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# EMORANDUM

- **TO:** Mr. Christopher Starr Smith Legacy Partners Series, LLC 6 Littlefield Road Acton, MA 01720
- **FROM:** Rebecca L. Brown, PE, Senior Engineer Kevin R. Dandrade, PE, PTOE, Principal
  - **RE:** Cushing Village Redevelopment Project Trapelo Road and Common Street, Belmont, MA Updated Trip Generation Assessment

**DATE:** October 24, 2012

PROJECT NO.: T0376.01

## INTRODUCTION

On behalf of Smith Legacy Partners Series, LLC, TEC, Inc. previously prepared a Traffic Impact, Access, and Parking Study (TIAPS) dated October 12, 2012 in support of the proposed Cushing Village mixed-use development located at 102 to 112 Trapelo Road and 493 to 527 Common Street in Belmont, Massachusetts. The site currently contains a vacant 6,200 square foot (SF) CVS/pharmacy, a 2,430 SF Starbucks restaurant with 30 seats, approximately 12,065 SF of specialty retail and restaurant space, the foundation of a former 3,590 SF retail building, and a municipal parking lot containing 50 parking spaces. The project Proponent is proposing to demolish the existing land uses on the site and construct a mixed-use development to contain a 2,000 SF Starbucks, a 5,000 SF quality restaurant, a 3,300 SF health and fitness club, approximately 27,200 SF of retail space, and approximately 118 apartment units. The TIAPS for the project included an estimation of the vehicle trips to be generated by the proposed redevelopment project. Subsequent to submission of the TIAPS, an error was identified in the calculation of the trips generated by the existing Starbucks. The intent of this memorandum is to provide an updated analysis of the trips anticipated to be generated by the proposed mixed-use redevelopment project.

## SITE GENERATED TRAFFIC

TEC previously estimated the trips generated by the existing Starbucks using trip generation rates contained in the Institute of Transportation Engineers (ITE) publication Trip Generation, 8th Edition for Land Use Code (LUC) 936 (Coffee/Donut Shop without Drive-Through). The size of the Starbucks that was used in the calculations included in the TIAPS was 1,800 SF; however, the existing Starbucks is actually 2,430 SF in size. Therefore, the trip generation estimation included within the TIAPS for the existing Starbucks was lower than may be generated by the larger building. TEC has updated the trip generation analysis to reflect a larger building size for the Starbucks. In addition, it was assumed that all traffic that is currently generated by the existing Starbucks would continue to use the proposed Starbucks following completion of the proposed mixed-use redevelopment project. The revised detailed trip generation calculations are provided as an Attachment to this memorandum and are summarized in Table 1.

The proposed development project consists of demolishing the existing buildings on the site and constructing an approximately 18,000 SF market or drugstore, a 5,200 SF quality restaurant, a 3,800 SF walk-in bank, a 3,430 SF health club, an 1,800 SF Starbucks, approximately 5,030 SF of specialty retail space, and 142 apartment units. The trip generation rates for ITE LUC 850 (Supermarket) are higher than the rates for ITE LUC 880 (Pharmacy/Drugstore without drive-through window). Therefore, in order to provide a conservative (worst case) analysis scenario, the trip rates for ITE LUC 850 were utilized to estimate the trip generation for the proposed market/drugstore. The trip generation rates for ITE LUC 931 (Quality Restaurant), LUC 911 (Walk-In Bank), LUC 492 (Health/Fitness Club), LUC 814 (Specialty Retail), and LUC 220 (Apartments) were used to estimate the traffic associated with each of the remaining uses, respectively. Because the Starbucks is an existing use and the size of the building is decreasing, no additional traffic was added to the roadway network for the Starbucks. ITE LUC 936 (Coffee/Donut Shop without Drive-Through Window) was used to estimate the trips generated by the Starbucks in order to reassign these trips to the new driveways.

