K PARK
FUTURE LAND USE AMENDMENT
TRANSPORTATION ANALYSIS

Prepared for

VILLAGE OF WELLINGTON

Prepared by

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#PTC24-001Q
February 3, 2025

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K PARK
FUTURE LAND USE AMENDMENT
TRANSPORTATION ANALYSIS

INTRODUCTION

It is proposed to change the future land use designation from Community Facilities and Commercial to Mixed Use on 71.28 acres. The purpose of this analysis is to determine if the proposed future land use designation changes are consistent with the Mobility Element of the Village of Wellington Comprehensive Plan. This study addresses a long-range (Year 2045) traffic analysis and a five-year traffic analysis.

SITE DATA

The site is located on the southwest quadrant of the SR 7 and Stribling Way intersection, as shown in **Exhibit 1**. The Comprehensive Plan assigns a maximum intensity to the FLU designations. The maximum intensity scenarios for the existing and proposed FLU for the 71.28 acres are shown below:

EXISTING LAND USE DESIGNATION	PROPOSED LAND USE DESIGNATION
Community Facilities at FAR 0.35 for 65.98 acres **Commercial at FAR 0.40 for 5.3 acres** **Maximum Intensity** 1,005,931 SF Government Office 92,374 SF Retail	**Mixed Use at FAR 0.50 for 71.28 Acres** **Maximum Intensity (1)** 600 Multi-Family DUs 150 Room Hotel 1,200 Student Private School (K-12) 250,000 SF Retail 82,478 SF Restaurant

(1) Residential density is 8.42 DUs per acre; however, it is included within the FAR calculation. Residential estimated at 1,200 SF per unit, school estimated at 300,000 SF and hotel estimated at 200,000 SF.

MOBILITY ELEMENT

Level of Service (LOS) Analysis

In order to assess the transportation impacts of the proposed change in land use designation, the methodology established by the Village of Wellington's Comprehensive Plan was followed.

Trip Generation

Palm Beach County and the Institute of Transportation Engineers (ITE), Trip Generation, *11th Edition*, were the sources of trip generation data utilized in this study. Daily and peak hour trips generated by the existing and proposed FLU designations at the maximum intensities are shown in **Exhibits 2A and 2B.** The comparison of the daily and peak hour trip generation is provided in **Exhibit 2C**.

Internalization of trips between the uses was based on the National Cooperative Highway Research Program (NCHRP) Report 684. The matrices are provided for the existing and proposed land uses in the **Appendix**. The school use is not included in the NCHRP Report and internalization rates were estimated for this use. The NCHRP rates for the proposed scenario resulted in some high internalization in the PM peak hour, i.e., 73.5% internalization for the residential use. The internalization rates were reduced as provided in the **Appendix.**

The net daily trip generation is used for the Long Range (Year 2045) analysis. Because the proposed land use designation change results in a reduction of daily trips, no Long Range (Year 2045) roadway link analysis is required. The net AM peak hour trip generation also results in a reduction in trips while the net PM peak hour trip generation results in a 9 PM inbound trip increase. The minimal PM peak hour projected trip increase represents an insignificant impact on the area roadway network. Therefore, the roadway link capacity analysis requirements and LOS Standards of the Comprehensive Plan are met. A more detailed concurrency traffic analysis is required as part of the land development process prior to any development approvals to address the impacts of the proposed development.

Policy Review

Policy MB 1.1.2 Development Impact on Roadway LOS

The proposed land use change does not have an impact on Roadway LOS. The concurrency traffic analysis will be required for any development approval, and coordination with Palm Beach County Traffic Division will be included in that process.

Policy MB 2.1.1 Access Management

The proposed development will be required to meet access management standards for both City roads (Stribling Way) and State roads (SR 7). Coordination with the Florida Department of Transportation (FDOT) will be included in that access approval process.

Policy MB 2.1.3 Connectivity

The proposed development will be required to include internal connections with the collector roadway network and to adjacent properties to increase connectivity and reduce traffic impacts.

Policy MB 2.1.4 Non-Automobile Access & Circulation

The proposed development will be required to provide access and circulation for non-automobile transportation including sidewalks and multi-purpose pathways.

Policy MB 2.3.3 ROW Conveyance

The proposed development will be required to convey the necessary rights-of-way for any improvements required along Stribling Way and/or SR 7 and at the intersection of these two facilities.

