Appendix E

- **Transportation Planning Factors Memorandum**
- ***125th Street Rezoning and Related Actions FEIS*** **Traffic Mitigation Memos**

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DRAFT
TECHNICAL MEMORANDUM

TO: **NYCDCP**

FROM: **Philip Habib & Associates**

DATE: **May 2, 2012**

PROJECT: **West Harlem Rezoning (PHA #0769D)**

RE: **Transportation Planning Factors**

This memorandum summarizes the transportation planning factors used for the analyses of traffic, parking, transit, and pedestrian conditions for the environmental review of the proposed West Harlem Rezoning. Travel demand forecasts based on these factors are also presented for four potential reasonable worst case development scenarios, one of which was selected for detailed analysis based on the amount of new travel demand that would be generated. Traffic and transit assignments for this scenario are provided along with a study area for the transportation analyses.

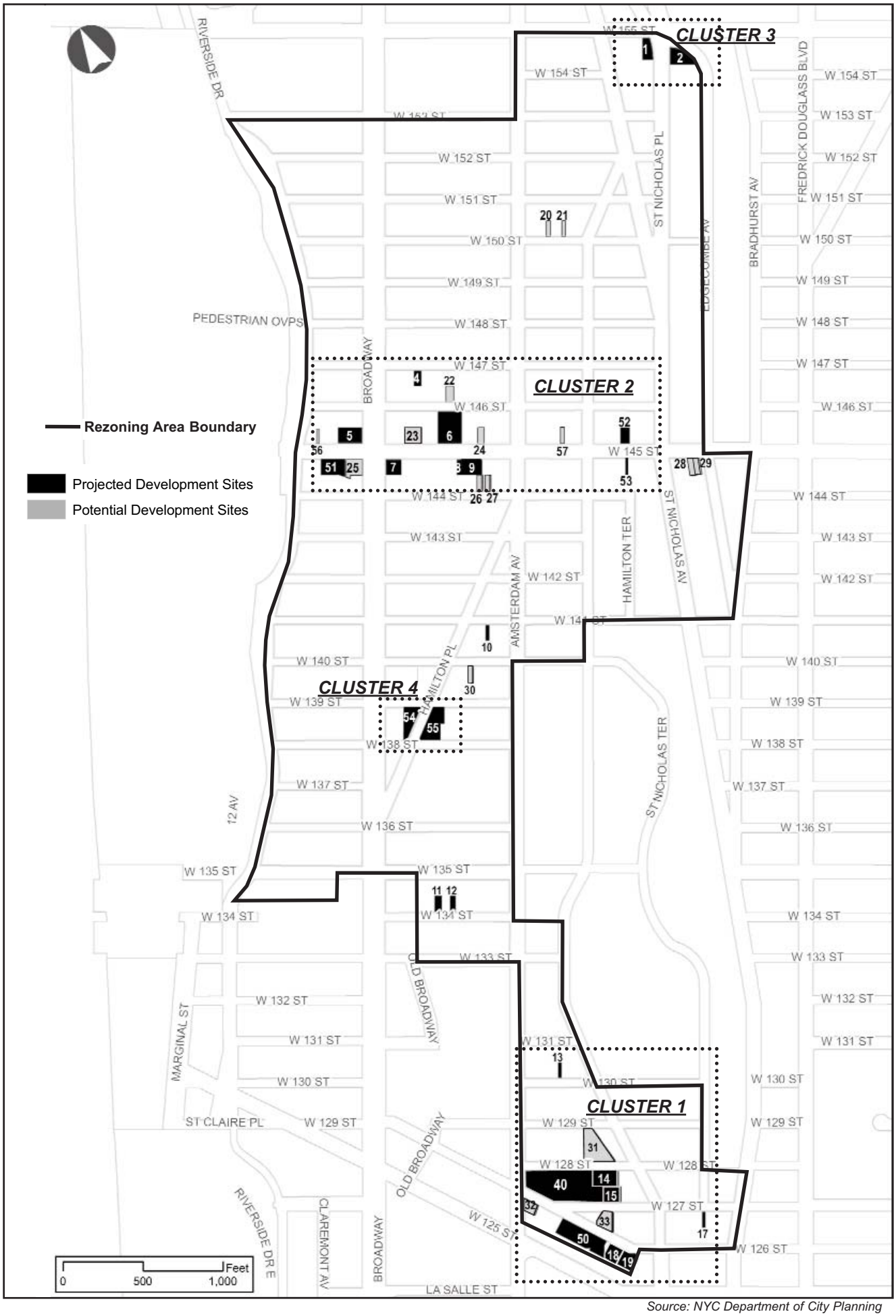
THE PROPOSED ACTION

The Proposed Action includes zoning map changes and a zoning text amendment for approximately 90 blocks in West Harlem in Manhattan Community District 9. As shown in Figure 1, the rezoning area is generally bounded by West 126th Street on the south, West 155th Street on the north, Edgecombe, Bradhurst and St. Nicholas avenues on the east and Riverside Drive on the west. The proposed rezoning would allow for the addition of affordable housing and mixed-use development with bulk controls that reflect the existing character and scale in the West Harlem area.

The rezoning area is currently mapped R7-2, R8, C8-3, and M1-1. The proposed West Harlem Rezoning Project would preserve the low-scale residential character of the neighborhood while allowing for modest residential growth where appropriate by mapping contextual zoning districts within the rezoning area. The proposed zoning map and text changes would create C6-3X-IH, R8A-IH, R8A, R8*, R7A, R6A, MX (M1-5/R7-2), C1-4 and C2-4 overlays.

A related zoning text amendment would allow for additional affordable housing while maintaining existing building patterns that are characteristic to the area. The text amendment would also clarify that mid-block residences would be low-scale brownstones and rowhouses.

RWCDS Projected and Potential Development Sites



Source: NYC Department of City Planning

The MX District would be used by the community for various public events and community activities, which was a goal in Manhattan Community Board 9's 197-a Plan.

PROJECTED DEVELOPMENT

Based on the reasonable worst case development scenarios (RWCDS) developed by NYCDCP, 24 projected development, conversion, or enlargement sites have been identified, including two sites with alternate scenarios (Nos. 6 and 40). These sites are judged most likely to be developed by 2021, the analysis year for the Proposed Action. In addition, there are 16 potential development sites, which are considered less likely to be developed in the next decade. The locations of all projected and potential development sites are shown in Figure 1. As shown in Table 1, compared to future conditions without the Proposed Action, the RWCDS associated with the proposed rezoning anticipates that the 22 projected sites without alternate scenarios would result in a net increase of 186 dwelling units, 4,119 square feet (sf) of local retail space, 87,051 sf of destination retail space, 116,338 sf of office and other commercial space, and 171,691 sf of community facility space. Also shown in Table 1 are the net increments for each of the alternate scenarios for projected development sites 6 and 40.

TRANSPORTATION PLANNING FACTORS

Table 2 shows the transportation planning factors to be used for the travel demand forecast generated by the RWCDS in the weekday AM, midday, and PM and Saturday midday peak hours. These include trip generation rates, temporal and directional distributions, mode choice factors, vehicle occupancies and truck trip factors for office, residential, retail and community facility uses. The factors in Table 2 were based on accepted *City Environmental Quality Review (CEQR) Technical Manual* criteria, data from the *2000 U.S. Census,* and data from other EISs for projects on the west side of Manhatttan, including the 2008 *125th Street Corridor Rezoning and Related Actions FEIS*, the 2007 *Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development FEIS*, and the 2004 *No. 7 Subway Extension – Hudson Yards Rezoning and Development Program FGEIS*.

Office

The forecast of travel demand from office development was based on the trip rates and temporal distribution cited in the *CEQR Technical Manual*. Modal and directional splits and vehicle occupancies were determined based upon 2000 Census reverse journey-to-work data and data from the *125th Street Rezoning and Related Actions FEIS*.

Residential

The forecast of travel demand from projected residential development was based on trip rate and temporal distribution data cited in the *CEQR Technical Manual.* The residential modal split reflects journey-to-work data from the 2000 Census. Although residential-based trips in the weekday and Saturday midday periods would likely be more local in nature than in the commuter peak hours (and therefore have a higher walk share, for example), the modal split based on census journey-to-work data is conservatively assumed for these periods for analysis purposes.

Table 1
Net Change in Land Uses on Projected Development Sites Under the RWCDS

	Dwelling Units	Local Retail (sf)	Destination Retail (sf)*	Office/Other Commercial (sf)	Community Facility (sf)
RWCDS Without Projected Development Sites 6 and 40					
No-Action	567	28,250	10,217	128,417	112,725
With-Action	753	32,369	97,268	244,755	284,416
Net Increment	186	4,119	87,051	116,338	171,691
Projected Site 6a – 85 Percent Community Facility					
No-Action	0	7,421	0	0	207,079
With-Action	0	7,421	0	0	141,724
Net Increment	0	0	0	0	(65,355)
Projected Site 6b – Remove Deed Restriction					
No-Action	0	7,421	0	0	207,079
With-Action	155	7,421	0	0	22,261
Net Increment	155	0	0	0	(184,818)
Projected Site 40a – Retain Existing Buildings					
No-Action	0	0	0	271,238	0
With-Action	158	0	33,182	235,754	170,510
Net Increment	158	0	33,182	(35,484)	170,510
Projected Site 40b – New Development					
No-Action	0	0	0	271,238	0
With-Action	228	0	57,665	170,786	140,485
Net Increment	228	0	57,665	(100,452)	140,485

Scenario 1 – 6a & 40a					
No-Action	567	35,671	10,217	399,655	319,804
With-Action	911	39,790	130,450	480,509	596,650
Net Increment	344	4,119	120,233	80,854	276,846
Scenario 2 – 6a & 40b					
No-Action	567	35,671	10,217	399,655	319,804
With-Action	981	39,790	154,933	415,541	566,625
Net Increment	414	4,119	144,716	15,886	246,821
Scenario 3 – 6b & 40a					
No-Action	567	35,671	10,217	399,655	319,804
With-Action	1,066	39,790	130,450	480,509	477,187
Net Increment	499	4,119	120,233	80,854	157,383
Scenario 4 – 6b & 40b					
No-Action	567	35,671	10,217	399,655	319,804
With-Action	1,136	39,790	154,933	415,541	447,162
Net Increment	569	4,119	144,716	15,886	127,358

Source: NYCDCP.

***** Any site with more than 10,000 sf of retail is assumed to consist of destination retail.

TABLE 2
Transportation Planning Factors

Land Use:	Office		Residential		Destination Retail		Local Retail		Community Facility (Office)		Community Facility (Recreation)		Community Facility (Dormitory)		Community Facility (Museum)	
Trip Generation:	(1)		(1)		(1)		(1)		(1)		(4)		(5)		(1)	
Weekday	18		8.075		78.2		205		18		44.7		4		27	
Saturday	3.9		9.6		92.5		240		3.9		26.6		4		20.6	
	per 1,000 sf		per DU		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf		per Unit		per 1,000 sf	
Temporal Distribution:	(1)		(1)		(1)		(1)		(4)		(4)		(1,5)		(1)	
AM (8-9)	12.0%		10.0%		3.0%		3.0%		12.0%		5.8%		9.1%		1.0%	
MD (12-1)	15.0%		5.0%		9.0%		19.0%		15.0%		7.4%		4.7%		16.0%	
PM (5-6)	14.0%		11.0%		9.0%		10.0%		14.0%		7.6%		10.7%		13.0%	
Sat MD (1-2)	17.0%		8.0%		11.0%		10.0%		17.0%		10.0%		8.0%		17.0%	
	(3)		(2)		(4)		(4)		(3,4)		(4)		(5)		(6)	
Modal Splits:	AM/PM/SAT	MD	AM/MD/PM/SAT		AM/MD/PM/SAT		AM/MD/PM/SAT		AM/PM/SAT	MD	AM/MD/PM/SAT		AM/MD/PM/SAT		AM/MD/PM	SAT
Auto	38.7%	5.0%	16.7%		9.0%		2.0%		38.7%	5.0%	4.0%		12.0%		12.0%	14.0%
Taxi	1.9%	5.0%	2.0%		14.5%		3.0%		1.9%	5.0%	9.0%		3.0%		10.0%	10.0%
Subway	32.1%	10.0%	56.7%		21.5%		6.0%		32.1%	10.0%	12.0%		41.5%		7.0%	7.0%
Bus	11.9%	5.0%	14.6%		20.0%		6.0%		11.9%	5.0%	5.0%		14.5%		29.0%	29.0%
Walk/Other	15.4%	75.0%	10.0%		35.0%		83.0%		15.4%	75.0%	70.0%		29.0%		42.0%	40.0%
	100.0%	100.0%	100.0%		100.0%		100.0%		100.0%	100.0%	100.0%		100.0%		100.0%	100.0%
	(4)		(4)		(4)		(4)		(4)		(4)		(5)		(6)	
In/Out Splits:	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
AM (8-9)	95%	5%	16%	84%	50%	50%	50%	50%	95%	5%	66%	34%	20%	80%	50%	50%
MD (12-1)	48%	52%	50%	50%	50%	50%	50%	50%	48%	52%	58%	42%	51%	49%	63%	37%
PM (5-6)	15%	85%	67%	33%	50%	50%	50%	50%	15%	85%	34%	66%	65%	35%	52%	48%
Sat MD (1-2)	60%	40%	53%	47%	50%	50%	50%	50%	60%	40%	58%	42%	51%	49%	63%	37%
Vehicle Occupancy:	(3,4)		(3,4)		(4)		(4)		(3,4)		(4)		(5)		(6)	
Auto	1.14		1.26		2.00		2.00		1.14		1.40		1.20		2.34	
Taxi	1.40		1.40		2.00		2.00		1.40		1.40		1.20		1.90	
Truck Trip Generation:	(1)		(1)		(1)		(1)		(4)		(4)		(1,5)		(6)	
	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday
	0.32	0.01	0.06	0.02	0.35	0.04	0.35	0.04	0.32	0.01	0.04	0.01	0.03	0.01	0.05	0.01
	per 1,000 sf		per DU		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf		per 1,000 sf	
	(1)		(1)		(1)		(1)		(4)		(4)		(1,5)		(6)	
AM (8-9)	10.0%		12.2%		8.0%		8.0%		10.0%		7.7%		9.7%		9.6%	
MD (12-1)	11.0%		9.0%		11.0%		11.0%		11.0%		11.0%		9.1%		11.0%	
PM (5-6)	2.0%		2.0%		2.0%		2.0%		2.0%		2.0%		5.1%		1.0%	
Sat MD (1-2)	11.0%		9.0%		11.0%		11.0%		11.0%		11.0%		11.0%		11.0%	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
All Peak Hours	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%

Notes :

(1) Source: *CEQR Technical Manual* .

(2) Based on 2000 US Census Journey-to-Work Data for Manhattan Tracts 213.01, 213.02, 217.01, 217.02, 219, 221.01, 221.02, 223.01, 223.02, 224, 225, 226, 227.01, 227.02, 229, 231.01, 231.02, 233, 235.01, 235.02 and 237.

(3) Based on 2000 US Census Reverse Journey-to-Work Data (see above for tracts).

(4) *125th Street Corridor Rezoning and Related Actions FEIS* , February 2008.

(5) *Manhattanville in WestHarlem Rezoning and Academic Mixed-Use Development FEIS* , 2007.

(6) *No. 7 Subway Extension- Hudson Yard Rezoning and Development Program FGEIS* , 2004.

Destination Retail

For the purposes of the travel demand forecast, any site with greater than 10,000 sf of retail space is assumed to be destination retail. As shown in Table 2, trip generation rates and temporal distributions for destination retail uses were based on data from the *CEQR Technical Manual*, while modal splits, vehicle occupancy and directional distributions were based on data from the *125th Street Corridor Rezoning and Related Actions FEIS*.

Local Retail

It is anticipated that the local ("or neighborhood") retail uses developed under both the No-Action and With-Action scenarios would attract trips primarily from the residential and worker populations on-site and in surrounding neighborhoods. It is therefore anticipated that the majority of these trips would be via the walk mode and would not represent the addition of considerable numbers of new discrete trips to the study area street and transit systems. For the purposes of the travel demand forecast, it is assumed that 83 percent of local retail trips would be walk-only trips based on data from the *125th Street Corridor Rezoning and Related Actions FEIS*. Trip generation rates and temporal and directional distributions were also based on data from this source and from the *CEQR Technical Manual*.

