

-
- The existing site conditions generate fewer vehicle trips compared to the density, height, and uses permitted under the existing PDR-2 zoning.
 - Among the four different scenarios analyzed under the proposed MU-10 zoning, a mixed-use development consisting of a 4.2 FAR of residential, 1.0 FAR of retail, and 2.0 FAR of office would generate the highest amount of vehicle trips.
 - The proposed zoning conditions all have the potential to generate more trips than the existing zoning, regardless of which development scenario is used for comparison purposes. In all cases, the difference in trips meets the threshold of requiring a detailed TIA (traffic impact analysis) per DDOT's Comprehensive Transportation Review (CTR) guidelines.
 - Performing a CTR for the site now would not allow for a proper review of potential transportation impacts and appropriate mitigation measures, as details such as the site access plan and amount of parking are unknown. Since a CTR would be needed during the Public Space Committee approval process, this memorandum recommends that a detailed CTR be performed at that time, when a refined site plan is available. That would allow for a thorough analysis of site access, parking, and other details of the site plan, and ensure that the mitigations selected for the project, including a Transportation Demand Management (TDM) plan, are appropriate and fully address impacts generated by the site per DDOT's CTR guidelines.



Figure 1: Site Aerial

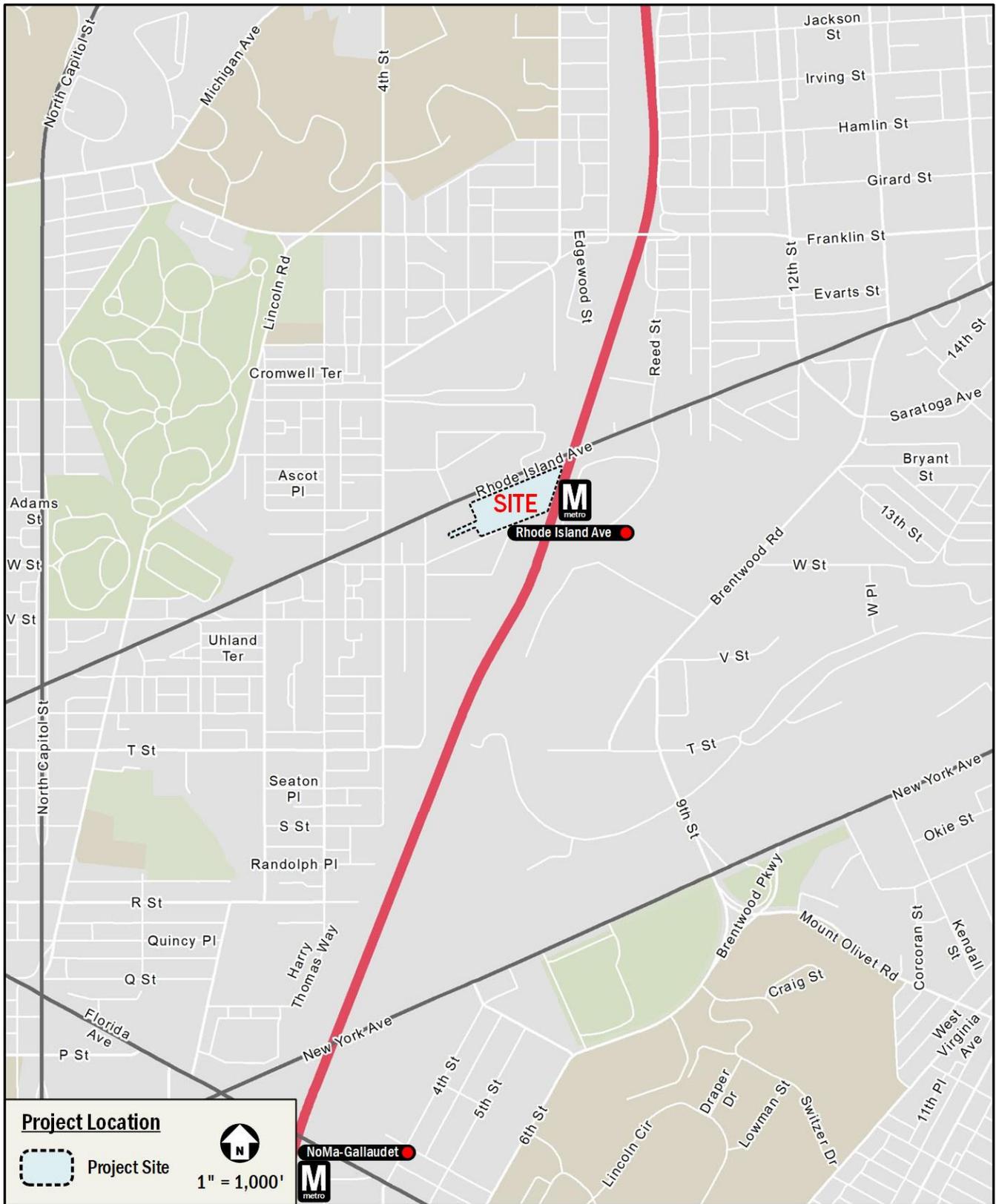


Figure 2: Site Location

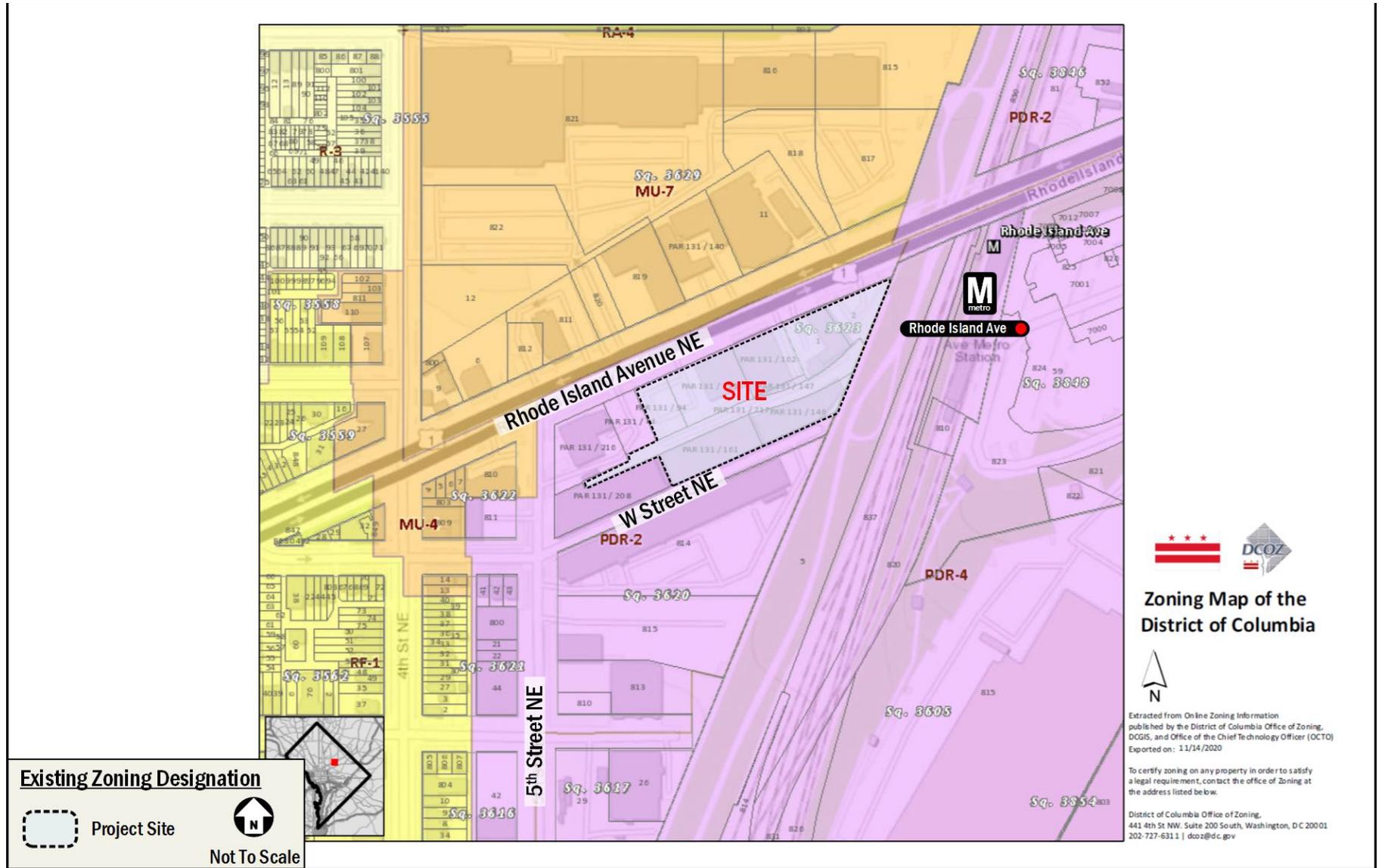


Figure 3: Existing Zoning Designation

Existing Zoning Designation

This section details the allowable land uses under the existing PDR-2 zoning designation and the current, existing land uses on site. Allowable matter-of-right site development scenarios that were analyzed to compare to the potential development options under the proposed zoning are also described in this section.

Existing Allowable Land Uses

Pursuant to 11-J DCMR 202.2, uses falling into the following use categories are permitted on the site as matter-of-right with a maximum density of 4.5 FAR (floor area ratio) (“Permitted Uses”):

- Large agricultural (light industrial)
- Animal care and boarding and animal shelter
- Arts, design, and creation
- Basic utilities
- Large-scale government
- Production, distribution, and repair (light industrial)
- Waste-related services

All other matter-of-right, conditional, or special exception uses identified in 11-U DCMR 801 and 802 are limited to a maximum density of 3.0 FAR (“Restricted Uses”), including but not limited to:

- Office
- Retail (large format retail)
- Higher education institutions
- Lodging
- Parking facilities

Existing Allowable Build Scenarios

To assess the potential impact of the proposed MU-10 zoning, as compared to the existing zoning designation, the following, currently allowable development scenarios were analyzed:

- **Existing Build Scenario 1: Existing Site Conditions**
 - Total existing retail use: 32,380 SF
 - Square 3623 Parcel 131/161: 25,900 SF Retail
 - Square 3623 Lots 1: 6,480 SF Retail
 - Total existing light industrial use: 58,126 SF
 - Square 3623 Parcel 131/161: 16,800 SF Industrial
 - Square 3623 Parcel 131/146: 11,712 SF Industrial
 - Square 3623 Parcel 131/94: 9,395 SF Industrial
 - Square 3623 Parcel 131/155: 20,219 SF Industrial
- **Existing Build Scenario 2: 4.5 FAR of Permitted Uses**
 - Basic utility use: 35,000 SF
 - Animal care use: 7,600 SF
 - Light industrial use: 509,240 SF
- **Existing Build Scenario 3: 3.0 FAR of single Restricted Use**

- Existing Build Scenario 3A - Office use: 367,893 SF
- Existing Build Scenario 3B - Retail use: 367,893 SF
- Existing Build Scenario 3C - Hotel use: 367,893 SF (736 rooms, assuming 500 SF per room)
- **Existing Build Scenario 4: Total 4.5 FAR (1.5 FAR of Permitted Uses and with a 3.0 FAR of Other Restricted Uses)**
 - 1.5 FAR of Permitted Uses:
 - Basic utility use: 35,000 SF
 - Animal care use: 7,600 SF
 - Light industrial use: 141,347 SF
 - 3.0 FAR of Restricted Uses:
 - Existing Build Scenario 4A
 - 1.5 FAR of Permitted Uses
 - 3.0 FAR of office use: 367,893 SF
 - Existing Build Scenario 4B
 - 1.5 FAR of Permitted Uses
 - 3.0 FAR of retail use: 367,893 SF
 - Existing Build Scenario 4C
 - 1.5 FAR of Permitted Uses
 - 3.0 FAR of hotel use: 367,893 SF (736 rooms)

Table 1 summarizes the build scenarios analyzed under the existing PDR-2 zoning designation. The land uses and densities analyzed under the existing zoning designation are consistent with certain development in the area and in line with the ITE (the Institute of Transportation Engineers') *Trip Generation Manual*, 10th Edition, site and facility profile source data.