CONCLUSIONS

This analysis shows that the proposed future land use designation change results in net trip decreases in the Daily and AM peak hour with an insignificant increase in the PM peak hour. With no significant traffic impact with this proposed change, the LOS standards are not impacted and therefore this proposed land use change is consistent with the Mobility Element of the Comprehensive Plan. A more detailed concurrency traffic analysis is required as part of the land development process prior to any development approvals. This study will address the impacts of the proposed development in accordance with Palm Beach County and Wellington standards.

EXHIBITS

Exhibit 1 Project Location
K Park

PTC

Exhibit 2A
K Park
Trip Generation - Existing Future Land Use Designation

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips	Internal Trips (4) Trips	Internal Trips (4) %	External Trips	Pass-by Trips (1)		New Trips
Government Office	730	1,005,931 SF (2)	22.59 / 1000 SF	50%	22,724	614	2.7%	22,110	2,211	10%	19,899
Shop Plaza (40-150k) w/ Sup Market	821	92,374 SF (3)	94.49 / 1000 SF	50%	8,728	614	7.04%	8,114	3,164	39%	4,950
TOTAL					31,452	1,228	3.9%	30,224	5,375		24,849

AM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips In	Total Trips Out	Total Trips Trips	Internal Trips (4) Trips	Internal Trips (4) %	External Trips In	External Trips Out	External Trips Trips	Pass-by Trips (1)		New Trips In	New Trips Out	New Trips Trips
Government Office	730	1,005,931 SF (2)	3.34 / 1000 SF	75%	2,520	840	3,360	101	3.0%	2,484	775	3,259	326	10%	2,236	697	2,933
Shop Plaza (40-150k) w/ Sup Market	821	92,374 SF (3)	3.53 / 1000 SF	62%	202	124	326	101	31.0%	137	88	225	88	39%	84	53	137
TOTAL					2,722	964	3,686	202	5.5%	2,621	863	3,484	414		2,320	750	3,070

PM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	% In	Total Trips In	Total Trips Out	Total Trips Trips	Internal Trips (4) Trips	Internal Trips (4) %	External Trips In	External Trips Out	External Trips Trips	Pass-by Trips (1)		New Trips In	New Trips Out	New Trips Trips
Government Office	730	1,005,931 SF (2)	1.71 / 1000 SF	25%	430	1,290	1,720	41	2.4%	421	1,258	1,679	168	10%	379	1,132	1,511
Shop Plaza (40-150k) w/ Sup Market	821	92,374 SF (3)	9.03 / 1000 SF	48%	400	434	834	41	4.9%	368	425	793	309	39%	224	260	484
TOTAL					830	1,724	2,554	82	3.2%	789	1,683	2,472	477		603	1,392	1,995

(1) Source: Palm Beach County Traffic Division and ITE Trip Generation, *11th Edition*.

(2) Based on Community Facilities land use with 0.35 FAR for 65.98 acres.

(3) Based on Commercial land use with 0.40 FAR for 5.3 acres.

(4) See Appendix.

Exhibit 2B
K Park
Trip Generation - Proposed Future Land Use Designation

DAILY

Land Use	ITE Code	Intensity (2)	Trip Generation Rate (1)	% In	Total Trips	Internal Trips (3) Trips	Internal Trips (3) %	External Trips	Pass-by Trips (1)		New Trips
Resid. Multi Family MR	221	600 DUs	4.54 / DU	50%	2,724	1,185	43.5%	1,539	-	0%	1,539
Hotel	310	150 Rooms	7.99 / Room	50%	1,199	320	26.7%	879	88	10%	791
Private School (K-12)	532	1,200 Students	2.48 / Student	50%	2,976	324	10.9%	2,652	-	0%	2,652
Shop Center (>150k SF)	820	250,000 SF	37.01 / 1000 SF	50%	9,253	1,860	20.1%	7,393	1,774	24%	5,619
High Turnover Sit-Down Restaurant	932	82,478 SF	107.2 / 1000 SF	50%	8,842	1,671	18.9%	7,171	3,084	43%	4,087
TOTAL					24,994	5,360	21.4%	19,634	4,946		14,688

