

FUNCTIONAL SYSTEM LENGTH - 2000
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-64
SHEET 1 OF 4

OCTOBER 2001

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	INTERSTATE									TOTAL REPORTED
	NOT REPORTED 2/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	229	258	73	33	4	3	-	-	600
Alaska	-	13	333	313	234	136	1	-	-	1,030
Arizona	-	882	99	8	4	3	1	-	-	997
Arkansas	3	2	89	72	68	98	72	22	39	462
California	6	45	539	347	198	116	48	37	22	1,352
Colorado	-	1	766	-	-	-	-	-	-	767
Connecticut	-	1	80	13	3	2	-	-	1	100
Delaware	-	-	-	-	-	-	-	-	-	-
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	30	767	66	16	49	19	5	-	-	922
Georgia	-	557	211	36	4	-	-	-	-	808
Hawaii	6	-	-	-	-	-	-	-	-	-
Idaho	-	189	233	84	11	1	4	3	1	526
Illinois	-	99	798	330	233	47	6	-	2	1,515
Indiana	-	454	341	52	5	1	-	-	-	853
Iowa	-	67	281	164	87	36	-	-	-	635
Kansas	-	262	321	96	3	11	-	1	-	694
Kentucky	-	196	189	12	113	23	-	-	-	533
Louisiana	54	49	226	90	92	50	35	4	10	556
Maine	-	27	225	52	7	1	1	-	-	313
Maryland	1	17	163	34	9	3	-	-	-	226
Massachusetts	-	-	66	65	6	24	-	-	1	162
Michigan	-	67	257	185	130	55	23	14	11	742
Minnesota	-	155	365	131	28	1	-	-	-	680
Mississippi	-	85	236	108	59	43	19	8	-	558
Missouri	-	3	144	364	197	89	4	5	-	806
Montana	-	354	501	123	99	45	7	5	-	1,134
Nebraska	-	215	72	39	58	20	19	14	-	437
Nevada	-	132	260	47	20	11	7	1	1	479
New Hampshire	-	26	147	4	-	-	-	-	-	177
New Jersey	-	1	46	45	9	11	4	3	1	120
New Mexico	-	17	112	485	205	46	14	13	1	893
New York	15	115	507	134	74	22	31	25	17	925
North Carolina	-	62	289	133	66	74	8	18	1	651
North Dakota	-	142	294	75	20	-	-	-	-	531
Ohio	-	361	368	86	14	1	-	-	-	830
Oklahoma	-	84	339	148	113	14	22	1	1	722
Oregon	1	-	206	346	29	-	-	-	-	581
Pennsylvania	5	160	708	220	76	22	6	6	3	1,201
Rhode Island	-	-	18	3	-	-	-	-	-	21
South Carolina	-	239	302	95	31	4	-	-	-	671
South Dakota	-	32	324	147	39	69	18	-	-	629
Tennessee	-	536	190	7	1	1	-	-	-	735
Texas	40	375	1,303	316	127	43	1	8	-	2,173
Utah	-	173	367	115	48	56	9	2	-	770
Vermont	-	9	230	30	4	-	1	4	2	280
Virginia	-	47	627	48	3	5	-	-	-	730
Washington	-	210	220	49	19	-	2	-	-	500
West Virginia	-	33	259	57	46	35	8	9	8	455
Wisconsin	1	61	322	131	41	25	-	-	-	580
Wyoming	-	316	429	40	34	7	-	-	-	826
U.S. Total	162	7,867	14,726	5,568	2,749	1,274	379	203	122	32,888
Puerto Rico	-	-	5	31	41	17	-	3	5	102
Grand Total	162	7,867	14,731	5,599	2,790	1,291	379	206	127	32,990

FUNCTIONAL SYSTEM LENGTH - 2000
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-64
SHEET 2 OF 4