Community Facility

Table 3 shows the specific types of community facility uses that would be developed on each of the projected development sites under the RWCDS. These would include community facility-related office uses as well as recreation, dormitory and museum uses. As shown in Table 2, the factors used to forecast travel demand from these uses were developed from a variety of sources, including the *CEQR Technical Manual,* 2000 Census data and several EISs for other projects in Manhattan.

TRIP GENERATION

A travel demand forecast was prepared for each of the four reasonable worst case development scenarios based on the factors shown in Table 2 and discussed above. These scenarios include:

Scenario 1 – includes all sites without alternate scenarios plus sites 6a (85 percent community facility) and 40a (retain existing buildings);

Scenario 2 – includes all sites without alternate scenarios plus sites 6a (85 percent community facility) and 40b (new development);

Scenario 3 – includes all sites without alternate scenarios plus sites 6b (remove deed restriction) and 40a (retain existing buildings); and

Scenario 4 – includes all sites without alternate scenarios plus sites 6b (remove deed restriction) and 40b (new development).

Table 3
Net Change in Community Facility Uses on Projected Development Sites Under the RWCDS

Site	Office (sf)	Recreation (sf)	Museum (sf)	Dormitory (sf/DU)	Total (sf)
6a				(65,355) / (99)	(65,355)
6b				(184,819) / (279)	(184,819)
14	35,363				35,363
15				60,532 / 91	60,532
18	34,473				34,473
40a	56,837	56,837	56,837		170,511
40b	46,828	46,828	46,828		140,484
50	33,039	33,039			66,078
51	(11,923)				(11,923)
52	(1,881)				(1,881)
53	(941)				(941)
54		(4,400)			(4,400)
55	(5,610)				(5,610)

Source: NYCDCP

Table 4 summarizes the results of the travel demand forecasts for these four scenarios. The data in Table 4 compare the net incremental increase (versus the No-Action condition) in the numbers of peak hour person and vehicle trips that would be generated by each scenario in 2021 with implementation of the Proposed Action. (More detailed travel demand forecast data for each scenario are presented in Tables A-1 through A-4 in the appendix.) As shown in Table 4, on weekdays, Scenario 3 would generate the greatest incremental increase in daily person trips (25,021 in and out combined) as well as vehicle trips (3,636). Weekday peak hour vehicle trips (in and out combined) under this scenario would total 295, 299 and 414 in the AM, midday and PM peak hours, respectively. (Vehicle trips include auto and truck trips, and trips by taxi which have been balanced to reflect that some taxis arrive or depart empty.) Scenario 3 would also generate the greatest incremental increase in transit trips during the peak weekday AM and PM commuter periods, with 413 subway trips and 157 bus trips in the AM and 563 subway trips and 313 bus trips in the PM.

On Saturdays, Scenario 4 would generate the greatest incremental increase in daily person trips (24,213 compared to 22,607 for Scenario 3) and vehicle trips (3,021 compared to 2,755 for Scenario 3). However, the incremental increase in total peak hour vehicle trips during the Saturday midday (326) would only amount to 14 additional trips compared to the 312 trips that would be generated under Scenario 3. Therefore, based on the travel demand forecast data presented in Table 4, Scenario 3 (RWCDS 3) was selected as the reasonable worst case development scenario for the transportation analyses.

Table 4

Comparison of Travel Demand From the Four Reasonable Worst Case Development Scenarios

	Peak Hour												Weekday		Saturday	
	AM			Midday			PM			Saturday Midday						
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	Total Daily Person Trips	Total Daily Vehicle Trips (1)	Total Daily Person Trips	Total Daily Vehicle Trips (1)
Scenario 1																
Total Person Trips	808	535	1,343	1,521	1,411	2,932	1,054	1,402	2,456	1,212	1,067	2,279				
Auto Trips	172	60	232	84	75	159	105	219	324	111	90	201				
Taxi Trips	41	30	71	99	88	187	70	85	155	92	79	171				
Subway Trips	195	174	369	185	174	359	228	290	518	223	197	420	24,248	3,539	21,597	2,619
Bus Trips	85	64	149	159	137	296	139	167	306	159	137	296				
Walk-Only Trips	315	207	522	994	937	1,931	512	641	1,153	627	564	1,191				
Vehicle Trips (1)	193	93	286	152	149	301	152	253	405	157	143	300				
Scenario 2																
Total Person Trips	667	587	1,254	1,453	1,355	2,808	1,102	1,286	2,388	1,266	1,145	2,411				
Auto Trips	116	67	183	81	74	155	103	162	265	110	94	204				
Taxi Trips	41	33	74	100	90	190	77	88	165	99	90	189				
Subway Trips	151	200	351	192	182	374	254	261	515	247	223	470	24,181	3,435	23,203	2,886
Bus Trips	71	74	145	160	143	303	148	157	305	172	154	326				
Walk-Only Trips	288	213	501	920	866	1,786	520	618	1,138	638	584	1,222				
Vehicle Trips (1)	142	97	239	148	145	293	155	207	362	161	151	312				
Scenario 3																
Total Person Trips	815	587	1,402	1,535	1,425	2,960	1,096	1,419	2,515	1,245	1,094	2,339				
Auto Trips	174	71	245	87	78	165	115	223	338	118	95	213				
Taxi Trips	41	30	71	99	88	187	70	85	155	92	80	172				
Subway Trips	201	212	413	196	185	381	259	304	563	246	217	463	25,021	3,636	22,607	2,755
Bus Trips	86	71	157	161	139	300	144	169	313	165	141	306				
Walk-Only Trips	313	203	516	992	935	1,927	508	638	1,146	624	561	1,185				
Vehicle Trips (1)	194	101	295	151	148	299	159	255	414	164	148	312				

Table 4 (continued)
Comparison of Travel Demand Under RWCDS 1-4

	Peak Hour												Weekday		Saturday	
	AM			Midday			PM			Saturday Midday						
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	Total Daily Person Trips	Total Daily Vehicle Trips (1)	Total Daily Person Trips	Total Daily Vehicle Trips (1)
Scenario 4																
Total Person Trips	673	638	1,311	1,466	1,368	2,834	1,143	1,304	2,447	1,298	1,170	2,468				
Auto Trips	117	77	194	84	77	161	113	167	280	117	99	216				
Taxi Trips	41	33	74	99	89	188	77	88	165	100	90	190				
Subway Trips	157	238	395	203	193	396	285	275	560	269	242	511	24,955	3,532	24,213	3,021
Bus Trips	72	81	153	162	145	307	153	159	312	177	158	335				
Walk-Only Trips	286	209	495	918	864	1,782	515	615	1,130	635	581	1,216				
Vehicle Trips (1)	143	105	248	149	146	295	161	209	370	169	157	326				

(1) Vehicle trips include auto, truck and balanced taxi trips.

PARKING

Parking demand from retail and commercial uses typically peaks in the midday period and declines during the afternoon and evening. By contrast, residential demand typically peaks in the overnight period. The parking analyses therefore document changes in off-street parking utilization in proximity to projected development sites during the weekday midday and overnight periods under the No-Action condition and the With-Action condition under Scenario 3. On-street parking conditions (existing curbside regulations and parking utilization) in the vicinity of projected development sites are also documented for these periods. As it is anticipated that available parking capacity would be limited within ¼-mile of the projected development sites that are expected to generate the most parking demand, the off-street public parking analysis study area encompasses a ½-mile radius around these sites. This is to reflect the fact that some project-generated parking demand would likely occur at more distant parking facilities, as well as to provide data to facilitate the assignment of project-generated auto trips to off-site parking.

Parking demand generated by new residential development is forecast based on the most recently available Census auto ownership data by income group for the proposed rezoning area. Parking demand from retail and other commercial uses and from community facility uses is derived from the forecasts of daily auto trips from these uses. The forecast of new parking supply is based on the net change in parking spaces on projected development sites, consistent with the RWCDS.

SELECTION OF PEAK HOURS FOR ANALYSIS

As discussed above, under the RWCDS for the transportation analyses (Scenario 3), the Proposed Action would result in a net increase of 295, 299, 414, and 312 vehicle trips in the weekday AM, midday and PM, and Saturday midday peak hours, respectively. Under *CEQR Technical Manual* criteria, if a proposed action in any area of the city would generate greater than 50 peak hour vehicle trip ends, there is likely a need for further analysis. The EIS traffic analyses therefore quantitatively examine conditions in the weekday AM, midday, PM and Saturday midday peak hours. Based on automatic traffic recorder counts of existing traffic volumes along major corridors in the study area, the peak hours selected for the weekday analyses are 7:45-8:45 AM, 1-2 PM and 4:45-5:45 PM. The Saturday analysis focuses on the 1-2 PM peak hour.

Transit (subway and bus) analyses generally examine conditions during the weekday 8-9 AM and 5-6 PM commuter peak periods, as it is during these times that overall transit demand (and the potential for significant adverse impacts) is typically greatest. The analyses of transit conditions therefore focus on these two periods.

Walk-only trips from projected development sites (i.e., walk trips not associated with other modes) would be widely dispersed among pedestrian facilities throughout the proposed rezoning area. However, concentrations of new pedestrian trips are expected during the AM and PM commuter peak periods along corridors connecting projected development sites to area subway stations. The analyses of pedestrian conditions therefore focus on the weekday AM and PM peak hours for commuter demand, as well as the weekday and Saturday midday peak hours to assess the effects of midday pedestrian demand from commercial and retail uses.

TRIP ASSIGNMENT AND ANALYSIS LOCATIONS

As shown in Figure 1, there are a total of 24 projected development sites in the proposed rezoning area, generally concentrated in four specific geographic areas. Therefore, for analysis purposes, a majority of the sites have been aggregated into the following four "clusters":

Cluster 1: Sites 13, 14, 15, 17, 18, 19, 40a and 50

Cluster 2: Sites 4, 5, 6b, 7, 8, 9, 51, 52 and 53

Cluster 3: Sites 1 and 2

Cluster 4: Sites 54 and 55

Sites 10, 11 and 12 were considered "outliers" because they are relatively small sites that are not located in proximity to any of the clusters identified above.

As discussed above, Scenario 3 was selected as the RWCDS for the transportation analyses. Tables 5 and 6, below, summarize the net incremental change in peak hour person trips and vehicle trips, respectively, that would be generated under the RWCDS by each of the four projected development site clusters along with the three outlier sites. (Detailed demand forecasts for each of the four projected development site clusters and the three outlier sites are provided in Tables A-5 through A-11 in the appendix.) As shown in Table 5, Cluster 1 (comprised of development sites in the vicinity of West 126th Street) would generate a net total of 1,127, 1,926, 1,834 and 1,515 person trips in the weekday AM, midday, PM and Saturday midday peak hours, respectively. As shown in Table 6, vehicle trips (auto, taxi and truck trips combined) generated by Cluster 1 would total 268, 246, 370 and 244 during these periods, respectively. Overall, it is estimated that this development cluster would account for approximately 65 percent to 80 percent of the total person trips and 76 percent to 88 percent of the total vehicle trips generated by the RWCDS. Clusters 2, 3 and 4 would each generate 43 or fewer vehicle trips in any one peak hour, and these trips would be widely dispersed along the street network in the central and northern portions of the rezoning area. Lastly, as also shown in Table 6, given their relatively small development programs (i.e., two dwelling units each), outlier projected development sites 10, 11 and 12 are not expected to generate an appreciable number of vehicle trips in any peak hour.

Table 5
Net Incremental Person Trips Generated by Projected Development Sites Under Scenario 3

	AM	Midday	PM	Saturday Midday
Cluster 1	1,127	1,926	1,834	1,515
Cluster 2	154	525	353	423
Cluster 3	91	246	197	237
Cluster 4	23	263	125	165
Site 10	2	1	2	2
Site 11	2	1	2	2
Site 12	2	1	2	2
Total	1,401	2,963	2,515	2,346

Table 6
Net Incremental Vehicle Trips Generated by Projected Development Sites Under Scenario 3

	AM	Midday	PM	Saturday Midday
Cluster 1	268	246	370	244
Cluster 2	25	39	34	43
Cluster 3	13	24	22	28
Cluster 4	-2	8	-1	6
Site 10	0	0	0	0
Site 11	0	0	0	0
Site 12	0	0	0	0
Total	304	317	425	321

Note: The sum of peak hour vehicle trips by cluster may differ slightly from the numbers shown in Table 4 due to rounding and the balancing of taxis on a cluster by cluster basis.

Vehicle Trip Assignment

Rezoning Area Street Network

The rezoning area street system consists of urban arterials connecting with an irregular grid network of West Harlem's local streets (see Figure 2). The east-west local grid is discontinuous between West 130th and West 141st Streets, while the north-south arterial grid is generally continuous throughout the area. Principal arterials within and in the immediate vicinity of the rezoning area include West 155th Street to the north, West 125th Street to the south and, from west to east, Broadway, Amsterdam, Morningside, and St. Nicholas avenues, and Frederick Douglass and Adam Clayton Powell Jr. boulevards.

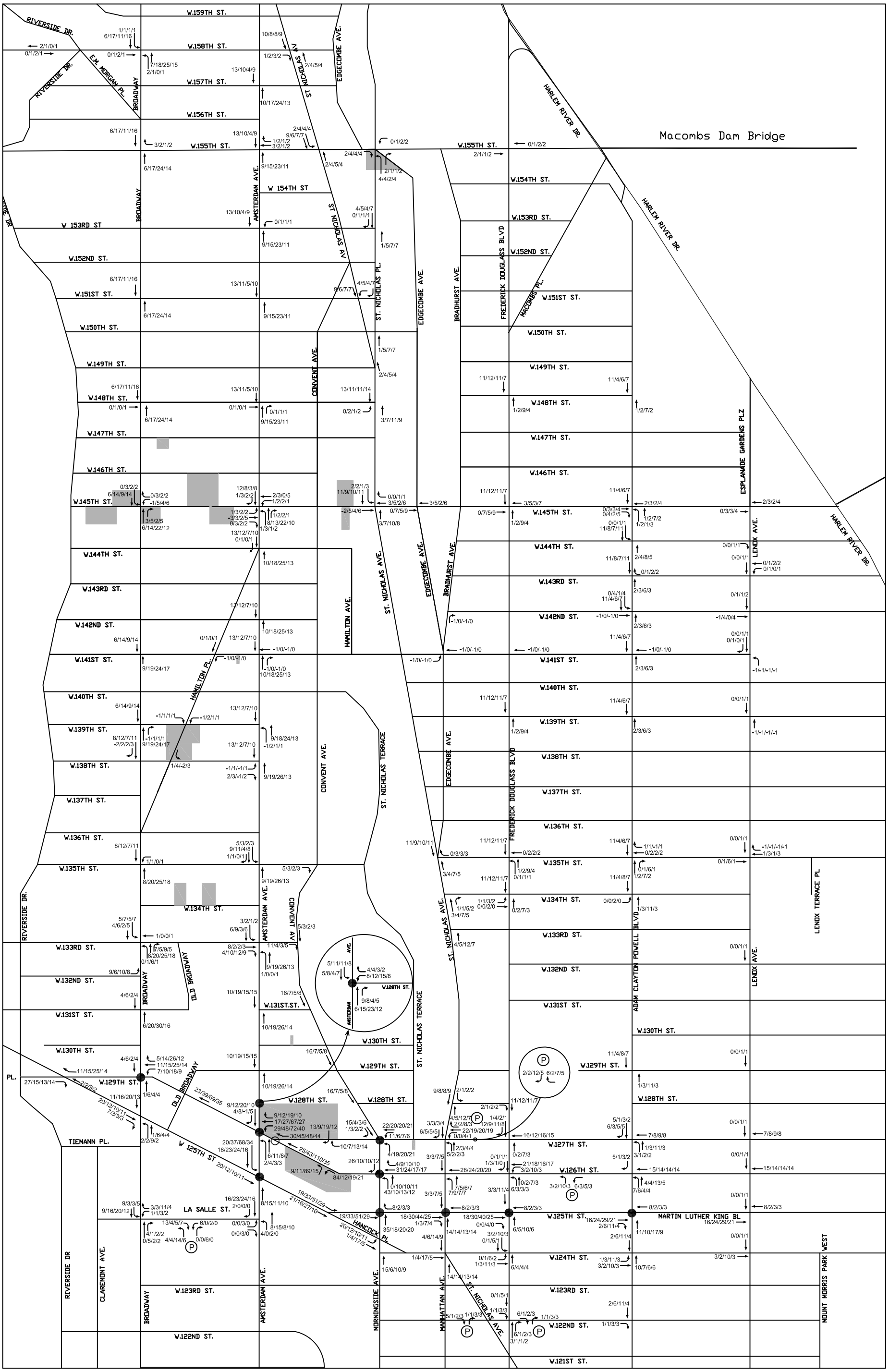
North-South Avenues

The westernmost of the north-south arterials expected to be used by appreciable numbers of project-generated trips is **Broadway**, which operates two-way with two to three travel lanes in each direction plus curbside parking/loading. Exclusive left-turn lanes are typically provided at major intersections, and the roadway is bisected by support columns for the elevated subway structure carrying NYC Transit's Broadway Line (No. 1 trains). Broadway is a designated local truck route.

