

TECHNICAL MEMORANDUM

TO: Jasmine Tranter c/o Wes Richardson, Youth Services Bureau (YSB)
FROM: Paul Tétreault, P. Eng., MCIP, MUP; Emmett Proulx, EIT
SUBJECT: RE: Transportation Overview – Youth Services Bureau Housing First Hub for Youth – 2887 Riverside Drive
DATE: June 9, 2017

WSP (previously MMM Group) has been retained to prepare a Transportation Overview and Parking Assessment for the proposed YSB development at 2887 Riverside Drive in Ottawa. Our Transportation Overview to support of the Zoning By-law Amendment and Site Plan Control applications and zoning modification provide a brief overview of the proposal's transportation impacts per the City of Ottawa requirements (for sites generating fewer than 75 two-way vehicular trips per peak hour), and provides an assessment of parking demand accounting for the nature of the proposed development.

LOCATION AND PROJECT

Youth Services Bureau of Ottawa (YSB) is planning a new supportive youth housing project at 2887 Riverside Drive in River Ward (Ward 16) of the City of Ottawa, approximately 6 km south of the Parliamentary Precinct in downtown Ottawa, as illustrated in Figure 1. The site is 0.18 hectares, with 35 m of frontage on the east side of Riverside Drive.



Figure 1: Site Location

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The existing site includes a youth facility on the north half of the property (2887 Riverside Drive), and a small office building on the south half of the property (2895 Riverside Drive).

YSB is proposing to replace the existing youth facility with 39 supportive housing apartments (including six [6] two-bedroom apartments), 227 m² of office amenities space (including twelve [12] offices), and 246 m² of residential amenities space. The supportive housing is geared towards 16- to 24-year-old low-income youth. Figure 2 provides a site plan with the proposed building and site accesses to and from Riverside Drive. The building containing YSB offices, access and parking at 2895 Riverside Drive would be maintained.

SITE PLAN

The proposed building is to be serviced by maintaining the two existing access points: a central access labelled within this report as Access 1, and a northerly access labelled within this report as Access 2. Access 1 provides two-way access and is aligned with a proposed ramp to the underground parking level.

The site also includes a one-way pick-up/drop-off lane in front of the proposed four-storey building, with Access 1 serving as the entry to the lane and Access 2 the exit. This drop-off area would not be considered a fire lane due to its proximity to Riverside Drive.