Table 1: Analyzed Existing Allowable Build Scenarios

Scenario	Land Use	Land Use Category	FAR	SF	Total SF
Existing Build Scenario 1	Retail	Existing Condition	--	32,380	90,506
	Light Industrial			58,126	
Existing Build Scenario 2	Basic Utility	"Permitted Uses"	4.5	35,000	551,840
	Animal Care			7,600	
	Light Industrial			509,240	
Existing Build Scenario 3	Office	"Restricted Uses"	3.0	367,893	367,893
	Retail			367,893	
	Hotel			367,893 (736 rooms)	
Existing Build Scenario 4	Utility	"Permitted Uses"	1.5	35,000	1,287,626
	Animal Care			7,600	
	Light Industrial			141,347	
	Office	367,893			
	Retail	367,893			
	Hotel		3.0	367,893 (736 rooms)	

Proposed Zoning Designation

This section summarizes the allowable densities under the proposed MU-10 zoning designation and describes potential site development scenarios.

Proposed Allowable Land Uses

Pursuant to Subtitle U, Chapter 5, a broad range of commercial, institutional, and multiple dwelling unit residential uses at varying densities are permitted in the proposed MU-10 zone. As a matter-of-right, the site is limited to a maximum density of 6.0 FAR, 7.2 FAR with IZ (inclusionary zoning), of which no more than 3.0 FAR may be devoted to nonresidential uses.

Proposed Allowable Build Scenarios

In consultation with the applicant’s land use counsel, to assess the potential impact of the proposed map amendment, as compared to the existing zoning designation, the following allowable build scenarios were analyzed:

- **Proposed Build Scenario 1: Residential and Retail**
 - 6.2 FAR residential use: 760,312 SF (1,086 du)
 - 1.0 FAR retail use: 122,631 SF
- **Proposed Build Scenario 2: Residential and Max Non-Residential (Office and Retail)**
 - 4.2 FAR residential use: 515,050 SF (736 du)
 - 1.0 FAR retail use: 122,631 SF
 - 2.0 FAR office use: 245,262 SF
- **Proposed Build Scenario 3: Residential and Office**
 - 5.72 FAR residential use: 701,449 SF (1,002 du)
 - 1.48 FAR office use: 181,494 SF
- **Proposed Scenario 4: Residential, Office, and Retail**
 - 4.88 FAR residential use: 598,439 SF (855 du)
 - 1.0 FAR retail use: 122,631 SF
 - 1.32 FAR office use: 161,873 SF

Table 2 summarizes the proposed build scenarios analyzed under the proposed MU-10 zoning designation. These scenarios are consistent with mixed-use development in the area.

Table 2: Analyzed Proposed Build Scenarios

Scenario	Land Use	FAR	SF	DU	Total SF
Proposed Build Scenario 1	Residential	6.2	760,312	1,086	882,943
	Retail	1.0	122,631	N/A	
Proposed Build Scenario 2	Residential	4.2	515,050	736	882,943
	Retail	1.0	122,631	N/A	
	Office	2.0	245,262	N/A	
Proposed Build Scenario 3	Residential	5.72	701,449	1,002	882,943
	Office	1.48	181,494	N/A	
Proposed Build Scenario 4	Residential	4.88	598,439	855	882,943
	Retail	1.00	122,631	N/A	
	Office	1.32	161,873	N/A	

Trip Generation Analysis

Weekday peak hour trip generation was calculated based on the methodology outlined in the ITE *Trip Generation Manual*, 10th Ed. This methodology was supplemented to account for the urban nature of the area and to project trip generation for multiple modes.

Trip generation for the Existing Build scenarios and Proposed Build scenarios was calculated based on ITE land use codes as follows:

- Retail - ITE land use 820, Shopping Center
- Industrial - ITE land use 110, General Light Industrial
- Basic utility - ITE land use 170, Utility
- Animal care – ITE land use 640, Animal Hospital/Veterinary Clinic
- Office – ITE land use 710, General Office Building
- Lodging/Hotel – ITE land use 310, Hotel
- Residential – ITE land use, 221, Multifamily Housing (Mid-Rise)

The mode split assumptions applied to the ITE trip generation methodology are based on census data for residents and workers that commute into and out of the site TAZ (transportation analysis zone), census tract data, proximity to multimodal transportation options, and travel patterns associated with the specific analyzed land use. Table 3 outlines the mode split assumptions used in the analysis.

Table 3: Mode Split Assumptions

Land	Mode			
	Auto	Transit	Bike	Walk
Retail	35%	35%	15%	15%
Industrial	60%	35%	2%	3%
Basic Utility	40%	40%	10%	10%
Animal Care	80%	13%	2%	5%
Office	45%	40%	5%	10%
Hotel	45%	45%	2%	8%
Residential	40%	40%	10%	10%

Existing Allowable Build Scenarios Trip Generation

Trip generation for the Existing Build scenarios are presented in the following tables:

- Existing Build Scenario 1 - existing conditions is presented in Table 4.
- Existing Build Scenario 2 - site developed with 4.5 FAR of the currently Permitted Uses is presented in Table 5.
- Existing Build Scenario 3 - site developed with a single Restricted Use at 3.0 FAR is presented in Table 6, Table 7, and Table 8 for the maximum allowable development size for office, retail, and hotel uses, respectively.
- Existing Build Scenario 4 – site developed with 1.5 FAR of Permitted Uses and 3.0 FAR of a single Restricted Use is presented in Table 9, Table 10, and Table 11.

Detailed multimodal trip generation calculations for each Existing Build scenario are included in the Technical Attachments.

Table 4: Existing Build Scenario 1 Trip Generation: Existing Site and Use Conditions

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Retail	7 veh/hr	3 veh/hr	10 veh/hr	20 veh/hr	23 veh/hr	43 veh/hr	427 veh
	Industrial	21 veh/hr	4 veh/hr	25 veh/hr	3 veh/hr	19 veh/hr	22 veh/hr	173 veh
	Total	28 veh/hr	7 veh/hr	35 veh/hr	23 veh/hr	42 veh/hr	65 veh/hr	600 veh
Transit	Retail	12 ppl/hr	7 ppl/hr	19 ppl/hr	37 ppl/hr	41 ppl/hr	78 ppl/hr	778 ppl
	Industrial	15 ppl/hr	2 ppl/hr	17 ppl/hr	2 ppl/hr	13 ppl/hr	15 ppl/hr	119 ppl
	Total	27 ppl/hr	9 ppl/hr	36 ppl/hr	39 ppl/hr	54 ppl/hr	93 ppl/hr	897 ppl
Bike	Retail	5 ppl/hr	3 ppl/hr	8 ppl/hr	16 ppl/hr	18 ppl/hr	34 ppl/hr	334 ppl
	Industrial	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	7 ppl
	Total	6 ppl/hr	3 ppl/hr	9 ppl/hr	16 ppl/hr	19 ppl/hr	35 ppl/hr	341 ppl
Walk	Retail	6 ppl/hr	3 ppl/hr	9 ppl/hr	17 ppl/hr	17 ppl/hr	34 ppl/hr	334 ppl
	Industrial	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	2 ppl/hr	2 ppl/hr	10 ppl
	Total	7 ppl/hr	3 ppl/hr	10 ppl/hr	17 ppl/hr	19 ppl/hr	36 ppl/hr	344 ppl

Table 5: Existing Build Scenario 2 Trip Generation: Combined 4.5 FAR of Permitted Uses

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Industrial	79 veh/hr	11 veh/hr	90 veh/hr	9 veh/hr	59 veh/hr	68 veh/hr	1193 veh
	Animal Care	16 veh/hr	7 veh/hr	23 veh/hr	10 veh/hr	13 veh/hr	23 veh/hr	131 veh
	Utility	26 veh/hr	6 veh/hr	32 veh/hr	7 veh/hr	25 veh/hr	32 veh/hr	99 veh
	Total	121 veh/hr	24 veh/hr	145 veh/hr	26 veh/hr	97 veh/hr	123 veh/hr	1423 veh
Transit	Industrial	54 ppl/hr	8 ppl/hr	62 ppl/hr	6 ppl/hr	41 ppl/hr	47 ppl/hr	821 ppl
	Animal Care	4 ppl/hr	2 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	35 ppl
	Utility	44 ppl/hr	10 ppl/hr	54 ppl/hr	11 ppl/hr	42 ppl/hr	53 ppl/hr	166 ppl
	Total	102 ppl/hr	20 ppl/hr	122 ppl/hr	20 ppl/hr	86 ppl/hr	106 ppl/hr	1022 ppl
Bike	Industrial	3 ppl/hr	1 ppl/hr	4 ppl/hr	0 ppl/hr	3 ppl/hr	3 ppl/hr	47 ppl
	Animal Care	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	5 ppl
	Utility	11 ppl/hr	3 ppl/hr	14 ppl/hr	3 ppl/hr	10 ppl/hr	13 ppl/hr	42 ppl
	Total	15 ppl/hr	4 ppl/hr	19 ppl/hr	3 ppl/hr	14 ppl/hr	17 ppl/hr	94 ppl
Walk	Industrial	5 ppl/hr	-1 ppl/hr	4 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	70 ppl
	Animal Care	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	14 ppl
	Utility	10 ppl/hr	3 ppl/hr	13 ppl/hr	2 ppl/hr	11 ppl/hr	13 ppl/hr	42 ppl
	Total	16 ppl/hr	3 ppl/hr	19 ppl/hr	4 ppl/hr	15 ppl/hr	19 ppl/hr	126 ppl

Table 6: Existing Build Scenario 3A Trip Generation: Maximum Size Restricted Use (Office)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Office	144 veh/hr	24 veh/hr	168 veh/hr	28 veh/hr	148 veh/hr	176 veh/hr	1690 veh
Transit	Office	151 ppl/hr	25 ppl/hr	176 ppl/hr	30 ppl/hr	155 ppl/hr	185 ppl/hr	1772 ppl
Bike	Office	19 ppl/hr	3 ppl/hr	22 ppl/hr	4 ppl/hr	19 ppl/hr	23 ppl/hr	222 ppl
Walk	Office	38 ppl/hr	5 ppl/hr	43 ppl/hr	7 ppl/hr	40 ppl/hr	47 ppl/hr	442 ppl

Table 7: Existing Build Scenario 3B Trip Generation: Maximum Size Restricted Use (Retail)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Retail	75 veh/hr	46 veh/hr	121 veh/hr	236 veh/hr	255 veh/hr	491 veh/hr	4861 veh
Transit	Retail	137 ppl/hr	84 ppl/hr	221 ppl/hr	429 ppl/hr	464 ppl/hr	893 ppl/hr	8847 ppl
Bike	Retail	59 ppl/hr	36 ppl/hr	95 ppl/hr	184 ppl/hr	199 ppl/hr	383 ppl/hr	3791 ppl
Walk	Retail	58 ppl/hr	35 ppl/hr	93 ppl/hr	183 ppl/hr	200 ppl/hr	383 ppl/hr	3791 ppl

