

MEMORANDUM

Date:	May 8, 2019	TG:	17207.01
To:	Barry Loveless – City of Bainbridge Island		
From:	Stef Herzstein, PE, PTOE – Transpo Group Paul Sharman, PE – Transpo Group		
Subject:	Bainbridge Island Police & Courts Trip Generation Analysis		

The City of Bainbridge Island is evaluating relocating the City's Police and Courts to 8804 Madison Avenue N. The existing land use at this site is medical office. The purpose of this memorandum is to provide an understanding of the Police and Court building weekday AM and PM peak hour trip generation and compare it to the existing medical office use. This analysis leverages the memorandum subject *Bainbridge Island Police & Courts Traffic Impact Assessment*, July 2017, which was completed for the City to evaluate the relocation of the Police and Court facility along NE New Brooklyn Rd. This memorandum also documents the transportation impact fee that may be required as part of this redevelopment.

Project Description

The City of Bainbridge Island is reviewing the feasibility of combining the Bainbridge Island Municipal Court and Police Station into one new building located at 8804 Madison Avenue N on the southwest corner of NE Casey Street (west side of NE New Brooklyn Road) and Madison Avenue NE. Figure 1 illustrates the project site and the surrounding vicinity. The proposed building would be 24,466 square-feet with 17,641 square-feet dedicated to police use and 6,825 square-feet dedicated to court use. Access would be via the existing driveway along Madison Avenue N.

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Figure 1 - Site Vicinity



Trip Generation

The Institute of Transportation Engineers' *Trip Generation Manual*, 10th Edition is an industry publication that contains trip generation rates for various uses; however, there is no trip generation rates for courts and police stations. Project trip generation estimates were determined based on trip generation studies conducted at the existing Police and Court buildings on May 25, 2017 and documented in the memorandum subjected *Bainbridge Island Police & Courts Traffic Impact Assessment*, July 2017. The following provides the summary of trip generation documented in the July 2017 study.

The arrivals and departures for the existing facilities were collected during both the weekday AM and PM peak periods. Table 1 provides a summary of the existing trip generation that was observed for the Police and Court buildings. The trip generation rates were reviewed for the police and court house separately and for the two uses combined. Trip generation rates were based on the existing building size.

Table 1. Existing Police & Court Weekday Peak Hour Trip Generation

Existing Use	Size	Existing Total Trips ¹			% Distribution		Trip Rate ²
		In	Out	Total	In	Out	
<u>AM Peak Hour</u>							
Police Station	6,480 sf	1	1	2	50%	50%	0.31 trips/ksf
Court	2,300 sf	3	2	5	60%	40%	2.17 trips/ksf
Combined Uses	8,780 sf	4	3	7	57%	43%	0.80 trips/ksf
<u>PM Peak Hour</u>							
Police Station	6,480 sf	0	0	0	0%	0%	0 trips/ksf
Court	2,300 sf	0	2	2	0%	100%	0.87 trips/ksf
Combined Uses	8,780 sf	0	2	2	0	100%	0.23 trips/ksf

Note: sf = square-feet; ksf = 1,000 square-feet

1. Based on traffic data collected on May 25, 2017.

2. Trip Rate represents the number of vehicle trips per square foot.

As shown in Table 1, the existing sites generate a total of 7 AM trips, and 2 PM trips, with the court house generating most of the trips.

Travel characteristics to the relocated police and court facility are expected to be similar to those for the existing sites. The trip generation rate for the combined police and court use was utilized to determine the trip generation for the proposed relocated police and court facility since it results in a conservatively higher estimate. The estimated trip generation for the relocated police and court is shown in Table 2.

Table 2. Police & Court Relocation Estimated Weekday Peak Hour Trip Generation

Time Period	Proposed Size	Trip Rate ¹ per ksf	Project Trips ²		
			In	Out	Total
AM Peak Hour	24,466 sf	0.80	11	9	20
PM Peak Hour		0.23	0	6	6

Notes:

1. Based on the trip rate per square feet calculated for the existing police station and court sites.

2. Inbound and outbound trip distribution are based on the existing police station and court sites.

Based on the observed trip generation, the proposed building combination of a Police and Court is anticipated to generate 20 trips during the weekday AM peak hour and 6 trips during the weekday PM peak hour.

As described previously, the existing site has medical office use. Table 3 compares the proposed police and court building trip generation to the existing medical office use. The estimated trip generation for the medical office use is based on Institute of Transportation Engineers' *Trip Generation Manual*, 10th Edition.

Table 3. Comparison of Estimated Weekday Peak Hour Trip Generation Comparison

Land Use	Size	Rate ¹	Project Trips		
			Total	In	Out
<u>AM Peak Hour</u>					
Proposed Police/Court Bldg	24,466 sf	0.80	20	11	9
Existing Medical Bldg (LU #720)	27,358 sf	2.78	76	59	17
Net New Total			-56	-48	-8
<u>PM Peak Hour</u>					
Proposed Police/Court Bldg	24,466 sf	0.23	6	0	6
Existing Medical Bldg (LU #720)	27,358 sf	3.53	95	27	68
Net New Total			-89	-27	-62

1. Trips rates from ITE *Trip Generation Manual*, 10th Edition and Existing Police & Court Site survey.

As shown in the table, it is anticipated that the proposed project would generate fewer trips than the existing medical office during both the weekday AM and PM peak hour.

Transportation Impact Fees

The proposed project is subject to City of Bainbridge Island transportation impact fees (TIFs). Bainbridge Island Municipal Code (BIMC) 15.30.200 provides the transportation impact fee rate schedule by land use. Police and court are not a land use category within the current rate schedule; however, the schedule shows an impact fee of \$1,632.47 per weekday PM peak hour trip. The BIMC also allows TIF credit for existing trips already generate at a proposed project site. The proposed project would not generate new weekday PM peak hour trips (see Table 3) when considering existing site trips generated by the medical office; therefore, no traffic impact fees would be required.