OCTOBER 2001

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			
	OTHER PRINCIPAL ARTERIAL										MINOR ARTERIAL 3/									
	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	-	522	1,181	311	49	9	9	2	-	2,083	-	499	2,079	874	165	74	-	-	-	3,691
Alaska	455	7	113	66	39	69	7	31	21	353	-	-	46	121	7	39	10	-	-	223
Arizona	67	307	360	236	129	72	6	7	-	1,117	59	257	476	159	198	51	55	-	-	1,196
Arkansas	64	9	644	675	365	215	106	49	16	2,079	16	-	676	810	578	800	78	55	8	3,005
California	5	33	1,021	1,137	892	443	108	53	7	3,694	-	34	1,202	1,431	1,775	989	746	443	350	6,970
Colorado	-	9	1,561	308	174	124	47	7	12	2,242	-	-	2,260	742	141	283	99	90	14	3,629
Connecticut	-	-	71	90	63	25	10	2	2	263	-	-	51	75	260	83	26	-	-	495
Delaware	11	6	83	80	21	2	3	3	1	199	-	-	59	24	19	5	4	7	4	122
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	112	1,680	1,450	275	122	44	24	2	3	3,600	-	753	1,298	382	61	58	25	-	7	2,584
Georgia	-	2,089	665	41	2	1	-	-	-	2,798	-	4,301	1,274	18	9	-	-	-	-	5,602
Hawaii	124	-	-	-	-	-	-	-	-	-	370	-	-	-	6	-	-	-	-	6
Idaho	-	215	846	370	204	35	11	3	3	1,687	-	178	585	362	125	19	2	1	11	1,283
Illinois	-	94	911	602	505	282	147	40	32	2,613	-	403	1,167	1,377	469	979	61	156	210	4,822
Indiana	4	335	771	305	177	82	49	2	1	1,722	-	343	848	630	193	188	22	12	1	2,237
Iowa	142	369	1,142	592	506	372	252	72	40	3,345	373	817	760	608	573	243	312	132	139	3,584
Kansas	24	882	1,838	288	94	24	9	2	1	3,138	-	990	1,897	1,293	66	12	2	28	17	4,305
Kentucky	-	285	1,158	322	202	58	18	1	-	2,044	-	-	700	577	193	97	35	-	-	1,602
Louisiana	13	49	418	231	216	153	106	27	23	1,223	-	120	549	330	309	101	93	53	70	1,625
Maine	-	35	440	168	98	34	8	3	2	788	-	52	446	203	247	61	31	6	1	1,047
Maryland	11	54	339	97	24	9	6	4	2	535	-	18	535	212	126	44	5	11	-	951
Massachusetts	-	1	46	124	70	38	20	9	4	312	-	-	23	93	315	105	78	15	41	670
Michigan	15	470	1,117	558	297	167	66	41	33	2,749	-	878	1,666	665	414	327	59	37	67	4,113
Minnesota	9	953	1,666	700	191	47	16	3	1	3,577	-	1,115	3,638	867	485	215	81	18	12	6,431
Mississippi	43	169	874	448	234	92	17	14	8	1,856	-	21	1,195	1,330	888	257	97	45	1	3,834
Missouri	13	31	419	816	854	640	122	67	143	3,092	-	-	228	969	832	427	416	367	207	3,446
Montana	6	322	1,549	492	164	32	47	1	9	2,616	-	374	1,608	542	306	71	40	48	-	2,989