Paralleling Broadway to the east is two-way **Amsterdam Avenue** which typically operates with two travel lanes and curbside parking/loading in each direction and is a designated local truck route. Continuing east, the next north-south arterial is two-way **Morningside Avenue**. To the south of West 126th Street, Morningside Avenue typically operates with two travel lanes in each direction with parking/loading along each curb. North of West 126th Street, Morningside Avenue narrows to one travel lane in each direction plus curbside parking/loading. North of West 127th Street the roadway continues as Convent Avenue.

St. Nicholas Avenue is a two-way roadway that approaches the study area from the southeast on a diagonal alignment until intersecting Manhattan Avenue at West 124th Street where it continues on an alignment generally parallel to the other north-south avenues in the

Figure 2
Project Increment Peak Hour Traffic Volumes Under RWCDS 3



Legend:

● Analyzed Signalized Intersection ○ Analyzed Unsignalized Intersection 21/16/27/16 = AM/MD/PM/Sat MD ▭ Projected Development Site Ⓟ Public Parking Facility

rezoning area. It typically operates with one travel lane and a bicycle lane in each direction plus parking/loading along both curbs.

One of two key arterials to the east of the rezoning area is **Frederick Douglas Boulevard (Eighth Avenue)**, which operates two-way with two travel lanes plus curbside parking/loading in each direction. The second key north-south arterial to the east of the rezoning area is **Adam Clayton Powell Jr. Boulevard (Seventh Avenue)** which operates two-way with three moving lanes plus curbside parking/loading in each direction. The northbound and southbound lanes are separated by a planted median, and the street is a designated local truck route.

East-West Cross Streets

The east-west street system in the vicinity of the rezoning area is generally discontinuous with the exception of West 125th Street and West 126th Street. The major river to river east-west corridor in proximity to Cluster 1 is **West 125th Street (Dr. Martin Luther King Jr. Boulevard)**, which operates two-way, typically with two moving lanes plus curbside parking/loading in each direction. The street is a major retail corridor characterized by heavy pedestrian activity (especially east of Morningside Avenue), and it is a designated local truck route.

One block north is **West 126th Street** which is one-way westbound. Although it operates as a local street, generally with one to two moving lanes plus curbside parking/loading, it also functions as a parallel diversion route to West 125th Street. West 126th Street ends at Broadway opposite West 129th Street. The next cross street to the north is **West 127th Street** which also operates one-way westbound, generally with one moving lane plus curbside parking/loading. West 127th Street ends to the east of Amsterdam Avenue where it intersects West 126th Street.

Traffic Assignment and Analysis Locations

The assignments of auto and taxi trips were based on the locations of individual projected development sites (or groups of development sites) within each cluster, the locations of off-street public parking garages that would likely be used by project-generated auto trips, and the anticipated origins and destinations of vehicle trips associated with the different uses projected for each site (e.g., commercial, residential, etc.). The origins/destinations of residential and non-retail commercial trips were determined based upon 2000 Census journey-to-work and reverse journey-to-work data, respectively. Retail trip origins/destinations were based on population density in proximity to the rezoning area.

Truck trips en route to and from each cluster were assigned based on the most direct paths to and from designated local and through truck routes. Local truck routes in the vicinity of the rezoning area include Broadway, Amsterdam Avenue, West 145th Street and West 125th Street.

Figure 2 shows the assignment of vehicle trips (including auto, taxi and truck trips) generated by all development sites under RWCDS 3 during the weekday AM, midday and PM and Saturday midday peak hours. (Vehicle trip assignments for each individual development cluster are shown in Figures A-1 through A-4 in the appendix.) As shown in Figure 2, action-generated vehicle trips would be most concentrated in the vicinity of Cluster 1 which would generate the majority of new travel demand under RWCDS 3. The maximum number of vehicles through any one intersection in any peak hour is expected to be approximately 188 vehicles at the intersection of West 126th Street and Amsterdam Avenue in the PM peak hour.

Overall, as shown in Figure 2, project-generated traffic is expected to exceed the 50-trip *CEQR Technical Manual* analysis threshold at a total of 11 intersections (10 signalized and one unsignalized) along the West 125th Street, West 126th Street, West 127th Street and West 128th Street corridors in one or more peak hours. Therefore, based on this traffic assignment, these 11 intersections have been selected for detailed analysis.

Transit Trip Assignment

Subway

There are a total of eight subway stations located in proximity to the rezoning area. As shown in Figure 3, these include four IND stations along St. Nicholas Avenue including express stops at West 125th Street and West 145th Street (served by A, B, C and D trains), and local stops at West 135th Street (B, C) and West 155th Street (C); three IRT stations along Broadway at West 125th Street, West 137th Street-City College and West 145th Street (all served by No. 1 trains); and an IND station at West 155th Street and Eighth Avenue (served by B and D trains).

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*, detailed transit analyses are generally not required if a Proposed Action is projected to result in fewer than 200 peak hour rail or bus transit riders. If a proposed action would result in 50 or more bus passengers being assigned to a single bus line (in one direction), or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus or subway analysis would be warranted.

Table 7 shows the forecast of weekday AM and PM peak hour transit trips for the clusters of projected development sites. (Transit analyses typically focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway and bus systems is usually highest.) As shown in Table 7, it is estimated that under RWCDS 3, projected development sites in Cluster 1 would generate a total of 317 and 428 new subway trips in the weekday AM and PM peak hours, respectively. The remaining clusters and outlying development sites would each generate 83 or fewer new subway trips in any peak hour, and these trips are expected to occur at different subway stations than those serving Cluster 1. Therefore, only the two subway stations in proximity to Cluster 1 – the IND station at St. Nicholas Avenue and West 125th Street (served by A, B, C and D trains), and the IRT station at Broadway at West 125th Street (served by No. 1 trains) – would potentially experience an increase of 200 or more peak hour trips as a result of the Proposed Action.

To determine if both of these subway stations would require detailed analysis, the subway trips generated by Cluster 1 were assigned to each based on proximity to station entrances and existing ridership patterns for the subway routes serving each station. Based on 2010 turnstile registration data, it was estimated that approximately 77 percent of all the subway trips generated by Cluster 1 would use the IND station at St. Nicholas Avenue, while 23 percent would use the IRT local stop on Broadway. As shown in Table 8, based on this assignment, only the 125th Street IND station on St. Nicholas Avenue is expected to experience more than 200 action-generated trips, with approximately 244 trips in the AM peak hour and 330 in the PM peak hour. The 125th Street IRT station at Broadway would experience 73 and 98 trips during these peak hours, respectively. Therefore, the analysis of conditions at subway stations serving the rezoning area focus on street stairs and fare arrays at the 125th Street IND station at St. Nicholas Avenue that are expected to be used by project-generated trips in the AM and PM peak hours.

West Harlem Rezoning

Figure 3

Rezoning Area Subway and Bus Services

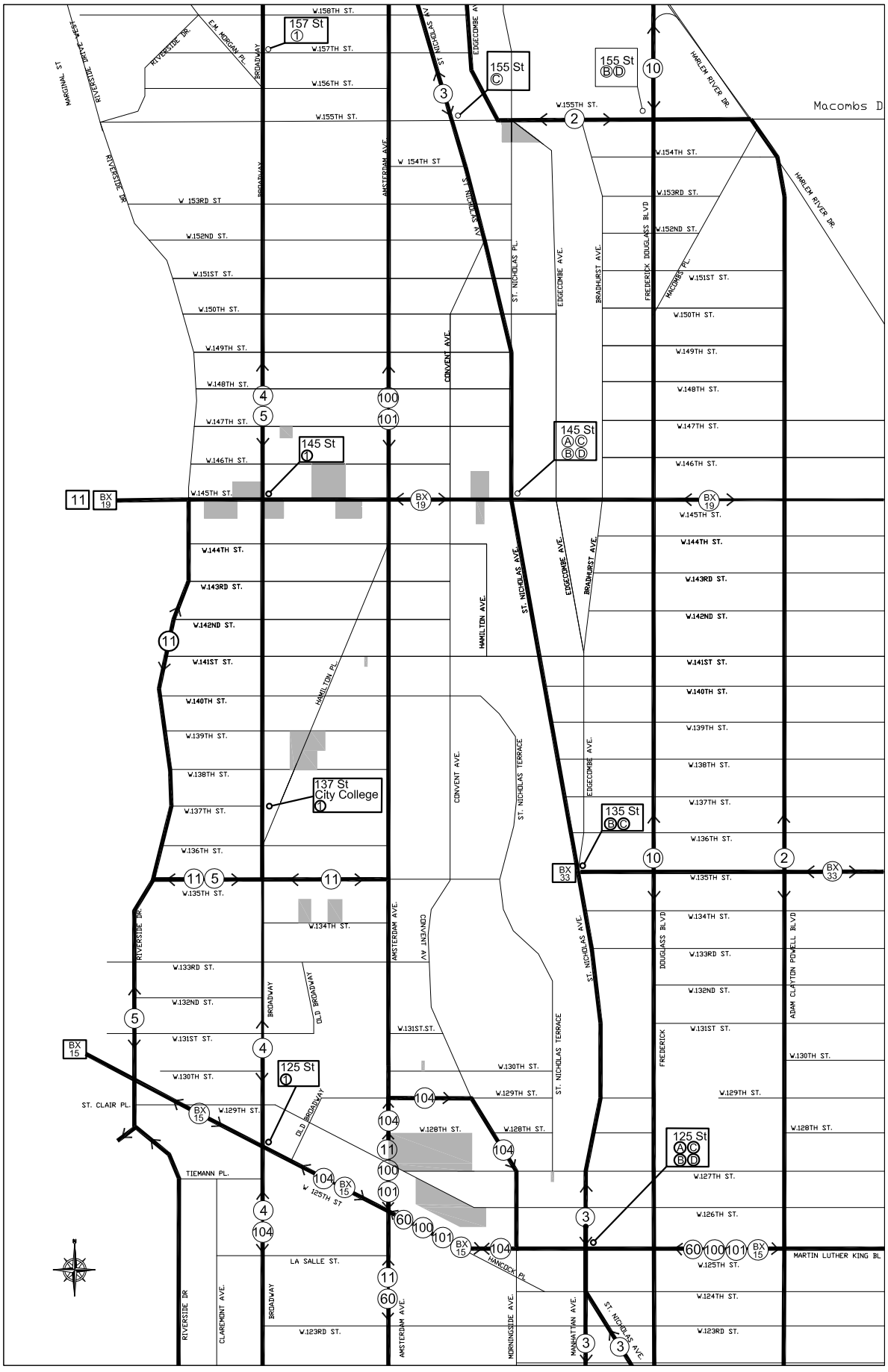

157 St
155 St
155 St
145 St
145 St
137 St
City College
135 St
125 St
125 St
W.158TH ST.
W.157TH ST.
W.156TH ST.
W.155TH ST.
W 154TH ST
W.154TH ST.
W 153RD ST
W.153RD ST.
W.152ND ST.
W.151ST ST.
W.150TH ST.
W.149TH ST.
W.148TH ST.
W.147TH ST.
W.146TH ST.
W.145TH ST.
W.144TH ST.
W.143RD ST.
W.142ND ST.
W.141ST ST.
W.140TH ST.
W.139TH ST.
W.138TH ST.
W.137TH ST.
W.136TH ST.
W.135TH ST.
W.134TH ST.
W.133RD ST.
W.132ND ST.
W.131ST ST.
W.130TH ST.
W.129TH ST.
W.128TH ST.
W.127TH ST.
W.126TH ST.
W.125TH ST.
W.124TH ST.
W.123RD ST.
RIVERSIDE DR.
RIVERSIDE DR WEST
RIVERSIDE DR
MARGINAL ST
E.M. MORGAN PL.
BROADWAY
AMSTERDAM AVE.
ST. NICHOLAS AV
EDGECOMBE AV
HARLEM RIVER DR.
Macombs D
CONVENT AVE.
ST. NICHOLAS PL.
EDGECOMBE AVE.
BRADHURST AVE.
FREDERICK DOUGLASS BLVD
MACOMBS PL.
HAMILTON AVE.
HAMILTON PL.
ST. NICHOLAS AVE.
ST. NICHOLAS TERRACE
CONVENT AV
OLD BROADWAY
ST. CLAIR PL.
TIEMANN PL.
W. 125TH ST
LA SALLE ST.
HANCOCK PL.
CLAREMONT AVE.
MORNINGSIDE AVE.
MANHATTAN AVE.
DOUGLASS BLVD
FREDERICK
ADAM CLAYTON POWELL BLVD
MARTIN LUTHER KING BL
BX 19
BX 33
BX 15
BX 15
BX 15

Table 7
Net Incremental Transit Trips Generated by
by Projected Development Sites Under RWCDS 3

	Subway		Bus	
	AM	PM	AM	PM
Cluster 1	317	428	126	245
Cluster 2	59	83	17	36
Cluster 3	34	49	12	26
Cluster 4	-3	3	1	9
Site 10	1	1	0	0
Site 11	1	1	0	0
Site 12	1	1	0	0
Total	410	566	156	316

Note: The sum of peak hour subway trips by cluster may differ slightly from the totals shown in Table 4 due to rounding.

Table 8
Project Increment Subway Trip Assignment by Station
Under RWCDS 3 - Cluster 1

Subway Station	AM Peak Hour	PM Peak Hour
West 125th Street & St. Nicholas Avenue (A, B, C, D)	244	330
West 125th Street & Broadway (1)	73	98
Total	317	428

Subway Line Haul

The proposed rezoning area is served by a total of five NYC Transit subway routes, including A and D express and B and C local services along the IND Eighth Avenue Line, and No. 1 local service on the IRT Broadway/Seventh Avenue Line. According to the general thresholds used by the MTA and specified in the *CEQR Technical Manual*, a detailed analysis of subway line haul conditions is generally not required if a Proposed Action is projected to result in fewer than 200 peak hour trips being assigned to a single route (in one direction), as this level of new demand is considered unlikely to result in significant adverse impacts. As shown in Table 7, it is estimated that all of the projected development sites within the proposed rezoning area would generate a combined total of 410 and 566 new subway trips in the weekday AM and PM peak hours, respectively. As these trips would be distributed among a total of five subway routes, it is unlikely that any one route would experience 200 or more trips in one direction in any peak hour. Therefore, the Proposed Action is not expected to result in any significant adverse impacts to subway line haul conditions based on *CEQR Technical Manual* criteria, and a detailed analysis is not warranted.

Bus

The proposed rezoning area is served by ten NYC Transit local bus routes that connect the area with other parts of Manhattan. As shown in Figure 3, these include the M2, M3, M4, M5, M10, M11, M60, M100, M101 and M104 routes. The rezoning area is also served by three NYC Transit local bus routes that connect Manhattan with the Bronx – the Bx6, Bx15 and Bx19.

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*, a detailed analysis of bus conditions is generally not required if a Proposed Action is projected to result in fewer than 50 peak hour trips being assigned to a single bus line (in one direction), as this level of new demand is considered unlikely to result in significant adverse impacts. As shown in Table 7, it is estimated that all of the projected development sites within the proposed rezoning area would generate a total of 156 and 316 new bus trips in the weekday AM and PM peak hours, respectively. As these trips would be widely disbursed throughout the study area and distributed among a total of 13 bus routes, it is highly unlikely that any one route would experience 50 or more trips in one direction in any peak hour. A preliminary assignment of bus trips was prepared to confirm this assumption, and this assignment is shown in Table A-12 in the appendix. To be conservative, all of the project-generated bus trips were assumed to be concentrated on the ten routes operating primarily in Manhattan. Trips were assigned to each route based on proximity to individual projected development sites and current ridership patterns. As shown in Table A-12, no one route is expected to experience more than 32 trips in one direction in either the AM or PM peak hours, below the 50-trip *CEQR Technical Manual* analysis threshold. Therefore, the Proposed Action is not expected to result in any significant adverse impacts to bus transit services based on *CEQR Technical Manual* criteria, and a detailed bus analysis is not warranted.

