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2024-08-29
Project: 230683

Jeremy Grant, OPPI, MCIP, RPP
Vice President, Planning & Development
**Seaton Group**
54 Fulton Avenue,
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M4K 1X5

Dear Jeremy:

## RE: 14 AGNES STREET, ALTON, CALEDON, ON
## SITE ACCESS UPDATE

The purpose of this letter is to describe the effects on the transportation system of the revised site access arrangements. A revised site plan is attached.

Paradigm Transportation Solutions Limited prepared a Transportation Impact Study report ("the TIS report") dated December 2023. The development concept assessed in this report comprised 67 townhouse units, with a single access road on the east[1] of the site onto Agnes Street. Following public consultation, the development proposal has been revised in two ways that alter its likely effect on the transportation system:

- The proposed number of units has been decreased from 67 to 65; *and*
- An additional access road has been added in the northwest corner of the site onto Emeline Street, approximately 70m south of its intersection with Queen Street West.

The effects of these two changes are discussed in the two sections below.

[1] In accordance with local practice, north and south mean parallel to Agnes Street; east and west mean parallel to Queen Street.

## Effects of fewer units

As described in §4.2 of the report, the vehicular traffic generated by the site is derived from the number of units. Fewer units means that less traffic is generated, reducing the effects on the transportation system. Consequently, the TIS report provides a conservative (worse-case) forecast of the effects.

**Table 1** shows the trip generation with 67 and 65 townhouse units, using the same assumptions as in the TIS report. Because figures are rounded to the nearest integer, the overall effects are minimal.

### TABLE 1: SITE TRIP GENERATION

| Land Use | Units | AM Peak Hour | | | | PM Peak Hour | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Rate | In | Out | Total | Rate | In | Out | Total |
| *67 units* | | | | | | | | | |
| LUC 220 | 67 | Eqn.[1] | 11 | 33 | 44 | Eqn.[2] | 31 | 18 | 49 |
| *65 units* | | | | | | | | | |
| LUC 220 | 65 | Eqn.[1] | 10 | 33 | 44 | Eqn.[2] | 31 | 18 | 49 |

*[1] AM: T = 0.31(X) + 22.85 (24% in, 76% out); [2] PM: T = 0.43(X) + 20.55 (63% in, 37% out).*

## Effects of additional access road

**Table 2** shows the trip distribution of trips generated by the site. This is a copy of Table 4.2 in the TIS report, because the trip distribution is not affected by the changes to the site plan. That is, people will still be going to/from the same places, regardless of how many people live on the site or the access arrangements.

### TABLE 2: TRIP DISTRIBUTION

| Origin/Destination | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|
| | In | Out | In | Out |
| North via Main Street | 6% | 42% | 35% | 42% |
| South via Main Street | 61% | 50% | 48% | 53% |
| East via Queen Street West | 16% | 8% | 8% | 5% |
| West via Queen Street West | 17% | 0% | 9% | 0% |
| ***Total*** | ***100%*** | ***100%*** | ***100%*** | ***100%*** |

The changes to site access will affect the trip assignment – that is, the route vehicles take on the road network to reach their destination. With the revised access arrangements, it reasonable to assume that:

- All trips going west via Queen Street West will use the northwest access road (because this gives the shortest trip),
- Half of trips east via Queen Street West will use the northwest access road, and half would still use the east access road (because the trip length similar, and hence will use their closest access road).
- All trips going north or south via Main Street would still use the east access road (because this gives the shortest trip),

Combining this with the trip generation from **Table 1** and the trip distribution from **Table 2** yields the trip assignment shown in **Table 3**.

**TABLE 3: TRIP ASSIGNMENT**

| Origin/Destination | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total |
| *One access road, 67 units* | | | | | | |
| East driveway (Agnes St) | 11 | 33 | 44 | 31 | 18 | 49 |
| *Two access roads, 65 units* | | | | | | |
| East driveway (Agnes St) | 8 | 32 | 39 | 27 | 18 | 44 |
| Northwest driveway (Emeline Street) | 2 | 1 | 4 | 4 | 0 | 5 |

**New intersection – northwest driveway and Emeline Street**

Figures 4.1 and 4.2 of the TIS report showed that Emeline Street south of Queen Street East is forecast under future background growth conditions[2] to have no more than 18 vehicles per hour per direction (less than one vehicle every three minutes). The northwest site driveway will create a new intersection on this road, controlled by a stop sign on the driveway leg.

The addition of an intersection with no more than five vehicles per hour (one vehicle every twelve minutes) on the minor leg is not expected to result in any significant delay to existing traffic. It is also expected that this intersection will have no operational issues.