Nebraska	-	581	1,046	351	404	146	70	73	41	2,712	-	1,013	1,507	876	298	94	28	245	152	4,213
Nevada	19	139	622	219	224	148	25	-	-	1,377	-	95	278	196	124	14	-	11	-	718
New Hampshire	-	57	233	81	42	24	7	2	14	460	-	69	167	111	29	66	8	6	28	484
New Jersey	9	-	65	122	96	150	34	8	49	524	108	-	15	132	107	75	16	-	40	385
New Mexico	3	81	627	563	292	130	60	27	33	1,813	-	81	394	458	294	203	175	41	221	1,867
New York	23	102	1,139	340	138	49	22	17	26	1,833	-	81	1,874	1,288	557	167	38	116	-	4,121
North Carolina	-	73	1,115	464	281	188	76	24	21	2,242	-	40	833	778	636	384	227	34	81	3,013
North Dakota	-	292	1,387	722	356	151	15	6	-	2,929	-	236	896	827	449	75	30	2	-	2,515
Ohio	-	373	1,397	352	71	20	11	5	3	2,232	-	140	1,959	524	177	-	27	3	-	2,830
Oklahoma	-	42	988	674	328	206	91	24	19	2,372	-	3	648	1,129	508	333	89	17	21	2,748
Oregon	104	28	318	1,399	793	153	25	5	-	2,721	-	-	153	644	799	366	199	32	16	2,209
Pennsylvania	8	171	999	637	359	177	74	33	23	2,473	-	51	1,435	1,479	863	808	292	43	135	5,106
Rhode Island	2	-	24	23	9	4	1	2	-	63	5	3	32	15	8	8	-	2	2	70
South Carolina	-	96	957	249	107	25	14	10	5	1,463	-	292	1,531	1,020	346	348	39	13	69	3,658
South Dakota	151	80	566	488	493	364	179	126	93	2,389	170	57	679	931	726	382	226	128	52	3,181
Tennessee	169	655	861	99	44	20	2	1	1	1,683	72	46	1,747	697	324	348	180	-	-	3,342
Texas	16	410	3,383	2,029	676	254	76	27	26	6,881	-	437	3,623	3,564	1,287	383	216	50	87	9,647
Utah	3	27	448	338	122	52	17	-	-	1,004	-	65	349	622	312	170	2	15	-	1,535
Vermont	-	1	136	50	47	35	21	17	12	319	-	3	269	180	96	57	87	27	14	733
Virginia	-	64	840	420	132	69	15	13	4	1,557	-	-	1,112	1,849	226	156	42	89	22	3,496
Washington	-	328	1,293	342	84	24	4	4	2	2,081	54	131	933	499	259	48	6	19	29	1,924
West Virginia	-	94	405	316	173	51	19	19	4	1,081	-	55	387	403	299	221	45	68	56	1,534
Wisconsin	-	563	1,284	724	453	182	80	49	30	3,365	-	1,052	1,599	972	702	230	108	284	37	4,984
Wyoming	-	847	936	125	34	37	-	3	3	1,985	-	135	737	327	31	34	-	-	53	1,317
U.S. Total	1,625	14,030	41,752	20,459	11,450	5,728	2,152	940	773	97,284	1,227	15,238	48,423	34,215	18,217	10,498	4,457	2,769	2,275	136,092
Puerto Rico	25	-	-	3	10	30	22	5	8	78	116	-	-	13	9	56	30	36	28	172
Grand Total	1,650	14,030	41,752	20,462	11,460	5,758	2,174	945	781	97,362	1,343	15,238	48,423	34,228	18,226	10,554	4,487	2,805	2,303	136,264

