

NATIONAL HIGHWAY SYSTEM LENGTH - 2019 MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 1 OF 4

September 30, 2020

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	0	431	86	24	15	6	3	1	4	571	0	1,043	702	119	49	26	13	8	21	1,981
Alaska	10	249	341	150	102	67	36	21	24	991	298	106	166	85	87	67	49	41	88	690
Arizona	6	539	223	79	33	16	7	4	8	910	28	356	398	178	114	64	29	17	19	1,175
Arkansas	-	232	137	35	16	9	5	3	3	439	0	356	850	338	194	105	48	26	20	1,938
California	1	563	364	139	76	34	17	9	12	1,213	26	989	1,557	546	268	138	62	37	44	3,640
Colorado	-	124	299	115	43	27	21	12	6	648	0	577	1,116	449	212	112	54	30	24	2,576
Connecticut	-	16	7	3	2	0	0	0	0	29	-	24	63	32	19	9	5	3	2	158
Delaware	-	-	-	-	-	-	-	-	-	-	1	31	73	22	7	2	1	1	0	137
District of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	0	600	98	8	5	3	2	1	1	717	2	1,217	1,155	243	84	34	12	7	10	2,762
Georgia	-	236	211	56	19	7	4	1	2	537	-	1,056	1,494	415	146	49	14	7	7	3,187
Hawaii	-	-	-	-	-	-	-	-	-	-	-	2	19	17	14	10	7	5	7	80
Idaho	0	329	140	27	12	6	2	1	2	519	205	522	652	187	76	38	17	9	5	1,506
Illinois	-	714	348	94	41	24	10	6	6	1,243	0	381	940	450	277	167	90	49	54	2,408
Indiana	1	306	283	86	56	21	14	8	11	784	1	497	707	283	150	66	24	10	9	1,747
Iowa	5	311	211	55	21	7	3	1	2	610	33	941	1,187	556	325	181	91	54	49	3,384
Kansas	1	381	176	53	18	7	3	1	1	640	0	1,653	1,023	188	79	46	22	10	9	3,030
Kentucky	0	499	137	35	19	13	4	2	3	711	1	685	602	196	95	37	14	7	6	1,643
Louisiana	10	200	118	85	65	33	12	4	2	520	13	114	450	218	124	76	48	24	26	1,080
Maine	-	155	67	25	17	8	4	2	1	279	2	268	262	92	54	35	22	18	48	798
Maryland	-	65	59	10	5	2	1	0	1	142	-	189	138	23	10	6	4	3	4	377
Massachusetts	-	37	16	5	2	1	1	0	1	63	0	67	182	72	42	22	14	7	14	420
Michigan	4	190	246	58	30	16	9	5	5	558	0	963	983	278	128	68	32	16	17	2,483
Minnesota	-	174	296	56	31	17	9	4	2	588	20	1,263	1,178	448	278	157	68	40	37	3,468
Mississippi	-	400	107	30	19	13	6	2	2	578	-	599	694	234	139	76	32	18	19	1,812
Missouri	-	595	189	34	12	6	3	2	1	842	-	1,275	1,205	299	115	51	22	11	11	2,989
Montana	-	576	392	71	29	14	5	3	4	1,094	-	653	1,307	423	190	91	43	27	41	2,774
