

NATIONAL HIGHWAY SYSTEM LENGTH - 2018 MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 1 OF 4

August 30, 2019

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	3	409	104	22	16	9	3	2	2	567	3	968	793	131	50	27	12	8	11	1,999
Alaska	-	204	330	152	113	86	49	30	38	1,002	323	83	148	69	67	68	53	49	128	664
Arizona	2	538	223	78	38	16	11	5	5	915	36	388	396	167	105	59	28	15	12	1,171
Arkansas	-	235	139	33	15	9	3	3	3	439	0	356	850	338	194	105	48	26	20	1,938
California	9	520	369	144	76	33	16	8	11	1,177	19	951	1,527	521	263	141	68	39	51	3,562
Colorado	-	135	288	117	39	25	23	15	6	648	-	604	1,133	441	203	102	49	26	17	2,576
Connecticut	-	17	6	3	1	1	0	0	0	29	-	25	65	31	19	9	5	3	2	158
Delaware	-	-	-	-	-	-	-	-	-	-	2	27	70	18	6	2	1	1	0	125
District of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	0	601	97	7	6	3	2	1	1	717	1	1,090	1,264	269	83	33	9	5	4	2,758
Georgia	-	215	224	57	23	9	6	2	2	537	-	970	1,443	409	146	58	22	10	12	3,070
Hawaii	-	-	-	-	-	-	-	-	-	-	-	1	20	17	12	12	7	4	5	80
Idaho	1	309	152	32	16	7	3	1	2	522	151	468	711	219	91	39	15	10	5	1,557
Illinois	-	741	365	76	31	17	6	4	4	1,243	7	382	986	457	260	156	77	43	41	2,402
Indiana	13	433	189	65	31	19	13	9	12	771	5	648	589	226	129	65	32	29	14	1,731
Iowa	26	288	205	57	22	7	3	2	2	585	30	914	1,128	553	347	194	103	68	80	3,388
Kansas	-	391	179	44	16	6	2	1	0	639	-	1,696	985	196	79	41	19	9	7	3,031
Kentucky	2	504	137	32	19	10	4	1	2	709	5	760	607	147	58	29	12	5	6	1,624
Louisiana	7	193	134	87	65	29	11	4	2	526	19	144	469	214	113	76	45	24	41	1,124
Maine	-	154	76	26	13	6	2	1	1	279	1	223	294	104	58	35	23	19	45	800
Maryland	-	66	57	11	5	1	0	0	1	142	0	172	148	28	11	7	4	4	3	377
Massachusetts	-	34	22	4	2	1	0	1	0	64	0	66	186	78	42	25	13	7	14	431
Michigan	4	182	238	67	34	20	9	6	3	558	0	1,053	921	262	128	62	26	14	16	2,483
Minnesota	0	192	295	50	29	11	5	3	3	588	1	1,265	1,149	483	286	155	73	41	37	3,488
Mississippi	-	387	115	31	22	13	6	2	2	578	-	485	735	255	160	93	44	20	20	1,812
Missouri	-	585	200	31	14	7	3	1	1	842	1	1,223	1,252	308	116	50	20	10	9	2,989
Montana	-	573	397	68	29	14	5	3	4	1,094	-	636	1,318	425	190	93	44	23	45	2,773
