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## **APPENDIX B      Existing Data**

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### **B.1 TRAFFIC VOLUME DATA**

Traffic volume counts have been collected at many locations along the Route 28 Corridor during the past few years. The counts were collected by various consultants for numerous planning and development studies. Some of these studies and reports were the IKEA EIR, Telecom City EIR, North Point EIR, etc. Traffic counts from the studies were compiled and balanced to provide a 2002 base year for both the AM and PM peak hours. The peak hour volumes are shown in Figures B.1 and B.2.

Along with the peak hour traffic volumes, average weekday daily traffic (AWDT) volumes were summarized for major roadways in the region. The sources for the AWDT volumes were the above mentioned studies. The volumes presented in Figure B.3 are two-way volumes, except for the Tobin Bridge and Sumner/Callahan Tunnels.

Traffic volumes for 2030 are shown in Figures B.4 and B.5. The infrastructure represented in the 2030 regional traffic model is essentially the same in the study area as it is in the 2000/2001 base case. Regionally significant projects recommended in the 2007 Regional Transportation Plan and represented in the 2030 base case regional traffic model include:

- Blue Line-Red Line Connector
- Rutherford Avenue
- Green Line to Medford Hillside
- Urban Ring Phase 1 and 2
- Telecom City Boulevard
- Assembly Square Orange Line Station
- I-93/Mystic Avenue Interchange

### **B.2 VEHICLE CRASH DATA**

Accident statistics for the Route 28 Corridor have been compiled from the Massachusetts Registry of Motor Vehicles crash database. Listed in Table B.1 were the top accident locations for the data that covered a five-year period from 1995 to 1999. Table B.2 summarizes the crash data by year, collision type, severity, day of week, and pavement conditions for Somerville and Cambridge. The nine intersections in Somerville and Cambridge which had 25 or more crashes over the five-year period are summarized. In both cities, there were 1,667 crashes that occurred along Route 28 from the Mystic River through Land Boulevard in Cambridge during the five-year period, averaging approximately 330 crashes per year. The following five locations are on MassHighway's Top 1000 Crash List:

**Table B.1 Top 1000 Crash Locations in Study Area (1995-1999)**

<u>Location</u>	<u>Rank</u>	<u>City</u>
Route 28/Mystic Avenue/I-93	4	Somerville
Route 28/Washington Street	30	Somerville
Route 28/Broadway	107	Somerville
Route 28/Pearl Street	212	Somerville
Route 28/Land Boulevard	196	Cambridge

