Problems and Needs

Following monitoring, congestion, mobility, and safety problems are identified as problem locations in need of detailed study and further action for the implementation of the recommended improvements. Most of the problem locations identified from monitoring fall into one of the following categories:

- Bottlenecks on expressways and interchanges
- Congested arterial corridors
- Congested intersections and high-crash intersections
- Park-and-ride lots that fill to capacity
- Overutilization or underutilization of available bicycle racks at MBTA stations
- Problematic, inconvenient, and potentially unsafe access to transit stations by pedestrians and bicyclists
- Transit routes (bus, rail, and boat) that experience delays and “bunching” due to roadway congestion, and passenger overcrowding
- Bottlenecks at points where an HOV lane merges with general-purpose lanes

IDENTIFIED CONGESTION PROBLEMS BY TYPE OF FACILITY

Roadways

Congested roadway locations can be seen on the maps (beginning with Figure 4-1). The congested corridors in the Boston region are listed below by direction of travel. A corridor appears on the congested corridors list if the Congestion Management Process indicated that there is a congestion issue in either the AM or PM peak period. Corridors are determined to be congested if any of the following performance measures is below the set threshold: observed travel speed, level of service, or speed index,. Each of these measures is an indicator of an aspect of congestion, and they often overlap in what they are measuring. The CMP has determined the following arterial corridors

within the Boston Region to be congested: the congested arterial and expressway corridors are listed in Table 5-1 and Table 5-2, below.

TABLE 5-1
Congested Arterial Corridors*

Roadway	Direction	From	To	Type of Roadway	Congestion Indicator
Fresh Pond Pkwy.	NB	Soldiers Field Rd. on-ramp	Rte. 2	A	V/C (both)
Fresh Pond Pkwy.	SB	Rte. 2	Soldiers Field Rd. on-ramp	A	TS (AM), SI (both), V/C (both)
Rte. 107	NB	Rte. 16	Albert J. Brown Circle	A	TS (PM), SI (PM), V/C (PM), LOS (AM)
Rte. 107	SB	Albert J. Brown Circle	Rte. 16	A	TS (PM), SI (both), V/C (PM), LOS (AM)
Rte. 109	EB	I-495	Birch St.	A	V/C (both)
Rte. 109	WB	Birch St.	I-495	A	V/C (both)
Rte. 114	EB	Palmer Ave.	Marblehead TL	A	TS (both), SI (both), V/C (PM), CR, LOS (both)
Rte. 114	WB	Marblehead TL	Palmer Ave.	A	TS (both), SI (both), V/C (PM), CR, LOS (both)
Rte. 119	NB	Pope Rd.	Rte. 2	A	SI (both)
Rte. 119	SB	Rte. 2	Pope Rd.	A	SI (both)
Rte. 127	EB	Essex TL	Rte.128	A	V/C (both)
Rte. 127	WB	Rte. 128	Essex TL	A	V/C (both)
Rte. 129	EB	Rte. 1A	Ocean Ave.	A	TS (both), SI (both), V/C (both), CR, LOS (both)
Rte. 129	WB	Ocean Ave.	Rte. 1A	A	TS (both), SI (both), V/C (both), CR, LOS (both)
Rte. 138	NB	Park Ave.	I-93	A	TS (AM), SI (both), V/C (both)

*Rte. = Route, A = arterial, PLAR = partially limited-access roadway, LAR = limited-access roadway, TS = travel speed, SI = speed index, V/C = volume/capacity ratio, LOS = level of service, CR = crash rate, TL = town line

(cont.)