Table 8: Existing Build Scenario 3C Trip Generation: Maximum Size Restricted Use (Hotel)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Hotel	96 veh/hr	67 veh/hr	163 veh/hr	121 veh/hr	116 veh/hr	237 veh/hr	3546 veh
Transit	Hotel	161 ppl/hr	112 ppl/hr	273 ppl/hr	202 ppl/hr	193 ppl/hr	395 ppl/hr	5922 ppl
Bike	Hotel	7 ppl/hr	5 ppl/hr	12 ppl/hr	9 ppl/hr	9 ppl/hr	18 ppl/hr	263 ppl
Walk	Hotel	28 ppl/hr	20 ppl/hr	48 ppl/hr	35 ppl/hr	35 ppl/hr	70 ppl/hr	1053 ppl

Table 9: Existing Build Scenario 4A Trip Generation: Combination of Permitted Uses and Maximum Size Restricted Use (Office)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Industrial	31 veh/hr	4 veh/hr	35 veh/hr	3 veh/hr	25 veh/hr	28 veh/hr	357 veh
	Animal Care	16 veh/hr	7 veh/hr	23 veh/hr	10 veh/hr	13 veh/hr	23 veh/hr	131 veh/hr
	Utility	26 veh/hr	6 veh/hr	32 veh/hr	7 veh/hr	25 veh/hr	32 veh/hr	99 veh/hr
	Office	144 veh/hr	24 veh/hr	168 veh/hr	28 veh/hr	148 veh/hr	176 veh/hr	1690 veh
	Total	217 veh/hr	41 veh/hr	258 veh/hr	48 veh/hr	211 veh/hr	259 veh/hr	2277 veh
Transit	Industrial	21 ppl/hr	3 ppl/hr	24 ppl/hr	2 ppl/hr	17 ppl/hr	19 ppl/hr	245 ppl
	Animal Care	4 veh/hr	2 veh/hr	6 veh/hr	3 veh/hr	3 veh/hr	6 veh/hr	35 veh/hr
	Utility	44 veh/hr	10 veh/hr	54 veh/hr	11 veh/hr	42 veh/hr	53 veh/hr	166 veh/hr
	Office	151 ppl/hr	25 ppl/hr	176 ppl/hr	30 ppl/hr	155 ppl/hr	185 ppl/hr	1772 ppl
	Total	220 ppl/hr	40 ppl/hr	260 ppl/hr	46 ppl/hr	217 ppl/hr	263 ppl/hr	2218 ppl
Bike	Industrial	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	14 ppl
	Animal Care	1 veh/hr	0 veh/hr	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr	5 veh/hr
	Utility	11 veh/hr	3 veh/hr	14 veh/hr	3 veh/hr	10 veh/hr	13 veh/hr	42 veh/hr
	Office	19 ppl/hr	3 ppl/hr	22 ppl/hr	4 ppl/hr	19 ppl/hr	23 ppl/hr	222 ppl
	Total	32 ppl/hr	6 ppl/hr	38 ppl/hr	7 ppl/hr	31 ppl/hr	38 ppl/hr	283 ppl
Walk	Industrial	2 ppl/hr	0 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	21 ppl
	Animal Care	1 veh/hr	1 veh/hr	2 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	14 veh/hr
	Utility	10 veh/hr	3 veh/hr	13 veh/hr	2 veh/hr	11 veh/hr	13 veh/hr	42 veh/hr
	Office	38 ppl/hr	5 ppl/hr	43 ppl/hr	7 ppl/hr	40 ppl/hr	47 ppl/hr	442 ppl
	Total	51 ppl/hr	9 ppl/hr	60 ppl/hr	11 ppl/hr	54 ppl/hr	65 ppl/hr	519 ppl

Table 10: Existing Build Scenario 4B Trip Generation: Combination of Permitted Uses and Maximum Size Restricted Use (Retail)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Industrial	31 veh/hr	4 veh/hr	35 veh/hr	3 veh/hr	25 veh/hr	28 veh/hr	357 veh/hr
	Animal Care	16 veh/hr	7 veh/hr	23 veh/hr	10 veh/hr	13 veh/hr	23 veh/hr	131 veh/hr
	Utility	26 veh/hr	6 veh/hr	32 veh/hr	7 veh/hr	25 veh/hr	32 veh/hr	99 veh/hr
	Retail	75 veh/hr	46 veh/hr	121 veh/hr	236 veh/hr	255 veh/hr	491 veh/hr	4861 veh
	Total	148 veh/hr	63 veh/hr	211 veh/hr	256 veh/hr	318 veh/hr	574 veh/hr	5448 veh
Transit	Industrial	21 veh/hr	3 veh/hr	24 veh/hr	2 veh/hr	17 veh/hr	19 veh/hr	245 veh/hr
	Animal Care	4 veh/hr	2 veh/hr	6 veh/hr	3 veh/hr	3 veh/hr	6 veh/hr	35 veh/hr
	Utility	44 veh/hr	10 veh/hr	54 veh/hr	11 veh/hr	42 veh/hr	53 veh/hr	166 veh/hr
	Retail	137 ppl/hr	84 ppl/hr	221 ppl/hr	429 ppl/hr	464 ppl/hr	893 ppl/hr	8847 ppl
	Total	206 ppl/hr	99 ppl/hr	305 ppl/hr	445 ppl/hr	526 ppl/hr	971 ppl/hr	9293 ppl
Bike	Industrial	1 veh/hr	0 veh/hr	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr	14 veh/hr
	Animal Care	1 veh/hr	0 veh/hr	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr	5 veh/hr
	Utility	11 veh/hr	3 veh/hr	14 veh/hr	3 veh/hr	10 veh/hr	13 veh/hr	42 veh/hr
	Retail	59 ppl/hr	36 ppl/hr	95 ppl/hr	184 ppl/hr	199 ppl/hr	383 ppl/hr	3791 ppl
	Total	72 ppl/hr	39 ppl/hr	111 ppl/hr	187 ppl/hr	211 ppl/hr	398 ppl/hr	3852 ppl
Walk	Industrial	2 veh/hr	0 veh/hr	2 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr	21 veh/hr
	Animal Care	1 veh/hr	1 veh/hr	2 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	14 veh/hr
	Utility	10 veh/hr	3 veh/hr	13 veh/hr	2 veh/hr	11 veh/hr	13 veh/hr	42 veh/hr
	Retail	58 ppl/hr	35 ppl/hr	93 ppl/hr	183 ppl/hr	200 ppl/hr	383 ppl/hr	3791 ppl
	Total	71 ppl/hr	39 ppl/hr	110 ppl/hr	187 ppl/hr	214 ppl/hr	401 ppl/hr	3868 ppl

Table 11: Existing Build Scenario 4C Trip Generation: Combination of Permitted Uses and Maximum Size Restricted Use (Hotel)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Industrial	31 veh/hr	4 veh/hr	35 veh/hr	3 veh/hr	25 veh/hr	28 veh/hr	357 veh/hr
	Animal Care	16 veh/hr	7 veh/hr	23 veh/hr	10 veh/hr	13 veh/hr	23 veh/hr	131 veh/hr
	Utility	26 veh/hr	6 veh/hr	32 veh/hr	7 veh/hr	25 veh/hr	32 veh/hr	99 veh/hr
	Hotel	96 veh/hr	67 veh/hr	163 veh/hr	121 veh/hr	116 veh/hr	237 veh/hr	3546 veh
	Total	169 veh/hr	84 veh/hr	253 veh/hr	141 veh/hr	179 veh/hr	320 veh/hr	4133 veh
Transit	Industrial	21 veh/hr	3 veh/hr	24 veh/hr	2 veh/hr	17 veh/hr	19 veh/hr	245 veh/hr
	Animal Care	4 veh/hr	2 veh/hr	6 veh/hr	3 veh/hr	3 veh/hr	6 veh/hr	35 veh/hr
	Utility	44 veh/hr	10 veh/hr	54 veh/hr	11 veh/hr	42 veh/hr	53 veh/hr	166 veh/hr
	Hotel	161 ppl/hr	112 ppl/hr	273 ppl/hr	202 ppl/hr	193 ppl/hr	395 ppl/hr	5922 ppl
	Total	230 ppl/hr	127 ppl/hr	357 ppl/hr	218 ppl/hr	255 ppl/hr	473 ppl/hr	6368 ppl
Bike	Industrial	1 veh/hr	0 veh/hr	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr	14 veh/hr
	Animal Care	1 veh/hr	0 veh/hr	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr	5 veh/hr
	Utility	11 veh/hr	3 veh/hr	14 veh/hr	3 veh/hr	10 veh/hr	13 veh/hr	42 veh/hr
	Hotel	7 ppl/hr	5 ppl/hr	12 ppl/hr	9 ppl/hr	9 ppl/hr	18 ppl/hr	263 ppl
	Total	20 ppl/hr	8 ppl/hr	28 ppl/hr	12 ppl/hr	21 ppl/hr	33 ppl/hr	324 ppl
Walk	Industrial	2 veh/hr	0 veh/hr	2 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr	21 veh/hr
	Animal Care	1 veh/hr	1 veh/hr	2 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	14 veh/hr
	Utility	10 veh/hr	3 veh/hr	13 veh/hr	2 veh/hr	11 veh/hr	13 veh/hr	42 veh/hr
	Hotel	28 ppl/hr	20 ppl/hr	48 ppl/hr	35 ppl/hr	35 ppl/hr	70 ppl/hr	1053 ppl
	Total	41 ppl/hr	24 ppl/hr	65 ppl/hr	39 ppl/hr	49 ppl/hr	88 ppl/hr	1130 ppl

Proposed Build Scenarios Trip Generation

Trip generation for the Proposed Build scenarios is presented in the following tables:

- Proposed Build Scenario 1 - site developed with residential and retail is presented in Table 12.
- Proposed Build Scenario 2 - site developed with maximum nonresidential uses is presented in Table 13.
- Proposed Build Scenario 3 - site developed with residential and office uses is presented in Table 14.
- Proposed Build Scenario 4 site developed with residential, office, and retail uses is presented in Table 15.

Detailed multimodal trip generation calculations for the Proposed Build scenarios are included in the Technical Attachments.

