

2025-04-29
Project: (250212)

Harry Bye
H. Bye Construction Ltd.
395 Church Street
Mount Forest ON

Dear Mr. Bye:

**RE: TRAFFIC IMPACT BRIEF
YARDISTRY PROPOSED WORKSHOP, VIOLA MAY CRESCENT, WEST GREY**

H. Bye Construction Limited retained Paradigm Transportation Solutions Limited to conduct this Traffic Impact Brief (TIB) for the Yardistry proposed workshop, located on the planned Viola May Crescent extension, in the community of Mount Forest, municipality of West Grey.

This TIB will forecast traffic generation for the proposed development and provide opinion on potential traffic impacts, allowing Grey County (County) and West Grey Municipality (Municipality) staff to determine the need for further traffic impact studies.

Background

The subject site is located west of the planned Viola May Crescent extension, and north of the planned road, Weppler Drive, in the Municipality of West Grey.

Figure 1 illustrates the proposed development location with official plan underlay.

The proposed workshop will construct, package, store and deliver outdoor structures, with several offices for administrative and design staff. The proposed workshop has a planned maximum of 40 employees, and consists of:

- ▶ 4,400m² of manufacturing space;
- ▶ 250m² of office space;
- ▶ 250m² of mezzanine space, over the offices; and
- ▶ 4 truck loading bays.

Figure 2 illustrates the proposed development concept drawing.

Trip Generation

Trip generation for the subject site will consider passenger vehicles and truck trips separately, with each method detailed below.

Passenger Vehicles

The Institute of Transportation Engineers (ITE) Trip Generation¹ was used to estimate the passenger vehicular site trip generation. Land Use Code (LUC) 110 – General Light Industrial rates were used as this most closely fit the intended use of the proposed development.

Table 1 summarizes the total inbound and outbound passenger vehicle traffic generated during the AM and PM peak hours.

TABLE 1: TRUCK TRIP GENERATION SUMMARY

Land Use Code	Units	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total
110: General Light Industrial	40 Employees	(1)	17	4	21	(2)	4	15	19
Total Net Trips			17	4	21		4	15	19

(1) $T(X) = 0.55(X) - 1.28$

(2) $T(X) = 0.50(X) - 1.12$

A total of 21 and 19 passenger vehicle trips are estimated for the AM and PM peak hours, respectively, approximately one trip every three minutes, on average.

Trucks

Truck trips were estimated using the truck trip generation for ITE Trip Generation LUC 110. The assumed truck trips generated would be for parts and equipment deliveries, and structure shipments.

Table 2 summarizes the total inbound and outbound truck traffic generated during the AM and PM peak hours.

¹ Institute of Transportation Engineers, Trip Generation Manual, 11th ed., (Washington DC: ITE, 2021). 273-304



TABLE 2: TRUCK TRIP GENERATION SUMMARY

Land Use Code	Units	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total
110: General Light Industrial	40 Employees	0.02	1	0	1	0.03	1	1	2
Total Truck Trips			1	0	1		1	1	2

A total of 1 and 2 truck trips are estimated for the AM and PM peak hours, respectively, approximately one trip every 45 minutes, on average.

Passenger Car Equivalent Net Total

As per the Highway Capacity Manual (HCM)² and considering the surrounding area is level terrain, a passenger car equivalent (PCE) value of 2.0 is assumed for truck trips to determine the net total number of passenger vehicles generated by the proposed development.

Table 3 summarizes the inbound and outbound PCE traffic generated during the AM and PM peak hours. A total of 23 and 23 PCE trips are forecast for the AM and PM peak hours, respectively, approximately one trip every two minutes.

TABLE 3: PCE TRIP GENERATION SUMMARY

Land Use Code	Units	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total
110: General Light Industrial	40 Employees	Passenger Vehicles							
		(1)	17	4	21	(2)	4	15	19
		Trucks							
		0.02	1	0	1	0.03	1	1	2
Total Vehicle Trips			17	4	21		4	15	19
Total PCE Truck Trips*			2	0	2		2	2	4
Total Net Trips*			19	4	23		6	17	23

(1) $T(X) = 0.55(X) - 1.28$

(2) $T(X) = 0.50(X) - 1.12$

* Truck Trips have been assumed at a PCE of 2.0 for the purposes of Total Net Trips

Conclusions

In conclusion, the proposed development, with the future expansion, is forecast to generate:

- ▶ 21 and 19 passenger vehicle trips during the AM and PM peak hour, respectively;

² Transportation Research Board, Highway Capacity Manual 6th Edition: Exhibit 12-25, (Washington DC: TRB, 2016). 12-35



- ▶ one and two truck trips during the AM and PM peak hour, respectively; and
- ▶ 23 and 23 PCE net total trips during the AM and PM peak hour, respectively.

Recommendations

Given that the proposed development, including the future planned expansion, is forecast to generate 23 PCE trips during the AM and PM peak periods, it is not expected to impact traffic operations in a significant way and therefore it is recommended that a full traffic impact assessment not be required.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED



Adam Morrison

P.Eng, PTOE

Transportation Modelling Lead, Associate



Matt Brouwer

P.Eng

Senior Project Manager, Associate