TABLE 5-1 (Cont.)
Congested Arterial Corridors

Roadway	Direction	From	To	Type of Roadway	Congestion Indicator
Rte. 138	SB	I-93	Park Ave.	A	TS (PM), SI (both), V/C (both)
Rte. 140	NB	Maple St.	Foxborough TL	A	TS (both), SI (both), V/C (both)
Rte. 140	SB	Foxborough TL	Maple St.	A	TS (PM), SI (both), V/C (both)
Rte. 145	EB	Boston TL	Revere TL	A	V/C (AM)
Rte. 145	WB	Revere TL	Boston TL	A	V/C (AM)
Rte. 16	EB	Concord St.	Capital St.	A	TS (both), SI (both), V/C (both)
Rte. 16	WB	Capital St.	Concord St.	A	TS (both), SI (both), V/C (both)
Rte. 1A	NB	Bell Circle	Oak Island Rd.	A	TS (PM), SI (PM), V/C (both), CR, LOS (both)
Rte. 1A	SB	Oak Island Rd.	Bell Circle	A	TS (both), SI (both), V/C (both), CR, LOS (both)
Rte. 1A	SB	Rotary	First Bell Circle signal	A	TS (PM), SI (both)
Rte. 1A	NB	Kingman St.	Market St.	A	SI (AM), LOS (AM)
Rte. 1A	SB	Lynnway stop sign	Kingman St.	A	SI (both)
Rte. 1A	NB	General Edwards Bridge	Hanson St.	A	SI (PM)
Rte. 203	EB	Harvard St.	I-93	A	TS (both), SI (both)
Rte. 203	WB	I-93	Harvard St.	A	TS (both), SI (both)
Rte. 203/ Jamaicaway	EB	Willow Pond Rd.	Forest Hills Rotary	A	SI (PM), LOS (AM)
Rte. 203/ Jamaicaway	WB	Forest Hills Rotary	Willow Pond Rd.	A	TS (AM), SI (both), LOS (AM)

(cont.)

TABLE 5-1 (Cont.)
Congested Arterial Corridors

Roadway	Direction	From	To	Type of Roadway	Congestion Indicator
Rte. 27	NB	Depot St.	Canton St.	A	V/C (PM)
Rte. 27	SB	Canton St.	Depot St.	A	V/C (PM)
Rte. 28	NB	Highland Ave.	Assembly Sq. Mall	A	SI (both)
Rte. 28	SB	Assembly Sq. Mall	Highland Ave.	A	SI (both)
Rte. 28	SB	Riverside Ave.	Presidents Landing	A	SI (both)
Rte. 28	NB	Third St.	Twin City Mall	A	None
Rte. 28	SB	Twin City Mall	Third St.	A	SI (both)
Rte. 28	NB	Presidents Dr.	Riverside Ave.	A	TS (AM), SI (both)
Rte. 30	EB	I-90	Rte. 9	A	SI (both), V/C (PM)
Rte. 37	NB	Rte. 139	I-93	A	TS (PM), SI (both), V/C (both)
Rte. 37	SB	I-93	Rte. 139	A	TS (both), SI (both), V/C (both)
Rte. 3A	NB	Hingham TL	I-93 Interchange	A	TS (both), SI (both), LOS (PM), V/C (AM)
Rte. 3A	SB	I-93 Interchange	Hingham TL	A	TS (both), SI (both), LOS (PM), V/C (AM)
Rte. 4	NB	Rte. 2	Billerica TL	A	TS (PM), SI (both), V/C (both), CR
Rte. 4	SB	Billerica TL	Rte. 2	A	TS (both), SI (both), V/C (both), CR
Rte. 60	EB	Newton St.	Trapelo Rd.	A	TS (both), SI (both)
Rte. 60	WB	Trapelo Rd.	Newton St.	A	SI (both)
Rte. 62	EB	Bedford-Concord TL	Burlington TL	A	TS (both), SI (both), V/C (both), LOS (AM)

(cont.)

TABLE 5-1 (Cont.)
Congested Arterial Corridors

Roadway	Direction	From	To	Type of Roadway	Congestion Indicator
Rte. 62	WB	Burlington TL	Bedford-Concord TL	A	TS (PM), SI (both), V/C (both), LOS (AM)
Rte. 99	NB	Dexter St.	Shute St.	A	TS (PM), SI (PM), V/C (both)
Rte. 99	SB	Shute St.	Dexter St.	A	TS (both), SI (both), V/C (both)
Mystic Valley Pkwy.	EB	Auburn St.	Main St.	A	TS (AM), SI (both), V/C (both)
Mystic Valley Pkwy.	WB	Main St.	Auburn St.	A	TS (both), SI (both), V/C (both)
Storrow Drive	EB	Memorial Dr.	Leverett Circle	A	TS (AM) , SI (both), V/C (both)
Storrow Drive	WB	Leverett Circle	Memorial Dr.	A	V/C (both)
Rte. 3/Rte. 3A	NB	Country Club Rd.	Billerica TL	A	SI (both), V/C (both)
Rte. 3/Rte. 3A	SB	Billerica TL	Country Club Rd.	A	SI (both), V/C (both)