AM PEAK HOUR

Land Use	ITE Code	Intensity (2)	Trip Generation Rate (1)	% In	Total Trips In	Total Trips Out	Total Trips Trips	Internal Trips (3) Trips	Internal Trips (3) %	External Trips In	External Trips Out	External Trips Trips	Pass-by Trips (1)		New Trips In	New Trips Out	New Trips Trips
Resid. Multi Family MR	221	600 DUs	0.37 / DU	23%	51	171	222	84	37.8%	37	101	138	-	0%	37	101	138
Hotel	310	150 Rooms	0.46 / Room	56%	39	30	69	9	13.0%	37	23	60	6	10%	33	21	54
Private School (K-12)	532	1,200 Students	0.79 / Student	63%	597	351	948	63	6.6%	554	331	885	-	0%	554	331	885
Shop Center (>150k SF)	820	250,000 SF	0.84 / 1000 SF	62%	130	80	210	32	15.2%	111	67	178	43	24%	84	51	135
High Turnover Sit-Down Restaurant	932	82,478 SF	9.57 / 1000 SF	55%	434	355	789	76	9.6%	380	333	713	307	43%	217	189	406
TOTAL					1,251	987	2,238	264	11.8%	1,119	855	1,974	356		925	693	1,618

PM PEAK HOUR

Land Use	ITE Code	Intensity (2)	Trip Generation Rate (1)	% In	Total Trips In	Total Trips Out	Total Trips Trips	Internal Trips (3) Trips	Internal Trips (3) %	External Trips In	External Trips Out	External Trips Trips	Pass-by Trips (1)		New Trips In	New Trips Out	New Trips Trips