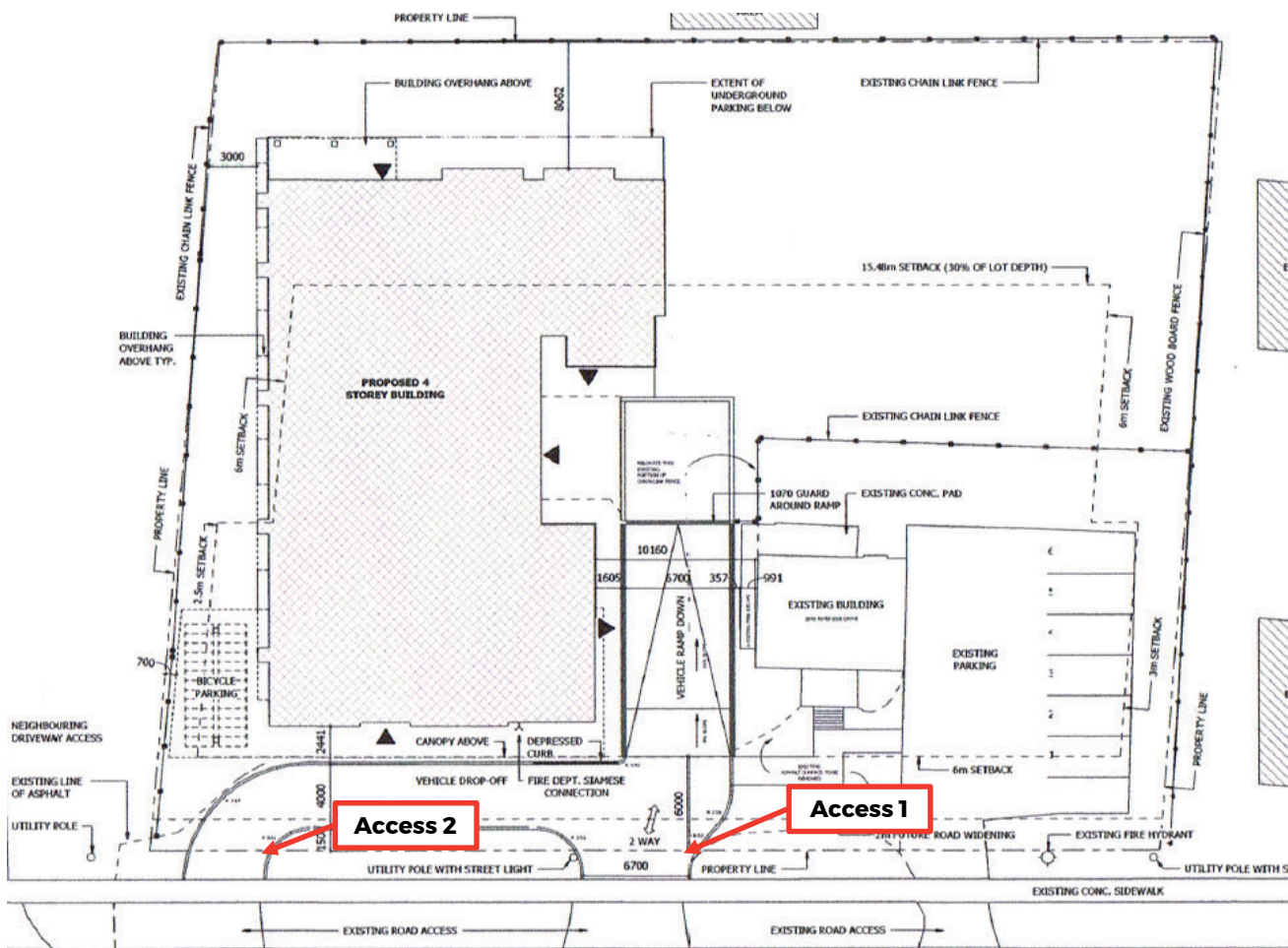


Figure 2: Site Plan (Prepared by Vandenberg & Wildeboer Architects)



TRANSPORTATION OVERVIEW

AUTO MODE

The site is accessed from Riverside Drive, which is designated as an Arterial Roadway within the City of Ottawa's Official plan with a right-of-way (ROW) protection of 37.5 m and a posted speed limit of 60 km/h. Access to 2887 Riverside Drive is right-in/right-out only. "U-turns" are permitted at the nearest signalized intersection to the north (Hog's Back Road/Brookfield Road) and the nearest signalized intersection to the south (Ridgewood Avenue).

As noted previously, the proposed building contains a mix of office and residential uses. The proposed site is expected to generate fewer than 75 vehicle trips per hour based on the following assumptions:

- The 12 proposed offices are estimated to generate 6 vehicular trips in the AM and PM peak hours, assuming full occupancy by 12 employees and using General Office trip generation rates as per the 9th edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual (ITE Land Use Code 710).
- The 39 proposed residential apartments are estimated to generate 9 vehicular trips in the AM peak and 10 vehicular trips in the PM peak using the trip generation rates for mid-rise apartments (ITE Land Use Code 223) as recommended by the TRANS Trip Generation Residential Trip Rates Study Report (2009). It is notable that the residential trip rate is conservative; the site's residential use as supportive housing for youth is likely to generate even fewer vehicular traffic than typical apartment buildings since few, if any, residents are expected to have motor vehicles.

Combining the residential and office trips results in the proposed development generating 16 vehicular trips (peak hour, two directions), which falls below the threshold of 75 vehicular trips per hour required to trigger a Transportation Impact Assessment as per the City of Ottawa's Transportation Impact Assessment (TIA) Guidelines. The number of residential units (<75), and the gross floor area of office space (<4,500 m²) also does not trigger a TIA. Our analysis, therefore, does not analyze the vehicular impacts to the surrounding transportation network.

