

FUNCTIONAL SYSTEM LENGTH - 1998
PAVED MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-64
SHEET 1 OF 4

OCTOBER 1999

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	INTERSTATE									TOTAL REPORTED
	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	94	348	95	43	21	-	-	-	601
Alaska	-	12	238	337	326	30	69	13	5	1,030
Arizona	-	363	518	76	24	2	12	1	1	997
Arkansas	-	-	56	38	50	83	51	49	66	393
California	-	7	608	298	240	124	40	13	27	1,357
Colorado	-	9	187	154	177	137	38	56	11	769
Connecticut	-	1	66	15	13	4	1	-	2	102
Delaware	-	-	-	-	-	-	-	-	-	-
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	45	703	70	45	75	16	-	-	-	909
Georgia	-	620	175	12	-	-	-	-	-	807
Hawaii	6	-	-	-	-	-	-	-	-	-
Idaho	-	168	257	83	10	-	7	-	1	526
Illinois	1,518	-	-	-	-	-	-	-	-	-
Indiana	-	292	393	76	34	58	-	-	-	853
Iowa	-	61	323	203	41	6	1	-	-	635
Kansas	-	254	303	50	69	15	7	-	-	698
Kentucky	-	131	215	33	102	54	-	-	-	535
Louisiana	37	-	140	145	91	142	27	6	23	574
Maine	41	38	206	26	2	-	-	-	-	272
Maryland	-	12	164	45	6	1	1	-	-	229
Massachusetts	-	3	86	65	6	-	-	-	1	161
Michigan	-	35	257	172	130	82	42	20	4	742
Minnesota	-	47	299	165	85	30	35	10	10	681
Mississippi	-	12	212	152	69	83	23	1	5	557
Missouri	-	7	230	260	213	79	16	1	-	806
Montana	-	275	576	154	76	43	5	5	-	1,134
Nebraska	-	95	139	57	63	57	25	-	-	436
Nevada	-	228	145	42	24	12	21	4	4	480
New Hampshire	-	51	95	24	6	-	-	-	-	176
New Jersey	6	-	32	34	18	6	12	8	3	113
New Mexico	-	204	364	217	56	27	16	7	1	892
New York	-	-	521	151	79	26	10	2	7	796
North Carolina	-	28	161	109	109	144	63	21	1	636
North Dakota	-	73	314	105	38	-	-	-	-	530
Ohio	-	328	427	55	19	1	-	-	-	830
Oklahoma	-	81	351	147	105	14	22	1	1	722
Oregon	-	-	4	39	151	165	103	77	41	580
Pennsylvania	-	42	713	297	101	41	6	-	1	1,201
Rhode Island	-	-	18	4	-	-	-	-	-	22
South Carolina	-	271	289	91	21	-	-	-	-	672
South Dakota	23	-	199	175	83	112	33	3	-	605
Tennessee	637	20	62	4	12	-	-	-	-	98
Texas	-	303	1,411	351	99	49	2	-	1	2,216
Utah	-	239	318	117	49	31	13	3	-	770
Vermont	-	100	146	19	13	3	-	-	-	281
Virginia	-	7	356	284	56	9	4	-	-	716
Washington	-	211	218	51	19	-	2	-	-	501
West Virginia	-	78	214	69	56	33	3	2	-	455
Wisconsin	-	46	199	145	135	42	8	1	-	576
Wyoming	-	252	369	134	52	19	-	-	-	826
U.S. Total	2,313	5,801	12,992	5,420	3,246	1,801	718	304	216	30,498
Puerto Rico	-	-	5	24	51	15	5	-	3	103
Grand Total	2,313	5,801	12,997	5,444	3,297	1,816	723	304	219	30,601

FUNCTIONAL SYSTEM LENGTH - 1998
PAVED MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-64
 SHEET 2 OF 4