Time Deried	CVS Pharmacy	Specialty Retail	Starbucks	Total Trino	Pass-by	Primary
		LUC 814	LUC 936	Total mps	Thps	i mps
Weekday Daily	554	535	1,733	2,822	1,300	1,522
Weekday Morning						
IN	12	5	119	136	63	73
<u>OUT</u>	<u>8</u>	<u>4</u>	<u>115</u>	<u>127</u>	<u>63</u>	<u>64</u>
TOTAL	20	9	234	263	126	137
Weekday Evening						
IN	26	15	41	82	41	41
<u>OUT</u>	<u>26</u>	<u>18</u>	<u>41</u>	<u>85</u>	<u>41</u>	<u>44</u>
TOTAL	52	33	82	167	82	85
Saturday Daily	708	507	1,683	2,898	1,350	1,548
Saturday Midday						
IN	34	26	63	121	57	64
<u>OUT</u>	<u>34</u>	<u>24</u>	<u>69</u>	<u>127</u>	<u>57</u>	<u>70</u>
TOTAL	66	50	132	248	114	134

|--|

<sup>a</sup> ITE LUC 880 (Pharmacy/Drugstore without Drive-Thru Window) for 6,200 SF, ITE LUC 936 (Coffee/Donut Shop without Drive-Through Window) for 2,000 SF, and ITE LUC 814 (Specialty Retail) for 12,065 SF, which assumes re-occupancy of vacant space on the site.

The multi-use trips calculations included in the TIAPS were also based on the smaller 1,800 SF Starbucks rather than the 2,000 SF proposed size for the Starbucks. Therefore, the trip generation estimate for the proposed land uses has also been updated to reflect the appropriate size building. The detailed trip generation calculations are provided as an Attachment and are summarized in Table 2.

	demendate	neannary	1 Topooda E						
Time Period	Health Club LUC 492	Shopping Center LUC 820	Apartments LUC 220	Quality Restaurant LUC 931	Starbucks LUC 936	Total Trips	Multi- Use Trips	Pass-by Trips	Primary Trips
Weekday Daily	109	2,604	785	450	1,733	5,681	1,860	1,170	2,651
Weekday Morning IN <u>OUT</u> TOTAL	2 <u>3</u> 5	38 <u>24</u> 62	12 <u>48</u> 60	2 <u>2</u> 4	119 <u>115</u> 234	173 <u>192</u> 365	31 <u>31</u> 62	59 <u>59</u> 118	83 <u>102</u> 185
Weekday Evening IN <u>OUT</u> TOTAL	7 <u>5</u> 12	118 <u>121</u> 239	47 <u>26</u> 73	25 <u>12</u> 37	41 <u>41</u> 82	238 <u>205</u> 443	54 <u>54</u> 108	54 <u>54</u> 108	130 <u>97</u> 227
Saturday Daily	69	3,613	754	439	1,683	6,558	1,790	1,422	3,346
Saturday Midday IN <u>OUT</u> TOTAL	4 <u>5</u> 9	171 <u>158</u> 329	31 <u>30</u> 61	32 <u>22</u> 54	63 <u>69</u> 132	301 <u>284</u> 585	79 <u>79</u> 158	63 <u>63</u> 126	159 <u>142</u> 301

## Table 2 - Trip Generation Summary - Proposed Land Uses

aITE Trip Generation, Eighth Edition, Institute of Transportation Engineers, 2008.

Table 3 provides an updated comparison of the trips generated by reoccupancy of the existing land uses and trips generated by the proposed mixed-use redevelopment. The detailed calculations are provided as an Attachment.

As shown in Table 3, the project is estimated to generate an increase in *new* primary trips of 48 trips during the weekday morning peak hour, 142 trips during the weekday evening peak hour, and 167 trips during the Saturday midday peak hour. The trip generation calculations included within the TIAPS estimated that the project would generate 65 *new* primary trips during the weekday morning peak hour, 147 trips during the weekday evening peak hour, and 178 trips during the Saturday midday peak hour. As such, the trip generation estimate included in the original TIAPS results in higher volumes than the updated trip generation analysis. Therefore, an updated capacity and queuing analysis has not been provided as the original TIAPS represents a more conservative (worse case) analysis condition.

