



420 George St N • Suite 207 • Peterborough ON • K9H 3R5

February 13, 2015

County of Peterborough
Planning Department
County Courthouse
470 Water Street
Peterborough ON K9H 3M3

Attention: Ms. Diana Keay, Planner

Dear Diana:

**Re: Ian Cameron Rural Subdivision
Part of Lot 12, Concession 10, Township of Cavan Monaghan
Traffic Impact Statement
Engage File No. 14016**

This Traffic Impact Statement (TIS) has been prepared in support of the above noted residential development. The purpose of this TIS is to quantify the impact that the proposed development will have on traffic operations on County Road 10 in the vicinity of the proposed new entrance. This study has been prepared in consultation with the County of Peterborough Public Works staff and in accordance with the County of Peterborough Traffic Impact Study Guidelines, provided by PW staff. This TIS is considered a Level 1 TIS according to the terms of the Guidelines.

Background

The proponent is proposing to develop a rural residential subdivision fronting on County Road 10, in the Village of Ida. The site is located southwest of the intersection of County Road 10 and Sharpe Line. The development will consist of 15 lots, varying in size from 0.75 to 1.0 acre. A copy of the proposed Draft Plan of Subdivision is included with this report. The lots will front on a new Township road (identified as Street "A" on the included plan) which will intersect with County Road 10 approximately 285 m south of Sharpe Line. The proposed road will have a 7.0 m wide paved surface with 15.0 m wide radii at the intersection of CR10. The proposed intersection will be stop controlled on the minor street, Street "A".

Existing Conditions

In the vicinity of the proposed site, County Road 10 has a rural cross section with a 7.0 m wide asphalt surface and 1.0 m gravel shoulders. The speed limit on this section of CR10 is 60 km/h as it is within the limits of the Village of Ida. According to traffic counts



provided by the County from July 2013, this section of CR10 has an Average Annual Daily Traffic (AADT) volume of 2626. The two-way count information provided indicates a directional split of 1426 southbound and 1200 northbound. The morning and afternoon peak hour volumes are summarized below:

Table 1 – Peak Hour Counts

Peak Hour	Time	Volume	Directional Split (SB/NB)
AM Peak Hour	9:00 am	146	90/56
PM Peak Hour	6:00 pm	238	100/138

Sight Distance & Operational Review

A site visit was conducted to review the sightlines at the location of the proposed intersection and to review the current traffic operations in the vicinity of the site. The sight distance to both the north and south on CR10 were measured from the location of the proposed entrance and exceeded the 130 m requirement for a 60 km/h posted speed. The section of CR10 in the vicinity of the proposed entrance is a relatively flat, tangent section with shallow vertical curves to the south. There are no alignment elements or adjacent intersections that would pose operational issues for the proposed intersection and no operational issues were noted during our visit.

Accident History

Collision data for the section of County Road 10 in the vicinity of the subject site was provided by County staff. Over the past three (3) years there have been four (4) reported collisions on CR10. Most were south of the subject site, closer to Morton Line. Two of the incidents were related to slippery road conditions, one was a collision with a deer and the fourth was driver error. None of the accidents were related to the pavement condition or geometrics on CR10. Based on our review, there is no trend in the accident history that indicates a safety concern with this section of CR10 or would cause concern about a proposed intersection at the subject location.

Development Trip Generation

The proposed development will generate additional traffic that will access CR10 via the new intersection. Trip generation estimates for the proposed development were prepared using the trip generation rates from the ITE Manual, 9th Edition. The Land Use 210 – Single Family Residential was utilized. The table below summarizes the results:

Table 2 – Trips Generated

Time Period	A.M. Peak		P.M. Peak	
	In	Out	In	Out
2015	3	9	10	5
2020	3.5	10	11	6

The 2020 trips are based on a 2% annual rate of traffic growth, compounded annually. The trips to and from the site were assigned based on the current directional split on CR10. Based on the proposed trip generation rates and the background traffic on CR10, the proposed stop controlled intersection of Street “A” and CR10 is forecast to operate at a high level of service (Level of Service of “A”). Due to the limited scale of the proposed development, the impact of the additional trips on the CR10 corridor will be negligible.

A left turn lane warrant analysis was undertaken to determine if the traffic volumes were sufficient to require a left turn lane from CR10 to the proposed Street “A”. The analysis was undertaken in accordance with the MTO Geometric Design Standards, consistent with previous County studies. The analysis indicated that a left turn lane is not required; there is insufficient volume of left-turning traffic or opposing traffic on CR10 to warrant a left turn lane.

Conclusion

The proposed development of a 15-lot rural residential subdivision will generate additional traffic on CR10 via a new intersection. The additional traffic is not significant compared to the existing background traffic and will not have an impact on the operation of County Road 10. Accordingly, no improvements to County Road 10 are required as a result of the proposed development. There are no existing operational issues on this section of CR10, nor is there any trend in the accident history that indicates an unsafe condition in the vicinity of the proposed intersection. The proposed intersection will function at a high level of service based on future forecast traffic volumes. The proposed intersection will be constructed in accordance with County standards and will be subject to County approval during the detailed design phase of the subdivision.