Resid. Multi Family MR	221	600 DUs	0.39 / DU	61%	143	91	234	115	49.1%	77	42	119	-	0%	77	42	119
Hotel	310	150 Rooms	0.59 / Room	51%	45	44	89	36	40.4%	25	28	53	5	10%	23	25	48
Private School (K-12)	532	1,200 Students	0.17 / Student	43%	88	116	204	31	15.2%	75	98	173	-	0%	75	98	173
Shop Center (>150k SF)	820	250,000 SF	3.40 / 1000 SF	48%	408	442	850	212	24.9%	323	315	638	153	24%	245	240	485
High Turnover Sit-Down Restaurant	932	82,478 SF	9.05 / 1000 SF	61%	455	291	746	210	28.2%	337	199	536	230	43%	192	114	306
TOTAL					1,139	984	2,123	604	28.5%	837	682	1,519	388		612	519	1,131

(1) Source: Palm Beach County Traffic Division and ITE Trip Generation, *11th Edition*.

(2) Based on Mixed Use land use with FAR of 0.50 for 71.28 acres. Residential estimated at 1,200 SF per unit, school estimated at 300,000 SF and hotel at 200,000 SF.

(3) See Appendix. Reduced NCHRP rates for PM peak hour.

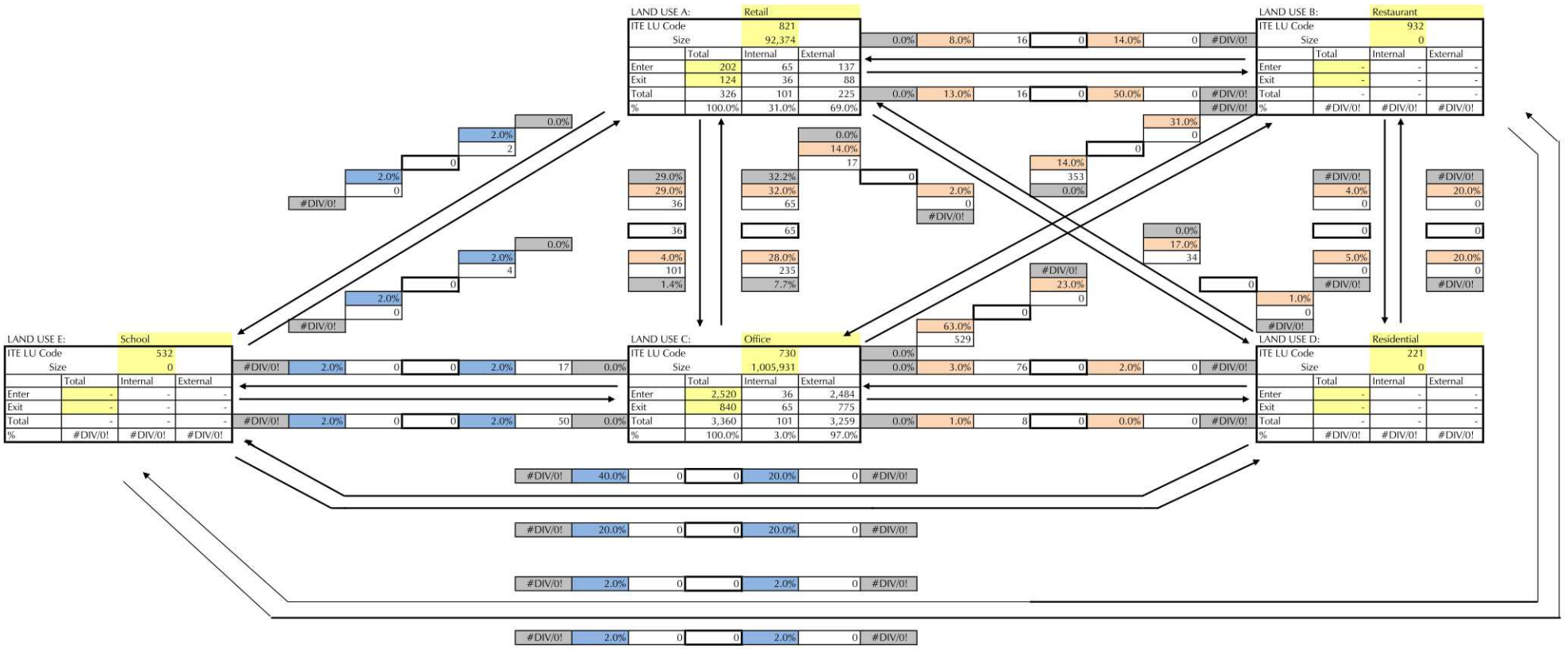
Exhibit 2C
K Park
Trip Generation Comparison

