

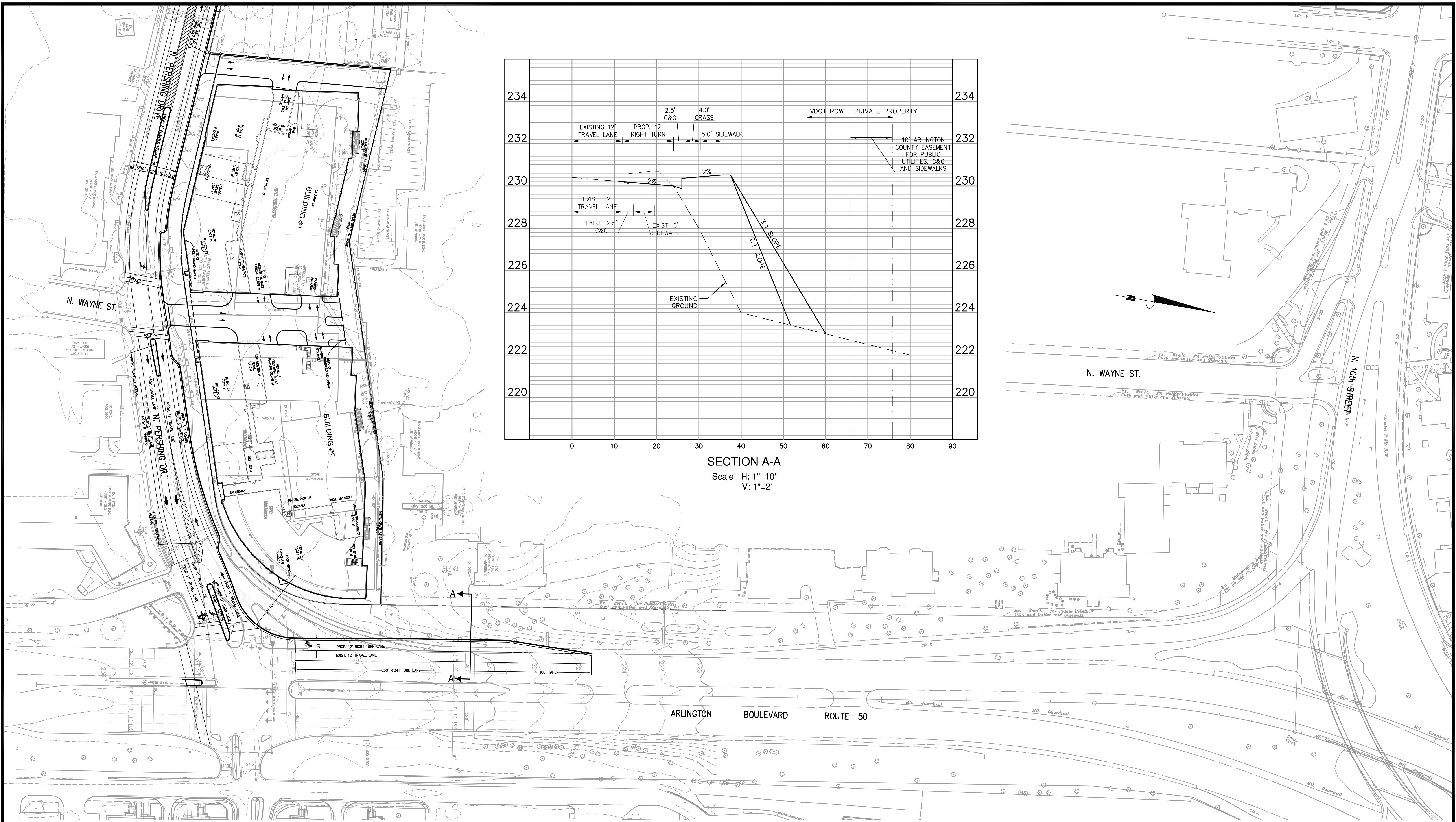
Section 4: Transportation

Transportation Benefits

What are the transportation benefits associated with this project? There are a number of transportation improvements proposed with the project, including:

- Replacement of the Arlington Boulevard / Pershing Drive “hot right” off-ramp with a new dedicated right turn lane (subject to VDOT approval)
- Redesign of Pershing Drive in front of the project, including installation of a raised landscaped median, additional on-street parallel parking, elimination of several existing curb cuts, and widening of sidewalks
- A new plaza area at the intersection of Arlington Boulevard and Pershing Drive
- Replacement of the existing overhead wire traffic signals at the Arlington Boulevard / Pershing Drive intersection with new mast arm signals (valued at \$200,000)
- A \$30,000 contribution to improvement of bus shelters in the general vicinity of the site, and a new bus shelter on Arlington Boulevard
- Improvements on Barton Street allowing the existing bus shelter to be replaced with a new shelter slightly relocated to as to be moved from private property (where it is located today without an easement) onto a new curb nub in the right-of-way
- Crosswalk improvements
- A new curb nub for a potential future bus stop on Pershing Drive in front of the project
- New sidewalks for pedestrian connectivity to Sheffield Court

In addition, a comprehensive Transportation Demand Management (TDM) program would be implemented providing 30 years of funding to ACCS and incentives to new tenants (at initial lease up and going forward) to encourage residents and retail employees to use non-auto modes of transportation to access the project.



- NOTE:
1. TOPOGRAPHIC INFORMATION FROM ARLINGTON COUNTY GIS DATA.
 2. ROUTE 50/ARLINGTON BLVD. INFORMATION FROM VDOT SURVEY.

Right Turn Lane Exhibit

2201 N. PERSHING DRIVE
 Arlington County, Virginia
 Scale: 1"=50'
 September 11, 2007



Mass Transit Connectivity

How does the proposed project connect to Arlington's mass transit system? There are three WMATA bus lines that have stops within a quarter-mile vicinity of the site, two of which pick up adjacent to the project. Additionally, the Georgetown University bus (GUTS) also has a stop adjacent to the property. On any given weekday morning, there are 42 individual bus boardings in the eastbound (peak) direction and a similar number in the opposite direction. Arlington County is also exploring the possibility of having the WMATA 16Y express bus stop in front of the project and we are providing room for a future stop for this bus in our sidewalk and streetscape design. The Clarendon Metro station is three-quarters of a mile from the proposed project. To encourage mass transit ridership we will provide a number of incentives including fare cards to new residents, ample bicycle parking, a \$30,000 contribution to bus shelters in the area, a new bus shelter on Arlington Blvd, a new curb nub on Pershing Drive for a potential future bus stop, parking spaces and subsidies for car sharing programs (such as zip car), and information kiosks in the building, among other things.






