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Traffic Brief

PROPOSED FARM STORAGE DEVELOPMENT

314 County Road 4 City of Peterborough

April 18, 2024 Project No: NT-23-143

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NexEng Consulting Group Inc

April 18, 2024

TD Consulting Inc. 155 St David Street Lindsay, ON K9V 4Z6

Attention: Nick Fegan

Re: **Traffic Brief**

> **Proposed Farm Storage Development** 314 County Road 4, City of Peterborough

Our Project No. NT-23-143

Nextrans Consulting Engineers, a Division of NextEng Consulting Group Inc., ("Nextrans") is pleased to present the enclosed Traffic Brief for the above noted site in support of a Site Plan Amendment application.

The subject site is located southwest of the intersection of County Road 4 and Douro Eight Line within the City of Peterborough. The subject lands are currently being used as a materials processing and recycling facility. Based on the latest proposed site plan provided, the concept is to add a farm storage development with a GFA of 558.15 m². Vehicular access is provided via an existing full movement driveway along County Road 4.

Given the number of weekday AM and PM peak hour trips that will be generated from the subject development, the subject development will be sufficiently accommodated by the existing road network and will generate an acceptable traffic impact to the surrounding road network.

We trust the enclosed sufficiently addresses your needs. Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

NEXTRANS ENGINEERING

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TABLE OF CONTENTS

1.0	INTRODUCTION	1
	1.1. PROPOSED DEVELOPMENT	
2.0	EXISTING TRANSPORTATION CONDITIONS	
2.0	2.1. ROAD NETWORK	
	2.2. EXISTING TRANSIT FACILITIES	
	2.3. EXISTING ACTIVE TRANSPORTATION NETWORK	
3.0	SITE TRAFFIC	
	3.1. SITE TRIP GENERATION	
4.0	VEHICULAR PARKING REVIEW	
	4.1. VEHICULAR PARKING REQUIREMENTS	4
5.0	LOADING SPACE REVIEW	4
	5.1. LOADING SPACE REQUIREMENTS	4
6.0	CONCLUSIONS & RECOMMENDATIONS	5



LIST OF TABLES

Table 1 – Trip Generation for Proposed Development

Table 2 – Parking Requirements Review

Table 3 – Loading Requirements Review

LIST OF FIGURES

Figure 1 – Subject Site Location Figure 2 – Proposed Site Plan

APPENDICES

Appendix A – Proposed Site Plan



1.0 INTRODUCTION

Nextrans Consulting Engineers ("Nextrans"), a Division of NexEng Consulting Group Inc., has been retained by TD Consulting Inc. (the "client") to undertake this Traffic Brief in support of a Site Plan Amendment application for the proposed farm storage building located southwest of the intersection of County Road 4 and Douro Eight Line (herein known as the "subject site"), within the City of Peterborough (herein known as the "City"). The subject site is currently used as a materials processing and recycling facility.

The subject site location is provided in Figure 1.



Figure 1: Subject Site Location

1.1. PROPOSED DEVELOPMENT

The development proposal for the subject site will introduce a farm storage building with a proposed GFA of 558.15 m². Vehicular access is provided via an existing unsignalized full movement driveway along County Road 4.

The proposed site plan is shown in **Figure 2** and enclosed in **Appendix A**.



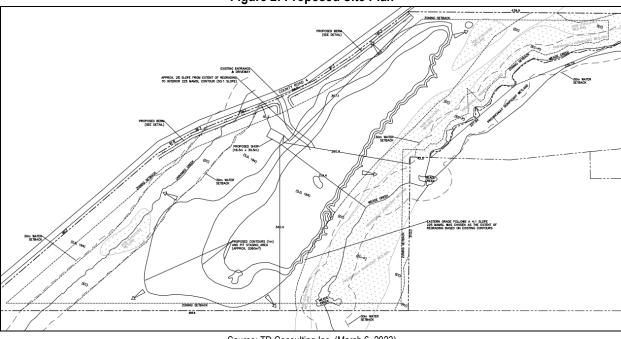


Figure 2: Proposed Site Plan

Source: TD Consulting Inc. (March 6, 2023)

2.0 **EXISTING TRANSPORTATION CONDITIONS**

This section will identify and consider the existing transportation conditions for the road, transit, and pedestrian networks located immediate to the subject site.