Nebraska	3	213	145	25	15	9	3	1	1	412	230	1,010	829	281	152	83	40	25	34	2,453
Nevada	7	400	28	10	3	3	3	1	1	450	-	993	434	81	25	6	3	1	1	1,544
New Hampshire	-	112	24	4	2	1	-	-	-	142	-	174	131	36	20	11	6	4	6	387
New Jersey	-	17	23	3	1	0	0	1	-	45	-	46	62	24	22	18	8	6	8	195
New Mexico	-	561	176	55	27	14	5	2	3	843	-	661	647	212	107	57	29	16	20	1,750
New York	11	316	305	85	44	19	8	6	8	793	41	315	1,097	387	199	113	64	34	41	2,250
North Carolina	1	386	123	23	15	7	4	2	0	560	7	613	1,045	319	122	55	24	13	16	2,207
North Dakota	-	253	204	37	10	3	1	1	0	510	-	1,234	1,138	312	133	63	25	15	24	2,944
Ohio	-	346	196	56	23	12	5	2	3	643	-	648	803	224	99	46	19	10	12	1,861
Oklahoma	1	286	261	49	24	13	6	5	3	645	92	384	952	393	209	120	69	40	47	2,215
Oregon	-	280	158	37	13	4	1	1	1	495	-	669	1,323	377	158	72	28	16	13	2,657
Pennsylvania	-	519	365	89	56	20	9	8	9	1,074	-	412	872	282	133	70	39	23	31	1,862
Rhode Island	-	15	2	0	0	0	0	0	0	18	1	8	13	15	20	17	13	8	13	107
South Carolina	-	360	132	30	14	6	2	1	1	546	-	213	728	312	171	85	41	21	19	1,590
South Dakota	-	219	313	36	13	6	3	1	-	591	22	509	1,219	559	292	145	73	43	29	2,869
Tennessee	0	519	92	14	10	5	2	2	0	644	37	680	698	173	82	43	18	10	6	1,710
Texas	1	894	821	181	62	27	8	4	3	2,000	42	2,266	3,227	1,231	529	224	83	37	31	7,626
Utah	-	378	236	52	11	5	2	1	1	684	5	206	518	243	121	54	19	9	7	1,178
Vermont	1	176	60	11	6	2	1	0	0	255	1	92	126	35	17	12	8	6	9	306
Virginia	-	272	268	40	11	6	1	0	0	598	9	276	895	334	143	59	24	11	5	1,747
Washington	-	170	145	41	28	18	10	8	9	429	-	333	928	351	147	71	38	25	32	1,925
West Virginia	0	159	111	24	12	6	4	1	2	319	23	133	391	214	118	67	32	21	20	994
Wisconsin	-	247	136	46	42	23	8	6	4	512	2	946	981	534	313	180	90	56	58	3,158
Wyoming	-	483	211	62	28	14	5	2	3	807	6	634	876	257	112	41	15	8	16	1,960
U.S. Total	92	15,486	9,074	2,302	1,143	585	279	160	158	29,188	1,122	29,050	39,120	13,551	6,659	3,449	1,659	969	1,147	95,605
Puerto Rico	0	1	7	6	3	4	4	5	14	44	0	0	4	5	4	6	5	6	12	43
Grand Total	92	15,486	9,081	2,308	1,147	589	283	165	172	29,232	1,122	29,050	39,124	13,556	6,664	3,456	1,664	975	1,159	95,647