TABLE 5-2
Congested Corridors: Limited-Access Roadways and Expressways

Roadway	Direction	From	To	Type of Roadway	Congestion Indicator
I-90	EB	Oak St. overpass	Centre St.	LAR	TS (both), SI (both), V/C (both)
I-90	EB	Cambridge St. overpass	Toll plaza	LAR	TS (both)
I-90	WB	Centre St.	Weston TL	LAR	TS (both), SI (PM), V/C (AM)
I-90	WB	Toll plaza	Exit 17 (Newton/Watertown)	LAR	TS (both), SI (both)
I-93	NB	Granite Ave.	Government Center	LAR	TS (both), SI (both), V/C (both)
I-93	SB	Government Center	Granite Ave.	LAR	TS (both, SI (PM), V/C (both)
I-93	NB	Leverett Circle	I-95	LAR	TS (PM), SI (PM), V/C (both)
I-93	SB	I-95	Leverett Circle	LAR	TS (AM), SI (AM), V/C (both)
I-93	NB	Massachusetts Ave.	Braintree Split	LAR	TS (both), SI (both), V/C (both)
I-93	SB	Braintree Split	Massachusetts Ave.	LAR	TS (both), SI (PM), V/C (both)
I-93/Rte. 128	NB	I-95	Braintree Split	LAR	TS (both), SI (both), V/C (both)
I-93/Rte. 128	SB	Braintree Split	I-95	LAR	TS (both), SI (both), V/C (both)
I-95	NB	Winter St.	Rte. 3	LAR	TS (PM), SI (PM), V/C (both)
I-95	SB	Rte. 3	Winter St.	LAR	TS (AM), V/C (both)
Rte.128	NB	Braintree Split	Dedham St. overpass	LAR	TS (AM), SI (AM), V/C (both)

(cont.)

TABLE 5-2 (Cont.)
Congested Corridors: Limited-Access Roadways and Expressways

Roadway	Direction	From	To	Type of Roadway	Congestion Indicator
Rte.128	SB	Dedham St. overpass	Braintree Split	LAR	V/C (both)
I-95	NB	I-93	Rte. 30	LAR	TS (AM), V/C (both)
I-95	SB	Rte. 30	I-93	LAR	TS (both), SI (PM), V/C (both)
Rte. 1A/Rte. 60	NB	Logan on-ramp	U-turn	PLAR	TS (PM), SI (PM)
Rte. 1A/Rte. 60	SB	U-turn	Logan on-ramp	PLAR	SI (AM)
Rte. 2	NB	Newtown Rd.	I-95/Rte. 128	PLAR	TS (AM), SI (both), V/C (both)
Rte. 2	SB	I-95/Rte. 128	Newtown Rd.	PLAR	TS (PM), SI (both), V/C (both)
Rte. 2	EB	Lake St.	Alewife signal	LAR	SI (both)
Rte. 2	WB	Alewife signal	Lake St.	LAR	SI (both)
Rte. 24	NB	Avon TL	Rte. 139	LAR	TS (both), SI (AM)
Rte. 24	SB	Rte. 139	Avon TL	LAR	None
Rte. 24	NB	Mazzeo Dr.	I-93	LAR	TS (both), SI (AM), V/C (both)
Rte. 24	SB	I-93	Mazzeo Dr.	LAR	TS (PM), SI (PM), V/C (both)
Rte. 3	SB	Braintree Split	Exit 14	LAR	TS (AM), SI (AM), V/C (both)
Rte. 3	NB	Exit 14	Braintree Split	LAR	TS (AM), SI (AM), V/C (both)
Rte. 9	EB	Southborough	Brookline Ave.	PLAR	TS (PM), SI (both),V/C (both), CR, LOS (both)

(cont.)

TABLE 5-2 (Cont.)
Congested Corridors: Limited-Access Roadways and Expressways

Roadway	Direction	From	To	Type of Roadway	Congestion Indicator
Rte. 9	WB	Brookline Ave.	Southborough	PLAR	TS (both), SI (both), V/C (both), CR, LOS (both)
Rte. 1	NB	City Square	Chelsea off-ramp	PLAR	SI (PM)
Rte. 1	SB	Chelsea off-ramp	City Square	PLAR	TS (AM), SI (AM)
Rte. 1	NB	I-93	Route 99 on-ramp	PLAR	SI (PM), V/C (AM)
Rte. 1	SB	Lowell St.	I-93	PLAR	SI (AM), V/C (AM)
Rte. 1/VFW	NB	I-95	Centre St.	PLAR	TS (both), SI (both)
Rte. 1/VFW	SB	Centre St.	I-95	PLAR	TS (both), SI (both)

Congested Interchanges

Listed in Tables 5-3 and 5-4, below, are the most congested interchanges in the Boston Region. The approach speed and speed index were analyzed to determine which intersections were congested. The interchanges are displayed by time of day and direction. The interchange information was collected and analyzed in 2008.