Pedestrian Trip Assignment

According to *CEQR Technical Manual* criteria, projected pedestrian volume increases of less than 200 pedestrians per hour at any pedestrian element would not typically be considered a significant impact, since that level of increase would not generally be noticeable and therefore would not require further analysis. As shown in Table 9, the maximum number of pedestrian trips generated by projected development site clusters 2, 3 and 4 in any one peak hour (including walk-only trips and walk trips to area subway stations and bus stops), is expected to total 479, 218 and 253, respectively. (Pedestrian trips generated by the three outlier sites are expected to be negligible.) However these trips would be widely dispersed among the sidewalks and crosswalks in proximity to each of the projected development sites within each of these clusters, and the total number of new trips at any one sidewalk or crosswalk is not expected to exceed the 200-trip *CEQR Technical Manual* analysis threshold.

By contrast, as shown in Table 9, substantially greater numbers of walk-only and transit-related pedestrian trips are expected to be generated by Cluster 1, with a total of approximately 846 in the AM peak hour, 1,662 in the midday, 1,410 in the PM, and 1,217 during the Saturday midday. In addition, based on the assignment of project-generated auto trips, there would be an estimated 94, 42, 140 and 78 new pedestrian trips en route between Cluster 1 and outlying off-street public parking facilities in these same peak hours, respectively. Although these pedestrian trips would be dispersed throughout the portion of the rezoning area encompassing Cluster 1, concentrations of new pedestrian trips would likely occur along corridors connecting this cluster to bus routes and the two subway stations in the vicinity. Figure 4 shows the assignment of project increment pedestrian trips to area sidewalks

West Harlem Rezoning

Figure 4

Peak Hour Project Increment Sidewalk and Crosswalk Volumes for RWCDS 3 - Cluster 1

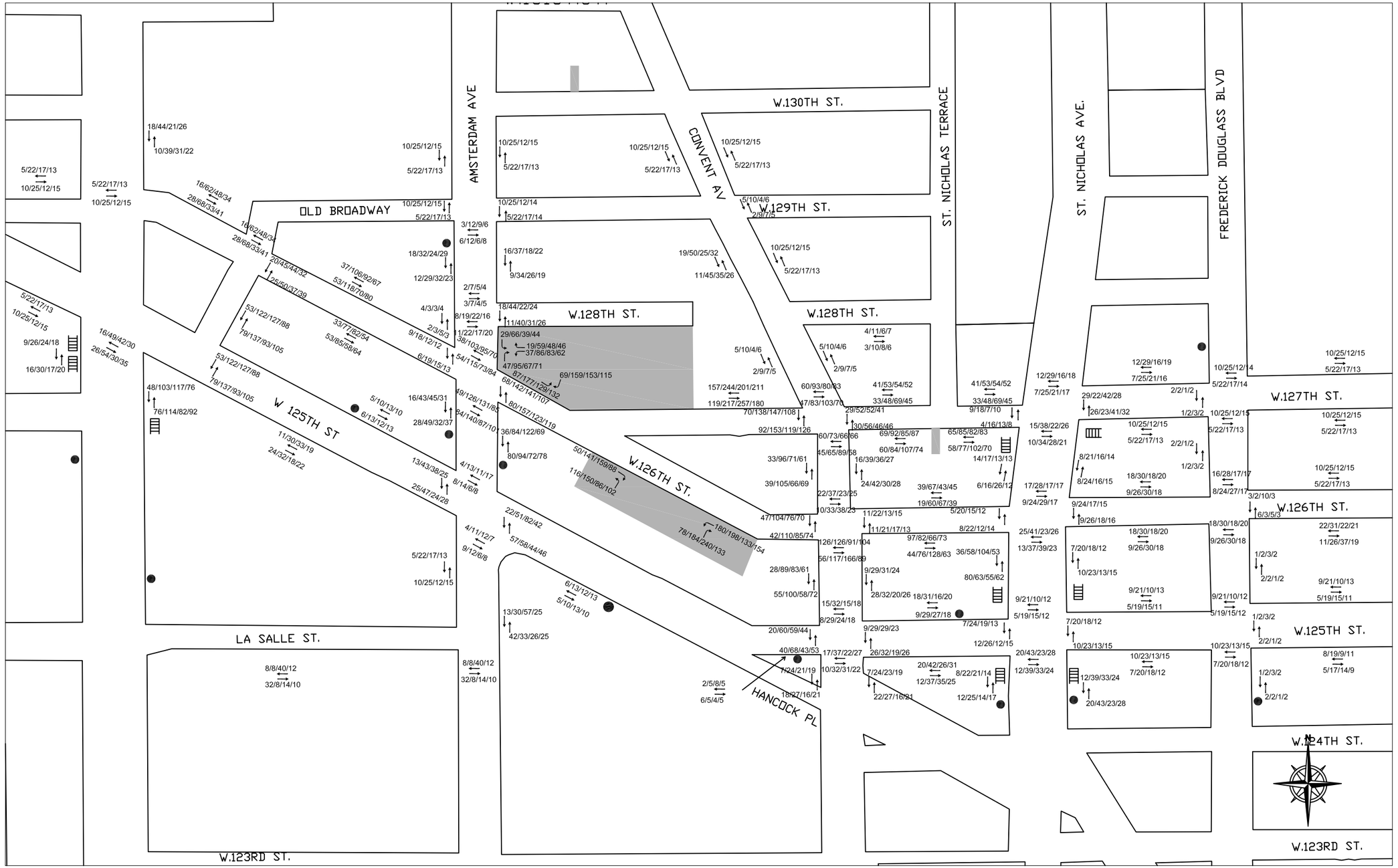


Table 9
Net Incremental Pedestrian Trips Generated by Projected Development Sites Under Scenario 3

	AM	Midday	PM	Saturday Midday
Cluster 1	846	1,662	1,410	1,217
Cluster 2	127	479	312	373
Cluster 3	78	218	174	204
Cluster 4	26	253	127	159
Site 10	1	0	1	0
Site 11	1	0	1	0
Site 12	1	0	1	0
Total	1,080	2,612	2,026	1,983

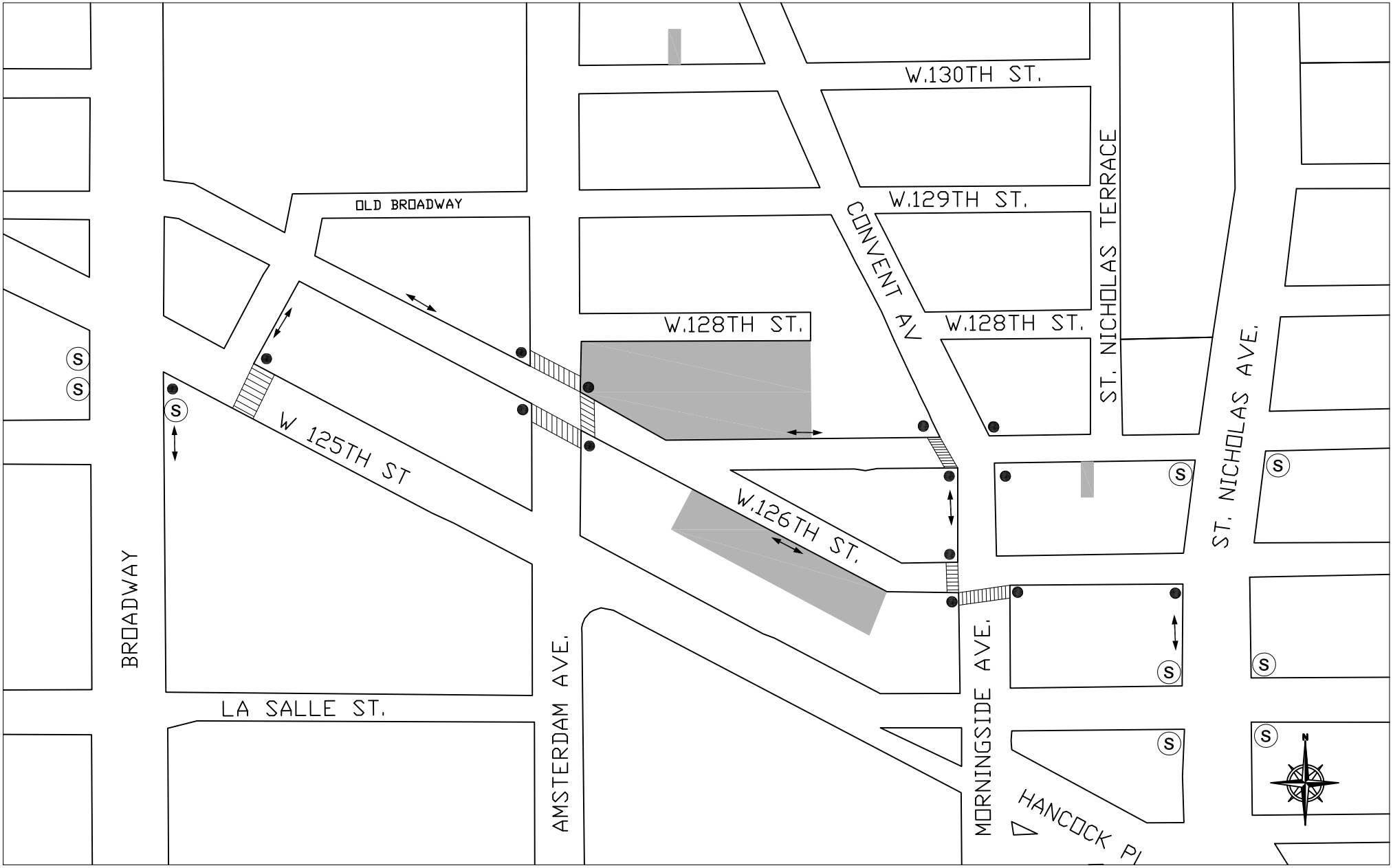
and crosswalks in the weekday and Saturday peak hours. Subway and bus trips were assigned to the most direct routes between these transit services and projected development sites, while walk-only trips to/from projected development sites were assumed to be distributed throughout the area. Pedestrian trips en route between Cluster 1 and off-street public parking garages in the vicinity are also reflected in the volumes shown in Figure 4. Based on this assignment, a total of seven sidewalks, 14 corner reservoir areas and seven crosswalks were identified where project-generated pedestrian trips are expected to exceed the 200-trip *CEQR Technical Manual* analysis threshold in one or more peak hours. As shown in Figure 4, these pedestrian elements are generally located along the West 126th Street and West 127th Street corridors, as well as along West 125th Street at Morningside Avenue and Broadway. Therefore, a quantitative pedestrian impact analysis is provided in the EIS focusing on these seven sidewalks, 14 corner areas and seven crosswalks, which are shown in Figure 5.

Parking

As a quantitative traffic analysis is necessary, analyses of on-street (curbside) and off-street parking conditions are also provided. These analyses focus on the existing and future parking supply and demand in proximity to projected development site Cluster 1, which would generate the majority of the new vehicle trips and parking demand resulting from the proposed action.

West Harlem Rezoning

Figure 5
Pedestrian Analysis Locations



Legend:

Analyzed Corner | Analyzed Sldewalk | Analyzed Crosswalk | (S) Subway Station Entrance | Projected Development Site Cluster 1

APPENDIX

Table A-1
Travel Demand Forecast - Scenario 1

Land Use:		Office		Residential		Destination Retail		Local Retail		Community Facility (Office)		Community Facility (Recreation)		Community Facility (Dormitory)		Community Facility (Museum)		Total		
Size/Units:		80,854	gsf	344	DU	82,755	gsf	41,595	gsf	104,884	gsf	119,949	gsf	-4,823 -7	gsf Unit	56,837	gsf			
Peak Hour Person Trips:																				
	AM (8-9)	175		278		146		192		227		311		-3		15		1,340		
	MD (12-1)	218		139		437		1,215		283		397		-1		246		2,933		
	PM (5-6)	204		306		437		640		264		407		-3		199		2,454		
	Sat MD (1-2)	54		264		632		749		70		319		-2		199		2,283		
Person Trips:																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	**Auto**	64	3	7	39	7	7	2	2	83	4	8	4	0	0	1	1	172	60	232
	Taxi	3	0	1	5	11	11	3	3	4	0	18	10	0	0	1	1	41	30	71
	Subway	53	3	25	132	16	16	6	6	69	4	25	13	0	-1	1	1	195	174	369
	Bus	20	1	6	34	15	15	6	6	26	1	10	5	0	0	2	2	85	64	149
	Walk/Other	26	1	4	23	25	25	80	80	33	2	144	74	0	-1	3	3	315	207	522
	Total	166	8	43	233	74	74	97	97	215	11	205	106	0	-2	8	8	808	535	1,343
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	**Auto**	5	6	12	12	20	20	12	12	7	7	9	7	0	0	19	11	84	75	159
	Taxi	5	6	1	1	32	32	18	18	7	7	21	15	0	0	15	9	99	88	187
	Subway	10	11	39	39	47	47	36	36	14	15	28	20	0	0	11	6	185	174	359
	Bus	5	6	10	10	44	44	36	36	7	7	12	8	0	0	45	26	159	137	296
	Walk/Other	79	85	7	7	76	76	504	504	102	110	161	117	0	0	65	38	994	937	1,931
	Total	104	114	69	69	219	219	606	606	137	146	231	167	0	0	155	90	1,521	1,411	2,932
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	**Auto**	12	67	34	17	20	20	6	6	15	87	6	11	0	0	12	11	105	219	324
	Taxi	1	3	4	2	32	32	10	10	1	4	12	24	0	0	10	10	70	85	155
	Subway	10	56	116	57	47	47	19	19	13	72	17	32	-1	0	7	7	228	290	518
	Bus	4	21	30	15	44	44	19	19	5	27	7	13	0	0	30	28	139	167	306
	Walk/Other	5	27	20	10	76	76	265	265	6	35	97	188	-1	0	44	40	512	641	1,153
	Total	32	174	204	101	219	219	319	319	40	225	139	268	-2	0	103	96	1,054	1,402	2,456
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	**Auto**	12	8	23	21	28	28	7	7	16	11	7	5	0	0	18	10	111	90	201
	Taxi	1	0	3	2	46	46	11	11	1	1	17	12	0	0	13	7	92	79	171
	Subway	10	7	79	70	68	68	22	22	13	9	22	16	0	0	9	5	223	197	420
	Bus	4	3	20	18	63	63	22	22	5	3	9	7	0	0	36	21	159	137	296
	Walk/Other	5	3	14	12	111	111	311	311	6	4	130	94	0	0	50	29	627	564	1,191
	Total	32	21	139	123	316	316	373	373	41	28	185	134	0	0	126	72	1,212	1,067	2,279
Vehicle Trips :																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	**Auto (Total)**	56	3	6	31	4	4	1	1	73	4	6	3	0	0	0	0	146	46	192
	Taxi	2	0	1	4	6	6	2	2	3	0	13	7	0	0	1	1	28	20	
	Taxi Balanced	2	2	4	4	11	11	3	3	3	3	17	17	0	0	2	2	41	41	82
	Truck	1	1	1	1	1	1	1	1	2	2	0	0	0	0	0	0	6	6	11
	Total	59	6	11	36	16	16	5	5	78	9	23	20	0	0	2	2	193	93	286
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	**Auto (Total)**	4	5	10	10	10	10	6	6	6	6	6	5	0	0	8	5	50	47	97
	Taxi	4	4	1	1	16	16	9	9	5	5	15	11	0	0	8	5	58	51	
	Taxi Balanced	7	7	2	2	28	28	16	16	9	9	23	23	0	0	11	11	95	95	190
	Truck	1	1	1	1	2	2	1	1	2	2	0	0	0	0	0	0	7	7	14
	Total	12	13	13	13	40	40	23	23	17	17	29	28	0	0	19	16	152	149	301
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	**Auto (Total)**	11	59	27	13	10	10	3	3	13	76	4	8	0	0	5	5	73	174	247
	Taxi	1	2	3	1	16	16	5	5	1	3	9	17	0	0	5	5	40	49	
	Taxi Balanced	3	3	4	4	28	28	9	9	4	4	23	23	0	0	9	9	79	79	158
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	14	62	31	17	38	38	12	12	17	80	27	31	0	0	14	14	152	253	405
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	**Auto (Total)**	11	7	18	17	14	14	4	4	14	10	5	4	0	0	8	4	74	60	134
	Taxi	1	0	2	1	23	23	6	6	1	1	12	9	0	0	7	4	52	44	
	Taxi Balanced	1	1	3	3	38	38	10	10	2	2	18	18	0	0	10	10	83	83	166
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	12	8	21	20	52	52	14	14	16	12	23	22	0	0	18	14	157	143	300

