

# Sea Level Rise Scenarios Affecting Roads

City of Cranston

Map Created: 8/11/2016

**Map Legend**

NOTES:  
 The Sea Level Rise (SLR) Inundation modified bathtub model does not take into consideration future erosion or storm surge.  
 Includes Hillshade from USGS 2011 LiDAR

- Current Mean Higher High Water
- 1Ft Sea Level Rise
- 3Ft Sea Level Rise
- 5Ft Sea Level Rise
- 7Ft Sea Level Rise
- City and Town Boundaries
- Potentially Affected Roads
- Roads

0 0.25 0.5 1 Miles

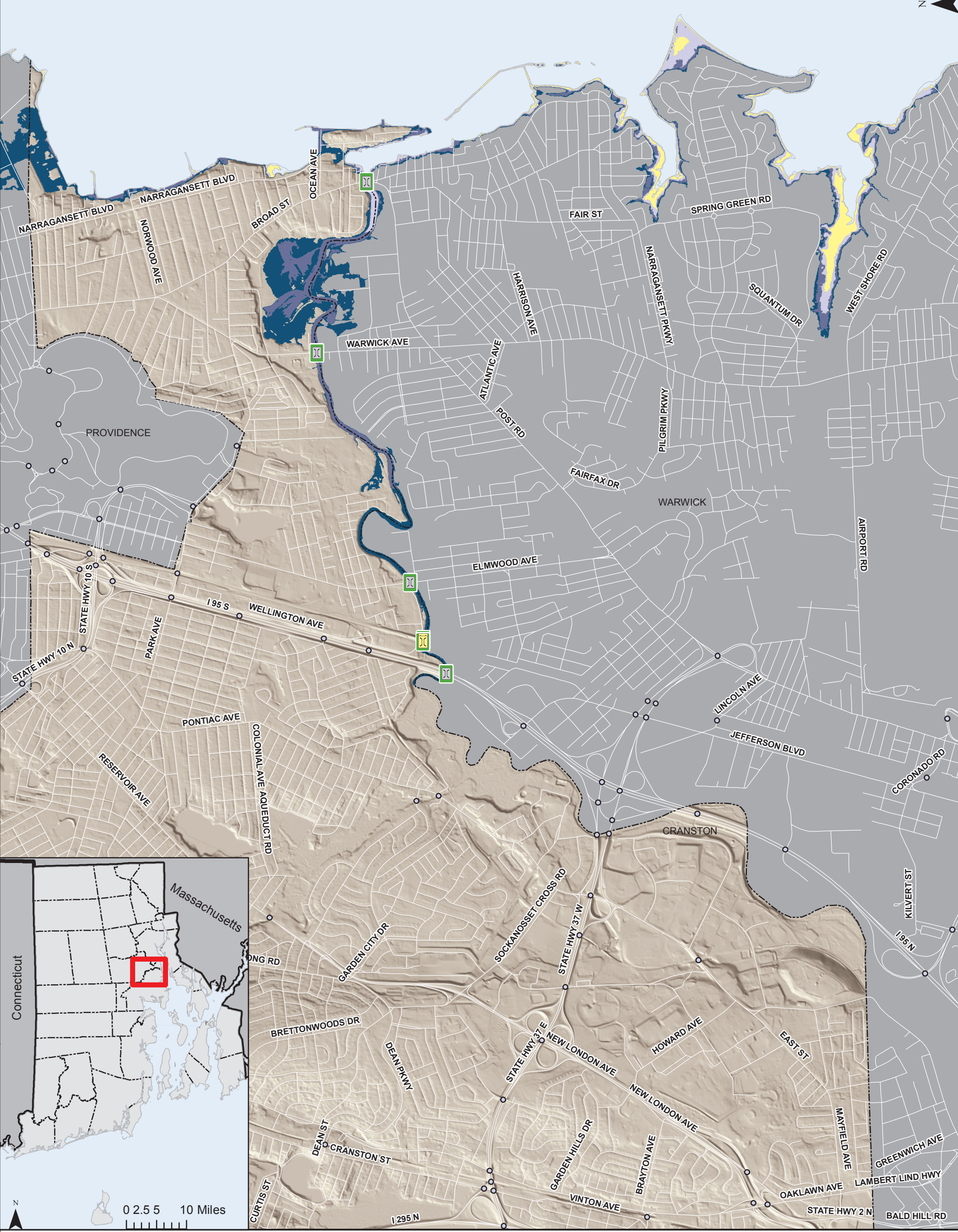
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Relative Road Vulnerability to Sea Level Rise