TABLE 5-3
The Ten Most Congested Interchanges in the AM Peak Period

Freeway	Freeway Section	Direction	Interchange	Speed Index	Approach Speed
Route 3 South	Route 14, Duxbury, to I-93, Braintree	NB	Int. 16, Route 18	0.2	12
Route 3 North	New Hampshire state line to I-95/Route 128, Burlington	SB	Int. 30N, Lowell Connector	0.22	12
I-93 North	Int. 31, Route 16/Mystic Valley Parkway	SB	Int. 31, Route 16/Mystic Valley Parkway	0.27	15
I-93 North	I-95/Route 128, Woburn/Reading, to Route 28, Somerville	SB	Int. 30, Route 38/Mystic Avenue	0.27	15
I-93/SE Expressway	Route 3, Braintree, to Southampton Street, Boston	NB	Int. 12, Route 3A/Neponset	0.27	15
I-93/SE Expressway	Route 3, Braintree, to Southampton Street, Boston	NB	Int. 13, Freeport Street	0.27	15
Route 1 North	I-95, Peabody, to I-93, Charlestown	SB	Route 99	0.34	17
I-90	I-495, Hopkinton, to Logan Airport, Boston	WB	Int. 18, 19, & 20, Allston-Brighton	0.35	19
I-93/SE Expressway	Route 3, Braintree, to Southampton Street, Boston	NB	Int. 14, Morrissey Boulevard	0.36	20
Route 24	Route 140, Taunton, to I-93 (Route 128), Randolph	NB	Int. 19, Harrison Boulevard	0.4	26

TABLE 5-4
The Ten Most Congested Interchanges in the PM Peak Period

Freeway	Freeway Section	Direction	Interchange	Speed Index	Approach Speed
I-90	I-495, Hopkinton, to Logan Airport, Boston	WB	Int. 18, 19, & 20, Allston-Brighton	0.18	10
Route 3 North	New Hampshire state line to I-95/Route 128, Burlington	NB	Int. 30N, Lowell Connector	0.22	12
I-93 North	Int. 31, Route 16/Mystic Valley Parkway	NB	Int. 31, Route 16/Mystic Valley Parkway	0.27	15
I-93 North	I-95/Route 128, Woburn/Reading, to Route 28, Somerville	NB	Int. 30, Route 38/Mystic Avenue	0.27	15
Route 1 North	I-95, Peabody, to I-93, Charlestown	NB	Route 99	0.34	17
I-90	I-495, Hopkinton, to Logan Airport, Boston	EB	Int. 18, 19, & 20, Allston-Brighton	0.35	19
Route 1A/Route 60		SB	Porter Street off-ramp	0.38	15
I-95/Route 128	University Avenue, Canton, to Route 9, Wellesley	SB	Int. 13, University Avenue	0.4	22
I-90	I-495, Hopkinton, to Logan Airport, Boston	WB	Int. 17, Newton Corner	0.4	22
I-93/SE Expressway	Route 3, Braintree, to Southampton Street, Boston	SB	Int. 16, Southampton Street	0.44	20

Congested Locations on the Network of HOV Lanes

The location of the worst congestion on Boston's HOV network is the northbound HOV lane (in the evening) on the Southeast Expressway. Travel times have been increasing for both the HOV and general-purpose lanes over the past nine years, since 2002, except at the very beginning and end of each peak period. Congestion in this network reaches its peak at about 8:00 AM. Despite the congestion, the travel time saved by using the HOV lanes is about 8 minutes, which does meet the state's Department of Environmental Protection (DEP) standards for travel time savings. The DEP standards are that the travel time for each mile of HOV travel should be at least one minute less than for one mile of travel in the general-purpose lanes. Another issue is that while the Southeast Expressway's southbound HOV lane did not show significant congestion, it also did not meet the DEP standards.

Public Transit

The following table (Table 5-5) shows data for the 10 bus routes with the lowest percentage of weekday trips meeting the on-time performance threshold: Routes 171, 459, 553, 455,[1] 558, 435, 556, 450, 434, and 429. Any bus route that has fewer than 60% of its trips performing on time does not pass the congestion threshold for on-time performance.