Table 12: Proposed Build Scenario 1 Trip Generation: Residential and Retail

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Residential	37 veh/hr	105 veh/hr	142 veh/hr	107 veh/hr	68 veh/hr	175 veh/hr	2367 veh
	Retail	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh
	Total	62 veh/hr	120 veh/hr	182 veh/hr	186 veh/hr	153 veh/hr	339 veh/hr	3987 veh
Transit	Residential	44 ppl/hr	123 ppl/hr	167 ppl/hr	126 ppl/hr	80 ppl/hr	206 ppl/hr	2793 ppl
	Retail	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
	Total	89 ppl/hr	151 ppl/hr	240 ppl/hr	269 ppl/hr	235 ppl/hr	504 ppl/hr	5742 ppl
Bike	Residential	11 ppl/hr	31 ppl/hr	42 ppl/hr	32 ppl/hr	20 ppl/hr	52 ppl/hr	698 ppl
	Retail	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
	Total	30 ppl/hr	43 ppl/hr	73 ppl/hr	93 ppl/hr	87 ppl/hr	180 ppl/hr	1962 ppl
Walk	Residential	10 ppl/hr	32 ppl/hr	42 ppl/hr	31 ppl/hr	21 ppl/hr	52 ppl/hr	699 ppl
	Retail	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl
	Total	30 ppl/hr	44 ppl/hr	74 ppl/hr	92 ppl/hr	86 ppl/hr	178 ppl/hr	1962 ppl

Table 13: Proposed Build Scenario 2 Trip Generation: Residential and Max Non-Residential (Office and Retail)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Residential	25 veh/hr	72 veh/hr	97 veh/hr	74 veh/hr	46 veh/hr	120 veh/hr	1603 veh
	Retail	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh
	Office	99 veh/hr	16 veh/hr	115 veh/hr	19 veh/hr	101 veh/hr	120 veh/hr	1140 veh
	Total	149 veh/hr	103 veh/hr	252 veh/hr	172 veh/hr	232 veh/hr	404 veh/hr	4363 veh
Transit	Residential	30 ppl/hr	84 ppl/hr	114 ppl/hr	87 ppl/hr	55 ppl/hr	142 ppl/hr	1892 ppl
	Retail	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
	Office	104 ppl/hr	17 ppl/hr	121 ppl/hr	20 ppl/hr	106 ppl/hr	126 ppl/hr	1196 ppl
	Total	179 ppl/hr	129 ppl/hr	308 ppl/hr	250 ppl/hr	316 ppl/hr	566 ppl/hr	6037 ppl
Bike	Residential	7 ppl/hr	22 ppl/hr	29 ppl/hr	22 ppl/hr	14 ppl/hr	36 ppl/hr	473 ppl
	Retail	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
	Office	13 ppl/hr	2 ppl/hr	15 ppl/hr	3 ppl/hr	13 ppl/hr	16 ppl/hr	149 ppl
	Total	39 ppl/hr	36 ppl/hr	75 ppl/hr	86 ppl/hr	94 ppl/hr	180 ppl/hr	1886 ppl
Walk	Residential	7 ppl/hr	22 ppl/hr	29 ppl/hr	21 ppl/hr	14 ppl/hr	35 ppl/hr	472 ppl
	Retail	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl
	Office	27 ppl/hr	4 ppl/hr	31 ppl/hr	5 ppl/hr	26 ppl/hr	31 ppl/hr	299 ppl
	Total	54 ppl/hr	38 ppl/hr	92 ppl/hr	87 ppl/hr	105 ppl/hr	192 ppl/hr	2034 ppl

Table 14: Proposed Build Scenario 3 Trip Generation: Residential and Office

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Residential	34 veh/hr	97 veh/hr	131 veh/hr	98 veh/hr	64 veh/hr	162 veh/hr	2184 veh
	Office	76 veh/hr	12 veh/hr	88 veh/hr	14 veh/hr	77 veh/hr	91 veh/hr	852 veh
	Total	110 veh/hr	109 veh/hr	219 veh/hr	112 veh/hr	141 veh/hr	253 veh/hr	3036 veh
Transit	Residential	40 ppl/hr	115 ppl/hr	155 ppl/hr	116 ppl/hr	75 ppl/hr	191 ppl/hr	2577 ppl
	Office	80 ppl/hr	13 ppl/hr	93 ppl/hr	15 ppl/hr	80 ppl/hr	95 ppl/hr	893 ppl
	Total	120 ppl/hr	128 ppl/hr	248 ppl/hr	131 ppl/hr	155 ppl/hr	286 ppl/hr	3470 ppl
Bike	Residential	10 ppl/hr	29 ppl/hr	39 ppl/hr	29 ppl/hr	19 ppl/hr	48 ppl/hr	644 ppl
	Office	10 ppl/hr	2 ppl/hr	12 ppl/hr	2 ppl/hr	10 ppl/hr	12 ppl/hr	112 ppl
	Total	20 ppl/hr	31 ppl/hr	51 ppl/hr	31 ppl/hr	29 ppl/hr	60 ppl/hr	756 ppl
Walk	Residential	10 ppl/hr	28 ppl/hr	38 ppl/hr	30 ppl/hr	18 ppl/hr	48 ppl/hr	645 ppl
	Office	19 ppl/hr	4 ppl/hr	23 ppl/hr	4 ppl/hr	19 ppl/hr	23 ppl/hr	223 ppl
	Total	29 ppl/hr	32 ppl/hr	61 ppl/hr	34 ppl/hr	37 ppl/hr	71 ppl/hr	868 ppl

Table 15: Proposed Build Scenario 4 Trip Generation: Residential, Office, and Retail

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Residential	29 veh/hr	83 veh/hr	112 veh/hr	85 veh/hr	54 veh/hr	139 veh/hr	1863 veh
	Retail	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh
	Office	69 veh/hr	12 veh/hr	81 veh/hr	13 veh/hr	68 veh/hr	81 veh/hr	762 veh
	Total	123 veh/hr	110 veh/hr	233 veh/hr	177 veh/hr	207 veh/hr	384 veh/hr	4245 veh
Transit	Residential	34 ppl/hr	98 ppl/hr	132 ppl/hr	100 ppl/hr	64 ppl/hr	164 ppl/hr	2198 ppl
	Retail	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
	Office	73 ppl/hr	11 ppl/hr	84 ppl/hr	14 ppl/hr	71 ppl/hr	85 ppl/hr	799 ppl
	Total	152 ppl/hr	137 ppl/hr	289 ppl/hr	257 ppl/hr	290 ppl/hr	547 ppl/hr	5946 ppl
Bike	Residential	9 ppl/hr	24 ppl/hr	33 ppl/hr	25 ppl/hr	16 ppl/hr	41 ppl/hr	550 ppl
	Retail	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
	Office	9 ppl/hr	2 ppl/hr	11 ppl/hr	2 ppl/hr	9 ppl/hr	11 ppl/hr	100 ppl
	Total	37 ppl/hr	38 ppl/hr	75 ppl/hr	88 ppl/hr	92 ppl/hr	180 ppl/hr	1914 ppl
Walk	Residential	9 ppl/hr	24 ppl/hr	33 ppl/hr	25 ppl/hr	17 ppl/hr	42 ppl/hr	550 ppl
	Retail	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl
	Office	18 ppl/hr	3 ppl/hr	21 ppl/hr	3 ppl/hr	18 ppl/hr	21 ppl/hr	200 ppl
	Total	47 ppl/hr	39 ppl/hr	86 ppl/hr	89 ppl/hr	100 ppl/hr	189 ppl/hr	2013 ppl

Trip Generation Analysis Results and Recommendations

A comparison of the Proposed Build scenarios under the proposed MU-10 zoning designation and the Existing Build scenarios was conducted to evaluate the potential impact of the proposed map amendment. Table 16 shows a summary of the vehicle trip generation under the analyzed scenarios.

Table 16: Vehicle Trip Generation Summary

Scenario	AM Peak Hour (veh/hr)			PM Peak Hour (veh/hr)		
	In	Out	Total	In	Out	Total
Existing Zoning Build Scenarios						
Existing Build Scenario 1	28	7	35	23	42	65
Existing Build Scenario 2	121	24	145	26	97	123
Existing Build Scenario 3A	144	24	168	28	148	176
Existing Build Scenario 3B	75	46	121	236	255	491
Existing Build Scenario 3C	96	67	163	121	116	237
Existing Build Scenario 4A	217	41	258	48	211	259
Existing Build Scenario 4B	148	63	211	256	318	574
Existing Build Scenario 4C	169	84	253	141	179	320
Proposed Zoning Build Scenarios						
Proposed Build Scenario 1	62	120	182	186	153	339
Proposed Build Scenario 2	149	103	252	172	232	404
Proposed Build Scenario 3	110	109	219	112	141	253
Proposed Build Scenario 4	123	110	233	177	207	384

Under the existing PDR-2 zoning designation, trip generation for the existing uses and conditions is the lowest among all of the Existing Build scenarios. Scenario 4A generates the most morning trips and Scenario 4B generates the most afternoon trips consistent with office and retail use travel patterns.

Under the proposed MU-10 zoning designation, trip generation is highest under Scenario 2 for the morning and afternoon peak hours. The lowest morning trip generation takes place under Scenario 1, while Scenario 3 results in the lowest afternoon trip generation. The total morning and afternoon trip generation under the Proposed Build scenarios is reflective of the analyzed land uses and densities with all three (3) land uses - residential, retail, and office - each have different travel patterns.

Trip Generation Analysis Comparison

Table 17 outlines the trip generation difference between each of the Proposed Build scenarios and Existing Build scenarios. As shown in Table 17, all of the analyzed Proposed Build scenarios would result in an increase in vehicle trips of over 100 trips during both the morning and afternoon peak hours as compared to the existing site's trip generation.

The trip generation differences are a result of the specific land uses and densities analyzed in each scenario as each has specific travel patterns associated with it. The level of net trip generation under most Proposed Build scenarios exceeds DDOT's 25 directional peak hour vehicle trips threshold that triggers detailed vehicular analysis. All scenarios meet DDOT's required TIA criteria.

As specific development plans have not yet been prepared for the project site, it is recommended that trip generation analysis be conducted when a specific development plan has been prepared for the project site during the Public Space Committee approval process for site access.

Furthermore, it is recommended that future development plans for the project site be designed to meet all applicable zoning regulations as related to vehicle parking, loading, and bicycle parking facilities. A robust TDM (transportation demand

management) Plan that is consistent with DDOT guidelines is also recommended to be implemented with the project to reduce single-occupancy vehicle travel to and from the site, and to minimize the project’s impact on the surrounding roadway network.

Table 17: Trip Generation Comparison

Scenario Comparison	Trip Generation Difference					
	AM Peak Hour (veh/hr)			PM Peak Hour (veh/hr)		
	In	Out	Total	In	Out	Total
Proposed Build Scenario 1						
Proposed Build Scenario 1 - Existing Build Scenario 1	34	113	147	163	111	274
Proposed Build Scenario 1 - Existing Build Scenario 2	-59	96	37	160	56	216
Proposed Build Scenario 1 - Existing Build Scenario 3A	-82	96	14	158	5	163
Proposed Build Scenario 1 - Existing Build Scenario 3B	-13	74	61	-50	-102	-152
Proposed Build Scenario 1 - Existing Build Scenario 3C	-34	53	19	65	37	102
Proposed Build Scenario 1 - Existing Build Scenario 4A	-155	79	-76	138	-58	80
Proposed Build Scenario 1 - Existing Build Scenario 4B	-86	57	-29	-70	-165	-235
Proposed Build Scenario 1 - Existing Build Scenario 4C	-107	36	-71	45	-26	19
Proposed Build Scenario 2						
Proposed Build Scenario 2 - Existing Build Scenario 1	121	96	217	149	190	339
Proposed Build Scenario 2 - Existing Build Scenario 2	28	79	107	146	135	281
Proposed Build Scenario 2 - Existing Build Scenario 3A	5	79	84	144	84	228
Proposed Build Scenario 2 - Existing Build Scenario 3B	74	57	131	-64	-23	-87
Proposed Build Scenario 2 - Existing Build Scenario 3C	53	36	89	51	116	167
Proposed Build Scenario 2 - Existing Build Scenario 4A	-68	62	-6	124	21	145
Proposed Build Scenario 2 - Existing Build Scenario 4B	1	40	41	-84	-86	-170
Proposed Build Scenario 2 - Existing Build Scenario 4C	-20	19	-1	31	53	84
Proposed Build Scenario 3						
Proposed Build Scenario 3 - Existing Build Scenario 1	82	102	184	89	99	188
Proposed Build Scenario 3 - Existing Build Scenario 2	-11	85	74	86	44	130
Proposed Build Scenario 3 - Existing Build Scenario 3A	-34	85	51	84	-7	77
Proposed Build Scenario 3 - Existing Build Scenario 3B	35	63	98	-124	-114	-238
Proposed Build Scenario 3 - Existing Build Scenario 3C	14	42	56	-9	25	16
Proposed Build Scenario 3 - Existing Build Scenario 4A	-107	68	-39	64	-70	-6
Proposed Build Scenario 3 - Existing Build Scenario 4B	-38	46	8	-144	-177	-321
Proposed Build Scenario 3 - Existing Build Scenario 4C	-59	25	-34	-29	-38	-67
Proposed Build Scenario 4						
Proposed Build Scenario 4 - Existing Build Scenario 1	95	103	198	154	165	319
Proposed Build Scenario 4 - Existing Build Scenario 2	2	86	88	151	110	261
Proposed Build Scenario 4 - Existing Build Scenario 3A	-21	86	65	149	59	208
Proposed Build Scenario 4 - Existing Build Scenario 3B	48	64	112	-59	-48	-107
Proposed Build Scenario 4 - Existing Build Scenario 3C	27	43	70	56	91	147
Proposed Build Scenario 4 - Existing Build Scenario 4A	-94	69	-25	129	-4	125
Proposed Build Scenario 4 - Existing Build Scenario 4B	-25	47	22	-79	-111	-190
Proposed Build Scenario 4 - Existing Build Scenario 4C	-46	26	-20	36	28	64