	Total Vehicle Trips			
		In	**Out**	**Total**
	AM (8-9)	**193**	**93**	**286**
	MD (12-1)	**152**	**149**	**301**
	PM (5-6)	**152**	**253**	**405**
	Sat MD (1-2)	**157**	**143**	**300**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-2
Travel Demand Forecast - Scenario 2

Land Use:	Office	Residential	Destination Retail	Local Retail	Community Facility (Office)	Community Facility (Recreation)	Community Facility (Dormitory)	Community Facility (Museum)	Total
Size/Units:	15,885 gsf	414 DU	107,239 gsf	41,595 gsf	94,875 gsf	109,940 gsf	-4,823 gsf -7 Unit	46,828 gsf	
Peak Hour Person Trips:									
AM (8-9)	34	334	189	192	205	285	-3	13	1,249
MD (12-1)	43	167	566	1,215	256	364	-1	202	2,812
PM (5-6)	40	368	566	640	239	373	-3	164	2,387
Sat MD (1-2)	11	318	818	749	63	292	-2	164	2,413

Person Trips:

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto**	13	1	9	47	8	8	2	2	75	4	8	4	0	0	1	1	116	67	183
	Taxi	1	0	1	6	14	14	3	3	4	0	17	9	0	0	1	1	41	33	74
	Subway	10	1	30	159	20	20	6	6	62	3	23	12	0	-1	0	0	151	200	351
	Bus	4	0	8	41	19	19	6	6	23	1	9	5	0	0	2	2	71	74	145
	Walk/Other	5	0	5	28	33	33	80	80	30	2	132	68	0	-1	3	3	288	213	501
	Total	33	2	53	281	94	94	97	97	194	10	189	98	0	-2	7	7	667	587	1,254
MD	**Auto**	1	1	14	14	25	25	12	12	6	7	8	6	0	0	15	9	81	74	155
	Taxi	1	1	2	2	41	41	18	18	6	7	19	14	0	0	13	7	100	90	190
	Subway	2	2	47	47	61	61	36	36	12	13	25	18	0	0	9	5	192	182	374
	Bus	1	1	12	12	57	57	36	36	6	7	11	8	0	0	37	22	160	143	303
	Walk/Other	15	17	8	8	99	99	504	504	92	100	148	107	0	0	54	31	920	866	1,786
	Total	20	22	83	83	283	283	606	606	122	134	211	153	0	0	128	74	1,453	1,355	2,808
PM	**Auto**	2	13	41	20	25	25	6	6	14	79	5	10	0	0	10	9	103	162	265
	Taxi	0	1	5	2	41	41	10	10	1	4	11	22	0	0	9	8	77	88	165
	Subway	2	11	140	69	61	61	19	19	12	65	15	30	-1	0	6	6	254	261	515
	Bus	1	4	36	18	57	57	19	19	4	24	6	12	0	0	25	23	148	157	305
	Walk/Other	1	5	25	12	99	99	265	265	6	31	89	173	-1	0	36	33	520	618	1,138
	Total	6	34	247	121	283	283	319	319	37	203	126	247	-2	0	86	79	1,102	1,286	2,388
Sat MD	**Auto**	2	2	28	25	37	37	7	7	15	10	7	5	0	0	14	8	110	94	204
	Taxi	0	0	3	3	59	59	11	11	1	0	15	11	0	0	10	6	99	90	189
	Subway	2	1	96	85	88	88	22	22	12	8	20	15	0	0	7	4	247	223	470
	Bus	1	1	25	22	82	82	22	22	4	3	8	6	0	0	30	18	172	154	326
	Walk/Other	1	1	17	15	143	143	311	311	6	4	119	86	0	0	41	24	638	584	1,222
	Total	6	5	169	150	409	409	373	373	38	25	169	123	0	0	102	60	1,266	1,145	2,411

Vehicle Trips :

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto (Total)**	11	1	7	37	4	4	1	1	66	4	6	3	0	0	0	0	95	50	145
	Taxi	1	0	1	4	7	7	2	2	3	0	12	6	0	0	1	1	27	20	
	Taxi Balanced	1	1	4	4	13	13	3	3	3	3	15	15	0	0	2	2	40	40	80
	Truck	0	0	2	2	2	2	1	1	2	2	0	0	0	0	0	0	7	7	13
	Total	12	2	13	43	19	19	5	5	71	9	21	18	0	0	2	2	142	97	239
MD	**Auto (Total)**	1	1	11	11	13	13	6	6	5	6	6	4	0	0	6	4	48	45	93
	Taxi	1	1	1	1	21	21	9	9	4	5	14	10	0	0	7	4	57	51	
	Taxi Balanced	2	2	2	2	36	36	16	16	8	8	21	21	0	0	10	10	94	94	188
	Truck	0	0	1	1	2	2	1	1	2	2	0	0	0	0	0	0	6	6	12
	Total	3	3	14	14	51	51	23	23	15	16	27	25	0	0	16	14	148	145	293
PM	**Auto (Total)**	2	11	33	16	13	13	3	3	12	69	4	7	0	0	4	4	71	123	194
	Taxi	0	1	4	1	21	21	5	5	1	3	8	16	0	0	5	4	44	51	
	Taxi Balanced	1	1	4	4	38	38	9	9	4	4	21	21	0	0	8	8	84	84	168
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	3	12	37	20	51	51	12	12	16	73	25	28	0	0	12	12	155	207	362
Sat MD	**Auto (Total)**	2	2	22	20	19	19	4	4	13	9	5	4	0	0	6	3	71	61	132
	Taxi	0	0	2	2	30	30	6	6	1	0	11	8	0	0	5	3	55	49	
	Taxi Balanced	0	0	3	3	51	51	10	10	1	1	16	16	0	0	7	7	90	90	180
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	2	2	25	23	70	70	14	14	14	10	21	20	0	0	13	10	161	151	312

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**142**	**97**	**239**
MD (12-1)	**148**	**145**	**293**
PM (5-6)	**155**	**207**	**362**
Sat MD (1-2)	**161**	**151**	**312**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-3
Travel Demand Forecast - Scenario 3

Land Use:	Office	Residential	Destination Retail	Local Retail	Community Facility (Office)	Community Facility (Recreation)	Community Facility (Dormitory)	Community Facility (Museum)	Total
Size/Units:	80,854 gsf	499 DU	82,755 gsf	41,595 gsf	104,884 gsf	119,949 gsf	-124,287 gsf -188 Unit	56,837 gsf	
Peak Hour Person Trips:									
AM (8-9)	175	403	146	192	227	311	-68	15	1,399
MD (12-1)	218	201	437	1,215	283	397	-35	246	2,962
PM (5-6)	204	443	437	640	264	407	-80	199	2,514
Sat MD (1-2)	54	383	632	749	70	319	-60	199	2,345

Person Trips:

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto**	64	3	11	57	7	7	2	2	83	4	8	4	-2	-7	1	1	174	71	245
	Taxi	3	0	1	7	11	11	3	3	4	0	18	10	0	-2	1	1	41	30	71
	Subway	53	3	37	192	16	16	6	6	69	4	25	13	-6	-23	1	1	201	212	413
	Bus	20	1	9	49	15	15	6	6	26	1	10	5	-2	-8	2	2	86	71	157
	Walk/Other	26	1	6	34	25	25	80	80	33	2	144	74	-4	-16	3	3	313	203	516
	Total	166	8	64	339	74	74	97	97	215	11	205	106	-14	-56	8	8	815	587	1,402
MD	**Auto**	5	6	17	17	20	20	12	12	7	7	9	7	-2	-2	19	11	87	78	165
	Taxi	5	6	2	2	32	32	18	18	7	7	21	15	-1	-1	15	9	99	88	187
	Subway	10	11	57	57	47	47	36	36	14	15	28	20	-7	-7	11	6	196	185	381
	Bus	5	6	15	15	44	44	36	36	7	7	12	8	-3	-3	45	26	161	139	300
	Walk/Other	79	85	10	10	76	76	504	504	102	110	161	117	-5	-5	65	38	992	935	1,927
	Total	104	114	101	101	219	219	606	606	137	146	231	167	-18	-18	155	90	1,535	1,425	2,960
PM	**Auto**	12	67	50	24	20	20	6	6	15	87	6	11	-6	-3	12	11	115	223	338
	Taxi	1	3	6	3	32	32	10	10	1	4	12	24	-2	-1	10	10	70	85	155
	Subway	10	56	168	83	47	47	19	19	13	72	17	32	-22	-12	7	7	259	304	563
	Bus	4	21	43	21	44	44	19	19	5	27	7	13	-8	-4	30	28	144	169	313
	Walk/Other	5	27	30	15	76	76	265	265	6	35	97	188	-15	-8	44	40	508	638	1,146
	Total	32	174	297	146	219	219	319	319	40	225	139	268	-53	-28	103	96	1,096	1,419	2,515
Sat MD	**Auto**	12	8	34	30	28	28	7	7	16	11	7	5	-4	-4	18	10	118	95	213
	Taxi	1	0	4	4	46	46	11	11	1	1	17	12	-1	-1	13	7	92	80	172
	Subway	10	7	115	102	68	68	22	22	13	9	22	16	-13	-12	9	5	246	217	463
	Bus	4	3	30	26	63	63	22	22	5	3	9	7	-4	-4	36	21	165	141	306
	Walk/Other	5	3	20	18	111	111	311	311	6	4	130	94	-9	-9	50	29	624	561	1,185
	Total	32	21	203	180	316	316	373	373	41	28	185	134	-31	-30	126	72	1,245	1,094	2,339

Vehicle Trips :

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto (Total)**	56	3	9	45	4	4	1	1	73	4	6	3	-2	-6	0	0	147	54	201
	Taxi	2	0	1	5	6	6	2	2	3	0	13	7	0	-2	1	1	28	19	
	Taxi Balanced	2	2	5	5	11	11	3	3	3	3	17	17	-2	-2	2	2	40	40	80
	Truck	1	1	2	2	1	1	1	1	2	2	0	0	0	0	0	0	7	7	13
	Total	59	6	16	52	16	16	5	5	78	9	23	20	-4	-8	2	2	194	101	295
MD	**Auto (Total)**	4	5	13	13	10	10	6	6	6	6	6	5	-2	-2	8	5	51	48	99
	Taxi	4	4	1	1	16	16	9	9	5	5	15	11	-1	-1	8	5	57	50	
	Taxi Balanced	7	7	2	2	28	28	16	16	9	9	23	23	-2	-2	11	11	93	93	186
	Truck	1	1	1	1	2	2	1	1	2	2	0	0	0	0	0	0	7	7	14
	Total	12	13	16	16	40	40	23	23	17	17	29	28	-4	-4	19	16	151	148	299
PM	**Auto (Total)**	11	59	40	19	10	10	3	3	13	76	4	8	-5	-3	5	5	81	177	258
	Taxi	1	2	4	2	16	16	5	5	1	3	9	17	-2	-1	5	5	39	49	
	Taxi Balanced	3	3	5	5	29	29	9	9	4	4	23	23	-3	-3	9	9	78	78	156
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	14	62	45	24	39	39	12	12	17	80	27	31	-8	-6	14	14	159	255	414
Sat MD	**Auto (Total)**	11	7	27	24	14	14	4	4	14	10	5	4	-3	-3	8	4	80	64	144
	Taxi	1	0	3	3	23	23	6	6	1	1	12	9	-1	-1	7	4	52	45	
	Taxi Balanced	1	1	5	5	39	39	10	10	2	2	18	18	-2	-2	10	10	84	84	168
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	12	8	32	29	53	53	14	14	16	12	23	22	-5	-5	18	14	164	148	312

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**194**	**101**	**295**
MD (12-1)	**151**	**148**	**299**
PM (5-6)	**159**	**255**	**414**
Sat MD (1-2)	**164**	**148**	**312**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-4
Travel Demand Forecast - Scenario 4

Land Use:		Office		Residential		Destination Retail		Local Retail		Community Facility (Office)		Community Facility (Recreation)		Community Facility (Dormitory)		Community Facility (Museum)		Total		
Size/Units:		15,885	gsf	569	DU	107,239	gsf	41,595	gsf	94,875	gsf	109,940	gsf	-124,287 -188	gsf Unit	46,828	gsf			
Peak Hour Person Trips:																				
	AM (8-9)	34		459		189		192		205		285		-68		13		1,308		
	MD (12-1)	43		230		566		1,215		256		364		-35		202		2,841		
	PM (5-6)	40		505		566		640		239		373		-80		164		2,448		
	Sat MD (1-2)	11		437		818		749		63		292		-60		164		2,474		
Person Trips:																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	**Auto**	13	1	12	64	8	8	2	2	75	4	8	4	-2	-7	1	1	117	77	194
	Taxi	1	0	1	8	14	14	3	3	4	0	17	9	0	-2	1	1	41	33	74
	Subway	10	1	42	219	20	20	6	6	62	3	23	12	-6	-23	0	0	157	238	395
	Bus	4	0	11	56	19	19	6	6	23	1	9	5	-2	-8	2	2	72	81	153
	Walk/Other	5	0	7	39	33	33	80	80	30	2	132	68	-4	-16	3	3	286	209	495
	Total	33	2	73	386	94	94	97	97	194	10	189	98	-14	-56	7	7	673	638	1,311
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	**Auto**	1	1	19	19	25	25	12	12	6	7	8	6	-2	-2	15	9	84	77	161
	Taxi	1	1	2	2	41	41	18	18	6	7	19	14	-1	-1	13	7	99	89	188
	Subway	2	2	65	65	61	61	36	36	12	13	25	18	-7	-7	9	5	203	193	396
	Bus	1	1	17	17	57	57	36	36	6	7	11	8	-3	-3	37	22	162	145	307
	Walk/Other	15	17	11	11	99	99	504	504	92	100	148	107	-5	-5	54	31	918	864	1,782
	Total	20	22	114	114	283	283	606	606	122	134	211	153	-18	-18	128	74	1,466	1,368	2,834
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	**Auto**	2	13	57	28	25	25	6	6	14	79	5	10	-6	-3	10	9	113	167	280
	Taxi	0	1	7	3	41	41	10	10	1	4	11	22	-2	-1	9	8	77	88	165
	Subway	2	11	192	95	61	61	19	19	12	65	15	30	-22	-12	6	6	285	275	560
	Bus	1	4	49	24	57	57	19	19	4	24	6	12	-8	-4	25	23	153	159	312
	Walk/Other	1	5	34	17	99	99	265	265	6	31	89	173	-15	-8	36	33	515	615	1,130
	Total	6	34	339	167	283	283	319	319	37	203	126	247	-53	-28	86	79	1,143	1,304	2,447
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	**Auto**	2	2	39	34	37	37	7	7	15	10	7	5	-4	-4	14	8	117	99	216
	Taxi	0	0	5	4	59	59	11	11	1	0	15	11	-1	-1	10	6	100	90	190
	Subway	2	1	131	116	88	88	22	22	12	8	20	15	-13	-12	7	4	269	242	511
	Bus	1	1	34	30	82	82	22	22	4	3	8	6	-4	-4	30	18	177	158	335
	Walk/Other	1	1	23	21	143	143	311	311	6	4	119	86	-9	-9	41	24	635	581	1,216
	Total	6	5	232	205	409	409	373	373	38	25	169	123	-31	-30	102	60	1,298	1,170	2,468
Vehicle Trips :																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	**Auto (Total)**	11	1	10	51	4	4	1	1	66	4	6	3	-2	-6	0	0	96	58	154
	Taxi	1	0	1	6	7	7	2	2	3	0	12	6	0	-2	1	1	27	20	
	Taxi Balanced	1	1	6	6	13	13	3	3	3	3	15	15	-2	-2	2	2	40	40	80
	Truck	0	0	2	2	2	2	1	1	2	2	0	0	0	0	0	0	7	7	13
	Total	12	2	18	59	19	19	5	5	71	9	21	18	-4	-8	2	2	143	105	248
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	**Auto (Total)**	1	1	15	15	13	13	6	6	5	6	6	4	-2	-2	6	4	50	47	97
	Taxi	1	1	1	1	21	21	9	9	4	5	14	10	-1	-1	7	4	56	50	
	Taxi Balanced	2	2	2	2	35	35	16	16	8	8	21	21	-2	-2	10	10	92	92	184
	Truck	0	0	2	2	2	2	1	1	2	2	0	0	0	0	0	0	7	7	14
	Total	3	3	19	19	50	50	23	23	15	16	27	25	-4	-4	16	14	149	146	295
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	**Auto (Total)**	2	11	45	22	13	13	3	3	12	69	4	7	-5	-3	4	4	78	126	204
	Taxi	0	1	5	2	21	21	5	5	1	3	8	16	-2	-1	5	4	43	51	
	Taxi Balanced	1	1	6	6	38	38	9	9	4	4	21	21	-3	-3	8	8	83	83	166
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	3	12	51	28	51	51	12	12	16	73	25	28	-8	-6	12	12	161	209	370
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	**Auto (Total)**	2	2	31	27	19	19	4	4	13	9	5	4	-3	-3	6	3	77	65	142
	Taxi	0	0	4	3	30	30	6	6	1	0	11	8	-1	-1	5	3	56	49	
	Taxi Balanced	0	0	6	6	52	52	10	10	1	1	16	16	-2	-2	7	7	91	91	182
	Truck	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Total	2	2	38	34	71	71	14	14	14	10	21	20	-5	-5	13	10	169	157	326

