291 WATSON AVENUE
RESIDENTIAL REDEVELOPMENT
WINDSOR, ON

PARKING STUDY

Prepared by:

RC SPENCER ASSOCIATES INC.
Consulting Engineers
Windsor: 800 University Avenue W. - Windsor ON N9A 5R9
Leamington: 18 Talbot Street W. - Leamington ON N8H 1M4
Chatham-Kent: 49 Raleigh Street - Chatham ON N7M 2M6

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291 WATSON AVENUE RESIDENTIAL REDEVELOPMENT, WINDSOR, ON

PARKING STUDY (NOVEMBER 2024)

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INTRODUCTION AND BACKGROUND

A low-rise residential apartment building is proposed to replace a single-family dwelling at 291 Watson Avenue, in Windsor, Ontario. The subject property is located on the northwest corner of Watson Avenue at Clairview Avenue and is currently occupied by a single-detached home. Watson Avenue is a short (280m) residential roadway which begins at Riverside Drive East and runs south to Clairview Avenue. Watson Avenue continues on the south side of the Ganatchio Trail and extends southerly to Little River Road. Clairview Avenue is an east / west residential collector roadway running from Matthew Brady Boulevard at the west to Watson Avenue at the east. This development is proposed for construction in a single phase and is to be serviced via a single access at Clairview Avenue.

The developer is proposing a 3-storey residential building comprised of three 1-bedroom and six 2-bedroom dwelling units. Each floor will consist of one 1-bedroom and two 2-bedroom units. The development is to be supplemented by ten vehicle parking spaces. The site plan is provided in **Appendix A**.

The City's zoning bylaw (minimum 1.25 parking spaces per unit) requires at least 11 spaces for the nine units; accordingly, a variance is required for the shortfall of two parking spaces. Transportation Planning has indicated that they will accept the proposal if a parking study can sufficiently justify the reduction in required parking spaces. Therefore, this study will consider the anticipated peak parking demand in comparison to the proposed on-site parking supply.

ITE PARKING GENERATION MANUAL VS. WINDSOR BYLAW REQUIREMENTS

The Institute of Transportation Engineers (ITE) Parking Generation Manual (6th Edition) reports parking demand studies and statistics from various land uses across North America. The applicable land use codes are referenced in **Appendix B**. For Multi-family Housing (Low-Rise) – 1 Bedroom (Land Use Code 220), peak parking demand is estimated at a rate of 0.93 spaces per each 1-bedroom unit. For Multi-family Housing (Low-Rise) – 2 Bedroom (Land Use Code 217), peak parking demand is estimated at a rate of 1.27 spaces per each 2-bedroom unit. As noted, the developer is planning for three 1-bedroom units and six 2-bedroom units; accordingly, the ITE's average rate suggests that a minimum of 10.4 parking spaces (2.8 for the three 1-bedroom units and 7.6 for the six 2-bedroom units) will suffice.

As stated in the City's zoning bylaw, "*If the calculation of the number of required parking spaces results in a number containing a fraction, the number shall be rounded DOWN to the nearest whole number*". Applying this to the ITE calculations suggests that the subject development's peak parking demand should not exceed the proposed 10-space parking supply.

Although the proposed parking supply should sufficiently accommodate the peak parking demand on its own, transit and active transportation options were also evaluated. Currently, Windsor Transit provides two Route 2 stops on Lauzon Road less than 300m from the site. Additional transit routes are also provided along Wyandotte Street West. The below Windsor Transit map depicts the routes available around the site; the site is identified with a red box:

Active transportation facilities are also provided within the study area; the Ganatchio Trail runs along the south side of Clairview Avenue; these provisions should encourage increased resident use of alternative active transportation and transit options. It should also be noted that on-street parking is permitted on the west side of Watson Avenue and on the north side of Clairview Avenue. Based on the provided metrics and area characteristics, it is the engineers' opinion that the ten proposed on-site parking spaces should sufficiently accommodate the peak parking demand generated by the proposed 9-unit, low-rise residential building.

