6	3	2	2	551	9	598	1,388	433	190	90	41	25	24	2,790
Pennsylvania	0	401	509	132	58	12	3	2	0	1,118	4	305	928	384	171	84	37	16	13	1,938
Rhode Island	-	13	5	-	-	-	-	-	-	18	-	-	10	12	22	9	6	6	7	72
South Carolina	-	260	253	49	17	2	0	0	0	581	-	145	861	393	175	54	6	9	4	1,648
South Dakota	-	141	358	76	17	6	1	-	-	599	2	1,192	3,243	1,075	629	479	226	78	50	6,970
Tennessee	5	583	71	14	7	3	2	1	1	682	21	902	713	162	66	31	14	6	5	1,899
Texas	0	788	949	206	78	34	10	5	10	2,080	1	1,762	3,476	1,544	676	304	115	55	57	7,989
Utah	-	330	299	40	11	4	0	-	-	684	-	146	557	280	115	50	19	5	0	1,173
Vermont	1	202	66	7	3	1	0	-	-	279	1	75	145	45	21	13	9	7	8	323
Virginia	-	224	315	74	28	10	3	1	2	658	1	209	913	431	184	77	33	17	15	1,879
Washington	-	154	146	51	27	16	12	9	10	425	-	304	949	368	150	71	35	21	24	1,923
West Virginia	-	40	259	37	30	3	-	-	-	369	26	28	443	286	155	88	20	11	14	1,045
Wisconsin	-	200	142	53	33	19	10	4	3	464	-	836	1,105	549	330	194	82	49	59	3,205
Wyoming	-	356	300	79	42	20	7	3	2	810	33	438	897	355	148	63	25	14	20	1,959
U.S. Total	294	12,811	11,355	2,756	1,261	614	271	144	173	29,385	1,799	26,417	42,551	15,203	7,460	3,883	1,769	972	1,239	99,495
Puerto Rico (3)	-	-	1	10	4	11	5	4	7	42	-	-	1	3	13	2	-	-	-	19
Grand Total	294	12,811	11,356	2,766	1,265	624	276	148	180	29,426	1,799	26,417	42,553	15,206	7,473	3,886	1,769	972	1,239	99,514

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2013
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 2 OF 4