OCTOBER 1999

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			
	OTHER PRINCIPAL ARTERIAL										MINOR ARTERIAL									
	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	157	1,113	605	142	43	6	2	7	2,075	-	406	1,393	1,209	555	93	38	-	3,694	
Alaska	455	6	90	68	134	16	29	11	-	354	212	-	61	-	118	9	-	37	225	
Arizona	-	152	389	317	161	80	47	17	22	1,185	-	160	374	214	346	72	53	17	1,258	
Arkansas	36	9	711	699	386	221	109	44	15	2,194	37	-	682	846	541	463	316	49	2,911	
California	-	32	1,043	1,135	891	439	96	48	4	3,688	-	298	1,264	1,758	1,551	1,179	352	244	254	6,900
Colorado	-	6	269	475	487	337	139	229	256	2,198	-	-	562	623	1,121	439	208	420	309	3,682
Connecticut	-	3	58	89	64	31	11	4	3	263	-	-	12	134	248	48	31	14	12	499
Delaware	-	5	88	90	23	3	4	3	2	218	-	-	51	18	17	5	4	7	3	105
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	86	1,615	1,403	312	141	98	20	19	24	3,632	242	-	575	1,323	200	176	36	30	-	2,340
Georgia	-	2,309	442	35	2	2	-	-	-	2,790	-	-	4,707	721	174	-	-	-	-	5,602
Hawaii	125	-	-	-	-	-	-	-	-	-	375	-	-	-	-	-	-	-	-	-
Idaho	1	276	654	462	200	65	9	4	3	1,673	4	180	424	423	159	80	24	-	15	1,305
Illinois	2,631	-	-	-	-	-	-	-	-	-	4,830	-	-	-	-	-	-	-	-	-
Indiana	4	211	643	373	269	150	46	11	2	1,705	6	142	875	731	171	234	64	12	-	2,229
Iowa	131	322	1,125	616	453	398	266	49	69	3,298	386	554	830	312	734	539	314	167	119	3,569
Kansas	70	715	1,553	519	201	76	20	15	3	3,102	7	1,120	1,897	800	152	67	141	5	104	4,286
Kentucky	-	256	1,248	254	153	117	17	-	2	2,047	-	1	874	350	327	53	2	-	1	1,608
Louisiana	21	17	359	253	190	154	130	80	31	1,214	-	3	350	265	408	153	118	104	156	1,557
Maine	7	101	398	170	64	25	9	7	7	781	41	74	473	175	159	41	58	40	11	1,031
Maryland	-	49	330	110	27	16	10	3	3	548	-	61	515	225	115	65	7	2	-	990
Massachusetts	9	-	97	114	38	32	10	10	2	303	137	-	77	214	56	142	15	13	15	532
Michigan	18	330	1,046	620	348	223	89	52	36	2,744	-	851	1,658	645	417	349	61	35	65	4,081
Minnesota	-	635	1,267	725	501	197	129	45	77	3,576	-	359	2,878	1,277	1,039	435	17	232	45	6,282
Mississippi	-	15	625	489	469	176	38	25	13	1,850	-	-	1,259	1,300	1,000	260	34	49	16	3,918
Missouri	51	61	562	922	783	477	183	35	26	3,049	-	-	685	1,021	693	633	353	49	12	3,446
Montana	-	259	1,359	543	226	140	63	24	9	2,623	-	220	1,414	720	402	181	48	-	-	2,985