SUMMARY AND CONCLUSIONS

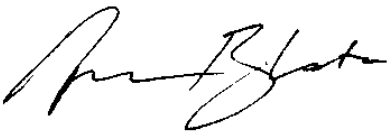
A low-rise residential apartment building is proposed to replace a single-family dwelling at 291 Watson Avenue, in Windsor, Ontario; the subject property is located on the northwest corner of Watson Avenue at Clairview Avenue. The development is to be serviced via a single access at Clairview Avenue.

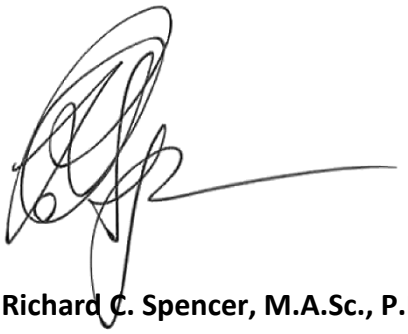
The City's zoning bylaw (minimum 1.25 parking spaces per unit) requires at least 11 spaces for the nine units; however, the ITE Parking Generation Manual (6th Edition) references suggest that a minimum parking supply of ten spaces could sufficiently accommodate the subject development's nine units. Furthermore, on-street parking is permitted on the west side of Watson Avenue and on the north side of Clairview Avenue, and the proposed development is close to existing active transportation facilities and reliable transit options. Therefore, the site's modal split could further reduce the peak parking demand.

Accordingly, it is the engineers' opinion that the proposed on-site parking supply (of ten parking spaces) should adequately accommodate the peak parking demand generated by the subject low-rise residential development proposal.

All of which is respectfully submitted,

RC Spencer Associates Inc.





Aaron D. Blata, M.Eng., P.Eng., PTOE, RSP1
Consulting Engineer, Road Safety Professional &
Professional Traffic Operations Engineer
Associate / Leamington Office Manager

Richard C. Spencer, M.A.Sc., P.Eng., PE
Consulting Engineer &
Fellow ITE Member
President / Windsor Office Manager

