



Takoma Park City Council Meeting – April 23, 2018 Agenda Item 1

Work Session

Presentation of Takoma Junction Traffic Study Recommendations

Recommended Council Action

None – Presentation only

Context with Key Issues

On November 20, 2017, the Council authorized the undertaking of an independent traffic study by [A. Morton Thomas & Associates \(AMT\)](#) to evaluate current traffic patterns in the vicinity of the Takoma Junction area and to identify ways to mitigate the impact of this traffic and the additional trips projected to be generated by the planned development of the City parking lot. A copy of the scope of services to be provided by AMT is attached.

The City's development partner, [Neighborhood Development Company \(NDC\)](#), is undertaking a separate traffic study as it prepares to submit its combined site plan to Montgomery County Planning Department for review. They have retained the services of [The Traffic Group, Inc.](#) to complete the study and prepare recommendations for the mitigation of the traffic impact of the NDC project.

At this work session, the preliminary results and initial recommendations of both firms will be presented. Their respective presentations will be available and posted on the City's website on Tuesday, April 24.

A second work session focusing on the traffic and circulation elements of the planned [Takoma Junction Development Project](#) has been scheduled for Wednesday, April 25. Public comment on the recommendations of the traffic studies conducted by AMT and The Traffic Group will be solicited prior to the work session discussion. Given the expected interest in the studies, the April 25 Council meeting will begin at 6:30 p.m. Childcare will be provided to allow residents to participate in the discussion.

Council Priority

Community Development for an Improved and Equitable Quality of Life

Environmental Impact of Action

An anticipated benefit of the proposed traffic study and the implementation of identified mitigation measures is a reduction in carbon emissions from idling vehicles as well as improved conditions for pedestrians and bicyclists traveling through the area.

Fiscal Impact of Action

The cost of services required to complete the City's Takoma Junction Traffic Study is \$36,284.

Racial Equity Impact of Action

We do not believe this Council action will adversely affect or disproportionately impact any particular group.

Attachments and Links

City of Takoma Park

- Traffic Study: Revised Scope of Services (Revised March 2, 2018)

Neighborhood Development Company (NDC)

- Transportation Impact Study Scope of Work Agreement
- [Local Area Transportation Review Guidelines \(2017\)](#)

1. Determine level of cut-through traffic from Carroll Avenue and Ethan Allen Avenue at the following intersections:
 - a) Ethan Allen Avenue and Jackson Avenue
 - b) Ethan Allen Avenue and Woodland Avenue
 - c) Ethan Allen Avenue and Sycamore Avenue
 - d) Sycamore Avenue and Columbia Avenue
 - e) Columbia Avenue and Poplar Avenue
 - f) Columbia Avenue and Hickory Avenue
 - g) Columbia Avenue and Pine Avenue
 - h) Columbia Avenue and Carroll Avenue

2. Intersection Capacity Analysis of the following intersections:
 - a) Carroll Avenue and Flower Avenue
 - b) Ethan Allen and Carroll Avenue
 - c) Carroll Avenue and Philadelphia Avenue
 - d) Philadelphia Avenue and Maple Avenue

3. Review intersection options presented in SHA District 3 Intersection Study (links below) and evaluate potential impact on anticipated traffic:
 - a) Reconfiguration of Carroll and Ethan Allen Avenue intersection
 - b) Closure of Sycamore Avenue or restricted access to/from Sycamore Avenue

4. Develop preliminary design concepts for reconfiguration of the following intersections:
 - a) Carroll Avenue and Ethan Allen Avenue
 - b) Carroll Avenue and Grant Avenue

5. Develop preliminary design concepts for incorporation of bike and pedestrian safety improvements along Ethan Allen Avenue between Jackson Avenue and Sycamore Avenue and along Carroll Avenue between Ethan Allen Avenue and Columbia Avenue. Identify options for possible relocation of existing bus stops.

6. Identify options for the delivery of goods to the Takoma Park Silver Spring Cooperative from Sycamore Avenue and/or Columbia Avenue; Investigate the feasibility of trucks (semi-tractor trailers) to access and perform their deliveries; review roadway geometrics, future traffic volumes along Sycamore Avenue and Columbia Avenue, and impacts to the residential community.



