

City of Puyallup Traffic Scoping Worksheet

PROJECT INFORMATION

Project Title: East Town Crossing – Lot 2 Date: 4/4/2024

Applicant Name: Greg Helle Telephone Number: N/A

Project Description: 5,847 square feet of commercial space Year of Occupancy: 2025

Project Location: PN: 0420264021 Parcel Size: 2.19-acres

Proposed Number of Access Point(s): 2 Existing Number of Access Point(s): 1

Land Use	Quantity	ITE Land Use Code	Average Daily Trips	AM Peak Hour Trips*	PM Peak Hour Trips*
Existing Use(s):					
Undeveloped	-	-	-	-	-
Proposed Use(s)					
LUC 822 – Strip Retail Plaza (<40K) ¹	5.847 ksf	822	216.7	10.0	21.9
Net New Trips					
Traffic Impact Fees: Net New PM Peak Hour Trips x \$4,500 = \$98,550.00					

- * The project trips shall be rounded to the nearest tenth.
- * The project trips shall be estimated using the ITE's *Trip Generation*, 11th Edition.
- * Trip generation regression equations shall be used when the R² value is 0.70 or greater.
- * For land uses that do not exist within the ITE's *Trip Generation*, actual field data shall be collected from three local facilities that have similar characteristics to the proposal.
- * For single-family units and offices and specialty retail smaller than 30,000 SF, use ITE's *Trip Generation*, 11th Edition, average rate.

Identify all intersections that will be affected by 25 new project peak hour trips or more:

1. _____ 3. _____
 2. _____ 4. _____

Prepared by: Traffic Engineer: Aaron Van Aken Telephone Number: 253-770-1401

Address: 1011 E Main Suite 453, Puyallup, WA 98371 avanaken@heathtraffic.com

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TIS TAS TAIS No Further Work Required

Checklist (Please make sure you have included the following information):

- Completed Worksheet
- Attach Site Plan
- Attach Trip Assignment
- Attach Trip Distribution
- Mail or hand deliver to 333 South Meridian, Puyallup, WA 98371 or e-mail to standle@ci.puyallup.wa.us

¹ Refer to the following page for the trip generation breakdown.

Date: April 4, 2024

To: Brian Roberts, P.E.

From: Aaron Van Aken, PE, PTOE

Subject: East Town Crossing - Lot 2 - Puyallup Scoping Memo

Per the City's March 19, 2024 Permit Correction Letter (Permit App No: PRCNC20231714), an updated traffic scoping sheet for commercial lot 2 of the East Town Crossing development was requested.

Project Summary

East Town Crossing - Lot 2 is a proposed 5,847 square foot commercial shell building. The building could be designed to support two to three tenants (three tenant suites shown in the site plan at this time but subject to change depending on final tenant occupancy and their needs). At this time, one tenant is known, HotWorx Yoga which will occupy ~1,900 square feet. The remaining space could support any other commercial tenant.

The subject site is located on 2.19-acres within undeveloped tax parcel #: 0420264021. Figure 1 below illustrates an aerial vicinity of the surrounding roadway system and subject site location. A conceptual site plan is provided in Figure 2.

Figure 1: Aerial Vicinity



Trip Generation

As mentioned, the tenant occupancies, with the exception of the yoga studio, are unknown at this time. Therefore, trip generation estimates are based on ITE's general Land Use Code (LUC) of *Strip Retail Plaza (<40K) - LUC 822*. This accounts for a variety of potential users.

The input variable of 5.847 ksf was used with ITE's average rates to determine trip ends.

To be consistent with the prior scoping and TIA submittal for East Town Crossing (Sept. 2022), internal capture and pass-by have been applied, see below.

Internal Capture:

- Average Weekday Daily: 8%
- AM Peak Hour: 2%
- PM Peak Hour: 14%

Pass-By:

- Average Weekday Daily: 26%
- AM Peak Hour: 26%
- PM Peak Hour: 34%

A trip generation summary is shown below. Detailed calculations are available in the appendix.