Nebraska	-	188	167	33	12	8	4	1	2	415	51	1,010	960	298	154	94	50	28	38	2,632
Nevada	-	409	30	8	5	3	2	1	0	457	-	918	479	96	32	11	4	2	1	1,544
New Hampshire	-	111	24	4	2	1	0	0	-	142	-	156	136	38	23	11	8	7	7	387
New Jersey	-	18	21	3	1	1	0	0	0	45	-	54	65	21	17	15	7	5	10	195
New Mexico	-	522	195	60	32	17	6	4	6	843	-	630	665	212	118	63	28	15	18	1,749
New York	6	366	277	75	37	21	7	6	8	798	37	324	1,117	392	196	104	53	34	34	2,254
North Carolina	5	402	108	21	14	7	5	1	1	559	20	642	1,012	328	122	51	20	10	7	2,193
North Dakota	-	360	119	20	7	1	1	0	0	510	-	1,395	1,050	263	112	55	26	16	27	2,945
Ohio	-	362	183	49	23	14	5	2	4	643	1	669	791	235	108	49	19	11	11	1,893
Oklahoma	19	255	259	60	26	16	7	5	4	631	33	399	956	412	222	127	61	42	55	2,274
Oregon	-	293	146	36	13	4	1	1	1	495	-	665	1,315	377	158	72	28	16	13	2,644
Pennsylvania	-	562	319	90	46	24	11	7	8	1,066	-	449	869	282	131	66	38	22	28	1,884
Rhode Island	-	15	2	0	0	0	-	-	0	18	1	12	14	14	19	16	13	8	11	107
South Carolina	-	339	109	35	23	17	10	6	7	546	7	285	738	284	145	68	34	15	16	1,586
South Dakota	2	184	343	39	12	8	2	1	0	589	15	488	1,260	569	289	140	65	37	29	2,876
Tennessee	0	491	110	21	12	6	3	2	0	645	0	699	712	171	84	41	22	9	8	1,746
Texas	2	911	796	184	66	26	9	4	3	1,998	33	2,441	3,108	1,173	500	211	83	42	33	7,591
Utah	-	336	257	68	17	4	1	0	0	685	-	179	521	258	133	55	20	12	5	1,183
Vermont	1	170	66	10	5	3	1	0	0	255	1	109	128	32	18	7	5	2	5	306
Virginia	-	284	257	38	11	5	2	0	0	598	1	296	890	340	144	55	21	8	4	1,759
Washington	-	194	136	41	24	11	9	8	7	429	1	297	858	414	181	79	43	25	28	1,924
West Virginia	-	172	106	20	10	5	4	1	2	319	10	148	376	212	115	63	35	21	41	1,010
Wisconsin	-	229	167	55	32	18	6	3	2	513	3	828	967	623	341	180	96	61	58	3,155
Wyoming	-	510	203	53	26	8	5	2	1	807	-	615	877	268	120	44	16	8	14	1,963
U.S. Total	73	15,607	8,948	2,357	1,146	584	281	149	159	29,231	843	29,535	38,970	13,703	6,758	3,412	1,635	941	1,094	96,048
Puerto Rico	5	1	8	5	4	4	2	5	14	42	1	0	4	5	5	6	4	5	12	41
Grand Total	78	15,607	8,956	2,362	1,150	588	283	154	173	29,273	844	29,535	38,974	13,708	6,763	3,418	1,639	946	1,107	96,089