	•			New		
Time Period	Proposeda	Re-Occupied <sup>b</sup>	Net Increase	Multi-Use Trips	Pass-by Trips⁰	Primary Trips <sup>d</sup>
Weekday Daily	5,681	2,822	2,859	1,860	-130	1,129
Weekday Morning IN <u>OUT</u> TOTAL	173 <u>192</u> 365	136 <u>127</u> 263	37 <u>65</u> 102	31 <u>31</u> 62	-4 <u>-4</u> -8	10 <u>38</u> 48
Weekday Evening IN <u>OUT</u> TOTAL	238 <u>205</u> 443	82 <u>85</u> 167	156 <u>120</u> 276	54 <u>54</u> 108	13 <u>13</u> 26	89 <u>53</u> 142
Saturday Daily	6,558	2,898	3,660	1,790	72	1,798
Saturday Midday IN <u>OUT</u> TOTAL	301 <u>284</u> 585	121 <u>127</u> 248	180 <u>158</u> 337	79 <u>79</u> 158	6 <u>6</u> 12	95 <u>72</u> 167

## Table 3 – Net Increase in Trips

<sup>a</sup> From Table 2.

<sup>b</sup> From Table 1.

c 44 percent of restaurant trips; 26 percent of retail trips during all periods except weekday evening peak hour; 34 percent of retail trips during weekday peak hour. <sup>d</sup> Net Increase in trips minus multi-use trips and pass-by trips.

Project:	Proposed Mixed Use Development - Belmont, Massachusetts
Date:	October 23, 2012
Analyst:	TEC, Inc. / Samuel W. Gregorio, E.I.T.
Source:	Institute of Transportation Engineers - Trip Generation - 8th Ed.

## Proposed Development

18 Unit Apartment (ITE LUC 220)													
Units: 1	18 Units												
	Total	Trips	Total	% Distr	ribution	Multi-L	lse Trips	Total New	Total New	# Pass	sby Trips	# Prima	ary Trips
	IN	<u>OUT</u>	Trips	IN	<u>OUT</u>	IN	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	<u>OUT</u>
Weekday Daily	393	392	785	50%	50%	130	149	0	506	0	0	263	243
Weekday AM PH	12	48	60	20%	80%	4	13	0	43	0	0	8	35
Weekday PM PH	47	26	73	65%	35%	15	14	0	44	0	0	32	12
Saturday Daily	377	377	754	50%	50%	124	143	0	487	0	0	253	234
Sat Midday PH	31	30	61	50%	50%	11	10	0	40	0	0	20	20

#### 27,200 SF Shopping Center (ITE LUC 820) Size: 27.2 KSF

0120.	 												
	Total	Trips	Total	% Distribution Multi-Use Trips		Jse Trips	Total New	Total New	# Pass	by Trips	# Primary Trips		
	IN	<u>OUT</u>	Trips	IN	OUT	IN	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	OUT	IN	<u>OUT</u>
Weekday Daily	1302	1302	2604	50%	50%	411	379	472	1342	236	236	655	687
Weekday AM PH	38	24	62	61%	39%	11	6	12	33	6	6	21	12
Weekday PM PH	118	121	239	49%	51%	19	25	66	129	33	33	66	63
Saturday Daily	1807	1806	3613	50%	50%	413	383	732	2085	366	366	1028	1057
Sat Midday PH	171	158	329	52%	48%	34	38	66	191	33	33	104	87

Assumed 34% pass-by rate for weekday PM and 26% pass-by rate for all others (LUC 820 - Shopping Center - Trip Generation Handbook, 2nd Edition).

3,300 SF Health/Fit	300 SF Health/Fitness Club (ITE LUC 492)													
Size:	3.3	KSF												
		Total	Trips	Total	% Distr	ibution	Multi-L	lse Trips	Total New	Total New	# Pass	by Trips	# Prima	ary Trips
		IN	<u>OUT</u>	<u>Trips</u>	IN	<u>OUT</u>	<u>IN</u>	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	<u>OUT</u>
Weekday Daily		55	54	109	50%	50%	18	19	0	72	0	0	37	35
Weekday AM PH		2	3	5	45%	55%	0	1	0	4	0	0	2	2
Weekday PM PH		7	5	12	57%	43%	2	1	0	9	0	0	5	4
Saturday Daily		35	34	69	50%	50%	12	11	0	46	0	0	23	23
Sat Midday PH		4	5	9	45%	55%	1	1	0	7	0	0	3	4

 Project:
 Proposed Mixed Use Development - Belmont, Massachusetts

 Date:
 October 23, 2012

 Analyst:
 TEC, Inc. / Samuel W. Gregorio, E.I.T.