Pedestrian Connectivity

How does the project enhance pedestrian connectivity to Sheffield Court? The proposed site plan improves the pedestrian connections between the project and Sheffield Court with new sidewalks at both the northwest and northeast corners of the property. In addition, a new public access easement is proposed at the western edge of the property in the area of the current drive aisle. In the present condition, there is a private vehicular connection between Sheffield Court drive aisles and parking lots and the Lee Center property; however, there are no public easements in this area on either the Sheffield Court or Lee Center properties. While vehicular connectivity is not assured without a public easement on the Sheffield Court side of the property line, the site plan will provide a public easement on our side of the property line.

A pedestrian connection point at the center of the site, where the Central Access Driveway meets the Sheffield Court property line, would be ideal. Unfortunately, the existing swimming pool for Sheffield Court is located in this area, and there is a concrete wall located on the northern side of the property line that serves as part of the required pool enclosure.

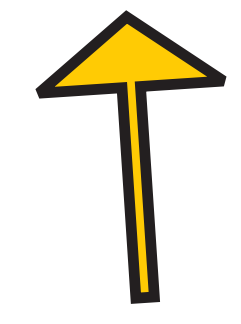
The project will provide a second public access easement running north to the property line in this area to allow for potential future connectivity if the swimming pool were ever relocated. The site plan also improves the visual connectivity between the two properties by opening up a view corridor along the Central Access Driveway that does not exist today.

Mass Transit Connectivity 2201 N Pershing

Transit Line	Weekday AM Stops	Weekday PM Stops	Distance
 WMATA 4B,4E	11, only counts eastbound stops	17, only counts eastbound stops	140 ft (approx)
 WMATA 4A, 4H	15, only counts eastbound stops	16, only counts eastbound stops	0 ft
 WMATA 24P	11, only counts westbound stops	14, only counts westbound stops	1,200 ft (approx)
 Georgetown GUTS	5	7	80 ft (approx)
Total Bus Headways	42	54	N/A
Metro Orange Line	N/A	N/A	3,963 ft
 WMATA 16Y	Applicant providing site for future bus stop. Arlington County discussing extension of 16Y service with WMATA.		0 ft



M
metro
COURTHOUSE



TO SHEFFIELD APARTMENTS



TO SHEFFIELD APARTMENTS



ARLINGTON BOULEVARD

EXISTING BUS STOP



TO FT. MYER

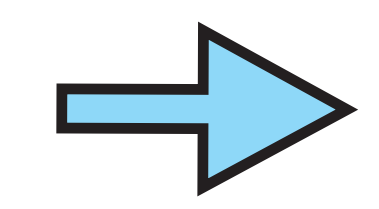
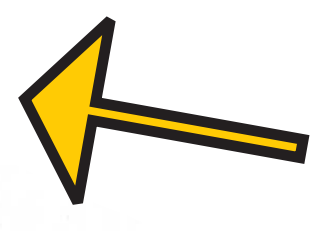
PROPOSED BUS STOP

POTENTIAL BUS STOP

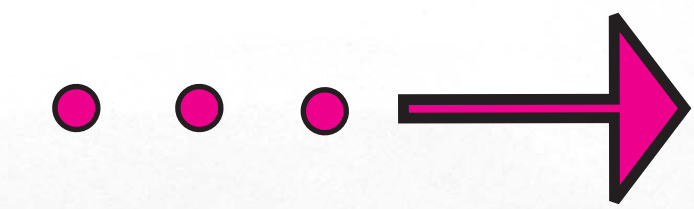
PERSHING DRIVE

N WAYNE ST

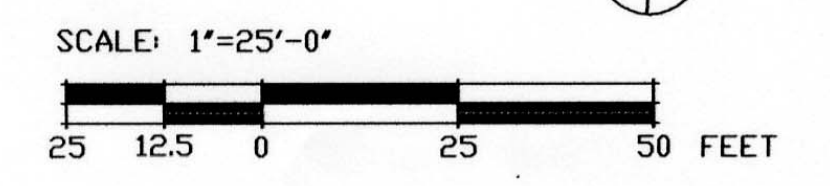
M
metro
CLARENDON



VEHICULAR



PEDESTRIAN



PARKER RODRIGUEZ, INC.
101 North Union Street
Arlington, Virginia 22214
703.548.8010
Planning
Urban
Architecture
Landscape Architecture

CIRCULATION PLAN

2201 N. PERSHING DR
ARLINGTON COUNTY
VIRGINIA

Revision & Date:

11.08.06	4.1	SUBMISSION
12.14.06	4.1	SUBMISSION
01.11.07	4.1	SUBMISSION
02.01.07	4.1	SUBMISSION
04.25.07		PROGRESS

Drawn by:
SL, NC
Designed by:
SL, TR, NC
Checked by:
SL, TR
Date:
NOVEMBER 8, 2006
Scale:
AS NOTED