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2019
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 2 OF 4

September 30, 2020

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	0	1,474	788	143	64	32	16	9	25	2,551
Alaska	308	356	508	235	189	134	85	62	112	1,681
Arizona	34	895	622	257	147	80	36	21	27	2,085
Arkansas	0	588	987	372	210	114	53	29	23	2,377
California	27	1,552	1,920	685	344	173	79	45	56	4,854
Colorado	0	701	1,415	564	255	139	75	43	31	3,224
Connecticut	-	40	70	36	20	9	6	3	2	186
Delaware	1	31	73	22	7	2	1	1	0	137
District of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	2	1,817	1,253	251	88	37	14	8	11	3,479
Georgia	-	1,292	1,706	471	165	56	18	8	9	3,725
Hawaii	-	2	19	17	14	10	7	5	7	80
Idaho	205	851	791	214	89	44	19	9	7	2,025
Illinois	0	1,095	1,288	545	318	191	100	55	60	3,651
Indiana	1	803	990	369	207	87	38	18	20	2,531
Iowa	37	1,251	1,398	611	346	187	94	55	51	3,993
Kansas	1	2,034	1,199	241	97	53	25	12	10	3,670
Kentucky	1	1,184	738	232	113	51	18	9	9	2,354
Louisiana	22	314	568	303	190	109	60	29	28	1,599
Maine	2	422	329	118	72	43	26	20	49	1,078
Maryland	-	254	196	33	15	8	5	3	5	519
Massachusetts	0	104	198	76	44	23	15	7	15	483
Michigan	4	1,153	1,229	335	157	83	41	21	21	3,041
Minnesota	20	1,438	1,473	504	309	174	77	44	38	4,056
Mississippi	-	999	801	264	159	89	39	21	21	2,391
Missouri	-	1,869	1,394	333	127	57	25	13	12	3,831
Montana	-	1,229	1,699	495	219	105	48	29	44	3,868
Nebraska	51	1,198	1,127	331	166	102	54	29	40	3,047
Nevada	-	1,327	509	103	36	15	6	3	1	2,001
New Hampshire	-	267	161	42	25	12	8	7	7	529
New Jersey	-	73	86	24	19	15	7	6	10	240
New Mexico	-	1,152	860	272	150	80	34	19	25	2,593
New York	43	690	1,394	467	233	125	60	40	42	3,051
North Carolina	25	1,045	1,120	349	136	58	25	11	8	2,752
North Dakota	-	1,756	1,169	284	120	56	27	17	27	3,455
Ohio	1	1,031	974	284	131	63	25	14	14	2,536
Oklahoma	52	654	1,215	472	248	143	68	47	58	2,905
Oregon	-	958	1,461	413	171	76	29	17	14	3,139
Pennsylvania	-	1,011	1,188	371	177	90	48	29	36	2,951
Rhode Island	1	27	17	14	19	16	13	8	11	125
South Carolina	7	624	847	319	169	85	44	21	24	2,132
South Dakota	17	672	1,603	608	301	148	67	38	29	3,466
Tennessee	0	1,190	822	192	96	47	25	11	8	2,391
Texas	35	3,352	3,904	1,357	566	238	92	45	36	9,590
Utah	-	516	778	326	151	59	21	12	6	1,868
Vermont	2	279	194	43	22	10	6	2	5	561
Virginia	1	580	1,147	378	155	60	22	9	4	2,356
Washington	1	491	994	455	205	90	52	32	35	2,353
West Virginia	10	320	482	232	125	67	38	22	43	1,329
Wisconsin	3	1,057	1,134	678	373	199	102	64	60	3,668
Wyoming	-	1,124	1,080	322	145	53	22	9	15	2,770
U.S. Total	917	45,141	47,918	16,060	7,904	3,997	1,916	1,090	1,254	125,279
Puerto Rico	5	1	12	10	9	10	6	10	26	83
Grand Total	922	45,142	47,930	16,070	7,912	4,006	1,922	1,100	1,279	125,362

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2019
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 3 OF 4