That said, based on the low vehicle generation, no significant impact on traffic conditions would be expected on the adjacent street network.

ACTIVE TRANSPORTATION

Sidewalks are provided on both sides of Riverside Drive, with grass boulevards providing a buffer between pedestrians and the vehicular lanes. No bicycle lanes are provided on Riverside Drive within the vicinity of the site, despite Riverside Drive being designated a spine route within the Ottawa Cycling Plan (2013). However, to the west of Riverside Drive there is a multi-use pathway (MUP) running north-south through Mooney's Bay Park along the Rideau River, which can be accessed from the nearby intersection of Riverside Drive and Ridgewood Avenue.

TRANSIT SERVICE

A northbound transit stop exists approximately 40 m north of the site; however, this stop is only serviced 3 times a day by a special northbound Route 87 that operates between St. Patrick's Home of Ottawa and Hurdman Transitway Station. More consistent transit service is provided approximately 230m to the south by stops at the intersection of Riverside Drive and Ridgewood Avenue. These stops are served by Route 87 with a 12-minute frequency all-day on weekdays. Route 87 provides service to Baseline Transitway Station via downtown Ottawa (northbound), and South Keys Transitway Station (southbound). Therefore, the area is well served by transit even if it is not located within walking distance of a rapid transit station.

PARKING DEMAND

Applicable parking provisions contained in the by-law do not account for the type of clientele that will live at the site, which is youth with low incomes and are highly unlikely to own vehicles.

VEHICLE PARKING

Vehicular parking demand is based on the proposed building's mix of residential and office uses.

City of Ottawa Zoning By-law No. 2016-249 (See Table 101 – Minimum Parking Requirements) indicates that 2887 Riverside Drive is within Area C: Suburban. As such, the minimum parking space rate for a low-rise apartment building is 1.2 per dwelling unit with an additional, 0.2 per dwelling unit for visitors. That said, the City of Ottawa by-law does not distinguish between types of residential units and is not applicable to this development, which is geared towards 16- to 24-year-old youth with low-incomes. To contrast, this same provision is even higher than would be required if an equivalent number of single-detached dwelling units were provided.

The building's residential component is anticipated to require less parking demand than normal due to the site's intended use as supportive housing for youth. To better anticipate parking demand for the proposed use, WSP surveyed three existing supportive housing projects in Ottawa whose transportation characteristics¹ are comparable to the proposed development at 2887 Riverside Drive:

- 1239 Summerville Avenue, John Howard Society, 18 units, young women supportive housing, 4 parking spaces;
- 96 McEwan Avenue, YSB, 22 units, 12 parking spaces; and,
- 580 Queen Mary Street, YSB, 19 units, 3 parking spaces.

It should be noted that the surveyed sites only have one employee each, which is less than proposed at 2887 Riverside Drive.

The three sites were surveyed, i.e. number of parked vehicles counted, during four periods on May 16, 2017: early morning (6:45-7:30), morning (10:15-11:00), midday (12:30-13:15), and afternoon (14:30-15:15). Table 1 shows the survey results for on-site parking; full results, including observed on-street parking, are included in Appendix A. These survey results would represent typical weekday parking demand for the residential component (residents and visitors) and one employee. The peak period parking demand for the highest parking demand was of 0.22 per unit, observed around 2:30 PM at the 1239 Summerville site.

Table 1 Observed Parking Demand at Comparable Supportive Housing Sites within the City of Ottawa

	# OF UNITS	PARKING SUPPLY	# OF OCCUPIED PARKING SPACES			
			EARLY MORNING	MORNING	MIDDAY	AFTERNOON
1239 Summerville	18	4	0	1	2	4
96 McEwan	22	8	2	2	0	0
580 Queen Mary	19	3 ¹	0	0	1	1

¹ – 580 Queen Mary typically has four (4) parking spaces; however, one (1) of the spots was occupied by refuse during the survey.

Parking demand for the new development at 2887 Riverside Drive has been estimated by dividing parking demand into two components:

- A resident component based on the highest parking demand observed at surveyed sites which represents the resident and visitor component and one employee;
- An employee component based on a per employee basis (Institute of Transportation Engineers, Parking Generation Handbook) for a typical weekday.