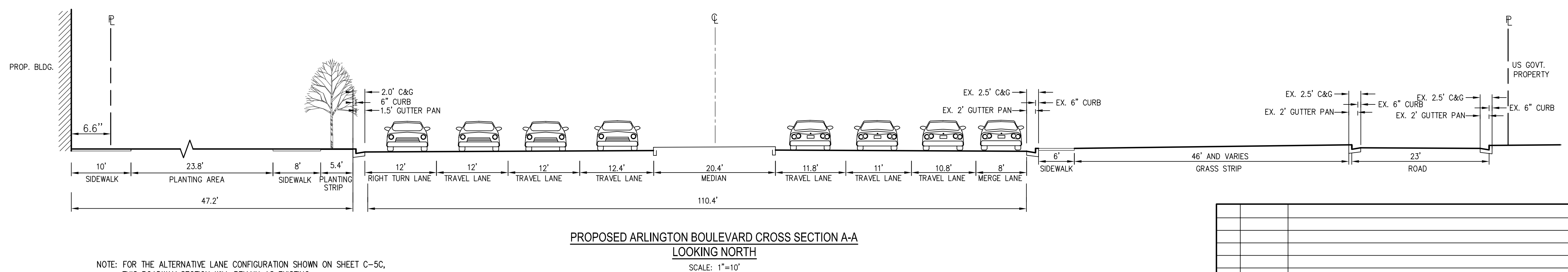
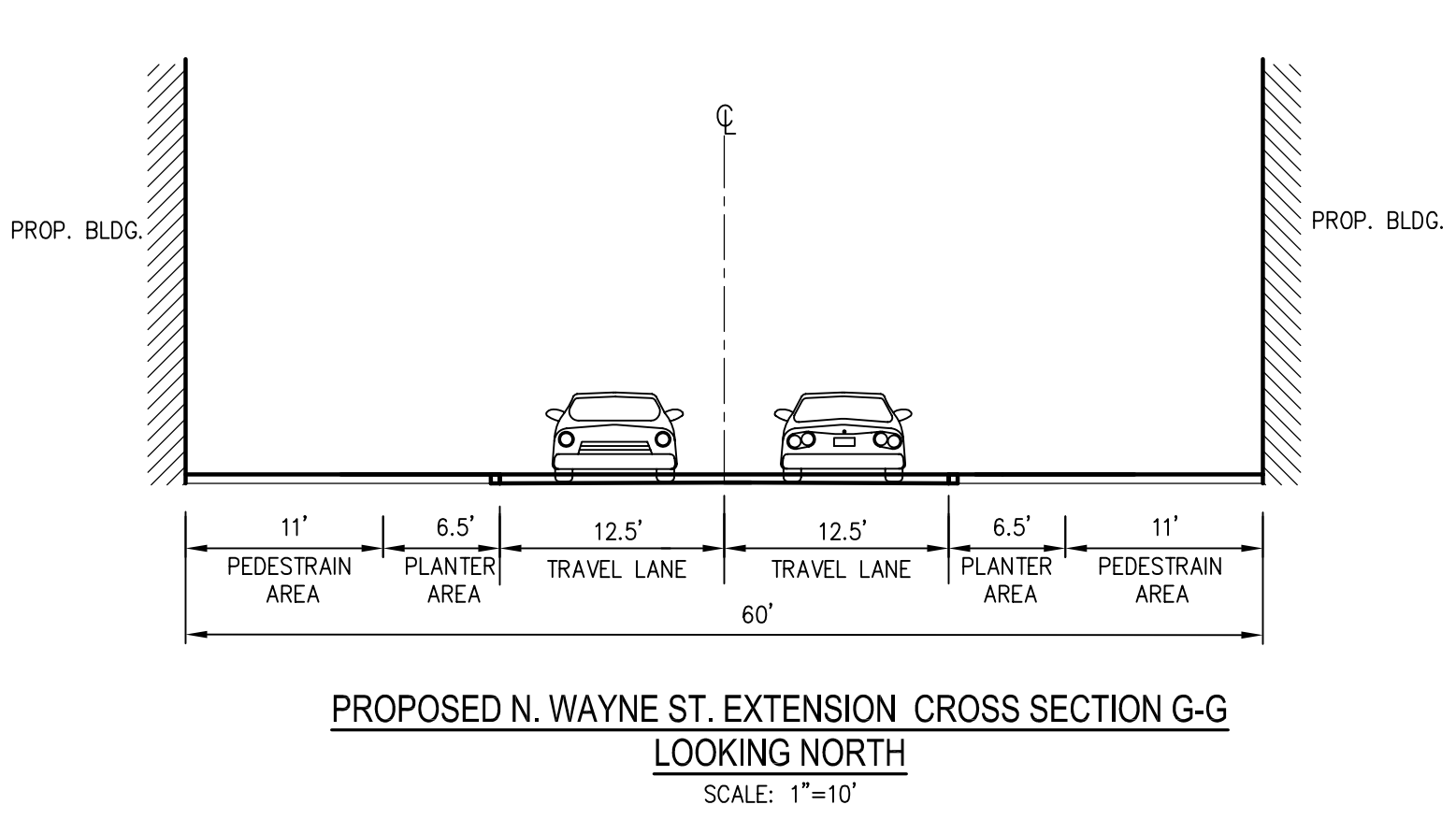