Summary and Conclusions

This memorandum presents the findings of a trip generation analysis conducted to support the Map Amendment application, ZC Case No. 20-23, that proposes a change in zoning designation from PDR-2 to MU-10 of the project site. The project site is located in Ward 5 and covers a land area of approximately 122,631 SF (square feet) comprised of Square 3623 Lots 1 and 2, and Square 3623 Parcels 131/94, 131/146, 131/147, 131/155, 131/161, 131/162, and 131/217. The findings of this analysis conclude the following:

- The existing site and use conditions generate fewer vehicle trips compared to the allowable land uses and densities under the current, existing PDR-2 zoning designation.
- Among the four different scenarios analyzed under the proposed MU-10 zoning designation, a mixed-use development consisting of 4.2 FAR of residential, 1.0 FAR of retail, and 2.0 FAR of office would generate the highest amount of vehicle trips.
- The proposed zoning allowable build conditions all have the potential to generate more trips than the existing zoning, regardless of which Proposed Build scenario is used to compare to the Existing Build scenarios. In all cases, the difference in trips meets the threshold of requiring a detailed TIA per DDOT's Comprehensive Transportation Review (CTR) guidelines.
- Performing a CTR for the project site now would not allow for a proper review, as details such as the site access plan and amount of parking are unknown. Since a CTR will be needed during the Public Space Committee approval process, this memorandum recommends that a detailed CTR be performed at that time, when a refined site plan is available. This will allow for a thorough analysis of site access, parking, and other details of the site plan, and ensure that the mitigations selected for the project, including a Transportation Demand Management (TDM) plan are appropriate and fully address impacts generated by the site per DDOT's CTR guidelines.

TECHNICAL ATTACHMENTS

Mode Split Assumptions

Residential Component

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Residents (TAZ 10212)	38%	3%	36%	9%	9%	5%	1%
Census Tract - Residents (CT 87.02)	30%	5%	45%	0%	8%	6%	7%
State of the Commute 2019 (of District residents)	57%	5%	24%	3%		11%	
WMATA Ridership Survey Table 9 (U Street Station Area)	22%		51%	27%		---	
WMATA Ridership Survey Table 10 (average for CBD)	18%		56%	26%		---	

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Residential Mode Split	40%	40%	10%	10%	---

Notes: Residential mode split based primarily on census data and proximity to transit and Metrorail station.

Retail Component

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Employees (TAZ 10212)	51%	3%	26%	3%	1%	12%	5%
Census Tract - Residents (CT 87.02)	30%	5%	45%	0%	8%	6%	7%
WMATA Ridership Survey Table 15 (average for Retail Sites)	36%		37%	27%		---	

Mode Split assumed in TIS:

Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Neighborhood Retail Mode Split	35%	35%	15%	15%	---

Notes: Retail mode split based primarily proximity to transit and Metrorail station.

Office Component

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Employees (TAZ 10212)	51%	3%	26%	3%	1%	12%	5%
Census Tract - Residents (CT 87.02)	30%	5%	45%	0%	8%	6%	7%
State of the Commute 2019 (of District residents)	57%	5%	24%	3%		11%	
WMATA Ridership Survey Table 3 (U Street station area)	58%		35%	7%		---	
WMATA Ridership Survey Table 3 (Average Among All Office Sites)	61%		33%	6%		---	

Mode Split assumed in TIS:

Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Office Mode Split	45%	40%	5%	10%	---

Notes: Office mode split based primarily on census data and proximity to transit and Metrorail station.

Industrial and Animal Care Component

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Employees (TAZ 10212)	51%	3%	26%	3%	1%	12%	5%
Census Tract - Residents (CT 87.02)	30%	5%	45%	0%	8%	6%	7%
State of the Commute 2019 (of District residents)	57%	5%	24%	3%		11%	

Mode Split assumed in TIS:

Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Light Industrial Mode Split	60%	35%	2%	3%	---
Animal Care Industrial Mode Split	80%	13%	2%	5%	---

Notes: Mode splits based primarily on commuter data and travel patterns associated with these land uses.

Existing Retail Trip Generation (Existing Build Scenario 1)

Sq P0131 Lot 162: 25,900 SF; Sq 3623 Lot 001: 6,480 SF

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	820	32,380 sf	19 veh/hr	11 veh/hr	30 veh/hr	59 veh/hr	64 veh/hr	123 veh/hr	1222 veh
<i>Calculation Details:</i>			62%	38%	=0.94(X/1000)	48%	52%	=3.81(X/1000)	=37.75(X/1000)

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	35 ppl/hr	20 ppl/hr	55 ppl/hr	107 ppl/hr	117 ppl/hr	224 ppl/hr	2224 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	Auto	35%	12 ppl/hr	7 ppl/hr	19 ppl/hr	37 ppl/hr	41 ppl/hr	78 ppl/hr	778 ppl
Retail	Transit	35%	12 ppl/hr	7 ppl/hr	19 ppl/hr	37 ppl/hr	41 ppl/hr	78 ppl/hr	778 ppl
Retail	Bike	15%	5 ppl/hr	3 ppl/hr	8 ppl/hr	16 ppl/hr	18 ppl/hr	34 ppl/hr	334 ppl
Retail	Walk	15%	6 ppl/hr	3 ppl/hr	9 ppl/hr	17 ppl/hr	17 ppl/hr	34 ppl/hr	334 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	7 veh/hr	3 veh/hr	10 veh/hr	20 veh/hr	23 veh/hr	43 veh/hr	427 veh

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	7 veh/hr	3 veh/hr	10 veh/hr	20 veh/hr	23 veh/hr	43 veh/hr	427 veh
Transit	12 ppl/hr	7 ppl/hr	19 ppl/hr	37 ppl/hr	41 ppl/hr	78 ppl/hr	778 ppl
Bike	5 ppl/hr	3 ppl/hr	8 ppl/hr	16 ppl/hr	18 ppl/hr	34 ppl/hr	334 ppl
Walk	6 ppl/hr	3 ppl/hr	9 ppl/hr	17 ppl/hr	17 ppl/hr	34 ppl/hr	334 ppl

Existing Industrial Trip Generation (Existing Build Scenario 1)

Sq P0131 Lot 161: 16,800 SF; Sq P0131 Lot 146: 11,712 SF

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Light Industrial	110	58,126 sf	36 veh/hr	5 veh/hr	41 veh/hr	5 veh/hr	32 veh/hr	37 veh/hr	288 veh
<i>Calculation Details:</i>			88%	12%	=0.7(X/1000)	13%	87%	=0.63(X/1000)	=4.96(X/1000)

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Light Industrial	1.18 ppl/veh	42 ppl/hr	6 ppl/hr	48 ppl/hr	6 ppl/hr	38 ppl/hr	44 ppl/hr	340 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Light Industrial	Auto	60%	25 ppl/hr	4 ppl/hr	29 ppl/hr	4 ppl/hr	22 ppl/hr	26 ppl/hr	204 ppl
Light Industrial	Transit	35%	15 ppl/hr	2 ppl/hr	17 ppl/hr	2 ppl/hr	13 ppl/hr	15 ppl/hr	119 ppl
Light Industrial	Bike	2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	7 ppl
Light Industrial	Walk	3%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	2 ppl/hr	2 ppl/hr	10 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Light Industrial	1.18 ppl/veh	21 veh/hr	4 veh/hr	25 veh/hr	3 veh/hr	19 veh/hr	22 veh/hr	173 veh

Trip Gen Summary for Industrial

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	21 veh/hr	4 veh/hr	25 veh/hr	3 veh/hr	19 veh/hr	22 veh/hr	173 veh
Transit	15 ppl/hr	2 ppl/hr	17 ppl/hr	2 ppl/hr	13 ppl/hr	15 ppl/hr	119 ppl
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	7 ppl
Walk	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	2 ppl/hr	2 ppl/hr	10 ppl

Existing Build Scenario 2: Light Industrial Trip Generation

Max build-out: combined 4.5 FAR "permitted uses", including "Production, Distribution, and Repair"

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Light Industrial	110	509,240 sf	131 veh/hr	18 veh/hr	149 veh/hr	15 veh/hr	98 veh/hr	113 veh/hr	1988 veh
Calculation Details:			88%	12%	$\eta(T)=0.74\ln(X/1000)+0.3$	13%	87%	$\eta(T)=0.69\ln(X/1000)+0.4$	$=3.79(X/1000)+57.96$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Light Industrial	1.18 ppl/veh	155 ppl/hr	21 ppl/hr	176 ppl/hr	18 ppl/hr	115 ppl/hr	133 ppl/hr	2346 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Light Industrial	Auto	60%	93 ppl/hr	13 ppl/hr	106 ppl/hr	11 ppl/hr	69 ppl/hr	80 ppl/hr	1408 ppl
Light Industrial	Transit	35%	54 ppl/hr	8 ppl/hr	62 ppl/hr	6 ppl/hr	41 ppl/hr	47 ppl/hr	821 ppl
Light Industrial	Bike	2%	3 ppl/hr	1 ppl/hr	4 ppl/hr	0 ppl/hr	3 ppl/hr	3 ppl/hr	47 ppl
Light Industrial	Walk	3%	5 ppl/hr	-1 ppl/hr	4 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	70 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Light Industrial	1.18 ppl/veh	79 veh/hr	11 veh/hr	90 veh/hr	9 veh/hr	59 veh/hr	68 veh/hr	1193 veh

Trip Gen Summary for Light Industrial

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	79 veh/hr	11 veh/hr	90 veh/hr	9 veh/hr	59 veh/hr	68 veh/hr	1193 veh
Transit	54 ppl/hr	8 ppl/hr	62 ppl/hr	6 ppl/hr	41 ppl/hr	47 ppl/hr	821 ppl
Bike	3 ppl/hr	1 ppl/hr	4 ppl/hr	0 ppl/hr	3 ppl/hr	3 ppl/hr	47 ppl
Walk	5 ppl/hr	-1 ppl/hr	4 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	70 ppl