 Source:
 Institute of Transportation Engineers - Trip Generation - 8th Ed.

5,000 SF Quality R	estaura	<u>nt (ITE LUC 93</u>	<u>31)</u>											
Size:	5	KSF					_							
		Total	Trips	Total	% Distr	ibution	Multi-U	Jse Trips	Total New	Total New	# Pass	sby Trips	# Prima	ary Trips
		IN	<u>OUT</u>	Trips	IN	OUT	IN	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	OUT
Weekday Daily		225	225	450	50%	50%	76	79	130	165	65	65	84	81
Weekday AM PH		2	2	4	50%	50%	0	0	2	2	1	1	1	1
Weekday PM PH		25	12	37	67%	33%	7	3	12	15	6	6	12	3
Saturday Daily		220	219	439	50%	50%	72	74	128	165	64	64	84	81
Sat Midday PH		32	22	54	59%	41%	11	7	16	20	8	8	13	7

Assumed 44% passby rate (Trip Generation Handbook, 2nd Edition).

2,000 SF Starbucks	s (ITE LU	<u>JC 936)</u>												
Size:	2	KSF					-							
		Total	Trips	Total	% Distr	ibution	Multi-L	lse Trips	Total New	Total New	# Pass	by Trips	# Prima	ary Trips
		IN	<u>OUT</u>	Trips	IN	OUT	IN	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	<u>OUT</u>
Weekday Daily		867	866	1733	50%	50%	295	304	568	566	284	284	288	278
Weekday AM PH		119	115	234	51%	49%	16	11	104	103	52	52	51	52
Weekday PM PH		41	41	82	50%	50%	11	11	30	30	15	15	15	15
Saturday Daily		842	841	1683	50%	50%	274	284	562	563	281	281	287	276
Sat Midday PH		63	69	132	48%	52%	22	23	44	43	22	22	19	24

Assumed 49% pass-by rate for weekday AM and 50% pass-by rate for all others (LUC 934 - Fast-Food Restaurant with Drive Through - Trip Generation Handbook, 2nd Edition).

Total Proposed													
Size:	KSF					-							
	Total	Trips	Total	% Distr	ribution	Multi-L	lse Trips	Total New	Total New	# Pass	by Trips	# Prima	ary Trips
	IN	<u>OUT</u>	Trips	IN	OUT	IN	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	OUT
Weekday Daily	2842	2839	5681	50%	50%	930	930	1170	2651	585	585	1327	1324
Weekday AM PH	173	192	365	47%	53%	31	31	118	185	59	59	83	102
Weekday PM PH	238	205	443	54%	46%	54	54	108	227	54	54	130	97
Saturday Daily	3281	3277	6558	50%	50%	895	895	1422	3346	711	711	1675	1671
Sat Midday PH	301	284	585	51%	49%	79	79	126	301	63	63	159	142

Project:	Proposed Mixed Use Development - Belmont, Massachusetts
Date:	October 23, 2012
Analyst:	TEC, Inc. / Samuel W. Gregorio, E.I.T.
Source:	Institute of Transportation Engineers - Trip Generation - 8th Ed.

### Full Re-Occupied Uses

### 6.200 SF Pharmacy/Drugstore without Drive-Thru Window (ITE LUC 880)

Size:	6.2	NOF												
		Total	Trips	Total % Distribution			Multi-l	Jse Trips	Total New Total New		# Passby Trips		# Primary Trips	
		IN	<u>OUT</u>	Trips	IN	<u>OUT</u>	IN	OUT	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	<u>OUT</u>
Weekday Daily		277	277	554	50%	50%	0	0	294	260	147	147	130	130
Weekday AM PH		12	8	20	59%	41%	0	0	10	10	5	5	7	3
Weekday PM PH		26	26	52	50%	50%	0	0	28	24	14	14	12	12
Saturday Daily		354	354	708	49%	51%	0	0	376	332	188	188	166	166
Sat Midday PH		32	34	66	49%	51%	0	0	34	32	17	17	15	17

Interpolated Saturday Daily from Weekday PM PH

Assumed 53% passby rate (Trip Generation Handbook, 2nd Edition).