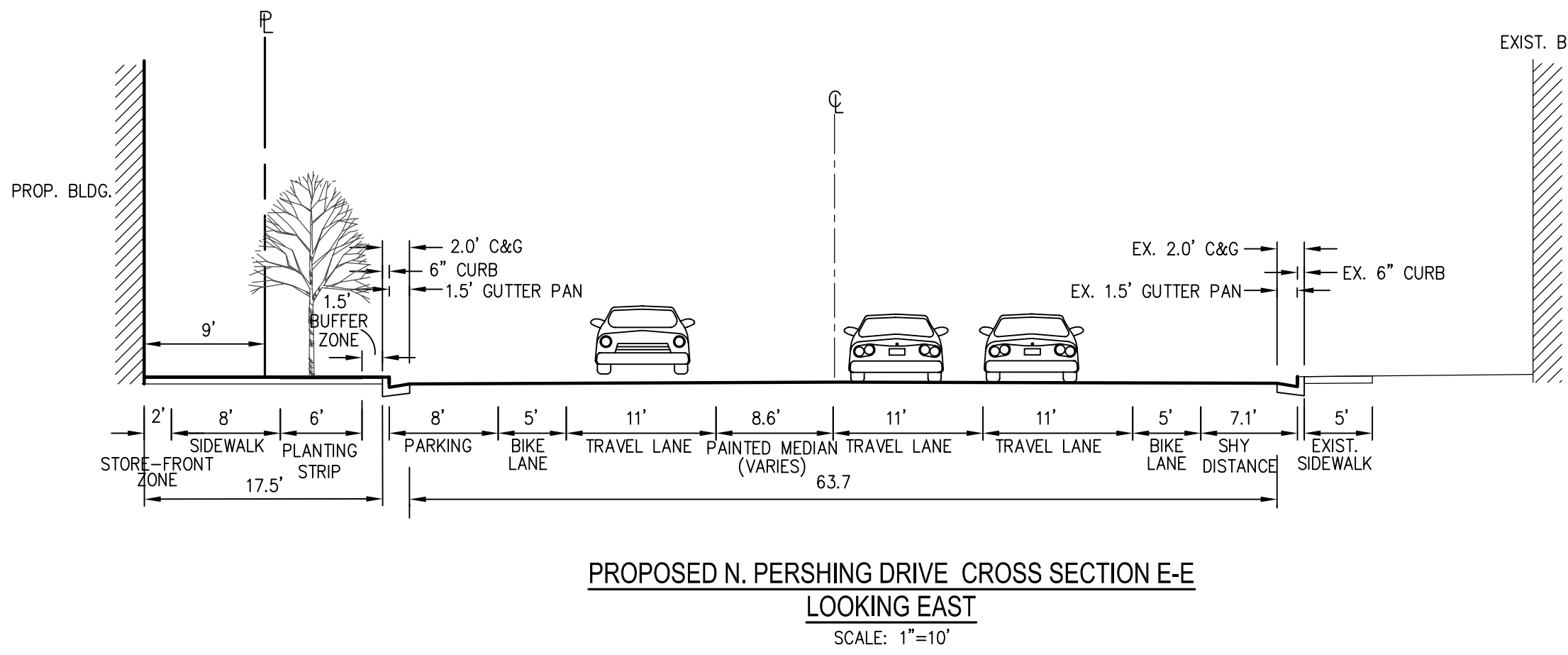
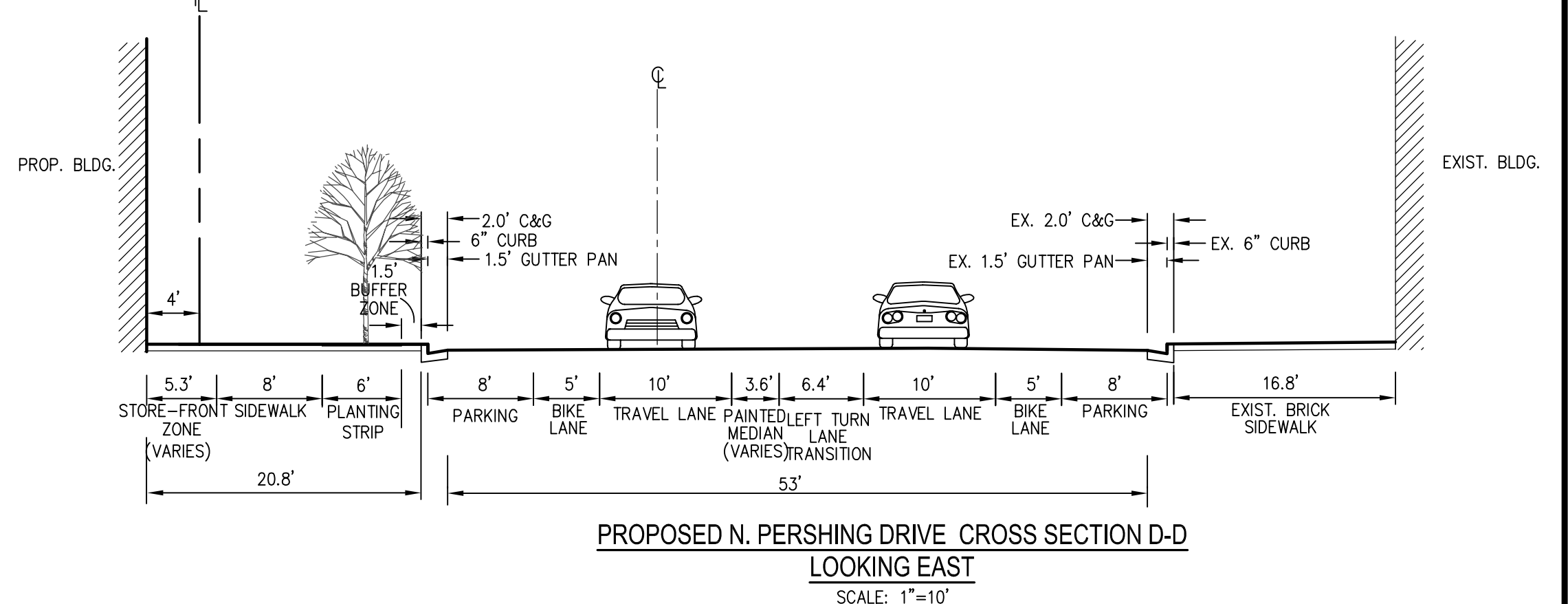
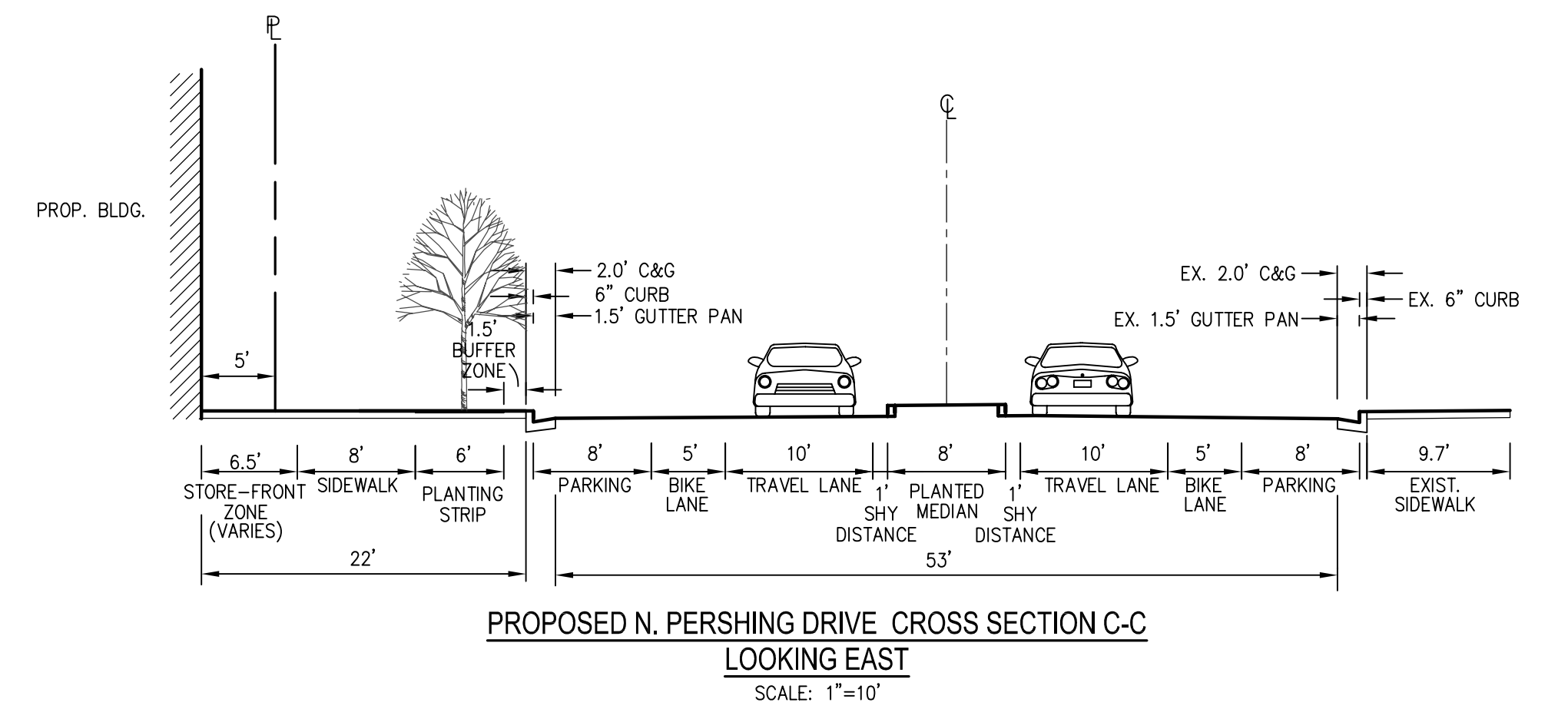