MONTGOMERY COUNTY PLANNING DEPARTMENT
 THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Local Area Transportation Review

TRANSPORTATION IMPACT STUDY SCOPE OF WORK AGREEMENT

Contact Information			
Transportation Consultant (company, contact name, email, and phone number)	The Traffic Group, Inc. (9900 Franklin Square Drive, Suite H, Baltimore, MD 21236) Glenn Cook, gcook@trafficgroup.com, (410) 931-6600		
Name of Applicant / Developer	Diarra Mckinney/Neighborhood Development Company		
Project Information <i>Include Tables/Graphics, As Needed</i>			
Project Name (include plan no. if known)	Takoma Junction		
Project Location (include address if known)	South side of Ethan Avenue opposite Grant Avenue. See Exhibit 1 attached.		
Policy Area(s) (subdivision staging policy map)	Silver Spring/Takoma Park	Master Plan(s) / Sector Plan Area(s)	Takoma Park
Application Type(s)	<input checked="" type="checkbox"/> Preliminary Plan	<input checked="" type="checkbox"/> Site Plan	<input type="checkbox"/> Sketch/Concept/Pre-Preliminary (Optional)
	<input type="checkbox"/> Conditional Use (formerly special exception)	<input type="checkbox"/> Local Map Amendment	<input type="checkbox"/> Amendment
Project Description & Previous Approvals (proposed land uses, zoning, no. of units, square footage, construction phasing, prior approvals and proposals, existing uses, site operations, year built, status of Adequate Public Facilities [APF], other relevant info)	<p>The subject site is proposed to be developed with 20,500 SF retail and 27,000 SF office. (See Exhibit 1A Concept Plan attached)</p> <p>The current land size is 1.3 acre/56,751 SF and is zoned NR-0.75 H-50.</p> <p>The site is currently a parking lot and an auto clinic.</p> <p>Buildout is in two (2) years.</p>		
1.Site Access (proposed access location(s), existing/adjacent/opposite curb cuts, interparcel connections, access configurations and restrictions, internal circulation, private roads, parking/loading areas, other relevant info)	A full movement access is proposed on Carroll Avenue.		

2. Transportation Analysis Requirement	<input checked="" type="checkbox"/> Transportation Impact Study Generates <u>50 or more</u> total weekday peak hour person trips (vehicular, transit, bicycle, and/or pedestrian) with no reductions other than a credit for existing developments over 12 years old, <u>AND</u> is outside of the White Flint and White Oak Policy Areas. Fill out remainder of this form and include in transportation impact study appendix.	<input type="checkbox"/> Transportation Study Exemption Statement Generates <u>49 or fewer</u> total weekday peak hour person trips (vehicular, transit, bicycle, and/or pedestrian) with no reductions other than a credit for existing developments over 12 years old, <u>OR</u> within White Flint and White Oak Policy Areas. Fill out PAR and trip generation sections below, and include with exemption statement.	
3. Policy Area Review (PAR) Only for projects filed before 1/1/17	<input type="checkbox"/> TPAR (1/1/13 – 12/31/16) 0, 25, 50%: _____ (TPAR = Transportation Policy Area Review)	<input type="checkbox"/> PAMR (11/15/07 - 12/31/12) 0-50%: _____ (PAMR = Policy Area Mobility Review)	<input type="checkbox"/> Exempt (no square footage increase or fewer than 3 new trips) or 1/1/17 or later) <input type="checkbox"/> No PAR (7/1/03 – 11/14/07) <input type="checkbox"/> PATR (before 6/30/03) (PATR = Policy Area Transportation Review)
4. Transportation Mitigation Agreement (TMAg) Required?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (25+ Employees and in Transportation Management District [TMD])	<input type="checkbox"/> Amend Existing TMAg
5. Established Transportation Management District (TMD)?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes TMD Name: _____	

Transportation Impact Study Assumptions	<i>Include Tables/Graphics, As Needed</i>
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6. Study Years / Phases	Existing Year: 2018		Phases / Build-out Year(s): 2020		
7. Study Periods	<input checked="" type="checkbox"/> AM <input checked="" type="checkbox"/> PM <input type="checkbox"/> Mid-day <input type="checkbox"/> Saturday <input type="checkbox"/> Sunday <input type="checkbox"/> Other: _____				
8. Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts must be collected within 12-months of completed and accepted application)	# of tiers of intersections to study (refer current LATR Guidelines): <u>1</u> <i>For the purpose of determining the number of tiers of study intersections, trip calculation for the subject site should also include nearby unbuilt properties in common ownership. No trip reductions should be taken in this calculation other than a credit for existing developments over 12 years old.</i>				
	1) Ethan Allen Ave & Sycamore Ave	7)			
	2) Ethan Allen Ave & Carroll Ave/Grant Ave	8)			
	3) Carroll Ave & Philadelphia Ave	9)			
	4) Carroll Ave & Site Access	10)			
	5)	11)			
9. Trip Generation (clearly cite sources and methodology including use of rates vs. equation, include trip generation for existing site, current approvals, proposed uses, and net changes)	Total Person Trips AM: 95 PM: 273	Vehicle Trips* AM: 59 PM: 164	Transit Trips* AM: 12 PM: 22	Walking Trips* AM: 24 PM: 65	Bicycling Trips* AM: 12 PM: 43
	<i>* Only required if total peak hour person trips are 50 or more. Sum of vehicle, transit, walking and biking trips shall be the equivalent of total person trips. Use table at the end of the form to show all calculations and assumptions for mode breakout.</i>				