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2018
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 2 OF 4

August 30, 2019

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	6	1,377	896	153	66	35	16	10	12	2,566
Alaska	323	287	478	221	179	154	102	79	166	1,666
Arizona	38	926	619	245	143	75	39	20	17	2,086
Arkansas	0	591	989	371	209	114	51	29	23	2,377
California	28	1,471	1,897	664	339	175	84	47	62	4,739
Colorado	-	739	1,422	558	242	127	72	41	23	3,224
Connecticut	-	42	71	34	21	10	5	3	2	186
Delaware	2	27	70	18	6	2	1	1	0	125
District of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	1	1,691	1,361	275	89	35	11	6	6	3,475
Georgia	-	1,184	1,666	466	169	67	27	12	14	3,608
Hawaii	-	1	20	17	12	12	7	4	5	80
Idaho	152	777	863	251	107	46	17	11	7	2,079
Illinois	7	1,122	1,351	533	291	173	83	46	44	3,645
Indiana	18	1,081	779	291	160	84	44	38	26	2,502
Iowa	57	1,202	1,333	610	369	201	105	70	82	3,973
Kansas	-	2,087	1,164	239	95	47	21	10	8	3,671
Kentucky	8	1,263	744	180	76	39	15	7	8	2,333
Louisiana	26	337	603	301	178	105	56	28	43	1,650
Maine	1	378	370	130	72	41	24	20	46	1,080
Maryland	0	238	204	39	16	9	4	4	4	519
Massachusetts	0	100	208	83	44	26	14	7	14	495
Michigan	4	1,235	1,159	328	162	82	36	20	20	3,041
Minnesota	1	1,457	1,444	533	315	166	77	44	40	4,076
Mississippi	-	872	850	286	181	107	50	23	22	2,391
Missouri	1	1,807	1,452	338	130	57	24	11	10	3,830
Montana	-	1,209	1,715	492	219	107	49	26	49	3,867
Nebraska	233	1,222	974	307	167	92	43	25	35	2,865
Nevada	7	1,393	462	91	28	10	7	2	1	1,994
New Hampshire	-	286	155	40	21	11	6	4	6	529
New Jersey	-	63	85	28	23	19	9	6	8	240
New Mexico	-	1,222	823	267	134	71	34	19	22	2,593
New York	52	631	1,402	472	244	133	72	40	49	3,043
North Carolina	7	999	1,168	342	137	63	28	14	16	2,767
North Dakota	-	1,486	1,342	349	143	66	26	16	25	3,453
Ohio	-	994	999	280	122	58	24	12	15	2,504
Oklahoma	94	670	1,213	441	233	133	75	45	50	2,860
Oregon	-	949	1,481	414	171	77	30	17	14	3,152
Pennsylvania	-	931	1,237	372	188	90	48	31	39	2,937
Rhode Island	1	23	15	16	20	17	13	8	13	125
South Carolina	-	573	861	342	184	91	43	22	20	2,137
South Dakota	22	727	1,532	595	306	151	76	44	29	3,460
Tennessee	37	1,199	790	187	92	48	20	12	6	2,354
Texas	43	3,160	4,047	1,411	591	251	92	40	33	9,626
Utah	5	584	754	295	132	59	20	10	8	1,861
Vermont	1	267	186	46	23	14	8	7	9	562
Virginia	9	548	1,163	373	155	65	25	11	6	2,345
Washington	-	503	1,073	392	175	89	48	33	41	2,354
West Virginia	23	292	501	237	130	73	36	22	22	1,313
Wisconsin	2	1,193	1,117	580	355	203	98	61	63	3,670
Wyoming	6	1,117	1,087	319	139	55	21	10	19	2,768
U.S. Total	1,214	44,535	48,194	15,853	7,803	4,034	1,939	1,129	1,306	124,793
Puerto Rico	0	1	11	11	7	11	9	11	26	86
Grand Total	1,214	44,536	48,205	15,864	7,810	4,045	1,947	1,140	1,332	124,880

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2018
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 3 OF 4

