

Appendix D
Intersection Capacity Analysis:
For 2003 Plan – Years Analyzed 2001 & 2025
For 2006 Plan – Years Analyzed 2004 & 2025

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Table D-1 – Intersection Capacity Analysis for 2003 Plan: Years Analyzed 2001 & 2025

Location	2001		2025 Base			2025 “Best of”			2025 “Best of” & Improvements	
	Capacity Status	V/C Ratio	Capacity Status	V/C Ratio	Growth %	Capacity Status	V/C Ratio	Growth %	Capacity Status	V/C Ratio
<u>Route 1 at</u>										
▪ Bucknam Road, Falmouth	Under	0.69	At	0.98	53%	Over	1.14	73%		
▪ Cash Corner/Broadway, S. Portland	At	1.0	Over	1.10	20%	Over	1.05	14%		
▪ Route 703, S. Portland	At	1.0	Over	1.26	32%	Over	1.23	28%		
▪ Pleasant Hill Road, Scarborough	Over	1.12	Over	1.49	32%	Over	1.45	28%		
▪ Route 114, Scarborough	At	1.0	Over	1.18	30%	Over	1.26	37%		
▪ Payne Road, Scarborough	Over	1.27	Over	1.74	33%	Over	1.72	32%		
▪ Pine Point Road/Route 9, Scarborough	At	1.0	Over	1.25	34%	Over	1.23	32%		
<u>Route 26 at</u>										
▪ Veranda Street, Portland	At	0.95	At	1.0	17%	At	1.0	15%		
▪ Ocean Avenue, Portland	Over	1.08	Over	1.14	11%	Over	1.12	10%		
▪ Allen Avenue, Portland	Over	1.29	Over	1.15*	20%	Over	1.05*	11%		
▪ Exit 10/Falmouth Crossing, Falmouth	At	1.0	Over	1.22	37%	Over	1.36	50%		
<u>Route 302 at</u>										
▪ Bedford Street, Portland	Over	1.26	Over	1.52	18%	Over	1.36	7%	Over	1.36*
<i>Woodford’s Corner, Portland</i>										
▪ Revere Street, Portland	Over	1.05	Over	1.18	13%	Over	1.13	5%	At	1.0*
▪ Woodford Street/Deering Avenue	Over	1.11	Over	1.27	17%	Over	1.2	10%	At	1.0*
▪ Ocean Avenue/Vannah Street	Over	1.20	Over	1.46	18%	Over	1.42	13%	At	1.0*
<i>Morrill’s Corner, Portland</i>										
▪ Stevens Avenue	At	1.0	At	1.0*	18%	At	0.98*	7%		
▪ Forest/Allen Avenue	Over	1.18	Over	1.20*	16%	Over	1.12*	8%		

Table D-1 – Intersection Capacity Analysis for 2003 Plan: Years Analyzed 2001 & 2025 (con’t.)

Location	2001		2025 Base			2025 “Best of”			2025 “Best of” & Improvements	
	Capacity Status	V/C Ratio	Capacity Status	V/C Ratio	Growth %	Capacity Status	V/C Ratio	Growth %	Capacity Status	V/C Ratio
▪ Forest/Warren Avenue	Over	1.09	Over	1.28*	16%	Over	1.21*	9%		
▪ Riverside Street, Portland	At	0.96	Over	1.03	27%	Over	1.07	32%		
▪ Pride Street/Brook Street, Westbrook	At	0.98	Over	1.27	35%	Over	1.22	35%		
<u>Route 25 at</u>										
▪ St. John Street, Portland	Under	0.73	Under	0.79	3%	Under	0.74	-4%		
▪ Stevens Avenue, Portland	Over	1.29	Over	1.51	19%	Over	1.37	9%	At	1.0*
▪ Rand Road, Portland	TBD		TBD							
▪ Riverside Street, Portland	Over	1.14	Over	1.12	-18%	Over	1.03	-21%		
▪ Larrabee Road, Westbrook	At	1.0	Over	1.01	-5%	At	1.0	-12%		
▪ Spring Street, Westbrook	At	1.0	Over	1.21	37%	At	1.0	11		
▪ South Street/Route 114, Gorham	Over	1.19	Over	1.70	39%	Over	1.4	12		
<u>Route 22 at</u>										
▪ I-295/Douglass Street, Portland	At	1.0	At	1.0	6%	At	1.0	-9%		
▪ Stevens Avenue, Portland	Over	1.04	Over	1.33	24%	Over	1.16	5%		
▪ Westbrook Street, Portland	Near	0.92	At	1.0	14%	Near	0.9	-4%		
▪ Turnpike Connector/Hutchins Drive, Portland	Under	0.81	At	1.0	33%	Near	0.89	15%		
▪ Spring Street, Westbrook	Over	1.25	Over	1.21*	22%	Over	1.29*	30%		
▪ Route 114 (east), Scarborough	At	1.0	Over	1.49	72%	Over	1.07	19%		
▪ Route 114 (west), Gorham	At	0.99	Over	1.34	51%	Over	1.29	84%	Over	1.29*

Table D-1 – Intersection Capacity Analysis for 2003 Plan: Years Analyzed 2001 & 2025 (con't.)