Table 1: Project Trip Generation - LUC 822 Strip Retail

Trip Type	AWDT	AM Peak-Hour Trips			PM Peak-Hour Trips		
		In	Out	Total	In	Out	Total
Total Trips	318	8	6	14	19	19	38
Internal Capture	-25	0	0	0	-2	-3	-5
Pass-By	-76	-2	-2	-4	-5	-6	-11
Net New Trips	217	6	4	10	11	11	22

Commercial Lot 2 building is estimated to generate 22 new PM peak hour trips.

Please call if you require additional information.

Aaron Van Aken, PE, PTOE

Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

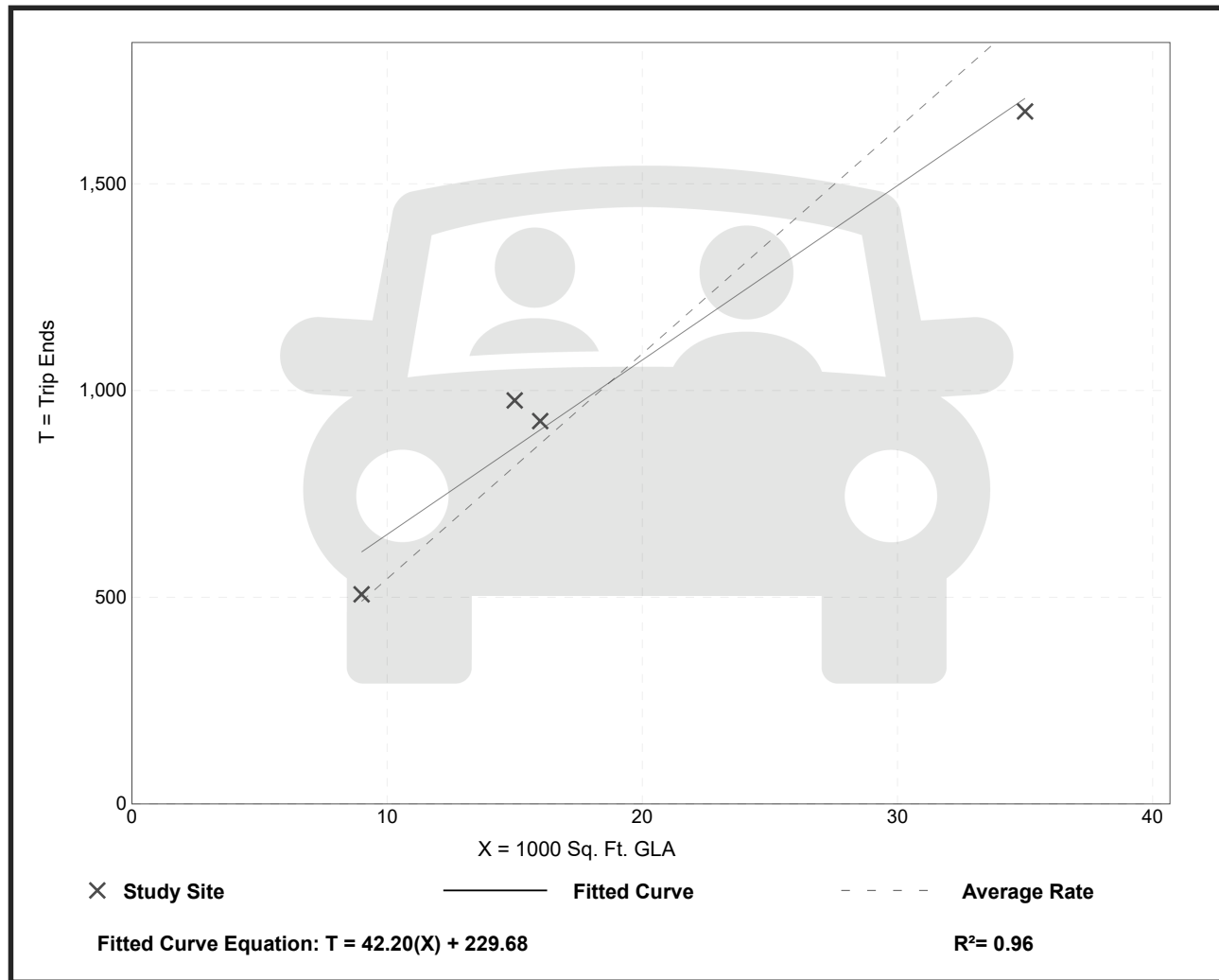
Setting/Location: General Urban/Suburban
Number of Studies: 4
Avg. 1000 Sq. Ft. GLA: 19
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
54.45	47.86 - 65.07	7.81