August 30, 2019

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	1	260	76	31	24	18	11	6	6	432	9	435	477	149	77	46	31	20	36	1,272
Alaska	-	28	28	12	5	3	1	0	1	79	1	19	45	30	20	16	8	8	14	160
Arizona	2	147	59	23	12	5	3	1	1	250	44	162	197	121	103	78	48	35	31	774
Arkansas	-	117	103	39	22	13	7	5	4	310	2	65	223	127	84	67	39	30	41	677
California	14	262	431	214	153	90	47	31	28	1,256	31	448	1,097	1,019	1,033	1,053	816	740	1,896	8,103
Colorado	-	67	118	51	37	16	8	4	3	304	0	139	390	243	188	139	85	63	134	1,380
Connecticut	-	152	103	32	15	8	3	2	3	318	-	96	259	176	134	101	62	44	85	958
Delaware	-	5	17	7	5	3	2	1	1	41	1	24	113	49	23	15	10	5	15	255
District of Columbia	0	-	1	-	4	-	2	-	4	12	-	-	2	-	15	0	28	0	77	122
Florida	-	448	235	39	22	16	9	5	4	778	3	1,131	1,902	673	341	201	103	66	106	4,522
Georgia	-	370	208	69	30	16	9	4	4	710	6	675	1,145	398	216	128	73	48	90	2,772
Hawaii	-	1	12	12	9	10	5	3	3	55	-	20	47	54	45	49	28	21	52	318
Idaho	0	51	29	6	4	2	1	0	0	93	93	57	90	39	24	21	11	9	13	264
Illinois	1	322	389	90	57	37	22	13	12	940	24	183	779	565	462	342	240	181	381	3,134
Indiana	3	188	129	69	46	30	15	10	12	500	37	205	188	105	71	44	26	19	23	681
Iowa	13	61	64	20	9	5	2	2	2	165	17	93	203	173	133	95	58	46	113	915
Kansas	1	119	57	26	16	9	4	2	1	234	0	151	149	67	49	35	22	13	21	507
Kentucky	1	118	66	20	14	7	3	2	1	231	44	186	212	94	69	44	25	19	32	683
Louisiana	11	108	91	53	48	49	26	13	11	400	102	96	228	156	136	117	86	77	152	1,048
Maine	-	53	20	7	3	3	0	0	0	87	0	16	39	28	22	18	11	6	20	160
Maryland	0	137	124	29	15	10	6	6	11	338	17	232	401	164	111	90	63	58	176	1,295
Massachusetts	0	317	112	31	18	13	8	4	6	508	31	202	362	296	289	290	204	176	473	2,292
Michigan	3	125	295	89	58	44	24	18	19	673	10	223	609	455	354	292	218	173	402	2,726
Minnesota	0	79	143	49	23	15	8	4	5	325	2	207	319	132	73	44	23	16	33	848
Mississippi	-	148	48	24	16	10	4	2	1	253	-	129	311	176	117	77	54	38	107	1,009
Missouri	-	310	137	39	24	16	7	4	3	538	1	311	448	186	125	94	56	44	76	1,340
Montana	-	41	42	6	4	2	1	0	1	98	4	27	56	38	24	19	14	11	28	217
Nebraska	2	19	26	10	6	3	1	1	1	67	98	27	85	49	37	37	30	25	81	370
Nevada	8	72	39	19	14	5	3	2	1	155	2	131	119	59	38	31	15	9	14	416
New Hampshire	-	65	14	3	1	0	0	-	-	83	0	122	85	33	22	14	11	7	25	320
New Jersey	-	128	150	34	22	17	12	9	15	387	-	283	543	278	226	209	170	152	480	2,341
New Mexico	-	105	29	9	6	4	1	1	1	156	-	81	101	60	44	28	17	12	35	379
New York	48	231	353	131	66	44	26	16	23	890	152	142	916	623	473	382	271	242	850	3,898
North Carolina	5	353	230	81	41	21	9	3	2	740	38	345	718	408	250	157	88	58	102	2,125
North Dakota	-	18	28	8	4	2	1	0	0	61	1	23	53	38	31	16	13	9	23	205
Ohio	-	383	318	103	57	33	16	10	11	931	-	323	624	335	245	191	128	102	274	2,222
Oklahoma	1	86	112	38	17	14	8	5	5	285	34	86	223	112	87	59	32	24	39	660
Oregon	-	102	89	19	10	7	4	2	1	234	3	119	282	168	117	78	55	37	67	924
Pennsylvania	-	279	284	87	52	33	21	14	18	788	-	274	871	599	498	372	245	179	396	3,433
Rhode Island	-	17	26	5	2	1	0	0	1	52	20	24	44	41	52	53	39	107	404	
South Carolina	-	152	86	29	20	9	4	2	2	304	-	75	378	262	180	119	61	35	52	1,161
South Dakota	-	14	51	12	5	3	1	0	0	88	8	6	39	27	24	18	13	11	8	147
Tennessee	0	366	112	40	19	9	6	2	3	557	6	532	731	279	179	114	77	49	99	2,060
Texas	5	410	549	224	135	80	34	15	7	1,453	125	764	1,857	1,116	810	615	413	318	946	6,840
Utah	-	81	109	34	15	9	3	2	1	253	16	132	266	121	69	39	19	12	20	678
Vermont	-	43	16	3	2	0	0	0	0	64	2	11	32	13	8	6	3	3	9	87
Virginia	0	154	235	69	28	19	8	4	2	521	27	136	536	331	248	182	111	79	81	1,703
Washington	-	113	124	43	22	11	7	6	8	335	-	165	442	282	231	180	128	107	337	1,871
West Virginia	0	118	64	21	13	9	5	2	3	235	3	32	151	83	53	34	18	17	22	411
Wisconsin	3	117	105	52	41	26	8	7	6	363	9	136	322	308	294	259	170	126	313	1,928
Wyoming	-	38	29	17	11	5	2	2	2	106	1	34	59	29	18	13	9	7	16	185
U.S. Total	124	7,499	6,315	2,179	1,302	814	419	248	260	19,035	1,025	9,533	19,765	11,370	8,576	6,718	4,584	3,628	9,023	73,197
Puerto Rico	14	2	47	39	35	30	19	19	52	243	10	1	16	26	46	56	52	50	178	425
Grand Total	139	7,501	6,362	2,218	1,337	845	437	267	311	19,278	1,034	9,534	19,781	11,396	8,622	6,775	4,636	3,678	9,201	73,622