Cranston			Linear Feet of Road Inundated At:										
Muni Rank	State Rank	Road Name	1 Foot of SLR	3 Feet of SLR	5 Feet of SLR	7 Feet of SLR	Total Linear Feet	Hazard Score	Evacuation Route	Intermodal Facility	Functional Classification	System Score	Vulnerability Score
1	37	WARWICK AVE			80	3	83	1.50	Yes	Yes	Principal Art.	4.40	5.90
2	59	I 95 N				55	55	1.50	No	Yes	Interstate	4.00	5.50
3	60	I 95 S				59	59	1.50	No	Yes	Interstate	4.00	5.50
4	111	ELMWOOD AVE				62	62	1.50	No	Yes	Principal Art.	3.40	4.90
5	165	BROAD ST	6	8	7	7	26	1.50	No	Yes	Minor Art.	2.80	4.30
6	412	SHELDON ST				223	223	1.50	Yes	No	Local	1.60	3.10
7	487	NARRAGANSETT BLVD				369	369	1.50	No	No	Major Coll.	1.20	2.70
8	530	OCEAN AVE			522	72	594	1.50	Yes	No	Local	1.03	2.53
9	713	ABORN ST			65	46	111	1.50	No	No	Local	0.60	2.10
10	714	ARNOLD AVE			14	20	35	1.50	No	No	Local	0.60	2.10
11	715	BRIDGE ST		30	100	55	186	1.50	No	No	Local	0.60	2.10
12	716	FORT AVE			89	92	181	1.50	No	No	Local	0.60	2.10
13	717	HARBOUR TER				22	22	1.50	No	No	Local	0.60	2.10
14	718	NORWOOD AVE			145	57	203	1.50	No	No	Local	0.60	2.10
15	719	RUSHTON DR				44	44	1.50	No	No	Local	0.60	2.10
16	720	SEAVIEW AVE			146	46	192	1.50	No	No	Local	0.60	2.10
17	721	SHAW AVE				6	6	1.50	No	No	Local	0.60	2.10
18	722	SPRINGWOOD ST			26	26	53	1.50	No	No	Local	0.60	2.10
19	1,341	BAY ST			176	12	188	1.50	No	No	Local	0.60	2.10
		TOTAL LINEAR FEET	6	38	1,195	1,264	2,502						





# Sea Level Rise Scenarios Affecting Bridges

City of Cranston

Map Created: 8/11/2016

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Includes Hillshade from USGS 2011 LiDAR

