



May 17, 2017

Natalie Stopar
Planning Approvals
City of Waterloo
100 Regina Street South
PO Box 337, Station Waterloo
Waterloo, ON · N2J 4A8

Re: Transportation Assessment
Hospice Waterloo Region, University Avenue Site

Dear Natalie,

This Transportation Assessment has been prepared in support of a proposed new facility for Hospice Waterloo Region at 2050 University Avenue East in Waterloo. An application for Zoning By-law Amendment is being submitted for the proposal.

The site is located south and west of University Avenue East opposite RIM Park and is accessed from the sports field laneway opposite Country Squire Lane (see attached Site Location Plan). The sports fields are generally used May through August in the weekday evenings and sometimes on weekends for tournaments. The weekday hours for the soccer fields are 6 PM to 8:30 PM, while the baseball diamonds are used in the weekday evenings from 5 PM to 11 PM. Weekend use varies depending on tournament schedules from about two (2) to ten (10) days per year for each of the soccer and baseball facilities. In addition, the baseball diamonds were used for 11 all day weekdays in 2015. The soccer fields and baseball diamonds are served by about 270 parking spaces in two gravel lots accessed from the sports field laneway.

The traffic volumes generated by the proposed development are not high enough to require a full Traffic Impact Study, according to guidelines established by the Region of Waterloo. The City has, however, requested a Transportation Assessment to estimate peak hour traffic generation for the proposal and to assist in developing a design solution for the laneway that is appropriate for the uses and the anticipated traffic levels.

Proposal and Current Operations

Hospice Waterloo Region is proposing to relocate its existing operations to a new building on the subject site and expand to include a residential component with ten (10) beds. In combination, the new building will include 2,175 s.m. or approximately 23,500 s.f. of building area. About 9,500 s.f. will be allocated to the residential component and about 14,000 s.f. will

be allocated to the administrative offices, the clinic and the other program areas. A Concept Plan is attached to this letter.

The use of the residential portion of the building will be for palliative care and traffic during peak periods will largely be generated by staff.

Hospice Waterloo Region currently operates in three separate buildings. The main building (5,000 s.f.) is located on Lawrence Avenue in Kitchener and is where the majority of the programming takes place along with some administration and the clinic. 17 staff are based in this building. The second building is for four (4) programming staff that generally work out in the community, but use the small (1,000 s.f.) office space for their own administration. The third building (1,000 s.f.) is an administrative office on Victoria street with five (5) staff. There are a total of 26 existing staff members in the three buildings with a collective area of about 7,000 s.f.

In the proposal, the combined area for the clinic, the administrative offices and the program areas is about 14,000 s.f. or double the existing space. The increased area will be designed to appropriately accommodate the existing staff (26 people) with the possible expansion to about 30 staff. The current buildings that Hospice Waterloo Region is using are not quite large enough for their staff and space is very tight.

The new University Avenue site includes some surplus lands once the Hospice Waterloo Region building is developed. In order to anticipate possible use of the surplus lands, a small office building has been shown on the concept plan. The office is included as a proposed expansion of 1,064 s.m. or about 11,500 s.f. of building area.

Traffic Generation for the Proposal

There are three components to the traffic generation estimate associated with the proposed use: the residential component, the administrative/clinic/programed component and the potential office component. They are each outlined below.

Traffic estimates for the residential component were developed based on information in the 9th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Land use 620 (Nursing Home) was chosen to best represent the planned use. The data and the estimate for ten (10) beds is summarized in Table 1 below.

Table 1: Residential Traffic Generation

| | | In | Out | Total |
|--------------|------------------|------|------|-------|
| AM Peak Hour | Rate (trips/bed) | - | - | 0.17 |
| | Trips (10 beds) | 1 | 1 | 2 |
| PM Peak Hour | Rate (trips/bed) | 0.07 | 0.15 | 0.22 |
| | Trips (10 beds) | 1 | 1 | 2 |



Traffic estimates for the other Hospice Waterloo Region uses (administrative offices, clinic, programed areas) were based on a survey of traffic generated at the existing main building on Lawrence Avenue. The existing building includes all of these uses in about 5,000 s.f. and includes the work space for 17 staff. Given that the new building is planned to include work space for about 30 staff in 14,000 s.f. (with more space per employee), the estimated traffic for the proposed site was developed by doubling the existing traffic at the existing Lawrence Avenue site.

The survey was undertaken on Tuesday, February 28th, 2017 during the weekday morning (7-10 AM) and afternoon (3-7 PM) peak periods. This day was chosen for survey, because the clinic was open and programming was planned in the building all day between 8 AM and 6:30 PM. The survey day represented a busy day of operation. The morning peak hour occurred between 9 and 10 AM and the afternoon peak hour occurred between 4 and 5 PM. Although the morning peak hour does not coincide with the typical street peak hour (which would generally occur sometime between 7 and 9 AM), the volumes counted from 9 to 10 AM were included as a conservative estimate.

The existing and estimated traffic volumes are summarized in Table 2 below.