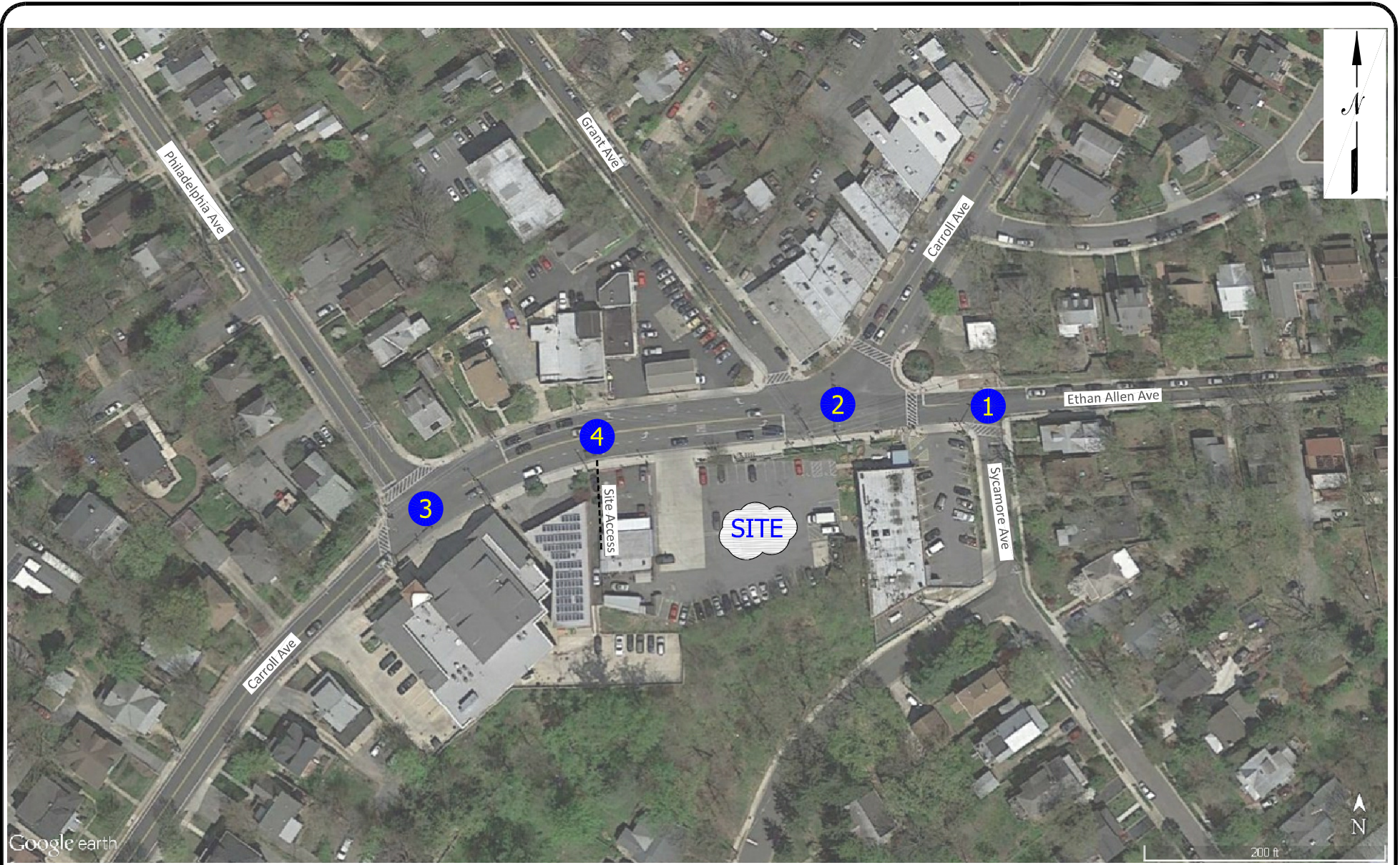
<p>10.Trip Reductions</p> <p>(include justification and supporting documentation for internal capture, pass-by, diverted, Transportation Demand Management)</p>	<p>Please see details of trip generation and reduction in Exhibit 2 attached.</p>
<p>11.Trip Distribution %</p> <p>(include a map of the proposed project in addition to a list or table)</p>	<p>Please see Exhibit 3A and 3B attached for proposed distribution.</p>
<p>12.Pipeline Developments to be considered as background traffic</p> <p>(include name, plan #, land uses, and sizes for approved but unbuilt developments or concurrently pending applications; info can be obtained from the M-NCPPC Pipeline website: http://mcatlas.org/pipeline/ - website is updated quarterly)</p>	<ol style="list-style-type: none"> 1. 6413 Orchard Avenue (820120160) – 3,978 SF of warehouse. 2. 6450 New Hampshire Avenue (820130080) – 2,442 SF of retail and 2,515 SF of office. (Please see Exhibit 4 attached for location map) 3. Gilbert and Wood (820070110) – 12,532 SF of retail, 540 SF of office and 7,073 SF restaurant. (Located on the southeast quadrant of Carroll Ave & Laurel St)
<p>13.Pipeline Transportation Projects to be considered as background condition</p> <p>(fully funded County Capital Improvement Program, State Consolidated Transportation Program, developer projects, etc. within the next 6 years)</p>	<p>None.</p>