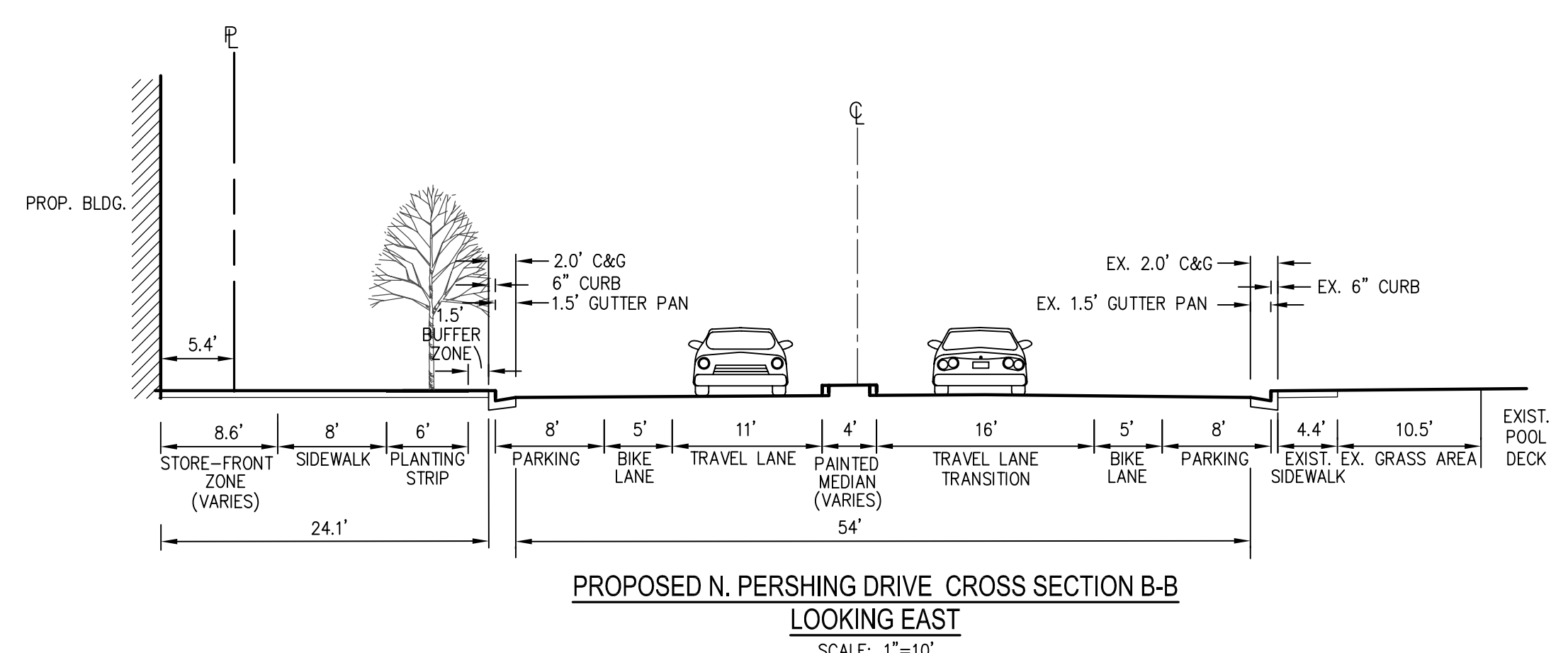
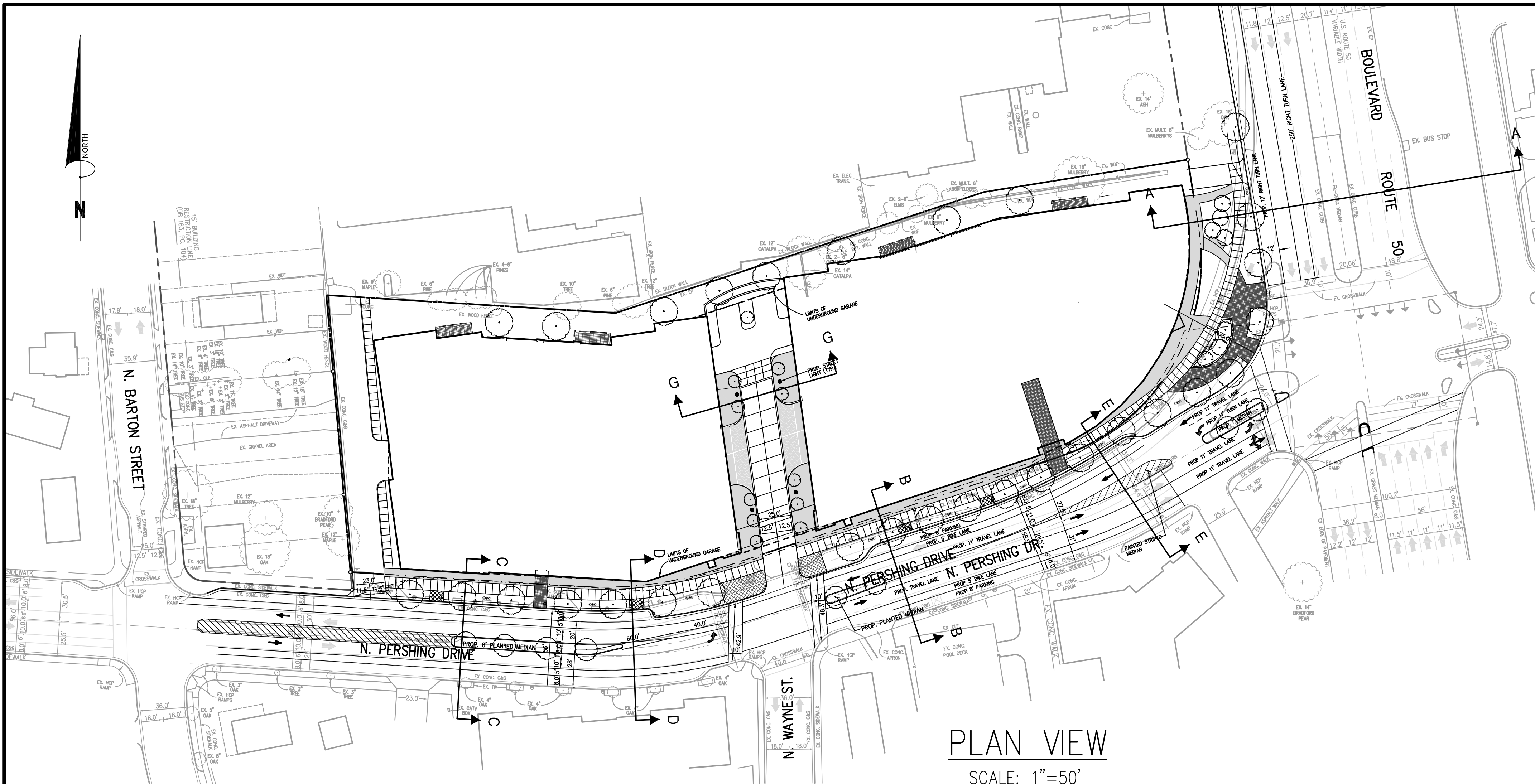
Drawing Number:

Street Sections

What is the proposed Pershing Drive Street Section? On the western side of the site, in front of proposed Building #1, Pershing Drive would be designed to include eight foot wide parking lanes, five foot wide bike lanes, and ten foot wide travel lanes on each side of the roadway, with a ten foot wide median area in the center of the roadway to consist of a six foot wide planting bed, a one foot wide curb on either side, and a one foot “shy zone” in the road bed on either side of the median curb. This results in a total curb-to-curb dimension of 56 feet. Between the curb and the building, there would be an 18-inch wide carriageway to allow for visitors to step out of parked cars, a six foot wide planting strip for street trees, an eight foot wide clear sidewalk, and then a “storefront” zone which would vary between five and nine feet in width to accommodate outdoor dining. A left turn lane would be cut into the median on Pershing Drive at the Central Access Driveway.

On the eastern end of the site, in front of Building #2, the same general street section would prevail between the building and the curb. Within the roadbed of Pershing Drive, the transition to the intersection with Arlington Boulevard results in a shorter median in this location and a tapering from one travel lane eastbound to two lanes, with the travel lanes widening to eleven feet.

How is the Central Access Driveway designed? The Central Access Driveway provides the primary entrance to the retail parking for the project. To make it as pedestrian friendly as possible, this area has been designed to be “barrier free”, meaning that there will be no curbs. Paver patterns and planter pots will define the drive aisle and pedestrian zones. Traffic circulation in the retail parking structure has been modified to be a one-way loop to allow for narrower intersections where the east-west drive aisles meet the north-south access drive.



NOTE: FOR THE ALTERNATIVE LANE CONFIGURATION SHOWN ON SHEET C-5C, THIS ROADWAY SECTION WILL REMAIN AS EXISTING. FOR THE ALTERNATIVE LANE CONFIGURATION SHOWN ON SHEET C-5A, A ROADWAY SECTION HAS NOT BEEN PROVIDED.

No.	DATE	DESCRIPTION
REVISIONS		

Bowman CONSULTING

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ARLINGTON, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

PROPOSED STREET SECTIONS
2201 N. PERSHING DRIVE
ARLINGTON COUNTY, VIRGINIA

SCALE	AS SHOWN	DESIGNED	JRG	CHECKED	MSS
SUBMITTED DATE	SEPTEMBER 17, 2007	DESIGNED DATE		CHECKED DATE	
APPROVED DATE		CHIEF TRANSPORTATION PLANNING BUREAU		CHIEF TRANSPORTATION ENGINEERING BUREAU	
CHIEF WATER, SEWER & STREETS BUREAU		CHIEF ENGINEERING BUREAU		DIRECTOR OF ENVIRONMENTAL SERVICES	
FILE NO. 6046-D-PR-001					
JOB No. 6046-02-001				SHEET	C-8

Cadd file name: P:\6046 - Lee Shopping Center\6046-02-001-Eng\Engineering\Prelim Plans\6046-02-001-CDP-RD-SECTION5.dwg

Parking Ratios

Is the parking proposed appropriate? The retail parking area includes 120 at grade spaces for 33,495 square feet of retail space. This is a ratio of 3.58 spaces per 1,000 square feet, slightly below the standard zoning requirement of 4.00 spaces per 1,000 square feet. Additionally, 14 out of the 276 proposed underground garage spaces would be set aside for retail employees. Including these spaces raises the retail ratio to 4.00. Furthermore, there are 17 parallel parking spaces proposed on Pershing Drive. If these public spaces were included in the at grade parking count, the retail parking ratio would increase to 4.51 spaces per 1,000 square feet.