- Freeboard Potentially Affected by SLR
- Freeboard Unlikely to be Affected by SLR
- Bridge Accessible
- Possible Bridge Access Problem
- Current Mean Higher High Water
- 1ft Sea Level Rise
- 3ft Sea Level Rise
- 5ft Sea Level Rise
- 7ft Sea Level Rise
- City and Town Boundaries
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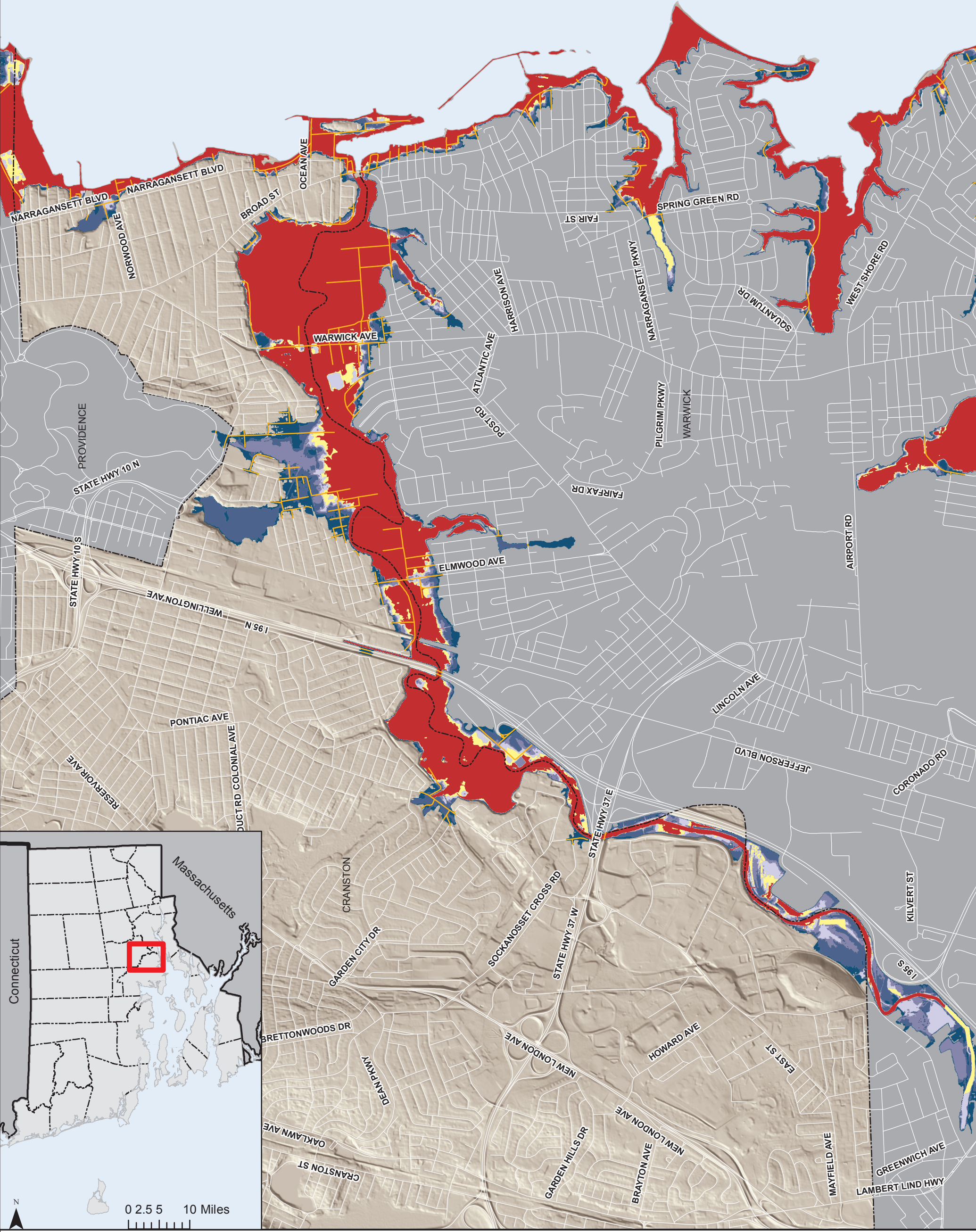
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Bridges Possibly Affected by Sea Level Rise in the City of Cranston

Mun. Rank	State Rank	Bridge Name	Facility Carried	Feature Intersected	Inches of Freeboard Relative to 7FtSLR	Terrain Crossed	Landing Access	Hazard Score	Intermodal Facility	Evacuation Route	AADT	System Score	Vulnerability Score
1	74	Pawtuxet	US 1A BROAD ST	PAWTUXET R	30	MHHW	Access	1.40	Yes	No	8,857	3.10	4.50
2	81	Wellington Ave RR 2	AMTRAK	WELLINGTON AVE	-12	MHHW	Access	3.00	Yes	No	-1	1.00	4.00





# 100 Year Storm Surge Event Plus Sea Level Rise Scenarios Affecting Roads

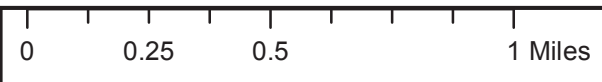
City of Cranston

Map Created: 8/11/2016

**Map Legend**

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- Current Ponds & Mean Higher High Water
- 100-Year Storm Event
- 100-Year Plus 1 ft. of SLR
- 100-Year Plus 2 ft. of SLR
- 100-Year Plus 3 ft. of SLR
- 100-Year Plus 5 ft. of SLR
- 100-Year Plus 7 ft. of SLR
- City and Town Boundaries
- Potentially Affected Roads
- Roads