Preliminary Mitigation Analysis		<i>*Refer to the LATR Guidelines for details on how to mitigate</i>	
14.Vehicular Analysis	<input checked="" type="checkbox"/> Vehicular Analysis Anticipated (Vehicular mitigation to be determined after study)	<ul style="list-style-type: none"> TEST: HCM Analysis is required to be provided for all intersections analyzed in studies for: 1) "Red & Orange" policy areas, and 2) intersections with a CLV of more than 1,350 in "Yellow & Green" policy areas. 3) CLV analysis required for all intersections regardless of policy area. CLV assessment and signal timing worksheets are to be included in the study appendix. MITIGATION: Required if HCM delay analyses exceed policy area standard 	
15.Pedestrian Analysis	<input checked="" type="checkbox"/> Pedestrian Mitigation Anticipated	<ul style="list-style-type: none"> TEST: If the plan generates 50 or more pedestrian peak hour trips, mitigation of surrounding pedestrian conditions is required MITIGATION: Required if ADA non-compliance issues within 500 foot radius of site boundary and if pedestrian crosswalk delay at LATR intersections within 500 feet of site boundary is lower than Level of Service (LOS) D 	
16.Bicycle Analysis	<input type="checkbox"/> Bicycle Mitigation Anticipated	<ul style="list-style-type: none"> TEST: If the plan generates 50 or more bicycle peak hour trips and is within 0.25 miles of an existing educational institution or existing/planned bikeshare station, mitigation of surrounding bicycle conditions is required MITIGATION: Required to make improvements to provide a low Level of Traffic Stress to any existing similar facility within 750 feet of the site boundary; Alternatively, project may provide a master planned improvement that provides an equivalent improvement in the level of traffic stress for cyclists 	
17.Transit Analysis	<input type="checkbox"/> Transit Mitigation Anticipated	<ul style="list-style-type: none"> TEST: If the plan generates 50 or more transit peak hour trips and the peak load of bus routes at bus stops within 1,000 feet of site boundary exceeds (or is worse than) peak load of LOS D (1.25 transit riders per seat during the peak period in the peak direction), mitigation of transit conditions is required MITIGATION: Required to provide or fund improvements that would mitigate the trips exceeding the standard that are attributable to the development 	
Additional Analysis or Software Required	<input checked="" type="checkbox"/> Queuing Analysis <input type="checkbox"/> Signal Warrant Analysis <input type="checkbox"/> Weaving/Merge Analysis	<input type="checkbox"/> Accident Analysis <input type="checkbox"/> Synchro <input type="checkbox"/> SIDRA	<input type="checkbox"/> VISSIM <input type="checkbox"/> CORSIM <input type="checkbox"/> Other _____