October 21, 2014

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	-	1,297	1,072	196	100	53	24	12	14	2,769
Alaska	8	184	551	296	245	201	131	112	300	2,020
Arizona	74	962	693	198	108	56	22	11	10	2,061
Arkansas	67	494	1,015	438	242	132	62	29	24	2,436
California	172	581	2,020	831	474	228	120	52	52	4,357
Colorado	4	698	1,410	614	285	151	80	42	36	3,316
Connecticut	-	31	84	50	23	10	5	3	4	209
Delaware	-	39	104	20	3	2	1	0	0	170
District of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	131	1,676	1,515	224	79	29	9	4	5	3,541
Georgia	57	1,202	1,778	392	127	55	21	10	19	3,603
Hawaii	0	0	12	18	17	11	6	3	3	70
Idaho	19	593	1,009	345	157	65	34	18	23	2,243
Illinois	-	998	1,694	512	269	118	44	6	11	3,653
Indiana	104	1,081	726	216	107	64	33	20	28	2,274
Iowa	863	755	1,001	494	308	203	120	85	171	3,136
Kansas	-	2,062	1,394	187	38	14	2	5	-	3,704
Kentucky	50	1,302	810	191	74	29	11	6	8	2,430
Louisiana	48	323	599	243	159	113	53	28	35	1,553
Maine	1	236	422	243	105	46	17	22	3	1,093
Maryland	0	205	205	46	18	10	7	4	7	505
Massachusetts	-	36	79	31	19	9	4	2	3	184
Michigan	-	1,433	1,067	275	128	72	36	17	22	3,051
Minnesota	60	1,205	1,413	611	350	198	102	55	64	3,998
Mississippi	0	950	893	244	133	69	30	15	12	2,346
Missouri	45	1,530	1,561	374	149	84	35	16	12	3,761
Montana	-	1,102	1,934	452	193	84	43	22	37	3,867
Nebraska	0	1,280	1,041	432	244	91	34	47	15	3,185
Nevada	5	1,130	762	68	20	12	5	2	1	2,000
New Hampshire	-	242	159	50	33	22	10	6	8	530
New Jersey	0	51	69	38	32	23	11	5	9	238
New Mexico	239	1,295	675	177	87	44	21	11	12	2,321
New York	6	327	1,293	487	203	88	39	12	22	2,472
North Carolina	31	863	1,304	355	163	75	33	20	22	2,835
North Dakota	-	1,186	1,477	432	167	78	38	22	47	3,447
Ohio	1	577	1,261	414	120	62	23	5	5	2,467
Oklahoma	4	413	1,292	576	344	154	50	37	37	2,903
Oregon	12	855	1,602	486	203	97	45	27	26	3,341
Pennsylvania	4	706	1,437	516	229	96	40	18	13	3,056
Rhode Island	-	13	15	12	22	9	6	6	7	90
South Carolina	-	405	1,114	442	192	55	7	10	4	2,229
South Dakota	2	1,333	3,601	1,151	646	485	227	78	50	7,569
Tennessee	26	1,485	784	176	73	34	16	7	5	2,581
Texas	1	2,550	4,425	1,750	754	338	126	60	67	10,070
Utah	-	476	856	320	126	54	20	5	0	1,857
Vermont	1	277	210	52	24	13	9	7	8	602
Virginia	1	433	1,228	505	212	87	36	19	17	2,537
Washington	-	459	1,095	420	177	87	47	30	35	2,348
West Virginia	26	68	702	323	185	91	20	11	14	1,413
Wisconsin	-	1,036	1,247	602	363	214	92	53	63	3,669
Wyoming	33	794	1,197	434	190	83	32	16	22	2,769
U.S. Total	2,093	39,228	53,906	17,959	8,721	4,497	2,040	1,116	1,413	128,880
Puerto Rico (3)	-	-	3	13	17	13	5	4	7	61
Grand Total	2,093	39,228	53,909	17,972	8,738	4,510	2,045	1,120	1,420	128,940

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2013
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 3 OF 4