12,065 SF Specialty	Retail	(ITE LUC 814)												
Size:	12.065	KSF												
		Total	Trips	Total	% Distr	ibution	Multi-L	Jse Trips	Total New	Total New	# Pass	by Trips	# Prima	ary Trips
		IN	<u>OUT</u>	Trips	IN	OUT	IN	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	<u>OUT</u>
Weekday Daily		268	267	535	50%	50%	0	0	140	395	70	70	198	197
Weekday AM PH		5	4	9	61%	39%	0	0	2	7	1	1	4	3
Weekday PM PH		15	18	33	44%	56%	0	0	12	21	6	6	9	12
Saturday Daily		254	253	507	50%	50%	0	0	132	375	66	66	188	187
Sat Midday PH		26	24	50	52%	48%	0	0	14	36	7	7	19	17

Interpolated Weekday AM PH from Weekday AM PH LUC 820 - Shopping Center

Assumed 34% pass-by rate for weekday PM and 26% pass-by rate for all others (LUC 820 - Shopping Center - Trip Generation Handbook, 2nd Edition).

2,000 SF Starbucks (ITE	000 SF Starbucks (ITE LUC 936)												
Size:	2 KSF					-							
	Total	Trips	Total	% Distr	ribution	Multi-L	Jse Trips	Total New	Total New	# Pass	by Trips	# Prima	ary Trips
	IN	<u>OUT</u>	Trips	IN	OUT	IN	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	<u>OUT</u>
Weekday Daily	867	866	1733	50%	50%	0	0	866	867	433	433	434	433
Weekday AM PH	119	115	234	51%	49%	0	0	114	120	57	57	62	58
Weekday PM PH	41	41	82	50%	50%	0	0	42	40	21	21	20	20
Saturday Daily	842	841	1683	50%	50%	0	0	842	841	421	421	421	420
Sat Midday PH	63	69	132	48%	52%	0	0	66	66	33	33	30	36

Assumed 49% pass-by rate for weekday AM and 50% pass-by rate for all others (LUC 934 - Fast-Food Restaurant with Drive Through - Trip Generation Handbook, 2nd Edition).

Project:	Proposed Mixed Use Development - Belmont, Massachusetts
Date:	October 23, 2012
Analyst:	TEC, Inc. / Samuel W. Gregorio, E.I.T.
Source:	Institute of Transportation Engineers - Trip Generation - 8th Ed.

Total Reoccupanc	<u>v</u>													
Size:	20.265	KSF												
		Total	Trips	Total	% Distr	ibution	Multi-L	Jse Trips	Total New	Total New	# Pass	by Trips	# Prima	ary Trips
		IN	<u>OUT</u>	Trips	IN	<u>OUT</u>	IN	<u>OUT</u>	Pass-by Trips	Primary Trips	IN	<u>OUT</u>	IN	<u>OUT</u>
Weekday Daily		1412	1410	2822	50%	50%	0	0	1300	1522	650	650	762	760
Weekday AM PH		136	127	263	52%	48%	0	0	126	137	63	63	73	64
Weekday PM PH		82	85	167	49%	51%	0	0	82	85	41	41	41	44
Saturday Daily		1450	1448	2898	50%	50%	0	0	1350	1548	675	675	775	773
Sat Midday PH		121	127	248	49%	51%	0	0	114	134	57	57	64	70

	Total	Total Mul	ti-Use Trips	Total New	Total New	Total Pass-by Trips		<b>Total Primary Trips</b>	
Net Increase	Trips	In	Out	Pass-by Trips	Primary Trips	In	Out	In	Out
Weekday Daily	2859	930	930	-130	1129	-65	-65	565	564
Weekday AM Peak Hour	102	31	31	-8	48	-4	-4	10	38
Weekday PM Peak Hour	276	54	54	26	142	13	13	89	53
Saturday Daily	3660	895	895	72	1798	36	36	900	898
Sat Midday Peak Hour	337	79	79	12	167	6	6	95	72