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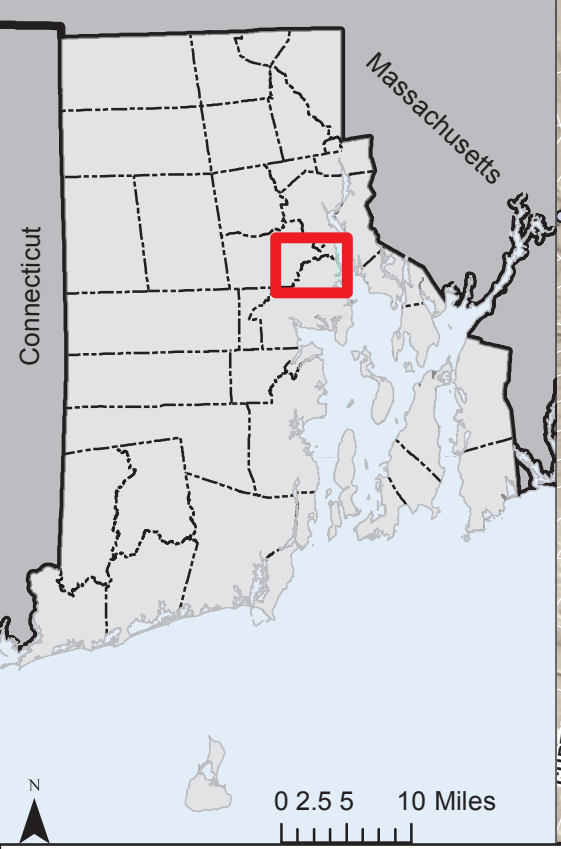
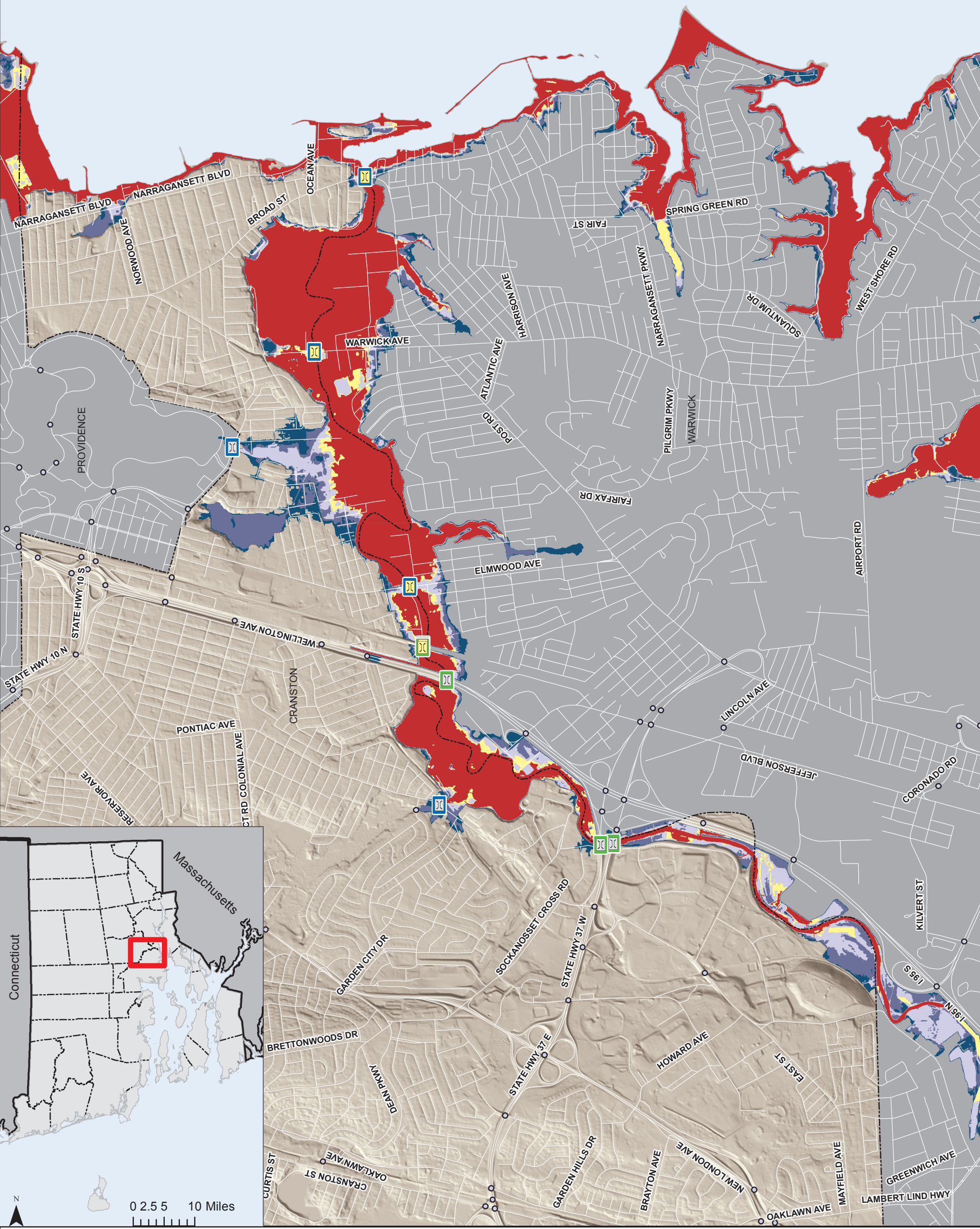