Total Vehicle Trips	**In**	**Out**	**Total**
AM (8-9)	**143**	**105**	**248**
MD (12-1)	**149**	**146**	**295**
PM (5-6)	**161**	**209**	**370**
Sat MD (1-2)	**169**	**157**	**326**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-5
Travel Demand Forecast - Cluster 1

Land Use:	Office	Residential	Destination Retail	Local Retail	Community Facility (Office)	Community Facility (Recreation)	Community Facility (Dormitory)	Community Facility (Museum)	Total
Size/Units:	68,133 gsf	225 DU	59,598 gsf	11,101 gsf	125,239 gsf	124,349 gsf	60,532 gsf 92 Unit	56,837 gsf	
Peak Hour Person Trips:									
AM (8-9)	147	182	105	51	271	322	33	15	1,127
MD (12-1)	184	91	315	324	338	411	17	246	1,926
PM (5-6)	172	200	315	171	316	422	39	199	1,834
Sat MD (1-2)	45	173	455	200	83	331	29	199	1,515

Person Trips:

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto**	54	3	5	25	5	5	1	1	99	5	9	4	1	3	1	1	175	47	222
	Taxi	3	0	1	3	8	8	1	1	5	0	19	10	0	1	1	1	38	24	62
	Subway	45	2	16	87	11	11	2	2	82	4	26	13	3	11	1	1	186	131	317
	Bus	17	1	4	22	10	10	2	2	31	2	11	5	1	4	2	2	78	48	126
	Walk/Other	22	1	3	15	18	18	21	21	40	2	149	77	2	8	3	3	258	145	403
	Total	141	7	29	152	52	52	27	27	257	13	214	109	7	27	8	8	735	395	1,130
MD	**Auto**	4	5	8	8	14	14	3	3	8	9	10	7	1	1	19	11	67	58	125
	Taxi	4	5	1	1	23	23	5	5	8	9	21	16	0	0	15	9	77	68	145
	Subway	9	10	26	26	34	34	10	10	16	18	29	21	4	4	11	6	139	129	268
	Bus	4	5	7	7	31	31	10	10	8	9	12	9	1	1	45	26	118	98	216
	Walk/Other	66	72	5	5	55	55	135	135	122	132	167	121	3	2	65	38	618	560	1,178
	Total	87	97	47	47	157	157	163	163	162	177	239	174	9	8	155	90	1,019	913	1,932
PM	**Auto**	10	56	22	11	14	14	2	2	18	104	6	11	3	2	12	11	87	211	298
	Taxi	0	3	3	1	23	23	3	3	1	5	13	25	1	0	10	10	54	70	124
	Subway	8	47	76	37	34	34	5	5	15	86	17	33	11	6	7	7	173	255	428
	Bus	3	17	20	10	31	31	5	5	6	32	7	14	4	2	30	28	106	139	245
	Walk/Other	4	22	13	7	55	55	71	71	7	41	101	195	7	4	44	40	302	435	737
	Total	25	145	134	66	157	157	86	86	47	268	144	278	26	14	103	96	722	1,110	1,832
Sat MD	**Auto**	10	7	15	14	20	20	2	2	19	13	8	6	2	2	18	10	94	74	168
	Taxi	1	0	2	2	33	33	3	3	1	1	17	13	0	0	13	7	70	59	129
	Subway	9	6	52	46	49	49	6	6	16	11	23	17	6	6	9	5	170	146	316
	Bus	3	2	13	12	45	45	6	6	6	4	10	7	2	2	36	21	121	99	220
	Walk/Other	4	3	9	8	80	80	83	83	8	5	134	97	4	4	50	29	372	309	681
	Total	27	18	91	82	227	227	100	100	50	34	192	140	14	14	126	72	827	687	1,514

Vehicle Trips :

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto (Total)**	47	3	4	20	3	3	1	1	87	4	6	3	1	3	0	0	149	37	186
	Taxi	2	0	1	2	4	4	1	1	4	0	14	7	0	1	1	1	27	16	
	Taxi Balanced	2	2	3	3	7	7	2	2	3	3	16	16	1	1	2	2	36	36	72
	Truck	1	1	1	1	1	1	0	0	2	2	0	0	0	0	0	0	5	5	10
	Total	50	6	8	24	11	11	3	3	92	9	22	19	2	4	2	2	190	78	268
MD	**Auto (Total)**	4	4	6	6	7	7	2	2	7	8	7	5	1	1	8	5	42	38	80
	Taxi	3	4	1	1	12	12	3	3	6	6	15	11	0	0	8	5	48	42	
	Taxi Balanced	6	6	2	2	21	21	5	5	10	10	23	23	0	0	11	11	78	78	156
	Truck	1	1	1	1	1	1	0	0	2	2	0	0	0	0	0	0	5	5	11
	Total	11	11	9	9	29	29	7	7	19	20	30	28	1	1	19	16	125	121	247
PM	**Auto (Total)**	9	49	17	9	7	7	1	1	16	91	4	8	3	2	5	5	62	172	234
	Taxi	0	2	2	1	12	12	2	2	1	4	9	18	1	0	5	5	32	44	
	Taxi Balanced	2	2	3	3	21	21	4	4	4	4	24	24	1	1	9	9	68	68	136
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	11	51	20	12	28	28	5	5	20	95	28	32	4	3	14	14	130	240	370
Sat MD	**Auto (Total)**	9	6	12	11	10	10	1	1	17	11	6	4	2	2	8	4	65	49	114
	Taxi	1	0	1	1	17	17	2	2	1	1	12	9	0	0	7	4	41	34	
	Taxi Balanced	1	1	2	2	29	29	3	3	2	2	18	18	0	0	10	10	65	65	130
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	10	7	14	13	39	39	4	4	19	13	24	22	2	2	18	14	130	114	244

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**190**	**78**	**268**
MD (12-1)	**125**	**121**	**246**
PM (5-6)	**130**	**240**	**370**
Sat MD (1-2)	**130**	**114**	**244**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-6
Travel Demand Forecast - Cluster 2

Land Use:	Office	Residential	Destination Retail	Local Retail	Community Facility (Office)	Community Facility (Recreation)	Community Facility (Dormitory)	Community Facility (Museum)	Total
Size/Units:	15,827 gsf	204 DU	11,923 gsf	14,695 gsf	-14,745 gsf	0 gsf	-184,819 gsf -280 Unit	0 gsf	
Peak Hour Person Trips:									
AM (8-9)	34	165	21	68	-32	0	-102	0	154
MD (12-1)	43	82	63	429	-40	0	-53	0	525
PM (5-6)	40	181	63	226	-37	0	-120	0	353
Sat MD (1-2)	10	157	91	265	-10	0	-90	0	423

Person Trips:

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto**	13	1	4	23	1	1	1	1	-12	-1	0	0	-2	-10	0	0	5	15	20
	Taxi	1	0	1	3	2	2	1	1	-1	0	0	0	-1	-2	0	0	3	4	7
	Subway	10	1	15	78	2	2	2	2	-10	-1	0	0	-8	-34	0	0	11	48	59
	Bus	4	0	4	20	2	2	2	2	-4	0	0	0	-3	-12	0	0	5	12	17
	Walk/Other	5	0	3	14	4	4	28	28	-5	0	0	0	-6	-24	0	0	29	22	51
	Total	33	2	27	138	11	11	34	34	-32	-2	0	0	-20	-82	0	0	53	101	154
MD	**Auto**	1	1	7	7	3	3	4	4	-1	-1	0	0	-3	-3	0	0	11	11	22
	Taxi	1	1	1	1	5	5	6	6	-1	-1	0	0	-1	-1	0	0	11	11	22
	Subway	2	2	23	23	7	7	13	13	-2	-2	0	0	-11	-11	0	0	32	32	64
	Bus	1	1	6	6	6	6	13	13	-1	-1	0	0	-4	-4	0	0	21	21	42
	Walk/Other	15	17	4	4	11	11	178	178	-14	-16	0	0	-8	-7	0	0	186	187	373
	Total	20	22	41	41	32	32	214	214	-19	-21	0	0	-27	-26	0	0	261	262	523
PM	**Auto**	2	13	20	10	3	3	2	2	-2	-12	0	0	-9	-5	0	0	16	11	27
	Taxi	0	1	2	1	5	5	3	3	0	-1	0	0	-2	-1	0	0	8	8	16
	Subway	2	11	69	34	7	7	7	7	-2	-10	0	0	-32	-17	0	0	51	32	83
	Bus	1	4	18	9	6	6	7	7	-1	-4	0	0	-11	-6	0	0	20	16	36
	Walk/Other	1	5	12	6	11	11	94	94	-1	-5	0	0	-23	-12	0	0	94	99	193
	Total	6	34	121	60	32	32	113	113	-6	-32	0	0	-77	-41	0	0	189	166	355
Sat MD	**Auto**	2	2	14	12	4	4	3	3	-2	-2	0	0	-5	-5	0	0	16	14	30
	Taxi	0	0	2	1	7	7	4	4	0	0	0	0	-1	-1	0	0	12	11	23
	Subway	2	1	47	42	10	10	8	8	-2	-1	0	0	-19	-18	0	0	46	42	88
	Bus	1	0	12	11	9	9	8	8	-1	0	0	0	-7	-6	0	0	22	22	44
	Walk/Other	1	1	8	7	16	16	110	110	-1	-1	0	0	-13	-13	0	0	121	120	241
	Total	6	4	83	73	46	46	133	133	-6	-4	0	0	-45	-43	0	0	217	209	426

Vehicle Trips :

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto (Total)**	11	1	3	18	1	1	1	1	-11	-1	0	0	-2	-8	0	0	3	12	15
	Taxi	1	0	1	2	1	1	1	1	-1	0	0	0	-1	-2	0	0	2	2	
	Taxi Balanced	1	1	3	3	2	2	2	2	-1	-1	0	0	-3	-3	0	0	4	4	8
	Truck	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Total	12	2	7	22	3	3	3	3	-12	-2	0	0	-5	-11	0	0	8	17	25
MD	**Auto (Total)**	1	1	6	6	2	2	2	2	-1	-1	0	0	-3	-3	0	0	7	7	14
	Taxi	1	1	1	1	3	3	3	3	-1	-1	0	0	-1	-1	0	0	6	6	
	Taxi Balanced	2	2	2	2	5	5	6	6	-2	-2	0	0	-2	-2	0	0	11	11	22
	Truck	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
	Total	3	3	9	9	7	7	8	8	-3	-3	0	0	-5	-5	0	0	19	19	39
PM	**Auto (Total)**	2	11	16	8	2	2	1	1	-2	-11	0	0	-8	-4	0	0	11	7	18
	Taxi	0	1	1	1	3	3	2	2	0	-1	0	0	-2	-1	0	0	4	5	
	Taxi Balanced	1	1	2	2	5	5	4	4	-1	-1	0	0	-3	-3	0	0	8	8	16
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	3	12	18	10	7	7	5	5	-3	-12	0	0	-11	-7	0	0	19	15	34
Sat MD	**Auto (Total)**	2	2	11	10	2	2	2	2	-2	-2	0	0	-4	-4	0	0	11	10	21
	Taxi	0	0	1	1	4	4	2	2	0	0	0	0	-1	-1	0	0	6	6	
	Taxi Balanced	0	0	2	2	7	7	4	4	0	0	0	0	-2	-2	0	0	11	11	22
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	2	2	13	12	9	9	6	6	-2	-2	0	0	-6	-6	0	0	22	21	43

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**8**	**17**	**25**
MD (12-1)	**19**	**19**	**39**
PM (5-6)	**19**	**15**	**34**
Sat MD (1-2)	**22**	**21**	**43**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-7
Travel Demand Forecast - Cluster 3

Land Use:	Office	Residential	Destination Retail	Local Retail	Community Facility (Office)	Community Facility (Recreation)	Community Facility (Dormitory)	Community Facility (Museum)	Total
Size/Units:	-3,106 gsf	64 DU	11,235 gsf	5,789 gsf	0 gsf	0 gsf	0 gsf 0 Unit	0 gsf	
Peak Hour Person Trips:									
AM (8-9)	-7	52	20	27	0	0	0	0	91
MD (12-1)	-8	26	59	169	0	0	0	0	246
PM (5-6)	-8	57	59	89	0	0	0	0	197
Sat MD (1-2)	-2	49	86	104	0	0	0	0	237

Person Trips:

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto**	-2	0	1	7	1	1	0	0	0	0	0	0	0	0	0	0	0	8	8
	Taxi	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	3
	Subway	-2	0	5	25	2	2	1	1	0	0	0	0	0	0	0	0	6	28	34
	Bus	-1	0	1	6	2	2	1	1	0	0	0	0	0	0	0	0	3	9	12
	Walk/Other	-1	0	1	4	3	3	11	11	0	0	0	0	0	0	0	0	14	18	32
	Total	-6	0	8	43	9	9	13	13	0	0	0	0	0	0	0	0	24	65	89
MD	**Auto**	0	0	2	2	3	3	2	2	0	0	0	0	0	0	0	0	7	7	14
	Taxi	0	0	0	0	4	4	3	3	0	0	0	0	0	0	0	0	7	7	14
	Subway	0	0	7	7	6	6	5	5	0	0	0	0	0	0	0	0	18	18	36
	Bus	0	0	2	2	6	6	5	5	0	0	0	0	0	0	0	0	13	13	26
	Walk/Other	-3	-3	1	1	10	10	70	70	0	0	0	0	0	0	0	0	78	78	156
	Total	-3	-3	12	12	29	29	85	85	0	0	0	0	0	0	0	0	123	123	246
PM	**Auto**	0	-3	6	3	3	3	1	1	0	0	0	0	0	0	0	0	10	4	14
	Taxi	0	0	1	0	4	4	1	1	0	0	0	0	0	0	0	0	6	5	11
	Subway	0	-2	22	11	6	6	3	3	0	0	0	0	0	0	0	0	31	18	49
	Bus	0	-1	6	3	6	6	3	3	0	0	0	0	0	0	0	0	15	11	26
	Walk/Other	0	-1	4	2	10	10	37	37	0	0	0	0	0	0	0	0	51	48	99
	Total	0	-7	39	19	29	29	45	45	0	0	0	0	0	0	0	0	113	86	199
Sat MD	**Auto**	0	0	4	4	4	4	1	1	0	0	0	0	0	0	0	0	9	9	18
	Taxi	0	0	1	0	6	6	2	2	0	0	0	0	0	0	0	0	9	8	17
	Subway	0	0	15	13	9	9	3	3	0	0	0	0	0	0	0	0	27	25	52
	Bus	0	0	4	3	9	9	3	3	0	0	0	0	0	0	0	0	16	15	31
	Walk/Other	0	0	3	2	15	15	43	43	0	0	0	0	0	0	0	0	61	60	121
	Total	0	0	27	22	43	43	52	52	0	0	0	0	0	0	0	0	122	117	239

Vehicle Trips :