M-NCPPC Clarifications

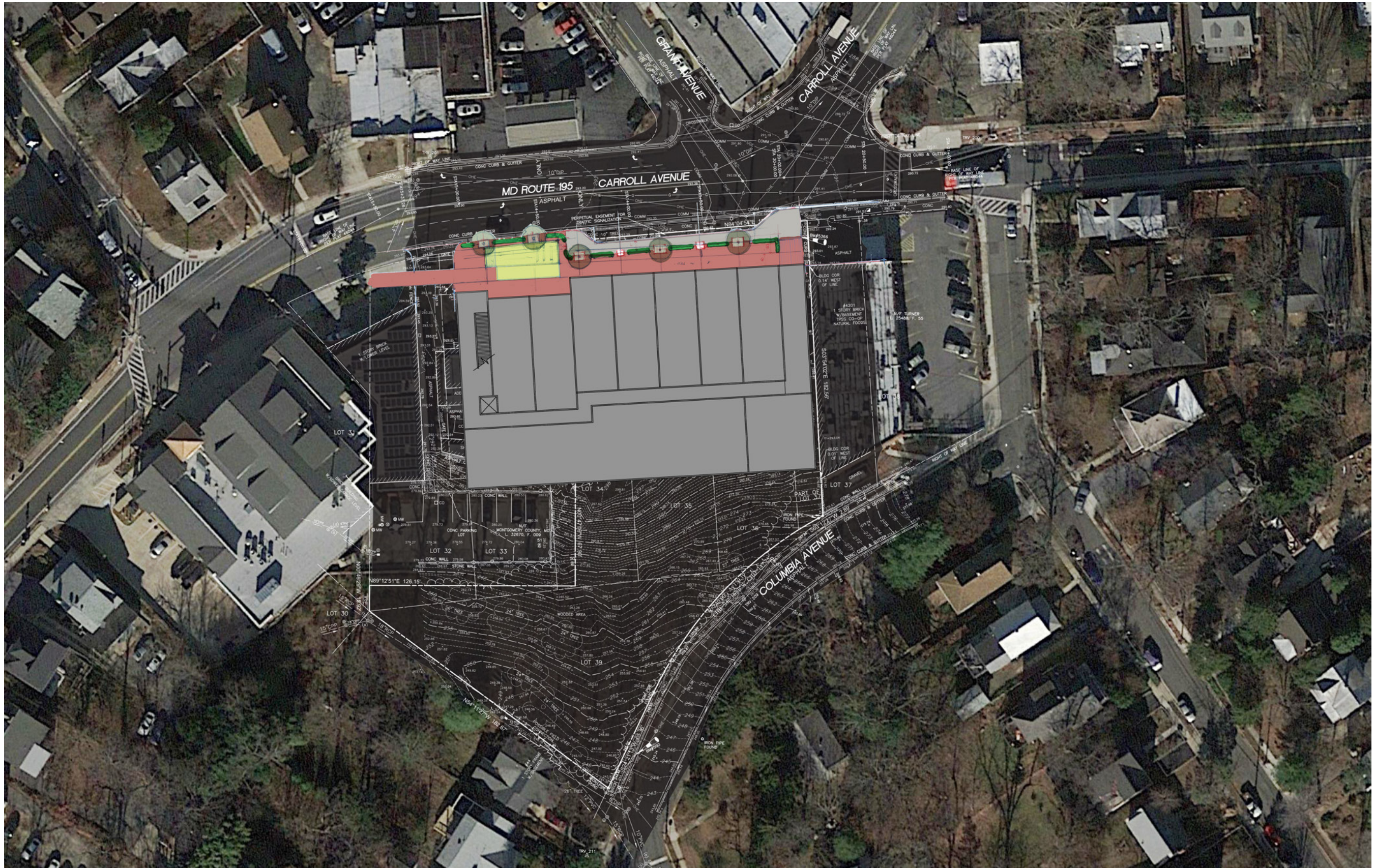
- Transportation impact study will comply with all other requirements of the LATR Guidelines not listed on this form.
- If physical improvements are proposed as mitigation, the transportation impact study will demonstrate feasibility with regards to right-of-way and utility relocation (at a minimum).
- In the event that the development proposal significantly changes after this transportation impact study scope has been agreed to, the Applicant will work with M-NCPPC staff to amend the scope to accurately reflect the new proposal.
- A receipt from MCDOT showing that the transportation impact study review fee has been paid will be provided to M-NCPPC DARC at the time the development application is submitted.
- Minimum of seven paper copies (more if near the County line or an incorporated City) and two PDF copies of the transportation impact study and appendices will be provided.

Additional Assumptions / Special Circumstances for Discussion



Study Intersection

EXHIBIT 1 SITE LOCATION MAP



SITE PLAN

TAKOMA JUNCTION | Schematic Design

EXHIBIT 1A
CONCEPT PLAN



DRAFT streetsense.