Data Plot and Equation

Caution – Small Sample Size



Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

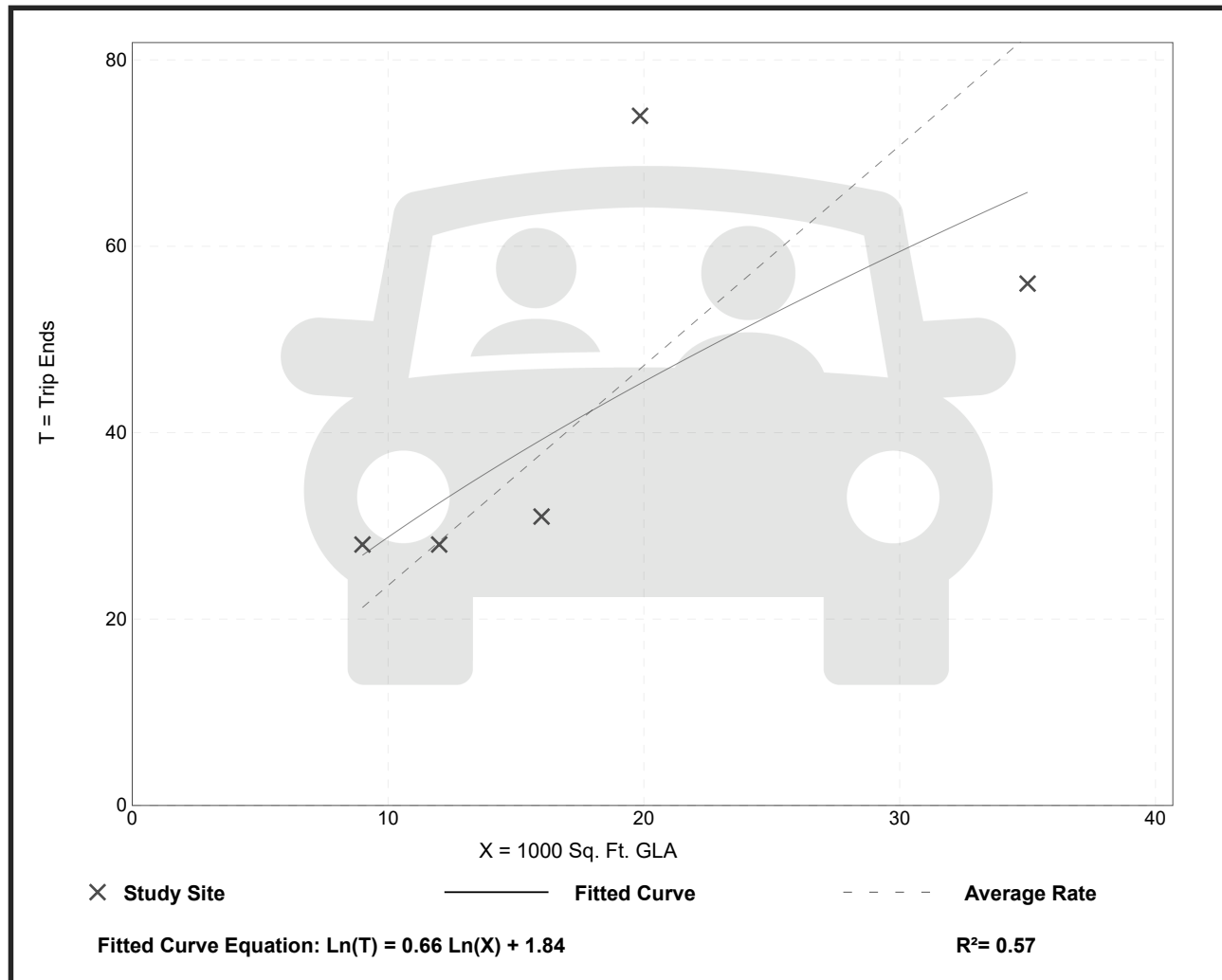
Number of Studies: 5
 Avg. 1000 Sq. Ft. GLA: 18
 Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation

Caution – Small Sample Size



Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

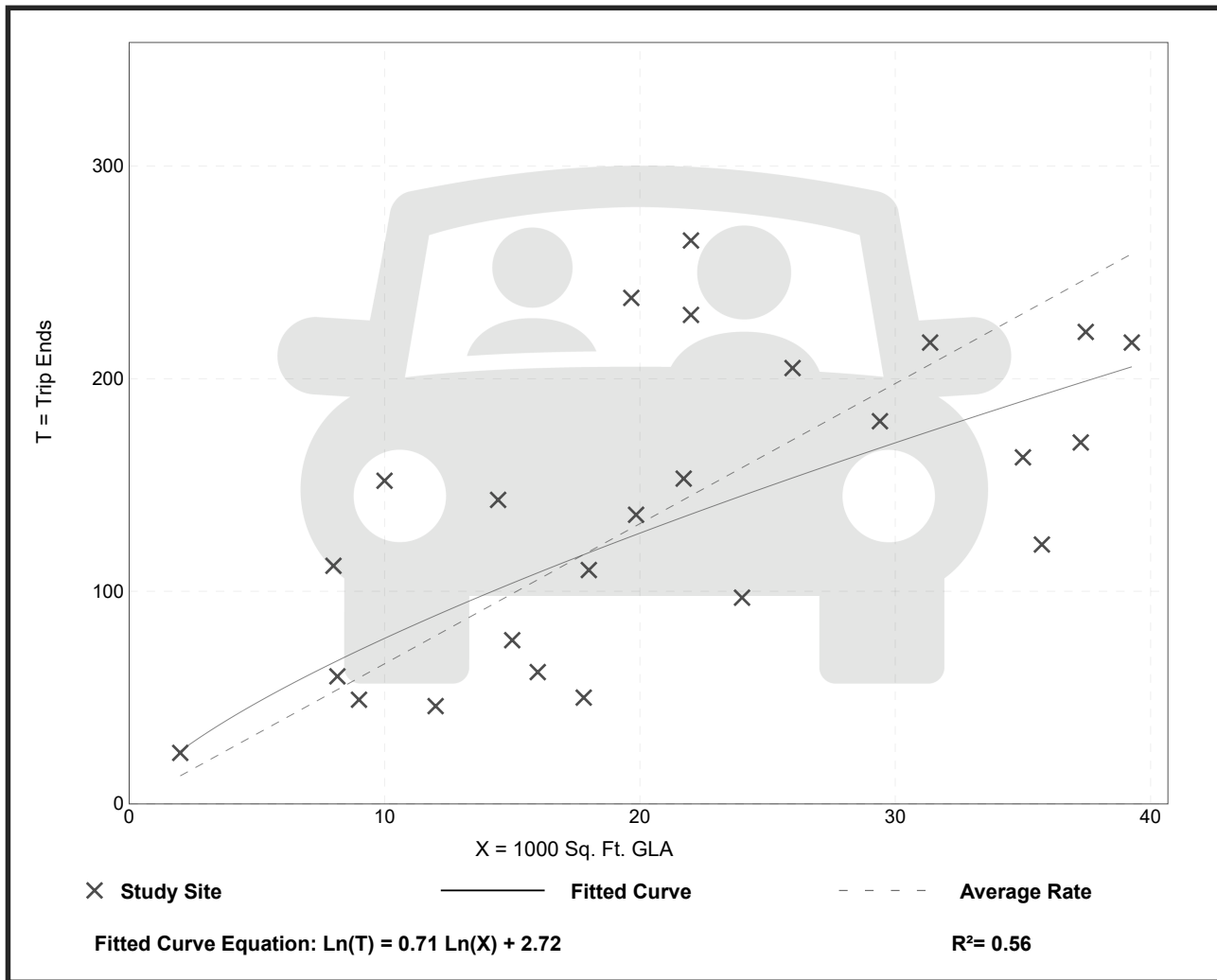
Setting/Location: General Urban/Suburban