Existing Build Scenario 2: Animal Clinic Trip Generation

Max build-out: combined 4.5 FAR "permitted uses", including "Animal care, boarding, and shelter"

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Veterinary Clinic	640	7,600 sf	19 veh/hr	9 veh/hr	28 veh/hr	12 veh/hr	17 veh/hr	29 veh/hr	163 veh
Calculation Details:			67%	33%	=4.07(X/1000)-2.48	40%	60%	=4.75(X/1000)-6.96	=21.5(X/1000)

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Veterinary Clinic	1.67 ppl/veh	32 ppl/hr	15 ppl/hr	47 ppl/hr	20 ppl/hr	28 ppl/hr	48 ppl/hr	272 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Veterinary Clinic	Auto	80%	26 ppl/hr	12 ppl/hr	38 ppl/hr	16 ppl/hr	22 ppl/hr	38 ppl/hr	218 ppl
Veterinary Clinic	Transit	13%	4 ppl/hr	2 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	35 ppl
Veterinary Clinic	Bike	2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	5 ppl
Veterinary Clinic	Walk	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	14 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Veterinary Clinic	1.67 ppl/veh	16 veh/hr	7 veh/hr	23 veh/hr	10 veh/hr	13 veh/hr	23 veh/hr	131 veh

Trip Gen Summary for Animal Care

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	16 veh/hr	7 veh/hr	23 veh/hr	10 veh/hr	13 veh/hr	23 veh/hr	131 veh
Transit	4 ppl/hr	2 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	35 ppl
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	5 ppl
Walk	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	14 ppl

Existing Build Scenario 2: Utility Trip Generation

Max build-out: combined 4.5 FAR "permitted uses", including "Basic utilities"

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Utility	170	35,000 sf	65 veh/hr	16 veh/hr	81 veh/hr	16 veh/hr	63 veh/hr	79 veh/hr	249 veh
Calculation Details:			80%	20%	=2.31(X/1000)	20%	80%	=2.27(X/1000)	$h(T)=0.79\ln(X/1000)+2.71$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Utility	1.67 ppl/veh	109 ppl/hr	26 ppl/hr	135 ppl/hr	27 ppl/hr	105 ppl/hr	132 ppl/hr	416 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Utility	Auto	40%	44 ppl/hr	10 ppl/hr	54 ppl/hr	11 ppl/hr	42 ppl/hr	53 ppl/hr	166 ppl
Utility	Transit	40%	44 ppl/hr	10 ppl/hr	54 ppl/hr	11 ppl/hr	42 ppl/hr	53 ppl/hr	166 ppl
Utility	Bike	10%	11 ppl/hr	3 ppl/hr	14 ppl/hr	3 ppl/hr	10 ppl/hr	13 ppl/hr	42 ppl
Utility	Walk	10%	10 ppl/hr	3 ppl/hr	13 ppl/hr	2 ppl/hr	11 ppl/hr	13 ppl/hr	42 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Utility	1.67 ppl/veh	26 veh/hr	6 veh/hr	32 veh/hr	7 veh/hr	25 veh/hr	32 veh/hr	99 veh

Trip Gen Summary for Utility Use

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	26 veh/hr	6 veh/hr	32 veh/hr	7 veh/hr	25 veh/hr	32 veh/hr	99 veh
Transit	44 ppl/hr	10 ppl/hr	54 ppl/hr	11 ppl/hr	42 ppl/hr	53 ppl/hr	166 ppl
Bike	11 ppl/hr	3 ppl/hr	14 ppl/hr	3 ppl/hr	10 ppl/hr	13 ppl/hr	42 ppl
Walk	10 ppl/hr	3 ppl/hr	13 ppl/hr	2 ppl/hr	11 ppl/hr	13 ppl/hr	42 ppl

Existing Build Scenario 3A and 4A: Office Trip Generation

Max build-out: 3.0 FAR "restricted uses" -- Office

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Office	710	367,893 sf	320 veh/hr	52 veh/hr	372 veh/hr	63 veh/hr	329 veh/hr	392 veh/hr	3754 veh
<i>Calculation Details:</i>			86%	14%	=0.94(X/1000)+26.49	16%	84%	$\eta(T)=0.95\ln(X/1000)+0.3$	$n(T)=0.97\ln(X/1000)+2.5$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Office	1.18 ppl/veh	378 ppl/hr	61 ppl/hr	439 ppl/hr	74 ppl/hr	389 ppl/hr	463 ppl/hr	4430 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Office	Auto	45%	170 ppl/hr	28 ppl/hr	198 ppl/hr	33 ppl/hr	175 ppl/hr	208 ppl/hr	1994 ppl
Office	Transit	40%	151 ppl/hr	25 ppl/hr	176 ppl/hr	30 ppl/hr	155 ppl/hr	185 ppl/hr	1772 ppl
Office	Bike	5%	19 ppl/hr	3 ppl/hr	22 ppl/hr	4 ppl/hr	19 ppl/hr	23 ppl/hr	222 ppl
Office	Walk	10%	38 ppl/hr	5 ppl/hr	43 ppl/hr	7 ppl/hr	40 ppl/hr	47 ppl/hr	442 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Office	1.18 ppl/veh	144 veh/hr	24 veh/hr	168 veh/hr	28 veh/hr	148 veh/hr	176 veh/hr	1690 veh

Trip Gen Summary for Office

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	144 veh/hr	24 veh/hr	168 veh/hr	28 veh/hr	148 veh/hr	176 veh/hr	1690 veh
Transit	151 ppl/hr	25 ppl/hr	176 ppl/hr	30 ppl/hr	155 ppl/hr	185 ppl/hr	1772 ppl
Bike	19 ppl/hr	3 ppl/hr	22 ppl/hr	4 ppl/hr	19 ppl/hr	23 ppl/hr	222 ppl
Walk	38 ppl/hr	5 ppl/hr	43 ppl/hr	7 ppl/hr	40 ppl/hr	47 ppl/hr	442 ppl

Existing Build Scenario 3B and 4B: Retail Trip Generation

Max build-out: 3.0 FAR "restricted uses" -- Retail

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	820	367,893 sf	215 veh/hr	131 veh/hr	346 veh/hr	673 veh/hr	729 veh/hr	1402 veh/hr	13888 veh
<i>Calculation Details:</i>			62%	38%	=0.94(X/1000)	48%	52%	=3.81(X/1000)	=37.75(X/1000)

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	391 ppl/hr	239 ppl/hr	630 ppl/hr	1225 ppl/hr	1327 ppl/hr	2552 ppl/hr	25276 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	Auto	35%	137 ppl/hr	84 ppl/hr	221 ppl/hr	429 ppl/hr	464 ppl/hr	893 ppl/hr	8847 ppl
Retail	Transit	35%	137 ppl/hr	84 ppl/hr	221 ppl/hr	429 ppl/hr	464 ppl/hr	893 ppl/hr	8847 ppl
Retail	Bike	15%	59 ppl/hr	36 ppl/hr	95 ppl/hr	184 ppl/hr	199 ppl/hr	383 ppl/hr	3791 ppl
Retail	Walk	15%	58 ppl/hr	35 ppl/hr	93 ppl/hr	183 ppl/hr	200 ppl/hr	383 ppl/hr	3791 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	75 veh/hr	46 veh/hr	121 veh/hr	236 veh/hr	255 veh/hr	491 veh/hr	4861 veh

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	75 veh/hr	46 veh/hr	121 veh/hr	236 veh/hr	255 veh/hr	491 veh/hr	4861 veh
Transit	137 ppl/hr	84 ppl/hr	221 ppl/hr	429 ppl/hr	464 ppl/hr	893 ppl/hr	8847 ppl
Bike	59 ppl/hr	36 ppl/hr	95 ppl/hr	184 ppl/hr	199 ppl/hr	383 ppl/hr	3791 ppl
Walk	58 ppl/hr	35 ppl/hr	93 ppl/hr	183 ppl/hr	200 ppl/hr	383 ppl/hr	3791 ppl

Existing Build Scenario 3C and 4C: Hotel Trip Generation

Max build-out: 3.0 FAR "restricted uses" -- Lodging (assume average 500 sf per room)

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Hotel	310	736 rooms	214 veh/hr	149 veh/hr	363 veh/hr	268 veh/hr	258 veh/hr	526 veh/hr	7880 veh
<i>Calculation Details:</i>			59%	41%	=0.5X/1000-5.34	51%	49%	=0.75X/1000-26.02	=11.29X/1000-426.97

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Hotel	1.67 ppl/veh	357 ppl/hr	249 ppl/hr	606 ppl/hr	448 ppl/hr	430 ppl/hr	878 ppl/hr	13160 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Hotel	Auto	45%	161 ppl/hr	112 ppl/hr	273 ppl/hr	202 ppl/hr	193 ppl/hr	395 ppl/hr	5922 ppl
Hotel	Transit	45%	161 ppl/hr	112 ppl/hr	273 ppl/hr	202 ppl/hr	193 ppl/hr	395 ppl/hr	5922 ppl
Hotel	Bike	2%	7 ppl/hr	5 ppl/hr	12 ppl/hr	9 ppl/hr	9 ppl/hr	18 ppl/hr	263 ppl
Hotel	Walk	8%	28 ppl/hr	20 ppl/hr	48 ppl/hr	35 ppl/hr	35 ppl/hr	70 ppl/hr	1053 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Hotel	1.67 ppl/veh	96 veh/hr	67 veh/hr	163 veh/hr	121 veh/hr	116 veh/hr	237 veh/hr	3546 veh

Trip Gen Summary for Hotel

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	96 veh/hr	67 veh/hr	163 veh/hr	121 veh/hr	116 veh/hr	237 veh/hr	3546 veh
Transit	161 ppl/hr	112 ppl/hr	273 ppl/hr	202 ppl/hr	193 ppl/hr	395 ppl/hr	5922 ppl
Bike	7 ppl/hr	5 ppl/hr	12 ppl/hr	9 ppl/hr	9 ppl/hr	18 ppl/hr	263 ppl
Walk	28 ppl/hr	20 ppl/hr	48 ppl/hr	35 ppl/hr	35 ppl/hr	70 ppl/hr	1053 ppl

Existing Build Scenario 4: Utility Trip Generation

Max build-out: 1.5 FAR "permitted uses", including "Basic utilities" + 3.0 FAR "restricted uses"

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Utility	170	35,000 sf	65 veh/hr	16 veh/hr	81 veh/hr	16 veh/hr	63 veh/hr	79 veh/hr	249 veh
<i>Calculation Details:</i>			80%	20%	=2.31(X/1000)	20%	80%	=2.27(X/1000)	$h(T)=0.79\ln(X/1000)+2.71$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Utility	1.67 ppl/veh	109 ppl/hr	26 ppl/hr	135 ppl/hr	27 ppl/hr	105 ppl/hr	132 ppl/hr	416 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Utility	Auto	40%	44 ppl/hr	10 ppl/hr	54 ppl/hr	11 ppl/hr	42 ppl/hr	53 ppl/hr	166 ppl
Utility	Transit	40%	44 ppl/hr	10 ppl/hr	54 ppl/hr	11 ppl/hr	42 ppl/hr	53 ppl/hr	166 ppl
Utility	Bike	10%	11 ppl/hr	3 ppl/hr	14 ppl/hr	3 ppl/hr	10 ppl/hr	13 ppl/hr	42 ppl
Utility	Walk	10%	10 ppl/hr	3 ppl/hr	13 ppl/hr	2 ppl/hr	11 ppl/hr	13 ppl/hr	42 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Utility	1.67 ppl/veh	26 veh/hr	6 veh/hr	32 veh/hr	7 veh/hr	25 veh/hr	32 veh/hr	99 veh