January 18, 2018 | 2

TRIP GENERATION FOR TAKOMA JUNCTION

Trip Rates / Formulae

In/Out %

Shopping Center (ksf, ITE-820)

Morning Trips = $0.94 \times \text{ksf}$ 62/38

Ln(Evening Trips) = $0.74 \times \text{Ln}(\text{ksf}) + 2.89$ 48/52

General Office Building (ksf, ITE-710)

Morning Trips = $0.94 \times \text{ksf} + 26.49$ 86/14

Ln(Evening Trips) = $0.95 \times \text{Ln}(\text{ksf}) + 0.36$ 16/84

TRIP TOTALS	MORNING PEAK HOUR			EVENING PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL

Propose Land Use

Shopping Center (ITE-820)

20,500 sq.ft.	12	7	19	81	87	168
Adjusted Vehicle Trips (82%)	10	6	16	66	71	137
Less Existing Site Traffic	-2	-1	-3	-2	-2	-4
Net Vehicle Trips	8	5	13	64	69	133
Total Person Trips (=Vehicle Trips / 59.5%)			27			230
Auto Passenger Trips (= Person Trips x 17.2%)			5			40
Transit Trips (= Person Trips x 6.9%)			2			16
Pedestrian Trips			6			54
Non-Motorized Trips (= Person Trips x 16.4%)			4			38

General Office Building (ITE-710)

27,000 sq.ft.	45	7	52	5	28	33
Adjusted Vehicle Trips (83%)	37	6	43	4	23	27
Total Person Trips (=Vehicle Trips / 63.0%)			68			43
Auto Passenger Trips (= Person Trips x 10.7%)			7			5
Transit Trips (= Person Trips x 15.1%)			10			6
Pedestrian Trips			18			11
Non-Motorized Trips (= Person Trips x 11.2%)			8			5

Net New Peak Hour Trips

Adjusted Vehicle Trips	47	12	59	70	94	164
Total Person Trips			95			273
Auto Passenger Trips			12			45
Transit Trips			12			22
Pedestrian Trips			24			65
Non-Motorized Trips			12			43

Existing Land Use

Automobile Care Center (ITE-942)

1,400 sq.ft.	2	1	3	2	2	4
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- Notes: 1. ITE trip rates are based on ITE Trip Generation Manual, 10th Edition, 2017.
2. Trip adjustment factors and mode split percentages for Silver Spring/Takoma Park Policy Area were obtained from 2017 LATR Guideline.