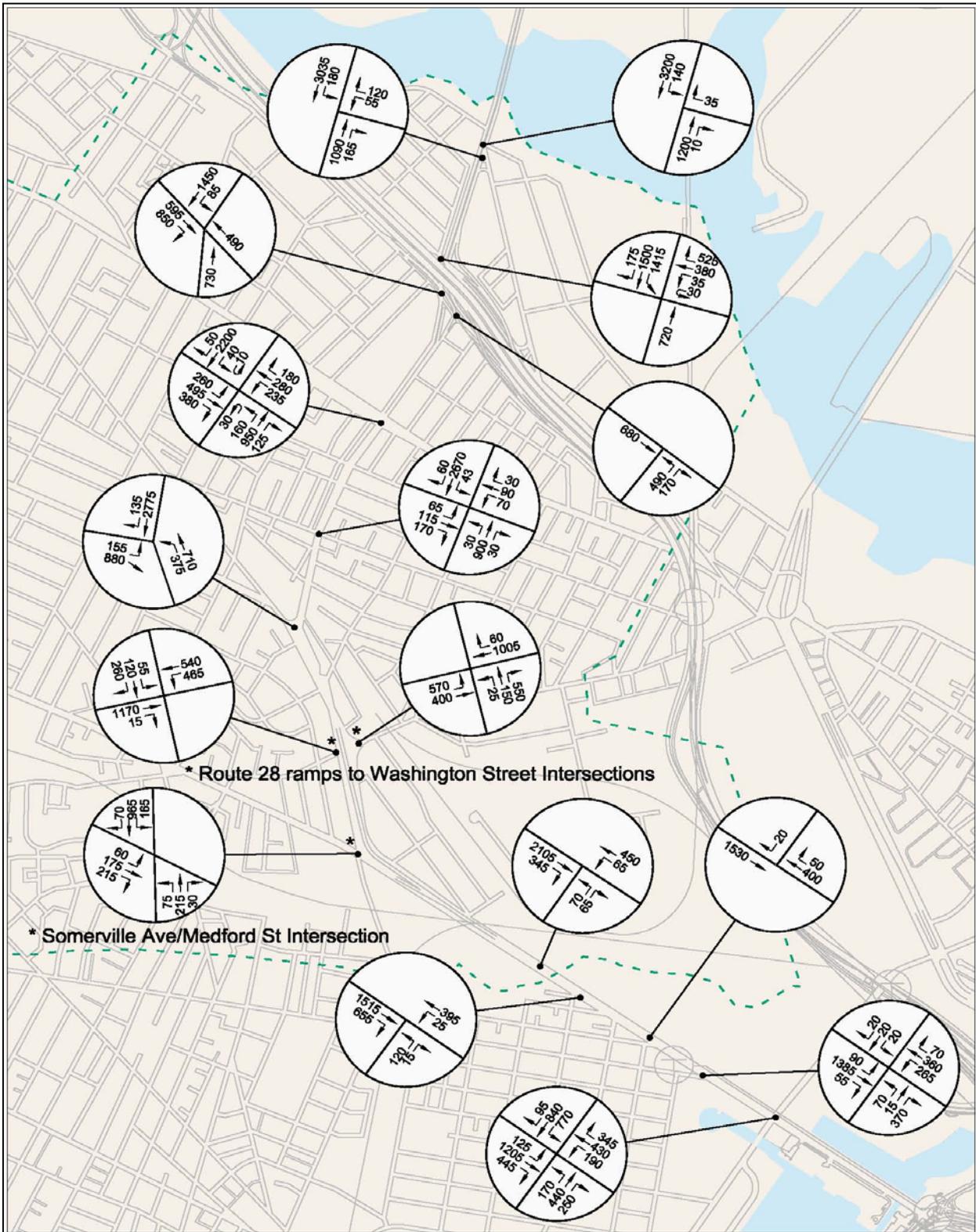
Figure B.6 shows locations where there were 25 or more crashes; nine of these locations are located along Route 28.

The map shown in Figure B.7 provides the locations where bicycle and pedestrian crashes occurred along the Route 28 corridor. As seen in the map, many of the crashes are occurring in the vicinity of busy intersections. Many of the crashes are located at the Route 28/Mystic Avenue/I-93 Interchange area due to the lack of pedestrian and bicycle accommodations across Mystic Avenue under I-93.

A review of the most recent crash data available (2002-2005) indicates that only three locations are highly ranked crash locations and are shown in Table B.3.