September 30, 2020

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	270	70	29	21	15	9	6	12	432	26	485	470	130	68	38	24	18	51	1,284
Alaska	0	37	25	9	4	2	1	0	0	79	0	27	60	30	16	11	6	4	7	161
Arizona	4	142	67	20	9	5	3	1	2	249	46	169	197	129	106	78	47	34	35	794
Arkansas	-	108	105	40	25	13	8	5	6	310	1	65	223	127	85	67	39	30	42	678
California	4	285	413	209	145	86	47	25	27	1,238	275	479	1,074	893	949	916	747	677	1,961	7,696
Colorado	-	66	113	49	40	18	9	5	4	304	0	130	384	249	189	137	87	69	134	1,380
Connecticut	-	156	107	29	15	7	3	1	1	318	-	93	269	182	131	95	64	41	83	958
Delaware	2	7	12	9	5	1	2	1	1	38	2	29	107	51	25	14	10	6	12	254
District of Columbia	0	-	2	2	2	2	1	1	3	12	4	-	1	3	5	7	8	10	86	119
Florida	-	458	214	43	25	17	10	6	6	778	10	1,215	1,857	665	338	196	102	61	98	4,531
Georgia	-	393	186	65	31	16	10	4	5	710	-	718	1,170	430	208	114	61	40	64	2,806
Hawaii	-	1	12	10	11	9	5	3	4	55	1	24	54	47	46	40	27	21	61	319
Idaho	-	52	29	5	3	1	1	0	0	92	121	49	80	38	25	20	12	10	16	250
Illinois	3	325	367	88	61	38	27	15	17	939	13	176	763	588	465	349	230	181	392	3,144
Indiana	1	127	167	82	55	29	13	8	10	491	8	124	247	124	88	47	24	20	18	693
Iowa	11	64	70	19	9	7	3	2	2	175	19	93	212	182	131	91	60	45	98	912
Kansas	2	109	65	28	15	9	4	2	2	234	7	141	155	65	46	34	19	15	25	502
Kentucky	1	118	68	19	13	7	4	2	1	232	18	136	260	123	73	44	26	18	28	708
Louisiana	18	128	78	48	46	47	23	13	13	395	85	92	214	138	124	107	78	66	138	958
Maine	-	59	18	5	2	2	1	0	0	87	2	17	38	26	21	17	12	8	18	158
Maryland	0	131	125	30	17	11	6	6	12	338	7	247	391	164	111	87	66	57	186	1,308
Massachusetts	4	330	101	27	18	13	6	3	5	502	46	204	368	299	287	284	207	172	489	2,311
Michigan	3	137	301	89	53	38	24	15	16	673	26	209	608	449	356	290	216	172	409	2,709
Minnesota	0	76	144	45	25	16	9	4	6	325	8	205	317	133	70	43	23	17	34	841
Mississippi	-	155	47	17	14	11	5	2	2	253	-	151	313	167	111	79	52	39	100	1,013
Missouri	-	306	136	39	25	17	7	4	4	538	-	317	439	188	124	95	58	40	83	1,344
Montana	-	49	36	5	4	2	1	0	1	98	-	28	60	37	28	19	11	11	26	220
Nebraska	-	18	30	11	5	3	1	1	1	69	7	32	94	59	50	49	37	34	107	461
Nevada	-	78	39	22	15	6	2	1	0	163	-	121	112	62	49	31	15	10	19	419
New Hampshire	-	70	10	2	1	0	-	-	-	83	0	125	84	35	20	15	10	7	23	320
New Jersey	-	122	151	34	26	15	12	9	17	387	-	269	565	269	230	205	169	157	477	2,341
New Mexico	-	99	34	9	6	4	3	1	2	156	-	72	107	61	42	30	21	13	34	379
New York	13	228	347	141	70	48	29	19	38	920	124	149	906	624	485	398	289	258	811	3,920
North Carolina	9	397	240	75	35	17	7	4	3	778	25	352	702	412	262	153	84	54	95	2,115
North Dakota	-	30	23	5	2	1	0	0	-	61	1	30	53	36	28	17	13	10	19	205
Ohio	-	436	283	89	48	34	19	10	12	931	13	328	644	322	243	180	128	95	259	2,198
Oklahoma	15	71	112	38	21	13	7	5	5	272	19	79	219	120	81	54	35	24	37	650
Oregon	-	111	82	19	10	6	4	2	1	234	9	111	279	167	117	78	55	37	67	911
Pennsylvania	0	285	261	96	56	38	27	14	21	797	-	302	851	596	477	373	241	168	408	3,416
Rhode Island	-	27	16	4	2	2	1	0	0	52	16	27	39	41	48	53	43	38	104	392
South Carolina	-	164	82	26	15	6	3	1	7	304	7	92	365	249	174	115	62	39	59	1,155
South Dakota	0	11	50	16	6	3	2	0	0	88	9	9	36	29	21	19	16	10	9	146
Tennessee	0	348	131	41	19	7	4	2	3	557	5	589	704	264	177	107	69	52	102	2,066
Texas	3	388	567	233	141	77	31	13	6	1,456	156	798	1,915	1,153	843	610	411	328	783	6,841
Utah	-	77	114	37	14	7	3	1	1	253	-	139	266	124	69	43	21	14	20	695
Vermont	-	40	19	3	1	1	0	0	0	64	4	15	33	13	10	5	3	2	5	85
Virginia	1	159	234	67	29	17	9	3	2	521	3	141	554	355	256	188	114	80	92	1,779
Washington	-	140	111	41	19	12	6	4	3	335	11	179	454	293	244	189	133	104	264	1,861
West Virginia	0	124	64	17	11	8	5	2	3	235	27	44	136	71	42	30	16	12	36	387
Wisconsin	2	103	109	63	48	25	10	3	2	364	37	70	296	299	326	279	182	147	304	1,902
Wyoming	-	43	35	13	6	4	2	2	1	106	-	34	59	31	19	15	8	15	190	190
U.S. Total	97	7,660	6,219	2,160	1,297	793	427	233	290	19,080	1,198	9,731	19,804	11,340	8,538	6,557	4,491	3,581	8,842	72,884
Puerto Rico	19	3	49	42	39	29	19	18	39	238	6	1	15	27	48	60	55	52	177	434
Grand Total	116	7,663	6,268	2,201	1,336	822	447	252	329	19,318	1,204	9,732	19,819	11,367	8,586	6,616	4,546	3,633	9,019	73,317