Appendix A

SITE PLAN

WATSON

CLAIRVIEW

PROPOSED 9-UNITS

291 WATSON AVE.
WINDSOR, ON

SITE PLAN

Date: OCT 28, 2024
Scale: NTS
Project No.: 24-005

Drawing No.:
A-0.1

Appendix B

ITE PARKING GENERATION MANUAL – 6TH EDITION REFERENCES

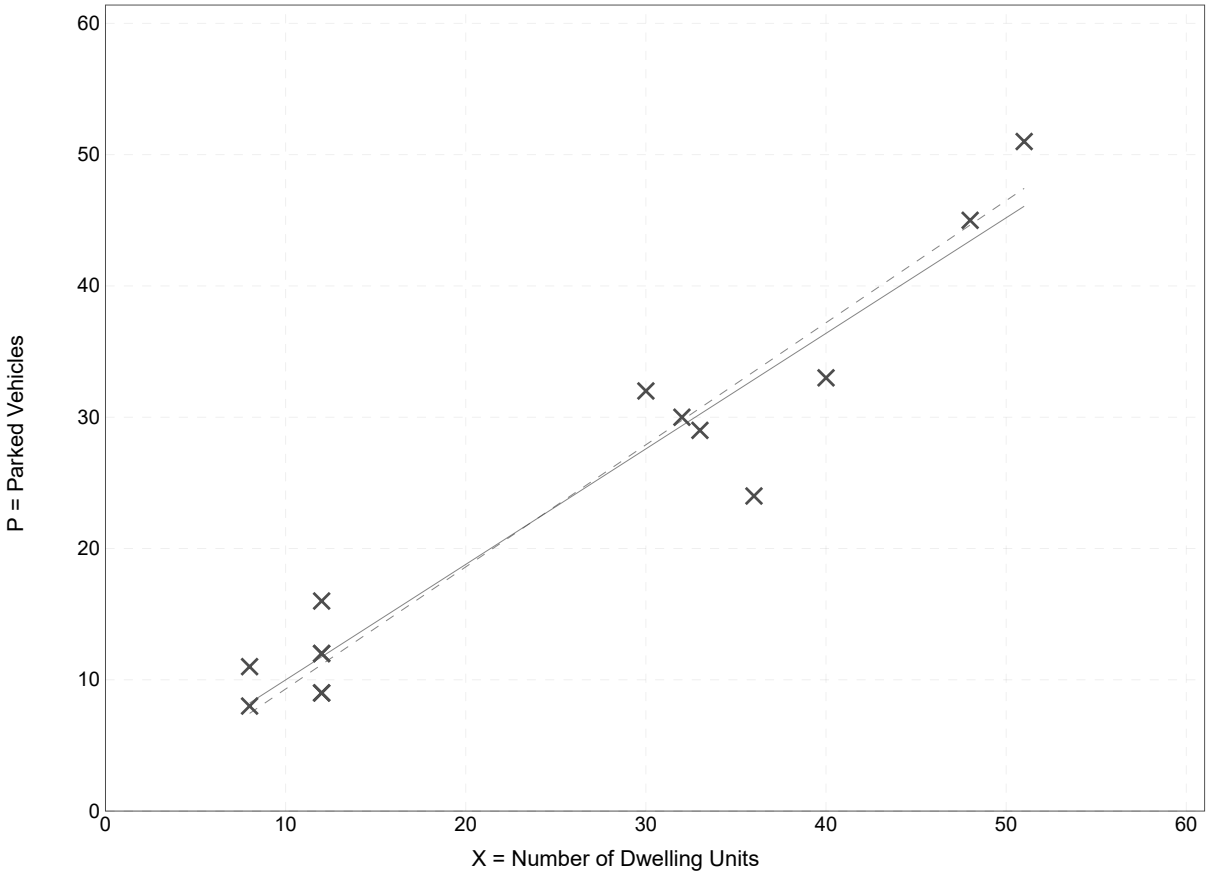
Multifamily Housing - 1 BR (Low-Rise) - Not Close to Rail Transit
(217)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Number of Studies: 14
Avg. Num. of Dwelling Units: 25

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.93	0.67 - 1.38	0.88 / 1.27	***	0.16 (17%)