	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Existing FLU	24,849	2,320	750	3,070	603	1,392	1,995
Proposed FLU	14,688	925	693	1,618	612	519	1,131
Net New Trips:	(10,161)	(1,395)	(57)	(1,452)	9	(873)	(864)

APPENDIX

APPENDIX INTERNAL CAPTURE WORKSHEET AM EXISTING

PROJECT: K Park Existing FLU
TIME PERIOD: AM Peak Hour Traffic
DATE: 01/22/25



	Net External Trips for Multi-Use Development						
	L.U. A	L.U. B	L.U. C	L.U. D	L.U. E	TOTAL	
Enter	137	0	2484	0	0	2621	
Exit	88	0	775	0	0	863	
Total	225	0	3259	0	0	3484	
Single-Use Trip Gen.Estimate	326	0	3360	0	0	3686	5.5%

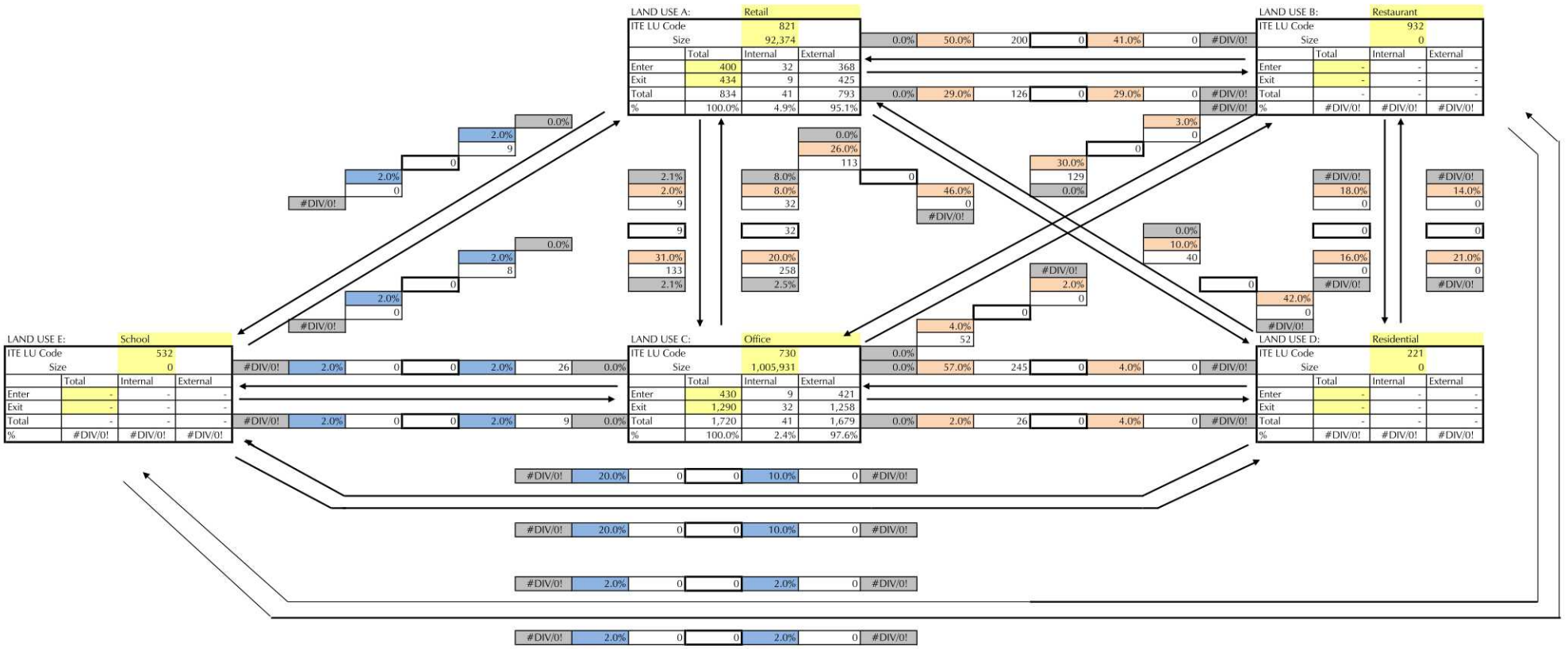
INTERNAL CAPTURE

LEGEND

1.0%	Actual percent of trips entering (or exiting) a land use from another land use based on balanced number of trips.
5.0%	Estimated percent of trips entering (or exiting) a land use from another land use based on NCHRP Report 684.
2.0%	Estimated (non-published) percent of trips entering (or exiting) a land use from another land use (input by user).
61	Number of trips entering (or exiting) a land use from another land use based on percent input.
12	Balanced number of trips (lowest value) between two land uses.

APPENDIX INTERNAL CAPTURE WORKSHEET PM EXISTING

PROJECT: K Park Existing FLU
TIME PERIOD: PM Peak Hour Traffic
DATE: 01/22/25



	Net External Trips for Multi-Use Development						
	L.U. A	L.U. B	L.U. C	L.U. D	L.U. E	TOTAL	
Enter	368	0	421	0	0	789	
Exit	425	0	1258	0	0	1683	
Total	793	0	1679	0	0	2472	
Single-Use Trip Gen.Estimate	834	0	1720	0	0	2554	3.2%

INTERNAL CAPTURE

LEGEND

1.0%	Actual percent of trips entering (or exiting) a land use from another land use based on balanced number of trips.
5.0%	Estimated percent of trips entering (or exiting) a land use from another land use based on NCHRP Report 684.
2.0%	Estimated (non-published) percent of trips entering (or exiting) a land use from another land use (input by user).
61	Number of trips entering (or exiting) a land use from another land use based on percent input.
12	Balanced number of trips (lowest value) between two land uses.