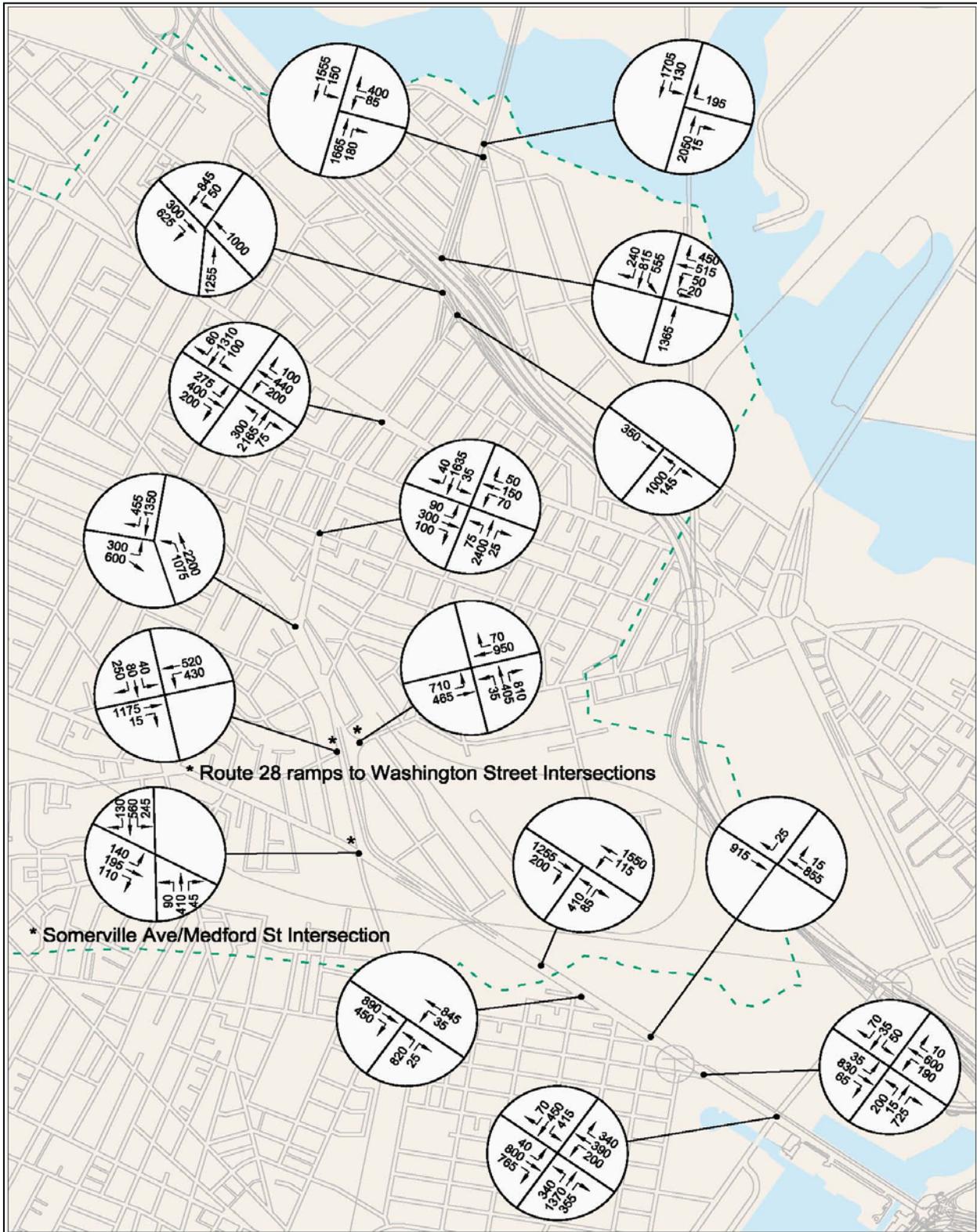
**Table B.3 Crash Locations in Study Area (2002-2005)**

<u>Location</u>	<u>Rank</u>	<u>Total Crashes</u>	<u>City</u>
Route 28/Mystic Avenue/I-93	1	373	Somerville
Route 28/Washington Street	37	156	Somerville
Route 28/Broadway	131	73	Somerville



**FIGURE B.1**  
**2002 AM**  
**Peak Hour Volumes**

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**FIGURE B.2**  
**2002 PM**  
**Peak Hour Volumes**