Location	2001		2025 Base			2025 “Best of”			2025 “Best of” & Improvements	
	Capacity Status	V/C Ratio	Capacity Status	V/C Ratio	Growth %	Capacity Status	V/C Ratio	Growth %	Capacity Status	V/C Ratio
<u>Route 77 at</u>										
▪ Broadway/Waterman Drive, S. Portland	Over	1.29	Over	1.68	29%	Over	1.68	28%		
▪ Spurwink Road, Cape Elizabeth	Under	0.51	Under	0.64	23%	Under	0.72	25%		
<u>Maine Mall Area</u>										
▪ Turnpike Connector, Jetport Access Road, Portland	Over	1.36	Over	1.32*	42%	Over	1.24*	35%		
▪ Maine Mall Road at Gorham Road/Running Hill Road, S. Portland	At	1.0	Over	1.13*	31%	At	1.0*	12%		
▪ Western Avenue at Gorham Road, S. Portland	At	0.96	At	1.0*	20%	At	1.0*	3%		
▪ Maine Mall Road at Western Avenue, S. Portland	Over	1.14	Over	1.18*	47%	Over	1.02*	35%		
▪ Broadway at Westbrook Street, S. Portland	Over	1.09	Over	1.33	21%	Over	1.26	16%	Over	1.26*
▪ Payne Road at Route 114, Scarborough	At	1.0	Over	1.15	25%	Over	1.15	25%		
▪ Payne Road at Exit 6, Scarborough	Over	1.04	Over	1.30	49%	Over	2.11	74%	At	1.0*
<u>Downtown Portland</u>										
▪ Franklin Arterial at Marginal Way	At	1.0	Over	1.20	25%	Over	1.15	21%	Under	0.75*
▪ Congress Street at High Street	Near	0.93	At	1.0	21%	At	1.0	17%		
▪ Park Avenue at St. John Street	At	1.0	Over	1.08	5%	At	1.0	-5%		
▪ Forest Avenue at Marginal Way	Near	0.90	Over	1.01	27%	Over	1.09	43%		
▪ State Street at Congress Street	At	1.0	At	1.0	14%	At	1.0	13%		

* Assumes project improvements in calculations.

Source: Wilbur Smith Associates; various planning studies; HCM, 2000.

Table D-2 – Intersection Capacity Analysis for 2006 Plan: Years Analyzed 2004 & 2025

Location	2004 Capacity Status	2004 V/C Ratio	2025 Capacity Status	2025 V/C Ratio	Growth % 2004-2025
<u>Freeport</u>					
▪ Route 1 @ Mallet Drive	At	1.00	At	1.00	6.32
▪ Route 125 @ I-295NB Ramps* (I295 Left)	Over	1.86	Over	2.41	9.06
▪ Route 125 @ I-295SB Ramps* (I295 Left)	Over	4.53	Over	7.26	10.60
<u>Cumberland</u>					
▪ Route 26 @ Blackstrap Road# (Blackstrap Road)	Under	0.76	Under (signalized)	0.58	31.72
▪ Route 9 @ Tuttle Road	Under	0.50	Under	0.68	32.62
<u>Saco</u>					
▪ Route 1 @ Route 98	Under	0.69	Under	0.81	11.85
▪ Bradley @ Spring* (Bradley Street)	Over	2.33	Over	9.40	12.32
▪ Route 112 @ Industrial Park	Over	1.76	Over	1.92	9.21
▪ Route 112 @ Main Street	Over	1.38	Over	1.98	16.40
▪ Route 1 @ Ocean Park	Over	1.05	Over	1.13	5.45
<u>Biddeford</u>					
▪ Route 1 @ Route 111	Over	1.20	Over	1.57	23.45
▪ Route 111 @ Pool Street	At	1.00	At	1.00	-6.25
▪ Route 111 @ Exit 4	Over	1.48	Over	1.89	28.19
<u>Old Orchard</u>					
▪ Route 98 @ Route 5* (Saco Avenue)	At	1.0	Over	1.06	2.35
<u>Yarmouth</u>					
▪ Route 1 @ Portland Street	Near	0.91	At	0.99	11.91
▪ Route 1 @ East Main Street	Under	0.77	Near	0.88	13.18
<u>Windham</u>					
▪ Route 302 @ River Road	Under	0.39	Under	0.44	14.28
▪ Route 302 @ Route 35	Near	0.91	At	1.00	12.62
▪ Route 302 @ Whites Bridge Road	Under	0.81	At	0.99	13.91

Status	V/C Range
Under Capacity	v/c <= 0.85
Near Capacity	0.85 < v/c <= 0.95
At Capacity	0.95 < v/c <= 1.0
Over Capacity	v/c > 1.0
# Unsignalized in 2004; Signalized in 2025	
* (xxx)Highest V/C Ratio for approach/movement at unsignalized intersection	

Source: Highway Capacity Manual (TRB, 2000), Wilbur Smith Associates, various planning studies