EXHIBIT 2
TRIP GENERATION FOR
TAKOMA JUNCTION

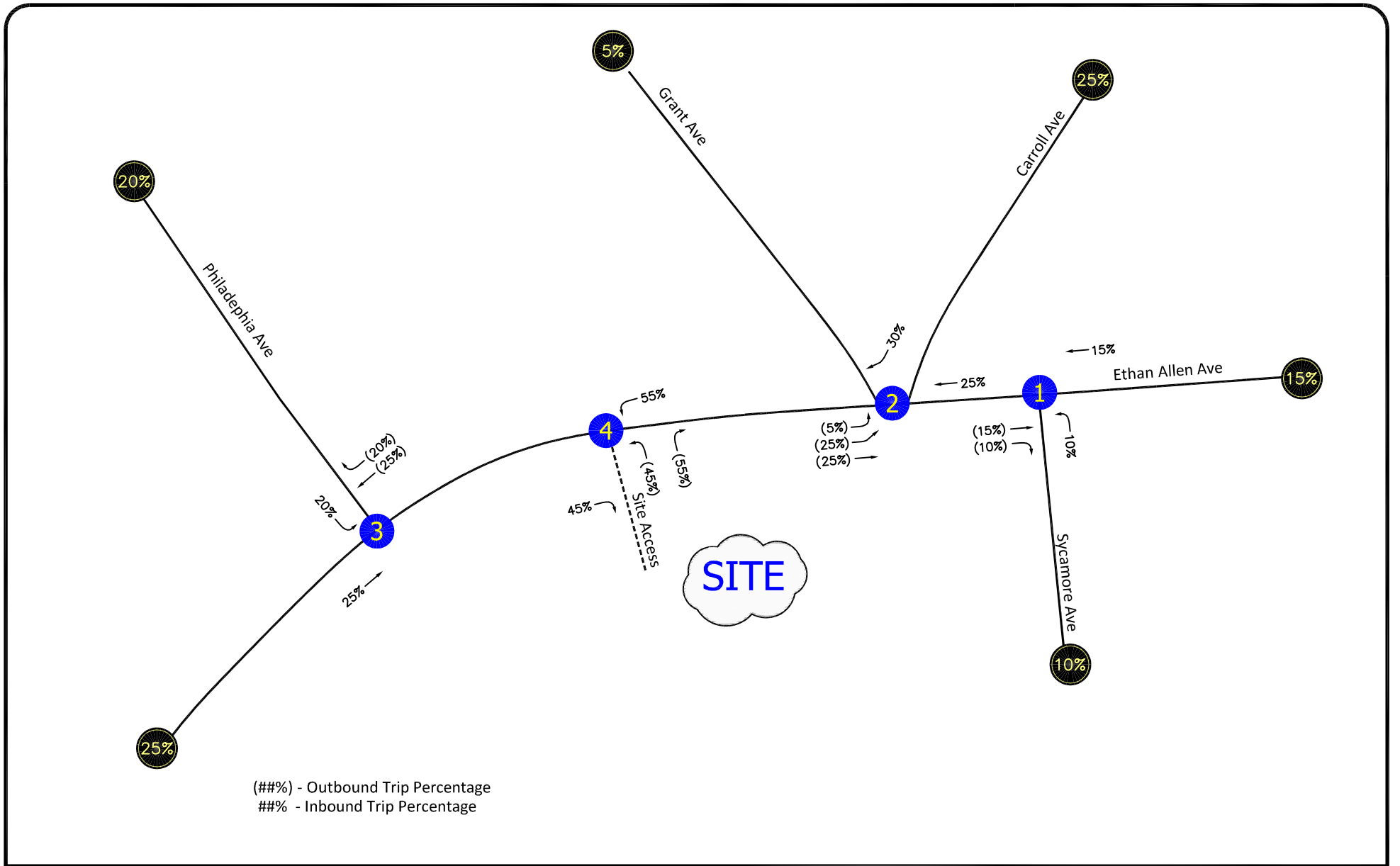


EXHIBIT 3A
TRIP DISTRIBUTION FOR
TAKOMA JUNCTION
(RETAIL TRIPS)

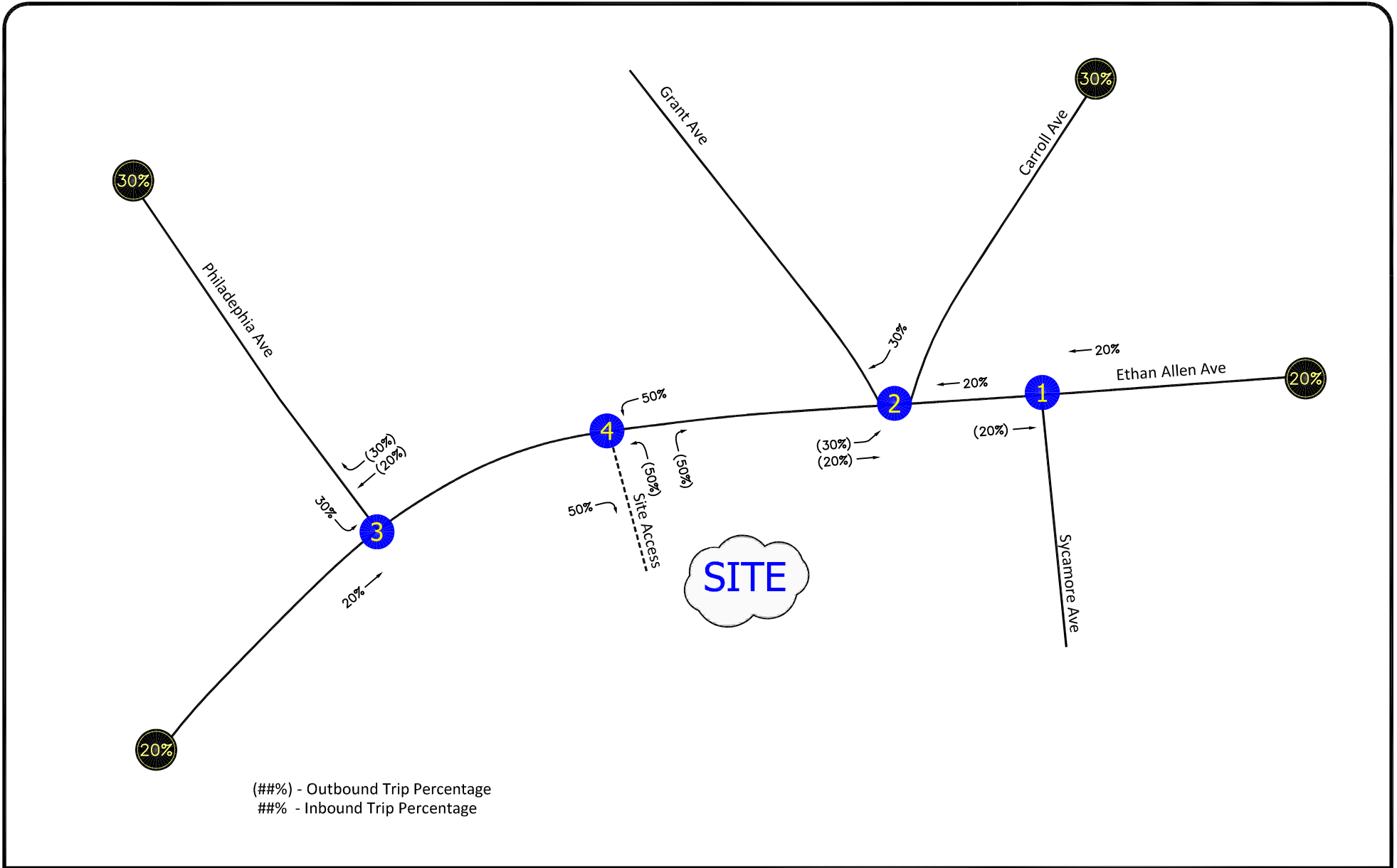


EXHIBIT 3B
 TRIP DISTRIBUTION FOR
 TAKOMA JUNCTION
 (OFFICE TRIPS)