Table 2: Admin/Clinic/Program Traffic Generation

| | | In | Out | Total |
|--------------|---------------------------|----|-----|-------|
| AM Peak Hour | Lawrence existing traffic | 12 | 2 | 14 |
| | Estimated future traffic | 24 | 4 | 28 |
| PM Peak Hour | Lawrence existing traffic | 6 | 9 | 15 |
| | Estimated future traffic | 12 | 18 | 30 |

The final component of the future traffic generation for the site is the potential office that has been shown on the surplus lands. Office traffic generation was estimated based on ITE Trip Generation Manual rates for General Office (land use 710). The data and the estimate for 11,500 s.f. of gross floor area is summarized in Table 3 below.

Table 3: Office Traffic Generation

| | | In | Out | Total |
|--------------|-----------------------|------|------|-------|
| AM Peak Hour | Rate (trips/1,000 sf) | 1.37 | 0.19 | 1.56 |
| | Trips (11,500 s.f) | 16 | 2 | 18 |
| PM Peak Hour | Rate (trips/bed) | 0.25 | 1.24 | 1.49 |
| | Trips (10 beds) | 3 | 14 | 17 |

The total estimated site traffic, which is a sum of the traffic estimates in Tables 1, 2 and 3, is included in Table 4. The site is expected to generate about 50 trips in each of the weekday



morning and afternoon peak hours, or less than one per minute. The Hospice uses contribute 30 to 32 peak hour trips to the total.

Table 4: Estimated Site Traffic Generation

| | | In | Out | Total |
|--------------|-------------|----|-----|-------|
| AM Peak Hour | Total trips | 41 | 7 | 48 |
| PM Peak Hour | Total trips | 16 | 33 | 49 |

Conclusion

As requested, we have developed an estimate of site traffic for the proposed Hospice Waterloo Region site at 2050 University Avenue East and find that the site is expected to generate about 30 trips in each of the weekday morning and afternoon peak hours, or one trip every two minutes. If the surplus lands were used to develop an office building as shown in the concept plan, a total of about 50 trips is expected in both the weekday morning and afternoon peak hours or less than one trip per minute.

The anticipated traffic levels are far less than what is generated by the sports fields and the approximately 270 parking spaces that serve them.

If you have any questions about the analysis presented in this letter, please contact me to discuss.

Sincerely,


Julia Salvini, MEng, PEng
President

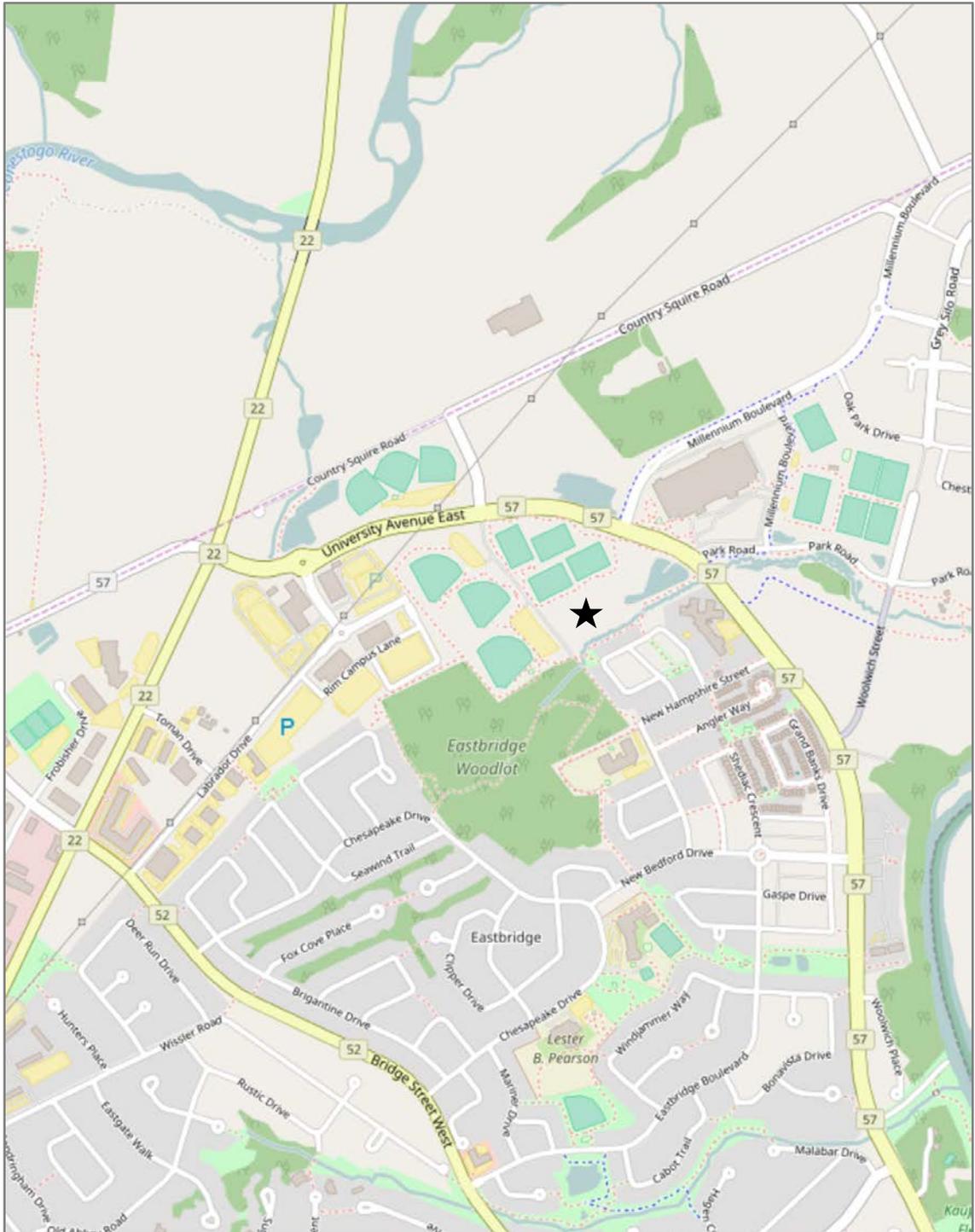
Cc: Judy Nairn, Hospice Waterloo Region
Bill Green
Sarah Code, GSP Group
Ian Robertson, Meritech Engineering