Trip Gen Summary for Utility Use

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	26 veh/hr	6 veh/hr	32 veh/hr	7 veh/hr	25 veh/hr	32 veh/hr	99 veh
Transit	44 ppl/hr	10 ppl/hr	54 ppl/hr	11 ppl/hr	42 ppl/hr	53 ppl/hr	166 ppl
Bike	11 ppl/hr	3 ppl/hr	14 ppl/hr	3 ppl/hr	10 ppl/hr	13 ppl/hr	42 ppl
Walk	10 ppl/hr	3 ppl/hr	13 ppl/hr	2 ppl/hr	11 ppl/hr	13 ppl/hr	42 ppl

Existing Build Scenario 4: Animal Clinic Trip Generation

Max build-out: 1.5 FAR "permitted uses", including "Animal care, boarding, and shelter" + 3.0 FAR "restricted uses"

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Veterinary Clinic	640	7,600 sf	19 veh/hr	9 veh/hr	28 veh/hr	12 veh/hr	17 veh/hr	29 veh/hr	163 veh
Calculation Details:			67%	33%	=4.07(X/1000)-2.48	40%	60%	=4.75(X/1000)-6.96	=21.5(X/1000)

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Veterinary Clinic	1.67 ppl/veh	32 ppl/hr	15 ppl/hr	47 ppl/hr	20 ppl/hr	28 ppl/hr	48 ppl/hr	272 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Veterinary Clinic	Auto	80%	26 ppl/hr	12 ppl/hr	38 ppl/hr	16 ppl/hr	22 ppl/hr	38 ppl/hr	218 ppl
Veterinary Clinic	Transit	13%	4 ppl/hr	2 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	35 ppl
Veterinary Clinic	Bike	2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	5 ppl
Veterinary Clinic	Walk	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	14 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Veterinary Clinic	1.67 ppl/veh	16 veh/hr	7 veh/hr	23 veh/hr	10 veh/hr	13 veh/hr	23 veh/hr	131 veh

Trip Gen Summary for Animal Care

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	16 veh/hr	7 veh/hr	23 veh/hr	10 veh/hr	13 veh/hr	23 veh/hr	131 veh
Transit	4 ppl/hr	2 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	35 ppl
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	5 ppl
Walk	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	14 ppl

Existing Build Scenario 4: Light Industrial Trip Generation

Max build-out: 1.5 FAR "permitted uses", including "Production, Distribution, and Repair" + 3.0 FAR "restricted uses"

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Light Industrial	110	141,347 sf	51 veh/hr	7 veh/hr	58 veh/hr	6 veh/hr	41 veh/hr	47 veh/hr	594 veh
Calculation Details:			88%	12%	$n(T)=0.74Ln(X/1000)+0.3$	13%	87%	$n(T)=0.69Ln(X/1000)+0.4$	$=3.79(X/1000)+57.96$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Light Industrial	1.18 ppl/veh	60 ppl/hr	8 ppl/hr	68 ppl/hr	7 ppl/hr	48 ppl/hr	55 ppl/hr	701 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Light Industrial	Auto	60%	36 ppl/hr	5 ppl/hr	41 ppl/hr	4 ppl/hr	29 ppl/hr	33 ppl/hr	421 ppl
Light Industrial	Transit	35%	21 ppl/hr	3 ppl/hr	24 ppl/hr	2 ppl/hr	17 ppl/hr	19 ppl/hr	245 ppl
Light Industrial	Bike	2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	14 ppl
Light Industrial	Walk	3%	2 ppl/hr	0 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	21 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Light Industrial	1.18 ppl/veh	31 veh/hr	4 veh/hr	35 veh/hr	3 veh/hr	25 veh/hr	28 veh/hr	357 veh

Trip Gen Summary for Light Industrial

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	31 veh/hr	4 veh/hr	35 veh/hr	3 veh/hr	25 veh/hr	28 veh/hr	357 veh
Transit	21 ppl/hr	3 ppl/hr	24 ppl/hr	2 ppl/hr	17 ppl/hr	19 ppl/hr	245 ppl
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	14 ppl
Walk	2 ppl/hr	0 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	21 ppl

Proposed Build Scenario 1: Residential Trip Generation

Max build-out: 6.2 FAR Residential + 1.0 FAR Ground-Floor Retail (assuming an average 700 sq.ft. per dwelling unit)

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Residential	221	1,086 du	92 veh/hr	262 veh/hr	354 veh/hr	267 veh/hr	170 veh/hr	437 veh/hr	5918 veh
<i>Calculation Details:</i>			26%	74%	$\ln(T)=0.98\ln(X)-0.98$	61%	39%	$\ln(T)=0.96\ln(X)-0.63$	$=5.45X/1000-1.75$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Residential	1.18 ppl/veh	109 ppl/hr	309 ppl/hr	418 ppl/hr	315 ppl/hr	201 ppl/hr	516 ppl/hr	6983 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Residential	Auto	40%	44 ppl/hr	123 ppl/hr	167 ppl/hr	126 ppl/hr	80 ppl/hr	206 ppl/hr	2793 ppl
Residential	Transit	40%	44 ppl/hr	123 ppl/hr	167 ppl/hr	126 ppl/hr	80 ppl/hr	206 ppl/hr	2793 ppl
Residential	Bike	10%	11 ppl/hr	31 ppl/hr	42 ppl/hr	32 ppl/hr	20 ppl/hr	52 ppl/hr	698 ppl
Residential	Walk	10%	10 ppl/hr	32 ppl/hr	42 ppl/hr	31 ppl/hr	21 ppl/hr	52 ppl/hr	699 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Residential	1.18 ppl/veh	37 veh/hr	105 veh/hr	142 veh/hr	107 veh/hr	68 veh/hr	175 veh/hr	2367 veh

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	37 veh/hr	105 veh/hr	142 veh/hr	107 veh/hr	68 veh/hr	175 veh/hr	2367 veh
Transit	44 ppl/hr	123 ppl/hr	167 ppl/hr	126 ppl/hr	80 ppl/hr	206 ppl/hr	2793 ppl
Bike	11 ppl/hr	31 ppl/hr	42 ppl/hr	32 ppl/hr	20 ppl/hr	52 ppl/hr	698 ppl
Walk	10 ppl/hr	32 ppl/hr	42 ppl/hr	31 ppl/hr	21 ppl/hr	52 ppl/hr	699 ppl

Proposed Build Scenario 1: Retail Trip Generation

Max build-out: 6.2 FAR Residential + 1.0 FAR Ground-Floor Retail

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	820	122,631 sf	71 veh/hr	44 veh/hr	115 veh/hr	224 veh/hr	243 veh/hr	467 veh/hr	4629 veh
<i>Calculation Details:</i>			62%	38%	=0.94(X/1000)	48%	52%	=3.81(X/1000)	=37.75(X/1000)

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	129 ppl/hr	80 ppl/hr	209 ppl/hr	408 ppl/hr	442 ppl/hr	850 ppl/hr	8425 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	Auto	35%	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Retail	Transit	35%	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Retail	Bike	15%	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
Retail	Walk	15%	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh
Transit	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Bike	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
Walk	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl

Proposed Build Scenario 2: Residential Trip Generation

Max build-out: 4.2 FAR Residential + 1.0 FAR Ground-Floor Retail + 2.0 FAR Office (assuming an average 700 sq.ft. per dwelling unit)

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Residential	221	736 du	63 veh/hr	179 veh/hr	242 veh/hr	184 veh/hr	117 veh/hr	301 veh/hr	4008 veh
<i>Calculation Details:</i>			26%	74%	$\ln(T)=0.98\ln(X)-0.98$	61%	39%	$\ln(T)=0.96\ln(X)-0.63$	$=5.45X/1000-1.75$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Residential	1.18 ppl/veh	74 ppl/hr	212 ppl/hr	286 ppl/hr	217 ppl/hr	138 ppl/hr	355 ppl/hr	4729 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Residential	Auto	40%	30 ppl/hr	84 ppl/hr	114 ppl/hr	87 ppl/hr	55 ppl/hr	142 ppl/hr	1892 ppl
Residential	Transit	40%	30 ppl/hr	84 ppl/hr	114 ppl/hr	87 ppl/hr	55 ppl/hr	142 ppl/hr	1892 ppl
Residential	Bike	10%	7 ppl/hr	22 ppl/hr	29 ppl/hr	22 ppl/hr	14 ppl/hr	36 ppl/hr	473 ppl
Residential	Walk	10%	7 ppl/hr	22 ppl/hr	29 ppl/hr	21 ppl/hr	14 ppl/hr	35 ppl/hr	472 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Residential	1.18 ppl/veh	25 veh/hr	72 veh/hr	97 veh/hr	74 veh/hr	46 veh/hr	120 veh/hr	1603 veh

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	25 veh/hr	72 veh/hr	97 veh/hr	74 veh/hr	46 veh/hr	120 veh/hr	1603 veh
Transit	30 ppl/hr	84 ppl/hr	114 ppl/hr	87 ppl/hr	55 ppl/hr	142 ppl/hr	1892 ppl
Bike	7 ppl/hr	22 ppl/hr	29 ppl/hr	22 ppl/hr	14 ppl/hr	36 ppl/hr	473 ppl
Walk	7 ppl/hr	22 ppl/hr	29 ppl/hr	21 ppl/hr	14 ppl/hr	35 ppl/hr	472 ppl

Proposed Build Scenario 2: Retail Trip Generation

Max build-out: 4.2 FAR Residential + 1.0 FAR Ground-Floor Retail + 2.0 FAR Office

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	820	122,631 sf	71 veh/hr	44 veh/hr	115 veh/hr	224 veh/hr	243 veh/hr	467 veh/hr	4629 veh
<i>Calculation Details:</i>			62%	38%	=0.94(X/1000)	48%	52%	=3.81(X/1000)	=37.75(X/1000)

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	129 ppl/hr	80 ppl/hr	209 ppl/hr	408 ppl/hr	442 ppl/hr	850 ppl/hr	8425 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	Auto	35%	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Retail	Transit	35%	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Retail	Bike	15%	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
Retail	Walk	15%	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh
Transit	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Bike	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
Walk	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl

Proposed Build Scenario 2: Office Trip Generation

Max build-out: 4.2 FAR Residential + 1.0 FAR Ground-Floor Retail + 2.0 FAR Office

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Office	710	245,262 sf	221 veh/hr	36 veh/hr	257 veh/hr	43 veh/hr	224 veh/hr	267 veh/hr	2533 veh
Calculation Details:			86%	14%	=0.94(X/1000)+26.49	16%	84%	$n(T)=0.95\ln(X/1000)+0.3$	$n(T)=0.97\ln(X/1000)+2.5$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Office	1.18 ppl/veh	261 ppl/hr	42 ppl/hr	303 ppl/hr	51 ppl/hr	264 ppl/hr	315 ppl/hr	2989 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Office	Auto	45%	117 ppl/hr	19 ppl/hr	136 ppl/hr	23 ppl/hr	119 ppl/hr	142 ppl/hr	1345 ppl
Office	Transit	40%	104 ppl/hr	17 ppl/hr	121 ppl/hr	20 ppl/hr	106 ppl/hr	126 ppl/hr	1196 ppl
Office	Bike	5%	13 ppl/hr	2 ppl/hr	15 ppl/hr	3 ppl/hr	13 ppl/hr	16 ppl/hr	149 ppl
Office	Walk	10%	27 ppl/hr	4 ppl/hr	31 ppl/hr	5 ppl/hr	26 ppl/hr	31 ppl/hr	299 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Office	1.18 ppl/veh	99 veh/hr	16 veh/hr	115 veh/hr	19 veh/hr	101 veh/hr	120 veh/hr	1140 veh