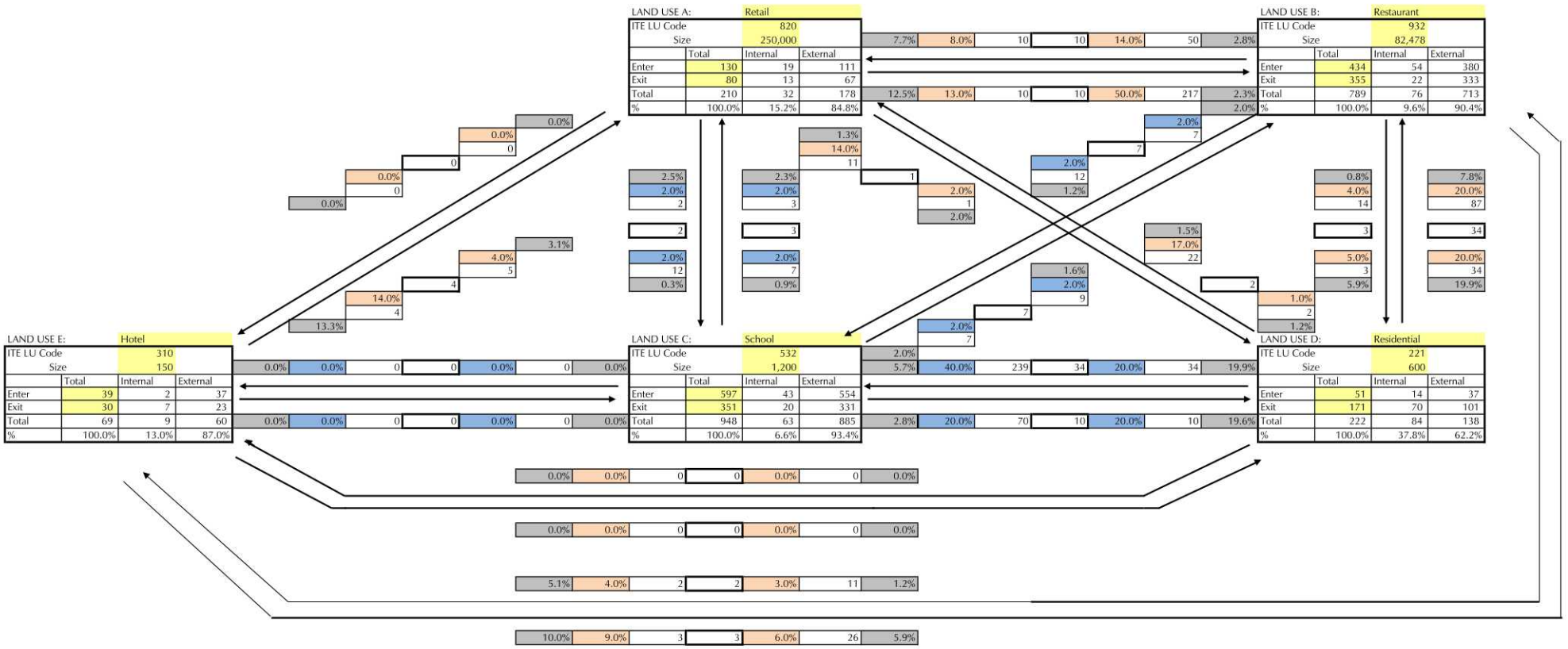
APPENDIX INTERNAL CAPTURE WORKSHEET DAILY EXISTING

PROJECT: K Park Existing FLU
TIME PERIOD: Daily - Average
DATE: 01/22/25

	Internalization				
	AM Peak Hour		PM Peak Hour		Straight
Land Use	Trips	%	Trips	%	Average
A - Retail	101	31.0%	41	4.9%	17.9%
C - Office/Med Office	101	3.0%	41	2.4%	2.7%

APPENDIX INTERNAL CAPTURE WORKSHEET - AM PROPOSED

PROJECT: K Park Proposed Land Use
TIME PERIOD: AM Peak Hour Traffic
DATE: 01/27/25



	Net External Trips for Multi-Use Development						
	L.U. A	L.U. B	L.U. C	L.U. D	L.U. E	TOTAL	
Enter	111	380	554	37	37	1119	
Exit	67	333	331	101	23	855	
Total	177	713	885	138	60	1974	
Single-Use Trip Gen.Estimate	210	789	948	222	69	2238	11.8%