Relative Road Vulnerability to 100-Year Storm Surge Event Plus Sea Level Rise														
Cranston			Linear Feet Inundated During 100 Year Surge Event Plus:											
Muni. Rank	State Rank	NAME	No SLR	1 Foot of SLR	3 Feet of SLR	5 Feet of SLR	7 Feet of SLR	Total Linear Feet	Haz. Score	Evac. Route	Intermodal Facility	Functional Classification	Sys. Score	Vulnerability Score
1	11	WARWICK AVE	520	181	233	92	82	1,108	4.06	Yes	Yes	Principal Art.	4.40	8.46
2	43	DRESDEN ST	215					215	5.00	Yes	Yes	Local	2.60	7.60
3	76	STATE HWY 37 W	56		3	7	3	69	4.33	No	No	Freeways	2.70	7.03
4	99	STATE HWY 37 E	60	3	7	7	7	84	4.01	No	No	Freeways	2.70	6.71
5	100	ELMWOOD AVE	85	3	195	215	159	657	2.48	Yes	Yes	Principal Art.	4.23	6.71
6	101	NARRAGANSETT BLVD	1,401	20	354	171	165	2,110	4.08	No	Yes	Minor Art.	2.62	6.70
7	102	PONTIAC AVE				685	296	981	2.90	Yes	Yes	Minor Art.	3.80	6.70
8	110	WELLINGTON AVE	1,437	67	145	63	64	1,775	4.41	Yes	No	Major Coll.	2.20	6.61
9	124	PERKINS AVE	901	24	13			938	4.91	Yes	No	Local	1.60	6.50
10	169	I 95 S	62	4			246	311	2.20	No	Yes	Interstate	4.00	6.20
11	172	I 95 N	59				245	304	2.17	No	Yes	Interstate	4.00	6.17
12	177	SHELDON ST	548	10	23	26	23	630	4.54	Yes	No	Local	1.60	6.14
13	188	OCEAN AVE	778	20	36	30	33	896	4.58	Yes	No	Minor Coll.	1.42	6.00
14	208	WHEATLAND AVE	569	93	117	116		895	3.93	Yes	Yes	Local	1.93	5.87
15	483	BAY ST	188					188	5.00	No	No	Local	0.60	5.60
16	484	EXIT 14	52					52	5.00	No	No	Local	0.60	5.60
17	485	MOORE AVE	194					194	5.00	No	No	Local	0.60	5.60
18	1,028	BOWER ST	188	1				189	4.98	No	No	Local	0.60	5.58
19	1,101	AVERY RD	330	36	62	49	43	520	3.86	No	Yes	Local	1.60	5.46
20	1,130	DARTMOOR AVE	422	26	14			462	4.81	No	No	Local	0.60	5.41
21	1,145	HARBORSIDE BLVD	336	14	28	31	30	440	4.17	No	No	Major Coll.	1.20	5.37
22	1,194	BROAD ST	50	6	171	74	67	369	2.49	No	Yes	Minor Art.	2.80	5.29
23	1,202	WOODBURY RD	553	207	109	69	88	1,027	4.03	Yes	No	Local	1.25	5.28
24	1,204	BRIDGE ST	322	17	27			365	4.67	No	No	Local	0.60	5.27
25	1,255	COMMERCIAL ST	100	9	22	18	18	167	3.58	No	Yes	Local	1.60	5.18
26	1,290	MILL ST	247	180	138	266	1,498	2,329	3.53	Yes	No	Local	1.60	5.13
27	1,301	ABORN ST	288	20	40			348	4.51	No	No	Local	0.60	5.11
28	1,413	PARK AVE					300	300	1.50	Yes	No	Principal Art.	3.40	4.90
29	1,445	NORWOOD AVE	341	14	24	27	27	432	4.26	No	No	Local	0.60	4.86
30	1,462	DALLAS AVE	933	136	257	122	107	1,555	4.24	No	No	Local	0.60	4.84
31	1,485	STRATHMORE PL	200	7	17	20	16	259	4.20	No	No	Local	0.60	4.80
32	1,490	SEAVIEW AVE	527	171	399	106		1,203	4.19	No	No	Local	0.60	4.79
33	1,541	RUSHTON DR	185	10	16	16	20	247	4.12	No	No	Local	0.60	4.72
34	1,559	PIERCE PL	160	13	16	13	13	215	4.09	No	No	Local	0.60	4.69
35	1,587	SPRINGWOOD ST	214	23	75			311	4.05	No	No	Local	0.60	4.65
36	1,689	ALHAMBRA CIR			417	114	72	603	2.88	Yes	No	Local	1.60	4.48
37	1,758	PARKWAY AVE	73	16	26	26	82	224	2.78	Yes	No	Local	1.60	4.38
38	1,804	ARNOLD AVE	119	8	24	20	17	188	3.71	No	No	Local	0.60	4.31
39	1,841	HARBOUR TER	92	7	17	17	17	151	3.65	No	No	Local	0.60	4.25
40	1,889	WINDSOR RD	102	14	20	20	17	173	3.56	No	No	Local	0.60	4.16
41	1,917	FORT AVE	675	89	203	202	289	1,458	3.52	No	No	Local	0.60	4.12
42	1,937	PARK VIEW BLVD				418	584	1,002	1.50	Yes	Yes	Local	2.60	4.10
43	1,938	WEINGEROFF BLVD				295	149	444	1.50	Yes	Yes	Local	2.60	4.10
44	1,984	SHAW AVE	79	8	20	13	20	141	3.46	No	No	Local	0.60	4.06
45	2,037	DEKALB ST				599	35	633	3.39	No	No	Local	0.60	3.99
46	2,056	GRAND AVE			245	81	37	363	2.34	No	Yes	Local	1.60	3.94
47	2,061	YOULDEN AVE	161	89	291	183		725	3.33	No	No	Local	0.60	3.93
48	2,192	FAIRBANKS ST			246	64		309	3.09	No	No	Local	0.60	3.69
49	2,218	LOCKWOOD ST	61	10	26	23	20	140	3.01	No	No	Local	0.60	3.61
50	2,227	CHISWICK RD	68	12	20	30	27	157	3.00	No	No	Local	0.60	3.60
51	2,261	ARCADIA AVE			291	54	72	417	2.90	No	No	Local	0.60	3.50
52	2,277	MARINE DR	314	45	62	256	196	872	2.86	No	No	Local	0.60	3.46
53	2,425	KNEELAND ST		6	23	13	20	63	1.50	Yes	No	Local	1.60	3.10
54	2,426	MILTON AVE			5	17	13	34	1.50	Yes	No	Local	1.60	3.10
55	2,427	SECOND AVE					284	284	1.50	No	Yes	Local	1.60	3.10
56	2,428	STRATHMORE RD					34	34	1.50	Yes	No	Local	1.60	3.10
57	2,455	THIRD AVE			232	370	378	980	1.82	No	Yes	Local	1.22	3.04
58	2,458	RUBY ST	65	60	78	92	77	373	2.43	No	No	Local	0.60	3.03
59	2,498	OPAL ST	36	73	66	50	50	275	2.29	No	No	Local	0.60	2.89
60	2,521	NARRAGANSETT ST	43	10	23	23	20	119	2.23	No	No	Local	0.60	2.83
61	2,549	LAW AVE				79	238	317	1.50	No	Yes	Local	1.24	2.74
62	2,640	GEORGE ST	25	3	13	10	56	108	1.97	No	No	Local	0.60	2.57
63	2,736	HARRIS DRIFTWAY ST				204	193	396	1.50	No	No	Local	0.60	2.10
64	2,817	ASTLE ST					364	364	1.50	No	No	Local	0.60	2.10
65	2,818	BAY VIEW AVE					13	13	1.50	No	No	Local	0.60	2.10
66	2,819	CARMAN ST					194	194	1.50	No	No	Local	0.60	2.10
67	2,820	COMMUNITY DR					228	228	1.50	No	No	Local	0.60	2.10
68	2,821	DOYLSTON DR			33	31	28	91	1.50	No	No	Local	0.60	2.10
69	2,822	ELDORADO ST				272	522	795	1.50	No	No	Local	0.60	2.10
70	2,823	ENDICOTT ST				492		492	1.50	No	No	Local	0.60	2.10
71	2,824	EVERGREEN ST					631	631	1.50	No	No	Local	0.60	2.10