FUNCTIONAL SYSTEM LENGTH - 2000
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-64
SHEET 3 OF 4

OCTOBER 2001

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	INTERSTATE									TOTAL REPORTED
	NOT REPORTED 2/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	86	115	35	35	27	7	-	-	305
Alaska	-	4	34	9	3	3	-	-	-	53
Arizona	-	101	34	26	10	-	-	-	-	171
Arkansas	1	3	34	33	41	39	19	9	10	188
California	1	32	184	160	249	245	132	63	30	1,095
Colorado	-	2	182	-	-	-	-	-	-	184
Connecticut	-	9	97	76	31	14	10	3	6	246
Delaware	1	-	7	11	7	3	6	2	3	39
Dist. of Columbia	-	-	3	2	-	1	1	3	3	13
Florida	38	270	146	26	21	12	6	-	-	481
Georgia	1	307	111	16	1	-	-	-	-	435
Hawaii	49	-	-	-	-	-	-	-	-	-
Idaho	-	32	33	8	4	3	6	-	-	86
Illinois	1	11	218	222	127	30	39	2	-	649
Indiana	-	72	165	53	12	10	4	2	-	318
Iowa	-	4	44	36	31	16	10	-	6	147
Kansas	2	5	82	68	18	1	-	-	1	175
Kentucky	1	67	90	28	29	3	9	3	-	229
Louisiana	51	1	73	53	32	48	20	2	2	231
Maine	-	-	44	9	1	-	-	-	-	54
Maryland	14	4	110	74	23	9	10	5	3	238
Massachusetts	-	-	149	127	44	80	2	1	2	405
Michigan	1	20	180	107	100	43	25	13	11	499
Minnesota	-	42	125	45	15	4	-	-	-	231
Mississippi	-	2	24	45	41	10	2	3	-	127
Missouri	-	-	47	99	115	71	27	6	6	371
Montana	-	4	27	12	9	4	1	-	-	57
Nebraska	-	5	16	6	10	3	2	2	-	44
Nevada	-	13	26	21	6	14	-	-	-	80
New Hampshire	-	13	30	6	-	-	-	-	-	49
New Jersey	11	2	54	123	49	43	5	7	7	290
New Mexico	-	1	26	26	30	16	1	3	5	108
New York	15	39	267	156	70	57	32	27	64	712
North Carolina	-	4	191	78	46	25	6	16	7	373
North Dakota	-	10	15	8	7	-	-	-	-	40
Ohio	-	176	403	115	26	12	6	3	1	742
Oklahoma	-	3	55	49	32	28	22	11	9	209
Oregon	4	-	29	70	36	7	-	-	-	142
Pennsylvania	24	29	259	142	50	21	15	6	3	525
Rhode Island	1	-	16	12	13	5	1	-	-	47
South Carolina	-	46	80	18	10	1	-	1	-	156
South Dakota	-	1	12	6	14	12	1	2	1	49
Tennessee	5	132	132	39	17	6	5	1	-	332
Texas	-	39	403	308	176	79	10	4	2	1,021
Utah	-	16	58	41	31	13	7	1	-	167
Vermont	-	6	20	6	8	-	-	-	-	40
Virginia	-	9	172	105	70	21	5	3	2	387
Washington	1	63	112	26	24	27	5	4	-	261
West Virginia	-	10	53	14	7	5	3	1	-	93
Wisconsin	4	21	63	41	16	17	-	-	-	158
Wyoming	-	29	25	21	8	3	-	-	1	87
U.S. Total	226	1,745	4,875	2,817	1,755	1,091	462	209	185	13,139
Puerto Rico	1	-	5	46	36	36	13	5	6	147
Grand Total	227	1,745	4,880	2,863	1,791	1,127	475	214	191	13,286