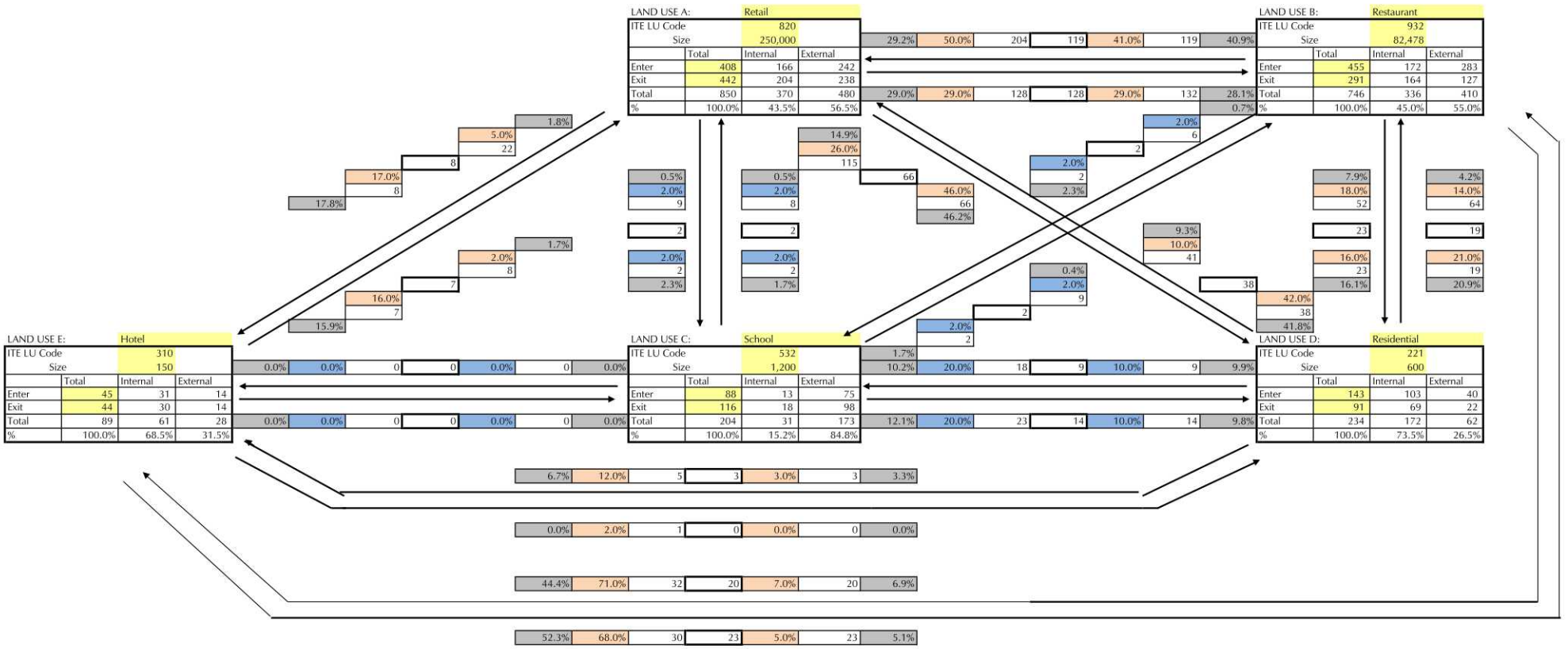
INTERNAL CAPTURE

LEGEND

1.0%	Actual percent of trips entering (or exiting) a land use from another land use based on balanced number of trips.
5.0%	Estimated percent of trips entering (or exiting) a land use from another land use based on NCHRP Report 684.
2.0%	Estimated (non-published) percent of trips entering (or exiting) a land use from another land use (input by user).
61	Number of trips entering (or exiting) a land use from another land use based on percent input.
12	Balanced number of trips (lowest value) between two land uses.

APPENDIX INTERNAL CAPTURE WORKSHEET PM PROPOSED

PROJECT: K Park Proposed Land Use
TIME PERIOD: PM Peak Hour Traffic
DATE: 01/27/25



	Net External Trips for Multi-Use Development						
	L.U. A	L.U. B	L.U. C	L.U. D	L.U. E	TOTAL	
Enter	242	283	75	40	14	654	
Exit	238	127	98	22	14	499	
Total	480	410	173	62	28	1153	
Single-Use Trip Gen.Estimate	850	746	204	234	89	2123	45.7%