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2018
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 4 OF 4

August 30, 2019

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	10	696	553	180	101	64	42	26	42	1,704
Alaska	1	47	73	42	25	19	9	8	15	239
Arizona	46	309	255	145	114	83	50	36	32	1,025
Arkansas	2	183	326	166	106	81	46	35	46	988
California	45	710	1,528	1,233	1,186	1,143	864	771	1,924	9,359
Colorado	0	206	508	294	225	155	93	67	137	1,684
Connecticut	-	248	363	208	149	109	65	46	87	1,275
Delaware	1	28	130	56	28	18	13	6	17	296
District of Columbia	0	-	3	-	19	0	30	0	81	134
Florida	3	1,579	2,136	712	363	217	112	70	110	5,300
Georgia	6	1,045	1,353	467	246	143	82	52	93	3,482
Hawaii	-	20	60	66	54	59	33	24	55	373
Idaho	93	108	119	45	28	22	12	9	13	357
Illinois	25	505	1,168	655	519	379	262	194	393	4,074
Indiana	40	393	317	174	117	74	42	29	35	1,180
Iowa	30	154	267	193	142	100	61	48	115	1,080
Kansas	1	270	206	93	64	43	26	15	22	740
Kentucky	45	304	278	114	84	51	29	21	34	914
Louisiana	113	204	319	209	184	166	112	91	163	1,448
Maine	0	69	60	35	25	21	11	6	20	247
Maryland	18	369	525	193	126	100	69	64	188	1,633
Massachusetts	31	519	474	326	307	302	212	180	479	2,799
Michigan	13	348	904	544	412	336	242	191	421	3,399
Minnesota	2	286	461	181	97	59	32	21	38	1,174
Mississippi	-	276	359	200	133	87	58	40	108	1,262
Missouri	1	620	585	225	149	109	63	48	79	1,878
Montana	4	68	98	44	28	21	15	12	28	315
Nebraska	100	46	111	60	43	39	32	25	82	437
Nevada	10	203	158	78	52	36	17	11	15	571
New Hampshire	0	187	99	36	23	14	11	7	25	403
New Jersey	-	411	693	312	248	226	182	161	495	2,728
New Mexico	-	186	129	69	50	32	19	13	37	535
New York	200	372	1,269	754	539	426	297	258	873	4,789
North Carolina	43	698	948	489	292	178	96	61	104	2,865
North Dakota	1	41	81	46	35	18	13	9	23	266
Ohio	-	707	942	438	301	224	144	113	285	3,153
Oklahoma	35	171	335	150	104	73	40	29	44	946
Oregon	3	222	370	187	128	85	59	40	68	1,158
Pennsylvania	-	553	1,155	686	549	405	266	192	414	4,221
Rhode Island	20	41	70	46	55	54	44	39	108	456
South Carolina	-	227	464	291	200	127	65	37	53	1,465
South Dakota	8	20	91	39	30	21	15	11	8	235
Tennessee	6	898	843	319	198	123	83	51	102	2,617
Texas	131	1,174	2,406	1,340	946	695	447	332	954	8,293
Utah	16	213	375	154	84	48	22	14	21	931
Vermont	2	54	48	16	10	7	3	4	9	151
Virginia	28	290	771	399	276	201	120	83	83	2,224
Washington	-	278	566	325	253	191	134	113	345	2,206
West Virginia	3	150	215	104	67	43	23	19	25	646
Wisconsin	13	253	427	360	335	286	178	133	318	2,290
Wyoming	1	72	88	47	29	18	11	9	18	291
U.S. Total	1,149	17,032	26,080	13,549	9,878	7,533	5,002	3,876	9,283	92,233
Puerto Rico	24	3	63	65	80	87	71	69	230	668
Grand Total	1,173	17,035	26,143	13,614	9,958	7,620	5,073	3,944	9,513	92,900

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2018

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.