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total
AM	**Auto (Total)**	-2	0	1	6	1	1	0	0	0	0	0	0	0	0	0	0	0	7	7
	Taxi	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	
	Taxi Balanced	0	0	1	1	2	2	0	0	0	0	0	0	0	0	0	0	3	3	6
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	-2	0	2	7	3	3	0	0	0	0	0	0	0	0	0	0	3	10	13
MD	**Auto (Total)**	0	0	2	2	2	2	1	1	0	0	0	0	0	0	0	0	5	5	10
	Taxi	0	0	0	0	2	2	2	2	0	0	0	0	0	0	0	0	4	4	
	Taxi Balanced	0	0	0	0	3	3	4	4	0	0	0	0	0	0	0	0	7	7	14
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Total	0	0	2	2	5	5	5	5	0	0	0	0	0	0	0	0	12	12	25
PM	**Auto (Total)**	0	-3	5	2	2	2	1	1	0	0	0	0	0	0	0	0	8	2	10
	Taxi	0	0	1	0	2	2	1	1	0	0	0	0	0	0	0	0	4	3	
	Taxi Balanced	0	0	1	1	3	3	2	2	0	0	0	0	0	0	0	0	6	6	12
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	-3	6	3	5	5	3	3	0	0	0	0	0	0	0	0	14	8	22
Sat MD	**Auto (Total)**	0	0	3	3	2	2	1	1	0	0	0	0	0	0	0	0	6	6	12
	Taxi	0	0	1	0	3	3	1	1	0	0	0	0	0	0	0	0	5	4	
	Taxi Balanced	0	0	1	1	5	5	2	2	0	0	0	0	0	0	0	0	8	8	16
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	4	4	7	7	3	3	0	0	0	0	0	0	0	0	14	14	28

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**3**	**10**	**13**
MD (12-1)	**12**	**12**	**24**
PM (5-6)	**14**	**8**	**22**
Sat MD (1-2)	**14**	**14**	**28**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-8
Travel Demand Forecast - Cluster 4

Land Use:		Office		Residential		Destination Retail		Local Retail		Community Facility (Office)		Community Facility (Recreation)		Community Facility (Dormitory)		Community Facility (Museum)		Total		
Size/Units:		0	gsf	0	DU	0	gsf	10,010	gsf	-5,610	gsf	-4,400	gsf	0 0	gsf Unit	0	gsf			
Peak Hour Person Trips:																				
	AM (8-9)	0		0		0		46		-12		-11		0		0		23		
	MD (12-1)	0		0		0		292		-15		-15		0		0		263		
	PM (5-6)	0		0		0		154		-14		-15		0		0		125		
	Sat MD (1-2)	0		0		0		180		-4		-12		0		0		165		
Person Trips:																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	**Auto**	0	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	-4	0	-4
	Taxi	0	0	0	0	0	0	1	1	0	0	-1	0	0	0	0	0	0	1	1
	Subway	0	0	0	0	0	0	1	1	-4	0	-1	0	0	0	0	0	-4	1	-3
	Bus	0	0	0	0	0	0	1	1	-1	0	0	0	0	0	0	0	0	1	1
	Walk/Other	0	0	0	0	0	0	19	19	-2	0	-5	-3	0	0	0	0	12	16	28
	Total	0	0	0	0	0	0	22	22	-11	0	-7	-3	0	0	0	0	4	19	23
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	**Auto**	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	3	3	6
	Taxi	0	0	0	0	0	0	4	4	0	0	-1	-1	0	0	0	0	3	3	6
	Subway	0	0	0	0	0	0	9	9	-1	-1	-1	-1	0	0	0	0	7	7	14
	Bus	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	9	9	18
	Walk/Other	0	0	0	0	0	0	121	121	-5	-6	-6	-4	0	0	0	0	110	111	221
	Total	0	0	0	0	0	0	146	146	-6	-7	-8	-6	0	0	0	0	132	133	265
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	**Auto**	0	0	0	0	0	0	2	2	-1	-5	0	0	0	0	0	0	1	-3	-2
	Taxi	0	0	0	0	0	0	2	2	0	0	0	-1	0	0	0	0	2	1	3
	Subway	0	0	0	0	0	0	5	5	-1	-4	-1	-1	0	0	0	0	3	0	3
	Bus	0	0	0	0	0	0	5	5	0	-1	0	0	0	0	0	0	5	4	9
	Walk/Other	0	0	0	0	0	0	64	64	0	-2	-4	-7	0	0	0	0	60	55	115
	Total	0	0	0	0	0	0	78	78	-2	-12	-5	-9	0	0	0	0	71	57	128
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	**Auto**	0	0	0	0	0	0	2	2	-1	-1	0	0	0	0	0	0	1	1	2
	Taxi	0	0	0	0	0	0	3	3	0	0	-1	0	0	0	0	0	2	3	5
	Subway	0	0	0	0	0	0	5	5	-1	0	-1	-1	0	0	0	0	3	4	7
	Bus	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	5	5	10
	Walk/Other	0	0	0	0	0	0	75	75	0	0	-5	-3	0	0	0	0	70	72	142
	Total	0	0	0	0	0	0	90	90	-2	-1	-7	-4	0	0	0	0	81	85	166
Vehicle Trips :																				
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
AM	**Auto (Total)**	0	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	-4	0	-4
	Taxi	0	0	0	0	0	0	1	1	0	0	-1	0	0	0	0	0	0	1	
	Taxi Balanced	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	1	1	-4	0	0	0	0	0	0	0	-3	1	-2
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
MD	**Auto (Total)**	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2	4
	Taxi	0	0	0	0	0	0	2	2	0	0	-1	-1	0	0	0	0	1	1	
	Taxi Balanced	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2	4
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	4	4	8
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
PM	**Auto (Total)**	0	0	0	0	0	0	1	1	-1	-4	0	0	0	0	0	0	0	-3	-3
	Taxi	0	0	0	0	0	0	1	1	0	0	0	-1	0	0	0	0	1	0	
	Taxi Balanced	0	0	0	0	0	0	2	2	0	0	-1	-1	0	0	0	0	1	1	2
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	3	3	-1	-4	-1	-1	0	0	0	0	1	-2	-1
		In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Total
Sat MD	**Auto (Total)**	0	0	0	0	0	0	1	1	-1	-1	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	2	2	0	0	-1	0	0	0	0	0	1	2	
	Taxi Balanced	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	3	3	6
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	4	4	-1	-1	0	0	0	0	0	0	3	3	6

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**-3**	**1**	**-2**
MD (12-1)	**4**	**4**	**8**
PM (5-6)	**1**	**-2**	**-1**
Sat MD (1-2)	**3**	**3**	**6**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-9
Travel Demand Forecast - Outlier Site 10

Land Use:	Office	Residential	Destination Retail	Local Retail	Community Facility (Office)	Community Facility (Recreation)	Community Facility (Dormitory)	Community Facility (Museum)	Total
Size/Units:	0 gsf	2 DU	0 gsf	0 gsf	0 gsf	0 gsf	0 gsf 0 Unit	0 gsf	
Peak Hour Person Trips:									
AM (8-9)	0	2	0	0	0	0	0	0	2
MD (12-1)	0	1	0	0	0	0	0	0	1
PM (5-6)	0	2	0	0	0	0	0	0	2
Sat MD (1-2)	0	2	0	0	0	0	0	0	2

Person Trips:

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total Total
AM	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
MD	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Sat MD	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Vehicle Trips :

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total Total
AM	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sat MD	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**0**	**0**	**0**
MD (12-1)	**0**	**0**	**0**
PM (5-6)	**0**	**0**	**0**
Sat MD (1-2)	**0**	**0**	**0**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-10
Travel Demand Forecast - Outlier Site 11

Land Use:	Office	Residential	Destination Retail	Local Retail	Community Facility (Office)	Community Facility (Recreation)	Community Facility (Dormitory)	Community Facility (Museum)	Total
Size/Units:	0 gsf	2 DU	0 gsf	0 gsf	0 gsf	0 gsf	0 gsf 0 Unit	0 gsf	
Peak Hour Person Trips:									
AM (8-9)	0	2	0	0	0	0	0	0	2
MD (12-1)	0	1	0	0	0	0	0	0	1
PM (5-6)	0	2	0	0	0	0	0	0	2
Sat MD (1-2)	0	2	0	0	0	0	0	0	2

Person Trips:

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total Total
AM	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
MD	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Sat MD	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Vehicle Trips :

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total Total
AM	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sat MD	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**0**	**0**	**0**
MD (12-1)	**0**	**0**	**0**
PM (5-6)	**0**	**0**	**0**
Sat MD (1-2)	**0**	**0**	**0**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-11
Travel Demand Forecast - Outlier Site 12

Land Use:	Office	Residential	Destination Retail	Local Retail	Community Facility (Office)	Community Facility (Recreation)	Community Facility (Dormitory)	Community Facility (Museum)	Total
Size/Units:	0 gsf	2 DU	0 gsf	0 gsf	0 gsf	0 gsf	0 gsf 0 Unit	0 gsf	
Peak Hour Person Trips:									
AM (8-9)	0	2	0	0	0	0	0	0	2
MD (12-1)	0	1	0	0	0	0	0	0	1
PM (5-6)	0	2	0	0	0	0	0	0	2
Sat MD (1-2)	0	2	0	0	0	0	0	0	2

Person Trips:

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total Total
AM	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
MD	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Sat MD	**Auto**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Walk/Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Vehicle Trips :

		Office In	Office Out	Residential In	Residential Out	Destination Retail In	Destination Retail Out	Local Retail In	Local Retail Out	Community Facility (Office) In	Community Facility (Office) Out	Community Facility (Recreation) In	Community Facility (Recreation) Out	Community Facility (Dormitory) In	Community Facility (Dormitory) Out	Community Facility (Museum) In	Community Facility (Museum) Out	Total In	Total Out	Total Total
AM	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sat MD	**Auto (Total)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Taxi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Taxi Balanced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Vehicle Trips

	In	Out	Total
AM (8-9)	**0**	**0**	**0**
MD (12-1)	**0**	**0**	**0**
PM (5-6)	**0**	**0**	**0**
Sat MD (1-2)	**0**	**0**	**0**

Notes:
25% linked-trip credit applied to destination and local retail uses.

Table A-12
Preliminary Assignment of Project-Generated Bus Trips

AM Peak Hour

Bus Route	Direction	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Site 10	Site 11	Site 12	**Total**
M2	NB			0					**0**
	SB			1					**1**
M3	NB	8	1	1					**10**
	SB	5	2	2					**9**
M4	NB	11	1		0	0	0	0	**12**
	SB	7	3		0	0	0	0	**10**
M5	NB	8	1		0	0	0	0	**9**
	SB	5	2		0	0	0	0	**7**
M10	NB	4		0					**4**
	SB	3		1					**4**
M11	NB	6	1		0	0	0	0	**7**
	SB	4	2		0	0	0	0	**6**
M60	EB	5							**5**
	WB	9							**9**
M100	NB	9	1	1	0	0	0	0	**11**
	SB	5	3	2	0	0	0	0	**10**
M101	NB	16		1	0	0	0	0	**17**
	SB	10		3	1	0	0	0	**14**
M104	NB	7					0	0	**7**
	SB	4					0	0	**4**
	In	78	5	3	0	0	0	0	**86**
	Out	48	12	9	1	0	0	0	**70**

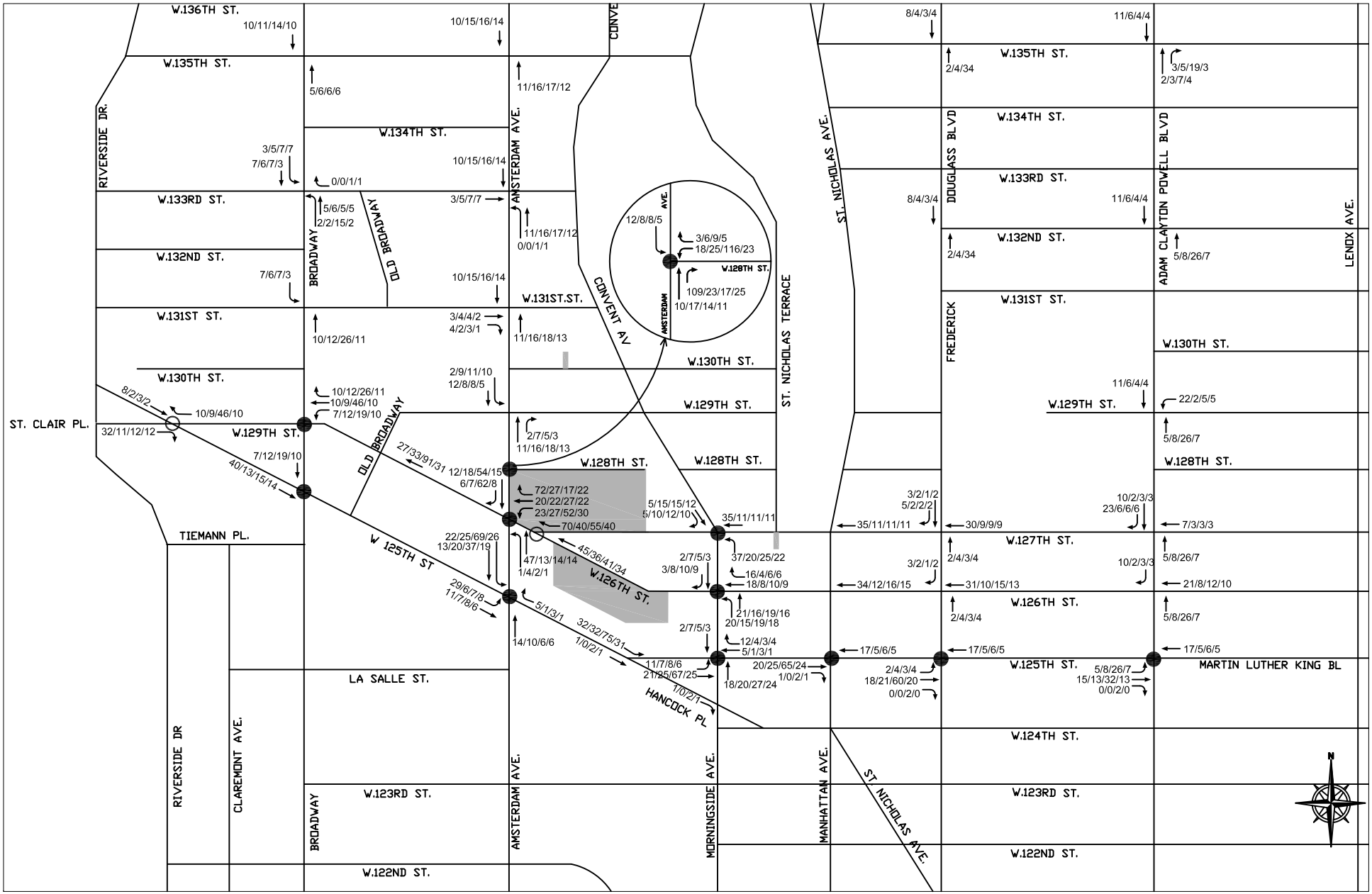
PM Peak Hour

Bus Route	Direction	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Site 10	Site 11	Site 12	**Total**
M2	NB			2					**2**
	SB			2					**2**
M3	NB	11	4	3					**18**
	SB	15	3	2					**20**
M4	NB	15	5		1	0	0	0	**21**
	SB	19	4		1	0	0	0	**24**
M5	NB	10	4		1	0	0	0	**15**
	SB	14	3		1	0	0	0	**18**
M10	NB	6		2					**8**
	SB	8		1					**9**
M11	NB	9	3		1	0	0	0	**13**
	SB	12	3		1	0	0	0	**16**
M60	EB	15							**15**
	WB	12							**12**
M100	NB	12	4	3	1	0	0	0	**20**
	SB	16	3	2	1	0	0	0	**22**
M101	NB	22		5	1	0	0	0	**28**
	SB	28		4	0	0	0	0	**32**
M104	NB	9					0	0	**9**
	SB	12					0	0	**12**
	In	106	20	15	5	0	0	0	**146**
	Out	139	16	11	4	0	0	0	**170**

West Harlem Rezoning

Figure A-1

Preliminary Project Increment Peak Hour Traffic Volumes for Projected Development Site Cluster 1 Under Scenario 3