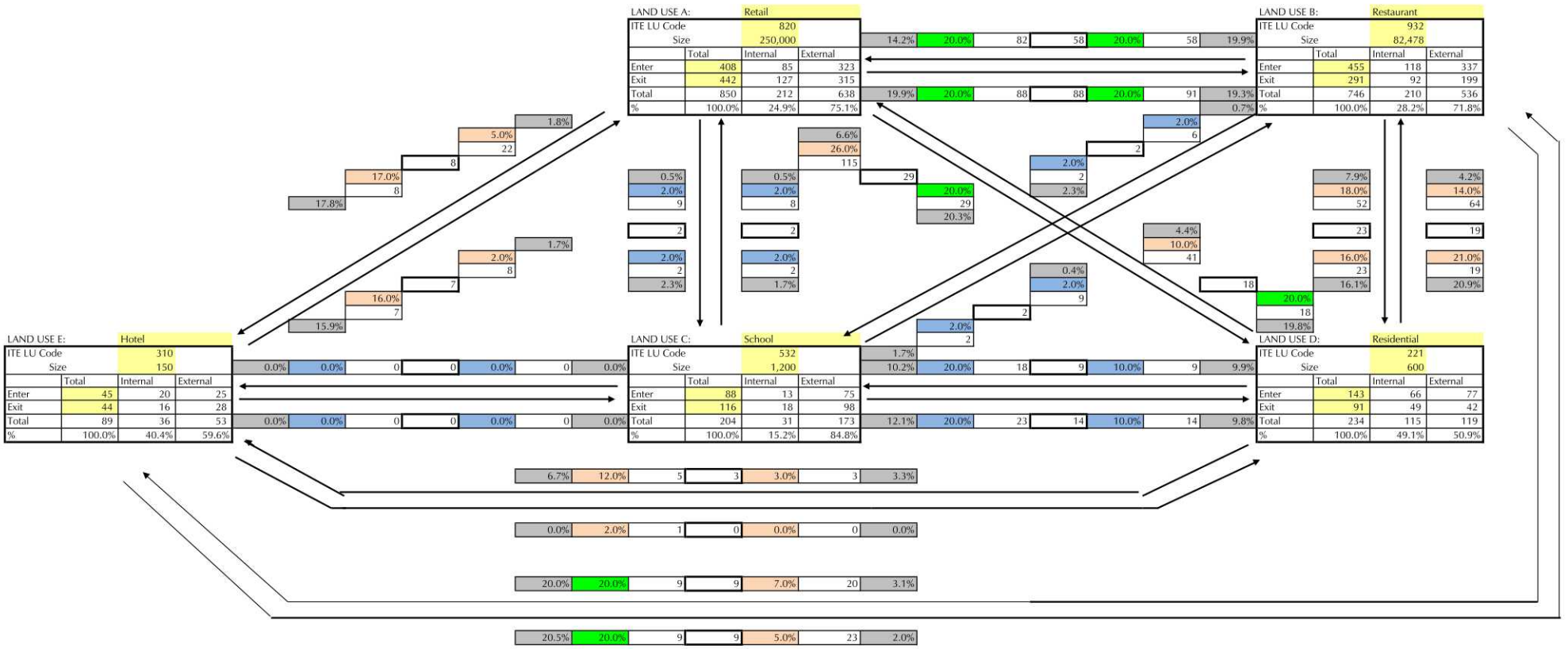
INTERNAL CAPTURE

LEGEND

1.0%	Actual percent of trips entering (or exiting) a land use from another land use based on balanced number of trips.
5.0%	Estimated percent of trips entering (or exiting) a land use from another land use based on NCHRP Report 684.
2.0%	Estimated (non-published) percent of trips entering (or exiting) a land use from another land use (input by user).
61	Number of trips entering (or exiting) a land use from another land use based on percent input.
12	Balanced number of trips (lowest value) between two land uses.

APPENDIX ADJUSTED INTERNAL CAPTURE WORKSHEET PM PROPOSED

PROJECT: K Park Proposed Land Use
TIME PERIOD: PM Peak Hour Traffic
DATE: 01/27/25



	Net External Trips for Multi-Use Development						
	L.U. A	L.U. B	L.U. C	L.U. D	L.U. E	TOTAL	
Enter	323	337	75	77	25	837	
Exit	315	199	98	42	28	682	
Total	638	536	173	119	53	1519	
Single-Use Trip Gen.Estimate	850	746	204	234	89	2123	28.5%

INTERNAL CAPTURE

LEGEND

1.0%	Actual percent of trips entering (or exiting) a land use from another land use based on balanced number of trips.
5.0%	Estimated percent of trips entering (or exiting) a land use from another land use based on NCHRP Report 684.
2.0%	Estimated (non-published) percent of trips entering (or exiting) a land use from another land use (input by user).
61	Number of trips entering (or exiting) a land use from another land use based on percent input.
12	Balanced number of trips (lowest value) between two land uses.
20.0%	Reduced NCHRP rate.

APPENDIX INTERNAL CAPTURE WORKSHEET DAILY PROPOSED

PROJECT: K Park Proposed Land Use
TIME PERIOD: Daily - Average
DATE: 01/27/25

	Internalization					
	AM Peak Hour		PM Peak Hour		Daily	Straight
Land Use	Trips	%	Trips	%	%	Average
A - Retail	32	15.2%	370	24.9%	24.2%	20.1%
B - Restaurant	76	9.6%	336	28.2%	24.7%	18.9%
C - School	63	6.6%	31	15.2%	9.5%	10.9%
D - Residential	84	37.8%	172	49.1%	45.4%	43.5%
E - Hotel	9	13.0%	61	40.4%	36.9%	26.7%