October 21, 2014

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	-	162	107	42	31	22	12	8	8	392	-	357	405	141	77	46	30	24	35	1,116
Alaska	-	13	26	8	5	2	1	1	1	57	1	3	43	28	17	11	8	13	146	
Arizona	0	139	76	19	7	3	1	0	0	247	987	192	249	100	64	40	24	19	41	730
Arkansas	7	72	95	38	19	16	11	7	7	265	106	70	276	180	113	92	54	35	51	870
California	46	56	432	268	177	106	62	45	52	1,198	1,364	100	775	891	961	1,155	903	828	1,264	6,876
Colorado	-	57	112	45	30	13	6	3	2	268	49	95	287	212	178	145	90	72	191	1,271
Connecticut	-	91	122	44	21	13	5	3	4	303	-	60	193	179	155	122	72	53	97	930
Delaware	-	3	19	9	4	2	2	1	1	41	-	14	91	45	22	12	9	7	14	213
District of Columbia	-	-	-	0	6	2	1	-	3	12	-	-	1	1	5	8	4	10	85	115
Florida	3	375	278	46	26	10	5	2	1	744	461	1,029	1,721	503	258	137	66	43	74	3,831
Georgia	12	343	218	68	32	19	9	5	6	700	174	572	1,045	343	177	99	57	36	148	2,477
Hawaii	0	1	11	7	11	7	7	5	5	55	3	25	54	46	50	45	31	23	44	319
Idaho	-	29	33	13	8	4	2	1	1	90	22	31	86	68	53	41	25	21	74	400
Illinois	-	226	593	36	42	1	1	-	-	899	-	185	734	723	520	462	254	177	280	3,336
Indiana	67	141	115	53	32	19	12	6	8	386	59	345	544	274	204	156	111	82	205	1,921
Iowa	25	29	51	26	16	9	5	4	7	147	408	58	143	105	74	52	33	24	49	538
Kansas	-	94	70	44	16	3	0	-	-	227	0	105	274	112	161	95	103	45	27	922
Kentucky	12	115	61	9	4	2	1	1	0	192	44	132	174	89	60	41	23	15	29	563
Louisiana	8	77	94	51	39	40	25	14	14	354	118	79	248	158	152	144	98	90	202	1,172
Maine	-	27	32	5	4	0	0	-	-	68	0	3	50	25	34	25	9	10	11	167
Maryland	0	111	137	30	18	13	8	6	10	335	6	208	403	198	141	105	72	65	307	1,499
Massachusetts	1	239	193	23	16	13	7	8	10	510	31	105	337	330	324	298	215	181	450	2,241
Michigan	-	168	254	109	59	37	23	15	14	680	-	260	639	425	346	281	193	161	391	2,697
Minnesota	3	74	127	52	25	16	11	6	7	317	33	181	329	150	100	65	38	25	44	932
Mississippi	-	108	68	20	13	11	4	2	1	228	3	155	314	152	104	75	54	36	110	1,000
Missouri	41	237	168	45	21	15	6	4	3	497	388	241	442	189	117	73	38	23	30	1,153
Montana	-	39	46	6	3	3	1	0	1	98	6	23	67	36	25	17	11	10	22	211
Nebraska	-	4	27	26	4	3	1	-	-	64	110	18	59	34	52	63	61	44	34	366
Nevada	4	56	38	13	14	6	2	1	1	130	23	143	114	47	28	18	8	4	10	372
New Hampshire	-	62	15	3	1	1	0	-	-	83	3	97	99	37	22	15	11	11	23	315
New Jersey	3	126	128	50	26	17	13	9	15	383	32	189	448	317	284	257	180	155	484	2,313
New Mexico	-	107	27	8	6	2	2	0	1	152	86	84	128	77	67	50	33	22	50	512
New York	2	88	384	144	76	64	28	26	47	857	47	74	683	613	489	374	277	204	1,000	3,716
North Carolina	13	260	244	80	40	21	8	6	3	661	177	215	807	426	275	157	76	51	123	2,131
North Dakota	-	20	32	7	1	0	-	0	0	60	-	20	44	31	29	18	16	9	20	186
Ohio	0	225	459	147	56	30	8	3	3	931	13	215	860	562	445	336	233	181	366	3,196
Oklahoma	-	48	130	53	23	12	4	4	9	283	33	52	276	217	157	134	110	91	170	1,208
Oregon	1	59	78	15	9	6	4	2	2	176	9	98	225	144	101	79	51	40	83	822
Pennsylvania	4	164	325	151	58	23	9	4	1	735	244	123	691	632	542	415	268	190	297	3,158
Rhode Island	-	19	25	6	2	0	-	0	-	52	4	7	39	46	54	70	61	44	99	420
South Carolina	-	94	122	29	16	6	2	-	-	270	-	87	357	289	184	109	34	18	25	1,104
South Dakota	0	12	38	21	7	1	0	0	-	80	26	16	37	39	26	29	11	1	1	159
Tennessee	13	264	85	25	13	6	4	3	3	404	33	464	546	226	150	100	63	45	88	1,682
Texas	-	295	517	220	136	78	34	30	24	1,335	217	616	1,944	1,176	851	636	390	320	891	6,824
Utah	-	70	113	50	18	2	0	0	-	253	7	77	262	151	89	46	23	9	11	668
Vermont	0	23	14	1	1	1	0	-	0	40	4	5	35	15	11	11	7	5	11	99
Virginia	0	90	177	72	48	34	18	10	10	461	59	56	389	269	180	149	97	74	79	1,293
Washington	-	94	134	47	28	15	9	6	6	339	-	124	377	261	237	195	160	148	371	1,874
West Virginia	-	17	128	24	10	2	3	2	0	186	15	3	112	81	58	34	17	17	21	341
Wisconsin	-	75	69	63	34	18	8	7	5	279	-	155	380	394	375	301	202	151	359	2,316
Wyoming	-	24	45	18	8	3	3	2	1	104	5	17	78	43	26	18	12	8	21	221
U.S. Total	267	5,321	6,892	2,390	1,322	753	391	261	297	17,627	5,411	7,582	18,915	11,832	9,231	7,462	5,029	3,968	8,925	72,943
Puerto Rico (3)	2	-	30	74	47	44	28	8	6	238	2	-	2	7	11	33	21	11	25	109
Grand Total	268	5,321	6,922	2,464	1,369	797	420	269	302	17,865	5,413	7,582	18,917	11,839	9,241	7,494	5,050	3,979	8,949	73,052