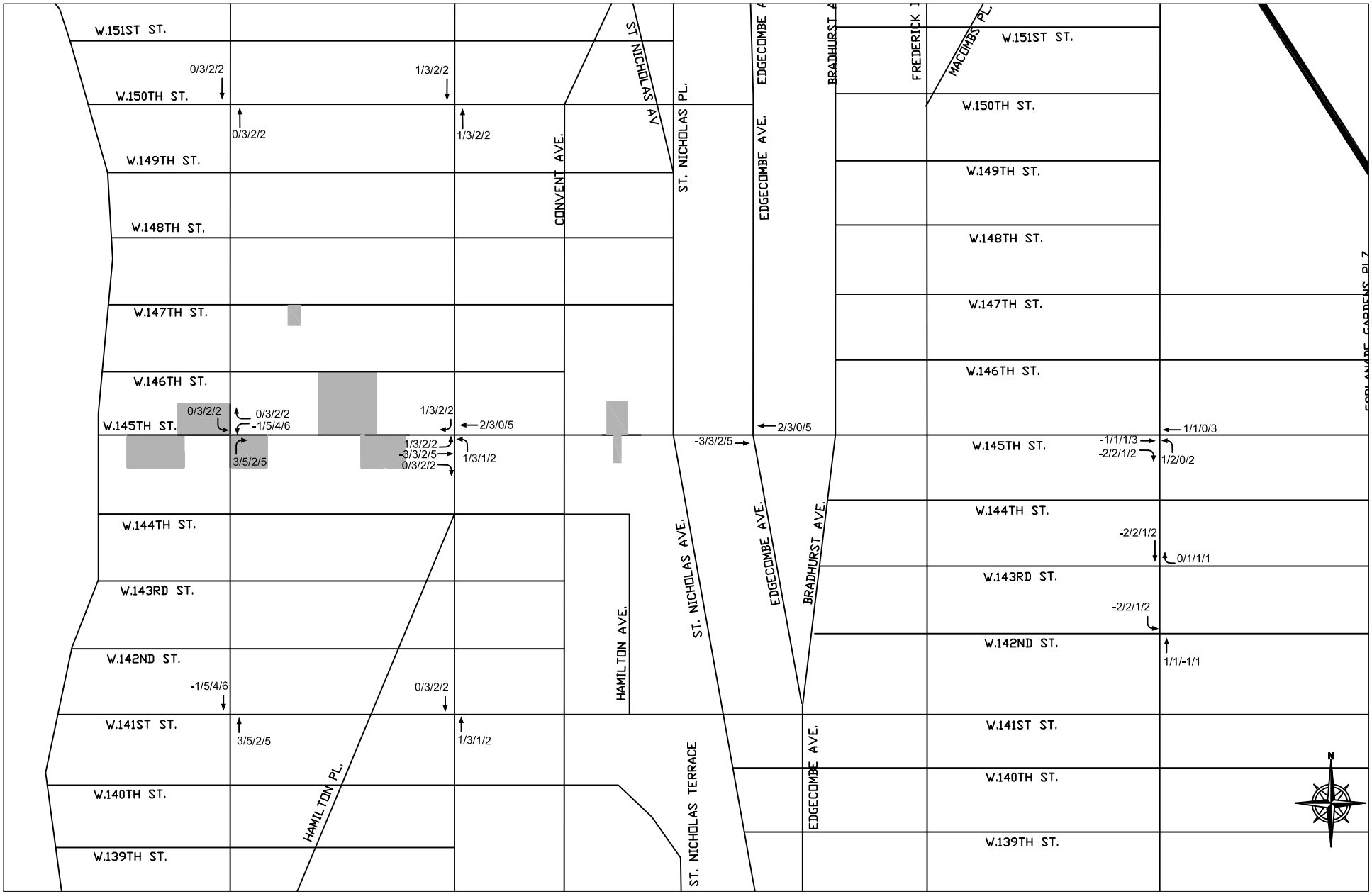
Legend:

- Analyzed Signalized Intersection
- Analyzed Unsignalized Intersection
- 14/10/6/6 = AM/MD/PM/Sat MD
- Projected Development Site Cluster 1 - Sites 13, 14, 15, 17, 18, 19, 40a and 50

West Harlem Rezoning

Figure A-2

Preliminary Project Increment Peak Hour Traffic Volumes for Projected Development Site Cluster 2 Under Scenario 3



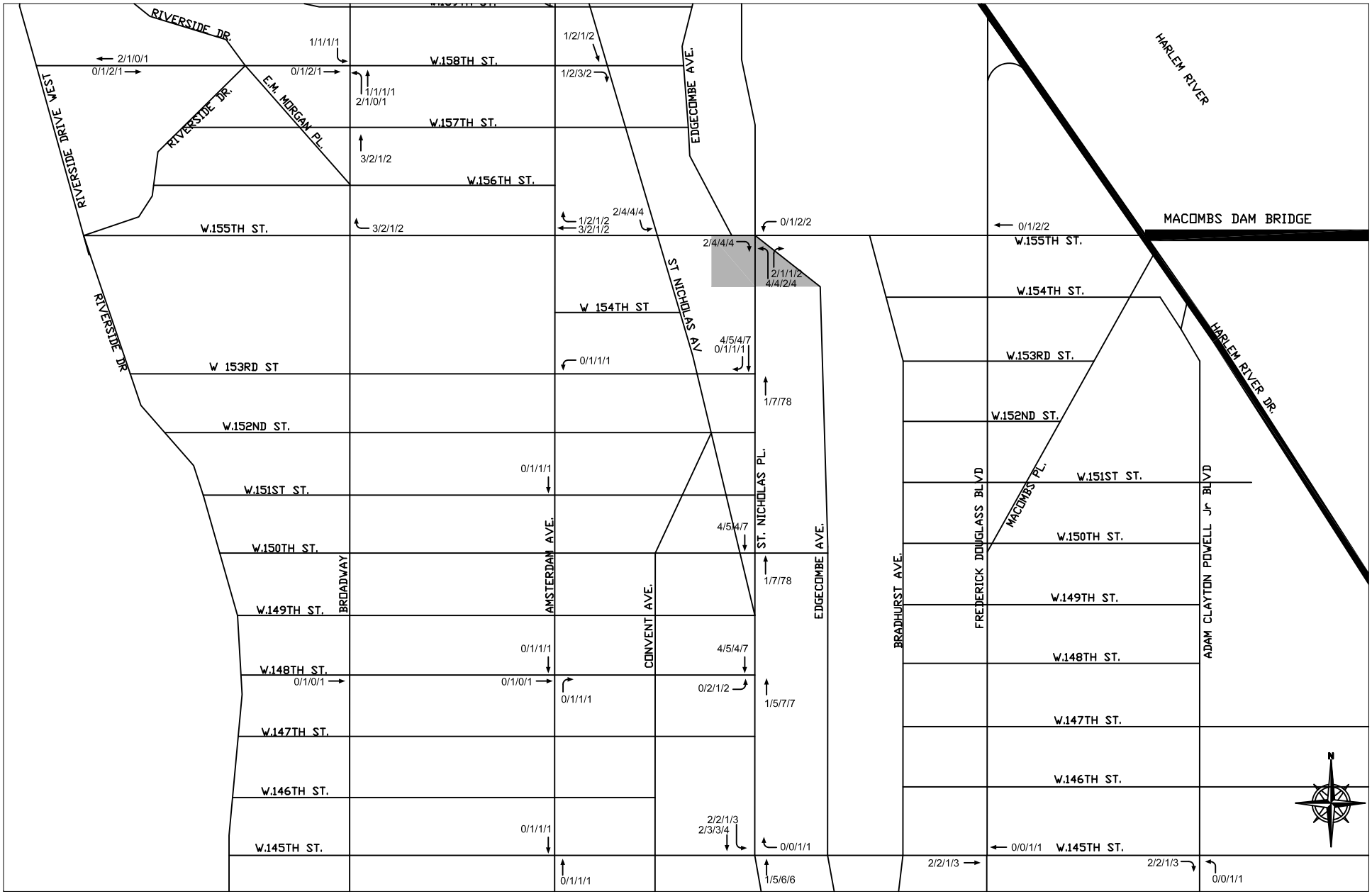
Legend:

- Analyzed Signallzed Intersectlon
- Analyzed Unsignalized Intersection
- 3/5/2/5 = AM/MD/PM/Sat MD
- Projected Development Slte Cluster 2 - Sltes 4, 5, 6b, 7, 8, 9, 51, 52 and 53

West Harlem Rezoning

Figure A-3

Preliminary Project Increment Peak Hour Traffic Volumes for Projected Development Site Cluster 3 Under Scenario 3

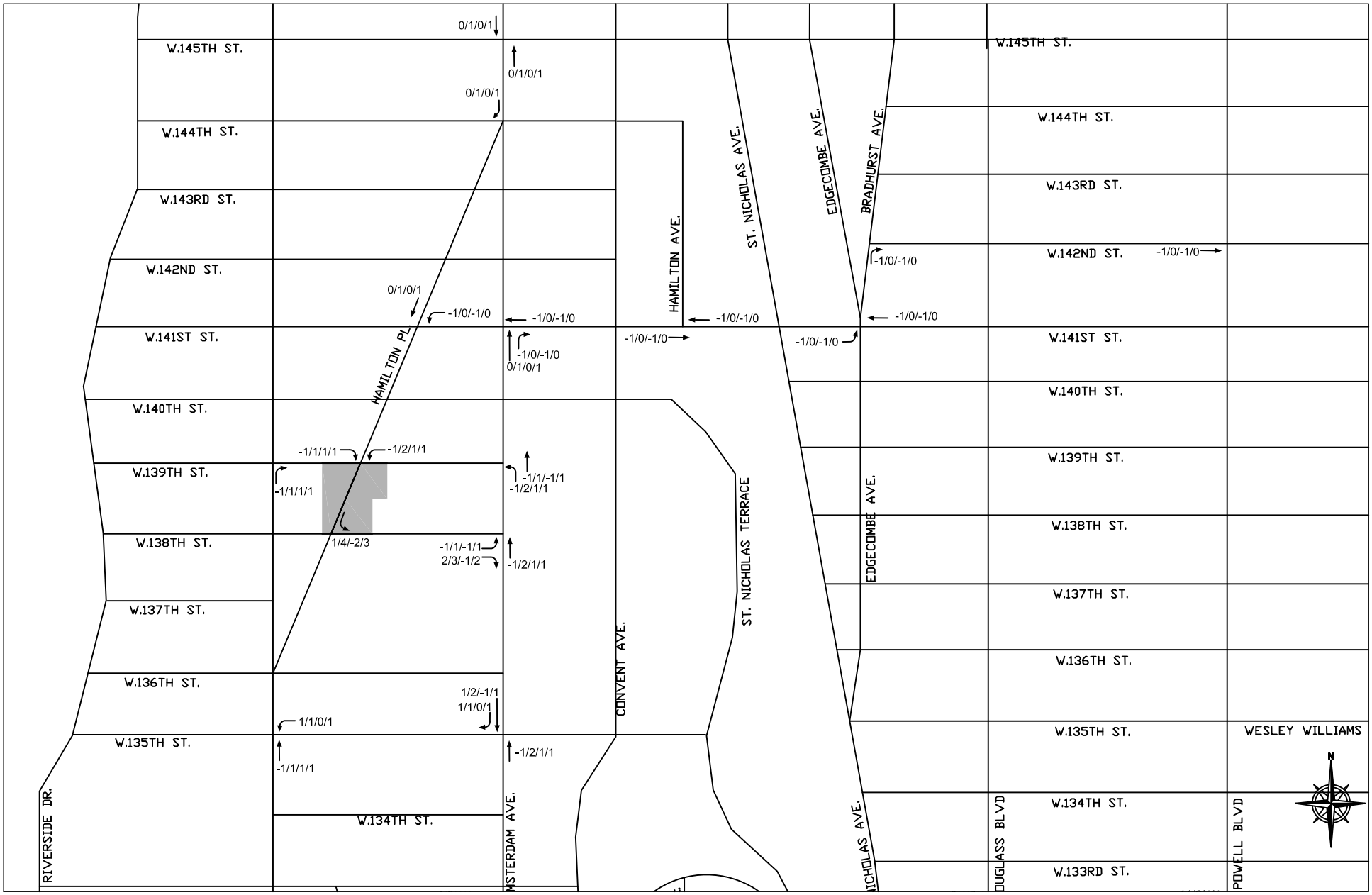


Legend:

- Analyzed Signalized Intersection
- Analyzed Unsignalized Intersection
- 15/7/7 = AM/MD/PM/Sat MD
- Projected Development Site Cluster 3 - Sites 1 and 2

Figure A-4

Preliminary Project Increment Peak Hour Traffic Volumes for Projected Development Site Cluster 4 Under Scenario 3



Legend:

- Analyzed Signalized Intersection
- Analyzed Unsignalized Intersection
- 1/1/0/1 = AM/MD/PM/Sat MD
- Projected Development Site Cluster 4 - Sites 54 and 55

MEMORANDUM

To: Michael Griffith
Office of Project Analysis/CEQR

From: Ernest Athanailos, P.E.
Director of Signals and ITS Engineering

Ref: 125th Rezoning Summary
CM07-1608A

Date: February 21, 2008

We have reviewed the 125th Street Rezoning Summary Signal Timing Modification dated February 20th, 2008 and would like to submit the following comments.

- The proposed left turn phase at Lenox Avenue and West 126th Street is not feasible. Since the total green time allocated for the left turn phase is under the minimum (Green = 3, Amber = 3 and All Red = 2. The total proposed signal timing for the left turn phase is only 8 seconds). The minimum green time is 7 seconds.
- The proposed signal timing changes at the intersection of 2 Avenue and East 125th Street is not feasible. It may impact the southbound approach.
- The proposed to prohibit left turn movements on 125th Street from Amsterdam Avenue to 3rd Avenue are feasible. Actual implementation will be determined upon field survey of build conditions.
- All other proposed signal timing changes are acceptable. Actual implementation will be determined upon field survey of build condition.
- Please note that all the proposed signal timing changes if more than 6 seconds in any directions are not feasible until progression analysis and Syncho simulation submitted.
- Please be specific about the hours during the peak hours. How long, when the peak hours start and ended.

Feel free to contact me if you have any further questions regarding this matter.

Cc: D/C M. Primeggia, A. Borock E. Athanailos, W. Yan.

DN

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URBITRAN ASSOCIATES, INC.

Memorandum

To: Glen A. Price III, Director
Studies Implementation Division
NYC Department of City Planning
22 Reade Street, 4th Floor
New York, NY 10007

From: Atma Sookram, AICP, PP
Matt Lorenz, PE, PTOE
Keren Mor

Re: 125th Street Corridor Rezoning and Related Actions EIS – Response to NYCDOT Comments of February 21, 2008 on the Traffic Analysis for the FEIS

Date: February 26, 2008

cc: David Cuff, AICP

This memorandum provides our responses to the comments in the February 21, 2008 memorandum prepared by NYCDOT regarding the traffic chapter of the 125th Street Corridor Rezoning and Related Actions EIS. NYCDOT's comments are shown below in *italics* and are followed by our responses.

- *The proposed left turn phase at Lenox Avenue and West 126th Street is not feasible. Since the total green time allocated for the left turn phase is under the minimum (Green = 3, Amber = 3 and All Red = 2. The total proposed signal timing for the left turn phase is only 8 seconds). The minimum green time is 7 seconds.*

Comment noted. As such, the FEIS will be revised to eliminate the proposed leading northbound left-turn phase as a mitigation measure for the West 125th Street/Lenox Avenue study intersection. Therefore, significant adverse impacts will remain at this intersection during the weekday AM, weekday PM, and Saturday midday peak hours in the proposed Action and all the alternatives.

- *The proposed signal timing changes at the intersection of 2 Avenue and East 125th Street is not feasible. It may impact the southbound approach.*

The mitigation measures proposed for the study intersection of East 125th Street/Second Avenue/Triborough Bridge off-ramp were checked to verify that they do not impact the southbound approach. Even with these proposed mitigation measures, significant

adverse impacts remain on all approaches to this intersection during the weekday PM peak hour under the Action condition. A summary of the delays and corresponding mitigation measures for this intersection are presented in the attached table for the proposed Action condition, as well as for the C4-4D, Arts Bonus, Expanded Arts Bonus, and C6-3 alternatives.

- *The proposed to prohibit left turn movements on 125th Street from Amsterdam Avenue to 3rd Avenue are feasible. Actual implementation will be determined upon field survey of build conditions.*

Comment noted.

- *All other proposed signal timing changes are acceptable. Actual implementation will be determined upon field survey of build condition.*

Comment noted.

- *Please note that all the proposed signal timing changes if more than 6 seconds in any directions are not feasible until progression analysis and Syncho simulation submitted.*

All of the signal timing changes in excess of six (6) seconds were deleted from the text between the issuance of the DEIS and the FEIS. Therefore, a progression analysis is not required.

- *Please be specific about the hours during the peak hours. How long, when the peak hours start and ended.*

The peak hours analyzed as part of this study are as follows:

Weekday AM peak hour =	7:45 to 8:45 AM
Weekday midday peak hour =	1:00 to 2:00 PM
Weekday PM peak hour =	4:00 to 5:00 PM
Saturday midday peak hour =	1:00 to 2:00 PM