Nebraska	-	520	946	381	387	173	167	93	48	2,715	-	565	1,589	579	491	382	267	96	231	4,200
Nevada	-	164	606	169	338	86	23	-	2	1,388	-	93	281	155	113	79	-	4	-	725
New Hampshire	-	64	234	85	30	20	12	7	5	457	-	53	218	109	70	10	11	6	8	485
New Jersey	88	-	43	88	99	77	40	36	61	444	90	-	65	60	72	108	23	18	53	399
New Mexico	5	80	567	427	318	192	70	58	81	1,793	32	26	448	421	285	171	200	3	281	1,835
New York	16	2	996	389	183	147	111	62	93	1,983	32	11	1,976	932	412	210	125	187	234	4,087
North Carolina	36	19	807	518	421	258	92	42	42	2,199	68	22	659	749	643	414	324	46	77	2,934
North Dakota	-	348	1,381	800	265	85	43	7	2	2,931	-	165	1,136	973	206	31	3	-	-	2,514
Ohio	-	394	1,431	244	99	40	11	3	4	2,226	-	420	1,841	302	233	24	-	-	10	2,830
Oklahoma	-	52	1,038	617	326	198	92	25	18	2,366	-	185	684	907	517	367	54	16	19	2,749
Oregon	4	-	563	1,159	806	174	47	31	48	2,828	-	12	347	469	533	290	295	88	177	2,211
Pennsylvania	1	107	908	658	410	246	91	45	28	2,493	-	334	2,488	94	614	1,510	-	65	-	5,105
Rhode Island	-	-	26	21	12	6	1	-	1	67	-	2	37	12	10	10	-	2	2	75
South Carolina	-	106	569	388	207	115	27	22	20	1,454	-	370	1,084	754	903	390	35	67	57	3,660
South Dakota	114	26	481	525	595	437	210	94	58	2,426	83	-	686	905	786	466	245	131	49	3,268
Tennessee	1,615	22	127	30	15	9	-	-	-	203	60	59	1,766	704	293	347	182	-	-	3,351
Texas	-	726	3,049	2,086	691	205	53	27	24	6,861	-	827	3,907	3,040	1,371	298	147	40	12	9,642
Utah	-	88	534	225	114	38	5	2	2	1,008	-	77	518	511	250	149	6	16	8	1,535
Vermont	-	13	68	54	75	53	23	11	19	316	-	21	210	121	90	129	56	44	64	735
Virginia	-	6	606	539	239	106	22	17	21	1,556	-	-	610	1,099	1,197	416	48	26	26	3,422
Washington	-	338	1,277	348	83	24	5	4	2	2,081	22	150	950	521	237	47	5	19	26	1,955
West Virginia	-	153	428	256	156	62	13	5	8	1,081	-	251	402	470	232	128	16	34	-	1,533
Wisconsin	-	166	958	762	596	400	213	144	122	3,361	-	306	1,382	944	776	464	650	432	32	4,986
Wyoming	-	575	1,202	147	42	16	4	-	-	1,986	-	149	801	253	56	55	5	-	1	1,320
U.S. Total	5,524	11,510	35,717	20,911	12,860	6,683	2,855	1,473	1,324	93,333	6,664	13,809	44,737	28,718	20,895	12,071	4,985	2,836	2,540	130,591
Puerto Rico	36	-	-	3	4	31	19	3	3	63	168	-	-	-	5	32	51	24	11	123
Grand Total	5,560	11,510	35,717	20,914	12,864	6,714	2,874	1,476	1,327	93,396	6,832	13,809	44,737	28,718	20,900	12,103	5,036	2,860	2,551	130,714