Data Plot and Equation



Fitted Curve Equation: P = 0.88(X) + 1.19

R^2= 0.93

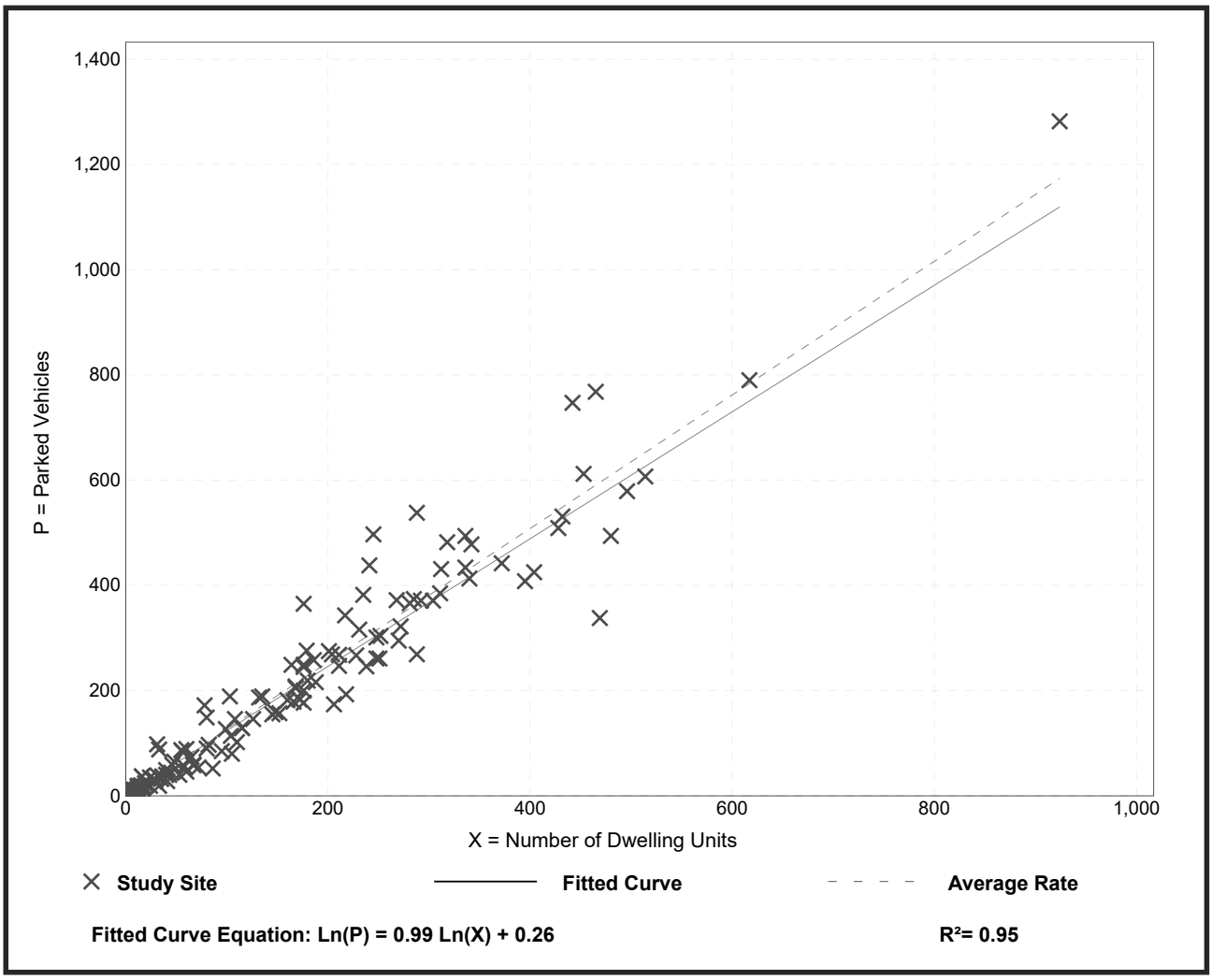
Multifamily Housing - 2+ BR (Low-Rise) - Not Close to Rail Transit
(220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Number of Studies: 143
Avg. Num. of Dwelling Units: 154

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.27	0.58 - 3.16	1.07 / 1.59	1.22 - 1.32	0.29 (23%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.99 Ln(X) + 0.26

R^2= 0.95

Proposed Site Development Parking Generation

Project: 291 Watson Avenue

Site: Windsor, Ontario

Assumed Land Use: Multifamily Housing - 1BR (Low-Rise) - ITE No. 217

Peak Period Parking Demand vs: Dwelling Units

ITE Parking Generation Data collected on a: Weekday

AM Peak Hour: 0.93 = Average Rate

Assumed Land Use: Multifamily Housing - 1BR (Low-Rise) - ITE No. 217		
	No. of Units	**Peak Parking Required**
Weekday	3	2.8

Assumed Land Use: Multifamily Housing - 2+BR (Low-Rise) - ITE No. 220

Peak Period Parking Demand vs: Dwelling Units

ITE Parking Generation Data collected on a: Weekday

AM Peak Hour: 1.27 = Average Rate

Assumed Land Use: Multifamily Housing - 2+BR (Low-Rise) - ITE No. 220		
	No. of Units	**Peak Parking Required**
Weekday	6	7.6

Totals	
	Peak Parking Required
Weekday	10.4