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72	2,825	FOURTH AVE					146	146	1.50	No	No	Local	0.60	2.10
73	2,826	FREEWAY DR					119	119	1.50	No	No	Local	0.60	2.10
74	2,827	GALLUP AVE				430	8	438	1.50	No	No	Local	0.60	2.10
75	2,828	HEATH AVE					16	16	1.50	No	No	Local	0.60	2.10
76	2,829	HOMESIDE DR					201	201	1.50	No	No	Local	0.60	2.10
77	2,830	INDIAN RD				96	29	125	1.50	No	No	Local	0.60	2.10
78	2,831	KEARNEY ST					41	41	1.50	No	No	Local	0.60	2.10
79	2,832	LYNDON RD					203	203	1.50	No	No	Local	0.60	2.10
80	2,833	MAYFAIR RD				33	82	115	1.50	No	No	Local	0.60	2.10
81	2,834	MEADOW VIEW DR					42	42	1.50	No	No	Local	0.60	2.10
82	2,835	PEARCE AVE					289	289	1.50	No	No	Local	0.60	2.10
83	2,836	PIEDMONT ST					40	40	1.50	No	No	Local	0.60	2.10
84	2,837	ROBERT CIR					60	60	1.50	No	No	Local	0.60	2.10
85	2,838	SHARON ST					150	150	1.50	No	No	Local	0.60	2.10
86	2,839	SUNSET TER					471	471	1.50	No	No	Local	0.60	2.10
87	2,840	WORTHINGTON RD					494	494	1.50	No	No	Local	0.60	2.10
88	3,264	BAYAMO LN				13	26	40	1.50	No	No	Local	0.60	2.10
89	3,265	BELLEFONT ST				67	315	382	1.50	No	No	Local	0.60	2.10
90	3,266	CAPUANO AVE				204	64	268	1.50	No	No	Local	0.60	2.10
91	3,267	FIFTH AVE				14	572	586	1.50	No	No	Local	0.60	2.10
92	3,268	HARVARD ST				140	119	259	1.50	No	No	Local	0.60	2.10
93	3,269	LA GRANGE ST				84	71	154	1.50	No	No	Local	0.60	2.10
94	3,270	LAKESIDE AVE				52	201	253	1.50	No	No	Local	0.60	2.10
95	3,271	RHODES PL				13	18	31	1.50	No	No	Local	0.60	2.10
96	3,272	TUCKER AVE		11	13	7	10	41	1.50	No	No	Local	0.60	2.10
97	3,273	WINTON ST				186	164	350	1.50	No	No	Local	0.60	2.10
Total Linear Feet			14,432	1,775	4,937	7,442	12,316	40,902						