**FUNCTIONAL SYSTEM LENGTH - 2000
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN**

TABLE HM-64
SHEET 4 OF 4

OCTOBER 2001

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			
	OTHER FREEWAYS AND EXPRESSWAYS										OTHER PRINCIPAL ARTERIAL									
	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	-	2	13	2	2	1	-	-	-	20	-	259	489	169	72	20	7	3	3	1,022
Alaska	-	-	-	-	-	-	-	-	-	-	-	7	15	17	9	4	1	1	2	56
Arizona	13	11	66	28	5	3	-	-	-	113	753	50	86	51	48	18	7	4	3	267
Arkansas	3	1	21	13	15	19	7	5	3	84	74	-	36	116	86	102	50	47	72	509
California	24	13	190	297	368	251	98	40	63	1,320	53	23	200	522	987	1,131	1,018	851	1,154	5,886
Colorado	-	3	193	22	2	-	-	4	-	224	-	8	461	193	26	17	13	129	33	880
Connecticut	-	7	59	75	27	16	6	4	4	198	-	1	23	97	141	126	78	54	87	607
Delaware	2	-	5	5	-	1	-	-	-	11	1	18	49	32	14	8	3	3	7	134
Dist. of Columbia	1	-	-	1	1	5	4	1	6	18	3	-	-	1	3	3	7	15	58	87
Florida	59	155	199	24	17	6	2	-	1	404	288	517	1,116	366	212	95	36	31	34	2,407
Georgia	-	109	45	5	3	3	1	-	-	166	13	883	676	127	37	16	3	2	1	1,745
Hawaii	34	-	-	-	-	-	-	-	-	-	135	-	-	-	1	1	-	-	1	3
Idaho	-	-	-	-	-	-	-	-	-	-	5	9	46	40	54	39	24	21	24	257
Illinois	-	-	4	48	21	4	2	2	4	85	44	87	666	530	473	326	212	159	128	2,581
Indiana	7	16	22	31	21	17	12	2	9	130	443	50	250	220	208	143	100	37	86	1,094
Iowa	-	-	-	-	-	-	-	-	-	-	86	17	134	108	85	97	60	33	97	631
Kansas	9	18	45	32	11	9	8	2	1	126	427	17	75	37	33	25	13	6	11	217
Kentucky	-	-	43	30	12	3	2	-	-	90	-	26	224	179	108	59	30	20	12	658
Louisiana	14	-	-	6	1	14	6	3	5	35	99	11	124	92	91	110	85	92	148	753
Maine	-	8	3	3	4	1	1	1	-	18	-	-	50	34	27	31	21	8	6	177
Maryland	39	8	75	50	25	20	8	5	4	195	231	14	128	127	102	77	56	42	86	632
Massachusetts	1	-	56	64	46	15	8	3	6	198	4	3	20	126	249	349	364	214	222	1,547
Michigan	-	8	35	53	51	37	23	10	8	225	2	12	106	150	199	393	280	260	573	1,973
Minnesota	8	21	63	35	22	1	-	-	-	142	35	65	222	119	57	39	4	9	6	521
Mississippi	-	6	15	11	4	5	-	-	-	41	22	21	159	141	129	79	34	24	76	663
Missouri	6	-	20	45	99	38	56	26	30	314	379	-	19	75	116	123	100	69	172	674
Montana	-	-	-	-	-	-	-	-	-	-	2	2	32	32	25	20	13	12	36	172
Nebraska	-	1	5	8	2	1	1	-	-	17	104	11	25	35	45	47	46	37	64	310
Nevada	-	4	23	14	2	1	-	-	-	44	-	8	64	61	27	22	15	12	17	226
New Hampshire	-	10	23	3	1	-	2	-	-	39	-	7	51	38	20	15	10	11	18	170
New Jersey	1	-	53	101	93	28	25	5	5	310	61	-	41	86	192	219	170	132	414	1,254
New Mexico	3	-	-	-	-	-	-	-	-	-	37	19	66	114	103	68	36	35	39	480
New York	13	27	237	127	107	113	71	47	51	780	143	9	260	372	264	211	146	145	918	2,325
North Carolina	-	5	120	50	35	38	21	5	6	280	-	13	349	318	252	174	102	45	115	1,368
North Dakota	-	-	-	-	-	-	-	-	-	-	-	4	32	35	30	21	18	12	12	164
Ohio	-	49	174	83	41	35	7	1	2	392	-	70	521	428	379	239	130	95	113	1,975
Oklahoma	-	-	48	31	26	13	12	5	3	138	11	-	64	120	110	132	90	113	169	798
Oregon	4	-	1	37	12	-	1	-	-	51	112	-	32	111	151	122	58	34	37	545
Pennsylvania	12	20	135	112	89	53	37	19	10	475	32	25	310	395	429	441	233	181	222	2,236
Rhode Island	-	1	28	19	16	2	1	-	-	67	2	1	54	92	85	47	30	25	17	351
South Carolina	-	7	40	10	6	7	-	-	1	71	-	13	195	195	104	81	42	24	50	704
South Dakota	-	-	-	-	-	-	-	-	-	-	111	-	4	4	6	3	1	2	1	21
Tennessee	4	14	67	16	7	8	1	3	1	117	277	143	429	194	132	69	31	21	22	1,041
Texas	92	42	351	333	223	100	36	10	14	1,109	696	69	689	937	784	570	350	266	579	4,244
Utah	-	1	6	1	1	-	-	-	-	9	11	5	87	63	43	42	13	6	8	267
Vermont	-	-	7	8	3	1	-	1	-	20	-	-	18	17	19	9	6	12	98	98
Virginia	-	5	77	81	24	12	12	6	1	218	1	13	202	241	208	144	102	66	82	1,058
Washington	5	30	155	53	34	18	10	5	4	309	805	23	96	66	51	20	11	8	18	293
West Virginia	-	-	1	3	3	2	-	-	-	9	-	6	59	56	29	28	11	9	5	203
Wisconsin	1	8	56	34	36	24	10	6	5	179	4	28	155	194	207	202	180	125	227	1,318
Wyoming	-	-	-	-	2	1	-	-	-	3	12	36	87	27	15	12	9	5	4	195
U.S. Total	355	601	2,780	2,001	1,526	927	491	221	247	8,794	5,518	2,603	9,296	7,900	7,277	6,397	4,462	3,561	6,301	47,797
Puerto Rico	5	-	-	5	4	20	15	2	4	50	50	-	-	16	36	49	37	28	26	192
Grand Total	360	601	2,780	2,006	1,530	947	506	223	251	8,844	5,568	2,603	9,296	7,916	7,313	6,446	4,499	3,589	6,327	47,989

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/ Estimated from sample data.