Attach: Site Location Plan
Concept Plan



Attachments

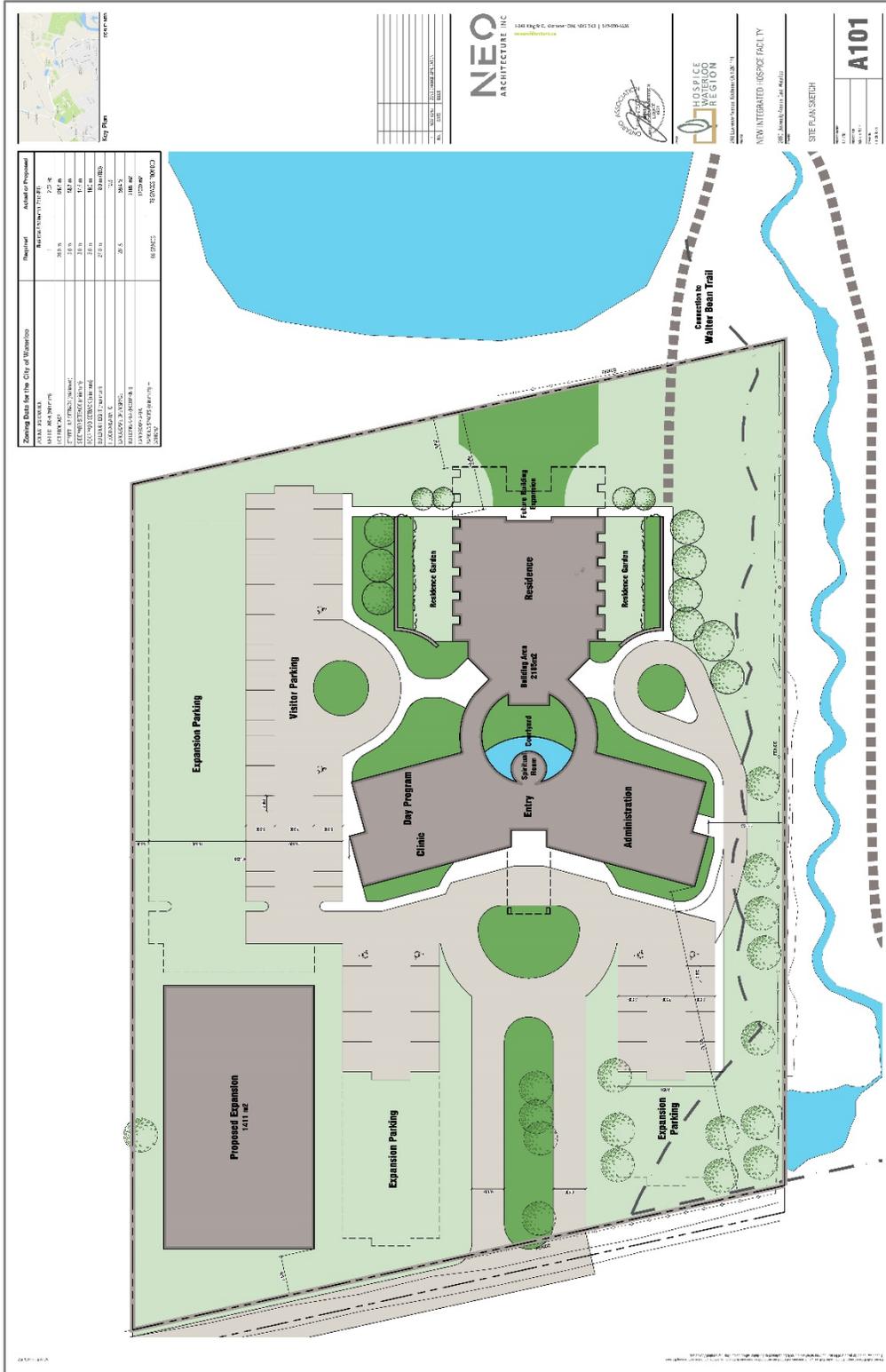




Site Location Plan

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Concept Plan