Sincerely,



Raul Hurley, P.Eng.
Principal

Encl. Draft Plan of Subdivision

ADDITIONAL INFORMATION AS REQUIRED BY SEC 51 (17) OF THE PLANNING ACT (1990)

- (a) AS SHOWN ON DRAFT PLAN
- (b) AS SHOWN
- (c) AS SHOWN
- (d) REFER TO THE SCHEDULE OF LAND USE
- (e) RESIDENTIAL & AGRICULTURAL
- (f) AS SHOWN ON DRAFT PLAN
- (g) AS SHOWN ON DRAFT PLAN
- (h) PRIVATE WELLS, PRIVATE SEPTICS
- (i) SOIL TYPES: SAND, GRAVEL, SILT
- (j) AS SHOWN ON DRAFT PLAN
- (k) MUNICIPAL SERVICES AVAILABLE: ELECTRICAL, TELEPHONE, GARBAGE COLLECTION, GAS
- (l) NONE

SHARPE LINE



DRAFT PLAN OF SUBDIVISION

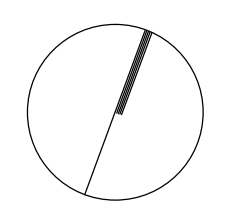
IAN CAMERON RURAL
SUBDIVISION
CAVAN MONAGHAN TOWNSHIP
PLAN OF:
PROPOSED SUBDIVISION ON
PART OF LOT 12
CONCESSION 10
GEOGRAPHIC TOWNSHIP OF CAVAN
TOWNSHIP OF CAVAN MONAGHAN
COUNTY OF PETERBOROUGH

LAND USE SCHEDULE

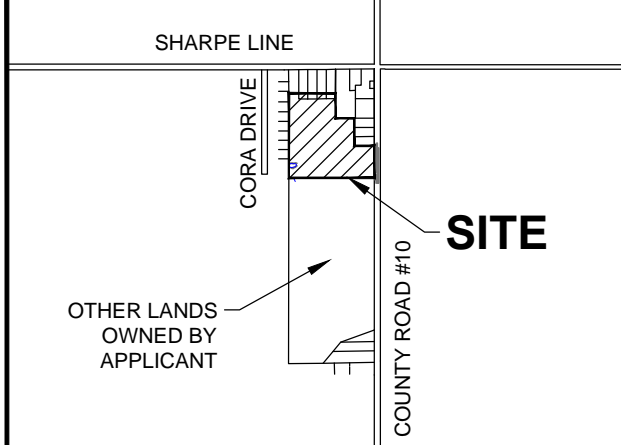
LOT/BLOCK	AREA (ha)	FRONTAGE	INTENDED USE
1	0.36 ha	38.13	SINGLE DETACHED DWELLING
2	0.32 ha	38.01	SINGLE DETACHED DWELLING
3	0.33 ha	38.87	SINGLE DETACHED DWELLING
4	0.30 ha	47.70	SINGLE DETACHED DWELLING
5	0.42 ha	38.52	SINGLE DETACHED DWELLING
6	0.51 ha	38.00	SINGLE DETACHED DWELLING
7	0.36 ha	38.15	SINGLE DETACHED DWELLING
8	0.32 ha	38.07	SINGLE DETACHED DWELLING
9	0.34 ha	23.71	SINGLE DETACHED DWELLING
10	0.48 ha	23.66	SINGLE DETACHED DWELLING
11	0.52 ha	38.08	SINGLE DETACHED DWELLING
12	0.30 ha	38.00	SINGLE DETACHED DWELLING
13	0.31 ha	38.30	SINGLE DETACHED DWELLING
14	0.30 ha	38.18	SINGLE DETACHED DWELLING
15	0.32 ha	75.52	SINGLE DETACHED DWELLING
16	0.72 ha	-	ROAD
TOTAL SITE AREA			6.22ha

COUNTY ROAD #10

BENCHMARK - ELEVATION -
ADD BENCHMARK DESCRIPTION HERE



KEY PLAN



LEGEND

- PROPOSED BUILDING FOOTPRINT
- PROPOSED SEPTIC TANK
- PROPOSED RAISED BED SEPTIC & MANTLE
- LOT DRAINAGE FLOW ROUTE
- ROAD DRAINAGE FLOW ROUTE

OWNER'S CERTIFICATE

I AUTHORIZE KEVIN M. DUGUAY COMMUNITY PLANNING & CONSULTING INC. TO SUBMIT THIS DRAFT PLAN OF SUBDIVISION TO THE TOWNSHIP OF CAVAN MONAGHAN.

DATE: _____ IAN CAMERON

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND ARE IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON NOVEMBER 12, 2014.

DATE: _____ CHRISTOPHER E. MUSCLOW
Ontario Land Surveyor

IAN CAMERON RURAL SUBDIVISION

TOWNSHIP OF CAVAN MONAGHAN

DRAFT PLAN OF SUBDIVISION

No.	DATE	BY	REVISION
A	23-12-14	J.A.	FOR DRAFT PLAN SUBMISSION



DRAWN: J.ARMSTRONG
DESIGNED: J.ARMSTRONG
APPROVED: A.HILL
DATE: DECEMBER 23, 2014

SCALE: HORIZ: 1:750
VERT: -
PROJECT NO.: 14016
DRAWING FILE NO.: 14016-DP
SHT. NO.: 01