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2019

MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 4 OF 4

September 30, 2020

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	27	755	541	159	89	54	33	24	63	1,717
Alaska	0	64	85	39	20	13	7	4	8	239
Arizona	50	311	264	149	115	83	50	35	37	1,043
Arkansas	1	173	328	168	110	80	47	36	48	988
California	280	763	1,487	1,102	1,094	1,003	795	702	1,988	8,934
Colorado	0	196	497	298	229	155	96	74	138	1,684
Connecticut	-	249	376	210	146	102	66	42	84	1,275
Delaware	4	37	119	60	30	16	11	7	13	292
District of Columbia	4	-	3	4	6	9	8	11	89	130
Florida	10	1,673	2,071	707	362	213	112	67	104	5,309
Georgia	-	1,111	1,356	495	239	130	71	44	70	3,516
Hawaii	1	25	66	57	57	49	32	24	65	374
Idaho	121	101	109	43	28	22	13	10	16	341
Illinois	16	501	1,130	676	526	387	257	196	410	4,083
Indiana	9	251	414	206	143	77	37	29	28	1,184
Iowa	30	157	282	200	141	97	63	47	100	1,087
Kansas	8	250	220	92	61	43	24	17	27	735
Kentucky	19	254	327	142	86	51	30	19	29	940
Louisiana	103	220	292	186	170	154	101	79	151	1,353
Maine	2	76	56	31	23	19	13	8	19	245
Maryland	7	378	517	194	128	97	72	62	197	1,646
Massachusetts	50	534	469	326	304	297	213	175	494	2,813
Michigan	29	346	909	538	409	328	240	187	425	3,382
Minnesota	8	282	461	177	95	58	33	21	39	1,167
Mississippi	-	306	360	185	125	90	57	41	102	1,266
Missouri	-	623	576	228	149	112	65	44	87	1,882
Montana	-	77	97	42	32	21	12	11	26	318
Nebraska	7	49	124	70	55	52	38	35	108	530
Nevada	-	199	151	84	64	37	17	11	20	582
New Hampshire	0	195	95	37	21	16	10	7	23	403
New Jersey	-	391	716	303	256	220	181	166	495	2,728
New Mexico	-	171	141	69	48	34	23	14	36	535
New York	136	377	1,253	764	555	446	318	277	849	4,840
North Carolina	34	750	942	487	297	170	91	58	98	2,893
North Dakota	1	60	77	40	30	18	13	10	19	266
Ohio	13	764	926	411	291	214	147	105	271	3,130
Oklahoma	34	150	331	159	101	67	42	29	42	922
Oregon	9	222	361	186	127	84	59	39	68	1,146
Pennsylvania	0	586	1,111	692	533	410	268	183	429	4,212
Rhode Island	16	54	55	45	50	54	44	38	104	444
South Carolina	7	256	448	275	189	121	65	40	66	1,459
South Dakota	9	20	85	44	27	22	17	10	9	234
Tennessee	5	937	835	305	197	115	74	54	105	2,622
Texas	158	1,186	2,482	1,386	984	687	441	341	789	8,296
Utah	-	216	380	161	83	50	23	15	21	948
Vermont	4	55	51	16	10	6	3	2	5	149
Virginia	4	301	788	422	285	205	123	83	94	2,300
Washington	11	319	564	335	264	201	138	108	267	2,195
West Virginia	28	168	200	88	53	39	22	14	39	622
Wisconsin	39	173	405	363	374	304	193	150	306	2,267
Wyoming	-	77	94	44	25	19	10	10	16	296
U.S. Total	1,295	17,391	26,024	13,499	9,835	7,350	4,918	3,815	9,131	91,963
Puerto Rico	24	4	64	69	86	89	74	70	216	672
Grand Total	1,320	17,395	26,087	13,568	9,922	7,438	4,992	3,885	9,348	92,635

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2019

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.