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2013

MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 4 OF 4

October 21, 2014

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) (1)									
	TOTAL URBAN NHS									TOTAL REPORTED
	NOT REPORTED (2)	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	519	512	183	109	68	42	31	43	1,508
Alaska	1	17	69	36	28	20	12	8	14	203
Arizona	987	332	325	120	71	43	25	20	41	977
Arkansas	113	142	371	218	132	108	65	43	58	1,135
California	1,410	155	1,207	1,159	1,138	1,261	965	873	1,316	8,075
Colorado	49	151	399	257	208	158	97	75	193	1,538
Connecticut	-	151	315	223	176	134	77	55	101	1,233
Delaware	-	17	110	54	26	14	11	8	15	253
District of Columbia	-	-	1	2	10	9	5	10	89	126
Florida	464	1,404	1,999	548	284	148	72	45	75	4,575
Georgia	186	915	1,263	411	208	118	66	41	154	3,177
Hawaii	3	27	65	53	61	53	38	28	49	374
Idaho	22	59	119	81	61	44	27	22	75	489
Illinois	-	411	1,327	759	562	463	254	177	280	4,235
Indiana	126	486	660	327	236	174	123	88	213	2,307
Iowa	434	87	194	131	89	62	38	28	56	685
Kansas	0	199	344	156	177	97	103	45	27	1,149
Kentucky	56	247	235	98	64	42	24	16	29	755
Louisiana	126	156	342	210	191	185	123	103	216	1,525
Maine	0	29	82	30	38	25	9	10	11	235
Maryland	6	319	540	229	160	119	80	71	317	1,834
Massachusetts	32	345	530	354	340	311	222	189	460	2,751
Michigan	-	427	893	534	405	318	217	176	406	3,377
Minnesota	36	255	456	202	124	82	49	31	50	1,249
Mississippi	3	263	382	171	117	87	58	38	112	1,228
Missouri	430	478	610	234	138	87	44	27	32	1,650
Montana	6	62	112	42	28	20	12	11	22	309
Nebraska	110	22	85	60	56	66	62	44	34	430
Nevada	27	198	152	60	42	23	11	5	10	502
New Hampshire	3	159	114	40	23	16	11	11	23	398
New Jersey	35	315	576	366	310	274	193	164	498	2,696
New Mexico	86	190	155	85	74	52	35	22	51	664
New York	49	162	1,068	757	565	438	305	230	1,047	4,572
North Carolina	190	475	1,051	506	315	178	84	57	126	2,792
North Dakota	-	40	75	37	29	19	16	9	20	246
Ohio	13	439	1,319	709	501	365	241	184	368	4,127
Oklahoma	33	101	406	270	180	146	114	96	179	1,491
Oregon	9	158	303	160	111	86	56	42	85	998
Pennsylvania	248	287	1,016	783	601	438	277	194	298	3,893
Rhode Island	4	26	64	52	57	70	61	44	99	473
South Carolina	-	181	480	319	201	115	36	18	25	1,374
South Dakota	26	28	74	60	34	30	11	2	1	240
Tennessee	46	728	631	252	163	106	67	48	91	2,086
Texas	217	911	2,462	1,397	987	714	424	350	915	8,159
Utah	7	147	375	201	107	47	23	9	11	921
Vermont	4	28	49	16	12	12	7	5	11	139
Virginia	59	146	566	342	228	184	115	84	90	1,754
Washington	-	218	511	308	266	210	169	154	376	2,213
West Virginia	15	20	240	105	68	36	20	19	21	527
Wisconsin	-	230	449	457	409	318	211	157	364	2,595
Wyoming	5	40	123	61	34	21	15	9	22	325
U.S. Total	5,678	12,903	25,807	14,222	10,552	8,215	5,420	4,229	9,221	90,570
Puerto Rico (3)	4	-	32	82	58	77	49	19	31	347
Grand Total	5,681	12,903	25,839	14,303	10,610	8,292	5,470	4,248	9,252	90,917

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2013

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.