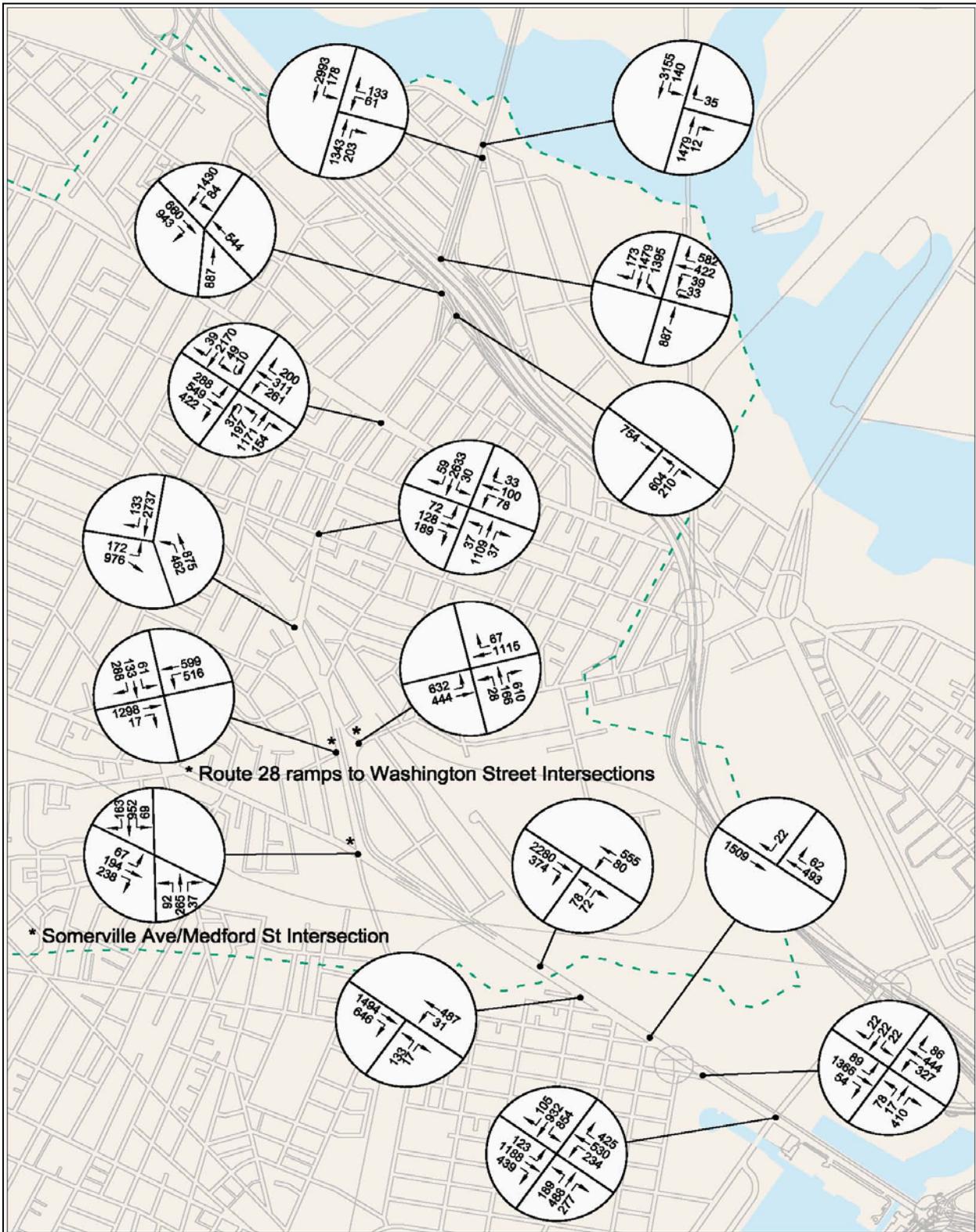


Source: Traffic impact studies: IKEA, Telecom City, North Point, Internet Center, and others

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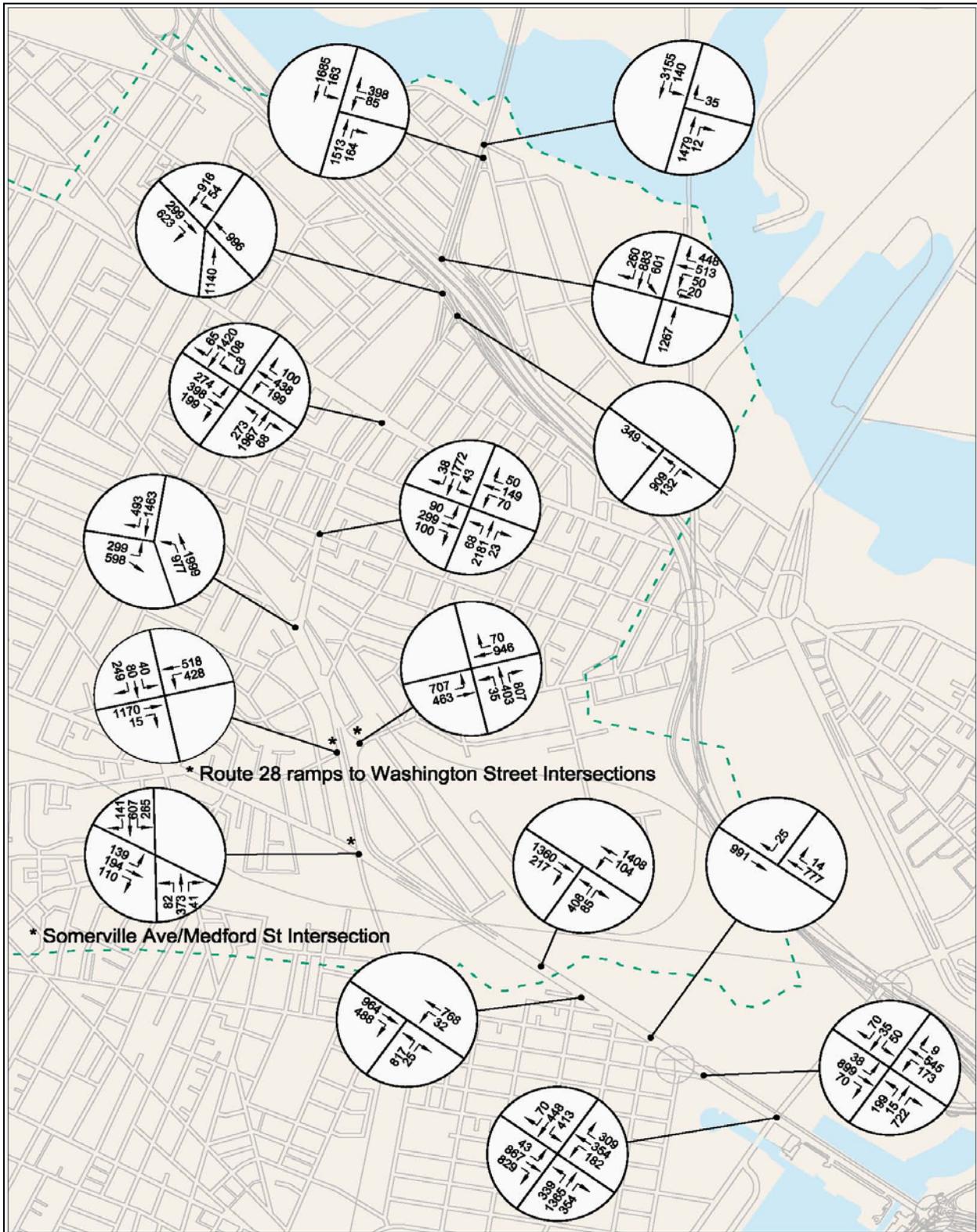
**FIGURE B.3**  
**Average Weekday Daily Traffic**