**Queen Street West and Emeline Street**

Given the local road network configuration, all traffic using the northwest driveway will also pass through the intersection of Queen Street West and Emeline Street. As discussed in §5.1 of the TIS report (and detailed in Tables 5.1 and 5.2), this intersection operates well below capacity under future background growth conditions.

[2] Future background growth conditions incorporates both general background traffic growth and traffic generated by specific expected future development in the area. See §4.1 of the TIS report for details.

Further, as discussed in §5.2 of the TIS report (and detailed in Tables 5.1 and 5.2), it would also operate well below capacity with the development in place and all traffic using the east driveway.

Consequently, the additional of no more than five vehicles per hour (one vehicle every twelve minutes) on the minor leg as a result of the northwest driveway addition is not expected to have any significant effect on this intersection's operations.

**Other intersections**

With the exception of the two intersections discussed above, all other intersections in the study area will see either the same or lower traffic volumes with the proposed changes to the site plan. This is because the site generates fewer trips in total, and fewer vehicles will use the east driveway. This means that the analysis presented in the TIS report will either show the correct effects, or overstate the effects. Consequently, other intersections in the study area are expected to perform the same or better with the site plan changes.

Overall, the TIS report's conclusion in §8.1 that "All traffic movements are forecast to continue operating with acceptable levels of service and well within capacity" remains valid.

## Conclusions

- The site will generate fewer vehicular trips as a result of the site changes
- The new northwest access road onto Emeline Street will remove some traffic from the east access road onto Agnes Street
- The new intersection at the northwest driveway and Emeline Street is expected to have no operational issues because of the low forecast traffic volumes
- The intersection of Queen Street West and Emeline Street is not expected to have any significant impact on its operations arising from the site plan changes.
- Other intersections in the TIS report's study area are expected to perform the same or better with the site plan changes.
- The TIS report's conclusion in §8.1 that "All traffic movements are forecast to continue operating with acceptable levels of service and well within capacity" remains valid.

Yours very truly,

**PARADIGM TRANSPORTATION SOLUTIONS LIMITED**

**Tom Willis**
MMath
Senior Project Manager

### Disclaimer



### Copyright Notice

QUEEN STREET W.

EMELINE STREET

1.5m WIDE WALKWAY EXTENDED TO QUEEN ST.

LOT 16 | LOT 15 | LOT 14 | LOT 13 | LOT 12 | LOT 11 | LOT 10 | LOT 9 | LOT 8 | LOT 7 | LOT 6 | LOT 5

OPEN SPACE (279.48 sq.m.)

SNOW STORAGE

OPEN SPACE (140.38 sq.m.)

BLOCK 4 | BLOCK 3 | BLOCK 2 | BLOCK 1

BLOCK 5 | BLOCK 6 | BLOCK 14 | BLOCK 13 | BLOCK 12 | BLOCK 11 | BLOCK 10 | BLOCK 9b | BLOCK 7 | BLOCK 8 | BLOCK 9a

COMMON GREEN (1,077.87 sq.m.)

TOT LOT

CMB

1.5m SIDEWALK

FIRE ROUTE

TWO WAY

ONE WAY

LOW WALL

DECORATIVE HARDSCAPE PAVING STONES

SNOW STORAGE

104.72

PRIVACY SCREEN

AGNES STREET

KING ST.

| LOT COVERAGE | |
|---|---|
| BLOCK | COVERAGE |
| 1 | 35.4% |
| 2 | 39.2% |
| 3 | 39.0% |
| 4 | 29.8% |
| 5 | 29.3% |
| 6 | 26.5% |
| 7 | 22.6% |
| 8 | 28.4% |
| 9 | 21.7% |
| 10 | 35.7% |
| 11 | 37.7% |
| 12 | 32.2% |
| 13 | 37.8% |
| 14 | 32.8% |

## LEGEND

- PROPERTY LINE
- 6.0m WIDE FIRE ROUTE
- STOP SIGN (SS)
- EXISTING TOPOGRAPHY
- PAINTED STOP BAR
- EXISTING TREE TO REMAIN
- DISPERSAL BED
- PEDESTRIAN CROSSING
- PROPOSED DRY STACK STONE WALL
- PROPOSED 1mX3m WASTE COLLECTION POINT

NOTES:

1. THIS IS A CONCEPT PLAN FOR THE PURPOSE OF GUIDING THE DESIGN OF THE DRAFT PLAN OF SUBDIVISION AND ZONING BY-LAW AMENDMENT. DETAILED SITE PLANS WILL BE PREPARED FOR THE INDIVIDUAL BLOCKS FOR INCLUSION IN BUILDING PERMIT APPLICATIONS.
2. A MODIFIED RT (RESIDENTIAL TOWNHOUSE) ZONE IS PROPOSED BASED ON THE CONCEPT PLAN CONTAINING SITE-SPECIFIC STANDARDS WHERE NECESSARY. SEE THE PROPOSED ZONING MATRIX DETAILED TABLE OUTLINING ALL PROPOSED ZONING STANDARDS.
3. TOPOGRAPHICAL INFORMATION INCLUDING TREE LOCATIONS TAKEN FROM VANHARTEN SURVEY PLAN DATED SEPTEMBER 16, 2022
4. TREE INVENTORY INFORMATION FROM WILLIAMS & ASSOCIATES ARBORISTS REPORT FEB. 16, 2023 AND UPDATED OCT. 16, 2023. 29 TREES ARE IDENTIFIED FOR RETENTION. GRADING PLAN WILL PROVIDE DETAILS ABOUT TREE PROTECTION MEASURES AT SITE PLAN STAGE.
5. 3-WAY STOP, STOP BARS, PEDESTRIAN CROSSING PAVEMENT MARKINGS AND CHICANE FEATURE AS RECOMMENDED IN TRAFFIC IMPACT STUDY BY PARADIGM ENGINEERING. TO BE DETAILED DURING DETAILED SUBDIVISION DESIGN PROCESS IN ACCORDANCE WITH ONTARIO TRAFFIC MANUAL BOOK 11.
6. WALLS AND PRIVACY SCREEN LOCATIONS ARE APPROXIMATE ONLY AND WILL BE FINALIZED DURING THE DETAILED SUBDIVISION/CONDOMINIUM PROCESS(ES). THESE ELEMENTS WILL BE MAINTAINED BY THE CONDOMINIUM CORPORATION(S).
7. ACCESSIBLE SPACES INCLUDE ONE TYPE 'A' SPACE AND ONE TYPE 'B' SPACE.

## SITE DATA

| REGULATION | PROPOSED |
|---|---|
| LOT FRONTAGE (ON AGNES STREET) | 99.90 m |
| SITE AREA (ha) | 40,445.80 sq.m. (4.04ha) |
| # UNITS WITH DOUBLE GARAGES | 40 |
| # UNITS WITH SINGLE GARAGEGS | 25 |
| TOTAL UNITS | 65 |
| DENSITY | 16.58 Upha |
| # OF RESIDENTIAL BLOCKS | 14 |
| # OF UNITS PER BLOCK (MAX.) | 5 |
| BUILDING HEIGHT | 10.5 m |
| MINIMUM SETBACK TO AGNES STREET | 6.0 m |
| MIM. SETBACK FROM REAR OF DWELLINGS TO ABUTTING RESIDENTIAL PROPERTIES | 13.07 m |
| **AREA TABLE** | |
| RESIDENTIAL BLOCKS | 3.266 ha |
| ROAD, PARKING, SIDEWALKS & CURBS | 0.582 ha |
| COMMON AMENITY & OPEN SPACE (AMENITY AREA, OPEN SPACE AND LANDSCAPED ENTRANCE BOULEVARD) | 0.192 ha |
| TOTAL | 4.040 ha |
| OPEN SPACE & COVERAGE | |
| YARDS, ABSORPTION BEDS, COMMON GREEN, OPEN SPACE AREAS | 2.017 ha (49.9%) |
| HARD SURFACE AREAS (BUILDINGS, PATIOS, ROADS, WALKWAYS, SIDEWALKS, DRIVWAYS) | 2.028 ha (50.1%) |
| TOTAL | 4.045 ha |
| **PARKING PROVIDED** | **TOTAL** |
| PRIVATE PARKING WITHIN GARAGES | 105 |
| PRIVATE PARKING IN DRIVEWAYS | 105 |
| COMMON VISITOR PARKING | 16 |
| TOTAL | 226 |

ORCHARD DESIGN STUDIO INC.
marketingmeetsarchitecture

User Defined

Project Information

SEATON GROUP
AGNES STREET TOWNHOMES
Village of Alton, Caledon, ON.

Set Issuance

| No. | Date | Description |
|---|---|---|
| 1 | 2023.02.08 | FIRST SUBMISSION |
| 2 | 2023.11.21 | SECOND SUBMISSION |
| 3 | 2024.04.02 | UPDATE COMMON AMENITY |
| 4 | 2024.07.24 | UPDATE ROADWAY, COMMON AMENITY AREA |
| 5 | 2024.07.30 | UPDATE ROADWAY, COMMON AMENITY AREA |
| 6 | 2024.08.05 | UPDATE ROADWAY, COMMON AMENITY AREA |

Sheet Information

CONCEPT PLAN

Project No. 14948
Project Start Date: 2023.11.01
File: Agnes Street - Site Plan.dwg
Drawn by: KBR
Scale: 1:400

PRELIMINARY

A1.01

Plot Date | Time - 2024-08-05 11:08:50 AM

P:\1-Projects\Seaton Group\14948 Agnes st\02-Drawings\