#### **Trip Generation Assessment - Cushing Square Development**

Project:	Proposed Mixed Use Development - Belmont, Massachusetts
Date:	October 1, 2012
Analyst:	TEC, Inc. / Samuel W. Gregorio, E.I.T.
Source:	Institute of Transportation Engineers - Trip Generation - 8th Ed.

#### Proposed Development

#### 27,200 SF Shopping Center (ITE LUC 820)

Size:	27.2	KSF							
		Total	Trips	Potential Mu	ulti-Use Trips	Retail-Re	etail Trips	Remain	ing Trips
		IN	OUT	IN	OUT	IN	OUT	IN	<u>OUT</u>
Weekday Daily		1302	1302	365	391	330	307	972	995
Weekday AM PH		38	24	8	5	8	5	30	19
Weekday PM PH		118	121	24	24	11	14	107	107
Saturday Daily		1807	1806	506	542	320	300	1487	1506
Sat Midday PH		171	158	53	46	27	31	144	127

Interpolated Saturday Daily from Weekday PM PH

Assumed 53% passby rate (Trip Generation Handbook, 2nd Edition).

#### 3,300 SF Health/Fitness Club (ITE LUC 492)

Size:	3.3	KSF							
		Total	Trips	Potential Mu	Iti-Use Trips	Retail-Re	etail Trips	Remain	ing Trips
		IN	OUT	IN	OUT	IN	OUT	IN	OUT
Weekday Daily		55	54	15	16	15	16	40	38
Weekday AM PH		2	3	0	1	0	1	2	2
Weekday PM PH		7	5	1	1	1	1	6	4
Saturday Daily		35	34	10	10	10	10	25	24
Sat Midday PH		4	5	1	1	1	1	3	4

#### 5,000 SF Quality Restaurant (ITE LUC 931)

Size:	5	KSF								
		Total	Trips	Potential Mu	ulti-Use Trips	Retail-Re	etail Trips	Remaining Trips		
		IN	<u>OUT</u>	IN	<u>OUT</u>	IN	<u>OUT</u>	IN	<u>OUT</u>	
Weekday Daily		225	225	63	68	63	68	162	157	
Weekday AM PH		2	2	0	0	0	0	2	2	
Weekday PM PH		25	12	5	2	5	2	20	10	
Saturday Daily		220	219	62	66	62	66	158	153	
Sat Midday PH		32	22	10	6	10	6	22	16	

Assumed 44% passby rate (Trip Generation Handbook, 2nd Edition).

### 2,000 SF Starbucks (ITE LUC 936)

Size:	2	KSF							
		Tota	I Trips	Potential Mu	ulti-Use Trips	Retail-R	etail Trips	Remain	ing Trips
		IN	OUT	IN	OUT	IN	OUT	IN	OUT
Weekday Daily		867	866	243	260	243	260	624	606
Weekday AM PH		119	115	24	23	6	8	113	107
Weekday PM PH		41	41	8	8	8	8	33	33
Saturday Daily		842	841	236	252	236	252	606	589
O - C M - L - L - D L -		00	00			00		40	10

 Sat Midday PH
 63
 69
 20
 20
 20
 43
 49
 Saturday Midday

 Assumed 34% pass-by rate for weekday PM and 26% pass-by rate for all others (LUC 820 - Shopping Center - Trip Generation Handbook, 2nd Edition).
 IN
 IN