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**FIGURE B.4**  
**2030 AM Peak Hour Volumes**  
**Regional Traffic Model**

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\* Route 28 ramps to Washington Street Intersections

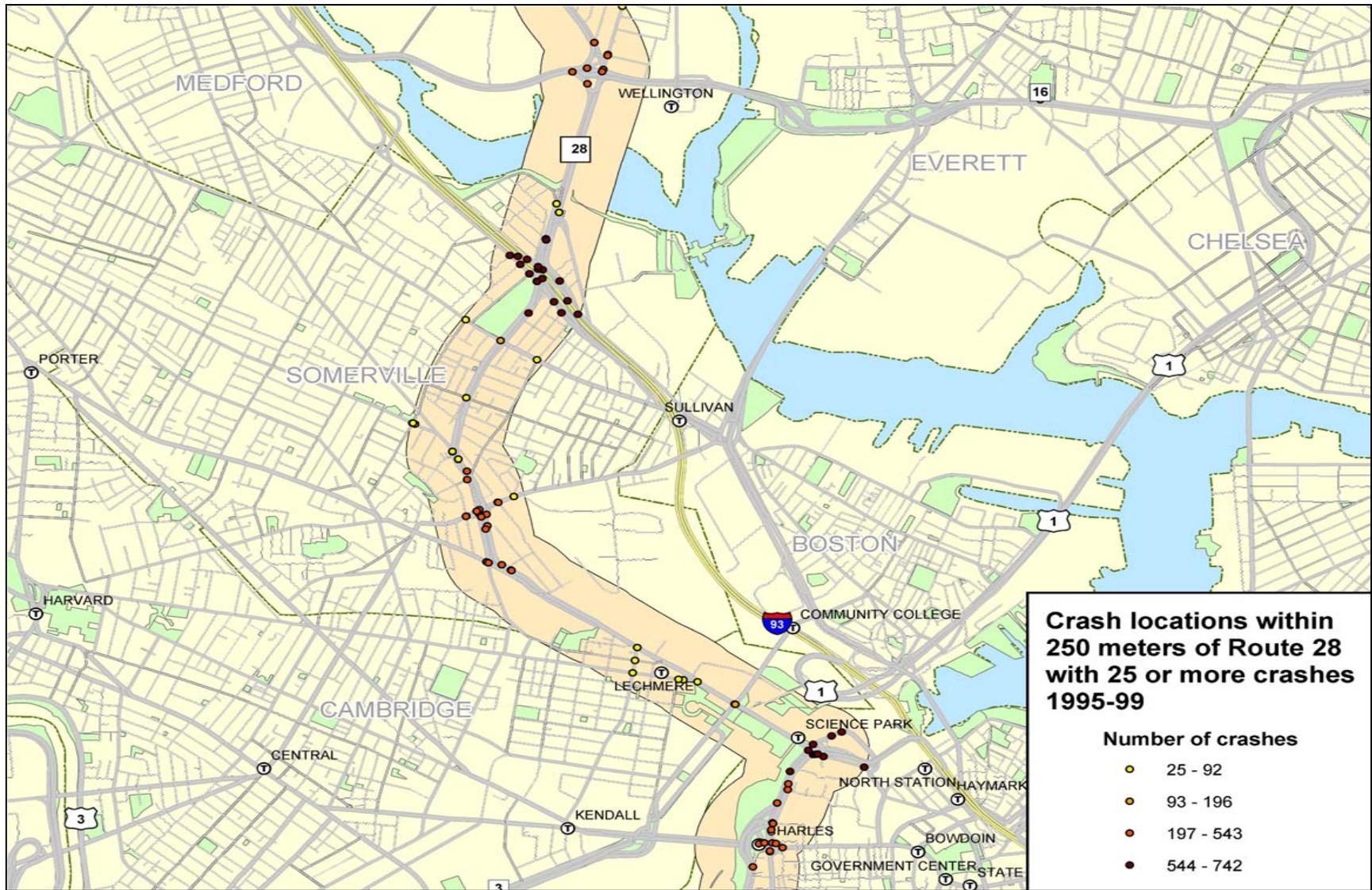
\* Somerville Ave/Medford St Intersection