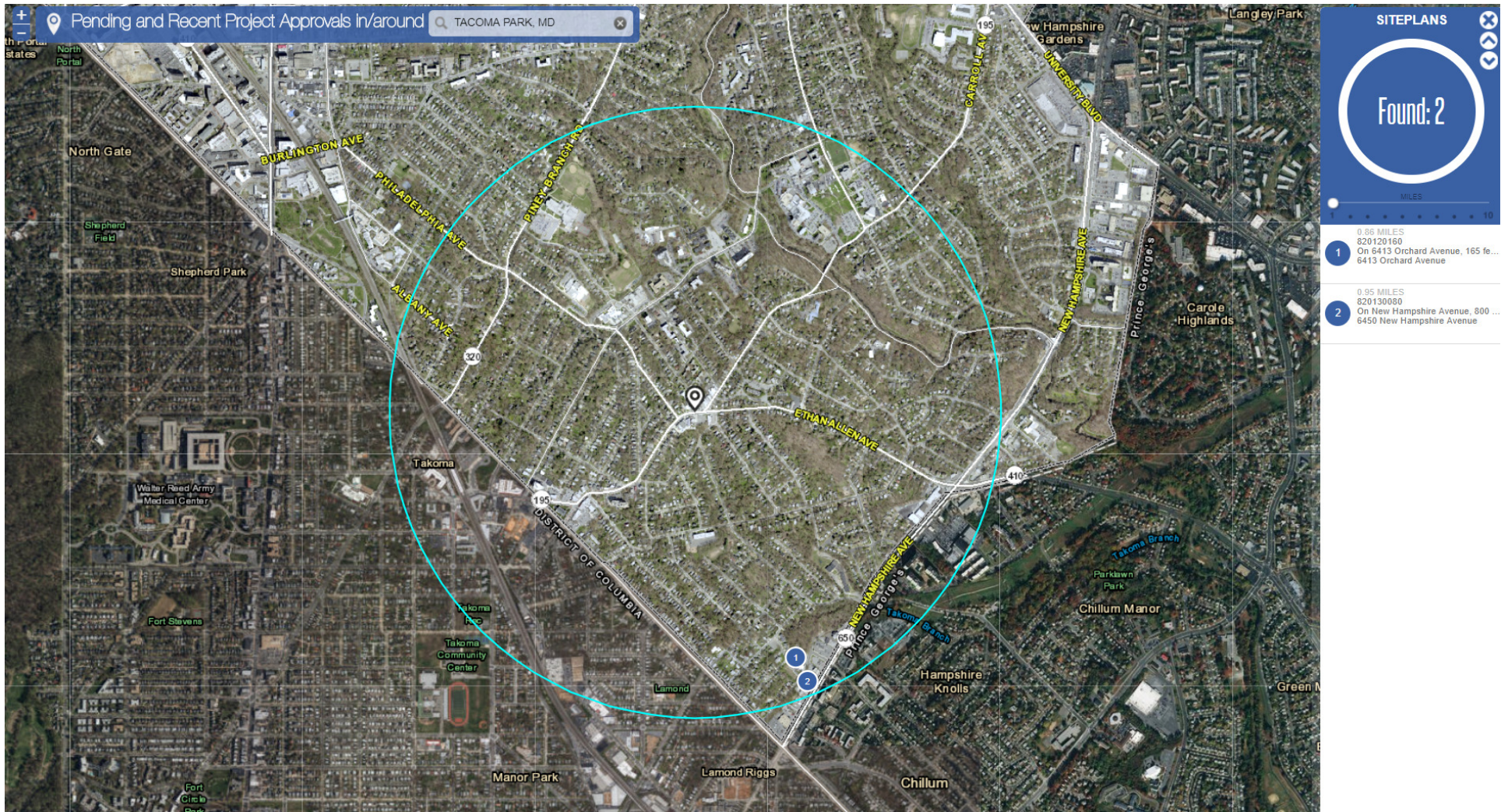


EXHIBIT 4
LOCATION MAP FOR
PIPELINE DEVELOPMENTS