Number of Studies: 25
 Avg. 1000 Sq. Ft. GLA: 21
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Heath & Associates Transportation Engineering
 Project: East Town Crossing - Lot 2
 Jurisdiction: City of Puyallup

Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
					In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Strip Retail Plaza	#822	1000 Sq. Ft.	5.847	54.45	50%	50%	159.2	159.2	318.4	8%	25.5	26%	76.2	108.4	108.4	216.7
Net New Primary Trips													108.4	108.4	216.7	

Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
					In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Strip Retail Plaza	#822	1000 Sq. Ft.	5.847	2.36	60%	40%	8.3	5.5	13.8	2%	0.3	26%	3.5	6.0	4.0	10.0
Net New Primary Trips													6.0	4.0	10.0	

Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
					In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Strip Retail Plaza	#822	1000 Sq. Ft.	5.847	6.59	50%	50%	19.3	19.3	38.5	14%	5.4	34%	11.3	10.9	10.9	21.9
Net New Primary Trips													10.9	10.9	21.9	

Sources:
 Institute of Transportation Engineers, *Trip Generation Manual*, 11th Edition, (2021).
 Institute of Transportation Engineers, *Trip Generation Handbook*, 3rd Edition, (2017).
 Internal Capture Rates based on NCHRP 8-51 Internal Capture (ADT rates are the average of the AM/PM)

East Town Crossing - Trip Generation Summary

Average Weekday Trips																	
Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	9.43	50%	50%	14.1	14.1	28.3	0%	0	0%	0.0	14.1	14.1	28.3
Proposed	Multi-Family (Low-Rise)	#220	Dwelling Units	193	6.74	50%	50%	650.4	650.4	1300.8	8%	104.1	0%	0.0	598.4	598.4	1196.8
	Strip Retail Plaza	#822	1000 Sq. Ft.	10.2	54.45	50%	50%	277.7	277.7	555.4	8%	44.4	26%	132.8	189.1	189.1	378.1
Net New Primary Trips															773.3	773.3	1546.6

Weekday AM Peak Hour																	
Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	0.7	26%	74%	0.5	1.6	2.1	0%	0	0%	0.0	0.5	1.6	2.1
Proposed	Multi-Family (Low-Rise)	#220	Dwelling Units	193	0.4	24%	76%	18.5	58.7	77.2	2%	1.5	0%	0.0	18.2	57.5	75.7
	Strip Retail Plaza	#822	1000 Sq. Ft.	10.2	2.36	60%	40%	14.4	9.6	24.1	2%	0.5	26%	6.1	10.5	7.0	17.5
Net New Primary Trips															28.1	62.9	91.0

Weekday PM Peak Hour																	
Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Previous	Single-Family	#210	Dwelling Units	3	0.94	63%	37%	1.8	1.0	2.8	0%	0	0%	0.0	1.8	1.0	2.8
Proposed	Multi-Family (Low-Rise)	#220	Dwelling Units	193	0.51	63%	37%	62.0	36.4	98.4	14%	13.8	0%	0.0	53.3	31.3	84.6
	Strip Retail Plaza	#822	1000 Sq. Ft.	10.2	6.59	50%	50%	33.6	33.6	67.2	14%	9.4	34%	19.7	19.1	19.1	38.2
Net New Primary Trips															70.6	49.4	120.0

Sources:
 Institute of Transportation Engineers, *Trip Generation Manual*, 11th Edition, (2021).
 Institute of Transportation Engineers, *Trip Generation Handbook*, 3rd Edition, (2017).
 Internal Capture Rates based on NCHRP 8-51 Internal Capture (ADT rates are the average of the AM/PM)