**FIGURE B.5**  
**2030 PM Peak Hour Volumes**  
**Regional Traffic Model**

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**Table B.2 Route 28 Crash Summary (1995-1999)**

	Route 28 Intersection								
	Somerville						Cambridge		
<u>Location:</u>	Mystic Avenue	Washington Street	Broadway	Pearl Street	Highland Avenue	Medford Street	Land Boulevard	Third Street	Cambridge Street
<b>Year</b>									
1995	125	67	49	15	14	5	11	9	8
1996	137	68	41	15	11	6	12	14	5
1997	118	86	21	20	10	8	18	10	6
1998	140	67	44	19	14	7	29	6	4
1999	157	82	41	15	1	5	31	13	6
<b>Total</b>	<b>677</b>	<b>370</b>	<b>196</b>	<b>84</b>	<b>50</b>	<b>31</b>	<b>101</b>	<b>52</b>	<b>29</b>
<b>Collision Type</b>									
Angle	307	194	59	28	17	10	38	20	12
Head-on	7	8	4			1	2	1	
Rear-end	207	88	94	40	23	12	41	22	12
Unknown	156	80	39	16	10	8	20	9	5
<b>Total</b>	<b>677</b>	<b>370</b>	<b>196</b>	<b>84</b>	<b>50</b>	<b>31</b>	<b>101</b>	<b>52</b>	<b>29</b>
<b>Severity</b>									
Property Damage	370	223	108	44	35	23	62	25	18
Personal Injury	288	130	83	39	13	8	32	24	8
Fatality	2								
Other	17	17	5	1	2		7	3	3
<b>Total</b>	<b>677</b>	<b>370</b>	<b>196</b>	<b>84</b>	<b>50</b>	<b>31</b>	<b>101</b>	<b>52</b>	<b>29</b>
<b>Day of Week</b>									
Monday-Friday	497	75	152	59	41	27	76	41	22
Saturday-Sunday	180	295	44	25	9	4	25	11	7
<b>Total</b>	<b>677</b>	<b>370</b>	<b>196</b>	<b>84</b>	<b>50</b>	<b>31</b>	<b>101</b>	<b>52</b>	<b>29</b>
<b>Pavement Conditions</b>									
Dry	451	276	134	56	25	19	75	43	20
Wet	184	70	47	23	21	11	21	7	6
Ice/Snow	24	10	8	4	1		2	2	1
Unknown	18	14	7	1	3	1	3		2
<b>Total</b>	<b>677</b>	<b>370</b>	<b>196</b>	<b>84</b>	<b>50</b>	<b>31</b>	<b>101</b>	<b>52</b>	<b>29</b>