Total Retail Uses	tai Retali Uses						
	Total Trips			Retail-Re	etail Trips	Remain	ing Trips
	IN	OUT		IN	OUT	IN	OUT
Weekday Daily	2449	2447		651	651	1798	1796
Weekday AM PH	161	144		14	14	147	130
Weekday PM PH	191	179		25	25	166	154
Saturday Daily	2904	2900		628	628	2276	2272
Sat Midday PH	270	254		58	58	212	196

ley	
	Most Critical Volume
	¥
	Least Critical Volume

#### Weekday Daily

Maximum Shared Retail to Retail
Development Type 820 492 931/936

365

<u>391</u> 756

8

<u>5</u> 13

<u>24</u> 48

542

1,048

53 <u>46</u> 99 <u>16</u> 31

1

1

2

10

20

<u>1</u> 2 306

<u>328</u> 634

24

<u>23</u> 47

13

<u>10</u> 23

298

318

616

30

<u>26</u> 56

Weekday Daily

Weekday Morning

Weekday Evening

Saturday Daily IN 506

IN <u>OUT</u> Total

IN

IN 24

<u>OUT</u> Total

OUT

Total

IN <u>OUT</u> Total

<u>OUT</u> Total

	То								
From	820	492	931/936	Total					
820	0	8	299	307					
492	9	0	7	16					
931/936	321	7	0	328					
Total	330	15	306	651					

## Weekday Morning

	То								
From	820	0 492 931/93		Total					
820	0		5	5					
492	0	0	1	1					
931/936	8		0	8					
Total	8		6	14					

#### Weekday Evening

	То							
From	820	492 931/936		Total				
820	0	1	13	14				
492	1	0	0	1				
931/936	10	0	0	10				
Total	11	1	13	25				

#### Saturday Daily

	То							
From	820	492	931/936	Total				
820	0	6	294	300				
492	6	0	4	10				
931/936	314	4	0	318				
Total	320	10	298	628				

#### Saturday Midday

	То							
From	820	20 492 931/936		Total				
820	0	1	30	31				
492	1	0	0	1				
931/936	26	0	0	26				
Total	27	1	30	58				

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### Analyst: TEC, Inc. / Samuel W. G

Date: 10/1/2012

Project Name: Cushing Village Time Period: Weekday Daily



	Net External Trips for Multi-Use Development							
	Total	D	С	В	A	Land Use		
	1912	0	0	263	1649	Enter		
	1909	0	0	243	1666	Exit		
Internal Capture	3821	0	0	506	3315	Total External Trips		
13%	4379	0	0	785	3594	Single-Use Trip Gen. Est.		
	558	0	0	279	279	Net Internal Trips		
-								

### Analyst: TEC, Inc. / Samuel W. G

Date: 10/1/2012





	Net External Trips for Multi-Use Development								
	Total	D	С	В	A	Land Use			
	142	0	0	8	134	Enter			
	161	0	0	35	126	Exit			
Internal Capture	303	0	0	43	260	Total External Trips			
10%	337	0	0	60	277	Single-Use Trip Gen. Est.			
	34	0	0	17	17	Net Internal Trips			

### Analyst: TEC, Inc. / Samuel W. G

Date: 10/1/2012





	Net External Trips for Multi-Use Development								
	Total	D	С	В	A	Land Use			
	184	0	0	32	152	Enter			
	151	0	0	12	139	Exit			
Internal Capture	335	0	0	44	291	Total External Trips			
15%	393	0	0	73	320	Single-Use Trip Gen. Est.			
	58	0	0	29	29	Net Internal Trips			

### Analyst: TEC, Inc. / Samuel W. G

Date: 10/1/2012

Project Name: Cushing Village Time Period: Saturday Daily



	Net External Trips for Multi-Use Development							
	Total	D	С	В	A	Land Use		
	2386	0	0	253	2133	Enter		
	2382	0	0	234	2148	Exit		
Internal Capture	4768	0	0	487	4281	Total External Trips		
10%	5302	0	0	754	4548	Single-Use Trip Gen. Est.		
	534	0	0	267	267	Net Internal Trips		
•								

### Analyst: TEC, Inc. / Samuel W. G

Date: 10/1/2012





	Net External Trips for Multi-Use Development							
	Total	D	С	В	A	Land Use		
	222	0	0	20	202	Enter		
	205	0	0	20	185	Exit		
Internal Capture	427	0	0	40	387	Total External Trips		
9%	469	0	0	61	408	Single-Use Trip Gen. Est.		
	42	0	0	21	21	Net Internal Trips		