The residential parking includes 262 out of the 276 spaces in the underground garage. With a 188 residential unit program, the resulting ratio is 1.39 spaces per unit. This ratio is higher than that provided by typical high-rise projects located in the Rosslyn-Ballston corridor, but lower than that provided by lower density projects located further from transit. This ratio is comparable to other medium-density residential developments recently approved in Arlington, including the “Tax Analysts” site in the East Falls Church sector plan area, and the Alexan at 2485 South Glebe Road.

Comparative Parking Ratios

Parking Summary

	Standard	Compact	HC	Total	Ratio	Bicycle
At Grade Retail & Residential Visitor	115	0	5	120	4.00*	22
Below Grade Residential & Retail Employee	208	47	7	276	1.39/Unit, 0.97/BR*	64

Residential Parking Analysis

	Spaces	Units	Spaces/Unit	Comments
2201 N Pershing Drive	276	188	1.39**	Subject Property
2485 S Glebe Road	328	217	1.51	Glebe Rd and I-395
Tax Analyst	326	214	1.52	C-0-1.5 Zone; East Falls Church
Per Zoning Ordinance		Minimum:	1.125	

*These ratios assume 14 of the 276 below grade spaces are dedicated to retail employee parking.

Traffic Generated by the Proposal

How much traffic will be generated by the proposed project and how does that compare to the traffic generated today? The site today generates 122 vehicle trips (in and out) over the course of an hour during the “peak” PM period. If the retail space today were fully utilized, including a small format grocer, the site would be projected to generate 317 trips during a similar period (assuming a standard 27% mode split). Alternatively, if the site were redeveloped in a by-right scenario, it could be expected to generate 320 trips during the same period. Our proposal for a mixed-use retail and residential project is expected to generate 328 trips during the same period.

How do Saturday traffic projections compare to the PM peak hour projections? Weekend peak hour trip projections for the site are generally higher than weekday PM peak hour trip generation projections due to the retail and residential uses. This is in part mitigated by the fact that the overall volume on area roads will be less during the weekends. Our traffic analysis found that if the current Lee and Duron Centers were fully occupied (including a small format grocer), they would generate 459 weekend peak hour trips. Our proposal would generate 423 weekend peak hour trips with a small format grocer and 356 weekend peak hour trips without a small format grocer. All of these scenarios assume a 27% mode split, which is typical for the census tract.

Selected Transportation Statistics

- Site Generated Traffic - Peak Hour Trips

	Weekday PM Peak Hour Trips	Weekend Peak Hour Trips
Site generated traffic today	122	N/A
Traffic generated if current use was fully occupied with a grocer (with 27% mode split)	317	459
Traffic generated if site was redeveloped under a C-1 scenario (with 27% mode split)	320	292
Traffic generated given proposed project with a grocer (with 27% mode split)	328	423
Traffic generated given proposed project with out a grocer (with 27% mode split)	292	356

Trip Generation by the Existing Lee and Duron Centers if Fully Occupied

Land Use	Size	Units	Land Use Code	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
ITE Vehicle-Trips (1)												
Residential	-	D.U.	220	0	0	0	0	0	0	0	0	0
Retail	52,000	S.F.	820	65	41	106	195	212	407	294	272	566
Grocery Store	-	S.F.	850	0	0	0	0	0	0	0	0	0
			Total	65	41	106	195	212	407	294	272	566
ITE Person-Trips (2)												
Residential	-	D.U.	220	0	0	0	0	0	0	0	0	0
Retail	52,000	S.F.	820	71	46	117	215	233	448	324	299	623
Grocery Store	-	S.F.	850	0	0	0	0	0	0	0	0	0
			Total	71	46	117	215	233	448	324	299	623
With Grocery Program Vehicle Trips (3)												
Residential	-	D.U.	220	0	0	0	0	0	0	0	0	0
Retail	52,000	S.F.	820	43	28	71	131	142	273	197	182	379
Grocery Store	-	S.F.	850	0	0	0	0	0	0	0	0	0
			Total	43	28	71	131	142	273	197	182	379

Notes: (1) Based on Trip Generation, 7th Edition, Institute of Transportation Engineers.

(2) Assumptions:

	<u>Residential</u>	<u>Retail</u>
Non-auto mode split:	0%	0%
Average vehicle occupancy (persons per vehicle)	1.15	1.10

(3) Assumptions:

	<u>Residential</u>	<u>Retail</u>
Non-auto mode split:	27%	27%
Average vehicle occupancy (persons per vehicle)	1.15	1.20

Non-auto mode splits were adapted from the U.S. Census 2000 Data Summary File 3 and the *Development-Related Ridership Survey II*, Washington Metropolitan Area Transit Authority, December 1989.

Project Trip Generation from the Proposed Project if there is no Grocer as a Tenant

Land Use	Size	Units	Land Use Code	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
ITE Vehicle-Trips (1)												
Residential	188	D.U.	220	19	77	96	79	42	121	49	49	98
Retail	33,613	S.F.	820	49	32	81	146	159	305	222	204	426
			Total	68	109	177	225	201	426	271	253	524
ITE Person-Trips (2)												
Residential	188	D.U.	220	22	88	110	90	49	139	56	56	112
Retail	33,613	S.F.	820	54	35	89	161	175	336	244	225	469
			Total	76	123	199	251	224	475	300	281	581
Without Grocery Program Vehicle Trips (3)												
Residential	188	D.U.	220	14	56	70	57	31	88	36	35	71
Retail	33,613	S.F.	820	33	21	54	98	106	204	148	137	285
			Total	47	77	124	155	137	292	184	172	356

Notes: (1) Based on Trip Generation, 7th Edition, Institute of Transportation Engineers.

(2) Assumptions:

	Residential	Retail
Non-auto mode split:	0%	0%
Average vehicle occupancy (persons per vehicle)	1.15	1.10

(3) Assumptions:

	Residential	Retail
Non-auto mode split:	27%	27%
Average vehicle occupancy (persons per vehicle)	1.15	1.20

Non-auto mode splits were adapted from the U.S. Census 2000 Data Summary File 3 and the *Development-Related Ridership Survey II*, Washington Metropolitan Area Transit Authority, December 1989.