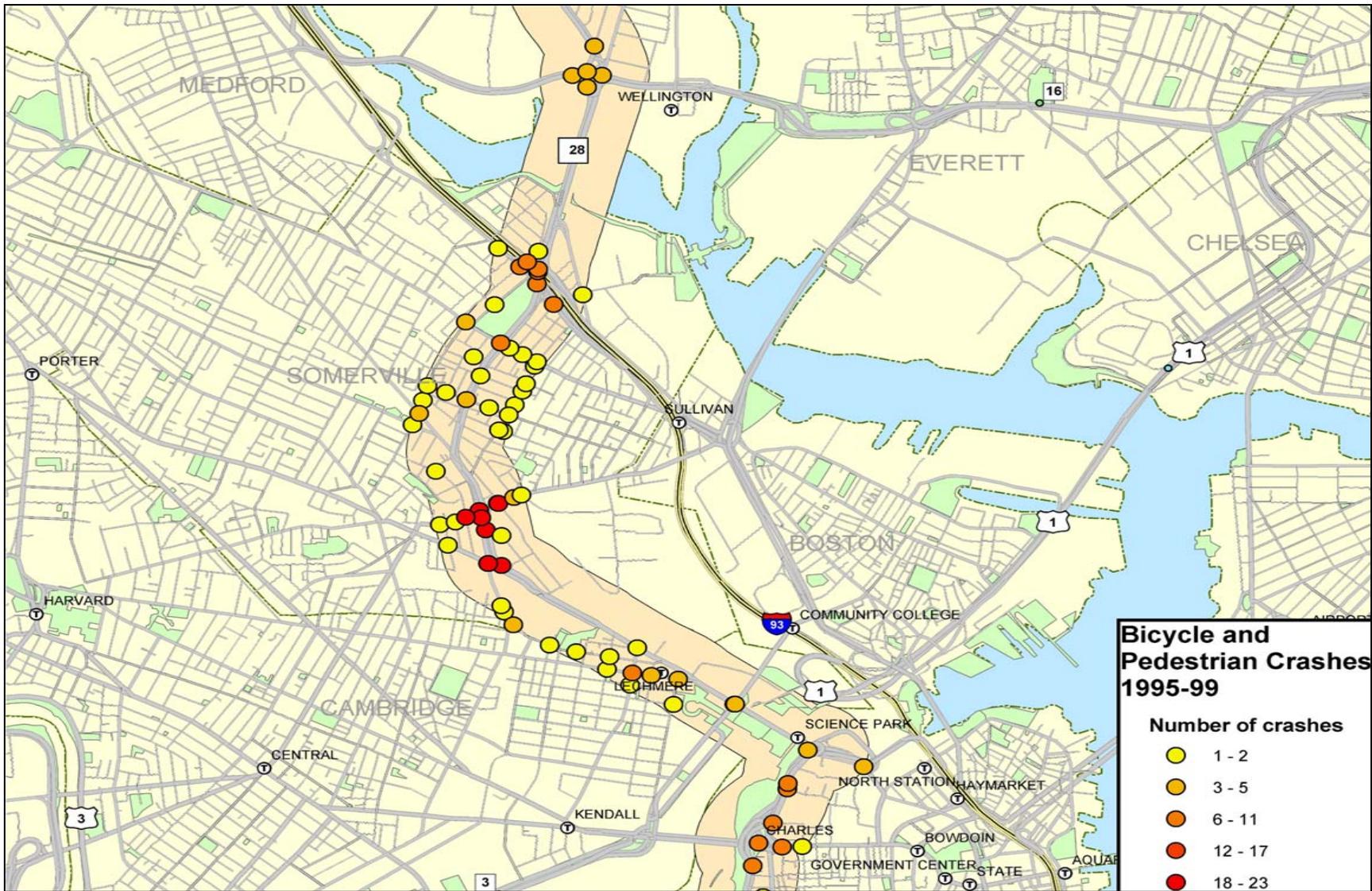


Source: Executive Office of Transportation and Public Works

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**FIGURE B.6**  
**Route 28 Vehicle Crash Locations**

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**Bicycle and Pedestrian Crashes 1995-99**

**Number of crashes**

- 1 - 2
- 3 - 5
- 6 - 11
- 12 - 17
- 18 - 23

Source: Executive Office of Transportation and Public Works

**CTPS**

**FIGURE B.7**  
**Route 28 Bicycle and Pedestrian**  
**Crash Locations**

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