Table 5-6, below, shows the commuter rail lines that failed to meet on-time performance standards. During the first three months of 2011, none of the MBTA commuter rail lines met the on-time performance threshold of 95% of trips operated on time.

Table 5-7, below, shows the congested corridors for the rapid transit lines. Both the Red Line and the Orange Line failed to meet the on-time performance standard. The B Branch of the Green Line and the Mattapan High-Speed Line also failed to meet the standard.

[1] MBTA bus route 455 has experienced a reduction of service since the writing of this document.

TABLE 5-5
Top Ten Bus Routes with the Lowest On-Time Performance[2]

Bus Route Name	Bus Route Number	Weekday On-Time Performance*
Dudley Station–Logan Airport Station	171	22%
Salem Depot–Downtown Crossing	459	37%
Roberts–Downtown Boston	553	41%
Salem Depot–Wonderland	455	42%
Riverside–Downtown Boston	558	43%
Liberty Tree Mall–Central Square (Lynn)	435	44%
Waltham Highlands–Downtown Boston	556	46%
Salem Depot–Haymarket/Wonderland Station	450	46%
Peabody–Haymarket	434	46%
Northgate Shopping Center–Central Square (Lynn)	429	46%

Percent of buses running on time (less than 5 minutes late).

TABLE 5-6
Commuter Rail Lines That Failed to Meet On-Time Performance Standards, December 2011, February 2012 and March 2012[3]

Rail Line	Average On-Time Performance
Rockport	85%
Fitchburg	88%
Providence	90%
Newburyport	91%
Stoughton	94%
Haverhill	94%

[2] Any bus route that has fewer than 60% of its trips performing on time does not pass the congestion threshold for on-time performance.

[3] Any commuter rail line that has fewer than 95% of its trips performing on time does not pass the congestion threshold for on-time performance.

TABLE 5-7
Rapid Transit Lines That Failed to Meet On-Time Performance Standards, December 2011, February 2012, and March 2012[4]

Rail Line	Average On-Time Performance
Orange Line	94.30%
Red Line	94.60%

The MBTA bus routes that fail to meet the Load Standard Adherence during at least one of the three monitoring periods (weekday, Saturday and Sunday) are: bus routes 1, 7, 8, 9, 10, 11, 14, 15, 16, 17, 19, 21, 22, 23, 28, 29, 30, 31, 32, 34, 35, 36, 39, 40, 41, 44, 45, 47, 51, 59, 62, 64, 65, 66, 67, 69, 70, 71, 73, 75, 76, 77, 80, 83, 86, 87, 88, 89, 90, 93, 96, 101, 104, 106, 108, 109, 110, 111, 112, 116, 117, 120, 136, 137, 191, 192, 216, 222, 225, 230, 238, 240, 350, 411, 429, 430, 441, 442, 450, 455, 459, 553, 701, 741, 742, 749, and 751.

According to data used for the preparation of the MBTA's Preliminary 2010 Service Plan, the following rapid transit lines failed to meet passenger load standards: the Blue Line (evening and late evening), the Red Line Braintree branch (midday base), the Red Line trunk service (midday, outside the core area), the Green Line B Branch outside the core area (midday base, evening, and late evening), the Green Line C Branch (outside the core area, evening), and the Green Line D Branch outside the core area (midday base, evening, and late evening). The rapid transit lines that failed to meet the passenger load standards are displayed in Table 5-8.

TABLE 5-8
Rapid Transit Lines That Failed to Meet Passenger Load Standards

Rapid Transit Line	Area	Time of Day
Blue Line	Core	Evening, late evening
Red Line (Braintree)	Non-core	Midday base
Red Line (Trunk)	Non-core	Midday base
Green (B)	Non-core	Midday base, evening, late evening
Green (C)	Non-core	Evening
Green (D)	Non-core	Midday base, evening, late evening

The only commuter rail line with any observed violation of passenger load standards is the Lowell Line during the PM peak period.

[4] Any rapid transit line that has fewer than 95% of its trips performing on time does not pass the congestion threshold for on-time performance.

Park-and-Ride Lots

The park-and-ride lots in Table 5-9 had utilization rates of 90% or more on a typical weekday in 2009–10 and are therefore likely in need of increased capacity.