FUNCTIONAL SYSTEM LENGTH - 1998
PAVED MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-64
SHEET 3 OF 4

OCTOBER 1999

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	INTERSTATE									TOTAL REPORTED
	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	-	23	127	70	44	35	5	-	-	304
Alaska	-	-	22	24	5	2	-	-	-	53
Arizona	-	34	85	24	26	1	2	-	-	172
Arkansas	1	2	14	34	28	24	17	15	13	147
California	-	24	146	201	285	231	103	62	18	1,070
Colorado	-	2	51	36	44	34	7	1	8	183
Connecticut	-	1	85	78	40	22	10	5	4	245
Delaware	-	-	7	11	8	3	6	3	3	41
Dist. of Columbia	-	-	1	2	4	1	1	2	2	13
Florida	41	271	114	40	29	23	-	-	-	477
Georgia	-	351	80	3	2	-	-	-	-	436
Hawaii	49	-	-	-	-	-	-	-	-	-
Idaho	-	17	36	8	12	11	-	1	-	85
Illinois	647	-	-	-	-	-	-	-	-	-
Indiana	-	63	150	61	16	15	10	3	-	318
Iowa	-	-	50	32	34	10	19	2	-	147
Kansas	3	20	69	66	12	4	-	-	-	171
Kentucky	-	44	91	29	29	24	2	1	6	226
Louisiana	23	-	11	73	33	80	43	4	15	259
Maine	10	6	27	7	1	1	-	-	-	42
Maryland	-	5	109	66	32	16	11	8	6	253
Massachusetts	2	-	187	135	49	27	1	2	1	402
Michigan	-	15	129	131	95	56	41	18	15	500
Minnesota	-	21	113	51	31	10	4	2	-	232
Mississippi	-	1	13	28	58	19	3	5	1	128
Missouri	-	1	51	128	102	61	16	7	5	371
Montana	-	4	29	16	6	2	-	1	-	58
Nebraska	-	2	18	7	9	4	4	1	-	45
Nevada	-	14	33	13	15	10	1	-	-	86
New Hampshire	-	14	26	7	-	-	1	-	-	48
New Jersey	17	-	26	72	35	44	46	17	44	284
New Mexico	-	21	25	30	13	6	9	3	1	108
New York	4	-	258	131	79	66	57	32	76	699
North Carolina	-	1	128	64	73	31	19	26	11	353
North Dakota	-	14	17	9	-	-	-	-	-	40
Ohio	-	195	392	105	31	15	4	1	-	743
Oklahoma	-	3	61	43	32	30	19	11	9	208
Oregon	-	-	-	6	15	33	29	26	37	146
Pennsylvania	3	7	247	156	85	33	13	4	2	547
Rhode Island	-	-	15	13	11	6	1	-	-	46
South Carolina	-	39	79	24	11	1	2	1	-	157
South Dakota	3	-	4	8	9	20	6	-	-	47
Tennessee	237	4	57	17	11	8	3	1	1	102
Texas	-	30	346	309	241	72	18	1	1	1,018
Utah	-	31	46	36	27	13	12	2	-	167
Vermont	-	9	29	2	-	-	-	-	-	40
Virginia	-	2	94	162	95	29	6	12	1	401
Washington	-	65	108	29	24	27	5	4	-	262
West Virginia	-	21	43	13	9	5	3	-	1	95
Wisconsin	-	5	23	35	45	41	11	5	4	169
Wyoming	-	7	37	19	17	6	1	-	-	87
U.S. Total	1,040	1,389	3,909	2,664	1,912	1,212	571	289	285	12,231
Puerto Rico	2	-	5	35	39	25	16	8	17	145
Grand Total	1,042	1,389	3,914	2,699	1,951	1,237	587	297	302	12,376