¹ Criteria for site selection included: similar use, similar distance to the downtown core but still within the Greenbelt and proximity to a frequent bus line.

Table 2 shows the parking demand analysis. Note that the users on the southern portion of the site at 2895 Riverside Drive will not use the new parking facility as parking is already provided for these users.

Table 2 Vehicle Parking Demand Analysis

	PARKING RATE	PARKING DEMAND
Youth Supportive Housing (39 Units) <ul style="list-style-type: none"> - Based on surveys of similar sites (highest demand observed at peak time) - Includes visitors and 1 employee 	0.22 per unit	9
Office (assuming 12 employees) <ul style="list-style-type: none"> - Based on ITE Parking Generation Handbook for Office Spaces - 1 of 12 employees accounted for in using per unit metric for similar sites 	0.84 per employee	9 ¹
Total		18

¹ – The office parking requirement using the City of Ottawa Zoning By-law minimum parking requirement of 2.4 per 100 m² gross floor area also equals approximately 9 spaces (given 347 m² gross office floor space calculated by adding total office amenities space and half of the ground floor miscellaneous space).

Based on this analysis, we would expect a total parking demand of approximately 18 vehicles on-site during the peak period of a typical weekday. The demand is expected to be lower on weekends as fewer services are offered by YSB and its partners and fewer employees are present. With a provision of 18 spaces, we would not expect recurrent spillover of parking. Moreover, a drop-off is proposed in front of the building that can easily accommodate 2 vehicles for a short period of time. Based on this analysis, reduced parking provision would be reasonable for the proposed development.

BICYCLE PARKING

Bicycle parking requirements are per Section 111 of the Ottawa Comprehensive Zoning By-Law:

- The 39 proposed residential apartments require 0.50 parking spaces per dwelling unit (where no garage or carport is provided for each dwelling unit), which results in 20 required bicycle parking spaces
- The 12 proposed offices (347 m² of gross office floor space) require 1 bicycle parking space per 250 m² of gross floor area, which results in approximately 2 required bicycle parking spaces.

In total, 22 bicycle parking spaces are required based on City of Ottawa by-law. However, YSB has indicated that many tenants at other similar youth supportive housing sites use bicycles as their primary transportation mode. Therefore, it would be prudent, and in line with sustainable mode share targets as per the City of Ottawa Transportation Master Plan, to provide additional bicycle parking above the 22 spaces required; the proposed development provides 26 covered bicycle parking spaces.



CONCLUSION

Youth Services Bureau (YSB) is proposing a new mixed-use building consisting of a low-rise apartment building and ground floor office uses located at 2887 Riverside Drive in Ottawa with 39 units of assisted housing for youth. Using conservative assumptions, it is expected that the development will generate fewer than 75 vehicle trips and no significant impact is expected on traffic conditions in the area. A parking demand assessment was also undertaken based on comparable sites in Ottawa and it is expected that approximated 18 vehicles will be parked on-site during the peak period of a weekday. Moreover, a drop-off is proposed in front of the building which can easily accommodate 2 vehicles for a short period of time.

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Work team

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APPENDIX

A - PARKING SURVEY AT RELATED SITES

			ON-SITE PARKING SUPPLY	# OF OCCUPIED PARKING SPACES		
TIME ¹				ON-SITE	ON-STREET (NEAR PROPERTY)	ON-STREET (BLOCK)
1239 Summerville - 18 Units	Early Morning	7:03	4	0	1	3
	Morning	10:19		1	0	0
	Midday	12:33		2	0	0
	Afternoon	14:34		4	0	0
96 McEwan - 22 Units	Early Morning	6:45	8	2	0	0
	Morning	10:34		2	1	0
	Midday	12:47		0	1	0
	Afternoon	14:52		0	0	0
580 Queen Mary - 19 Units	Early Morning	7:20	3	0	7	8
	Morning	10:54		0	8	10
	Midday	13:10		1	7	8
	Afternoon	15:19		1	3	4

¹ - Survey performed on May 16, 2017.