Project Trip Generation from the Proposed Project if there is a Grocer as a Tenant

Land Use	Size	Units	Land Use Code	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
ITE Vehicle-Trips (1)												
Residential	188	D.U.	220	19	77	96	79	42	121	49	49	98
Retail	20,327	S.F.	820	37	23	60	105	114	219	160	147	307
Grocery Store	13,286	S.F.	850	<u>26</u>	<u>17</u>	<u>43</u>	<u>71</u>	<u>68</u>	<u>139</u>	<u>111</u>	<u>107</u>	<u>218</u>
			Total	82	117	199	255	224	479	320	303	623
ITE Person-Trips (2)												
Residential	188	D.U.	220	22	88	110	90	49	139	56	56	112
Retail	20,327	S.F.	820	40	26	66	116	125	241	176	162	338
Grocery Store	13,286	S.F.	850	<u>29</u>	<u>18</u>	<u>47</u>	<u>73</u>	<u>80</u>	<u>153</u>	<u>122</u>	<u>118</u>	<u>240</u>
			Total	91	132	223	279	254	533	354	336	690
With Grocery Program Vehicle Trips (3)												
Residential	188	D.U.	220	14	56	70	57	31	88	36	35	71
Retail	20,327	S.F.	820	24	16	40	71	76	147	107	99	206
Grocery Store	13,286	S.F.	850	<u>18</u>	<u>11</u>	<u>29</u>	<u>45</u>	<u>48</u>	<u>93</u>	<u>74</u>	<u>72</u>	<u>146</u>
			Total	56	83	139	173	155	328	217	206	423

Notes: (1) Based on Trip Generation, 7th Edition, Institute of Transportation Engineers.

(2) Assumptions:

	<u>Residential</u>	<u>Retail</u>
Non-auto mode split:	0%	0%
Average vehicle occupancy (persons per vehicle)	1.15	1.10

(3) Assumptions:

	<u>Residential</u>	<u>Retail</u>
Non-auto mode split:	27%	27%
Average vehicle occupancy (persons per vehicle)	1.15	1.20

Non-auto mode splits were adapted from the U.S. Census 2000 Data Summary File 3 and the *Development-Related Ridership Survey II*, Washington Metropolitan Area Transit Authority, December 1989.

Comparison of a Fully Occupied Lee and Duron Centers, By-Right Redevelopment, and the Proposed Project with Varying Mode Split Scenario:

Land Use	Size	Units	Land Use Code	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Existing Lee Center ¹	52,000	S.F.		20	28	48	55	67	122	n/a	n/a	n/a
Without Mode Splits												
<u>Existing Lee Center, ITE Rates</u>												
Retail	52,000	S.F.	820	65	41	106	195	212	407	294	272	566
<u>C-I Program</u>												
Office	90,000	S.F.	710	152	21	172	31	149	180	20	17	37
Retail	30,000	S.F.	820	46	30	76	136	147	283	206	190	396
	120,000		Total	198	51	248	167	296	463	226	207	433
<u>Proposed Program, without Grocery</u>												
Residential	188	D.U.	220	19	77	96	79	42	121	49	49	98
Retail	33,613	S.F.	820	49	32	81	146	159	305	222	204	426
			Total	68	109	177	225	201	426	271	253	524
<u>Proposed Program, with Grocery</u>												
Residential	188	D.U.	220	19	77	96	79	42	121	49	49	98
Retail	20,327	S.F.	820	37	23	60	105	114	219	160	147	307
Grocery Store	13,286	S.F.	850	26	17	43	71	68	139	111	107	218
			Total	82	117	199	255	224	479	320	303	623
Change (Without Grocery vs. C-I)				-130	58	-71	58	-95	-37	45	46	91
Change (With Grocery vs. C-I)				-115	66	-49	88	-72	16	94	96	190
With Mode Splits												
<u>Existing Lee Center, ITE Rates</u>												
Retail	52,000	S.F.	820	43	28	71	131	142	273	197	182	379
<u>C-I Program</u>												
Office	90,000	S.F.	710	25	101	126	85	46	131	14	13	27
Retail	30,000	S.F.	820	31	20	51	91	98	189	138	127	265
	120,000		Total	56	121	177	176	144	320	152	140	292
<u>Proposed Program, without Grocery</u>												
Residential	188	D.U.	220	14	56	70	57	31	88	36	35	71
Retail	33,613	S.F.	820	33	21	54	98	106	204	148	137	285
			Total	47	77	124	155	137	292	184	172	356
<u>Proposed Program, with Grocery</u>												
Residential	188	D.U.	220	14	56	70	57	31	88	36	35	71
Retail	20,327	S.F.	820	24	16	40	71	76	147	107	99	206
Grocery Store	13,286	S.F.	850	18	11	29	45	48	93	74	72	146
			Total	56	83	139	173	155	328	217	206	423
Change (Without Grocery vs. C-I)				-9	-44	-53	-21	-7	-28	32	32	64
Change (With Grocery vs. C-I)				0	-38	-38	-3	11	8	65	66	131

Projected Trip Generation from a By-Right Redevelopment

Land Use	Size	Units	Land Use Code	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
ITE Vehicle-Trips (1)												
Office	90,000	S.F.	710	152	21	172	31	149	180	20	17	37
Retail	30,000	S.F.	820	46	30	76	136	147	283	206	190	396
			Total	198	51	248	167	296	463	226	207	433
ITE Person-Trips (2)												
Office	90,000	S.F.	710	45	179	224	151	82	233	24	24	48
Retail	30,000	S.F.	820	51	33	84	149	162	311	227	209	436
			Total	96	212	308	300	244	544	251	233	484
C-1 Program Vehicle Trips (3)												
Office	90,000	S.F.	710	25	101	126	85	46	131	14	13	27
Retail	30,000	S.F.	820	31	20	51	91	98	189	138	127	265
			Total	56	121	177	176	144	320	152	140	292

Notes: (1) Based on Trip Generation, 7th Edition, Institute of Transportation Engineers.

(2) Assumptions:

	Office	Retail
Non-auto mode split:	0%	0%
Average vehicle occupancy (persons per vehicle)	1.30	1.10

(3) Assumptions:

	Office	Retail
Non-auto mode split:	27%	27%
Average vehicle occupancy (persons per vehicle)	1.30	1.20

Non-auto mode splits were adapted from the U.S. Census 2000 Data Summary File 3 and the *Development-Related Ridership Survey II*, Washington Metropolitan Area Transit Authority, December 1989.