Trip Gen Summary for Office

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	99 veh/hr	16 veh/hr	115 veh/hr	19 veh/hr	101 veh/hr	120 veh/hr	1140 veh
Transit	104 ppl/hr	17 ppl/hr	121 ppl/hr	20 ppl/hr	106 ppl/hr	126 ppl/hr	1196 ppl
Bike	13 ppl/hr	2 ppl/hr	15 ppl/hr	3 ppl/hr	13 ppl/hr	16 ppl/hr	149 ppl
Walk	27 ppl/hr	4 ppl/hr	31 ppl/hr	5 ppl/hr	26 ppl/hr	31 ppl/hr	299 ppl

Proposed Build Scenario 3: Residential Trip Generation

Max build-out: 5.72 FAR Residential + 1.48 FAR Office (assuming an average 700 sq.ft. per dwelling unit)

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Residential	221	1,002 du	85 veh/hr	243 veh/hr	328 veh/hr	247 veh/hr	158 veh/hr	405 veh/hr	5460 veh
<i>Calculation Details:</i>			26%	74%	$Ln(T)=0.98Ln(X)-0.98$	61%	39%	$Ln(T)=0.96Ln(X)-0.63$	$=5.45X/1000-1.75$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Residential	1.18 ppl/veh	100 ppl/hr	287 ppl/hr	387 ppl/hr	291 ppl/hr	187 ppl/hr	478 ppl/hr	6443 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Residential	Auto	40%	40 ppl/hr	115 ppl/hr	155 ppl/hr	116 ppl/hr	75 ppl/hr	191 ppl/hr	2577 ppl
Residential	Transit	40%	40 ppl/hr	115 ppl/hr	155 ppl/hr	116 ppl/hr	75 ppl/hr	191 ppl/hr	2577 ppl
Residential	Bike	10%	10 ppl/hr	29 ppl/hr	39 ppl/hr	29 ppl/hr	19 ppl/hr	48 ppl/hr	644 ppl
Residential	Walk	10%	10 ppl/hr	28 ppl/hr	38 ppl/hr	30 ppl/hr	18 ppl/hr	48 ppl/hr	645 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Residential	1.18 ppl/veh	34 veh/hr	97 veh/hr	131 veh/hr	98 veh/hr	64 veh/hr	162 veh/hr	2184 veh

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	34 veh/hr	97 veh/hr	131 veh/hr	98 veh/hr	64 veh/hr	162 veh/hr	2184 veh
Transit	40 ppl/hr	115 ppl/hr	155 ppl/hr	116 ppl/hr	75 ppl/hr	191 ppl/hr	2577 ppl
Bike	10 ppl/hr	29 ppl/hr	39 ppl/hr	29 ppl/hr	19 ppl/hr	48 ppl/hr	644 ppl
Walk	10 ppl/hr	28 ppl/hr	38 ppl/hr	30 ppl/hr	18 ppl/hr	48 ppl/hr	645 ppl

Proposed Build Scenario 3: Office Trip Generation

Max build-out: 5.72 FAR Residential + 1.48 FAR Office

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Office	710	181,494 sf	169 veh/hr	28 veh/hr	197 veh/hr	32 veh/hr	169 veh/hr	201 veh/hr	1892 veh
<i>Calculation Details:</i>			86%	14%	$=0.94(X/1000)+26.49$	16%	84%	$n(T)=0.95Ln(X/1000)+0.3$	$n(T)=0.97Ln(X/1000)+2.5$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Office	1.18 ppl/veh	199 ppl/hr	33 ppl/hr	232 ppl/hr	38 ppl/hr	199 ppl/hr	237 ppl/hr	2233 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Office	Auto	45%	90 ppl/hr	14 ppl/hr	104 ppl/hr	17 ppl/hr	90 ppl/hr	107 ppl/hr	1005 ppl
Office	Transit	40%	80 ppl/hr	13 ppl/hr	93 ppl/hr	15 ppl/hr	80 ppl/hr	95 ppl/hr	893 ppl
Office	Bike	5%	10 ppl/hr	2 ppl/hr	12 ppl/hr	2 ppl/hr	10 ppl/hr	12 ppl/hr	112 ppl
Office	Walk	10%	19 ppl/hr	4 ppl/hr	23 ppl/hr	4 ppl/hr	19 ppl/hr	23 ppl/hr	223 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Office	1.18 ppl/veh	76 veh/hr	12 veh/hr	88 veh/hr	14 veh/hr	77 veh/hr	91 veh/hr	852 veh

Trip Gen Summary for Office

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	76 veh/hr	12 veh/hr	88 veh/hr	14 veh/hr	77 veh/hr	91 veh/hr	852 veh
Transit	80 ppl/hr	13 ppl/hr	93 ppl/hr	15 ppl/hr	80 ppl/hr	95 ppl/hr	893 ppl
Bike	10 ppl/hr	2 ppl/hr	12 ppl/hr	2 ppl/hr	10 ppl/hr	12 ppl/hr	112 ppl
Walk	19 ppl/hr	4 ppl/hr	23 ppl/hr	4 ppl/hr	19 ppl/hr	23 ppl/hr	223 ppl

Proposed Build Scenario 4: Residential Trip Generation

Max build-out: 4.88 FAR Residential + 1.0 FAR Ground-Floor Retail + 1.32 FAR Office (assuming an average 700 sq.ft. per dwelling unit)

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Residential	221	855 du	73 veh/hr	207 veh/hr	280 veh/hr	212 veh/hr	136 veh/hr	348 veh/hr	4658 veh
Calculation Details:			26%	74%	$\ln(T)=0.98\ln(X)-0.98$	61%	39%	$\ln(T)=0.96\ln(X)-0.63$	$=5.45X/1000-1.75$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Residential	1.18 ppl/veh	86 ppl/hr	244 ppl/hr	330 ppl/hr	250 ppl/hr	161 ppl/hr	411 ppl/hr	5496 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Residential	Auto	40%	34 ppl/hr	98 ppl/hr	132 ppl/hr	100 ppl/hr	64 ppl/hr	164 ppl/hr	2198 ppl
Residential	Transit	40%	34 ppl/hr	98 ppl/hr	132 ppl/hr	100 ppl/hr	64 ppl/hr	164 ppl/hr	2198 ppl
Residential	Bike	10%	9 ppl/hr	24 ppl/hr	33 ppl/hr	25 ppl/hr	16 ppl/hr	41 ppl/hr	550 ppl
Residential	Walk	10%	9 ppl/hr	24 ppl/hr	33 ppl/hr	25 ppl/hr	17 ppl/hr	42 ppl/hr	550 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Residential	1.18 ppl/veh	29 veh/hr	83 veh/hr	112 veh/hr	85 veh/hr	54 veh/hr	139 veh/hr	1863 veh

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	29 veh/hr	83 veh/hr	112 veh/hr	85 veh/hr	54 veh/hr	139 veh/hr	1863 veh
Transit	34 ppl/hr	98 ppl/hr	132 ppl/hr	100 ppl/hr	64 ppl/hr	164 ppl/hr	2198 ppl
Bike	9 ppl/hr	24 ppl/hr	33 ppl/hr	25 ppl/hr	16 ppl/hr	41 ppl/hr	550 ppl
Walk	9 ppl/hr	24 ppl/hr	33 ppl/hr	25 ppl/hr	17 ppl/hr	42 ppl/hr	550 ppl

Proposed Build Scenario 4: Retail Trip Generation

Max build-out: 4.88 FAR Residential + 1.0 FAR Ground-Floor Retail + 1.32 FAR Office

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	820	122,631 sf	71 veh/hr	44 veh/hr	115 veh/hr	224 veh/hr	243 veh/hr	467 veh/hr	4629 veh
<i>Calculation Details:</i>			62%	38%	=0.94(X/1000)	48%	52%	=3.81(X/1000)	=37.75(X/1000)

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	129 ppl/hr	80 ppl/hr	209 ppl/hr	408 ppl/hr	442 ppl/hr	850 ppl/hr	8425 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Retail	Auto	35%	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Retail	Transit	35%	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Retail	Bike	15%	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
Retail	Walk	15%	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Retail	1.82 ppl/veh	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	25 veh/hr	15 veh/hr	40 veh/hr	79 veh/hr	85 veh/hr	164 veh/hr	1620 veh
Transit	45 ppl/hr	28 ppl/hr	73 ppl/hr	143 ppl/hr	155 ppl/hr	298 ppl/hr	2949 ppl
Bike	19 ppl/hr	12 ppl/hr	31 ppl/hr	61 ppl/hr	67 ppl/hr	128 ppl/hr	1264 ppl
Walk	20 ppl/hr	12 ppl/hr	32 ppl/hr	61 ppl/hr	65 ppl/hr	126 ppl/hr	1263 ppl

Proposed Build Scenario 4: Office Trip Generation

Max build-out: 4.88 FAR Residential + 1.0 FAR Ground-Floor Retail + 1.32 FAR Office

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Office	710	161,873 sf	154 veh/hr	25 veh/hr	179 veh/hr	29 veh/hr	151 veh/hr	180 veh/hr	1693 veh
Calculation Details:			86%	14%	=0.94(X/1000)+26.49	16%	84%	$n(T)=0.95\ln(X/1000)+0.3$	$n(T)=0.97\ln(X/1000)+2.5$

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Office	1.18 ppl/veh	182 ppl/hr	29 ppl/hr	211 ppl/hr	34 ppl/hr	178 ppl/hr	212 ppl/hr	1998 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	Total
Office	Auto	45%	82 ppl/hr	13 ppl/hr	95 ppl/hr	15 ppl/hr	80 ppl/hr	95 ppl/hr	899 ppl
Office	Transit	40%	73 ppl/hr	11 ppl/hr	84 ppl/hr	14 ppl/hr	71 ppl/hr	85 ppl/hr	799 ppl
Office	Bike	5%	9 ppl/hr	2 ppl/hr	11 ppl/hr	2 ppl/hr	9 ppl/hr	11 ppl/hr	100 ppl
Office	Walk	10%	18 ppl/hr	3 ppl/hr	21 ppl/hr	3 ppl/hr	18 ppl/hr	21 ppl/hr	200 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Office	1.18 ppl/veh	69 veh/hr	12 veh/hr	81 veh/hr	13 veh/hr	68 veh/hr	81 veh/hr	762 veh

Trip Gen Summary for Office

Mode	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	Total
Auto	69 veh/hr	12 veh/hr	81 veh/hr	13 veh/hr	68 veh/hr	81 veh/hr	762 veh
Transit	73 ppl/hr	11 ppl/hr	84 ppl/hr	14 ppl/hr	71 ppl/hr	85 ppl/hr	799 ppl
Bike	9 ppl/hr	2 ppl/hr	11 ppl/hr	2 ppl/hr	9 ppl/hr	11 ppl/hr	100 ppl
Walk	18 ppl/hr	3 ppl/hr	21 ppl/hr	3 ppl/hr	18 ppl/hr	21 ppl/hr	200 ppl