FUNCTIONAL SYSTEM LENGTH - 1998

PAVED MILES BY MEASURED PAVEMENT ROUGHNESS- URBAN

TABLE HM-64
SHEET 4 OF 4

OCTOBER 1999

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																				
	OTHER FREEWAYS AND EXPRESSWAYS										OTHER PRINCIPAL ARTERIAL										
	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	
Alabama	-	1	12	4	1	2	-	1	-	21	7	85	414	294	140	40	5	8	5	991	
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	9	27	7	8	4	-	-	55	
Arizona	-	18	48	21	10	4	-	-	-	101	-	201	479	107	112	63	33	16	18	1,029	
Arkansas	3	1	46	13	8	25	8	4	5	110	62	-	59	115	93	90	44	42	74	517	
California	-	38	242	300	386	271	88	45	26	1,396	1	89	275	518	1,008	995	962	771	1,224	5,842	
Colorado	-	2	33	72	63	40	4	8	-	222	1	1	64	210	151	110	62	171	89	858	
Connecticut	1	-	59	62	30	23	12	7	3	196	5	-	12	73	138	144	95	50	90	602	
Delaware	-	-	5	5	-	1	-	-	-	11	-	17	48	32	14	8	4	3	8	134	
Dist. of Columbia	2	1	-	-	5	3	1	2	4	16	10	-	-	-	1	1	4	6	75	87	
Florida	19	188	170	13	27	2	-	-	-	400	290	511	1,096	377	217	87	51	32	27	2,398	
Georgia	1	115	41	1	5	-	2	-	-	164	8	1,126	512	71	29	6	1	-	-	1,745	
Hawaii	34	-	-	-	-	-	-	-	-	-	-	138	-	-	-	-	-	-	-	-	
Idaho	-	-	-	-	-	-	-	-	-	-	-	18	8	42	38	45	33	34	18	22	240
Illinois	82	-	-	-	-	-	-	-	-	-	2,603	-	-	-	-	-	-	-	-	-	
Indiana	7	11	26	26	22	18	16	3	6	128	446	36	220	248	194	137	118	48	100	1,101	
Iowa	-	-	-	-	-	-	-	-	-	-	110	11	117	114	91	103	50	35	85	606	
Kansas	13	14	47	24	18	11	3	2	3	122	434	14	65	33	40	29	19	10	6	216	
Kentucky	-	6	38	19	9	8	6	6	-	92	-	20	269	205	50	67	16	17	8	652	
Louisiana	1	-	-	4	11	7	14	3	6	45	131	7	113	92	84	91	84	89	152	712	
Maine	6	-	6	3	1	-	-	1	1	12	31	2	54	30	19	16	8	5	10	144	
Maryland	-	9	83	54	34	20	17	9	9	235	-	9	113	139	117	121	74	69	217	859	
Massachusetts	15	-	69	93	14	8	-	1	4	189	651	-	50	170	211	193	106	78	96	904	
Michigan	3	-	36	68	44	40	18	10	5	221	17	13	103	141	193	405	270	271	563	1,959	
Minnesota	-	11	54	40	22	10	5	1	1	144	-	55	134	102	89	60	29	24	41	534	
Mississippi	-	-	16	11	8	6	-	-	-	41	-	-	93	122	141	114	50	30	78	628	
Missouri	5	-	29	48	98	60	47	19	13	314	377	-	27	106	147	146	80	84	79	669	
Montana	-	-	-	-	-	-	-	-	-	-	3	2	27	36	33	23	13	14	24	172	
Nebraska	-	-	1	3	10	3	1	-	-	18	103	8	29	29	43	45	51	31	76	312	
Nevada	-	4	20	10	1	-	1	1	-	37	-	4	74	71	32	22	7	6	14	230	
New Hampshire	-	3	29	3	3	3	-	-	-	41	-	10	61	28	24	18	8	9	13	171	
New Jersey	96	-	31	68	46	25	14	8	26	218	346	-	86	146	248	239	95	96	52	962	
New Mexico	3	-	-	-	-	-	-	-	-	-	160	7	61	111	70	45	22	22	19	357	
New York	11	6	185	143	117	116	72	69	107	815	85	-	308	318	295	258	167	140	941	2,427	
North Carolina	18	3	104	36	42	36	25	11	13	270	122	4	240	266	244	172	117	58	144	1,245	
North Dakota	-	-	-	-	-	-	-	-	-	-	-	7	38	28	21	23	12	11	24	164	
Ohio	-	41	153	94	50	26	10	6	5	385	-	56	509	448	363	232	139	92	140	1,979	
Oklahoma	-	-	44	31	26	13	12	5	3	134	1	3	69	116	112	131	91	114	165	801	
Oregon	-	-	5	17	17	6	4	2	3	54	1	-	30	155	218	141	57	31	32	664	
Pennsylvania	1	6	116	89	95	87	50	25	18	486	4	17	213	346	388	463	279	223	335	2,264	
Rhode Island	-	-	29	20	16	1	2	-	-	68	13	-	53	73	78	48	27	30	17	326	
South Carolina	-	6	34	14	7	4	1	3	1	70	-	21	198	176	110	87	41	32	37	702	
South Dakota	-	-	-	-	-	-	-	-	-	-	92	-	7	3	9	9	3	1	8	40	
Tennessee	72	1	18	9	6	4	1	2	1	42	1,151	9	93	29	15	7	4	2	5	164	
Texas	-	52	297	378	269	200	17	4	7	1,224	-	149	855	830	798	539	1,408	157	175	4,911	
Utah	-	3	4	-	-	-	-	-	-	7	-	29	89	78	34	27	10	5	7	279	
Vermont	-	-	10	6	1	1	-	-	-	18	-	2	10	19	20	15	9	7	15	97	
Virginia	-	-	55	75	48	16	9	3	2	208	-	-	150	280	243	163	91	108	101	1,136	
Washington	4	31	153	55	34	17	11	4	4	309	805	25	92	70	49	22	10	9	18	295	
West Virginia	-	1	1	4	2	1	-	-	-	9	-	22	82	44	25	14	11	3	2	203	
Wisconsin	-	5	27	32	37	35	19	12	9	176	1	4	91	149	191	226	171	149	336	1,317	
Wyoming	-	-	3	-	-	-	-	-	-	3	19	28	74	27	30	11	5	6	5	186	
U.S. Total	397	577	2,379	1,968	1,643	1,153	490	277	285	8,772	8,246	2,612	7,907	7,240	7,024	6,047	5,051	3,233	5,772	44,886	
Puerto Rico	-	-	-	10	2	14	11	5	7	49	78	-	1	15	23	46	32	21	23	161	
Grand Total	397	577	2,379	1,978	1,645	1,167	501	282	292	8,821	8,324	2,612	7,908	7,255	7,047	6,093	5,083	3,254	5,795	45,047	

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.