TABLE 5-9
Park-and-Ride Lots That Failed to Meet Parking Utilization Standards

Station	Line	Lot Ownership	Parking Spaces	Occupied Parking Spaces[5]	% Parking Space Utilization
Ayer	Fitchburg	Town	82	80	98%
Lincoln	Fitchburg	Town	44	43	98%
Littleton	Fitchburg	Town	66	65	98%
South Acton	Fitchburg	Town	385	362	94%
Waltham	Fitchburg	Town	94	88	94%
Greenwood	Haverhill	Private	6	6	100%
North Wilmington	Haverhill	Town	50	49	98%
Reading	Haverhill	On-street	37	37	100%
Wedgemere	Lowell	MBTA	124	124	100%
Wedgemere	Lowell	On-street	31	31	100%
West Medford	Lowell	MBTA	20	19	95%
West Medford	Lowell	Town	45	44	98%
Winchester	Lowell	Town	151	138	91%
Beverly Depot	Newburyport/Rockport	On-street	56	55	98%
Ipswich	Newburyport/Rockport	On-street	22	22	100%
Ipswich	Newburyport/Rockport	Town	128	126	98%
Manchester	Newburyport/Rockport	MBTA	68	66	97%
Salem	Newburyport/Rockport	Town	121	120	99%
Swampscott	Newburyport/Rockport	MBTA	126	119	94%
Swampscott	Newburyport/Rockport	On-street	16	16	100%
Auburndale	Framingham/Worcester	MassDOT	60	55	92%
Wellesley Hills	Framingham/Worcester	On-street	18	17	94%
Wellesley Hills	Framingham/Worcester	Town	51	48	94%
Worcester	Framingham/Worcester	MBTA	115	103	90%
Endicott	Franklin	Town	45	45	100%
Franklin	Franklin	MBTA	118	116	98%
Norwood Central	Franklin	MBTA	68	68	100%
Walpole	Franklin	Private	328	315	96%

(cont.)

[5] Occupied parking spaces at time of last AM-peak-period inbound train.

TABLE 5-9 (Cont.)
Park-and-Ride Lots That Failed to
Meet the Parking Utilization Standards

Station	Line	Lot Ownership	Parking Spaces	Occupied Parking Spaces[6]	% Parking Space Utilization
Needham Center	Needham	Town	124	118	95%
Needham Junction	Needham	MBTA	171	166	97%
Sharon	Providence/Stoughton	MBTA	37	37	100%
Sharon	Providence/Stoughton	Town	709	635	90%
Wood Island	Blue Line	Private	82	77	94%
Forest Hills	Orange Line	MBTA	202	199	100%
Malden	Orange Line	MBTA	198	192	98%
Oak Grove	Orange Line	MBTA	760	693	100%
Braintree	Red Line	MBTA	981	905	100%
Butler	Red Line	MBTA	44	42	100%
Savin Hill	Red Line	MBTA	20	18	95%
Woburn Bus Yard	MBTA Express Bus	MBTA	75	70	98%
Hingham	Commuter Boat	Private	293	287	91%

Bicycle and Pedestrian Facilities

According to the needs assessment that was conducted for the Boston Region MPO's current Long-Range Transportation Plan, *Paths to a Sustainable Region*, less than 2% of the region's non-interstate roadways provide bicycle accommodations, and half of the region's non-interstate roadways do not have a sidewalk on at least one side.[7] There are a few transit stations that are scattered throughout the MBTA system that have insufficient bicycle capacity and stations that surpassed the bicycle utilization standards, as can be seen in Tables 5-10, 5-11, and 5-12.

[6] Occupied parking spaces = at time of last AM-peak-period inbound train.

[7] Boston Region MPO's Long-Range Transportation Plan, *Paths to a Sustainable Region, Vol. 2,* "Regionwide Needs Assessment."

TABLE 5-10
Rapid Transit Stations That Surpassed the Bicycle Utilization Thresholds

Station	Line	Utilization %
Porter	Red Line	108%
Harvard	Red Line	119%
Haymarket	Orange Line, Green Line	100%
Newton Center	Green Line D Branch	94%

TABLE 5-11
Bus Stations That Surpassed the Bicycle Utilization Thresholds

Station	Route Number	Utilization %
Watertown Square	59, 70, 70A, 71	92%

TABLE 5-12
Commuter Rail Stations That Surpassed the Bicycle Utilization Thresholds

Station	Line	Utilization %
Ipswich	Newburyport/Rockport	100%
Lowell	Lowell	92%
Waltham	Fitchburg Line	88%
Walpole	Franklin Line	100%
Providence	Providence/Stoughton Line	100%