2.1. **ROAD NETWORK**

Immediately adjacent roads of interest to the subject site are described as follows:

- County Road 4 is an east-west road under the jurisdiction of the County and consisting of a two (2)lane cross-section (one (1) travel lane per direction). County Road 4 maintains an assumed and unposted speed limit of 50km/h in the vicinity of the subject site.
- **Douro Eighth Line** is a north-south road under the jurisdiction of the City and consisting of a two (2)lane cross-section (one (1) travel lane per direction) nearby the subject site. Douro Eight Line maintains an assumed and unposted speed limit of 50km/h in the vicinity of the subject site.
- Douro Ninth Line is a north-south road under the jurisdiction of the City and consisting of a two (2)lane cross-section (one (1) travel lane per direction) nearby the subject site. Douro Ninth Line maintains an assumed and unposted speed limit of 50km/h in the vicinity of the subject site.



2.2. EXISTING TRANSIT FACILITIES

Currently, there are no existing transit facilities within the surrounding area of the subject site.

2.3. EXISTING ACTIVE TRANSPORTATION NETWORK

Currently, there are no existing active transportation facilities within the surrounding area of the subject site.

3.0 SITE TRAFFIC

The following section discusses the modal split and the calculation, distribution, and assignment of trips generated by the site.

3.1. SITE TRIP GENERATION

The auto site trip generation was derived from the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition using land use code (LUC) 110 General Light Industrial for the proposed building. The weekday AM and PM peak hour trip generation volumes for the proposed industrial warehouse development were calculated using the average rate for LUC 110 for the weekday AM and PM peak hour of adjacent street traffic.

The summary of the site trip generation is shown in **Table 1**.

Table 1: Trip Generation for Proposed Development

Land Use	GFA	Parameter	AM Peak Hour			PM Peak Hour		
Lanu USE			In	Out	Total	In	Out	Total
General Light	558.15 m ² (6,007.88 ft ²)	Trip Rate	1.17	0.15	1.32	0.33	0.72	1.05
Industrial		ITE Gross Trips	7	1	8	2	4	6
(LUC 110)		Auto Trips Generated	7	1	8	2	4	6

The trip generation for the proposed building yields eight (8) additional trips in the AM peak hour (seven (7) inbound and one (1) outbound) and six (6) trips in the PM peak hour (two (2) inbound and four (4) outbound).

The number of site trips is expected to have an acceptable impact on the road network surrounding the subject site.



4.0 VEHICULAR PARKING REVIEW

This section will review the proposed parking provision for the proposed development and compare it to the parking requirements defined in the Township of Douro-Dummer Comprehensive Zoning By-law.

4.1. VEHICULAR PARKING REQUIREMENTS

The proposed development is subject to the parking requirements as provided in Section 3.31.1 of the Township of Douro-Dummer Comprehensive Zoning By-law in effect for the subject lands. A summary of the minimum parking requirements for the subject site is provided in **Table 2**.

Table 2: Parking Requirements Review

Use	Area	Parking Rate	Parking Required
Uses Permitted by this By-law other than those Listed in the Table	558.15 m ²	1 space / 36 m ²	16
Total	16		

Based on the Township of Douro-Dummer Comprehensive Zoning By-law parking requirements, a minimum of 16 parking spaces are required.

5.0 LOADING SPACE REVIEW

This section will review the proposed loading space provision for the proposed development and compare it to the loading requirements defined in the Township's Comprehensive Zoning By-law.

5.1. LOADING SPACE REQUIREMENTS

The proposed development is subject to the loading requirements as provided in Section 3.22.1 of the Township's Comprehensive Zoning By-law in effect for the subject lands. A summary of the loading space requirements is provided in **Table 3**.

Table 3: Loading Requirements Review

Total Floor Area	Loading Space Requirement
558.15 m ²	2

Based on the Township's loading requirements, a minimum of two (2) loading spaces are required for the proposed farm storage building.



6.0 CONCLUSIONS & RECOMMENDATIONS

The conclusions and recommendations of this traffic brief are summarized as follows:

- The proposed development is expected to generate eight (8) trips in the AM peak hour (seven (7) inbound and one (1) outbound) and six (6) trips in the PM peak hour (two (2) inbound and four (4) outbound).
- The subject site will have an acceptable traffic impact on the road network surrounding the subject site given the number of trips generated.
- The proposed site driveway location is acceptable given the local context and assumed existing low traffic volumes on County Road 4, low site trip generation and no anticipated operational turning maneuver conflicts.
- The subject site requires a minimum of 16 vehicular parking spaces.
- The subject site requires a minimum of two (2) loading spaces.

Appendix A - Proposed Site Plan