# 100 Year Storm Surge Event Plus Sea Level Rise Scenarios Affecting Bridges

City of Cranston

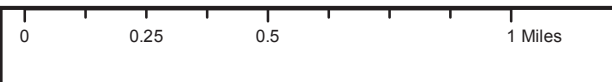
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Mun. Rank	State Rank	Bridge Name	Facility Carried	Feature Intersected	Inches of Freeboard Relative to 7FtSLR	Terrain Crossed	Landing Access	Haz. Score	Intermodal Facility	Evac. Route	AADT	Sys. Score	Vuln. Score
1	1	Warwick Ave	RI 117 WARWICK AV	PAWTUXET R	-80	MHHW	Problem	5.00	Yes	Yes	18,888	5.00	10.00
2	12	Elmwood Av Bridge	US 1 ELMWOOD AV	PAWTUXET R	-78	MHHW	Problem	5.00	Yes	No	16,443	4.00	9.00
3	18	Elm Lake Brook Bridge	RI 12 PARK AV	ELM LAKE BROOK	16	Water	Problem	4.10	No	Yes	16,900	4.00	8.10
4	20	Pontiac Ave	PONTIAC AV	POCASSET R	34	Water	Problem	4.10	Yes	Yes	12,157	3.80	7.90
5	22	Pawtuxet	US 1A BROAD ST	PAWTUXET R	-150	MHHW	Problem	5.00	Yes	No	8,857	2.80	7.80
6	135	Wellington Ave RR 2	AMTRAK	WELLINGTON AVE	-192	MHHW	Access	3.00	Yes	No		1.00	4.00